# IARU HF Championship 2016 Results By Kresimir Kovarik, 9A5K - 9a5k@9a5k.com 

## "No doubt who won this contest -- Mother Nature. K4AB"

As with all other HF contests, this one is very much influenced by the sunspot cycle. In 2016, sunspot activity was really going down very fast and degrading propagation on the higher bands. This is clearly visible in the scores of the bigger stations, especially in the Headquarters station category. However, the number of received logs is growing slightly, so the popularity of this contest is still very strong despite declining conditions. Also, the 2015 and 2016 events were WRTC2018 qualification events, which has raised interest. As a result, while conditions were generally poorer than 2015, there seemed to be more activity.

## Space Weather

The lower sunspot numbers impacted propagation for most stations. In fact, for a week-long period in late June the sunspot number dropped to zero. Ray, WQ5L, described conditions succinctly: "Cycle 24 fall down, go boom." K6WSC was operating in the Unlimited category and when he was tuning through the cluster spots in the band map and got to the end of the band, the N1MM+ software reported "No more spots". Bill got a hearty laugh out of the double meaning in the message.

Most entrants were not laughing and reported very poor conditions on 10 meters in particular. Bob, MDØCCE (operating as MD2C) said "checked 10M both days, I never heard a signal on the band, even when there were spots from stations to the south of me; however 20 M was open all night". Steve, N2IC, in New Mexico, said "First time I have ever been completely shut-out on 10 meters. Nothing there. Not a peep." Another Steve (PJ4DX), on the island of Bonaire in the Caribbean where propagation is almost always excellent, commented "Worst ever conditions for the first 8 hours".

There were exceptions, however. VK2PN said "Conditions were not too bad. Plenty of stations to work", while VK2CZ noted "Great conditions with 20 m never actually closing". HSØZIA had an interesting perspective: "Condx so bad here it felt like I was QRP! Nice to see 10 meters still alive though!"

Many stations reported zero intercontinental QSOs on 10-meters, but a lucky few caught a short multi-hop sporadic-E opening from Western and Southern Europe to the southeastern USA around 2200 z . W2GD, who operated as P4ØW on Aruba to celebrate his $67^{\text {th }}$ birthday noted that he worked a fair number of Europeans on 10 but only two USA stations. Within Europe, sporadic-E provided some excellent rates on 10 off and on throughout the day.

## Terrestrial Weather

July is thunderstorm season in the northern hemisphere, and many stations suffered. Some reported high local QRN, while others had to shut down during passing storms. Ed, N1UR, said he dodged thunderstorms literally the entire contest. One finally came directly over, requiring a shutdown. Jim, KM4HI, had to shut down and disconnect twice due to passing thunderstorms. Marv, N5AW, reported "Something about contests that seem to attract thunderstorms to our area. None were forecast but static crashes kept getting louder and louder. About midnight I heard thunder. Could see lightning to our west and north but fortunately it did not get any closer so did not have to shut down". Andy, N2NT, was not so lucky. His antenna switching system failed due to a nearby lightning strike at 0250 z , and his contest was over.

Olivier, ON4EI, had a different weather-related experience. He traveled to Ireland again and operated as EI1A from his camping van atop a hill in County Tipperary. The wind blew at a constant $45 \mathrm{~km} / \mathrm{hr}$ (28 mph ) with gusts to nearly $60 \mathrm{~km} / \mathrm{hr}$ ( 37 mph ), but he used it to advantage and powered his station from his wind generator for the entire contest


Sunrise at the windy hilltop QTH of El1A (ON4EI photo)

## Noteworthy Scores

## Single Operator

In Single Operator, Mixed Mode, High Power category, the top score was achieved by P33W, operated by Igor "Harry" Booklan, RA3AUU, followed by 2015 winner UW2M (operated by URØMC) who had a comparable number of QSOs and more multipliers than P33W but could not overcome the scoring advantage of Harry's Asia QTH. The 2015 Single-Operator Low Power Phone Only winner, Julio, YV1KK added an amplifier and improved antennas this year, and won the High Power, Phone Only category by a wide margin. Julio reported that he enjoyed watching the real-time scoreboard at cqcontest.net. In the Single Operator, High Power, CW Only category, R3ZZ edged out UW1M by a narrow margin after log-checking was complete.

In the Single Operator, Low Power category HA3DX (HA4XH, operator) ran away with the Phone Only prize, nearly doubling the score of runner-up EI1A (ON4EI, operator), while the scores CW Only and Mixed Mode categories won by 5 H 3 EE and EC2DX respectively, were much closer.

In the USA/Canada, SO Mixed winners were VY2ZM, W1UE, and K2GMY (HP, LP, QRP, in that order); SOHP Phone winners were K5TR, KX4R, and W8QZA operating W6QU; SOHP CW winners were W1KM, K7SV, and W7YAQ.

## Single Operator Unlimited

The Single Operator Unlimited category was introduced for the first time in 2015 and has proved to be quite popular. The High Power winners in this very competitive category were 4X6FR, ES6RW (ES5RW, op) and SN7Q (SP7GIQ, op) in the Mixed, Phone and CW sections. W/VE winners were VA2WA, W3LL, and K9NW.

In the Unlimited, Low Power category, Cyprus seemed to be the place to be. P3F (5B4AGN, operator) overpowered UZ3A (UX1AA, operator) for Mixed Mode honors, and C4I outpaced another Ukrainian station (UT4LW) in the CW Only category. The Cyprus stations took full advantage of the higher point value available working Europe and good openings on 10 meters. W/VE winners were NE9U, VE1WOW, and KØRF.

Unlimited, QRP winners were DK3WE (Mixed), LZ1DM (Phone Only), and OK2FD (CW Only), all by convincing margins. N1CC, AK8H, and KA7T topped USA/VE entrants.

Ted, N9NB, runner-up in the SO Unlimited CW LP category said he was amazed at the number of erroneous spots. If you use the cluster, make sure you verify the callsign of the station you are working, because miscopied callsigns are removed from your log!


