



IARU HF World Championship 2024 Full Results

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This contest is not very old, but it has a distinct personality. – Pat, N9RV

As we march closer to Solar Cycle 25's peak, participants in the 2024 IARU HF World Championship both enjoyed and suffered from the effects that a 10.7m solar flux in the mid-230s can bring to a contest.

Many were excited about the prospect of good-to-excellent conditions with hopes of making contact with as many other participants as possible across the fifty ITU zones and fifty-nine national society headquarters and ITU Administrative Council and ITU region special stations that were activated. Thankfully, the solar weather occurring the week prior to the contest had only a minor impact, but the near-constant barrage of M-class flares and threat of the occasional X-class flare is simply a daily fact of life in this part of the solar cycle. It reminds us solar conditions can give and take away; a successful DX contester has to be ready to adapt to the moment.

"[I] spent most of the contest trying to figure out what to do," says Randy, K5ZD, commenting in his [3830scores.com](https://www.3830scores.com) notes, "It did remind me why I have been doing more assisted operations lately. It is hard to find multipliers - especially when covering 6 bands on both modes!"

At this point in the cycle, we are benefiting from having potentially multiple band opening options at certain points of the day. Operating in the Mixed Mode categories further complicates strategy by having to decide whether to operate CW or phone. Randy continued, "CW was always better for being able to make rate."

There are additional strategic considerations for maximizing score based on geographic location and taking advantage of the weighted QSO Points system used in the IARU HF World Championship contest. No one knows that better than Pat, N9RV, a frequent top scorer from his home QTH in Montana, who finished this year in 3rd Place in the W/VE CW Only, High Power category (and 4th in the World).



Randy, K5ZD, at his station desk for one of the final contests from his QTH in Massachusetts before an upcoming move. Randy finished 3rd place in the W/VE Single Operator, Mixed Mode, High Power category. (Photo courtesy of K5ZD)

"I forget every time how much I like the rules of this contest," says Pat in his [3830scores.com](https://www.3830scores.com) post, "except for the HQ mults that the west is guaranteed to miss on 40 [meters] and 80 [meters] because of lack of darkness, it has some of the most equitable rules around."

Many entrants, particularly in North America, noted the slow start to the contest in the local morning hours on Saturday. Space weather events aside, this is common for summertime, but there are other propagation opportunities that make summertime HF contesting very different from autumnal and winter contests.

"Daytime operation was a horrible grind," says Randy, W8FN, in his [3830scores.com](https://www.3830scores.com) post about operating from his QTH in North Carolina, "with just a low dipole for the high bands it was difficult to impossible to get through the piles effectively, even with 500 Watts."

However, Randy went on to say, "in the late afternoon and evening, 20 [meters] and then 40 [meters] opened sufficiently well that I could get a decent [search and pounce] effort going."

Randy stuck with it for an 8-hour effort resulting in a 2nd place finish in the Southeast Region's Single Operator, CW Only, High Power category.

With the Maximum Usable Frequency (MUF) remaining above 14 MHz during the hours of darkness, 20 meters remained opened (and in some areas 15 meters as well) between in Europe (which has the highest density of participants in this contest) and other parts of the world, including North America. However, it came at the cost to the low bands. While several reports came in that 40 meters was reasonably good, a lot of activity stayed up on the higher bands. When most of the Northern Hemisphere is dealing with seasonal atmospheric static on the low bands, it is no wonder people seized upon the opportunity to enjoy the propagation and relatively quieter band conditions on 20 meters overnight, especially after 15 meters being the go-to band for most of the daytime hours.

Across most of North America, propagation on 10 meters was spotty at best:

“10m just didn't open, although there were a few workable [Japanese stations] at darkness.” – Pat, N9RV, Montana

“Only a few [European stations] on 10, and that was beaming east with multiple calls to get their attention.” – Steve, N2IC, New Mexico

“10 [meters] was wide open to the south at mid-day (very loud CE [Chile]/LU [Argentina]/PY [Brazil])” – Jeff, N8II, West Virginia

“On 10m, there [were] no [European contacts] in the log until 6 hours into the contest - and even so, it was only zone 36/37. However, as many have noted, the nighttime propagation was spectacular on the high bands - even 10m was better to EU in the middle of the night from here than during the day.” – Kam, N3KS operating as TI7W, Costa Rica

However, there is always the potential of a strange or unexpected opening. The multioperator team consisting of Rich, NN3W, and Jon, KL2A, operating from the Virginia QTH of John, N4RV, kept an eye on 10 meters all night. After only working a handful of European multipliers during the day on Saturday, they were rewarded with a “fascinating opening,” as described by Rich in their [3830scores.com](https://www.3830scores.com) post. Just after 0700z, they were able to work some of the headquarters stations, followed by a few dozen other contacts across the major European ITU Zones 18, 28, 29 and 37.

Closer to the equator, John, W2GD, who often operates from the island of Aruba - this time as P44W, can rely on north-south paths that are less susceptible to seasonal absorption on the high bands that can be experienced across east-west paths. John had a more favorable report about 10-meter propagation.

“Throughout the contest 10 meters, from this latitude, was terrific almost around the clock,” John says in his [3830scores.com](https://www.3830scores.com) post, “running EU on ten at 1:30 a.m. local time will always be a thrill to remember.”

Pat, N9RV, also echoed a common theme among many post-contest writeups, “15 and 20 [meters] ... was really the main show.”

Conditions on 15 meters were so good it captured Brian, N2MF, and wouldn't let go. “The plan was to operate a few select hours,” Brian said in his [3830scores.com](https://www.3830scores.com) post, “I started on 15m, and it was so good I thought maybe this should be a year for a more serious effort.”

“I have not heard so much intriguing DX responding to CQs on 15 during our morning in upstate New York—JA [Japan], YB [Indonesia], HS [Thailand], DU [Philippines], BY [China], VR [Hong Kong], 3W [Vietnam], 9N [Nepal], UA0s [Asiatic Russia], HL [South Korea].”

Brian's change of heart paid off as the unplanned extra time in the operating chair rewarded him with a 6th Place finish in the W/VE CW Only, High Power category and 10th place Worldwide.

Single Operator

Filipe, CT1ILT, operating as CR6K, takes top honors in the World Mixed Mode, High Power category, with the highest score across all Single Operator categories from his contest station in Portugal. It's just the seventh time in 30 years a station in Europe has garnered the top Mixed Mode score. Filipe is one of three single operators to break 5 million points in their final score, followed by Juan, EA8RM, and Jack, R2AA, both in the Unlimited categories, as described later.

The Single Operator competition in the US and Canada continues to be a true cross-continent affair with victories in ITU Zones 6 and 7 this year. Stations on the East Coast are not guaranteed a win by relying on their large European QSO totals. Dan, N6MJ, operating as ND7K, piloted N6WIN's station in Arizona to victory in the W/VE Mixed Mode, High Power category. Ken, K6LA, who operated from his Prince Edward Island QTH as VY2TT, finished in 2nd place with Randy, K5ZD, from Massachusetts just behind in 3rd place.

In the World CW Only, High Power category, John, W2GD, operating as P44W, was spared chronic line noise issues exacerbated by salt build-up on local power lines during the dry Aruban summers when rain fell on Friday night, eliminating the noise just in time for the contest.

