

Results of the 2004 CQ WW DX CW Contest

BY BOB COX,* K3EST

Expanded CQ WW Contest Results on the Web

Several elements of our contest reporting are on the CQ website, including Station Operators of Multi-Op stations and expanded QRM. To view these additional and expanded elements of this year's CQ WW results, go to <<http://www.cq-amateur-radio.com/cqwvhme.html>>, then click on "Expanded results, 2004 CQ WW CW" 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, 2004 CQ WW CW."

The sunspots were really going down and depressed conditions were expected for the 2004 CQ WW DX CW Contest. What happened gives truth to the saying "The CQ WW makes its own propagation." The 2004 CW test was a real surprise. Yes, conditions were suppressed. The CQ WW was not. The 2004 contest marks the highest number of submitted CW logs in radio history. Over 4040 logs were received. Contesters got in on the action in droves from all over the world.

New records were set. Hundreds of contesters left home to try an adventure from a DX location. The CQ WW is a fantastic competition, and it brings out the best in operators. Months of preparation, trying out new antennas and equipment, and finally the celebration of ham radio skill and effort come to fruition during 48 fun-filled hours. If you operate in the CQ WW, you can't lose. It draws you in with its siren call. As has often been said, it's a world-wide party . . . and all of you are invited!

All Band, High Power

The category that has always stood high on the prestige ladder is Single Operator, All Band, High Power. It is really tough. D4B operated by Al, 4L5A, took the top prize. Almost everyone is now familiar with D4B's big signal and operating skill (<http://www.qsl.net/d44tt>). Al is an enthusiast contesteer. He had to retire from the contest late on Sunday because of illness. However, he still managed to take first place! EA8ZS operated by many-time world champion Jose, CT1BOH, took the number two position (<http://www.qsl.net/ct1boh>). Jose was signing "dit dit" after every QSO as a thank you to Aruba (P40E and P43E). Third place went to Scott, K0DQ, who operated at P40Q (P43P's QTH).

Randy, K5ZD/1, pushed the pedal to the floor and took the number one position in the U.S. (<http://www.k5zd.com/>). His skill plus station allowed him to edge out Pat, N9RV, from Indiana (<http://www.qrz.com/n9rv>). Pat lost most of antennas soon after the contest and hopefully they will be rebuilt by the 2005 contests. Third place was taken by Alex, LZ4AX, operating from the Penn State station of K3CR (<http://www.clubs.psu.edu/up/k3cr>).

In Europe it was a real fight. After detailed

log checking, CT8T, operated by OH1NOA, was declared the winner. Second place went to GI1W with GI0NNG at the key, and third place went to RK4FF. The number one scorer from the far west U.S. was Glenn, K6NA, followed by Steve, N2IC/5, from SW New Mexico.

Special mention should be made of A45XR, 6W1RW (F6BEE), S9A (OH2PM), and 9M6NA (JE1JKL). They made the maximum effort from rare locations.

The continental winners were: North America 8P5A (W2SC), USA K5ZD/1, Africa D4B (4L5A), Asia A45XR, Japan JH4UYB, Europe CT8T, Oceania 9M6NA (JE1JKL), South America P40Q (K0DQ).

All Band, Low Power

Running barefoot is fun. Most of the entrants in the CQ WW run 100 watts or less. The Low Power category is the largest by far. To win this category for your country is not easy. Winning for the world is very difficult. Reprising his win from SSB was Thomas, SU9NC. He was easy to work and active on all bands. In addition, he set a new Africa low power record. Second place went to long-time low power advocate Joe, AA3B, who pushed V26K up the rankings. Third place went to CT9M (<http://www.ct3ee.net>) operated by Jon, KL2A (<http://www.kl2a.com>). Special mention is made of 3V8SQ operated by DL2OBF, who finished fourth in the world.

The number one score in Europe and number six in the world was CT7B, operated by 18-year-old Felipe, CT1ILT. CT1ILT is a callsign to keep your eyes on. He is going places (<http://ct1ilt.cybton.com>!). Another Iberian peninsular station took second-place honors; Manuel, EA7RM, also pushed the key to ninth place in the world. Third place in Europe went to Goran, YT7AW, who operated from 4N0W. In the U.S., Michael, W1MU, led the pack with 2.2+ million points. Second was Ed, N1UR, and third was Marvin, N5AW.

The continental winners were: North America V26K (AA3B), USA W1MU, Africa SU9NC, Asia UO2M (UN7MO), Japan JI1RXQ, Europe CT7B (CT1ILT), Oceania VK2IMM, South America XQ4ZW.

