June 2011 VHF QSO Party Results

Dreams, Schemes and Themes

By Rick Rosen, K1DS < rick1ds@hotmail.com>

Version 1.02 corrects Chuy, XE2N to Zalo, XE3N in the DX section of the report and corrects the names for AA11 and K9JK.

I always enjoyed the Johnny Carson *Tonight Show* skit "Karnak the Magnificent." First, holding an envelope to his forehead, Johnny would name three things as the answer; then he'd rip apart the envelope and pronounce the question. In the spirit of Karnak: Name three things that VHF operators enjoy before, during and after the June ARRL QSO Party.

Even before I got a look at the submitted scores, I had a suspicion that this year's event would prove to be great for some and a disappointment to others. As the current sunspot cycle is on the rise and the weeks prior to the event showed great Es activity on 6 meters, many participants were planning to keep their rigs focused on that band. They anticipated lots of activity and grid-square multipliers. Other hams were busy completing antenna erection and making repairs to radios, amplifiers and preamplifiers. Rovers were getting their chariots readied and routes established. Big guns were soliciting and finalizing schedules for digital modes — meteor scatter and moonbounce contacts to enhance their scores.

Participants reported an estimated 20% drop in activity and scores from last year, however. After the logs went through the computerized checking, adding all the valid QSO's we had totals exactly comparable to last year's. Many operators commented that the 6 meter activity and propagation was great, excellent, and the best opening they'd experienced. Of course, the Midwest stations took great advantage of the conditions with many of them logging close to 300 6 meter grids during the contest. My personal participation with the W3CCX Multioperator Unlimited effort gave me some insight into the conditions across the Mid-Atlantic and the Northeast. Searching the various contest reflectors, VHF station and club websites, the ARRL on-line soapbox reports, and emails from dozens of correspondents, was extremely useful in getting a sense of the conditions and activity across the rest of the country and for the participating DX stations. The submitted logs and scores tell the rest of the story.

Based on their previous successes, station improvements and operating prowess, many operators set their sights on bettering their scores from previous years and even breaking some records. The dream of George, K5TR was to work 2000 QSOs or more on 6 meters. He has worked hard to have a station and antennas that give him great propagation and listening capabilities. He wrote on his 3830 report that because of the high variability of the conditions on any given day, going into this contest he was not expecting much. He was hoping that with the huge increases in activity, even on a bad weekend it would be possible to make 700+ contacts. Six meters was very good for him again this year – not as good as last year but still very good.

Wayne, N6NB set out to		То	p Ten	
score big as a QRP Portable	Single Operator,	Low Power	Multio	perator
_	NØLL	381,860	W2SZ	1,183,446
station and to set a national	W5SXD	379,872	K5QE	1,017,000
record. His scheme was to	K2DRH N3LL	342,681 307,671	W3CCX WØKVA	481,459 458,436
optimize a 10-band station and	VP5CW (W5CW,	230,720	KBØHH	410,048
have the team of similarly	op) N4QWZ	198,171	N6VI	408,100
equipped Southern California	KØSIX	197,024	K3EOD	239,334
1 11	K5RQ	189,267	K3YTL	152,092
Contest Club rovers cover as	NØPOH	167,420	WQØP	147,972
many grids as they could and	NØHJZ	162,122	N4JQQ	127,333
make contacts with him.	Single Operator, I			ver
make contacts with min.	K5TR	501,714	K6MI	234,346
Brothers Dave, N2TEB	NR5M	454,230	K6AH	209,935
, and the second se	WDØT	412,383	W6XD	184,008
and Andrew, K2FR set off hiking	WD5K K5AM	387,090 384,120	W6XDX W1RT	173,880 114,838
up Mt. Beacon to fulfill their	K1RZ	367,334	VE3NPB	112,770
hopes of fun while portable	K1TEO	358,001	K6GEP	97,940
1	WØUC	351,975	VE3SMA	87,912
contesting. One of the recurrent	KØDU	346,912	K4SME	74,261
themes was that the weather that	K9MK	330,600	AG4V	63,204
was not as cooperative as	Single Operator	Portable	Limited	d Rover
-	N6NB	295,368	AL1VE	168,846
expected; despite some QRP	KA1LMR	67,662	W6YLZ	76,416
thrills with Es (sporadic E)	KJ5RM	58,784	K1TR	69,433
contacts on 6 meters, their	K9AKS W9SZ	44,814	WAØVPJ WØETT	58,706 46,158
· ·	WD5AGO	33,550 24,244	N5QGH	45,220
operation was cut short with rain.	N8XA	18,725	K2QO	38,720
Inclement weather always seems	N6DN	16,856	AF6AV	30,268
to be a theme of contest	NV4B/5	11,880	NØQE	27,132
	NØJK	10,488	K9JK	16,692
problems.	Limited Multic	perator	Unlimite	ed Rover
On Eriday, my mayntain	W5ZN	686,784	N3IQ	83,974
On Friday, my mountain-	K9NS	633,552	WA3PTV	61,750
top adventure with the W3CCX	K8GP	505,932	KK6MC	43,860
team experienced oppressive heat	W3SO	435,754	W6MTR	7,592
1 11	W4NH NØOY	404,593 394,434	KCØP NØHZO	5,194 3,510
and humidity in the Pennsylvania	WA7JTM	380,546	N6TEB	3,360
Pocono Mountains, only to be	K2LIM	298,100	NV6C	1,302
followed by rain and fog on	N5RZ	222,530	KC2IRO	864
į	W4IY	218,086	N5AA	168
Saturday, and climaxing with				

lightning and thunderstorms that caused us to shut down operations for a period on Sunday afternoon.

For Bob, K2DRH the dream seemed to be having everything in working order for the contest and not having to climb up and down the tower to replace blown preamps or to free stuck rotors. If any of you have made more than one trip up and down a 100' or higher tower in the heat, or cold and wind, you know how it can be a challenge and exhausting.

2011 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 F	Region	Southe	ast Region	Cent	tral Region	Midw	est Region	West (Coast Region
New England, Hudso Divisions; Maritime Section	e and Quebec		and Southeastern visions		eat Lakes Divisions; rio Section	and West Gulf	est, Rocky Mountain Divisions; Manitoba Ichewan Sections	Southwester	orthwestern and n Divisions; Alberta, pia and NWT Sections
AF1T	152,040 A	N3LL	307,671 A	K2DRH	342,681 A	NØLL	381,860 A	WJØF	118,450 A
W3PAW	130,269 A	N4QWZ	198,171 A	W9ZRX	91,043 A	W5SXD	379,872 A	W7JLC	84,148 A
K1KG	115,397 A	K5RQ	189,267 A	W9GKA	88,704 A	KØSIX	197,024 A	N7IR	77,175 A
WB1GQR (W1SJ, op)	111,452 A	N4QV	118,803 A	N9ISN	80,410 A	NØPOH	167,420 A	VA6AN	72,808 A
NZ3M	46,151 A	AA5AU	110,622 A	VA3ZV	74,909 A	NØHJZ	162,122 A	W7ID	63,666 A
K1RZ	367,334 B	K2EK	296,431 B	WØUC	351,975 B	K5TR	501,714 B	N7CW	262,194 B
K1TEO	358,001 B	W4WA	248,864 B	WB9Z	307,008 B	NR5M	454,230 B	K7CW	121,572 B
WA2FGK (K2LNS, op)	324,658 B	K4PI	204,884 B	К9СТ	225,990 B	WDØT	412,383 B	W7EW	112,128 B
K3TUF	237,006 B	K4SN	171,175 B	N9XG	184,338 B	WD5K	387,090 B	AA7A	107,400 B
N3HBX	114,580 B	N4WW	170,178 B	K8MD	110,200 B	K5AM	384,120 B	K5RR	93,795 B
KA1LMR	67.662 Q	NV4B/5	11.880 Q	W9SZ	33.550 Q	KJ5RM	58.784 Q	N6NB	295.368 Q
WB2AMU	3.080 Q	N5DUH	6.664 Q	N8XA	18.725 Q	K9AKS	44.814 Q	N6DN	16.856 Q
N1PRW	806 Q	WØPV	5,220 Q	Al9I	208 Q	WD5AG0	24,244 Q	KB5WIA	7,616 Q
N3YZ	36 Q	K3TW/4	513 Q	K9PLS	78 Q	NØJK	10,488 Q	K6TUJ	156 Q
W3MEO	32 Q	KC8KSK	480 Q	VA3RKM	18 Q	NØKIS	2,964 Q	WA7JTM	380,546 L
W3SO	435.754 L	W5ZN	686.784 L	K9NS	633.552 L	NØOY	394.434 L	K7TM	61.288 L
K2LIM	298,100 L	K8GP	505,932 L	N8ZM	160,080 L	N5RZ	222,530 L	K6LRG	53,192 L
W2LV	212,568 L	W4NH	404,593 L	W9RVG	98,566 L	NØKE	209,703 L	VE7SCC	33,930 L
N1WK	161,252 L	W4IY	218,086 L	Al9Z	81,200 L	WA7KYM	185,814 L	KY7M	32,893 L
W1QK	112,255 L	WQ4M	74,784 L	N9TF	46,410 L	N5XTR	167,640 L	N6VI	408,100 M
W2SZ	1,183,446 M	N4JQQ	127,333 M	VE3WCC	86,335 M			W6TV	98,968 M
W3CCX	481,459 M	N4LR	99,330 M	N2BJ	83,985 M	K5QE	1,017,000 M	N6SS	80,013 M
K3EOD	239,334 M	W4TP	79,218 M	N9UHF	56,760 M	WØKVA	458,436 M	KB7Q	78,318 M
K3YTL	152,092 M	W4MYA	64,680 M	K3WA	23,999 M	КВФНН	410,048 M	K7AWB	74,448 M
N1JEZ	51,684 M	KD2JA	54,927 M	VE3EJ	23,219 M	WQØP	147,972 M	KIAWD	74,440 III
W1RT	114.838 R	K4SME	74.261 R	VE3NPB	112.770 R	N5LZ	112.690 M	K6MI	234.346 R
NN3Q	48.950 R	AG4V	63,204 R	VE3SMA	87.912 R	WØBA	13,570 R	K6AH	209.935 R
W1AUV	39.695 R	KS4S	5.605 R	W9SNR	42,959 R	KDØS	9,301 R	W6XD	184,008 R
AA1I	25.032 R	W9WI	5,376 R	KF8QL	18,564 R	KE5GAQ	2,910 R	W6XDX	173,880 R
WA2IID	22,113 R	N4TZH	1,484 R	N8OC	10,564 R	KE5EXX	2,511 R	K6GEP	97,940 R
KATD	69.433 RL	AD5OW	45 697 DI	К9ЈК	46 602 DI	AL1VE	469 946 DI	W6YLZ	76 446 DI
K1TR K2QO	69,433 RL 38,720 RL	WA4JA	15,687 RL 5,766 RL	K9JK K9ZF	16,692 RL 11.680 RL	WAØVPJ	168,846 RL 58.706 RL	AF6AV	76,416 RL 30,268 RL
WB2SIH	9,604 RL	K6LMN/4	5,766 RL 2.891 RL	K8DOG	7,776 RL	WAGVPJ	46.158 RL	KI6CG	30,266 RL 14.320 RL
WB25IR KM3T	9,604 RL 9.000 RL	AD4E	2,891 RL 1,200 RL	N9SS	1,776 RL 1,216 RL	N5QGH	46,156 RL 45,220 RL	N7CKJ	14,320 RL 13.122 RL
AB2YI	2,976 RL	K4UUJ	1,200 RL 144 RL	AC8HU	972 RL	NØQE	27,132 RL	N6ZE	9,639 RL
N3IQ	83.974 RU					KK6MC	43.860 RU	W6MTR	7,592 RU
WA3PTV	61,750 RU					KCØP		N6TEB	7,592 RU 3,360 RU
KC2IRO	61,750 RU 864 RU					NØHZO	5,194 RU 3,510 RU	NV6C	1,302 RU
NGZIRU	004 RU					N5AA	3,510 RU	IVVOC	1,302 RU

In an attempt to promote more VHF contest activity, Paul, WØUC created some on-line tools for posting contest plans. Fifty-four fixed stations and a dozen rovers, mainly in the EN grids, posted their station plans. There has been a rover reflector where rovers were encouraged to post their plans but this seemed to fade from popularity in favor of the **vhfcontesting.com** website which has remained active and predictable. Have you found these types of tools to be valuable in your VHF contest operation? Others hams have used logging programs which included databases of current VHF stations and their band capabilities. The operator is able to check which bands are mutually available, on which bands they are needed, or which have been worked.

