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QST Issue: Feb 1996
Title: Results, Tenth IARU HF World Championship
Author: Billy Lunt, KR1R

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Results, Tenth IARU HF World Championship

By **Billy Lunt, KR1R**
Contest Manager
and
Warren C. Stankiewicz, NF1J
Assistant Contest Manager

24 hours of contest propagation just like the "good old days"!

Wow! This year's IARU contest was not what any of us expected. It was incredible! July never brings great conditions, and around this point of the sunspot cycle, they're usually even worse. Not this year! We had—great, wonderful, incredible, unbelievable (take your pick of adjectives here)—propagation. Who would have expected to run Europeans on 15 meters in July? Or to make as many contacts as they did on 10 meters? Heck, we didn't have conditions like these in the DX Contest back last winter! We may not even know what happened, but to tell the truth, who cares! The bands were great, and we made the most of it! It wound up being a hot contest for a hot weekend!

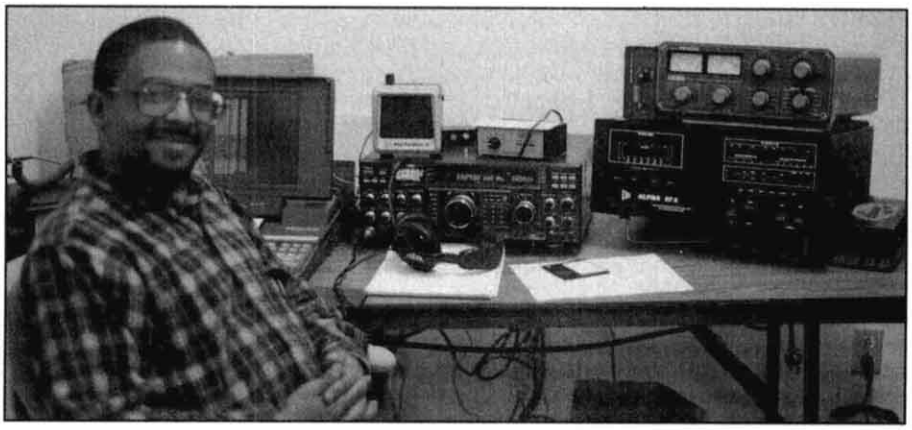
Participation was up nearly 10% this year, and that sure helped. Either a lot of folks stumbled onto the contest by accident, or operating events like these are attracting more and more people. We heard from a lot of "first-timers" this year. Is it the shorter time period that makes the difference? Does summer bring a different crop of contesters? Comments were favorable (with a lot less complaints!) about the operators and the operating.

Twenty meters being open during the entire contest was a major attraction, but the big propagation story has to be the 15 and 10-meter bands. Were they open where you are? More importantly, did you remember to check them, or did you just write them off as unusable? Most of the top European folks were able to rack up anywhere from 200 to 400 QSOs on 10 meters, and totals of 600 to 1000 QSOs on 15 meters were not uncommon.

Admittedly, it wasn't as good here in the US and Canada—but you should have been able to make at least 50 QSOs or so on 10, if you were lucky; and some folks had QSO totals on 15 meters in excess of 300. If you were running with the pack on 20 and 40 and didn't think to check 10 or 15, you should know better by now! It's experiences like these that differentiate between the top contesters and the rest of us. Who would have known you'd be able to work folks on those bands? *They* sure knew!

Another thing that sure helped boost scores were all those IARU HQ stations on the air this year. You should have been able to log a handful—after all, 27 of them were active, and 22 submitted logs. The Hungarian crew at MRASZ kept their long-standing win streak intact, easily topping anyone (and anything) the other societies could throw at them. The "We Try Harder" competition for number 2 took a twist this year, though. Perennial runners-up DAØHQ found themselves slipping to fifth, with the Slovaks at OM5HQ, the Ukrainian operation at EM5HQ, and the Romanian ARF's YRØA all putting forth excellent efforts. ARRL's Headquarters station, W1AW, also did extremely well this year, making the most QSOs but finishing eighth, with 6.8 million points. For a blow-by-blow description, check out the sidebar, "The Way to Win at W1AW." Our thanks to our IARU sister-societies everywhere for helping to make this contest successful. It sure pays now to do a little multiplier hunting for the HQ folks.

Speaking of winning streaks, we saw another long-standing one broken in the Mixed Mode category: Rad, YU1RL, went to EA9IE and stopped Gyozo, HAØMM, in his tracks! Just when you thought you could win with 2 million points, he comes in and makes almost 3 million! Henry, YT1AD, wasn't too



John, WB2K, may not have a lot of awards mounted on the wall, but he sure nailed down the top spot in the W/VE phone-only competition.

Top World Scores

Mixed Mode

Call	Score
EA9IE (YU1RL,op)	2,911,184
HAØMM	1,977,150
YT1AD	1,970,724
UT5UGR	1,765,752
TM1C (GØJFX,op at F6CTT)	1,669,920
UA3RAR	1,598,625
KF3P	1,500,736
S53R	1,305,103
LY6M (LY1DS,op)	1,272,154
OH6WZ	1,239,249

Phone Only

Call	Score
UT5DK	1,462,344
OH1EH	1,416,524
OH6LNI	1,104,752
5NØMVE	846,264
EMØF (UXØFF,op)	834,677
DL8PC	826,619
LY1DT	759,744
5NØGC	755,760
S59L	742,350
WB2K	729,904

CW Only

Call	Score
HAØDU	1,877,533
RZ9U (RZ9UA,op)	1,506,557
S59AA	1,374,206
C47W (5B4WN,op)	1,356,516
YT5ØBB (YT1BB,op)	1,223,586
N2IC/Ø	1,203,734
P4ØZ	1,198,392
OH1NOR	1,120,560
SLØCB (SMØTXT,op)	1,098,165
W1WEF	1,070,388

Multioperator

Call	Score
UU5J	2,702,612
RS3A	1,965,816
IR4T	1,937,796
RY6Y	1,790,712
RK9XWH	1,481,385
RU3A	1,466,630
RWØA	1,400,352
WXØX	1,379,856
HG5M	1,359,299
RU9D	1,272,556

Top W/VE Scores

Mixed Mode

Call	Score
KF3P	1,500,736
KFØH	932,252
AA4NC	919,512
KØIJL (AAØBY,op)	676,021
KZ1M	577,729
WZ4F	558,688
WX9E (at KS9B)	518,122
N9AG	513,472
K3WW	507,756
N5EA	411,152

Phone Only

Call	Score
WB2K	729,904
WS1A	602,030
W3BGN	526,560
K4VUD	489,375
WA7FOE	486,552
VE6JY	473,434
N4UH	380,256
KB4WQO	370,364
WB2NQT	365,960
K6SVL	296,055

CW Only

Call	Score
N2IC/Ø	1,203,734
W1WEF	1,070,388
K3ZO	1,006,934
WXØB (NM5M,op)	790,400
K4PQL	724,196
K7SV	633,879
N6TR	618,288
K2SX/1	601,735
K8GL	586,034
AA4NU (KØEJ,op)	578,816

Multioperator

Call	Score
WXØX	1,379,856
KN2T	1,148,904
N3BB	1,059,122
W5WMU	1,010,316
K9SD	798,187
NCØP	669,123
KA4RRU	605,665
WT2Q	602,426
WØAIH	580,152
N3KZ	520,884

IARU Headquarters Stations

HG95HQ (HA1s FF,WD,YA,HA2RX,HA4YD,HA5s AWH, BGG,BSW,BWW,CQA,FM,GF,IW,KS,LN,MK,ML,NG, OM,TI,UA,WE,YLN,ZD,HG5s CCC,CNC,HA6s DX,FQ, GK,IAB,ND,NF,NL,NQ,NY,OB,OI,OQ,OY,PN,PX,BA,VH, WI,WP,WQ,WX,ZS,ZV,HG6IPQ,HA7s JES,PO,RY,VB, HA8s IB,IE,HA9AX,ops)	9,287,492	9348	314
OM5HQ (OM3s JW,KAG,KAP,KCM,KFF,KII,KZY,RJB, RKA,RMM,ops)	8,095,005	8517	305
EM5HQ (US1s IDX,ITU,UT2s IA,ID,II,IJ,IM,IO,IV, UR3IKY,UR5IFZ,UT5IZO,US8ISC,UT8s IA,IM, UX8IX,US-1-602,-603,-700,ops)	8,052,860	7904	274
YR0A (YO2s ADQ,ARA,AVM,BBT,BEO,BP,CBF,DFA, GL,YO3s APJ,BWK,CDN,FF,FRI,FU,FWC,ATW, HW,NF,SI,XF,YO4s ATW,HW,NF,SI,XF,YO5s CUQ, DMB,TE,YO6s AWR,FUE,YO7UP,YO8s AXP,BAM, BIG,CT,EQ,WW,ops)	7,918,772	7659	284
DA0HQ (DL1s ASA,AUZ,AWI,DTL,EMY,DK2OY, DL2s EBY,HTO,MEH,OBF,DL3s APO,DXX,OI,RMA, DL4s MM,RDJ,DL5s ANT,AOM,ATD,AXX,XU,DK6WL, DL6MYL,DF7RX,DJ7AA, DL7s UTA,VNF,VOA, DL8s HWA,MVG,DL9AWI,ops)	7,258,828	9233	292
S50HQ (S50s A,R,S51s AY,IX,OI,ZO,S52ZO,S56A, S57s AL,O,W,S58s A,AB,FA,S59A,ops)	7,022,966	7789	298
SP0HQ (SP2s EBG,FWC,SP3s ASN,GEM,HLM,RBI, RBR,SP5s BYY,INQ,JTM,SP6s CZ,HEQ,HFZ,VGP, XRZ,SP7GIQ,SP8NR,SP9s EIJ,IUM,ops)	6,882,645	7305	295
W1AW (K1s CC,KI,TO,ZZ,W1s OD,RM,AA2Z,K5FUV, N6BV,ops)	6,839,532	9745	252
LZ7A (LZ1s GL,LF,MC,PJ,ZD,LZ2s JE,UU,ZF,LZ3s FN, FM,GU,LZ4s AX,ZF,ops)	3,440,310	4872	246
ER7A (ER1s AP,DA,M,OO,ER3s AL,DX,ED,KS,OO,ZZ, ER5s AA,AL,DX,OK,WU,ops)	1,478,750	2782	169
YU0HQ (YU7s AV,BJ,GO,GW,NF,NW,YZ7UN, 4N7DW,ops)	1,214,748	2396	153
IY2ARI (I2MQP,IK2VJF,ops)	1,031,240	2000	145
SK3HQ (SM3s CER,DMP,RAB, ops)	821,548	1627	143
LT4E (LU2BDG,LU4AHV,LU6BEG,LU8AQE,ops)	683,410	1139	130
GB5HQ (G1AOF,G3TRU,G4WSE,G0s DBE,IEQ,KXL, PZO,STU,WAB,ops)	647,946	1495	142
8J3XHQ (JA3s MAU,SVG,JF3EIG,JG3RPL,JH3HOA, JI3s ERV,XOM,JJ3WPF,JP3s DZA,TEN,JQ3HDD,ops)	325,668	1313	84
4V10ORC (HH2s B,JO,JR,ops)	239,946	2758	87
LX0RL (LX1s KQ,TI,ops)	204,972	706	87
LY1RMD (LY1DC,op)	189,288	735	99
XJ7RAC (VE7SBQ,op)	129,356	452	73
HB9A (HB9DDZ,op)	74,998	372	77
Z30RSM (+ops)	33,762	662	51

