By Rick Rosen K1DS

Results, 2004 ARRL June VHF QSO Party

What were your expectations?

Experience is a great teacher; each of us usually considers a strategy to fulfill our expectations in VHF contesting and communication based on our past experiences. Whether you are a single or multi-op, high or low power, fixed or movable, between the collective wisdom of past activities, and the plans for managing a new contest challenge, lots of thought and preparation go into station design, operating procedures, condition and band monitoring,

When the final QSO of the contest is in the log, and the rigs are starting to cool down, do each of us consider—were our expectations met? Was it catching some DX, like ZF1DC, whose Cayman Island team including W4WA and K4BI, provided a new country and grid for many on 6 meters? Beating your previous record of QSO points, grids, bands, or total score? Having all the equipment work as planned for the entire weekend? Perhaps it was some casual operating, gladly giving out "points" to the more competitive operators? Seeking a listing in the *QST* tables, or a scoring certificate?

Conditions for the most part were average for this contest on the down-slope of the solar cycle. Weather was not much of a factor; there were scattered rains in the Ohio Valley area that seemed to move and dissipate as the weekend progressed; there were other smaller precipitation centers in the Deep South and upper Pacific Northwest.

Gene, NØDQS/R, encountered golf-ball sized hail (again!) as he moved his rover through grids in Nebraska, sustaining a cracked windshield and multiple dents on the SUV, as well as plenty of dings to the loop antennas. Passersby thought for sure he was a storm-chaser. Gary, N7IR, SO portable, found high winds on the Mogollon Rim in DM44 at 7900 feet that almost ended his on-the-air operation.

It was into the fray with the current well-known rules for over 1050 participants who submitted 763 logs for the event. The increased use of digital communications modes—*WSJT* and meteor scatter—has upped the ante for serious competitors. Despite these relatively flat conditions, grid totals continue to grow. Plenty of scatter QSOs were reported on 6 and 2 with rather short skeds, a testament to the skill and setup of the ops, and to the presence of plenty of that magic meteor dust that makes it possible.

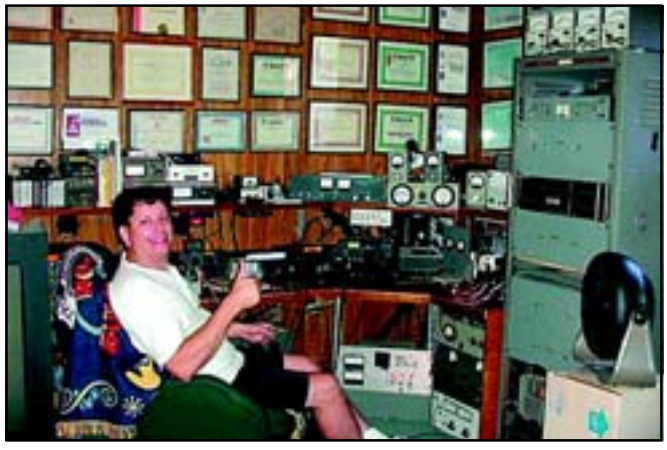
The June contest scoring has been criticized as discriminating to the microwave frequencies. Indeed, if there are no E_s 6 meter openings or unique 2 meter conditions, the total scores turned in can be limited. There were a total of 117,000 QSOs reported on bands 50 MHz through 432 MHz and another 7463 QSOs reported on bands 902 MHz and above.

Learning and Sharing Information—VHF Conferences

The regional VHF conferences have been great venues for sharing both technical and practical operating information, and learning more about how others contest. In addition, they are opportunities to buy, sell and test gear and learn from others' experiences.

For example, at this year's Eastern VHF conference in April, sponsored by the New England Weak Signal Group, talks by high scoring VHF contesters, revealed some of the operations, radios, towers, antennas and methods that they use to produce their prodigious contest results. Dick, WA2AAU, described the development of equipment for and mentoring of the W2SZ/1 rovers.

The K3EAR "South Mountain" operation in FM19, was presented in a multimedia format. K1TEO gave us insight into his VHF contesting development and



Being the ARRL First Vice President doesn't leave Joel, W5ZN, much time to operate. But for this event Joel was able to rack up enough points to lead the Delta Division in the Single Operator High Power category, just missing an overall Top Ten finish by about 10 k.

Third place overall was snared by the ops at W3SO, including (back row, left to right) W3PAW, W3YOZ, W3TEF, W3BTX, K4VV and AI3M (front row, left to right) K3IXD, WR3Z and W3SF.

Top Ten

Single Operator, Low Power

K2DRH	235,470
WB1GQR (W1SJ, op)	119,714
W4SHG	87,768
K9MU	77,688
KB8U	77,250
AF1T	76,032
WQ5W	71,068
NJ2F	66,048
K8MR	64,092
W6OAL	54,766

Single Operator, High Power

K1TEO	624,921
K1RZ	321,525
KMØT	255,210
WB9Z	193,802
K3DNE	175,536
K0GU	137,600
NW5E	135,790
W9GA	129,926
N3HBX	126,846
K1GX	124,800

Single Operator Portable

N7IR	17,088
N8XA	7,747
KQ6EE	3,850
WB2AMU	3,071
K7EH	2,850
W8CM	1,320
KH6WZ	1,185
VE7AAO	522
K9FOH	300
KG6TGI	88

Limited Multioperator

K8GP	740,037
K9NS	583,041
W3SO	310,464
K3YTL	309,260
W3DOG	295,868
W4IY	277,911
AA4ZZ	232,878
K5TR	205,273
K8CC	187,616
K2BAR	143,969

Multioperator

W2SZ	1,959,675
W3CCX	991,935
K3EAR	986,250
W2FU	424,888
N2PA	363,424
W4NH	267,972
W6FM	226,080
K7CW	203,451
N2NK	163,312
K1MUJ	126,300

Rover

N6NB	1,292,382
N6VI	1,156,760
N6MU	1,131,156
W3IY	318,159
N6TEB	195,132
N6DN	184,640
WØAMT	86,496
VE3NPB	75,096
KØPG	73,108
K9ILT	72,520

efforts from his FN31 QTH in central CT.

Just Average Conditions

Although there were complaints from ops on both coastal extremes that 6 meters just never opened enough to make enormous scores this time, the ops in the middle of the country and Florida had a ball on this band. The LM crew at K5TR managed to top the 6 meter multiplier list and capture 187 6-meter grids. There were 33 other entries with over 100 grids on 6m, and another 101 entrants who racked up at least 50 grids on that band. Many stations mentioned rather short periods of enhanced propagation, with distant grids heard popping in and out sporadically during the weekend. The peak E_s started about 2100Z on Saturday, lasting about 4 hours, and again on Sunday from 1300Z-1800Z.

ZF1DC found their way into 488 logs in 120 grids across the US, adding the excitement of some exotic DX to the delight of many participants. Station 4C2X, with operators N6XQ, W6YLZ, XE2ED, XE1KK, XE2K, XE1UN, XE1NTT, XE1NK also added their call to 238 other logs across 67 grids.

Two-meter conditions were rather average, with no reported major openings. K8GP, whose "Grid Pirates" netted 75 grids on 2 meters, and 9 other multi-op teams and one single-op managed over 50 grids on this work-horse band. VE3SMA reported that his 10 W to a 6 element Yagi at 30 feet raised a response across 800 km from NG4C. Perhaps a burst of airplane scatter?

Single-Operator

K2DRH, Bob, continued his winning streak using 7 bands from IL in the Single Operator Low Power category, with 235 k points—up from his recent January top score of 162 k. He was able to add 2304 to his line-up after smoking two transverter receivers in the remote tower-mounted scheme just before the contest. Operating WB1GQR, Mitch, W1SJ, placed second with 119 k from VT, using only bands ABCD. Steve, W4SHG above sea level in VA set a Roanoke Division scoring record of 87,768 adding 3456 MHz gear this year as his 8th band, more than doubling the division's previous high score. Impressive, considering a QTH only 63 feet. Justin, K9MU, a self-admitted "6 meter addict" in WI, with 77,688 won 4th by a nose, while Russ, KB8U, of MI captured 5th place with 77,250.

Jeff, K1TEO, set another all-time scoring record for Single Operator High Power in CT and the NE Division by scoring 624 k. He surpassed his old record by 143 k points, despite little E_s opportunity to run up a big grid count on 6 meters. With his new 5 GHz station, available for the first time in a June contest, that band was used to advantage, adding 16 QSOs and 11 grids. Jeff credits the ability to track rovers and quickly run the bands, in addition to his QTH in the midst of the NE and Atlantic Divisions, antennas above the treetop levels, as well as the support of his family for his ongoing success. He missed the all-time national SOHP record by less than 1%, a target he's aiming at for the future. Following in second place, Dave, K1RZ, operating in MDC, put up a score of 321 k, well balanced across 10 bands, including 20 QSOs on 10 GHz—the top number for a single-op on this band. Mike, KMØT, had an 11 band total of 255 k for 3rd place, while Jerry, WB9Z, with his massive antenna farm took 4th with 193 k in a 5 band effort. Rounding out the top 5 was Ed, K3DNE, with 175 k, a VHF contest regular performer operating on 7 bands.

