

ARRL 160-Meter Contest 2022 Full Results

By Mark Beckwith, N5OT (n5ot@arrl.net)

"The sun giveth and the sun taketh away." - KL7SB



More and more operators are getting on the air away from the constraints of the neighborhood. Here Chris, AJ1G, takes his 160-meter mobile to the nearby Atlantic coast at Stonington Point, Connecticut. [Christopher Bowne, AJ1G, photo]

Seems like 160 meters can't catch a break. Steve, KL7SB, garnered the leading comment spot above in 2022. This year, Brian, VE3MGY, captures more of the same only worse:

"Our Grand Old Lady was very upset in December - but we still love her so!!"

The leading comment from those who live and breathe 160 meters - conditions were just horrible. 160-meter stalwart John, W2GD, weighed in:

NOTE: Due to an issue with the log checking program not counting duplicate contacts correctly. The scores in this article and the score database have been corrected. Regrettably, QST went to press before the error was caught. ARRL apologizes for the error.

"Conditions were the worst in decades if not ever for an ARRL 160 Meter Contest."

John went on to describe his annual multi-operator effort from the marshy coast of New Jersey:

"We've never worked so hard for so few QSOs."

Activity was down, too. Compared to the previous year, it was down by 27%. One must wonder if the draw of all those post-pandemic holiday parties was not just a little stronger than it has been in recent years.



Rich, N8UX, and XYL Cindy enjoying seasonal distractions. Rich managed nearly 400 QSOs from Kentucky despite unfavorable band conditions. [Richard Dailey, N8UX, photo]

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Living Tribute

This year's Single Combat Warrior division winner Peter, K3ZM, pays tribute to an iconic operator who did so well in this contest for so many years, and also happens to be his brother Jeff, K1ZM. Make no mistake, Jeff is still with us and continues new adventures, but he did dismantle his big station on Prince Edward Island last year (VY2ZM), so some other operators could have a shot at it. Peter pens:

We have been blessed with some remarkable 160-meter stations over the years. There was the 9 element XMIT array at K9DX, which I dubbed the Circle of Pain. We have had the staggering setup at W8JI, which I affectionately refer to as the Death Star. There is AA1K's multi-element XMIT antenna, or the Delmarva Dagger. I suppose WB9Z still has his more-than-full quarter wave series fed XMIT vertical that will cause hearing damage when you tune across him during CQ 160 SSB. And then there was Jeff's 5/8 wave by 1/4 wave full sized vertical XMIT antenna, with multiple switchable phasing options, overlooking the saltwater on a very quiet northeast corner of Prince Edward Island. This one will be missed the most. Thanks for all the multipliers, Jeff.

Records

Pursuing records in ARRL 160 is a mark of dedication to the game and to the band. Did we say conditions were challenging this year? Only one new Division record was set – low-power in the Midwest Division by an assisted single-operator – congratulations to Jim, KKØU, who upped his game:

"I decided to run low power this year, rather than QRP. All in all, good fun."

Jim has worked all states on 160 meters using QRP, which is quite a feat!

At the ARRL Section level, 15 previous high scores fell in various categories.

Section	Call	Score	Category
GTA	VA3AR	142,800	SOHP
GTA	VE3DZ	44,850	SOLP
GTA	VE3EJ	378,696	SOUHP
GTA	VE3MV	25,898	SOULP
GTA	VE3NZ	14,393	SOUQRP
MB	VE4YH	11,748	MSHP
MDC	K3AJ	140,008	MSLP
MI	K2YAZ	21,573	SOUQRP
МО	KKØU	107,596	SOULP
NFL	K3TW	55,424	SOULP
ORG	NX6T	134,010	MSHP
PE	VY2DP	48	SOQRP
PR	KP4AA	87,044	SOUHP
WCF	W4FOC	20,332	MSLP

Table 1 - New ARRL Section Records



Jim, KKØU, uses this homebrew remote switching network to convert his 40-meter dipole into a 160-meter vertical. James Smith, KKØU, photo]

W/VE Results

Single Operator

K1ZM's brother K3ZM walked away with the glory as the top Single Operator, High Power entrant. Peter commanded a whopping 25% lead, leaving John, WF2W, and Doug, K1DG, to duke it out for 2nd place, with Victor, K1LT, close on their heels.

