

# Results of the 2003 CQ WW DX SSB Contest

BY BOB COX,\* K3EST

## Expanded CQ WW Contest Results on the Web

We've moved a few elements of our contest reporting onto the CQ website again this year, including **Station Operators** of Multi-Op stations, **Team Contesting**, and **Zone Leaders/Single Op**. In addition, we have expanded **QRM** on the web.

To view these additional and expanded elements of the 2003 CQ WW SSB results, go to <<http://www.cq-amateur-radio.com/cqwwhome.html>>, then click on "Expanded Results, 2003 CQ WW SSB" and select the category you want to see. You may also get there by going to our home page at <<http://www.cq-amateur-radio.com>>, clicking on "Contest Rules & Info," then clicking on "CQ World Wide DX Contest" and selecting "Expanded Results, 2003 CQ WW SSB."

It was predicted that solar conditions would not cooperate for the 2003 CQ WW DX SSB Contest. However, that did not stop 4093 contesters from entering the world's largest international radio event. For weeks before the contest the bands were quiet. Suddenly, at 0000 UTC on October 25 they exploded into life, and once again the CQ WW made its own propagation. The activity over the weekend can best be summarized by the words of the entrants themselves:

"Once again CQ WW SSB beat the propagation pundits! The sheer volume of signals on the band during CQ WW must warm up the ionosphere, providing better than expected conditions"—G3TXF. "Wow, what a ride! Solar flares followed by great activity and then interrupted by 'RF blackouts'—WN6K (*the best description of the weekend's propagation—ed.*). "Flux at 298—wow! Great conditions; amazing signals on 10 meters. Went very auroral Sunday evening on 40"—G3BJ. "CQ WW wins again!"—GU5W. "Conditions were great on 15 meters! That major flare right before the contest seemed to seed the ionosphere with DX-friendly electrons!"—K2MFY. "Another great WW! The RF blackout on Sunday was the strangest thing we ever saw. All three high bands went to S0 in seconds at 1751Z. After confirming the towers were still standing, we realized what had happened"—W4WS. Aurora, our faithful friend, was again present, even in visible form on Friday night—OH1F.

Sure the CQ WW is a fantastic competition, but it is much more than that. It is a celebration of ham radio skill and effort. Over the years, thousands of hams throughout the world have received their first ham radio thrill in the CQ WW. New hams and old timers who enter the CQ WW become addicted, as evidenced by the following comments from the 2003 contest: "My first contest. I am trapped!"—OA4BQE. This could be addictive—KA2BZS. The greatest phone contest, a five-star contest!—YC2ECG.

Following is a summary of the results. The line scores are presented elsewhere in this issue. Look them over and find your callsign.

## High Power, All Band

D4B is located on a mountaintop on an island at 15°N latitude. Over the last few years Al, 4L5A, has built a world-class station, which can be seen at <<http://www.qsl.net/d44tt>>. All of his hard work has paid off, too. Al took the top position in the world in the very competitive High Power All Band category with the all-time #2 score. Finishing in second place was Jim, W7EJ, who operated CN2R to new heights. Third place went to Dave, NN1N, who put HC8N in lots of logs (<http://hc8n.info>). The top three entrants in Europe all broke the 5-million points barrier. First place in Europe was M6T operated by Andy, G4PIQ. Second was taken by Steve, GW4BLE, and third place went to Tonno, ES5TV, with his FB station (<http://www.lhv.ee/images/files/es5tv.htm>).

Breaking the 6-million point barrier is a real accomplishment. Bob, KQ2M/1, pushed his station over the barrier for the top U.S. position. A little farther to the north, Randy, K5ZD/1 (on <[www.qrz.com](http://www.qrz.com)>), took second-place honors. There was a *real* battle for third place between two Indiana friends. Finally, Mike, W9RE, just edged out Pat, N9RV ([www.qrz.com](http://www.qrz.com)). The difference was only about two QSOs! Special mention must be made of the fine score of KH7X operated by Mike, KH6ND. What an effort! For the first time, three Canadian stations made the world top ten box: VY2ZM, VC3AT, and VE2IM.

The top scorers from each continent were: North America 8P1A, Africa D4B, Asia C4W, Japan JH4UYB, Europe M6T, South America HC8N, and Oceania KH7X.

## Low Power, All Band

Zone 34 is hard to work, as everyone knows. When SU9NC operated by W9NC takes the world top place Low Power All Band, you know there were a lot of smiles around the world during the contest. I'll bet he could hear, "Yes!!" every time he worked someone. World second place went to CQØT operated by CT1ILT, who is 17 years old! Quite a job. Third place in the world went to A45WD operated by Alex, YO9HP. Another Asian top score and tops in Asiatic Russia was Willy, UA9BA, operating UA9AYA. Second place in Europe went to Zlatko, 9A2EU, and rounding out the top three was Dave, G4BUO.

All three top U.S. entrants were *not* on the east coast . . . well, sort of. Jeff, N8II, in West



The Cape Verde mountaintop location of Single Op, High Power, All Band World winner D4B, operated by Alex, 4L5A.

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## TROPHY WINNERS AND DONORS

### SINGLE OPERATOR

**World All Band**  
**D4B (Opr. Alexander Teimurazov, 4L5A)**  
 Donor: Dave Rosen, K2GM  
 WA2RAU and W2SKE Memorial

**World Low Power**  
**Thomas Poland, SU9NC**  
 Donor: Slovenian Contest Club

**World QRP**  
**Valentin Benzar, 5B4AGM**  
 Donor: Doc Sayre, W7EW

**World Assisted**  
**9Y4ZC (Opr. Bernd Och, DL6FBL)**  
 Donor: CTRI Contest Group

**USA**  
**Robert Shohet, KQ2M/1**  
 Donor: Potomac Valley R.C. – KC8C Memorial

**USA Low Power**  
**Jeffrey Hartley, N8II**  
 Donor: North Coast Contesters

**USA Zone 3**  
**Mitch Mason, K7RL**  
 Donor: Dave Pruet, K8CC & Greg Surma, K8GL

**USA Zone 4**  
**Mike Wetzel, W9RE**  
 Donor: Dave Pruet, K8CC & Greg Surma, K8GL

**Canada**  
**VY2ZM (Opr. Jeffrey Briggs, K1ZM)**  
 Donor: Niagara Frontier Int'l DX Assn.  
 VE3WT Memorial

**Caribbean/C.A.**  
**8P1A (Opr. Thomas Georgens, W2SC)**  
 Donor: Alex M. Kasevich, VP2MM

**Europe**  
**M6T (Opr. Andy Cook, G4PIQ)**  
 Donor: Potomac Valley R.C. – W4BVV Memorial

**Europe Low Power**  
**CQ0T (Opr. Filipe Monteiro Lopes, CT1ILT)**  
 Donor: Scott Jones, N3RA & Tim Duffy, K3LR

**Russia**  
**Paul Bogachev, RK4FD**  
 Donor: Roman Thomas, RZ3AA

**Africa**  
**CN2R (Opr. Jim Sullivan, W7EJ)\***  
 Donor: Gordon Marshall, W6RR

**Asia**  
**C4W (Marios Nicolaou, 5B4WN)**  
 Donor: 2 AM Dayton Pizza Gang

**Japan**  
**Masaki Okano, JH4UYB**  
 Donor: Tack Kumagai, JE1CKA

**Japan Low Power**  
**Minoru Kumoi, JE6EK/3**  
 Donor: Western Washington DX Club

**Oceania**  
**KH7X (Opr. Michael Gibson, KH6ND)**  
 Donor: Northern California DX Club

**South America**  
**HC8N (Opr. David Patton, NN1N)**  
 Donor: Yankee Clipper Contest Club

**SINGLE OPERATOR, SINGLE BAND**  
**World – 28 MHz**  
**ZY5G (Opr. Walter Gomes Filho, PP5WG)**  
 Donor: Joel Chalmers, KG6DX

**World – 21 MHz**  
**PX5E (Opr. Sergio Almeida, PP5JR)**  
 Donor: Robert Naumann, N5NJ

**World – 14 MHz**  
**P40A (Opr. John Bayne, KK9A)**  
 Donor: North Jersey DX Assn. – K2HLB Memorial

**World – 7 MHz**  
**EA8AH (Opr. Pekka Kolehmainen, OH1RY)**  
 Donor: Fred Laun, K3ZO – K7ZZ Memorial

**World – 3.7 MHz**  
**Hrane Milosevic, YT1AD**  
 Donor: Fred Capossela, K6SSS

**World – 1.8 MHz**  
**Bojan Sever, S57M**  
 Donor: Robert Wruble, W7GG

**USA – 28 MHz**  
**Bill Tippett, W4ZV**  
 Donor: Donald Thomas, N6DT

**USA – 21 MHz**  
**David Pascoe, KM3T/1**  
 Donor: WorldRadio

**USA – 14 MHz**  
**Gene Frohman, K1RU**  
 Donor: Southern California DX Club

**USA – 7 MHz**  
**Bill Kollenbaum, K4XS**  
 Donor: Stanley Cohen, W8QDQ

**USA – 3.7 MHz**  
**Theodore Demopoulos, KT1V**  
 Donor: Alex Jozsa, KG1E

**USA – 1.8 MHz**  
**Charles Dietz, W5PR**  
 Donor: CQ Magazine

**Carib./C.A. (14 MHz)**  
**KP2A (Opr. James Neiger, N6TJ)**  
 Donor: Nate Moreschi, N4YDU

**Europe – 28 MHz**  
**Danijel Voncina, S58D**  
 Donor: WorldRadio

**Europe – 21 MHz**  
**Emil Balen, 9A9A**  
 Donor: Tine Brajnik, S50A

**Europe – 14 MHz**  
**Robert Cummings, G10KOW**  
 Donor: A.G. Anderson, GM3BCL

**Europe – 7 MHz**  
**Joseph Cornee, F6CTT**  
 Donor: Roger Burt, N4ZC

**Europe – 3.7 MHz**  
**Anrzej Worosz, SP8BRQ**  
 Donor: CQ Magazine

**Europe – 1.8 MHz**  
**Markovic Milovan, T9/KG6KZK\***  
 Donor: Robert Kasca, S53R

**Oceania (28 MHz)**  
**Hans Budhiono, YB2DX**  
 Donor: Bruce D. Lee, KD6WW

**Japan – 21 MHz**  
**J1ZUNR**  
 Donor: DX Family Foundation

**Japan – 14 MHz**  
**Hiroyuki Inaba, JS3CTQ**  
 Donor: Take Yokoyama, JL1BLW

**MULTI-OPERATOR, SINGLE TRANSMITTER**  
**World**  
**VP2E (Oprs.: KC5EA, N5AU, N5KO, N5TJ, K5MR)**  
 Donor: So. Calif. DX Club – W6AM Memorial

