2010 ARRL June VHF QSO Party Results

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[Version 1D adds Club tables and coverage of the Limited Multioperator category, corrects the K8GP antenna description, and clarifies the actual section – SD – of AL1VE/R along with correcting the West Coast Regional Leader and Dakota Division Leader information. Additional tables follow the conclusion of the text.1

A 6 Meter Bonanza and Working the System

Where The Action Was

There hasn't been a contest in recent memory that kept so many bandswitches stuck on 6 meters. Regardless of rig, antenna, or power output, if you were on the air during this contest weekend and were tuned to 50 MHz, you were busy making plenty of contacts in numerous grids as Figure 1 shows. Stations in the middle of the country had an advantage with propagation in all directions. Twenty-two percent of the 1202 log entries had totals of over 100 grids on 6 meters. Forty logs showed 200 or more 6 meter grids and two Single-Operator, High Power (SOHP) stations and one Multioperator (MO) had over 300 6 meter grid multipliers. With 1202 log entries representing 237,386 contacts, the activity set some all-time records, and this is not even a high sunspot number year. Only 23 of all the submitted logs lacked a 6 meter entry.

Some of my favorite Soapbox comments focus on the ease and surprise that comes when a station can be worked with low power and limited antennas when the "magic band" is open for such long periods. Hams who might have decided to drop in on the contest to see how conditions were progressing were enticed to stay and play long and hard this weekend because of the great propagation. Les, N1LF reports from his Alabama home that despite a healthy dose of problems before the contest and the stifling heat, by 1 PM on Sunday merely using a 100-watt transceiver and an indoor antenna for 6 meters he managed to work VUCC and eventually wound up with 126 multipliers. He had a ton of fun! This was the theme of many of the comments from the participants: what fabulous conditions on the "magic band."

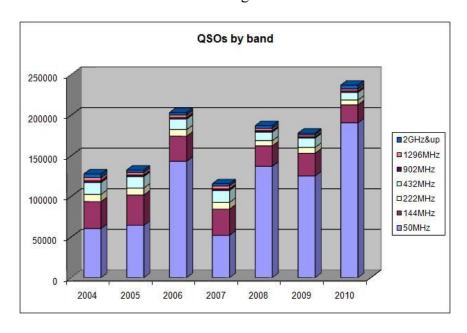


Figure 1 - QSOs by band for the years 2004 to 2010.

Record Setting Activity

Looking back over the records since VHF contest scoring has moved from ARRL section to grid square multipliers, the records set this year are likely to last for many years to come. This was clearly a big scoring year as there were 39 section category records broken as shown in the table below! These records have been faithfully managed by Curt K9AKS for the past 10 years. The plan is to have these records posted on the ARRL Web site in the near future.

		Table 3	- New Se	ction Records
CALL	CAT	SEC	SCORE	ADDITIONAL OPERATOR CALL SIGNS
KL7UW	SOLP	AK	165	
K4WI	SOLP	AL	243,312	
K5NTT	SOLP	AR	76,653	
K1IM	SOLP	CT	218,519	
WB4SLM	SOLP	GA	310,786	
NØLL	SOLP	KS	252,280	
AE5T	SOLP	LA	244,024	
N0PB	SOLP	MO	87,493	
W0KT	SOLP	NE	35,840	
AF1T	SOLP	NH	224,812	
WB2WIK	SOLP	ORG	240,812	
WY3X	SOLP	SC	315,744	
N1IBM	SOLP	SNJ	46,760	
N4QWZ	SOLP	TN	185,220	
VP9GE	SOLP	VP9	97,133	
K5RQ	SOLP	WCF	255,496	
W3PAW	SOLP	WPA	182,965	
N5XTR	SOLP	WTX	138,370	
XE2K	SOLP	XE	48,510	
N4LR	SOHP	GA	215,100	
K9EA	SOHP	IN	164,970	
K1RZ	SOHP	MDC	481,730	
K1TOL	SOHP	ME	242,136	
KB5AAB	SOHP	MS	208,608	
N2GHR	SOHP	NLI	217,371	
KC4PX	SOHP	SFL	475,020	
K5TR	SOHP	STX	702,702	
N5LZ	SOHP	UT	87,552	
W6SAI	LM	AL	215,830	(K4CWW, KD9Q, KV4T, ops)
W5ZN	LM	AR	606,832	(+ KX9X, NN1N, W9WI)
K8GP	LM	VA	675,920	(K1HTV, K1RA, K1TR, K3MM, N2NAR, N4SV, NW5E, W3ZZ, W4XP, W8ZN, ops)
KA2LIM	LM	WNY	325,238	(+ KB2YCC, WA3CSP, W9KXI, N2LID, N2SLN, NX2W, N2IK)
WA7JTM	MO	AZ	254.286	(+ N7AMA, WW7B, W7NS)
WØEEA	MO	CO	494,256	(+ AA9D, N9BD, N9KC)
KBØHH	МО	ОК	385,125	(+ KC5DPT, KAØKCI, K5TDN, N5VYN, KDØEZV)
N6TEB	MO	SJV	301.466	(+ K6WCI & KE6HPZ)
VQ5M	MO	VP5	99.957	(KD2JA & WB2REM, ops)
K9AKS	QRP	CO	38.592	(= 20.1 51.1 = 21.1 = 1.1, 0p0)
KJ5RM	QRP	NTX	19.470	
		l		1024 souts at an 6 a

In the Single-Operator, Low Power (SOLP) category, Dave K5RQ in WCF made 1172 QSOs, besting the previous record set in 2006 by K9MU. Webster, WY3X, had fewer QSOs on 6 meters, but beat the previous SOLP record also held by K9MU by scoring 268 grids on this band. For the SOHP entrants, George, K5TR topped the old record by 253 contacts, making 1883 6 meter QSOs in 310 grids. That's just about 1 contact per minute for the entire 33 hours of the contest. Our ex-ARRL President W5ZN's MO team with a total of 295 grids beat the previous record for this category of 269 grids. The KN5O team ran a close second with 292 grids on 6 meters. I hear a drum roll for the

efforts of the K5QE MO team that managed to put 1834 contacts on 6 meter in their logs with 337 grid multipliers that tops their two previous year efforts when their team also set records in this category.

For single-band 6 meter entries there were 328 in the SOLP group and 59 in the SOHP group. [Note that there are no single-band categories – Ed.] The top three scores for each of the power groups were similar – in the 250,000-point range. Power output was not as much a factor

as was location, antenna, conditions and operating skill. There were another 29 6 meter single-band entries from all the other Multioperator, Portable QRP and Rover categories, so that 1/3 of the total logs received were exclusively 6 meter operation.

This year's 1202 entries surpass last year's total of 1135 by a nice margin. Of course, when the bands are productive, more operators are encouraged to submit their logs. As I have discovered and mentioned many times before, there are usually twice the number of active stations on for the contest activity than there are logs submitted. Taking a look at the 6 meter QSO totals, you can see that there were over 1800 contacts on just one band in the K5QE log.

DX Activity

We were all pleased to see the increased number of XE stations active and submitting their logs this year. All 8 were active on 6 meters and added a total of 1649 contacts on that band. Jose XE2K was also active on bands BD9. (See the table of band designators below.) Three single-band entries on 6 meters were received from Brazil with a total of 85 contacts. Ed, KL7UW had 5 bands ready and KL7/KB7Q operated on 6 – between them they had 24 QSOs on 6 and 1 QSO on 2 meters. Massimo, KH6ZM added another 45 6 meter contacts from HI. NP2B (NP2X, op) gave us 195 two-ways from KP2-land, while Julio, NP3CW managed to add 7 more 6 meter contacts from PR. We also received 6 meter logs from VP2MRT, VP9GE and VQ5M who added to the excitement with a total of almost 1800 contacts from the Caribbean. As always, the VE stations were very active; 61 logs were entered from VA/VE/VO.