This also worked for contacts with rover stations to see which bands and grids are needed or were worked. The W3KM *VHF Log* and *KM Rover* programs are very popular tools on the East Coast, as well as a free download from the web. Todd, KC9BQA has a website for VHF contesting (**kc9bqa.com**) which is a helpful educational tool for newcomers to the VHF events. Several regional clubs have also encouraged FM contacts and calling hours for those hams whose gear was limited. With the wide availability of FM radios for the 146 MHz, 222 MHz and 440 MHz bands, a lot of local activity can be generated. Once FM-only ops get a taste of the excitement of the activity, they may even be converts to SSB and CW operation on these bands.

It's fun to compare some of the dreams and schemes of the stations who posted their plans and goals along with their contesting results. First scrolling through the fixed and rover station plans on the VHF contesting reflector, then looking for their submitted scores is an interesting exercise. A sampling of posted plans as compared to the database scores confirms my long-standing assertion that only half of the participants bother to submit their results. Bruce, KI7JA had a valid excuse for not sending in a log as he posted the following story about doing a portable operation on the West Coast: "My...location in DN04 was blocked by 20 yards of snow three feet deep...could not get through with the truck. Another location...a locked gate...a third was also snow blocked." Weather was a feature for stations in an area from Oklahoma and stretching northeast up to the New England states, as bands of showers and thunderstorms tracked through much of Saturday.

On Sunday, there was more unfriendly rain in the Midwest but most of it cleared out by Sunday evening. In order to be alerted to approaching storms, Paul, WA3QPX kept one computer screen focused on the weather radar. During the contest he did the drill three times – crank the towers down to lower antennas and disconnect the cables – as lightning swept through his area. Kevin, W9GKA reported two trees at their contest operating site were downed by storms on Saturday night. Many eastern stations reported power outages lasting several hours during the contest. Perhaps they were all saving their emergency power sources for the upcoming ARRL Field Day?

Ed, K1TR has had a number of different contesting schemes. This year he tried roving with the bottom four bands to two significant northeastern mountaintops. He battled wind and rain to get his antennas deployed. Although Es was scarce from his locations, the accidental

reversal of the director and the reflector of his 3-element 6 meter Yagi had him pointing in the wrong direction all day. When he returned home, he recognized the error which may have also contributed to his limited 6 meter results.

John, W1RT and Christophe, ON4IY have roved together for several outings and they had planned to have bands through 24 GHz ready. Their route on Friday started as a "reverse rove" to check out each of their proposed sites; they had been disappointed before when they reached an impassible road or a locked gate. One final mission was to test the 24 GHz transmitter with another capable station and to add the appropriate attenuators from the IF to the transverter. Mission accomplished by a QSO across the parking lot with my rig which had previously been tested. Sadly, they were never in position to work another station on that band, but they did manage to have a great run on bands through 10 GHz.

John, W6XM and Eric, KRØVER operated W6XM from the rare grid of CM93 on Santa Rosa Island off the coast of southern California. They flew there on a small twin-engine plane and operated bands ABD using battery power with Yagis on a 15' mast. From the write-up on their website (**w6xm.org/2011.jun-vhf**) it's apparent they had a fulfilling trip. (Band designations for ARRL VHF+ contests are A= 50 MHz, B = 144 MHz, C = 222 MHz, D = 432 MHz, 9 = 902 MHz, E = 1296 MHz, F = 2304 MHz, I = 10 GHz.)

Josh, KF4YLM started out planning a QRP three-band venture, but teamed up with others to operate a multiop station on Butt Mountain at 4200'. They stayed dry Saturday while the stations in the valleys were soaked. In a turnabout, about 3 pm Sunday rain threatened to kill their power plants so they packed up and headed home in downpours. He adds, "The best part of operating from Butt Mountain is the nighttime road warrior visitations. This year was no different. As if was out of a Mel Brooks mash-up of *Mad Max* and *Deliverance*, several marauding bands of lifted 4WDs and ATVs, 6-10 vehicles per troop, loaded to capacity with mud enthusiasts and their girlfriends, roared by through the course of the evening on Saturday, whooping, waving, occasionally inquiring, 'y'all trackin' bears?!?' We answered affirmative every time." Josh also learned why most multiop stations avoid the use of a 144 MHz IF for their microwave stations - the 2 meter station kept him from effectively trying out his 1296 transverter.

Mitch, W1SJ/WB1GQR operated from Mt Equinox in Vermont at an altitude of 3848' after enduring hours of waiting for the horizontal sheeting rain and winds of 35 mph to calm. Trying to stand without getting blown over was difficult. His patience was rewarded with 6 meter double-hop Es to Mexico and many of the western states. John, AA1I had an interesting experience on Mt. Equinox while trying to work stations up the bands. He would key his 2 meter station, which caused the amplifier to draw current, which pulled the ac line voltage low before the generator could throttle up, which then caused his UPS to quit on a presumed line fault, which in turn caused the power on his logging computer to drop out. Luckily he had paper and pen handy for logging, making a busy situation even more frantic fun!

VLA or Vertical Large Array antennas seemed to have been an increasing theme for dedicated VHF ops. Over the years there have been many stations that have the property, towers, and resources to support large arrays of single-band antennas. With many large 6 meter arrays, rotation means having the tower rotate to maximize coverage. Some groups have found that stacking end-mounted beams along tower legs allows each leg to support a VLA and have 360-degree coverage. Some hams in the edges and corners of the activity find that one VLA is adequate to get to the major ham population activity. Warner, K1KG in the Eastern MA section, set up a series of 3-element 6 meter beams facing southwest to complement his 6 meter 7-element rotatable beam and took advantage of the weekend Es.

Jerry, KØCQ called it another "wet-noodle weekend" as the Midwest stations had no trouble piling up the 6 meter QSOs with antennas of all varieties, including his dipole in the garage attic; Bill, KØKT was using an HF triband beam; and Clay, WØFS was loading a 160 meter inverted L. The DX grids of FL06, FL15, EK99 and EK71 found their way into the log of Ron, WZ1V operating from his new QTH in FN31 with only a Par stressed-Moxon antenna. John, NA6L explained how he threw together a bunch of junky little beams built from coat hangers and scraps from old antennas and wound up with 273/112 for over 30K from DM12 in the San Diego section.

Marshall and his Multiop team at K5QE are still dreaming that they will beat W2SZ. They added a low antenna to their previous 6 meter stack, enhanced the 3456 MHz station, and managed to link up with additional rovers Steve, N2CEI and Sandra, K4SME. Although Steve and Sandra encountered a windstorm, they managed to cover 12 grids from Memphis southward to Florida. (See the sidebar, "You Gotta Have Luck" about Steve and Sandra's adventures!) K5QE has been adding EME QSOs to enhance their 2 meter and 432 MHz grid counts. For a few years, they have been aiming to best the scores of the well-organized and well-equipped W2SZ team and their rovers. The only glitch was the 6 meter amp, haunted by Murphy, which decided to take a break in the heat of the action of the 200 QSO/hour runs on 6 meters. Marshall's voice was cracking as the action was hot; his team mates needed to pry him out of the chair for some rest and refreshment. The K2LIM Limited-Multi team operated out of their "Limo," a converted bus fully equipped for the bottom four bands; the bus now has an extended 200 square-foot porch for operator dining and relaxation. Typical of portable teams, they use tower trailers and have great arrays in the air. As with most of the East Coast groups who were out in the mountains, they encountered lightning and rain storms on Saturday and then fog and hail on Sunday but were glad to have their feet dry on the newly constructed addition.

KØW also operated a Limited Multiop station from the woods of Big Fall, MN and helped put EN48 into many logs with a 6 meter total of over 800 contacts in 260 grids. Hazards of the northern woods included swarms of mosquitoes, "You couldn't take a deep breath or you would inhale a mouthful," and temperatures down to the freezing mark at night. The WQ4M LM station operated from a motor home in the Florida panhandle in EL79. Buddy, WB4OMG was one of the four participants who reported that they felt like they were rare DX on 20 meters! The

W4NH LM Fourlanders Contest Team set a new record with 400K points by operating from the mile-high campground in EM85. They found that the local elk were checking out the "antlers" on their 6 meter tower.

Zach, W9SZ found that previous rover outings had taken some of the hardware from his gear; the situation was fixed with some new nuts and bolts purchases. He discovered that a 6 meter beam could radiate on 432 MHz, but that the 432 beam could not on 6 meters. The situation was fixed with a swap of the two antenna cables! Murphy struck at the dream rover plans of Brian, N3IQ; David, N3XUD; and Angel, KB3STA. Angel took ill Friday night and stayed home. Wind flipped the tarp and rain soaked the rover rigs in the truck bed. Repairs to the switching were incomplete, leading to the backup alligator clip action. Despite the problems, they still managed a score of over 90K. Lloyd, NE8I had plans and schemes A and B for the potential of 6 meter openings. Murphy got him to plan C – no roving! Two days of rain prevented him from loading his rover setup. On Sunday, when he helped the landlord move furniture and hurt his back, Lloyd had to settle for a few contacts from home. Gabor, VE7DXG and rookie Harold, VA7GNR activated three rare Canadian grids of CN78, CN79 and CN88 with 100 watts and a 5-element beam. They also found snow fields in June.