Victor proclaimed his result as "A new personal record for worst score ever."

W/VE Top Ten		
Single Operator, High Power		
K3ZM	368,562	
WF2W	300,384	
K1DG	282,420	
K1LT	280,610	
NA8V	259,856	
W4CB (W2RU, op)	198,628	
WB9Z	184,230	
кøтт	181,070	
NP2J (K8RF, op)	172,983	
N3QE	171,681	

Second-place scorer WF2W reminisces:

"Ever since I was first licensed in 1967 as WN2ADQ, I have been fascinated by 160 meters and the ability to work the world. All of it stimulated by hours spent in my youth trying to see how distant an AM broadcast station I could receive."



John, WF2W, is a living disciple of the magic of short waves. He started his journey in the 1960s chasing DX on the AM broadcast band. [John Slusser, WF2W, photo]

The low power group was topped by Fred, KG9X, who summarized: "Lots of CW fun, but little DX heard."

Vying for 2nd place were another Fred, K8FH, Ed, K1EP, and Jim, WØUO, with a spread of only 3%

between them. K8FH recalls he bought his first receiver with paper route money, then became a shortwave listener. Sound familiar?

W/VE Top Ten	
Single Operator, Low Power	
KG9X	160,820
K8FH	142,460
K1EP	136,668
wøuo	136,437
K9AY	80,856
WD8DSB	74,896
ΚØΤΙ	70,818
N8AA	69,088
ND3F	68,376
N8II	66,836

Lest you get the impression this is an old man's game, Amanda, KY4GS, first licensed in 2021, pounded out a hundred QSOs.

"Much better than I thought I could do...I neither stayed up late nor got up early."



Amanda, KY4GS, made 8 QSOs with 5 watts, then turned it up to 100 watts to make another 92 contacts from South Carolina with an end-fed wire antenna. [Amanda Plexico, KY4GS, photo]

In the very-low-power division, QRP of 5 watts and under, Mike, W3TS, worked an eye-popping 528 QSOs from Pennsylvania to win it, followed by long-time competitor Ralph, K9ZO, in Illinois. In Ralph's defense, he explains

"I had a lot of grandkiddos around for the weekend, so I didn't get on at sunsets until after they went to bed."

Ralph might get them telegraph keys and consider entering the multi-operator category.

W/VE Top Ten		
Single Operator, QRP		
W3TS	56,322	
K9ZO	41,415	
K4XL	32,850	
WW2G (WU2M, op)	31,152	
N7IR	18,928	
N2AWE	14,670	
W1UU	14,196	
WB2CPU	11,844	
K2PI	11,320	
KB8PGW	9,310	

Single Operator Unlimited

For many years, unassisted single-ops would rib their assisted counterparts with such quips as, "We make more contacts than you do – they should call it 'single-op distracted' " over much pizza and beverages. In striking contrast, it is notable that every Unlimited category winner this year managed a higher score than the corresponding unassisted rank, including the very highest score in the whole event.

W/VE Top Ten	
Single Operator Unlimited,	
High Powe	er
VE3EJ	378,696
AA1K	350,760
N1LN	324,500
К9СТ	305,963
K2KW	281,050
VA2WA	263,516
N4RV (NN3W, op)	262,872
K1ZM	259,555
N2KW	257,140
K1LZ	237,820

In the Single Operator High Power Unlimited division, long-time competitor John, VE3EJ, once again commands the top spot with the highest score in the contest. This includes the multi-operator entries. Congratulations to John for a really great effort. The scores did not clump at all in this Top-Ten box, with each position showing a significant incremental improvement right up the line to John's score at the top. There is no substitute for perseverance and dedication.

W/VE Top Ten		
Single Operator Unlimited,		
Low	v Power	
VE3MGY	182,430	
NE9U	163,122	
N3HEE	145,337	
K8BL	138,591	
KX9RT	124,002	
NJ3K	121,360	
KB9OWD	119,880	
WB8JUI	111,384	
KKØU	107,596	
KE3K	75,306	

Ubiquitous 160 addict Brian, VE3MGY, managed victory in the low-power realm, again against a field with incremental improvement up the ladder. Over the years Brian has uploaded over 90,000 160-meter QSOs.