**USA**  
**K8AZ (Oprs.: K8AZ, K8BL, K8MR, K8PP, N8AA, ND8L, W8CAR, W8KIC, W8K, WT8C)**  
 Donor: Carolina DX Association

**Carib./C.A.**  
**VP5DX (Oprs.: AB4UF, NF4L, N4EPD, N4KE, K4UTE, WA4ET, NU4Y)\***  
 Donor: Eric Scace, K3NA

**Africa**  
**3V8BB (Oprs.: PY5EG, S56A, YT1AD, YU1AO, YU1FW, YZ1BX)**  
 Donor: Tikiriki Contest Club – IH9P

**Asia**  
**P3A (Oprs.: RA9JX, RZ9UA, RW4WR, UA9CDV, UA9UR, RA3AUU, RZ3AA, RA0AM)**  
 Donor: Edward L. Campbell, NT4TT  
 AA6BB and KA6V Memorial

### Japan

**JA7YAA (Oprs.: J15RPT, JE7HLZ, JG7PSJ, JO7DJT, JO7FTJ, JH0NZN)**  
 Donor: Vienna Int'l ARC – 4U1VIC

### Europe

**IR4X (Oprs.: I4VEQ, I4TJE, I4IND, I4EAT, I4IKW, IK4DCT, IK2NCJ, IK2JUB, IK2QPR, IK2ULH, IZ4BOY)**  
 Donor: Bob Cox, K3EST

### Oceania

**YB0ZDA (Oprs.: YB00AI, YB0AR, YB0DPO, YB0ECT, YB0LBK, YF0ANA)**  
 Donor: Junichi Tanaka, JH4RHF

### South America

**FY5KE (Oprs.: F1HAR, F5HRY, F5LND, F5MZN, F6FGZ, F6FVY, F5FY)**  
 Donor: The Cuba Libra Contest Club – Victor Burns, K16IM

### MULTI-OPERATOR, TWO TRANSMITTERS

**World**  
**IH9P (Oprs.: I2IFT, IK2ANI, IK2CIO, IK2HKT, IK7JWY, I8QLS, IK8ETA, IN3QGY, IT9BLB, OK1FUA)**  
 Donor: Ranko Boca, YT6A

### USA

**K4JA (Oprs.: K4JA, W3BP, K9JY, KA9FOX, K4MA, K4ZW, KE9I, K9GY)**  
 Donor: Doug Morgan, KH6U – KL7Y Memorial

### Europe

**9A7A (Oprs.: 9A8A, 9A7V, 9A4RX, 9A4PA, 9A3OS, 9A3TR, 9A6DM)**  
 Donor: Aki Nagi, JA5DQH

### Oceania

**KH0AA (Oprs.: JP1NWZ, JF1SQC, JA5OVU, JH1EAQ, JE1JKL)**  
 Donor: Japan CQ Ham Radio

### MULTI-OPERATOR, MULTI-TRANSMITTER

**World**  
**C5Z (Oprs.: AB6BH, K5OT, K6AM, K6JL, OH2KI, N6AA, N6VI, N6ZZ, W6XD)**  
 Donor: Dave Leeson, W6NL & Barb Leeson, K6BL

### USA

**KC1XX (Oprs.: KC1XX, K1DG, K3EST, K6AW, W2RQ, K1EA, W1FV, K1GQ, P4WW, KC1F)**  
 Donor: Paul Hellenberg, K4JA

### Europe

**OT3A (Oprs.: DH5HV, JK3GAD, ON1AEI, ON2BIG, ON2BJC, ON4AID, ON4AMI, ON4ASB, ON4AWU, ON4AWV, ON4BAG, ON4CCL, ON4CCM, ON4CDE, ON4CFQ, ON4CHO, ON4CMT, ON4DB, ON4FG, ON4FI, ON4LN, ON4LO, ON4XB, ON5CIM, ON5JC, ON5OT, ON5UM, ON6FX, ON6LK, ON6MR, ON6PU, ON6UM, ON7AM, ON7AW, ON7BRA, ON7CIP, ON7HU, ON7NB, ON9CC, Daniel, Denis, Francois, Laurens, Mia, Nancy, Rupert, ONL10449, ONL10577, PA1BX, PC5A, SP8ARY)**  
 Donor: Finnish Amateur Radio League

### Japan

**JA3YBK (Oprs.: JH3PRR, JG3KIV, JI3OPA, JP3PZD, JM3XKG, JH4IFF, JH4NMT, JR4PMX, JF4FUF)**  
 Donor: Ryozo Goto, JH3JYS

### CONTEST EXPEDITIONS

**World Single Operator**  
**VK9XD (Opr. David Burger, VK2CZ)**  
 Donor: National Capitol DX Assn.  
 Stuart Meyer, W2GHK Memorial

**World Multi-Single**  
**VP2E (Oprs.: KC5EA, N5AU, N5KO, N5TJ, K5MR)**  
 Donor: Gail Schieber, K2RED

**World Multi-Multi**  
**5I3A (Oprs.: 5H3GRN, 5H3JMN, 5H3NNN, 5H3PEN, 5H3WJN, K1XM [5H1X], KQ1F [5H1F])**  
 Donor: Tachio Yuasa, JA9VDA

### SPECIAL SINGLE OPERATOR AWARD

**World-All Band Under 21 years old**  
**CQ0T (Opr. Filipe Monteiro Lopes, CT1ILT)**  
 Donor: Gene Zimmerman, W3ZZ

\*Second place





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

Number groups indicate: QSOs/Zones/Countries on each band

## WORLD TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
D4B	99/14/53	278/24/76	434/27/95	2733/38/141	1785/34/130	3627/32/139
CN2R	111/9/53	587/21/85	960/26/98	1993/31/131	1676/35/113	3355/30/114
HC8N	73/8/17	295/19/64	1048/30/103	1608/33/106	1834/31/120	3506/30/122
PT0F	29/8/16	150/19/58	616/28/95	2825/34/115	1309/31/113	2883/30/105
8P1A	76/7/22	373/17/64	774/24/92	2045/31/107	2990/33/113	3205/27/108
C4W	128/8/41	366/14/64	666/24/88	1344/29/118	613/28/88	2679/30/114
VY2ZM	90/10/31	470/18/76	423/22/74	1157/28/104	2176/29/112	1343/22/99
KH7X	18/7/8	262/24/38	933/33/64	1074/35/90	1319/34/68	2557/32/63
VC3AT	112/6/8	262/15/50	489/21/65	1465/32/113	1825/30/112	819/27/97
VE2IM	22/4/3	247/15/48	300/18/65	1695/25/108	1938/25/105	856/20/82

## USA TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
KQ2M/1	17/5/9	274/17/72	182/23/85	1880/33/114	1438/36/125	952/29/108
K5ZD/1	18/6/9	209/17/72	283/23/7	834/32/107	1359/29/110	749/24/95
W9RE	18/6/7	111/15/55	227/25/82	587/34/108	860/32/119	1219/28/110
N9RV	19/7/11	116/14/47	341/23/83	666/31/105	959/30/101	1054/28/95
K3ZO	12/5/9	200/16/60	233/23/77	408/26/84	957/29/104	959/23/99
K3CR	15/5/7	95/14/50	206/23/76	537/30/100	748/30/100	1032/26/102
K9NW	19/7/10	72/16/42	235/20/72	424/31/101	773/28/110	931/29/106
W3BGN	26/7/13	127/18/60	138/23/69	609/29/101	661/26/101	610/29/107
K5TR	12/6/9	662/17/37	201/27/82	411/29/91	1104/32/105	902/31/104
N2LT	15/6/9	44/12/24	78/19/47	404/29/92	650/31/108	1092/30/115

## WORLD MULTI-OPERATOR SINGLE TRANSMITTER

VP2E	128/13/47	414/24/88	1162/32/130	2763/39/147	2990/39/151	4160/35/157
FY5KE	100/13/50	320/21/79	903/29/119	1201/35/138	2268/35/145	4276/33/145
P3A	163/10/61	923/20/83	1201/27/103	1835/36/131	1671/37/133	3417/37/145
3V8BB	215/7/53	629/16/74	1008/24/100	1734/34/122	1801/37/135	2362/35/133
IR4X	69/8/58	259/18/77	1045/32/118	994/38/136	1867/38/145	1815/37/147
VP5DX	106/12/26	294/18/66	664/25/91	973/34/126	2274/30/116	1932/31/121

## USA MULTI-OPERATOR SINGLE TRANSMITTER

K8AZ	18/6/17	99/21/67	193/28/101	921/37/135	742/34/125	800/32/138
K1IR	14/7/13	263/17/76	254/27/98	490/34/117	1024/30/116	571/30/118
N4PN	24/9/22	44/16/42	175/29/96	532/34/112	901/34/122	862/31/129
N0NI	20/11/16	63/16/41	174/25/84	522/33/114	652/33/118	801/31/127
W4WS	9/4/8	67/12/38	175/25/85	432/33/113	803/33/120	759/31/125
AA2MF	24/6/10	120/16/53	191/24/88	326/28/106	876/29/113	661/29/115

## WORLD MULTI-OPERATOR TWO TRANSMITTER

IH9P	457/11/6	1024/21/88	1290/28/107	2265/37/139	3491/38/144	3304/36/144
PJ2T	146/8/23	498/19/63	1495/30/120	2443/36/130	4015/33/134	3732/31/132
CT9L	71/7/49	273/15/73	1119/28/105	2455/36/133	3227/36/135	3815/33/135
VP5B	214/9/22	1078/23/81	1431/28/85	2156/31/97	3968/33/118	3967/31/103
V26N	112/7/21	292/18/59	1059/22/95	2427/32/115	3431/33/129	3780/31/118
KH0AA	3/2/3	187/27/38	782/31/79	1218/37/131	2831/39/119	2568/36/118

## USA MULTI-OPERATOR TWO TRANSMITTER

K4JA	64/12/33	498/21/93	540/31/117	911/39/142	1780/37/145	1583/34/142
N3RS	47/9/21	329/19/85	580/31/115	993/38/140	1933/36/140	1394/32/137
K1KI	23/7/16	215/19/71	378/29/98	1112/37/131	1921/35/134	1301/32/137
N2NT	53/10/27	297/19/81	320/26/99	966/36/130	1361/33/126	1180/30/137
W4RM	24/7/10	260/18/72	380/29/101	869/37/123	1330/35/127	1283/31/141
NT1Y	42/11/22	321/21/82	277/28/95	796/36/123	1377/29/129	998/31/132

## WORLD MULTI-OPERATOR MULTI-TRANSMITTER

C5Z	69/11/39	690/22/91	1474/35/120	3637/37/146	3982/38/148	4178/34/129
A61AJ	309/8/55	1432/29/95	2107/38/137	2371/40/164	3100/39/153	3671/37/164
CO9K	107/8/48	444/16/82	1171/27/101	3367/38/149	2999/38/143	3521/35/152
YV4A	129/9/29	339/19/59	921/29/105	2772/37/128	2581/31/117	3088/30/113
KC1XX	101/12/38	632/23/98	805/34/126	1551/39/161	2702/37/158	1846/32/142
OT3A	764/11/64	1374/20/82	1909/33/115	2411/40/152	2334/36/137	1566/32/133

## USA MULTI-OPERATOR MULTI-TRANSMITTER

KC1XX	101/12/38	632/23/98	805/34/126	1551/39/161	2702/37/158	1846/32/142
W3LPL	236/12/30	457/22/93	789/34/125	1682/38/152	2022/36/149	1708/35/145
K9NS	207/12/28	272/24/72	448/31/110	1469/40/145	2340/36/151	1910/34/153
K1TTT	95/9/24	373/19/86	301/26/96	1270/38/133	1935/32/138	1031/31/134
NQ4I	216/9/26	319/23/88	293/26/95	1483/39/143	1632/35/133	1381/33/140
K1RX	51/6/19	220/17/70	484/27/106	1262/38/136	1677/33/131	897/30/124

The top scorers from each continent were: North America N8IE, Africa EA8TX, Asia 5B4AGM, Japan JH7RTQ, Europe F5BEG, South America LU1VK, and Oceania KH6/K0CD.