QRP

If you want to practice your contesting skills, the QRP category is the way to do it. Finding new



4M5X, operated by W4SO.

stations and knowing when to call a station or give up and move on are what QRP is all about. It is surprising what you can work with 5 watts. If you want to improve your contesting skills, the QRP category could be the refresher course you need. The number one score was John P40A (KK9A). Travelling to a great location and placing a great op behind the key resulted in the biggest small signal in the contest. Second place went to Bosko, YT7TY, located at the Serbian-Hungary border. He took top honors in Europe. You had to travel to the beautiful country of Costa Rica to find TI5N operated by N0KE, who finished number three worldwide (<http://www.qsl.net/ti5kd/contest.htm>). KT8X, operated by KK8I (aka DL2HBX), Uli, took top U.S. honors. Almost breaking a thousand QSOs in the small-signal category means you are doing something right. Taking second place was Tom, N4KG, from northern Alabama. Bill, N8ET, took third place. In Europe, YT7TY took top honors. Second place went to HG5Z operated by HA1CW, and third to LY4XX (LY2MW; <http://www.qsl.net/dy2mw>).

The continental winners were: North America TI5N (N0KE), USA KT8X (KK8I), Africa no entry, Asia UA9SG, Japan JR4DAH, Europe YT7TY, Oceania VK8AN, South America P40A (KK9A).

Assisted

When a single op receives QSO/multiplier spotting assistance from some source in any form, he or she is in the Assisted category. There are lots of reasons to try the Assisted category, and helping your club is one. You have to make the best use of spots without it affecting your QSO total. This is not easy to do. This year's world top scorer was 9Y4ZC, operated by Bernd, DL6FBL. Bernd did so well that he keyed his way to a new world record. Second place went to 5B/AA1TN, and third place went to John, W2GD, who put P40W through a workout. Way over in Tanzania, Mas made a lot of people happy as 5H3KK. Contesting from Germany's

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Chris, A45SR, put Oman on the map.

most southern corner, Manfred, DJ5MW, submitted the the number one score from Europe (<http://www.dj5mw.de>). Two Zone 16 callsigns battled for second and third place. Finishing number two was Vlad, RX4HZ. Third place in Europe was taken by UW8M, operated by UR5MID (<http://uw8m.narod.ru/index.html>).

If you are familiar with U.S. Assisted operators, you know the callsign K3WW. This year Charlie again took the top spot as number one USA (<http://www.k3ww.com/>). Not too far away geographically was Noah, K2NG, who took second place. The third-place position went to NI1N located in southwestern Virginia.

The continental winners were: North America K3WW, USA K3WW, Africa 5H3KK (JE3MAS), Asia 5B/AA1TN, Japan JF1PJK, Europe DJ5MW, Oceania VK1AA, South America 9Y4ZC (DL6FBL).

Multi-Single

Each year contestants band together and travel to compete in a multi category, of which Multi-Single is the most popular. A real battle occurred in this category in the 2004 contest. Three FB stations with top operators went head to head. Three different continents took top honors. Putting Aruba on the map, P40L was a three-man team from northern California. They keyed their way to the top. Second place went to EA6IB located on Ibiza among the Balearic islands. Ideally located from a holiday and contesting perspective, EA6IB is always loud (<http://www.qsl.net/ea6ib>). Third place went to long-time Asian top scorer UA9AYA. Located on the outskirts of Chelyabinsk, UA9AYA put Zone 17 in a lot of logs.

The top Oceania score was the Japanese team at AH2R. They set a new Oceania record. Another team that deserves special mention is the Russian team at 8Q7DV (<http://www.fotki.com/8q7dv>). They provided a double multiplier for lots of people. First place in Japan was JA7YAA, who took away the combined SSB/CW MS trophy (<http://www.ja7yaa.org.tohoku.ac.jp/index.html>).

The number one scorer in Europe was the above-mentioned EA6IB. That team was followed by two Slovakian teams. At number two in Europe was the HF contest station situated in the heart of Europe, OM7M (<http://www.qsl.net/om7m>). They started seriously operat-

ing MS in 1999 and their results prove their skill. Just a little behind in third place was OM8A (<http://www.qsl.net/om8a>).

In the U.S. the number one score was submitted by K1IR. Jim's team from Sudbury, Massachusetts led all the rest to reach the top of the scores list. Second place went to K8AZ. Tom's crew is always competitive and his north-eastern Ohio station did its usual fine job. Third place in the U.S. went to W2FU in New York.