97-year-old Ted, K2JMY operated in the 2016 IARU HF Championship contest (K2JMY, photo)

## Multioperator, Single Transmitter

The Multioperator, Single Transmitter category is a good way to introduce new or casual operators to contesting. ES5E (@ES5EC) used the contest to demonstrate radio contesting to a group of enthusiastic young people. Their small club station, equipped with just a Kenwood TS2000 rig and tribander +40 -meter dipole antenna, was sufficient. Their novice YL operator made about $15 \%$ of their total QSOs and was quite excited about her personal result.


PD1DX used this tractor to pull the out the weak ones at PI4DX (K1CC photo)

RM9A had the highest score in the category, followed by IR4X and IR4M from Italy. KE3X had the highest W/VE score.

The crew at PI4DX ( $9^{\text {th }}$ place in the World) only had one radio set up with a QRO barbeque grill outside and took turns at the radio one at a time, taking full advantage of the nice weather. The K8AZ team (third place in the W/VE region) reported that their best hour was 00Z Sunday (Saturday evening) when they didn't make a lot of QSOs, but enjoyed their traditional grilled steak and fixings dinner.


Bram PH9B, checking propagation on the BBQ at PI4DX (K1CC photo)

## Remote Stations

Several multiop teams included operators that were not physically located at the station. K2LE/1 in Vermont was operated By Andy himself; Lars, KE1J, in MA; and Gerry, W1VE, in NH. Likewise, the W4AAW station operators included Bryon, W7RIV, from Utah; Alex, KU1CW, in Oregon; and Eric, KJØD, in Missouri, and W4AAW actually in the shack. KEØHQZ in South Dakota was operated by KJ5Y from Texas and KEØHWZ from Colorado.

## HQ Station Competition

Headquarters stations are a special part of this contest, where many operators work together using the callsign of their national amateur radio society, often involving stations at multiple locations. This year we had over 60 HQ stations active in the contest, with addition of 10 stations operated by IARU officers. They are counted as separate multipliers, which add another interesting dimension to this contest. In the HQ stations category, the biggest score this year was made by TMØHQ (REF France), followed closely by EF4HQ (URE - Spain) and DAØHQ (DARC - Germany).


One of the stations used by second-place HQ station EF4HQ, representing the Unión de Radioaficionados Españoles

This contest marked the first entry for the headquarters station of the IARU's newest member society, the Shoqata e Radioamatorëve të Kosovës (SHRAK), using the callsign Z6ØA from several sites near Pristina, Kosovo.


Operators at Z6ØA included local Kosovar amateurs as well as visitors from Finland, Slovenia, Denmark, and the Netherlands.

HQ, IARU Official, and Advisory Council Scores

| Call | Score | Call | Score |
| :---: | :---: | :---: | :---: |
| TM ${ }^{\text {HQ }}$ | 22,998,510 | LX8HQ | 2,884,798 |
| EF4HQ | 22,878,720 | J77HQ | 2,851,970 |
| DAØHQ | 22,542,704 | BxHQ | 2,746,944 |
| OL6HQ | 19,489,256 | UN1HQ | 2,160,543 |
| S5ØHQ | 19,484,842 | CR5HQ | 2,071,818 |
| 9AØHQ | 18,015,318 | AT1HQ | 1,988,772 |
| EM5HQ | 17,687,980 | E2HQ | 1,861,571 |
| YTØHQ | 17,574,258 | T4ØHQ | 1,728,480 |
| LYøHQ | 15,538,303 | DXøHQ | 1,559,844 |
| R9HQ | 15,514,597 | G3BJ | 1,491,952 |
| OEØHQ | 14,226,669 | A71HQ | 1,253,888 |
| ZWØHQ | 14,168,578 | ER7HQ | 1,178,736 |
| GR2HQ | 13,641,771 | HB ¢ HQ | 808,500 |
| LZ7HQ | 13,416,126 | BVØHQ | 779,394 |
| HGØHQ | 13,320,285 | YV5AJ | 573,352 |
| SNØHQ | 12,921,825 | 9M4CC | 539,325 |
| YRØHQ | 12,095,162 | YBØAZ | 353,726 |
| OZ1HQ | 11,229,570 | ZF1A | 307,174 |
| OPØHQ | 8,777,088 | JA1CJP | 258,361 |
| E7HQ | 8,020,398 | 4K1HQ | 242,902 |
| HB9HQ | 7,976,892 | 7Tø HQ | 240,389 |
| YL4HQ | 6,386,016 | HB9FPM | 194,532 |
| 8NxHQ | 4,391,626 | J87HQ | 166,192 |
| LS4AA | 4,331,502 | XE1KK | 161,938 |
| W1AW/9 | 4,215,400 | PT2ADM | 139,296 |
| OH 2 HQ | 4,114,026 | XE1LM | 116,205 |
| ElØHQ | 4,046,856 | VK5WIA | 97,527 |
| LN2HQ | 3,925,350 | LA2RR | 80,342 |
| Z3めHQ | 3,877,480 | HC2HQ | 37,966 |
| 9K2RR | 3,733,472 | YEØHQ | 30,456 |
| SK9HQ | 3,418,366 | DL9KCE | 12,078 |
| PA6HQ | 3,378,648 | V84SHQ | 11,151 |
| PJ2HQ | 3,297,014 | VE6SH | 7,752 |
| NU1AW/6 | 3,287,468 | ZS9HQ | 5,346 |

Thanks again to the World Wide Radio Operator Foundation (www.wwrof.org) for adjudicating the HQ station scores.

