



ARRL June VHF Contest

2012 Results

by Rick Rosen, K1DS (rick1ds@hotmail.com)

Did Sporadic E please...or just tease?

In the weeks preceding the contest weekend, 6 meters was showing great promise as sporadic E (Es) was abundant and many were making transcontinental and intercontinental contacts by the dozens. The *205 Morning Report* compiled by Stan, KA1ZE, had daily reports of 6 meter openings including the Caribbean, Central and South America, Europe and Asia. Last year's event with its strong 6 meter Es were also still fresh in many operators' minds. Some rovers fretted that with the opportunities on 6, stations would not QSY "up the bands" with them, while other well-equipped stations with microwave capability thought that all the efforts to get those bands working and ready would be for naught. Pete, K1PXE mused, "If 6 meters is wide open and the higher bands have a band closing, I'll probably read a good book." (The *205 Morning Report* is available from: kalzenr11@hotmail.com.)

On June 3, a week prior to the contest, the sad news of the passing of Gene Zimmerman, W3ZZ, VHF guru and raconteur extraordinaire was shared with the Amateur Radio community. We lost one of our great VHF contesters.

Two new VHF contest operating awards honoring Gene were created just in time for the ARRL June VHF Contest, his favorite



VHF+ operating event. (This photo of Gene was taken by Bob, N6TV at the Visalia International DX Convention in 2009, showing him in fine story-telling form! – Ed.) Tim, K3LR and Dave, W9ZRX are sponsoring the brand-new **W3ZZ First-Log Award** for the top Single-Op, Low Power score made on a minimum of two bands by an operator submitting a log in the contest for the first time (there is no limit on how long the operator has been licensed). The initial winner of the award is WAØARM who submitted a score of 68,875 points.

In addition, as Gene was a long-time member of the [K8GP Grid Pirates](#) who frequently operated in the Limited Multioperator category, the ARRL Contest Branch has renamed the Overall Limited Multioperator plaque the **Gene Zimmerman W3ZZ Memorial Plaque**. Thanks go to Jeff, K1TEO, who graciously gave up his sponsorship of the plaque to the ARRL Contest Branch.

Just three days prior to the event, the following ARRL Bulletin was released: ARRL VHF+ contests have new names beginning immediately! From ARRL Contest Branch Manager, Sean, KX9X, "The June VHF QSO Party has a long history but we felt it was time the name of the event properly reflected what it was: a contest. We're still working out all the details in the Contest Branch and on the ARRL [website](#) to get everything properly converted, but you will soon see references to the January, June and September ARRL VHF Contests, not QSO Parties or Sweepstakes."

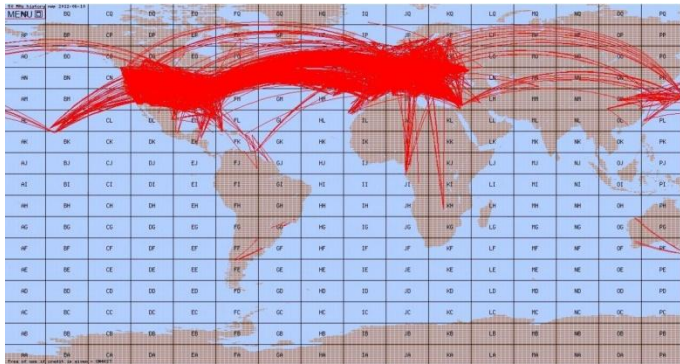
Justin, K9MU operated from a cabin in semi-rare grid EN46 from northern Wisconsin. (Photo by K9MU)



And They're Off!

The starting gun sounded promptly at 18:00 UTC on June 9th for the first June ARRL VHF Contest and the fun began. Many operators found 6 meters open right from the start, only to find it fade within minutes. They had very short periods of recurrence where they could find one or two more distant grids. Stan, KA1ZE reminds us in his report that it is called sporadic E. Many others had the same comment. Larry WØPAN added, "Now I

know what is meant by sporadic E - in and out in 1 minute or less.” As a rover starting in a valley in FN11, after running the bands with a few large local multiop stations, I tuned 6 meters and using 100 watts and a Moxon beam, worked C6ABB in FL15. Then there was the great silence on that band.



Justin, K9MU submitted this map from ON4KST's [DX Maps](#) website of 6 meter contacts compiled during 24-hours of the contest.

Perseverance in the Face of Adversity

I guess that for many without specific expectations, the contest conditions were a big crowd pleaser. Welcome newcomer Dave, KC9CLM explained, “This was my first radio contest of any kind and I found it was more interesting and fun than I thought. The more contacts I made the more I wanted! [The] main thing was I enjoyed myself.” John, N3AM said, “Six was a blast with new directions popping up right to the end of the contest.” Charlie, KX7L reported, “Holy cow! Unbelievable! The propagation just wouldn’t quit!” John, N8UR added, “After a slow start Saturday, 6M was a madhouse on Sunday.” George, WA2VNV commented, “I have never before heard such piled up station activity all the way up to about 50.275.” From John, W1XX in FN41 we heard, “Almost got a nose bleed operating all the way up to 50.277.5”

Yet the story of the weekend would be perseverance, as there were recurring opportunities to add grids and contacts on all bands from near and far. It was especially true if you were on the East Coast or in the Pacific Northwest where conditions were some the most intense. Marshall at K5QE in Texas lamented that they watched the propagation maps and were rewarded with some action on Saturday and a good run on Sunday afternoon, but nothing that came close to the more northern openings or what they had experienced last year.

Many of the stations across the south from Florida to Texas were disappointed with the conditions, as they’d had high expectations. Jim, WD5IYT in Austin, TX predicted that the excellent openings of the previous

weekend guaranteed crummy propagation for the contest and he wasn’t disappointed. He found flat conditions on the higher bands and 6 meters was mediocre with very spotty openings. This year was a huge disappointment for your author, too, with terrible band conditions.