The Single Operator Portable category has many openings for those who have a penchant for grabbing a rig and hiking or driving up to a good high spot. Gary, N7IR, took top honors in this category with a 17 k score. Phil, N8XA, used a multiband setup from 50-2304 MHz +10 GHz in the OH section to win top honors in SOP. With this relatively new VHF contest category, there were only 10 participant logs received, and 3 of them set new scoring records in their sections.

Multioperator

Continuing in their domination of the Multi-op Unlimited class, the Mount Greylock Expeditionary Force, W2SZ/1, doubled the score of their nearest competitor with 1.9 million points. They captured some of the best opportunities from this eastern QTH on 6 meters with a grid count of 92 and had a combined microwave total of 622 QSOs. Their microwave expertise also gave them 7 QSOs on the exotic frequency of 47 GHz in 7 grids.

With an intensive effort to move up in the June results, the Packrats of the Mt Airy VHF Club scored almost a million points and edged past K3EAR team to capture second place. They credit their success to improved planning, the addition of computer networking to pass contacts, rather than an intercom system, and having all bands ready to go from the opening minutes of the contest. With their large mountaintop installation, the K3EAR "South Mountain Group" gave the Packrats a run, but wound up in 3rd place. Although they compiled more QSOs and multipliers on 50, 144 and 222, the Packrats passed them by with more contacts and grids on the higher bands. W2FU captured 4th place in WNY, with a 12 band performance, they had a 4 band advantage in topping the 5th place N2PA team in the same section, with the teams scoring a substantial 363 k and 267 k, respectively.

The Limited Multi-op scores were led by K8GP, amassing 740 k from their roost in FM08. This is a hard-driving team of long-term experienced VHF ops that really enjoys maximizing its equipment's potential. K9NS in IL was second with 583 k, a tribute to all the VHF activity building up in the Central Division. W3SO, with 10 ops covering the 4 band setup, on top of Wopsononock Mountain in the Allegheny Mountains at 2500 feet came in 3rd with 310 k. Atlantic Division teams of K3 Yellow Traffic Light (K3YTL) and W3DOG captured the next two spots. The TAPMARC team, using

Affiliated Club Competition

Club	*Entries*	*Score*
Medium Category		
Potomac Valley Radio Club	28	2,528,697
Society of Midwest Contesters	27	1,402,294
Mt Airy VHF Radio Club	5	1,135,203
North East Weak Signal Group	13	1,011,920
Northern Lights Radio Society	22	773,762
Rochester VHF Group	6	636,052
Pacific Northwest VHF Society	31	553,153
Florida Contest Group	8	530,381
Badger Contesters	11	338,556
Western States Weak Signal Society	12	266,519
Mad River Radio Club	3	260,092
Carolina DX Assn	3	242,272
Northern California Contest Club	12	178,757
Yankee Clipper Contest Club	10	103,952
Central Texas DX and Contest Club	3	94,232
Grand Mesa Contesters of Colorado	6	60,822
Contest Club Ontario	8	30,011
Tennessee Contest Group	7	11,197
South East Contest Club	7	3,908
Local Category		
CT RI Contest Group	3	113,922
Delaware Valley VHF Society	4	52,931
Dominion DX Group	6	38,417
Medina 2 Meter Group	3	29,859
North Texas Microwave Society	4	16,932
Dauberville DX Assn	4	15,291

the W3DOG call, with 295 k set a new June ML scoring record for DE.

Rover

The rovers have been credited with enabling all other contest stations to increase their totals, adding some excitement to the less densely populated areas of the country, and creating a unique competition among themselves. Grid circling by rovers remains a controversial practice, but the team of N6NB/R, N6VI/R, and N6MU/R each broke the existing June rover record by compiling over a million points each in their well planned and rehearsed rove on the open plains. Although their route and schedule was set to maximize opportunities at 4 grid intersections, at each stop and while in transit, they worked as hard as they could to contact other stations, especially on the lower four bands. As a result, 2.4% of their total contacts were with others.

The W3IY/R (+ON4IY) team of Bill and Christophe managed their coastal Atlantic route well, finishing on the high spots in FM08 and turned in a fabulous 4th place score of 318 k. Other teams out in the sparsely populated states helped keep the airways hopping; KIØSK and NØBAF teamed up to rove 12 grids in the middle of the country while N6ZE/R with a Yaesu FT-817 transceiver and minimal antennas activated seven grids on the Atlantic and the Pacific coasts, flying coast-to-coast and operating several grids at each stop.

Club Competition

This is the second year that the June contest has had the opportunity for club entries. This year's top score list is similar to last year's. Although some of the top scores were lower this time, largely due to the change in 6 m conditions. In the Medium category, the Potomac Valley Radio Club held first place again with 28 logs and 2.5 million points, followed by the Society of Midwest Contesters sporting 27 logs and 1.4 million points. The Packrats of the Mt Airy VHF Radio Club edged into 3rd place, followed by the Northeast Weak Signal Group, a few points back. In the local category there were 6 entries, topped by the CT-RI Contest Group. Most importantly, club entries are often the stimulus for regional activity, with lots of peer encouragement to be active in the VHF contests.

Regional Highlights

There were logs from 47 states plus PR, 5 Canadian Provinces and 4 DX stations (missing HI, AK and WY). The 4C2X multi-op team of 2 Californians and 6 XE ops found another nice spot in Baja, pointed their antennas northward and operated on ABCDEI, providing a new country for some on 1296, and submitted the top DX score with 86 k. Dave, ZF1DC, along with operators Charles, W4WA, and Jim, K4BI, kept 6 meters hopping from Grand Cayman, with 800 W to a Yagi at 70 feet and caused huge pileups for the East Coast stations. The T49C contest team in Cuba also had a nice 6 meter operation, with a third place DX score of 21 k. Detailed listings of all scores can be found on the Web report at **www.arrl.org/contests/results** as well as extended soapbox comments from participants.

Northeast

Activity was high in this portion of the country, owing to the number of large multi-ops, and the great density of VHF operators, combined with a relatively pleasant and warm weekend. Dale, AF1T got a bunch of bands on the air from NH for 6th place in SOLP. K1GX scored 124 k in CT, to round out 10th place in SOHP. There were also more than 25 rovers across the Mid-Atlantic and Northeast. QRM can be fierce when several portable and rover ops arrive simultaneously on the same popular mountaintop. Not only are there station proximities and the same popular band activities, but also QRM due to the common use of 144 MHz as the IF for most of the microwave bands.

It was nice to see RI active on some microwave frequencies, with Chris, WB2VVV, relocating there from NJ, and putting bands ABCD9EF on the air. I'm sorry I missed him as we operated for a few hours from Watch Hill as we roved through RI. Mike, N1JEZ, lit up the microwaves with gear through 47 GHz on Mt Washington in FN44, but missed the log submission deadline. Mark, K2AXX, got his station on the air after being released from the hospital to continue treatment at the home QTH. Hanging his IV meds on a 6 foot high radio rack, he managed to operate 10 bands for 14 hours of air time. Speedy recovery!

Southeast

With the ongoing participation of several well established home stations and club groups, activity continues to grow. Mainstay group W4IY, operating from Flag Pole Knob, VA at 4300 feet scaled back their operation a bit in terms of preamps and power and placed 6th overall. AA4ZZ landed in 7th place in the LM category, and the 4-landers VHF-UHF Contest team, W4NH came in 6th in the MU category. Florida was enjoying a nice 6 meter E_s session, as Jeff, NJ2F, in SFL placed 8th in SOLP, while Gary, NW5E, in NFL managed to catch the 7th spot in SOHP. KE8FD single-handedly found 107 grid mults on 6 meters from SC in his 7-band quest. Frank, W4FAL, with his FT-847 and dreams of getting that tower up, did manage to capture the two island stations on 6 meters with just a dipole, and added several grids on 2 and 432 with low mounted verticals. Hal, N4GG/4, on vacation in FL put up a 6 meter dipole from scrap, 6 feet off the ground on the condo railing and managed 55 contacts in 34 grids. Just goes to show you that you can do a lot with a little on VHF. KØXXX in Arkansas scrambled to get his 6 and 2 meter antennas set up for the contest on a temporary fence-post. To his surprise found out his daughter ran over the coax with the lawnmower, then a fast moving thunderstorm had the array at a 45° tilt. Despite all of this, he caught the 6 m E_s and filled his log.

Central

Jim, K8MR, scored 64 k for top honors in OH and 9th place nationwide in SOLP and Ken, W9GA, topped the previous WI record by scoring 129 k in 8th place, SOHP. The K8CC team was in the 9th LM spot, riding the 6 m openings, but was somewhat shorthanded for ops the first day, limiting the time spent on 144, 222 and 432. Rovers seemed to be very active and contact productive in this part of the country with John, WØAMT/R, in 7th place, Murray, VE3NPB/R, in 8th, and the family team of Tim, KØPG/R, 9th and Patricia, K9ILT/R, 10th, lauded by other base stations for their ability to make "clean sweeps" with contacts on all their rover bands.

