

ARRL August UHF Contest 2013 Results

By John Kalenowsky, K9JK

It's a family affair!

This year's rover category had a decided family flavor as there were four husband and wife rover teams: Tim, KØPG, and Pat, K9ILT; Mel, KCØP, and Carol, NØHZO; Jason, N6EY, and Kris, N6KYS; Carole, W6TTF, and Jan, WA6WTF; as well as a father and son team: Christopher, KC9JTL, and David, W9HQ. While they didn't rove, the Tai sisters (their surnames and call suffixes), Carrie, W6TAI, and Marie, W1TAI, also participated and submitted logs that included QSOs on 24 GHz!



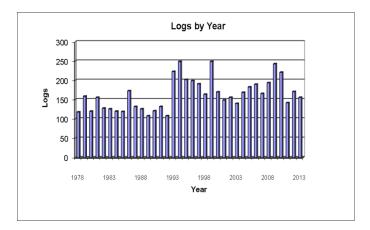
The Larson family was out in force for the UHF Contest! Left to right are Leisl, KDØVWT; Carol, NØHZO; Mel KCØP; Josiah (not licensed), and Denise, KDØMRK. (Photo by Nate Larson, KAØCRO)

Mel KCØP (middle) and Carol NØHZO (next to Mel) in the photo was also joined by four additional family members near the end of the contest: Nate, KAØCRO (not shown taking photo) Denise, KBØMRK, (right), Jo Jo (not a ham, next to Mel) and Liesl, KDØVWT (left) bringing three generations together to operate the contest! Nate and Denise are son and daughter-in-law of Mel and Carol. The youngest of the group, Liesl, is the daughter of Nate and Denise, granddaughter of Mel and Carol who had been licensed two months at the time of the contest. Mel also noted that this multi-generational ham gathering made "Worked All Larsons" possible and it was achieved by four stations; WØGHZ, WØJT, WBØEBG/R and WBØLJC/R.

By the numbers

This year's 156 logs received were a slight drop from the 171 in 2012 but show some interesting trends; rover logs accounted for 20% of the logs submitted (as compared to 14% of logs in the last two years though still shy of the 27% of logs

from rovers back in 2009) and an unprecedented number of family operating efforts.



The count of Single-Operator, Low Power (SOLP) logs slipped to 72 (as compared to last year's 94). The Single-Operator, High Power (SOHP) log count fell slightly to 40 from 2012's 44. Log submissions from Multioperator entries grew to 13, three more than last year.

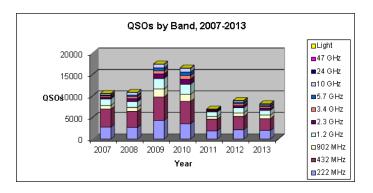
Rover entrants totaled 31, growing by eight from 2012. The split among the rover subcategories was 21 Classic Rovers (up five), nine Limited Rovers (up four) and a single Unlimited Rover (down one).

The total number of QSOs reported in 2013's logs 156 logs fell just short of 8200, down from last year's 8800 QSOs but actually yields a slightly higher average number of QSOs per log. This year's 31 rovers activated a total of 146 grids, continuing the trend of rovers activating an average of approximately five grids each.

While the counts of non-submitters are lower than the counts from 2012, there were about 320 additional fixed stations and 17 call signs logged with the "/R" suffix (and showing activity *from* two or more grid squares) identified among this year's reported QSOs. Continuing my hope to see the 250 log threshold topped, it could have happened in 2013 if 30% of those non-submitting fixed stations had turned in their logs and even better if a few of the rovers had submitted, too.

Twenty of the 156 logs submitted this year ended up with final QSO count greater than 100, two of those topping 400. 95 logs were in the double digits (between 10 and 99 final QSOs). The remaining 41 logs netted 9 or fewer final QSOs with three submitters reporting only a single QSO. As always, *all* logs are appreciated and welcome, whether containing just a single QSO or several hundred.

Continuing the practice begun in 2010, the twelve paper logs received were transcribed and added to the 144 logs submitted by email through "the robot." All 156 of them were fully reviewed by the log checking process.

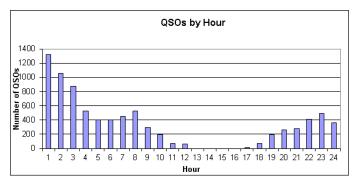


Where the action was

Contacts were reported with 150 different grid squares in 2013. The three most reported grid locators were in California with DM07 (507), CM97 (447) and CM96 (428). CN87 in the Seattle area was also a hot spot for QSOs with 360 reported from there. Last year's leader, FM19, dropped to 261 (from 549). At the other end of the reported grid locator totals, there were eight with which only a single QSO was reported.

Among stations submitting logs, a total of 102 grid locators were represented. CN87 was the most popular locator for fixed stations with 7 logs reporting a total of 309 QSOs. EN34 and FN42 were next with 6 logs each but EN34 stations reported 265 QSOs compared to 196 QSOs from FN42. FM19 came close to matching CN87's QSO total with 296, accomplishing that with just 2 logs submitted by fixed stations.

The 146 grids activated by rovers were among 68 different grid locators visited including 34 that were visited only by rovers. The seven rovers that visited DM07 yielded the highest QSO total for a given locator with 512. CM96 and CM97 were close behind DM07for rover QSOs with 428 each by six rovers that activated those grids. Matching DM07 with seven different rovers visiting were DM06 and EN43 with 263 and 196 QSOs reported, respectively.



When did contacts happen?

As usually happens, the busiest hour was the first, with just over 1300 QSOs reported, a little over 15 % of the total QSOs reported in the contest. Higher activity continued in the next two hours, netting almost 40% of the total QSOs in the first three hours of the contest. The next five hours (Saturday afternoon into evening) yielded 400 to 530 QSOs in each of those hours before tapering off in the ninth through twelfth hours. That totaled up to almost three-quarters of the total QSOs in the first half of the contest. The overnight hours, thirteenth through sixteenth (0700 to 1059 UTC) were quiet.