Table 1 – Band Designators							
Designator	Band						
Α	50 MHz						
В	144 MHz						
С	222 MHz						
D	432 MHz						
9	902 MHz						
Е	1296 MHz						
F	2304 MHz						
G	3456 MHz						
Н	5760 MHz						
I	10 GHz						
J	24 GHz						
K	47 GHz						
L	75 GHz						
М	119 GHz						
N	142 GHz						
0	241 GHz						
Р	Light						

Table 2	2 - Category Designators
Designator	Category
SOLP	Single-Operator, Low Power
SOHP	Single-Operator, High Power
QRP	Single-Operator, Portable
R	Rover
RL	Limited Rover
RU	Unlimited Rover
MO	Multioperator (Unlimited)
LM	Limited Multioperator

Running the Bands

The excitement on 50 MHz is often to the dismay of the Multioperator stations that sit on the other bands seeking contacts and to the rovers who are trying to do several things at once; drive, operate multiple bands and encourage their contacts to "run the bands." This year's contact totals on 144, 222, and 432 MHz reflect that angst as

those bands were down 20% in total QSO numbers from last year. The surprise though is that totals on the microwave bands were up as much as 100%. This was largely due to the efforts of a team of 9 Rovers each equipped with at least 10 bands, travelling together across 9 grids on the West Coast, working each other and some fixed stations. Operating within the confines of the new Rover category rules they kept contacts between each other below the maximum of 100.

Although there were reports of modest 2 meter tropo openings, those reports are far out-

shadowed by the sporadic E (Es) conditions on 6 meters. Mike, K7ULS on Powder Mountain in Utah caught some 2 meter openings with QSOs to OK, KS, WI, MI and IN. He managed this in spite of 60 mph winds and snow in June. The Multioperator team at KA2LIM in FN12 in upstate NY reported a 2 meter QSO as far south as Alabama in EL49. Tom, N4HN reported a 2 meter contact from EM95 North Carolina to EM25 in Oklahoma. Marshall's team at K5QE also reported working may FN grids from their STX QTH in with an extended 2 meter Es opening to the NE. Their 2 meter grid count also benefitted greatly from the EME activity contribution of an additional 28 grids.

Comedy, Tragedy, or Drama - The Show Must Go On

With all the planning and rehearsal, stations were primed for action. There was the "almost tragedy" as Sebastian, W4AS experienced a power failure four minutes before the start of the contest. Luckily it lasted only a minute and he had three more minutes to regain his composure and got everything restarted. He also found the secret to following the drama of the 6 meters Es with his band-scope using the SDR-IQ. This enabled him to watch the more distant beacons for indications of improved conditions and spotting the frequencies of active stations. Many participants have adopted this tactic as more software-defined radios (SDR) and their unique programs have become available. This technique has become especially valuable for the higher bands. The frequency calibration of microwave signals is more difficult, but the search for a contact is much easier when you watch the band scope and see the signal and its trace in the waterfall display.

The KA2LIM team reported visits by Murphy with problems on their 432 MHz and 222 MHz stations which required swapping out rigs as soon as they started operating on those bands. They attempted to raise their microwave tower, succeeded in having the mast bend a bit, and in the attempt to get it straighter wound up having it bent over. Lest this comedic scene be lost, they snapped a picture of it to use as their contest QSL card.

Zack, W9SZ, a long-time rover, found himself in a tragi-comedy when he rushed to get his rover ready. He was beset with a downpour just as he was about to hit the road. Compounding his troubles were missing parts as he rushed to get moving. To add to his luck, he was hit with another storm on Sunday. He managed to get everything packed and stowed just as the 50 mph winds hit and rain started. Needless to say there was a lot of mud to clean out of his vehicle and gear. The WA7JTM MO team in Arizona loved the 6 meter opening, but also had to manage against big winds and snow flurries in AZ!



K7ULS operated from Powder Mountain, UT, reporting, "What a contest! It was well worth the 60 mph winds and snow."

The team of Kim, KB1DFB and Jay, W1UJ had a great time with their LMR (Last Minute Rover) setup. They lashed a series of halos and squalos to a bar over the cab of their pickup and operated in from popular New England grids. The key to their enjoyment was the density of activity in their geography and the elevations they chose.

Brian, ND3F and David, N3XUD teamed up as Rovers and encountered some stormy weather that made them pack up and move almost as soon as the activity started. When they got to their last grid they found their stack of radios had fallen over and the amplifiers were not able to be keyed. Brian quickly assessed the situation and resolved it by pulling out the RCA connectors used to key the amps. He used the old "touch-to-talk" method of grounding the center pins in color sequence when running the bands.

The Fourlanders Contest Team in the North Carolina mountains experienced a seized pulley in the cooling portion of their large field generator that then started to steam up and was shut down. Their high power operation went to low power using back-up generators. Lessons learned—always have a plan B and spares.

High or Low Power?

I have always been interested in how a station decides on high power or low power, since many have higher power capability than the current limit separating the categories. Yet they choose to reduce drive or remove amplifiers from the operation for the contest. If a contester added one of the surplus cell site 902 MHz amps to their station, does it make sense to use it and enter into the High Power category, even though the rest of the bands fit into the Low Power category?

There are also issues involving measurement of the power, and of course, the honor system of reporting. Is it output power at the antenna connector of the amplifier or at the antenna? Is it average output, peak-to-peak SSB or key-down CW? [*It's PEP transmitter power output – Ed.*] I have watched the category Top Ten over the past several years and see the same players have been in the same positions in both of the Single-Operator categories. Following the contest, the VUAC will be evaluating various options to see if there is a popular opinion about power levels, especially given the changes in availability of amplifiers for higher microwave bands. My sense is that a liberalization of the microwave power levels for the Low Power operators would allow contacts over greater distances and encourage more activity on those bands without handicapping the Low Power category on the lowest four bands. If you are a VHF contester, please make your opinion known to your VUAC representative.

Single-Operator Category

Although we generally focus on the highest scoring stations in these reports, thanks go out to all of the stations who got on the air to make this a fun weekend. Always remember that it takes two to make a QSO! Even with the finest equipment, best operators and superb conditions, there has to be activity to make this weekend of on-the-air action engaging. 132 SOLP and 12 SOHP logs submitted had 25 contacts or less so if you think you had a thin log, you were in good company. Seven SOLP and 7 SOHP logs had over 1000 QSOs. Some concentrated on a single band to get those numbers, while others used 10 bands to make those totals.

In the SOLP category, Bob, K2DRH in IL again topped the list with 374k points with his 8-band effort. In second place from SC, Webster, WY3X garnered 315k points using only bands ABD, racking up 1009 6 meter contacts in 268 grids. Vic WB4SLM in GA placed third with 310k with another big 6 meter effort, yet finding enough time to add contacts and grid multipliers on bands through 2.3 GHz. In 4th place, Rich, W5SXD from NTX had 299k with a 6-band station but the basis of the big score was again an over-1000 QSO result from 6 meters.

Rounding out the top five is Dave, K5RQ, from WCF with a single-band 6 meter total of 255k from 1172 QSOs in 218 grids. Rounding out the Top Ten for SOLP we have NØLL, K4LY, N3LL, AE5T and K4WI, with scores between 243k and 252k. The small margin of difference was the mix of QSO points on the higher bands and their additional multipliers, since all of them had quite substantial 6 meter contact and grid totals.

George, WB3IGR reports, "Great 6 meter opening this contest! Lots of new grids!"



George, K5TR rocked the SOHP world with 702k points based upon a 1883 QSOs and 310 grids on 6 meters plus an additional 87 QSOs on bands BCD along with 41 grid multipliers. In second place, Jeff, K1TEO managed 579k with contacts on bands through 10 GHz. Third place went to Dave, K1RZ with 481k, also a ten-band effort. Both Jeff and Dave had similar 6 meter totals in the 500-contact range, giving the indication that 6 meter Es did not bless the Mid-Atlantic and Northeast as much as it did for the rest of the country. The one exception to that is Lefty, K1TOL in ME, who turned in a single-band log with 1121 6 meter QSOs in 216 grids, capturing 10th place in SOHP. Ivars, KC4PX from SFL ran up a score of 475k for 4th place, with a huge 6 meter run of 1507 contacts in 314 grids, and 1 additional 2 meter contact. 5th place was captured by Herb, K2LNS operating the WA2FGK station in EPA and garnering 473k points, also with a ten-band station. K2EK in NFL placed 6th with 326k on a strong 6 meter total of 1316/241. W6OAL from CO was in 7th place with 265k and an 8-band effort. In 8th place from STX we had W3UUM with 259k and 9th place from NTX was WD5K with 251k, again with lots of 6 meter contacts from the Es epicenter.