Welcome to so many of you who reported that this was their first VHF contest. Hal, N4GG reported that he learned a lot and had fun in his first 6 meter contest after 50 years in HF. Bob, W5KI commented that as newcomers in their first VHF contest, they are in for a rude awakening in future years as this year will surely spoil them. In the spirit of recruiting more activity to VHF contesting, Dennis, KM9O from the Society of Midwest Contesters lined up several two-band FM ops from a local club. He got them to operate 146 MHz and 440 MHz FM with their units in a horizontal polarization for an extra 20 QSOs in the log. Perhaps some of those operators will gravitate toward more gear and effort in the future. Pete, NØOY found the right mix of local hams and college students to put WBØDRL on the air for an ML effort that netted 1300 contacts. He reported that it was an interesting weekend teaching the art of grid squares, antenna pointing, frequency use, and running rate to non-contesters. Chris, NV4B operating QRP portable from the highest spot in Mississippi was a ham ambassador to the many visitors to this spot as he introduced them to Amateur Radio. Have you done anything special to promote amateur radio and VHF activity?

DX

Logs were submitted by multiple DX participants, some of whom spent considerable effort to give the 6 meter opening a good ride and excite those of us stateside. C6ABB in Limited Multiop and C6AKQ in Unlimited Multiop each scored well over 100K. The Limited Multiops of COØOM had over 80K, and T48K had more than 50K. Low Power Single-Op Winston, CO2WF logged a score of 2.8K. Ted, HI3TEJ had close to 100K as a SOLP entry. NP2X from VI had a small log as well as PV8AZ and PV8DR from PR. Chuck, W5PR operating YN2PR in Nicaragua scored 85K and Jim, operating ZF2BI in the Caymans, had over 30K in his entry.

Dave, VP5CW as a SOLP had an entry with a quarter-million-point score. Wayne, operating as PJ2/K8LEE, gave us another DX entity and Caribbean grid square. Fred, KH7Y managed to have 22 contacts in 15 grids with small openings to the mainland US and Japan. There were 51 logs from Canadian stations, including a whopping 1 million point entry from Unlimited Multiop VE3WCC. One Unlimited Multi-op and four Single-Ops including Zalo, XE3N [corrected 14 Oct 2011] with over 60K in Mexico added another half million points to the action. Stations from HR, VP9, YS and NP4 also were logged.

The Bands

Hail to the mighty 6 meter conditions. Dave, KØDI aptly renamed the weekend, "The June 6 Meter Contest." The band popped open intermittently all weekend with both single and double-hop Es. Tom, K4MM cautioned "If you left the seat you missed a mult." The best hours appeared to be Sunday between 1200 and 1700 UTC. Reading some of the QSO rates from contestants during that span, there were highs close to 200 contacts per hour with 150 new grid multipliers added to some logs in that time frame. The DX window was active and there were fast moving pileups on the DX stations as they appeared. Having a key or keyer and a good CW ear was also helpful as many additional stations and multipliers, including some DX, were workable on CW. It was difficult for many stations to interrupt their big runs by scouting for additional multipliers and rarer stations in the frequencies below 50.125 MHz.

Ken, WØETT reported that with the Sunday morning opening at times it seemed like he had a Yagi on the top of his van instead of a 6 meter Hamstick! He supplied many contesters with rare grids of DM88, DM87, DM77, DM78, DM79, DN70, DN60, DN61, and DN71. He also put 46 stations on 6 meter CW into his log. Gary, N7IR reported that he made more CW QSOs in this contest than in all past VHF contests combined. Don, K8MFO operating CW only on 6 meters, reported 350 contacts on that mode. Matt, K7BG reported all his 145 6 meter QSOs were CW. "I couldn't find the mike and didn't look very hard for it."

Tom, W4BQF on his first VHF contest experience found conditions spotty with some good surprises and logged 170 contacts in 96 grids. Dave, K6LL loaded up his 40 meter beam for 69 QSOs. Bill, WB6JJJ used his tribander. Marc, W4UCZ fed a random long-wire. Dennis, K2SX used his 135' inverted V doublet. Don, AA5AU was working another contest, found it slow, came up and called CQ on 6 meters and wound up with 630/185 and over 100K points on his first VHF contest.

On Saturday, Ken, VO2MK operated 6 meter mobile from Labrador in GO13 thrilling 28 other stations with that rare grid multiplier. Michael, AB1OD used a Carolina Windom antenna and after seeing the results commented that he'll ask the XYL if he can put up something more for VHF. Randy, NDØC had a total of 256/129 for 33K running QRP with 5W into a 5 el beam at 50'. Al, N5UM had 172/95 with just a halo at 12'. Bob, WØBH had 397/173 without a 6 meter antenna, rotating between his high and low band dipoles and an 80/40 vertical with a tuner. Lon, W9XU got the 24-hour bug of "sixmeter-itis" and filled his log until he had to stop to get

back to the job on Sunday night. Lefty, K1TOL in ME told a different story. He is a dedicated 6 meter op and usually takes great advantage of the conditions. He had his ups and downs on Saturday and then hit a big run on Sunday morning. Then he got stymied by the QRN; while others from the northeast were working dozens of stations from the southwest he kept calling but got no replies. He called it "a disaster" and closed his station in "abandoned disgust" with 581 QSOs and 177 grids in his log. He claimed it was his worst ARRL June outing in 10 years.

Two meters was the next most popular band; once there were lulls in the 6 meter action, operators went back to that band to pick up more contacts and multipliers. Was there any 2 meter Es? Sebastian, W4AS from EL95 in Miami had an 1107 mile QSO with Brett, WØBLD in EM37 in Missouri. Most stations reported limited conditions on the bands 2 meters and up. Activity on the higher frequencies was limited, especially because 6 meters was open on and off for most of the weekend and operators focused attention there.

Mike, VE9AA called 2 meters a wasteland and barely heard any W1 stations point in his direction. W5KI adds, "Was never hearing anyone on 2 meters when I checked but didn't care with 6 meters being so hot." He later realized that he had a broken wire to the 2 meter antenna relay.

Herb, operating WA2FGK, had 332K points with his 10-band effort but complained that "two meters was pathetic." The contacts on 222 MHz and up also suffered because of all the action on 6 meters. To quote Rich, W5SXD, "Six was amazing! No time for the higher bands." Tree, N6TR said, "Best 6 meter score I have had – with worst score on the other bands." Paul, WØUC claimed he missed most of the local rover activity because he stayed on 6 meters. He still managed a 360K score with 6 bands. Multioperator stations managed to make the best of these bands. Rovers were also trying to catch as much of the 6 meter action as possible but finding few stations aside from the multi-ops on the higher bands.

The groups that made the most of 222 and up included the W2SZ Mount Greylock Expeditionary Force, their rovers, and N6NB operating as a QRP Portable supported by the Southern California Contest Club rovers. The Southern California Contest Club members maintained their focus on the higher bands with their theme of microwave roving and schemes of capturing top honors in as many categories as possible. Their rotatable toolbox transverters attached to antennas atop their vehicles are models of efficient mobile communication. The N6VI MU team also played the microwaves, using gear through 10 GHz at 8,000' elevation and catching many of the SCCC rovers. Brian, NJ1F did manage to make 4 contacts on 47 GHz.

The Competition

The final numbers show a total of 1233 submitted logs, an increase of 2% over 2011. Again, the biggest category with 716 entries was SOLP. The SOHP category had 215 entries. Limited Multioperator entries numbered 63, while the Unlimited Multioperators submitted 103 logs. Low-power Portable included 37 entries. Rovers are divided into three sections and there were 49 Classic Rovers, 40 Limited Rovers and 10 Unlimited Rover logs submitted. This 2011 ARRL June VHF QSO Party Results

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distribution is similar to previous years. Forty-three section records were broken all over the map and in every category. N6NB set a new national record in the QRP portable category with 295K points. A complete listing of the records and extended contest information can be found at the online ARRL contest results section (www.arrl.org/contests).

Single-Operator

There were a total of 931 single-ops in both the low and high power categories. It is always exciting to see the numbers of folks that get on the air, even to dip their toe in the pool and see what it's like to swim in the contest. Although there is no one of the entry groups that can be credited with the greatest contribution to the activity, by sheer numbers those folks who operated casually and made a few dozen contacts certainly added to the fun of the weekend, especially when the propagation was favorable. The 6 meter conditions in the central US gave a scoring advantage to those stations who kept that band working as much as possible.

In first place in the SOLP category is Larry, NØLL in KS who scored 381,860 points. On the strength of his 6 meter 1174 contacts in 272 grids, combined with another 46 contacts on bands BCDE, he was able to beat his nearest competitor by 2000 points, about half of 1% of his submitted score. Rich, W5SXD in NTX took 2nd place with 379K. He had 117 more 6 meter QSOs and 273 multipliers but only 17 additional QSOs on bands BCD9E. Bob, K2DRH captured 3rd place with a 7 band entry and a 342K score. Bob, N3LL in WCF managed a 307K score for 4th place, also built on a huge 6 meter QSO and grid total of 1048/245. Dave, W5CW operating as VP5CW took 5th place with his single band entry logging 1030 contacts in 224 grids. Sixth place was taken by Todd, N4QWZ in TN with 198K from a 6 band effort. Vince, KØSIX from MN was in 7th place with a 4-band effort scoring 197K. With a single-band entry, Dave, K5RQ operating in WCF logged 189K for 8th place. Wayne,

	n Leaders_	
	ator, Low Pow	
Atlantic	W3PAW	130,269
Central	K2DRH	342,681
Dakota	KØSIX	197,024
Delta	N4QWZ	198,171
Great Lakes	WN8R	35,880
Hudson	K2KIB	36,380
Midwest	NØLL	381,860
New England	AF1T	152,040
Northwestern	W7ID	63,666
Pacific	K7XC	25,092
Roanoke	WY3X	108,756
Rocky Mountain	NØPOH	167,420
Southeastern	N3LL	307,671
Southwestern	WJØF	118,450
West Gulf	W5SXD	379,872
Canada	VA3ZV	74,909
Single-Opera	ator, High Pow	
Atlantic	K1RZ	367,334
Central	WØUC	351,975
Dakota	WDØT	412,383
Delta	KG5MD	60,606
Great Lakes	K8MD	110,200
Hudson	N2GHR	60,354
Midwest	WØFY	61,420
New England	K1TEO	358,001
Northwestern	K7CW	121,572
Pacific	K6KLY	73,786
Roanoke	NG4C	117,465
Rocky Mountain	K5AM	384,120
Southeastern	K2EK	296,431
Southwestern	N7CW	262,194
West Gulf	K5TR	501,714
Canada	VE5UF	71,977
• • • • • • • • • • • • • • • • • • • •	rator, Portable	
Atlantic	N3YZ	36
Central	W9SZ	33,550
Dakota	K9AKS	44,814
Delta	NV4B/5	11,880
Great Lakes	N8XA	18,725
Hudson	WB2AMU	3,080
Midwest	NØJK	10,488
New England	KA1LMR	67,662
Pacific	N6NB	295,368
Roanoke	KC8KSK	480
Rocky Mountain	WB7CJO	2,430
Southeastern	WØPV	5,220
Southwestern	N6DN	16,856
West Gulf	KJ5RM	58,784
Canada	VA3RKM	18

Division Loadors

NØPOH was 9th with 167K operating out of CO, and Rich, NØHJZ in MN was 10th with 162K.