Midwest

With the pack-rovers previously mentioned, W6OAL was this region's top SOLP scorer with 54 k, in 10th place overall nationally for this category. KØGU was the top SOHP entry, in 6th place overall. LaVonne, KCØRAD, is a relative newcomer to hamming, VHF and contesting. She took over the family station as the OM, NØTTW, was away, and with a few antennas on the apartment roof, an FT-100D transceiver and brick amps had some great contest operating enjoyment from IA. Stations operating in AZ, TX, NM, CO and OK caught the best of the 6 meter E_s openings. K5TR with 205 k was 8th overall in LM, and top LM in STX. Charles, W5PR, using only 6 meters, worked 687/178 for a 122 k score and top SOHP in STX. The multi-op team at WØLSD gets the "high" (altitude) award for their 3 band operation at 9000 feet atop Mt Princeton, DM68 in CO.

West Coast

The popular entry class seemed to be Single Op Portable in CA, with Hon,

Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)			Southeast Region (Delta, Roanoke and Southeastern Divisions)			Central Region (Central and Great Lakes Divisions; Ontario Section)			Midwest Region (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)			West Coast Region (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections)		
WB1GQR (W1SJ, op)	119,714	A	W4SHG	87,768	A	K2DRH	235,470	A	WQ5W	71,068	A	NU6S	37,184	A
			NJ2F	66,048	A	K9MU	77,688	A	W6OAL	54,766	A	VE7XF	37,149	A
AF1T	76,032	A	W4BP	51,528	A	KB8U	77,250	A	NØLL	53,301	A	WB6AAG	32,100	A
AI3Z	38,493	A												
K1TEO	624,921	B	NW5E	135,790	B	WB9Z	193,802	B	KMØT	255,210	B	AF6O	95,976	B
K1RZ	321,525	B	N4IS	123,546	B	W9GA	129,926	B	KØGU	137,600	B	K7RAT (N6TR, op)	71,040	B
K3DNE	175,536	B	W5ZN	114,289	B	K8MD	105,984	B	W5PR	122,286	B	AA7A	59,094	B
WB2AMU	3,071	Q				N8XA	7,747	Q	W8CM	1,320	Q	N7IR	17,088	Q
						K9FOH	300	Q				KQ6EE	3,850	Q
												K7EH	2,850	Q
W3SO	310,464	L	K8GP	740,037	L	K9NS	583,041	L	K5TR	205,273	L	AD6IJ	43,092	L
K3YTL	309,260	L	W4IY	277,911	L	K8CC	187,616	L	W5KFT	81,672	L	W6DTA	22,542	L
W3DOG	295,868	L	AA4ZZ	232,878	L	N8ZM	32,100	L	WØLSD	18,905	L	K7MWD	16,362	L
W2SZ	1,959,675	M	W4NH	267,972	M	W9RVG	58,575	M	K5QE	117,192	M	W6FM	226,080	M
W3CCX	991,935	M	N4HB	105,099	M				WØEEA	91,168	M	K7CW	203,451	M
K3EAR	986,250	M	AG4V	35,088	M				KFØQ	51,972	M	WA7JTM	34,524	M
K2QO	43,127	R	W3IY	318,159	R	VE3NPB	75,096	R	N6NB	1,292,382	R	N6TEB	195,132	R
WA2IID	36,801	R	N5KDA (+K5MQ)	36,360	R	KØPG	73,108	R	N6VI	1,156,760	R	N6DN	184,640	R
N1XKT	35,003	R	N4OFA	34,768	R	K9ILT	72,520	R	N6MU	1,131,156	R	K3UHF	57,772	R

KQ6EE, in LAX, Wayne, KH6WZ, and Val, KG6TI, in ORG in 2nd, 6th and 9th places, respectively. Hon hiked up to Mt Baden Powell (9399 feet) in 3 hours, the second highest peak in Los Angeles area, with a backpack full of radio gear. The Sierra Nevada range seems to attract folks to pack their gear and head for the hills. W6FM multiop team posted a nice score of 226 k from SB. The K7CW group in EWA topped their last year's scoring record to set a new high-water mark of 203 k for that section. At 6300 feet in the Cascades, they had a height advantage and found openings on 6 m intermittently, which complemented their microwave QSOs to achieve their success. Mother Nature got them again this year with snow, sleet, rain and gusting winds. They persevered, and survived, thanks to KE7V's warm RV. Notable rovers Dave, N6TEB/R, operating with Glenn, KE6HPZ, scored 5th nationally in this category, and Paul, N6DN/R, captured the 6th spot, while being first and second respectively in their region. Ron, AF6O, turned in an impressive 95 k effort from ORG across bands ABCD9E, including 100 grids on 6 meters.

The "Bread and Butter" of the Contest

Let's focus for a while on those stations and operators that supply the "bread and butter" in this contest—those with more limited stations, perhaps a newer multiband rig with VHF added bands, low power and a small antenna. The airways would be a lot quieter without their participation, and although geography may limit their capabilities, or other obligations limit their operating time, they add the excitement for all involved as they respond to the endless CQing of the big guns, and are sought after by those prowling the bands when they send out a CQ of their own. Chuck, KE4OAR, and his buddy Mike operated for a few hours from Chuck's truck with an IC-706MK2 and some loops for bands ABD. As a casual team with 18 QSOs and 11 band/grid multipliers for this contest, they managed to work everyone they could hear, and are already planning improved antenna mounts and a potential rove for the future. Dan, N8IE, was a June VHF newbie and admits that he had fun dabbling on 6 and 2 meters, while George, W1EBI, with just a few contacts on 6 meters sent this newsflash, "HF contester enters first VHF contest...and survives!" Ed, KØRPT, made his debut in VHF contesting, after several years devoted to local communication and repeater operation.

As indicated in many Web postings, VHF contesting is more fun when there are more participants. Perhaps it's time to reconsider my suggestion that a bonus score be added for contacts with VHF contest first-time ops, or that newcomers take a "getting started" score multiplier? There are plenty of opportunities to get on the VHF bands to talk around town, find an E_s opening, try a digital mode, or operate a VHF contest this coming year. There is a lot of new and used VHF equipment available and information from the VHF and microwave columns in *QST* and *QEX* in addition to support from VHF clubs. If you haven't already, try it—you may find yourself enjoying a new phase of Amateur Radio.

You have about six months to plot your strategy for the 2005 ARRL June VHF QSO Party, which is scheduled for the weekend of June 11-13. Set your expectations high, and then reach them. You will enjoy the fun!

You can reach the author at **rick1ds@hotmail.com**.

Scores

Each line score lists call sign, score, stations worked, multipliers, hours, number of grids activated (if Rover), and bands (A= 50 MHz, B = 144 MHz, C = 222 MHz, D = 432 MHz, 9 = 902 MHz, E = 1296 MHz, F = 2304 MHz, I = 10 GHz). Call signs of Division leaders and band indicators are listed in boldface type.

DX

T49C 21,791 283 77 A **A**
F3DGH 1 1 1 A A
ZF1DC (+W4WA, K4BI)
59,169 489 121 L AB
4C2X (N6XQ, W6YLZ, XE2ED, XE1KK, XE2K, XE1UN, XE1NTT, XE1NK, ops)
86,848 504 118 M ABCDEI

1

Connecticut

K1IM 15,912 178 68 A **ABCD9E**
K1WVX 3,772 71 41 A ABCD
K1ZZ 3,564 93 33 A ABD
K1YR 3,115 89 35 A **AB**
KB1JDX 2,688 92 28 A ABCD
KA1KOJ 2,280 65 30 A ABD
K1DJW 1,008 48 21 A AB
WA1FVJ 988 47 19 A ABD
KB1EMJ 944 56 16 A ABD
W1DMM 364 28 13 A AB
WA1GTP 160 10 10 A ACD
KB1JQA 108 10 9 A ABCD
K1TEO 624,921 1145 319 B **ABCD9EFGHI**
K1GX 124,800 443 156 B ABCD9EFGHI
K1KI 3,960 109 36 B ABD
N1SXL 765 51 15 B B
K1QNF 432 27 16 B AB
K1CEC 348 28 12 B ABD
W1QK (+W1NG, W0BR, W1QJ, N1GS, N1ABY, K1PHG, N1USQ, KA1ZMK, KA1SYG)
118,932 783 132 L ABCD
KB1DFB (+KE1LI, K1JN, N1XS)
109,956 728 119 L ABCD
K1MUJ N1DGF KR1U K1ZE 126,300 569 150 MABCD9EFI

Eastern Massachusetts

K5MA 28,810 253 86 A **ABCD**
WG1Z 18,880 221 59 A ABCD**E**
K1PNQ 11,990 176 55 A ABCD
W1UZ 4,995 104 37 A ABCDE
KC1MA 1,564 66 23 A ABC
W1DYJ 1,491 71 21 A AB
N1BC 1,071 57 17 A ABD
K1RV 960 48 20 A AB
N1EKV 848 43 16 A ABCD
K1VU 748 38 17 A ABD
WV1K 504 42 12 A A
NE1B 276 18 12 A ABD
N1CZ 240 30 8 A A
WB2PID 144 12 9 A ABCD
W1CRK 120 15 8 A AB
K2OEQ 60 10 6 A AB
W1GHZ 49,456 353 88 B A**BCD9EI**
K1DAT 9,917 194 47 B **A**BD
W1JHR 2,250 68 25 B ABCD9E
K1KEY 200 20 10 B AB
N1ZMB 144 17 8 B BD
N1ZGY 15 3 3 Q BCD
W1XM (KB1CGZ, KD1KY, KB1GRS, N1UEJ, KB9IJB, ops)
7,144 154 38 L ABCD