"While I may have a little bit of knowledge about the band, this ARRL 160 was in the top 3 - possibly the top spot - of the worst conditions I have ever experienced on 160. At the end Sunday morning I was sitting at 988 good QSOs but I wanted to end the contest with 1,000 good QSOs so I continued CQing for an extra hour just for those last 12 OSOs!! It was a very long hour."



Brian, VE3MGY, surrounded by everything 160 in his shack in Sparta, Ontario, Canada. [Brian Campbell, VE3MGY, photo]

In the QRP Unlimited division, Glenn, WØGJ, hit it out of the park with a big score nearly double that of all comers.

"QRP doesn't go very far unless one has QRO antennas!"

Glenn should know, with two full-sized quarterwave verticals fed together in configurations allowing either bi-directional broadside or unidirectional end-fire patterns.

W/VE Top Ten	
Single Operator Unlimited,	
QRP	
WØGJ	79,156
KEØL	44,128
K2YAZ	21,573
WE9R	20,210
VE3NZ	14,393
K8ZT	14,112
K3HW	2,075
K5VR	850
K2GMY	342
KE1AK	2

"That said, I have learned if someone moves in close on the run frequency, the QRP guy is the one who moves. No problem - he must just S&P until he finds a new place to run."

Glenn points out one of the maddening truths about QRP on 160 meters: "

Beverages aren't needed to run QRP."

But they are definitely sometimes needed to work the stations running low power!



For the sixth straight year, Jim, K6EI, headed north to Loon Lake, Washington to set up and operate portable [James Peterson, K6EI, photo]

There's more on the web!

For complete line scores, full contest results articles, photos, downloadable certificates and more, visit the ARRL contest portal at **CONTESTS.ARRL.ORG**

Multi-Operator

Once again, W2GD takes the high-power multioperator victory from the formidable brine of the New Jersey coastline.

W/VE Top Ten		
Multioperator, High Power		
W2GD	320,606	
KØDI	297,000	
NØNI	293,685	
W4MYA	260,718	
NA7TB	208,642	
N4HB	158,115	
NØHJZ	146,160	
NX6T	134,010	
WU6P	106,190	
VE2OJ	102,419	

The big story here is the race for 2nd place, between KØDI and NØNI. It was a photo finish. Steve, N2CEI, and Sandra, K4SME, have built a serious 160-meter station in Florida, and they enjoy putting it on the air. This year they used the call of one of the operators, Dave, KØDI. They bested the team at NØNI who put Toni's well-known station through the paces in Iowa. When the dust settled, KØDI had edged out NØNI by less than 1%.



Steve, N2CEI, and Sandra, K4SME, believe there is little on 160 that a quarter-wave vertical over a bed of radials can't cure. [Steve Kostro, N2CEI, photo]

W/VE Top Ten		
Multioperator, Low Power		
K3AJ	140,008	
KT4XA	102,600	
KA9VVQ	44,330	
W5WTM	22,302	
W4TG	21,840	
W4FOC	20,332	
NJ1F	8,855	
W60FM	3,000	

With a little less fanfare, and certainly more frustration due to the propagation issues, Tom, K3AJ and his crew opted to enter the Multi-Operator Low Power echelon. Tom recounts,

"The amplifier was in the shop for repairs, so we went into the weekend with no plan whatsoever. I subscribe to the theory that 160 and low power don't mix. A few hours before the contest one of the regular ops, Daryl, WT3K calls me and asks if we were going to play."

Short answer, Tom and crew decided to go for a low-power entry.

"The online scoreboard was highly motivating and kept us engaged."



Bob, ND3D, was part of the multi-op team running K3AJ via remote. [Thomas Valenti, K3AJ, photo]

DX Results

We should note how much activity was down due to poor conditions. Nowhere can you see it more than in the activity outside the USA and Canada.

"Difficult conditions to say the least!" - I2WIJ

Single Operator

Jeff, K8ND, piloted the PJ2T contest station to the top spot in Single Operator High Power.

