Jan Carman, K5MA jcarman@capecod.net

This was a typical January VHF SS competition – some reports of 6 meter E-skip; the usual cold weather throughout most of North America, and normally expected activity levels. Rover activity was outstanding!

Observations made previously regarding participation in the January VHF SS competition continue for the 2009 event, held on 17 - 19 January. A total of 650 logs were submitted for this year's event, which represents the lowest total in five years. The highest log submission total in the past five years was 793 in 2006.

Alan, N3ALN of Olney, MD noted that in spite of the Sunday football distraction, which significantly lowered participation for several hours, his six-band effort, 50 thru 1296 MHz, produced over 24k points, an outstanding effort. Alan is new to amateur radio and turned in a great score. There were more than eight Soapbox references to reduced contest activity caused by TV football coverage. Another very significant distraction this year was the scheduling of the NAQP (North American QSO Party) SSB contest during the same weekend as the VHF SS competition. Not everyone is strictly HF or VHF/UHF oriented, your author included!

Winter weather conditions often make the January VHF SS event a challenge, particularly for the participants in the Rover categories. There was one exception to this general observation, which I find fascinating. Glen, KCØIYT/R of Apple Valley, MN did a Rover operation in two Minnesota grid squares on the bands from 50 MHz through 10 GHz. Glen noted that on the 5760 MHz and 10 GHz bands, he was only able to make QSO's when the snow was falling. He made no QSO's when the snow was not falling. Tyler, KM3G/R made mention that he not only was subjected to extremely cold temperatures, but that he drove a total of 620 miles and paid \$42 in tolls! That's dedication!! All of that for "not many QSO's on the 6- and 2 meter bands."

Looking at the level of participation in the January VHF SS in recent years, we see a disturbing trend. The 2009 VHF SS event produced a total of 650 log submissions, which is the lowest total in the last four years. Here are the numbers: 2005 - 718 logs, 2006 - 793 logs, 2007 - 684 logs, 2008 - 701 logs, 2009 - 650 logs. As I indicated in the results article for the 2008 VHF SS event, participation in the January VHF SS is not significantly influenced by the solar cycle, other than at the solar cycle peak when the MUF occasionally rises above 50 MHz. Under those circumstances, 6 meter activity will substantially increase and sound much like the 10 meter band. Lets all hope that outcome comes to fruition at the time of the next solar maximum.

The total number of QSO's made was 67,394; however, the total number of QSO's made is of much lesser importance than is the number of logs submitted. The number of logs submitted has a direct correlation with the number of participants in the competition. The goal for all ARRL competitive events and, indeed, all competitive amateur radio events worldwide regardless of sponsor, is to have as many individual and group (multi-operator) submissions as possible.



Christopher Palm, KC9JTL, and dad David, W9HQ, entered their first-ever VHF contest. Despite a few visits from Murphy, they earned fifth place Limited Multioperator honors in the Central Division, and had a lot of fun. Look for them in the June VHF QSO Party. (Photo credit - David W9HQ)

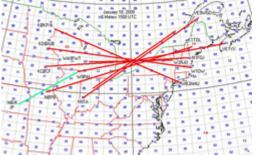


Figure 1 - Map showing the Sunday morning 6 meter sporadic-E (Es) opening. Es contacts are in red and the Es cloud can clearly be seen to be located over FN03. NØJK's meteor-scatter QSO with W9RM is shown in green. (Map by Jon Jones, NØJK)

A high number of log submissions indicate a healthy environment for building more interest in amateur radio contesting. The number of QSO's made is much more a function of radio conditions. For instance, at the peak of the solar cycle, it is possible that the 6 meter band will be open for worldwide communications, much like the 10 meter band. At that time, VHF competitions which include the 50 MHz band will have much higher score totals than they do now (2009) at a very broad bottom of the solar cycle.

Propagation

Propagation conditions for the 2009 event seem almost identical to the conditions in January of 2008, judging from the comments of the participants as well as my own observations. Other than the few sporadic-E events that occurred, almost all contacts were made by either ground wave or tropo-scatter.