Maine

W1BQ 29,337 267 77 A A**BCD9EF**
K1TOL 10,230 165 62 A **A**
N4CW 1,625 65 25 A AB
KV1J (+KO1I)
44,935 380 95 M ABCD9E

New Hampshire

AF1T 76,032 419 108 A **ABCD9EFGHIP**
AA1YN 21,608 182 73 A ABCD9EF
AC1J 13,197 184 53 A ABCDE
N1JHJ 6,401 131 37 A ABCDE
WA1Z 5,016 146 33 A ABD
WA1VKO 1,606 73 22 A AB
N1AFQ 1,054 54 17 A ABD
KM3T 656 37 16 A ABD
K2HZN 52,122 385 102 B **ABCD9E**
W1ZC 15,235 203 55 B AB**D**E
KA1LMR 30,601 338 71 Q ABCD
K1NKR (+K1PTF, KU2A)
4,060 77 35 L ABCDEFG

Rhode Island

WB2VVV 12,152 131 62 A A**BCD9EF**
KO1H 3,201 91 33 A **A**BD

Vermont

WB1GQR (W1SJ, op)
119,714 781 119 A **ABCD**
K1LPS 2,610 61 30 A ABCD**9E**
W1KMH 748 31 22 Q ABD

Western Massachusetts

KA1MDA 9,540 183 45 A **ABCDE**
K1MAP 2,660 54 35 A ABC**D**
N1VOR 1,638 63 26 A AB
K5ZD 784 56 14 A A
KX1X 338 23 13 A ABD
W1RZF 39,228 361 84 B **ABCD**
W2SZ (K1EP, K2AD, K2MLC, K2TR, KA1PRT, KD3NC, N1SV, N1SZ, N2BNY, N2XRE, N2YCA, W1SZ, W1UW, WA1HCO, WA1ZMS, WA2AAU, WA2SPL, WA8USA, WS2B, WW2R)
1,959,675 2457 425 M ABCD9EFGHIJK

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Eastern New York

WB2SIH 23,868 203 78 A **ABCD9E**
K2KJ 9,633 127 57 A ABCDE
W3HHN 3,458 61 38 A ABCD9E
WA1RKS 3,220 76 35 A ABCD
KG2H 275 25 11 A A
K2BAR (K2AMI, KO2OK, W2CWA, NS2K, KC2HL, W2MSK, N2GM, KF2ID, WA2LXE, W2DTA, WA2RQX, ops)
143,969 969 131 L ABCD
AB2I (+N2BZP, W2AWX, WB2DVV, WC2J, WA2JQK, WN2Y)
23,584 352 67 M AB

NYC-Long Island

N2FKF 19,170 222 71 A **ABD**
K2OVS 5,124 100 42 A ABD
KC2IQF 3,611 157 23 A **B**
N2XDR 2,992 122 22 A ABD
KF2XF 1,720 86 20 A B
WB2TPS 1,128 47 24 A AB
WM2Z 810 44 18 A ABD
KC2GJU 28 7 4 B **B**
WB2AMU 3,071 76 37 Q ABCD
KC2GOG 108 17 6 Q ABC
W2RAK (WB2BXO, K2KEY, ops)
98 14 7 L AB

Northern New Jersey

K2KIB 30,039 240 93 A A**BCD9EF**
WB2CUT 3,014 137 22 A **B**
K2NUD 2,600 100 26 A AB
W2UDT 1,820 57 26 A ABCD
K3GNZ 972 40 18 A BD
WA2NXK 756 38 18 A ABD
KC2KZR 527 31 17 A AB
W2BT 462 33 14 A B
WA2BKN 435 29 15 A A
KC2AWX 209 19 11 A AB
WN2A 8 4 2 A B
N2NK (WD3R, N2WM, N2IEL, N2HMM, K2BM, + op)
163,312 752 173 M ABCD9E

Northern New York

N2YEV 6,125 103 49 A **ABD**
K3KYR 527 31 17 B **AB**

Southern New Jersey

K2PS 2,490 83 30 A **A**
W5KI 1,012 44 23 A AB
W2MF 779 41 19 A A
WA4FRA 435 27 15 A AB**C**
KV2M 363 33 11 A A**B**
K2SMN 110,126 438 158 B **ABCD9EF**
W2SJ 40,375 227 95 B ABCD9EF**GHI**
W2MMD (N2NRD, KB2AYU, ops)
119,840 753 140 L ABCD
K3EOD (+KC2JPN, WA3WUL)
80,784 422 136 M ABCD9EFP

Western New York

KC2MHU 36 6 6 A **AB**
KV2X 18 4 3 A B**D**
K2AXX 69,420 269 156 B **ABCD9EFGHI**
W2EV (+K4EPS)
75,117 385 147 L ABCD
W2FU (+K0SM, WA2TMC, K2TER, K2EHF)
424,888 882 307 M ABCD9EFGHIJP
N2PA (N2VSZ, W2JSG, W3OAB, N2JQR, N2KG, N2YB, ops)
363,424 938 277 M ABCD9EFH

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Delaware

WA3BZT 4,816 112 43 A **AB**
W3DOG (K3TKJ, KA3SVF, KD3FA, N3DB, KB3LEF, AK3E, KB3IWV, KG4JLO, ops)
295,868 1118 229 L ABCD

Eastern Pennsylvania

W3MEL 8,268 149 52 A **AB**CD
KB3EXB 5,085 90 45 A AB**C**D
N3KKU 4,932 111 36 A AB**D**
WS3C 3,872 73 44 A ABD
W3KJ 2,580 41 30 A BCD**9EF**
KB3JGS 1,932 69 28 A AB
KA3PCX 1,740 49 30 A ABCD
N3VJH 1,610 53 23 A ABCD
AB3AI 1,431 46 27 A ABD
K3URT 882 41 21 A ABD
KB3GMV 646 38 17 A A
W3IIT 336 22 14 A ABD
KB3FGJ 18 6 3 A A
KB3JST 6 3 2 A B
W3SZ 78,650 330 143 B A**BCD9EFGHIJ**
K3CI 24,276 188 84 B ABCD9E
KB3ZS 22,113 209 81 B ABCDE
K3ISH 16,767 207 81 B **A**B
KB3CEZ 77 11 7 B AB
W3KM 24 4 4 B ABCD
K3YTL (K3BM, K3RDA, KA3EEO, KB3ACO, KE3OA, N3FA, N3RN, N3TDE, N3TKK, WB3FKQ, WB3BOT, N3WV, N3VS, UA1LD, ops)
309,260 1290 188 L ABCD
W3CCX (AA3GN, K1JT, K3EGE, K3IUV, K3MD, K3TUF, KA3FQS, KA3WXV, KB3BBR, KB3GJT, KB3XG, KF6AJ, N2NC, N2NT, N3EXA, N3FUJ, N3ITT, N3NGE, N4HY, W0RSJ, W2PED, WA3DRC, WA3GFZ, WA3NUF, WA3YUE, ops)
991,935 1854 335 MABCD9EFGHIJKP
K3EAR (K1UHF, KA1ZE, KC3VO, KN4SM, N1NLR, N1ROZ, N2YHK, N3EMF, N3OPM, N3PBH, WG3E, WZ1V, ops)
986,250 1800 375 M ABCD9EFGHIJKLP

Maryland-DC

AI3Z 38,493 309 91 A **ABCD9E**
W3ARS 11,466 148 63 A ABCD
N3UM 5,850 130 45 A AB
WA4PRR 2,924 85 34 A ABD
K3DSP 2,376 66 36 A AB
W3RAR 2,211 61 33 A ABD
W6AXX 1,554 74 21 A B
KB3KAQ 1,403 61 23 A AB
N3FNE 629 37 17 A A
WA3FAE 616 44 14 A A
KB3KXX 377 29 13 A AB
W3LL 54 9 6 A A
W3FAY 1 1 1 A A
K1RZ 321,525 837 225 B A**BCD9EFGHI**
K3DNE 175,536 624 184 B ABCD9EF
N3HBX 126,846 649 162 B **A**BCDE
N3OC 86,400 419 135 B ABCD9EI
K3ZO 38,223 411 93 B AB
WB3IGR 1,829 48 31 B ABCD
AJ3M 80 16 5 B A
WA4KBG 54 9 6 B A
KC2LNN 6 3 2 Q B