Multioperator Action

The Limited Multioperator (LM) category had 52 entries and the K8GP Grid Pirates topped the list with a score of 675k. Their 6 meter totals were 779/201 from VA, but they bolstered that with a giant total of 463/71 on 2 meters, 115/39 on 222 and 216/44 on 432. Their outstanding 2 meter, 222 and 432 totals were a result of a colossal array of antennas in addition to their station location at 1800' ASL (Above Sea Level) and a team of experienced, savvy ops. For 2 meters they employed three Large Vertical Arrays (LVAs) each consisting of eight 6element Yagi antennas, each stack being set at the major direction of population, with another pair of FO-12 Yagis rotatable atop the 140' tower. You can find their whole June VHF story and pictures at the K8GP Web site. In 2nd place, the W5ZN team scored 606k, taking advantage of their AR location in the 6 meter Es with a 1317/295 total on the magic band. NR5M was 3rd with 421k from STX, also in the eye of the Es and 1299/239 on 6 meters. The Wopsonock Mountain team of W3SO caught the 4th spot with 408k and their strength was also the contribution of bands BCD as their 6 meter totals were limited to 705/179. Ted, KN5O in LA turned in a single-band 6 meter entry of 1342/292 to place 5th in the category, although in a sense, he really wasn't a Multioperator. He dutifully followed the rules and reported his score as a Multioperator as he had the cluster running on his desktop even though he really didn't need it

or use it as he had his hands full working the crowd on 6 meters. [Good job, Ted! – Ed.] The 6th place LM team was KA2LIM with 325k, also with a big 2 meter score using an LVA array. The remainder of the top ten for LM included W4IY with 312k from VA; W4NH with 304k from NC; AA4ZZ with 274k, also from NC; and W2LV with 260k from NNJ. [The following two paragraphs were added in Version 1D – Ed.]

The top three finishers in the Multioperator (MO) category are no surprise as these groups have substantial experience and resources. The 63 MO logs account for 10% of all the submitted QSOs. Many of these groups have a Web site that gives more details and pictures about their efforts and clubs.

W2SZ again dominated with 1.83M and a hefty number of microwave QSOs and grids from their super location in Western MA. K5QE maintained the second spot with growth in their microwave scores and 2 meter EME grids. W3CCX placed third again with a solid effort on 12 bands. The K3YTL group had bands through 2.3 GHz and came in 4th. WØEEA was in 5th place using 12 bands and making the only 47 GHz QSO. KBØHH in OK placed 6th using 7 bands. WØUC from WI was 7th and also a 7-band effort. N6TEB working with the Southern California rovers placed 8th. WA7JTM in AZ was 9th and W4MYA in VA was 10th.

Rover Category Mélange

Rovers are still increasing in numbers and finding great joy in the ability to be operating from coastal and hilltop locations and from otherwise inactive grids. There were a total of 94 Rover entries this year, similar to past June contests. Traditional Rover entries numbered 42, Limited Rovers (RL) 42, and Unlimited Rovers (RU) 10. The LR category allows up to two operators and use of bands ABCD.

Kudos to Al W5LUA and Tony WA8RJF who manned the W5HN Rover. Their 88k points from NTX topped the RL list. The combination of a 4th band and a few more contacts on bands BCD gave them an 8k point advantage over 2nd-place NO5LA, operated by Dallas, K1DW and Ed, N5KGV who logged an amazing 482 6 meter contacts in 161 grids. I wonder if the rovers really had to move to follow the Es? Third place goes to Mike W6YLZ who appears to have tracked along with the SCCC pack rovers and ran up a 61k score with lots of QSO points and multipliers well distributed across four bands. He had a limited 6 meter grid count of 43 that paled in comparison to the others in the top five who all tripled that amount. Tim, AL1VE had 60k for a 4th-place finish from SD and Jim, KK6MC in NM had 59k for 5th place.

The story of the Rover category leader board is best told from Wayne N6NB's Web page. The Southern California Contest Club had a group of 15 operators in 10 vehicles and also worked with two fixed multiband stations, one MO and the other SOLP. Nine of the vehicles entered the Rover category and they captured the top eight spots. Each vehicle had 10 bands, with three of them also equipped for 24 GHz. With scores between 224k and 299k, the order of finish was: Carrie, W6TAI; Wayne, N6NB with Arnold, N6HC; John, N6MU with Pete, NI6E; Bob, KK6KK with Bob, KG6TOA; Art, W6XD; John, K6MI; Martin, N6VI with Joe, K6ZMW; and W6TE with Larry, W6KYO. Ninth-place scorer Murray, VE3NPB with Russ, VE3OIL used 11 bands + LASER and scored 126k. They appeared to track together with Steve, VE3SMA who had a similar setup and came in 10th with 98k.

The Unlimited Rovers have many options, and ten entrants chose this category. Topping the list was the team of Brian, ND3F and David, N3XUD, operating the N3IQ rover. They had a busy rove with a 180k score based upon a 10-band station with 551 contacts and 146 grid

multipliers. WA3PTV had a 65k score also using 10 bands. The NN3Q team Russ with Al, K3WGR had nine active bands and turned in a healthy 60k for 3rd place. All of these stations operated across grids in the Mid-Atlantic States area.

As a result of the appearance of a group of multiband rovers on the West Coast with strategy and tactics to maximize their scores in selected categories, the game has changed: Select a rover category for your submission that optimizes chances for getting into the Top Ten. The rover categories have evolved into three tiers. It is possible for a rover to submit a score into any of the three categories, depending on how they see their chances of getting near the top of the leader board-- if they have not operated more than the bottom four bands or used more than two operators or made more than 100 contacts with another rover.

When the Unlimited Rover category was added to the possible rover categories, it appeared that it was in response to the grid-circling pack rovers, giving them their own category. That also allowed the more traditional rovers to compete against each other by making the rounds of several grids and making contact with the fixed stations. VHF and microwave activity is different on the West Coast, however. For many years the June VHF activity was more limited than the East Coast and central states and there were very few microwave contacts being made in the west. (The big exception is during the 10 GHz and Up contest weekends where the microwavers and dishes are out in abundance, using the Sierra Nevada mountain ranges and coastal tropo to run up incredibly large QSO numbers and contact distances.) More than one longtime rover has voiced displeasure at the activities of the pack rovers and their ability to win the three roving categories with their tactics. This year they put together their scores and topped the Medium club category. Has the VUAC response been appropriate? Has the Unlimited Rover category really served its purpose? Is it getting to be more of a game to decide how to conduct and submit your roving activity to get recognized in the results? No matter what your opinion may be about the West Coast rover group activities, it is clear that they have established themselves as a controversial force in the VHF contests. They have attracted a few more like participants to the shorter wavelengths with the "bands in a box" stations. When it comes to adding up the numbers of contacts on bands FGHIJ, they accounted for 57% of all the QSOs made on these bands. In addition to 6 meter activities monopolizing the weekend, the reduced number of microwave capable rovers on the East Coast also contributed to the limited number of microwave contacts made by all other stations.

Portable Operations

Single-Operator Portable entries get a lot of respect from me as they venture out to locations where they can hear well, but can transmit low power only, restricted to 10 W and required to use a portable power source, portable equipment and antennas. For several years, Chris, KA1LMR in NH has been on the top of the QRP list, and his score of 115k with a 6-band effort put him there again. He had 389 contacts in 120 grids on 6 meters. That is a testament to what can be done when the band is making its magic. A long way back in 2nd place, Curt, K9AKS had 38k using 4 bands in CO, capturing 238 QSOs on 6 meter with 129 grids. Jory, KJ5RM was 3rd in QRP with his NTX score of 19k on bands ABD. W4RXR was 4th from VA with 11k on 5 bands. Rounding out the top five of the 20 entries in this category was Ken, WB2AMU in NLI with a 4-band entry of 10k.

Reading the Soapbox entries of the QRP gang often makes me jealous of the sheer joy that they have from finding a hilltop and setting up limited-power gear and making plenty of 2-

way communication. Jory KJ5RM reported that he operated QRP in the 100-degree Texas heat but was undeterred as he managed a nice log on three bands. The winds played rotor for his small beams on 6 meters and 2 meters, and he even managed a few 432 MHz QSOs with a rubber-duckie antenna and set a NTX QRP record with his 19k point score.