SOHP winner George, K5TR in STX scored 501K with a huge effort on 6 meters of 1445 QSOs in 292 grids. He also added another 73 contacts on bands B, C, and D with another 34 grid

multipliers to achieve his top spot. He was followed in 2nd place by another STX station; George, NR5M also piled up the 6 meter contacts with 1394 Q's on that band and also 292 multiplier grids. He also made additional contacts on bands B, C, D and 9 for a final score of 454K. Todd, WDØT in SD was in third place with 384K points again on the basis of a large 6 meter total of 1321/278. Tom, WD5K in NTX operating only on 6 meters managed to grab 4th place with 387K on QSO total of 1265; he had an outstanding multiplier total of 306 grids on that band. In 5th place from NM was Mark, K5AM with a three band entry which also capitalized on the 6 meter openings. Not until we get to 6th place do we find an entry from either coast; Dave, K1RZ was there with 387K based upon a 7 band entry through 2 GHz. The QSO totals per band and multiplier distribution are very different from the top five as he had 421/137 on 6 meters but 178/43 on 2 meters and 100/32 on 432 MHz as representative differences. Jeff, K1TEO was in 7th place with his usual 10-band entry with 358K. Paul, WØUC from WI maintained 8th place with a score of 352K. Gerald, KØDU in CO captured 9th place with 346K from an A and B 2-band effort and 330K. Rounding out the Top Ten was Mike, K9MK in NTX with 331K.

In first place in the Portable category was Wayne, N6NB. He sought to establish a new

national, regional and sectional record and accomplished just that. Setting himself up in a strategically high location with a portable tower and outfitted with 10 bands, he was able to amass 653 contacts with 186 grid multipliers for a 295K total. The cooperative strategy of the Southern California Contest Club rovers was no doubt the major contributor to his effort and score. In second place is Chris, KA1LMR with 67K with a well-rehearsed 6-band effort from the NH section. Jory, KJ5RM in NTX was third with 59K using 4 bands. Curt, K9AKS was 4th with 45K, traveling with 5 bands to ND for his weekend. Zack, W9SZ took 5th place from IL with 33K using 10 bands.

Multioperator

The top scoring Limited Multi-op team this year was a group in AR manned by several of the ARRL staff and the immediate past president, Joel Harrison. Joel reported, "Early preparations were hampered by abnormal rain and storms during the spring which turned to higher than normal heat leading up to the contest; however the local radio club pitched in to get everything ready just

l imited l	Multioperator	
Atlantic	W3SO	435,754
Central	K9NS	
Dakota	NØEO	633,552
		155,927
Delta	W5ZN	686,784
Great Lakes	N8ZM	160,080
Hudson	W2LV	212,568
Midwest	NØOY	394,434
New England	N1WK	161,252
Northwestern	K7TM	61,288
Pacific	K6LRG	53,192
Roanoke	K8GP	505,932
Rocky Mountain	NØKE	209,703
Southeastern	WQ4M	74,784
Southwestern	WA7JTM	380,546
West Gulf	N5RZ	222,530
Canada	VE7SCC	33,930
Multi	ioperator	
Atlantic	W3CCX	481,459
Central	N2BJ	83,985
Dakota	NYØV	28,290
Delta	N4JQQ	127,333
Great Lakes	N4QS	20,952
Hudson	W2YR	3,285
Midwest	WQØP	147,972
New England	W2SZ	1,183,446
Northwestern	KB7Q	78,318
Pacific	W6TV	98,968
Roanoke	W4MYA	64,680
Rocky Mountain	WØKVA	458,436
Southeastern	N4LR	99,330
Southwestern	N6VI	408,100
West Gulf	K5QE	1,017,000
Canada	VE3WCC	86,335
		•

Division Leaders

prior to the start. A great group of operators injected diverse contesting expertise into the effort that allowed the W5ZN team to maneuver through a weekend of obstacles that included lost operating time due to severe thunderstorms and loss of electricity, equipment failure and even the death of an immediate family member of one of the ops. A true team effort proved these

complications can all be overcome and still put forth a winning effort." Their score was 687K based on a 6 meter 1090/298 total with plenty of contacts and grids on the other three bands. In second place the K9NS team in IL scored 633K, also capturing plenty of the 6 meter excitement in addition to 69 grids on 2 meters! The K8GP gang in VA placed 3rd with 506K, managing to find 451 contacts on 2 meters. Late Sunday afternoon they lost their commercial power due to storms and had to call it quits early. The W3SO Wopsonock Mountain group was in 4th place with 436K with 46 grids on 222 MHZ and 48 grids on 432 MHz. W4NH in NC was next with 404K across the bottom 4 bands. Kansas station NØOY was in 6th place with another strong 6 meter effort. WA7JTM from AZ held 7th place with 380K on a three-band effort. K2LIM made it to the 8th spot with 298K, while N5RZ in WTX with 222K was 9th and W3IY in VA was in 10th place with 218K.

The Unlimited Multi-op competition seemed to line up as it has been for the past few years with perennial winner W2SZ in 1st place again with 1.183 million points. The 12-band effort with a mega-station atop Mt. Greylock, one of the best VHF spots in the northeast, coupled with the population density of the area and their multiple rovers has kept this group in the leading spot in this category for many years. Snapping at their heels with a 1.017 million point score is the K5QE team, headed by Marshall in the STX section. Their 8-band station made use of the great 6 meter conditions with a 1421/302 band total. They also had 205/98 on 2 meters and 75/35 on 432 MHz, an impressive feat considering the wide open spaces of their geography. The Packrats were in third place as the W3CCX team in EPA scored 481K with a 12-band effort in a rebuilding year. They used new gear and enlisted several new members for their Camelback Mountain weekend. Taking great advantage of their position in the midst of the 6 meter mayhem, WØKVA in CO placed 4th with 458K and a 7-band set-up. KBØHH in OK was 5th, scoring 410K on 8 bands. One of the Southern California Contesting Club Multi-op stations took 6th place with 408K from SD on the strength of the microwave contact totals and grids with many of the club rovers. K3EOD in SNJ pulled into 7th place using 9 bands for a score of 239K. Eighth place was captured by K3YTL "yellow traffic light" in EPA, scoring 152K; while WQØP from KS was in 9th place with 148K, and N4JOO from TN copped the 10th spot with 127K.

Rover Activity

Despite varying weather and road conditions the rovers always seem to be in demand and having fun. The Classic Rover category is still the most popular and one third of them were equipped with 10 bands or more. Their contact totals on the microwave bands account for a large percentage of all of the contest activity in the centimeter wavelengths. Because so many of the fixed stations kept their band switches on 6 meters, in many instances rovers had to plead with other stations to "run the bands." Again, the Southern California Contesting Club rovers were out in force; using their scheduled travels over 10 grids and neat "bands in a box," they captured the top four spots in this category. John, K6MI in first place scoring 234K; in 2nd place we had Andre, K6AH with 210K; 3rd was Art, W6XD with 184K; and 4th was Amy, W6XDX with 174K. Back on the East Coast the experienced rover team of John, W1RT and Christophe,

ON4IY bagged 115K to secure 5th place. Moving up to Canada, Murray, VE3NPB managed 6th place with 113K and Steve, VE3SMA took 8th place with 88K. They appeared to operate together as they shared the distinction of having seven laser QSOs each in seven grids. Slipping

between them in 7th place was Tim, K6GEP with 98K, also an SCCC rover, who covered fewer grids than his teammates. Sandra, K4SME and Steve, N2CEI from FL traveled across 12 grids and scored 74K for 9th place and taking 10th place was Steve, AG4V from TN with 63K.

Hudson NJ1F 4,350 W1AUV The Limited Rovers are challenged to use only New England 39,695 Northwestern 4,329 K7MDL bands ABCD; most of them made use of the four bands Pacific K6MI 234.346 Roanoke KS4S 5,605 although there were several entries in this category with Rocky Mountain WØBA 13,570 1,484 Southeastern N4TZH only two or three bands, often dropping 222 MHz or 432 Southwestern W6TAI 43,056 MHz. With 40 entries in this category, it remains quite West Gulf KE5GAQ 2,910 Canada VE3NPB 112,770 popular and is a good entry category for operators with a **Limited Rover** Atlantic K2QO 38,720 multi-band rig who want to get on the road, provide plenty Central K9JK 16,692 of action for many of the fixed stations and see what Dakota WAØVPJ 58,706 Delta AD5OW 15,687 propagation they can find from different locations. K8DOG **Great Lakes** 7,776 Hudson WB2SIH 9.604 Topping the 40 entries was Tim, AL1VE centered in CO Midwest NØQE 27,132 New England K1TR 69,433 who managed to capitalize on the 6 meter activity with Northwestern KI6CG 14,320 781/205 and only 5 contacts across the other three bands Pacific W6YLZ 76,416 Roanoke AD4IE 1,200 for a score of 169K. In 2nd place was another SCCC rover, Rocky Mountain AL1VE 168.846 2,891 Southeastern K6LMN/4 Mike, W6YLZ who covered 10 grids and scored 76K. The Southwestern AF6AV 30,268 West Gulf N5QGH 45,220 remaining places were spread around the country: Ed, VE3RKS Canada 952 K1TR from NH was in 3rd place with 69K, John, **Unlimited Rover** 83,974 Atlantic N3IQ WAØVPJ from MN in 4th with 59K, and Ken, WØETT Dakota **KCØP** 5,194 from CO with 46K capturing 5th place. With geographic KC2IRO Hudson 864 Pacific N6TEB 3,360 diversity the next 5 places included Brian, N5OGH from KK6MC 43,860 Rocky Mountain Southwestern W6MTR 7,592 NTX in 6th, Mark, K2OO in WNY in 7th, Phil, AF6AV in West Gulf 168 N5AA SDG 8^{th} , Scott, NØQE from KS in 9^{th} place and from IL, John, K9JK in 10^{th} place.

On to the Unlimited Rover category – those who declared themselves as "Unlimited" and those that did not fit the rules of the other two rover categories. There were 10 entries in this category; the team of Brian, ND3F and David, N3XUD operating the N3IQ rover were first in this category with 84K using 6 bands across 7 grids. Joe, WA3PTV from WPA was second with 62K based on a 10-band effort in 4 grids. Third place was earned by Jim, KK6MC from NM with a score of 44K from a 5-band effort, heavily weighted with 6 meter contacts and grids.