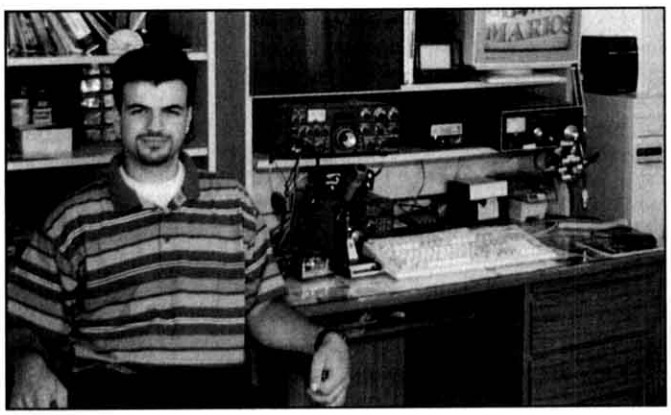
far behind HAØMM in the race for second, either, falling just 7k short. Whew! It's pretty obvious to us that one way to ensure a good score is to be in one of those locales with a direct shot to Europe.

These folks weren't the only ones to turn in great scores. Tyler, KF3P, came out of nowhere to win the US mixed mode, and John, WB2K, jumped up a couple of spots to win on phone. Steve, N2IC/Ø, had the best of both worlds: not only were the bands (especially 20) open to Asia, but he was able to work Europeans, too! That was enough for first place W/VE on CW!

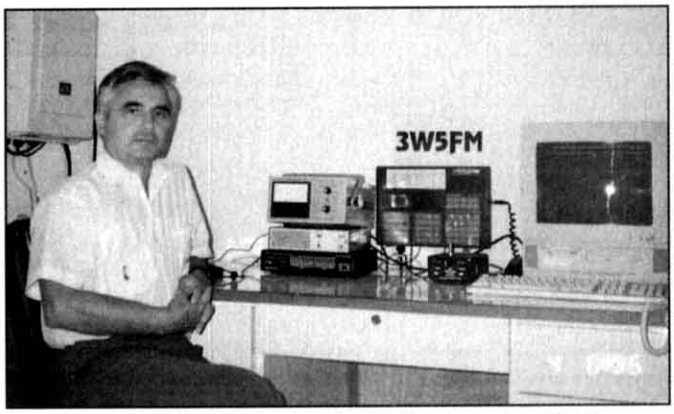
So, are you feeling lucky? Out for blood? Or just looking for a good excuse to get out of the hot July sun? Whichever way you feel, the next IARU HF World Championship is only a couple of months away—July 13-14. Why, it'll be here before you know it. In fact, the IARU records are now available in the new *ARRL Contest Yearbook*. What better way to motivate yourself to get on the air?

SOAPBOX

I wasn't able to work the entire contest, but did enjoy picking here and there. I also found that the conditions from this area weren't too bad for this part of the sunspot cycle (KL7Y). This was our team's first effort from Alaska, but we'll be in there during the next contest (KL7/DF4ZY). The band conditions were not that great, but still enjoyable. There certainly was a dearth of Western European stations. Thank goodness there were a lot of Russian stations on the air to fill the gaps. This was a great contest, though (VE3CWE). This was my first IARU contest and I had so much fun that I will be back for the next one (VE9ZL). I was able to make about the same amount of contacts as last year. The bands did not seem as active as they were last year. It certainly seemed good to see all of the Headquarters stations on the air (N4TQO). I am 14 years old and I have been a ham for one year. These were the best band conditions I've ever operated in. I'm looking forward to participating in the contest next year (AC6NS). I only had a few hours to participate in the contest but hope to put an honest effort in next year (K7OX). This was a limited operation for me due to a busy schedule, but I still had a lot of fun (N6TR). This is an excellent contest for those that have a modest station and I wish I had had more time to operate (N7ENU). The propagation was just good enough to let you know that the stations were out there, but not good enough to copy them well. The multipliers just were not there, and again this year there were very few Central and South American stations heard (N5EA). It certainly was a hot contest, as it was 93° in the shack. My air conditioner bit the dust on Friday evening before the contest and I didn't get back on line until late Saturday afternoon, but the contest was already 10 hours old by that point (N5NMX). This is a fantastic contest and the rules are terrific. The propagation conditions were excellent and I'll be back for the next contest (N3BB). The only thing that I have ever done is CW ragchewing. This was my first contest and I found it a great deal of fun—I'll be back for next year's (KGØKR). The contest was superb and it seems that summertime conditions during the sunspot cycle minimum were excellent (K7SV). This is one of my favorite contests and I had a lot of fun (NZ5O). I worked with only 100 W, and, considering the sunspot cycle, I was very satisfied with the responses that I received—especially since this was only my second contest (KB8QO). This was a great time and a great contest, and 20 meters was still the workhorse, as usual. Any one who misses this contest is missing a summer classic (K8GL). I find that when the conditions are right this contest is more fun than any other. Conditions were more than right, they were superb on all bands for the entire period. Thanks to the Russians and Europeans for their usual good showing (N9AG). This was my first IARU contest and it positively will not be my last (N9XBM). This was my first attempt at this contest and it took a while to realize that the multipliers are more important than the contacts. I never thought I'd work that many stations from my own zone and in between the DX stations. There were good band openings and strong signals, but not like the big sunspot days. I look forward to a bigger score next year, somehow (KJ9C). This was a great contest, considering that the band conditions were not very good. There was lots of activity (AA9BJ). This was my first contest and I found it really exciting and fun to operate. I plan to enter it again next year (XE2CWW). It was a great pleasure—I enjoyed a very good time in this contest and appreciated being able to participate (XE2Z). The conditions this year were again excellent and the only problem that I had was with my 160-meter dipole just before the contest (OH6NIO). I tuned up and down the bands looking for a VK or ZL on several bands but without any luck. There was a great opening on 20 meters to W6 in the morning here and this allowed me to better my scores over the past couple of years (OZ5EV). This was my first time operating in the contest because of my busy schedule and I enjoyed the time that I operated CW (OH6YF). This is one of the most pleasant contests of the year, and it was a pleasure to work all six bands (SM4BTF). This was an excellent contest and I enjoyed it very much. I look forward to next year's (UA1PAC). My time was limited, but I was able to make a few contacts and make a few people happy with the points from my area. I will be back next year and hope to do better (PA3AEB). This is my very best contest effort of the year and I enjoyed it very much (F5JBR). There seemed to be quite a bit of activity on the bands. I would like to have a stacked array, but you have to do the best with what you have. I enjoyed the contest except around 0500Z, when the pain really set in (GØLII). This was my first contest alone and I enjoyed it very much (PA3EXI). This has always been a very pleasant contest (ON5CZ). There was lots of activity, plenty of big signals and lots of fun in this contest (PA3DWJ). This year the contest was a real summer sizzler, it was 30° C outside and 40° C inside the



Mario, 5B4WN, operating C47W, should have been an easy Zone 39 multiplier!



Need Vietnam? Nickolai, 3W5FM, handed out a few QSOs.

shack. The propagation was excellent on 20 meters and held in there all night long. I know that I will be back next year to try and break my previous record (DL3KDV). This was a great contest but I was handicapped by a visit by my mother-in-law (DL7ANQ). I really enjoy low-power contesting, and so did my neighbors (S57U). I really enjoyed the contest and especially working 15 meters (SO5TW). This was a most enjoyable contest and I was able to work my first Americans on 40 meters with only 15 W (SP2WDW). This was an excellent contest and I enjoyed it very much (SP9MDY). I am 15 years old and visually impaired. I enjoyed the CW part of the contest (SQ9BZK). This was a very exciting contest, but I found 10 and 15 lacking during most of the time (YO5BQ). This was my 18th IARU contest and it was just as exciting as the first one that I entered (YU7SF). Murphy hit twice during the contest, I had to repair the amplifier and lost nearly an hour in the process. Despite the problems, I had fun. There was a great opening to the West Coast on Sunday morning (LY6M). This was an exciting contest and the activity was better than last year (UT5UGR). This was a superb contest. We didn't sleep for 24 hours. There was great activity from the USA and Europe but we didn't hear anything from Japan (RS3A). This was my first contest after serving my required time in the Army. I enjoyed being a civilian, but I especially enjoyed the contest (UA4AVN). There was strong QRN on Saturday night and it left me with a low score on 40 meters. The only ones that I could work were the big guns, but I was compensated by an excellent opening on 10 meters (EA3EJI). The propagation was not too good to this part of the world, but I still enjoyed the contest and I know I will be back (7K2DOD). I found the conditions on 40 and 20 meters to be excellent. It was great to work many fine USA stations. I tried using the computer to key the rig, but it was very hard to get used to (JHØGHZ). I only had a few hours to enjoy the contest from the field, but it was fun under these conditions (JI3KDH/3). I used only a 6-foot-long, 10-foot-high whip antenna. Even though my station was a weak one, there were many stations that heard me and it made for an exciting contest for me (JL7PVR/1). The propagation was just barely good on 20 meters, which I enjoyed even though I only operated during the last half hour of the contest. It was the signals from W1AW that piqued my interest to join the contest (JF1SQC).