While the noise returned a couple hours before the end of the contest, John went on to finish in 1st place. In W/VE CW Only, High Power, Dave, K5GN, operated the Texan station owned by Dennis, W5KU, finishing in 1st place. According to Dave’s post on 3830scores.com, Dennis and Dave had worked to recover from some rotator slippage and Beverage damage from Hurricane Beryl which hit the Monday before the contest. The effort ended up being a new personal best for Dave.

Valery, EW6W, operating as CQ9A, finished 1st place in the World Phone Only, High Power category while Alexander, W6AFA, took the top spot in W/VE Phone Only, High Power category.

Boyan, LZ8E, finished 1st place in the World Mixed Mode, Low Power category. Ed, N1UR, set a new W/VE Mixed Mode, Low Power record with his effort from Vermont.

Lukasz, SP3H, piloted his station to the top of the World Phone Only, Low Power category. Bill, KF8N, operated from his QTH in Virginia earning the top spot in the W/VE Phone Only, Low Power category.

Dimitri, RA3CO, operating as PZ5DX, reported in his 3830scores.com post overcoming “intermittent reception issues on 20 to 10 meters” on his second radio limiting him to SO2R operation only on the low bands, but he kept the rate up overall for a decisive World record-breaking victory in the World CW Only, Low Power category.

Dick, WC1M, who has a long history of High Power entries, tried something new by operating in the CW Only, Low Power category this year, stating in his 3830scores.com post, “I don’t think I’ve actually done a serious contest effort with low power other than Field Day ... so it was an opportunity to get familiar with low power strategies.”

Dick noted, “the pileups are smaller with low power, which makes it easier to handle them and simultaneously hit the second radio for higher rate and more mults. Busting small pileups was mostly a matter of timing and whether propagation favored me. I passed on the big packet pileups, sometimes coming back later after the intensity died down.”

While Dick’s station is well-equipped with beam antennas and likely to produce good rate even at low power, Dick found operating low power to be good practice running 2BSIQ (Two-Band Synchronized Interleaved QSOs), which is a specialized form of Single-Operator Two Radio (SO2R) operation.

“Before the contest, I was doubtful that 2BSIQ would work at low power,” Dick says, “I didn’t do it a whole lot because IARU is primarily a mult contest, and my sense is that HQ stations run a lot more than S&P. With low power rates, it was pretty easy to nail down the 2BSIQ timing, and I was pleased to find that it can be done well even with somewhat slower CW speed when needed.”

Dick finished in 1st place in the W/VE CW Only, Low Power category.

Rein, ES6RW, finished 1st place in the World Phone Only, QRP category with the only score to break 100k points in this most difficult category. Fellow countryman, Arvo, ES2MC, who wasn’t planning to do a full effort, was captivated by excellent band conditions and “spent more time on the radio than my [spouse] would have possibly wanted,” he says in his 3830scores.com post. He took the top spot in the CW Only, QRP category. Laszlo, HA8QZ, operating as HG5D, rounded out the top World QRP scores finishing first in the Mixed Mode category.

Al, W1FJ, had the top W/VE QRP score across all mode categories with his CW Only effort.

Tom, W2SC, operating remotely as 8P5A, used the contest to determine the extent of some storm damage at his QTH in Barbados and try High Power operation via remote for the first time. Despite some challenges, Tom finished with the highest North American single operator score across all categories in a Mixed Mode, High Power effort. Bob, N6TV, operating as KH7Q, had the highest single operator score, overall, in Oceania with a CW Only, High Power effort. Nineteen-year-old Aleks, RA9P, led the Single Operator pack in Asia with his Mixed Mode, High Power effort.

New Single Operator World Record		
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less		
Category	Callsign	Score
CW-LP	PZ5DX (RA3CO, op)	3,090,464

New Single Operator W/VE Records		
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less		
Category	Callsign	Score
MIX-LP	N1UR	1,350,228
CW-HP	K5GN	3,105,384

New Single Operator Continental Records			
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less			
Continent	Category	Callsign	Score
Europe	MIX-HP	CR6K (CT1ILT, op)	5,549,856

North America	MIX-HP	8P5A	3,907,692
Oceania	MIX-LP	WH7T (WH7W, op)	1,178,519
South America	MIX-QRP	PY2PLL	71,862
Oceania	CW-HP	KH7Q (N6TV, op)	2,500,680
South America	CW-HP	P44W (W2GD, op)	4,131,068
South America	CW-LP	PZ5DX (RA3CO, op)	3,090,464

Single Operator W/VE Division Records			
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less			
Division	Category	Callsign	Score
Hudson	MIX-HP	N2NT	2,903,103
Pacific	MIX-HP	K6XX	1,675,080
Roanoke	MIX-HP	AA4NC (N4YDU, op)	3,008,544
Southeastern	MIX-HP	NN7CW	2,116,128
Southwestern	MIX-HP	ND7K (N6MJ, op)	3,529,584
Canada	MIX-HP	VY2TT (K6LA, op)	3,370,960
New England	MIX-LP	N1UR	1,350,228
Southeastern	MIX-LP	WW4XX (LZ4AX, op)	1,153,680
Canada	MIX-QRP	VA2IW	108,194
Rocky Mountain	PH-QRP	WWØWB	4,114
Great Lakes	CW-HP	NA8V	2,407,208
Northwestern	CW-HP	N9RV	2,709,018
West Gulf	CW-HP	K5GN	3,105,384
Canada	CW-HP	VE3JM	3,082,560
Southwestern	CW-LP	N7VM	642,220
Canada	CW-LP	VE3TM	1,064,860

Single Operator Unlimited

Juan, EA8RM, is this year's winner in the World Single Operator Unlimited, Mixed Mode, High Power category, beating Jack, R2AA, who joined Juan as one of two single operators in the unlimited categories finishing above 5 million points for the contest. Felipe, NP4Z, piloted his station to the top of the North American listings and a 4th place finish worldwide. Victor, VA2WA, battled rain static from the remnants of Hurricane Beryl, submitting a personal best in this contest earning 1st place in the W/VE Mixed Mode, High Power category.

Stan, K5GO, operating as ZF5T, set the pace for CW Only, High Power entrants with his World 1st place finish. Victor, UW1M, finished a very strong second, followed by the W/VE 1st place winner, Bud, AA3B, operating as W3GM.

In the Phone Only, High Power categories, Branislav, OM2KW, operating as CR3Y, took the World top spot with Vasily, K3ZU, sneaking into the top spot in the W/VE category with a part time effort.

In the Low Power categories, Stanislaw, SP9XCN, finished 1st place in the World Mixed Mode category. Mike, VE9AA, found himself locked in a close race for

the W/VE Mixed Mode top spot with a strong challenge from Scott, NE9U.

Eugene, UN4Q, took 1st place in the World CW Only, Low Power category followed by Steve, NY3A, who took 1st place in W/VE.

Yuri, UT9CZ operating as UZ7C, operated in the Phone Only, Low Power category winning 1st place in the World. Dan, VA3IDD, captured W/VE Phone Only, Low Power win with a part-time effort.



An arial view of the Lithuanian QTH of Saulius, LY5W. Saulius finished in 5th place in the World Single Operator Unlimited, CW Only, Low Power category. (Photo courtesy of LY5W)

Oliver, OMØRX, operated his impressive solar-powered QRP station, winning 1st place World in the CW Only, QRP category and had the highest QRP score across all categories. According to his QRZ.com page, his QTH is a “fully off-the-grid tiny house with 3 element 5 band yagi 20-10m, a full-size fan dipole for 160/80/40. I have 8KW solar system, with 2x 56V LifePo4 batteries storing 30KW of electricity.”