The continental winners were: North America VP2MZM, USA K1IR, Africa C91F, Asia UA9AYA, Japan JA7YAA, Europe EA6IB, Oceania AH2R, South America P40L.

Multi-Two

The M2 category continues to grow in popularity. You have to have a good plan and operators if you want to try for the top spot. You cannot do better than to set a new world record the first time you enter a new category. The multi-national team of HC8N would make Darwin proud, as it evolved to new heights and set a new Multi-Two world record. Operating from the heights of an extinct volcano with antennas really in the clouds, HC8N is to be congratulated (<http://hc8n.info/>). The Caribbean Contesting Consortium, PJ2T, took second place from the island of Curacao (<http://www.pj2t.org>). Third place went to CT9L representing the Rhein-Ruhr DX Association team. Three European teams have taken up the M2 challenge. Finishing number one was club station RU1A. Founded in 1956, this callsign has been a beacon from northern Europe. Did you ever wonder where IQ4A went? They changed into IR4X. Sitting on a mountain overlooking the plains of central Italy, IR4X took second place. Third place in Europe went to the UU7J contest team in the Crimea (<http://www.uu7j.com>).

The number six world score and number one USA M2 score was submitted by K4JA. This was Paul's last contest from his location located in northeastern Virginia (<http://www.k4ja.com>). What a way to go out! Second place went to Sig's N3RS team from the Philadelphia area. Made up of seasoned veterans, this Frankford Radio Club powerhouse always finishes near the top. Third place went to K1AR. John's team ventured into M2 and found they had lots of fun. Finally, Akira, JA8RWU, decided to try his luck in the M2 category and ended up with the new Japan record.

The continental winners were: North America K4JA, USA K4JA, Africa CT9L, Asia RT9W, Japan JA8RWU, Europe RU1A, Oceania no entry, South America HC8N.

Multi-Multi

What makes up a good Multi-Multi team? Take a lot of work, a lot of planning, and friends coming together from all corners of the world and you have a Multi-Multi effort. Usually planning begins early in the year, as was the case with this year's winner, 5U5Z, the Voodoo Contest Club. This group of friends has placed western Africa on the map for a decade or more. They are to be congratulated for their dedication. The 5U5Z gang made it into almost everyone's log.

It is quite unusual for the second- and third-place winners to be from the U.S. Second in the world and number one in the USA was K3LR (<http://www.k3lr.com>). This was K3LR's first CW win in the CQ WW and it is very special to all the team members! Wow, number two world and number one U.S.! Tim's team from

western Pennsylvania just edged out the number-three world score of W3LPL. This was a real competition. Third place in the U.S. went to KC1XX, who experienced some aurora-like conditions (<http://www.kc1xx.com>).

The number one scorer from Europe was the DF0HQ club call of the Ilmenau Contest Club. The number world IARU champion certainly showed its skills in the CQ WW (<http://www.df0hq.de>). Second place went to the LZ9W Contest Team. They were loud and they could hear. The GMDX Group Contest Team, GM5A, made Scotland proud by finishing third in Europe (<http://www.gmdx.org.uk/>).

The continental winners were: North America K3LR, USA K3LR, Africa 5U5Z, Asia UP5G, Japan JA3YBK, Europe DF0HQ, Oceania ZL6QH, South America no entry.

Clubs

Radio clubs are an important glue in contesting. They provide friendships, construction skills, and advice. Contesters can talk for days about their contesting experiences, a feature for which clubs are well suited. To end up with the huge scores achieved by the winners takes an enormous effort.

The 2004 winners amassed many of top scores in the world. The world's highest club score came from the Frankford Radio Club. This famous club draws upon a winning strategy every year. Second place was taken by the Yankee Clipper Contest Club. Getting all your members on the air helps everyone. Third place went to another East Coast powerhouse, the Potomac Valley Radio Club.

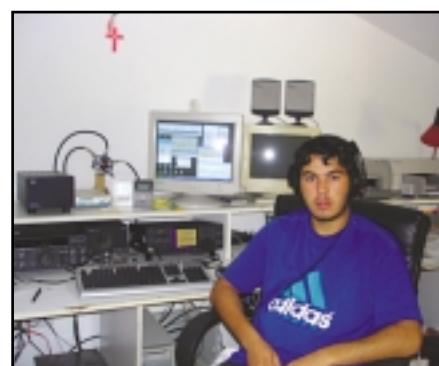
Every year in Europe there is a friendly battle in Germany for the top DX club score. The 2004 top DX club score came from a club in southern Germany, the Bavarian Contest Club. Second place was taken by the club from central Germany, the Rhein-Ruhr DX Association. Third place went to Contest Club Finland.