Aggregate Club Scores

Society of Midwest Contesters 58		1.	
Society of Midwest Contesters	Club Category	Logs	Total Score
Southern California Contest Club			
Southern California Contest Club	Society of Midwest Contesters	58	1,402,166
Potomac Valley Radio Club	Medium		
Potomac Valley Radio Club	Southern California Contest Club	21	2,813,852
Florida Contest Group		1	
Nacogdoches ARC		18	
North East Weak Signal Group 21 1,311,769 Mt Airy VHF Radio Club 14 1,176,152 Yankee Clipper Contest Club 19 1,043,026 Northern Lights Radio Society 14 998,633 Central Texas DX and Contest Club 8 868,066 Florida Weak Signal Society 10 747,062 Carolina DX Association 8 625,210 Badger Contesters 21 602,461 Contest Club Ontario 27 511,813 South East Contest Club 10 477,828 Mad River Radio Club 13 467,782 Alabama Contest Group 12 461,347 Louisiana Contest Group 12 461,347 Louisiana Contest Club 5 434,935 Northern California Contest Club 27 428,279 Grand Mesa Contesters of Colorado 11 401,301 North Texas Microwave Society 7 335,868 Rochester VHF Group 4 302,213 Arizona Outlaws Contest Club 16 292,738		4	
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Central Texas DX and Contest Club 8 868,066 Florida Weak Signal Society 10 747,062 Carolina DX Association 8 625,210 Badger Contesters 21 602,461 Contest Club Ontario 27 511,813 South East Contest Club 10 477,828 Mad River Radio Club 13 467,782 Alabama Contest Group 12 461,347 Louisiana Contest Club 5 434,935 Northern California Contest Club 27 428,279 Grand Mesa Contesters of Colorado 11 401,301 North Texas Microwave Society 7 335,868 Rochester VHF Group 4 302,213 Arizona Outlaws Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 <td< td=""><td></td><td>14</td><td></td></td<>		14	
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Badger Contesters 21 602,461 Contest Club Ontario 27 511,813 South East Contest Club 10 477,828 Mad River Radio Club 13 467,782 Alabama Contest Group 12 461,347 Louisiana Contest Club 5 434,935 Northern California Contest Club 27 428,279 Grand Mesa Contesters of Colorado 11 401,301 North Texas Microwave Society 7 335,868 Rochester VHF Group 4 326,737 North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 5 50,887 Minnesota Wireless Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississispipi Valley DX/Contest	Florida Weak Signal Society	10	747,062
Badger Contesters 21 602,461 Contest Club Ontario 27 511,813 South East Contest Club 10 477,828 Mad River Radio Club 13 467,782 Alabama Contest Group 12 461,347 Louisiana Contest Club 5 434,935 Northern California Contest Club 27 428,279 Grand Mesa Contesters of Colorado 11 401,301 North Texas Microwave Society 7 335,868 Rochester VHF Group 4 326,737 North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississispipi Valley DX/Contes	Carolina DX Association	8	625,210
South East Contest Club 10 477,828 Mad River Radio Club 13 467,782 Alabama Contest Group 12 461,347 Louisiana Contest Club 5 434,935 Northern California Contest Club 27 428,279 Grand Mesa Contesters of Colorado 11 401,301 North Texas Microwave Society 7 335,868 Rochester VHF Group 4 326,737 North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited	Badger Contesters	21	
Mad River Radio Club 13 467,782 Alabama Contest Group 12 461,347 Louisiana Contest Club 5 434,935 Northern California Contest Club 27 428,279 Grand Mesa Contesters of Colorado 11 401,301 North Texas Microwave Society 7 335,868 Rochester VHF Group 4 326,737 North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 50,887 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 1996,919 Chippewa Valley VHF Contesters		27	
Alabama Contest Group	South East Contest Club	10	477,828
Louisiana Contest Club	Mad River Radio Club	13	467,782
Northern California Contest Club 27 428,279 Grand Mesa Contesters of Colorado 11 401,301 North Texas Microwave Society 7 335,868 Rochester VHF Group 4 326,737 North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 <td>Alabama Contest Group</td> <td>12</td> <td>461,347</td>	Alabama Contest Group	12	461,347
Grand Mesa Contesters of Colorado 11 401,301 North Texas Microwave Society 7 335,868 Rochester VHF Group 4 326,737 North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 35,4	Louisiana Contest Club	5	434,935
North Texas Microwave Society 7 335,868 Rochester VHF Group 4 326,737 North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 1 14,436 Murgas ARC 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 35,469 <tr< td=""><td>Northern California Contest Club</td><td>27</td><td>428,279</td></tr<>	Northern California Contest Club	27	428,279
Rochester VHF Group 4 326,737 North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 1 14,436 Murgas ARC 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469	Grand Mesa Contesters of Colorado	11	401,301
North Texas Contest Club 4 302,213 Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Murgas ARC 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456	North Texas Microwave Society	7	335,868
Arizona Outlaws Contest Club 16 292,738 Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississispipi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 1 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3		4	326,737
Tennessee Contest Group 22 273,221 Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississispipi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242		4	302,213
Pacific Northwest VHF Society 21 239,351 Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Arizona Outlaws Contest Club	16	292,738
Roadrunners Microwave Group 3 195,784 Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississisppi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242		22	273,221
Frankford Radio Club 7 160,643 Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Pacific Northwest VHF Society	21	239,351
Utah DX Assn 3 111,688 Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississispipi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Roadrunners Microwave Group		195,784
Western New York DX Assn 5 50,887 Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Murgas ARC 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Frankford Radio Club		160,643
Minnesota Wireless Assn 5 46,272 Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Murgas ARC 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242		3	111,688
Mississippi Valley DX/Contest Club 3 38,728 Contest Group Du Quebec 6 14,436 Limited 3 996,919 Murgas ARC 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Western New York DX Assn	5	50,887
Contest Group Du Quebec 6 14,436 Limited 3 996,919 Murgas ARC 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Minnesota Wireless Assn		46,272
Limited 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Mississippi Valley DX/Contest Club	3	38,728
Murgas ARC 3 996,919 Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Contest Group Du Quebec	6	14,436
Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Limited		
Chippewa Valley VHF Contesters 4 319,088 Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242	Murgas ARC	3	996.919
Eastern Connecticut ARA 6 135,750 Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242			
Midland ARC 3 59,837 Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242			
Bergen ARA 5 52,678 Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242			
Bristol (TN) ARC 3 50,243 Medina 2 Meter Group 3 35,469 Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242			
Medina 2 Meter Group335,469Portage County Amateur Radio Service430,456Burlington County Radio Club430,240Schenectady Museum ARA325,347Spokane DX Association31,242			
Portage County Amateur Radio Service 4 30,456 Burlington County Radio Club 4 30,240 Schenectady Museum ARA 3 25,347 Spokane DX Association 3 1,242			
Burlington County Radio Club430,240Schenectady Museum ARA325,347Spokane DX Association31,242			
Schenectady Museum ARA325,347Spokane DX Association31,242			
Spokane DX Association 3 1,242			
	Raritan Valley Radio Club	6	24,631

Adding all the club entry logs together totaled 508. Considering that there are many MO entries in the club category, I estimate that 50% of all the contestants submitting logs are also members of ARRL Affiliated Clubs. Uncontested in the Unlimited category with 58 contributors, the Society of Midwest Contesters amassed 1.4 million points. In the Medium category, the Southern California Contest Club scored 2.8 million points, with 2.2 million of those points scored by their pack rovers. All told they had 21 contributors. The Potomac Valley Radio Club was second in the category by a mere 90k points and a 2.7 million total representing 34 participants. The Florida Contest Group with their 18 stations produced a 3rd-place score of 1.4 million. The Murgas ARC topped the Limited Club entry list again, with the score of WA2FGK as their main contributor. Their three stations had almost 1 million points total. The second-place club in the Limited Club category was the Chippewa Valley VHF Contesters and their 4 entries totaled 320k. In 3rd place we had the Eastern Connecticut ARA with 6 logs and 135k total score. What is remarkable about all the club entries is that they have stimulated growth of VHF and microwave activity and generated greater group participation in these and other on-theair events. Any of the clubs listed represent a brotherhood of helping hands and technical support. If you are a VHF beginner, or merely seeking to improve your station or operating skills, these clubs are excellent resources. Information about these clubs and contacts can be gleaned by looking at the ARRL Affiliated Club listings or using an on-line search engine.