Western Pennsylvania

NG3W 1,410 47 30 A **AB**
N3EBT 19,440 166 90 B **ABCD**
KF8YK 288 16 16 Q ABD
KB3GDG 30 6 5 Q A
W3SO (W3BTX, K3IXD, AI3M, W3PAW, W3SF, W3TEF, W3YOZ, WR3Z, K4VV, W9NET, ops)
310,464 1075 231 L ABCD
W3KWH (N3LL, WA3TTS, KB3IWX, KB3DPU, KA3YNO, WB3AGB, W3SVJ, K3RYA, ops)
77,688 363 166 M ABCDE

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Alabama

KU4WW	11,139	113	79	A	A**BCD**
K4ZGB	6,370	98	65	A	**A**
W4NTI	552	23	24	A	A
K4WI	156	13	12	A	A
AF4OD	14,260	138	92	B	**ABCD**
W4CCF (+KV4T, W4RDA, KF4DGS)					
	15,640	159	92	L	ABD
W4CUE (N4JF, KB4FKN, WA4UHC, ops)					
	1,152	44	24	L	ABD
KB7BSA (+KI4CPT, KB4BSA, W4OZK)					
	14,250	150	75	M	ABCDE

Georgia

N4GG	1,995	56	35	A	**A**BD
NN4RR	1,248	39	32	A	A
W4DD	1,127	48	23	A	ABD
W4ATL	527	31	17	A	**AB**
W4AMP	435	26	15	A	AB**CD**
K4JRB	154	14	11	A	A
KG4QDZ	153	17	9	A	AB
KF4JVD	150	15	10	A	AB
K4BAI	28	7	4	A	A
KG4YUM	1	1	1	A	A
KD4K	11,316	134	69	B	**ABCD**
W4PDZ	403	31	13	B	A
K4NGA (WB4AEG,K4AEK,ops)					
	11,592	143	72	L	ABD

Kentucky

W4FVQ	9,045	106	67	A	**ABCDE**
K4SAC	28	5	4	A	BD

North Carolina

N4HN	8,890	119	70	A	**AB**D
K3KO	2,108	62	34	A	A
WA4SSP	1,344	45	24	A	AB**D**
W4FRA	924	33	28	A	A
W4FAL	620	28	20	A	ABD
K7VO	576	32	18	A	AB
K4QI	112,868	428	203	B	**ABCDE**
NG4C	26,070	201	110	B	ABCD
K2IUK	77	11	7	B	A
AA4ZZ (+AA4S, K2SD, K4MQG, K8YC, W4GRW, W4MW, W4VHF)					
	232,878	879	222	L	ABCD
W4NH (K4EA, K4SZ, K5AND, KE4PJW, N8JLZ, NX9O, NY4N, W4KXY, W4RLW, W4SKI, WG8S, WW8RR, ops)					
	267,972	801	274	M	ABCD9EF

Northern Florida

W2BZY	29,430	240	109	A	A**BCD9EF**
KE4KVW	19,200	200	96	A	AB
N4JK	16,524	204	81	A	AB
KU4WD	15,170	177	82	A	ABCD
KE4YYD	840	36	20	A	**B**D
NW5E	135,790	688	185	B	**ABCDE**

Puerto Rico

NP3CW	90	14	6	A	**ABD**

South Carolina

N4UFP	8,840	114	65	A	**ABCD**
N4TSS	888	37	24	A	AB
KR1ST	144	12	12	A	A
KE8FD	98,637	428	183	B	**ABCD9EF**
W4WRL	14,570	155	94	B	AB

Southern Florida

NJ2F	66,048	480	129	A	A**B**CD
W4BP	51,528	449	114	A	**A**BD
NL7AU	34,170	335	102	A	A
KØVXM	27,416	212	92	A	ABC**D9EFGHIJ**
N4GM	24,990	250	98	A	ABD
K4QQT	24,057	297	81	A	A
N4BP	16,929	209	81	A	AB
W4DTA	13,148	173	76	A	AB
K4ADR	7,644	135	52	A	ABCD
WA4BWI	1,260	42	30	A	A
N4IS	123,546	659	177	B	**ABCDE**
KF4FAJ	17,739	202	81	B	ABCDE
KB2SFA	17,228	217	73	B	ABCD
K4MM (+W4IX)					
	143,888	762	184	L	ABD

Tennessee

K1LH	11,480	140	70	A	**ABD**
AD4F	5,096	86	49	A	ABCD
W4BCU	4,446	80	38	A	ABCD**E**
WB4IXU	2,821	64	31	A	ABCD**9F**
WA4QYK	2,436	56	28	A	AB**CDE**
KG4OLG	1,457	47	31	A	AB
WA4YRK	1,127	38	23	A	ABDE
W9WI	300	18	15	A	ABCD
K4KO	130	13	10	A	AB
W4TDB	66	11	6	A	A
KD4HIK (+K4JNY, KO4WT)					
	7,599	110	51	L	ABCD
KE4OAR (+KM4H)					
	253	18	11	L	ABD
AG4V (+packet)					
	35,088	205	129	M	ABCDE
WB4WEN (+K4EJQ)					
	26,187	200	87	M	ABCD9EFGHI

Virginia

W4SHG	87,768	412	138	A	**ABCD9EFG**
KC4AUF	22,950	221	85	A	ABCD
N4KFT	10,962	132	63	A	ABCD
K4FTO	6,674	114	47	A	ABCD
K3TEZ	3,780	83	36	A	ABD
K4MTS	2,912	82	32	A	ABD
AD4TJ	2,769	63	39	A	ABD
N4DWK	2,550	75	34	A	AB
KG4QIV	1,075	43	25	A	AB
K4MAU	817	38	19	A	ABD
K4FPF	646	38	17	A	A
K4PUA	204	17	12	A	AB
NA4MA	200	20	10	A	B
AF4NT	184	23	8	A	AB
KQ4RH	63	8	7	A	BD
N4JED	40	10	4	A	B
KI4EVA	28	7	4	A	B
KB5YNG	24	4	4	A	ABCD
W4NEZ	24	4	4	A	ABCD
KE2N	48,950	400	89	B	A**BCDEF**
N4MM	26,052	305	78	B	**A**BD
K4WYS	4,675	75	55	B	ABD
N4OHE	2,838	47	33	B	ABCD9E**GHI**
W2YE	2,752	86	32	B	A
W4NFT	1,508	42	29	B	ABCD
K2EVW	640	32	20	B	AB
W4IY (+W4NF, KA4CKI, WAØDYJ, W7IY, W4RM, W4DAV, WA4TK, N3WSO, K5VG, N4NRO, AA4SI, KG4URL, W4CE, KG4TVL, K5OF, N4DSL, WA4HR, W4DC, KE4BUS, KG4UHO)					
	277,911	1020	219	L	ABCD
N3NYC (+N3GLZ)					
	3,456	90	32	L	ABD
N4HB (+ W4RCB, N4ZJ, AB4SF)					
	105,099	450	159	M	ABCD9E

West Central Florida

K4GKD	6,042	106	57	A	**A**
KO4MA	1,518	42	33	A	A**BC**
WD4MGB	40,500	368	108	B	**ABD**
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Arkansas

KD5RUJ	4,420	76	52	A	**ABD**
KB5YIQ	36	4	4	A	BD**9E**
KC5BYT	36	4	4	A	BD**9E**
W5ZN	114,289	297	203	B	**ABCD9EFGHIJ**

Louisiana

N5ASA	7,474	101	74	A	**AB**
K5ER	4,558	74	53	A	A**BD**
N5HMH	84	14	6	A	A
WA5KBH	360	20	18	B	**AB**

Mississippi

KN4QS	4,524	85	52	A	**ABD**
KJ5RC	576	24	24	A	A

New Mexico

NK5W	12,395	161	67	A	A**BD**
N6ZZ	4,840	88	55	A	**A**
AC5ZO	1,188	49	22	A	ABD
K5RHR	960	39	16	A	ABC**DE**
K5AM	72,150	390	185	B	**AB**
K5ARM (N2IC, NA5S, K7IA, ops)					
	7,884	108	73	L	AB

North Texas

WQ5W	71,068	420	163	A	**AB**D
NØRQ	11,832	136	87	A	AB
NM5M	10,638	159	54	A	AB**CDEI**
WA8ZBT	6,318	117	54	A	A
W5WJP	1,053	38	27	A	ABD
KC5POV	700	28	25	A	AB
N5TIF	220	22	10	A	AB
KC5ECO	156	13	12	A	A
WA5WJY	55	11	5	A	AB
WD5K	66,272	436	152	B	**A**
N5IT	10,695	155	69	B	A**B**
W5LUA	3,185	55	35	B	AB**CD9EI**

Oklahoma

NEØP	10,707	125	83	A	**ABD**
KBØHH	23,664	182	102	B	**ABCDE**
W5VHF	6,204	84	66	B	AB**C**

South Texas

W5ZL	12,300	164	75	A	**A**
KB5ZFO	9,798	138	71	A	A
AJ4F	5,684	98	58	A	A**B**
KM5RG	3,655	81	43	A	AB**D**
KZ5CW	2,470	63	38	A	ABD
KA5WSS	260	20	13	A	AB
NØQFV	195	15	13	A	A
W5PR	122,286	687	178	B	**A**
W3UUM	64,464	392	158	B	A**BCD**
K5IX	22,089	198	111	B	ABD
W5UC	120	12	10	B	B
K5TR (+WM5R, KE5C, KG5U, N5RZ)					
	205,273	828	233	L	ABCD
W5KFT (+K5PI, KI5DR, K5TWJ, KD5SFK)					
	81,672	493	164	L	ABCD
K5QE (+K5PFE)					
	117,192	397	228	M	ABCD9E