Feedback—1994 IARU HF World Championship

See February 1995 *QST*, pp 100-104.
WB2K's score was 820,068. This made him the Eastern Pennsylvania CW leader, as well as fourth place W/VE and seventh place overall. WX9E was left out of the results for Illinois. His line score was 35,640-204-60-A.

The Way To Win At W1AW

Well, not exactly. This year's ARRL effort was a bit different than those of the past—rather than trying to deal with the limited resources (and limited space) at W1AW, this year the show went on the road—to the superstation of Tom, K1KI. Tom says, "Our basic goal was to put more QSOs into the W1AW log than in previous years, and we sure met our goals! Conditions were much better than we expected—it's hard to believe we made nearly 10,000 QSOs in 24 hours."

So they may not have won, but they sure had one whale of a time! Without any further ado, here's a band-by-band (and blow-by-blow) description of what it was like, through Tom's eyes:

"We didn't spend enough time on 160. We timeshared this band with 80 CW, and the rates were better on 80. We heard several European HQ stations we couldn't work because of QRM. Our last European QSO was at 0415Z with TM1C (shortly after their sunrise).

"We worked our first European on 80 at 2330Z, and our last at 0445Z. It was pretty noisy all night. We worked KL7Y at 0830Z. We were able to keep USA runs going all day long—it was sort of like Sweepstakes!

"On 40, the band was open to Europe from 2115 to 0604Z. We worked a couple of JAs, but conditions were not so good—we stole the SSB amplifier for 80 CW Saturday evening. 5W1AU QSYed from 20 to 15 to 40 for us, but he had no key and the SSB QSO through the broadcast QRM was difficult, especially for a dedicated CW operator!

"We didn't work our first European on 20 meters until QSO number 48, but they were there for almost 24 hours. The USA runs were longer and louder, however. The JA run Sunday morning was just like the good old days! After working an HL, we asked if there was a DU on frequency, and DU1SSG called in.

"On 15 meters, the Europeans were weak most of the day, but they kept calling. We must have worked enough W4 QSOs for the Worked All W4 Award. After 0600Z (2 AM, local time!) the VKs faded, and the Europeans came back in through the end of the contest. We worked a few JAs and got ready for a big JA run that ended with just six JA QSOs.

"I'm certain that we qualified for the Worked Almost All Newcomers Award on 10 meters. There seemed to be an endless list of KE4xxx QSOs, but it was actually only 50 (plus two KF4xxx stations). Midnight brought a pipeline into W9 and we sent people from 20 and 15 to 10. We even found KH6, FO, and VK! The rate dropped below 20 at 0645Z, so we got some sleep and started up at 1000Z with some more European stations.

"Our rate for the entire contest was 409; our best hour (1447Z to 1547Z) had 707 QSOs, and our best minute was 1538Z, when we made 19. We didn't get much help from packet, but it all adds up. We also found out that there are limits as to how many amplifiers (six at 1400 W) can run off my two 220-V circuits. We popped the breakers three times.

"Out of the 9821 QSOs (including duplicates), we worked 6689 unique call signs. Nothing beats working people who say that they've been a ham for 40, 45, 50 or more years and never worked W1AW before. It was really fun! We can do better next time!"

Here's the number one Multioperator team at UU5J: (l-r, sitting) UU5JR, UU5JQ, UB7-067-2; (l-r, standing) UU3JD, UU2JZ, and UU4JDF.

If S50HQ was one of your multipliers, you surely must have worked one of these ops: (l-r, first row) S58A, S51ZP, S55T, S52ZW, S51IX, S56A; (l-r, second row) S59A, S57W, S51OI; (l-r, third row) S51DB, S50A, S52EZ, S58AB; (l-r, back row) S51RS, S57O, S50R, S51AY, S58FA.

Scores

Scores are listed by ITU zone and then by country, ARRL section or Canadian province within the zone. Line scores indicate call sign, final score, QSOs, multipliers and entry class (A = single operator, mixed mode, B = single operator, phone only; C = single operator, CW only; D = multioperator, single transmitter).

Zone 1

Alaska

KL7Y	216,039	601	101	A
KL7FAP	2,223	39	19	A
WL7CMK	39,292	279	38	B
KL7/DF4ZY (+NL7DU,DL8WEM)	151,689	657	59	D

Zone 2

Alberta

VE6FR	69,168	320	66	A
VE6JY	473,434	844	139	B
VE6BF	213,213	627	91	C

British Columbia

VE7QO	109,986	394	69	A
XJ7CFD	113,152	550	64	B
VE7JMN	96,748	381	76	B
VE7TLK	55,500	303	60	B
VE7XO	35,896	171	56	B

Zone 3

Manitoba

VE4YU	29,640	168	52	A

Zone 4

Quebec

VE2AWR	60,705	411	45	A
VE2FFE	612	36	6	C
NØTT/VE2 (+WØHW)	177,912	716	76	D

Ontario

VE3CWE	50,337	223	63	A
VA3WTO	223,223	719	91	B
VE3STT	2,520	48	18	B
VE3ZIS	6	6	3	B
VE3KP	283,318	791	98	C
VE3NBE	10,108	85	38	C
VE3XO (+VE3s MV, WHE)	464,578	901	134	D
XJ3AT (+NET)	304,759	903	91	D
VA3NR (+NET)	28,985	175	55	D

Zone 6

W6

East Bay

KG6LF	53,380	470	34	B
KI6OY	5,500	68	25	B

Los Angeles

KJ6HO	118,224	508	72	A
KU6T	53,314	268	61	A
KC6X	40,863	179	53	A
K6SVL	296,055	1035	81	B
KM6YX	242,648	792	98	B
NA2D	11,515	105	35	B
N6IBP	20,633	112	47	C
N6GL	20,102	151	38	C
N6IC	14,840	107	40	C
W6SX	176	16	4	C
N6MI (+K5TTE)	181,487	597	97	D

Orange

KE6UP	15,457	117	41	B

Santa Barbara

W6TKF	54,191	327	47	A
WA6FGV	63,085	381	55	C
KN6WV	18,447	133	42	C
AD6J	9,960	94	30	C
W6BKY	6,762	121	23	C

Santa Clara Valley

N6IP	292,675	707	115	A
AB6YL	100,659	354	87	A
AC6NS	4,576	72	22	A
N4TQO (at AG6D)	496,016	1090	116	C
N6NM	57,200	278	65	C
N6NF	6,204	101	22	C

San Diego

KD6QK	39,600	266	45	B
N6KI	331,674	881	106	C
AA6EE	7,964	100	22	C
KE6MWA (+KE6MWB)	36,912	257	48	D

San Francisco

W6BIP	41,552	176	53	C
KA6SGT	469	27	7	C

San Joaquin Valley

KC6CEX	161,315	485	77	A
WC6U	116,348	479	68	C
KB6HRB (AA6AH,KB6QNP,KC6UCN, KD6HMN,ops)	46,620	240	63	D

Sacramento Valley

N6JM	840	20	15	A

W7

Arizona

N7JXS	42,924	271	49	A
KI7MN	192	11	2	B
W7YS	23,134	128	43	C
K7OX	5,415	107	15	C

Eastern Washington

KW1K	60,900	315	60	A
NØDH	290,835	761	115	C

Idaho

AA7UN	115,640	588	70	B

Montana

N9ITX	43,780	333	44	B
K7ABV	40,843	217	32	B

Nevada

AB7BS (+KC7BNH)	243,179	737	97	D

Oregon

W7YAQ	349,338	719	134	A
N6TR	618,288	1200	132	C
AI7B	174,720	570	78	C
W7LNG	51,116	238	52	C
AA7KF	22,044	135	44	C
AA7FL	17,748	105	36	C
N7ENU	15,295	121	35	C

Utah

WA6HXE	21,935	137	41	B
W7HS	29,760	172	40	C
K6XO (+AB7GM,KI7WX,WØMHS)	316,110	1171	82	D

Western Washington

N7LOX	23,008	221	32	A
WA7FOE	486,552	1310	114	B
AA7RW	51,322	267	67	B
N6HR	208,000	580	100	C
NN7L	205,205	783	65	C
WA7UVJ	102,432	450	66	C
KI7OT	59,649	289	59	C

Zone 7

W5

Arkansas

AC5BR	41,268	240	57	A
AB5SE	49,560	250	60	B
K5GOE	8,358	61	42	B
N5XYN	26,145	199	45	C

Louisiana

NZ5O	195,700	587	100	B
N5OZB	168,960	624	88	B
KJ5KQ	33,920	118	80	B
AB5HD	2,415	55	15	C
W5WMU (+WU3V,KC5OAM,N5SYF, W5MEG,N8RR)	1,010,316	1646	177	D

Mississippi

WA5OYU	121,129	415	89	B
N5QDE	59,292	206	81	B

North Texas

WB5B	249,193	707	97	A
KS1G	171,276	571	84	A
AA5UO	209,475	623	105	B
W5PLN	141,703	425	101	B
WD4FRX	11,900	108	35	B
W5RNF	9,380	104	35	B
WXØB (NM5M,op)	790,400	1426	152	C
N6ZZ	530,140	1129	130	C
W5FO	77,616	484	42	C

Oklahoma

NW5H	39,005	433	29	B
N5RXF	28,728	224	42	B
WV5S	372,294	884	117	C
W5UDA	368,781	837	119	C

South Texas

N5EA	411,152	1009	112	A
N5NMX	216,040	608	110	A
WA1PRY	10,114	111	26	A
WA5IYX	33,915	191	57	B
KC5HFI	344	40	4	B
K5ZTV	10,050	132	25	C
W5NR	6,072	81	22	C
KJ5CR	60	4	3	C
N3BB (+AA5RB)	1,059,122	1940	157	D
WQ5Y (+NZ5V)	124,120	327	107	D
KC5HTX (+KC5AMA)	5,436	70	18	D