The total points accumulated by the six clubs was over 1.48 billion! That's a lot of people on the air. A great job was done by all the clubs.

Team Contesting

What do five contestants from anywhere in the world have in common? Besides the fun of contesting, they can make a team. Register your team before the contest and you are all set to enter the Team Contesting category. As you can see in these results, the teams can be made up of members from all over the world.

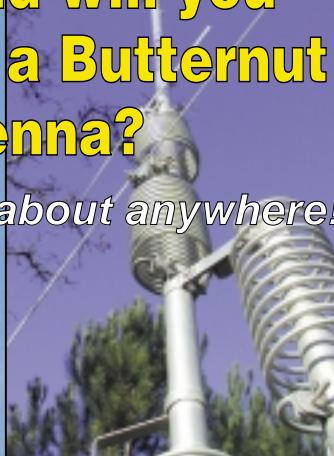
1. Neiger's Tigers Team No. 1 (51,375,582): 8P5A (W2SC), EA8ZS (CT1BOH), D4B (4L5A), P40Q (K0DQ), TO4A (N6TJ).



CT7B, operated by Filipe, CT1ILT.

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2. Team Horizontal (27,029,341): K1DG, K5ZD/1, K2UA, N9RV, VY2NT (K6LA).

3. Neiger's Tigers Team No. 2 (20,907,259): KQ2M/1, K1ZZ (N6ZZ), K6NA, 6W1RW (F6BEE), IR7G (N6AA).

4. CCF Team Sibelius (17,874,372): CT8T (OH1NOA), ES5TV, OH1F (OH1MDR), OH6NIO, 8R1K(OH0XX).

5. WWYC The Big 5 (11,697,680): CT7B (CT1ILT), ON5ZO, OZ1AA, DJ1YFK.

6. Have-CW – Will Contest (6,410,105): ZS1EL, ZS4TX, VE1OP, N5KA, K5UN.

7. VKCC East (6,349,200): VK2NU, VK9AA, VK2BAA, VK2IMM.

8. VKCC North-East (6,223,522): VK4DX, VK1AA/4, VK1KI (K1KI).

9. CCF Team Nurmi (3,540,900): EA8EW (ES2RR), OH0V (OH6LI), OH6AC (OH6CS), OH6BG.

10. CCF Team Sauna (2,713,381): OH0B (OH2UA), OH0I (YL2KL), OH2U (OH2IW), OH4A (OH6QU).

11. CCF Team Finlandia (2,096,246): EA8EA (OH2MM), OH0Z (OH5DX).

12. N1MM Logger Users Group (1,510,539): KE5CTY, ZZ8Z (PY8AZT), VA7ST, N7OR.

13. VKCC South-West (1,581,689): VK6LW, VK3YB, VK4AN, VK6DXI.

14. CCF Team Sisu (948,825): OH2LU, OH4MFA.

15. CCF Team Terva (943,730): OH0M (OH1MM), OH2BH (OH1WZ), OH4MCV, OH6XX.

16. CCF Team Mannerheim (762,684): OH2BO, OH6KXL, OH6OS, SM0W (SM0WKA).

Records

On the 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 a record you can try to beat. Congratulations to the following stations which set new world and continental records.

World: 14 CN2KM(SM2EKM), 1.8 IH9U (IN3QBR), Q1.8 LY5A (LY2PAJ), AA 9Y4ZC (DL6FBL), A3.5 HA5A (HA7ANT), M2 HC8N.

Africa: 14 CN2KM (SM2EKM), 1.8 IH9U (IN3QBR), LA SU9NC, L3.5 6W7RV (F5CW).

Asia: 14 A61AJ (N2AA), 7 A61AJ (S53R), AA 5B/AA1TN (RW3QC), A1.8 UA9AT.

Europe: 7 T9/9A5E, L3.5 OH0I (YL2KL), Q7 OM7DX, Q3.5 SP6GCU, Q1.8 LY5A (LY2PAJ), A3.5 HA5A (HA7ANT).

Japan: M2 JA8RWU.

North America: 14 3E1A (DJ7AA).

USA: L3.5 N4IJ,

Oceania: 14 KH7X (KH6ND), A14 VK1AA, A1.8 VK6VZ, MIS AH2R.