"This was my sixth ARRL 160 operation from PJ2T as a single-operator, and the worst score so far, both for me and for others who have operated from PJ2T. The first night was just okay, but the second night? Not so much."

DX Top Ten	
Single Operator, High Power	
PJ2T (K8ND, op)	83,472
VP5M	42,180
XE2S	17,052
JA5DQH	4,368
UT6UD	3,828
OM2XW	2,016
ON4WW	1,080
OH1XX	912
IKØYUT	828
GM4Z (GM4ZUK, op)	768

Jim, K4QPL, had been at VP5M already for the CQ Worldwide DX Contest the previous weekend, so he tried his hand, and landed second place.

"Sorry, there were a number of callers I just couldn't pull out."

That sounds like it was the story of the whole weekend.

Operating low-power, Ez, HI3AA, drove his well-appointed station to the highest honors working 109 stations in the United States and Canada while running only 100 watts. Ez was the only entrant in

this category from North America. Others from Europe and Asia were obviously a little frustrated, with no more than 15 QSOs. It was one of those times when an amplifier might have really helped.

DX Top Ten		
Single Operator Low Power		
НІЗАА	7,800	
MØNDZ	330	
JA7KPI	270	
SP6LUV	240	
JE1TSD	40	
JA1BJI	32	
OK1MNW	18	

There were only three stations who even dared to light it up with 5 watts or less. Congratulations to Jose, CO6EC, who topped the group, making 12 contacts.

DX Top Ten		
Single Operator QRP		
CO6EC	168	
V31HQ (V31MA, op)	112	
E71A	8	

Single Operator Unlimited

Oli, F1AKK, managed 253/49 QSOs/mults from well-known club station TM6M on the west coast of France. Oli discovered at the last minute he did not have to work that weekend, so he could get on the radio instead.

"Eureka! I can do this wonderful contest," Oli recalls thinking to himself. "Then, conditions quickly went from bad to ... very bad." Which just goes to show that the worst day on the radio is better than the best day on the job. It was close between Oli and very well-known on-air operator Laci, OM2VL, who finished right behind Oli with 242/49.

DX Top Ten							
Single Operator Unlimited,							
High Power							
TM6M (F1AKK, op)	24,402						
OM2VL	23,324						
EA1DAV	13,344						
ZF2SS	9,408						
CR6K (CT1ILT, op)	8,360						
DR5X (DL8LAS, op)	8,256						
EA7X	7,600						
G4AMT	6,090						
OL1A (OK1CW, op)	5,440						
YL7X (YL2LY, op)	5,214						

Single Operator Low Power Unlimited honors go to Gerry, W1VE, who remoted-in to the world-class ZF9CW QTH of Stan, K5GO. Gerry beat all comers making over 300 QSOs with 100 watts.

"It was not much fun with such poor propagation. Thanks for the QSOs."

DX Top Ten							
Single Operator Unlimited,							
Low Power							
ZF2VE	36,952						
OK6Y (OK2PTZ, op)	1,600						
IK7YTT	96						
SP6IHE	70						
G4BRK	40						
LZ2ZG	40						
JJ1AEB	8						
JRØELG	8						
OK2BFN	8						
SP9JZT	2						

Soapbox!

Don't miss the compilation of comments -see https://contests.arrl.org/160m/soaps/2022/ for some great stories and photos



Tom, OK2PTZ, reeled in 40 QSOs using 100 watts from OK6Y in the Czech Republic. [Tomas Zukal, OK2PTZ, photo]

A lone station braved running QRP Unlimited, through the banging thunderstorms of Central America, or from anywhere else in the world for that matter. Thanks to the ever-present Marc, V31MA, for making Belize available to the deserving and congratulations on a new World Record in the category!

Multi-Operator

There are only 5 teams that braved entering the Multi Operator category from outside the USA and Canada this time around. Last year, with better conditions, we were writing about a clash of DX titans. PJ2T with a proven reliable signal out of Curacao had entered as a Multiop, where some of the operators were present at the station and some were operating via remote. The team at C6AGU in the Bahamas were all on site, headed up by team leader George, AA7JV. Last year, George was eager to prove the concept of his RIB (radio-in-a-box) DXpedition device. George reports,

"This year the RIB was used with a vertical antenna, and all located on an uninhabited island."

