# Results, 7th IARU World HF Championship 

# This is what this contest should be: fun, lots of contacts and great DX—Shawn, N1HOQ 

By Billy Lunt, KR1R and<br>Contest Manager

Warren C. Stankiewicz, NF1J<br>Assistant Contest Manager

There was a big difference between 1992's IARU HF World Championship and those of the past several years. Poor band conditions had led to a decline in scores and interest in the contest. The great propagation we enjoyed this year, however, has turned things around. The old adage proved true: When there are good band conditions, it's easy to work plenty of people and everyone has a good time while doing so. Participation in this year's contest, the weekend of July 11-12, really sprang to life! The level of enthusiasm was high. At ARRL HQ, the first thing we noticed was that entries increased $21 \%$ over the previous year and the number of Headquarters stations more than doubled from nine last year to 19 this year. It didn't take long to fill our filing cabinets with contest entries this time around.

Fifteen meters was wide open for the entire contest! For example, Charlie, K3WW, started on 15 meters and worked more than 700 stations in the first 11 hours of the contest. In fact, he was making five-point QSOs on 15 as late as 0230Z! Andy, UX6B, ran Japanese stations on 15 well into the night, finishing with more than 2000 QSOs and78 multipliers on this band alone. Fifteen meters is becoming more of a mainstay, as 10 meters gets sluggish at this point in the solar cycle.

Although the usual summertime static appeared on the low bands, it didn't slow anyone down. The better-than-average conditions down there allowed people to make contacts that would have been much tougher to work in 1990 or 1991. Tony, ZL2AGY, concentrated on 40-meter CW and made 193 contacts with 100 watts and a dipole. Don't overlook this band! Forty meters can be a good backbone for working local stations, while the higher bands may only be good for long-haul DX.

A look at the Top-10 boxes shows how good things were. Scores were up dramatically over last year. Many overall winning scores from the past two years would have had a hard time just making the boxes this year. Forty-two zone records were set, most dating to 1989, the last year we had decent conditions. Three of the top four overallscore records were broken, as Gyozo, HAØMM, beat his previous mixed-mode record by 345 k , and the team at UX1A de-
stroyed the previous multioperator mark by more than 2.7 million points. In the US, the KA5W multioperator crew in Texas topped N5AU's five-year-old record by 140 k

## IARU Headquarters Stations

HG92HQ (HA1s VQ,WD,YA,YU,HA2RX,HA4s YD,XT, HA5s AWH,BGG,FA,FM,GF,IW,MK,ML,OM,OR,UA HA6s GK,GM,IDL,ND,NF,NQ,ON,OQ,VH,VR,VX,WP, WX,ZQ, HA7RY,HAØs DU,HG,LC,NAR,HG5CC, HG6GD,ops) $10,169,1669920$ DA0HQ (DF7RX,DG1RMP,DL1s DTL,SBR,DL2s NBU, SAX,DL3s OI,VHF,DL4NAC,DL5s ARX,LYM,DL6FBL,
DL8WAA,Y21CW,Y23EK,Y32VK,Y33s UL,VL,Y42s
IK,LK,MK,OK, Y54NL,Y57UG,Y77VH,ops) 9,751,980 $10813 \quad 29$
YPøA (YO2BV,YO3s APJ,AWT,FU,JF,YO4s ATW,BEX,
HW, NF, SI,XF,YO6AWR,YO8s AXP,BAM,CMB,YO9s BEI,FE,HP,ops)

4,813,042 6421247
ZA1A (DF3CB,KC6KOU,OH1MKT,OH2s BH,BSI,
OH6EI,ZA1s B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,
T,U,V,W,X,Y,Z, ops) 3,809,520 6067
W1AW (N1CC,K2WR,KR2J,N2KW,WB2DIN,K3IPK,
N3ADC,WN3K, ops) $\quad 2,188,4804652 \quad 160$
GB4HQ (GøHSD,op)/GB5HQ (G3OZF,op)/GB6HQ
(G@MFO,op) 1,729,760 3220
SK3HQ (SM3s BDZ,CER,DMP,RAB
$1,503,212 \quad 2670 \quad 158$
OT2O (ON4s ACG,KAR,VT,XG,ON5WL,ON6s
NL,WL,ONL-6945,ops) 1,403,832 2570
4U1ITU (IK2NCJ,IV3TAN,ops) 1,102,815 1953111
FF1REF (F1s HXH,HYH,JTL,RWA,F11KVS,ops)
824,145 1896105
JA3RL (JA3MAU,JG3RPL,JI3ERV,JJ3WPF,JN3s QLL, VOG,JQ3OZY,JR4ISF,ops) 714,8161406153
OGøC (N6HR,op) 517,8541289102

TU2CI (TU2OP,TU2XZ,TU4EF,ops)512,4751375 75
LA7HQ (LA4s OFA,YW,ops) 403,798 1273101
OE1XHQ (OE1s MCU,TKW,ops)313,320 703120
SV1SV (SV1s AHV,AOZ,BDO,BKE,MF,QN,ops)

| PY5A | 6,664 | 81 | 24 |
| :--- | :--- | :--- | :--- | :--- |

points. As the sunspot cycle declines, these records will be hard to beat.