Sunday morning started off slowly, rising from 16 QSOs in the seventeenth hour to over 400 QSOs in each of the 22nd and 23rd hours (1500 through 1659 UTC).

Single-op leaders

After a sixth-place finish in 2012, **Bob, K2DRH,** returned to a familiar spot for him as top scorer among Single-Op, Low Power from his six-band station in northwestern Illinois. Bob's log shows the highest count of different calls worked, 46, with 12 of those being rovers for 148 QSOs — over 60% of his QSO total. Except for QSOs on 3.4 GHz, where W3PAW had a single QSO more, Bob was the QSO and multiplier leader across his six bands for SOLP, even topping some of the counts by SOHP stations.

The second spot in the "A" category went to **Paul**, **W3PAW**, who was active on eight bands from the Western Pennsylvania section. In addition to his top QSO total for 3.4 GHz, Paul also topped the counts for QSOs and multipliers on 5.7 and 10 GHz. **Dale**, **AF1T**, closed out the top three for Low Power Single-Ops across nine bands from his New Hampshire location.

Single Operator, Low Power (SOLP)

Call	Score	QSOs	Grids	Bands
K2DRH	117,564	238	97	CD9EFG
W3PAW	67,452	138	77	CD9EFGHI
AF1T	32,076	114	54	CD9EFGHIJ
K2KIB	28,365	104	61	CD9EFGHI
WB2SIH	16,905	95	49	CD9E
WB2JAY	16,380	85	42	CD9EF
N9LB	14,835	85	43	CD9EF
N4QWZ	11,844	68	47	CD9E
N9DG	10,830	95	38	CD
NØKP	8,364	41	34	CD9EFG
WØJT	3,933	48	23	CD9E

Table of Band Designators

6M	Α
2M	В
222	С
432	D
902	9
1.2G	Е
2.3G	F
3.4G	G
5.7G	Н
10G	- 1
24G	J
47G	K
75G	L
119G	M
142G	Ν
241G	0
Light	Р
	2M 222 432 902 1.2G 2.3G 3.4G 5.7G 10G 24G 47G 75G 119G 142G 241G

The Eastern Pennsylvania and Maryland-DC sections were the place to be for Single-Op, High Power, **Phil, K3TUF,** and **Dave, K1RZ,** duplicated their one-two finish of last year, with eight bands and seven bands, respectively. Among SOHP, Phil had the top QSO and multiplier totals for 2.3 and 3.4 GHz as well as leading multipliers for 432 MHz and tying WA2FGK for top 10 GHz QSO count. Dave tied WØUC for the multiplier lead on 222 MHz, had the top multiplier count for 902 MHz, and led both QSOs and multipliers on 5.7 GHz.

The WA2FGK station, piloted by Herb, K2LNS, made QSOs on eight bands to claim the third highest score in SOHP for 2013. Herb matched K3TUF for the top QSO count on 10 GHz but stands alone as the multiplier leader on the band with each of his five QSOs reaching a different grid locator. The fourth and fifth spots in the "B" category were from the middle of the country with Gary, WØGHZ, tuning through the seven bands of his Minnesota station to finish only 165 points ahead of Wisconsin's Paul, WØUC. Gary's QSO count on 902 MHz was best among the High Power, Single-Op entrants while Paul claimed the top counts for QSOs on 222, 432 and 1296 MHz as well as top multiplier count for 1296 MHz.

Single Operator, High Power (SOHP)

Call	Score	QSOs	Grids	Bands
K3TUF	84,639	162	89	CD9EFGHI
K1RZ	60,984	149	77	CD9EFGH
WA2FGK (op. K2LNS)	54,747	120	77	CD9EFGHI
WØGHZ	45,705	155	55	CD9EFGI
WØUC	45,540	164	69	CD9EFI
N7EPD	15,435	93	35	CD9EFGH
W9GA	14,523	82	47	CD9E
KD7TS	13,020	83	31	CD9EFGH
W5MRB	12,420	54	46	CD9EF
W1FKF	9,408	64	32	CD9EFI

Multioperator leaders

Among this year's "M" category entrants, the **K2LIM** "LIM Amateur Radio Group" (operated by KA2LIM, KB2YCC, and W9KXI) returned to their favorite Western New York location with five bands and claimed the top spot (moving up from the second spot in 2011 and 2012). Of their five bands, the QSO and multiplier totals were tops for 222 and 432 MHz.

Second place went to the Winona Amateur Radio Club's **WØNE** club call, activated by a team of five (KC9ZEZ, KBØYJU, KCØRSX, KFØQ, and NØWE) with seven bands from Minnesota. With a focus on higher bands, they claimed the top QSO and multiplier counts for the 2.3, 3.4 and 10 GHz Bands. **Charlie, NØAKC,** used spotting assistance to move into the Multiop category, making QSOs on four bands from his Wisconsin station to finish in third place and had the best QSO total among Multiops for 902 MHz and led the multiplier race for 902 MHz and 1.2 GHz.

Multioperator (M)

Call	Score	QSOs	Grids	Bands
K2LIM	13,662	84	46	CD9EI
WØNE	11,340	56	36	CD9EFGI
NØAKC	7,410	49	38	CD9E
KO9A	6,630	71	26	CD9E
N4JQQ	5,220	35	30	CD9EF
N8ZM	4,089	42	29	CDE
WB3IGR	3,198	36	26	C D 9
N1DGF	3,186	42	18	CD9EFI
KBØHH	2,304	42	16	CD9E
N2BJ	2,040	29	20	CDE

On the rove again

Rovers were active from Southern and Central California led by Wayne, N6NB, reclaiming the national top score in the category for 2013 (and top score overall) as he did last year. Wayne activated 10 grids with nine bands (222 MHz through 24 GHz), racking up close to 500 QSOs and was closely followed by Jim, KI6FGV, matching Wayne's 10 grid Activations but with one less band than Wayne, netting 60 fewer total QSOs. The family rover team of Jason, N6EY, and Kris, N6KYS, finished tied for third place among the Classic Rovers, each of them reporting 267 QSOs on nine bands and six grids activated. Outside of California, the top scoring rover was Jon, WØZQ, who activated seven Minnesota grids, netting him just short of 300 QSOs on the seven bands that his rover-mobile was carrying.