The sporadic-E openings reported were generally brief in duration. Graham, KE4WBO/R of Jupiter, FL running a Rover operation from Florida grid EL96 heard an E-skip burst from N3DB

(Shadyside, MD) for a brief, five-minute period before he faded away. Paul, K1TOL of Turner, ME indicated that he worked as far west as NØPB in EM39. He also worked Chris, KC9JTL of Westby, WI. This sporadic-E cloud faded a few grids east of EM18. Jon, NØJK in Wichita, KS reported working W9RM in EN52 on 6 meter SSB Sunday morning via meteor scatter. Jon created a map of the brief 6 meter opening (see **Fig 1**) centered approximately on the Pennsylvania-Ohio border in FN03.

The bottom line for this year's event is that the vast majority of all contacts were made by troposcatter, generally out to distances of approximately 400 to possibly 500 miles depending on terrain advantages and tropo conditions.

The National Scene

In the previous five years, the 2009 event has the lowest number of log submissions by a wide margin. The NAQP event held on the same weekend, as noted above is a significant negative factor. There are many VHF/UHF and microwave enthusiasts who are also avid HF contesters and DXers (your author included). I believe that holding two major contests on the same weekend, one on the HF bands and the other on the VHF and above bands makes no sense. Those of us who are active on both HF and VHF/UHF must make a choice between the two. The better solution is NEVER to have two major competitions on the same weekend.

Single-Operator

Bob, K2DRH from Albany, IL retains his top position again this year in the Single Operator, Low Power category with a score of 159,305 points, just slightly lower than his top score last year. Bob lead the multiplier category with the top spot on the 50, 144, 222, 432, 902 and 1296 MHz bands. Bob was also the QSO leader on the 50 MHz band. Fred, N1DPM of Feeding Hills, MA took second place with 111,339 points, about 23k points better than his score last year. The third-place position goes to Phil, WA3NUF of Warminster, PA with 99,591 points, down substantially from his second-place finish last year with 158k points. The fourth-place position goes to Roger, W3SZ, of Reading, PA with 54,834 points, less than half the score he produced last year. Dale, AF1T, of Henniker, NH took the fifth-place position with 51,450 points, down from his 63k point effort in 2008. Finishing out the Top Ten Single Operator, Low Power spots are WB2SIH, KC9BQA, WA3QPX, W3PAW and N3RG. The likely reason why most of the Top Ten scores are down from last year is the lack of sporadic-E openings this year. You tend to run out of stations to work if you are limited to ground wave and tropo-scatter propagation modes.

With only a few exceptions, the Top Ten Single Operator, High Power category entrants did better than their Low Power counterparts this time around. I guess if you shout louder, you are heard better – particularly when propagation conditions are poor! Leading the Top Ten High Power category this year is Jeff, K1TEO of Trumbull, CT with a score of 431,100 points, soundly beating his 354k point score from last year. This result is amazing when you consider the extremely poor conditions this year with very few long-range openings. The second-place High Power position goes to Phil, K3TUF in Ephrata, PA with a score of 232,101 points, down only slightly from his 2008 third-place score. The third-place position goes to Dave, K1RZ of

Damascus, MD with 203,196 points, just slightly higher than his fourth-place finish last year. The fourth spot in the High Power race is awarded to Ed, K3DNE of Westminster, MD with 126,960 points, up from his seventh place position last year. Fifth place is awarded to Mike, WB2RVX of Voorhees, NJ with 97,519 points, up by 10k points from his 2008 score. Ron, WZ1V of Bristol, CT takes the sixth position with 87,914 points, down substantially from his 119k finish last year. The final four Top Ten positions are awarded to Stan, KA1ZE of Tolland, CT with 74,550 points; Paul, N2GHR of Center Reach, NY with 72,000 points; Ed, WA3DRC in Richboro, PA with 67,184 points, down from 77,440 points last year; and finally, Howard, K4QI of Efland, NC with 59,831 points.