It wasn't just the "big gun" operators who enjoyed this contest, however. The challenge of contesting is for everyone, and just about anyone can get on and have a good time. The incentive of earning certificates for making 250 QSOs or 50 multipliers adds to the fun of participating in the IARU HF World Championship. This way, you don't have to win to come away with an attractive certificate for your effort. Mike, KB9BIB, exclaimed, "I was hoping to make at least 200 QSOs, but I was surprised when I made 688!" Rita, KD1BM, remarked, "It was quite a contest, but I worked my heart out and qualified for my first contest certificate!"

The competition among IARU Headquarters stations was closer this year, with the Deutscher ARC's effort from DAØHQ giving a strong challenge to perennial top finishers HG92HQ from MRASZ. The German group topped the Hungarian's QSO total, but didn't make enough of the valuable five-point contacts to win. We welcome the IARU-member society headquarters stations from Albania, ZA1A, and the Ivory Coast, TU2CI, on their first entries in this contest.

The Radio Society of Great Britain (RSGB) took advantage of the rules for HQ stations and split its effort into three entries this year to maximize its score, while minimizing interference between its stations.


The team that put ARRL HQ station W1AW on for the contest included (I-r) Doug, N3ADL; John, KC1XM; Jim, N1CC; Bob, KR2J; Allen, N2KW; Bob, WN3K; Rich, K3IPK; and Rich, K2WR.

GB4HQ operated on the 80- and 40-meter bands; GB5HQ operated on 160 and 15 meters and GB6HQ operated on the 20-meter band. Their combined efforts gave the RSGB team a score of $1,729,760$.

If this year's contest was a harbinger of things to come, you won't want to miss the next IARU HF World Championship. If you've never contested before, this is a great opportunity to get your feet wet. Thanks to Contest Assistant Anne Jaworski for her help in preparing these results. The 8th IARU HF World Championship is July 10-11, 1993.

## SOAPBOX

It was a nice contest, but to make a good score, I'll need better antennas (OD5/SP1MHV). What a difference a year makes! Conditions were much better than last year, with 15 meters open 24 hours a day and Europeans starting to come in on 10 Sunday morning. The hardest part of the contest was having to tell ZAlA he was a dupe (WD4AHZ) This is my first contest since getting my ticket in January. It's all new to me, but I enjoyed it very much (KQ4AX). I was surprised to find 21 MHz so good after several weeks of it being almost dead! (LA2AD). It was my first, but not last, IARU HF championship. I'm looking forward to next year (OZ9AEC). This was my first serious participation in this contest and I enjoyed it very much (ON4APA). I was happy to work two new countries during the contest (JA1ASO). Using only a temporary setup, I managed to have lots of fun! (YB3ASQ). Since 1983, this is the first time I've been able to take part in the contest and it was great to be back! I've retired to my country home on a few acres of land, and now I'm growing antennas as a hobby-unfortunately, they're slow growers (VK2AYD). The contest was lots of fun. I worked many familiar call signs and many new ones. My main interest this year was to give 40 meters most of my attention (ZL2AGY). It was a great contest for me as a 16 -year-old boy. I found it an interesting challenge (Y24AO). This was the first time we used a linear amplifier. It arrived the day before the contest (5B4ACY). It was great to only have to search and pounce three times on 20, and it was great when ZA1A answered my CQ (KB9BIB). I seemed to be a multiplier for everyone. It was great! I'll be back next year, for sure (CT1BWW). It was difficult to operate in the contest, but at the same time, it was a pleasure! Next year I hope to do better (YO5BQ). This is the first time I participated in this contest. I found propagation to be very good! (UX6B). The contest was nice. It was too bad I missed the $80-$ meter openings (UA6BPJ). Although I only had a few hours to work this contest, it was nice (LAØCX). We had to use our home station, as the antennas at our club site crashed during a heavy


Lionel, G5LP, listens intently for another contact at the well-equipped GB4DX.