Rovers

Call	Score	QSOs	Grids	Bands
Classic Rover (R)				
N6NB/R	382,755	482	95	CD9EFGHIJ
KI6FGV/R	297,474	422	86	CD9EFGHI
N6EY/R	136,440	267	60	CD9EFGHIJ
N6KYS/R	136,440	267	60	CD9EFGHIJ
WØZQ/R	98,820	284	60	CD9EFGI
W6TTF/R	76,800	225	40	CD9EFGHIJ
WA6WTF/R	76,800	225	40	CD9EFGHIJ
W9SNR/R	51,255	156	67	
KCØP/R	20,295	99	41	CD9EFI
NØHZO/R	19,803	97	41	CD9EFI
Limited Rover (RL)				
WW7D/R	11,022	137	22	CD9E
KØPG/R	7,176	71	23	D 9 E
K9ILT/R	6.798	71	22	D 9 E
K9JK/R	6,696	75	24	CDE
KC9JTL/R	6,216	64	28	CD9
W9HQ/R	6,132	63	28	C D 9
KI6QEL/R	972	27	12	CD
KO5OK/R (op.	504	21	8	CD
NL7CO)				
N2DCH/R	231	9	7	C D 9
Unlimited Rover (RU)				
WA3PTV/R	39,114	133	41	CD9EFGHI

Adding another band as he did last year when he added 1.2 GHz (which he also upgraded for 2013), Darryl, WW7D, added 902 MHz this year to have the full complement of four bands allowed for Limited Rover in the UHF Contest. He also upped his grid activation count to 7 (from last year's 6) to produce the top score in the category for 2013. Darryl has posted a travelogue of his Western Washington roving adventure on the web at tinyurl.com/WW7DUHF13. The Central Division was a hotbed of Limited Rover activity with the second through sixth-place scorers in the category finishing with just over 1,000 points separating the 5 positions. The family team of Tim, KØPG, and Pat, K9ILT, were the second and third-place finishers with identical final QSO counts but Tim's final score yielded one multiplier more than Pat for a margin of less than 400 points. Tim and Pat traversed nine grids in southern Wisconsin and northern Illinois and might have finished closer to Darryl's score had it not been for the 'magic smoke' escaping from their 222 MHz transverter

while setting up on Friday evening, leaving them with just the 432 MHz, 902 MHz and 1.2 GHz bands.

Not to be forgotten as a category, **Joe, WA3PTV**, soloed in Unlimited Rover. Joe visited high spots in four grids around south central Pennsylvania with his eight-band station.

Division record updates

Only two division records were bettered in 2013 and both were in the Limited Rover category. **Darryl, WW7D,** once again raised the bar for Limited Rover in the Northwestern Division which he set in 2011 and raised in 2012. **Don, NL7CO,** piloted **KO5OK/R** to elevate the West Gulf's Limited Rover record.



The father and son rover team of **David, W9HQ**, and **Christopher, KC9JTL**, added to the family presence in this year's contest. (Photo from W9HQ)

Regional Highlights

The West Coast Region reclaimed the top spot in log submissions for 2013 with 39, one-quarter of the total (up from 29 last year). The Pacific Division led the way with 16 logs, 9 of those from the San Joaquin Valley section. From the Northwestern Division, 14 logs were received, with 11 from the Western Washington Section. Eight logs were submitted from the Southwestern Division and one from British Columbia. Among the Single-Operator entrants, 20 entered Low Power. **AF6RR** claimed the top spot with a margin of just

24 points over **K6TSK**. **N7EPD** repeated as the first-place finisher in High Power. Of two West Coast Multi-Ops, **K6WCC** claimed the highest score. The contest's top scorers in Rover and Limited Rover were from the West Coast Region, **N6NB/R** and **WW7D/R**, respectively. Both claimed the regional top spots as they did in 2012.

After 53 logs were submitted last year, the Northeast Region slipped to second with 35 logs; 15 from the New England Division, 14 from the Atlantic Division, and 6 from the Hudson Division. W3PAW repeated as top SOLP scorer of 16. Of 10 SOHP logs, K3TUF reclaimed the top spot in 2013 for the region and the contest. The K2LIM team led the Northeast Region and the contest in Multioperator; that was among three in the Northeast Region and 13 overall. Six rover logs were submitted from the region: four Classic Rovers led by K1DS/R, leaving N2DCH/R as the Northeast's sole Limited Rover and WA3PTV/R as the only Unlimited Rover for the region and for the contest.

The Central Region was third with 33 logs (four more than 2012). That included the busiest division in 2013 (Central Division with 23 logs) as well as seven logs from the Great Lakes Division and three logs from the Ontario South Section. The contest's SOLP category leader **K2DRH** led the 11 SOLP entrants from the region and 74 in the contest. Of nine SOHP entrants from the Central region, **WØUC** claimed the top spot. **NØAKC** led the four Multi-ops from Central. The Central Region's Rover log count tripled to nine from 2012. **W9SNR/R** led the four Classic Rovers and the scores of the five Limited Rovers ranged from 7,176 to 6,132 with **KØPG/R** in the lead.

Twenty-nine logs from the Midwest Region beat last year by two but the mix changed significantly among the divisions. Participation from the Dakota Division almost doubled with 20 (compared to 11 last year), including 19 of those from Minnesota, this contest's busiest section. The log counts from the region's other divisions slipped; five from West Gulf, three from Midwest and one from Rocky Mountain (compared to six, seven and three, respectively in 2012). In Single Operator, 14 Low Power entrants and eight High Power entrants were led by NØKP and WØGHZ, respectively. WØNE claimed the top spot among two Multi-ops from the region. Midwest's rovers matched last year's count of five, halting their recent diminishing trend. WØZQ/R led four Classic Rovers and KO5OK/R as the lone Limited Rover.