South America: AA 9Y4ZC (DL6FBL), A7 PY2WC, A3.5 PY2NDX, M2 HC8N.

Special Mention

The CQ WW sure brings out the desire to travel for many ops. Thanks to the many DXpeditions and the efforts of hundreds of contesters who made the contest experience more interesting for all of us this time. Here are some calls you probably worked:

VP2ETL, V26K, C6AKQ, C6AOQ, C6AWS, SU9NC, 8P5A, V31JP, VY2NT, VE6JY, J79A, HI3KM, TO4A, 3E1A, KP4KE, KP3/VE7AHA, V47KP, PJ7/K4MA, IH9P, IH9U, EA8EW, EA8EA, EA8/ OH4NL, EA8/DJ1OJ, EA8/PC8E, EA8/LY1DF, D4B, SU8BHI, CN2KM, CN2R, V51/DL5XL, S9A, 6W1RW, 6W7RV, ST2T, 3V8SQ, 3V8SF, R9/UT7CR, XU7ADE, XU7ADF, 5B/K10BP, VU2WAP, HL2/JH1FXF, XW8KPL/RU3DX, HS0ZAR, HS0ZDR, A61AJ, UK/JI2MED, 9M2/G3TMA, 9M2/G4ZFE, OH0Z, OH0V, OH0B, OH0M, OH0I, OH0RB, ZA/Z35M, OE2G, T9/9A5E, 9A9D, J45KLN, SX5R, J43J, J11NJC/TF, EI/SP4Z, IR7G, I0/N6CY, LX/G3VQO, CT8T, YO2/DL1CW, MW5A, VK1KI, 9M6NA, 9M8YY, KH2/WX8C, K1ER/KH6, KH6/N0CO, KH6/W0CN, YE0X, VK9AA, VK9NW, DU9/N0NM, ZK1DRA, P40Q, P40J, 5K5Z, 8R1K, CW2A,



EA8ZS, operated by Jose, CT1BOH.

TI5N, 5H3KK, 5B/AA1TN, HS0ZDJ, 4U1ITU, EI/AB2E, P40W, PJ4M, 9Y4ZC, 4U1UN, VP2VVV, VP2MZM, C91F, 8Q7DV, LX7I, AH2R, P40L, VP8WWW, J7OJ, VP9I, V31RM, VP5W, CT9L, Y19KT, OD5/DJ5CL, 9N7BCC, GJ2A, HC8N, PJ2T, 5U5Z, HS72B, 3D2XA, 9Y4TBG, EA6/DH5CM, and HP1/DL6MYL.

One fun aspect of the contest is the competition that takes place within a country or other locality. Two friends or more go at it to see who will come out on top. By looking carefully at the results you can see many such competitions.

Comments

The number of CW logs received for the 2004 contest reached an all-time high mark of approximately 4040. Over the years the number of CW logs has not declined; it has grown. The activity on CW is most apparent to anyone who tunes across the spectrum during the CQ WW CW contest. There is activity wall to wall on all the bands. CW is certainly an eloquent mode.

The percentage of electronically received logs continues to rise. The CQ WW Contest Committee wants to thank all of the entrants who took the time to submit their log via the CQWW robot. Your effort to submit an electronic log allows for a fairer adjudication process (please send in your log no matter how small). Submitting an electronic log is easy. Send your SSB log and summary to <cw@cqww.com> (SSB to <ssb@cqww.com>). Please send your log in Cabrillo format. If you did everything okay, you will get back an acknowledgment and a tracking number. The number of entrants who have a problem with log submission has decreased greatly.

Thanks to the sharp eyes of you, the CQ WW entrants, several corrections were made to the final UBN/NIL reports which are available at CQWW.com. We appreciate your input. It helps make the contest as accurate as possible.

