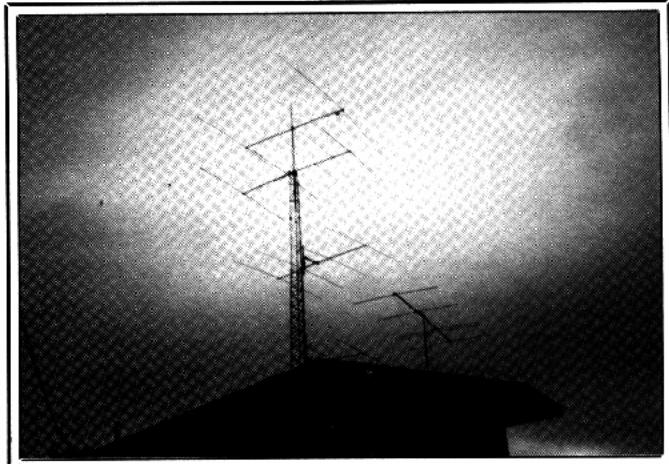


*Bill, N1GL, finished 4th in the World at P40A.*

*Here's what it takes to win the CQ WW—the setup at 9Y4TT, operated this year by Rick, NQ4I.*



*Danny, K7SS, enjoys "post contest bliss" following his record demolishing of the World QRP record with that 3M plus effort.*



## Results of the 1987 CQ World-Wide DX SSB Contest

BY LARRY BROCKMAN\*, N6AR/4, AND BOB COX\*\*, K3EST

The computer revolution is alive and well in ham radio. Even more to the point, the computer is becoming a significant force in the *CQ WW Contest*! This year the contest results were entered directly into N6AR's computer, transferred electronically to *CQ*, and dumped into *CQ*'s typesetting machines, thereby eliminating many stages of translation and checking from the process. Hopefully, the output will be more accurate. Then, as we will discuss later, the computer is being put hard at work on

the processing of your log entries in our never ending attempt to keep the contest results on the up and up.

For years we have seen a gradual growth in the use of computer duping of the entries. Many of you routinely feed your contacts into your computers to obtain an alphabetical listing of the calls on each band, a great way to "dupe check" your logs. There are even services available out there from those who are in love with their keyboards. The "ABC" dupe checking service, for example, will take your log, and for a fee will provide you with a dupe-free entry. Others enter their logs in total into the computer after the contest, providing a data base file that can be sorted six different ways from Sunday. That data base file provides a convenient way of cleaning up the log,

yielding a nice, clean, printed output; it allows a dupe check sheet to be generated easily as an alphabetical listing by band; it solves your QSL chores, since labels can be printed quickly for each QSO. Yes, indeed, the computer is the ideal toy to add to the complex electrical maze that is your rig. You just couldn't go wrong using your computer, right?

Wrong! Oh, to be sure, the computer-generated outputs referenced above are all fantastic time-savers if they are used properly. Improper usage, by the way, is evidenced by the emergence of the "GIGO" principle—garbage in, garbage out. Perhaps an example of how computers are being used to generate mistakes would be helpful.

Every one of us is imperfect. If we had a way to measure each operator's abilities absolute-

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Olli, OH0XX (left), presents Mano, FY5YE, a copy of the computerized version of his contest logs. Olli finished in the world runner-up slot in the single op, all band category.



Ville, OH2MM, takes a brief pause during his operation at EA8RCT to pose for this photo. Ville says his "CQ voice machine" put out a hectic CQ for him.

ly, then we could see how they would compare inaccuracy. For example, I duped my 1986 CQ WW CW log as I operated the contest. Later, I duped them again by hand after the contest, and of course, found some dups I didn't find the first time. But, when I computer duped them the third time, guess what—I found one or two more dups. The point is that human error occurs every time we engage in a processing step. Now, if you enter your log into the computer, but you don't thoroughly check the accuracy of your entries, then you may well generate more errors than you catch. When N6AR entered the results into his computer, he sure found out how critical the editing process is!

This year we had several large computer entries where this problem existed in spades. That's one of the reasons why we have asked for a copy of the original log in the past—to confirm whether errors are keypunch or operating errors. But, guess what. Having been besieged with computer logs the past several years, we are changing our policy. From now on it won't matter to us what the source of the error is. If it's a copying error, a handwriting error, a keypunch error, even a computer interface error—they're all going to be treated the same from now on. If it's an error, and we find it, you are responsible for it and it will count against you, no matter how obvious it is. So just remember, be careful, please.

### The All Band Results

The big story for 1987 was the phenomenal new QRP World record set by Danny, K7SS, at PJ2FR. With just 5 watts, Danny exploded the old record set by TG9GI in 1982 by a factor of 3, with 3.17 million points and over 3200 contacts. Congratulations on a super effort, the only World record set in any of the all band categories this year.

Our Single Operator, All Band winner was 9Y4TT, operated by Rick Dougherty, NQ4I. The Atlanta-based pilot helped put up new antennas at the host station, and then amassed an impressive 10.4 M, followed by Olli, OH0XX, at FY5YE, with a fine 9 M, and Lars, SM5GMG, who scored 7.5 M at CR9BZ. Our only entry for team contesting this year, Team Scandinavia, boasted 4 entries in the top 10, with T30RY and ZB2X joining FY5YE and CR9BZ. Their fine 25 M team score would have blown away almost any competition—or would it? Team captain Martti Laine, OH2BH, challenges anyone to

edge out fellow North American competitor 8P9HR in the Multi-Single category with a fine 10.7 M. AZ4F finished third at 9.8 M. The high European score came from the group at LZ9A with 7.9 M, and USA honors went to John Dorr's crew at K1AR (4.53 M). The K1AR guys had lots of stiff competition, with 3 other teams finishing in a virtual dead heat with them, as K3TUP (4.51 M), N2RM (4.34 M), and N4WW (4.29 M) gave it their all.

It was a three-way dogfight for World high Multi-Multi this year, with PJ1B emerging as the victor with a fantastic 35.8 M. Nearby, P40V finished second at 34 M, with HC8DX rounding out the top three with 33.7 M. Frank, W3LPL, led his team to an impressive 9.5 M USA first place in Multi-Multi, followed by two fives—N5AU (7.9 M) and NR5M (7.3 M). The European top dog was UP7A with 10.7 M.

### Single Band Categories

Monoband entries continue to thrive, especially as the propagation on 10 meters and 15 meters improves. World records were set on four of the six bands in some of the most heated competition of the contest. This year 10 meters showed some of the flair we enjoyed at the cycle peak, with all continents available from most locations. Yet South American entries continued to dominate the World competition on the high bands, sweeping the top 5 on 10 meters, and the top 6 on 15 meters. ZY5EG, operated by PY5CC, took the 10 meter honors with 1.77 M, enough to top fellow South Americans LU1E, CX4HS, CE6EZ, and CW2A, in that order. EA8VV finished sixth with 648 K. The stateside winner was John, K6SVL, who found the band open to Japan in style, enough for 176 K. He was followed by KE5FI and N4EJV, both at or about 150 K. CQ7NH ran away with it in Europe, with a fine 350 K score.

At 15 meters, PY5EG, took the 15 meters prize with a fantastic 2.468 M, edging out Mario, CW4C, at 2.3 M. This was a new World and South American record, toppling last year's 2.1 M effort at the same station by N5FA. K3RV/4 piled up 663 K stateside to lead a pack

put a team together to beat them in next year's fracas. Bill, N1GL, finished fourth at P40A, and vowed to do better next year, as did TR1G, who was in fifth place. Finishing seventh worldwide, but first in Europe with 4.8 M, was ZB2X, followed by Pasi, OH6UM, who guest operated OH0BH to the tune of 4.3 M. Incidentally, we have included a "Top Score" block for Europe this year for the first time, like the ones we have traditionally had for World and USA winners. SU1ER (by Jim Neiger, N6TJ) and WR6R/KH6 rounded out the top ten, both at about 4.1 M. We are all indebted to Jim for putting zone 34 on the air on all bands!

Once again the East Coast dominated the top 10 USA with 9 of the top 10 scores. In fact, the top four scores were posted by a New England contingent led by Stu, KC1F, who racked up 3.2 M. He was heavily pursued by K1ZM (2.7 M), KM1H (2.6 M), and K1DG (2.5 M), respectively. Our hat is off to Jim Stevenson, KM6B, who managed to invade the top 10 from California with a fine 2.16 M, just a hair behind the fifth place finish of Steve, W3BGN.

The KP2A crew organized by Darryl, N6DX,



The number four score worldwide on 160 meters was posted by SV8CS, shown with his station.

of contenders that included W5VX, K4XZ, and W6PU in that order. 4N4A led in Europe with 942K, with 4 of the top 6 scores coming from Yugoslavia.

Dave Donnelly toppled the old South American record, as P40SS bested a tough set of contenders for the top spot on 14 MHz with a great 1.79 M. He was followed by ZZ5EG (Opr. N5FA), and YW1A with 1.6 M and 1.5 M, respectively. Alex, UF6FFF, set a new Asian record at RF0FWW with 1.447 M, while LZ1KGB smashed the European record at 1.39 M to finish fifth worldwide. John, K2VV, was USA high at 812 K.

Ville, OH2MM, travelled to EA8RCT for a try at single band 40 meters, which just has to be the toughest of all phone categories with all

that ORM to contend with. Ville captured a new World record at 859 K, nudging out the old '86 mark of 850 K set by VP2ET. FJ5BL (654 K) and EA8ACH (583 K) finished second and third. IO3MAU set a new European standard with a fine fourth place Worldwide score of 430 K, followed by VE3CDX and JA8IXM. KV0Q was tops in the States with 102 K.

Conditions were fantastic on 75 meters this year with long openings beginning before sunset and ending well after sunrise. Bob Allphin, K4UEE, mastered P40R to the tune of 552 K to demolish the old 383 K World record of VE3BMV set back in 1985. 8R1RPN was second with 231 K. A new European record was established by UA2FGA with 197 K, a tad above DL6RAI's one year old standard from

LX9BV. Meanwhile, WB8JBM nosed out W6RJ 105 K to 101 K, to win it Stateside.

The low band showed great signs of activity, as new World and Asian records were set at UG7GWO with 255 K, a mind-boggling 160 M score that broke the 4 year old standard by UP2BBT/J6V. Wally, LZ2CJ, came in second and was tops in Europe, but failed to better his '86 record score. The only record set by a US station this year in any category was on 160 meters, as WB9HAD's super 27 K effort made AA1K3's '85 mark of 25 K history.

## Some Special News

This year we were blessed with a continuing increase in activity, especially from continents

## PHONE TROPHY WINNERS AND DONORS

### Single Operator, All Band

#### World

**9Y4TT** (Opr. Rick Dougherty, NQ4I)

**Donor:** Dave Rosen, K2GM  
(WA2RAU Memorial)

#### World QRPP

**PJ2FR** (Opr. Danny Eskinazi, K7SS)

**Donor:** Milliwatt Books

#### U.S.A.

**KC1F, Stuart Santelmann**

**Donor:** Potomac Valley Radio Club

#### Caribbean/Central America

**HI3JH, Julio Henriquez**

**Donor:** Alex M. Kasevich, VP2MM

#### Europe

**ZB2X, Jorma Saloranta**

**Donor:** Potomac Valley Radio Club,  
W4BVV Memorial

#### Africa

**CR9BZ** (Opr. Lars Mohlin, SM5GMG)

**Donor:** Gordon Marshall, W6RR

#### Asia

**UA9YX, G. G. Shulgin**

**Donor:** Japan CQ Magazine

#### Japan

**JR6EZE, Kazu Kuroki**

**Donor:** Japan Crazy Contester's Club

#### Oceania

**T30RY, Pekka Kolehmainen**

**Donor:** Northern California DX Club

#### South America

**FY5YE** (Opr. Olli Rissanen, OH0XX)

**Donor:** Special CQ Plaque

### Single Operator, Single Band

#### World—28 MHz

**ZY5EG** (Opr. Peter Sprengel, PY5CC)

**Donor:** Joel Chalmers, KG6DX

#### World—21 MHz

**PY5EG, Attilano De Oms**

**Donor:** Lee Wical, KH6BZF

#### World—14 MHz

**P40SS, Dave Donnelly**

**Donor:** North Jersey DX Association  
(K2HLB Memorial)

### World—7 MHz

**EA8RCT** (Opr. Ville Hillesmaa, OH2MM)

**Donor:** Fred Laun, K3ZO (K7ZZ Memorial)

### World—3.8 MHz

**P40R** (Opr. Bob Allphin, K4UEE)

**Donor:** Fred Caposella, K6SSS

### U.S.A.—28 MHz

**K6SVL, John Alexander**

**Donor:** Donald Thomas, N6DT

### U.S.A.—21 MHz

**W5VX, William Parry**

**Donor:** West Jersey DX Group

### U.S.A.—14 MHz

**K2VV, John Yodis**

**Donor:** Southern California DX Club

### U.S.A.—7 MHz

**KV0Q, William Johnson**

**Donor:** Stanley Cohen, WD8QDQ

### U.S.A.—3.8 MHz

**WB8JBM** (Opr. Patrick Collins, NZ4K)

**Donor:** Arnold Tamchin, W2HCW

### Canada (14 MHz)

**VO1QU, Bryan Kelly**

**Donor:** Gene Krebsiel, VE7KB

### Caribbean/Central America

**TI2LTA, Luis Tinoco**

**Donor:** Pedro Piza, Jr., NP4A  
(KP4ES Memorial)

### Europe—28 MHz, Zone 14

**CQ7NH, Luis Teixeira**

**Donor:** A. G. Anderson, GM3BCL

### Japan—21 MHz

**JK1JQQ, Sam Suzuki**

**Donor:** DX Family Association

### Multi-Operator, Single Transmitter

#### World

**KP2A** (Opr. KP2AA, KW8N, N6DX, N6PO,

N7RT, NE8Z, WZ6Z)

**Donor:** Southern California DX Club  
(W6AM Memorial)

#### U.S.A.

**K1AR** (Opr. K1AR, AK1A, K1GQ, K1JX,

AA2Z)

**Donor:** Carolina DX Association

### Europe

**LZ9A** (Opr. YU5AD, YU5RU, LZ1YE,  
LZ1DB, LZ1RB, LZ2HE, LZ2PO, LZ2DF,  
LZ2CC)

**Donor:** Bob Cox, K3EST

### Canada

**VE1DH** (Opr. VE1DH, K2NJ, KU2C, KY2O,  
NR2H, VE1ASJ, VE1ZJ)

**Donor:** Calgary Amateur Radio  
Association

### Multi-Operator, Multi-Transmitter World

**P40V** (Opr. AI6V, N6KT, N6TR, N6TU,  
NU6S, W6OAT, W6SZN)

**Donor:** Radio Club Venezolano

### U.S.A.

**W3LPL** (Opr. W3LPL, AI3M, K1DQV, K3DI,  
K3RA, K0FVF, KA1GD, KC8C, KM3T,  
N3GB, N8II, NW5E, W3EKT, W3EMH,  
WB2EKK, WB3JRU, WD4AXM, WP4J)