He goes on to quip, “I have no neighbors, so no interference, except ... from my solar system.”

Fifteen-year-old Boti, HA8TA, piloted his modest station consisting of dipoles and verticals to the top spot in the World Mixed Mode, QRP category. Gabi, YO8WW, was the World's top Phone Only entry.

A part time effort from Douglas, N4IJ, was good enough for 1st place in the W/VE CW Only, QRP category and the highest score from W/VE across all QRP categories as well.

New Single Operator Unlimited World Records		
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less		
Category	Callsign	Score
PH-QRP	YO8WW	345,862
CW-QRP	OMØRX	1,439,563

Dakota	CW-LP	KØAD	515,124
New England	CW-LP	K1XM	1,505,968
Pacific	CW-LP	NU6N	150,684
Southeastern	CW-LP	NE8P	682,500
Roanoke	CW-QRP	N4IJ	122,808

New Single Operator Unlimited Continental Records			
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less			
Continent	Category	Callsign	Score
Africa	MIX-HP	EA8RM	5,289,799
North America	MIX-HP	NP4Z	3,760,923
South America	MIX-HP	PW2F (PY2NA, op)	2,118,645
Asia	MIX-QRP	BI3BX	104,397
Asia	PH-HP	A42K (A41CK, op)	1,493,268
Europe	PH-HP	HA5JI	2,999,642
Europe	PH-QRP	YO8WW	345,862
North America	CW-HP	ZF5T (ZF9CW, op)	3,920,826
Oceania	CW-HP	VL2A (VK2IM, op)	1,198,520
Asia	CW-LP	UN4Q	2,630,303
Europe	CW-QRP	OMØRX	1,439,563
South America	CW-QRP	CE2LS (XQ2OP, op)	29,250

New Single Operator Unlimited W/VE Records		
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less		
Category	Callsign	Score
MIX-HP	VA2WA	3,761,648
CW-LP	NY3A	1,841,231

New Single Operator Unlimited W/VE Division Records			
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less			
Division	Category	Callsign	Score
Atlantic	MIX-HP	K3MM	2,790,936
Great Lakes	MIX-HP	W8MJ	693,121
Midwest	MIX-HP	K3PA	2,151,513
New England	MIX-HP	K1LZ	3,203,840
Rocky Mountain	MIX-HP	N2IC	3,259,524
Canada	MIX-HP	VA2WA	3,761,648
Central	MIX-LP	NE9U	932,340
Delta	MIX-LP	W6FB	239,104
Midwest	MIX-LP	NØRC	104,666
Canada	MIX-LP	VE9AA	942,312
Central	PH-LP	NQ9N	116,025
Delta	PH-LP	AI4DB	38,184
Northwestern	PH-LP	WZ8T	84,330
Atlantic	PH-QRP	W3EK	714
Atlantic	CW-HP	W3GM AA3B, op)	3,612,420
Central	CW-HP	K9CT	2,802,400
Hudson	CW-HP	KR2Q	827,064
Midwest	CW-HP	NSØR	1,261,365
Northwestern	CW-HP	K7QA	907,008
West Gulf	CW-HP	N5RZ	2,421,790
Atlantic	CW-LP	NY3A	1,841,231

Multioperator, Single Transmitter

The team at RU1A finished 1st place in the World Multioperator, Single Transmitter category setting a new European record. They were followed by the Asiatic Russian team of RM9A in 2nd place. The powerhouse K3LR contest team assembled a small team for their inaugural IARU HF Multioperator, Single Transmitter effort, to produce a record-setting 1st place finish in the W/VE standings and finishing 3rd place Worldwide.

Multioperator teams are a great opportunity for experienced contesters to mingle with newcomers and share some of their wisdom and techniques. It's a great environment to share and learn. Veteran members of Radioklub Cerkno, Leo, S5ØR and Janez, S51J, organized a Multioperator, Single Transmitter effort as S5ØR with new hams, Aljaž, S56AS, who was just licensed in February 2024, and Tine, S53TM. The foursome organized themselves to complete a full 24-hour effort resulting in 1,577 QSOs with a final score of 1.48 million points. The “two youngsters (S56AS, S53TM)” were responsible for SSB operations while the “two OM's (S5ØR, S51J)” did CW, as reported in their 3830scores.com post.

New Multioperator, Single Transmitter Continental Record		
Continent	Callsign	Score
Europe	RU1A	7,061,600

New Multioperator, Single Transmitter W/VE Record	
Callsign	Score
K3LR	4,897,198

New Multioperator, Single Transmitter W/VE Division Records		
Division	Callsign	Score
Atlantic	K3LR	4,897,198
Northwestern	N7DX	2,093,747



Ronald, K8NZ, (left) and Dan, W8CAR, (right) operating Multioperator, Single Transmitter at the QTH of Tom, K8AZ. The K8AZ team finished in 3rd Place in the W/VE standings this year and are rumored to have the best annual steak dinner across all IARU entries each year! Additional operators were K8AZ K8MR, KE8LQR, W3YQ, W4WF, W5WZ, and W8WTS. (Photo courtesy of W4WF)

Multioperator, Two Transmitter, Low Power

The relatively new Multioperator, Two Transmitter, Low Power category is not only growing, but the competition was quite fierce this year. Several World Radiosport Team Championship (WRTC) hopefuls often make every attempt to use this category, which is very similar to recent WRTC rules, to practice and test-out equipment that may accompany them to the next WRTC event. With just two IARU HF World Championship editions between the last WRTC (WRTC 2022, held in Italy in July 2023) and the next one (WRTC 2026, to be held in the United Kingdom in July 2026), some candidates working towards qualification are using this contest to prepare as much as possible.

This year, nine teams across three continents (Europe, Asia and North America) broke the 3 million mark. Although WRTC is a two-person team competition, the official IARU Multi-Two category does allow for more than two operators. The six-person Hungarian team at HG7T successfully defended their 2023 title, finishing in 1st place, edging out the Ukrainian team at UW5Y.

Two-time WRTC teammates, 4X1DX and 4X6FR, worked together to finish in the Top Ten with the best score from Asia. WRTC 2022 Canadian teammates, VE3EJ and VE5MX, also paired up to take the top W/VE score.

Multioperator, Two Transmitter, Low Power World Record	
MIX: Mixed Mode; CW: CW Only; PH: Phone Only; HP: Over 150W; LP: 150W or less; QRP: 5W or less	
Callsign	Score
HG7T	3,966,424

New Multioperator, Two Transmitter, Low Power W/VE Record	
Callsign	Score
VE3EJ	3,388,704

New Multioperator, Two Transmitter, Low Power Continental Records		
Continent	Callsign	Score
Africa	ZS4B	1,037,400
Asia	4X1DX	3,418,023
Europe	HG7T	3,966,424
North America	KP4JA	1,787,676
South America	LP1H	2,184,648

New Multioperator, Two Transmitter, Low Power W/VE Division Records		
Division	Callsign	Score
Central	N9NB	2,224,300
Great Lakes	K8LG	332,270
Roanoke	NN3W	2,346,120
Southeastern	N4UU	1,360,918
Southwestern	W1DGL	16,414
West Gulf	K5WA	1,770,030
Canada	VE3EJ	3,388,704

Headquarters and IARU Special Stations

National society Headquarters and IARU Special Stations operations offer a unique multiplier opportunity in the IARU HF World Championship. In the Headquarters standings, there have been long-standing rivalries, particularly among the German (DARC), French (REF) and Spaniard (URE) teams.