West Texas

AB5WB	19,980	180	37	A

W9

Illinois

NEØP/9	15,402	185	34	C
K9SD (KC9AL,WW9L,KAØGGI, KWØA,ops)	798,187	1297	169	D

WØ

Colorado

N2IC/Ø	1,203,734	1766	173	C

Iowa

KFØH	932,252	1719	148	A
WØPPF	10,266	100	29	B
KØOAM	106,622	340	89	C
KK9W	90,045	407	69	C
NCØP (+ops)	669,123	1541	131	D

Kansas

KØVGB	141,610	425	98	A
WBØYJT	17,358	134	33	A
WIØR	61,983	281	71	C
AAØYA	57,070	290	65	C

Minnesota

KØIJL (AAØBY,op)	676,021	1463	127	A
KFØVB	77,404	338	74	B
KFØT	118,800	475	80	C
WAØBNX	7,008	65	32	C

Missouri

NSØB	119,364	360	98	A
AAØNB	25,695	205	45	A
WXØX (WX3N,K4VX,AG9A,ops)	1,379,856	1924	204	D

North Dakota

WBØO	312,906	714	121	C

Nebraska

KGØKR	10,478	114	31	C

Zone 8

W1

Connecticut

KE1BU	70,752	324	66	A
KD1TM	72,996	281	84	B
W1INF (KB1GW,op)	68,476	510	53	B
N1QVE	18,309	106	51	B
KE1AU	3,886	50	29	B
K8CH	3,171	59	21	B
N1OFO	6	6	1	B
W1WEF	1,070,388	1775	153	C
K2SX/1	601,735	1123	151	C
W1BIH	140,026	327	108	C
N1OPZ (+NET)	4,872	58	28	D

Eastern Massachusetts

KB2R (at K1KP)	405,288	1030	117	A
N1HOQ	191,805	597	95	B
K1VUT	538,607	1145	127	C
K1JKS	293,265	871	115	C
W1MK	121,524	401	76	C
KD1VQ (+KA1ZAK,KE1CN,N1s UFF, UJV)	137,544	535	88	D
W1FM (+N1SOH)	21,949	147	47	D

Maine

KA1GTR	156,312	459	104	B

New Hampshire

KA1FMR	25,200	180	50	A
WS1A	602,030	1309	130	B
AG1C	71,680	322	56	B
WC1M	123,840	522	86	C
AA1HJ	109,446	408	87	C
AE1D	13,962	128	39	C
KB1AXF	11,214	101	42	C
N1SNB	3,825	76	15	C

Rhode Island

K1PLX	165,680	553	109	B
WA1MKS	13,579	105	37	B
N9LYE	616	48	7	B

Vermont

N1PBT	116,616	610	86	B
K1CLN	49,560	266	59	B

Western Massachusetts

KZ1M	577,729	1043	137	A
AA1EY	111,398	330	109	B
WE1B	49,236	260	66	C
WT2Q (+KB1W,KY1H,NU1P,WM1K)	602,426	1246	139	D

W2

Eastern New York

KB2HUN	47,824	300	61	B
N2BZP	270	37	10	C

NYC-Long Island

K2LE	250,155	589	109	A
WB2AYQ	19,150	122	50	B
KA2HMJ	148,070	622	65	C
N2LSK (+KA2GWM,KF2ER,N2NSM)	152,789	583	91	D

Northern New Jersey

N2MZH	160,632	584	97	A
W1GD	107,378	305	106	A
W2LRO	9,006	91	38	A
WB2K	729,904	1342	152	B
K3FNW	123,552	332	108	B
N2INN	19,650	107	50	B
N2VYU	12,882	115	38	B
WV2X	1,944	32	18	C

Southern New Jersey

K2PS	282,942	718	99	A
WB2DIN	68,634	277	82	A
W5KI	5,216	67	32	A
AB2E	523,192	1055	136	C
W2GTN	1,584	37	16	C
KN2T (+KD2I,KN2L,N2ORM)	1,148,904	1834	162	D

Western New York

AE2T	97,040	394	80	A
AA2GS	65,518	223	82	A
N2UHI	552	31	8	A
AA2BA	34,626	205	58	B
AA2VZ	6,399	75	27	B
N2LQQ	4,914	75	26	B
KW2J	141,912	591	73	C
W2OMV	76,807	267	89	C
N2PEB	45,724	208	71	C
WA2RZJ	42,240	203	66	C

W3

Delaware

NY3C	21,408	196	48	A
WN3K	436,506	1059	114	C

Eastern Pennsylvania

K3WW	507,756	1056	131	A
W3BGN	526,560	1175	120	B
N3MLV	185,136	431	114	B
N3BDA	41,480	192	61	B
WA3YTI	480	17	12	B
AA3B	459,655	1409	145	C
KL7HIR	176,035	553	109	C
N3CZB	106	25	2	C
N3KZ (WI2s E,N,ops)	520,884	1299	126	D
KB3TS (+KE3RR)	124,558	359	98	D
NN3Q (+NET)	66,000	278	60	D

Maryland-DC

KF3P	1,500,736	2223	179	A
K3IXD	77,436	308	81	B
K3ZO	1,006,934	1667	158	C
AA3HM	141,592	469	88	C
W3CPB	47,302	228	67	C
N5OKR/3 (+NET)	235,635	537	115	D

Western Pennsylvania

KB3AFT	38,979	285	61	A
W3YEY	74,760	256	84	B
WBØIWG	52	5	4	B
K3WWP	22,905	275	45	C
NB4J	12,296	126	29	C
AA3GM	1,106	41	14	C
N3QDL (+NET)	1,029	107	7	D
K3UA (+W3FSB)	960	20	16	D

W4

Alabama

WZ4F	558,688	1650	104	A
KS4AW	2,831	57	19	B
KK4SM	119,295	397	99	C
KS4YT (+KB4FAI)	79,296	654	48	D

Georgia

KN4QV	80,278	363	82	A
KQ4HC	240,142	718	119	B
KD3GC	26,884	257	52	B
KB4GID	394,680	1008	130	C
K4BAI	170,841	649	93	C
AC4PQ	2,304	34	24	C

Kentucky

KB4WQO	370,364	1066	106	B
KI4DC	145,704	556	78	B
K2YJL	1,400	93	8	B
N4XM	225,680	692	104	C

North Carolina

AA4NC	919,512	1638	162	A
N4UH	380,256	821	136	B
KC4YM	77,074	340	89	B
K4PQL	724,196	1310	151	C
WN4BBJ	38,628	252	58	C

Northern Florida

AD4RE	50,962	204	83	A
K4VUD	489,375	1125	145	B

South Carolina

KC4UN	12,240	100	34	A
W4JKC	116,100	440	90	C

Southern Florida

N4BP	207,128	800	68	C

Tennessee

WA6KUI/4	219,333	733	113	A
KS2X	21,700	172	50	B
AA4NU (KØEJ,op)	578,816	1442	117	C
NA4K	242,865	631	105	C
K4LTA	188,694	680	99	C
KO4EW	117,231	511	79	C

Virginia

WA4JUK	47,336	254	61	A
N4OT	20,480	100	80	A
WB2NQT	365,960	844	140	B
N4MM	119,780	342	106	B
KO4IQ	2,556	142	18	B
K7SV	633,879	1109	153	C
K4FPF	126,336	402	96	C
W3GOI	61,299	350	49	C
W4XD	46,308	263	68	C
KA4RRU (+K3TLX,KJ4VG)	605,665	1309	145	D

W5

Mississippi

KB5IXI	5,775	75	21	A

W8

Michigan

KG8PE	89,551	399	77	A
WB8BUQ	45,016	208	68	A
K8CV	23,520	182	49	A
N8LIQ	26,500	137	53	B
KB8QO	12,160	107	38	B
K8GL	586,034	1141	142	C
AA8AV	383,940	1013	108	C

Ohio

N9AG	513,472	1178	142	A
AA8OT	171,392	520	103	A
W8UPH	45,630	268	65	A
K8NZ	28,656	127	160	A
N8LXS	384,087	1053	103	C
N8BJQ	116,952	495	88	C
KF8TM	85,041	271	99	C
WT8P	45,450	320	50	C
N8AA	38,304	200	56	C
AA8SM	18,396	137	36	C
NF8R (+KA8O)	457,940	1082	140	D

West Virginia

K8OQL	89,544	378	82	C
WG8T	28,500	203	57	C
AA8RT (+KG8KV)	31,700	256	50	D

W9

Illinois

WX9E (at KS9B)	518,122	1269	121	A
NA1R	307,375	779	125	C
K9MMS	222,432	720	112	C
N4OGW	151,618	569	86	C
N9YIQ	16,380	250	30	C
AA9KH	7,548	88	34	C

Indiana

W9RE	157,388	550	98	A
N9XBM	78,677	502	56	A
AA9AQ	294,912	839	128	B
KBØC	102,980	298	95	B
KO9Y	259,160	676	110	C
KJ9C	54,924	123	69	C
WBØOLA	43,835	273	55	C
KX8D (N9s DHN,WHG,ops)	167,580	566	105	D

Wisconsin

NØBSH	373,198	1001	122	C
AA9BJ	74,028	404	62	C
W9HE	55,728	220	72	C
WØAIH (+K9ZVZ,N9CIQ,AAØSE,AIØY, NØAXL)	580,152	1396	138	D