## Regional Leaders

Boxes list call sign, score, and category:
SO = Single Operator SOU = Single Operator Unlimited $\quad$ MIX = Mixed Mode CW = CW Only PH = Phone Only HP = High Power LP = Low Power QRP = QRP MSHP = Multioperator, Single Transmitter, High Power

| 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K7JR (KL9A, op) | 1,235,520 | MIX-HP | W5/MMøL ID | 153,738 | MIX-HP | VE3AT | 1,731,240 | MIX-HP | NR3X <br> (N4YDU, op) | 1,423,632 | MIX-HP | $\begin{aligned} & \text { VY2ZM } \\ & \text { K3CR } \end{aligned}$ | 2,331,200 | MIX-HP |
| VA7AAA | 520,625 | MIX-HP | WøEA | 67,773 | MIX-HP | VE3EJ | 1,700,616 | MIX-HP | K4AB | 984,312 | MIX-HP | (LZ4AX, op) | 1,786,428 | MIX-HP |
| K6NR | 324,870 | MIX-HP | AD5MD | 32,242 | MIX-HP | VE3DZ | 818,979 | MIX-HP | K4BAI | 955,584 | MIX-HP | N2NT | 821,920 | MIX-HP |
| K2RD | 104,517 | MIX-HP | WøKIT | 3,197 | MIX-HP | K4WW | 44,368 | MIX-HP | N8II | 752,556 | MIX-HP | K3ZO | 381,145 | MIX-HP |
| W1PR | 93,896 | MIX-HP |  |  |  | W9TC | 3,425 | MIX-HP | K4PV | 380,679 | MIX-HP | K3RA | 210,678 | MIX-HP |
| K6XX | 875,525 | MIX-LP | N5AW | 930,804 | MIX-LP | NA8V | 530,058 | MIX-LP | AD4Z | 655,200 | MIX-LP | W1UE | 978,538 | MIX-LP |
| $\begin{aligned} & \text { W7RM } \\ & \text { (K2PO, } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 460,698 | MIX-LP | K5WA | 900,210 | MIX-LP | N4TZ | 512,945 | MIX-LP | NV4B | 58,394 | MIX-LP | VA2EW | 919,674 | MIX-LP |
| VE6EX | 94,808 | MIX-LP | K3PA | 607,128 | MIX-LP | VE3BR | 267,506 | MIX-LP | WC4H | 45,760 | MIX-LP | WA1Z <br> VO1TTT <br> (VE9AA, | 750,308 | MIX-LP |
| WA5TVO | 43,740 | MIX-LP | KøAD | 333,603 | MIX-LP | WD8S | 72,675 | MIX-LP | N4CF | 14,904 | MIX-LP | op) | 533,178 | MIX-LP |
| KM9R | 35,046 | MIX-LP | AF5CC | 24,624 | MIX-LP | WB9HFK | 42,636 | MIX-LP | Al4GR | 10,693 | MIX-LP | WA2JQK | 81,848 | MIX-LP |
| K2GMY | 12,312 | MIX-QRP | VE5DLD | 644 | MIX-QRP |  | $10,137$ | MIX-QRP |  |  |  |  |  |  |
| N7FG | 1,500 | MIX-QRP |  |  |  | VA3QV | $9,884$ | MIX-QRP |  |  |  |  |  |  |
| KFøX | 1,445 | MIX-QRP |  |  |  | AF9J | 235 | MIX-QRP |  |  |  |  |  |  |
| N7XY | 768 | MIX-QRP |  |  |  |  |  |  |  |  |  |  |  |  |
| W7WA | 979,755 | PH-HP | K5TR | 1,249,740 | PH-HP | VA3ZNQ | 38,420 | PH-HP | NO5N | 312,543 | PH-HP | N2RJ | 164,574 | PH-HP |
| NR6Q | 266,988 | PH-HP | AD5XD | 285,090 | PH-HP | KE8FT | 28,713 | PH-HP | K3ZJ | 235,554 | PH-HP | N3NR | 150,516 | PH-HP |
| W7ZZ | 161,092 | PH-HP | W5GFI | 84,159 | PH-HP | VE3GNI | 9,116 | PH-HP | K1KNQ | 121,856 | PH-HP | K2JMY | 40,326 | PH-HP |
| W6AFA | 47,011 | PH-HP | K9MWM | 23,580 | PH-HP | W8DWC | 9,072 | PH-HP | K5ER | 111,302 | PH-HP | WB2KLD | 18,668 | PH-HP |
| K9QJS | 13,806 | PH-HP | K5YM | 13,332 | PH-HP | WB9ONU | 6,355 | PH-HP | W4KW | 93,138 | PH-HP | W1PEF | 120 | PH-HP |
| K7XE | 5,290 | PH-LP | K5DHY | 54,360 | PH-LP | ND4Y | 163,875 | PH-LP | KX4R | 275,500 | PH-LP | VE2HIT | 47,175 | PH-LP |
| W1DGL | 4,080 | PH-LP | N7MZW | 51,127 | PH-LP | KB8LFA | 24,990 | PH-LP | K4WES | 27,010 | PH-LP | VE1SQ | 19,812 | PH-LP |
| N7VZU | 3,874 | PH-LP | KI5YG | 17,514 | PH-LP | VA3GD | 21,000 | PH-LP | W4ADB | 13,650 | PH-LP | WA2QAU | 18,370 | PH-LP |
| K6MUG | 2,852 | PH-LP | KøBWQ | 11,476 | PH-LP | VA3TPS | 17,178 | PH-LP | KJ4KKD | 11,660 | PH-LP | VE2GT | 15,226 | PH-LP |
| AE6YB | 2,329 | PH-LP | W7KAM | 11,286 | PH-LP | VE3KTB | 16,606 | PH-LP | WB2UKX | 11,376 | PH-LP | NV2K | 12,691 | PH-LP |
| W6QU(W8QZA, |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (W8QZA, <br> op) <br> KK7VL | $\begin{array}{r} 11,100 \\ 189 \end{array}$ | $\begin{aligned} & \text { PH-QRP } \\ & \text { PH-QRP } \end{aligned}$ | КІø॥ <br> WBøIWG | $\begin{aligned} & 1,872 \\ & 1,395 \end{aligned}$ | $\begin{aligned} & \text { PH-QRP } \\ & \text { PH-ORD } \end{aligned}$ | VE3LJQ | 1,554 | PH-QRP | N4ZAK | 4,750 | PH-QRP | AB3WS | 608 | PH-QRP |