The German team of DAØHQ (DARC) have pulled off a three-peat with another victory at the top of the Headquarters standings in 2024.

As noted in last year's results article, GR2HQ (RSGB) have been rising through the standings for the last few years. After edging-out EF4HQ (URE) in 2023 for a hard-fought 3rd place finish, the GR2HQ team rose to 2nd place in this year's standings. The team reported in their 3830scores.com post that "operators range from contest novices to those highly skilled and experienced, but we are all trying to learn new techniques and improve our

performance.” According to their [QRZ.com](https://www.qrz.com) page, this year’s operation spanned across 10 stations from Scotland, England, Wales, and the island of Guernsey.

Members of the Tennessee Contest Group stepped up on short notice to put the W1AW/4 ARRL Headquarters station on the air. With just five days notice, six stations were organized to give out the ARRL multiplier, N4SS, NJ4P, KØEJ, WW5M, AD4EB, and K4HWS, with a mixture of fourteen on-site and remote operators.



It may be “Christmas in July”, but ol’ Saint Nick still had time to check out operations at the Experimenterende Danske Radioamatører (EDR) Headquarters operation, OZ1HQ, in Denmark. The operation was a mix of both in-person and remote operators. Be sure to check out John’s, K3TN, fantastic article about this operation in the Sept/Oct 2024 edition of the *National Contest Journal*. (Photo courtesy of K3TN)

NU1AW IARU Headquarter operations were organized in Missouri this year with Ward, NØAX, coordinating operations from the QTH’s of NWØM, KIØI, WØTT, NØUI/NØLBY, and WX8C. Ward was kind enough to forward this summary of their effort:

I was honored to be the host station for this year's NU1AW operation, giving the HQ team a well-needed break while they were restoring normal IT functions. After a bit of grilling by the IARU leadership, my station and operating plan was deemed acceptable, and planning began. I have operated as W1AW/0 and W1AW/KL7 so I knew this would be a lot of fun and worth all the work to pull it off. Our mission was to put NU1AW/Ø in as many logs as possible.

From the start, I knew it would be important to maximize operating time on all of the band-modes, whenever they were active. My contest station (aka WØECC, near Steelville, MO) has three towers and we could set up three stations to



The WØECC Crew of Sunday Morning Survivors (L-R) are WBØSND, N5OT, K4RO, KKØU, WF7T, KD9LSV, K9EI, and K9UR. Not pictured are NØAX, KDØYJN, WBØTUA, and WØMJ. (Photo courtesy of NØAX)

operate simultaneously, but that wouldn't be enough. I reached out to several active Missouri stations to see if they would be interested in being "DX For A Day" and almost all of them were quickly on-board. Along with WØECC, the CW and SSB duties were handled by NWØM, NØUI, NØLBY, WX8C, WØTT, and KIØI. This was a real "MOMO" (Missouri Multi-op) station!

Permission to do some FT8 operating on the non-contest bands of 30, 17, and 12 meters was also obtained. KDØGY and KIØI put the call on digital modes for the first time ever! (AI6O also signed on but personal commitments kept him from participating - we knew Fred was with us in spirit.) All of these stations made sure NU1AW would be active on up to 8 band-modes simultaneously during the contest.

Now - how did we coordinate all this? To keep from working duplicate stations unnecessarily, we needed real-time QSO sharing. Kyle, AAØZ and Connor, KD9LSV came up with the solution. They set up a Virtual Private Network or VPN that allowed each station to share the network packets from N1MM+ just as if we were all connected together with Ethernet or WiFi.

This worked flawlessly throughout the contest. We had a setup Zoom session two weeks before the contest and then another on Friday night to get everything running. You can learn more about this "distributed multi-multi" by

watching the WIDED World Wide Ham Radio video "What is the "Distributed" Category?: Contest Crew Looks at NU1AW/0" on [YouTube](#).

Connor has provided a set of documentation on Github (see the video) if you'd like to learn more about it.

We also set up a Google Docs spreadsheet to allocate each hour to one of the stations. In the screen capture, you can see our stations and calls throughout the first part of the contest. There was another worksheet that allocated chair time to the WØECC operators. I made a reasonable guess about band openings before the contest, and we adjusted "on the fly" to adapt to conditions. We used the N1MM+ "Talk To Another Station" (CTRL-E) function to pass messages back and forth to keep everyone coordinated.



Jim, KKØU, operating at WØECC as part of the NU1AW/0 IARU headquarter operations. (Photo courtesy of NØAX)

All I can say is, "Wow!" Summertime conditions can be difficult if the Sun and the ionosphere don't cooperate but from the starting bell, we had pileups on all bands. At the beginning we were working Asia and Oceania on 40 meters, Europe opened up on 20 and 15, and of course, we had North and South America busy on several bands. A line of thunderstorms moving across the state and an X-class solar flare at the start put a bit of a damper on the first couple of hours but soon the skies cleared and the F layers calmed down so it was back to business for all of the stations. 5100 QSOs later, the closing bell rang and quite a few tired operators pushed themselves back from the operating desks, happy with a total of 2024 IARU HF World Championship

5.2Mpts, one of the highest NU1AW scores from outside the New England area.

So, who were these guys? The WØECC crew included: Kirk, K4RO; Matt, K9EI; Joe, K9UR; Kirby, KDØYJN; Connor, KD9LSV; Jim., KKØU; Ward, NØAX; Mark, N5OT; Matt, WØMJ; Mike, WBØSND; Derek, WBØTUA; and Brad, WF7T. Around the state, you heard the signals from Mark, KIØI; Jim, NØLBY; Tim, NØUI; Mitch, NWØM; Eric, WØTT; and Harry, WX8C, along with Artie, KDØGY on the digital modes. Kyle, AAØZ, was instrumental in putting together the VPN along with Connor and even watched the action while hiking the backcountry of Yellowstone!

If you ever get a chance to participate in one of the HQ station activations for IARU, it's a real highlight of the year! Not only is the contesting a lot of fun, but I guarantee you'll have a blast socializing with the rest of the crew. Thanks to everyone who helped make NU1AW/Ø a success in 2024!

- 73, Ward NØAX

IARU Headquarters Stations	
Call	Score
DAØHQ	24,819,741
GR2HQ	22,497,548
EF4HQ	21,946,222
S5ØHQ	19,997,325
IØHQ	19,407,115
SK9HQ	18,840,374
YTØHQ	18,038,916
OPØHQ	16,044,315
SNØHQ	15,265,224
9AØHQ	15,227,593
LZØHQ	14,617,144
HGØHQ	12,415,728
OEØHQ	12,059,674
PA6HQ	11,010,090
E7HQ	10,962,468
YRØHQ	10,535,196
OZ1HQ	10,401,430
RØHQ	9,374,946
W1AW/4	7,574,644
LN2HQ	6,195,112
HB9HQ	6,086,280
BØHQ	5,829,252
LT4RCA	4,464,450
NU1AW	4,097,184
ER7HQ	4,063,202
DXØHQ	3,099,432