Zone 9

New Brunswick

VE9ZL	39,984	311	49	B
VE9ST	386,229	1045	93	C

Zone 10

Mexico

XE3LMV	82,895	449	59	B
XE2CWW	60,836	274	67	B
XE2Z	56,674	370	43	B
XE1CCB	58,412	514	34	C

Zone 11

Panama

HP1AC	35,776	177	64	C

Grenada

J37LK	1,708	122	14	B

Puerto Rico

WP4LNY	216	14	4	B
KP4YS	63,744	359	48	C

Aruba

P4ØZ	1,198,392	1786	138	C

Costa Rica

TI7DBS	27,132	219	53	B
TI4/AA7JM	25,000	150	50	C

Turks and Caicos Islands

VP5J (KF8UM,op)	437,992	1188	106	B

Cayman Islands

ZF2AH	15,408	204	24	A

Zone 12

Chile

CE8EIO	30,858	188	37	B
CE8SFG	4,488	50	22	B

Ecuador

HD2RG	253,368	598	91	B
HC3AP	9,557	119	19	B
HC1/KE4EWI	6,344	56	26	B
HC1NWW	4,070	53	22	B

Colombia

HK3JJH	158,356	536	61	B

Peru

OA4EI	124,872	327	88	B

Venezuela

YV1DRK	31,812	124	66	B
YV4EYA	3,718	37	26	B
YV1OB	6,405	67	21	C

Zone 13

Brazil

PY7OJ	14,040	87	40	C
PP7CW	10,820	106	42	C

Zone 14

Chile

CE5BPE	1,170	17	15	B

Argentina

LU8HSO	64,538	228	61	A
LU1AEE	9,510	81	30	A
L5F (LU1FNH,op)	640	80	10	A
L37N (LU2NI,op)	254,944	490	124	B
LU2QC	158,598	490	66	B
LU8ADX	147,050	380	85	B
LU2DW	130,392	1571	83	B
L3HL	37,877	187	49	B
LU5E (LU5EWO,op)	31,703	137	49	B
LU2DKN	28,548	116	61	B
LU2ANN	22,231	111	47	B
LU8HLI	1,254	278	58	B
LS7EE (LU7EE,op)	183,700	412	100	C
LU1EWL	159,720	397	88	C
LW2DRF	560	22	16	C

Zone 15

Brazil

PY1EDB	37,996	190	41	C
PY2NZR	15,840	106	30	C
PQØMM (PP5s JR,UA,PU5FBS,PY2NY, ops)	778,776	1134	148	D

Zone 16

Argentina

LV1V (LU1s VV,VK,LU2VD,LU4VZ, LU5VC,LU9VY,ops)	741,980	1346	115	D

Zone 17

Iceland

WJ2O/TF	441,600	1370	100	A

Zone 18

Norway

LA4BN	52,972	233	76	B
LA1PHA	4,000	47	32	B
LA2AD	882	27	14	B
LA4LJA	812	29	14	B
LA5MT	136,846	403	106	C
LA2HFA	32,538	162	66	C
LA5FBA (+LA2HYA,LA6ZFA,LA8UU)	82,315	297	101	D

Aland Islands

OH2VZ/OHØ	15,224	112	44	C

Finland

OH6WZ	1,239,249	1829	187	A
OH6NIO	1,227,786	1924	161	A
OH3KCB	63,630	331	70	A
OH6SU	57,031	179	107	A
OH1EH	1,416,524	2118	179	B
OH6LNI	1,104,752	1756	176	B
OH5PA	3,240	80	15	B
OH1NOR	1,120,560	1706	174	C
OH8LAE	565,288	1067	152	C
OH6YF	548,100	1114	135	C
OH6AG (OH6KZP,op)	238,140	655	108	C
OH9NUC	31,872	214	48	C
OH2YL	31,304	165	55	C
OH3NM	3,408	40	24	C
OH3KOH	2,034	32	18	C
OH3NE (OH1KAG,OH3s LQK,MMH, ops)	651,867	1309	151	D

Denmark

OZ5EV	228,375	457	145	B
OZ5MJ	147,018	400	107	B
OZ8T	2,520	43	24	B
OZ1KWG	33,344	181	64	C
OZ5UR	378	12	7	C

Sweden
SMØBDS 83,444 307 92 A
SM6CZU 1,272 31 24 A
SM5ARL 198,720 1472 135 B
SM3LIV 137,994 408 109 B
SMØTTV 85,981 391 71 B
SM7RZF 62,160 260 74 B
SM7HSP 58,240 266 70 B
SM4BTF 22,800 136 60 B
SM6AHU 2,898 53 18 B
SLØCB (SMØTXT,op) 1,098,165 1735 179 C
SKØWJ (SMØTHN,op) 623,199 1473 129 C
SMØDZH 100,919 360 91 C
SM5AJV 64,086 308 66 C
SM5RE 40,896 207 64 C
SM6SHF 3,840 52 32 C
SKØUX (SMØs JHF,KCO,TQX,ops) 1,089,003 1937 163 D
SK5EW (SM5s FUG,IMO,ops) 60,580 318 52 D

Zone 19

European Russia
U1BA 26,070 181 55 B
UE1A (RV1AC,op) 790,720 1555 140 C
RW1AN 646,737 1014 161 C
RZ1AYX (RV1AQ,RX1AW,RW6HJV/1, ops) 498,960 1123 135 D

Zone 20

European Russia
UA1PAC 20,915 145 47 A

Asiatic Russia
RA9XF 90,525 289 75 B
RK9XYW 39,468 214 44 B
UA9XC 254,900 589 100 C
UA9XS 247,248 537 102 C
RA9XU 14,534 128 26 C
RK9XWH (UA9s XFY,XJV,XMC,ops) 1,481,385 1765 183 D

Zone 21

Asiatic Russia
UA9KDZ 12,375 120 25 C

Zone 23

Asiatic Russia
UAØQBR 111,680 411 64 C

Zone 25

European Russia
RKØQXY 34,522 205 51 C

Zone 26

Asiatic Russia
UAØKCL 66,170 254 16 C

Zone 27

Ireland
EI1DD 40,680 353 40 A
EI4VTC/P 113,804 425 92 C
EI/G4BUO 58,460 244 79 C

France
TM1C (GØJFX,op at F6CTT) 1,669,920 2378 168 A
F5ADH 1,638 29 18 B
F5PRH 563,323 666 239 C
TM9C (F5IN,op) 343,896 1036 89 C
F6BQY 270,940 655 124 C
F5NQL 129,536 444 88 C
F5RAB 112,104 334 108 C
F5JBR 87,058 268 79 C
F5TNI 17,954 110 47 C
TM8A (F5s OZF,RXL,SSG,EA2KL,ops) 473,796 1180 123 D

England
GØDEZ 219,915 521 135 A
GØVYH 167,462 591 74 A
GØVSN 248,882 614 107 B
GØLII 277,495 657 127 C
G3ESF 209,440 492 119 C
G6QQ 29,100 155 66 C

Northern Ireland
GIØSAP 41,760 308 30 C

Scotland
GM3CFS 177,858 116 123 A

Wales
GWØAJI 25,190 173 55 B

Belgium
ON7NQ 75,670 231 94 A
ON7SS 19,451 133 53 A
ON5GQ 350,901 789 127 B
ON4MA 215,800 595 104 B
ON4ATW 169,386 615 74 B
ON6CR 76,533 273 97 B
ON5PJ 28,112 174 56 B
ON5CZ 8,676 89 31 B
ON4XG 93,700 265 100 C
ON4NL 41,912 210 62 C
ON4RU 25,628 172 43 C
ON6TJ 24,388 149 52 C
OT5V (ON4s ALL,AYM,BCP,ON6KZ, KB2RRV,ops) 1,162,720 1829 160 D
ON6AH (+ON4GO,ON5OO,ON6s QR, VL) 893,760 1515 152 D
OT5K (ON4s AGX,BCJ,KB,ON,ON5s DI, GK,SY,ON6CX,ON7XT,ON9CGB,ops) 498,432 1156 118 D

Netherlands
PI4ZLD (PA3EOB,op) 44,880 210 68 A
PAØYN 36,500 57 43 A
PAØIJM 318,816 930 96 B
PA3GAB 60,240 247 80 B
PA2ALF 40,590 220 65 B
PA3DWJ 16,104 118 44 B
PA3AEB 8,052 86 33 B
PAØQX 5,200 68 20 B
PA3EXI 2,166 44 19 B
PA3GNO 56,240 217 80 C
PAØJR 32,838 145 78 C
PA3BTH 15,244 110 37 C
PA3BEJ 6,541 75 31 C

Zone 28

4UØITU (DL1XAQ, DJ2XS, ops) 395,698 1141 106 D

Croatia
9A4RU 209,664 555 126 A
9A3ZG 91,000 362 100 A
9A3SM 87,548 312 86 A
9A5I 81,345 341 85 A
9A1CEI 27,869 333 29 A
9A2TX 34,200 302 45 B
9A2AJ 296,664 2104 141 C
9A2WJ 15,192 194 64 C
9A2A (9A2FM, 9A4FM,ops) 65,436 380 57 D

Fed. Rep. of Germany
DL3KDV 975,371 1517 179 A
DJØFX (OE2VEL,op) 936,144 1332 198 A
DL8HCO 76,196 356 86 A
DL1MIE 71,910 287 90 A
DL2AYI 71,640 344 90 A
DL9GMN 39,934 220 82 A
DL9BRA 37,812 212 69 A
DL9MWG 14,924 126 41 A
DL6SDW 13,740 97 60 A
DL5AUJ 440 16 11 A
DL7URH 180 16 9 A
DL8PC 826,619 1245 193 B
DL8OBQ 191,278 537 118 B
DF7YU 128,631 627 53 B
DL6KY 108,756 369 114 B
DL8SDC 49,236 282 66 B
DL2SEU 49,210 211 74 B
DF5BX 45,401 259 83 B
DL5FCV 26,740 203 70 B
DLØSWL (DL2FJ,op) 24,360 156 70 B
DL4KCC 15,370 109 53 B
DL1HSR 11,136 115 58 B
DL6MTG 5,600 68 40 B
DL8URJ 5,510 67 38 B
DL7UKE 4,250 58 25 B
DL3WB 3,828 60 29 B
DL3HWW 1,919 45 19 B
DL4VBS 1,121 27 19 B
DL1JPL 738 38 9 B
DJ1VQ 715 31 11 B
DLØHRO (DL3KUD,op) 299,585 727 143 C
DL6KVA 268,320 554 156 C
DL3JAN 232,883 611 133 C
DL6BBT 223,836 552 138 C
DJ9RR 211,068 552 123 C
DL2NWK 196,321 431 137 C
DL7BQ 179,124 457 132 C
DAØTJM (DL9GFB,op) 176,276 581 127 C
DL1TH 142,027 431 109 C
DL4SZB 110,999 365 101 C
DLØTD (T94DX,op) 108,498 349 107 C
DL4JYT 93,400 316 100 C
DL5KUD 87,860 276 115 C
DL3AWJ 79,887 270 93 C
DL5SVB 77,193 336 87 C
DL1ARJ 69,485 324 65 C
DL1DQY 69,050 343 50 C
DL1ZQ 56,950 670 85 C
DL7VOX 54,372 235 92 C
DL3BZZ 54,115 225 79 C
DL6JRA 54,036 261 76 C
DL7ANQ 51,828 242 84 C
DL2ZAV 49,385 251 85 C
DL1GHX 43,180 205 68 C
DJ5GG 42,975 219 75 C
DL8MKW 41,625 255 75 C
DL5LRA 39,846 153 87 C
DL3HSC 36,162 211 63 C
DL4FDM 30,178 175 79 C
DL3HRA 25,970 371 70 C
DL1EV 22,950 96 85 C
DK7FP 22,792 127 56 C
DL9YP 18,778 170 41 C
DL3KWF 16,912 120 56 C
DF3QN 15,675 123 55 C
DL1OO 15,400 308 50 C
DL3HXS 9,537 74 51 C
DL2DRZ 5,632 48 44 C
DL/WD4AHZ 4,380 80 30 C
DL3KWR 2,880 54 20 C
DJ2YE 2,552 50 22 C
DL9GMC 2,100 37 20 C
DL2YAK 1,410 32 15 C
DL5FCO 312 18 12 C
DLØGVM (DL1SWG,DL4s SUA,SVA, DK7XS,ops) 568,008 1123 168 D
DLØDR (DG1IU,DF2IX,DL5s IAI,IAM, DB6IR,DK7IH,DK9IP,ops) 473,286 979 142 D
DLØMBG (DK1AOB,DL8s AUA,AYI,ops) 449,242 978 146 D
DLØWEM (DK6BS,DJ9CN,ops) 253,752 516 194 D
DLØWMD (DL1KVA,DL3KUW,DL6KWN, DL9GRO,ops) 93,936 400 103 D
DL6RDE (+NET) 64,600 266 40 D