Joel, N5XTR in Lubbock, TX complained that with almost every QSO it was a struggle to make the exchange, even though he had made some good improvements to his station. After the second hour of completely dead bands, his enthusiasm waned as the heat of the day set in (102°F). Sunday was the same situation, dead bands with brief openings that allowed a call or two then slamming shut before the exchange was complete. Up in Maine, the K1WHS crew was taking the weekend easy, enjoying cocktails Saturday and a night’s sleep, but realized Sunday with the great openings across the US and the Atlantic that they could pile up the points.

The W3SO team, usually a Multi-Limited group, found they had technical problems with their 2 meter set-up and decided to go with 6 meters alone and were very satisfied with 600+ QSOs in over 230 grids, adding that there were fresh callers right until the end of the contest. Many reported that they worked stations from east to west, one after the other, without turning their directional beams. For those operators who favor the lower segments of the band and CW, the results were also fulfilling. Matt, KB7G reported that he stayed on 50.080, and in a 3-hour stretch on Sunday ran almost 200 QSO’s in that period. Jim, K1TN in EN55 reported that about 90 per cent of his QSOs were on CW.

John, NØJK in Kansas had various difficulties in keeping antennas up in the wind, and with his 10 watts and a 2-element Yagi managed to snag CT1HZE and VO1TA. Modest stations like ABØRX, operating portable at a campsite on Missouri’s highest point, Taum Sauk Mountain, was able to work 94 grids on 6 meters, despite having his antenna totally surrounded by tall trees and dense forest. Steve, N3FTI started off with a contact on 6 meters and then found the band quiet, only to realize that the 6 meter antenna was not connected to the rig for that first QSO!

Even in the ½-watt output position of an FT-817 with a whip antenna, Bert, K3IUUV was making contacts on 6 meters over 800 miles. Fred, KH7Y in Hawaii had openings to BY, JA, HL and to W6, W7 and W8-land on Sunday. Bob, MDØCCE on the Isle of Man reported, “Best opening to North America of the season so far, great signals!”

K1TEO had a pileup to Europe going Sunday for about an hour with several calling each time he said, “QRZ?” The K1WHS gang pointed their 4 big Yagis to Europe and worked more than 60 grids across the pond. Zack,

W9SZ entering as a QRP Portable shared the following, "I have rarely heard the band like that before; wall-to-wall signals with a lot of overlapping, making it difficult to work through the QRM."

Matt, NQ6N had his first experience on 6 meters using a K3 and a 3-element Yagi on his balcony overlooking the Pacific Ocean. He commented, "I watched the cluster and Reverse Beacon Network to avoid missing an opening. Turns out it's fairly obvious when an opening is going on. Lots of fun. Was quite a thrill to work some stations in the Eastern US." Yes, the "magic band" did its thing!



Dennis, N1IMW put together a temporary station and had a great time. "A fine weekend for six meter operations ! I had a blast working my first six meter DX – GW3LEW – from my Bedford NH QTH." (Photo by N1IMW)

When 6 meters wasn't cranking, there was time for everyone to try the other bands. The 2 meter conditions were just OK for most of the weekend, but there was a juicy hour of openings across the northern central states on Sunday evening. Arliss, W7XU in EN13 South Dakota seems to be the star of the show as so many easterners reported his signal heralding the conditions. This was a real find for many stations and almost a dozen new Midwest grids were added into the logs of those in the path. After working a 200-QSO hour on 6 meters, Arliss found the 2 meter opening at 0109 UTC and caught N2RHL, FN02 on 2 meter Es. He said stations were in and out on 2 meters from then until 0232 and he was able to work 41 stations on 2 meter Es, in 16 New England grids.

In general, weather issues were not reported as problematic, except for the more adventurous souls like Gene, KB7Q in the Northern Rockies. At 6400' they beat paths to some of their highest locations and found snow on the roads or covering their gear overnight. Andy, K2FR planned to hike up Slide Mountain in FN21 with

his FT-817, only to be turned back by rain as he reached the summit.



This is the June contest, right? A photo taken by Gene, KB7Q shows that winter takes its summer vacation in the northern Rocky Mountains!

Richard, N2SPI/P waited out the weather a bit and was able to slog his way up Hunter Mountain in FN22. With the fire tower buried in the clouds and the winds causing it to rock, he was unable to deploy the relatively large 6 meter antenna, but he used his FT-817 and small omnidirectional antennas and was able to put in 3 hours of operating time.

Curt K9AKS/R decided to operate a small 6 meter beam on a 15-foot mast. On Sunday morning he went on to DN92 and found the wind had shifted to the north and was so strong that he could not raise or control the antenna, so he operated using the quarter-wave whip on the car. Without the beam, it was a struggle most of the time.

Tom, K4MM complained that it was one of the worst VHF+ contests with what was either nonexistent or very spotty propagation, and mostly scatter. In Florida they had power outages, thunder-boomers and line noise that plagued the weekend. Gator and Deb in the N5RZ/R rover in Texas found the big culprit was relentless power line noise that plagued them constantly on the entire trip. They said it was probably aggravated by the very hot and dry weather (105-108°F) most of the afternoon.

Tom, KB3TKP had issues getting his station set up between having to raise and lower the array, finding a blown fuse for the rotor and then after replacing it, he was still unable to rotate the beams counter-clockwise. He evaluated the control cable and found that a rodent

decided to have an “all you can eat buffet.” After splicing the wires, the rotor was working fine, but the SWR was out-of-control on both 6 meters and 2 meters. Then he realized that the bulkhead connection was open and the wrong gain knobs had been turned up and down. Once everything was properly adjusted, they were on the air, but missed some of the fine band conditions.

John, W2HCQ had an adventure with his gear, declaring, “Some guys just live under a dark cloud and I'm one of them!” He tried to find the pair of matched power tubes that he had set aside for his amplifier, and found his power output was problematic. As much as he wanted to blame the tubes, he went trouble-shooting and couldn't find the problem until he disconnected the antenna analyzer and the coax connector came off in his hand; the nice low-loss solid center connector had broken! After a frustrating weekend with the gear, he's considering stamp collecting as a hobby, using the postage from old QSL cards!