EIØHQ	2,918,377
OH2HQ	2,862,172
SXØHQ	2,844,308
8NØHQ	2,776,802
TC3HQ	2,517,669
E2HQ	2,270,196
OA4O	2,021,045
EX9HQ	1,780,458
Z3ØHQ	1,716,048
Z6ØHQ	1,677,960
ZF1A	1,515,976
UN1HQ	989,912
HLØHQ	526,875
3D2TF	447,432
OY1CT	402,528
VE5RAC	322,112
HBØHQ	286,160
CX1AA	275,502
HC2GRC	275,356
C37HQ	190,120
ZS9HQ	182,476
LN3HQ	182,343
4AØHQ	178,125
CS5HQ	170,937
ES9A	167,277
AT1HQ	144,969
VR2HK	58,276
3D2HQ	50,504
VK3WIA	41,175

IARU Administrative Council Stations	
SM6EAN	1,610,070
W5ZN	1,387,429
VE6SH	101,079
IARU R1	
DJ3HW	439,732
HB9JOE	258,876
IV3KKW	94,758
DL1YO	4,928
OL7W	3,610
IARU R2	
PT2ADM	154,700
VE3YV	6,498
IARU R3	
JH1NBN	305,732
JA1CJP	240,053
VJ3O	30,480

Thanks to the World Wide Radio Operators Foundation (WWROF, www.wwrof.org) for providing the log-scoring for the HQ station competition.

Top Ten Scores							
United States and Canada		World		United States and Canada		World	
Single Operator				Single Operator Unlimited			
Mixed-Mode, High Power				Mixed-Mode, High Power			
ND7K (N6MJ, op @N6WIN)	3,529,584	CR6K (CT1ILT, op)	5,549,856	VA2WA	3,761,648	EA8RM	5,289,799
VY2TT (K6LA, op)	3,370,960	E7DX (E77DX, op)	4,681,280	N2IC	3,259,524	R2AA	5,061,960
K5ZD	3,322,970	ES7A (ES7GM, op)	4,243,316	K1LZ	3,203,840	OG1F (OH1TM, op)	4,052,680
AA4NC (N4YDU, op)	3,008,544	RT4F (UA4FER, op)	3,926,160	K3MM	2,790,936	VA2WA	3,761,648
N2NT	2,903,103	8P5A	3,907,692	K3PA	2,151,513	NP4Z	3,760,923
K4ZW	2,481,388	EW5A	3,796,500	W3PU (KO8SCA, op)	1,774,535	HG3N	3,698,524
NT6Q (N5ZO, op @WA6TQT)	2,456,430	RA9P	3,777,200	W1GD	1,483,182	ED8M	3,392,887
NN7CW	2,116,128	ND7K (N6MJ, op @N6WIN)	3,529,584	WK1O	1,302,768	LY4A	3,269,700
K4AB	1,844,280	DJ5MW	3,383,859	K9OM	1,236,898	N2IC	3,259,524
K6XX	1,675,080	VY2TT (K6LA, op)	3,370,960	K1AR	860,650	K1LZ	3,203,840
Mixed-Mode, Low Power				Mixed-Mode, Low Power			
N1UR	1,350,228	LZ8E (LZ2BE, op)	2,296,018	VE9AA	942,312	SP9XCN	1,509,072
WW4XX (LZ4AX, op)	1,153,680	HA3NU	1,809,087	NE9U	932,340	GØMTN	1,391,104
AD5A	886,512	OL5Y	1,560,216	VA2CZ	426,384	G3WW	1,360,000
KD4D	866,725	N1UR	1,350,228	AA3R	425,204	PA6Z (PA9M, op)	1,185,185
WQ5L	243,449	RG5A	1,256,224	WN4AFP	413,080	M3AWD	1,166,157
VE3KOT	234,883	WH7T (WH7W, op)	1,178,519	W6FB	239,104	HA9A (HA9AX, op)	1,151,970
K6GHA	229,822	WW4XX (LZ4AX, op)	1,153,680	WA2JQK	156,808	LY7R (LY2BKT, op)	1,054,110
N5AW	203,376	PY2NY	1,083,840	KN6VQ	129,440	OK6Y (OK2PTZ, op)	1,021,992
KØEA	177,112	SO5CW	1,000,873	W4IPC	113,784	ED3Z (EA3DZ, op)	1,001,268
VE3UZ	115,280	DG3T (DF5RF, op)	990,850	W4LT	111,296	E7ØX	946,096
Mixed-Mode, QRP				Mixed-Mode, QRP			
VA2IW	108,194	HG5D (HA8QZ, op)	767,600	K8ZT	1,968	HA8TA	623,806
VE9QR	4,550	HA5PP	560,456			UR2Y (USØYW, op)	437,090
NØLMQ	3,640	HA5BA	453,474			C37AC (EA3O, op)	278,784
		VA2IW	108,194			UX9Q (UR9QQ, op)	267,120
		JH7UJU	100,985			YU1A (YU1LM, op)	256,620
		9A2EY	89,100			PC2F	169,878
		SP4LO	84,854			DDØVS	161,814
		PY2PLL	71,862			DA2A	153,111
		SP4NKJ	57,564			B13BX	104,397
		HG7J	54,468			DL6OCH	95,488
Phone Only, High Power				Phone Only, High Power			
W6AFA	485,692	CQ9A (EW6W, op)	3,343,923	K3ZU	444,860	CR3Y (OM2KW, op)	3,721,140
K9LOE	288,860	R3RZ	1,437,722	NA4DA	322,138	HA5JI	2,999,642