Hungary
HAØMM 1,977,150 2378 245 A
HA7RC 96,354 315 106 B
HAØDU 1,877,533 2299 233 C
HA3OD 236,313 649 121 C
HA4FV 10,802 265 22 C
HG5M (HA1ZU,HA5s BBC,BVD,EH, MY,WA,ops) 1,359,299 2057 193 D
HG750K (HA1s XO,ZN,ZZ,ops) 303,702 971 98 D

Switzerland
HB9IBA 13,356 183 36 C

Italy
IK3SCB 61,676 287 68 A
IK4WMG 30,282 210 49 A
IØKHP 18,550 143 50 A
IKØXBX 11,140 115 40 A
IR4R (IK4ALM,op) 512,958 1142 141 B
IRØC IKØAZG,op) 451,328 982 128 B
IO4A (IK4PVR,op) 433,698 898 129 B
IK1HSS 371,309 787 157 B
IR4B (IK4AUY,op) 325,120 818 128 B
IR5R (I5JHW,op) 213,920 608 112 B
IR4QJH 185,380 563 124 B
IK6GPZ 151,848 520 76 B
IK2VOV 135,324 429 84 B
IV3FSG 92,988 293 108 B
IK6SNR 57,690 316 45 B
IK3XNQ 47,182 233 62 B
IK6RFQ 23,698 209 34 B
IT9AJP 13,536 90 48 B
IKØCHU 8,480 86 40 B
IV3GCP 2,163 37 21 B
IN3KTT 2,090 74 11 B
IT9CWJ 1,746 37 18 B
IK2MJD 1,248 27 13 B
IØZUT 280,000 710 125 C
IKØSHF 224,534 616 131 C
IK5TSS 169,904 402 148 C
IT9ORA 27,612 179 52 C
IKØDWJ 26,585 135 65 C
IKØADY 12,685 105 43 C
IT9GXE 2,793 55 21 C
IKØHBN 593 211 26 C
IR4T (IK2s HOG,QEI,I4s JMY,UFH,YSS, IK4IEE,ops) 1,937,796 2507 204 D
IK2VUE (+IK2XYI) 574,104 1373 152 D
II2K (I2GXS,IK2s BUF,SGF,UCK,ops) 556,614 1218 153 D
IU8E (IK8s EPC,TEO, ops) 340,704 1018 117 D
IO2L (I2OKW,IK2s PIG,XYU,YYE,ops) 309,810 777 138 D

Sardinia
ISØOMH 92,796 565 76 C

Bulgaria
LZ3YY 272,060 927 122 A
LZ1VA 114,597 326 48 A
LZ2FM 26,460 164 63 A
LZ2KGA (LZ2NZ,op) 2,848 38 32 A
LZ4BU 38,880 230 72 B
LZ1DM 27,666 193 58 B
LZ5QZ 2,184 38 21 B
LZ1BJ 195,597 691 103 C
LZ2VP 63,414 355 78 C
LZ1QZ 26,492 239 37 C
LZ1CW 20,700 690 30 C
LZ2TW 11,816 107 56 C
LZ1ZJ 7,002 130 18 C
LZ1FJ 2,951 69 13 C
LZ2NB 2,431 76 33 C

Austria
OE1KYW 55,722 321 74 A
OE1GOA 1,600 44 20 A
OE8Q (OE8SKQ,op) 10,329 107 33 C

Czech Republic
OK1MD 458,749 951 167 A
OK1KZ 194,928 564 124 A
OK1IR 90,075 425 75 A
OK1DXI 24,026 182 41 A
OK1DSA 5,037 111 23 A
OK1UHZ 6,150 137 25 B
OK2BDI 386,939 713 167 C
OK1VD 319,358 648 142 C
OK1FPS 247,368 606 132 C
OK1DRQ 245,490 598 147 C
OK2QX 175,001 421 139 C
OK1FHI 129,092 404 118 C
OK1FKV 127,983 439 111 C
OK1GS 94,863 242 103 C
OK2BWJ 44,784 266 72 C
OK2BND 31,666 169 71 C
OK1DMS 5,496 79 24 C

Slovak Republic
OM3CDZ 120,900 444 93 A
OM3TA 108,640 406 97 A
OM6MO 102,973 409 89 A
OM2SM 59,724 303 63 A
OM1AF 128,029 433 103 C
OM3IF 56,052 219 81 C
OM7AT 55,050 303 75 C
OM3CAB 49,392 319 63 C
OM5KM 30,476 135 76 C
OM3CDN 17,215 137 55 C
OM3TUM 3,383 50 12 C

Slovenia
S53R 1,305,103 1731 191 A
S59L 742,350 1386 147 B
S51DX 685,584 1312 162 B
S51WV 34,526 262 61 B
S59AA 1,374,206 1889 202 C
S50D (S57AD,op) 772,422 1476 159 C
S53MJ 175,670 576 110 C
S57U 158,326 559 86 C
S51NU 109,368 318 98 C
S54A 89,100 301 108 C
S58MU 81,270 325 90 C

Poland
SP2QCH 256,230 770 130 A
SP5ELA 235,587 659 121 A
SP6CIK 129,800 458 100 A
SP3IOE 126,046 444 107 A
SO5TW (K3TW,op) 34,528 266 52 A
SP6KEP (SP-23022,op) 328,152 800 132 B
SN9K (SP9LJD,op) 276,727 943 121 B
SP9XCN 269,698 684 143 B
SP7SEW 162,936 497 124 B
SP8OON 93,600 342 100 B
SP6MLX 82,058 316 89 B
SP1HJK 66,906 326 81 B
SP9VEJ 58,859 331 71 B
SP6FBD 37,115 251 65 B
SP6DVP 25,593 157 57 B
SP6FJ 20,832 152 56 B
SP8OOB 17,108 156 52 B
SP6SOX 16,044 128 57 B
SP5BB 13,216 179 32 B
SP3ZJA 2,678 49 26 B
SP2FOV 328,640 760 130 C
SP9KRT 238,524 586 143 C
SP2WDW 219,125 639 125 C
SP1AEN 197,750 544 113 C
3Z4EAK 119,392 483 82 C
SP2UKB 106,106 351 106 C
SP5CNA 99,231 309 93 C
SP5DIR 79,636 301 86 C
SP3PFR 76,014 296 82 C
SP7NMW 62,764 282 71 C
SP8BAB 37,324 222 43 C
SP7BYM 35,700 178 70 C
SP3FZN 35,283 138 57 C
SP3FAR 32,453 115 83 C
SP6SYF 27,324 159 54 C
SP5CGN 26,277 147 57 C
SP6CXH 18,235 172 35 C
SP2AHD 14,950 139 46 C
SP4GFG 14,768 134 52 C
SP9KZ 13,423 124 31 C
SP9MDY 8,224 103 32 C
SP8LZC 1,806 61 14 C
SQ9BZK 671 37 11 C
SP2KJF/4 342 22 9 C
SP8KEA 20 4 4 C
SP3PLD (SP3s BBZ,CB,FLR,IBM,ops) 366,576 780 168 D

Greece
SV2AEL 26,078 178 59 A
SV2BFN 86,602 333 106 B

Dodecanese
SV5/DL9GTI 2,363 47 17 C

Bosnia-Herzegovina
T94EU 124,630 404 103 A
T94NF 23,923 251 47 A

Romania
YO5BQ 67,670 362 67 A
YO2QY 22,230 138 45 A
YO3RU 187,579 597 127 B
YO7DAA 87,932 399 89 B
YO2LFP 86,102 471 76 B
YO4RDN 55,890 342 81 B
YO3AIL 48,057 187 83 B
YO4RIU 43,568 269 68 B
YO7ARY 20,466 160 54 B
YO2LIM 16,502 214 42 B
YO6XB 696 42 12 B
YO8KAN 275,906 837 142 C
YO8FR 176,953 517 119 C
YO3AAQ 45,162 206 78 C
YO5DAS 23,430 160 55 C
YO2ARV 12,462 98 31 C
YO4AAC 8,820 108 35 C
YO3KWA (YO3s GEK,GHC,ops) 159,318 579 106 D