**Donor:** DX Incorporated Club

### Europe

**HB0/DL8OH** (Opr. DL8OH, DF4TD,  
DF7RX, DF9YY, DK2OY, DK3RG,  
DK8MZ, DL6RAI)

**Donor:** OH-DX-RING (OH2AM)

### Contest Expeditions

#### World—Single Operator

**P40A** (Opr. Bill Ovca, N1GL)

**Donor:** Stuart Meyer, W2GHK

### World—Multi-Operator

**HC8DX** (Opr. HC2CG, HC2RG, N6AA,  
N6VI, N6ZZ, W6MKB, W6NV)

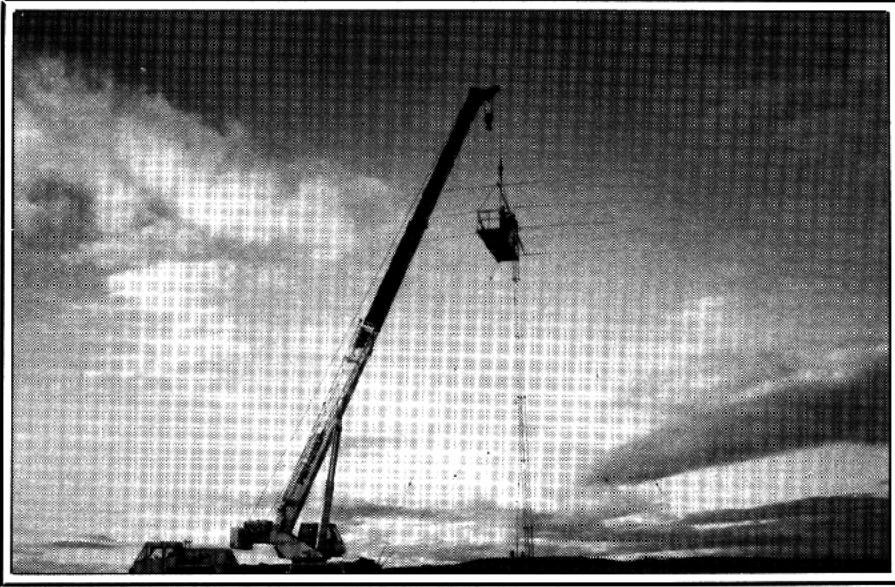
**Donor:** The German CDXG & SDXG  
(DJ3NG & DJ4EI Memorial)

### SPECIAL CQ MAGAZINE PLAQUE

#### World Multi-Multi

**PJ1B** (Opr. K3EST, KB2XZ, N3ED, N4RV,  
N7ZZ, W7ZR, WA3LRO)

**Donor:** CQ Magazine



*Up goes the 20 meter beam at TF3CW.*

*This year's Multi-Op DXpedition Trophy goes to the crew at HB0/DL8OH shown here adorned with their gear. Left to right are Dieter, DL8OH; Gunnar, DK3RG; Reinhard, DF4TD; Wolfgang, DK8MZ; Ben, DL6RAI; Bernhard, DF7RX; Uschi, DF9YY; and Manfred, DK2OY.*

other than North America and Europe. We cannot help but notice the significant increase in participation in Indonesia, China, Africa, and most of South America, all welcome additions to the fun of the contest. Those early morning Asian openings to the USA East Coast on 10 meters were something else, too. And of course, the VU4 station was a great surprise, especially on 10 meters and 160 meters. Activity from several zone 23 stations was in evidence, not to mention the great all band effort at SU1ER, a zone 34 delicacy. My favorite was the HS0 on 20 meters right at the beginning of the test. The list of goodies is endless—the 5V7, the 3DX2, the FK, the 3X, etc. Only the CQ WW Contest provides so many pleasant surprises. But did you know that only about 1 in 6 active stations enters their log in the contest? Take a look at the listings this year, particularly if you didn't send in your log. Would you have been a winner? Think about it. Next time, send in your log. Another thing worth mentioning. If you didn't get a certificate or a trophy, the man to contact is John Dorr, K1AR. Drop John a line at 2 Baldwin St., Windham, NH 03087 if you need help.

### Random Comments

The situation on 75 meter phone in the "DX Window" continues to worsen. A few guys tend to monopolize the window. Some stations get cued by their buddies of DX somewhere else on the band. The buddy even offers to hold the frequency for his friend. Some guys even appear to be running lists for fellow contestants! A list operation is a blight to DXing, but it is just plain ridiculous in the contest. We may just tape a few of the shenanigans in 1988. If what we heard last year is repeated, and we get it on tape, then some of you may just find you have been reclassified as Multi-Single!

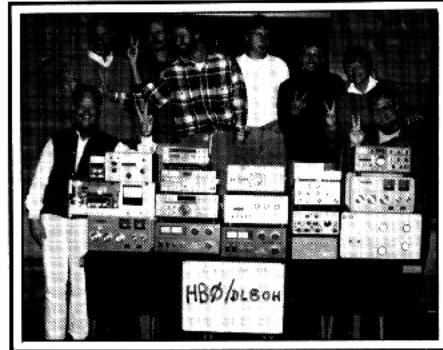
Earlier we commented on the computerized checking we've been doing with the logs. This

year we have expanded our operations on the computer significantly. For example, all logs submitted are entered into a master file of known entries on each band. Then, we pick one or two target bands, and enter a fair number of the large logs on those bands into the computer. We can cross correlate between the entrants to see who worked whom. The data shows interesting patterns that relate to operator accuracy. For example, we can determine which operators have a large percentage of calls in their logs which are unique. It is not true, for example, that the guy with the most contacts has the largest percentage of unique calls. A further look at the unique calls reveals that they are often very similar to calls everyone else has worked—circumstantial evidence that perhaps a "unique" call is actually a busted call. Some of you may have seen the presentation at Dayton or Visalia by some of the W6 faithful. In essence, their analysis and ours are qualitatively similar.

The results of the computer checking show that everyone makes mistakes, some more so than others. There is a fine line between acceptable human error and unacceptable operating, but it is hard to define. So, we continue to work on it. Some general statements can be made, though, about the quality of logging. If you have a substantial score (in excess of 1 M), and you have not dupe checked your log, you will probably have in excess of 5 to 7% dupes. If you kept a cross check sheet during the contest, but didn't check it a second time after the contest, you probably have 2 to 3% dupes still in your log. If you are super careful at copying calls during a run, making sure you always confirm the station's call on every QSO, you probably still have a couple of percent error in your calls. But if you operate as a machine and concentrate on sustaining rate rather than accuracy, you're probably pushing 10 to 15% error. Because the burden of a clean entry is on you, not the contest committee, we use stiff



*Here's part of the crew at FK/JH4RHF—Kei, JG3MRT (front), and Yugh, JR3KEG, who was busy running contacts.*



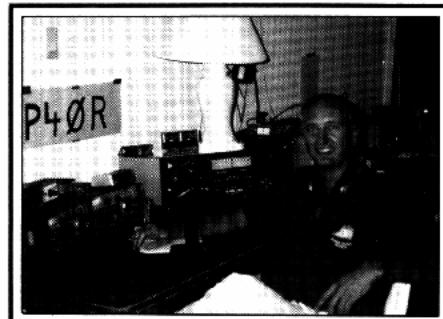
penalties for errors we catch. For a dupe or busted call that we detect in excess of 1%, you will be penalized as much as 10 to 1. That includes zone copying errors, too. If you list an LZ as zone 14, you're going to lose credit for that contact. If you list an Alabama station as zone 5, you're going to lose credit for that contact, too. So, we urge all of you to concentrate on proper balance between rate and accuracy. The next time you are in the thick of a run, and you're not sure of the call, ask for it again. Do it right.

### Parting Comments

This year we are honored to have had the support of the following committee members in processing almost 3,000 phone logs: Rick, N6ND; Dave, K2SS; John, K1AR; John, KE7V; Ed, N3ED; Fred, AD6C; Jan, N6AW; Glenn, K6NA; Jim, W7EJ; Gene, N2AA; John, K2VV; Mike, W9RE; and Doug, KR2Q.

The 1988 test is just a few weeks away. Good luck and good DX!

73, Larry, N6AR, and Bob, K3EST



*Bob, K4UEE, won this year's 80 meter single band category at P40R.*

## BAND-BY-BAND BREAKDOWN—TOP ALL BAND SCORES

Number groups indicate: QSO's/Zones/Countries on each band.

### WORLD TOP SINGLE OPERATOR, ALL BAND

Station	160	80	40	20	15	10
9Y4TT	74/8/18	449/18/53	716/24/75	1622/31/88	1907/31/102	1644/24/81
FY5YE	41/7/15	121/11/44	258/19/66	1326/28/89	1777/30/103	2199/28/96
CR9BZ	21/5/18	458	14/58	483/21/74	1190/29/85	1649/30/96
P48A	30/7/13	217/17/56	562/21/65	1269/31/94	1408/30/89	1407/27/65
TR1G	—	—	35/11/17	1541/31/82	1935/30/94	1372/29/97
T30RY	24/6/7	382/18/25	798/28/52	1052/34/82	1474/33/63	859/22/39
ZB2X	103/8/44	369/14/62	664/24/86	1074/29/79	1333/26/88	587/24/76
OH0BH	240/8/47	426/19/75	615/30/91	993/35/101	939/39/106	204/25/68
SU1ER	7/2/5	218/11/46	493/19/59	1053/32/91	496/20/52	988/24/72
WR6R/KH6	25/4/4	183/12/15	653/27/39	787/32/74	1326/32/66	788/28/47

### WORLD TOP MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
KP2A	66/11/27	569/20/73	648/26/88	2120/38/111	2190/32/112	1398/25/83
8P9HR	104/9/23	420/17/63	934/29/99	2448/32/104	1501/29/100	1374/27/88
A24F	10/5/9	34/12/22	60/27/58	887/36/98	2665/33/108	2462/33/104
KP4BZ	94/8/26	510/11/64	1462/31/95	1416/30/103	1973/29/107	1303/22/86
LZ9A	46/10/48	388/19/68	825/28/97	1051/39/123	2195/39/135	245/35/120
ZC4DX	119/8/36	565/15/62	754/24/75	955/26/70	1433/27/88	873/26/79

### WORLD TOP MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
PJ1B	495/17/46	1043/23/79	1732/27/98	4558/37/153	4024/35/139	3373/30/111
P48V	226/9/31	975/20/70	1974/30/114	4583/37/136	4119/35/131	3725/29/101
HC8DX	451/17/37	1091/26/84	1548/30/103	3737/37/125	5077/33/127	3633/24/92
VP9AD	760/15/47	1630/21/83	1721/29/100	4375/36/128	3089/34/131	1465/30/99
KH6XX	137/8/11	450/24/36	1337/33/61	1926/37/113	3193/38/86	1649/26/51
UP7A	1107/11/60	674/21/75	1297/35/113	2468/39/131	1587/37/122	490/27/83

### DX QRM

Running 80M with a dipole instead of a vertical with 100 radials is like riding a bike without pedals . . . UR1RWX. Worked WAC, WPX, and DXCC! . . . UZ6XWC. Very bad conditions to North America, and awfully bad conditions due to local jammers. Was trying to do my best as always . . . UB5WE. Sorry, I had a TVI problem . . . UA1OT. Propagation on 10 M was not bad throughout the contest, but where were all the W/K's this year? . . . UB5UAT. Nice to work the SSB test, but CW is much better . . . UQ1GXX. My 14th CQ WW DX SSB Contest . . . UT4UZ. First contest with new call sign . . . U1BA. Enjoyed every minute of the contest—hope to do better next year . . . UR2RE. Lot of DX was in the WW DX Phone . . . UA3ASL. The station and antennas were built by the OM himself . . . F9OJ. First time worked VU! Biggest thrill—called by CR9BZ . . . GJ3XZE. Must have been the only person to miss the S0 . . . GW4BLE. Have to build a 40 M beam for next year . . . GW4BKG. First entry—lots of new prefixes and countries for me . . . PA3ELD. CQ WW brings us DXers Christmas time in October . . . SM5KVN. Like always, it was midnight in the yard repairing something . . . HK3IJX. My category is: married, two sons, barefoot, small antenna, high TVI . . . IK4FNF. No conditions on 10 M: no NA, no Far East, only Florida like from an Aircraft Carrier . . . IO0KHP. First time worked split frequency on 40 M to USA—great fun . . . SP9FIH. Thanks for the contest . . . YO3NL. Great fun for my first ever effort on 160 M SSB. Lost a couple of rare ones (PJ1B, VP9AD). Look forward to the CW section . . . YO2IS. Was operating for the first time from our second location—out of the city and on a flat hill top . . . OK2RZ. Unfortunately some stations only operated above 3.8 MHz . . . HA4KYN/HA4XH. A little better than last year, but not at the top again . . . CT1CLR. I have been operating since 1937, the age is 73 . . . CT1QF. 10 M is getting alive again, at last, for Europeans . . . CT4NH. Knowing very little English, I thought I was in big trouble. But, I learned very much, indeed, so I'll be there again next year . . . CT1BMQ. Almost lost my voice due to below normal propagation . . . DJ4AX. Couldn't get through the European pileup to VU4GDG . . . DK8AX. Russians still making more QRM than QSOs . . . DL5RBW. My old Heathkit gave up after a number of hours . . . DL1XAS. After 110 QSOs I went QRT because I had some DX visitors . . . DJ8OT. Unfortunately no transatlantic QSOs on 10 M with my mini-antenna—maybe next year . . . DJ0NY. Thanks for running a great contest . . . E12VKL. Much too tired to be a serious competitor, but a true single op . . . F6BEE. Very nice weekend for me, but very bad for my neighbor (TVI) . . . FE6FNA. I am getting old, only 637 QSOs but more points than last year . . . F6BBJ. What a thrill—working VU on 15 with ease and then hearing all Europe and their linear let loose . . . G0CCH. Meeting so many

### USA TOP SINGLE OPERATOR, ALL BAND

Station	160	80	40	20	15	10
KC1F	39/9/30	117/13/53	119/23/62	1120/38/120	629/30/94	83/19/36
K1ZM	75/15/45	153/18/69	112/26/68	775/35/100	493/28/97	77/18/43
KM1H	75/15/38	216/20/69	113/23/64	826/35/108	407/28/94	90/15/43
K1DG	33/11/25	137/17/55	80/18/55	798/36/114	607/29/96	57/17/33
W3BGN	50/13/32	145/15/51	100/21/56	863/34/90	417/26/86	82/16/39
KM6B	22/13/14	158/23/40	416/28/47	390/32/80	629/31/66	138/18/38
N2LT	16/8/12	81/16/50	90/20/52	685/36/108	543/31/102	88/20/47
K5ZD/3	33/10/23	103/17/46	129/20/63	583/37/112	439/29/96	124/19/53
K5L	20/8/12	118/14/55	61/17/41	792/35/106	557/26/80	36/10/24
K1YR	17/9/11	137/19/58	113/25/68	430/35/106	547/28/97	101/21/50

### USA TOP MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
K1AR	32/11/31	288/22/80	144/29/88	1020/39/139	717/31/131	81/21/66
K3TUP	40/11/30	103/22/62	138/29/80	1136/19/147	832/30/125	104/22/66
N2RM	27/11/25	242/21/71	126/24/84	980/38/143	795/31/130	105/20/65
N4WW	32/12/28	139/22/72	134/26/82	1033/36/130	959/31/125	116/24/76
N4ZC	32/11/24	191/24/79	147/31/100	702/38/127	582/32/129	211/26/85
N4RJ	39/13/32	126/23/63	107/29/71	767/38/129	711/34/133	190/25/81

### USA TOP MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
W3LPL	116/14/49	487/23/84	295/32/99	1672/38/155	1235/35/144	416/25/93
NSAJ	77/14/45	181/25/78	378/32/102	1212/39/141	1320/34/138	543/29/88
NR5M	83/15/36	223/23/68	479/32/92	1065/38/134	1204/32/130	639/27/96
N6ND	50/12/22	138/21/44	327/30/64	1002/38/114	1192/33/91	672/23/66
K2TR	74/13/43	235/18/60	100/22/59	1040/39/132	568/32/126	182/19/67
K4VX/B	77/11/28	149/21/62	245/31/92	829/36/137	428/30/108	269/25/76

old friends from my days as 5Z4KL . . . GM3VBL. Poor propagation caused by aurora . . . JW0B. To have worked HC8DX as a new country, because I spent my vacation at Galapagos this year . . . LA9SN. My first CQ test was in 1951—and I still like it . . . OZ7HT. Working HC8DX, HS0A, 5T5BC, CR9BZ, ZC4DX, SU1ER, and WB8DIT/VP2M within 48 hours on top band was a real thrill . . . LZ2CJ. Very big surprise being called by HS0A on 160 M . . . SV8CS. Quite a challenge to try to stay awake for 48 hours for the first time in single op, all band . . . OH0BH/ OH6UM.

