# Results, 8th IARU HF World Championship 

# I guess it'll be several years before DX conditions get better, but I'll keep trying.-Bill Littlewood, W9HE 

By Billy Lunt, KR1R and Warren C. Stankiewicz, NF1J<br>Contest Manager<br>Assistant Contest Manager

This contest is the cure for the summertime blues! On the weekend of July 10-11, 1993, while thousands spent time sweating in the hot sun, fighting off mosquitoes or getting sunburned at the beach, hams took to their cool basements (or air-conditioned shacks) for a welcome break from the drudgery of mowing lawns and washing cars, to give the International Amateur Radio Union (IARU) HF World Championship a whirl.

Contests attract people for many rea-sons-some for the competition; some to work DX; others, like Dan, N9XX, get on to collect wallpaper. As he puts it, "Other than for the pure pleasure of getting in the fray, a primary motivator is the award endorsements for 250 QSOs and 50 multipliers. If I could have operated 24 hours, I would have done so. The availability of these awards is reason enough to hang in there a while longer and ferret out another multiplier or one or two more QSOs."

In the DXing department, the group at SU2MT attracted a lot of attention. Not only was it a Zone 38 multiplier, it was a new country for many DXers. Other choice DX spots were active during the contest, such as Market Reef and St Paul Island.

One thing is sure, this contest is fun and it attracts a lot of interest, especially in Europe and among hams in the Commonwealth of Independent States (the former Soviet Union). The key to your score in this contest is how many Europeans you can work. A scan through the Top 10 boxes shows that to make it to the top, you needed


Operating at W1AW is so exciting! Rich Gelber, K2WR, takes an unplanned break from 40 meters, while Brian Szewczyk, NJ 1 F , hands out multipliers on 15.
to be in Europe (like HAØMM) or in a place where you could work a lot of Europeans (such as 4X/S59PR or PYØFF). In fact, 29 of the top 40 stations worldwide were in Europe.

How did this year's contest go? Conditions were off a bit from last year, and many people remarked that they seemed more like the norm for this contest, at least judging from the past several years. Summer propagation makes for rough going on 80 and 160 meters, and at the present point in the sunspot cycle, there isn't much to work on 10 meters. Yet, even with conditions lacking, activity edged upward by $2.7 \%$. Can it be that contesting is on the rise?

## IARU Headquarters Stations

HG93HQ (HA1s VQ,WD,YA,YU,HG1W,HA5s AWH,BGG, FA,FM, GF,IW,LN,MK,ML,OM,TI, UA, WE, HG5CCC,HA6S DX,FQ,GK,GM,IAB,IOB,KNV,ND,NF,NG,NQ,NY,OB,OI,OO,OQ, OY,PN,PX,VH,VR,WI,WP,YR,ZV,HG6GD,HA7S JES, PO,RY,VB,HABS IE,RG,TK,HAØs DU,NAR,ops)

7,246,498 8598283
DAØHQ (DL1s AKW,DTL,EMY,IAO,SBR,DL2s DRT,EBX, KDM,SAX,SDN,DL3s AOK,ART,DXX,DZZ,OI,RMA,VHF, DL4NAC,DL5s ANT,AOM,ARX,ATD,AXX,LYM,SFI,
DL6s CKF,FBL,DF7RX,DJ7AA,DL7sUTA,VNF, WAA,ops) 6,409,408 9098272
YPØA (YO2s BBT,DFA,GZ,YO3s AC,APJ,CDN,FRI,FU, JF,XL,YO4s AB,ATW,HW,NF,SI,SF,YO6s AWR,CFB, JN, YO8s AXP,BAM,BIG,CMB,RSL,YO9HP,ops) $4,966,2007318267$ OL1HQ (OK1s ARN,AYP,CF,DFP,DRU,DWX,DXS, FCW,FIA,FMJ,FUA,HH,II,JDX,JJB,MPP,NK,TW,ops)

4,721,888 6518244
EM5HQ (RB4QR,RB5s QA,QDP,QMA,QRQ,QRW,QW, UBøQQ,ops) 4,609,375 5302295 LZ7A (LZ2s AI,AP,PP,UU,ZF,LZ3s AW,BG,DJ,FN,SM, UA,LZ4AX,ops) 2,557,720 4501 220 OT3H (ON1AKP,ON4s AMI,AXV,KAR,VT,XG,ON5DO, ON6s JG,LO,NL,ON7s BW,SF,ZM,ops) 1,753,092 2970
SK3HQ (SM3S BDZ,CER,DMP,RAB,SMOJHF,ops) 1,574.911 2935
GB4HQ/GB5HQ (G3s OZF,XMZ,G4s DWW,WNX,ops) 1,533.506 $2806 \quad 169$
W1AW (KC1XM,NJ1F,W 1WEF,WZ1R,K2WR,KR2J, N2BCC,WB2DIN,K3IPK,N3ADL,ops) 796,543

2577
P20A (P29s DX,JA,NAG,ops) 763,767 1399113 OE1XHQ (OE1s MCU,TKW,YU4JJ,ops) 664,249 $1405 \quad 151$

$\begin{array}{lrrr}\text { Z30RSM (Z37CEF,op) } & 615,600 & 2485 & 108 \\ \text { LU4AA (LU1CN,LU5DZ,LU6BDG,ops) } & & \end{array}$ LU4AA (LU1CN,LU5DZ,LU6BDG,ops 425,829 849129 | JA3RL (JA3MAU,JE3EIG,JG3RPL,JI3ERV,JJ3WPF,JN3s |  |  |  |
| :--- | ---: | ---: | ---: |
| QLL,VOG,JP3LKR,JQ3OZY,JR4ISF,ops) |  |  |  |
|  | 361,928 | 1626 | 92 |
|  | 272,034 | 827 | 102 | SP3PZK (SP3s AMZ,FEI,FHK,MEP,VKK,VKO, ops)

$146,804 \quad 611$
VE5QST (VE5s JZ,PE,PF,SV,SZU,UO,VA,XP,ops) 81,770 696

Many entrants thought that, outside of 20 and 15 meters, conditions were dead, but that wasn't so. Each of the top finishers reported making 100 to 200 contacts on 10 meters, and each made 250 to 300 QSOs on 40 meters. This shows that a band may not be as dead as you think-everyone else might be listening, too. There are people who let conditions challenge them and others who challenge the conditions. Which are you? Bill, 5Z4FO, reported, "Who said that 10 meters was dead? I worked VP2EY at 1824 Z , a distance of $10,700 \mathrm{~km}$ !"

## Top Finishers

In the Mixed-Mode competition, Gyozo, HAØMM, fought off a strong challenge from Robert, 4X/S59PR, who had more QSOs, but came up short on multipliers. HAØMM did a great job on 20 and 15 meters; more than $50 \%$ of his QSOs were on 20 meters and $25 \%$ were on 15 . He made 200 QSOs in his first hour on 20, working mostly stations to the east. He was even working stations at a good clip in the wee hours of the morning, 0300 to 0500Z; and he made 162 contacts on 20 in the last hour of the contest.

For Radivoje, YU1RL, operating PYøFF on CW, and Atilano, PY5EG, operating as ZW5B, the story was much the same, although Radivoje made more QSOs on 15 meters than on 20 . As they started the contest, 15 meters was wide open to Europe and they made good use of it.