Top World Scores

| Mixed |  | CW |  |
| :---: | :---: | :---: | :---: |
| Call | Score | Call | Score |
| HAØMM | 2,274,024 | ZY1R |  |
| KL7Y | 1,421,676 | (YU1RL,op) | 2,053,014 |
| UA3RAR | 1,293,872 | 5B4ADA | 1,601,600 |
| UT4UZ | 1,275,092 | CQ8M |  |
| RT91 |  | (CT1BOH,op) | )1,492,590 |
| (RB5IM,op) | 1,239,480 | K1TO | 1,164,670 |
| UT5UGR | 1,209,274 | G3FXB | 1,121,400 |
| YU7AV | 1,157,518 | EXøS |  |
| K3WW | 1,150,876 | (UAØSAU,op) | 1,101,168 |
| A17B | 1,137,300 | ZD8LII | 1,037,088 |
| OG6NIO | 1,098,495 | WOZV | 1,020,537 |
| Phone |  | 9A1CCY (9A3NM,op) WQ5W | $957,768$ |
| Call | Score | WQ5W | $933,910$ |
| RY7D | 1,257,450 | Multiopera | ator |
| UX6B | 1,239,087 | Call | Score |
| ON6TT | 1,175,850 | Call | Score |
| GMOECO | 1,065,991 | UX1A | 6,065,368 |
| $5 \mathrm{Z4BI}$ | 1,033,965 | HG1S | 3,214,827 |
| DL8PC | 1,013,595 | RY@Q | 2,932,440 |
| YU3HR | 991,935 | 4K5ZI | 2,711,520 |
| K4XS |  | EZ6L | 2,116,980 |
| (WC4E,op) | 960,644 | R9J | 1,962,584 |
| YZ3A |  | KA5W | 1,776,349 |
| (YZ3EA,op) | 934,768 | GB4DX | 1,688,487 |
| WB2K | 891,648 | 9A1CRT UB3.JWW | $1,217,610$ $1,189,377$ |

## Top WNE Scores

| Mixed |  | CW |  |
| :--- | ---: | :--- | ---: |
| Call | Score | Call | Score |
| K3WW | $1,150,876$ | K1TO | $1,164,670$ |
| AI7B | $1,137,300$ | WøZV | $1,020,537$ |
| KZ5D | 831,174 | WQ5W | 933,910 |
| KW8N |  | KB0G | 829,184 |
| (NZ4K,op) | 802,961 | W1WEF | 788,956 |
| WX9U | 570,696 | KT3Y | 774,400 |
| VY2SS | 568,242 | N6TR | 732,814 |
| W1GD | 487,320 | AD5Q | 688,250 |
| CJ4VV | 449,955 | K5RC |  |
| KN1M | 441,843 | (K5GN,op) | 674,520 |
| KG5YA | 401,744 | WA6AUE | 571,692 |
| Phone |  |  | Multioperator |
| Call |  | Score | Call |
| K4XS |  | KA5W | Score |
| (WC4E,op) | 960,644 | N2IC/Ø | $1,776,349$ |
| WB2K | 891,648 | WW2Y | 891,497 |
| WB5NXH | 768,222 | K9FD | 786,891 |
| N4UH | 536,507 | NCøP | 703,647 |
| N1HOQ | 403,624 | K9SD | 646,410 |
| K4VUD | 398,820 | WXQX | 643,200 |
| AA4NU | 331,315 | KS1A | 574,902 |
| KM6HD/5 | 305,286 | NR1L | 565,425 |
| N6WLX/8 | 303,696 | W8IQ | 547,200 |
| W8KKF | 266,196 |  |  |