Thrill to have a field day station work so well right off the boat . . . P40V. New station on hilltop with a small building just for multi-multi . . . KL7RA. Nothing in particular . . . JA7YRR. 2 amps burned; 2 transmatches shortcircuited; one rig blew; 4 element 80 M yagi quit; but 9 happy ops . . . YB0WR. Many power failures made us rest very often . . . FK/JH4RHF. We had a blast and will be back next year . . . V47Z. Even with 24 hours of sunshine—40 degrees is still cold . . . KC4USV (Opr. W7SW). 121 countries on 14 MHz, but no VK, no IT9, no ZL. Something's wrong here . . . VE2ZP. Got HC8DX first call on the top band with 60 watts . . . VE3INQ. Even with barefoot FT-7, 5 watts, and dipole I was able to make 119 QSOs on 28 MHz . . . VU2TTC. Finished contest and life saving emergency operation within the contest period . . . YC2CTW. No power meant I could not turn my beam except at night, when it came on . . . L57Q. Discouraging to know that the massive JA curtain only counts one point each . . . BY1QH (Opr. K51ID). I always had a hard time getting through pileups because I was using only a simple antenna and no amplifier . . . YB3CEW. Look forward to breaking 1,000,000 points next year with my 75 watts output . . . K1BAZ/DV1. Next time I need a shorter call . . . VE7CRW/VE8. I am still surprised how it is possible to get 1500 QSOs on 10 M with a vertical antenna and 300 watts . . . 9J2EZ. More fun each time . . . TR1G (Opr. TR8JLD). Nearly all stations giving 59—really? . . . YC3OSE. 15 M was the only game in town . . . AH6FL. Finished antennas 2 hours before the contest started . . . 5T5BC (Opr. WB4ZNH). Heard some of the best operating ever in the contest . . . 5T5MH (Opr. WN4FVU). Too bad the K index snuck up to 6 on Saturday night . . . VE6OU/3. My first contest and I had a big time on 10 M . . . VU2CAP. Linear blew up just when the Europeans started to come in T30RY (Opr. OH1RY). My first contest in 24 years . . . KH6FKG. I love this contest, but I'm never fully prepared for it . . . VK3PU. A monobander helps a monoband score for sure . . . VE3XN. People need to examine the map to find out where KH0 really is . . . KH0AC (Opr. WA2TMP). Who said it's easy from a DX location—low band dipoles blew down twice, lightning hit 80 M dipole, 5 hours of power failure . . . CR9BZ (Opr. SM5GMG). CQ WW from Israel is quite different than from W6 land . . . 4X/K6KLY. Only in the CQ WW can I go around the World in less than 2

## TOP SCORES

WORLD Single Op All Band	USA Single Operator All Band	EUROPE Single Operator All Band
9Y4TT 10,370,962	KC1F 3,219,970	ZB2X 4,895,520
FY5YE 9,003,728	K1ZM 2,711,650	OH0BH 4,283,244
CR9BZ 7,530,264	KM1H 2,629,728	GW4BLE 2,928,000
P40A 7,481,920	K1DG 2,494,580	HA0MM 2,861,108
TR1G 5,758,257	W3BGN 2,283,393	OH6LK 2,156,880
T30RY 5,147,334	KM6B 2,158,272	RBSDX 2,127,972
ZB2X 4,895,520	N2LT 2,162,616	IV3PRK 1,971,935
OH0BH 4,283,244	K5ZD/3 2,083,725	RB5MF 1,882,010
SU1ER 4,157,233	KS1L 1,958,956	DJ2YA 1,636,992
WR6R/KH6 4,086,436	K1YR 1,951,481	UC2OR 1,522,163

28 MHz	28 MHz	28 MHz
ZY5EG 1,777,508	K6SVL 176,176	CQ7NH 352,352
LU1E 1,486,650	KE5FI 158,256	UA6LO 249,630
CX4HS 1,326,894	N4EJV 149,388	YU3C 141,638
CE6EZ 1,224,492	WB7FDQ 117,792	EA4EAP 133,380
CW2A 876,990	WA7KLK 76,518	4N1A 116,875
EA8VV 648,094	WA6VNR 72,956	YU7GW 97,092

21 MHz	21 MHz	21 MHz
PY5EG 2,468,529	K3RV/4 663,993	4N4A 942,039
CW4C 2,266,308	W5VX 573,207	YT3L 846,360
HC1OT 1,813,395	K4XS 425,941	YT7NW 707,085
LU2E 1,576,995	W6PU 399,750	OF5BM 675,032
P40T 1,317,081	KA5W 381,350	4N4Y 552,902
LU4L 1,237,956	K0RF 335,575	GB5NN 438,900

14 MHz	14 MHz	14 MHz
P40SS 1,792,056	K2VV 812,392	LZ1KBG 1,388,628
ZZ5EG 1,647,820	N2AA 707,616	IO1ZEU 1,224,818
YW1A 1,540,170	K1UO 657,900	YT3AA 1,073,340
RF0FWW 1,447,128	W7WA 649,250	I5MXX 914,104
LZ1KGB 1,388,628	K1RU 607,749	4N7N 882,882
IO1ZEU 1,224,818	KW8N 563,313	DJ4PT 719,831

7 MHz	7 MHz	7 MHz
EA8RCT 859,362	KV0Q 102,691	IO3MAU 430,332
FJ5BL 654,258	N6BFM/4 64,546	OF2HE 228,404
EA8ACH 583,478	K8XR/2 63,220	RU1DZ 227,432
IO3MAU 430,332	KP4AKB/8 45,144	RB5MR 212,736
VE3CDX 365,700	N4RIG 44,700	SM5AQD 210,140
JA8IXM 311,360	K8PO/1 39,330	SP3RBR 193,210

3.8 MHz	3.8 MHz	3.8 MHz
P40R 552,786	WB8JBM 105,138	UA2FGA 196,992
8R1RPN 231,822	W6RJ 100,620	HA4KYN 177,154
UA2FGA 196,992	WA4SVO 77,559	CU2AK 144,894
HA4KYN 177,154	KC7EM 50,172	RB5FF 138,112
NP4AT 148,960	W4PZV 26,660	OK2RZ 126,584
CU2AK 144,894	W2HZ 22,230	I4EWH 122,232

1.8 MHz	1.8 MHz	1.8 MHz
UG7GWO 255,852	WB9HAD 27,181	LZ2CJ 94,247
LZ2CJ 94,247	W0ZV 12,204	SV8CS 39,294
WB8DIT/P2M 40,392	W4DR 10,605	LZ1KOZ 34,038
SV8CS 39,294	W2FCR 10,004	OK3CWO 25,665
KH6CC 37,138	K7IDX 7,080	CT1AOZ 22,680
LZ1KOZ 34,038	N1ACH 5,245	SP8INO 18,468

Multi-Operator Single Transmitter	Multi-Operator Single Transmitter	Multi-Operator Single Transmitter
KP2A 10,693,238	K1AR 4,531,168	LZ9A 7,858,944
8P9HR 9,993,160	K3TUP 4,513,041	I4EAT 6,865,768
AZ4F 9,807,275	N2RM 4,344,639	OK7MM 6,390,300
KP4BZ 9,621,259	N4WW 4,288,284	OK5R 6,173,352
LZ9A 7,858,954	N4ZC 3,705,794	IK4CFV 5,925,744
ZC4DX 7,098,784	N4RJ 3,503,291	HG6N 5,836,276

Multi-Operator Multi-Transmitter	Multi-Operator Multi-Transmitter	Multi-Operator Multi-Transmitter
PJ1B 35,815,586	W3LPL 9,529,968	UP7A 10,717,356
P40V 34,073,237	N5AU 7,871,630	HB0/DL8OH 7,599,620
HC8DX 33,663,000	NR5M 7,253,136	YZ1U 4,788,156
VP9AD 23,236,827	N6ND 5,155,920	HB0/DF1JC 3,078,350
KH6XX 13,305,408	K2TR 3,828,510	LX50RL 2,326,912
UP7A 10,717,356	K4VX/0 3,536,345	ON6NL 2,001,230

days... YC1JZS. No amp, typhoon, big mess... XX9T (Opr. 4X6TT). A lot of fun putting a very rare zone and country on the air... SU1ER (Opr. N6TJ). My digital voice machine thanks its fellow machines worldwide for the nice QSOs... EA8RCT (Opr. OH2MM). Spent 15 minutes using my dummy load—worked VE1CYL 2 blocks away... VE1CBF/QRP. Duplicated my last year's score, and already getting ready for 1988... T12MEN. Great propagation and fine sportsmanship on this band... T12LTA. My first pileup from the other end... K8UE/VP2M. Went outside to stretch my legs at 3 AM and bumped into a cow... WB8DIT/VP2M. Getting 5V7WD, 9Q5NW, and 5T5BC on 20 M—all new DX within an hour... KP4CZ. Nine hours before the end, Mr. Murphy came to visit... KP4EOF. Great host and local hams, but equipment problems and a few mistakes—wait till next year... P40A. First night was tough going—big pileups and poor propagation to Europe; the second night was fun, but where were the Africans and VKs on 75?... P40R. Conditions really helped me, and my physical condition allowed me to be awake for 44 hours... PY5EG.

Good conditions on 20 M—band conditions seem to be improving... CE3NR. Definitely the best contest of all... HK1LDG. Worked BY4SZ, OX3LX, P29KRE, YI1BGD, ZC4DX, and 88 more countries on 10 M... HK3MAE. This time my score went up 610%; who knows what next year will bring... HK7IMB. One year is too much time to wait for the next contest... HK1KXA. I could have done better if I had some other antennas... 8R1RPN. Hearing Chitra from the Andaman Islands call me by name, I couldn't believe it... CX4HS. Very hard to work barefoot with a vertical... PT2TD. Got off to a bad start by sleeping through the first 4 hours of the contest... SV0FE. Power supply QRT, a big bang in the night... 15OVS. Our second big contest and will do it more times again... EA3MM. This year we used your contest to train SWLs and newcomers... FF6KAW. Worked HC8DX on 5 bands, VU4GDS on 10 M, and K5ZD/3 on 6 bands... F6EXV. Fantastic contest... LZ2KSQ.

## USA QRM

Breaking pileup for HS0A on 20 M... NK1F. We operated multi-multi with 9 operators—6 of them had never operated a contest before and they loved it... KT9M. Every year you learn something brand new in the contest... NR5M. My no-doz quit working, had to sleep... AA4NC. New tower, new antennas, new rig—new Murphy... WB4MAI. Heard N5AU so much I think I may have used his call a couple of times... N5MO. 34 hours with a popgun station in a big gun game... N5KDA. Had not worked China yet and had 3 BYs call me in the contest... W5VX. Worked BY1QH with QRP over a local running 1.5 KW who called at the same time... W0KEA. I kept yelling "QRP", "QRP"... N3RS. A lot easier to obtain a winning score from Tel Aviv than from Los Angeles... WB6JHC (Opr. 4X1F). First 15 minutes, 40 QSOs; downhill from there... N2AA. Stayed up the first night—was a zombie the second morning... K1VR. Shame on those who can't control their foul language... W1HN. I knew it was time to go to bed when I reached into my coffee instead of the raisins... KM1P. First contest—wish I had more time... WD2AHD. What luck! First contact in the contest was China... KA2CHX. Think you should pick a log or two at random, and the winners can have their spouses go on a trip for the CQ WW weekend... KT2D. JA/YB long path on 10 M was a real surprise... W2GD. Finding a big pileup on a JA with a JW ½ kHz down calling CQ with no takers... KE2CG. After meeting Jim Smith at Dayton, nice to finally work him... N2BSA. XYL says I gotta get grass up before the towers



One of the three big 30 M plus multi-multi efforts this year was P40V, ably manned by, left to right, Tree, N6TR; Bruce, N6TU; Rusty, W6OAT; Carl, AI6V; Tim, NU6S; Rich, N6KT; and Kip, W6SZN.