Limited Multi-Operator

Entrants in the Limited Multi-operator (LM) category can only operate on a maximum of four bands. There were a total of 36 band-entries covering the bands 50 through 432 MHz, which represents six fewer entries than last year. The top scoring entry in the LM category for 2009 is Kim, KB1DFB, of Dayville, CT with a score of 102,582 points - the head of the pack in this category. Second place goes to Daniel, W1QK, of Brookfield, CT with 36,600 points. Third place goes to Keith, W9RM, of Hampshire, IL with 22,695 points. Fourth was awarded to W4NH, the Fourlanders Contest Team from Alpharetta, GA with 19,491 points, while fifth place was secured by Chester, N8RA, of New Hartford, CT with a score of 17,836 points.

W3HZU, the Keystone VHF Club of York, PA captured sixth place with a score of 17,520 points, and K2BAR, the Bergen ARA of Washington Township, NJ managed seventh place this year with a score of 13,992. The final Limited Multi-operator Top Ten entries include WY3P, the Carroll County Contesters from Sykesville, MD, Kenneth, KA2LIM, of Bee Valley, NY with 10,890 points, and Mike, N1JEZ with a score of 9,020.

Multi-Operator

In the Multi-operator category, participants can operate on any number of bands. There are a total of 53 entries in this category for 2009, up from 27 entries in 2008. The top scoring entry for 2009 is Leonard, N3NGE, operating in Morgantown, PA with a total score of 568,764 points, up slightly from his 2008 score of 545k points. Second place in this category goes to the station of Marshall, K5QE of Hemphill, TX with 238,290 points, down by nearly a factor of two from his 2008 performance. Third place is awarded to Joe, K1JT and his crew in the Princeton, NJ area with 102,582 points. Fourth place in the Multi-operator category goes to Gary, KBØHH, of Anthony, TX with 46,350 points, up substantially from 2008. The fifth-place Multi-operator entry goes to Paul, KE1LI, of Pomfret Center, CT with 43,890 points.

The bottom five in the Top Ten Multioperator entries include James, K7ND of Fox Island, WA with 26,432 points; K7LRG with 20,148 points; N2BJ with 15,184 points, down from over 28k points in 2008; KB8O at 12,712 points, and finally AG4V with 11,115 points, down from 23,760 in 2008.

ORP Portable

There is only one 2008 competitor in this category who entered QRP Portable again for 2009, and that is Bill, K3EGE from Elverson, PA. Bill ended up in ninth position this year, down from his fourth position finish in 2008. The top position in the QRP Portable competition goes to Nicholas N3YMS of Felton, DE with 21,161 points. His score is substantially higher than all of the other Top Ten competitors in this category. The second place finisher is Patrick, W3RGA of Snydertown, PA with 6,965 points. Third place goes to Vladimir, W6BVB of Laguna Hills, CA with 2,340 points, followed by Zack, W9SZ of Urbana, IL with 1,850 points in the number four spot. Tom, W4RXR of Pulaski, TN finished in the fifth spot with 1,392 points. The bottom five in the QRP Portable Top Ten list include KJ4BEE at #6, WB2AMU #7, K6ALF #8, K3EGE #9 and NØKIS in the tenth position.

Rover

As in the 2008 VHF SS competition, there are three Rover categories for the 2009 event: Rover, Limited Rover, and Unlimited Rover. There were entries in all three categories.

In the Rover category, no more than two operators are permitted, but operation on all bands is allowed. There was a very high level of competition at the top of this category, with the top four scores bunched very close together. These scores were significantly higher than those produced in the 2008 event. The leading score was produced by Wayne, N6NB/R of Tustin, CA with 395,624 points, followed by Ron, AF6O/R with 384,223 points, Art, W6XD/R with 355,160 points, and Robert, KK6KK/R with 353,304 points. The W6XD/R score for the 2008 VHF SS competition was 185,790 points, which indicates the improved level of performance this group has been able to achieve. The fifth-place score was turned in by Richard, K1DS/R of Blue Bell, PA with136,136 points, followed by N3IQ/R, the Rovers of Maryland club in the sixth position with 125,658 points. The bottom four in the Rover Top Ten list include N3AC/R at #7, N6TEB/R #8, AE5P/R #9 and WD6ACD/R at #10.