Members of the Albanian Amateur Radio League activated ZA1A in Tirana as an IARU HQ station for the first time in this contest.
storm earlier this year (PI4COM). A barefoot transceiver and a few pieces of wire equals summertime fun! (AA6DX). This was my first participation in any contest. I enjoyed it very much (7K2DOD). This is my first time in this contest and I enjoyed it. I managed to work two new countries. My goal was to make 250 contacts and I was pleased when I did (N9MDW/5N6). The contest was excellent, with excellent conditions and excellent operators, but the W/VE turnout was poor. I love the 24-hour format! (N6EE). It was a nice contest, and I enjoyed it (RB5EL). This was only the second contest I've worked. It was definitely the best! I was able to make contacts with many countries (N1KFN). Thank you for an excellent contest! (LZ3FN). To me, the contest was certainly a challenge this year because prior to the contest, all of our antennas were destroyed during a June 19 storm, except for our 2 -element 40 -meter beam at 20 feet, fixed NE. I'll be back for the next IARU contest (N5CG). I used 100 watts and low dipoles. I want to thank the operators who pulled me out of the noise! It was a fun contest (KB1GW). Thank you for a nice contest (YL2GVW). The first two hours were great, then the amplifier broke! It was 2100 Z before I was able to get it to work again. I found the low bands disappointing, but the 15 - and 20 -meter bands made up for it. Thanks to YJ8RN for the new multiplier and an all-time new one (KM6HD/5). This being my introduction to the IARU contest, I found it enjoyable! (NH6HF). Even with bad propagation, the contest turned out nice. I hope next year is better! (IKØHBN). It was a great contest with unexpectedly good band conditions. I waited too long to go to 40 meters. Where were all the multipliers? (NP2I). It was a good contest with much better conditions than last year, except activity on 10 meters was too low (PAØIJM). This is the first contest I've participated in, and it was great fun. This was also the first time I spent any time on 40 meters, which I found enjoyable (N7UJJ). Without the solar storms, propagation was better than last year (KE2JO). What else is there to do when the temperature is $110^{\circ} \mathrm{F}$ but work a contest! (WAØKDS). This was my best score ever! What more could a suburban ham ask for? CU next year (WB2K). The conditions were 10 times better than last year! The 15 -meter band was great through the whole contest (NR1L). At last, Lady Luck smiled on me in this contest! The competition was enjoyable. Thanks a million! (UB5LCV). It was a good contest, and not a marathon. The 24 -hour length suits me fine! (ZD8LII). Having a lot of QRM/QRN made for poor conditions (HA5LZ). The bands were better than last year, but there seemed to be less participation. CW was more productive (N5NMX). I'm 17 years old and this was my first contest (OE1MBB). It was a great contest! (DL2MEH). Thank you for a nice contest! If possible, I'll take part again next year (DL9MFL). After lightning had disabled most of the station, it was a challenge to get on the air.


Sixth-place mixed-mode finisher Dmitry, UT5UGR, of Kiev, remarked, "Conditions were great this year and I can't wait to do it all over again."


Ivo, 5B4ADA, of Nicosia, Cyprus, sits in front of the 14-element log periodic that helped him to his second-place overall, CW-only finish.

Then, more thunderstorms came and a blown amp took us off again! Regardless, the young operators that we had performed well (WX3N, op at WX $\emptyset$ ). As I'm getting older, I'm getting better (AE2N). It was a good contest! (UA1NDV). It was hard to participate in the contest, as it was a beautiful summer day! (WAØOUI). Let's hope this contest is as much fun when the sunspots go away! (K1TO). Did anyone else do better this year than last? This is what the IARU should be-fun, lots of contacts and great DX. I only wish I'd done more "sleep preparation" for the contest (N1HOQ). Graduate school has kept me away from the radio for almost two years. It was nice to dust off the rig and find the contest! (NZ3O). This was my first attempt in a foreign contest. I was glad I took part, as it was fun (JQ1OCR). I had a lot of fun with my window antenna! (DL1OO). We seldom have such good conditions. The only trouble was the QRN on the lower bands! (DL8PC). I didn't expect the 15 -meter band to be so good! This year's score will be hard to beat (AD5Q). Propagation was good, but signals were weak! It was a pleasure to compete for the full 24 hours, and I enjoyed meeting new and old friends, using my usual ineffective hunt-and-pounce technique (VE1REC). It was an interesting contest! My special thanks to Rolf, PY1RO, and Sonia (YU1RL/ZY1R). I almost doubled last year's score (IG8R). This was our first contest where we worked as a team. We hope we'll do better next year (DL1RNH). It was difficult to run in the contest during Stampede Week in Calgary! (VE6SH). I've been an SWL for years. This is my first contest, as I've been licensed for only three weeks (GIØSAP). Propagation was excellent and the level of activity was good. I enjoyed it. (ON6TT). I get a lot of pleasure participating in this contest (ON6TJ). I found 10 meters nearly dead and 40 -meter phone was too crowded. It was a nice contest, but I'm hoping for better conditions next


Well-known contester Jan, PAØIJM, led The Netherlands in the phone-only category. He claimed, "It was a good contest with much better conditions than last year."
year (DLØTO). As I was tired because of a university examination, I could only stay awake for 10 hours (LZ3 YY). I found conditions on the $10-$ meter band poor. Next year, I hope to have a decent antenna, so watch out! (OZ2ZZZ). Thanks for a nice contest (4K5ZI). The conditions were good, which made this a good contest! (OK3ZBU).