### Assisted

The Assisted category offers a way for DXers and contesters to contribute to their club scores. The secret to doing well in this category is to remember that QSOs are the name of the game. Try not to chase the band map too much, and you may end up with a better score than by QSYing each time a juicy multiplier flies by on the screen.

Place an excellent operator in an excellent location and the combination is tough to beat. Bernd, DL6FBL, as 9Y4ZC talked his way to the world #1 spot in the Assisted category. Perennially among the world's top scorers is John, W2GD; second place went to him. Third place went to D44TD. The top honor in Europe was won by TM7F. He was followed by Fabio, IT9GSF, and Igor, UT7QF. In the U.S., W2RE walked away with a 1.3-million point lead to garner the top spot. Second place went to Bob, W4MYA, operating from central Virginia, while third place went to Noah, K2NG. Two Asian stations did very well; YM2ZF (ex-M0SDX) edged out RG9A. A long way from population centers, JR1AIB and VK4UC did outstanding jobs.

The top scorers from each continent were: North America KP3Z, Africa D44TD, Asia



Jacek, CE0Y/SQ9BOP, operated in the Single Op, Low Power, All Band category from Easter Island.

YM2ZF, Japan JR1AIB, Europe TM7F, South America 9Y4ZC, and Oceania VK4UC.

### Multi-Single

The Multi-Single category is one of the most competitive. It entails assembling a team and months of planning. How do you set a new world MS record, a record that has stood for many years at around 23-million points? The first thought would be to plan to go to a three-point area. Yes, that makes sense. However, this time throw out that idea. The new champions and new world MS record holder is the

team who placed VP2E in 11,617 logs! Since you are allowed only one run station, that figures out to be about 229 QSOs/hr for 48 hrs! Wow! Congratulations to the team.

The top three stations all finished above 20-million points! The world second spot went to the FY5KE team. Finishing a very FB third was the P3A group. The top European score came from the team operating from Bologna, IR4X (ex-IQ4A). The next four MS stations all finished above 8-million points. HG6N was second, followed by DA0BCC, OK5W, and OM7M. In the U.S., Tom's crew at K8AZ operating from northeastern Ohio took the top spot. The fine score of K1IR took second, followed by the team from N4PN. Multi-single is a real party, and if you get a chance to join a team you will find it a real learning experience.

The top scorers from each continent were: North America VP2E, Africa 3V8BB, Asia P3A, Japan JA7YAA, Europe IR4X, South America FY5KE, and Oceania YB0ZDA.

### Multi-Two

"It was a fun weekend and the Multi-Two operation just gets better"—D70LW. "Running part of our usual Multi-Multi field-day setup with less than half of the 2002 crew, the planned targets have been fully achieved (QSOs, mults, and final score). Local 'moscato passito' wine, friendship, and acquired know-how have been again the keys of another great result"—IH9P. IH9P is the new world Multi-Two record holder, and what a fine job

### EUROPE TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
M6T	188/10/53	658/17/71	504/20/84	603/26/85	1710/34/109	828/25/103
GW4BLE	110/6/43	556/15/64	398/23/82	551/26/92	1362/26/91	1108/27/94
ES5TV	185/7/45	317/17/75	506/29/101	895/33/121	1077/34/122	745/34/130
GM7V	151/8/46	650/16/72	410/22/84	896/32/97	1318/29/101	624/26/101
TM2Y	67/6/41	330/17/62	224/21/83	425/28/96	873/32/99	1286/31/112
S57DX	106/6/37	555/16/65	512/26/90	783/32/111	1011/33/102	603/30/102
DJ5MW	126/7/42	547/12/64	138/18/65	438/24/90	1239/30/106	966/32/110
EA4KD	12/3/11	134/10/51	340/20/77	961/27/96	1005/32/95	1010/24/88
OH0B	140/7/48	245/13/56	542/26/77	1088/33/111	1195/29/94	444/25/91
DJ4PT	177/8/51	254/14/60	372/25/88	681/31/93	883/31/95	448/26/83

### EUROPE MULTI-OPERATOR SINGLE TRANSMITTER

IR4X	69/8/58	259/18/77	1045/32/118	994/38/136	1867/38/145	1815/37/147
HG1S	112/9/56	464/17/79	898/30/119	879/35/129	1581/37/139	1325/34/146
OK5W	97/8/52	441/17/76	875/30/113	959/38/143	1992/38/144	556/33/138
QM7M	183/8/58	675/19/85	739/32/116	1208/38/129	1486/37/153	684/35/143
OE2S	191/7/53	675/18/79	580/28/110	792/37/125	1244/38/142	1463/35/147
SY8A	170/9/54	662/14/74	1170/29/112	1078/35/125	1725/37/127	1563/36/128

### EUROPE MULTI-OPERATOR TWO TRANSMITTER

9A7A	351/8/57	946/17/77	961/30/113	1891/39/143	1779/39/140	2083/37/150
HG6N	522/11/62	1007/19/79	853/29/120	1412/36/132	2157/39/138	1469/34/133
DA0BCC	297/8/57	672/19/81	940/32/115	1280/38/132	1929/38/147	1510/35/146
RU1A	177/9/56	923/27/100	1172/32/121	2078/39/145	2177/38/141	836/33/128
MD4K	624/11/61	969/16/75	1021/23/99	2254/37/135	2499/38/134	792/30/127
OH1F	231/8/50	555/17/73	595/32/111	2026/39/139	1450/37/134	561/32/122

### EUROPE MULTI-OPERATOR MULTI-TRANSMITTER

OT3A	764/11/64	1374/20/82	1909/33/115	2411/40/152	2334/36/137	1566/32/133
DF0HQ	947/12/65	1483/22/94	1670/32/114	2474/40/162	2021/39/162	1479/37/157
LZ9W	539/9/57	912/19/79	1512/30/113	1680/39/142	2089/36/140	1245/36/142
RW2F	407/9/60	794/18/78	1074/29/115	1700/39/136	2110/35/140	776/35/136
HB0/HB9AON	694/7/56	1402/15/75	1306/20/96	1939/31/119	1425/27/108	1202/25/104
IS0/DL3EW	256/9/57	729/15/69	739/22/80	2048/33/123	1561/34/118	2066/34/127

they did. Second place went to the contesting consortium at PJ2T. Facing south and west on Curacao, this seasoned team put PJ on the map. A great job was done by the CT9L team led by the Rhein-Ruhr DX Association. Europe's top score came from 9A7A, the Radio Club Varazdin Contest Team. Second place went to HG6N, the Salgottarjani Varosi RadioKlub. Here in the U.S., Paul's crew at K4JA reprised their win from 2002. After carefully constructing a FB station in Tidewater, Virginia, K4JA's team walked away with the U.S. Multi-Two top score and a new record. Second place went to N3RS, Sig's fine team in the Philadelphia area. Third place went to a Yankee Clipper Contest Club station, K1KI.

The top scorers from each continent were: North America VP5B, Africa IH9P, Asia UP5G, Japan JR1ZTT, Europe 9A7A, South America PJ2T, and Oceania KH0AA.

### Multi-Multi

The C5Z crew arrived at their location and prepared to set up verticals on the beach. The only problem was that the Gambian government had decided to remake the beach. Getting around the problem required very long coaxial cables, but all the work paid off. The C5Z gang took home the coveted Multi-Multi crown. They were followed by Ali, A61AJ's fine crew from Dubai. They say that 16% of the world's cranes are in Dubai; one was used to put up antennas at A61AJ. In third place was CQ9K. This all-CT3 crew did an outstanding job! Breaking into the top world six was the team at KC1XX. They felt the effect of the aurora, but not enough to dent their great multiplier total. Second place in the U.S. went to Frank, W3LPL's crew. Located in the rolling hills of central Maryland, his gang used the eight towers holding up big antennas to their best advantage. For third place you have to go much farther west to the home of the Mount Frank Contesters. There you will find K9NS. They sure do get out.

Introducing new hams to contesting and gathering together a large party is what OT3A was all about. With 50 operators, they must have had the largest crew. They took the top Europe spot. You can check-

### TOP SCORES IN VERY ACTIVE ZONES

<b>Zone 3</b>	VO1AU.....5,514,435	SN8F .....2,202,860
K7RL .....1,999,830	K3ZO .....4,240,200	*9A2EU .....2,199,724
K5RR/7 .....1,658,435	K3CR .....4,021,509	YL6W .....2,061,720
W6PH .....1,236,690	W3BGN.....3,456,607	
WA7LT .....932,340	N2LT .....3,245,274	<b>Zone 16</b>
*N6MU .....838,134	K1ZR .....2,922,624	RK4FD .....2,853,785
*K8IA/7 .....826,117	AA1K/3.....2,508,504	*UA4FER .....1,476,366
K7RI .....562,424		RJ1Z .....1,320,304
*WN6K .....521,094	<b>Zone 14</b>	RD4M .....998,800
WR6M .....514,324	M6T .....5,518,331	*RU3QW .....995,687
K6LRN .....469,299	GW4BLE .....5,356,955	RN3ZC .....874,923
	*CQ0T .....5,291,104	RD3A .....769,698
<b>Zone 4</b>	GM7V .....4,948,370	RK3BA .....711,383
VC3AT .....6,898,752	TM2Y .....4,376,532	RZ4FA .....675,200
W9RE .....4,872,366	DJ5MW .....4,118,400	*RZ3DW .....558,832
N9RV .....4,868,525	EA4KD .....3,850,674	
K9NW .....3,611,608	DJ4PT .....3,712,885	<b>Zone 25</b>
K5TR .....3,337,350	EI8IR .....3,325,350	JH4UYB .....3,866,265
VE3PN .....2,062,482	GM0F .....2,442,032	JA6GCE .....2,231,840
VE3SY .....1,702,148		JA7NVF .....1,424,130
K0SR .....1,694,607	<b>Zone 15</b>	JM1XCW .....1,309,308
N4TZ/9 .....1,581,888	ES5TV .....5,049,000	JR3NZC .....720,405
*N5AW .....1,551,930	S57DX .....4,344,600	JA2FSM .....550,240
	OH0B .....3,807,620	JA1TMG .....461,121
<b>Zone 5</b>	ZA1A .....3,097,575	*JE6KC/3 .....417,294
VY2ZM .....8,843,125	II4A .....2,471,064	JH1UAX .....373,065
KQ2M/1 .....6,088,992	LY2MW .....2,390,256	JA4YHX .....280,438
K5ZD/1 .....5,630,769	YL2KO .....2,252,024	*Low Power



José, YV6BTF, made a nice showing from Venezuela, Single Op, High Power, All Band.

out their station at <<http://www.on7lr.be>>. Second place went to the Ilmenau Contest Club, DF0HQ (<http://www.tuilmenau.de/~df0hq/index.html>). Third place in Europe went to the LZ9W contest team.