The Southeast Region's log count slipped to 20 (from 33 in 2012, matching the count from 2011). Delta Division's log count grew to 14 from last year's 10, the Southeastern Division dropped to four (from 14 in 2012), and Roanoke Division dropped to three (from nine last year). N4QWZ repeated as the top scorer in SOLP of 11 from the region. W5MRB topped four "B" category entrants from the Southeast. All of the region's rovers were Classic, with AG4V/R leading the three entrants in the category. The Southeast's Multi-op stations numbered two, with N4JQQ achieving the region's top score.

And the Club Competition gavels go to...

Ninety-nine of this year's 156 logs listed a club name. That is consistent since the Club Competition started for the UHF Contest back in 2009. Twenty-two different clubs were named, but unfortunately, only 10 of the clubs named met the minimum of three logs submitted to be eligible for the Club Competition; nine of them in the Medium and one in the Local Club category.

The Southern California Contest Club (SCCC) claimed the Medium Club gavel for 2013 with seven logs submitted. Four logs from the Bristol (TN) Amateur Radio Club allowed them to claim this year's Local Club Gavel. This is the fifth year that Club Competition has been included in the UHF Contest and the fourth time that SCCC and the third time that Bristol won their respective gavels. See the table for the complete Club Competition results.

Affiliated	Club	Competition

Club Name	Logs	Score
Medium Club		
Southern California Contest Club	7	1,107,789
Northern Lights Radio Society	18	252,312
Mt Airy VHF Radio Club	6	163,896
Society of Midwest Contesters	8	142,371
Potomac Valley Radio Club	3	131,634
Badger Contesters	14	126,597
North East Weak Signal Group	9	76,776
Pacific Northwest VHF Society	13	65,463
Florida Weak Signal Society	4	3,483
Local Club		
Bristol (TN) ARC	4	1,536



The newlyweds take to the airwaves! Married just weeks before the contest, the husband-and-wife Rover Team of Kris, N6KYS, and Jason, N6EY, are shown here making a QSO on 24 GHz. (Photo by N6NB)

Family Reunion in 2014?

While we're not ALL necessarily related by blood or marriage (as a number of this year's participants were), amateur radio IS family and we are the UHF family within. Our next UHF Family Reunion is scheduled to start 1800 UTC on August 2, 2014. Let's reunite on the 222 MHz and higher bands to *make* activity happen. Consider inviting someone you know who was active in the contest before but has missed a few recently. Find some new folks to join the UHF Family Reunion in 2014. In any case, I will continue my quest to see the log count cross the 250 barrier and finally better the "249s" of 1994 and 1999 so I personally invite all UHF family members participate in the 2014 reunion and submit their logs.

Division Winners

I ow	Power
LUW	rowei

Low Power		
Atlantic	W3PAW	67,452
Central	K2DRH	117,564
Dakota	NØKP	8,364
Delta	N4QWZ	11,844
Great Lakes	N8AIA	3,690
Hudson	K2KIB	28,365
Midwest	WØVAN	18
New England	AF1T	32,076
Northwestern	KEØCO	2,268
Pacific	AF6RR	3,186
Roanoke	K4FJW	621
Rocky Mountain	KKØQ	1,152
Southwestern	K6TSK	3,162
Canada	VE7FYC	2,256
High Power		
Atlantic	K3TUF	84,639
Central	WØUC	45,540
Dakota	WØGHZ	45,705
Delta	W5MRB	12,420
Great Lakes	K8TQK	7,320
Hudson	K2AMI	120
Midwest	WDØBQM	180
New England	W1FKF	9,408
Northwestern	N7EPD	15,435
Pacific	KC6ZWT	4,662
Southeastern	KØVXM	1,530
West Gulf	KC5MVZ	720
Canada	VE3ZV	6,825
Multi-Op		
Atlantic	K2LIM	13,662
Central	NØAKC	7,410
Dakota	WØNE	11,340
Delta	N4JQQ	5,220
Great Lakes	N8ZM	4,089
New England	N1DGF	3,186
Pacific	KK6COR	90
Southeastern	W4FWS	1,365
Southwestern	K6WCC	462
West Gulf	KBØHH	2,304
Rover	11221111	2,001
	KADO/D	40 450
Atlantic	K1DS/R	13,452
Central	W9SNR/R	51,255
Dakota	WØZQ/R	98,820
Delta New Francisco	AG4V/R	16,128
New England Pacific	AA1I/R	13,440
	N6NB/R WQ4M/R	382,755 324
Southeastern	VE3CRU/R	32 4 2,166
Canada	VESCRU/R	2,100
Limited Rover		
Atlantic	N2DCH/R	231
Central	KØPG/R	7,176
Northwestern	WW7D/R	11,022
Pacific	KI6QEL/R	972
West Gulf	KO5OK/R	504
Unlimited Rover		
Atlantic	WA3PTV/R	39,114

Regional Leaders

SOLP/HP = Single-Op Low Power/High Power; M = Multioperator, R = Classic Rover; RL = Limited Rover; RU = Unlimited Rover