Gyozo Macsuga, HAØMM, looks stunned after his First-Place, Mixed-Mode, World effort.

| Top World Scores |  |  |
| :---: | :---: | :---: |
| Mixed Mode | CW Only |  |
| Call Score | Call | Score |
| $\begin{array}{ll} \text { HAØMM } & 1,999,404 \\ \text { 4X/S59PR } & 1,862,764 \end{array}$ | PYøFF (YU1RL,0p) |  |
| RB5FF 1,313,435 | P4øWW (KD6WW,op) |  |
| US51 (RB5IM, op) |  | 1,410,886 |
| 1,155,684 | RZ9UA | 1,176,751 |
| UT4UZ 1,022,286 | GB8ZZ (K1ZZ,op) |  |
| LY21J 961,665 |  | 1,046,760 |
| UA3RAR 839,581 | 707XX | 964,541 |
| LY1DS 808,494 | US81 (RB1IZ,op) |  |
| ZV7A (YT1AD,op) |  | 955,890 |
| 771,284 | UT5UGR 949,975SP6YAQ (SP3ASN,oD) |  |
| GIØKOW 742,560 |  |  |
| Phone Only | ZL3GQ | 708,698 |
| Call Score | OH2PM | 675,240 |
| ZW5B (PY5EG,0p) | Multioperator |  |
| CT4NH $\begin{aligned} & 1,649,071 \\ & 1,348,032\end{aligned}$ | Call | Score |
| S52AA $\quad 1,309,126$ | HG73DX | 3,195,000 |
| S53EA 1,008,120 | C49C | 2,077,507 |
| ON6TT 947,760 | LZ5W | 1,737,120 |
| TU5DX 886,816 | UY7E | 1,683,045 |
| 5Z4BI 820,704 | R6L | 1,667,160 |
| YT7A (YZ7UN,op) | UZ6AXS | 1,581,085 |
| 755,090 | 9A1A | 1,470,084 |
| GMøECO 734,544 | UR8J | 1,416,780 |
| OH1EH 692,664 | US71 | 1,138,080 |
|  | IR2W | 1,060,785 |

North American stations didn't start showing up in their logs until about $1600-1700 \mathrm{Z}$ and disappeared about 90 minutes later. PYØFF's somewhat rare location attracted hordes of European stations and being from South America allowed the operator there to make a larger number of five-point QSOs.

## Headquarters Stations

In the IARU Member-Society Headquarters Stations competition, the group from MRASZ in Hungary, HG93HQ, rolled up another bonecrushing score, finishing with 7.2 million points. The Germans of the Deutscher ARC, operating DAØHQ, put in a good effort, again finishing ahead on QSOs, but behind by 11 multipliers and the important three- and five-point contacts. All together, 18 IARU member-societies handed out multipliers this year.

Let your friends suffer in the heat while you have a good time-the next IARU HF World Championship is July 9-10. Be on the air; you'll have a good time! Thanks to Contest Assistant Anne Jaworski for her help in preparing these results.

## SOAPBOX

Conditions were poor and I didn't get a lot of sleep. I'll see you next year from somewhere else! (HB $\emptyset / D L 7 V O A)$. Three days before the contest, storms wiped out my electricity! I was forced to use a generator during most of my operating time. When the electricity eventually came back on, the HF bands were too noisy to continue, forcing me to stop (NØUAX). I enjoyed the contest and look forward to my certificate (JK1AJX). This is a great contest! (VK2ARJ). Ten meters was dead the entire weekend (VK2AYD). I encountered many familiar call signs and many new ones. I had a lot of fun and I'm already looking forward to next year (ZL2AGY). The conditions were ordinary, but we had a lot of fun (OK5A). After last year's good propagation, we went back to the "normal" lousy conditions of previous years (P2ØA). Conditions were worse than last year, but this was no big surprise (VK2APK). It was a good contest, but this


Javier Campos Jr, AH6MM, was part of the team that put OJØ/OH1VR on Market Reef on the air for the contest.


Robert Kasca, 4X/S59PR, put up a strong fight for first place in the Mixed-Mode category, finishing just short of the top spot.


The crew at OK5A found it easier to participate with someone else helping to take care of cooking and other details. Shown here are (I-r) Vitek Kuncar, OK2PSZ; Jana; Sarka; and Zdeno Sterbacek, OK2PZW.
year it was awfully tough to pull the Europeans through from here (VE6BIR). I wanted more from the IARU contest, but the passing electrical storms prevented that (NØFBA). Propagation was good to Africa! (OH2BLF). It was a pleasure to work this contest, even though propagation wasn't always friendly (YO5BQ). The conditions on high bands were poor, but I enjoyed the contest (JA1BNW). Conditions on the equator were very poor during the contest, and as a result, I fell far short of my scores over the past two years ( 5 Z 4 BI ). This wasn't my day to contest. Band conditions were poor at the start, I got stung by a wasp, and after the band opened up, my power amplifier gave up the ghost

| Top W/VE Scores |  |  |  |
| :---: | :---: | :---: | :---: |
| Call | Score | Call | Score |
| $\begin{aligned} & \text { N5NMXX } \\ & \text { N4ZC } \end{aligned}$ | $\begin{aligned} & 342,503 \\ & 246,468 \end{aligned}$ | K5GN <br> N2BA (K8 | $\begin{array}{r} 622,636 \\ \text { VT, op) } \end{array}$ |
| N6IP | 233,714 |  | 617,856 |
| N6NF | 228,420 | KT3Y | 520,028 |
| WA5OYU | 208,350 | N6TR | 512,556 |
| W1GD | 180,395 | K5MR | 437,895 |
| KZ1M | 175,316 | W6YA | 431,760 |
| K8UNP | 154,133 | AAGTT | 397,116 |
| KC6CEX | 131,436 | WZ3Q | 377,330 |
| AG8L | 127,882 | K4LTA | 284,695 |
|  |  | N8LXS | 280,462 |
| Phone Only |  |  |  |
| Call | Score | Multioperator |  |
| KW8N | 489,041 | Call | Score |
| K5XI | 387,436 | wxøx | 840,420 |
| WB2K | 352,108 | W5WMU | 766,035 |
| N6WLX/8 | 184,675 | K5NA | 666,624 |
| WB2NQT | 164,528 | K9SD | 448,008 |
| AA4NU | 141,911 | KN2T | 403,920 |
| KE2JO | 133,668 | KS3F | 397,167 |
| KB2R | 116,578 | W4AQL | 395,460 |
| WM2V | 115,344 | K6XT | 392,730 |
| NB1B | 115,068 | KRøB | 380,928 |
|  |  | W6AQ | 337,120 |