Mission accomplished. Congratulations to George and his team for a smashing victory in the multi-operator high power DX division from C6AGU!

This report would not be complete without a sincere and heart-felt thank you to all the operators outside the USA and Canada who braved the awful conditions to get on and make QSOs. Those DX contacts really make a difference for a lot of the operators who get on for the contest.

DX Top Ten						
Multioperator,						
High Power						
C6AGU	152,724					
HA3DX	5,160					
JA3YBK	3,968					
JF1AMX	1,980					
OL4N	60					



Charlie, HA4XH, and Yuri, HA4FB, braved the poor conditions to put Hungary into 96 logs. [Karoly Nyemcsek, HA4XH, photo]

Affiliated Club Competition

In ARRL contests, incentive is increased for many when clubs compete with each other for the total combined score of all the members who got on. There are three tiers of competition depending on how big a club is. The Unlimited category is just that. The Medium category is for clubs that field up to 50 scores. For small groups there is the Local category for 10 at the most (and they must be near each other).

This year 618 individual scores added into the Affiliated Club Competition. The Potomac Valley Radio Club (PVRC) bested the Frankford Radio Club (FRC) for overall Unlimited club bragging rights. In the Medium category, the Society of Midwest Contesters fielded 49 members to capture the top spot. The Central Virginia Contest Club

managed a win in the Local category with only 6 members.

	•							
Club	Score	Entries						
Unlimited								
Potomac Valley Radio Club	5,417,053	89						
Frankford Radio Club	2,986,670	57						
Minnesota Wireless Assn	2,550,597	60						
Yankee Clipper Contest Club	2,549,161	58						
Medium								
Society of Midwest Contesters	2,622,611	49						
Contest Club Ontario	1,585,136	27						
Mad River Radio Club	1,145,123	14						
South East Contest Club	968,352	17						
Tennessee Contest Group	850,729	17						
North Coast Contesters	650,487	9						
Central Texas DX and Contest Club	644,927	11						
Florida Contest Group	615,300	18						
DFW Contest Group	425,649	14						
Arizona Outlaws Contest Club	378,916	16						
Northern California Contest Club	365,872	26						
Hudson Valley Contesters and	,							
DXers	357,074	13						
Kentucky Contest Group	314,521	12						
Southern California Contest Club	310,650	7						
Northeast Maryland Amateur	,							
Radio Contest Society	211,284	7						
Niagara Frontier Radiosport	199,731	5						
Order of Boiled Owls of New York	195,144	5						
Grand Mesa Contesters of	,							
Colorado	173,195	10						
Bay Area DXers	158,556	4						
Carolina DX Association	153,138	5						
Swamp Fox Contest Group	151,901	4						
Kansas City Contest Club	141,478	4						
Driftless Zone Contesters	119,424	4						
Rochester (NY) DX Assn	114,645	5						
Texas DX Society	103,271	4						
Alabama Contest Group	95,816	4						
Tennessee Valley DX Association	88,812	3						
Willamette Valley DX Club	71,222	3						
Great Places Contest Club	70,360	3						
Mother Lode DX/Contest Club	60,181	3						
Western Washington DX Club	47,070	4						
Heartland DX Association	40,708	3						
Saskatchewan Contest Club	17,850	3						
Local								
Central Virginia Contest Club	453,823	6						
Not Quite Workable Contest Club	132,088	4						
Hilltop Transmitting Assn	103,828	3						
Bristol (TN) ARC	55,574	4						
Redwood Empire DX Assn	27,569	4						
	27,303	•						



Timothy, NØUI, shows how to win the Unassisted Low Power division for the Missouri Section. You need a lot of monitors in the "Show-Me" state. [Timothy Raymer, NØUI, photo]



Don, WD8DSB, garnered the top low-power score in Indiana. He warns, "Top Band causes sleep deprivation [Donald Kirk, WD8DSB, photo]

Until Next Time

After several years of fantastic conditions on Top Band for the annual ARRL 160-Meter Contest, we finally have to concede some propagation to the higher frequency bands. If you ask many, it has been a long time coming ("When will Cycle 25 get going?"), but for the stalwart Top Bander, a good winter night on 160 meters is still hard to beat. See you next year!