Yugoslavia
YT1AD 1,970,724 2458 203 A
YU5ØBO 1,792 115 9 A
YU5ØKN 63,753 339 79 B
4N1N (YZ1MB,op) 13,608 248 42 B
YT5ØBB (YT1BB,op) 1,223,586 1974 182 C
YZ7V (YT7AO,op) 702,693 1218 163 C
YZ1AU 523,450 1144 145 C
YU7LS 337,587 743 131 C
YU1JU 192,510 582 115 C
YU7SF 105,339 337 111 C
YU1GN 59,925 239 85 C
YU1NU 28,126 237 41 C
YU7KM 25,800 155 60 C
YU5ØRA (YU1RA,op) 5,307 81 11 C

Macedonia
Z3ØM (Z31GX,op) 688,296 1789 136 B
Z32BU 218,790 729 99 B
Z32JA 123,250 565 85 C
Z32DR 4,662 75 22 C

Albania
ZA/OK5DX 1,019,133 1839 153 C

Zone 29

Azerbaijan
4K9W 20,801 226 61 C

Moldova
ER2WD 34,030 260 41 B
ER1OA 148,390 467 95 C

Belarus
EU1DQ 206,415 539 135 A
EW6TU 161,868 652 94 A
EU8MA 59,126 394 47 B
EU1MM 918,340 1534 170 C
EW2AA 45,678 232 46 C
EW4XA (EU4EU, EU4-001,-002,ops) 166,440 558 114 D

Lithuania
LY6M (LY1DS,op) 1,272,154 1731 226 A
LY2IJ 1,162,060 1712 194 A
LY2LA 325,625 879 125 A
LY1DT 759,744 1488 144 B
LY3BH 577,656 1253 142 B
LY2DU 293,410 799 122 B
LY1FW 212,810 620 130 B
LY3NJ 55,809 281 81 B
LY2AO 674,847 1164 167 C
LY1BA 539,736 989 172 C
LY2MW 537,251 1042 169 C
LY2PAQ 246,152 682 116 C
LY3MR (LY1s FF,FR,LY3NFW,ops) 745,542 1437 100 D

Kaliningrad
RA2FAD 1,215 45 15 B

European Russia
UA3RAR 1,598,625 1781 225 A
RN3QO 330,250 821 125 A
RX3AQL 131,026 1337 98 A
RK3SWX (UA3S-952,op) 82,916 417 63 A
RA6ABK 50,912 200 86 A
RU6BV 39,292 272 47 A
RU4SS 71,258 329 82 B
RK3FT 46,450 285 50 B
RA1QEA 29,786 196 53 B
RU3WT 19,140 147 55 B
UA3RCO 18,480 148 40 B
UA4AVN 14,352 202 52 B
UA4YJE 6,265 71 35 B
UA6XJA 111 41 19 B
UA6XT 96 6 6 B
RA3XO 501,984 944 166 C
RV3LA 234,813 715 87 C
RW3GU 233,750 598 125 C
RU1AO 183,735 476 135 C
RA4HRL 125,345 442 99 C
RA3PP 111,815 403 95 C
RN6AI 65,280 259 85 C
UA4YJ 62,040 293 73 C
UA3DGA 52,140 254 79 C
UA4ANZ 39,196 120 82 C
UA3YKG 33,891 155 29 C
UA3LDU 25,956 148 63 C
RX3DTN 24,568 252 37 C
UA4SS 22,048 181 53 C
RA3VY 19,640 179 40 C
RS3A (RZ3BW,RAØAX.ER2CQ,ops) 1,965,816 2366 228 D
RY6Y (RA6s AU,AX,RV6AGG,RX6BA, UA6YN,UA6-101-350,ops) 1,790,712 2486 231 D
RU3A (RA3s AUM,AUU,RK3DT,RU3FM, RV6HY/3,UA6XGL/3,ops) 1,466,630 2054 199 D
RU4L (RW4LW,UA4LL, UA4-169-459,ops) 741,710 1279 170 D
RK3EWW (,RA3EA,RZ3s EC,EM, UA3EKG,R3E-1,-4,UA3-147-543,ops) 732,796 1364 167 D

Ukraine
UT5UGR 1,765,752 2183 236 A
UUØJ (UUØJZ,op) 700,400 1378 170 A
UX6VA 238,720 629 128 A
US3IZ 196,298 560 122 A
UY5TE 92,070 394 93 A
UX1RX 82,650 334 75 A
UX1LA 74,906 324 67 A
UX1HW 33,226 280 74 A
UT8IT 8,745 99 33 A
UT1ZZ 7,532 83 28 A
UT5DK 1,462,344 2269 156 B
EMØF (UXØFF,op) 834,677 1420 179 B
UX4UA 252,648 666 78 B
UR5DDX 157,352 541 104 B
UR5WHT 55,772 316 81 B
UX2VZ 59,444 273 77 B
UT1HT 13,455 210 12 B
UT3HD 12,862 137 59 B
UR5EAT 873,816 1495 184 C
UR8QX 754,290 1328 153 C
UY1I (UT3IQ,op) 583,947 1136 161 C
UX3FW 402,116 865 148 C
UT7ND 317,086 645 142 C
UT7ZT 226,944 550 128 C
UX2MF 202,740 525 124 C
UX5EF 152,378 433 65 C
UR3MP 116,296 457 91 C
UR5BCJ 88,722 297 106 C
UR3PDM 67,868 250 76 C
UR4IZA 67,200 345 64 C
UY2ZZ 40,174 267 53 C
UT3FM 36,087 157 69 C
UU2JA 33,856 152 92 C
UX5VK 1,666 30 17 C
UU5J (UU1JA,UU2s JQ,JX,JZ,UU3JD, UU4JDF,UU5JR,UUØJX,ops) 2,702,612 2976 257 D
US4IWU (URØIQ,UXØIY,ops) 184,736 629 92 D

Latvia
YL2DZ 24,026 206 41 A
YL2GN 39,819 360 39 C

Zone 30

Turkmenistan
EZ8BO 12,684 107 28 C

European Russia
UA4WGU 1,203,840 1816 190 A
RA4HUQ 4,233 99 20 C
RK4WWA (RW4WA,UA4WA,ops) 755,596 1382 172 D

Asiatic Russia
RA9CMO 237,420 847 60 A
RW9QA 19,649 114 401 A
RW9AB 225,982 465 103 B
UA9AOL 107,360 294 88 C
RV9WB 29,492 100 73 C
RU9D (RW9DX,RX9DR,UA9CSS,ops) 1,272,556 1706 166 D

Uzbekistan
UK7R 93,732 308 73 C

Kazakhstan
UN7BY 588,280 925 140 C

Zone 31

Asiatic Russia
RZ9OO 473,375 849 125 B
UA9URZ 56,198 346 86 B
RZ9U (RZ9UA,op) 1,506,557 1569 221 C
RZ9OZ 207,230 558 85 C
RZ9HG 200,816 522 88 C
RW9OWW (UA9OO,UA9s 145-590, 145-591,ops) 39,996 198 44 D

Zone 32

Asiatic Russia
RWØA (RVØs AM,AR,AX,UA3DPX, UAØs AGI,ANW,I2VXJ,ops) 1,400,352 1754 174 D