In the CW section of the 2004 contest there were several stations that were flagged as having potential problem logs. It takes a great deal of time to research a "flagged" log to find out what the entrant was doing. The CQ WW Contest Committee has a lot of data at its figure tips. We have compiled averages for the number of packet hits that should occur in a non-packet vs. an Assisted log for each category for Europe, the U.S., and DXpeditions. Each has its own average. Using this information plus some very sophisticated software, we run all the logs through several programs to create a list of logs that require further inquiry. The

(Continued on page 99)

Results of the 2004 CQ WW DX CW Contest (from page 16)

CW TROPHY WINNERS AND DONORS

**SINGLE OPERATOR
ALL BAND
World**
D4B (Opr: Alexander Teimurazov, 4L5A)
 Donor: W9IOP Memorial (Albert Kahn, K4FW)
World Low Power
Thomas Poland, SU9NC
 Donor: Slovenia Contest Club
World QRPP
P40A (Opr: John Bayne, KK9A)
 Donor: Gene Walsh, N2AA
World Assisted
9Y4ZC (Opr: Bernd Och, DL6FBL)
 Donor: Robert McGwier, N4HY
USA
Randall Thompson, K5ZD/1
 Donor: Frankford Radio Club
USA Low Power
Michael Zak, W1MU
 Donor: North Coast Contesters
USA – Zone 3
Glenn Rettmann, K6NA
 Donor: Central Arizona DX Association
USA – Zone 4
Patrick Barkey, N9RV
 Donor: The Society of Midwest Contesters
Canada
VC3L (Opr: Ron Vander Kraats, VE3AT)
 Donor: CQ magazine
Carib./C.A.
8P5A (Opr: Tom Georgens, W2SC)
 Donor: Chuck Shinn, W7MAP
Europe
CT8T (Opr: Timo Klimoff, OH1NOA)
 Donor: W3AU Memorial (Pete Raymond, N4KW)
Europe – Low Power
CT7B (Opr: Filipe Monteiro Lopes, CT1ILT)
 Donor: Scott Jones, N3RA & Tim Duffy, K3LR
Scandinavia
OH1F (Opr: Timo Pohjola, OH1MDR)
 Donor: W3FYS Memorial (Chas Weir, Jr., W6UM)
Russia
RK4FF
 Donor: Roman Thomas, RZ3AA
Africa
EA8ZS
 (Opr: Jose Carlos Cardoso Nunes, CT1BOH)*
 Donor: Gordon Marshall, W6RR
Asia
Chris Dabrowski, A45XR
 Donor: Chuck Shinn, W7MAP
Japan
Masaki Masa Okano, JH4UYB
 Donor: Tack Kumagai, JE1CKA
Japan – Low Power
Hiroyuki Ueno, JI1RXQ
 Donor: Western Washington DX Club
Oceania
9M6NA (Opr: Saty Nakamura, JE1JKL)
 Donor: Chris Tran, ZL1CT
South America
P40Q (Opr: Scott Redd, K0DQ)
 Donor: Venezuela DX Club
SINGLE OPERATOR, SINGLE BAND
World – 28 MHz
Pedro Alberto Cano Pereira, CX5BW
 Donor: Joel Chalmers, KG6DX
World – 21 MHz
Bernie Van Der Walt, ZS4TX
 Donor: Lew Sayre, W7EW
World – 14 MHz
CN2KM (Opr: Jan Erik Holm, SM2EKM)
 Donor: W2JT Memorial (North Jersey DX Assn.)
World – 7 MHz
Robert Orehoczi, T9/9A5E
 Donor: Alex M. Kasevich, VP2MM
World – 3.5 MHz
CN2R (Opr: James Sullivan, W7EJ)
 Donor: Fred Caposella, K6SSS
World – 1.8 MHz
IH9U (Opr: Mauro Tomazzoni, IN3QBR)
 Donor: Kenneth Byers, Jr., K4TEA