In the Limited Rover category, operators may use their choice of no more than four bands. The leading score in this category was produced by Carrie, KI6UZV/R of Joshua Tree, CA with 113,544 points, which is substantially higher than the top score in the 2008 event in this category by almost a factor of four! Second place is awarded to Steve, K4GUN/R of Spotsylvania, VA with 14,711 points, up significantly from his 2008 score of 7,335 points. Fourth place is awarded to David, N6ORB of Martinez, CA with a score of 10,336 points, followed by Steven KC2QZF/R from Clarence Center, NY in the number five position with 7,805 points, up substantially from his 1,558 point score in 2008. Robert, NE3I/R of Collegeville, PA claimed the sixth position with 5,112 points, followed by the remainder of the Top Ten in the Limited Rover category: KK6MC/R at #7, K6JRA/R #8, N6ZE/R #9 and N2CEI/R #10.

The final category is Unlimited Rover, which permits more than two operators. In this year's event, there were five Unlimited Rover entries, up from only one entry in this category in 2008. The top score was submitted by Michael, W6YLZ of Winnetka, CA, with 395,760 points. Second place goes to David, W6TE/R of Fresno, CA, followed by William, AE5BN/R from Lufkin, TX, John K9JK/R in Palatine, IL and the LB Contesters (Club), KI6USR of Pasadena, CA.

Affiliated Club Competition

This year's ARRL Affiliated Club competition results indicate an increase of one additional club entry in the Medium Club category over that posted in 2008, and a drop of six in the Local Club category. The Unlimited Club category had only one entry for the past several years, and that is the largest of the VHF/UHF clubs; the Mt Airy VHF Radio Club based in the Philadelphia area. The Mt. Airy Club fielded 60 entries for 2009, down three member entries from 2008, and a total Club score of 1,823,418 points, averaging 30,390 points per member entry.

The Medium Club competition for 2009 includes 17 clubs, up one from 2008. The North East Weak Signal Group (NEWS Group) posted the top score with 21 entries and a total Club score of 812,400 points, averaging 38,686 points per member entry. This club continues to lead the category with a large group of enthusiastic members. Potomac Valley Radio Club earned second place with 675,775 points from 24 logs. Third place was taken by the Nacogdoches ARC, led by the K5QE Multioperator effort and a fine band of rovers. Other leaders in the Medium Club group include Badger Contesters, Society of Midwest Contesters, North Texas Microwave Society and the Rochester VHF Group in positions four through seven.

The Local Club category fielded 13 entries, the winner of which posted an outstanding score. Last year, the total was 20 entries. The leading Local Club for 2009 is the Eastern Connecticut ARA with a total score of 107,240 points from four members, representing an outstanding effort. The runner-up Murgas ARC with 78,598 points was also a great effort. Let's not forget the Florida Weak Signal Society with 78,415 points and the Chippewa Valley VHF Contesters with 29,202 points.

A Suggestion For HFers

I have mentioned in previous January VHF SS results articles that I have hopes that active HF contesters will take a serious interest in VHF/UHF/Microwave contesting, and participate in the various competitive events on the frequencies above 50 MHz sponsored by ARRL and other amateur radio organizations. The bottom of the present solar cycle seems to be going on forever, even though we all realize that eventually the sunspots will once again bring back improving HF conditions. This is a very good time to become acquainted with VHF+ contesting and operating in general.

Top Ten

CATEGORY	CALL	SCORE		
Single Operator, Low Power				
	K2DRH	159,305		
	N1DPM	111,339		
	WA3NUF	99,591		
	W3SZ	54,834		
	AF1T	51,450		
	WB2SIH	42,984		
	KC9BQA	35,236		
	WA3QPX	29,625		
	W3PAW	25,830		
	N3RG	24,009		
Single Operat	or, High Powe	er		
	K1TEO	354,040		
	K3TUF	232,101		
	K1RZ	200,976		
	K3DNE	126,960		
	WB2RVX	97,519		
	WZ1V	87,914		
	KA1ZE	74,550		
	N2GHR	72,000		
	WA3DRC	67,184		
	K4QI	59,631		
QRP Portable				
	N3YMS	21,168		
	W3RGA	6,965		
	W6BVB	2,340		
	W9SZ	1,850		
	W4RXR	1,392		