2016 IARU HF Championship
Full Results - Version 2.01
Page 5 of 12

| W7RN (N6TV, op) | 1,061,956 | CW-HP |
| :---: | :---: | :---: |
| K6YK | 64,896 | CW-HP |
| K6NA | 60,800 | CW-HP |
| W7PU |  |  |
| (N7EPD, op) | 39,273 | CW-HP |
| W6AEA | 38,970 | CW-HP |
| WJ9B | 383,830 | CW-LP |
| K7WP | 246,720 | CW-LP |
| WA7NB | 81,938 | CW-LP |
| N6ZFO | 78,813 | CW-LP |
| VA7ST | 47,040 | CW-LP |
| W7YAQ | 131,784 | CW-QRP |
| AE6JV | 2,750 | CW-QRP |
| N6HI | 1,680 | CW-QRP |
| N7RCS | 1,248 | CW-QRP |
| N7VS | 560 | CW-QRP |
| Single Operator Unlimited |  |  |
| W6NV | 1,172,408 | MIX-HP |
| KA6BIM | 386,608 | MIX-HP |
| N9NA | 139,755 | MIX-HP |
| W07V | 49,860 | MIX-HP |
| NK6A | 13,110 | MIX-HP |
| N7UJJ | 77,341 | MIX-LP |
| NC6B | 28,550 | MIX-LP |
| K7JNA | 13,968 | MIX-LP |
| N6VH | 640 | MIX-LP |
| WM5F | 125 | MIX-LP |
| N1KEZ | 14,063 | PH-HP |
| KG7LKI | 6,318 | PH-HP |
| KE7SW | 3,700 | PH-HP |
| Al6EG | 2,460 | PH-HP |
| ND1R/6 | 624 | PH-HP |

2016 IARU HF Championship

| K5GN | 1,567,328 | CW-HP | VE3EID (N2WQ, op) | 621,639 | CW-HP |
| :---: | :---: | :---: | :---: | :---: | :---: |
| N2IC | 1,401,504 | CW-HP | N8BJQ | 597,091 | CW-HP |
| $\begin{aligned} & \text { WXøB } \\ & \text { (AD5Q, op) } \end{aligned}$ | 1,030,744 | CW-HP | VE3XB | 432,970 | CW-HP |
| N3BB | 259,700 | CW-HP | K8MP | 304,590 | CW-HP |
| K7IA | 230,160 | CW-HP | NF8R | 134,040 | CW-HP |
| AE5GT | 234,220 | CW-LP | KV8Q | 203,835 | CW-LP |
| N5KWN | 181,722 | CW-LP | K8BTU | 145,530 | CW-LP |
| W5RYA | 155,155 | CW-LP | VE3IAE | 144,228 | CW-LP |
| KøIO | 84,135 | CW-LP | VE3VN | 133,824 | CW-LP |
| W7SE | 81,984 | CW-LP | K8AJS | 123,105 | CW-LP |
| WDØT | 10,350 | CW-QRP | VA3SB | 14,440 | CW-QRP |
| KEØTT |  |  |  |  |  |
| (KEØG, op) | 4,925 | CW-QRP | wo9s | 9,579 | CW-QRP |
| ADØBI | 2,016 | CW-QRP | KU4A | 6,448 | CW-QRP |
|  |  |  | VE3IGJ | 4,050 | CW-QRP |
|  |  |  | Al9K | 3,762 | CW-QRP |
| KøOU | 364,854 | MIX-HP | K90M | 624,490 | MIX-HP |
| N5ZC | 135,440 | MIX-HP | VE3CX | 431,090 | MIX-HP |
| KEØUI | 98,514 | MIX-HP | W9AV | 101,824 | MIX-HP |
| VE5MX | 49,300 | MIX-HP | KK9N | 72,098 | MIX-HP |
| $K \emptyset V G$ | 43,710 | MIX-HP | K9CQ | 49,432 | MIX-HP |
| KC5FP | 63,825 | MIX-LP | NE9U | 386,100 | MIX-LP |
| WøYJT | 13,294 | MIX-LP | K8GT | 75,624 | MIX-LP |
| KC8R | 12,717 | MIX-LP | N9TF | 52,535 | MIX-LP |
| N5DTT | 1,843 | MIX-LP | KW9U | 16,770 | MIX-LP |
| NøWNV | 1,572 | MIX-LP | AB8OU | 13,536 | MIX-LP |
| N1CC | 7,850 | MIX-QRP | K8ZT | 2,662 | MIX-QRP |
| KøVXU | 209,409 | PH-HP | N8BI | 158,760 | PH-HP |
| K5TXT | 5,280 | PH-HP | N8PCN | 32,368 | PH-HP |
| NøDOW | 4,422 | PH-HP | VE3QN | 10,105 | PH-HP |
| WØPPF | 1,890 | PH-HP | KC8RPV | 9,102 | PH-HP |
| KøARY | 525 | PH-HP | KC9WAV | 5,454 | PH-HP |