## Scores

Scores are listed by ITU zone and then by country within that zone. The line score indicates the call sign, final score, QSOs, multipliers and entry class. The entry class letters indicate the following: $A=$ single operator, mixed mode; $B=$ single operator, phone only; $C=$ single operator, $C W$ only; $D=m u l t i o p e r a t o r$, single transmitter.


| Southern New Jersey |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| K2PS | 32,004 | 199 | 36 | A |
| WA2L | 25,300 | 154 | 46 | A |
| AB2E | 504,153 | 1051 | 117 | c |
| KC2TA | 21,060 | 223 | 36 | C |
| K2swz | 17,472 | 111 | 42 |  |
| AE2N | 11,466 | 125 | 26 | c |
| WW2Y (+K2WI,N2NU) |  |  |  |  |
|  | 891,328 | 141 | 152 | D |
| Western New York |  |  |  |  |
| KD2YP | 205,640 | 470 | 106 | A |
| KB2DE | 37,526 | 157 | 58 | - |
| KB4VL | 28,392 | 150 | 42 | B |
| K82NMV | 13,176 | 94 | 36 | B |
| KW2J | 147,186 | 448 |  |  |
| WA2EYA | 79,945 | 367 | 59 | c |
| W2OMV | 40,100 | 175 | 50 | c |
| Delaware |  |  |  |  |
| NX3A | 106,760 | 320 | 85 | A |
| Eastern PennsyIvania |  |  |  |  |
| K3WW | 1,150,876 | 1874 | 149 | A |
| W3BGN | 113,700 | 445 | 60 | A |
| KA3ZJZ | ${ }^{6,380}$ | 88 | 22 | A |
| $\begin{aligned} & \text { NZ3O } \\ & \text { KA3QLF } \end{aligned}$ | 1,056 35,316 | 23 166 | 12 54 | A |
| K3ZPG | 12,685 | 1 | 43 | - |
| KL7HIR | 224,010 | 620 | 95 |  |
| WF3L | 118,523 | 425 | 67 | C |
| WF3M | 110,636 | 375 | 68 | C |
| WG3T | 10,323 | 60 | 37 |  |
| N3CZB | 930 | 33 | 10 |  |
| KD3TB (+N | ET) 63,360 | 248 | 66 |  |
| Maryland-DC |  |  |  |  |
|  | 10,600 | 60 | 53 | A |
| WA2VUJ/3 | 767 | 13 | 13 | B |
| WZ3Q | 557,100 | 1293 | 100 |  |
| W3GG | 195, 160 | 658 | 70 |  |
| K31XD (+NET) | T) 40,535 | 193 | 55 |  |
| Western Pennsylvania |  |  |  |  |
| K52D | 316,350 | 700 | , | A |
| WW3S | 23,092 | 122 | ${ }^{46}$ | A |
| W3YEY | 12,620 | 155 | 37 |  |
| WB®IWG | 234 | 11 | 6 | в |
| Alabama |  |  |  |  |
| KK4SM | 132,430 | 318 | 95 | c |
| Georgla |  |  |  |  |
|  | 55,118 | 266 |  |  |
| KD3GC | 79,994 | 323 | 74 | B |
| KBOG | 829,184 | 1595 | 128 |  |
| KB4GID | 324,900 | 802 | 114 | c |
| K4BAI | 64,782 | 276 | 61 | c |