with a bang! I'm hoping for better luck next year (VE3CWE). The contest was great! See you next year (KJ5CZ). I worked the contest with my 20meter dipole in the attic and 100 watts, which partially accounts for my poor signal and poor showing. Many thanks to all who persevered to pull me through and give me another contact (AA3CN). This is my first contest. I was overwhelmed by "mike fright" at the start (HA5CAC). It was a nice contest and we're already looking forward to next year (9A1CED). We were happy to take part in the IARU contest (UZ9CYA). We were surprised to have better rates on CW than on phone! Conditions were poor on the lower bands (C49C), Conditions were poor this year. Let's hope they'll be better next year (DL2DRZ). After three hours into the contest, I discovered that my 20 -meter antenna wasn't working well. My brother tried to fix the quad, but without luck (S51DX). The conditions were poor, but I enjoyed the contest (UA3DPX). The contest was fun, but the bands were terrible. It was great to work SU2MT on 40 meters (K9SD). I enjoyed the contest despite the poor conditions and I'm looking forward to next year (VE3EL). This is always a good contest, but DX conditions this time were only a shadow of those of last year. Only a few DX stations received here had an S7 signal and most were S5-6. I was lucky to be received with an S5, judging from the trouble some had in getting my call sign correct. I guess it'll be several years before DX conditions get better, but I'll keep trying (W9HE). During the night, propagation was down, but we decided to go on, as this is a nice contest (CT3EE). Conditions were so poor that I didn't work a single JA on 15 meters. I still can't believe $\mathrm{it}!(\mathrm{OH} 1 \mathrm{EH})$. Even Marconi would have flipped the switch on this one! (N6PEQ). This contest is one of my favorites and the closest thing to a perfect contest. The multipliers are numerous enough to be fun, and the point system lets you work Stateside when conditions are poor and still put together a decent score (KB4GID). I enjoyed operating for a few hours while on vacation (EI/G4BUO). The conditions were more challenging this year (AA2GS). I thought it was a great contest! (LZ3HI). Thanks to all for an enjoyable contest (LZ2HM). Because of too much work at the office, I got a late start in the contest. I need to get a new job that doesn't interfere with contesting so much! I worked some VKs on 15 meters at 0525 Z long after the band had closed for everyone else (K5XI). Despite poor HF conditions, it was again a great contest (F6IIE). It was fun and I was pleased to take part in this worldwide contest operating QRP! (UL7IDX). To my regret, I was unable to break the pileup and work SU2MT (JF3IUC). This is my first contest after many years off the air. I enjoyed it and I like the 24 -hour format (KW8J). This contest is one of the nicest. It was fun for all the operators (UR8J). I heard a lot of weak stations calling from Europe on 20, but I couldn't copy most of them (KE2JO). Band conditions were terrible and my old amplifier
bit the bucket (KA1J). Conditions were poor during the contest period (G@NKL). I lost a lot of time because of electrical storms (N6QLQ/YB5). I used the occasion to have a homecoming event for past Louisiana contesters and I hope to make this an annual event (W5WMU). This was my first time participating in this contest and I had a great time (WQ2M). It was a good contest. I was pleased to receive an award for last year's operation (PAØMIR). This was our first effort! We look forward to next year (SU2MT). The conditions on 21 and 28 MHz were poor ( $5 \mathrm{~N} \emptyset \mathrm{MVE}$ ). The conditions on 20 meters weren't very good in the morning, but improved as the day went on. I ended up staying on 20 meters because 15 and 10 meters seemed dead. I found a lot of activity and plenty of new stations to work and as usual, it was a fun contest (AAØNB). The contest was nice, but the conditions were not! (OH3OJ). Conditions weren't too bad and as usual, it's always fun to participate (DL8PC). Conditions weren't too good this year (YL2SW). We entered this contest for the first time as multiops and, needless to say, we had lots of fun! (KN2T). Propagation was significantly worse compared to last year. I found almost no JA or Stateside stations on 15 meters, but I had a good Stateside pileup on 20 meters (ON6TT). I enjoyed the con-


Pat Sonnier, W5WMU, held a reunion of Lousiana contesters over the weekend with (I-r) Jim Moore, WU3V; Randy Davis, WØMJ; Pat; and Dan Edwards, W5XZ.
test! The basement ham shack I have was a comfortable place to be during our July heat wave (KA1UEH). This is my first DXpedition. I operated on the beach! (K4VUD/KP2). Even though the conditions to the US and Japan were poor, I did enjoy the contest (UT4UZ). I can only hope for better conditions next year than we had this year (N7JXS). I didn't hear a single W or JA on 10 or 15 meters, so conditions were rather poor (LA4YW). Murphy struck! The amplifier failed on the second QSO, the beam got tangled with the inverted $\mathbf{V}$ and wouldn't rotate, I forgot to set the computer time to UTC and I had a power failure. Conditions varied from bad to worse. I never heard a single W/VE on 15 meters (KL7Y). I enjoyed the contest, despite terrible propagation conditions here in Denmark. The skip length seemed to get shorter and shorter all the time, so much so that at the end, I think I was talking to myself! (OZ2ZZZ). It was a nice contest, but conditions were poor. I only hope they'll improve next year because I'll be there! (ON4ZD). I enjoyed operating from a different place than usual, it was fun. My only regret was not having had the opportunity to go head-to-head with Al, G3FXB (K1ZZ). It was good fun. A thunderstorm took out the power for about two hours and I had to sleep a little, but all else went fine (AA5ZQ).

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: $\mathbf{A}=$ single operator, mixed mode; $\mathrm{B}=$ single operator, phone only; $\mathrm{C}=$ single operator, CW only; $\mathrm{D}=$ multioperator, single transmitter.