Full Results - Version 2.02

| KøEJ | 869,440 | CW-HP |
| :---: | :---: | :---: |
| N4WW |  |  |
| (WF3C, |  |  |
| op) | 759,066 | CW-HP |
| K3JT | 277,042 | CW-HP |
| WQ5L | 264,684 | CW-HP |
| N4OX | 259,856 | CW-HP |
| K7SV | 682,962 | CW-LP |
| W4YE | 152,478 | CW-LP |
| N4TB | 104,998 | CW-LP |
| K1TN | 99,099 | CW-LP |
| NM2L | 96,600 | CW-LP |
| K3TW | 49,665 | CW-QRP |
| KB8V | 24,769 | CW-QRP |
| KI4FW | 7,276 | CW-QRP |
| NQ4I |  |  |
| (VE7ZO, |  |  |
|  | 1,171,304 | MIX-HP |
| W040 | 841,128 | MIX-HP |
| KM4HI | 218,790 | MIX-HP |
| W3CL | 187,625 | MIX-HP |
| K4LM | 149,602 | MIX-HP |
| W4MY | 48,389 | MIX-LP |
| W4DAS | 12,495 | MIX-LP |
| WB3D | 3,200 | MIX-LP |
| WA8HSB | 2,163 | MIX-QRP |
| N4MM | 137,760 | PH-HP |
| K4ADR | 51,600 | PH-HP |
| KK4LGC | 33,078 | PH-HP |
| WJ2D | 26,169 | PH-HP |
| K4SBZ | 10,144 | PH-HP |


| W1KM | 1,706,516 | CW-HP |
| :---: | :---: | :---: |
| AA3B | 1,469,862 | CW-HP |
| K1ZD |  |  |
| (K1ZZ, op) | 1,385,290 | CW-HP |
| W1WEF | 767,688 | CW-HP |
| WR1TC |  |  |
| (K5ZD, op) | 730,170 | CW-HP |
| W1QK | 367,780 | CW-LP |
| WI2E | 323,840 | CW-LP |
| W1UJ | 321,342 | CW-LP |
| NB1N | 221,112 | CW-LP |
| K1GGI | 102,133 | CW-LP |
| K2YGM | 43,875 | CW-QRP |
| K8CN | 39,808 | CW-QRP |
| WA2NYY | 2,100 | CW-QRP |
| AE5RF | 1,144 | CW-QRP |
| K2YG | 918 | CW-QRP |
| VA2WA | 1,628,433 | MIX-HP |
| W3UA | 1,626,570 | MIX-HP |
| $\begin{aligned} & \text { KC1XX } \\ & \text { (DL8DYL, } \end{aligned}$ |  |  |
| op) | 1,600,355 | MIX-HP |
| N2PP | 585,072 | MIX-HP |
| W1GD | 572,236 | MIX-HP |
| KC1DLY | 140,400 | MIX-LP |
| K3ZU | 111,962 | MIX-LP |
| КøОО | 105,930 | MIX-LP |
| NK3Y | 79,856 | MIX-LP |
| W3CQB | 49,662 | MIX-LP |
| W3LL | 305,939 | PH-HP |
| W1CTN | 153,621 | PH-HP |
| VE2NTT | 62,952 | PH-HP |
| AB1NE | 41,876 | PH-HP |
| N2MUN | 27,777 | PH-HP |


| KG7GYI | 12,240 | PH-LP | AB5NX | 11,178 | PH-LP | WS6K | 12,455 | PH-LP | WUØB | 54,964 | PH-LP | VE1WOW | 89,046 | PH-LP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WATYXY | 2,268 | PH-LP | AB5XZ | 1,818 | PH-LP | VE3YV | 7,037 | PH-LP | N2ESP | 35,175 | PH-LP | KA2KON | 88,008 | PH-LP |
| AE7DW | 378 | PH-LP | NYøT | 1,121 | PH-LP | N9VPV | 5,904 | PH-LP | N2JF | 20,466 | PH-LP | KC2OSR | 3,850 | PH-LP |
| K6KHB | 115 | PH-LP | N5EKW | 952 | PH-LP | KK4BKD | 5,292 | PH-LP | K4BBH | 10,872 | PH-LP | KC2YEA | 288 | PH-LP |
|  |  |  | KC8MFX | 560 | PH-LP | KE8XH | 2,507 | PH-LP | NN4RB | 9,400 | PH-LP | W3VYK | 287 | PH-LP |
|  |  |  |  |  |  | AK8H N9NBC | $\begin{array}{r} 21,945 \\ 1,760 \end{array}$ | $\begin{aligned} & \text { PH-QRP } \\ & \text { PH-QRP } \end{aligned}$ |  |  |  |  |  |  |
| N7AT(K8IA, |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| op) | 952,134 | CW-HP | N5XZ <br> K5CM <br> (W5CW, | 900,060 | CW-HP | K9NW | 1,037,316 | CW-HP | N4BP | 878,085 | CW-HP | K1MK | 1,004,496 | CW-HP |
| W6RW | 214,935 | CW-HP | op) | 709,583 | CW-HP | VE3RZ | 215,166 | CW-HP | N3UA | 690,336 | CW-HP | N3AD | 979,368 | CW-HP |
| W6TK | 177,386 | CW-HP | K5NA | 583,848 | CW-HP | KE4KY | 168,096 | CW-HP | W4NZ | 578,900 | CW-HP | V01MP | 949,725 | CW-HP |
| W6SX | 176,398 | CW-HP | NSøR | 288,496 | CW-HP | KE8M | 157,016 | CW-HP | WX4G | 547,927 | CW-HP | K3WW | 780,946 | CW-HP |
| KN7K | 168,302 | CW-HP | NØKE | 192,500 | CW-HP | WT9U | 59,780 | CW-HP | K5EK | 360,018 | CW-HP | K1GQ | 595,296 | CW-HP |
| K6WSC | 193,362 | CW-LP | KøRF | 753,948 | CW-LP | WK4AA | 170,291 | CW-LP | N9NB | 668,430 | CW-LP | W3KB | 277,884 | CW-LP |
| K6AAB | 21,216 | CW-LP | NM5M | 149,985 | CW-LP | AB9YC | 109,920 | CW-LP | WA1FCN | 227,768 | CW-LP | K2XR | 156,684 | CW-LP |
| WA6DBC | 20,631 | CW-LP | W5ZO | 89,775 | CW-LP | VA3MJR | 61,711 | CW-LP | KK4XX | 100,096 | CW-LP | K2ZR | 140,296 | CW-LP |
| AA6EE | 15,540 | CW-LP | N5EIL | 84,007 | CW-LP | K4TXJ | 53,820 | CW-LP | K3KO | 94,500 | CW-LP | NZ3D | 65,016 | CW-LP |
| K3WYC | 2,125 | CW-LP | KıøI | 72,228 | CW-LP | K9GY | 39,424 | CW-LP | N4KM | 91,274 | CW-LP | W2CVW | 51,240 | CW-LP |
| KA7T | 22,140 | CW-QRP | NK5G | 1,056 | CW-QRP |  |  |  | WE5EE | 1,160 | CW-QRP | AB3RU | 9,135 | CW-QRP |
|  |  |  |  |  |  |  |  |  | K14MZC | 798 | CW-QRP | VE9BWK | 8,505 | CW-QRP |
|  |  |  |  |  |  |  |  |  |  |  |  | K2AL | 6,440 | CW-QRP |
|  |  |  |  |  |  |  |  |  |  |  |  | NV1W | 2,528 | CW-QRP |
|  |  |  |  |  |  |  |  |  |  |  |  | K30Q | 270 | CW-QRP |
| Multioperator, Single Transmitter |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NX6T | 530,502 | MSHP | WØLFA | 732,222 | MSHP | VE3UTT | 1,312,598 | MSHP | N1LN | 1,023,960 | MSHP | KE3X | 2,046,656 | MSHP |
| K7BTW | 411,840 | MSHP | NØAX | 271,173 | MSHP | K8AZ | 1,221,024 | MSHP | WW4LL | 920,520 | MSHP | K2R | 849,780 | MSHP |
| W7XQ | 203,250 | MSHP | KS5Z | 157,311 | MSHP | W5MX | 489,090 | MSHP | AD4ES | 519,844 | MSHP | K2LE | 777,768 | MSHP |
| N6MI | 175,500 | MSHP | WøGJ | 42,955 | MSHP | VA3DF | 199,652 | MSHP | N4SVC | 442,323 | MSHP | N2GZ | 183,080 | MSHP |
| WS7L | 141,426 | MSHP | NøSSC | 32,634 | MSHP | W9MAR | 6,210 | MSHP | N4IQ | 301,010 | MSHP | N2CW | 170,716 | MSHP |