& K\$1N, NK7U & KE7DO, N7GPO, NI7TT, NO7F & KF7DQ, **0E3GEA/3**: 0E3GEA, 0E5VBL, **0F5NO**: OH5KS, OH5HQ, OH5BA, **DH4MI** & OH4JK, OH4ZS, **OH7AB**: OH7UE, OH7RS, OH7MA, OH7XH, OH7VR, OH7Y, OH7KA, OH7PF, OH7XW, **OH7A**: OH7BY, OH7ER, OH7HK, OH7UV, **OH2BEJ**/OH: OH2BEJ, OH2BVF, **OK10RA**: OK1-21682, OK1DHP, OK1DHT, OK1AYD, **OK2RAB**: OK2PEM, OK2PDK, OK2HBY, **OK5R**: OK1ADM, OK1ADS, OK1ALW, OK1ANZ, OK1RI, **OK7MM**: OK3CDV, OK3CEI, OK3CMZ, OK3CNJ, OK3CS, OK3CUM, OK3CVM, OK3CWZ, OK3JW, OK3TM, OBLGCTA, OBLCTBW, OLCUJV, OK3-2753, OK3-2747, Jan Kudla, **0Z1KWC** & **0Z1BQA**, **0Z3FYN**: OZ1IZL, OZ1IZB, OZ1LLC, OZ1LQM, **PABKHS** & PA0ERA, PA0NQH, PA3AWN, PA3DQW, PA3EJN, PBB0HO, PE1L BX, SP4CFG, **PA1TIC**: PA2JM, PA3DXD, PA3UDC, PA3ZDP, PA3ENX, PE1LSJ, PE1LTG, PD0QPC, PD0XOM, **PJUJ**: K4PI, KN4R, KX4R, W3BTX, **RL7PZ**: RL7PEO, UL7PBH, UL7PCU, UL7PEA, UL7PHB, UL7PO, UL7-0237, **RW4LYL**: UA4LDE, UA4LU, JA4YDZ, **RA4HW**: RA4HFO, UA4HBR, UA4HEM, **RZ6AWH**: Club, **SMSAZU** & **SM0MC**, SM8BGM, SM8ATN, SP2MP0: SP2JKC, SP2JSX, Jacek, **SP3PLD**: SP3HBF, SP3DUG, SP3SBB, SP3BM, **SP5PBE**: SP5ANJ, SP5ELA, SP5FKW, SP5JTF, SP5JTM, **SP5ZIM**: Club, **SP6PAX**: SP-0608JG, SP-0187JG, **SP6PAZ**: SP6FJG, SP6ZB, **SP7WKW**: Club, **SP8BKBM**: SP8GBW, SP8LBK, SP8ARY, SP8EGU, **SP9KJN**: SP9UJB, SP9MQA, **SP9PDJ/9**: SP9PY, SP9LNL, **SVF8** & **K0TEL**, **K5UC**: PA3CEF, PA3DWD, TKSEP, **UB3IWA**: RB5I, UB5IFZ, UB5IML, UBSICK, **UB4CWW**: RB5CB, RB5CW, UB5CCN, UR5-0807, IT5-1862, **UB4EWG**: Club, **UB4EYJ**: UB5EFW, UB5EPU, UB5EQX, **UB4EZI**: Club, **UB4IZA**: Club, **UB4LZA**: UB5LHZ, UB5LSL, UB5LTO, **UB4MWA**: UB5MDA, UB5MDD, **UB4MWU**: UB5BM, UB5-095130, UB5-095254, **UB4MX**: Club, **UB4QXU**: Audrey, Oleg, Toly, **UB4SWM**: UB5BSN, UB5SBF, UB5-074926, **UB4TWL**: Club, **UB4WXZ**: Club, **UB4WZ4**: UB5WBY, UB5-064534, **UB5WBZ**: UB5-062556, UB5-062240, **UC1AWC**: Club, **UC1AWE**: Club, **UC1AWU**: Club, **UC1WWF**: Alex, Vic, Vlad, **UC1WWO**: UC2UCW, UC2-00641, UC2-006138, **UF7FWM**: UF6AW, UF6FFH, UF6FII, **UF7QWW**: UF60AL, UF60AW, UF60R, **UG76WS**: UG6-084242, UG6-004259, **UH9AWE**: RH8AD, LH8BBH, UH8-19132, **U19AWH**: JI8AYAJ, U8ACK, U8AGH, **UJ9JWA**: UJ8JCM, UJ8JW, **UL8BWW**: UL7BVA, JL7BQO, UL7BWB, UL7BY, UL7-016389, **UL7WVW**: Club, **UL8DZZ**: UL7DA, UL7DAR, UL7DBW, UL7DCW, **UL8LWA**: UL7-026587, UL7-026653, UL7-026663, **UL8LWZ**: PL7LAH, UL7LDS, UL7-026177, **UL8LYA**: UL7LEG, UL7LEN, UL7LER, UL7LEZ, UL7LO, **UM9MWA**: UM8MMA, UM8MDX, **UM8MRG**, **U0450WN**: U050AB, U050BT, U050CM, **UP1BWW**: UP2BJU, UP2BKW UP2BLA, UP2BMW, UP2PK, UP2-038892, UP2-0381852, **UP1BXR**: Club, **UP1BYC**: UP2CY, UP2-0382504, UP2-0382505, **UP1BYK**: UP2BAH, UP2BDB, UP2BFY, UP2BJV, UP2-0381682, **UP1BZG**: UP2OA, UP2BCO, UP2BCW, UP2CTC, UP2BZR, UP2-038439, **UP1BZL**: UP2BLL, UP2BG, UP2BFJ, UP2BNW, **UP1BZ0**: UC2IA, UP2BFN, UP2BMX, UP2BNC, UP2BON, UP2-038346, UP2-038728, UP2-0381751, **UP1BZQ**: UP2BMQ, UP2-0381682, **U01GXJ**: Club, **U01GZW**: U02GID, U02GKL, U02GM, U02GN, Ingus, **UR1RW0**: Club, **UR1RWX**: UR2FJ, UR2RDJ, UR2RFH, UR2JR, UR2RNA, UR2RNJ, UR2RNX, UR2RRR, UR2-083165, UR2-0831005, **UR1RYA**: Club, **UR1RY0**: UR2RP2, UR2-0831700, UR2-0831711, **UZ1CXF**: Club, **UZ1DWB**: Club, **UZ2FWB**: Serge, Vital, **UZ3DKH**: Club, **UZ3DKW**: UZ3-1421755, UZ4-1421925, **UZ4AWB**: RA4AK, UA-1569856, **UZ4PZ**: RA4PN, RA4PMX, UA4PMI, UA4PNX, **UZ4WB**: Club, **UZ6HXX**: UA-1081838, UA6-1081857, UA6-1081867, **UZ6LWZ**: UA6L, UA6LVQ, UA-1610336, UA6-1510403, UZ6WCW: Club, **UZ9CYP**: U9ACJA, UA-1542105, **UZ9CZZ**: Club, **UZ90WD**: UA-10-3554/90, UA-145162, UA-145338, **UZ90WW**: UA900, UA-145508, **UZ9OXI**: UA90F, UA90FB, UA90LW, UA9-145206, UA9-145207, **UZ90WW**: UA90AU, UA90CO, UA9-134222, **UZ9SWR**: Artur, Sergei, Vlad, **UZ9XXM**: JA9XF, UA9XL, UA9-00472, UA9-098700, **UZ9YXO**: UAYII, UA9YI4, UA9YJ9, UA-09-09840, **UZBAXX**: UA0AGI, UA0AMA, UA-09-103729, UA9-103712, **UZBCWA**: RA0CBS, RW0CA, UA0CBF, UA0CBI, UA0CCD, UA0CG, UW0CA, UW0CN, **UZBJWA**: UA0JJ, UA0JA, UA0JB, **UZBOWT**: Club, **VE1DH** & **K2NJ**, KU2C, KY20, NR2H, VE1ASJ, VE1ZJ, **VE1DX**: VE1AQN, VE1ATY, VE1B1G, VE1B1H, VE1B2O, VE1B2X, VE1C1T, VE1D1, VE16B, VE1UA, VE1VB, **VE3SPC**: VE3CLL, VE3DAX, VE3ERT, VE3JP, VE3KZE, VE3MKK, VE3NB, VE3OGE, VE3PLR, VE3PU, VE3SBK, VE3SSL, VE3VEE, F. Kern, **VE3UOT**: VE1BHA, VE3HTT, VE3SSMA, **VE4SI** & **VE4ATC**, VE4ATM, **VE5GF** & **VE5EL**, VE5GMH, VE5HNG, **VE5RC**, **VK2HS**/VK2CX, VK2FVG, **DF9Z/PW9**: DF9Z, DK8ZB, **W1AQ** & **K1AGA**, KA1MO, KM1X, WA1VEF, WA1WPC, **W2RQ** & **KR2J**, N2NT, **W2RR** & **KAVVY**, KA2WIK, NV2A, W2KZK, WA2AOG, WB2ABD, WB2CLJ, WB2YOH, **W2UI** & **N3KR**, **W3HHG/4** & **A4AGM**, WR4S, **W3KWH** & **KA3OY1**, KT3L, N3EOP, NG3H, **W3GG** & **K3YQ**, N3C0B, **W3XU** & **K3CR9**, **W4MGX** & **KB4WGW**, **W4PRO** & **AA4NG**, KB4VIR, WA4YTL, WB4JA, WA8HD, **W5EHM** & **CE3LR**, KBC1M, KA5WSS, KA5ZJR, KA5ZUB, N5LAR, WRSJ, WW5X, KG6AR, WD8EOP, **W5WML** & **K5GA**, K5LZ0, K5WA, N56H, NJ5VF, **W6BIP** & **K1KA**, **W6KCB** & **N6PTC**, NW6PT, NU6L, **W6TMD** & **AB6R**, KB6RKF, KB6UF, NC6U, NN6U, **W7EJ**

& K5MM, A17B, N7AQK, Vlad, Igor. **W8JSU** & K3JT, WBBPHI, WD8LTM, **W9CA** & N9AIB, **W9RE** & WA8VYR. **WB5EJ** & WA6UQO, NC00, NUDP, WDWDF, **WBXK** & K0MTR. **WA3EUL** & WB3EVK. **WB2ULJ** & N2BOW. **WB5E** & AA5BS, K5HJ, KA1P5F, KA5RQJ, KDSQN, KES5BJ, NS5ZR, NS1WA, NS5DKD, W50WA, WB5VPC, WD5DJT, WD5EEH. **WB6OKK** & K6JYD. **W14R** & N40FM, N4PYX, **WM56** & K5RX, KM5R, KW5P, K09Y, KR0Y, **W6WN** & W6UOF, TE2GKG, W6KG, W6LO, Y22EKK & Y21DQ, Y22YD & Y24YH. **Y3C1B**: Y31B, Y31MB, **Y49CF**: Y49MF, Y49LF, Y4-11F, **YT2R**: YU2MM, YU2MY, YU2LD, YU2DO, YU206, **YT4D**: YU4AR, YU4LA, **YU4-FS1006**, **YU4-RS1007**, **YU4-RS1034**, **YU4-RS1036**. **YT4M**: YU4BR, YU4WW, YT4ML, G0RAN, Zoki, Den. **YT5R**: YU5RC, YU5-RS126, YU5-RS147, YU5-RS109, YU5JA, **YU3AI** & YU3BM, YU3EO, YU3MM, **Y26G**: YU8DD, YU6TT, YU6TW, YU6CQ, YT6ZIM, **ZC4DX**: ZC4AP, 4Z4DX, 5B4MF, 5B4SA, **ZF2KK9**: N4KE, NU4Y, W4FDA, WA4DRU, **WB4EY**, **4N2D**: YU2K, YU2CQ, YU2WD, YU2OR, YT2DU, YT2LXA, YT2VM, YT2ID, YT2AM, Ante, Tonc, Boro. **8P9HR**: K3GK, K3ZR, K4FJ, N4TX, W4NL, 8P6PW

## **Station Operators**

## **Multi-Operator Multi-Transmitter**

**DL80VA:** DF1BZ,DF5MF,DF6G. **DX10BT:** Club. **EAI100K** & **EAI10DG**, EA17DZ, EC1L1K. **FJ/J4RH:** JH4RHF, JG3MRT, JG3MDN, JR3KEG. **H80/DF1JC:** DF1JC, DJ2YE, DK5EZ, DK8YV, DL6EAQ, DL8AQ, H8B/DLB0W: DL8B, DF4TD, DF7RX, H80/DF1JC, DK20Y, DK3RG, DK8MZ, DL6RAI. **HC8DX:** HC2CG, HC2RG, N6AA, N6VI, N6ZZ, W6MKB, W6NV. **JAI1YAG:** JG2CEZ, JN10CA, PJ1WZ, PJ1PG, QJ1XDO, JR8EAR. **JAY1YXP:** JH0RRR, JH0SPE, JH0WGN, JH7CAU JR0ALC, Y. Kaihatsu N. Yousc, Y. Sasake, H. Oyagi **JAY2EF:** JE2UGT, JE2FRT, JE2JHF, JE2JFZ, JE2NFC, JE1ACB, JI2SD5, JI2SIC, JI2IPD, JI2DFV, JI2LYF, JI2VFE, JL2ABH, JR2PVI, T. Yamamoto, A. Okumura. **JAY2KA:** JA9SSY, JE2JCV, JE2VZB, JE2VYM, JE4LK, JF2DJQ, JF2PZJ, JF2UTL, JF2PTO, JG2MTC, JG2VTD, JG30ET, JH2QXG, JI2XJR, JI2UHH, JI2UNR, JI1BTC, JI1MVV, JK2CLZ, JR2TB1, JR70MD, **Kel. JAY3BF:** JA9UWX, JF3GY1, JH9GRM, JH9JFH, JF2ICA, J3IMX, J3KGS, JN1DPL, J01IPS, J03DWD, **JAY3YD:** JE4JP, JE6MYI, JF3PF, JG3NPK, JI3GKS, JL:30A1, JI3PVI, J01SYL. **JAY7QJ:** CGE7D, J7-3036, **JAY7FB:** JE7JBW, JE7MOY, JF7AAD, JF7LEI, JF7TDN, JH7MDH, JH7UOH, JN1RN, J01NBV, JBR0NUZ, JF7RLB, JR7WFH. **JAY7RR:** JA1SKY, JA7CXV, JA7FDY, JA7JUD, JA7LBY, JA7MQM, JA7MQQ, JA7OZW, JA7RCE, JA7WSC, JE7CAI, JH7MEV, JH7MEX, JH7VHZ, JR7LVA, Iseki. **JAY8BY:** JA9VBW, JA9VDA, JH9KIH, JH9AM, JH9VS, JH9UR, JR0BAK, JR8G0U, JR9AGA, JH9-1018, Egg Tsukasaki. **JAY9CT:** JE88FO, JE8RJK, JR8GPT, JR8WLI. **JR1ZT:** JI1BWQ, JN1MS0, JP1MWB, JS1EEU, JE3LJY, JI3RKJ, Hiroto. **JW5E:** JW3HW, JW6VDA, JW6SWA, I5ANM, LAEEDA, LAEAD, K1TD, K1NG & K1G, K02SX, KZ1, K2TR & K2EK, K2XA, N2BZP, N2EKS, WA2SP1, WB2KMY, **K3Z2** & **KC3EK**, K5SL, WA3EKL, K4JPD & K4VCD, Packet. **K4VXB** & **K9BSL**, K9FD, KA0YBS, KD90, NS8Z, NU9R, WB0IUN, **K6X0** & **N6RZ**, WA60CV, WB6SHD, **KH6XX** & **4X4A1**, AE6E, KH6ND, NSCT, WH6BGH, **KL7RA** & **AL7AF**, AL7CQ, AL7HC, KB7UP, KL7IEH, KL7XD, NL7V, **KL7Y** & KL7HFA, KL7U, KL7VC, NL7G, NL7P, WL8U, WL7W, **KM1C** & Packet. **K7TM** & **K9AN9**, ANDOH, N9AZD, N9FTU, NK9B, W9SU, WB9CEP, WB9OPN, **LX58RL**: LX1GQ, LX1RQ, LX1WW, DF7WE YLDF8WS, DL6FB1, **N3LR** & **K3ZA**, KD3DM, N3FQB, NJ3A, NC3. **N5AU** & **K5MR**, KTS0, KE5CV, KM5KX, KN6M, KV5N, NC5R, WC4E, WA9TKJ, WB5VZL, WD8IXE, WA4NNK, **N6ND** & **A6XR**, K6JYD, K9VV, K16MS, KM0K, NI6W, WGKUT, WA60TU, WNGK. **NK1F** & Packet. **NR5M** & **K2TNO**, K2UA, K5GN, K5MA, KC2EE, KD5SP, KE5IV, KQ5J, KNSH, KZ5M, NM5L, **WGAGH**, **ON6NL** & **ON1ANK**, ON4AEK, ON4AKL, ON6JZ, ON6MP, ON-L620, PA8MPM, **D2H4AM**: 021JF, 021ZGP, 021YWY, D21GFX, 021KWB 022JZ, QZ8IE. **P4BV:** A16V, N6KT, N6TR, N6TU, NU6S, W60AT, WG5ZN. **PJ1B:** K3EST, KB2XZ, N3ED, N4RV, N7ZZ, W2ZR, WA3LR, **UP7A:** UP2BWA, UP2B1G, PZB2BL, UP2BNN, UP2B0C, UP2BFR, UP2AJA. **V4Z:** KA4KMH, N4FD, V4K4KA, V4K4AR, V4K4AC, V4K4Q, WE5VG, WA4MMK, WB4FLB, WG4P, **VE7ZZ:** VE5FN, VE6EZ, VE7ARS, VE7ATN, VE7AV, VE7DLM, VE7E0C, VE7RK, Greg Vanderzande, **VF9AD** & **G4CNY**, G4LFJ, N3RD, NBET, WP9UJ, W3MA. **WU46DG**: WB2GDG, VU2APE, VU2CVP, VU2DVP, VU2TS, **W3GM** & **K3GM**, K3LZ, K3ND, K3RL, KI3V, N2EA, W3FV. **W3FL** & **A13M**, K'D0V, K3DI, K3RA, K8FVF, KA1GD, KC8C, KM3T, N3GB, N8II, NW5E, W3EKT, W3EMH, WB2EKK, WB3JRU, WD4AXM, WP4J. **W5AB:** N6GC, N6IR, N6KOI, N5NMH, WA6ARG, WA6IEY, WA6VNO, WB6SRK. **Y21U:** YJ1AN, YU1BL, YU1FY, YU1HH, YU1JW, YU1UN, YU1UY, YU1XA, YU1XX, YU1XV, YU1ZZ, Djoro, Olly Sasa.