In Closing

I am grateful to all the stations for sending me reports of their successes and their frustrations. Without all of the reports and posts on the ARRL Soapbox, it would be difficult to make a contest summary. Even if you didn't see mention of your call and activity here, take solace in the fact that you were a participant in one of the most exciting June VHF QSO parties of the decade. I would also like to thank Jani, my XYL, for her editing skills and support.

If you missed the magnificent conditions this time around, you'll get your next opportunity on June 11-13, 2011. This year's contesters will be looking for increased participation and as exciting, if not better propagation.

73, Rick K1DS

Regional Leaders

A - Single-Op Low Power, B - Single-Op High Power, Q - Single-Op QRP Portable, M - Multioperator, R - Rover, RL - Limited Rover, RU - Unlimited Rover

Northeast Region Southeast Region Central Region Great Plains Region West Coa West Coast Region

										, Midwest, Ro	,	5	N. a.	
New England, Hud									Mounta	in and West	Gulf	,	Northwestern a	
Divisions; Maritin	ne and Que	ebec	Delta, Ro	anoke and Southeast	ern	Central	and Great Lakes Divi	sions;	Division	ns; Manitoba	and	Southweste	ern Divisions; A	lberta,
Secti	ons			Divisions			Ontario Section		Saskat	chewan Sect	ions	British Colum	nbia and NWT S	Sections
Call	Score	Cat	Call	Score C	at	Call	Score	Cat	Call	Score	Cat	Call	Score	Cat
AF1T	224,812	А	WY3X		Α.	K2DRH	374,070	A	W5SXD	299,294	Α	WB2WIK	240,812	A
K1IM	218,519	Α	WB4SLM	•	A	K9MU	161,100	Α	NØLL	252,280	Α	W7JLC	68,208	A
WB1GQR (W1SJ, op)	193,800	Α	K5RQ	·	À	KO9A	79,316	Α	N5AU	187,902	Α	KE7GRO	48,980	A
W3PAW	182,965	Α	K4LY	•	A	W9ZRX	70,970	Α	N5XTR	138,370	Α	N7IR	45,832	A
N8RA	111,517	Α	N3LL	,	À	K8MR	70,755	A	N5XO	122,360	A	NU6S	41,310	A
140101	111,017	,,	HOLL	244,002	•	ROWIN	70,700	,,	110/10	122,000	,,	11000	41,010	,,
K1TEO	579,600	В	KC4PX	475,020 E	3	K8CC	206,856	В	K5TR	702,702	В	N6EQ	231,263	В
K1RZ	481,730	В	K2EK	326,534	3	K8MD	183,481	В	W6OAL	265,545	В	N7CW	67,230	В
WA2FGK (K2LNS, op)	473,475	В	N4LR	215,100 E	3	K9EA	164,970	В	W3UUM	259,424	В	K6KLY	62,967	В
K1TOL	242,136	В	KB5AAB	208,608 E	3	KA9FOX	133,488	В	WD5K	250,992	В	AA7A	52,480	В
N2GHR	217,371	В	WA4CQG	180,240 E	3	W9GA	123,410	В	KØCIY	211,712	В	K7CW	47,775	В
KA1LMR	115,260	Q	W4RXR	11890	2	W9SZ	6,903	Q	K9AKS	38592	Q	N6LB	385	Q
WB2AMU	10,395	Q	WA2ASQ/4	399	2	KC9GOO	45	Q	KJ5RM	19470	Q	KF6CVA	24	Q
AA1I	1,242	Q	KF4LMZ	4 (Q	VA3RKM	27	Q	NØJK	8970	Q			
N1PRW	198	Q							N1SPX	4408	Q	W7RN	66021	L
N2TEB	162	Q	K8GP	675,920 I	_	N2BJ	141,232	L	KIØG	196	Q	KR7O	57072	L
			W5ZN	606,832 I	_	W9RVG	102,485	L				K7TM	14784	L
W3SO	407,968	L	KN5O	391,864 I	_	N9TF	25,112	L	NR5M	420,912	L	KI7BP	6825	L
KA2LIM	325,238	L	W4IY	312,872 I	_	W8BI	23,256	L	W5ROK	166,460	L	K7AWB	6765	L
W2LV	259,915	L	W4NH	304145 I	_	N8UR	21,146	L	WØVB	126,040	L			
W1QK	166,559	L							WØLSD	109,998	L	N6TEB	301466	M
KV1J	145,600	L	W4MYA	202,000 M	Л	WØUC	348,168	М	NØEO	76266	L	WA7JTM	254286	M
			N4JQQ	93,590 M	Λ	N9UHF	109,648	М				VA7ISL	105,558	M
W2SZ	1,837,944	М	W4YCC	92568 N	Л	VE3WCC	65,520	М	K5QE	1,280,241	М	K6LRG	93,684	M
W3CCX	813,216	М	N4BTR	28,768 M	Л	VE3MMQ	58,506	М	WØEEA	494,256	М	N7LQ	68808	М
K3YTL	520,344	М	WAØUSA	27,032 M	Л	N9AKR	33,264	М	KBØHH	385125	М			
K3EOD	190,608	М							WØKVA	200376	М	W6TAI/R	299,088	R
W1XM	58,873	М	K4SME/R	52,052 F	3	VE3NPB/R	126,463	R	KC5MVZ	82967	М	N6NB/R	295,560	R
	,-		W5RI/R	,	3	VE3SMA/R	98,250	R				N6MU/R	269,905	R
KB1EKZ/R	42,777	R	WA2IID/R	· ·	3	W9FZ/R	14,196	R	WØZQ/R	80,784	R	KK6KK/R	260,628	R
W3HMS/R	34,860	R	AF4OD/R		3	NE8I/R	4,560	R	AE5BN/R	20,090	R	W6XD/R	236,742	R
KJ1K/R	21,087	R	K2STO/R	1,767 F	3	VE3CRU/R	4,437	R	K5GJ/R	18,792	R		,	
WA2BTR/R	9,120	R		, -			,,,,,,		W5TV/R	13,688	R	W6YLZ/R	61.120	RL
W1UJ/R	5,280	R	NO5LA/R	80196 R	L	K9GY/R	21,829	RL	WØRIC/R	5047	R	AF6AV/R	12,627	RL
	0,200		N4JDB/R	50112 R		WB8BZK/R	12,480	RL		0011	• • • • • • • • • • • • • • • • • • • •	K6EU/R	12,600	RL
K2QO/R	47.722	RL	AG4V/R	15840 R		KC9JTL/R	8,450	RL	W5HN/R	88500	RL	K6JRA/R	12430	RL
KC2QZF/R	21,883	RL	KJ4BIX/R	8970 R		W9YOY/R	6,968	RL	AL1VE/R	60216	RL	K6LMN/R	7.238	RL
W3ICC/R	6,909	RL	AI4GR/R	4545 R		W8RU/R	2,160	RL	KK6MC/R	59500 RL	112	TOLIVII VIT	1,230	IXL
AB1GF/R	2754	RL	7.1701711	יו טדטד וי	_	**********	2,100	IVE.	WAØVPJ/R	49,248	RL	NV6C/R	1127	RU
ADIGI/IX	2134	IXL							VVAXOVE J/K	43,240	IXL	11100/11	1121	110