| Top Ten Scores |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United State | and Canada | World |  | United State | nd Canada | World |  |
| Single Operator |  |  |  | Single Operator Unlimited |  |  |  |
| Mixed Mode, High Power |  |  |  | Mixed Mode, High Power |  |  |  |
| VY2ZM | 2,331,200 | P33W <br> (RA3AUU, op) | 4,891,512 | VA2WA | 1,628,433 | 4X6FR | 3,567,690 |
| $\begin{aligned} & \text { K3CR (LZ4AX, } \\ & \text { op) } \end{aligned}$ | 1,786,428 | UW2M (URØMC, op) | 3,846,974 | W3UA | 1,626,570 | HA3NU | 3,391,281 |
| VE3AT | 1,731,240 | UPØL <br> (UN9LW, op) | 3,655,175 | $\begin{aligned} & \hline \text { KC1XX } \\ & \text { (DL8DYL, op) } \end{aligned}$ | 1,600,355 | P3Z (5B4AFM, op) | 3,071,200 |
| VE3EJ | 1,700,616 | CR6K (CT1ILT, op) | 3,284,286 | W6NV | 1,172,408 | IR1G (IZ1LBG, op) | 2,886,647 |
| NR3X <br> (N4YDU, op) | 1,423,632 | OM5ZW | 3,086,025 | NQ4I (VE7ZO, op) | 1,171,304 | EU1A | 2,347,526 |
| $\begin{array}{\|l} \hline \text { K7JR (KL9A, } \\ \text { op) } \\ \hline \end{array}$ | 1,235,520 | ES5TV | 3,074,990 | W040 | 841,128 | HA6P (HA6PX, op) | 1,814,310 |
| K4AB | 984,312 | A65BP | 3,074,868 | K90M | 624,490 | G2F (G4MKP, op) | 1,674,486 |
| K4BAI | 955,584 | $\begin{aligned} & \text { EF2A (EA2OT, } \\ & \text { op) } \end{aligned}$ | 2,933,530 | N2PP | 585,072 | VA2WA | 1,628,433 |
| N2NT | 821,920 | RW1A | 2,865,980 | W1GD | 572,236 | W3UA | 1,626,570 |
| VE3DZ | 818,979 | UA4S <br> (UA4HTT, op) | 2,811,924 | W1WMU | 481,730 | KC1XX (DL8DYL, op) | 1,600,355 |
|  |  |  |  |  |  |  |  |
| Mixed Mode, Low Power |  |  |  | Mixed Mode, Low Power |  |  |  |
| W1UE | 978,538 | EC2DX | 2,402,278 | NE9U | 386,100 | P3F (5B4AGN, op) | 3,625,443 |
| N5AW | 930,804 | $\begin{array}{\|l} \hline \text { II9P (IZ8JAI, } \\ \text { op) } \\ \hline \end{array}$ | 2,218,705 | KC1DLY | 140,400 | UZ3A (UX1AA, op) | 1,897,454 |
| VA2EW | 919,674 | $\begin{aligned} & \text { 9A5Y (9A7DX, } \\ & \text { op) } \end{aligned}$ | 2,168,478 | K3ZU | 111,962 | EF8R (EA8RM, op) | 1,836,552 |
| K5WA | 900,210 | $\begin{aligned} & \hline \text { LZ8E (LZ2BE, } \\ & \text { op) } \\ & \hline \end{aligned}$ | 2,128,687 | КøоО | 105,930 | DK8ZB | 1,761,032 |
| K6XX | 875,525 | S5¢A | 1,970,326 | NK3Y | 79,856 | P4 $\emptyset \mathrm{XA}$ (WT2P, op) | 981,744 |
| WA1Z | 750,308 | YO3JR | 1,842,321 | N7UJJ | 77,341 | UA9MA | 947,952 |
| AD4Z | 655,200 | UW5Y <br> (US2YW, op) | 1,631,982 | K8GT | 75,624 | RA3Y | 927,673 |