| Zone 1 |  |  |  |  | W6YA | 431,760 | 986 |  | C |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | W6MVW | 26,724 | 176 | 51 |  |  |
| Alaska |  |  |  |  | N6AZE | 8,091 | 93 |  |  |  |
| Kl7fap | 1.785 | 29 | 15 | A | AB6NE | 4,131 |  | 17 | C |  |
| KL7Y | 373,248 | 978 | 96 | C | K6XT (+N6AYW) |  |  |  |  |  |
|  |  |  |  |  |  | 392,730 | 95710 |  | D |  |
| Zone 2 |  |  |  |  | N6KI (+AB6PU,KC6s QHU,VEC,WPF, KF6BL,KZ6X,N6s AZE,VZH) |  |  |  |  |  |
| Alberta |  |  |  |  |  | 125.862 |  | 66 | D |  |
| VE6BIR | 15,365 | 126 | 35 | A | San Francisco |  |  |  |  |  |
| VE6BF | 94,316 | 373 | 73 | C | AA6DX | 15,678 | 134 | 39 | C |  |
| British Columbia |  |  |  |  | San Joaquin Valley |  |  |  |  |  |
| VE7XO | 11,502 | 114 | 27 | B |  |  |  |  |  |  |
| VE7UF | 106,128 | 399 | 66 | C | KW6CEX | 131,436 14,644 | 580 143 | $\begin{aligned} & 54 \\ & 28 \end{aligned}$ | A |  |
| Zone 3 |  |  |  |  | Sacramento Valley |  |  |  |  |  |
| Manitoba |  |  |  |  | N6WR | $7,455$ | $\begin{aligned} & 107 \\ & 16 \end{aligned}$ | $21$ | ${ }^{\text {B }}$ |  |
| VE4RP | 12,768 | 146 | 24 | B | W7 |  |  |  |  |  |
| VE4VV | 116,638 | 647. | 58 | C |  |  |  |  |  |  |
| Saskatchewan |  |  |  |  | Arizona |  |  |  |  |  |
| VE5SF | 37,940 | 348 | 35 | A | WA7LNW N7JXS | $\begin{array}{r} 103,500 \\ 43,195 \end{array}$ | $\begin{aligned} & 398 \\ & 270 \end{aligned}$ | 69 53 | A |  |
|  |  |  |  |  | NN7A | 8,613 |  | 27 |  |  |
| Zone 4 |  |  |  |  | Idaho |  |  |  |  |  |
| Ontario |  |  |  |  | KA7T 69.130 |  | 329 | 62 | C | C |
| VE3CWE | 8,586 | 96 | 27 | A |  |  |  |  |  |  |
| VE3TEE | 8,088 | 99 | 24 | A | Montana |  |  |  |  |  |
| VE3EL | 15,965 | 125 | 31 | B | KS7T | 25,010 | 204 | 41 | C | C |
| VE3KP | 181,602 | 608 | 81 | C |  |  |  |  |  |  |
| VE3ZTH | 4.914 | 60 | 21 | C | Oregon |  |  |  |  |  |
| Zone 6 |  |  |  |  | N7XMZ | 28,774 10,540 | 174 | 20 |  | C |
| W6 |  |  |  |  | Utah |  |  |  |  |  |
| East Bay |  |  |  |  | K6XO | 109,634 | 447 | 82 |  | A |
| KK6XA | 608 | 22 | 8 | B | W7HS | 33,672 | 196 | 61 |  | A |
| Los Angeles |  |  |  |  | Western Washington |  |  |  |  |  |
| KU6T | 29,751 | 181 | 47 | A | WA7FOE | 114,057 | 531 | 69 |  | B |
| N61BP | 15,456 | 84 | 48 | A | N7LOX | 77,184 | 360 | 72 |  | C |
| KM6YX | 58,212 | 360 | 54 | B | K7LED | 64,170 | 357 | 62 |  | C |
| K6OY | 49,192 | 141 | 88 | C | N7RVD | 7.560 | 148 | 21 |  | C |
|  |  |  |  |  |  |  |  |  |  |  |
| KJ6HO (+K6SVL.KA6NAL)$98,946 \quad 45469$ |  |  |  |  | Zone 7 |  |  |  |  |  |
|  |  |  |  |  | W5 |  |  |  |  |  |
| Orange |  |  |  |  | Arkansas |  |  |  |  |  |
| AA6OG ( $\mathrm{NF6H.OP)}$ |  |  |  |  | KM5G | 99.769 | 511 | 59 |  | C |
|  | 64.046 | 317 | 62 | C | Louisiana $\quad 13716115$ |  |  |  |  |  |
| W6HALN6PEQ (+N6DEC.NX6M)52,49 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 176.025 | 803 | 75 | D |  |  |  |  |  |  |  |  |  |  |  |
| Santa Barbara |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WA6FGV | 77.567 | 547 | 49 | A | Mississippi |  |  |  |  |  |
| W6TKF | 41,779 | 369 | 41 | A |  |  |  |  |  |  |  |  |  |  |  |  |
| W6BKY | 15.922 | 150 | 38 | C | WA5OYU N5KKG | $\begin{array}{r} 208,350 \\ 25,650 \end{array}$ | $\begin{aligned} & 759 \\ & 141 \end{aligned}$ | 50 |  | A |
| Santa Clara Valley |  |  |  |  | KB5OHT | 25.650 8.232 | 114 | 24 |  | C |
| N6IP | 233.714 | 724 | 89 | A | New Mexico |  |  |  |  |  |
| N6NF | 228,420 | 808 | 90 | A |  |  |  |  |  |  |  |  |  |  |  |  |
| N6NM | 67.592 | 294 | 71 | A | AA5ZQ | 214,625 | 756 | 85 |  | C |
| N2ALE | 336 | 18 |  | B | KA5BAT | 5UR) |  |  |  |  |
| K6MJ | 54.207 | 235 | 57 | C |  | 7.619 | 109 | 19 |  | D |
| San Diego |  |  |  |  | North Texas |  |  |  |  |  |
| KD6QK | 15.059 | 119 |  | B | K5OJI (W | $\begin{aligned} & \text { ISA.op) } \\ & 83.952 \end{aligned}$ | 504 | 53 |  | B |


| K5MR | 437,895 1 | 1085111 |  | C |
| :---: | :---: | :---: | :---: | :---: |
| W5FO | 138,996 | 561 | 81 | C |
| WA5MUF | 13,104 | 190 | 26 | C |
| AA5OR (+NA5Q) |  |  |  |  |
|  | 208,481 | 871 | 79 | D |
| NF9D (+N5THJ,KD9FT) |  |  |  |  |
|  | 110,689 | 495 | 69 | D |
| Oklahoma |  |  |  |  |
| KAøRNY | 11,455 | 133 | 29 | A |
| N5RXF | 58,310 | 374 | 49 | B |
| South Texas |  |  |  |  |
| N5NMX | 342,503 1 | 10131 |  | A |
| N5RP | 33,478 | 103 | 38 | A |
| K5XI | 387,436 | 8041 | 137 | B |
| NT5D | 16,124 | 178 | 29 | B |
| K5GN | 622,636 1 | 12211 | 148 | C |
| N 0 DH | 115,350 | 508 | 75 | C |
| W5ASP | 63,050 | 377 | 50 | C |
| NZ5I | 34,608 | 257 | 48 | C |
| K5EC | 8,018 | 120 | 19 | C |
| W5NR | 1,892 | 41 | 14 | C |
| WQ5Y (+NZ5V) | 87,318 | 326 | 77 | D |
| WØ |  |  |  |  |
| Colorado |  |  |  |  |
| KDONB | 9,282 | 54 | 38 | 8 |
| AA6TT | 397,116 | 10451 |  | C |
| WYOJ | 89,100 | 468 | 66 | C |
| K1ER | 19,698 | 169 | 42 | C |
| lowa |  |  |  |  |
| KDOAV | 31,900 | 257 | 44 | A |
| WOPPF | 8,970 | 112 | 23 | B |
| NCØP (+WAØs ETC,FLS,WDØG WOOV,WR®G) |  |  |  |  |
|  | 300,933 | 049 | 87 | D |
| Kansas |  |  |  |  |
| Wboyjt | 19,305 | 181 | 33 | A |
| NWOF | 61,596 | 350 | 58 | C |
| AAOJS | 42,480 | 332 | 45 | C |
| NOFMR | 17,208 | 170 | 36 | C |
| NOVAJ | 16,544 | 197 | 32 | C |
| Minnesota |  |  |  |  |
| KROB (+AF9T,KAOJZV,KJØB,KSOT, <br> NOBKL) $\quad 380,928122696$ |  |  |  |  |
| Missouri |  |  |  |  |
| AAONB | 3,024 | 65 | 16 | A |
| WCOY | 128,898 | 546 | 77 | C |
| KMOL | 69,160 | 318 | 65 | C |
| W9PL/0 | 63,178 | 357 | 62 | C |
| WXOX (K4VX,W | $\begin{gathered} \text { WX3N.WX9 } \\ 840,420 \end{gathered}$ | $\begin{gathered} 9 E, o p s \\ 14921 \end{gathered}$ |  | D |
| North Dakota |  |  |  |  |
| WB00 | 79,178 | 450 | 59 | C |
| NOFBA | 1,890 | 73 | 10 | C |
| Nebraska |  |  |  |  |
| AKOG | 17,118 | 220 | 27 | A |
| NOUAX | 355 | 25 | 5 | B |
| AJOI | 1,184 | 24 | 16 | C |
| Zone 8 |  |  |  |  |
| W1 |  |  |  |  |
| Connecticut |  |  |  |  |
| WE6G/1 | 31.059 | 187 | 51 | A |
| K2SX/1 | 141,708 | 495 | 84 | C |