Division Leaders

Rover

W1RT

W9SNR

KDØS

K4SME

KF8QL

114,838

42,959

9,301

74,261

18.564

Atlantic

Central

Dakota

Great Lakes

Delta

Club Competition

The club completion Section is important; there is subtle peer pressure to get the maximum number of potential club participants for an aggregate club score. There were 541 logs in total for all the club entries or about half of all the participants, considering that there were Multiop stations that added into the club scores. On a roll for the past few years, the Society of Midwest Contesters picked up another first Unlimited Society of M Medium C Potomac Va Southern C Grand Mess Florida Con Mt Airy VHF Northern Li Nacogdoch Central Tex North East Arizona Ou Contest Clu Yankee Clip Pacific Nort South East Badger Cor Tennessee Roadrunner Northern Ca North Texas

place as the uncontested leaders in the Unlimited Club category. They managed to get 73 member logs for a 2.2 million point club total. There were 33 entries for the Medium Club category. The Potomac Valley Radio Club won top spot in this section with 39 entries and a total of 2.1 million points; two strong Multi-op stations, K8GP and W3SO, are

The Southern California Contest Club placed second in the medium club ranks this year with 22 logs and 1.8 million points. The team's rovers and the QRP portable effort of N6NB were the

major contributors to their

success.

•	Logs	Score
Unlimited Club		
Society of Midwest Contesters	73	2,197,185
Medium Club		
Potomac Valley Radio Club	39	2,119,961
Southern California Contest Club	22	1,839,996
Grand Mesa Contesters of Colorado	15	1,723,169
Florida Contest Group	18	1,665,347
Mt Airy VHF Radio Club	24	1,394,628
Northern Lights Radio Society	15	1,270,653
Nacogdoches ARC	7	1,047,246
Central Texas DX and Contest Club	7	1,035,743
North East Weak Signal Group	18	854,814
Arizona Outlaws Contest Club	26	842,156
Contest Club Ontario	20	529,900
Yankee Clipper Contest Club	16	401,233
Pacific Northwest VHF Society	18	353,813
South East Contest Club	14	352,588
Badger Contesters	12	315,251
Tennessee Contest Group	16	301,848
Roadrunners Microwave Group	4	292,953
Northern California Contest Club	23	205,237
North Texas Microwave Society	5	183,462
Minnesota Wireless Assn	12	155,564
Utah DX Assn	4	139,740
Alabama Contest Group	10	117,489
Louisiana Contest Club	4	114,692
Mad River Radio Club	6	77,456
Carolina DX Association	10	72,682
Frankford Radio Club	5	65,496
ORCA DX And Contest Club	4	32,400
Willamette Valley DX Club	3	24,046
CTRI Contest Group	3	17,801
Western Washington DX Club	3	17,391
Hilltop Transmitting Assn	4	12,117
Contest Group Du Quebec	4	8,274
Alaska VHF-UP Group	3	634
Local Club		
Mt Frank Contesters	4	673,128
Murgas ARC	4	495,034
Lone Star DX Assn	5	486,816
Chippewa Valley VHF Contesters	3	242,496
Florida Weak Signal Society	10	236,933
Eastern Connecticut ARA	3	164,263
Spokane DX Association	4	114,328
Bristol (TN) ARC	8	83,961
Stoned Monkey VHF ARC	7	56,952
Bergen ARA	8	53,879
Delara Contest Team	4	28,146
Raritan Bay Radio Amateurs	5	22,081
Portage County Amateur Radio Service	5	18,836
Burlington County Radio Club	4	6,122
1 14 0 114 0 4 6		:41 1.5

backbone of their effort. In third place, we had the Grand Mesa Contesters of Colorado with 15 logs and a 1.7 million points; plenty of 6 meter contacts and grids built their totals. They had the best average contribution per member of almost 115K points. The Florida Contest Group amassed 1.66 million points with 18 contributors for a 4th place spot. The Mt. Airy VHF Radio Club held 5th place with 24 logs and a 1.4 million point score. The local club category included 14 entries; the Mt. Frank Contesters in IL were first with 4 logs and a 673K total. The Murgas

ARC in EPA was second, also with 4 logs and a 495K total. In third place, we had the Lone Star DX Association from STX with 486K from 5 logs.

The Future

Stimulated by the extraordinary 6 meter conditions during the last two June VHF QSO Party events, there are sure to be more dreams of what the future may hold. The sunspot cycle continues to gain momentum, more operators are on the air, more multiband radios that include multimode VHF capability are on the market, and the schemes of enhancing scores with more rovers, more bands, and the use of digital modes and EME abound. No one can predict the exact themes of future VHF activities as you never can tell when unusual tropo, Es or aurora may enhance the signals.

Next year's June VHF QSO Party will be held on June 9-11, 2012 and there is no doubt that many of you have already booked the time and are already making preparations. The challenge will be to introduce some newcomers to the fun and activity and make them feel part of the broader VHF community. Various websites and the VHF contesting reflector are always great sources of assistance for all types of questions or ideas, as well as for buying and selling used radio gear. Most VHF radio clubs have well organized websites and they are good local resources for amateur operators seeking membership or assistance with their projects or station building. It is also a delight see your posts on various reflectors including your station pictures on the ARRL contest soapbox.

I am grateful to Jani, my XYL and editor of these articles and to Curt, K9AKS for assisting with the contest records research. Thank you both. Anticipation is often 90% of the enjoyment, so I hope you are taking every opportunity to contemplate future VHF operating activities. Now back to the original answer I posed at the beginning: Dreams, Schemes, and Themes! The question inside Karnak's envelope is: Name three things that VHF operators enjoy before, during and after the June ARRL QSO Party.

Sponsored Plaque Winners

Plaque Category	Plaque Sponsor	Winner
Overall Single Operator Low Power	Society of Midwest Contesters	NØLL
Overall Single Operator QRP Portable	Dave Carlson, AA9D	N6NB
Overall Multioperator	Randy Stegemeyer, W7HR	W2SZ
Overall Limited Multioperator	K1TEO, W2GKR, W2GKO, KA1FVG	W5ZN
Atlantic Division Rover	Potomac Valley Radio Club	W1RT
Hudson Division Single Operator Low Power	From Jay, NY2NY - In Memory Of Dick, W2GFF	K2KIB
Northwestern Division Single Operator High Power	Boring, OR Amateur Radio Club	K7CW
Northwestern Division Single Operator Low Power	Mike Coogan, KB7ME	W7ID
Northwestern Division Single Operator QRP Portable	Mike Coogan, KB7ME	No Entrant
Northwestern Division Multioperator	Randy Stegemeyer, W7HR	KB7Q
Roanoke Division Rover	Potomac Valley Radio Club	KS4S
Southwestern Division Single Operator High Power	W5UWB - In Memory of John Chambers, W6NLZ	N7CW

QSO Leaders		N3ALN	28	N3RG	96
		KKØQ	27	N2GHR	83
Single Operator Low Powe	r	WB5ZDP	27	W8ULC	80
50 MHz		NY2NY	27	K8TQK	79
00 III IZ		002 MH-		KX4R	70
W5SXD	1291	902 MHz		K6KLY	69
NØLL	1174	W3PAW	20	K9CT	66
N3LL	1048	K1KG	16	W9GA	66
VP5CW (W5CW, op)	1030	AF1T	12	222 MHz	
K5RQ NØHJZ	897	WA3EOQ	10		
K2DRH	741 739	WA2VNV	9	K1RZ	80
AB5EB	703	WA6ZTY	8	K1TEO	70
WA7LNW	640	W3SZ	8	WA2FGK (K2LNS, op)	68
NØPOH	630	W3RC	7	K3TUF	64
AA5AU	618	W3IP N3ALN	7 7	K8TQK N3RG	38 37
HI3TEJ	569	K2KIB	7	KN4SM	36
KØSIX	569	N4QWZ	6	KX4R	32
WJØF	568	NØPOH	6	VA3ST	29
WQ5L	546	WB1GQR (W1SJ, op)	5	KC6ZWT	29
144 MHz		WB5ZDP	5	N3HBX	28
144 WITZ		NØYE	5	N2GHR	27
KA1ZE	294			WØUC	25
WB1GQR (W1SJ, op)	166	1296 MHz		N3MK	24
WB2CUT	111	K1KG	22	W9GA	24
AF1T	106	AF1T	22	432 MHz	
K2DRH	106	W3PAW	20	432 WITZ	
W3PAW	92	K6TSK	19	K1RZ	100
W9GKA	91	K2DRH	16	K1TEO	87
K1KG	85	WA2VNV	13	K3TUF	72
K2KIB WB5ZDP	85 69	K2KIB	12	WA2FGK (K2LNS, op)	68
W2UDT	64	W3IP	12	N3RG	52
WA2VNV	59	WB1GQR (W1SJ, op)	11	K8TQK	48
W3IP	58	AC1J	11	KN4SM	43
KØSIX	57	W3SZ	11	KX4R	43
K6TSK	56	WA3EOQ N4QWZ	10 9	W9GA WØZQ	39 38
		WB5ZDP	8	N2GHR	38
222 MHz		N3ALN	8	KC6ZWT	36
WB1GQR (W1SJ, op)	55	KA2OON	8	VA3ST	36
AF1T	41	W1RS	8	K4QI	35
W3PAW	41			WØUC	34
K2DRH	34	Single Operator High Power	er	000 1411	
W9GKA	31	50 MHz		902 MHz	
K1KG	30			K1TEO	37
KØSIX	28	K5TR	1445	K1RZ	36
WA3EOQ	27	NR5M	1394	K3TUF	29
NZ3M	25	WDØT	1321	WA2FGK (K2LNS, op)	28
N4QWZ WA2VNV	25 23	K5AM WD5K	1314 1265	N3RG	18
WB8TFV	23 22	KØDU	1174	N2GHR	15
K2KIB	21	K2EK	1173	KC6ZWT	14
WS3C	21	WØLSD (WD0BGZ, op)	1036	K8TQK	12
AC1J	20	K9MK	1035	K1GX	10
		WØRIC	993	WB2RVX WØZQ	10 10
432 MHz		N7CW	982	K4XR	9
WB1GQR (W1SJ, op)	73	K5GNA	969	K2YAZ	8
K2DRH	60	K7CA	937	N3NGE	7
AF1T	53	WØUC	866	WA3EHD	6
K1KG	50	K4SN	835	W7AIT	6
K6TSK	48	144 MHz		WØGHZ	6
W3PAW	41			KØVXM	6
KØSIX	35	K1TEO	265	WA3DRC	6
WA2VNV	33	K1RZ	178	WØUC	6
W3IP	33	N3HBX	133		
AC1J	31	K3TUF	125		
W2DAN	30	WA2FGK (K2LNS, op)	120		
WA3EOQ	30	W8BYA	116		
N4QWZ	29	WZ1V	105		