**WORLD TOP 10 QRPs  
(5 W Input)  
All Band**

1. PJ2FR	3,171,166	6. UQ2GKL	272,000
2. VE1CBF	588,555	7. K3WS	247,710
3. 4M3A	562,875	8. UG/UB4WZZ	219,744
4. N3RS	414,201	9. N1AFC	210,546
5. LZ2QV	290,166	10. FD1BEG	203,796

## **TEAM CONTESTING**

1. Team Finlandia (FY5YE by OH2BBM, CR9BZ by SM5GMG, ZB2X by OH2KI, T30RY by OH1RY, and SØRASD by OH2BH) ..... 25,712,500

**Number groups after call letters denote following: Band (A = all), Final Score, Number of QSO's, Zones, and Countries. Certificate winners are listed in Bold Face.**

**PHONE RESULTS  
SINGLE OPERATOR  
NORTH AMERICA  
UNITED STATES**

K1CF	A	3,219,970	2107	132	399
K1ZM	"	2,711,650	1686	140	423
K1MH	"	2,629,728	1727	136	411
				(Op.)	KQ2M
K1DG	"	2,494,580	1712	128	378
K5L1	"	1,958,956	1584	110	318
K1YR	"	1,951,481	1345	137	396
W1WEF	"	1,284,840	1089	107	304
K1CC	"	1,206,900	952	121	329
K1VR	"	1,169,646	928	118	333
K1LR	"	643,500	725	78	223
W1GIH	"	600,656	624	89	251
W1BH	"	392,480	414	97	255
K1VDF	"	388,020	601	65	171

K1CLN	360,259	461	80	203	W1BK	..	21,680	97	25	55	WA2UDT	..	232,012	379	70	168	W2FGY	..	3,158	25	25	2
KA1DWX	340,605	489	74	187	KR1R	..	20,801	124	26	35	K2QIL	..	224,475	373	68	137	K8XR/2	7	63,220	209	26	2
W1KRS	299,820	462	65	163	W1FV	..	16,543	85	19	52	N2AIF	..	196,482	348	67	162	W2HZ	3.8	22,230	110	17	1
W1OP	297,929	495	65	164	K1FIR	..	14,760	74	30	42	W2PHW	..	141,925	276	52	123	KN2Q	..	1,150	25	8	1
		iOpri	K1PLX		K1SA	..	11,033	68	16	43	KC2O	..	134,442	250	61	137	W2FCR	1.8	10,004	84	14	1
KG1D	259,910	405	72	163	NC1B	..	9,802	62	23	35	KA2CHX	..	133,856	298	53	125	W3BGN	A	2,283,393	1657	125	3
K1IU	255,990	295	90	232	K1GW	..	9,333	58	23	38	KB2WN	..	120,130	330	61	144	K5ZD/3	..	2,083,725	1411	132	3
K1TR	277,174	410	58	136	W1PLJ	..	7,261	52	14	39	KA200G	..	114,560	233	53	129	K3ZJ	..	1,607,830	1289	118	3
K1KI	170,805	333	58	135	K1EFI	28	32,943	155	20	59	KE2CG	..	96,996	195	49	128	K3NA	..	1,419,120	1117	126	3
W1IHN	163,215	227	79	200	KQ1V	..	28,471	156	20	51	N2BSA	..	84,815	196	43	109	W3JUM	..	1,172,934	1098	105	2
NK1A	155,112	324	55	129	K1HMO	..	20,306	107	20	51	K2SX	..	84,452	194	48	124	KO3F	..	700,000	874	77	2
K1WJL	148,925	422	44	131	WB2DND	..					W2PHT	..	82,140	190	40	108	W3UJ	..	614,778	697	83	2
WA1UAR	138,432	254	61	163	/1	..	19,980	121	15	45	NA2O	..	76,890	185	57	108						
W1D0H	112,056	236	56	112	KA1MIS	..	2,156	31	9	19	KK2B	..	66,990	169	54	100	N3!!	..	372,664	467	84	2
K1KNQ	109,563	218	53	124	KA1QZC	..	779	17	6	13	ND2P	..	54,412	127	37	85	AD3Z	..	273,564	321	84	2
AI3E/1	94,978	201	51	118	WA1FCN	21	87,024	275	26	85	W2SDO	..	46,009	126	48	91	KA3PGL	..	239,913	422	57	1
W1FJ	87,468	215	43	105	W2IOL/1	..	73,830	243	28	79	N2US	..	45,895	129	47	90	WB3CIW	..	207,870	342	60	1
WA1LVW	84,360	159	58	127	K1MIS	..	24,840	124	21	51	K12D	..	41,495	127	49	84	W3KV	..	199,735	342	76	1
NB1B	81,054	188	58	113	WA1AER	..	4,880	80	23	27	N2KA	..	40,598	119	45	88	KB3TS	..	188,487	350	48	1
KC1BG	79,800	162	53	115	K1UU	14	657,900	1241	39	141	W2KHO	..	27,540	99	36	72	W3AZ	..	173,184	317	56	2
NM1K	76,347	197	49	101	K1RU	..	607,749	1293	38	135	W2GK2	..	25,760	101	26	66	AD3V	..	162,000	281	73	1
W1WAI	73,032	227	47	132	NB1H	..	559,856	1121	37	139	WA3AFS	..					ND3A	..	158,730	295	46	1
KA1CLV	72,562	186	40	102	W1BWS	..	197,280	499	31	106	/2	..	25,338	80	51	72	W3NHM	..	157,384	275	60	1
W1BR	57,684	152	42	96	W1XN	..	84,672	287	31	77	KB2SE	..	22,400	92	30	50	W3OV	..	133,369	254	64	1
K1NH	49,750	147	38	87	K1VSJ	..	82,476	256	31	85	WB2AHD	..	22,300	102	37	63	AD8J/3	..	125,685	263	55	1
K1MEM	22,050	81	35	70	KE1E	..	28,755	123	23	58	W2IOB	..	20,240	71	42	68	N3HW	..	123,045	303	62	1

W3EVW	108,446	217	62	132	KV4AM	"	34,580	119	29	73	N6VR	"	202,195	268	69	196	KB7TQ	"	70,272	275	25	71	W9GIL	14	106,641	305	30	93	
N3RC	29,007	103	32	67	N4ATM	"	14,300	83	20	93	W6ABW	"	173,259	313	69	138	K7LJZ	"	64,386	360	23	40	K9YNF	"	76,648	259	27	77	
W3HVM	25,389	101	30	63	KV4P	14	349,344	834	31	113	W2KVA/6	"	169,750	347	63	112	KX7J	"	43,239	178	26	61	K9LJN	"	74,910	241	28	82	
N3AOE	17,472	82	33	63	N4MO	"	314,457	782	33	110	K16T	"	165,870	348	58	113	KA7UND	"	3,741	61	15	14	W9NZM	"	74,240	226	34	82	
WB3CDX	28	5,504	50	13	30	WA4LBJ	"	52,371	184	26	73	W6UJX	"	165,300	319	72	118	WTWTA	14	649, <sup>250</sup> 1272	39	136	K9AB	"	40,016	170	27	55	
W3GK	21	71,101	254	26	KD4DM	"	30,450	123	26	61	K6DR	"	154,167	308	71	106	K9FJ/T	"	522,474	1140	37	128	K9BTU	"	28,208	114	24	62	
KN3S	"	56,472	189	26	78	K4GMX	"	15,498	91	25	38	N6NF	"	152,457	341	62	99	WA9TZE	"	782	15	11	12	W49T/Z	7	17,595	96	22	47
W3KHO	"	53,393	183	27	78	WD0FQA	"	"	"	"	W6MF	"	123,471	294	55	98	WA7GVM	"	147,088	435	33	83	K9JF/T	14	522,474	1140	37	128	
K3IPK	14	368,816	900	37	111	/4	"	5,350	40	13	37	W6OUL	"	115,656	329	44	78	W7TJ	"	121,329	382	33	84	KE9U	3.8	8,964	68	14	40
W3FES	"	31,493	147	22	55	W4YN	"	3,527	43	10	21	N6JV	"	111,600	270	58	86	WA7CGR	"	84,192	304	28	68	N9BUS	"	5,412	56	13	31
K3ZPG	"	16,695	104	13	50	W1DLP/4	"	54	8	2	4	N6EK	"	107,282	255	61	97	NY7T	"	80,592	324	27	65	W89HAD	1.8	27,181	157	23	54
AA3B	"	7,600	55	15	35	N6BFM/4	7	64,546	203	30	88	K6HH	"	93,440	260	52	76	K7DX	"	61,272	198	33	78	W9HAD	"	27,181	157	23	54
W3FQE	"	12	2	1	1	N4RIG	"	44,700	166	26	74	W6UFY	"	84,056	252	49	73	W7LVI	"	42,924	174	26	58	N2IC/B	A	1,756,020	1378	138	314
K3BSY	7	20,510	100	17	53	W4OWY	"	28,552	126	25	58	W6OUL	"	82,236	197	65	99	W7DQD	"	42,390	164	28	62	K0UK	"	1,365,012	1219	123	260
K3ND	3.8	8,364	65	13	38	W4WIJ	"	8,160	63	17	34	K6UO	"	79,360	220	50	78	W7LFA	"	37,814	179	25	78	W0HBH	"	495,132	546	104	237
K3UA	1.8	3,096	41	11	25	W4PSV	3.8	77,559	289	22	81	N6IBP	"	63,488	193	52	76	K7CC	"	30,814	171	23	48	W0RXL	"	242,048	369	79	169
WB3AVN	"	2,976	42	10	22	W4PZV	"	26,560	122	22	64	W6V	"	58,476	162	56	76	W7QN	"	11,560	80	16	37	NTOH	"	204,848	356	64	153
K4ISV	A	1,942,992	1409	141	383	W4DR	1.8	10,615	85	13	42	W6NFO	"	56,465	181	47	68	W7V/H	"	4,060	42	17	18	NS0B	"	142,302	252	85	137
WX4G	"	1,794,702	1285	141	353	K4TEA	"	3,552	44	10	27	K9AGL/6	"	56,172	167	48	76	W7EFB	"	2,250	34	10	15	KC0LX	"	121,590	244	58	135
N6AR/4	"	1,526,440	1133	130	358	AA4MM	"	2,336	39	9	23	W8A8LY/6	"	55,796	144	50	98	W7BQG	"	1,056	32	6	6	NI0G	"	99,940	203	62	128
W24F	"	1,271,118	1005	127	326	AA4NC	"	991,078	854	116	302	K5N	A	914,291	838	118	279	N6EJ	"	50,078	136	60	86	W0DCB	"	85,722	237	57	100
W3VT/4	"	755,298	119	128	131	K13L/5	"	908,888	1024	104	224	W6YEO	"	18,618	75	35	52	W8PPF	"	76,867	207	49	90	W0HBB	"	20,604	86	35	66
K4GFH	"	674,784	695	96	256	K5FUV	"	632,358	591	110	277	W6UQT	"	14,875	64	27	58	K7G	"	212,090	309	73	181	W0EL	"	52,680	164	41	79
N4UH	"	558,828	603	97	245	N3BB/5	"	620,750	670	115	222	N6JM	"	38,220	136	39	59	K7T	"	16,355	116	19	39	W0RT	"	39,116	117	48	79
WA4CTC	"	545,292	541	108	266	WA5GD	"	596,092	631	104	245	W6PZK	"	28,254	98	40	62	W0BWJ	"	34,404	105	45	77	W0BWJ	"	34,404	105	45	77
WB4BBH	"	495,420	529	101	244	K5DX	"	593,640	588	107	253	AA6EE	"	23,358	107	40	52	W0R	"	25,560	126	30	42	NY0R	"	25,560	126	30	42
K4MF	"	404,076	484	89	213	N5JB	"	510,496	616	89	212	W6YEO	"	18,618	75	35	52	W0GB	"	23,850	102	35	55	W0GB	"	23,850	102	35	55
W1U/A/4	"	403,804	517	91	223	N5IM	"	486,800	529	111	228	W6UQT	"	14,875	64	27	58	K0HY	"	1,365,012	1219	123	260	W0GB	"	1,365,012	1219	123	260
N4RA	"	361,200	470	81	199	N5UA	"	485,100	578	114	214	K6GFO	"	14,529	66	35	52	K0HY	"	19,434	87	31	51	W0EL	"	19,434	87	31	51
W6OKX/4	"	357,600	435	90	210	W5MK	"	350,856	486	79	185	K6ICS	"	14,342	80	30	41	W0RT	"	15,912	80	31	47	W0BWJ	"	204,848	356	64	153
K4PR	"	345,396	472	78	191	W5CWQ	"	350,622	422	97	205	W6B1TM	"	10,360	56	34	40	K0F8K	"	137,800	243	63	149	W0BWJ	"	34,404	105	45	77
W9LT/4	"	303,517	430	73	182	K5RF	"	256,004	418	67	156	K6PL	"	4,514	50	15	22	W0R	"	12,208	261	51	117	W0R	"	12,208	261	51	117
AA4R	"	290,832	366	93	198	N5AW	"	218,624	325	88	168	W2CHO/6	"	4,343	36	19	24	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
N4JVS	"	271,905	359	63	165	K5CTA	"	186,690	329	70	140	W6HT	"	3,968	44	14	17	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
W4VJN	"	252,187	376	73	174	N5EP	"	155,220	291	69	126	K6PG	"	1,825	31	11	14	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
W4NTI	"	237,244	348	79	180	WASIX	"	136,606	331	58	109	K6SVL	28	176,176	726	23	68	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
W4WKO	"	233,876	370	78	158	W5LMG	"	111,300	199	78	134	W6VSY	"	220,966	754	28	71	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
K4JZ	"	215,552	328	78	178	K5GQE	"	95,256	203	53	125	W6BSS	"	57,286	300	18	48	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
K4FNO	"	202,250	305	81	169	KV5E	"	95,256	203	53	115	W6BSS	"	43,848	300	18	48	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
N4TGS	"	196,669	346	67	142	N5NT	"	92,365	239	53	92	W6BSS	"	34,920	210	18	42	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
W24Z	"	194,568	292	73	145	N5FWH	"	25,174	124	32	50	W6BSS	"	11,572	243	41	106	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
W4VU	"	95,545	185	73	124	N5FWH	"	25,174	124	32	50	W6BSS	"	11,572	243	41	106	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
W4WUJ	"	94,377	209	52	111	N5JEE	"	23,424	242	90	65	W6BSS	"	11,572	243	41	106	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
KA1WR/4	"	91,980	230	50	96	K5PP	"	16,340	63	34	61	W6BSS	"	8,588	83	16	22	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
AA4NP	"	91,647	210	53	100	K5TYP	"	6,720	46	22	34	W6BSS	"	8,107	317	10	21	K8KRS	"	12,208	261	51	117	W0R	"	12,208	261	51	117
K4JFW	"	87,150	210	50	96	W6BSS	"	1,887	20	17	20	W6BSS	"	210,586	534	35	107	K8KRS	"	12,208	261	51	1						