The top scorers from each continent were: North America KC1XX, Africa C5Z, Asia A61AJ, Japan JA3YBK, Europe OT3A, South America YV4A, and Oceania DX1DBT.

### Team Contesting

Get five contesters together from anywhere, form a team, and you can enter the Team Contesting category. This year's SSB winner was Contest Club Finland's Team Suana. They led the pack of 18 entries. Here is the lineup:

1. CCF Team Sauna (9,255,886 pts.): OH6NIO, OH0Z (OH4JFN), OH2RA, OH0B (OH2UA), 5W0UU (OH3UU).
2. WWYC Ragchewers (8,956,668 pts.): CQ0T, G0MTN, MJ2Z, NR3X, SM3W.
3. YCCC Phone Alpha (7,589,523 pts.): W2WB, N1SV, W1RZF, KS1J, W1CTN.
4. WWYC Lids on Purpose (6,610,773 pts.): 9A7P, I3MLU, L44DX, OT3R, SP1DID.
5. YCCC Phone Bravo (5,788,668 pts.): W1ZT, K1RV, K1HT, W1KT, W1TE.
6. YCCC Phone Charlie (5,226,702 pts.): K1LD, WA1Z, WO1N, KG1E, W1DAD.
7. Minnesota Wireless Assn. Team #1 (4,391,422 pts.): LA/N0HJZ, N0FP, K0KX, AC0W, KH6/WA2HFI.
8. Aztecas Contesting Revolutions (3,868,220 pts.): XE1CQ, XE1CT, XE1KK, XE2AUB, XE2AC.
9. YCCC Phone Delta (3,812,189 pts.): W1EBI, N1UR, W1JQ, KT1V, W1EL.





Andrew, OZ1XJ, and Jan, OZ1ADL, Multi-Single at OZ5E.

10. Team Australis (3,589,836 pts.): VK2IA, VK9XD (VK2CZ).
11. CCF Team Terva (3,580,497 pts.): EA8EA (OH2MM), EA8AH (OH1RY), EA8BH (OH2BH), OH8L (OH8LQ), OH0V (OH6LI).
12. CCF Team Sibelius (1,545,699 pts.): OH4RH, OH6OS.
13. WWYC Showing Off (1,174,026 pts.): KE9R, OE8CIQ, OE8YDQ, LZ5AZ.
14. CCF Team Sisu (1,031,118 pts.): OH2LU, OH3WW, OH5DX, OH6KXL, OH6QU.
15. CCF Team Finlandia (671,565 pts.): OH5B (OH5BM), OH4A (OH9MM).
16. WWYC Singles (629,131 pts.): LX7I, LY7Z, PY8AZT.
17. YCCC Phone Echo (582,408 pts.): K1VU, K1NQ, KB1JCT.
18. Minnesota Wireless Assn. Team #2 (494,405 pts.): WB0TRA, N0KK, K0AD, WA2MNO, WG0M.

## Records

On the CQ web page ([www.cq-amateur-radio.com](http://www.cq-amateur-radio.com)) and the [cqww.com](http://cqww.com) web page are the All-Time Records for each continent and country. Setting a new record is difficult and challenging. Take a look at your country's records and choose one you can shoot for. Congratulations to the following stations that set new records.

- World: KP4KE (Q3.7), IH9P (M2), VP2E (MS)
- Africa: IH9P (M2)
- Asia: BA4RF (A7), RA0CG (A14), P3A (MS)
- Europe: CQ0T (CT1ILT) (LA), YU1NR (Q14)
- Japan: JH7LRS (A14), JR1ZTT (M2)
- North America: VP2E (MS)
- Oceania: KH6WW (W8QZA) (Q14), KH0AA (M2)
- South America: HC1/NP3D (L7), 9Y4ZC (AA), PY2WC (A7), PJ2T (M2)
- U.S.: K4JA (M2)

## Special Mention

For many, the CQ WW sure brings out the desire to travel. Thanks to the many DXpeditions and the efforts of hundreds of contesters, the contest experience is made more interesting. Here are some calls you probably worked: C6/VA3SWG, 8P1A, V31LZ, VY2ZM, ZF2AH, TO5A, PJ7/OK1BNS, PJ7/OK1NS, VP5/W9RN, KP2/K2ZZ, KP2A, EA8EA, EA8AH, EA8BH, D4B, CN2R, 9J2KC, Y13DX, 9N7MV, 9N7ET, BW4/UA3VCS, UK/JE7RJZ, OH0B, OH0V, ZA1A, T9/KG6KZK, SV9/PA9NMH, YM0T, J43J, GU5W, MJ2Z, MW/VE6WQ, 9M6A, 9M8YY, 9M6OO, 4W2A, 4W4W, V73AZ, ZL/W3SE, KH0A, YJ0ONM, 5W0UU, DU7/G4DUM, VK9XD, P40A, CE0Y/SQ9BO, CE0Y/

SP9PT, CE0Y/SP9EV, HC1/NP3D, HC8N, KH6/K0CD, KH6WW, HC1/EW1AR, PJ7/AH8DX, IH9YIT, 4U1ITU, OH0Z, P40W, 9Y4ZC, VP2E, T15A, HR6/VE3BW, VP5DX, EA8ZS, CQ3T, 3V8BB, V55V, P3A, J49Z, JW5E, V63B, ZK1SSB, PJ4T, V26B, VP9I, T18M, V47DM, 5J0X, VP5B, IH9P, MD4K, AH2R, KH0AA, PJ2T, PZ5A, V26DX, VB2C, T15N, V47KP, VP5T, C5Z, CQ9K, 513A, A61AJ, HB0/HB9AON, and IS0/DL3EW.

## Comments

As the opening comments indicated, the 2003 CQ WW SSB was a real roller coaster ride. The conditions were much better than expected and the solar flux really did hit 298! We received about 4100 contest logs, about 4000 of which were electronic! Your effort to submit an electronic log allows for a fairer adjudication process. Thanks to all the contesters around the world who sent in a log. Please send in your log, no matter how small.

Submitting an electronic log is easy. Send your SSB log and summary to [ssb@cqww.com](mailto:ssb@cqww.com) (CW logs to [cw@cqww.com](mailto:cw@cqww.com)). Please send your log in Cabrillo format. The Cabrillo format is now a standard submission with CT, TR, NA SuperDuper, and WriteLog. Remember to name your file with your call with .cbr extension—e.g., C5Z.cbr. If you did everything okay, you will get back an acknowledgement. If there was something wrong, you will get a message telling you what to do to correct the error. The messages are presented in numerous languages. If you don't see your native language and you would be willing to help out by translating for your fellow countrymen, please send an e-mail to [questions@cqww.com](mailto:questions@cqww.com) for more information.

Several problems have arisen with the use of packet. First there is using packet to help find QSOs, mostly multipliers. We have addressed this problem by checking all SSB entries for unclaimed packet use. Again we can report that very few entrants made the mistake of not claiming the correct category. There were eight entrants who were reclassified. The second problem is the use of packet to self-spot, which is against the rules. Self-spotting can be broken down into an entrant doing it himself with his call, or a participant trying to hide the fact that he is doing it by using other callsigns. The first case is almost always due to ignorance of the rules. We notify those stations of the offence. The second



The T18M ops (l. to r.): Back row T12KAC, K4ZJ, N5VI, K4WPM; front W4KTR, W4BD, and K4UN with Oso.

case is a deliberate attempt to hide the spot by the entrant or by someone associated with the entrant. Fortunately, the internet is very exact and the ISP address of every spot can be traced. We found several stations who even used Silent Key calls (not club calls) as spotting calls. There is nothing wrong with coming across a station and spotting it, but self-spotting is against the rules. The CQ WW has few requirements: write down the callsign of the station to which you are talking, claim the correct category, and do not self-spot. It's not so hard. Everyone should enter the contest to have fun, meet friends, perhaps work some new ones, and compete fairly.

## Thanks

Thanks to the CQ WW log checkers who validated the winners and provided insight into many contesting topics. The 2003 crew included: K1DG, K3WW, K3ZO, KR2Q, N2AA, N2NC, N3ED, N6ZZ, N9RV, W3ZZ, K1AR, KM3T, KT3Y, N5TJ, N5NJ, K6AW, and N8BJQ. Our DX advisors were very helpful in offering advice, providing information, and sorting out potential problems: CT1BOH, DL6RAI, EA3DU, F6BEE, G3SXW, I2UIY, JE1CKA, OH2KI, OH2MM, OK2FD, PY5EG, S50A, UA9BA, VA7RR, VE3EJ, and E21EIC.

A special thanks to Dick, N6AA, and Larry, N6TW, who once again spent countless hours to make the CQ WW database the best in contesting. The CQ WW uses the software developed by Tree, N6TR. Additional software provided by WT4I was used. The results were proofread by VE3EJ. Translations of the rules into Spanish, Japanese, German, Turkish, and French were done by EA3DU, JE1CKA, DL6RAI, TA3J, and F6BEE, respectively. The CQ WW records are maintained by John, N2NC, and K3EST. Phil, N6ZZ, put in lots of hours making sure the database was as clean as possible. Thanks also to John, K1AR, for his advice and hard work to make the CQ WW so successful.

Congratulations to all the winners! To participate and have fun is what contesting is all about! CU in the 2004 contest.