The Ultra-Highs

Jeff, K1TEO noted fewer rovers with microwave gear this time hurt the 903 MHz and up scores quite a bit. Dick, WA2AAU with the Mt. Greylock Expeditionary Force, W2SZ reported that the higher bands had less activity than usual with everyone on 6 meters much of the time. They noticed a few brief enhancements of propagation especially later in the contest on Sunday. There was very little wind even at 3500 feet, so the atmosphere had a chance to set up in layers with some nice signals at medium to long distances, but no real rip-roaring opening. They found some nice signals on 2, 3 and 5 GHz out to the west on Sunday evening at about 250 miles; when only a few hours earlier they had a hard time working the same station at a substantially better location only 230 miles away. Wayne, N6NB operated his mobile station again as QRP Portable on Signal Peak in Newport Beach, CA, with support from many of the rovers in the area. KBØHH in KS with their very impressive antenna farm found a short troposcatter opening to west Texas up to 1296 MHz. Joe, N5QYC says the highlight of his weekend came when he was able to complete his first out of state contact on 1296 MHz, a new band for him. The distance of 98 miles on 1296 MHz gave him as much thrill as working his first DX on 10 meters.

Top Ten by Category

Single Operator, Low Power

K2DRH	354,063
KØSIX	297,434
AF1T	232,407
WB1GQR	230,850
NØLL	214,599
K9MU	210,441
K1KG	140,901
W3SZ	140,650
VA6AN	130,968
KC9BQA	126,474

Single Operator, High Power

K1TEO	682,641
WDØT	461,154
WØUC	417,890
WB9Z	234,415
NN1N	226,996
K1TR	219,360
W3PAW	201,520
K8MD	193,224
W9RM	184,758
WØGHZ	180,840

Single Operator Portable

N6NB	136,840
W1MR	84,760
WD5AGO	38,016
N8XA/P	28,196
KJ5RM	17,836
W9SZ	16,732
NØJK	12,802
KB5WIA	12,555
W4RXR	7,847
N7QF/7	7,700

Limited Multioperator

K1WHS	762,745
K9NS	698,030
K2LIM	409,360
W4IY	326,186
AA4ZZ	280,224
W4NH	249,660
NØEO	233,280
N8ZM	229,017
W2LV	208,624
VE3CX	131,408

Multioperator

W2SZ	1,638,400
K8GP	1,036,917
W3CCX	687,354
K5QE	543,996
N6VI	509,922
K9CT	380,952
K3YTL	341,598
KBØHH	309,396
VE3WCC	278,496
WØKVA	253,946

Rover

W6XD/R	272,500
K16FGV/R	256,875
K6AH/R	249,067
N6HD/R	243,906
WA6WTF/R	218,845
K9AOG/R	215,895
VE3NPB/R	107,100
KF8QL/R	58,320
AG4V/R	45,480
W9FZ/R	37,060

Limited Rover

AL1VE/R	115,116
WB2SIH/R	63,066
K2QO/R	50,828
WAØVPJ/R	47,215
K9AKS/R	39,936
WW7D/R	38,950
N5RZ/R	26,384
VE7JH/R	24,735
WØETT/R	24,219
K9JK/R	21,097

Unlimited Rover

WA3PTV/R	51,597
KJ1K/R	13,014
KCØP/R	10,962
NØHZO/R	2,619
NV6C/R	1,411
AF5CC/R	806
KL3JI/R	546
VE3KGC/R	270

Logs

The number of logs received was 1222, 11 less than last year, but there was a good geographic distribution. Many DX stations sent in their logs as the conditions were unique and call signs not previously recorded in the past 10 years showed up in the listings. There was also an interesting change in the number of operators in each of the categories. There was a drop in the submitted Single-Operator logs from 931 last year to 888 this year, but an increase in the number of Unlimited Multioperator (MU) station logs from 103 to 140. The number of submitted QRP Portable logs increased by 25% this year, from 37 to 46. This seems to be a fun category for those who, on a good weather weekend, pack the gear and head out to a good spot. The other category that saw a modest loss was the number of Classic Rovers, down from 49 in 2011 to 34 in 2012. As always, the number of logs submitted is far less than the total number of participants; WDØT shows 1486 QSOs in his 6 meter total, and of course, groups of operators participate in the Multioperator and many of the Rover categories.

Based on a review of the submitted logs, another 33 section and 8 division scoring records were set this year. This continues a pattern where we saw 39 scoring records set in 2010 and another 43 in 2011. The previous contest score records are available for review on the ARRL website at www.arrl.org/contest-records and will be updated with the new records set in 2012.

DX

Christopher, 9Y4D from Trinidad and Tobago managed 27 6 meter QSOs in 14 grids. The Multiop team at C6ABB from the Bahamas had a total of 265/107 on 6 meters. Cuban station T43S showed 223/90 on 6 meters and 24/9 on 2 meters with a score of 19K while T48K had a 42K score with 391/108 on 6 meters alone. Operators at CO2QU with 25/17 and CO8LY 229/83 satisfied many with those calls in their logs. VP2MRT in Montserrat had a result of 38/25. HA5PT reported only one QSO. JP1LRT had 4/4 6 meter contacts. Logs from Hawaii included KH6HI with a score of 53/27 and KH7T with 29/18.

Canadian participation was high with 70 logs submitted. Six stations in Mexico submitted their logs. Zalo, XE3N led the charge with 328/116, while the LM team at XE2K scored over 33K using 4 bands. YW4B managed to have nine 6 meter QSOs. The logs represent North America, Central America, the Caribbean, South America, Europe, the Pacific, and Asia.