4000 MILL		14/415/	40	W CDV	
1296 MHz		W4IY -L N1WK -L	42 38	WØPV N6DN	90 89
K1RZ	41	W4NH -L	35	KB5WIA	82
K1TEO	41	VV-4IVI I -∟	33	NØKIS	76
WA2FGK (K2LNS, op)	37	432 MHz		WB7CJO	54
K3TUF	33	W2SZ	201		_
N3RG	18	K8GP -L	165	144 MHz	
N2GHR	17	W3SO -L	148	KA1LMR	81
K8TQK K4XR	14 12	N6VI	141	N6NB	72
K1GX	12	W3CCX	127	KB5WIA	70
VA3ST	12	K2LIM -L	94	N6DN	45
KØVXM	11	W5ZN -L	93	N1PRW	28
WØGHZ	10	K9NS -L	88	W9SZ	26
WØUC	10	W2LV -L	78 	KJ5RM	15
K2HZN	9	K5QE	75 70	N8XA	12
WB2RVX	9	W4IY -L K3EOD	73 68	WØDJM WB2AMU	10 9
W5VHF	9	K3YTL	63	N3YZ	9
WØZQ	9	N1WK -L	61	WD5AGO	8
W4WA	9	W4NH -L	59	NV4B/5	8
Multioperator				K9AKS	7
•		902 MHz		KC8KSK	7
50 MHz		W2SZ	60	202 MII-	
K5QE	1421	N6VI	34	222 MHz	
WØKVA	1303	W3CCX	34	N6NB	69
WA7JTM -L	1231	K3EOD	30	KA1LMR	33
NØOY -L	1159	K5QE	16	N6DN	13
W5ZN -L	1090	W6TV	14	W9SZ	11
K9NS -L	995	K3YTL	14	WØDJM	3
N5RZ -L	923	N4JQQ WB3ICB	11 10	K9AKS	3 2
KB0HH W2SZ	841 840	WB3IGR K6LRG -L	9	WB2AMU KJ5RM	2
W4NH -L	824	W6YX	9	KC8KSK	1
NØKE -L	812	N1JEZ	4	K9PLS	1
N5XTR -L	752	WQØP	3		•
KCØVFO -L	727	WØKVA	3	432 MHz	
WA7KYM -L	675	KB0HH	2	N6NB	67
K8GP -L	651	K6ARP -L	2	KA1LMR	53
144 MHz		1296 MHz		N6DN	36
		1200 11112		KB5WIA	36
K8GP -L	451	W2SZ	78	W9SZ	14
K8GP -L W2SZ	430	W2SZ N6VI	56	W9SZ N1PRW	14 8
K8GP -L W2SZ W3CCX	430 364	W2SZ N6VI W3CCX	56 45	W9SZ N1PRW KC8KSK	14 8 6
K8GP -L W2SZ W3CCX W3SO -L	430 364 324	W2SZ N6VI W3CCX K3EOD	56 45 31	W9SZ N1PRW KC8KSK K9AKS	14 8 6 5
K8GP -L W2SZ W3CCX W3SO -L K9NS -L	430 364 324 269	W2SZ N6VI W3CCX K3EOD W6TV	56 45 31 21	W9SZ N1PRW KC8KSK K9AKS KJ5RM	14 8 6 5 5
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L	430 364 324 269 251	W2SZ N6VI W3CCX K3EOD W6TV K3YTL	56 45 31 21 20	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO	14 8 6 5 5
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L	430 364 324 269 251 250	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC	56 45 31 21 20 17	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO	14 8 6 5 5 4
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L	430 364 324 269 251	W2SZ N6VI W3CCX K3EOD W6TV K3YTL	56 45 31 21 20	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO	14 8 6 5 5
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L	430 364 324 269 251 250 222	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE	56 45 31 21 20 17	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM	14 8 6 5 5 4 4
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L	430 364 324 269 251 250 222 213 205 179	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ	56 45 31 21 20 17 16 14 14	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS	14 8 6 5 5 4 4 3 2
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI	430 364 324 269 251 250 222 213 205 179 175	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH	56 45 31 21 20 17 16 14 14 12	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU	14 8 6 5 5 5 4 4 3 2
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L	430 364 324 269 251 250 222 213 205 179 175	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L	56 45 31 21 20 17 16 14 14 12 11	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM	14 8 6 5 5 4 4 3 2
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD	430 364 324 269 251 250 222 213 205 179 175 150 140	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ	56 45 31 21 20 17 16 14 14 12 11 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM	14 8 6 5 5 4 4 3 2
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L	430 364 324 269 251 250 222 213 205 179 175	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L	56 45 31 21 20 17 16 14 14 12 11	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz	14 8 6 5 5 5 4 4 3 2 1 1
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD	430 364 324 269 251 250 222 213 205 179 175 150 140	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ	56 45 31 21 20 17 16 14 14 12 11 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR	14 8 6 5 5 5 4 4 3 2 1 1
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L	430 364 324 269 251 250 222 213 205 179 175 150 140	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR	56 45 31 21 20 17 16 14 14 12 11 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ	14 8 6 5 5 5 4 4 3 2 1 1
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX	430 364 324 269 251 250 222 213 205 179 175 150 140 115	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR	56 45 31 21 20 17 16 14 14 12 11 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR	14 8 6 5 5 5 4 4 3 2 1 1
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX W3SO -L	430 364 324 269 251 250 222 213 205 179 175 150 140 115	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR	56 45 31 21 20 17 16 14 14 12 11 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ	14 8 6 5 5 5 4 4 3 2 1 1
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX W3SO -L W2SZ	430 364 324 269 251 250 222 213 205 179 175 150 140 115	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR Single Operator Portable 50 MHz KJ5RM K9AKS	56 45 31 21 20 17 16 14 14 12 11 10 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ N6DN 1296 MHz	14 8 6 5 5 4 4 3 2 1 1 1
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX W3SO -L	430 364 324 269 251 250 222 213 205 179 175 150 140 115	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR Single Operator Portable 50 MHz KJ5RM K9AKS KA1LMR	56 45 31 21 20 17 16 14 14 12 11 10 10 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ N6DN 1296 MHz	14 8 6 5 5 5 4 4 3 2 1 1 1
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX W3SO -L W2SZ N6VI	430 364 324 269 251 250 222 213 205 179 175 150 140 115	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR Single Operator Portable 50 MHz KJ5RM K9AKS KA1LMR WD5AGO	56 45 31 21 20 17 16 14 14 12 11 10 10 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ N6DN 1296 MHz N6NB N6NB	14 8 6 5 5 5 4 4 3 2 1 1 1 48 12 3 2
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX W3SO -L W2SZ N6VI K2LIM -L	430 364 324 269 251 250 222 213 205 179 175 150 140 115	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR Single Operator Portable 50 MHz KJ5RM K9AKS KA1LMR WD5AGO N8XA	56 45 31 21 20 17 16 14 14 12 11 10 10 10	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ N6DN 1296 MHz N6NB N6DN KA1LMR	14 8 6 5 5 5 4 4 3 2 1 1 1 48 12 3 2
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX W3SO -L W2SZ N6VI K2LIM -L W2LV -L K8GP -L W5ZN -L	430 364 324 269 251 250 222 213 205 179 175 150 140 115 104 101 100 93 91 86 82 71	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR Single Operator Portable 50 MHz KJ5RM K9AKS KA1LMR WD5AGO N8XA N6NB	56 45 31 21 20 17 16 14 14 12 11 10 10 10 323 265 230 171 163 144	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ N6DN 1296 MHz N6NB N6NB	14 8 6 5 5 5 4 4 3 2 1 1 1 48 12 3 2
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX W3SO -L W2SZ N6VI K2LIM -L W2LV -L K8GP -L W5ZN -L	430 364 324 269 251 250 222 213 205 179 175 150 140 115 104 101 100 93 91 86 82 71 68	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR Single Operator Portable 50 MHz KJ5RM K9AKS KA1LMR WD5AGO N8XA N6NB NØJK	56 45 31 21 20 17 16 14 14 12 11 10 10 10 323 265 230 171 163 144 137	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ N6DN 1296 MHz N6NB N6DN KA1LMR W9SZ K9AKS K9PLS	14 8 6 5 5 5 4 4 3 2 1 1 1 48 12 3 2 5 6 6 6 6 6 6 6 6 7 6 7 6 7 6 7 6 7 6 7
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHZ W3CCX W3SO -L W2SZ N6VI K2LIM -L W2LV -L K8GP -L W5ZN -L K8GP -L K9NS -L K3EOD	430 364 324 269 251 250 222 213 205 179 175 150 140 115 104 101 100 93 91 86 82 71 68 62	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQOP N2BJ KBØHH K6LRG -L N4JQQ WB3IGR Single Operator Portable 50 MHz KJ5RM K9AKS KA1LMR WD5AGO N8XA N6NB NØJK W9SZ	56 45 31 21 20 17 16 14 14 12 11 10 10 10 323 265 230 171 163 144 137 128	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ N6DN 1296 MHz N6NB N6DN KA1LMR	14 8 6 5 5 5 4 4 3 2 1 1 1 48 12 3 2 5 6 13 6 6 13 6 14 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16
K8GP -L W2SZ W3CCX W3SO -L K9NS -L K2LIM -L N1WK -L W2LV -L K3YTL K5QE W4IY -L N6VI W5ZN -L K3EOD W4NH -L 222 MHz W3CCX W3SO -L W2SZ N6VI K2LIM -L W2LV -L K8GP -L W5ZN -L	430 364 324 269 251 250 222 213 205 179 175 150 140 115 104 101 100 93 91 86 82 71 68	W2SZ N6VI W3CCX K3EOD W6TV K3YTL VE3WCC K5QE W6YX WQ0P N2BJ KBØHH K6LRG -L N4JQQ WB3IGR Single Operator Portable 50 MHz KJ5RM K9AKS KA1LMR WD5AGO N8XA N6NB NØJK	56 45 31 21 20 17 16 14 14 12 11 10 10 10 323 265 230 171 163 144 137	W9SZ N1PRW KC8KSK K9AKS KJ5RM WD5AGO W3MEO WØDJM KE4WBO WB2AMU K9PLS VA3RKM 902 MHz N6NB KA1LMR W9SZ N6DN 1296 MHz N6NB N6DN KA1LMR W9SZ K9AKS K9PLS	14 8 6 5 5 5 4 4 3 2 1 1 1 48 12 3 2 5 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Multiplier Leaders		WB8TFV	13	144 MHz	
Single Operator Low Power		NY2NY W9GKA	12 12	K8TQK	48
•		W3SZ	12	W8BYA	45
50 MHz		NØLL	12	K1TEO K1RZ	44 43
W5SXD	273	NZ3M	12	K3TUF	43 37
NØLL N3LL	272	N9ISN	12	WB9Z	35
VP5CW (W5CW, op)	245 224	902 MHz		WA2FGK (K2LNS, op)	35
AB5EB	217	K1KG	8	WA4GPM KX4R	34 33
WA7LNW	213	W3PAW	8	K4QI	33
K2DRH K5RQ	212 211	WA3EOQ N4QWZ	8 7	K9CT	32
KØSIX	207	W3SZ	6	W8ULC	31
W6ZI	207	WB1GQR (W1SJ, op)	6	KN4SM VA3ST	28 26
N4QWZ	206	AF1T	6	N3RG	26
N4PN WJØF	203 199	K2KIB WA2VNV	6 4	222 MHz	
NØHJZ	194	W3RC	4		
WY3X	193	WB5ZDP	4	K1RZ	31
144 MHz		W3IP	4	WA2FGK (K2LNS, op) K8TQK	28 27
	C4	NØYE NØPOH	3 3	K1TEO	26
KA1ZE K2DRH	61 35	WA6ZTY	3	K3TUF	25
N4QWZ	31	N9LB	3	KN4SM KX4R	25 22
W9GKA	31	WA1T	3	WA4GPM	19
W3PAW	28 25	1296 MHz		K4QI	19
W6ZI K2KIB	25 24	K2DRH	11	WØUC	18
K1KG	23	K1KG	9	VA3ST N3RG	17 17
VA3ZV	23	K2KIB	9	W9GA	17
KØSIX WB5ZDP	23 22	WA3EOQ	8	WB9Z	16
WN8R	22	W3PAW N4QWZ	8 8	W8ULC	16
NZ3M	21	WB1GQR (W1SJ, op)	8	432 MHz	
WB1GQR (W1SJ, op)	21	KA2OON	7	K1RZ	32
W2CCC	20	W3SZ WA2VNV	7 6	K8TQK	29
222 MHz		W3IP	6	K1TEO	28
K2DRH	21	WB5ZDP	6	WA2FGK (K2LNS, op)	27
N4QWZ	19	AF1T	6	K4QI KN4SM	26 25
W3PAW	19	K6TSK W4AMP	5 4	K3TUF	25
W9GKA WB1GQR (W1SJ, op)	18 17	NØYE	4	KX4R	22
KØSIX	17	AC1J	4	W8ULC WA4GPM	22 21
WA3EOQ	16	WA1T	4	K9CT	20
K2KIB AF1T	15 14	Single Operator High Power		KFØM	19
WS3C	14	50 MHz		W4WA	18
WB8TFV	13		200	W9GA N3RG	18 18
K1KG	13	WD5K NR5M	306 292		.0
NZ3M WN8R	13 12	K5TR	292	902 MHz	
WA2VNV	11	K5AM	286	K1TEO	16
432 MHz		KØDU	284	WA2FGK (K2LNS, op) K1RZ	12
		WDØT N7CW	278 267	K3TUF	12 12
K2DRH	24	K4PI	262	K8TQK	10
N4QWZ W3PAW	20 19	WØUC	256	N3RG	9
WB1GQR (W1SJ, op)	17	K9MK K2EK	250 245	N2GHR K1GX	8 8
WA3EOQ	17	WB9Z	239	K2YAZ	8
K2KIB K1KG	16 16	W4WA	237	WB2RVX	8
WA2VNV	15	K7CA	235	K4XR	7
W3IP	15	WØRIC	234	WØZQ N3NGE	7 5
KØSIX	15			WA3DRC	5
K6TSK VA3ZV	14 14			WØUC	5
AF1T	14			W4WA	5