73, Bob, K3EST

## DX QRM

Conditions were excellent the first night, but the second night there was very heavy atmospheric noise. Many QSOs were missed because of this. . . . **4X4NJ**. Thanks to Yuri, XE1UN, the 6D9X contest group is born. Contesting is alive and well in Mexico! . . . **6D9X**. Output power's only lonely 10w. MNI TNXs 4 pickin' me out! CU on my love, 10m. . . . **7K2PBB**. What a run on the first night, but soon the solar flare was in full effect here in 8P. Congrats to PX5E, who never missed a beat all weekend. I actually had to check whether my antennas were still in the air a couple of times—that's how bad it got on 15 at times on Sunday. . . . **8P2K**. Multi-Single our first attempt. Very good score for portable setup. No fatal breakdowns with equipment. . . . **9A0R**. I could enjoy this contest in Zambia. There was a power failure during the contest. . . . **9J2KC**. I enjoyed the contest in Nepal. . . . **9N7ET**. Many thanks to my old school for hosting me again. I enjoyed this one greatly. . . . **C4W**. Condx were great to Europe. Lost 1.5 hour when electricity went QRT. . . . **CN2R**. Very good propagation on 10m, but too bad in the others. Thanks for the beautiful pile-ups. . . . **C08DM**. I am 17 years old and I enjoyed a lot this contest. . . . **CQ0T**. Good DX conditions on Saturday. On Sunday evening at 17:30 all bands closed. Before contest weekend watched on TV about intense solar explodes. Was an effect of it. . . . **CX9AU**. Condx in contest changing very quickly. My thanks to everyone who called me and get with me on another bands. Special thanks to N6TJ, CT1BOH. . . . **D4B**. It was a fun weekend and the Multi-Two operation gets better. . . . **D70LW**. DP1POL is located at Neumayer sta-

tion, a German polar research base in Antarctica. I am a member of the 23rd wintering team 2003, and have been working on the base since December 2002. It was good fun to hear "thanks for the mult" every now and then. Unfortunately, some stations were not using current country files, which led to a few lengthy discussions about the validity of my CQ Zone. Yes, I know that Germany is in zone 14, but this is not where I was. . . . **DP1POL**. I used mobile antenna at the door and power 100w. Thanks to all QSOs and thanks to CQ for support contest! . . . **E21EIC**. Thanks to "Propagation" column in CQ magazine. NW7US was right with his predictions. We had glorious openings on 10m! . . . **EA3ALV**.

Our first experience as Multi-Single (two operators). Too many work on Friday afternoon (we found the antenna cables cut) and we paid the first night and the whole Saturday because we were really tired, but the final score encourage us for the next CQWW. . . . **ED3SSB**. I operated from a motor home at the tip of the ring of Kerry, Ireland, one of the most beautiful places in the world. . . . **EI2VNO**. Last time was 31 years ago in 1972 with call 9C9ES, mode phone 20m. . . . **EP3PTT**. No doubt: CW is far easier for small gons! . . . **F5SGI**. For sure, if every mosquito puncture counts as QSO, we may have set a new world record! . . . **FY5KE**. Flux at 298—wow! Great conditions: amazing signals on 10, low noise on LF. Went very auroral Sunday evening on 40. . . . **G3BJ**. Once again CQWW SSB beat the propagation pundits! The sheer volume of signals on the band during CQWW must warm up the ionosphere, providing better than expected conditions (on 15m at least). . . . **G3TXF**. Conditions weren't good on Saturday, though late afternoon on 10m I was able to get a semi-decent run going. Got a bit fed up with my performance on the first day, so took the luxury of 4 hours sleep from 2320Z. Sunday was better; I could run 10m much earlier. At times when I could only just hear the W callers, they seemed to hear my 100w easily. First day's QSO total was 1052 and second day 1075, showing how much better Sunday really was. . . . **G4BUO**. Variable conditions at times leading to some excellent propagation into NA on Saturday afternoon. Increasing auroral activity on Sunday affected the length and range of the propagation. . . . **G4F**. Hard going at the start with the solar flare killing some bands. Enjoyed the contest once again this year but very tiring! . . . **GM2T**. Thanks especially to GU0SUP, GU4YOX, and GU6EFB for their hospitality. Unbelievably high solar flux (298) led to great conditions and the solar flares held off until the day after the contest. CQWW wins again! . . . **GU5W**. My first CQWW from Italy. Took one



Dave, VO1AU, relaxing after his Single Op, High Power, All Band effort.

FT-990 and a 6-band vertical out of a container on Saturday and had fun competing for a DXCC. In 14 hours I nearly made it, working 98 countries. . . . **I79A3A**.

First time in Multi-Two. Running part of our usual Multi-Multi field-day setup and less than half of the 2002's crew, the planned targets have been fully achieved. Local "moscato passito" wine, friendship, and acquired know how have been again the keys of another great result. . . . **IH9P**. Mr. Murphy called me. He told he will visit me during the CW contest! Nice contest in SO2R setup with homemade automatic switching. No amplifier to tune for mults' radio. Big antenna work till Friday. For me the contest period is always more than 48 hours! It lasts a full week! . . . **IT9GSF**. Congratulations for organization in CQWW. In 2002 for me the first participation in CQWW and in 2003 it's the second, but I'm a novice always. Good propagation on 15 and 10, bad in other bands. . . . **IZ7EVZ**. My first CQWW in more than 17 years. I came back on the air this year. Times have changed, but the excitement of CQWW contest has not. See you next year! . . .

**JA1BPA**. It was nice to be back on Guam contesting again after 8 years off island. . . . **KG6DX**. Forty meters single band, non-serious. This is the only antenna I have still up. All others are down for shipment to the Kenai. . . . **KL7RA**. In loving memory of Pablo de Cesare, LU3VAH (SK), 1963-2003, my son. . . . **LU1VK**. My first contest. I am 16 years old. . . . **LU8EOT**. Need a Beverage for the next time. More radials made the vertical array working better. LX7I did it better again. I'll try it again next year. . . . **LX1KC**. WWYC team singles. First time operating SOSB in the CQWW. I missed some countries and zones but nice contest! . . . **LX7I**. Yup! Very hot contest. Lovely! I'm waiting next year! Thanks to all folks for QSOs and hope to contact them again! . . . **LZ5AZ**. Ten meters was amazing considering the two x-flares during the contest! Enjoyed it certainly, apart from the pile-up gotaways! . . . **M0DDT**.

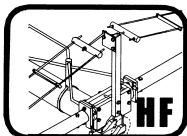
After five minutes with the mult station headphones, my 7-year-old son wanted to get a novice license so he could say "Mike One Papa," too. . . . **M1P**. My first entry in CQWW. Only licensed since March 2003. Yaesu FT-817 (5 watts), Cushcraft R6000 vertical + G5RV. Delighted with the score (and a KH0) running just 5w. . . . **M3RCV**. Great fun as always. David, M3DKG, is only 9 years old. I think he is now hooked on contesting. . . . **M4T (G0VQR)**. Great fun as usual. Started late since was still stringing out Beverage, which was bad planning but good choice since it helped work some mults later. . . . **M6T**. Interesting propagation on 10m. The gamble to do single band at fall of the cycle paid off. Always enjoy the meeting of old pals. . . . **MU0FAL**. My first contest, as I have only been licenced a few weeks. Thanks to the sponsors, and hope to be back next year. . . . **MU3GSY**. Propagation surprisingly good and enjoyed my effort; was never going to be a full-time one. This year some exceptionally strong signals from all parts of the world on all bands. . . . **MW5EPA**. My first contest. I am trapped! . . . **OA4BQC**. Nice condx most of the contest. Almost broke our record, but then the solar flare stopped everything. Still great fun. . . . **OE2S**. Low power on 40 SSB in the CQWW is sure not an easy task. Nevertheless I am very power after entering last year in the high power category. . . . **OE5CWL**. Our first try in the Multi-Two class in CQWW contest. Hard with three ops only but a lot of fun! Aurora, our faithful friend, was again present, even in visible form on Friday night. . . . **OH1F**. Two new countries on SSB. Conditions better than usual in the last few weeks. Looking forward to the CW part. I'm mostly working telegraphy. DX and WPX contests are the best competitions. . . . **OK1DVK**. To be beaten by "9a1a" (9a9a) is not a shame. Nice contest, had fun as always.

**GOT M2?**

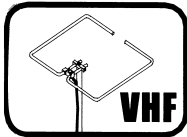
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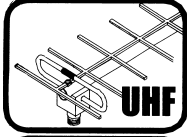
**M2 OWNS VHF - 50 MHZ & ABOVE**



**HF**



**VHF**



**UHF**



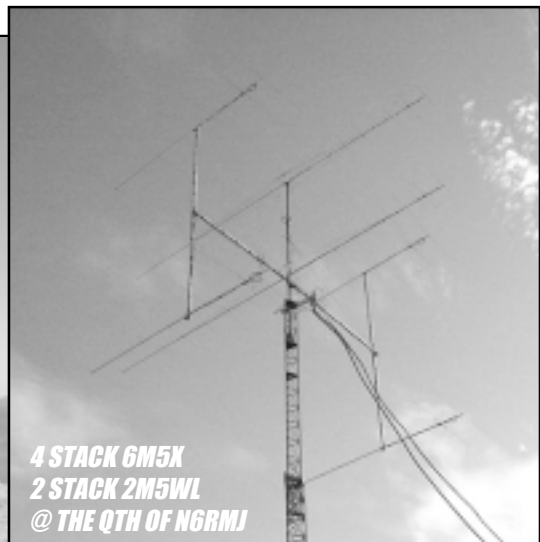
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Thanks to all who called in. . . **OK1RI**. Was great to be present again. Sometimes strange propagation. Second day heard V73AZ on 20 with nice signals. 10 minutes nobody called so wonder if everybody have zone 31 in the log. The new one-letter call in PA did give some questions (hi). . . **PA1V**. Only operated on 20 and 40. Lost our 20m beam and tower during build up, so only the vertical and dipole remained. Propagation was poor due to the previous solar eruptions but still a good contest for us. . . **PA6Z**. Many thanks to PZ1AP, Uncle Arnie, for his help and hospitality. Don't you love solar storms? . . . **PZ5JR**.