West Texas

N5XYO	3,456	70	48	A	**ABD**
AE5B	3,876	69	51	B	**ABCD**
W8CM	1,320	44	30	Q	A
KM5TY	30	5	6	Q	AB
W5LCC (KC5OBX, KB5KYJ, KD5QMN, KB5UOP, KC5ZRQ, KE5BL, ops)					
	44,280	294	135	M	ABCDE

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East Bay

W6OMF	8,046	94	54	A	AB**CDE**
K6RE	2,312	47	34	A	**A**BCD**9I**
K6JAT	1,105	53	17	A	ABDE
K6DF	930	69	10	A	**B**D
K6MI	31,034	351	59	Q	ABCD9EIP

Los Angeles

KG6GIQ	18,426	161	83	A	A**BCDE**
K6LMN	3,782	107	31	A	A**B**CD
KG6DHQ	3,710	75	35	A	ABDE
WA6OWM	1,254	48	22	A	ABCD
W6ELI	1,140	50	20	A	ABD
WB6JCD	1,008	30	18	A	ABCDE
KJ6NO	518	31	14	A	ABD
KG6SQU	420	34	12	A	ABD
K6HLH	18,876	153	78	B	**ABCDEFI**
KQ6EE	3,850	102	25	Q	ABCDE
AD6IJ (+ KF6XA, AC6TK)					
	43,092	394	81	L	ABDE
K6MJU (+WA6DWL)					
	9,438	162	39	L	ABCDE

Orange

KC6UIX	4,136	77	44	A	**A**BD
KG6EG	3,210	48	30	A	AB**CDI**
KN6VR	2,208	71	23	A	**BD**
W6QE	442	27	13	A	ABD
AF6O	95,976	441	172	B	**AB**CD**9**E
K6TSK	25,346	266	58	B	AB**CDE**
K6IBY	1,584	36	22	B	CD
KH6WZ	1,185	27	15	Q	BCDI
KG6TGI	88	11	8	Q	A
W6SBA (KG6JKJ, KF6DNJ, WA6NIA, ops)					
	9,541	106	47	M	ABCDEI

Santa Barbara

WB6AAG	32,100	233	100	A	**ABCD9EF**
W9EC	2,001	50	29	A	ABCD9E
KE6RCI	1,312	69	16	A	BD
KQ6NO	96	16	6	A	AB
N6VMO	8,280	116	60	B	A**BDE**
KC6NBI	5,217	111	47	B	**A**B
W6FM (+W6WE, K6YR, W6NS, AE6EQ)					
	226,080	904	180	M	ABCDE
KG6TBR (+K6WLC, KØBGL, WA6PZK)					
	21,021	218	77	M	ABCD9EF

Santa Clara Valley

NU6S	37,184	348	83	A	AB**CD**E
AJ6T	22,800	304	75	A	**AB**
K2RD	11,374	208	47	A	ABD
W6GYD	9,408	120	56	A	ABCD**E**
KF6MXK	4,191	105	33	A	ABCD
KG6HUM	9	3	3	A	A
K6KLY	32,336	319	94	B	**ABCD**
N6JET	8,195	149	55	B	A**B**

San Diego

KG6IYN	12,285	171	63	A	**A**BCDE
KF6NKC	10,127	160	41	A	**ABCDE**I
WA6MHZ	9,990	162	54	A	ABCD
K6VCR	8,800	149	55	A	ABD
WB6MFW	1,080	45	24	A	AB
KF6JBB	1,863	58	27	B	**ABCD**
W6DTA (+K6DYD)	22,542	194	102	L	ABCD

San Francisco

K6RIM	1,495	65	23	A	**A**
WA6KLK	28,350	235	90	B	A**BCDE**
W6XU	4,601	107	43	B	**A**
WA6JYU	560	25	14	B	BDE

San Joaquin Valley

KF6KDA	11,088	147	63	A	**ABCD**
KF6CNV	3,317	88	31	A	ABCD
N6KOG	390	30	13	A	B
K6YK	15,960	180	76	B	A**BCD**
KR7O	14,016	192	73	B	**A**
KF6YYV (+KØDI)	30,528	233	96	M	ABCD9E

Sacramento Valley

KC6ZWT	30,976	253	88	A	**ABCD**
W6DWI	2,262	68	29	A	ABD
NT6K	1,683	50	33	A	ABD
WA7PDC	1,404	54	26	A	A
WA6LMZ	513	27	19	A	AB
W6KBX	46,726	277	122	B	**ABCDE**
W6YM	8,330	144	49	B	ACE

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Arizona

WJØF	13,778	163	83	A	**ABD**
K7ZD	3,560	89	40	A	A**B**
WA7BTG	700	28	25	A	A
KF7JS	154	14	11	A	AB
AA7A	59,094	363	147	B	**ABCD**E
KE7NR	11,385	141	69	B	ABCD**E**
N7IR	17,088	168	89	Q	ABCDE
K7MWD (+KØCAO)	16,362	197	81	L	ABD
WA7JTM (+WW7B, N7AMA, K7TOP)	34,524	256	126	M	ABCDE

Eastern Washington

W7GHZ	9,912	94	56	A	A**BCD9EFGI**
K7AWB	5,341	95	49	A	ABCD
W6LLP	1,219	43	23	A	ABCD
KF7CN	25	5	5	A	AB
W7WKR	16	4	4	A	A
W7JGO	1,300	40	26	B	**ABCD**
K7CW (+KE7V, VE7DXG, N7EPD, K7ND, W7YOZ, K7WIA)	203,451	675	219	M	ABCD9EFGHIP

Idaho

W7ID	7,616	97	64	A	**ABCDE**
W7USB	9,052	119	62	B	**ABCDE**
KB7QFE (+KI7BP)	615	33	15	L	ABCD
KØIP (+N7IJ, N7YYY, W7DRF)	24,617	225	103	M	ABD

Montana

W7YM	3,621	70	51	A	**AB**D
KI6CG	3,276	89	36	A	AB**D**
K7BG	1,200	50	24	A	AB
W7KNT	10,132	149	68	B	**A**
AA7GS	525	25	21	Q	AB

Nevada

K7ICW	14,364	136	84	A	A**BCDE**
W7GK	6,363	97	63	A	**AB**D
N7WVZ	2,760	60	46	A	AB
KQ6MU	814	35	22	A	ABD
W6EIO	216	17	8	A	BCD
K1NV	1,595	50	29	B	**AB**D
W7OJT	465	24	15	B	AB**D**
K7EH	2,850	72	25	Q	BCDE
K7XC (+KD7KKO, NS9E)	9,636	109	73	M	ABCDE

Oregon

K7YO	18,304	220	64	A	A**BCD**
KAØTP	12,375	185	55	A	**AB**CD
KA6T	7,920	138	45	A	ABCD**E**
KI7JA	4,902	108	38	A	ABCD
W7KKE	1,050	37	25	A	ABD
WR7X	920	36	23	A	ABD
K7VIT	810	49	15	A	ABD
N7DB	580	44	10	A	ABCD
AA7IH	304	24	8	A	ABCD**E**
W7SST	130	20	5	A	BD
K7RAT (N6TR, op)	71,040	399	148	B	**ABC**DE
W7EW	55,297	366	121	B	A**BC**DE
K7TM (+N7LKA)	31,414	215	113	M	ABC**DE**
K7HSJ (+W7ZSL)	3,649	63	41	M	ABCD9E

Utah

NJ7A	14,040	168	65	A	**ABCDE**
WJ7L	110	11	5	Q	D

Western Washington

N7CFO	29,304	283	72	A	A**BCDEFGI**
N7MWV	23,625	201	75	A	ABC**D9EF**
W7GLF	18,120	202	60	A	A**BC**D9**E**
N7UK	2,736	70	38	A	ABD
K7UU	2,496	53	26	A	ABCD9E
KD7TJC	2,106	78	27	A	AB
K7MQF	1,482	53	26	A	ABCD
K7NWS (W7VXS, op)	836	38	22	A	A
K7UIR	400	43	8	A	ABD
AC7KY	198	18	11	A	AB
K7FL	102	34	3	A	B
N7AM	63	7	3	A	E
WA7TZY	26,268	273	66	B	A**BD**E
AA7VT	17,980	186	62	B	AB**CD9EF**
W7FI	14,058	198	71	B	**AB**
K7IEY	9,454	135	58	B	ABCD
W7MGC	7,439	142	43	B	ABCD
W7VB	2,750	110	25	B	AB
WB7BST	840	35	8	B	**E**
W7ERH	490	38	10	B	BD
KU7M	1,974	74	21	Q	ABCDE
KI7T	6	2	2	Q	AD
W7MRG (WB7FJG, N4SL, KB7TYY,ops)	6,562	163	34	L	ABD
KI7EL KI7EL N7XKJ KB7PSG	816	52	12	L	ABCD