Sponsored Plaque Winners

Category	Sponsor	Winner
Overall Single Operator High Power	Southeastern VHF Society	K1TEO
Overall Single Operator Low Power	Society of Midwest Contesters	K2DRH
Overall Single Op, Low Power, First Log	W3ZZ First Log Award - Memorial by Tim K3LR and Dave W9ZRX	WAØARM
Overall Single Operator QRP Portable	Dave Carlson, AA9D	N6NB
Overall Multioperator	Randy Stegemeyer, W7HR	W2SZ
Overall Limited Multioperator	Gene Zimmerman, W3ZZ Memorial - ARRL Contest Branch	K1WHS
Overall Rover	* 73 Tim KE3HT/SK, Microwave DX Addict *	W6XD/R
Atlantic Division Rover	Potomac Valley Radio Club	NN3Q/R
Dakota Division Single Operator Low Power	Northern Lights Radio Society	KØSIX
Hudson Division Single Operator Low Power	In Memory Of Dick, W2GFF de: Jay NY2NY	NA2NY
Northwestern Division Single Operator High Power	Boring, OR Amateur Radio Club	W7EW
Northwestern Division Single Operator Low Power	Mike Coogan, KB7ME	K7BG
Northwestern Division Multioperator	Randy Stegemeyer, W7HR	K7AWB
Roanoke Division Rover	Potomac Valley Radio Club	N3TG/R
Southeastern Division Single Operator High Power	Southeastern VHF Society	W4ZRZ
Southeastern Division Single Operator Low Power	Southeastern VHF Society	KX4R
Southwestern Division Single Operator High Power	W5UWB - In Memory of John Chambers, W6NLZ	N7CW
Southwestern Division Single Operator Low Power	Bud Sermon, N7CW	WJØF
DX Single Operator High Power	K1TEO, W2GKR, W2GKO, KA1FVG	XE2X
DX Single Operator Low Power	Sean Kutzko, KX9X	T48K (CO8ZZ, op)

Top Ten by Category – Breakdown (Continued)																	
SM	CALL	10GQ	10GM	24GQ	24GM	47GQ	47GM	75GQ	75GM	119GQ	119GM	142GQ	142GM	241GQ	241GM	LIGHT Q	LIGHT M
SO-QRP	N6NB	29	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	W1MR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	WD5AGO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	N8XA/P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	KJ5RM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	W9SZ	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	N0JK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	KB5WIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	W4RXR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-QRP	N7QF/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	K2DRH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	K0SIX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	AF1T	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	WB1GQR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	N0LL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	K9MU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	K1KG	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	W3SZ	9	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	VA6AN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-LP	KC9BQA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	K1TEO	8	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	WD0T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	W0UC	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	WB9Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	NN1N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	K1TR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	W3PAW	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	K8MD	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	W9RM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO-HP	W0GHZ	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	K1VHS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	K9NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	K2LIM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	W4IY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	AA4ZZ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	W4NH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	N0EO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	N8ZM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	W2LV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LM	VE3CX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	W2SZ	25	7	16	5	5	5	0	0	0	0	0	0	0	0	0	0
M	K8GP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	W3CCX	18	7	4	3	0	0	0	0	0	0	0	0	0	0	7	1
M	K5QE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	N6VI	49	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	K9CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	K3YTL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	KB0HH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	VE3WCC	8	3	1	1	0	0	0	0	0	0	0	0	0	0	4	1
M	W0KVA	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	W6XD/R	72	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	KI6FGV/R	67	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	K6AH/R	70	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	N6HD/R	69	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	WA6WTF/R	55	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	K9AOG/R	64	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	VE3NPB/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
R	KF8QL/R	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	AG4V/R	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R	W9FZ/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	AL1VE/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	WB2SIH/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	K2QQ/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	WA0VPJ/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	K9AKS/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	WW7D/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	N5RZ/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	VE7JH/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	W0ETT/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RL	K9JK/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RU	WA3PTV/R	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RU	KJ1K/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RU	KC0P/R	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RU	N0HZO/R	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RU	NV6C/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RU	AF5CC/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RU	KL3JI/R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RU	VE3KGC/R	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bands

Six meters dominated the weekend with six stations reporting over 1000 QSOs and another 51 with more than 500 contacts on the band. Todd WDØT in South Dakota had 1486 contacts on 6 meters in 279 grids with his Single-Operator High-Power entry. The Multiop effort at K1WHS managed to collect 1330 contacts in 303 grids with their efforts, including many grids from western Europe. In general, the propagation band seemed to favor the northern half of the US, with stations from Maine to Oregon having the best total contacts and grids on 6 meters. Twenty-nine stations submitted logs with over 200 grids, and another 173 station logs had over 100 grids on the band. Overall, there were almost 161,000 2-way contacts reported in the submitted logs. Of the 1222 entries, only 43 did not include 6 meter operations.

Two meters was the next most popular band, and as we have seen in the past, the multioperator stations captured the top three contact totals. The K8GP Grid Pirates had their colossal large vertical array and other rotatable beams to find 444 stations in 75 grids. Close behind were the W3CCX Packrats with 384/61 and the W2SZ Mt. Greylock Expeditionary Force with 369/57. Single-Op High-Power operator Jeff, K1TEO had a log with 289/52 on 2 meters. The K5QE group effectively used EME to amass 94 grids on the band. There were only 29 logs with 100 QSOs or more on 2 meters and that group was largely the Multioperators. Overall, close to 20,000 total contacts were submitted for 2 meters.

There seemed to be an extremely poor showing on 222 MHz, likely due to the 6 meter factor, plus the drop in the number of rover stations. Only 5134 QSOs for all entries were recorded. There is also a large group of stations with rigs featuring bands ABD (50, 144, and 432 MHz), missing the 222 MHz opportunity. The three large multioperator groups previously mentioned, W2SZ, W3CCX and K8GP had slightly over 100 contacts on the band, about half of what we have seen in previous years. The Southern California Contest Clubbers including Multiop, N6VI and their group of rovers kept this band active with QSO counts in the 80's and 90's. The K2LIM Limited Multiop also found 88 contacts and Jeff, K1TEO managed to snag 80 with his smooth running of the bands. The same pattern is noted on 432 MHz with 8149 two-way contacts reported. Totals were significantly down. Again, the large multiops K8GP, W2SZ, W3CCX and N6VI led, with K1TEO right behind with 105 QSOs.