3	OLI	7/HP = Single-	Op Low Pow	ver/High i	Pow	er; M = Multiope	rator, R = Cla	SSIC ROVE	er; R	L = Limited Ro	ver; RU =	Unlimited	א ג	ver		
Northeast Region		South	east Regi	ion		Cent	ral Region			Midwe	est Regi	on		West C	oast Regi	on
New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections			Roanoke ar astern Divisi			Central and G Onta	reat Lakes Di ario Section	visions;		Mountain Divisions	/lidwest, R and West ; Manitoba ewan Sect	Gulf and		Southwester British Co	orthwestern and Divisions; Alumbia and Note that the Bections	Alberta,
Call Score Cat		Call	Score	Cat		Call	Score	Cat		Call	Score	Cat		Call	Score	Cat
W3PAW 67,452 SOLP AF1T 32,076 SOLP K2KIB 28,365 SOLP WB2SIH 16,905 SOLP WB2JAY 16,380 SOLP K3TUF 84,639 SOHP K1RZ 60,984 SOHP WA2FGK 54,747 SOHP W1FKF 9,408 SOHP W1GHZ 5,406 SOHP K2LIM 13,662 M WB3IGR 3,198 M N1DGF 3,186 M K1DS/R 13,452 R AA1I/R 13,440 R W1AUV/R 10,176 R NN3Q/R 8,832 R N2DCH/R 231 RL WA3PTV/R 39,114 RU		N4QWZ K4FJW KD4NOQ KH6TY K5OLV W5MRB KØVXM AA4DD WB4JGG N4JQQ W4FWS AG4V/R WQ4M/R KJ4G/R	11,844 621 450 351 336 12,420 1,530 891 120 5,220 1,365 16,128 324 264	SOLP SOLP SOLP SOLP SOHP SOHP SOHP M R R		K2DRH N9LB N9DG N8AIA WB8BZK WØUC W9GA K8TQK VE3ZV K8GDT NØAKC KO9A N8ZM N2BJ W9SNR/R W9SZ/R VE3CRU/R VE3NYZ/R KØPG/R K9JK/R	117,564 14,835 10,830 3,690 3,528 45,540 14,523 7,320 6,825 5,670 7,410 6,630 4,089 2,040 51,255 10,302 2,166 882 7,176 6,798 6,696	00199000000000000000000000000000000000		NØKP WØJT KAØPQW KKØQ KØSIX WØGHZ KØAWU NTØV KC5MVZ NØJCF WØNE KBØHH WØZQ/R KCØP/R NØHZO/R WBØLJC/R KO5OK/R	8,364 3,933 1,680 1,152 897 45,705 4,056 900 720 288 11,340 2,304 98,820 20,295 19,803 1,782 504	SOLP SOLP SOLP SOLP SOHP SOHP SOHP SOHP R R R R R		AF6RR K6TSK KEØCO VE7FYC KG7P N7EPD KD7TS KE7SW KC6ZWT KB7ME K6WCC KK6COR N6NB/R K16FGV N6EY/R N6KYS/R WA6WTF/R W6TTF/R WW7D/R K16QEL/R	3,186 3,162 2,268 2,256 2,244 15,435 13,020 8,460 4,662 3,213 462 90 382,755 297,474 136,440 76,800 76,800 11,022 972	P P P P P P P P P P P P P P P P P P P

QSO Leaders					
	-	5.7 GHz		2.3 GHz	
Single Operator Low Power		W3PAW	4	K3TUF	10
222 MHz		AF1T	1	WA2FGK	9
K2DRH	21	K2KIB W1TAI	1 1	WØGHZ W5MRB	8 8
W3PAW	20	W6TAI	1	K1RZ	6
N9DG	19		·	KE7SW	2
K2KIB N4QWZ	17 17	10 GHz		N1GJ	2
WB2SIH	17	W3PAW	5	N7EPD	2
N8AIA	16	AF1T	2	VE3ZV	2
AF1T	15	K2KIB	2	WA7TZY	2
WB2JAY	11	W1TAI	1	3.4 GHz	
KAØPQW	10	W6TAI	1		
N9LB	10	24 GHz		K3TUF WØGHZ	8 7
432 MHz				K1RZ	5
	24	AF1T	1	WA2FGK	5
K2DRH N9DG	24 19	W1TAI W6TAI	1 1	KØVXM	2
K2KIB	18	WOTAI	ı	KE7SW	2
N4QWZ	18			N7EPD	2
WB2SIH	17	Single Operator High Power		KD7TS N1GJ	1 1
N9LB	15	222 MHz		NTØV	1
W3PAW	15			NIEV	
AF1T WB2JAY	13 13	K1RZ WØUC	22 22	5.7 GHz	
N8AIA	11	K3TUF	20	K1RZ	5
	• •	K8GDT	15	WA2FGK	4
902 MHz		WA2FGK	15	KØVXM	1
K2DRH	15	K8TQK	14	K3TUF	1
K2KIB	9	K1TR	13	KD7TS	1
W3PAW	9	VE3ZV	13	KE7SW	1
AF1T	7	W9GA W1GHZ	13 12	N7EPD WA7TZY	1 1
N9LB	7	W5MRB	12	WATIZI	'
WB2SIH N4QWZ	7 6	WA8RJF	12	10 GHz	
WB2JAY	6			WA2FGK	5
KEØCO	5	432 MHz		K3TUF	4
NØKP	5	K3TUF	22	KØAWU	2
		K1RZ	20	WØGHZ	2
1.2 GHz		WØUC	19	W1FKF	2
K2DRH	18	W9GA	19	W1GHZ	2
AF1T	9	WA2FGK W5MRB	18 14	NTØV WØUC	1 1
W3PAW	9	K8TQK	13		•
K2KIB N9LB	8 8	K8GDT	12		
WB2SIH	8	K1TR	11	Multioperator	
NØKP	7	VE3ZV	11	222 MHz	
WB8BZK	7	W1GHZ WA8RJF	11 11	K2LIM	15
N4QWZ	6	WAOIGI	11	N8ZM	11
WB2JAY	6	902 MHz		NØAKC	10
2.3 GHz		K1RZ	14	KO9A	9
	40	K3TUF	13	WB3IGR	9
K2DRH W3PAW	10 7	WØUC	11	N2BJ WØNE	8 8
WB2JAY	6	WA2FGK	11	WØNE N4JQQ	8 7
K2KIB	5	WØGHZ	9	N1DGF	6
AF1T	4	K8TQK W9GA	8 7	K6WCC	5
N9LB	3	W5MRB	6		
NØKP	2	6 stations tied with:	5	432 MHz	
K4FJW ND9Z	1 1	KØAWU, KD7TS, KE7SW,		K2LIM	19
W1TAI	1	N7EPD, VE3ZV, W1FKF		N8ZM	14
W6TAI	1	4.0.011-		NØAKC	11
		1.2 GHz		WB3IGR KO9A	11 9
3.4 GHz		WØUC	15	N2BJ	8
K2DRH	9	K3TUF	11	W4FWS	8
W3PAW	8	WA2FGK WØGHZ	10 9	N4JQQ	7
NØKP	6	W9GA W9GA	8	WØNE	7
AF1T K2KIB	2 1	KD7TS	7	KBØHH	6
W1TAI	1	N7EPD	7		
W6TAI	1	W1ZC	7		
		W5MRB 7 stations tied with:	6 5		
		K1RZ, K8TQK, KE7SW, W1			
		W1GHZ, W9IIX, WA7TZY	,		