| Kentucky |  |  |  |  |
| N4XM | 93,708 | 335 | 76 |  |
| North Carolina |  |  |  |  |
| N4AA | 208,428 | 750 | 83 |  |
| N4UH | 536,507 | 1281 | 97 |  |
| N4YDU | 87,230 | 400 | 55 |  |
| K4PB | 21,070 | 126 | 49 |  |
| Northern Florida |  |  |  |  |
| K4XS (WC4 | ;op) |  |  |  |
|  | ${ }^{960,644}$ | 1824 | 137 |  |
| K4VUD | $\begin{array}{r} 398,820 \\ 50,447 \end{array}$ | $\begin{aligned} & 924 \\ & 261 \end{aligned}$ | 115 61 |  |
| South Carolina |  |  |  |  |
| KC4UH | 48,048 | 206 |  |  |
| WD8AMV | 29,628 | 207 | 36 |  |
| Southern Florida |  |  |  |  |
| ${ }^{\text {AC4CT }}$ | 195,656 | 690 | 74 |  |
| WK4F | 11,648 | 84 | 32 |  |
| WB4TDH | 402,591 | 711 | 133 |  |
| WD4AHZ | 378,566 | 791 | 122 |  |
| Tennessee |  |  |  |  |
|  | 331,315 |  |  |  |
| KE2JO | 122,724 | 365 | 84 | B |
| KA4IWG | 85,342 | 286 | 71 |  |
| KS2X | 55,605 | 259 | 55 |  |
| W4OGG | 6,532 | 46 | 14 | B |
| K4LTA | 163,939 | 611 | 71 | c |
| Virginia |  |  |  |  |
| KA4RRU | 75,420 | 339 | 60 | A |
| WB2nat | 50,165 | 159 | 79 | B |
| KQ4AX | 48,864 | 174 | 48 | B |
| KB1GW | 30,039 | 161 | 51 |  |
| ${ }_{\text {KT3Y }}$ | 774,400 83 | 1478 315 | ${ }^{121}$ | C |
| K4FPF | 83,708 | 315 | ${ }^{68}$ | C |
| W4XD | 68,572 | 312 | 62 | c |
| WA4UAZ | 45,609 | 180 | 69 | c |
| Mississippl |  |  |  |  |
| KBSIXI | 1,808 | 31 | 16 | A |
| N5KKg | 4,284 | 50 | 21 | B |
| Michigan |  |  |  |  |
| KB8APS | 65,772 | 256 | 58 |  |
| KS8Q | 65,250 | 269 | 58 | A |
| wbsbua | 14,105 | 113 | 31 | A |
| NEBT | 128,772 | 387 | 84 | 硡 |
| Aabav | 222,904 | 667 | 88 | c |
| NBCQA | 51,942 | 209 | 66 |  |
| K8CV | 12,140 | 149 | 38 | c |
|  |  |  |  |  |
| OhloKW8N (NZ4K,0p) |  |  |  |  |
|  |  |  |  |  |
| N8AA nesax | 260,796 | 598 | ${ }^{103}$ |  |
| ${ }_{\text {NBJNX }}$ | 176,300 41,910 | 184 | ${ }^{86}$ | A |
| KABOUT | 8,232 | 90 | 21 | A |
| N6WLX/8 | 303,696 | 696 | 108 | B |
| W8KKF | 266,198 | 781 | 84 77 |  |
| N8AXA | 128,051 8,670 | 403 61 | 34 | B |
| WT8C | 86,445 | 261 | 85 |  |
| WBIQ (+WDOINF) ${ }^{\text {K }}$ |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| WA8OSE (+NBJEC, WB8LGK)547,200 1080 120 $D$ <br> 227,586 618 83 $D$ |  |  |  |  |