Guinea-Bissau										Single Op Zone Winners										
DN5SQ /3X					A 51,798 200 29 60					Zone Call Score										
TA2B	28	138,087	997	22	45	Kenya	1	KL7CQ	152,744	21	RF0FWW	1,447,128								
T2LTA	21	779,166	2117	32	109	Lesotho	2	VE7CRW/VE8	449,665	22	VU2Z	689,164								
KA7KDU	"	113,169	1039	18	33	Liberia	3	KM6B	2,065,360	23	JT1BQ	56,376								
T12CC	1.8	26,020	386	9	26	Madeira Islands	4	VE6OU/3	3,115,356	24	XX9T	1,509,700								
<b>Dominican Republic</b>					5Z4OU	21 1,060,345 2491 32 111	5	KC1F	3,219,970	25	JR6EZE	1,887,705								
HI3JH	A	3,397,884	3815	107	292	Malta	6	XE1OH	610,984	26	No Entry									
H18DLA	"	51,956	388	21	41	Mauritania	7	T12MEN	1,177,188	27	K4YT/DU8	3,425,408								
H18JP	28	5,819	125	10	13	Mexico	8	HI3JH	3,397,884	28	YB1CS	556,196								
H18FHD	"	5,539	92	12	17	Namibia	9	9Y4TT	10,370,962	29	VK8AV	52,360								
H18JST	14	5,194	73	13	16	Nicaragua	10	OA4ZV	2,741,160	30	VK2KL	1,691,024								
H18RFB	7	7,176	60	13	33	Montserrat	11	PY5EG	2,468,529	31	T30RY	5,147,334								
<b>Greenland</b>					5L7Q	14 35,350 175 19 51	12	CE3BFZ	1,848,916	32	ZL1BWM	220,601								
OX3KM	A	87,904	200	49	115	North Macedonia	13	LU2E	1,576,995	33	CR9BZ	7,530,264								
<b>Guadeloupe Island</b>					CR9BZ	A 7,530,264 4713 122 414 (Op. SM5GMC)	14	ZB2X	4,895,520	34	SU1ER	4,157,233								
FJ5BL	7	654,258	1903	27	111	Paraguay	15	OH0BH	4,283,244	35	5T5BC	1,807,000								
<b>Martinique</b>					AA4VK	28 145,383 703 18 51	16	RB5DX	2,127,972	36	TR1G	5,758,257								
FM5CL	28	644,861	2400	28	91	Peru	17	UT4UX/RJ5J	1,905,787	37	J28EO	1,375,040								
FM5CY	"	164,703	970	23	54	Philippines	18	UA9YX	3,409,436	38	7P8DP	1,386,164								
FM4DN	21	571,160	1725	31	100	Puerto Rico	19	UW0LT	790,400	39	FR5DX	3,998,140								
FM4EB	7	304,251	1196	26	85	Qatar	20	LZ1KGB	1,388,628	40	TF3CW	669,376								
<b>Mexico</b>					ST5BC	A 1,807,000 2423 72 178 (Op. WB4ZNH)														
XE2MX	A	529,323	1011	76	143	Sierra Leone	21	ST5MH	" 1,014,797 1682 56 147 (Op. WN4FVU)											
XE1PO	"	206,460	970	50	61	Singapore														
XE1OH	28	616,748	2627	27	80	Saint Lucia														
<b>Montserrat</b>					ZS3BI	A 869,574 1398 60 162														
N8MK	/VP2M	A	335,646	724	66 140	Saint Vincent & the Grenadines														
KBUE	/VP2M	28	591,442	2328	29 84	Saint Helena														
WB8DIT	/VP2M	1.8	40,392	350	14 40	Saint Lucia														
<b>Nicaragua</b>					ZS4NS	A 473,418 814 63 135														
YN3EO	A	215,446	656	63	91	Saint Lucia														
(Op. Y25OE)					ZS6HO	" 195,264 460 49 95														
ZS4WD	"	34,013	107	40	73	Saint Lucia														
ZS6P	28	338,625	943	32	94	Saint Lucia														
ZS4DKC	"	112,189	489	21	56	Saint Lucia														
HP8AHF	A	35,690	164	32	54	Saint Lucia														
ZS6BRZ	21	765,660	1836	35	105	Saint Lucia														
<b>Puerto Rico</b>					FR5DX	A 3,998,140 3148 128 302														
KP4CZ	A	105,088	356	46	82	Seychelles Islands														
KP4E0F	21	486,120	1742	29	91	Seychelles Islands														
KP4DQ	"	24,426	147	16	43	Seychelles Islands														
NP4P	7	185,659	661	26	87	Seychelles Islands														
NP4AT	3.8	148,960	891	19	61	Seychelles Islands														
<b>St. Kitts</b>					ST7WS	A 2,609,952 2461 100 272 (Op. DJ6QT)														
V47NXX	A	42,300	214	29	61	Togo														
<b>St. Vincent</b>					SV7SA	A 259,216 654 47 89														
J87CD	A	544,055	1035	76	157	Togo														
<b>Salvador</b>					SV7WD	14 133,284 522 22 65														
HU1YS	A	1,109,200	2058	81	155	Togo														
<b>AFRICA</b>					9J2EZ	A 3,023,541 3211 88 251														
A22GV	14	45,353	203	24	53	Togo														
<b>Botswana</b>					A92BE	14 814,073 1993 36 133														
<b>Canary Islands</b>					BY1QH	A 479,520 1349 60 120 (Op. K5IID)														
EABAH	A	90,915	352	33	54	China														
EABAQ	"	76,140	249	39	69	China														
EABAZP	"	73,920	283	32	55	China														
EABAXN	"	13,158	64	33	53	China														
EABARG	"	1,173	19	11	12	China														
EABVV	28	648,094	1501	30	116	China														
EABAKN	21	493,794	1322	32	94	China														
EABALY	"	324,375	879	31	94	India														
EABBBP	"	242,153	793	31	72	India														
EABADY	"	39,433	281	17	30	India														
EABRCT	7	859,362	1959	32	115	India														
(Op. OH2MM)					V36UP	28 95,025 711 21 54														
EA8ACH	"	583,478	1376	31	111	Hong Kong														
<b>Ceuta &amp; Melilla</b>					VU2TTC	A 547,354 668 97 229														
EA9NN	A	352,906	484	66	185	Iceland														
EA9RY	28	252,066	668	30	99	VU2CAP														
ECSJI	21	18,189	142	12	31	VU2RPF														
EA9IE	14	881,706	1832	38	123	VU2RKK														
EA9RM	3.8	95,304	418	16	60	VU2L														
<b>Djibouti</b>					4X/K6KLY	A 547,555 942 62 143														
J2BEO	A	1,375,040	1508	83	237	VU2MH	28 513,360 1503 25 99													
<b>Egypt</b>					JA1XAF	A 1,703,668 1496 145 259														
SU1ER	A	4,157,233	3254	108	325	JA1SEK	" 1,269,324 1399 108 213													
(Op. N6TJ)					JR1GSE	" 718,572 1000 99 158														
<b>Gabon</b>					JE1GPX	" 338,004 580 87 142														
TR1G	A	5,758,257	4983	101	280	JE1AER	" 160,366 333 70 111													
(Op. TR6JLD)					JA1BNW	" 127,100 299 62 93														
<b>Japan</b>					JE1CHJ	" 91,632 246 53 85														
<b>Korea</b>					JH2WHS	" 168 6 6 6														
<b>Korea</b>					JA2IVY	28 145,232 467 38 78														
<b>Korea</b>					JA2DHH	" 40,020 170 34 58														
<b>Korea</b>					JA2DGL	" 5,106 37 21 25														
<b>Korea</b>					JA2DQV	" 2,812 30 18 19														
<b>Korea</b>					JA2DQX	" 1,914 24 17 16														
<b>Korea</b>					JA2DQZ	" 5,460 53 16 23														

EUROPE													
Aland Islands													
OHBBH A 4,283,244 3417 156 428													
Macau													
XX9T A 1,509,700 3061 93 217 (Opr. 4X6TT)													
Mongolia													
JT7KAA A 49,128 534 30 62 JT1BG A 37,720 283 31 51 JT1BO 21 56,376 736 18 40													
Pakistan													
AP2ZA 14 167,894 1322 34 93 Singapore													
9V1WZ A 126,750 658 60 90 (Opr. 3EX30) 9V1WP 21 186,633 921 24 65													
UNION OF SOVIET SOCIALIST REPUBLICS													
Armenia													
UG6LQ 21 701,454 2126 37 101 RG5XE 14 782,901 1912 38 115 (Opr. UY5XE) RG6GBW 7 13,916 116 13 36 UG7GWO 1.8 255,852 1327 12 57													
Asiatic Russia													
UA9YX A 3,409,436 3416 126 326 RA9JX " 1,012,105 1438 116 239 U9VFM " 875,028 1800 88 222 U9VAG " 150,776 346 59 128 RA9CNJ " 3,379 53 13 18 UA9CRR 28 42,092 348 22 46 RA9UAD 27,389 299 19 42 UW9CS " 2,714 94 10 13 UA9XFG " 434 19 6 8 UA9AKO 21 185,598 584 32 94 UA9ULC " 23,760 140 20 46 UA9US 14 131,016 522 31 75 UZ9UN " 125,780 539 26 68 UW9FR " 39,589 231 12 47 UW9OO " 18,626 120 21 46 UA9CBO 1.8 5,890 87 7 24													
Bulgaria													
LZ1CW A 114,739 334 54 125 LZ1KNP " 85,008 298 49 113 LZ1HA " 51,934 142 60 119 LZ1NS " 48,212 218 33 65 LZ1BJ " 39,558 175 37 77 LZ1UF " 38,500 166 41 69 LZ1FT " 2,067 29 16 23 LZ1GB " 5,394 65 20 43 LZ2JE 28 7,089 72 14 37 LZ1OT " 3,496 48 11 27 LZ1JB " 629 31 6 11 LZ1KDP 21 251,658 995 33 90 LZ2BW " 135,184 550 30 82 LZ2EW " 102,935 386 29 90 LZ1EF " 69,482 367 24 74 LZ1KGB 14 1,388,628 3168 39 165 (Opr. LZ1Z) LZ1LW " 1,134 80 19 51 LZ2RM 7 9,960 123 17 43 LZ2CZ 1.8 94,247 1079 14 65 LZ1KOZ " 34,038 508 10 51													
Czechoslovakia													
OK6DX A 1,393,154 1476 108 274 OK1AJN " 559,083 972 91 246 OK2RU " 471,440 919 88 244 OK1EP " 131,098 325 61 144 OK0FDX " 97,470 422 42 129 OK1AGA " 68,456 244 49 123 OK3YK " 59,353 356 32 107 OK1ASQ " 47,940 146 54 87 OK1DZL " 36,270 165 39 91 OK2HI " 23,498 452 10 52 OK2PCL " 14,694 623 39 90 OK1GP " 13,041 111 21 42 OK3CNL " 9,086 53 31 46 OK3CWF " 8,178 156 14 44 OK3CMZ " 1,674 18 13 18 OK3CFA 28 80,594 421 27 91 OK3CLD " 40,326 245 25 69 OK1MG " 23,088 133 22 56 OK1CH " 10,000 132 13 37 OK3CAP 21 36,720 203 23 62 OK1ZL " 34,316 157 29 63 OK2BT " 10,864 74 20 36 OK2SWD " 558 11 8 10 OK3CPW " 336 12 6 8 OK10AZ 14 325,815 1100 33 112 (Opr. OL1BZ) OK2PAY " 174,220 738 30 94 OK2BQL " 34,680 208 25 60 OK3CGT " 30,828 200 23 61 OK1AYU " 12,540 124 14 41 OK1AJY " 10,017 126 13 40 OK3CSQ 7 15,352 110 20 76 OK3TOA " 7,744 163 8 36 OK2RZ 3.8 126,584 1120 17 74 OK3CGN " 11,596 260 5 38 OK1MKU " 5,640 110 7 33 OK3CTT " 3,549 87 6 33 OK1AYE " 2,145 60 6 27 OK1OPT " 630 31 4 17 OK3CWO 1.8 25,565 400 8 51 OK1DFF " 14,958 277 8 46													
Azerbaijan													
UD6DKW A 35,100 174 18 57 RD6DJ 28 23,373 135 19 44 UD6DDA 21 53,900 182 32 78 UD6DR 3.8 1,904 28 6 22													
Georgia													
UF6FII A 17,600 103 20 44 RF8FWW 14 1,447,128 2894 40 147 UF6VB 3.8 77,592 460 12 49													
Kazakh													
UL7TX A 249,240 526 59 142 UL7ACI 28 368,067 1221 30 89 UL7OB " 1,265 33 11 12 RL7JA 21 208,208 1023 28 76 UL7QF 14 31,746 199 22 56 RL7AC 3.8 30,957 230 9 42													
Kirghiz													
UM8MAU A 33,200 151 22 58 UMB8IG 28 258,060 1248 29 81 UMB8MCW 21 155,448 444 33 103 UMB8MGO 112,612 582 24 70 RM8MA 7 12,546 122 14 37													
Denmark													
Tadzhik													
UT4UX /RJ5J A 1,905,787 1919 108 295 IJ8XA 14 28,426 205 17 44													
Uzbek													
UI8CAJ A 618,674 1163 51 163 UI8AFN 47,940 221 21 64 UI8IAJ " 8,208 30 30 42 UI8LF 14 158,207 609 29 68 RI8BL 3.8 6,016 80 8 24													
Europe													
Aland Islands													
OHBBH A 4,283,244 3417 156 428													
Macau													
XX9T A 1,509,700 3061 93 217 (Opr. 4X6TT)													
Mongolia													
JT7KAA A 49,128 534 30 62 JT1BG A 37,720 283 31 51 JT1BO 21 56,376 736 18 40													
Pakistan													
AP2ZA 14 167,894 1322 34 93 Singapore													
9V1WZ A 126,750 658 60 90 (Opr. 3EX30) 9V1WP 21 186,633 921 24 65													
UNION OF SOVIET SOCIALIST REPUBLICS													
Armenia													
UG6LQ 21 701,454 2126 37 101 RG5XE 14 782,901 1912 38 115 (Opr. UY5XE) RG6GBW 7 13,916 116 13 36 UG7GWO 1.8 255,852 1327 12 57													
Asiatic Russia													
UA9YX A 3,409,436 3416 126 326 RA9JX " 1,012,105 1438 116 239 U9VFM " 875,028 1800 88 222 U9VAG " 150,776 346 59 128 RA9CNJ " 3,379 53 13 18 UA9CRR 28 42,092 348 22 46 RA9UAD 27,389 299 19 42 UW9CS " 2,714 94 10 13 UA9XFG " 434 19 6 8 UA9AKO 21 185,598 584 32 94 UA9ULC " 23,760 140 20 46 UA9US 14 131,016 522 31 75 UZ9UN " 125,780 539 26 68 UW9FR " 39,589 231 12 47 UW9OO " 18,626 120 21 46 UA9CBO 1.8 5,890 87 7 24													
Bulgaria													
LZ1CW A 114,739 334 54 125 LZ1KNP " 85,008 298 49 113 LZ1HA " 51,934 142 60 119 LZ1NS " 48,212 218 33 65 LZ1BJ " 39,558 175 37 77 LZ1UF " 38,500 166 41 69 LZ1FJ " 2,067 29 16 23 LZ1GB " 5,394 65 20 43 LZ1ZU " 1,134 80 19 51 LZ1LW " 1,134 80 19 51 LZ2RM 7 9,960 123 17 43 LZ2CZ 1.8 94,247 1079 14 65 LZ1KOZ " 34,038 508 10 51													
Czechoslovakia													
OK6DX A 1,393,154 1476 108 274 OK1AJN " 559,083 972 91 246 OK2RU " 471,440 919 88 244 OK1EP " 131,098 325 61 144 OK0FDX " 97,470 422 42 129 OK1AGA " 68,456 244 49 123 OK3YK " 59,353 356 32 107 OK1ASQ " 47,940 146 54 87 OK1DZL " 36,270 165 39 91 OK2HI " 23,498 452 10 52 OK2PCL " 14,694 623 39 90 OK1GP " 13,041 111 21 42 OK3CNL " 9,086 53 31 46 OK3CWF " 8,178 156 14 44 OK3CMZ " 1,674 18 13 18 OK3CFA 28 80,594 421 27 91 OK3CLD " 40,326 245 25 69 OK1MG " 23,088 133 22 56 OK1CH " 10,000 132 13 37 OK3CAP 21 36,720 203 23 62 OK1ZL " 34,316 157 29 63 OK2BT " 10,864 74 20 36 OK2SWD " 558 11 8 10 OK3CPW " 336 12 6 8 OK10AZ 14 325,815 1100 33 112 (Opr. OL1BZ) OK2PAY " 174,220 738 30 94 OK2BQL " 34,680 208 25 60 OK3CGT " 30,828 200 23 61 OK1AYU " 12,540 124 14 41 OK1AJY " 10,017 126 13 40 OK3CSQ 7 15,352 110 20 76 OK3TOA " 7,744 163 8 36 OK2RZ 3.8 126,584 1120 17 74 OK1MKU " 5,640 110 7 33 OK3CTT " 3,549 87 6 33 OK1AYE " 2,145 60 6 27 OK1OPT " 630 31 4 17 OK3CWF 1.8 25,565 400 8 51 OK1DFF " 14,958 277 8 46													