Multioperator (continued)		902 MHz		24 GHz	
			4.0		_
902 MHz		KI6FGV	10	N6NB	7
NØAKC	9	N6NB	10	N6EY	6
K2LIM	6	W9SNR	9	N6KYS	6
N4JQQ	6	WØZQ	7	W6TTF	4
WB3IGR	6	K1DS	6	WA6WTF	4
KBØHH	4	N6EY	6		
WØNE	4	N6KYS	6	B	
KO9A	3	KCØP	5	Rover Limited	
N1DGF	3	NØHZO	5	222 MHz	
		NN3Q	5	L/OO IT!	
1.2 GHz		W1AUV	5	KC9JTL	9
NGAKO		4.0.011-		W9HQ	9
NØAKC	8	1.2 GHz		K9JK	7
N4JQQ	6	W9SNR	11	WW7D	5
K2LIM	5	KI6FGV	10	KI6QEL	4 2
KO9A WØNE	5 5	N6NB	10	KO5OK N2DCH	1
N2BJ	4	WØZQ	9	NZDCIT	'
N8ZM	4	W1AUV	7	432 MHz	
W4FWS	4	AA1I	6	432 WITIZ	
N1DGF	3	K1DS	6	KC9JTL	8
KBØHH	2	KCØP	6	W9HQ	8
RDOTTI	2	NØHZO	6	KØPG	7
2.3 GHz		N6EY	6	K9ILT	7
		N6KYS	6	K9JK	7
WØNE	5			KI6QEL	6
N4JQQ	4	2.3 GHz		WW7D	6
N1DGF	1	KI6FGV	10	KO5OK	3
		N6NB	10	N2DCH	1
3.4 GHz		KCØP	6		
WØNE	4	NØHZO	6	902 MHz	
VI 2.112	•	N6EY	6	KC9JTL	5
5.7 GHz		N6KYS	6	W9HQ	5
	_	WØZQ	5	KØPG	5
W4FWC	1	W6TTF	4	K9ILT	3
40.011		W9SNR	4	WW7D	2
10 GHz		WA6WTF	4	N2DCH	1
WØNE	3		•		
	3 1		·	1.2 GHz	
WØNE N1DGF K2LIM	3 1 1	3.4 GHz		1.2 GHz	0
N1DGF	1	3.4 GHz KI6FGV	10	1.2 GHz K9JK	6
N1DGF	1	3.4 GHz KI6FGV N6NB	10 10	1.2 GHz K9JK KØPG	4
N1DGF K2LIM	1	3.4 GHz KI6FGV N6NB N6EY	10 10 6	1.2 GHz K9JK KØPG K9ILT	4 3
N1DGF	1	3.4 GHz KI6FGV N6NB N6EY N6KYS	10 10 6 6	1.2 GHz K9JK KØPG	4
N1DGF K2LIM	1	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ	10 10 6 6 4	1.2 GHz K9JK KØPG K9ILT	4 3
N1DGF K2LIM Rover 222 MHz	1	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF	10 10 6 6 4 4	1.2 GHz K9JK KØPG K9ILT WW7D	4 3
N1DGF K2LIM Rover 222 MHz W9SNR	1 1	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR	10 10 6 6 4 4	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited	4 3
N1DGF K2LIM Rover 222 MHz W9SNR AA1I	1 1 16 11	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF	10 10 6 6 4 4 4	1.2 GHz K9JK KØPG K9ILT WW7D	4 3
N1DGF K2LIM Rover 222 MHz W9SNR AA1I N6NB	1 1 16 11 11	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS	10 10 6 6 4 4 4 4 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz	4 3 2
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV	1 1 16 11 11 10	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF	10 10 6 6 4 4 4	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited	4 3
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB KI6FGV WØZQ	1 1 16 11 11 10 10	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ	10 10 6 6 4 4 4 4 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV	4 3 2
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS	1 1 16 11 11 10 10 9	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ	10 10 6 6 4 4 4 4 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz	4 3 2
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB KI6FGV WØZQ	1 1 16 11 11 10 10	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV	10 10 6 6 4 4 4 4 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV	4 3 2
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V	1 1 16 11 11 10 10 9 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB	10 10 6 6 4 4 4 4 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV	4 3 2
N1DGF K2LIM Rover 222 MHz W9SNR AA1I N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO	1 1 16 11 11 10 10 9 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY	10 10 6 6 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz	4 3 2
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q	1 1 16 11 11 10 10 9 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS	10 10 6 6 4 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV	4 3 2 8
N1DGF K2LIM Rover 222 MHz W9SNR AA1I N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO	1 1 1 16 11 11 10 10 9 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6KYS W6TTF	10 10 6 6 4 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5	4 3 2
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU	1 1 16 11 11 10 10 9 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF	10 10 6 6 4 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5	4 3 2 8
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV	1 1 1 16 11 11 10 10 9 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF N6KYS W6TTF	10 10 6 6 4 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz	4 3 2 8 6
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV	1 1 1 16 11 11 10 10 9 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR	10 10 6 6 4 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV	4 3 2 8
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz	1 1 16 11 11 10 10 9 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR	10 10 6 6 4 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV	4 3 2 8 6