Division Leaders

			ואוט	sion Leade	rs			
Division	Call	Score	Division	Call	Score	Division	Call	Score
Single-O	perator, Low F	Power	M	lultioperator			Rover	
Atlantic	W3PAW	182,965	Atlantic	W3CCX	813,216	Atlantic	W3HMS/R	34,860
Central	K2DRH	374,070	Central	WØUC	348,168	Central	W9FZ/R	14,196
Dakota	KØSIX	116,756	Delta	N4JQQ	93,590	Dakota	WØZQ/R	80,784
Delta	AE5T	244,024	Great Lakes	W8PGW	10,920	Delta	K4SME/R	52,052
Great Lakes	K8MR	70,755	Hudson	N2GCZ	35,046	Great Lakes	NE8I/R	4,560
Hudson	WB2SIH	102,762	Midwest	WØEWM	2,322	Hudson	KJ1K/R	21,087
Midwest	NØLL	252,280	New England	W2SZ	1,837,944	New England	KB1EKZ/R	42,777
New England	AF1T	224,812	Northwestern	K7VHF	53,998	Northwestern	K7HPT/R	17,820
Northwestern	K7BG	25,080	Pacific	N6TEB	301,466	Pacific	KE6QR/R	15,847
Pacific	NU6S	41,310	Roanoke	W4MYA	202,000	Roanoke	WA2IID/R	23,490
Roanoke	WY3X	315,744	Rocky Mountain	WØEEA	494,256	Rocky Mountain	WØRIC/R	5,047
Rocky Mountain	NØPOH	61,932	Southeastern	WAØUSA	27,032	Southeastern	AF4OD/R	4,983
Southeastern	WB4SLM	310,786	Southwestern	WA7JTM	254,286	Southwestern	W6TAI/R	299,088
Southwestern	WB2WIK	240,812	West Gulf	K5QE	1,280,241	West Gulf	AE5BN/R	20,090
West Gulf	W5SXD	299,294	Canada	VA7ISL	105,558	Canada	VE3NPB/R	126,463
Canada	VA3ZV	49,764	Limite	ed Multiopera	itor	Li	imited Rover	
Single-O	perator, High F	Power	Atlantic	W3SO	407,968	Atlantic	K2QO/R	47,722
Atlantic	K1RZ	481,730	Central	N2BJ	141,232	Central	K9GY/R	21,829
Central	K9EA	164,970	Dakota	WØVB	126,040	Dakota	AL1VE/R	60,216
Dakota	WDØT	189,696	Delta	W5ZN	606,832	Delta	NO5LA/R	80,196
Delta	KB5AAB	208,608	Great Lakes	W8BI	23,256	Great Lakes	W8RU/R	2,160
Great Lakes	K8CC	206,856	Hudson	W2LV	259,915	Midwest	KØDAS/R	2,880
Hudson	N2GHR	217,371	Midwest	K3JNZ	62,124	New England	AB1GF/R	2,754
Midwest	NØGZ	52,320	New England	W1QK	166,559	Northwestern	K7RAT/R	5,200
New England	K1TEO	579,600	Northwestern	K7TM	14,784	Pacific	K6EU/R	12,600
Northwestern	K7CW	47,775	Pacific	W7RN	66,021	Roanoke	AI4GR/R	4,545
Pacific	K6KLY	62,967	Roanoke	K8GP	675,920	Rocky Mountain	KK6MC/R	59,500
Roanoke	K4QI	157,451	Rocky Mountain	WØLSD	109,998	Southeastern	N4JDB/R	50,112
Rocky Mountain	W6OAL	265,545	Southeastern	W6SAI	215,830	Southwestern	W6YLZ/R	61,120
Southeastern	KC4PX	475,020	Southwestern	W6BVB	5,880	West Gulf	W5HN/R	88,500
Southwestern	N6EQ	231,263	West Gulf	NR5M	420,912	Canada	VE3RKS/R	380
West Gulf	K5TR	702,702	Canada	VE6AO	3,182	_	limited Rover	
Canada	VE3ZV	77,968				Atlantic	N3IQ/R	180,164
_	Operator, Port					Hudson	KC2IRO/R	2,970
Atlantic	N2TEB	162				Midwest	NØQE/R	7,725
Central	W9SZ	6,903				Rocky Mountain	KRØVER/R	58,743
Hudson	WB2AMU	10,395				Southwestern	NV6C/R	1,127
Midwest	NØJK	8,970						
New England	KA1LMR	115,260						
Northwestern	N6LB	385						
Pacific	KF6CVA	24						
Roanoke	W4RXR	11,890						
Rocky Mountain	K9AKS	38,592						
Southeastern	WA2ASQ/4	399						
West Gulf	KJ5RM VA3RKM	19,470 27						
Canada	VASKNIVI	21						

Top Ten by Category

Call	Score	Call	Score	Call	Score
Single Operator, Lo	ow Power	Limited Mu	ltioperator		Rover
K2DRH	374,070	K8GP	675,920	W6TAI/R	299,088
WY3X	315,744	W5ZN	606,832	N6NB/R	295,560
WB4SLM	310,786	NR5M	420,912	N6MU/R	269,905
W5SXD	299,294	W3SO	407,968	KK6KK/R	260,628
K5RQ	255,496	KN5O	391,864	W6XD/R	236,742
NØLL	252,280	KA2LIM	325,238	K6MI/R	230,400
K4LY	248,442	W4IY	312,872	N6VI/R	225,522
N3LL	244,062	W4NH	304,145	W6TE/R	224,220
AE5T	244,024	AA4ZZ	273,988	VE3NPB/R	126,463
K4WI	243,312	W2LV	259,915	VE3SMA/R	98,250
Single Operator, Hi	igh Power	Multiop	erator	Limi	ted Rover
K5TR	702,702	W2SZ	1,837,944	W5HN/R	88,500
K1TEO	579,600	K5QE	1,280,241	NO5LA/R	80,196
K1RZ	481,730	W3CCX	813,216	W6YLZ/R	61,120
KC4PX	475,020	K3YTL	520,344	AL1VE/R	60,216
WA2FGK (K2LNS, op)	473,475	WØEEA	494,256	KK6MC/R	59,500
K2EK	326,534	KBØHH	385,125	N4JDB/R	50,112
W6OAL	265,545	WØUC	348,168	WAØVPJ/R	49,248
W3UUM	259,424	N6TEB	301,466	K2QO/R	47,722
WD5K	250,992	WA7JTM	254,286	W3DHJ/R	29,512
K1TOL	242,136	W4MYA	202,000	KD5IKG/R	22,896
Single Operator I	Portable			Unlim	nited Rover
KA1LMR	115,260			N3IQ/R	180,164
K9AKS	38,592			WA3PTV/R	65,508
KJ5RM	19,470			NN3Q/R	60,320
W4RXR	11,890			KRØVER/R	58,743
WB2AMU	10,395			NØLP/R	45,784
NØJK	8,970			W3BC/R	7,950
W9SZ	6,903			NØQE/R	7,725
N1SPX	4,408			KC2IRO/R	2,970
AA1I	1,242			KR5J/R	2,825
WA2ASQ/4	399			NV6C/R	1,127