Once we get to the microwave bands, 902 MHz and up, the team of rovers of the Southern California Contest Club had the high numbers of contacts with numbers mainly in the 60's and 70's and most often covering the 11 grids that they ply together. On 902 MHz, the W2SZ

group managed 48 contacts in 25 grids owing to their great location, gear and contingent of rovers. Jeff, K1TEO also had a nice score of 32/19 for this band. Of all the entries, 128 stations made at least one QSO on 902MHz for a total of 1320. On 1296 MHz there were 190 stations that reported QSOs for a total of 1875 contacts. The leader pattern on 1296 MHz was similar to that of 902 MHz. Only 77 stations had contacts on 2304 MHz and again, the majority of the activity was between rovers and the large multiop stations. On 3456 MHz there were 54 active stations with a total of 812 contacts. There were 43 5-GHz stations which made a total of 650 QSOs. There was more activity on 10 GHz, with 59 stations turning in a total of 717 QSOs. Nine stations used 24 GHz with W2SZ making 16 of the reported 35 QSOs. Only W2SZ and NJ1F/R reported 5 QSOs each on 47 GHz. There were 12 stations that reported Light contacts for a total of 31 QSOs.

Single-Operators

The mainstay of the activity belongs to the Single-Operators who take advantage of their station capabilities, whether it is a single band with a modest antenna, or a multi-band effort with stacks of beams on mega-towers. Bob, K2DRH in IL has one of those multiband stations with a big tower and plenty of aluminum in the air and has been a perennial first-place station in the Single-Operator Low-Power category. This year he paced the crowd with a score of 354K, using bands through 3456 MHz although he had only a total of 3 contacts between 2.4 and 3 GHz. His solid efforts on the lower 4 bands, plus a handful of contacts and multipliers on 902 MHz and 1296 MHz helped him lead the way. With 297K, Vince KØSIX from MN placed second with a huge effort on 6 meters, collecting 1101 contacts in 229 grids plus several more contacts and multipliers on 2 meters and ¾ meters. Surprising me, in third place was Dale AF1T from NH with a score of 232K, based on an 11-band operation. He started with a nice 6 meter total and complemented it with contacts and multipliers on bands through 24 GHz. Mitch, W1SJ operated the WB1GQR station from a great mountaintop in VT and came in fourth with a score of 230K, using all bands up to those needing dish or horn antennas. Larry, NØLL in KS came in 5th with 214K on the strength of an excellent 6 meter total of 892/215.

In the Single-Operator, High Power group we again find Jeff, K1TEO on top with a score of 682K. So how does he do it? Jeff has been one of the most skillful operators in VHF+ contests for over a decade. Plenty of planning is the first step – knowing where and when those unique contacts can be made with rovers and using schedules for stretch contacts and rare grids. Certainly his 10-band station, antennas, and location are excellent, as well as

his family support for his contesting. Chair time is important. Having made contact with Jeff from my home and many rover locations on all 10 bands, his ability to rapidly coordinate and run the bands is outstanding. Todd, WDØT took the second spot from SD with a score of 461K using the bottom 4 bands. He was in the right place at the right time for this contest and managed 1486/279 on 6 meters and some additional QSOs and multipliers on bands BCD (144, 222, and 432 MHz). Paul, WØUC in WI copped third place, also taking advantage of the great 6 meter conditions and adding to that with contacts on bands though 2 GHz. Jerry, WB9Z in IL found himself in 4th place with a 6-band effort. He also was in the midst of the 6 meter maelstrom. In 5th place NN1N, Dave scored 227K with a single-band 6 meter total of 938/242 including 76 QSOs with European stations in 51 different grids.

Multioperators

Pooling their operating skills and time and often their gear, the multioperator stations hope to capture every bit of the excitement on each band without missing an opportunity. The trade-off here is finding or building a station that is set-up for multioperator activity. The challenges include networking of computers, filtering or blocking competing transmitted signals while maintaining the sensitivity and selectivity of receivers, and having enough towers and rotators to support efforts on each of the bands. Doing a search on the web for some of the top scoring calls will lead you to fascinating stories and pictures of many of the large multioperator stations.



Why were the Grid Pirates (K8GP) loud on 2 meters? 3x16x5ele pointed NE, NW, and SW, plus 4x5ele pointed SE, topped with 2x FO12 rotatable Yagis @ 200'. (Photo by K8GP)

The Limited Multiops can use more than the lower four bands, but can only include the results of the lower four for their scores. In the lead spot this year is K1WHS from ME. It seems that they went into the event to have some fun and stumbled into some spectacular activity

and conditions to score 763K. The K9NS Mt. Frank Contesters of IL were in 2nd place with a score of 698K, again taking advantage of location and conditions, with their antennas placed well in the air at 150' and above. The K2LIM team, in 3rd place with 409K, had a steady performance across the 4 bands. The W4IY group in VA usually can be found on a nice high mountaintop and their operators scored 326K in this outing for a 4th place finish. It looks as if they are adopting SDR technology with their web-posted pictures. In 5th place the AA4ZZ group had 280K. Paul and a group of friends from the Carolina DX Association (CXDA) participate in the ARRL VHF+ contests from their mountaintop site near Boone, NC EM96 (Watauga County) using the AA4ZZ call sign.

The W2SZ Mt. Greylock Expeditionary Force has held first place in the Unlimited Multioperator category for many years. With their outstanding location on Mt. Greylock at 3488' and their well-equipped radio trucks and team of rovers, they are primed for this event annually. Their score this year of 1.64 million points was built on 2172 contacts and 512 multipliers on bands through 47 GHz. They managed to have one of the best east coast 6 meter QSO totals of 1204 with 265 grid multipliers. The Grid Pirates at the new K8GP location captured 2nd place with just over a million points. Their 10 GHz gear wasn't on the air, but their 2 meter score was superb with 444/75. The Packrats at W3CCX were again in third place with 687K. Their 6 meter counts and multipliers were considerably lower than the 1st and 2nd place stations, but their showing on the rest of the bands was strong and comparable. The southern Texas station at K5QE had a 509K score for 4th place. Conditions there were down from last year and many of the stations across the southern tier of the US did not experience as much Es as the northern tier. The N6VI group coordinated with the Southern California Contest Club rovers on 10 bands to score 509K for a 5th place finish.