| K1Kı | 116,444 | 376 | 86 | C |
| :---: | :---: | :---: | :---: | :---: |
| KA1WIF | 35,292 | 237 | 51 | C |
| N4XR | 8,172 | 65 | 36 | C |
| WA1MBK | 4,180 | 71 | 20 | C |
| NR1L (+KA1QAS,KC1ZN) |  |  |  |  |
|  | 188,250 | 700 | 75 | D |
| Eastern Massachusetts |  |  |  |  |
| K8JLF | 16,687 | 139 | 41 | A |
| 32F | 116,578 | 530 | 77 | B |
| NB1B | 115,068 | 376 | 86 | B |
| W1FM | 2,925 | 67 | 15 | B |
| N6EK/1 | 40,596 | 278 | 51 | C |
| Maine |  |  |  |  |
| NY1S | 38,650 | 773 | 50 | c |
| KA1UEH | 1,078 | 34 | 11 | c |
| WA1WPR | 720 | 28 | 9 | C |
| New Hampshire |  |  |  |  |
| WJ1X | 47,750 | 271 | 50 | A |
| KQ1U | 20,522 | 178 | 31 | B |
| KB1AJY | 40,480 | 292 | 44 | C |
| KD1AW | 20,498 | 206 | 37 | C |
| KB1T | 17,934 | 112 | 59 | C |
| Rhode Island |  |  |  |  |
| K1PLX | 27,693 | 413 | 72 | B |
| Vermont |  |  |  |  |
| WE1U | 39,216 | 250 | 43 | A |
| WW1R | 4,403 | 63 | 17 | B |
| NW1S | 117,710 | 498 | 79 | C |
| Western Massachusetts |  |  |  |  |
| KZ1M | 175,316 | 584 | 82 | A |
| AA1EY | 27,824 | 178 | 47 | B |
| WE1B (+KA1EU | UX,WF1L) |  |  |  |
|  | 116,374 | 686 | 62 | D |
| KB1W (+NET) | 57,971 | 465 | 29 | D |
| W2 |  |  |  |  |
| Eastern New York |  |  |  |  |
| AA2GS | 74,998 | 306 | 77 | A |
| K2ONP | 61,053 | 369 | 47 | A |
| KF2JA | 31,213 | 228 | 49 | A |
| N2BA (K8HVT, op) |  |  |  |  |
|  | 617,856 |  |  | C |
| K5NA (+KU2Q,KY2J,JA9SSY) |  |  |  |  |
| WI2N (+AA2BJ. WI2E) |  |  |  | D |
| NYC Long Island |  |  |  |  |
| WM2V | 115,344 | 406 | 81 | B |
| WA2SYN | 40,590 | 270 | 45 |  |
| K2KTT | 8,274 | 104 | 21 | 1 |
| N2QAN | 6,216 | 89 | 24 | B |
| KA2HMJ | 116,802 | 583 | 54 | C |
| Northern New Jersey |  |  |  |  |
| W1GD | 180,395 | 441 | 109 | A |
| N2INN | 6,345 | 61 | 27 | A |
| WB2K | 352,108 | 844 | 113 | A |
| WA2VYA | 168,102 | 542 | 99 | 9 |
| AA2EM | 27,267 | 129 | 61 | 1 |
| N2KJM | 14,040 | 141 | 40 |  |
| WA2WYR | 13,545 | 91 | 43 | 3 |
| W2GD (+NET) | 98,945 | 431 | 77 | 7 D |
| N2FHC (+NJ2Y,NX2Q) |  |  |  | 7 |
|  |  |  | 47 |  |
| Southern New Jersey |  |  |  |  |
| WA3RHW | 8,500 | 80 | 25 | 5 |


| E | 131,740 | 508 | 70 | C |
| :---: | :---: | :---: | :---: | :---: |
| N2PLE | 82,170 | 262 | 83 |  |
| KN2T (+KD2I,KN2L,N2RHM) 48 |  |  |  |  |
|  |  |  |  |  |
|  | 403,920 | 560 | 110 |  |
| Western New York |  |  |  |  |
| KB2DE | 29,172 | 161 | 52 | B |
| KW2J | 87,725 | 437 | 55 | C |
| W2OMV | 19,775 | 169 | 35 | C |
| WøVU/2 | 3,916 | 44 | 22 | C |
| W3 |  |  |  |  |
| Delaware |  |  |  |  |
| NY3C | 44,900 | 304 | 50 | A |
| WN3K | 132,164 | 541 | 76 | C |
| Eastern Pennsylvania |  |  |  |  |
| W3BGN | 110,260 | 456 | 74 | A |
| WT3P | 19,647 | 163 | 37 | A |
| KA3QLF | 90,714 | 331 | 78 | B |
| KB3TS | 48,216 | 205 | 56 | B |
| AA3CN | 3,834 | 73 | 18 | B |
| KL7HIR/3 | 61,380 | 300 | 66 |  |
| N3CZB | 225 | 29 | 3 | C |
| KS3F (+NET) | 397,167 | 103 | 123 | D |
| Maryland DC |  |  |  |  |
| WZ3Q | 377,330 | 1044 | 97 | C |
| W3CPB | 28,861 | 199 | 49 | C |
| K3TLX | 9,225 | 79 | 41 | C |
| W3TUX | 2,710 | 85 | 10 | C |
| Western Pennsylvania |  |  |  |  |
| WW3s | 23,664 | 145 | 48 | B |
| W3YEY | 15,279 | 127 | 33 | B |
| N3GSC | 8,190 | 63 | 30 | B |
| N3NCS | 2,329 | 39 | 17 | B |
| WBøIWG/3 | 16 | 2 | 2 | B |
| K3UA | 10 |  | 2 | C |
| W4 |  |  |  |  |
| Alabama |  |  |  |  |
| W4NTI | 6,486 | 48 | 23 | A |
| KK4SM | 78,408 | 302 | 81 | C |
| Georgia |  |  |  |  |
| K14XO | 64,972 | 281 | 74 | A |
| K4PIC | 33,894 | 303 | 42 | A |
| AC4PQ | 2,329 | 43 | 17 | A |
| KD3GC | 20,034 | 116 | 53 | B |
| WG4P | 2,041 | 55 | 13 | B |
| KN4QV | 94,389 | 517 | 73 | C |
| KB4GID | 70,915 | 409 | 65 | C |
| K4BAI | 41,232 | 323 | 48 | C |
| W4ZYQ | 29,187 | 125 | 69 | C |
| W4BTZ | 774 | 36 | 9 | 9 C |
| W4AQL (WA | $\begin{gathered} \text { ABY,N7FY } \\ 395,460 \end{gathered}$ | $\begin{aligned} & \text { T,KøDI } \\ & 1210 \end{aligned}$ |  | $7^{\text {D }}$ |
| Kentucky |  |  |  |  |
| WA4QMQ | 31,374 | 207 | 42 | A |
| AB4IQ | 12,847 | 105 | 29 | B |
| N4XM | 91,874 | 422 | 71 | C |
| North Carolina |  |  |  |  |
| N4ZC | 246,468 | 503 | 141 | 1 A |
| KQ4XP | 35,840 | 172 | 40 | 0 A |
| KC4ZZC | 17,748 | 139 | 36 | 6 |
| KB4MIL | 9,693 | 99 | 27 | 7 B |
| WN4BBJ | 5,523 | 75 | 21 | 1 |