The 2023 ARRL 160-Meter Contest will be held December 1 – 3, 2023. For rules, previous year's results articles and more, visit contests.arrl.org/160m/

				Region	al Winners							
West Coast F	Region	Midwest Region Central Region Southeast Region			n	Northeast Region						
and Southwe Divisions; Alb	Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and		(Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)		d Great ons; t, Ontario ario South, r Toronto ns)	(Delta, Roanoke and Southeastern Divisions)		(New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)				
Sections) Area Sections) Single Operator, High Power												
WJ9B	89,748	кøтт	181,070	K1LT	280,610	K3ZM	368,562	WF2W	300,384			
KU1CW	88,452	KØMD	128,709	NA8V	259,856	W4CB (W2RU, op)	198,628	K1DG	282,420			
AA6AA (@W6UC)	77,376	NØTT	107,475	WB9Z	184,230	NP2J (K8RF, op)	172,983	N3QE	171,681			
K7RAT (N6TR, op)	66,830	NØPB	106,489	W9RE	159,205	N4XD	160,448	WW2Y	165,330			
VE6BBP	66,759	N7IV	73,050	VA3AR	142,800	KP2M (KT3Y, op)	115,506	K3UL	161,262			
				Single Opera	ator, Low Pow	ver						
AC7A	14,994	wøuo	136,437	KG9X	160,820	N8II	66,836	K1EP	136,668			
KE6GLA	11,725	кøті	70,818	K8FH	142,460	K4FT	59,458	ND3F	68,376			
VA7PK	10,120	AEØEE	59,133	К9АҮ	80,856	K4ORD	49,593	N2EM	61,628			
W7TMT	9,676	AI6O	57,395	WD8DSB	74,896	K1GU	46,420	W1QK	60,329			
VE7SL	8,440	ACØW	56,669	N8AA	69,088	W4YE	45,696	K2ZR	59,963			
				Single O	perator, QRP							
N7IR	18,928	KEØTT	6,540	К9ZО	41,415	K4XL	32,850	W3TS	56,322			
W6MZ	1,957	N5OE	5,394	KB8PGW	9,310	N2AWE	14,670	WW2G (WU2M, op)	31,152			
KA7T	1,292	NØJK	2,704	WB8DC	8,820	К2РІ	11,320	W1UU	14,196			
K6MI	1,190	WBØCFF	2,640	W8RU	8,360	W5NZ	2,916	WB2CPU	11,844			
W6GL	72	W5ESE	1,462	W8PU	8,140	K2EKM	2,288	W1FJ	6,944			
N6HI	72											

Single Operator Unlimited, High Power												
K7QA	89,557	K5PI	208,900		VE3EJ	378,696		N1LN	324,500	AA1K	350,760	
W7RH	70,956	K7NJ	198,792		к9СТ	305,963		K2KW	281,050	VA2WA	263,516	
								N4RV (NN3W,				
K8IA	37,620	WØPR	145,992		WØAIH	236,775		op)	262,872	K1ZM	259,555	
N7KU												
(NJ6D, op)	33,320	W5TM	140,944		W8MJ	195,672		K2AV	225,158	N2KW	257,140	
N6IE	27,136	K1KD	137,085		VE3VN	119,600		W4NF	218,076	K1LZ	237,820	
	Single Operator Unlimited, Low Power											
K6EI	38,520	KKØU	107,596		VE3MGY	182,430		N3HEE	145,337	NJ3K	121,360	
NU7F	5,610	KØRC	62,400		NE9U	163,122		WX3M	59,976	W3KB	38,475	
N3RC	2,128	K5MR	50,410		K8BL	138,591		K3TW	55,424	AG3I	34,485	
K6KM	1,932	KØPHP	39,168		KX9RT	124,002		K5EK	54,054	NS3T	30,549	
WU6X	1,494	кøкх	38,760		KB9OWD	119,880		N4NTO	52,020	NR3Z	29,155	
				Si	ingle Operato	or Unlimited,	Q	RP				
K2GMY	342	WØGJ	79,156		K2YAZ	21,573		KEØL	44,128	K3HW	2,075	
					WE9R	20,210		K5VR	850	KE1AK	2	
					VE3NZ	14,393						
					K8ZT	14,112						
	<u>.</u>									·		
			Multic	pe	erator, Single	Transmitter,	Hi	igh Power				
NA7TB	208,642	NØNI	293,685		VE3FAS	37,115		KØDI	297,000	W2GD	320,606	
NX6T	134,010	NØHJZ	146,160					W4MYA	260,718	VE2OJ	102,419	
WU6P	106,190	VE4YH	11,748					N4HB	158,115	W3ZGD	79,127	
KH6LC	39,424							KC4D	71,742	WA3EKL	67,524	
										NE3F	59,625	
Multioperator, Single Transmitter, Low Power												
W60FM	3,000	W5WTM	22,302	-	KA9VVQ	44,330		KT4XA	102,600	K3AJ	140,008	
								W4TG	21,840	NJ1F	8,855	
								W4FOC	20,332			