Rovers

The top finisher in the Limited Rover category was Tim, AL1VE/R with 115K, using only bands ABD. He situated himself in the center of the country covering 6 grids and had a ball on 6 meters with a result of 585/159. Bill, WB2SIH/R placed 2nd with a 4-band effort across 4 grids with a score of 63K. Mark, K2QO/R and his roving partner Paul, W2TAU traversed 7 grids and scored 50K for 3rd place. John, WAØVPJ/R and his roving partner Mark, AIØZ spread their activity over 8 grids around MN to collect 47K points for 4th place. Curt, K9AKS/R focused his activity on 6 meters alone and visited 4 grids while piling up 39K points for 5th place.

The top six finishers in the Classic Rover category were all from the Southern California Contest Club; W6XD/R, KI6FGV/R, K6AH/R, N6HD/R, WA6WTF/R, and K9AOG/R all had scores between 272K and 215K. Each was equipped with 10 bands and they each roved through 10 grids and completed between 700 and 800 contacts each and between 111 and 125 multipliers.

The Unlimited Rover category was created a few years back to try and level the playing field for various rover configurations, operator numbers and pack-roving. The 8 entrants in this group had very modest scores, with WA3PTV/R in first place with 51K points, using 10 bands across 4 grids in the Mid-Atlantic area. It may be time to re-evaluate the usefulness of this category as the characteristics of the stations in this category are unclear, and it appears that any station that roves could consider itself as "unlimited" regardless of whether they might be able to fit into one of the other Rover categories.

QRP Portables

Stations in this category may only use 10 watts maximum output and must have a completely portable station operating on portable power. Wayne, N6NB captured first place again with his 10-band vehicle, scoring 137K points and linking up with the Southern California Contesting Club rovers. Chris, W1MR from NH placed second with a 6-band station scoring 84K. He has been a regular entrant and winner in this category under his old call, KA1LMR. Tommy, WD5AGO had a 4-band effort from OK and scored 38K for 3rd place in this category.

Club Competition

There were 47 club entities that submitted aggregate scores, representing 529 entries. Since many of these entries also included multioperator stations, approximately 50% of all the participants and groups which submitted logs were club-affiliated. The only entry in the Unlimited Club class with 53 logs and a total of 1.6 million points is the Society of Midwest Contesters. They have worked diligently over the past several years to stimulate VHF+ activity for this contest and get their members to submit logs. The North East Weak Signal Group took first place honors in the Medium Club category with 22 logs and 2.4 million points. There are many strong VHF+ operators in that group and many with gear through the millimeter wavelengths. In 2nd place, the Southern California Contest Club had 20 logs and 2.2 million points based on their team of 10-band-equipped rovers, N6VI Limited Multiop, and N6NB QRP Portable. The Potomac Valley Radio Club with 45 logs and 1.9 million points placed 3rd. Their K8GP Unlimited Multiop station contributed more than half of the points

and this was well supplemented by their operating membership.

It was difficult for me to distinguish the Limited Club entries from the Medium Club entries because there were similar numbers of logs submitted for groups in each category and often similar scores. Although it appears that the club determines which division it is entering, perhaps we need a better clarification here in order to keep the club result comparisons on a level field. The Bergen ARA was in first place among the Limited clubs with 3 logs and 95K points. The Stoned Monkey VHF ARC (with the most colorful club name) placed 2nd with 7 logs and 94K points. In 3rd place we have the Rochester (MN) ARC with a 90K score based on their 4 logs.

Club Competition

Club Category	Logs	Total Score
Unlimited Club		
Society of Midwest Contesters	53	1,581,175

Medium Club

North East Weak Signal Group	22	2,425,181
Southern California Contest Club	20	2,209,845
Potomac Valley Radio Club	45	1,943,381
Northern Lights Radio Society	18	1,541,766
Mt Airy VHF Radio Club	23	1,197,005
Yankee Clipper Contest Club	23	922,657
Contest Club Ontario	26	914,437
Badger Contesters	15	724,640
Pacific Northwest VHF Society	16	603,379
Nacogdoches ARC	3	551,250
Grand Mesa Contesters of Colorado	11	494,802
Florida Contest Group	15	450,318
Carolina DX Association	8	351,485
Minnesota Wireless Assn	14	300,464
Central Texas DX and Contest Club	6	287,676
Chippewa Valley VHF Contesters	3	271,752
Maritime Contest Club	8	252,555
Mad River Radio Club	7	236,791
Arizona Outlaws Contest Club	28	234,969
Northern California Contest Club	28	213,807
Tennessee Contest Group	14	186,734
Clovis Amateur Radio Pioneers	3	164,215
Florida Weak Signal Society	12	117,792
Roadrunners Microwave Group	4	111,106
North Texas Microwave Society	3	99,246
Contest Group Du Quebec	7	90,539
Frankford Radio Club	10	87,872
North Texas Contest Club	3	67,391
South East Contest Club	10	64,903
Willamette Valley DX Club	4	61,315
Alabama Contest Group	8	39,948
Louisiana Contest Club	3	9,277
South Jersey Radio Assn	3	4,026

Local Club

Bergen ARA	3	95,150
Stoned Monkey VHF ARC	7	93,904
Rochester (MN) ARC	4	90,662
ORCA DX And Contest Club	4	68,480
Granite State ARA	3	60,206
Colony Mountain Contest Club	3	52,877
Delara Contest Team	3	37,928
DFW Contest Group	6	34,982
Portage County Amateur Radio Service	5	26,887
Bristol (TN) ARC	4	21,195
Raritan Bay Radio Amateurs	3	6,774
Burlington County Radio Club	5	5,245
Sterling Park ARC	3	69

Epilogue

Roger, VE1SKY summed things up with his thoughts, “With the terrific, albeit too short openings, the various active modes, and very hard work by hundreds of amateurs; this was truly a memorable contest.”