	KJ4BEE	931
	WB2AMU	663
	K6ALF	495
	K3EGE	408
	NØKIS	286
Limited Mu	ıltioperator	
	KB1DFB	58,168
	W1QK	25,071
	W9RM	22,695
	W4NH	19,491
	N8RA	17,836
	W3HZU	17,520
	K2BAR	13,992
	WY3P	12,432
	KA2LIM	10,890
	N1JEZ	9,020
Multiopera	tor	
	N3NGE	568,764
	K5QE	238,290
	K1JT	102,582
	КВØНН	46,350
	KE1LI	43,890
	K7ND	26,432
	K6LRG	20,148
	N2BJ	15,184
	KB8O	12,712
	AG4V	11,115
Rover		
	N6NB/R	395,624
	AF6O/R	384,223
	W6XD/R	355,160
	KK6KK/R	353,304
	K1DS/R	136,136
I.		

	N3IQ/R	125,658		
	N5AC/R	88,752		
	N6TEB/R	84,750		
	AE5P/R	83,850		
	WDØACD/R	76,196		
Limited Rove	r			
	KI6UZV/R	113,544		
	K4GUN/R	14,711		
	KO4MA	13,776		
	N6ORB/R	10,336		
	KC2QZF/R	7,805		
	NE3I/R	5,112		
	KK6MC/R	2,938		
	K6JRA	2,574		
	N6ZE/R	2,112		
	N2CEI/R	1,024		
Unlimited Rover				
	W6YLZ/R	395,760		
	W6TE/R	227,850		
	AE5BN/R	129,008		
	K9JK/R	10,304		
	KI6USR/R	2,967		

Division Leaders

 $A = Single \ Operator, \ Low \ Power; \ B = Single \ Operator, \ High \ Power; \ Q = Single \ Operator \ QRP \\ Portable;$

 $M = Multioperator; \ L = Limited \ Multioperator; \ R = Rover; \ RL = Limited \ Rover; \ RU = Unlimited \ Rover$

DIVISION	CATEGORY	CALL	SCORE
ATLANTIC	A	WA3NUF	99,591
CENTRAL	A	K2DRH	159,305
DAKOTA	A	NØKP	12,500
DELTA	A	N4QWZ	16,400
GREAT LAKES	A	WZ8T	12,994
HUDSON	A	WB2SIH	42,984
MIDWEST	A	NØPB	14,630
NEW ENGLAND	A	N1DPM	111,339
NORTHWESTERN	A	KG7P	3,171
PACIFIC	A	K1YQP	17,346
ROANOKE	A	K4LY	22,560
ROCKY MOUNTAIN	A	WJ7L	2,128
SOUTHEASTERN	A	W2BZY	12,420
SOUTHWESTERN	A	K6TSK	9,879
WEST GULF	A	W3XO/5	11,186
CANADA	A	VE3SMA	11,501
ATLANTIC	В	K3TUF	232,101
CENTRAL	В	K9EA	31,106
DAKOTA	В	WØGHZ	31,760
DELTA	В	K5RUS	882
GREAT LAKES	В	K8EB	51,566
HUDSON	В	N2GHR	72,000
MIDWEST	В	KØJRD	12,261
NEW ENGLAND	В	K1TEO	354,040
NORTHWESTERN	В	N7EPD	32,340
PACIFIC	В	KC6ZWT	20,880

ROANOKE	В	K4QI	59,631
ROCKY MOUNTAIN	В	KU7Z	352
SOUTHEASTERN	В	WJ9B	22,052
SOUTHWESTERN	В	KG6DHQ	2,916
WEST GULF	В	K5LLL	53,064
CANADA	В	VE3ZV	22,848
ATLANTIC	Q	N3YMS	21,168
CENTRAL	Q	W9SZ	1,850
DAKOTA	Q	NØHJZ	72
DELTA	Q	W4RXR	1,392
HUDSON	Q	WB2AMU	663
MIDWEST	Q	NØKIS	286
NEW ENGLAND	Q	N1QLM	135
ROANOKE	Q	KJ4BEE	931
ROCKY MOUNTAIN	Q	N5QO	4
SOUTHWESTERN	Q	W6BVB	2,340
WEST GULF	Q	WK5F	28
ATLANTIC	L	KB1DFB	58,168
CENTRAL	L	W9RM	22,695
DAKOTA	L	WØVB	7,938
HUDSON	L	K2BAR	13,992
MIDWEST	L	NØLD	1,242
NEW ENGLAND	L	KB1DFB	58,168
NORTHWESTERN	L	K7HPT	2,295
ROCKY MOUNTAIN	L	ACØGI	320
SOUTHEASTERN	L	W4NH	19,491
WEST GULF	L	WD5IYF	4,323
ATLANTIC	M	N3NGE	568,764
CENTRAL	M	N2BJ	15,184
DAKOTA	M	WØPHD	368
DELTA	M	AG4V	11,115
GREAT LAKES	M	KB8O	12,712