Division Winners

SO: Single Operator; SOU: Single Operator Unlimited; MS: Multioperator Single Transmitter; HP: >100W; LP:5-100W; QRP: <5W

		•	_	•		•	MSLP
		•			-		
WF2W		W31S			K3HW	W2GD	K3AJ
WB9Z	KG9X	K9ZO	к9СТ	NE9U	WE9R		KA9VVQ
кØТТ	кØТI	KEØTT	WØPR	KØRC		NØHJZ	
W4NZ	K1GU	WB4GHZ	AD4EB	K3IE	KEØL		
K1LT	K8FH	KB8PGW	W8MJ	K8BL	K2YAZ		
W2XL	WA2JQK	WW2G	N2GC	KI2D			NJ1F
		(WU2M, op)					
NØTT	AI6O	NØJK	NØAV	KKØU	WØGJ	NØNI	
K1DG	K1EP	W1UU	K1ZM	W2TT	KE1AK	W1OP	
WJ9B	W7TMT	KA7T	K7QA	K6EI			
AA6AA	KE6GLA	K6MI	N6IE	N3RC	K2GMY	WU6P	W60FM
(@W6UC)							
K3ZM	N8II	K4XL	N1LN	N3HEE		W4MYA	W4TG
ĸØsx	WB7GR	NO2D	K7NJ	AFØE			
NP2J	AA4LR	W5NZ	NO9E	K3TW		KØDI	KT4XA
(K8RF, op)							
K6NR	AC7A	N7IR	W7RH	WO7T		NA7TB	
N5AW	WØUO	N5OE	K5PI	K5MR			W5WTM
VA3AR	VE3DZ	VY2DP	VE3EJ	VE3MGY	VE3NZ	VE2OJ	
	SOHP WF2W WB9Z KØTT W4NZ K1LT W2XL NØTT K1DG WJ9B AA6AA (@W6UC) K3ZM KØSX NP2J (K8RF, op) K6NR N5AW	SOHP SOLP WF2W ND3F WB9Z KG9X KØTT KØTI W4NZ K1GU K1LT K8FH W2XL WA2JQK NØTT AI6O K1DG K1EP WJ9B W7TMT AA6AA KE6GLA (@W6UC) K3ZM N8II KØSX WB7GR NP2J AA4LR (K8RF, op) K6NR AC7A N5AW WØUO	SOHP SOLP SOQRP WF2W ND3F W3TS WB9Z KG9X K9ZO KØTT KØTI KEØTT W4NZ K1GU WB4GHZ K1LT K8FH KB8PGW W2XL WA2JQK WW2G (WU2M, op) NØJK K1DG K1EP W1UU WJ9B W7TMT KA7T AA6AA KE6GLA K6MI (@W6UC) K3ZM N8II K4XL KØSX WB7GR NO2D NP2J AA4LR W5NZ (K8RF, op) K6NR AC7A N7IR N5AW WØUO N5OE	SOHP SOLP SOQRP SOUHP WF2W ND3F W3TS AA1K WB9Z KG9X K9ZO K9CT KØTT KØTI KEØTT WØPR W4NZ K1GU WB4GHZ AD4EB K1LT K8FH KB8PGW W8MJ W2XL WA2JQK WW2G N2GC (WU2M, op) NØAV K1DG K1EP W1UU K1ZM WJ9B W7TMT KA7T K7QA AA6AA KE6GLA K6MI N6IE (@W6UC) K3ZM N8II K4XL N1LN KØSX WB7GR NO2D K7NJ NP2J AA4LR W5NZ NO9E (K8RF, op) K6NR AC7A N7IR W7RH N5AW WØUO N5OE K5PI	SOHP SOLP