You had to be there and be on the air to get the thrill of the chase, a taste of propagation, and, if lucky, some DX in your log. We are still in the peak of the sunspot cycle and should expect to continue with good conditions next year. Those who have worked hard over the years with their equipment and operating experience to develop a track record have the tools to continue to plan for good contesting results in the future. They could serve as mentors for those who need to have a taste of the VHF bands. Inviting another ham to your station can be a stimulus for increased activity.

Those with good test equipment and technical experience should be able to serve as “Elmers” for those who need assistance. Our club has a “tech night” at least once a year to test equipment and assist on any needed repair. Many of the VHF conferences also have excellent test labs to troubleshoot or tune VHF and microwave gear. To increase the activity level, we need to continue to encourage operators to be rovers and supply needed band-multipliers from grids where there is a paucity of activity. I see more and more solid state amplifiers from the small source builders and the surplus market becoming available for bands through 10 GHz. Hopefully this will encourage continued increases in microwave band operation to add to the “bottom four.”

So get a head start now for this coming year’s VHF and up activities. Check your gear, make a plan, add a band, up your power, try a new mode, and improve your feed lines and antennas. Next year the ARRL June VHF Contest will be held on June 8-10, 2013.

I again thank my XYL Jani for her support and for editing contest articles over the years. It has given her a greater understanding of the VHF contesting activity and the fraternity of ham operators. My appreciation and thanks goes to Curt K9AKS for keeping the records and assisting with review of top scorers and record-breakers.

Division Winners by Category

Single-Operator, Low Power

Atlantic	W3SZ	140,650
Central	K2DRH	354,063
Dakota	KØSIX	297,434
Delta	N4QWZ	114,608
Great Lakes	N8BI	75,548
Hudson	NA2NY	92,140
Midwest	NØLL	214,599
New England	AF1T	232,407
Northwestern	K7BG	49,773
Pacific	N6ORB	13,040
Roanoke	K4RTS	30,624
Rocky Mountain	NØPOH	91,520
Southeastern	KX4R	82,752
Southwestern	WJØF	70,044
West Gulf	AA5AM	60,588
Canada	VA6AN	130,968

Single-Operator, QRP Portable

Atlantic	K2ULR	60
Central	W9SZ	16,732
Dakota	WØDJM	1,938
Delta	N3AWS	6,344
Great Lakes	N8XA/P	28,196
Hudson	WB2AMU	7,488
Midwest	NØJK	12,802
New England	W1MR	84,760
Pacific	KB5WIA	12,555
Roanoke	W4RXR	7,847
Rocky Mountain	N7QF/7	7,700
Southeastern	WØPV	1,938
Southwestern	N6NB	136,840
West Gulf	WD5AGO	38,016
Canada	VA3WR	210

Single-Operator, High Power

Atlantic	W3PAW	201,520
Central	WØUC	417,890
Dakota	WDØT	461,154
Delta	KG5MD	41,800
Great Lakes	K8MD	193,224
Hudson	N2GHR	99,498
Midwest	NØGZ	42,693
New England	K1TEO	682,641
Northwestern	W7EW	164,952
Pacific	KC6ZWT	37,128
Roanoke	W3IP	83,475
Rocky Mountain	W9RM	184,758
Southeastern	W4ZRZ	118,188
Southwestern	N7CW	81,796
West Gulf	K5TR	150,015
Canada	VE5UF	96,957

Classic Rover

Atlantic	NN3Q/R	30,586
Central	W9FZ/R	37,060
Dakota	WØZQ/R	14,008
Delta	AG4V/R	45,480
Great Lakes	KF8QL/R	58,320
Hudson	NJ1F/R	10,998
Midwest	WAØRKQ/R	4,235
New England	WA2BTR/R	22,355
Northwestern	KL7YK/R	484
Pacific	W6XD/R	272,500
Roanoke	N3TG/R	100
Rocky Mountain	W7QQ/R	28,783
Southwestern	N6TEB/R	22,776
West Gulf	AE5P/R	5,282
Canada	VE3NPB/R	107,100

Limited Multioperator

Atlantic	K2LIM	409,360
Central	K9NS	698,030
Dakota	NØEO	233,280
Delta	W5ANR	49,731
Great Lakes	N8ZM	229,017
Hudson	W2LV	208,624
New England	K1WHS	762,745
Northwestern	N7NW	119,730
Pacific	N6ML	25,080
Roanoke	W4IY	326,186
Rocky Mountain	WØLSD	93,150
Southeastern	N4DXY	17,205
Southwestern	WA7JTM	110,208
West Gulf	WD5IYF	4,800
Canada	VE3CX	131,408

Limited Rover

Atlantic	K2QO/R	50,828
Central	K9JK/R	21,097
Dakota	WAØVPJ/R	47,215
Delta	WA4JA/R	1,900
Great Lakes	K8DOG/R	11,245
Hudson	WB2SIH/R	63,066
Midwest	AL1VE/R	115,116
Northwestern	VW7D/R	38,950
Pacific	K6BRW/R	15,631
Roanoke	K6PFA/R	1,820
Rocky Mountain	WØETT/R	24,219
Southwestern	N6GP/R	6,188
West Gulf	N5RZ/R	26,384
Canada	VE7JH/R	24,735

Multioperator

Atlantic	W3CCX	687,354
Central	K9CT	380,952
Dakota	KØTNT	4,345
Delta	W5ZN	25,216
Great Lakes	K8MM	146,744
Hudson	W2YR	6,336
Midwest	NØMA	159,111
New England	W2SZ	1,638,400
Northwestern	K7AWB	101,010
Pacific	W6TV	141,564
Roanoke	K8GP	1,036,917
Rocky Mountain	WØKVA	253,946
Southeastern	K1KC	30,552
Southwestern	N6VI	509,922
West Gulf	K5QE	543,996
Canada	VE3WCC	278,496

Unlimited Rover

Atlantic	WA3PTV/R	51,597
Dakota	KCØP/R	10,962
New England	KJ1K/R	13,014
Northwestern	KL3JI/R	546
Southwestern	NV6C/R	1,411
West Gulf	AF5CC/R	806
Canada	VE3KGC/R	270