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Michigan

KB8U	77,250	390	150	A	**ABCD9EF**
W8RU	8,384	106	64	A	ABCD
K8MM	5,000	84	50	A	ABD
N8IA	2,952	70	41	A	ABCD
W8LON	2,312	55	34	A	ABD
N8ZVB	2,201	71	31	A	A
N8SDQ	1,581	51	31	A	AB
KC8HZM	1,431	49	27	A	ABD
N8LIQ	850	34	25	A	AB
WA8YLZ	168	13	12	A	ABD
K8MD	105,984	442	184	B	**A**BCD9E
K8EB	101,652	399	172	B	A**BCD9EF**
K2YAZ	44,323	200	127	B	ABCD9EF**GI**
KB8ZUZ	23,316	250	87	B	ABD9
N8OC	8,378	109	71	B	ABD
K8RS	8,030	100	55	B	ABCD9E
N8PVT	960	33	24	B	ABCD
K8CC (+K8KS, N8UUP, WX3M)	187,616	756	208	L	ABCD

Ohio

K8MR	64,092	352	147	A	**ABCD**
WN8R	10,488	119	69	A	ABCD
W8DD	7,239	116	57	A	ABD
K8AB	3,939	79	39	A	ABD
KB8UUZ	1,620	60	27	A	A
WA8GMT	1,408	64	22	A	A
K8WW	966	30	23	A	ABCD
WD8EKH	480	30	16	A	AB
KC8YIF	299	22	13	A	ABD
W8CRZ	130	13	10	A	A
KB8TCK	4	2	2	A	A
K8ROX	72,329	424	151	B	**ABD**
WA8RJF	69,762	293	154	B	AB**CD9EFG**
K8TVD	15,385	136	85	B	ABCDE
WA8RCN	11,376	237	48	B	AB
N8XA	7,747	100	61	Q	ABCD9EI
N8ZM (+KD8FO, W8PLZ)	32,100	286	107	L	ABD
K8FH (+KC8QAE)	22,140	219	90	L	ABD

West Virginia

N8II	2,201	71	31	A	**A**
K8KFJ	1,617	49	33	A	A
K8DXN	748	34	22	A	AB
KC8KSK	336	19	16	A	A**C**
KC8KBY	170	17	10	A	A**B**
K2UOP	8,798	100	53	B	**ABCD9EF**
K8GP (K1HTV, K1RA, K1TR, W1RT, K3CB, W3ZZ, N4UK, W4XP, K8ISK, ops)	740,037	1809	339	L	ABCD

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Illinois

K2DRH	235,470	634	235	A	**ABCD9EF**
WO9S	41,690	296	110	A	ABCDE
AA9MY	32,330	209	106	A	ABCDE
K9ZO	29,694	249	101	A	ABD
AB9H	17,686	219	74	A	ABD
NV8V	15,600	210	65	A	ABD
N9TZL	6,992	128	46	A	ABD
K9IJ	4,680	78	45	A	ABCDE
K9CS	2,988	82	36	A	ABD
W3HDH	1,782	54	33	A	A
W9LYA	473	37	11	A	ABD
KC9AEC	242	20	11	A	ABD
KG9N	209	17	11	A	ABD
NØICV	4	2	2	A	AB
WB9Z	193,802	662	218	B	**ABCDE**
WB9SNR	21,238	169	74	B	ABCD**9**E
W9XA	17,394	181	78	B	ABCDE
K9SM	13,176	129	61	B	ABCD9E**F**
W9VA	6,450	116	50	B	ABCD
N2BJ	5,074	72	43	B	ABCD9EF
W9SE	3,818	82	46	B	ABD
KR8L	3,465	57	45	B	ABCD
WA9DBJ	3,306	99	29	B	ABD
W9JGV	2,349	87	27	B	B
NG9U	108	17	6	B	BD
W9SZ	2,080	38	32	Q	BCD9E
K9NS (K9DX, K9HMB, K9PW, K9XW, KO9A, W9RM, ops)	583,041	1481	327	L	ABCD
N9TF (+KC9ETU)	19,034	245	62	L	ABCD
NG9R (+N9JF)	13,870	166	73	L	ABD
W9GKA (+K9ZA)	2,263	63	31	L	ABCD
W9RVG (+WD9EXD)	58,575	281	165	M	ABCD9E

Indiana

KB9NKM	21,505	253	85	A	**AB**
WA1MKE	19,780	179	92	A	AB**CD9E**
AC9X	11,376	158	72	A	AB
N9DR	4,214	83	49	A	ABD
K9SG	3,128	74	34	A	ABD
WB9DRB	2,952	57	41	A	ABCDE
NN4H	2,664	71	37	A	ABD
W8DQ	1,075	40	25	A	ABCD
NM9P	943	39	23	A	ABD
N9LF	420	30	14	A	AB
WM9M	315	21	15	A	A
KC9DFU	80	13	5	A	BCD
K9EA	61,005	315	147	B	A**BCDE**
K8LEE	27,937	307	91	B	**A**
WC9C	3,182	74	43	B	AB
KB9WSL	1,170	43	26	B	ABD
K9FOH	300	25	12	Q	AB
W9IMS (K9RU, N9KZJ, W9SU, W9IND, WY9T, N9KT, ops)	13,728	155	78	L	ABCD

Wisconsin

K9MU	77,688	355	166	A	**A**BCD**9E**
N9ISN	49,794	303	129	A	ABCD
N9DG	46,224	318	108	A	A**BCD**
N9LLT	17,408	203	68	A	ABCD
W9RAY	7,014	106	42	A	ABCD9E
K9DQ	2,700	66	30	A	ABCD
K9VS	2,592	94	24	A	ABD
KB9Q	2,350	69	25	A	ABCD
N9NDP	1,738	65	22	A	ABCD
W9JOT	1,416	46	24	A	ABCD
K9AIH	288	29	8	A	ABD
KB9MZD	24	6	4	A	B
KC9ECI	6	2	2	A	BD
W9GA	129,926	516	167	B	**ABCD9E**
NØAKC	45,720	257	120	B	ABCD9E
KB9PJL	32,274	215	99	B	ABCD9E

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Colorado

W6OAL	54,766	316	139	A	**A**BC**D9EFGH**I
WØETT	10,070	155	53	A	A**BD**
WVØH	6,929	131	41	A	ABD**I**
NØPOH	3,531	79	33	A	ABCD
KBØYH	1,740	58	30	A	A
KCØPZD	299	23	13	A	AB
KIØII	184	19	8	A	ABD
KØGU	137,600	554	215	B	ABCDE
NØKE	30,160	238	116	B	ABCDEI

KØRI	12,642	141	86	B	ABD
NØUGY	2,166	61	19	B	ABCDEI
KØNR	4,235	91	35	Q	ABCD
WØLSD (+NØKIS, WDØBGZ)					
	18,905	192	95	L	ABD
WØEEA (+N9KC, W9BD, KR5J)					
	91,168	382	176	M	ABCD9EFGIJ
WØKVA (+NØWBW, WØKU, WYØX, KAØEFM)					
	21,567	188	79	M	ABD9EFI

Iowa

KØIO	775	31	25	A	**A**B
KCØRAD	693	30	21	A	**A**B**D**
KMØT	255,210	480	282	B	**ABCD9EFGHIJ**
WØVAN	840	40	21	B	A
KØCNN (+KCØAYG)					
	667	26	23	L	ABF
NØMA (KX9Y, NØLNO, AAØKW, ops)					
	3,840	81	40	M	ABD9E

Kansas

NØLL	53,301	253	163	A	**ABCDE**
WØRT	3,344	53	44	A	ABCDE
NØKQY	8,610	92	70	B	**ABCDE**
AEØG	696	29	24	B	AB
NØJK	1,178	37	31	Q	ABD
KCØAHN (KAØMR, KAØKCI, K5MZN, KCØNJK, ops)					
	6,200	77	62	M	ABCDE

Minnesota

NØKP	36,057	193	101	A	ABC**D9EFGHI**
KAØPQW	28,296	211	108	A	**ABCD**
NØVZJ	16,560	182	80	A	ABD
N9TTX	14,308	141	73	A	ABCDE
KBØLYL	5,400	216	25	A	**B**
KBØTZA	2,288	73	22	A	ABCDE
NGØE	1,333	43	31	A	AB
KG6GMT	1,107	40	27	A	ABD
KCØREO	1,104	48	23	A	AB
WØJLF	936	52	18	A	AB
N9QDZ	560	28	20	A	AB
KCØPBY	24	8	3	A	AB
WØGHZ	75,888	305	144	B	**ABCD9EFGHIJ**
KØCJ	23,004	191	81	B	ABCDE
KØAWU	22,272	176	96	B	ABCDEI
WØZQ	10,340	109	55	B	ABC9EF
WØAUS	3,762	78	33	B	ABCDEI
WØYC (NØYNT,op)					
	10	4	2	B	BD
NØAT	44	9	4	Q	ABD
NØEO (KBØLBS, VE3KRP, KØMVJ, NØBNG, AAØAW, ops)	6,783	110	57	L	ABD
KFØQ (+KBØTHN)					
	51,972	268	122	M	ABCD9E
KØSGI (KD5EMB, NØRPM, KCØIYT, ops)					
	7,560	137	40	M	ABCD9E
NØUK	1,863	62	23	M	ABCD