HUDSON	M	N2GCZ	7,548
NEW ENGLAND	M	KE1LI	43,890
NORTHWESTERN	M	K7ND	26,432
PACIFIC	M	K6LRG	20,148
ROANOKE	M	W4YCC	1,700
WEST GULF	М	K5QE	238,290
CANADA	M	VA3WLD	5,412
ATLANTIC	R	K1DS/R	136,136
CENTRAL	R	KB9C	28,826
DAKOTA	R	KCØIYT/R	7,946
GREAT LAKES	R	NE8I	7,750
MIDWEST	R	WRØI/R	5,797
NORTHWESTERN	R	K7MDL/R	1,134
PACIFIC	R	N6NB/R	395,624
ROANOKE	R	W8ZN	53,739
SOUTHEASTERN	R	K4RSV	120
SOUTHWESTERN	R	N6TEB/R	84,750
WEST GULF	R	N5AC/R	88,752
CANADA	R	VE3OIL/R	21,900
ATLANTIC	RL	KC2QZF/R	7,805
CENTRAL	RL	WB9TFH/R	100
NEW ENGLAND	RL	K1LYV	100
PACIFIC	RL	KI6UZV/R	113,544
ROANOKE	RL	K4GUN/R	14,711
ROCKY MOUNTAIN	RL	KK6MC/R	2,938
SOUTHEASTERN	RL	KO4MA	13,776
SOUTHWESTERN	RL	N6ZE/R	2,112
CANADA	RL	VE3RKS/R	432
CENTRAL	RU	K9JK/R	10,304
PACIFIC	RU	W6YLZ/R	395,760
SOUTHWESTERN	RU	KI6USR/R	2,967
WEST GULF	RU	AE5BN/R	129,008

Clubs

Club	Score	# Of Entries			
Unlimited Club Category					
Mt Airy VHF Radio Club	1,823,418	60			
THE PARTY WITH TRACES CIAC	1,023,110	00			
Medium Club Category					
North East Weak Signal Group	812,400	21			
Potomac Valley Radio Club	675,775	24			
Nacogdoches ARC	432,125	6			
Badger Contesters	219,944	26			
Society of Midwest Contesters	219,014	14			
North Texas Microwave Society	160,245	9			
Rochester VHF Group	156,098	13			
Roadrunners Microwave Group	154,225	5			
Yankee Clipper Contest Club	124,368	14			
Northern Lights Radio Society	114,056	12			
Pacific Northwest VHF Society	112,794	20			
Contest Club Ontario	94,873	13			
Florida Weak Signal Society	78,415	10			
Northern California Contest Club	44,215	10			
Six Meter Club of Chicago	24,091	11			
Bergen ARA	15,064	4			
Mad River Radio Club	11,701	3			
Minnesota Wireless Assn	186	3			
Local Club Category					
Eastern Connecticut ARA	107,249	4			
Murgas ARC	78,589	4			
Chippewa Valley VHF Contesters	29,202	4			
Granite State ARA	11,464	6			
Burlington County Radio Club	9,203	8			
Raritan Bay Radio Amateurs	8,738	5			

Metro DX Club	2,990	3
	' 	
West Park Radiops	2,923	3
Meriden ARC	2,497	4
Ventura County Amateur Radio Society	2,158	3
Mother Lode DX/Contest Club	1,270	3
Portage County Amateur Radio Service	1,028	4
Central Texas DX and Contest Club	292	3

Region Winners

 $A = Single \ Operator, \ Low \ Power; \ B = Single \ Operator, \ High \ Power; \ Q = Single \ Operator \ QRP \\ Portable;$