1296 MHz		432 MHz		222 MHz	
K1RZ	18	N6NB	14	W3SO -L	46
	17		11		42
K1TEO		KA1LMR		W5ZN -L	
WA2FGK (K2LNS, op)	17	W9SZ	9	K8GP -L	33
K3TUF	15	KB5WIA	6	K2LIM -L	33
K8TQK	13	N6DN	5	W3CCX	31
N2GHR	9	K9AKS	5	K9NS -L	30
K1GX	9	KC8KSK	4	W2LV -L	29
N3RG	9	W3MEO	4	K5QE	27
KØVXM	9	WØDJM	3	W2SZ	27
W4WA	9	N1PRW	3	W4NH -L	25
K4XR	8	WD5AGO	2	K3EOD	24
K4QI	8	KJ5RM	2	K3YTL	23
W5VHF	8	KE4WBO	2	W4IY -L	22
WØGHZ	7	K9PLS	1	VE3WCC	20
WB2RVX	7	WB2AMU	1	N1WK -L	20
		VA3RKM	1		
Single Operator Portable				432 MHz	
50 MHz		902 MHz		W3SO -L	48
		N6NB	13	W5ZN -L	45
KJ5RM	159	KA1LMR	5	K8GP -L	40
K9AKS	137	W9SZ	3	K5QE	35
WD5AGO	107	N6DN	1	W2SZ	33
N8XA	101	110014	•	K9NS -L	32
NV4B/5	83	1296 MHz		W3CCX	31
KA1LMR	81			K2LIM -L	30
W9SZ	77	N6NB	14		
NØJK	75	N6DN	5	K3YTL	28
N5DUH	66	W9SZ	5	W4IY -L	28
N6NB	65	KA1LMR	3	W4NH -L	27
WØPV	58	KE4WBO	1	W2LV -L	24
WB7CJO	45	K9PLS	1	K3EOD	24
NØKIS	39	K9AKS	1	KBØHH	22
WB2AMU	35			N1WK -L	20
	33	Multioperator			
NCDN	20	Mullioperator		002 MH-	
N6DN	32	-		902 MHz	
N6DN 144 MHz	32	50 MHz		902 MHz W2SZ	31
144 MHz		-	302		31 13
144 MHz KA1LMR	15	50 MHz	302 298	W2SZ	
144 MHz KA1LMR N6NB	15 14	50 MHz K5QE		W2SZ K3EOD	13
144 MHz KA1LMR N6NB KB5WIA	15 14 12	50 MHz K5QE W5ZN -L	298	W2SZ K3EOD W3CCX	13 12
144 MHz KA1LMR N6NB KB5WIA W9SZ	15 14 12 10	50 MHz K5QE W5ZN -L WA7JTM -L	298 276	W2SZ K3EOD W3CCX K5QE	13 12 12 11
144 MHz KA1LMR N6NB KB5WIA W9SZ K9AKS	15 14 12 10 8	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L	298 276 271 267	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI	13 12 12 11 8
144 MHz KA1LMR N6NB KB5WIA W9SZ	15 14 12 10 8 7	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA	298 276 271 267 261	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR	13 12 12 11 8 6
144 MHz KA1LMR N6NB KB5WIA W9SZ K9AKS	15 14 12 10 8 7 6	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L	298 276 271 267 261 247	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL	13 12 12 11 8 6
144 MHz KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU	15 14 12 10 8 7	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH	298 276 271 267 261 247 241	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV	13 12 12 11 8 6 6 4
144 MHz KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW	15 14 12 10 8 7 6	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L	298 276 271 267 261 247 241 228	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ	13 12 12 11 8 6 6 4 4
144 MHz KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN	15 14 12 10 8 7 6	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L	298 276 271 267 261 247 241 228 227	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P	13 12 12 11 8 6 6 4 4 3
144 MHz KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA	15 14 12 10 8 7 6 6 6 6	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L	298 276 271 267 261 247 241 228 227 219	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L	13 12 12 11 8 6 6 4 4 3 3
144 MHz KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM	15 14 12 10 8 7 6 6 6 6 6	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR	298 276 271 267 261 247 241 228 227 219 215	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX	13 12 12 11 8 6 6 4 4 3 3
144 MHz KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5	15 14 12 10 8 7 6 6 6 6 6 5	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L	298 276 271 267 261 247 241 228 227 219 215 215	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L	13 12 12 11 8 6 6 4 4 3 3 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ	15 14 12 10 8 7 6 6 6 6 6 5 5	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L	298 276 271 267 261 247 241 228 227 219 215 215 193	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX	13 12 12 11 8 6 6 4 4 3 3
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK	15 14 12 10 8 7 6 6 6 6 6 5 5	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L	298 276 271 267 261 247 241 228 227 219 215 215	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH	13 12 12 11 8 6 6 4 4 3 3 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH	15 14 12 10 8 7 6 6 6 6 5 5 4 4 4 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB	298 276 271 267 261 247 241 228 227 219 215 215 193	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L	13 12 12 11 8 6 6 4 4 3 3 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE	15 14 12 10 8 7 6 6 6 6 5 5 4 4 4 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L	298 276 271 267 261 247 241 228 227 219 215 215 193	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH	13 12 12 11 8 6 6 4 4 3 3 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4	15 14 12 10 8 7 6 6 6 6 5 5 4 4 4 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB	298 276 271 267 261 247 241 228 227 219 215 215 193	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH	13 12 12 11 8 6 4 4 3 3 2 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE	15 14 12 10 8 7 6 6 6 6 5 5 4 4 4 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB	298 276 271 267 261 247 241 228 227 219 215 215 193 191	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz	13 12 12 11 8 6 4 4 3 3 2 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4	15 14 12 10 8 7 6 6 6 6 5 5 4 4 4 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE	298 276 271 267 261 247 241 228 227 219 215 215 193 191	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX	13 12 12 11 8 6 4 4 3 2 2 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO	15 14 12 10 8 7 6 6 6 6 5 5 4 4 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L	298 276 271 267 261 247 241 228 227 219 215 215 193 191	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD	13 12 12 11 8 6 6 4 4 3 3 2 2 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L	298 276 271 267 261 247 241 228 227 219 215 215 193 191	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQOP K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE	13 12 12 11 8 6 6 4 4 3 3 2 2 2 2 2
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB KA1LMR	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W5ZN -L	298 276 271 267 261 247 241 228 227 219 215 215 193 191	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQOP K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP	13 12 12 11 8 6 6 4 4 4 3 3 2 2 2 2 2 15 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W5ZN -L K2LIM -L	298 276 271 267 261 247 241 228 227 219 215 215 193 191	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQOP K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP N6VI	13 12 12 11 8 6 6 4 4 3 3 2 2 2 2 2 15 13 12 11 11 12 12 11 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB KA1LMR	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W5ZN -L K2LIM -L W2SZ	298 276 271 267 261 247 241 228 227 219 215 215 193 191	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP N6VI KBØHH	13 12 12 11 8 6 6 4 4 3 3 2 2 2 2 2 15 13 11 12 11 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB KA1LMR W9SZ	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W3SO -L W5ZN -L K2LIM -L W2SZ K1JT -L	298 276 271 267 261 247 241 228 227 219 215 215 193 191 98 69 66 63 53 48 47 46	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP N6VI KBØHH N4JQQ	13 12 12 11 8 6 6 4 4 3 3 2 2 2 2 15 13 12 11 10 10 10 10 10 10 10 10 10 10 10 10
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB KA1LMR W9SZ N6DN	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W5ZN -L K2LIM -L W2SZ K1JT -L W3CCX	298 276 271 267 261 247 241 228 227 219 215 215 193 191 98 69 66 63 53 48 47 46 44	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP N6VI KBØHH N4JQQ NØOY -L	13 12 12 11 8 6 6 4 4 4 3 3 2 2 2 2 15 13 12 11 10 10 10 10 10 10 10 10 10 10 10 10
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB KA1LMR W9SZ N6DN K9AKS	15 14 12 10 8 7 6 6 6 6 5 5 4 4 2 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØKE -L NØFO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W5ZN -L K2LIM -L W2SZ K1JT -L W3CCX W4IY -L	298 276 271 267 261 247 241 228 227 219 215 215 193 191 98 69 66 63 53 48 47 46 44 44	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP N6VI KBØHH N4JQQ NØOY -L N2BJ	13 12 12 11 8 6 6 4 4 3 3 2 2 2 15 13 12 11 10 10 10 10 10 10 10 10 10 10 10 10
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB KA1LMR W9SZ N6DN K9AKS WØDJM	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W5ZN -L K2LIM -L W2SZ K1JT -L W3CCX W4IY -L KBØHH	298 276 271 267 261 247 241 228 227 219 215 215 193 191 98 69 66 63 53 48 47 46 44 42 42	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP N6VI KBØHH N4JQQ NØOY -L N2BJ VE3WCC	13 12 12 11 8 6 6 4 4 3 3 2 2 2 15 13 12 11 10 10 10 10 10 10 10 10 10 10 10 10
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB KA1LMR W9SZ N6DN K9AKS WØDJM KC8KSK WØDJM KC8KSK WB2AMU	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2 2 2	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W5ZN -L K2LIM -L W2SZ K1JT -L W3CCX W4IY -L KBØHH K3YTL	298 276 271 267 261 247 241 228 227 219 215 215 193 191 98 69 66 63 53 48 47 46 44 42 42 42	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP N6VI KBØHH N4JQQ NØOY -L N2BJ VE3WCC W6TV	13 12 12 11 8 6 6 4 4 3 3 2 2 2 2 15 13 11 10 10 10 9 9 7 6 6
KA1LMR N6NB KB5WIA W9SZ K9AKS WB2AMU N1PRW WØDJM N6DN N8XA KJ5RM NV4B/5 N3YZ KC8KSK N5DUH KC5FWE K3TW/4 WD5AGO 222 MHz N6NB KA1LMR W9SZ N6DN K9AKS WØDJM KC8KSK WØDJM KC8KSK WØDJM KC8KSK WB2AMU KJ5RM	15 14 12 10 8 7 6 6 6 6 6 5 5 4 4 2 2 2 2 2 2 11 9 4 3 2 11 9 4 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	50 MHz K5QE W5ZN -L WA7JTM -L K9NS -L W4NH -L WØKVA NØOY -L KB0HH N5RZ -L NØKE -L NØEO -L N4LR N5XTR -L KCØVFO -L N5JB 144 MHz K5QE K9NS -L K8GP -L W3SO -L W5ZN -L K2LIM -L W2SZ K1JT -L W3CCX W4IY -L KBØHH K3YTL W4NH -L	298 276 271 267 261 247 241 228 227 219 215 215 193 191 98 69 66 63 53 48 47 46 44 42 42 40 40	W2SZ K3EOD W3CCX K5QE N4JQQ N6VI WB3IGR K3YTL W6TV N1JEZ WQ0P K6LRG -L W6YX K6ARP -L KBØHH 1296 MHz W2SZ W3CCX K3YTL K3EOD K5QE WQØP N6VI KBØHH N4JQQ NØOY -L N2BJ VE3WCC W6TV WB3IGR	13 12 12 11 8 6 6 4 4 3 3 2 2 2 2 2 32 15 11 10 10 10 10 10 10 10 10 10 10 10 10
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Lucky So Far!