Cond good on short bands. No good on low. Mostly tired due to antenna work. How do big performance ops do it? Chewing pills? US not loud. Aurora on Saturday. High power didn't get my sigs to overseas. Considering go QRP for the rest of my life. What the heck! I'll sleep all the time until the CW part next month! . . . **SM6E**. We all enjoyed the contest. We were unlucky because the antennas broke the Friday and all weekend tried to repair. The amplifier never worked also and the cluster worked next day of the contest. But we did the best score in the club history and we train some new operators. . . **SV1AFA**. Fine conditions on Sunday, but might have been better on Saturday. Best DX was 5I3A on 10m. No JA's at all, very unusual, and very few from AS at all. Great 40m opening to North and South America on Sunday morning. . . **TF3W**. Our team members were from five countries. One-half of the crew was on the 2002 TI5N team. Members represented several major contest clubs. All enjoyed meeting old and making new friends. . . **TI5N**. CQWW as field day operation under tents with minus 5 degrees C. . . **TM7Z**. Dreams do come true, but sometimes it takes a lifelong effort. . . **UA9AYA**. First ever SOAB HP effort. Glad the sun cooperated; conditions were excellent. Thanks to Kwaj club for use of the station. . . **V73AZ**. Despite the experts' claim of pending propagation doom, a great weekend for condx on all bands. Higher bands stayed open longer and opened sooner each morning. As usual Don's wife Barb and my XYL Marg fed us well and a great time was had by all. . . **VE3SY**. Deciding to do single band 10m with conditions that were atrocious, and then having two of the longest running electrical storms run through my area coupled with a 3-1/2 hour blackout contributed to the low score. However, taking these factors into account my overall score was not too bad and the main thing is, I had fun. . . **VK4WPX**. I guess it is good for the soul to go from seven towers to three ground-mounted verticals! . . . **VK7GN**. Great fun from a rarer DX spot and surprised many with a larger station than the seven other ops on the island for the CQWW. But even so, missing zones 2, 13, 34, 36, and 40 was disappointing. . . **VK9XD**. Newfoundland is a great place for radio. Marconi was right! . . . **VO1AU**. Biggest thrill almost working A61AJ on six bands. Missed only on 160m, where I heard them, but they could not hear me. 10m condx on Saturday were far better than expected. . . **VY2ZM**. Team contesting Aztecas Contesting Revolutions running low power this time, yielded almost 400k points, less vs. last year effort (HP). . . **XE2AC**. The greatest phone contest, five-star contest! . . . **YC2ECG**. A portable contest DXpedition from Kefken Island AS-159. Antennas are two Windoms and one 10m vertical only. Portable simple antenna operation is my hobby, but my goal is a contest station in the future. . . **YM0T (TA2RC)**. Saturday much better than Sunday. There was some wall for me for stations from east, south, and southwest, hi. Anyhow, had a nice fun again. . . **Z36W**. Pleased to activate ZA on SSB. Due to very bad cold I could not operate more than 36 hrs. . . **ZA1A**. This was yet again a great contest. Pity conditions just didn't play the game! . . . **Z5ST**. Thanks to my friend Sergio, PP5JR. . . **ZY5G**.

## USA QRM

So many stations, so little time. . . **AA0CY/3**. My first CQWW DX contest. Gave me lots of ideas on how to improve the station! Sunspots helped, too. . . **AB4EJ**. Surprise—the sunspots are back! Who woulda thunk it! . . . **AE9B/0**. Went single band this year due to antenna limitations. Plenty of fun until the radio blackout happened. . . **K0IL**. Amazing results for just 5w. I enjoyed sniping some good DX from the big pile-ups! . . . **K1DX**. A great workout for the new station. What X-class flare? Thanks to my team of great ops, and congrats to all! . . . **K1IR**. Flares! Flares? We don't need no stinkin' flares! Highlight: Getting packet spot telling me to call my mom (NH7FY). Unfortunately the band (10m) had already closed to there. We did work her later on 15m. . . **K1TTT**. Conditions were great on 15m! That major flare right before the contest seemed to seed the ionosphere with DX-friendly electrons! . . . **K2MFY**. As always, the best part was meeting so many friends on the air. My thanks to the great people all over the world who make the contest happen. . . **K2RED**. A young contesting team: 13-year-old Sara, K3OOO, and 17-year-old Trevor, W7TDC. . . **K3OOO**. After 12 years QRT, I wanted to remember how hard contesting was. 40m SSB from Kansas during a solar storm was just the way to do it! . . . **K3PA/0**. Thought conditions were going to be really poor so decided on low power. Bad move; 10m was hopping! Saturday morning was the best to Europe and Sunday evening the best to Japan. Didn't work a single SM, OZ, or LA. Didn't get KL7 until Sunday evening. Very few QSOs from Russia either! Thanks everyone. . . **K4WI**. Very

strange conditions from 48N. First day no JA's except for a few via skewed path. Same with Europe, no openings to speak of. Second day had a very small opening to Europe and good run to Japan in the afternoon. . . **K7OX**. The local newspaper had a picture of the sun/sunspots on the front page Saturday morning. Despite the ominous predictions, I found the conditions to be better than last year. . . **K8IR**. Bands in super good condx considering geomagnetic storm. Worked everyone I could hear and there were many to hear. . . **K8RT**. Fun contest! Reasonably good band conditions here in Wisconsin and had a decent run of contacts on 10 and 15. Best conditions in quite a while up here, though aurora probably croaked all of my transpolar contact opportunities. . . **K9FWH**. Interesting conditions from the West Coast. Low bands were non-existent from here. My best effort in many years. . . **K9JF/7**. Sure ran the propagation gamut from unbelievably great to unbelievably poor! That's ham radio. . . **K9MWM/0**.

Great propagation in spite of the "giant solar flare." Looking forward to next contest. This could be additive. Peace. . . **KA2BZS**. We were blessed with wonderful support from Christine, Sabrina, Cassandra, and Anika, capped by a post-contest Chinese food feast catered by KD1EA. AD1C had to cancel due to illness (leaving more food for John). K1EA stepped in and did a pretty good imitation of a phone op for a guy who only hears vowels. First time at XX for Mr. CQWW, and we hope he will return. . . **KC1XX**. This was my first CQWW contest. I am new to contesting. I guess you could say I'm the new kid on the block, and I'm here to stay. Hopefully I will be able to improve my score next year. Thanks, everyone for coming back to my contest calls. Will look forward to working all of you again next year. Little gun with big hopes. . . **KC2HLI**. In my pickup truck parked in my driveway, using RS HTX-10 25w and homebrew mobile antenna. . . **KI7AB/5**. Hey! It ain't much but I at least found my microphone! . . . **KJ9C**. Lucky to work anybody with so many weak signals until of course 2300 on Sunday on 10 meters South Americans were suddenly S9. I strongly recommend using a pre-amp on the RX. Without it everyone for most of contest was in the noise. With it, loud and clear audio even with S-meter at S3. Geo storm hit here! . . . **KS7T**. The tough conditions on 80m just made me work harder. I always "felt" loud, but I also felt deaf despite the Beverages. I'm sure I missed a lot of callers with the low signal levels. . . **KT1V**. The bands were in fairly good shape until the "blackout" on Sunday afternoon. I never even heard a hint of Oceania or Asia until late Sunday. Several JA's were heard on 10m but never worked. I had no idea that there were so many stations in Argentina and Brazil. The EM1 (Antarctica) station was heard many times while swishing around the bands. He was CQing away with no pile-up. Weird and very loud in Minnesota. Great fun. . . **N0FP**. 160 phone QRP—Just do it. . . **N2AA**. Not bad conditions, though very heavy QSB into Europe! Had terrible power-line noise to my west and never worked much in Asia except for some JA's. For once nothing broke! . . . **N3HBX**. We expected really bad conditions. Fortunately, the solar flux index was well above 200 and this overcame the high K an A indices. Thanks to all my hardworking team members for a FB effort. . . **N3RS**. Solar flares really messed things up on Sunday. Bands just went straight downhill. Missed the JA's that are usually there in the evenings. . . **N4SEA/8**. It was the most fun with 100 watts and a dipole I've had in many years! . . . **N4SRT**.

Prop almost too good! 15 open nearly worldwide most of the time. Great fun. . . **N5ID**. Condx were much better than expected, but this area was shut out from Asia for much of test. First JA was after 0130Z Saturday. Ten meters saved the day; I managed to run well in EU, even working Scandinavia and Russia along with a few Middle East stations on Sunday. The solar flare around 1740Z Sunday wiped out the bands here; I took a break. By 22Z 10m was opening well to the Pacific and by 23Z to a few JA's. . . **N8II**. My first low power operation. What a rush. A learning experience from western Colorado. . . **NT4TT/0**. Under 21 years old; I am 9 years old. . . **W1MAT**. I couldn't get on the air until 11:00 PM EDT Friday, and when I turned on the radio on 15 meters. I immediately heard (and worked) C5Z in Gambia. Great way to start a contest! . . . **W2VU**. Fifty years of DX contesting. Thanks for all the QSOs. . . **W3AP**. Solar flux above 250! What's up with that? . . . **W4QA**. Another great WW! The great blackout of 2003 will have two meanings, the summer AC outage, and the Sunday afternoon of WW. The RF blackout on Sunday was the strangest thing we ever saw. All three high bands went to S0 in seconds at 1751Z. After confirming the towers were still standing, we realized what had happened and at the worst possible time. We continue to improve our champagne station on a cheap beer budget. . . **W4WS**. Interesting conditions. Solar disruptions on Sunday morning local time shut HF bands down like somebody had put a pin in my coax, but they recovered with a vengeance in short order. . . **W5ZL**. First CQWW in 40 years as a ham and the thrill of ham radio is still there! . . . **WB2RHM/4**. Wow, what a ride! Solar flares followed by great activities and then interrupted by "RF blackouts." . . . **WN6K**.

(Continued on page 102)