	080	Leaders		,	Multiplier	Loadore		
Single-Operator, L			perator, QRP Portable	ا Single-Operator, L	•		perator, F	Portable
50 MHz	OW I OWEI	Single-Op	50 MHz	50 MHz	OW I OWEI	onigie-c	50 MHz	Ortable
K5RQ	1172	KA1LMR	389	WY3X	268	K9AKS		129
K4WI	1096	K9AKS	238	KI4PKW	248	KA1LMR		120
W5SXD	1075	KJ5RM	166	W5SXD	238	KJ5RM		105
AE5T	1034	N0JK	115	AE5T	236	NØJK		78
WY3X	1009	WB2AMU	101	WB4SLM	235	WB2AMU		64
N3LL	960	W4RXR	89	NØLL	229	N1SPX		58
WB4SLM	957	N1SPX	76	K4WI	222	W4RXR		58
N4BP	884	W9SZ	62	K5RQ	218	W9SZ		32
NØLL	875	AA1I WA2ASQ/4	23	K4LY	217	WA2ASQ/4		19
N5AU K1IM	837 750	WAZASQ/4 KI0G	21 14	N4NX N5AU	216 211	AA1I KIØG		15 14
KI4PKW	718	N6LB	9	N5XTR	200	KD7WPJ		5
VP9GE	709	KD7WPJ	9	N4UPX	197	N6LB		4
N4UPX	692	KF4LMZ	2	K9MU	195	KF4LMZ		2
K4LY	684	KC2JRQ	1	N3LL	194	KC9GOO		1
144 MHz	004	KF6CVA	1	144 MHz	104	KC2JRQ		1
WB1GQR (W1SJ, op)	178	KC9GOO	1	K2DRH	54	VA3RKM		1
K2DRH	135		144 MHz	N4QWZ	31	KF6CVA		1
WB2CUT	132	KA1LMR	79	W9GKA	30		144 MHz	
WB2SIH	123	N1PRW	22	WB1GQR (W1SJ, op)	30	KA1LMR		19
AF1T	102	N6LB	17	NØPB	29	W4RXR		10
WB2WIK	94	W4RXR	16	N9LB	27	W9SZ		10
K3TC	91	WB2AMU	14	K4LY	27	N1PRW		9
NU6S	84	W9SZ	14	NØWF	26	WB2AMU		8
N8RA	81	K9AKS	12	K8MR	25	K9AKS		7
WB5ZDP	70	AA1I	8	W5LL	23	AA1I		6
K1IM	70	N2TEB	8	N3LL	23	N2TEB		5
K1KG	68	KJ5RM	7	WA3EOQ	23	N6LB		5
W9GKA	66	KC2JRQ	4	W6ZI	23	KJ5RM		4
KØSIX	64	VA3RKM	3	WB2CUT	23	KC2JRQ		3
W3PAW	61	KC9GOO	1	W2EV	23	KF6CVA		1
WA2VNV	61	KF6CVA	1	222 MHz		KC9GOO		1
222 MHz	7.4	KAALMD	222 MHz	K2DRH	26	VA3RKM	000 1411-	1
WB2WIK	74	KA1LMR	33 8	WB2SIH	20	KAALMD	222 MHz	44
WB1GQR (W1SJ, op) WB2SIH	54 42	W4RXR W9SZ	8 7	WB1GQR (W1SJ, op)	18 17	KA1LMR W9SZ		11 7
K2DRH	42	WB2AMU	4	N4QWZ KC9BQA	17	W4RXR		6
AF1T	39	K9AKS	3	K8MR	17	K9AKS		3
W3PAW	39	AA1I	2	W3PAW	17	WB2AMU		2
WA2VNV	30	KC9GOO	1	WA2VNV	15	AA1I		2
NU6S	29	KF6CVA	1	AF1T	15	KF6CVA		1
KØSIX	28		432 MHz	WA3EOQ	15	KC9GOO		1
KC9BQA	27	KA1LMR	39	W9GKA	15		432 MHz	
K1KG	26	W4RXR	9	NZ3M	14	KA1LMR		11
W9GKA	25	WB2AMU	6	KØSIX	14	W4RXR		6
K8MR	24	K9AKS	6	K4ZOO	14	W9SZ		5
K1IM	24	N2TEB	5	WZ8T	13	K9AKS		4
W3SZ	24	W9SZ	5	NØPB	13	N2TEB		4
432 MHz		AA1I	4	K4LY	13	WB2AMU		3
WB2WIK	86	VA3RKM	3	K1IM	13	AA1I		3
K2DRH	74	N6LB	3	432 MHz		KC9GOO		1
WB1GQR (W1SJ, op)	72	KJ5RM	2	K2DRH	30	KF6CVA		1
NU6S	51	KC9GOO	1	N4QWZ	20	VA3RKM		1
WB2SIH	50	KF6CVA	1	WB1GQR (W1SJ, op)	19	N6LB		1
AF1T	44	KAALMAD	902 MHz	WB2SIH	18	KJ5RM	000 1411-	1
W3PAW	41	KA1LMR	12	K8MR	18	KVALME	902 MHz	C
W1TR WA2VNV	40 36	W9SZ AA1I	1 1	WA3EOQ WB5ZDP	17 17	KA1LMR AA1I		6 1
WAZVINV N4QWZ	36 33	AAII	1296 MHz	NØWF	17 16	W9SZ		1
K1KG	33 33	KA1LMR	1296 MITZ 10	NØPB	16	VV 302	1296 MHz	'
K8MR	33 32	W9SZ	2	W3PAW	16	KA1LMR	1230 IVITIZ	3
WB5ZDP	30	W4RXR	2	WA2VNV	15	W9SZ		2
K6TSK	30	N6LB	1	K4LY	15	W4RXR		2
K4LY	30	KC9GOO	1	W9GKA	14	N6LB		1
902 MHz		KC6ZWT	33	N1IBM	14	KC9GOO		1
WB2WIK	48	W9GA	32	NZ3M	14	K9AKS		1
W3PAW	19		- -	-	•	· · -		
W3SZ	17							
K2DRH	14							
WB1GQR (W1SJ, op)	14							
K1IM	13							

W1PM	13	Multiop	erator	902 MHz		Multiop	erator
W3IP	13	50 N		K2DRH	12	50 M	
AF1T	13	K5QE	1834	W1PM	10	K5QE	337
K1KG	11	W2SZ	1444	WB1GQR (W1SJ, op)	9	W5ZN -L	295
WB2SIH	8	KN5O -L	1342	WB2WIK	8	KN5O -L	292
N3ALN	8	W5ZN -L	1317	K1KG	8	WA7JTM	260
WA3EOQ	7	NR5M -L	1299	K1IM	8	WØEEA	258
WA2VNV	7	W0EEA	980	AF1T	7	NR5M -L	239
KC9BQA	6	W6SAI -L	925	W3PAW	7	KBØHH	236
N6MEF	6	KB0HH	923	W3SZ	7	W4NH -L	236
WA4QYK	6	WA7JTM	870	WB2SIH	6	WØUC	220
	6 MHz	W3CCX	856	KC9BQA	6	W2SZ	218
WB2WIK	59	W4NH -L	807	N3ALN	5	W4MYA	214
WB1GQR (W1SJ, op)	21	W5ROK -L	784	WA3EOQ	5	W6SAI -L	211
K2DRH	19	K8GP -L	779	N4QWZ	5	WØKVA	202
W3PAW	18	WOUC	728	W3IP	5	K8GP -L	201
K6TSK	17	W4MYA	717	WA2VNV	5	W4IY -L	195
W1PM	17	144 MHz		1296 MHz		144 MHz	
W3SZ	17	K8GP -L	463	K2DRH	15	K5QE	94
AF1T	15	W2SZ	418	WB1GQR (W1SJ, op)	11	K8GP -L	71
W1TR	15	W3CCX	391	K1KG	10	W2SZ	64
K1IM	14	K3YTL	314	W1PM	10	AA4ZZ -L	55
K1KG	13	KA2LIM -L	293	W3PAW	9	W3SO -L	54
W3IP	12	W3SO -L	271	W3SZ	9	KA2LIM -L	52
WA3EOQ	12	K5QE	211	WA3EOQ	8	W3CCX	49
WA2VNV	11	W2LV -L	210	K6TSK	7	K3YTL	47
KA2OON	11	W1QK -L	180	AF1T	7	W4IY -L	44
Single-Operat	or, High Power	VA7ISL	177	WB2WIK	7	KBØHH	43
50	MHz	W4IY -L	176	WB2SIH	7	NR5M -L	40
K5TR	1883	AA4ZZ -L	158	KA2OON	7	WØVB -L	39
KC4PX	1507	N9UHF	147	K1IM	7	W5ZN -L	39
K2EK	1316	N6TEB	120	KC9BQA	6	WØUC	37
K1TOL	1121	K6LRG	116	K4LY	6	W2LV -L	33
W3UUM	1016	222 MHz		N4QWZ	6	222 MHz	
WD5K	996	W2SZ	159	WA2VNV	6	W2SZ	42
N4LR	956	K8GP -L	115	W1TR	6	K8GP -L	39
K4SN	903	K3YTL	104	N4HN	6	W3CCX	38
W6OAL	870	W3CCX	104	Single-Operator, High Pow	er	K3YTL	34
K5AM	830	W3SO -L	70	50 MHz		W3SO -L	32
KB5AAB	800	W2LV -L	64	KC4PX	314	K5QE	30
NG4C	762	KA2LIM -L	64	K5TR	310	W2LV -L	29
KØCIY	759	N6TEB	59	W6OAL	260	KA2LIM -L	27
WA5LFD	758	W4IY -L	54	WD5K	252	W4IY -L	26
K3ZO	753	AA4ZZ -L	45	K2EK	241	WØUC	24
	MHz	WOUC	42	K5AM	240	KBØHH	23
K1TEO	256	K5QE	41	WA4CQG	228	W5ZN -L	22 21
K1RZ WA2FGK (K2LNS, op)	133) 128	K3EOD K6LRG	41 33	N4LR KØCIY	225 224	AA4ZZ -L K3EOD	18
N2GHR	123	KB0HH	33 31	W3UUM	224	W3KWH	15
KR5V	106	432 MHz	31	K1TOL	216	N9UHF	15
W2KV	105	K8GP -L	216	KB5AAB	215	432 MHz	13
N6EQ	82	W2SZ	204	WDØT	213	K8GP -L	44
W7CE	78	W3CCX	163	N6EQ	213	W2SZ	41
W4ZRZ	77	K3YTL	141	NG4C	204	W3SO -L	39
W1RZF	74	W3SO -L	113	144 MHz	_0-7	W3CCX	39
KØCIY	68	W4IY -L	83	K1TEO	46	K3YTL	38
K4QI	68	W2LV -L	83	WA2FGK (K2LNS, op)	38	K5QE	37
KF6A	67	VA7ISL	81	K1RZ	38	W5ZN -L	32
KC6ZWT	66	AA4ZZ -L	79	KN4SM	36	W4IY -L	31
K1IIG	66	K5QE	79	K4QI	34	W2LV -L	29
W9GA	66	N6TEB	78	W2KV	33	KA2LIM -L	27
222	MHz	KA2LIM -L	74	KØCIY	32	AA4ZZ -L	25
K1TEO	82	K6LRG	67	W9GA	32	WØUC	23
WA2FGK (K2LNS, op)) 65	W6YX	60	W4ZRZ	31	N7LQ	19
K1RZ	59	W5ZN -L	55	KR5V	31	W4NH -L	18
N2GHR	47	902 MHz		K9CT	29	K3EOD	17
W4ZRZ	33	W2SZ	59	VA3ST	29	902 MHz	
W2SJ	31	W3CCX	43	VE3ZV	28	W2SZ	28
K8CC	30	N6TEB	38	KA9FOX	28	W3CCX	16
VE3ZV	30	W0EEA	23	K5GZR	27	K5QE	12
K4QI	29	K3YTL	21	K8MD	27	WØUC	11
KC6ZWT	26	K5QE	15			K3YTL	11
K1IIG	25	K3EOD	15			K3EOD	9
W9GA	24	WOUC	13			N6TEB	9