| Northern Florida |  |  |  | Aruba |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W4WTO | 21,996 | 19039 | A | P40WW (KD6WW,op) ${ }_{1,410,886} 2161134$ |  |  |  |
| South Carolina |  |  |  |  |  |  |  |
| KC4UH | 58,900 | 32262 |  | Anguilla |  |  |  |
| W4JKC | 11,592 | 14028 | C | VP2E/AA3B | 369,375 | 126175 | c |
| Southern Florida |  |  |  | Turks and Caicos Islands |  |  |  |
| K8UNP | 154,133 | 53397 | A | VP5JM | 411,912 | 1076108 | B |
| WD4AHZ WB4TDH | 93,666 68,736 | 50467 18496 | c | Cayman I | ds |  |  |
| Tennessee |  |  |  | ZF2JI (K4IIF,op) |  |  |  |
|  |  |  |  |  |  | 76 | B |
| $\begin{aligned} & \text { AA4NU } \\ & \text { KE2JO } \end{aligned}$ | $\begin{aligned} & 141,911 \\ & 133,668 \end{aligned}$ | 50197 <br> 454 <br> 1 | ${ }_{\text {B }}^{\text {B }}$ | Zone 12 |  |  |  |
| KA4IWG | 68,746 | 25374 | B |  |  |  |  |
| WB4PHW | 7,502 | 10122 | B | Colombia |  |  |  |
| ${ }_{\text {K4LTA }}$ | 284,695 63,126 | 913 435 42 | C | нкзJJH | 379,428 | 923 | в |
|  | - 30,527 | 18349 | c | Peru |  |  |  |
| WA6KUI/4 (+KC4QFR) 36,846 |  | 13233 | C | oatank | 296,464 |  |  |
|  |  | 26346 | D | OA4ZV | $\begin{aligned} & 296,464 \\ & 1.21,952 \end{aligned}$ | $\begin{aligned} & 575112 \\ & 350 \quad 74 \end{aligned}$ | C |
| Virginia |  |  |  | Venezuela |  |  |  |
| WB4UBD | 8,091 |  |  |  |  |  |  |
| WB2Nat | 164,528 | 442104 | B | YV1DRK | 86,121 | 29563 | B |
| N4MM | 105,161 | 34083 | B | YV4EYA | 29,792 | $6{ }^{162} 38$ | ${ }_{8}^{8}$ |
| N3RC KT3Y | 520,216 | 6217 1185116 | B | YV10B | 10,744 |  | c |
| WA4PGM | 520,028 57,024 | ${ }^{185186}$ | c |  |  |  |  |
| K4FPF | 48,840 | 25455 | c | Zone 13 |  |  |  |
| W20Fb ${ }^{\text {/4 }}$ | 32,340 | 24544 | c | Brazil |  |  |  |
| $\begin{aligned} & \text { W4XD } \\ & \text { K1SE } \end{aligned}$ | $\begin{array}{r} 30,358 \\ 5,947 \end{array}$ | $\begin{array}{r}232 \\ 97 \\ \hline 9\end{array}$ | ${ }_{\text {c }}$ | ZV7A (YT1AD |  |  |  |
|  |  |  |  |  | 771,284 | 1315 | A |
|  |  |  |  | Fernando de NoronhaPYøFF1,580,4362082 156 |  |  |  |
| Mississippi |  |  |  |  |  |  |  |
| W8 |  |  |  | Zone 14 |  |  |  |
| Michigan |  |  |  | Chile |  |  |  |
| AGBL | 127,882 | 51186 | A | CE5BPE | 5,115 | 45 | B |
| K80LK | 42,903 | 24163 | A |  |  |  |  |
| AABAV | 93,832 | 44074 | C | Argentina |  |  |  |
| K8CV | 6,144 | 7432 | C | Lu6ETB | 606,320 | 906 |  |
| Ohio |  |  |  | LU2NI | 280,398 | 583102 | B |
| N8JQX | 69,020 | 15068 | A | LU2DKN | 25,550 | 115 |  |
| KB8NTY | 14,924 | 16828 |  | LU4FD | 220,155 | 69165 | c |
| KW8N N6WLX/8 | 489,041 | 1043133 | B | LU1EWL |  |  | c |
| N6WLX/8 N8LXS | $\begin{aligned} & 184,675 \\ & 280,462 \end{aligned}$ | ${ }_{894}^{634} 81$ | ${ }_{\text {B }}^{\text {B }}$ |  |  |  |  |
| NGBD | 118,950 | 50665 | c | Zone 15 |  |  |  |
| V8, | 51,597 | 28763 | c | Brazil |  |  |  |
| W81Q ( + WD91NF) ${ }^{\text {a }}$ (30,017 801103 D |  |  |  | ZW5B (PY5EG,op) |  |  |  |
|  |  |  |  |  |  |  |  |
| WABOSE (+N8J | EC) |  | D | PY2APQ | 27,878 | 11653 | B |
|  |  | 33760 | D | PR®R (PP5s ATA,JD,JR,WG,ZYZ, |  |  |  |
| West Virginia |  |  |  |  |  |  |  |
| K800L | 72,562 | 30473 | A | Zone 18 |  |  |  |
| N8II | 30.816 | 19048 | c |  |  |  |  |
| kV8S | 12,460 | 11035 |  |  |  |  |  |
| w9 |  |  |  | Norway |  |  |  |
| Illinois |  |  |  | LA8KHA | 73,521 | 36763 | B |
| K9MMS | 117,925 | 47589 |  | LA2EAA | 28,996 | 149 | B |
| NE®P/9 | 4.416 | 75 | A | Laswea | 6,916 | 8828 | B |
| KD9CN | 46,748 | 26262 | B | LA2AD | 5,439 | 8521 | B |
| Norou | 3,870 | 4918 | B | LAAYW | 167,258 | 59291 | C |
| NaRUC | 424 |  | B | LATDIA | 33,402 | 26138 | c |
| NA1R | 121,380 | 48685 | C | LA2HFA | 32,391 | 195 | c |
| KA1J | 65,619 | 32769 | C | LA6PB | 20,515 | 13355 |  |
| K9SD (KC9AL, WW9s L,Q,KAØGGI,KWØA, ops) |  |  |  | La3ug | 18,392 | 1324 | c |
|  |  |  |  | LA5AP |  |  |  |
| N9LCR (+AA9G | G) 49,952 | 32356 | D | Aland Island |  |  |  |
| Indiana |  |  |  | OH0BVF (OH2BVF,op) |  |  |  |
|  |  |  |  |  | 87,462 | 58843 | c |
| NGODCN | -1,331 | 4311 | A | OH0/LA9HFA | 16,660 | 33717 | C |
|  |  |  |  | Finland |  |  |  |
| Wisconsin |  |  |  | OH6Wz | 719,468 | 1291164 |  |
| NE8J | 66,633 | 39457 |  | OH2BLF | 182,160 | 547110 | A |
| k9QYC | 11,832 | 11434 |  | OH7NW | 46,728 | 24266 | A |
| k89s | 90,937 | 44977 | C | OH1EH | 692,664 | 1442147 | B |
| N9xX | 34,476 | 26952 | C | оНзо | 470,465 | 1275115 |  |
| W9HE | 22,550 | 20041 | c | OH6SU | 47,968 | ${ }^{181} 72$ | B |
|  |  |  |  | OH2PM | 675,240 | 1169170 |  |
| Zone 9 |  |  |  |  |  |  |  |
| Maritime Newfoundland |  |  |  | HEL $\quad 358,912918128 \mathrm{C}$ |  |  |  |
| VO1SF | 67,984 | 28856 |  | OH8LAE | 296,584 | 680131 |  |
| VE1IW | 15,024 | 17224 |  | $\mathrm{OH}^{\mathrm{O} 2 \mathrm{YL}}$ | 28,458 | 15654 |  |
| W90AVE1 | 1,490 | 4110 | C | OH3NM | 18,944 | ${ }^{158} 38$ |  |
| Quebec |  |  |  | OH5PA | 250 20 | 13 2 2 |  |
| NM7N/VE2 (+N4DDK)47,600 |  |  |  | Market Reef |  |  |  |
|  |  | 36040 | D |  |  |  |  |
| St Paul Island |  |  |  |  |  |  |  |
| WV2B/CY9 | 51,243 | 51529 | A | Denmark |  |  |  |
|  |  |  |  |  |  |  |  |
| Zone 11 |  |  |  | oz1APA | 16,660 | 10468 | A |
|  |  |  |  | Oz9AAR | 127,300 | 53776 |  |
| Martinique |  |  |  | OZ5EV | 112,332 | 312111 |  |
| FM5CW | 82,020 | 36760 | C | Oz2zzz | 67,875 | 28175 |  |
| Dominican Republic |  |  |  | OZ9SIG $\quad 22,27216648$ | 22,272 11,254 | 16648 111 |  |
| Hi8OMA | 52,536 | 40044 | B | OZ1FMO | 2,800 | 4228 | B |
| Panama |  |  |  | OZ8RO | 69,881 | 26767 |  |
|  |  |  |  | $028 \times 0$ | 2.033 |  |  |
| HP1AC | 54,670 | 21670 | c | O25DX | 630 245 | 18 18 | C |
| Honduras |  |  |  | Sweden |  |  |  |
|  |  |  |  |  |  |  |  |
| Grenada |  |  |  | $\begin{array}{lll}\text { SM6NJK } & 515,3041088153 \\ \text { SM3JLA }\end{array}$ |  |  |  |
|  |  |  |  |  |  |  |  |
| J3/CT3FN | 2,517 | 8314 | A | SM3PZG | 257,408 | 609128 |  |
| $\begin{array}{llll}\text { Virgin Islands } \\ \text { K4VUD/KP2 } \\ \text { H1,268 } & 284\end{array}$ |  |  |  | SM3AF 22.56815452 A |  |  |  |
|  |  |  |  | smзLIV | 198,360 64,050 | $\begin{array}{ll} 702 & 87 \\ 303 & 70 \end{array}$ |  |