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR	1 1 16 11 11 10 10 9 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR	10 10 6 6 4 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz	4 3 2 8 6
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF N13Q W9SNR W9SZ K1DS	10 10 6 6 4 4 4 4 3 3 3	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV	4 3 2 8 6
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SNR W9SZ K1DS	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 4 3 3 2 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV	4 3 2 8 6 5
N1DGF K2LIM Rover 222 MHz W9SNR AA1I N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA1I	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SZ 10 GHz KI6FGV	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 4 4 3 3 2 2 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz	4 3 2 8 6 5
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA11 KI6FGV	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 4 2 2 2 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV 3.4 GHz	8 6 5 4
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA11 KI6FGV AG4V	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB N6EY N6KYS	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 4 3 2 2 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV	4 3 2 8 6 5
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA11 K16FGV AG4V K1DS	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB N6EY N6KYS	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 3 2 2 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV 3.4 GHz WA3PTV 3.4 GHz WA3PTV	8 6 5 4
N1DGF K2LIM Rover 222 MHz W9SNR AA1I N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA1I K16FGV AG4V K10S KCØP	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB N6EY N6KYS W6TZ KI6FGV N6NB N6EY N6KYS W9SZ K1DS	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 3 2 2 1 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV 3.4 GHz WA3PTV 5.7 GHz	4 3 2 8 6 5 4 4
N1DGF K2LIM Rover 222 MHz W9SNR AA1I N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA1I KI6FGV AG4V K1DS KCØP NØHZO	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 15 12 11 10 10 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB N6EY N6KYS W6TTF	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 3 2 2 2 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV 3.4 GHz WA3PTV 3.4 GHz WA3PTV	8 6 5 4
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB K16FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA11 K16FGV AG4V K1DS KCØP NØHZO NN3Q	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB N6EY N6KYS W6TTF NN3Q W9SNR W9SZ K1DS	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 3 2 2 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV 3.4 GHz WA3PTV 5.7 GHz WA3PTV	4 3 2 8 6 5 4 4
N1DGF K2LIM Rover 222 MHz W9SNR AA1I N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA1I KI6FGV AG4V K1DS KCØP NØHZO	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 15 12 11 10 10 10 10 10 10 10 10 10 10 10 10	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB N6EY N6KYS W6TF NN3Q W9SNR W9SZ K1DS	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 4 3 2 2 1 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV 3.4 GHz WA3PTV 5.7 GHz	4 3 2 8 6 5 4 4
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA11 KI6FGV AG4V K1DS KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SNR W9SNR W9SNR W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB N6EY N6KYS W6TTF NN3Q W9SZ K1DS	10 10 6 6 4 4 4 4 3 3 3 8 8 8 6 6 4 4 4 3 2 2 1 1 8 8 6 6 6 4 4 4 4 4 4 4 4 4 8 8 8 8 8 8	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV 3.4 GHz WA3PTV 5.7 GHz WA3PTV	4 3 2 8 6 5 4 4
N1DGF K2LIM Rover 222 MHz W9SNR AA11 N6NB KI6FGV WØZQ K1DS AG4V KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ 432 MHz W9SNR WØZQ N6NB AA11 KI6FGV AG4V K1DS KCØP NØHZO NN3Q VE3CRU W1AUV W9SZ	1 1 1 16 11 11 10 10 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3.4 GHz KI6FGV N6NB N6EY N6KYS WØZQ W6TTF W9SNR WA6WTF K1DS W9SZ 5.7 GHz KI6FGV N6NB N6EY N6KYS W6TTF WA6WTF NN3Q W9SNR W9SZ K1DS 10 GHz KI6FGV N6NB N6EY N6KYS W6TF NN3Q W9SNR W9SZ K1DS	10 10 6 6 4 4 4 4 3 3 3 8 8 6 6 4 4 4 4 3 2 2 1 1	1.2 GHz K9JK KØPG K9ILT WW7D Rover Unlimited 222 MHz WA3PTV 432 MHz WA3PTV 902 MH5 WA3PTV 1.2 GHz WA3PTV 2.3 GHz WA3PTV 3.4 GHz WA3PTV 5.7 GHz WA3PTV 10 GHz	4 3 2 8 6 5 4 4 4