IK5BBP	228,904	686	34	108	SP1MHV	13,452	105	17	42	EA3DZG	339,407	809	59	132	SM5GA	10,918	96	14	39	UW3TU	37,873	157	41	80					
IK3KVW	72,240	276	30	82	SP8HXN	12,238	175	13	45	ED5GGU	319,260	549	87	227	SM4AAY	1,768	30	10	16	UA4CQO	36,736	143	54	74					
IK2LH	68,016	250	29	80	SP9MOD	11,914	91	19	55	EA1BGT	254,944	613	65	183	SM6JY	4,515	95	10	25	RW3AE	35,343	152	37	82					
IK0JMS	35,526	152	26	67	SP3GHK/A	10,816	135	15	37	EA5JC	209,790	431	76	194	SM5AQD	7	210,140	1113	32	101	UA6LIG	23,312	197	24	70				
IK2AO	4,017	42	14	21	SP9AGS	10,335	137	12	41	EA1AW	204,700	443	61	169	SM7HSP	"	805	34	5	18	UA3PM	15,400	110	32	45				
I01EZU	14	1,224,188	2638	43	138	SP6DNS	9,976	91	14	44	EA1DZL	196,490	451	59	186	RA1OAK	"	14,586	118	26	40	UA3DBX	14,560	132	25	45			
IK5MXX	"	914,104	1364	37	126	SP6DHH	9,405	143	12	43	EA5CHT	179,799	406	59	160	UA4LDJ	"	10,897	102	18	41	UA4LNU	"	10,318	62	22	45		
IK6CWQ	"	604,800	1958	39	105	SP9BRP	9,240	115	14	42	EA5AEN	165,184	335	68	164	RA3OQA	"	10,318	62	22	45	RA3OQD	"	10,126	99	22	61		
IK8ETA	"	452,295	1343	40	131	SP9RPT	7,191	111	11	36	EA7EHE	150,971	334	64	159	RA3TDT	"	9,780	89	16	44	RA3TFT	"	7,000	82	16	24		
IV3JWR	"	276,510	1051	35	95	SP3CDR	2,592	64	10	17	EA5CCN	144,900	229	78	222	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
IK0AZG	"	226,128	927	28	84	SP7AZP	1,972	40	8	9	ED5CXL	131,100	254	74	156	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
I4P2P	"	94,920	346	33	87	SP3RRB	7	193,210	810	33	106	EA3DRE	78,561	298	41	81	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80	
IV3BMV	"	77,169	449	24	63	SP2ZFJ	114,125	746	31	94	EA5EQ	77,145	254	46	93	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
I4EWH	3.8	122,232	850	18	70	SP8TQ	3.8	27,140	422	11	48	EA3DVJ	25,248	263	26	70	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80	
<b>Jersey Island</b>					SP8KEA	16,530	236	14	47	EA3EGI	24,840	98	37	53	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80			
GJ3XZE	21	27,072	197	19	45	SP9OYD	15,582	310	7	42	EA5DU	22,454	120	34	69	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
<b>Malta</b>					SP9HML	13,908	215	5	52	EA7CZR	22,338	114	38	64	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80			
9H3DX	14	519,547	2137	33	122	SP8LZQ	9,246	181	18	65	EA7BYM	56,444	202	49	88	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
<b>Netherlands</b>					SP3ZY	7,254	185	5	54	EA7CPH	48,836	203	41	75	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80			
PA0AGA	A	1,088,811	1608	98	291	SP5INQ	3,925	96	7	29	EA1BFZ	13,505	100	25	48	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
PA0DUO	"	89,200	230	60	140	SP5DFB	2,614	93	4	24	EA3EFH	11,160	84	24	48	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
PA0KDM	"	54,249	377	44	125	SP9GDB	7,515	170	6	39	EA5BDI	6,768	199	19	60	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
PA3ESZ	"	48,380	205	37	81	SP9MZS	3,842	117	6	28	EA2CR	4,312	52	20	36	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80		
PA3EEA	"	46,306	196	40	97	<b>Portugal</b>																							
PA3EOB	"	41,796	187	38	91	CT1CLR	A	632,490	1026	77	213	EA4EAP	28	133,380	442	29	101	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA3DWA	"	41,019	195	38	83	CT5AHU	A	352,002	661	59	144	EA7BHD	"	75,200	410	25	55	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA0IA	"	21,900	157	23	48	CR2DIZ	"	225,940	563	69	191	EA3FWE	"	72,062	367	26	97	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA2BJM	"	15,330	130	19	51	CT1BBJ	"	137,992	734	58	133	EA5FCJ	"	59,405	258	28	81	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA0YN	"	15,066	130	37	54	CO5OF	"	122,430	391	41	113	EA1CON	"	53,300	304	20	52	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA3ELD	"	9,558	71	26	55	CT1BNF	"	72,072	300	44	110	EA3ELZ	"	37,149	203	23	43	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA3BNH	"	5,152	82	14	42	CR4COK	"	65,688	274	39	99	EA1BIM	"	34,307	86	27	64	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA3CDA	"	3,825	51	16	29	CT1DOM	"	64,612	434	28	88	EA7FZY	"	33,854	93	25	58	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA3DFG/1	"	2,072	36	12	27	CT1DMT	"	52,595	169	52	105	EA4DKJ	"	31,110	174	23	62	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA3AIR	21	175,398	545	34	104	CT1BON	"	17,952	88	35	61	EA7FUN	"	27,224	141	25	58	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA2REH	"	61,194	301	27	66	CT1AVR	"	11,340	63	25	47	EA5AN	"	24,959	122	25	62	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA0OX	"	39,312	248	21	42	CT07HN	28	352,352	1016	31	123	EA3DZ	"	23,482	341	15	44	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
PA3CYX	"	32,940	291	22	38	CT1AUW	"	51,887	367	24	65	EA3FGS	"	22,952	141	25	64	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
<b>Northern Ireland</b>					CT1BMO	"	41,280	261	16	45	EA3ZCM	"	22,190	172	18	52	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80	
GI4BBV	A	174,240	410	59	181	CT1DQN	"	34,768	185	23	59	EA4EEK	"	21,038	153	23	44	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
GI0AEV/P	28	3,234	65	21	22	CT1AZS	21	59,555	509	20	64	EA3DBO	"	19,199	114	23	50	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
<b>Norway</b>					CT1BWW	14	108,171	508	31	88	EA3DEE	"	16,208	109	30	84	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80	
LA2AD	A	18,779	157	27	62	CT1AOZ	1.8	22,680	206	12	48	EA4EER	"	4,288	44	16	28	RA3TGT	"	29,779	166	17	80	RA3TGT	"	29,779	166	17	80
<b>Poland</b>					SP9HWN	A	397,200	783	83	217	Y03NL	A	156,110	472	51	182	EA7PS	21	233,415	1154	24	67	RA20R	A	1,522,163	2209	103	288	
SP6OIJ	"	284,625	693	67	186	Y06BOT	"	139,125	615	39	136	EA1CES	"	187,200	200	686	31	RA20R	A	452,993	883	90	227						
SP9AKD	"	238,502	447	81	212	Y06KEA	"	10,044	72	25	37	EA1CND	"	57,981	396	26	61	RA20R	A	25,456	178	23	51						
SP9DWT	"	218,556	617	58	176	Y06KEW	"	4,922	49	16	30	EA5EXW	"	29,016	173	19	59	RA20R	A	21,169	527	62	179						
SP5DYO	"	196,000	583	61	161	Y03DCO	"	2,632	28	21	26	EA3AJA	14	259,578	1131	29	85	RA20R	A	171,801	676	40	149						
SP1DTG	"	100,455	411	47	134	Y04F1	21	1,617	49	9	24	EA3EGB																	

RB5NT	99,509	365	46	105		Johnston Island	PY3HLM	90,390	244	53	82	YV5JBI	376,476	608	73	156	K8CC	2,403,236	1588	143	423
UB4JB	67,588	275	43	121		KL7LF	ZY2CGB	63,952	247	45	67	N8CXX	2,334,548	1466	141	421					
RRL5LSR	64,386	235	47	100		/KH3	A	825,907	1891	59	90	WABDXG	2,159,492	1402	138	416					
RBSAE	54,630	254	39	101		Lord Howe Island	PY5OE	62,308	167	50	98	W8SJU	722,107	721	105	242					
UB4MF	51,146	305	26	81		VK9LB	PY7GF	54,466	188	38	75	W8RE	2,427,892	1514	142	429					
RB5RA	46,930	203	35	91			ZY5CFE	51,940	203	44	62	N8NC	623,808	672	95	247					
UB5TCJ	41,093	234	27	82			PY7SV	30,591	142	34	65	KD9ST	464,056	522	105	239					
UB5MMP	32,545	178	32	83			PY8CL	25,470	121	30	60	W9CA	70,560	171	41	103					
FB5LTZ	9,125	79	22	51			PP5IA	11,772	82	20	34	KBBG	1,361,304	998	144	360					
UB5UAT	9,030	70	23	47			PY4BHB	11,470	138	12	19	KF0H	758,016	718	115	269					
LB5VBX	5,880	73	20	40		JA1BK	PY5EML	10,868	65	33	43	W9EJ	640,500	689	107	243					
RB5CCO	2,280	50	8	30		/KH8	PY5BVL	4,770	48	17	28	KR0B	531,255	590	102	229					
FT4UA	8,160	60	20	40		KH9AC	ZY5ZC	4,662	60	15	27	K0HPY	393,576	511	89	187					
LB5VEF	2,720	60	10	24			ZY3AJZ	1,110	21	18	19	W0XK	305,388	379	100	206					
UB5JG	21	59,678	313	27	79		ZY5EG	28	1,777,500	3396	36	142	K0GAS	187,860	339	73	129				
RB4JF	52,512	328	24	72			(Op. WA2TWP)					KB0KK	93,975	217	65	114					
LB5UAT	46,259	274	27	70																	
LB5VBX	23,850	169	23	52																	
RB5CCO	21,756	192	19	55																	
FT5UO	20,280	128	25	53																	
FT4UA	8,160	60	20	40																	
LB5VEF	2,720	60	10	24																	
UB5JG	21	373,096	1149	36	113																
U5WF	94,550	383	30	92																	
UT5RY	64,914	334	29	64																	
UB4ED	51,597	314	24	67		ZL1IM	A	117,284	373	48	61	K1AR	4,531,168	2282	153	535					
FB5TK	44,640	246	25	58		ZL1BWK	"	102,483	225	68	109	K1TO	2,400,018	1573	126	412					
UB5VBG	24,776	186	20	56		ZL1BWM	28	220,601	1263	23	36	KA1GG	2,134,410	1634	113	342					
UB5EDM	17,490	163	19	39		ZL1AAS	"	190,213	964	24	43	KY1H	1,839,606	1296	132	392					
RB5LL	14	279,556	1348	34	99							K1R1X	1,169,432	1083	89	299					
FB5IA	252,681	1057	35	108								K1R1X	1,008,852	815	109	337					
FB5QW	55,620	393	24	56								K01F	677,614	609	106	300					
LB5VA	15,825	118	18	57								NJ1F	658,068	674	107	259					
LT5HP	2,394	31	11	27								AK1L	471,420	518	91	233					
RB5MR	7	212,736	1001	31	97							NIAU	439,098	515	86	85					
UB5WE	121,830	560	31	100								W1PH	389,059	451	88	225					
PB5ISU	111,090	790	26	79								K11DX	334,750	494	76	174					
LB5HEX	22,824	214	116	56								WB1CNM	250,396	370	63	173					
RB5FF	3.8	138,112	1029	22	82							KA1CI	240,084	364	67	167					
LB5IKB	117,912	703	24	78								W1GG	160,310	263	66	161					
LB5HDX	28,765	445	9	46								K1ST	146,073	256	70	149					
UB5WBJ	18,819	331	8	43								KA1KPH	61,513	166	49	88					
UB5MX	4,794	105	8	26								W1AQ	8,820	62	22	38					
RB5IOV	1.8	4,773	99	7	30																
<b>OCEANIA</b>																					
<b>Australia</b>																					
VK2KL	A	1,691,024	2089	96	176		ZK1CG	A	213,993	815	43	50									
VK4BJD		352,611	609	79	124		ZK1XR	"	32,723	257	20	20									
VK1RJ		321,177	739	58	93																
VK3PU		106,750	157	64	93																
VK8AV		52,350	136	52	102																
VK4UA	28	8,901	111	11	12																
VK1NI	21	169,015	755	23	54																
VK2APK	14	312,051	840	33	96																
VK2AYK		150,177	466	31	82																
VK3SM		40,532	184	25	52																
<b>East Malaysia</b>																					
9M6AE	A	25,200	115	33	51		AY9D	A	1,425,745	2191	78	157									
							PY3F	"	960,153	1238	90	181									
<b>Guam</b>																					
WH2AKZ	28	35,776	472	13	13		LU1FY	"	95,465	527	20	41									
KH2D	21	886,016	2372	36	92		LU8DWN	"	4,940	73	29	39									
N7DF		7	29,498	202	21	28	LU1H00	"	635,252	1978	28	81									
/NH2							LH4	"	353,865	1161	22	71									
KG6DX	3.8	48,620	331	20	32		LU1ABT	"	180,744	897	20	48									
							LU2DGZ	"	24,949	138	21	40									
<b>Hawaii</b>							LU2E	"	21,578,995	3313	35	126									
							LU4L	"	1,237,956	2946	34	108									
WR6R																					
/KH6	A	4,086,436	3753	133	243																
AH6FL		1,095,120	2287	68	94																
KH6VP	28	37,908	243	20	32																
KH6JJK		7	7,348	78	18	19															
WH6BKO		315	9	8	7																
N7NR																					
/KH6	21	634,998	2360	26	65																
KH6FKG	14	368,431	1281	34	69																
K6GSS	3.8	2,700	65	6	9																
/KH6	1.8	37,138	404	11	20																
<b>Indonesia</b>																					
YB1CS	A	556,196	898	72	139		P40A	A	7,481,920	4893	133	382									
YC8VFB		128,412	565	40	68		P40T	21	1,317,081	3193	32	109									
YC2CTW	28	366,795	1068	29	88		P40SS	14	1,792,056	3570	35	133									
YC2GHE		92,288	339	26	70		P40R	3.8	552,786	1628	23	91									
YB5QZT	21	252,152	1224	37	109																
YC3HCM		442,750	1334	32	93																
YC0EAQ		381,324	1015	34	95																
YC8VHW		157,536	565	33	63																
YC9VGJ		143,520	548	29	63																
YC2ERF		135,354	531	28	58																
YC2BAB		102,245	358	27	75																
YC1JZS		55,356	234	31	53																
YC8VLZ		42,500	177	32	53	</td															