| RW9SW | 345,032 | 668118 |  |
| :---: | :---: | :---: | :---: |
| UA9AKS | 53,680 | 21744 | C |
| RV9CE | 28,520 | 15146 | C |
| UZ9CYA (+ops) | 51,600 | 25050 | D |
| Kazakhstan |  |  |  |
| UL7OB | 449,800 | 1004104 | B |
| UN9LCV | 99 | 9 | B |
| UL7IDX | 76,322 | 28962 | c |
| UN9LX | 14,835 | 22515 |  |
| Kirghizia |  |  |  |
| UM8MFO | 25,410 | 18633 |  |


| Zone 31 |  |  |  |
| :---: | :---: | :---: | :---: |
| Asiatic Russia |  |  |  |
| RZ9UA | 1,176,751 | 380191 | C |
| Kazakhstan |  |  |  |
| UN7FW | 180,642 | 56177 | A |
| UL1RWR | 13,888 | 11428 | A |

## European Russia <br> UZøSXF (UAØSUI,UWøSN,ops)

## Zone 33 Asiatic Russia

$\begin{array}{llllll}\text { RAØJX } & 11,544 & 188 & 32 & C\end{array}$

## Zone 34 European Russia

RUØL (UAøLS,UAØ-103-454, UAØ-107-696, UWØLZ,ops)
521,934 1307102 D
Zone 36
Madeira Islands

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 382,418 | 755 | 107 | D |
| Azores |  |  |  |  |
| CU3/NøFHL | 167,676 | 558 | 89 | B |
| Canary Islands |  |  |  |  |
| EA8BWW | 137,844 | 452 | 63 | B |
| EA8BGY | 80,388 | 299 | 58 | B |
| EC8AXM | 68,640 | 416 | 33 | C |

## Zone 37

CT4NH (CT1ESV 1,3

## $\begin{array}{lrrr} & 548,548 & 2155 & 52 \\ \text { CQ6AHU } & 300,033 & 1209 & 51 \\ \text { CT1BWW } & 99,351 & 341 & 63\end{array}$

Spai

| EA3EJI | 204,300 | 4611 |  | B |
| :---: | :---: | :---: | :---: | :---: |
| EA3GHQ | 56,782 | 303 | 58 | B |
| EA3ACB | 47,481 | 265 | 57 | B |
| EA3GJH | 47,096 | 259 | 58 | B |
| EA3GFQ | 41,644 | 250 | 58 |  |
| EA5GRC | 26,080 | 202 | 40 | B |
| EA1FEN | 24,882 | 222 | 39 | B |
| EA9RA/7 | 22,704 | 200 | 33 |  |
| EA1AHA | 19,096 | 149 | 44 |  |
| EC3CIL | 15,606 | 287 | 18 |  |
| EA1EXU | 13,104 | 110 | 42 |  |
| EA3GIW | 3,636 | 137 | 9 | B |
| EA5GJM | 3,484 | 83 | 13 |  |
| EC3CMT | 450 | 25 | 6 |  |
| EA5WU | 163,246 | 801 | 62 |  |
| EA7FZ | 58,424 | 246 | 67 |  |
| EA3BOW | 44,416 | 207 | 64 | C |
| EA7BY | 22,410 | 159 | 45 |  |
| EA3AAI | 7,364 | 180 | 14 |  |
| EA2CKP | 5,346 | 60 | 27 |  |
| EA3GF | 111 | 9 | 3 |  |
| ED5URN (EA5s CVA,CYJ,ops) |  |  |  |  |
| EA2BSJ (+EA2AM) |  |  |  |  |
|  | 34,624 | 164 | 32 |  |

Ceuta and Melilla
EA9KQ 28,840 $168 \quad 35$ B

## Zone 38

Egypt
SU2MT (+ops) 933,312 198096 D

## Zone 39

Israel
4X/S59PR $\quad 1,862,7642458163$ A

Cyprus
C49C (5B4s ADA,LP,SA,WN,ops) 5B5E (+ops) $\begin{array}{lll}2,077,507 & 2943149 & \text { D } \\ 1,000,1302020103 ~ D\end{array}$
Saudi Arabla
HZ1HZ $\quad 394,056 \quad 787104$ C

## Zone 4

India
$\begin{array}{llrll}\text { VU2UR } & 30,360 & 138 & 55 & \text { A } \\ \text { VU2KAN } & 18,901 & 74 & 41 & \text { B }\end{array}$

| Zone 44 | 26,220 14 |  |
| :---: | :---: | :---: |
| Taiwan |  |  |
| BV2A |  |  |

Korea
$\begin{array}{lllll}\text { HL93AP } \\ \text { HLøK (HL1s LME } & 15,469 & 139 & 31 & C\end{array}$ HL3EAT,ops)
55,990 29455 D
Hong Kong
$\begin{array}{llll}\text { VS6BG } & 201,432 \quad 608 & 84 & C\end{array}$
Zone 45
Japan