Multiplier Leaders

Single Operator Low Power		5.7.0U-		0.0.011-	
222 MHz		5.7 GHz		2.3 GHz	
		W3PAW	5	K3TUF	17
K2DRH	51	AF1T	1	WØGHZ	13
N9DG	42	K2KIB	1	WA2FGK	12
K2KIB WB2SIH	35 35	W1TAI	1 1	K1RZ	11
W3PAW	35 34	W6TAI	ı	W5MRB N7EPD	8 5
AF1T	29	10 GHz		KD7TS	4
N4QWZ	25		_	WA7TZY	4
WB2JAY	25	W3PAW	9	KE7SW	3
N9LB	23	AF1T	3 2	N1GJ	2
N8AIA	20	K2KIB W1TAI	1	VE3ZV	2
		WITAI	1		
432 MHz			·	3.4 GHz	
K2DRH	75	24 GHz		K3TUF	13
N9DG	53	AF1T	1	K1RZ	9
WB2SIH	40	W1TAI	1	WØGHZ	8
N9LB K2KIB	38	W6TAI	1	WA2FGK	7
AF1T	36 35			KD7TS KE7SW	3
W3PAW	32			N7EPD	3
WB2JAY	31	Single Operator High Power		KØVXM	2
K6TSK	27	222 MHz		N1GJ	1
N4QWZ	27	WALIC	50	NTØV	1
		WØUC K1RZ	59 44		
902 MHz		WØGHZ	38	5.7 GHz	
K2DRH	38	K3TUF	37	K1RZ	7
W3PAW	14	WA2FGK	24	WA2FGK	4
AF1T	12	K1TR	23	KD7TS	3
K2KIB	11	N7EPD	23	KØVXM	1
N9LB	10	W9GA	22	K3TUF	1
N4QWZ WB2JAY	8 8	K8GDT	20 20	KE7SW N7EPD	1 1
WB2SIH	7	KC6ZWT KD7TS	20	WA7TZY	1
AF6RR	6	VE3ZV	20	WATIZI	'
NØKP	6	. 2021	0	10 GHz	
		432 MHz		K3TUF	5
1.2 GHz		WØUC	53	WA2FGK	5
K2DRH	47	K1RZ	44	W1FKF	5 4
AF1T	21	WØGHZ	43	WØGHZ	3
W3PAW	17	K3TUF	42	KØAWU	2
K2KIB	13	W9GA	39	W1GHZ	2
WB2JAY WB2SIH	13	WA2FGK	35	NTØV	1 1
K6TSK	13 12	N7EPD KI7JA	34 27	WØUC	1
KD7UO	12	KD7TS	26		
WB8BZK	12	WA7TZY	23		
N9LB	11			Multioperator	
0.0.011		902 MHz		222 MHz	
2.3 GHz		WØGHZ	27	K2LIM	31
K2DRH	15	K1RZ	23	KO9A	27
W3PAW	14	K3TUF	21	NØAKC	18
AF1T	8	WØUC	21	N1DGF	16
WB2JAY K2KIB	8 5	WA2FGK N7EPD	15 11	N8ZM WØNE	15 15
N9LB	3	K8TQK	9	WB3IGR	13
NØKP	2	KD7TS	9	N2BJ	12
K4FJW	1	W1FKF	8	KBØHH	11
ND9Z	1	KC6ZWT	7	N4JQQ	10
W1TAI	1	KE7SW	7		
W6TAI	1	W9GA	7	432 MHz	
3.4 GHz		1.2 GHz		K2LIM	40
	40			KO9A	30
W3PAW	13	WØUC	29	KBØHH	25
K2DRH NØKP	12 7	K3TUF WØGHZ	26 23	N8ZM WØNE	22 18
AF1T	4	WDGHZ KD7TS	23 18	WØNE WB3IGR	18 18
K2KIB	1	WA2FGK	18	NØAKC	15
W1TAI	1	N7EPD	16	N1DGF	13
W6TAI	1	W1ZC	14	W4FWS	13
		W9GA	14	N2BJ	12
		K1RZ	11		
		W1FKF	11		

Multioperator (continued)		902 MHz		24 GHz	
. , ,		KIOEOV	50	NONE	40
902 MHz		KI6FGV	53	N6NB	42
NØAKC	9	N6NB	53	N6EY	19
K2LIM	7	WØZQ	45	N6KYS	19
N4JQQ	6	N6EY	31	W6TTF	17
N1DGF	5	N6KYS	31	WA6WTF	17
WB3IGR	5	W6TTF	26		
	4	WA6WTF	26		
KBØHH		W9SNR	19	Rover Limited	
WØNE	4	KCØP	16	000 1411	
KO9A	3	NØHZO	16	222 MHz	
			.0	WW7D	45
1.2 GHz		1.2 GHz		K9JK	27
KO9A	11			KC9JTL	26
W4FWS	9	N6NB	58	W9HQ	26
NØAKC	7	KI6FGV	54	KI6QEL	11
		WØZQ	49	KO5OK	
N1DGF	6	N6EY	31		4
WØNE	6	N6KYS	31	N2DCH	4
K2LIM	5	W6TTF	26	400 1011	
N4JQQ	5	WA6WTF	26	432 MHz	
N8ZM	5	W9SNR	26	WW7D	62
N2BJ	5	KCØP	17	K9ILT	39
KBØHH	2	NØHZO	15	KØPG	38
		INDITEC	10		
2.3 GHz		2.2 GH -		K9JK	30
WANE	-	2.3 GHz		KC9JTL	28
WØNE	5	KI6FGV	53	W9HQ	27
N4JQQ	4	N6NB	53	KO5OK	17
N1DGF	1	N6EY	31	KI6QEL	16
		N6KYS	31	N2DCH	3
3.4 GHz		W6TTF	26		
WØNE	4	WA6WTF	26	902 MHz	
WONE	4	WØZQ	24	WW7D	21
5.7.CU-				KØPG	19
5.7 GHz		AG4V	11		
W4FWS	1	KCØP	8	K9ILT	19
		NØHZO	8	KC9JTL	10
10 GHz				W9HQ	10
		3.4 GHz		N2DCH	2
WØNE	4	KI6FGV	53		
K2LIM	1	N6NB	53	1.2 GHz	
N1DGF	1	N6EY	31	K9JK	18
		N6KYS	31	KØPG	14
		W6TTF	26	K9ILT	13
Rover		WA6WTF	26		9
222 MHz			20	WW7D	9
ZZZ IVITIZ		WØZQ			
WØZQ	64	W9SNR	6	Davis Hallaritad	
N6NB	61	K1DS	5	Rover Unlimited	
KI6FGV	53	W9SZ	4	222 MHz	
W9SNR	44				
AG4V	32	5.7 GHz		WA3PTV	25
N6EY	31	KI6FGV	51		
N6KYS	31	N6NB	51	432 MHz	
AA1I	26	N6EY	31	WA3PTV	25
W6TTF	26	N6KYS	31	**************************************	20
				902 MHz	
WA6WTF	26	W6TTF WA6WTF	26 26		
422 MU=				WA3PTV	16
432 MHz		NN3Q	4		
WØZQ	69	W9SNR	2	1.2 GHz	
N6NB	60	W9SZ	2		
KI6FGV	54	K1DS	1	WA3PTV	16
W9SNR	49				
AG4V	36	10 GHz		2.3 GHz	
KCØP	31	KI6FGV	51	WA3PTV	17
				VVAOI IV	17
NØHZO NGEV	31	N6NB	51 31	3 4 GHz	
N6EY	31	N6EY	31	3.4 GHz	
N6KYS	31	N6KYS	31	WA3PTV	13
W6TTF	26	W6TTF	26	-	
WA6WTF	26	WA6WTF	26	5.7 GHz	
		WØZQ	13		
		WBØLJC	6	WA3PTV	10
		W1AUV	5		
		KCØP	3	10 GHz	
		NØHZO	3	WA3PTV	11
		W9SNR	3	VVAOI IV	1.1