| West Virginia |  |  |  |  | ZY1R (YU1RL, OP) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K800L | 123,597 | 371 | 93 | A | 2vin( | 2,053,014 | 209 | 201 | C |
| lllinois PY2YN 11,496 9024 |  |  |  |  |  |  |  |  |  |
| WX9U | 570,696 | 1150 | 129 | A | Zone 18 |  |  |  |  |
| WDgGG | 64,602 | 239 | 74 | A |  |  |  |  |  |
| Wglya | 66,882 | 258 | 71 | B | Norway |  |  |  |  |
| K9zO | 497.040 | 1114 | 114 | C | LAIK (LA1 | FA,op) |  |  |  |
| N9AEJ | 363,051 | 858 | 107 | C |  | 229,500 | 834 | 75 | A |
| KB9BIB | 142,560 | 688 | 54 | c | LA2AD | 33,102 | 178 | 54 | B |
| K9MMS | 131,040 | 428 | 80 | C | LAgZFA | 17,630 | 126 | 43 | B |
| Kguon | 10,962 | 96 | 27 | C | LA6VDA | 13,776 | 94 | 28 |  |
| W9EBY | 8,547 | 57 | 37 | c | Lagcx | 42,147 | 379 | 109 | c |
| K9FD (K9BGL,KC9AL,NB9T, |  |  |  |  | LA6CF | 41,883 | 348 | 69 | c |
| K9SD(WW9L,WW9Q,KAgGGI,KW0A |  |  |  |  | LA7AFA | 25,596 | 193 | 29 | c |
|  |  |  |  |  | LA2HFA | 13,156 | 117 | 26 | c |
|  | 646,410 | 1130 | 145 | D | Aland Island |  |  |  |  |
| N9LCR (+N9NMC) |  |  |  |  | OH1MTT/O | H0 384 | 22 | 6 | B |
|  | 126,906 | 431 | 78 | D | Finland |  |  |  |  |
| Indiana |  |  |  |  | OG6NIO | 1,098,495 | 1859 | 135 | A |
| KF9CX | 16,800 74.151 | ${ }^{86}$ | ${ }^{48}$ | A | og3mig ( | H3MIG,op) |  |  |  |
| kB9C | 74,151 | 287 | 63 | B |  | 87,654 | 523 | 42 | A |
| W9Joo | 24,228 | 210 | 36 | c | OG30J | 608,403 | 1245 | 139 | B |
| Wisconsin |  |  |  |  | $\mathrm{OH}^{\mathrm{OH}} \mathbf{} \mathrm{NEV}$ | 85,570 | 305 | ${ }^{86}$ | 星 |
| NE8J | 71,391 | 326 | 53 | A | $\begin{aligned} & \text { OH2PM } 861,3541355 \\ & \text { OG1HS (OH1HS,op) } \end{aligned}$ |  |  |  |  |
| K90sh | 40,250 | 199 | 46 | A |  |  |  |  |  |
| W9HE | 91,884 | 281 | 76 | C | OG4YR | 684,474 | 1428 | 129 | c |
| N9XX | 27,864 | 152 | 54 | C | OH7UE | 561,492 | 1297 | 108 | c |
| Zone 9 |  |  |  |  | OH8LAE | 425,376 | 880 | 126 | c |
|  |  |  |  |  | OG3NM | 49,266 | 257 | 46 | c |
| Maritime-Newfoundland |  |  |  |  | ${ }^{\text {OHCRRC }}$ | 38,784 2306 | 156 155 | ${ }_{3}^{64}$ | C |
| vyass | 568,242 | 1343 | 102 | A | OH2VF | 23,067 19 | 214 | 75 | c |
| VE1REC | 40,464 | 252 | 36 | B | OG6UP | 13,156 |  | 44 | c |
| Yo9FHU/VE1 | 49,608 | 544 | 24 | C | OH5PA | 1,504 | 30 | 16 | c |
| Zone 10 |  |  |  |  | OG4QP | 27 | 3 | 3 |  |
|  |  |  |  |  | Denmark |  |  |  |  |
| Mexico |  |  |  |  | Oz3abe | 139,275 | 569 | 75 | A |
| XE1/NV1P | 59,100 | 330 | 50 | A | OZ1APA | 64,093 | 193 | 107 | A |
| XE1VV | 15,855 | 122 | 35 | A | OZ5EV | ${ }^{253,354}$ | 511 | ${ }^{131}$ | B |
| XE2GV | 17,978 | 199 | 23 | B | OZ2Z27 | 1311860 121,524 | ${ }_{393}^{400}$ | 76 | B |
| Zone 11 |  |  |  |  | OZ1ASP | 29,376 | 166 | 54 | ${ }^{8}$ |
| Martinique |  |  |  |  | OZ9AEC | - ${ }^{204,876}$ | 789 | ${ }_{112}^{27}$ | ${ }_{\text {B }}^{\text {B }}$ |
|  |  |  |  |  | oz8sw | 48,203 | 224 | 59 | c |
| Haiti |  |  |  |  | OzSUA | 15,698 | 100 | 47 | C |
| HH2PK | 581,970 | 1558 | 95 | B | OZ7ABP | 2,820 | 83 | 10 | ${ }_{\text {c }}$ |
| Dominican Republic |  |  |  |  | OZ5MAY | 172 | 15 | 4 | c |
|  |  |  |  |  | Sweden |  |  |  |  |
| Hi3UNE (HI3 | amF,op) |  |  |  | SM3CVM | 298,870 | 720 | 21 | A |
| ( | 17,654 | 168 | 26 | B | SM5DUT | 2,752 | 48 | 16 | A |
| Pan |  |  |  |  | SM3LIV | 86,325 | 343 | 75 | B |
| Panama |  |  |  |  | SM4AAY | 39,325 | 185 | 55 | B |
| HP1AC | 19,352 | 128 | 41 | C | SM5GXW | 32,248 | 163 | 58 | B |