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CZECH REPUBLIC			
OK2FD	A	2,237,872	1740 138 551
OK1FDY		203,574	446 69 193
OL7N	28	370,032	1040 31 125
(OP: OK1HRA)			
OK2ZJ		5,934	50 15 31
DENMARK			
OZ4O	A	388,276	631 70 273
OZ0F		43,508	259 31 115
(OP: OZ1AIZ)			
ENGLAND			
G3LZQ	A	278,720	445 79 256
M6C	14	619,650	2038 38 132
M3MCK	7	5,264	154 6 41
ESTONIA			
ES50X	3.7	30,340	304 15 67
EUROPEAN RUSSIA			
UA3BZ	A	641,560	1007 92 338
RU4VA		640,135	1041 90 353
UA3AB		11,478	574 80 174
RF4R	28	129,360	602 32 122
(OP: UAARC)			
RU6YY		43,520	142 33 103
UA6LV	21	461,700	1541 36 126
UA4RC	7	69,690	294 26 89
RU6LA	3.7	84,209	683 24 83
UA6O		6	1 1 1
FINLAND			
OH6NIO	A	1,689,171	1598 118 443
OH6DX		287,217	719 72 219
OH2LU		266,385	553 64 237
OH3HS		54,378	218 41 118
OH6Y		48,576	234 25 67
(OP: OH6YF)			
OH3WW		18,424	150 25 73
OH2CI		8,165	89 17 54
OH4MDY	14	401,432	1860 37 115
OH2BO	1.8	11,136	215 8 50
FRANCE			
TM7F	A	5,321,810	3720 128 483
F5IN		202,860	429 57 195
TM5HV		189,334	540 59 215
(OP: F5GKW)			
F6FFM		124,488	292 54 180
GERMANY			
DL0WW	A	3,400,704	2366 134 514
(OP: DK3GI)			
DJ2YA		3,204,160	2212 134 512
DL1YD		2,212,272	1815 112 457
DL8OH		1,826,820	1427 132 465
DL4YAO		1,199,544	1437 96 357
DL4FY		1,141,832	1551 90 334
DL6LAU		1,100,317	1006 116 455
DF6QN		1,083,460	1199 98 399
DL8NFU		740,253	1021 85 358
DL8AAM		641,991	1067 80 319
DL4RCK		613,468	916 83 329
DF2LH		609,952	834 82 307
DJ9MH		308,040	535 73 267
DL3NM		263,088	574 57 195
DL1NEO		249,426	519 54 225
DF6JC		225,387	397 58 179
DL6QW		223,266	388 64 190
DL5KM		189,126	414 56 210
DP1POL		163,614	465 43 91
(OP: DL5XL)			
DF80B		137,997	326 65 204
DF2LU		88,355	256 52 153
DF2AP		86,828	170 35 89
DK2ZO		16,350	99 31 78
DL9LR		14,596	110 27 55
DL9EE	28	27,468	130 20 64
DF9ZP	21	1,012,285	2330 40 153
DL3BOA		123,711	504 29 100
DJ7EO	14	829,738	2229 39 143
DL7CX	1.8	31,570	653 9 61
GREECE			
SV1BFW	A	379,908	539 88 278
SV1XV		8,976	62 24 44
HUNGARY			
HA0HW	A	360,418	651 74 233
HA5PT		40,326	160 40 101
ITALY			
IO2A	A	1,653,864	1548 117 431
(OP: IK2RZP)			
IK1RQT		1,549,824	1869 107 405
IK0YVV		1,416,389	1626 107 386
I2SVA		908,564	1060 88 306
IK2VUL		246,268	596 74 245
I7CUB		41,952	145 42 110
IK2SAE		4,500	69 16 44
IR2A	28	291,653	1332 24 65
(OP: IZ1UJ)			
IZ8DBJ		122,303	395 35 122
IZ4AFW	21	164,640	551 31 109
IV3NVN	3.7	22,470	282 9 61
LATVIA			
YL8M	A	487,396	872 90 322
(OP: YL2LK)			
YL2KA		299,437	515 71 206
YL0A	3.7	50,625	559 13 68
(OP: YL2KA)			
LITHUANIA			
LY2FY	A	3,759,120	3716 144 546
LY3CY		62,208	329 32 130
LY2LJ	21	451,770	1321 37 128
LY3BY	14	20,856	292 11 55
NETHERLANDS			
PG3N	A	609,687	1089 77 274
PA9ZZ		331,483	688 64 225
PA5A		146,328	485 48 108
PE2SVN		72,036	283 43 131
PA0R	28	73,312	351 27 89
PC1A	21	627,444	1717 37 137
PE1PQH		22,188	129 21 65
NORTHERN IRELAND			
GI4XSF	A	9,234	64 28 53

POLAND			
SP6EKS	A	2,737,800	2110 130 518
S0BFEW		199,984	446 56 176
SP6EQZ		87,531	361 39 140
SP3HUU	28	46,530	212 30 111
SO2R	14	1,031,940	3118 37 145
SO5BE	7	3,157	78 5 36
PORTUGAL			
CT1CXP	A	11,625	68 32 61
ROMANIA			
YP3A	14	728,160	2822 37 148
(OP: YO9GZU)			
SCOTLAND			
MM0Q	A	41,313	173 35 106
MM0BQI	3.7	11,644	123 16 55
SICILY			
IT9GFS	A	4,782,904	2917 146 620
IT91QQ	21	115,164	646 28 98
SLOVAK REPUBLIC			
OM7ZZ	A	162,178	509 35 96
OM2VL		53,818	208 39 103
OM0W	14	696,756	2359 39 147
(OP: OM0WR)			
OM3DX	3.7	55,091	498 16 73
OM3GI	1.8	30,933	494 8 55
SLOVENIA			
S52ZW	A	2,816,844	2572 126 492
S58WW		1,087,734	1383 91 307
S52A		132,912	270 65 169
S54G	21	719,043	1925 38 141
(OP: IK3UNA)			
S51CK	14	178,149	1014 29 100
SPAIN			
EA3QA	A	936,945	1515 90 353
EA5YJ		91,324	541 32 126
EA1JW		7,998	55 37 49
EA2AYD	28	87,330	320 25 98
EC5AMK	21	60,168	743 23 69
SWEDEN			
SM2EKM	A	1,999,230	2357 115 400
SM5D		353,775	507 89 356
(OP: SM5DJ)			
SM4XIH		32,619	145 31 100
SM6RXZ		1,216	19 14 18
UKRAINE			
UT70F	A	4,168,026	3336 164 607
UU2UJ		85,744	215 47 137
UT5UGR	21	614,008	1856 37 147
UX0L	14	281,240	1144 37 121
(OP: UX0LV)			


UY2UF	*	1,020	49 4 16
E03Q	7	300,672	1446 31 113
(OP: UR3QCW)			
UU7J	3.7	110,460	989 22 83
(OP: UU0JM)			
WALES			
GW7X	14	130,581	894 21 78
(OP: GW0RYT)			
YUGOSLAVIA			
YT6A	21	1,087,952	2867 39 155
YZ1V	14	211,640	1258 31 112
(OP: 4N1FAN)			
YU1UW	1.8	9,250	194 6 44
YU1UA	*	418	14 5 14
OCEANIA			
AUSTRALIA			
VK4UC	A	1,075,570	1307 97 198
HAWAII			
AH6NF	A	9,669	57 34 37
NEW ZEALAND			
ZL3GA	A	80,509	204 52 91
SOUTH AMERICA			
ARGENTINA			
LU7DR	A	139,587	516 37 82
ARUBA			
P40W	A	11,755,443	6730 137 496
(OP: W2GD)			
BRAZIL			
ZX2B	A	5,540,722	4134 106 367
(OP: PY2MML)			
PY2LTY		468,906	970 52 134
PP5AMP	28	3,280	55 14 26
PY2WC	7	52,281	284 27 84
TRINIDAD & TOBAGO			
9Y4ZC	A	14,979,055	8114 137 500
(OP: DL6FBL)			
UNITED STATES			
K1IR		4,569,953	2616 145 538
KV1W		2,194,512	1562 114 410
W1RY		1,559,789	1170 115 402
W1BK		553,344	537 92 292
K1NU		532,836	567 85 257
ALASKA			
KL1ME		33,044	160 40 57
ANGUILLA			
VP2E		25,299,296	11617 182 720

CANADA			
VY2TT		5,423,220	3691 119 486
VE3RM		5,074,710	3945 124 427
VA3SK		4,226,466	3472 121 433
VE7SV		3,216,960	3266 130 350
VE3YAA		1,631,840	1761 104 330
VE7GL		1,597,362	1999 112 273
VE6AO		1,494,200	2682 92 218
VA2TG		432,900	746 53 207
VA3ARG		101,304	296 61 128
VE8JL		16,560	132 34 38
COSTA RICA			
TI5A		5,082,975	5577 124 351
CUBA			
T42GG		3,203,605	4273 91 274
HONDURAS			
HR6/VE3BW		1,137,150	1679 90 225
MEXICO			
6D9X		3,708,403	4420 120 289
PUERTO RICO			
KP4US		347,851	883 61 156
TURKS & CAICOS ISLANDS			
VP5DX		11,106,072	7244 150 546
AFRICA			
CANARY ISLANDS			
EA8ZS		8,732,607	4886 144 555
MADEIRA ISLANDS			
CQ3T		8,427,762	5002 129 505
NAMIBIA			
V55V		1,819,958	1943 82 261
TUNISIA			
3V8BB		15,548,610	7749 153 617
ASIA			
ASIATIC RUSSIA			
RT9W		7,191,120	3873 150 572
RK91WA		2,688,402	2051 92 346
RF9C		1,984,580	1662 105 337
RK9CXE		828,412	972 87 269
RK9OWZ		259,530	460 66 180
RK9AZZ		238,266	457 69 210
RW9OWD		10,985	103 21 44
RK0AAX		285,600	522 78 202
RK0OWT		10	7 6 6
CYPRUS			
P3A		20,196,420	9210 167 656
ISRAEL			
4X6FR		7,096,896	4398 128 464
JAPAN			
JA7YAA		3,146,343	2147 156 417
JJ2JJS		2,078,822	1862 141 337
JE6ZH		1,538,908	1592 131 296
JAK1GX		1,312,395	1189 123 308
JAZ2JW		1,121,170	1168 118 264
JJ2ZEY		883,014	1053 114 260
JA6WFM		432,789	689 89 170
JJ2ZMW		334,662	513 94 195
KYRGYZSTAN			
EX9A		4,000,457	3415 120 407
SINGAPORE			
9V1YC		2,674,100	2689 137 413
EUROPE			
AUSTRIA			
OE2S		8,087,625	4945 163 656
BELGIUM			
OT3H		2,094,300	2306 97 371
OR3P		2,048,196	2532 108 384
OT3O		1,183,767	1707 81 300
ONSQO		1,104,840	1353 90 306
OT3W		313,335	735 63 234
CRETE			
J49Z		5,950,413	5376 149 572
CROATIA			
9A0R		6,599,124	4707 155 619
CZECH REPUBLIC			
OK5W		8,635,320	4920 164 666
OLA3		3,752,234	3255 139 583
OL7R		3,421,898	2901 142 532
OK1KOH		1,359,072	1632 104 364
OK1KCI		1,333,306	1749 96 398
OK1KDO		1,312,395	1167 92 287
OL7C		411,312	989 71 257
OL2A		308,028	656 66 200
OL2U		289,980	809 66 258
OK1KMG		147,489	649 43 190
DENMARK			
OE2S		2,527,300	2245 131 504
OZ5ESB		1,530,672	1985 97 343
OZ7SKV		37,736	414 43 135
ENGLAND			
M1P		5,031,208	3404 144 584
G3BJ		4,455,028	3581 143 600
G6PZ		2,758,118	2659 115 451
M4A		2,209,942	2116 122 480
G3B		1,711,709	1951 100 403
M4U		574,092	1122 76 257
G5X		549,080	1156 63 217
M8C		523,110	1248 72 299
M2T		459,716	978 64 217
M4F		404,096	822 69 259
M3S		310,854	499 68 241
M4T		24,624	252 14 62
ESTONIA			
ES1AJ		1,262,125	1565 118 457