<b>Asiatic Russia</b>	DL2DBH 338,310 499 84 231	Wales	<b>SOUTH AMERICA</b>	<b>St. Kitts</b>
UZ90WM 1,262,710 1166 88 211	DK0KU 271,830 1105 72 174	GW8GT 3,710,162 2898 132 391	Argentina	V47Z 7,084,800 7975 99 301
UZ9XXM 1,105,500 1434 78 222	DL0UM 266,446 616 67 187	<b>Yugoslavia</b>	AZ4F 9,807,275 6120 146 399	
UZ9XO 769,626 1286 77 176	DL0ER 150,654 431 61 150	YU3AI 3,302,884 3104 116 378	LU2F 5,336,013 4413 114 297	
UZ9XI 679,626 1511 75 173	DF0EB 51,150 358 26 67	YT2R 2,613,694 2647 123 403	LU1VZ 4,325,904 3713 120 276	
UZ9CYP 580,292 921 69 170	DL5BR 34,320 175 32 78	4N2D 1,015,308 1543 84 222	LU1DNQ 2,482,716 2703 101 212	
UZ9WD 125,880 1055 69 89	DK2WV 9,120 54 34 46	YT4M 451,770 1036 79 251	LU7DID 1,935,960 2566 83 177	
UZ9CZ 83,148 420 44 79	<b>Finland</b>	YT5R 431,844 904 80 238	L2D 1,713,169 2579 70 157	
UZ9SWR 63,072 328 20 52	OF5NO 4,005,122 3027 149 465	YU4FDE 329,474 714 61 195	<b>Chile</b>	
UZ9OWV 18,104 95 25 48	OH7AB 3,190,100 2575 146 429	4N4D 90,988 286 48 124	CE4TA 3,303,872 3230 112 240	
<b>UZAKX</b> 3,674,048 3204 154 402	OH4MI 1,232,746 1775 94 243	<b>U.S.S.R.</b>	CE2AA 2,717,835 3181 94 201	
UZ0CW 2,340,352 3075 118 258	OH7AI 923,623 1250 97 282	Byelo Russia	CE6OS 2,493,147 2809 94 213	
UZ0OWT 906,840 1805 85 179			JATYFB 3,408,808 2,680 142 307	
UZ0JWA 419,832 920 72 124			JATYRR 3,331,776 2334 145 323	
<b>Georgia</b>			JATYXP 815,670 1080 106 159	
UF70WW 204,125 645 31 94	F6EXV 4,265,412 3275 139 434		JATYEF 702,240 861 105 203	
UF7FWM 70,613 267 28 89	FF6KAW 1,589,840 2347 93 241		JATYAG 546,210 842 85 153	
	FD1LGE 928,290 1543 79 212		JH8YCT 420,864 1042 81 111	
	FE6DRP 86,736 451 32 72		JATYQQ 315,072 576 73 119	
<b>Kazakh</b>			JR1ZTT 93,168 250 56 88	
UL8LYA 4,507,448 3420 135 371	<b>German Democratic Republic</b>		JATYCO 56,925 180 52 63	
UL8LWA 1,492,800 1887 90 230	Y22YD 898,144 1412 107 309	<b>U.S.S.R.</b>		
UL8BWW 873,908 1114 96 226	Y22EK 543,167 822 95 264	Estonia		
UL8DZ 664,412 1182 77 167	Y4*CH 280,125 719 71 178	UC1AWC 625,988 1168 97 257	W3LPL 9,529,968 4221 167 624	
RL9PZ 560,176 987 70 153	Y49CF 129,038 527 47 135	UC1WVW 291,491 786 64 177	N5AU 7,871,630 3711 173 582	
UL8LWZ 436,943 788 75 172	Y3*CB 1,107 33 10 17	UC1WVF 89,680 347 33 85	NR5M 7,253,136 3693 167 556	
UL8CWW 249,116 584 45 119		UC1AWE 19,240 208 20 38	N6ND 5,155,920 3381 157 401	
		UC1AWU 4,550 80 12 14	K2TR 3,828,510 2198 143 487	
<b>Kirghiz</b>			K4VX/8 3,536,345 1985 154 501	
UM9MWA 520,574 921 78 173	SV8FE 311,754 973 53 170	<b>Greece</b>	K1NG 3,197,425 1953 143 462	
<b>Tadzhik</b>			W3GM 2,665,023 1593 140 433	
UU9JWA 1,085,732 1752 80 204	HG8N 5,826,276 3922 153 504	RW4LYL 1,778,400 2094 124 344	K7M 1,703,264 1389 129 367	
<b>Turkoman</b>	HG7B 5,710,738 4202 148 490	RW6LWZ 1,044,585 1105 136 365	K3ZZ 1,617,490 1207 128 362	
UH9AWE 126,720 460 40 69	HG5A 5,385,900 3953 146 504	UZ4PZP 996,216 1727 80 229	N3LR 1,282,776 1015 116 336	
<b>Uzbek</b>	HG9R 5,039,308 3892 150 486	UZ4WWB 807,085 1561 80 215	K4JP 1,118,958 8448 135 367	
UI9AWH 1,773,593 2407 72 217	HG1S 3,971,376 3728 132 390	UZ10WZ 587,218 1209 77 180	KM1C 799,470 761 98 280	
	HG8O 2,871,269 2814 138 441	UZ4AWB 421,575 780 76 199	K6XO 737,856 902 101 187	
	HA5KDB 2,479,833 2518 128 383	UZ1CXF 299,700 1033 50 135	WA6AHF 342,272 545 83 141	
	HA8KLE 1,930,410 2587 116 329	UZ3DXW 293,656 676 75 209	NK1F 315,520 399 83 207	
	HG6V 1,774,110 2287 96 294	UZ3DXH 270,084 461 60 147	W6AB 310,422 619 92 174	
	HA5KKC 1,600,560 2009 118 314	UZ6XWC 228,456 782 51 120		
	HA1KRR 1,124,280 1651 88 259	UZ6HXW 119,166 1393 30 71	<b>Liechtenstein</b>	
	HA6KNX 288,694 762 59 179	RZ4HWW 116,610 333 50 119	HBB /DL8OH 7,599,620 6866 144 521	
	HA6KOD 78,732 264 50 112	RZ6AWH 1,131 19 12 17	HBB /DF1JC 3,078,350 2998 114 436	
<b>EUROPE</b>				
<b>Aaland Islands</b>		<b>Ireland</b>	<b>Luxembourg</b>	
OH2BEJ/OH8 155,610 293 45 145	EI2CA 917,963 1634 81 271	Kalininograd	LX50RL 2,326,912 3293 103 345	
<b>Andorra</b>	EI4N 47,082 251 30 84	KL7Y 4,535,608 4411 130 277	<b>Netherlands</b>	
C3BW 4,599,644 4009 130 438		KL7RA 3,021,030 3784 104 231	PI4DEC 1,419,078 3348 78 248	
<b>Austria</b>		<b>Latvia</b>	Bahamas Islands	
OE3BEA/3 141,728 655 43 129	I4EAT 6,865,768 3883 159 569	W8KKF /C6A 1,857,114 3772 75 163	<b>Spain</b>	
<b>Balearic Islands</b>	IK4CFV 5,925,744 3935 156 482	UO1GWW 3,908,750 3160 142 448	EA1DOK 320,320 635 77 203	
ED6BCT 2,820,694 2882 120 401	IU2HM 3,276,720 3239 130 362	UO1GZW 3,012,363 2852 130 419	<b>Bermuda</b>	
<b>Bulgaria</b>	IC8CZ 1,768,599 1857 120 349	UO1GXJ 26,488 398 12 32	VP9AD 23,236,827 13040 165 588	JW5E 1,070,454 1762 75 156
LZ9A 7,858,944 4750 170 588	IO5VS 8'0,240 1074 94 290	<b>Lithuania</b>	<b>Canada</b>	
LZ2KPD 1,342,627 1655 109 342	IK4BWC 143,880 304 63 157	UP1BWW 2,530,672 2300 134 437	VE7ZZZ 1,670,485 2584 113 192	YU7IU 4,788,156 4747 149 473
LZ2KSQ 921,360 1432 91 258	PA0KHS 1,089,823 1630 97 270	UP1BZG 1,810,767 1919 122 367		
LZ1KV2 688,324 1294 87 277	PI4TTC 68,968 328 39 109	UP1BZD 1,662,090 1912 132 378		
LZ1KBL 391,126 593 66 192		UP1BYC 1,203,889 1605 98 293		
LZ1KRB 389,400 857 80 220		UP1BXR 1,149,736 1638 104 315		
LZ1KRF 331,824 830 70 178		UP1BYK 548,042 1201 83 236		
LZ1KVF 217,674 489 56 118		UP1BZQ 185,409 561 43 146		
LZ1KAP 85,065 232 54 105		UP1BZL 73,884 431 31 110		
LZ1WL 77,778 311 46 128		<b>Moldavia</b>		
LZ1KHB 74,002 325 40 123		UD4OWN 244,647 699 60 161		
LZ1KWT 17,813 138 30 46		<b>Ukraine</b>		
<b>Corsica</b>		UB4CWW 1,903,850 2194 127 378		
TK5UC 3,489,255 4286 115 380		UB4MW 1,686,444 1793 121 328		
<b>Czechoslovakia</b>		UB3IWA 1,395,485 1484 130 325		
OK7MM 5,390,300 4246 160 540	SP5PKJ 1,015,856 1532 95 251	UB4EWG 1,085,864 1464 112 312		
OK5R 5,173,352 3893 155 560	SP8KBM 463,584 769 94 258	UB4IZA 819,614 1274 94 347		
OK3KCM 1,855,203 1801 133 396	SP9PEY 293,216 702 72 200	UB4EYJ 484,710 938 79 223		
OK2RAB 962,115 1450 98 287	SP2PMO 227,640 406 73 198	UB4WZA 480,762 840 85 222		
OK1ORA 256,150 731 62 173	SP1PBW 196,736 506 62 170	UB4XBW 320,324 681 72 220		
OK1KNR 105,600 472 41 124	SP5ZIM 154,008 427 57 150	UB4TML 276,074 537 57 166		
OK2PBG 9,312 106 19 49	SP5PSL 142,137 597 37 116	UB4LZA 182,115 563 53 150		
OK2KMR 4,422 80 11 22	SP9PRO 88,854 618 76 193	UB4QXU 56,414 421 35 78		
OK2KYD 3,078 48 13 25	SP9PDJ/9 55,125 330 35 112	UB4EZI 54,048 241 28 68		
OK1KCF 464 31 3 13	SP9KJM 11,180 276 8 35	UB4WXZ 44,100 270 31 74		
<b>Denmark</b>	SP3KPN 6,039 80 21 40	UB4MWU 33,814 219 28 78		
OZ1KWC 435,784 889 66 178	SP6PAX 4,606 78 12 37	UB4SWM 32,786 288 21 76		
<b>England</b>		UB4MXX 4,130 52 12 23		
G3NAS 2,536,434 2455 119 367	ED3QD 1,843,077 2591 97 282	<b>OCEANIA</b>		
G3UOA 900,990 1275 94 261	EA3MM 1,503,780 2000 97 256	Australia		
G4XDM 91,770 372 44 94	EA3APS 786,646 1136 94 228	VK2HS/P 22,214 158 23 35		
G4FKG 34,643 249 24 77	ED7RK 545,436 853 83 244	Marshall Islands		
<b>Federal Republic of Germany</b>		KX6DC 2,203,884 2308 128 220		
DF4RD 2,130,444 1845 129 429	SM5AZU 44,415 187 45 96	Midway Island		
DL0JK 1,697,228 2028 119 395		KH2F/KH4 4,060,490 4646 117 184		
DJ1OJ 1,348,385 1314 122 395		<b>Philippines</b>		
DL0BL 1,318,044 1471 107 319	HB9BLQ 1,681,650 2167 123 327	DX1A 2,489,249 3227 91 168		
DL1MAJ 1,206,252 1147 114 372	HB9GT 620,984 793 88 276	DX9HT 1,273,038 1765 83 164		
DL3MAA 1,099,380 1437 101 337	HB9AJ 514,257 1258 65 192	DX1CW 493,785 1253 68 118		
DK6WL 1,081,574 1380 106 336	HB9FR 395,241 594 87 232			

This impressive 6 over 6 stacked Yagi explains the thunder behind RL8PYL on 15 meters. Notice UL7PCZ making the adjustments towerside.