| Virgin Islands |  |  |  |  | SM3LDP | 6,790 | ${ }_{76} 6$ | 28 | B |
| NP21 | 351,216 | 1150 | 72 | C | SM1OY | 1,248 | ${ }_{38} 8$ | 12 | ${ }_{8}^{8}$ |
| St Maarten, Saba, St Eustatius |  |  |  |  | SM5IMO | 256,215 | 661 | 93 | c |
| PJ7/K2KTT | 35,800 | 220 | 50 | B | SM6NJK | 247,338 | ${ }_{6}^{612}$ | 117 | c |
| Puerto Rico |  |  |  |  |  | 246,440 | 668 | 101 | C |
| KP4s |  |  |  |  | SM@DZH | 35,466 | ${ }^{332}$ | 69 | c |
|  | 794,770 | 2092 | 89 | D | SM5RE | 17,888 | 176 | 26 | c |
| Guatemala |  |  |  |  | SM4BW | 4,845 | 63 | 17 | C |
| TG9AJR | 115,039 | 497 | 67 | B | $\begin{aligned} & \text { SM7LAZ/6 } \quad 296 \quad 15 \\ & \text { SLøCB (SM3s SGP,SVX, SM7MXO, } \end{aligned}$ |  |  |  |  |
|  |  |  |  |  | SM@NZY, | ps) |  |  |  |
| TE1T (T14SU,op) |  |  |  |  |  | 1,134,716 | 1877 | 144 | D |
|  | 155,526 | 572 | 69 | c | Zone 19 |  |  |  |  |
| Antigua and Barbuda |  |  |  |  | European Russia |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | 38,850 | 261 | 42 | A | UA1NDV | 53,991 | 258 | 63 | A |
| Turks and Caicos islands |  |  |  |  | UA1NDY | 249,570 | 607 | ${ }_{1}^{118}$ | C |
| VP5JM | 547,119 | 1427 | 93 | в | UX1A (RVIAW,RW1AC,UA1s ALZ,ARL <br> $B X, U V 1 A A, U W 1 A E, U A 1-169-823, o p s)$ <br> 6,065,368 5018302 |  |  |  |  |
| Bermuda |  |  |  |  |  |  |  |  |  |
| WA1AWJNP9 | 14,076 | 101 | 36 | A |  |  |  |  |  |
| Cayman Islands |  |  |  |  | Zone 20 |  |  |  |  |
| ZF2JI (K41IF,op) |  |  |  |  |  |  |  |  |  |
|  | 245,971 | 1301 | 59 | B | Asiatic | ussia |  |  |  |
| Zone 12 |  |  |  |  | $\begin{aligned} & \text { R9X (UA9s XFY,XLZ,XMC,ops) } \\ & 501,710 \quad 1581 \quad 110 \end{aligned}$ |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| French Gulana |  |  |  |  |  |  |  |  |  |
| FY5FX (FE1MGZ,0p) ${ }_{\text {27,098 }}$ |  |  |  |  | Zone 21 |  |  |  |  |
| Peru |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Aslatic Russia |  |  |  |  |
| OA4ANR |  |  |  | B | Ragbr | 67,014 |  | 54 | B |
| OA4zV | 328,440 | 786 | 84 | c | R9J (Ra9s | JE,JX,ULTO |  |  |  |
| Venezuela ${ }^{1,962,584} 262716$ |  |  |  |  |  |  |  |  |  |
| YV5AMC | 33,777 | 257 | 27 | B | Zone 24 |  |  |  |  |
| YV10B | 18,936 | 159 | 24 | C | Zone 24 |  |  |  |  |
| Zone 13 |  |  |  |  | Aslatic Russia |  |  |  |  |
|  |  |  |  |  | UADQGY | 64,980 | 264 | 57 | A |
| $\begin{aligned} & \text { Brazill } \\ & \text { PP7CW } \end{aligned}$ | 30,108 | 130 | 52 | c | Zone 26 |  |  |  |  |
| Zone 14 |  |  |  |  | Aslatic Russia |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | UZ®KWA (UA®1AR/A,Op) 138 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | UA®kg |  | 398 | $6$ | ${ }_{\text {A }}$ |
|  | 640,937 |  |  | 8 |  |  |  |  |  |
| LU2N1 | 471,771 | 963 | 101 | ${ }^{\text {B }}$ | Zone 27 |  |  |  |  |
| LU1EWL | 104,320 | 282 | 80 |  | Monaco |  |  |  |  |
| Zone 15 |  |  |  |  |  |  |  |  |  |
| Brazil |  |  |  |  | 3A/HA6NL (+HA6s NA, PX,ZV) |  |  |  |  |
| PW2A (PY2NY,00) 105,111 |  |  |  |  | Ireland |  |  |  |  |
|  |  |  |  |  | EIPFK | 73,116 | 372 | 54 | C |
| ZZ4Z (PY4AQA,00) ${ }_{20,631}^{10}$ |  |  |  |  | France |  |  |  |  |
| PY2APQ | 14,443 | 97 | 32 | B | FDiNCU | 109,340 | 395 | 77 | A |
| PY2GTB | 9,312 | 79 | 24 | B | FIJDG | 60,456 | 270 | 66 | A |
| ${ }_{\text {PYM }}^{\text {PYUJJ }}$ | 6,237 | 57 18 | 27 10 | ${ }_{8}^{8}$ | F1NBX | 53,572 | 270 <br> 308 | 43 | B |