M = Multioperator; L = Limited Multioperator; R = Rover; RL = Limited Rover; RU = Unlimited Rover

REGION NAME	CALL	SCORE	POWER
Northeast Region			
(New England, Hudson	and Atlantic Division	s; Maritime and	Quebec Sections)
	N1DPM	111,339	A
	WA3NUF	99,591	A
	W3SZ	54,834	A
	AF1T	51,450	A
	WB2SIH	42,984	A
	K1TEO	354,040	В
	K3TUF	232,101	В
	K1RZ	200,976	В
	K3DNE	126,960	В
	WB2RVX	97,519	В
	N3YMS	21,168	Q
	W3RGA	6,965	Q
	WB2AMU	663	Q
	K6ALF	495	Q
	K3EGE	408	Q
	KB1DFB	58,168	L
	W1QK	25,071	L
	N8RA	17,836	L
	W3HZU	17,520	L
	K2BAR	13,992	

	N3NGE	568,764	M
	K1JT	102,582	M
	KE1LI	43,890	M
	N2GCZ	7,548	M
	WB3IGR	6,120	M
	K1DS/R	136,136	R
	N3IQ/R	125,658	R
	K2QO/R	71,910	R
	K2TER/R	39,934	R
	NN3Q/R	22,792	R
	KC2QZF/R	7,805	RL
	NE3I/R	5,112	RL
	K1LYV	100	RL
	and Southeastern Divisions)		
	and Southeastern Divisions) K4LY	22 560	
	and Southeastern Divisions) K4LY N4QWZ	22,560	A
	K4LY N4QWZ W2BZY	16,400	A
	and Southeastern Divisions) K4LY N4QWZ	16,400 12,420	
	MATUT And Southeastern Divisions) K4LY N4QWZ W2BZY N4TUT	16,400	A A
	MATUT K4ZOO	16,400 12,420 7,308	A A A
	MATUT And Southeastern Divisions) K4LY N4QWZ W2BZY N4TUT	16,400 12,420 7,308	A A A
	MATUT K4QI K4QI K4QI K4LY N4QWZ W2BZY N4TUT	16,400 12,420 7,308 6,480	A A A
	MACUTE MATUT	16,400 12,420 7,308 6,480 59,631	A A A B
	MATUT K4QI	16,400 12,420 7,308 6,480 59,631 43,990	A A A B B B
	MATUT K4QI K4QI KE2N WJ9B	16,400 12,420 7,308 6,480 59,631 43,990 26,290	A A A B B B B
	MATUT K4QI K4QI KE2N WJ9B	16,400 12,420 7,308 6,480 59,631 43,990 26,290 22,052	A
	MACUTE MATUT K4ZOO K4QI KE2N W3IP WJ9B KØVXM	16,400 12,420 7,308 6,480 59,631 43,990 26,290 22,052	A
	MARINE WARKER WARE WARE WARE WARE WARE WALY WARE WARE WARE WALY WARE WARE WARE WALY WARE WARE WARE WALY WARE WALY WARE WARE WARE WARE WALY WARE WAR	16,400 12,420 7,308 6,480 59,631 43,990 26,290 22,052 17,982	A
neast Regional, Roanoke a	MARINE WARKER WARE WARE WARE WARE WARE WALY WARE WARE WARE WALY WARE WARE WARE WALY WARE WARE WARE WALY WARE WALY WARE WARE WARE WARE WALY WARE WAR	16,400 12,420 7,308 6,480 59,631 43,990 26,290 22,052 17,982 1,392	A A A B B B B C Q