USA – 28 MHz
Bill Tippett, W4ZV
 Donor: Wireless Institute of the Northeast
USA – 21 MHz
Bertram Aaron, K2BA/5
 Donor: Wayne Carroll, W4MPY
USA – 14 MHz
Saul Abrams, K2XA
 Donor: Northern Illinois DX Association
USA – 7 MHz
Bill Kollenbaum, K4XS
 Donor: W6AM Memorial (Jan Perkins, N6AW)
USA – 3.5 MHz
K7RAT (Opr: Tree Tyree, N6TR)
 Donor: Bill Feidt, NG3K
USA – 1.8 MHz
David Patton, NN1N
 Donor: Kat Obermann Memorial
 Dave Patton, NT1N & Mark Obermann, AG9A
Canada (14 MHz)
VE6JY (Opr: Gary Caldwell, VA7RR)
 Donor: Radio Amateurs of Canada
Carib./C.A.(14 MHz)
C6AKQ (Opr: Robert Patten, N4BP)
 Donor: Bill Hein, NT1Y
Europe – 28 MHz
OH0Z (Opr: Ari Korhonen, OH5DX)
 Donor: Jay Pryor, K4OGG
Europe – 21 MHz
9A80A (Opr: Zdravko "Emil" Balen, 9A9A)
 Donor: Robert Naumann, N5NJ
Europe – 14 MHz
Ranko Boca, YT6A
 Donor: G3FBX Memorial (Maud Slater)
Europe – 7 MHz
OH0B (Opr: Toni Linden, OH2UA)*
 Donor: Ivo Pezer, 9A3A
Europe – 3.5 MHz
SN3A (Opr: Czeslaw Dubicki, SP3HLM)
 Donor: K3VW Memorial (Frankford Radio Club)
Europe – 1.8 MHz
Jerzy Stanisz, SP3BQ
 Donor: Pat Barkey, N9RV & Terry Zivney, N4TZ
Japan – 21 MHz
Akito Nagi, JA5DQH
 Donor: DX Family Foundation
Japan – 14 MHz
Hiroyuki Inaba, JS3CTQ
 Donor: Chris Terkla, N1XS
Asia – 14 MHz
A61AJ (Eugene Walsh, N2AA)
 Donor: JA4WFM Memorial
 (Alexander Teimurazov, 4L5A/D4B)
MULTI-OPERATOR, SINGLE TRANSMITTER
World
P40L (Oprs: KX7M, N6XI, W6LD)
 Donor: Anthony Suse, W3AOH
U.S.A.
K1IR (Oprs: K1IR, K1LZ, K1OA, K1VR, KE1J, W1VE)
 Donor: Douglas Zwiebel, KR2Q
Canada
VE7GL (Oprs: VE7GL, VA7OO, VA7AO, VE7JH, VA7VZ, VE7JJ)
 Donor: Eastern Canadian DX Assn.
Carib./C.A.
VP2MZM (Oprs: K2DM, K3ZM)
 Donor: Lone Star DX Association
Africa
C91F (Oprs: AA4NN, W4GMY)
 Donor: Harry Booklan, RA3AUU
Asia
UA9AYA (Oprs: RA9AB, RW9MG/9, RZ9AZ, UA9AR, UA9BA, UA9CDV, UN4L, UN0L)
 Donor: Steve Merchant, K6AW
Europe
EA6IB (Oprs: EA3AIR, EA3AVV, EA3KU, EA5BM, EA5GX, EA6BF, EA6FB, EA6FO)
 Donor: Bob Cox, K3EST
Japan
JA7YAA (Oprs: JE7HLZ, JH0NZN, JG7PSJ, 7M1JAS, JO7DJT, JO7FTJ, JI5RPT)
 Donor: Vienna Int'l Amateur Radio Club – 4U1VIC

Oceania – Pacific Rim
AH2R (Oprs: JI3ERV, JR7OMD, JR3RVO, JO1DFG)
 Donor: Junichi Tanaka, JH4RHF

South America
CP6CW (Oprs: CP6UH, KM0O, N0AT, N0STL, W0OR, W0ZR)
 Donor: Araucaria DX Group

MULTI-OPERATOR, TWO-TRANSMITTER
World
HC8N (Oprs: N5KO, K6AW, HA1AG, K1TO)
 Donor: Ranko Boca, YT6A

USA
K4JA (Oprs: K4JA, AJ9C, K7SV, KA9FOX, KE9I, KO9A, WE9V)
 Donor: Northern Neck Contest Club

Europe
RU1A (Oprs: RU1AA, RW1AC, RV1AW, RA1AIP, RK1AM, UA1ARX, RA1AR, RN1AM)
 Donor: Aki Nagi, JA5DQH

MULTI-OPERATOR, MULTI-TRANSMITTER
World
5U5Z (Oprs: G0MTN, G3PJT, G3SXW, G4BWP, G4PIQ, K5VT, KC7V, N7NG)
 Donor: K2GL Memorial (Doug Zwiebel, KR2Q)

USA
K3LR (Oprs: K3LR, K3UA, K0RF, N2NC, K3EST, W0UA, N5RZ, K8CX, N3SD, KL9A, W2AU)
 Donor: N6RJ Memorial (Bob Ferrero, W6RJ)

Europe
DF0HQ (Oprs: DL1AUZ, DL1DTL, DL3OI, DL3TD, DL4MM, DL5ANT, DL5AXX, DL5YY, DL7VOA, DL8WAA)
 Donor: Finnish Amateur Radio League

Japan
JA3YBK (Oprs: JH3PRR, JG3KIV, JI3OPA, JP3PZD, JO3LDN, JH3AIU, JH4NMT, JR4ISF, JF4FUF)
 Donor: Ryozo Goto, JH3JYS