AD5XD	286,615	ED3C (EA3IBV, op)	1,196,384	N8BI	186,098	OR1X	2,231,999
KE8FT	194,228	F5LIW	987,530	VE2CSM	164,588	SN7D (SQ7D, op)	2,065,755
N4MM	138,480	RW9LL	663,780	W9NZ	162,162	RA3OA	1,932,524
VE4SG	124,696	T15VMJ	647,700	VE2NTT	117,438	9Z4BM (N2TTA, op)	1,842,547
WV4E	115,440	ZW5B (PY5CC, op)	633,532	NØGJW (@W3ACO)	116,116	ED7O (EA7EU, op)	1,751,505
K9MWM	76,960	IU8RIA	502,569	AE1P	115,272	A42K (A41CK, op)	1,493,268
VA3ZNQ	61,320	S51CK	499,056	W3ICM	105,222	IKØPHY	1,476,876
KE8NBC	55,104	W6AFA	485,692	K4BBH	102,794	YO7WC	1,352,792
Phone Only, Low Power				Phone Only, Low Power			
KF8N	134,784	SP3H	755,000	VA3IDD	126,904	UZ7C (UT9CZ, op)	865,340
WA3LXD	129,686	M1T (MØKYB, op)	550,290	NQ9N	116,025	ZV1T (PP1WW, op)	572,760
KO4GAR	91,650	CT2HOV	464,784	WS4AM	105,716	SV3RPQ	570,472
KS2G	75,952	UA3BL	451,503	VE9CZ	96,928	5K3L (HK3EA, op)	472,560
K5DHY	70,348	ED3D (EA3AYQ, op)	278,694	WZ8T	84,330	SN7T (SQ7OTK, op)	351,864
W8LYO	56,908	EA3HXT	252,784	KI5MM	73,150	UA9R	315,248
W9TCV	51,944	5B4AIF	244,816	N3BAS	62,790	4M5A (YV5RAB, op)	256,601
KB4LOA	51,744	KP4PUA	236,910	KC1RWR	55,245	SO7E	251,502
K3SNO	49,203	F4WDL	221,312	WA4AH	42,316	DFØPW (DK7AM, op)	249,426
W1JIM	46,495	HP1XV	221,186	AB5NX	41,503	SP3WKW	246,698
Phone Only, QRP				Phone Only, QRP			
W6QU (W8QZA, op)	16,912	ES6RW	250,536	W3EK	714	YO8WW	345,862
W1JCW	14,560	HB9EGA	78,720			YO8OLY	16,897
WWØWB	4,114	DL3AN (UT1AN, op)	74,304			ON5LS	16,728
VA3GMO	2,835	HA1TI	33,034			MI1M	8,128
VA2YLB	1,633	DL6MDG	32,109			G1WVK	3,650
		IV3LNQ	29,674			VR2WAA	2,616
		GI7JYK (MI5JYK, op)	28,798			BD3SA (BD3S, op)	2,442
		W6QU (W8QZA, op)	16,912			BG7IEJ	754
		DL5EC	16,348			W3EK	714
		JA2M WV	15,500			DL8SAM	9
CW Only, High Power				CW Only, High Power			
K5GN	3,105,384	P44W (W2GD, op)	4,131,068	W3GM (AA3B, op)	3,612,420	ZF5T (ZF9CW, op)	3,920,826
VE3JM	3,082,560	K5GN	3,105,384	K1ZZ	3,229,876	UW1M	3,624,264
N9RV	2,709,018	VE3JM	3,082,560	K9CT	2,802,400	W3GM (AA3B, op)	3,612,420
NA8V	2,407,208	N9RV	2,709,018	N5RZ	2,421,790	K1ZZ	3,229,876
W1KM	2,397,549	KH7Q (N6TV, op @KH6YY)	2,500,680	N9NC	1,993,522	SN7Q (SP7GIQ, op)	2,999,324
N2MF	1,838,850	NA8V	2,407,208	K9NW	1,661,262	UI3A	2,940,520
AA1K	1,157,358	W1KM	2,397,549	VE3NNT	1,657,611	K9CT	2,802,400
WØAAE	1,133,314	KP2M (KT3Y, op)	2,372,211	K3WW	1,612,530	EU8U	2,427,903
K7NT	963,861	R3ZZ	2,059,753	WM9C	1,541,365	N5RZ	2,421,790
K8GL	647,472	N2MF	1,838,850	VA7RR	1,532,500	MM9I (GMØOPS, op)	2,276,464

CW Only, Low Power				CW Only, Low Power			
WC1M	1,070,320	PZ5DX (RA3CO, op)	3,090,464	NY3A	1,841,231	UN4Q	2,630,303
VE3TM	1,064,860	UB7K	2,146,230	K1XM	1,505,968	SN7O (SP7IVO, op)	2,140,656
K1VUT	811,605	DM7A (DL3JAN, op)	1,771,845	N2YO	1,035,230	R8CT	1,854,432
N7VM	642,220	4Z4AK	1,581,848	N3RS	836,022	NY3A	1,841,231
WJ9B	478,116	WC1M	1,070,320	NE8P	682,500	LY5W	1,781,920
WB4TDH	429,020	VE3TM	1,064,860	VE3WUE	673,719	TM6M (F1AKK, op)	1,702,828
W7YAQ	326,451	LA2AB (SP2ASJ, op)	957,336	KØAD	515,124	K1XM	1,505,968
KV8Q	301,165	OM7K (OM7RU, op)	925,169	KM4FOC	454,407	OK2ZV	1,396,358
VE6BBP	299,420	YL5W (YL2GN, op)	892,000	NJ3K	376,974	SP2R	1,394,835
KE4R	265,073	M5W	871,872	VE3MA	343,804	RC9A	1,394,704
CW Only, QRP				CW Only, QRP			
W1FJ	180,558	ES2MC	449,376	N4IJ	122,808	OMØRX	1,439,563
K8CN	117,593	YL3FW	307,065	K4XL	28,548	HG6O (HA6OA, op)	1,016,400
AA4SD	36,427	LZ2RS	305,577	WMØG	22,258	DL1EFW	380,081
W7LG	23,316	OK2MPB	185,444	K2AL	14,469	IKØFUX	209,152
N2JJ	22,635	W1FJ	180,558	K9AXT	11,920	SFØA (SMØLPO, op)	181,678
N7RCS	15,698	K8CN	117,593	KJ5T	11,528	DM5EA	127,987
NQ2W	13,524	JQ1NGT	111,240	VE3GMZ	5,488	N4IJ	122,808
W4JM	5,017	UR5FEO	108,250	KK4UZK	224	LC2W	115,884
WØDCX	4,386	SQ2ICX	105,600			HG3C (HA3HX, op)	95,904
N6HI	3,668	SMØGNS	104,958			DK3UW	75,030
Multioperator, Single Transmitter, High Power				Multioperator, Two Transmitter, Low Power			
K3LR	4,897,198	RU1A	7,061,600	VE3EJ	3,388,704	HG7T	3,966,424
K5TR	2,553,264	RM9A	6,238,719	NN3W	2,346,120	UW5Y	3,801,544
K8AZ	2,446,155	K3LR	4,897,198	N9NB	2,224,300	ES9C	3,788,790
K9RS	2,311,770	PX2A	4,060,971	K5WA	1,770,030	EA1X	3,658,620
N7DX	2,093,747	HG6N	3,858,633	N4UU	1,360,918	9A1P	3,472,227
K8LX	1,711,800	IP4M	3,858,276	W4AN	1,268,960	4X1DX	3,418,023
N3BB	1,522,788	OH5Z	3,793,504	W4KFC	906,110	VE3EJ	3,388,704
K4RM	1,445,895	YR8D	2,935,764	WG3J	678,912	OM8A	3,114,804
AD4ES	1,436,736	RT4G	2,920,038	K8LG	332,270	LX7I	3,053,308
KD1MC	1,309,763	K5TR	2,553,264	W1FM	223,040	RM9I	2,978,858

Regional Leaders

HP: Over 100W; LP: 100W or less; QRP: 5W or less; SO: Single Operator; MS: Multi-Single; MIX: Mixed-Mode