	AG4V		
	N4JQQ	11,115	M
	W4YCC	2,139	M
	KØXXX	1,700	M
		527	M
	W8ZN	İ	
	K4RSV	53,739	R
		120	R
		Ì	
	K4GUN/R	14,711	RL
	KO4MA	13,776	RL
	N2CEI/R	1,024	RL
l Region Land Great	Lakes Divisions; Ontario	Section)	
	K2DRH		
	KC9BQA	159,305	A
	WO9S	35,236	A
	I	i	
	K9MU	21,225	A
	K9MU WA9FIH	20,080	A
	WA9FIH		_
	WA9FIH K8EB	20,080	A
	WA9FIH	20,080	A
	WA9FIH K8EB	20,080 13,750	A
	WA9FIH K8EB K8MD	20,080 13,750 51,566	A A B
	WA9FIH K8EB K8MD K9EA	20,080 13,750 51,566 32,421	A A B B
	WA9FIH K8EB K8MD K9EA W9GA	20,080 13,750 51,566 32,421 31,106	A A B B B
	WA9FIH K8EB K8MD K9EA W9GA	20,080 13,750 51,566 32,421 31,106 28,747	A A B B B B B
	WA9FIH K8EB K8MD K9EA W9GA VE3ZV	20,080 13,750 51,566 32,421 31,106 28,747	A A B B B B B
	WA9FIH K8EB K8MD K9EA W9GA VE3ZV W9SZ	20,080 13,750 51,566 32,421 31,106 28,747 22,848	A A B B B B B
	WA9FIH K8EB K8MD K9EA W9GA VE3ZV W9SZ	20,080 13,750 51,566 32,421 31,106 28,747 22,848	A A B B B B C Q
	WA9FIH K8EB K8MD K9EA W9GA VE3ZV W9SZ K9PLS	20,080 13,750 51,566 32,421 31,106 28,747 22,848	A A B B B B C Q
	WA9FIH K8EB K8MD K9EA W9GA VE3ZV W9SZ K9PLS W9RM	20,080 13,750 51,566 32,421 31,106 28,747 22,848 1,850 108	A A B B B B C Q Q
	WA9FIH K8EB K8MD K9EA W9GA VE3ZV W9SZ K9PLS W9RM W9VW	20,080 13,750 51,566 32,421 31,106 28,747 22,848 1,850 108	A A B B B B C Q Q L

	1,060	L
N2BJ		
KB8O	15,184	M
N9UHF	12,712	M
W8RU	9,855	M
VA3WLD	7,524	M
	5,412	M
KB9C		
VE3OIL/R	28,826	R
NE8I	21,900	R
NZ9I	7,750	R
KC9AXZ	1,683	R
	261	R
VE3RKS/R	432	RL
WB9TFH/R	100	RL
 K9JK/R	10,304	RU

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

NØPB	14,630	A
NØKP	12,500	A
W3XO/5	11,186	A
KØSIX	9,516	A
WB5ZDP	9,471	A
K5LLL	53,064	В
W5LUA	46,240	В
WØGHZ	31,760	В
WØZQ	28,938	В
KØJRD	12,261	В
NØKIS	286	Q

N5QO	100	Q
NØJK	100	Q
WK5F	100	Q
NØHJZ	72	Q
	İ	
WØVB	7,938	L
WD5IYF	4,323	L
NØLD	1,242	L
ACØGI	320	L
K5QE	238,290	M
КВØНН	46,350	M
 WØPHD	368	M
 KC5MVZ	100	M
N5AC/R	88,752	R
AE5P/R	83,850	R
WDØACD/R	76,196	R
NH6VJ/R	57,528	R
KE5CLQ	52,059	R
KK6MC/R	2,938	RL
AE5BN/R	129,008	RU
rn and Southwestern Divi	1	
K1YQP	17,346	A
K6TSK	9,879	A
W6OMF	9,284	A
K6XN	4,032	A
KG7P	3,171	A
N7EPD	32,340	В
KC6ZWT	20,880	В

W7GLF	12,600	В
NU6S	12,496	В
K7CW	9,163	В
W6BVB	2,340	Q
К7НРТ	2,295	L
K7ND	26,432	M
K6LRG	20,148	M
W6YX	6,765	M
VE6AO	1,495	M
N6NB/R	395,624	R
AF6O/R	384,223	R
W6XD/R	355,160	R
KK6KK/R	353,304	R
N6TEB/R	84,750	R
KI6UZV/R	113,544	RL
N6ORB/R	10,336	RL
K6JRA	2,574	RL
N6ZE/R	2,112	RL
AAØBV	420	RL
W6YLZ/R	395,760	RU
W6TE/R	227,850	RU
KI6USR/R	2,967	RU