| K3PA | 607,128 | $\begin{aligned} & \text { KP3Z (NP4Z, } \\ & \text { op) } \end{aligned}$ | 1,522,035 | KC5FP | 63,825 | UR6EA | 920,636 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| V01TTT <br> (VE9AA, op) | 533,178 | NP2X (K9VV, op) | 1,436,610 | N9TF | 52,535 | NP2P (N2TTA, op) | 900,882 |
| NA8V | 530,058 | $\begin{aligned} & \hline \text { 3V8SS } \\ & \text { (KF5EYY, op) } \end{aligned}$ | 1,411,408 | W3CQB | 49,662 | SP9H | 769,436 |
|  |  |  |  |  |  |  |  |
| Mixed Mode, QRP |  |  |  | Mixed Mode, QRP |  |  |  |
| K2GMY | 12,312 | HG6C <br> (HA6IAM, op) | 404,840 | N1CC | 7,850 | DK3WE | 656,460 |
| N9EP | 10,137 | IZ3NVR | 363,465 | K8ZT | 2,662 | IZ8JFL/1 | 279,476 |
| VA3QV | 9,884 | OK7CM | 277,092 | WA8HSB | 2,163 | LZ7H | 71,280 |
| N7FG | 1,500 | US2IZ | 263,472 |  |  | UR5XMM | 41,406 |
| KFøX | 1,445 | HA1WD | 244,260 |  |  | RT3W | 16,182 |
| N7XY | 768 | $\begin{aligned} & \text { UX9Q } \\ & \text { (UR9QQ, op) } \end{aligned}$ | 178,695 |  |  | LY5G | 11,092 |
| VE5DLD | 644 | 9A2EY | 162,992 |  |  | N1CC | 7,850 |
| AF9J | 235 | UX8IX | 127,890 |  |  | JK1TCV | 5,600 |
|  |  | LY5Q | 119,394 |  |  | K8ZT | 2,662 |
|  |  | $\begin{aligned} & \hline \text { KP4KE } \\ & \text { (NP4LW, op) } \end{aligned}$ | 113,652 |  |  | WA8HSB | 2,163 |
|  |  |  |  |  |  |  |  |
| Phone Only, High Power |  |  |  | Phone Only, High Power |  |  |  |
| K5TR | 1,249,740 | YV1KK | 2,311,122 | W3LL | 305,939 | ES6RW (ES5RW, op) | 1,993,012 |
| W7WA | 979,755 | V51WH | 1,602,180 | KøVXU | 209,409 | EF8U (EC5AN, op) | 1,800,088 |
| NO5N | 312,543 | EA1FDI | 1,568,400 | N8BI | 158,760 | IZ8EPX | 1,555,984 |
| AD5XD | 285,090 | K5TR | 1,249,740 | W1CTN | 153,621 | IKø PHY | 1,518,690 |
| NR6Q | 266,988 | PJ4DX | 1,218,602 | N4MM | 137,760 | IB4A | 1,495,640 |
| K3ZJ | 235,554 | W7WA | 979,755 | VE2NTT | 62,952 | YP7P (YO7LFV, op) | 1,261,410 |
| N2RJ | 164,574 | $\begin{aligned} & \text { US5D (UT7DX, } \\ & \text { op) } \end{aligned}$ | 821,408 | K4ADR | 51,600 | YR9F (YO9FNP, op) | 1,135,372 |
| W7ZZ | 161,092 | EA3CI | 762,773 | AB1NE | 41,876 | IO4W (IZ4AFW, op) | 1,051,050 |
| N3NR | 150,516 | G1XOW | 743,629 | KK4LGC | 33,078 | HB2K (HB9OCR, op) | 659,014 |
| K1KNQ | 121,856 | RV3FF | 697,392 | N8PCN | 32,368 | 8SøC (SMØMPV, op) | 519,821 |
|  |  |  |  |  |  |  |  |


| Phone Only, Low Power |  |  |  | Phone Only, Low Power |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KX4R | 275,500 | $\begin{aligned} & \hline \text { HA3DX } \\ & \text { (HA4XH, op) } \end{aligned}$ | 1,167,880 | VE1WOW | 89,046 | UR2Y (USØYW, op) | 464,202 |
| ND4Y | 163,875 | EI1A (ON4EI, op) | 745,433 | KA2KON | 88,008 | EC5NJ | 418,000 |
| K5DHY | 54,360 | EA5HRV | 557,865 | WU $\emptyset$ B | 54,964 | YV2CAR | 417,420 |
| N7MZW | 51,127 | USØHZ | 551,310 | N2ESP | 35,175 | UT8EL | 406,105 |
| VE2HIT | 47,175 | $\begin{aligned} & \text { DF2F (DF2SD, } \\ & \text { op) } \end{aligned}$ | 386,022 | N2JF | 20,466 | YT5IVN | 335,475 |
| K4WES | 27,010 | UT7QL | 370,443 | WS6K | 12,455 | RA9V | 307,020 |
| KB8LFA | 24,990 | RC7KY | 333,697 | KG7GYI | 12,240 | HB9EYP | 280,160 |
| VA3GD | 21,000 | KP2/AA1BU | 298,333 | AB5NX | 11,178 | SQ6DX | 246,238 |
| VE1SQ | 19,812 | WP4PGY | 288,875 | K4BBH | 10,872 | IT9EWR | 217,080 |
| WA2QAU | 18,370 | UA9R | 280,158 | NN4RB | 9,400 | SQ4JEN | 208,890 |
|  |  |  |  |  |  |  |  |
| Phone Only, QRP |  |  |  | Phone Only, QRP |  |  |  |
| W6QU <br> (W8QZA, op) | 11,100 | HA5BGG | 84,185 | AK8H | 21,945 | LZ1DM | 177,140 |
| N4ZAK | 4,750 | HB9EGA/P | 68,663 | N9NBC | 1,760 | UT3EK | 52,503 |
| KıøII | 1,872 | ON7BA | 56,544 |  |  | YP8W (YO8SEP, op) | 34,408 |
| VE3LO | 1,554 | SV3AUW | 54,172 |  |  | AK8H | 21,945 |
| WBøIWG | 1,395 | SP4LVK | 53,482 |  |  | PC2F | 18,000 |
| AB3WS | 608 | UT1PG | 46,455 |  |  | N9NBC | 1,760 |
| KK7VL | 189 | IK1BBC | 37,300 |  |  | PY2VQ | 1,298 |
| KJ5T | 105 | Y09XC/P | 22,050 |  |  | UN9LAB | 589 |
|  |  | CT7AIX | 21,190 |  |  | KP3ER (NP4RA, op) | 497 |
|  |  | TG9ANF/4 | 15,336 |  |  |  |  |
|  |  |  |  |  |  |  |  |
| CW Only, High Power |  |  |  | CW Only, High Power |  |  |  |
| W1KM | 1,706,516 | R3ZZ | 2,273,939 | K9NW | 1,037,316 | SN7Q (SP7GIQ, op) | 2,989,884 |
| K5GN | 1,567,328 | UW1M | 2,241,120 | K1MK | 1,004,496 | RT9A | 2,799,424 |
| AA3B | 1,469,862 | IO2X (IK2NCJ, | 1,995,357 | N3AD | 979,368 | P4ØW (W2GD, | 2,768,775 |