K8MD	24	W0KVA	12	222 MHz		WØEEA	8
KE2N	23	W1XM	11	K1TEO	32	W1XM	6
W9SNR	23	K6LRG	8	WA2FGK (K2LNS, op)	31	KBØHH	6
K9EA	23	KB0HH	6	K1RZ	25	WØKVA	5
K2YAZ	23	K7VHF	6	K4QI	21	W6AB	4
432	MHz	W6YX	5	N2GHR	21	WB3IGR	4
K1TEO	104	WB3IGR	5	W4ZRZ	20	K6LRG	4
WA2FGK (K2LNS, op)	79	1296 MHz		VE3ZV	20	N4JQQ	4
K1RZ	74	W2SZ	83	W9GA	19	1296 MHz	
N2GHR	72	W3CCX	50	N6EQ	17	W2SZ	34
W4ZRZ	50	N6TEB	50	K9EA	17	W3CCX	21
N6EQ	49	K3YTL	43	W2SJ	16	K5QE	17
K4QI	43	K5QE	23	K2YAZ	16	K3YTL	16
WØGHZ	38	W0EEA	23	K8MD	15	K3EOD	10
K6KLY	37	VA7ISL	19	KN4SM	15	WØUC	10
K1IIG	37	W1XM	18	W9SNR	14	N6TEB	9
W7CE	36	W6YX	15	K8CC	14	VA7ISL	8
KN4SM	35	K3EOD	14	KE2N	14	WØEEA	8
K8CC	35	W0UC	14	KC8QAE	14	KBØHH	7
KC6ZWT	33	K7VHF	13	432 MHz		W1XM	7
W9GA	32	VE3WCC	11	WA2FGK (K2LNS, op)	33	W6TV	6
	MHz	K6LRG	10	K1TEO	31	N2GCZ	6
K1TEO	38	KB0HH	8	K4QI	27	N7LQ	5
		RBOTTT	8				
K1RZ	34			K1RZ	27	VE3WCC	5
WA2FGK (K2LNS, op)				N2GHR	22	W6YX	5
N2GHR	18			W4ZRZ	22		
W2SJ	16			W9GA	20		
W4ZRZ	13			KN4SM	20		
KE2N	13			N6EQ	19		
	11				18		
KC6ZWT				K9EA			
WØGHZ	11			K8MD	17		
K3CB	9			VE3ZV	17		
K1IIG	9			K2YAZ	16		
KØAWU	9			KE2N	15		
K2YAZ	8			W7CE	14		
VE3ZV	8			WØGHZ	14		
NØAKC	7						
INDANG							
4000				K1IIG	14		
	6 MHz			902 MHz			
K1TEO	6 MHz 46			902 MHz K1TEO	19		
	6 MHz			902 MHz			
K1TEO	6 MHz 46 38			902 MHz K1TEO	19		
K1TEO K1RZ	6 MHz 46 38			902 MHz K1TEO WA2FGK (K2LNS, op)	19 18		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR	6 MHz 46 38 34 31			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ	19 18 14 10		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC	6 MHz 46 38 34 31 23			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR	19 18 14 10		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ	6 MHz 46 38 34 31 23 19			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ	19 18 14 10 10		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ	6 MHz 46 38 34 31 23 19			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ	19 18 14 10 10 9		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ	6 MHz 46 38 34 31 23 19 19			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ	19 18 14 10 10 9 8		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI	6 MHz 46 38 34 31 23 19			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ	19 18 14 10 10 9 8 8		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ	6 MHz 46 38 34 31 23 19 19			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ	19 18 14 10 10 9 8		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI	6 MHz 46 38 34 31 23 19 19 17			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N	19 18 14 10 10 9 8 8 8		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC	19 18 14 10 10 9 8 8 8 6 6		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE	6 MHz 46 38 34 31 23 19 17 16			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB	19 18 14 10 10 9 8 8 8 6 6		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV	19 18 14 10 10 9 8 8 8 6 6 6		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA	19 18 14 10 10 9 8 8 8 6 6 6 6 5		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL	19 18 14 10 10 9 8 8 8 6 6 6 5 5		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL	19 18 14 10 10 9 8 8 8 6 6 6 5 5		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA	19 18 14 10 10 9 8 8 6 6 6 5 5 5 5		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5 5 20		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op)	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5 5 20 18		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1RZ	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5 5 18		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1RZ N2GHR	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5 5 18 18 15		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1RZ N2GHR K4QI	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5 5 18 18 15 13		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1Z N2GHR K4QI W4ZRZ	19 18 14 10 10 9 8 8 6 6 6 5 5 5 5 18 18 15 13 11		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1RZ N2GHR K4QI	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5 5 18 18 15 13		
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K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1RZ N2GHR K4QI W4ZRZ W2SJ WØGHZ	19 18 14 10 10 9 8 8 8 6 6 6 6 5 5 5 5 18 18 18 15 13 11 10 9		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1RZ N2GHR K4QI W4ZRZ W2SJ WØGHZ VE3ZV	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5 5 18 18 15 13 11 10 9 8		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LLL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1RZ N2GHR K4QI W4ZRZ W2SJ WØGHZ VE3ZV W7CE	19 18 14 10 10 9 8 8 8 6 6 6 5 5 5 5 18 11 10 9 8 8		
K1TEO K1RZ WA2FGK (K2LNS, op) N2GHR W1ZC WØGHZ W2SJ W4ZRZ K4QI W7CE K1IIG	5 MHz 46 38 34 31 23 19 19 17 16 13			902 MHz K1TEO WA2FGK (K2LNS, op) K1RZ W4ZRZ N2GHR WØGHZ K2YAZ W2SJ KE2N KØAWU NØAKC K3CB VE3ZV K9EA K5LL W9SNR K1IIG W9GA 1296 MHz K1TEO WA2FGK (K2LNS, op) K1RZ N2GHR K4QI W4ZRZ W2SJ WØGHZ VE3ZV W7CE KØAWU	19 18 14 10 10 9 8 8 6 6 6 6 5 5 5 5 18 18 11 10 9 8 8 7		
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