West Coast Region			Midwest Region			Central Region			Southeast Region			Northeast Region		
Pacific, Northwestern, and Southwestern ARRL Divisions; Alberta; British Columbia, and NT RAC Sections			Dakota, Midwest, Rocky Mountain and West Gulf ARRL Divisions; Manitoba and Saskatchewan RAC Sections			Central and Great Lakes ARRL Divisions; Greater Toronto Area, Ontario East, Ontario North, and Ontario South RAC Section			Delta, Roanoke, and Southeastern ARRL Divisions			New England, Hudson and Atlantic ARRL Divisions; Maritime and Quebec RAC Sections		
Call	Score	Cat	Call	Score	Cat	Call	Score	Cat	Call	Score	Cat	Call	Score	Cat
Single Operator														
ND7K (N6MJ, op @N6WIN)	3,529,584	MIX-HP	VE5CPU	15,960	MIX-HP	VA3CK	36,270	MIX-HP	AA4NC (N4YDU, op)	3,008,544	MIX-HP	VY2TT (K6LA, op)	3,370,960	MIX-HP
NT6Q (N5ZO, op @WA6TQT)	2,456,430	MIX-HP	WE9N	6,118	MIX-HP	AC9S	14,469	MIX-HP	K4ZW	2,481,388	MIX-HP	K5ZD	3,322,970	MIX-HP
K6XX	1,675,080	MIX-HP	K5BYN	4,900	MIX-HP	VE3TAZ	14,465	MIX-HP	NN7CW	2,116,128	MIX-HP	N2NT	2,903,103	MIX-HP
W9KKN	416,109	MIX-HP	WØXM	4,452	MIX-HP	KE8E	1,672	MIX-HP	K4AB	1,844,280	MIX-HP	W2XL	104,842	MIX-HP
VE7BC	185,409	MIX-HP							AI4WW	221,107	MIX-HP	N2AXX	8,190	MIX-HP
K6GHA	229,822	MIX-LP	AD5A	886,512	MIX-LP	VE3KOT	234,883	MIX-LP	WW4XX (LZ4AX, op)	1,153,680	MIX-LP	N1UR	1,350,228	MIX-LP
WA7BNM	25,185	MIX-LP	N5AW	203,376	MIX-LP	VE3UZ	115,280	MIX-LP	WQ5L	243,449	MIX-LP	KD4D	866,725	MIX-LP
VA6RCN	22,848	MIX-LP	KØEA	177,112	MIX-LP	VE3RRD	42,912	MIX-LP	AB3AI	57,967	MIX-LP	K3KU	113,454	MIX-LP
N2JNR	21,982	MIX-LP	KA8HDE	101,136	MIX-LP	W9QL	36,419	MIX-LP	N4QI	41,720	MIX-LP	N1NQD	89,570	MIX-LP
N9BD	16,218	MIX-LP	WØIZ	83,505	MIX-LP	N9TTX	25,935	MIX-LP	W4BHI	20,672	MIX-LP	KA2FIR	79,236	MIX-LP
			NØLMQ	3,640	MIX-QRP							VA2IW	108,194	MIX-QRP
												VE9QR	4,550	MIX-QRP
W6AFA	485,692	PH-HP	AD5XD	286,615	PH-HP	K9LOE	288,860	PH-HP	N4MM	138,480	PH-HP	VE2HTC	53,820	PH-HP
KE8FT	194,228	PH-HP	VE4SG	124,696	PH-HP	VA3ZNQ	61,320	PH-HP	WV4E	115,440	PH-HP	W3FLH	53,418	PH-HP
NN6U (@K6MTU)	51,430	PH-HP	K9MWM	76,960	PH-HP	KE8NBC	55,104	PH-HP	K4JC	43,710	PH-HP	KG1K	16,371	PH-HP
N6PGQ	11,968	PH-HP	KA9OZP	21,784	PH-HP	VE3BFU	2,080	PH-HP	N4MMR	37,275	PH-HP	KB2DX	10,580	PH-HP
VE6LRR	7,596	PH-HP	KDØJLE	12,240	PH-HP	N9UX	184	PH-HP	AB4EJ	37,248	PH-HP	KC3RRF	8,484	PH-HP
K7HKR	40,560	PH-LP	K5DHY	70,348	PH-LP	W8LYO	56,908	PH-LP	KF8N	134,784	PH-LP	KS2G	75,952	PH-LP
K6KTS	24,882	PH-LP	W5GUZ	37,012	PH-LP	VE3RVZ	42,042	PH-LP	WA3LXD	129,686	PH-LP	K3SNO	49,203	PH-LP
K7FWP	21,417	PH-LP	KIØR	28,764	PH-LP	KE8YXW	26,312	PH-LP	KO4GAR	91,650	PH-LP	W1JIM	46,495	PH-LP
W6MX	10,800	PH-LP	K5TXJ	20,458	PH-LP	N9EAX	19,825	PH-LP	W9TCV	51,944	PH-LP	KC1QEM	29,264	PH-LP
NZ2S	10,664	PH-LP	NW5Q	18,914	PH-LP	VE3GJP	18,684	PH-LP	KB4LOA	51,744	PH-LP	WB2KLD	28,674	PH-LP
W6QU (W8QZA, op)	16,912	PH-QRP	W1JCW	14,560	PH-QRP	VA3GMO	2,835	PH-QRP				VA2YLB	1,633	PH-QRP
			WWØWB	4,114	PH-QRP									

N9RV	2,709,018	CW-HP	K5GN	3,105,384	CW-HP	VE3JM	3,082,560	CW-HP	NN4SS	223,608	CW-HP	W1KM	2,397,549	CW-HP
K7NT	963,861	CW-HP	WØAAE	1,133,314	CW-HP	NA8V	2,407,208	CW-HP	W8FN	170,800	CW-HP	N2MF	1,838,850	CW-HP
W7RM (N6TR, op)	626,472	CW-HP	N4VI	201,344	CW-HP	K8GL	647,472	CW-HP	W3TB	89,345	CW-HP	AA1K	1,157,358	CW-HP
N6AA	307,998	CW-HP	K5BG	132,400	CW-HP	K8MP	223,008	CW-HP	N4XD	70,400	CW-HP	KR2AA	460,085	CW-HP
N6KI	283,936	CW-HP	K5RX	127,203	CW-HP	VE3KP	203,412	CW-HP	N05W	66,150	CW-HP	K3UL	443,265	CW-HP
N7VM	642,220	CW-LP	NN5T	228,490	CW-LP	VE3TM	1,064,860	CW-LP	WB4TDH	429,020	CW-LP	WC1M	1,070,320	CW-LP
WJ9B	478,116	CW-LP	N5XE	137,228	CW-LP	KV8Q	301,165	CW-LP	KE4R	265,073	CW-LP	K1VUT	811,605	CW-LP
W7YAQ	326,451	CW-LP	KØXF	122,040	CW-LP	N8PE	249,751	CW-LP	K3TW	258,210	CW-LP	K1TR	234,362	CW-LP
VE6BBP	299,420	CW-LP	KD2KW	104,400	CW-LP	W1NN	191,864	CW-LP	K4EJ	231,700	CW-LP	N1QY	136,210	CW-LP
KS7T	122,745	CW-LP	N5JJ	97,730	CW-LP	VE3FH	168,069	CW-LP	WA5SOG	228,096	CW-LP	K1EP	134,406	CW-LP
N6HI	3,668	CW-QRP	WØDCX	4,386	CW-QRP				AA4SD	36,427	CW-QRP	W1FJ	180,558	CW-QRP
N7JI	1,785	CW-QRP	WØLLN	2,268	CW-QRP				N7RCS	15,698	CW-QRP	K8CN	117,593	CW-QRP
WB6BDD	492	CW-QRP	N9HDE	549	CW-QRP				W4JM	5,017	CW-QRP	W7LG	23,316	CW-QRP
KN6ZOO	52	CW-QRP							N4NM	1,485	CW-QRP	N2JJ	22,635	CW-QRP
W9CF	27	CW-QRP							KE4WKH	320	CW-QRP	NQ2W	13,524	CW-QRP
Single Operator Unlimited														
NK6A	160,480	MIX-HP	N2IC	3,259,524	MIX-HP	K9OM	1,236,898	MIX-HP	NO9E	729,105	MIX-HP	VA2WA	3,761,648	MIX-HP
N6GEO	45,432	MIX-HP	K3PA	2,151,513	MIX-HP	W8MJ	693,121	MIX-HP	KI5GTR	365,379	MIX-HP	K1LZ	3,203,840	MIX-HP
K6RIM	33,384	MIX-HP	KVØI	202,920	MIX-HP	AJ9C	533,957	MIX-HP	NF4A	287,313	MIX-HP	K3MM	2,790,936	MIX-HP
W6ML (W6KC, op)	8,815	MIX-HP	KØTRL	26,000	MIX-HP	KG9N	323,183	MIX-HP	N1RM	201,609	MIX-HP	W3PU (K08SCA, op)	1,774,535	MIX-HP
WT8P	2,470	MIX-HP	WDØGTY	17,880	MIX-HP	K9WO	233,930	MIX-HP	AA4GA	153,912	MIX-HP	W1GD	1,483,182	MIX-HP
KN6VQ	129,440	MIX-LP	NØRC	104,666	MIX-LP	NE9U	932,340	MIX-LP	WN4AFP	413,080	MIX-LP	VE9AA	942,312	MIX-LP
WU8T	51,336	MIX-LP	KØMPH	67,235	MIX-LP	W9HT	50,320	MIX-LP	W6FB	239,104	MIX-LP	VA2CZ	426,384	MIX-LP
KA5WSS	5,904	MIX-LP	KØKX	61,789	MIX-LP	NC8R	1,755	MIX-LP	W4IPC	113,784	MIX-LP	AA3R	425,204	MIX-LP
VE7BGP	3,976	MIX-LP	VE4DL	40,040	MIX-LP	N9VPV	217	MIX-LP	W4LT	111,296	MIX-LP	WA2JQK	156,808	MIX-LP
AB9BH	2,464	MIX-LP	WØADL	21,700	MIX-LP	KB8ZYE	66	MIX-LP	KE4EA	70,252	MIX-LP	WB2NVR	55,590	MIX-LP
						K8ZT	1,968	MIX-QRP						
KN6ZZI	67,680	PH-HP	NØGJW (@W3ACO)	116,116	PH-HP	N8BI	186,098	PH-HP	NA4DA	322,138	PH-HP	K3ZU	444,860	PH-HP
N7GCO	40,872	PH-HP	AEØMO	50,668	PH-HP	W9NZ	162,162	PH-HP	K4BBH	102,794	PH-HP	VE2CSM	164,588	PH-HP
K6DW	12,879	PH-HP	WAØO	36,504	PH-HP	KE8VAM	34,587	PH-HP	K4QQG	88,504	PH-HP	VE2NTT	117,438	PH-HP
NT6X	8,066	PH-HP	N5WQ	8,075	PH-HP				WW5L	42,940	PH-HP	AE1P	115,272	PH-HP
WA7BAM	330	PH-HP	W5ABA	7,332	PH-HP				N5GI	41,028	PH-HP	W3ICM	105,222	PH-HP
WZ8T	84,330	WZ8T	KI5MM	73,150	PH-LP	VA3IDD	126,904	PH-LP	WS4AM	105,716	PH-LP	VE9CZ	96,928	PH-LP
K7VAP	23,922	K7VAP	AB5NX	41,503	PH-LP	NQ9N	116,025	PH-LP	WA4AH	42,316	PH-LP	N3BAS	62,790	PH-LP
KE7NGO	11,550	KE7NGO	N7MZW	17,888	PH-LP	W8AIT	8,177	PH-LP	N4BQQ	40,812	PH-LP	KC1RWR	55,245	PH-LP
K2MMT	1,764	K2MMT	W5IOH	17,710	PH-LP	KE8JNU	5,049	PH-LP	AI4DB	38,184	PH-LP	KC1OXM	8,126	PH-LP