##  <br>  <br> JR4GP JF3PL JA1BU <br> JL4CMT <br> JEVVRF <br> JH1JGZZ JA4RTX JA3JOT <br> JG1RDV JK2VOC <br> JI7OED JA1 XPU <br> JA9XAT JA1AAT <br> JAøQNJ <br> 7K2DOD JH1UUT JR1MRG

JR1MRG
JR7LVK
JA®AD
JAOAW
JHAMMH
JH1RMH
JA2BEY
JH3AKD
JA2GHHP
JA7JH
JAJ․
JE1LGY
JH2WHS
JKICPT
7 TIMFS
JJ4GTY
JH3UYC
JH3UYC
JRKKAH
JE2IFM/1
JE2IFM/1
. 7 N 1 HFK
JA3WFQ
JF3WNO
JA7DLE
JH7XGN
JA9CW J
JI3BFC
JA1BNW
JF3IUC
JF3IUC
JH1HRJ
JH1HRJ
JA5APU
JA1WYO
JA3ARM
J1MTF
JIMMTF
JA5CKD
JR1IOS
JR1IOS
JA2OJ
JAgBOB
JA@BQB
JK7KCC
JR7CJO
JROSGW
JABHBO
JK1BSM
JABAJE
JABBEP
$J H$ IVEPI
J1RCB
JF1SQC
JA2FNY/
JLIERS
JE3CY
JA3TB
JF1LK
JE1RE

## JE1REU JR4ISK JH1NXU

JF3XMI
JJ3YBB (JA3PJ
JBYBB (JA3P
JR7OMD,ops)
339,492 708114 ,
JHøZHQ (JH1s BBT,SBE,JG1RVN,
OPS) $305,660 \quad 636124$ D PCT,VNM,JH7AHD 7 WHK,JQ1s
JA9YAV (JF2MXF,JR9GXQ
JA9-3017,0ps) 50,898 25051 D
Zone 46
Nigeria
5NOMVE 612,144 1087117 B

## Niger 5U7M

lvory Coast
TU5DX 886,816 1674107 B
Zone 47
Central African Republic
TL8NG 84,101 $463 \quad 37$ B

| Zone 48 |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Kenya |  |  |  |  |  |
| 5Z4FO | 238,342 | 566 | 89 | A |  |
| 5Z4BI | 820,704 | 1656 | 93 | B |  |

Zone 50

## Philippines

 $\begin{array}{lrrrr}\text { DU9RG } & 230,400 & 549 & 90 & \mathrm{~B} \\ \text { DU7AFT } & 372 & 14 & 6 & \mathrm{~B}\end{array}$Zone 52
Angola

| D2EYE | 12,857 | 115 | 23 | A |
| :--- | :--- | :--- | :--- | :--- |
| D2SA | 280,080 | 1179 | 48 |  |

Zone 53
Malawi
964,5411801109 C
Zimbabwe
$\begin{array}{llll}\text { Z21HS } & 12,499 & 91 & 29\end{array}$
Zone 54
Indonesia

|  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
| YB6INU | 13,312 | 106 | 26 | A |
| YB1ARW | 79,750 | 306 | 55 | B |
| N6QLQ/RB5 | 71,160 | 252 | 60 | B |
| YB6AVE | 286,779 | 563 | 109 | C |
| YB6TI | 85,566 | 446 | 39 | C |

Zone 55
Australia

| VK8BE | 570 | 19 | 6 | B |
| :--- | ---: | ---: | ---: | ---: |
| VK8AV | 185,170 | 412 | 97 | C |
| VK4TT | 14,256 | 124 | 24 | C |

Zone 57
$\begin{array}{lllll}\text { Lesotho } \\ \text { 7P8SR } & 16,640 & 172 & 20 & \text { C }\end{array}$
South Africa
ZS6HO 4,180 4720 B
Zone 59
Australia

| VK2VM | 103,380 | 365 | 60 | A |
| :--- | ---: | ---: | ---: | ---: |
| VK5GN | 74,965 | 285 | 55 | B |
| VK2ARJ | 44,400 | 368 | 25 | B |
| VK2DID | 10,740 | 87 | 30 | B |
| VK2APK | 442,720 | 910 | 102 | C |
| VK2AYD | 238,293 | 603 | 83 | $C$ |

Zone 60

## New Zealand

$\begin{array}{llllll}\text { ZL3GQ } & 708,698 & 1205 & 122 & \text { C } \\ \text { ZL2AGY } & 136,916 & 546 & 52 & \text { C }\end{array}$
Zone 61
Hawaiian Islands
$\begin{array}{lrrrr}\text { KH6FKG } & 273,636 & 842 & 66 & \text { B } \\ \text { NH6XM } & 63,315 & 291 & 45 & \text { B } \\ \text { KH6GMP } & 35,516 & 224 & 34 & \text { B } \\ \text { AH6F } & 85,800 & 322 & 55 & \text { C } \\ \text { AH6LV (+AH6IO,WH6BC, } & \text { KJ9U) }\end{array}$
AH6LV (+AH6IO, WH6BC,KJ9U)
$405,748 \quad 97286$
Zone 63
French Polynesia
FO5IW 444,904 119476 B
Zone 65
Tuvalu
T24JJ (JF2MBF,Op) $1,140 \quad 57 \quad 4 \mathrm{C}$
Marshall Islands
V73SG 37,091 26329 B

## Zone 75

## Northwest Territories

VE3UWCNE8 21,230 20922 A
Checklogs
4L1UN, AA4WX, AB6ED, CR3R,
(DJ1XT', op), DL1ART, DLIJEI,
DL2SZA, DL3AZM, DL4LXM, DL5ANS,
DLERRDE, DLTVEE, DL8ZWG,
DL6RDE, DL7VEE, DL8ZWG,
EA1EMZ, EA2ABM, EA4AAK
EA7GBD, EA8BXQ, ER7Z, F6FGZ,
G4UOL, GøOHW, HA1TK, HL5BUV
IK3SCB, IK4TVQ, IK5TBK, IK8LWA
IK3SCB, IK4TVQ, IK5TBK, IK8LWA
IT9NVA, JA1JLP, JR1XKU, KI3L,
K9NVA, JA1JLP, JR1XKU, K13L,
KL7UA, LA1CCA, LA2GCA, LA2Z
KA2MV, LA4JHA, LA7IJ, LABCE,
LABDY, LA9FFA, LAøCX, LU3HAT
LY2BIP, N6TCZ, NSøB, OA4ZV,
OE6IMD, OH5LBR, OK1DWJ, ON5FW
OX3ZM, OZ1EUO, OZ2JI, OZ5PA,
OZ7QB, PA3ADI, PAØTV, PAØUV,
OZ7QB, PA3ADI, PADTV, PADUV,
PY2EYE, PY2GTB, SM5OL, SM6FPZ
PY2EYE, PY2GTB, SM5OL, SM6
SM7TV, SMøCSX, SP-0189-GD,
SM7TV, SMOCSX, SP-0189-GD,
SP6RGB, SP7VCA, SP8FHM
SP9CLO, SV1ATW, UA9FYT,
UB5XAN, VE6EDS, YO6-13838,
YO8CRU, YO8KOS.
Feedback
See February 1993 QST, pp 105-108.
was phone-only, and not Mixed mode.
This makes him the third place, WODE,
phone only; and K5ZD the tenth-place
phone only; and K5ZD the tenth-place
winner in the mixed-mode category.
winner in the mixed-mode category.
प5\%