Missouri

WØFY	6,344	97	61	A	**ABD**
KOØZ	1,530	39	30	A	AB**DE**
WAØFQK	578	34	17	A	A
WØJRP	323	17	17	A	A**C**
KIØHA	320	20	16	A	AB
KØETC	4,998	96	51	B	**ABCD**
K9AKS	5,995	85	55	Q	ABCDE

North Dakota

KØUD	888	35	24	A	**ABD**
NTØV	3,780	79	45	B	**ABCDE**
KCØHXF	1,140	57	20	B	AB
NØUD (WBØOAJ,op)					
	90	10	9	B	AB

Nebraska

WØTA	1,394	39	34	A	A**BD**
WAØJCE	1,221	37	33	A	**AB**
WØKT	54	9	6	A	AB
WØBJ	6,804	98	63	B	**ABDE**
KØRPT	2,925	65	39	B	A**BD**

South Dakota

KØHW	3,168	64	44	A	**ABDE**

Quebec

VA2IC	670	67	10	A	**A**B
VE2HDQ	198	22	9	A	**B**
VE2PIJ	1,008	26	21	B	A**BDEH**
VE2XX	252	13	14	B	**ABC**D

Ontario

VE3SMA	17,009	151	73	A	A**BCD9EF**
VE3CVG	7,384	100	52	A	ABCDE
VA3KA	1,920	41	30	A	ABCDE
VE3HHT	1,836	50	27	A	ABCD
VE3LFS	1,404	51	27	A	**A**BD
VA3TSG	720	36	20	A	A
VA3NU	540	36	15	A	AB
VE3VJ	432	27	16	A	A
VA3DF	336	14	12	A	C
VA3OR (VE3RCN, op)					
	266	19	14	A	A
VE3SPW	240	20	12	A	B
VE3TFU	71,250	302	150	B	**ABCD9E**

Saskatchewan

VE5UF	10,439	143	73	A	**A**

Alberta

VA6AN	28,028	285	98	A	**A**BD
VE6BMX	4,840	110	44	A	A**B**
VE6JY	774	36	18	A	AB**D**
VE6TN	680	40	17	A	AB
VE6VPD	4	2	2	A	A

British Columbia

VE7XF	37,149	311	87	A	**ABCDE**
VE7CMK	2,660	61	38	AABD	
VA7DX	1,272	53	24	B A	
VA7MM	60	5	4	B E	
VE7AAO	522	29	18	Q A	

Rovers

Atlantic

K2QO	43,127	265	101	R	8	ABCDEI
N1XKT	35,003	230	71	R	7	ABCD9EFGHIJ
K1DS	27,145	190	61	R	7	ABCD9EFGHIJ
K3LFO (+KA3TNY)						
	20,520	268	57	R	6	ABDE
W3HMS	15,138	144	58	R	4	ABCD9EFGHI
KE3HT	13,275	126	59	R	6	ABCD9EFGH
WA3PTV	11,172	125	49	R	4	ABDEGI
W3BBO	1,248	44	24	R	3	ABD
KA3TCC	240	14	16	R	4	ABD

Central

KØPG	73,108	480	98	R	11	ABCD9E
K9ILT	72,520	474	98	R	11	ABCD9E
W9FZ	57,594	388	87	R	9	ABCD9EFI
K9JK	48,204	347	78	R	10	ABCD9E
WB8BZK	46,878	331	78	R	10	ABCD9E
K9ZF	12,720	175	60	R	4	ABD
NØEDV	1,288	39	28	R	7	ABD

Dakota

WØAMT (+NGØR)						
	86,496	467	102	R	14	ABCD9EFG
KØSQ (+NØUR)						
	714	29	21	R	3	ABD

Delta

N5KDA (+K5MQ)						
	36,360	282	90	R	15	ABCD9E
N4OFA	34,768	254	82	R	4	ABCD9EF
N4FLM	17,301	165	79	R	4	ABCD
WA4JA	1,392	44	29	R	5	ABD

Great Lakes

K8DOG (+KF8QL)						
	12,805	126	65	R	8	ABCD9E
WE2BAD (+N8NU)						
	204	12	17	R	5	AB

Hudson

WA2IID (+KB2SSS)						
	36,801	225	87	R	6	ABCD9EFGHI
AL1VE	26,044	246	68	R	7	ABCD9E
KJ1K (+WB2VVQ)						
	22,968	161	72	R	6	ABCD9EFGHI
N2MH	15,840	165	66	R	3	ABCDE
N2GXH	12,926	115	46	R	7	ABCD9EFGHIK
K2GE (WB2ONA, N2CEI, ops)						
	9,312	76	48	R	4	ABCD9EFGHI
KC2HIZ	8,547	114	33	R	6	ABD9EFGHIJ
N2CQM	5,764	77	44	R	3	ABD9EFG
WB2LLP	5,724	76	27	R	6	BCD9EFGHIJ
KC2IRO	2,278	46	17	R	6	BD9EFGHIJ
AB2KT	943	38	23	R	2	ABD
W2DHT	196	7	7	R	2	D9EFGI

Midwest

NØDQS	37,737	232	63	R	13	ABCD9EFGHIJ
NØLD	900	41	20	R	8	BD

New England

N1QVE	27,268	236	68	R	3	ABCD9EI
KB1EKZ (+KB1ENW)						
	19,822	190	53	R	8	ABCD9EFGH
KB1EAA (+KB1EUH)						
	17,980	234	58	R	5	ABCD9E
N1JFU	16,112	197	53	R	3	ABCD9E
W1AUV	13,511	172	59	R	6	ABDI
KT1VT	9,359	135	49	R	6	ABCD
KR1TD	3,834	58	27	R	4	ABCD9EFGHIJ

Northwestern

K3UHF	57,772	403	101	R	14	ABCD9E
W7DHC (+ logger)						
	57,716	367	94	R	8	ABCD9EFGI
K3UHF	51,450	369	98	R	13	ABCD9E
K7MDL	27,800	384	50	R	7	ABCD9E
WI7F	8,103	174	37	R	8	ABD
W7ZZT	5,832	91	36	R	5	ABCDE
NW7MT (NW7O, WA7MT, ops)						
	3,198	79	39	R	7	ABD
N7WLO (+N7ZLM)						
	2,678	65	26	R	6	ABCDEP
AD7BK	2,400	89	24	R	2	ABD
W7HDD	684	21	12	R	2	ABCDEFGHI

Pacific

K6EU (+NU6T)						
	14,716	235	52	R	8	ABCD
W6QI	13,056	183	48	R	2	ABCDEIJ
KE6QR	9,684	213	36	R	6	ABD
KB7YEL	5,742	147	33	R	3	ABD
AE7DX	760	31	20	R	6	ABCDE

Roanoke

W3IY (+ON4IY)						
	318,159	1022	159	R	11	ABCD9EFGHI
K9SP	12,285	145	45	R	5	ABCD9EFGHI
W4WNT	504	26	18	R	3	ABD

Rocky Mountain

KIØSK (+NØBAF)						
	13,200	200	48	R	12	ABCD
N7MLD	8,732	101	74	R	6	ABCDE
KCØTW	3,384	78	36	R	4	ABD
KU7Z	2,516	62	34	R	4	ABD
AC5TS	2,275	71	25	R	6	ABD
NA3J	1,275	44	25	R	5	ABCD
WB2FKO	884	34	26	R	3	AB

Southeastern

KU8E	272	17	16	R	4	A

Southwestern

N6TEB (+KE6HPZ)						
	195,132	593	161	R	11	ABCD9EFGHIL
N6DN	184,640	568	160	R	11	ABCD9EFGHIL
N6RMJ	17,055	197	45	R	4	ABCDEFI
N6ZE	5,248	101	41	R	7	ABD
KG6HSQ	2,109	82	19	R	2	BCD
W6YV (WB2TVB, KG6CUK, ops)						
	1,504	69	16	R	4	BD
WA6TMY	775	24	25	R	8	ABD

West Gulf

N6NB (+KG6TOA)						
	1,292,382	1804	263	R	20	ABCD9EFGHI
N6VI	1,156,760	1744	239	R	20	ABCD9EFGHI
N6MU	1,131,156	1738	234	R	20	ABCD9EFGHI
W5LL	2,720	80	34	R	2	A
KC5MVZ (+KD5ULG)						
	2,376	48	33	R	8	ABCDE
K5WO	2,376	57	36	R	2	ABDI
AF5Q	616	26	22	R	4	ABD
AA5AM	42	7	6	R	2	A

Canada

VE3NPB (+VE3OIL)						
	75,096	380	126	R	11	ABCD9EFIP
K2LDT (+K2LDU)						
	23,482	154	59	R	8	ABCD9EFGHIJ
N2LBT (+N2OJY)						
	7,622	91	37	R	8	ABCD9EFGH
VE7DAY	3,132	70	36	R	4	ABDE