SOQRP SOUHP SOULP WF2W ND3F W3TS AA1K NJ3K WB9Z KG9X K9ZO K9CT NE9U KØTT KØTI KEØTT WØPR KØRC W4NZ K1GU WB4GHZ AD4EB K3IE K1LT K8FH KB8PGW W8MJ K8BL W2XL WA2JQK WW2G N2GC KI2D NØTT AI6O NØJK NØAV KKØU K1DG K1EP W1UU K1ZM W2TT WJ9B W7TMT KA7T K7QA K6EI AA6AA KE6GLA K6MI N6IE N3RC (@W6UC) K3ZM N8II K4XL N1LN N3HEE KØSX WB7GR NO2D K7NJ AFØE NP2J AA4LR W5NZ NO9E K3TW (K8RF, op) K6NR AC7A N7IR W7RH WO7T N5AW	SOHP SOLP SOQRP SOUHP SOULP SOUQRP WF2W ND3F W3TS AA1K NJ3K K3HW WB9Z KG9X K9ZO K9CT NE9U WE9R KØTT KØTI KEØTT WØPR KØRC W4NZ K1GU WB4GHZ AD4EB K3IE KEØL K1LT K8FH KB8PGW W8MJ K8BL K2YAZ W2XL WA2JQK WW2G N2GC KI2D NØTT AI6O NØJK NØAV KKØU WØGJ K1DG K1EP W1UU K1ZM W2TT KE1AK WJ9B W7TMT KA7T K7QA K6EI AA6AA KE6GLA K6MI N6IE N3RC K2GMY (@W6UC) K3ZM N8II K4XL N1LN N3HEE K KØSX WB7GR NO2D K7NJ AFØE NO9E K3TW (K8RF, op) K6NR AC7A N7IR <th>WF2W ND3F W3TS AA1K NJ3K K3HW W2GD WB9Z KG9X K9ZO K9CT NE9U WE9R K0T KØTT KØTI KEØTT WØPR KØRC NØHJZ NØHJZ W4NZ K1GU WB4GHZ AD4EB K3IE KEØL KEØL K1LT K8FH KB8PGW W8MJ K8BL K2YAZ K2YAZ W2XL WA2JQK WW2G N2GC KI2D K2YAZ NØNI K1DG K1EP W1UU K1ZM W2TT KE1AK W1OP WJ9B W7TMT KA7T K7QA K6EI K2GMY WU6P (@W6UC) K3ZM N8II K4XL N1LN N3HEE W4MYA KØSX WB7GR NO2D K7NJ AFØE W4MYA NP2J AA4LR W5NZ NO9E K3TW KØDI K6NR AC7A N7IR W7RH WO7T NA7TB</th>	WF2W ND3F W3TS AA1K NJ3K K3HW W2GD WB9Z KG9X K9ZO K9CT NE9U WE9R K0T KØTT KØTI KEØTT WØPR KØRC NØHJZ NØHJZ W4NZ K1GU WB4GHZ AD4EB K3IE KEØL KEØL K1LT K8FH KB8PGW W8MJ K8BL K2YAZ K2YAZ W2XL WA2JQK WW2G N2GC KI2D K2YAZ NØNI K1DG K1EP W1UU K1ZM W2TT KE1AK W1OP WJ9B W7TMT KA7T K7QA K6EI K2GMY WU6P (@W6UC) K3ZM N8II K4XL N1LN N3HEE W4MYA KØSX WB7GR NO2D K7NJ AFØE W4MYA NP2J AA4LR W5NZ NO9E K3TW KØDI K6NR AC7A N7IR W7RH WO7T NA7TB