By Steve Kostro, N2CEI and Sandra Estevez, K4SME

This is the second June contest rove through the Delta division as a family rover by K4SME and N2CEI. We learned a few things from the previous year and hoped not to repeat any mistakes. What we like the most about roving is that we get to explore parts of the country that we would never normally travel to. Take that exit off a major Interstate and find that 4-corner grid and see what is there. We have found that taking I-55 to just north of Memphis TN, then south to the Mississippi /Louisiana border has an endless amount of prime spots to operate from. I-55 crosses through the grids north/south and is always near a 4-corner.

It's a day and a half trip from our home in Florida to get to the northern end of our rove if you include time spent checking out a new spot or two and confirming some spots we operated

in the year past. around and head steps back home. means being the game. So this new spots in EM50 puts 14 grids on our much but allows us And lucky for us,

Friday night we made camp at motels in the area Memphis. Finest?



Then – we just turn south retracing our Being a contester optimistic is part of year, we found two and EM51. That route which is a bit to have options. we had options!

before the contest, one of the finest one hour south of Well – the bed had

pillows and the water was hot! It met the minimum requirements for any rover team! The strategic part of this is that the same motel will be after our fifth grid Saturday night on our route. So we are committed to make it back there Saturday night or early Sunday morning worst case, take a nap, freshen up and hit the road at day break.

Well, Saturday morning always happens too soon! Up and at it and we had our last sit-down relaxed meal for the weekend – breakfast at Waffle House! We head for the four corners northwest of Blythesville, AR. The grid corner is on the MO/AR border and a road runs north and south through it separating the four grids. There is a levee system built there with one-lane roads on it. So pick one, get into the grid of choice and set up!

We started in EM46. Being up on the levee puts you about 20 -25 feet above the average terrain. You have a clear 360-degree view of the horizon since the area is all rice and bean fields. Funny how they grow them together and make a great combination on your dinner plate! Anyway, eating is secondary and the contest begins with little activity on 6 meters but that's

good for us because we need to work some grids on the higher bands. It works out! We picked up a rare one through 10 GHz from a local rover and snag a few distance grids on other higher bands. The upper bands are in good shape and all equipment is working! The sky is clear and blue with just enough haze to knock down the Sun's intensity a bit. It's also at least 10 degrees cooler than last year! So we are comfortable at 91 in the shade of our canopy over the open trailer.

After about an hour in EM46, we pull up stakes and drive across the road that divides the grid, not leaving the one-lane road of the levee and operate in EM56. We were a bit close to the road and a few locals stop to ask us what we are doing or are we storm chasers. I said if there was a storm, we would be the last ones you would see here! Well, little did I know!

6 meters started to show signs of life so Sandra got busy on the secondary rig in the Jeep and I stay on the trailer to work a few that are interested in microwaves through 10 GHz. Since 6 meters is open, when the upper bands die with activity, we move to EM55. This move requires a bit of reverse driving backing up the trailer. It only takes us 2-3 minutes to close up the equipment box and lower the one tower. We leave the 6 and 2 meter pole up as we drive the one-half mile to EM55. We were off the air about 10 minutes total than back at it!

Upper band activity was at a minimum and we only worked the multiops and one or two single-ops that knew we would be in the new grid. After that we both then crank up the 6 meter stuff handing out both call signs as a family rover. We took time out to snap a few pictures and I noticed to the west/north west some dark skies. They didn't look to threatening so we continued operating. After about ten more minutes, what we began to see was what looked like a dark wall of clouds or just one giant cloud covering the sky from the northeast to the southwest. What we failed to pay attention to was how fast that "wall" was moving. We got busy again on the air but as soon as the sun was blocked, it caught our attention! We scrambled to pack up and just got into the Jeep in time not to be pelted by dirt, sand, tree branches, and just about everything the local fast food joints serve up food in (used, of course!) A giant gust of wind picked up everything in its path that was causing that "dark cloud". We thought we were gonna get soaked from rain but not a drop! Sitting in this dust and garbage storm, we decided to head for the alternative EM45 spot out on the Interstate.

Well, that was just plain dumb! We drove right into the center of the storm in town. We had to pull over on the side of the road because we could not see to drive and it was all wind, dust, and garbage, with the scattering of an occasional plastic garbage can and children's toys! We kept moving slowly looking for some shelter but it caught up with us big time. I don't know what it was but it was moving fast as it hit our trailer, smacking some of the antennas. Something else hit the back of the Jeep. We crept into town and found some shelter from the wind behind the local firehouse (well it looked like a firehouse in the dust!) We sat there for five minutes and just as the wind started to die down, it started to rain or at least that's what it was supposed to be! It was just mud pouring out of the sky for about two minutes and then we could finally see as the rain flushed the skies!

We again crept down the road to the ramp of the Interstate and found it was closed off with an emergency vehicle. So we waited in a truck stop on the side of the exit and that's when we got the EMP of the near lightning strike on the cell tower behind the truck stop. We didn't have the 6 meter rig on in the jeep and forgot to reconnect the antenna when we left the last spot in the dust storm. Turned out to be the best thing we did. When the ramp opened, we got on the Interstate and made a track south! The weather got better within a few miles. So we pulled over and connected the halo back to the Jeep's 6 meter rig and began to make contacts again.

After about one-half hour, we pulled off to our alternate EM45 spot to set up again. It had stopped raining but skies were still dark. This was also the first time we had a chance to look over the gear. The front of the 432 Yagi was twisted and bent, the 3456 Yagi had the front ten elements crushed and an element was missing on the 6 meter Yagi. Lucky it was the reflector! Then I found out the locking mechanism of the manual rotating system was broke and the crank handle was lost. We than also realized that we had forgotten to pack up the ground spike for our 60 meter vertical that we use for liaison.

I got busy, made the repairs and checked out the Yagis. The 6 meter Yagi doesn't have a match problem but the 6 meter radio is deaf. In fact, it hears nothing! I switch to 2 meters and the preamp is dead in the 200-watt amplifier. OK! Use it without the preamp! Well, we could if the relay contacts were not welded in the RX position as I found out when we got home. Guess it was a nasty lighting hit and I'm glad we didn't have the halo connected to the secondary 6 meter rig or we would have been driving home a bit sooner! All other equipment checked OK and the 2 meter section of the transceiver worked. So it was 25 watts on 2 meters for the rest of the contest and we would always use the second 6 meter rig mounted in the Jeep for all 6 meter QSOs. That does put a squash on our family rover routine because we have to swap positions to give out the second call sign when asked! It's easy when we are mobile on the road but without the second 6 meter rig on the trailer, it doesn't happen!

So we made a few contacts and did not find many on 2 meters and up on the bands. In fact we missed W5ZN from their own grid! Actually got a "Thanks for the new one" from a couple of stations on 6 meters so guess they were off the air and hoped it wasn't a lightning hit for them! It was gonna start to rain again so we packed up and took off for the one and a half hour drive to EM54.

On our way to EM54, we had our evening meal while making contacts along the way on 6 meters. It was fun crossing into a new grid and tuning through the band working all of the same stations again and new ones as the band shifted. We arrived in EM54 at an overpass used by farm machinery to cross I-55. We set up in the middle overpass in the dark.

We have head lamps we use that sort of glow red, so, it's not a problem for us to see in the dark but we did get quizzed by three local vehicles passing through. We knew the road is for farm traffic during the day but now understand that it doubles for party traffic at night! I hope we didn't disrupt anyone's plans!

Anyway, the storms followed us and we made a few contacts and were in the process of running K5QE up the bands when we had to pull the plug on 902 because the lightning was getting close again! We packed up and headed for shelter still working the 6 meter band opening even after arriving in the motel parking lot. We got into our room by midnight to catch a hot shower and a nap knowing that 5 AM would come all too soon and Sunday would be the longest day on the trip! We just hoped it would not be as eventful as the past day.

It wasn't and wound up being a great day ending up with a beautiful sunset in EM51 and having the local policeman stop by to say that he has seen "Ham Rigs" before but nothing like ours! He stayed to watch Sandra run a local through the bands and then left saying, "Good luck with the trip home! We said "Thanks, we have been lucky so far!"