**It doesn't matter if you win or lose, it's how you play the game.**



**yeah, right.**



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RM6A	5,561,652	4426	162	634
RL3A	5,383,826	4400	163	639
R04M	3,073,915	3319	141	514
RF3A	2,925,868	3685	132	506
R03R	1,487,730	2211	104	401
RK3RXX	1,393,225	2374	115	400
RK3MMD	790,575	1615	83	298
RK6AYN	775,746	1392	88	338
RK3QWM	541,926	1081	73	301
RK3DZD	434,252	990	72	292
RK4CWA	335,315	765	74	263
RK6XWA	50,560	251	39	119
RK3DZV	48,504	374	32	140
FINLAND				
OH2BP	370,363	745	71	266
OH2K	39,312	173	39	105
FRANCE				
TM0DX	4,678,100	4634	131	521
F6KHM	3,555,576	3318	101	385
TM2S	2,743,200	3171	102	378
F8KGM	1,175,993	1743	134	453
TM6R	500,136	404	74	238
F6KRK	149,372	446	50	164
F8KGH	85,598	519	61	193
TM5ER	71,133	315	36	145
FSKAR	63,712	314	39	137
GERMANY				
DL0CS	5,166,372	3504	160	629
DF3CB	4,176,900	2879	148	617
DK0SU	3,803,388	3058	120	484
DF0RI	2,817,920	2350	126	469
DL0AO	2,060,765	2030	120	487
DL0OV	1,484,625	1562	108	427
DL0DX	1,377,459	1636	92	367
DK0ALX	1,040,655	1349	85	300
DK0MM	488,700	815	74	288
DL0DR0	234,300	520	69	231
GREECE				
SV8A	7,632,300	6368	160	620
SV1AFA	924,687	2106	82	299
J43GRC	804,672	1776	78	303
HUNGARY				
HG1S	8,960,680	5259	162	668
ICELAND				
TF3W	1,193,812	2413	71	255
IRELAND				
EI9E	1,113,658	1350	87	319
ITALY				
IR4X	11,866,656	6049	171	681
IU2X	6,602,208	4321	161	615
I04T	3,971,058	3442	128	509
I04U	3,010,287	2644	125	484
I05LV	1,991,108	2447	110	366
IR8M	1,609,471	2514	114	437
I13A	880,341	1140	95	312
I03T	874,014	1686	84	297
I02LS	861,054	977	86	288
ISUNW	649,210	1242	79	308
IK3TH	667,667	1154	86	233
I02CJ	321,114	607	47	171
I03TN	77,976	320	40	131
LATVIA				
YL4U	2,551,689	3327	119	468
YL1XN	162,567	585	45	178
MOLDOVA				
ER3R	1,089,175	1534	102	373
NETHERLANDS				
PA7MM	6,052,233	4242	141	582
PI4DEC	1,878,590	2047	112	459
PG9W	972,426	2017	89	322
NORWAY				
LN8W	1,454,656	1992	97	379
POLAND				
S06Y	2,154,386	2454	128	483
S090	1,862,245	2067	115	424
SP5KVV	1,098,048	1761	111	421
SP3PKL	550,420	1086	81	296
SP0PZK	389,664	683	76	252
SR2SJP	283,660	1018	48	201
HF8KAF	184,075	860	51	148
SP6PCL	160,593	522	65	204
SP9ZHR	151,290	405	59	187
SP9KJT	103,797	374	41	130
SP9KRT	71,050	829	78	272
SP1KZE	21,210	202	24	77
PORTUGAL				
CT7A	4,504,104	4240	118	446
SICILY				
IR9U	4,082,130	3983	139	563
IT9HT	1,147,090	1634	105	385
IR9K	691,675	1121	78	287
SLOVAK REPUBLIC				
OM7M	8,137,620	4975	169	684
OM4A	1,275,378	1573	101	397
OM3KFF	99,474	461	35	142
OM3ROM	10,710	98	25	60
SLOVENIA				
S50C	6,545,916	4440	157	631
S53S	2,072,520	2547	109	404
SS9TIT	408,000	854	82	258
SPAIN				
EA1EEY	6,692,450	4642	130	555
ED3SSB	5,060,268	4152	135	522
EA1COZ	3,144,557	2732	116	435
EA5EA	3,055,320	3772	131	484
EA43RKG	2,206,635	2653	106	365
EA5HO	1,487,954	2798	88	334
EA1DYN	1,293,088	1402	96	388
ED1URS	660,447	1159	76	326
ED5GKC	469,152	1470	62	226
AN2URV	458,052	1159	65	222
EA3URC	107,632	419	48	169

ED1ISS	78,125	294	38	87
SVALBARD				
JW5E	185,826	301	97	224
SWEDEN				
SK3W	5,429,510	4311	156	574
SM2LIY	722,930	1207	81	334
SMSU	521,884	1176	67	252
SK7A	356,895	858	64	245
SM4V	221,098	619	49	178
SK7AX	76,830	286	49	148
UKRAINE				
UT7M	2,460,117	3205	129	458
UX2IO	2,006,655	2866	141	468
UZ4E	913,780	1688	92	336
UR4LWA	229,658	719	58	228
YUGOSLAVIA				
YU7AJM	126,260	352	48	166
OCEANIA				
FEDERATED REP. OF MICRONESIA				
V63B	484,694	996	74	104
INDONESIA				
YB0ZDA	2,127,200	2122	107	293
SOUTH COOK ISLANDS				
ZK1SSB	628,320	1012	91	147
SOUTH AMERICA				
ARGENTINA				
LV7DX	5,666,091	4391	120	359
LO7H	5,112,406	4198	126	368
LS1N	4,576,040	3810	110	362
L77Y	1,290,366	1858	86	208
LU8XW	320,530	783	55	135
BRAZIL				
PX2B	5,859,273	4407	111	372
PR7CP	1,278,578	1725	89	248
PY2TEL	756,650	1720	56	129
CHILE				
CE3N	2,065,060	2404	95	221
CE3PA	76,006	445	27	62
FRENCH GUIANA				
FY5KE	21,729,494	9068	166	676
NETHERLANDS ANTILLES				
PJ4T	5,905,627	4296	109	402
PERU				
OA4O	5,853,916	4196	133	394
SURINAME				
PZ5JR	1,024,488	1215	81	243
VENEZUELA				
4M4C	2,934,933	3459	90	247
MULTI-OPERATOR				
TWO TRANSMITTER				
NORTH AMERICA				
UNITED STATES				
K1KI	9,787,520	4950	159	587
NT1Y	7,004,981	3811	156	583
K3NA/1	5,796,440	3102	152	558
K0TV/1	4,480,478	2741	133	501
W1SRG	1,490,951	1220	102	367
N2NT	8,166,574	4177	154	600
N2NU	6,078,100	3299	148	552
W2CG	2,185,356	1547	119	419
W2VA3NU	783,290	904	87	283
N3RS	11,054,901	5276	165	638
K3000	2,639,420	1801	128	467
K4JA	12,327,066	5376	174	672
W4RM	7,829,741	4146	157	574
N4T0	6,680,115	3569	152	589
N4RV	6,455,802	3510	147	551
NO4U	603,330	711	84	273
N5YA	3,589,944	2570	140	466
AA5NT	1,685,346	1497	124	403
AD50W	142,688	303	64	144
K6AO	3,084,396	2574	134	377
N6KJ	3,041,170	2307	133	377
W6YX	1,515,618	1354	118	324
W6EEN	154,875	522	30	95
NK7U	3,117,906	2220	147	447
K0DU	3,551,400	2405	147	453
ALASKA				
KL7CQ	1,060,798	2353	78	136
ANTIGUA				
V26B	16,622,600	11101	143	537
BERMUDA				
VP9I	2,590,256	3601	87	269
CANADA				
VE3EJ	13,255,464	7257	164	615
VE1JF	11,991,610	7553	141	545
VE6VS	3,363,500	3799	114	320
VE3DC	2,246,640	2328	107	353
VE6FI	1,991,790	2517	108	297
COSTA RICA				
T18M	2,995,083	4321	105	246
CUBA				
CO8LY	1,415,484	2874	82	192
GUATEMALA				
TG9URQ	989,880	2193	65	154
ST. KITTS & NEVIS				
W47DM	10,916,306	7276	127	487

SAN ANDRES/PROVIDENCIA				
SJ0X	3,978,116	5188	98	288
TURKS & CAICOS ISLANDS				
VP5B	18,404,223	12814	155	506
U.S. VIRGIN ISLANDS				
WP2Z	13,370,255	9245	145	502
AFRICA				
AFRICAN ITALY				
IH9P	29,447,379	11831	171	688
MADEIRA ISLANDS				
CT9L	24,455,105	10960	155	630
ASIA				
JAPAN				
JR1ZTT	103,312	278	61	115
JA7YAF	5,187	53	24	33
KAZAKHSTAN				
UP5G	6,543,040	4621	146	498
KOREA				
D70LW	980,624	1881	114	220
EUROPE				
AUSTRIA				
OE5T	6,196,683	5447	144	569
BELGIUM				
OT3L	5,760,558	4303	152	577
OR3R	656,214	1213	83	275
CROATIA				
9A7A	12,757,650	8011	170	680
EUROPEAN RUSSIA				
RU1A	10,925,937	7363	178	691
FINLAND				
OH1F	7,140,442	5418	165	629
FRANCE				
TM7Z	2,232,120	3047	94	346
GERMANY				
DA0BCC	10,940,896	6628	170	678
DL0TS	2,941,920	2594	129	519
HUNGARY				
HG6N	11,501,568	7420	168	664
ISLE OF MAN				
MD4K	9,976,698	8159	155	631
MALTA				
9H3UD	2,291,696	3259	96	353
NETHERLANDS				
PA1T	3,292,030	3167	125	530
NORWAY				
LN2T	428,868	1169	74	287
POLAND				
SN5Z	2,662,464	2981	114	474
HF25JP	43,732	175	36	80
ROMANIA				
YO3KSD	12,261	109	12	35
SCOTLAND				
GM5A	5,341,075	4742	138	557
SWITZERLAND				
HB9H	4,565,204	4361	134	524
HB9OK	3,100,494	3742	107	431
TANZANIA				
513A	2,045,455	2329	75	238
ASIA				
JAPAN				
JA3YBK	8,584,960	4823	169	537
JAS5JC	8,570,016	4716	168	534
JA7YRR	5,326,992	3745	167	460
JA1YPA	5,211,875	3583	163	462
JE1ZWT	3,961,240	2871	162	431
JJ1YAF	9,954	82	29	50
UNITED ARAB EMIRATES				
A61AJ	30,033,600	12994	191	769
EUROPE				
BELGIUM				
OT3A	15,855,120	10358	172	683
BULGARIA				
LZ9W	10,184,832	7977	169	673
CZECH REPUBLIC				
OL5T	6,521,460	5779	145	578
OL9S	314,223	828	57	216
GERMANY				
DF0HQ	15,798,744	10074	182	754
DL0KC	3,010,777	2944	131	540
KALININGRAD				
RW2F	10,120,190	6861	165	665
LIECHTENSTEIN				
HB0/HB9AON	8,942,519	7968	125	558
LITHUANIA				
LV7A	8,133,600	6767	159	641
NETHERLANDS				
PA6Z	405,765	1816	42	171
NORWAY				
LN4C	5,262,771	5387	140	559
POLAND				
SP9KDA	852,176	1208	99	383
SP5PPK	41,402			