|  |  | op) |  |  |  | op) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N2IC | 1,401,504 | RU9AC | 1,789,864 | $\begin{aligned} & \hline \text { N7AT } \\ & \text { (K8IA, op) } \end{aligned}$ | 952,134 | RT9S | 2,675,100 |
| $\begin{aligned} & \hline \text { K1ZD (K1ZZ, } \\ & \text { op) } \\ & \hline \end{aligned}$ | 1,385,290 | W1KM | 1,706,516 | V01MP | 949,725 | $\begin{array}{\|l\|} \hline \text { YR8D (YO8TTT, } \\ \text { op) } \\ \hline \end{array}$ | 2,239,200 |
| W7RN (N6TV, op) | 1,061,956 | $\begin{aligned} & \text { OG2P } \\ & \text { (OH2PM, op) } \end{aligned}$ | 1,698,800 | N5XZ | 900,060 | IR2C (IK2PFL, op) | 2,219,425 |
| WXøB (AD5Q, op) | 1,030,744 | EU5T (EW2A, | 1,665,298 | N4BP | 878,085 | UTøU (UT5UDX, op) | 1,711,476 |
| КøЕJ | 869,440 | ZF2ET | 1,604,955 | K3WW | 780,946 | OQ5M (ON5ZO, op) | 1,617,972 |
| W1WEF | 767,688 | K5GN | 1,567,328 | K5CM (W5CW, op) | 709,583 | $\begin{aligned} & \text { ED2C (EA2CW, } \\ & \text { op) } \end{aligned}$ | 1,335,047 |
| N4WW (WF3C, op) | 759,066 | AA3B | 1,469,862 | N3UA | 690,336 | SP2LNW | 1,230,720 |
|  |  |  |  |  |  |  |  |
| CW Only, Low Power |  |  |  | CW Only, Low Power |  |  |  |
| K7SV | 682,962 | 5H3EE | 1,381,009 | KøRF | 753,948 | C4I | 2,509,578 |
| WJ9B | 383,830 | S57K | 1,373,922 | N9NB | 668,430 | UT4LW | 1,485,512 |
| W1QK | 367,780 | LY5R | 1,179,745 | W3KB | 277,884 | S53V | 1,307,538 |
| WI2E | 323,840 | RU1A <br> (RV1AW, op) | 1,091,800 | WA1FCN | 227,768 | DLøUM <br> (DL7FER, op) | 1,180,323 |
| W1UJ | 321,342 | R3KQ | 1,007,290 | K6WSC | 193,362 | R7MM | 1,037,768 |
| K7WP | 246,720 | RX9AF | 979,308 | WK4AA | 170,291 | OL5Y | 1,002,430 |
| AE5GT | 234,220 | HA3LN | 943,872 | K2XR | 156,684 | YT2AAA | 993,744 |
| NB1N | 221,112 | UA5F | 921,250 | NM5M | 149,985 | YO5LD | 966,440 |
| KV8Q | 203,835 | UN6LN | 903,364 | K2ZR | 140,296 | R3QA | 915,565 |
| N5KWN | 181,722 | HA7GN | 771,687 | AB9YC | 109,920 | SCøN | 906,840 |
|  |  |  |  |  |  |  |  |
| CW Only, QRP |  |  |  | CW Only, QRP |  |  |  |
| W7YAQ | 131,784 | F5VBT | 545,192 | KA7T | 22,140 | OK2FD | 704,352 |
| K3TW | 49,665 | HA3MY | 367,830 | AB3RU | 9,135 | SD $\emptyset \mathrm{T}$ (SM $\emptyset T H U$, op) | 110,484 |
| K2YGM | 43,875 | UR5GAW | 221,988 | VE9BWK | 8,505 | UX5UU | 109,375 |
| K8CN | 39,808 | UA1CUR | 160,965 | K2AL | 6,440 | LZ8U | 96,300 |


| KB8V | 24,769 | HG3C <br> (HA3HX, op) | 156,220 |  | NV1W | 2,528 | DL1RNN |  |
| :--- | ---: | :--- | ---: | :--- | :--- | :--- | :--- | :--- |
| VA3SB | 14,440 |  | OH5YU | 147,678 |  | WE5EE | 1,160 |  |