Zone 33

Asiatic Russia
UAØJB 570,920 995 140 C

Zone 34

Asiatic Russia
RAØFU 271,425 688 105 A
RSØF 14,448 130 28 C
UAØLS 5,442 57 26 C

RZØLWA (RAØLSO,RWØLMF, UAØLHT,ops)	44,838	236	53	D
Zone 36				
Madeira Islands				
CQ3B (CT3EE, op)	657,597	1245	109	B
Azores				
CU3FQ	167,172	833	95	B
CU3AV	54,050	371	50	B
Canary Islands				
EA8DXD	3,088	52	22	B
Zone 37				
Spain				
EA7DPU	245,300	667	110	A
EA2CR	11,211	102	37	A
EA1UX	328,605	1008	95	B
EA5GRC	233,649	615	117	B
EA3BOX	187,999	531	107	B
EA3GHQ	179,280	457	120	B
EA3ELZ	76,349	269	91	B
EA1FBU	67,575	305	51	B
EA1EB	64,296	276	76	B
EA5EYJ	59,616	260	69	B
EA1FDG	47,160	353	40	B
EA5EIL	37,764	291	42	B
EA1OB	37,084	153	73	B
EC3CIL	34,112	434	26	B
EA1BEZ	31,500	191	60	B
EA1OT	6,180	76	30	B
EA3AMV	3,948	68	21	B
EC5ACZ	2,190	68	10	B
EA1BLF	1,092	26	14	B
EA1DLN	1,092	26	14	B
EA3GIW	720	26	12	B
EA3AJW	61,245	297	45	C
EA7FZ	44,320	190	80	C
EA5DLT	12,920	116	34	C
EA7AAW	1,349	33	19	C
EA3EJI (+NET)	156,816	432	121	D
Balearic Islands				
EA6ACF	13,638	271	33	B
EA6ACZ	11,172	120	42	B
EA6JN	3,444	50	21	B
EA6ZS	7,192	76	29	C
Ceuta and Melilla				
EA9IE (YU1RL,op)	2,911,184	2888	212	A
Zone 39				
Israel				
4Z4TA	129,516	308	86	A
4Z5FW	8,330	98	17	A
4X1VF	4,471	52	17	C
Cyprus				
C47W (5B4WN,op)	1,356,516	1948	147	C
Lebanon				
OK1EE/OD5	893,500	1506	125	C
Turkey				
TA2ZW	1,147,248	1761	144	A
Iraq				
YI9CW (SP5AHC,op)	157,868	566	61	C
Zone 41				
India				
VU2TLO	155,308	432	82	C
Zone 44				
Taiwan				
BV2FG	184,955	657	71	A
BV2FI	88,320	338	44	B
China				
BY1BY (BG1s JX,MK,BZ1DCH, ops)	20,492	122	47	B
South Korea				
HL5AP	47,412	283	54	C
HLØK (DS1AII,DS2AFP,HL1s LME,ODG, HL2IDN,ops)	40,876	289	44	D
Hong Kong				
VS6BG	58,351	271	59	C
Zone 45				
Japan				
JH5FXP	667,464	1080	137	A
JA2JNA	195,920	376	124	A
JR4GPA	154,584	705	72	A
JA7KBR	76,610	219	94	A
JL3SBE	72,542	266	83	A
JA1BUI	69,342	221	78	A
JK2VOC	65,412	264	69	A
JA6IP	17,700	99	50	A
JE9LLO	6,510	53	30	A
JQ1NGT	6,160	84	22	A
JA1AB	6,120	61	24	A
JG1RDV	3,850	71	25	A
JA4HIX	2,413	33	19	A
JH5ZCP (JR5JAQ,op)	384,356	844	106	B
JH4RHF	95,628	298	78	B
JHØHON	82,144	56	30	B
JH1UUT	49,600	255	64	B
7K2DOD	21,504	110	48	B
JH6FHJ	18,960	115	48	B
JA7BEW	14,792	59	32	B
JR7WAB	11,491	200	26	B
JR9NVB	8,954	66	37	B
JR1MRG	6,358	49	34	B
JE1UFF	2,982	38	21	B
JA2GHP	2,592	40	18	B
JR7LVK	2,460	43	20	B
JA1STY	1,652	34	14	B
JA9KUG	1,456	22	16	B
JA2BEY	1,157	23	13	B
JA1DY	456	16	6	B
JH2WHS	324	48	6	B
JG1GCO	189	7	7	B
JA1JLP	45	13	2	B
JA1IDY	407,365	702	113	C
JR7OMD/2	247,044	510	119	C
JA9CWJ	217,251	489	101	C
JP6JKK	191,961	652	77	C
JS1OYN	117,924	322	93	C
JF3IUC	101,288	291	88	C
JHØGHZ	85,374	248	81	C
JM1NKT	61,364	250	58	C
JA5APU	59,472	328	42	C
JA3ARM	57,836	207	76	C
JF3GKE	53,370	294	45	C
JA1WYQ	47,064	157	74	C
JR2BNF/1	29,971	153	43	C
JH6TYD	25,152	131	48	C
JA1QN	22,425	141	39	C
JA1KI	19,844	109	44	C
JA7COI	17,646	121	34	C
JH1DYV	17,064	112	36	C
JA2SWF	11,715	81	33	C
JA8SPZ	11,322	78	37	C
JA6CM	10,140	74	30	C
JI3KDH/3	9,342	88	27	C
JA2MOG	8,512	66	32	C
JR9FJY	7,920	60	33	C
JO2CKU	5,346	68	27	C
JA2GTW	4,599	51	21	C
JA2QVP	3,717	45	21	C
JA1XEM	3,655	55	17	C
JA7DNO	2,912	40	16	C
JL7PVR/1	1,290	29	10	C
JF1SQC	1,280	20	16	C
JA8AJE	1,269	35	9	C
JJ2KFF	1,248	24	13	C
JA1AAT	931	22	7	C
JH1JGZ	891	25	11	C
JA3AVO	711	17	9	C
JA3BCT	204	8	5	C
JA7YAA (JE1AMC,JF1s CKX,SXL, JG7PSJ, JRØSPG,ops)	763,147	1417	119	D
JAØYAK (JF1USQ,JI7TDR,JM7SGO, JEØETP,JFØESV,ops)	220,920	651	84	D
Zone 46				
Nigeria				
5NØMVE	846,264	1208	148	B
5NØGC	755,760	1134	141	B
Zone 49				
Vietnam				
3W5FM	8,096	156	16	A
Zone 50				
Philippines				
DU1SSR	36,405	179	45	B
OHØXX/DU1	11,085	152	14	C
4G2X (DU2s AYL,BBH,RK,DY2BRL, 4F2s IR,MD,ops)	353,632	850	86	D
Zone 52				
Angola				
D2TT (ON6TT,op)	448,440	980	95	B
Zone 54				
Indonesia				
YB2CPO	37,640	201	40	B
YC1JZF	9,020	86	22	B
YBØASI (AA4U,op)	138,498	363	82	C
Zone 55				
Australia				
VK4TT	35,061	229	31	C
VK4MZ (+VK4EMM)	572,314	907	134	D
Zone 57				
South Africa				
ZS9F (ZS6YA,op)	95,976	282	86	B
ZS6CAX	19,395	101	45	C
ZS6AJS	6,386	54	31	C
Zone 59				
Australia				
VK5GN	201,572	467	92	A
VK2VM	14,820	86	38	A
VK2ARJ	66,261	357	39	B
VK2APK	344,080	644	115	C
Zone 60				
New Zealand				
ZL2AGY	243,360	628	80	C
Zone 61				
Hawaii				
KH6FKG	90,650	500	37	B
WH6CQH	56,940	302	39	B
WH6PK	20,590	150	29	B
Zone 63				
French Polynesia				
FO5IW	482,963	1029	97	B
Zone 65				
Marshall Islands				
V73CO (KE6TDY,op)	6,400	64	20	C

Checklogs

4S7WP, DH5DAK, DJØMAQ, DLØMWG, DLØSH, DL2AKF, DL2DWA, DL2HUM, DL3HTR, DL3NEO, DL4AMA, DL5AMF, EA1AKP, EA5JC/EA1, EA8BXQ, EC7FAB, HA3GN, JRØBAT, JR1XKU, KL7UR, LA4OGA, LA7CL, LA8CE, LA8LA, LZ1KVF, LZ1VQ, LZ2UA, LZ2UA, NØXCF, NG3K, OH2KQ, OK2SNX, OM4JD, PAØTV, PA3CNI, PA3FYF, PY3CJI, RV3VF, SMØCSX, SMØGKF, SMØNJO, SP1GZT, SP2HHX, SP2LNW, SP3NGB, SP4TJS, SP5KDK, SP6DMJ, SP6LK, SP7VCA, SP7VCK, SP9HOF, SV2YC, UAØYAY, UA1QBE, UA3WCN, UN7EAT, UN9PQ, WD4FJP, XE1LM (XE1PE, op), YO5QCA, YO9HH, YV2FEQ.

W1AW schedule

Pacific	Mtn	Cent	East	Sun	Mon	Tue	Wed	Thu	Fri	Sat
6 am	7 am	8 am	9 am			Fast Code	Slow Code	Fast Code	Slow Code	
7 am	8 am	9 am	10 am			Code Bulletin				
8 am	9 am	10 am	11 am			Teleprinter Bulletin				
9 am	10 am	11 am	noon							
10 am	11 am	noon	1 pm			**Visiting Operator Time**				
11 am	noon	1 pm	2 pm							
noon	1 pm	2 pm	3 pm							
1 pm	2 pm	3 pm	4 pm	Slow Code	Fast Code	Slow Code	Fast Code	Slow Code	Fast Code	Slow Code
2 pm	3 pm	4 pm	5 pm	Code Bulletin						
3 pm	4 pm	5 pm	6 pm	Teleprinter Bulletin						
4 pm	5 pm	6 pm	7 pm	Fast Code	Slow Code	Fast Code	Slow Code	Fast Code	Slow Code	Fast Code
5 pm	6 pm	7 pm	8 pm	Code Bulletin						
6 pm	7 pm	8 pm	9 pm	Teleprinter Bulletin						
6:45 pm	7:45 pm	8:45 pm	9:45 pm	Voice Bulletin						
7 pm	8 pm	9 pm	10 pm	Slow Code	Fast Code	Slow Code	Fast Code	Slow Code	Fast Code	Slow Code
8 pm	9 pm	10 pm	11 pm	Code Bulletin						
9 pm	10 pm	11 pm	Mdnte	Teleprinter Bulletin						
9:45 pm	10:45 pm	11:45 pm	12:45 am	Voice Bulletin						

W1AW's schedule is at the same local time throughout the year. The schedule according to your local time will change if your local time does not have seasonal adjustments that are made at the same time as North American time changes between standard time and daylight time. From the first Sunday in April to the last Sunday in October, UTC = Eastern Time + 4 hours. For the rest of the year, UTC = Eastern Time + 5 hours.

❑ *Morse code transmissions:*

Frequencies are 1.818, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675 and 147.555 MHz.

Slow Code = practice sent at 5, 7½, 10, 13 and 15 wpm.

Fast Code = practice sent at 35, 30, 25, 20, 15, 13 and 10 wpm.

Code practice text is from the pages of *QST*. The source is given at the beginning of each practice session and alternate speeds within each session. For example, "Text is from July 1992 *QST*, pages 9 and 81," indicates that the plain text is from the article on page 9 and mixed number/letter groups are from page 81.

Code bulletins are sent at 18 wpm.

W1AW qualifying runs are sent on the same frequencies as the Morse code transmissions. West Coast qualifying runs are transmitted on approximately 3.590 MHz by W6OWP, with W6ZRJ and AB6YR as alternates. At the beginning of each code practice session, the schedule for the next qualifying run is presented. Underline one minute of the highest speed you copied, certify that your copy was made without aid, and send it to ARRL for grading. Please include your name, call sign (if any) and complete mailing address. Send a 9×12-inch SASE for a certificate, or a business-size SASE for an endorsement.

❑ *Teleprinter transmissions:*

Frequencies are 3.625, 7.095, 14.095, 18.1025, 21.095, 28.095 and 147.555 MHz.

Bulletins are sent at 45.45-baud Baudot and 100-baud AMTOR, FEC Mode B. 110-baud ASCII will be sent only as time allows.

On Tuesdays and Saturdays at 6:30 PM Eastern Time, Keplerian elements for many amateur satellites are sent on the regular teleprinter frequencies.

❑ *Voice transmissions:*

Frequencies are 1.855, 3.99, 7.29, 14.29, 18.16, 21.39, 28.59 and 147.555 MHz.

❑ *Miscellanea:*

On Fridays, UTC, a DX bulletin replaces the regular bulletins.

W1AW is open to visitors during normal operating hours: from 1 PM until 1 AM on Mondays, 9 AM until 1 AM Tuesday through Friday, from 1 PM to 1 AM on Saturdays, and from 3:30 PM to 1 AM on Sundays. FCC licensed amateurs may operate the station from 1 to 4 PM Monday through Saturday. Be sure to bring your current FCC amateur license or a photocopy.

In a communication emergency, monitor W1AW for special bulletins as follows: voice on the hour, teleprinter at 15 minutes past the hour, and CW on the half hour.

Headquarters and W1AW are closed on New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving and the following Friday, and Christmas Day.