2012 ARRL June VHF QSO Party

Regional Leaders by Category

Boxes list call sign, score, and category (A - Single-Op Low Power, B - Single-Op High Power, Q - Single-Op Portable, L - Limited Multioperator, M - Multioperator, R - Rover, RL - Limited Rover, RU - Unlimited Rover)

Northeast Region			Southeast Region			Central Region			Midwest Region			West Coast Region		
New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections			Delta, Roanoke and Southeastern Divisions			Central and Great Lakes Divisions; Ontario Section			Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections			Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections		
AF1T	232,407	A	N4QWZ	114,608	A	K2DRH	354,063	A	KØSIX	297,434	A	VA6AN	130,968	A
WB1GQR	230,850	A	KX4R	82,752	A	K9MU	210,441	A	NØLL	214,599	A	WJØF	70,044	A
K1KG	140,901	A	N3LL	69,732	A	KC9BQA	126,474	A	NØPOH	91,520	A	NQ7R	67,680	A
W3SZ	140,650	A	K5RPD	48,087	A	N9ISN	84,560	A	WAØARM	68,875	A	K7BG	49,773	A
NA2NY	92,140	A	AD4Z	44,160	A	N8BI	75,548	A	KØNR	62,040	A	N7XU	42,560	A
K1TEO	682,641	B	W4ZRZ	118,188	B	WØUC	417,890	B	WDØT	461,154	B	W7EW	164,952	B
NN1N	226,996	B	K4PI	103,356	B	WB9Z	234,415	B	W9RM	184,758	B	K7CW	150,654	B
K1TR	219,360	B	W3IP	83,475	B	K8MD	193,224	B	WØGHZ	180,840	B	N7CW	81,796	B
W3PAW	201,520	B	N4BP	74,655	B	W9GA	162,042	B	NDØB	176,204	B	VA7FC	56,304	B
W3EP	118,128	B	KN4SM	66,216	B	K8BU	94,927	B	K5TR	150,015	B	KG6IYN	50,268	B
W1MR	84,760	Q	W4RXR	7,847	Q	N8XA/P	28,196	Q	WD5AGO	38,016	Q	N6NB	136,840	Q
WB2AMU	7,488	Q	N3AWS	6,344	Q	W9SZ	16,732	Q	KJ5RM	17,836	Q	KB5WIA	12,555	Q
N2SPI	2,850	Q	WØPV	1,938	Q	KDØEBT	1,431	Q	NØJK	12,802	Q	KE7UQL	1,960	Q
N1PRW	1,720	Q	KC8KSK	975	Q	K8AX	1,050	Q	N7QF/7	7,700	Q	K6TUJ	280	Q
NK1N	390	Q	KC5FWE	210	Q	WØØIWG	988	Q	WØDJM	1,938	Q	K1ØTQT	98	Q
K1WHS	762,745	L	W4IY	326,186	L	K9NS	698,030	L	NØEO	233,280	L	N7NW	119,730	L
K2LIM	409,360	L	AA4ZZ	280,224	L	N8ZM	229,017	L	WØLSD	93,150	L	WA7JTM	110,208	L
W2LV	208,624	L	W4NH	249,660	L	VE3CX	131,408	L	KCØVFO	35,960	L	W7MEM	93,600	L
VE1SKY	99,603	L	N3MK	91,698	L	NØEDV	94,446	L	WØFRG	26,880	L	K7TM	60,750	L
W1QK	90,792	L	W5ANR	49,731	L	W9RVG	41,340	L	WØVB	19,456	L	N6ML	25,080	L
W2SZ	1,638,400	M	K8GP	1,036,917	M	K9CT	380,952	M	K5QE	543,996	M	N6VI	509,922	M
W3CCX	687,354	M	K4HZ	37,076	M	VE3WCC	278,496	M	KBØHH	309,396	M	W6TV	141,564	M
K3YTL	341,598	M	K1KC	30,552	M	K8MM	146,744	M	WØKVA	253,946	M	K7AWB	101,010	M
W3SO	153,690	M	W5ZN	25,216	M	N9UHF	93,612	M	NØMA	159,111	M	K7ZS	57,057	M
N1JEZ	149,100	M	K4MM	23,754	M	N8UR	52,515	M	N5JB	56,550	M	K6ST	41,724	M
NN3Q/R	30,586	R	AG4V/R	45,480	R	VE3NPB/R	107,100	R	W7QQ/R	28,783	R	W6XD/R	272,500	R
K1DS/R	24,766	R	W5VY/R	4,524	R	KF8QL/R	58,320	R	WØZQ/R	14,008	R	K1ØFGV/R	256,875	R
WA2BTR/R	22,355	R	N3TG/R	100	R	W9FZ/R	37,060	R	KCØIYT/R	11,247	R	K6AH/R	249,067	R
W3HMS/R	16,131	R						AE5P/R	5,282	R	N6HD/R	243,906	R	
NJ1F/R	10,998	R						WAØRKQ/R	4,235	R	WA6WTF/R	218,845	R	
WB2SIH/R	63,066	RL	WA4JA/R	1,900	RL	K9JK/R	21,097	RL	AL1VE/R	115,116	RL	WW7D/R	38,950	RL
K2QO/R	50,828	RL	K6PFA/R	1,820	RL	W9YOY/R	12,408	RL	WAØVPJ/R	47,215	RL	VE7JH/R	24,735	RL
W3TM/R	5,406	RL	AD4IE/R	1,288	RL	K8DOG/R	11,245	RL	K9AKS/R	39,936	RL	K6BRW/R	15,631	RL
W3ICC/R	4,074	RL	WASKBH/R	117	RL	VA3ELE/R	6,732	RL	N5RZ/R	26,384	RL	KE6QR/R	12,956	RL
N2GKM/R	1,960	RL						WØETT/R	24,219	RL	K1ØCG/R	9,490	RL	
WA3PTV/R	51,597	RU						VE3KGC/R	270	RU	NV6C/R	1,411	RU	
KJ1K/R	13,014	RU						KCØP/R	10,962	RU	KL3JI/R	546	RU	
								NØHZO/R	2,619	RU				
								AF5CC/R	806	RU				