NS7U	1,394	NS7U	K5DXR	11,448	PH-LP	W7BAZ	288	PH-LP	K7WWR	22,780	PH-LP	VA2SCJ	6,900	PH-LP
												W3EK	714	PH-QRP
VA7RR	1,532,500	CW-HP	N5RZ	2,421,790	CW-HP	K9CT	2,802,400	CW-HP	W4NZ	1,068,382	CW-HP	W3GM (AA3B, op)	3,612,420	CW-HP
VE7LWW	1,053,550	CW-HP	NSØR	1,261,365	CW-HP	K9NW	1,661,262	CW-HP	KM5G	923,281	CW-HP	K1ZZ	3,229,876	CW-HP
K7QA	907,008	CW-HP	N5TJ	398,385	CW-HP	VE3NNT	1,657,611	CW-HP	WO4O	800,454	CW-HP	N9NC	1,993,522	CW-HP
K7WP	304,121	CW-HP	KØAP	346,632	CW-HP	WM9C	1,541,365	CW-HP	W1RCR	707,880	CW-HP	K3WW	1,612,530	CW-HP
VA7KO	280,917	CW-HP	NØAT	303,050	CW-HP	WI9WI	628,854	CW-HP	N4KH	561,798	CW-HP	VE9HF	1,349,920	CW-HP
NU6N	150,684	CW-LP	KØAD	515,124	CW-LP	VE3WUE	673,719	CW-LP	N2YO	1,035,230	CW-LP	NY3A	1,841,231	CW-LP
K7TQ	108,570	CW-LP	AI6O	172,770	CW-LP	VE3MA	343,804	CW-LP	NE8P	682,500	CW-LP	K1XM	1,505,968	CW-LP
WAØWWW	106,212	CW-LP	KEØIAT	155,257	CW-LP	VE3MV	302,499	CW-LP	KM4FOC	454,407	CW-LP	N3RS	836,022	CW-LP
K7NEW	52,437	CW-LP	AD1C	135,040	CW-LP	AB9YC	269,808	CW-LP	K3IE	316,975	CW-LP	NJ3K	376,974	CW-LP
KI6OY	32,520	CW-LP	W2UP	93,366	CW-LP	KYØQ	250,800	CW-LP	WA1S	266,900	CW-LP	K2ZR	275,814	CW-LP
			KJ5T	11,528	CW-QRP	VE3GMZ	5,488	CW-QRP	N4IJ	122,808	CW-QRP	WMØG	22,258	CW-QRP
									K4XL	28,548	CW-QRP	K2AL	14,469	CW-QRP
									K9AXT	11,920	CW-QRP			
									KK4UZK	224	CW-QRP			
Multioperator Single Transmitter														
N7DX	2,093,747	MSHP	K5TR	2,553,264	MSHP	K8AZ	2,446,155	MSHP	K4RM	1,445,895	MSHP	K3LR	4,897,198	MSHP
N6MI	464,156	MSHP	N3BB	1,522,788	MSHP	K8LX	1,711,800	MSHP	AD4ES	1,436,736	MSHP	K9RS	2,311,770	MSHP
VA7MM	9,810	MSHP				NV9L	1,004,479	MSHP	K5KG	1,180,850	MSHP	KD1MC	1,309,763	MSHP
						VE3MIS	247,877	MSHP	K3QH	195,174	MSHP	W2A	1,302,245	MSHP
						VE3PRD	38,488	MSHP	W4MLB	72,558	MSHP	K3CCR	423,645	MSHP
Multioperator Two Transmitter														
W1DGL	16,414	M2LP	K5WA	1,770,030	M2LP	VE3EJ	3,388,704	M2LP	NN3W	2,346,120	M2LP	W4KFC	906,110	M2LP
						N9NB	2,224,300	M2LP	N4UU	1,360,918	M2LP	WG3J	678,912	M2LP
						K8LG	332,270	M2LP	W4AN	1,268,960	M2LP	W1FM	223,040	M2LP
						W8BAP	16,400	M2LP	NN4SA	42,185	M2LP	W3URL	182,409	M2LP
												WA2QAU	107,016	M2LP