Oceania
ZL6QH (Oprs: ZL1AZE, ZL1BYZ, ZL2AGY, ZL2BSJ, ZL1CT, ZL1TM)
 Donor: Prairie DX Group

WORLD - SSB/CW COMBINED
HC8L/HC8N (69,753,125)
 Donor: W0ID/W0UN Alpha Award

USA - MULTI-MULTI SSB/CW COMBINED
W3LPL (34,641,108)
 Donor: N8SM Memorial (Operators of K3LR)

JAPAN - MULTI-SINGLE SSB/CW COMBINED
JA7YAA (8,083,290)
 Donor: Vienna Int'l Amateur Radio Club – 4U1VIC

CONTEST EXPEDITIONS
World Single Operator
S9A (Opr: Pertti Simovaara, OH2PM)
 Donor: Yankee Clipper Contest Club

World Multi-Single
8Q7DV (Oprs: RA9CKQ, RW6AN, UA9CDC, UA9CLB, UA9DD, UN9LW)
 Donor: Carl Cook, AI6V

World Multi-Multi – Jim Neiger, N6TJ Award
3D2XA (Oprs: K2KW, N6BT, KE7X, AG9A, WA6O, W2VJN)
 Donor: Alexander Teimurazov, 4L5A/D4B

SPECIAL – SINGLE OPERATOR AWARD
World SSB/CW Combined
D4B (Opr: Alexander Teimurazov, 4L5A/D4B)
 (34,038,802 points)
 Donor: Hrane Milosevic, YT1AD

World All Band: Under 21 years old
CT7B (Opr: Filipe Monteiro Lopes, CT1ILT)
 Donor: Chuck Shinn, W7MAP

CLUB
World SSB/CW
Frankford Radio Club
 (387,506,863)
 Donor: W1WY Memorial (CQ magazine)

Non-USA SSB/CW
Bavarian Contest Club
 (263,199,539)
 Donor: N6AUV Memorial
 (Northern California Contest Club)

*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	91/13/47	186/17/48	1478/27/93	1470/34/112	1952/33/114	2062/31/105
EA8ZS	144/7/33	569/17/66	1886/33/103	1144/28/98	1248/34/99	1361/33/103
P40Q	94/11/23	459/21/69	1885/26/92	981/31/92	2016/27/97	971/25/78
A45XR	141/12/43	466/22/68	1336/33/100	1010/36/109	1757/38/111	837/32/102
8P5A	151/11/22	672/22/76	1079/28/85	1434/35/94	1810/30/91	1376/26/89
VY2NT	340/13/53	984/21/87	1369/28/94	1478/33/106	798/23/86	251/20/47
S9A	247/17	53/15/35	450/24/74	1086/35/111	1556/33/100	1559/25/86
CT8T	181/8/49	732/18/70	1526/26/92	882/28/97	1220/29/99	896/30/96
6W1RW	9/5/9	77/11/38	437/23/72	1122/30/95	1509/33/108	1109/27/91
9M6NA	38/10/12	270/19/53	1008/31/9-	826/35/85	1282/35/95	502/26/73

WORLD MULTI-OPERATOR SINGLE TRANSMITTER

P40L	115/11/29	731/25/85	1631/33/121	1229/40/130	1758/32/117	1226/28/96
EA6IB	69/16/67	1095/32/109	1769/37/138	1643/38/144	1558/37/135	571/34/116
UA9AYA	247/17/57	917/26/92	1219/35/125	960/37/121	980/36/122	725/31/96
AH2R	21/15/20	297/28/65	1261/33/105	980/39/119	2016/37/115	704/36/88
8Q7DV	35/13/30	433/21/68	1526/32/106	653/35/122	1391/33/117	1217/31/98
OM7MM	333/21/83	1133/32/118	1428/39/144	1009/39/138	806/37/138	215/34/108

WORLD MULTI-OPERATOR TWO TRANSMITTER

HC8N	276/14/39	1114/28/94	2552/38/131	2219/40/140	3585/39/143	2683/37/132
PJ2T	329/16/45	720/25/89	2520/33/122	2224/39/136	2493/34/115	1902/30/102
CT9L	237/10/51	1189/22/87	2534/32/108	1717/37/129	2383/33/123	2215/31/109
RT9W	362/15/57	1016/26/103	1501/36/129	1211/37/125	1353/33/124	960/31/99
RU1A	634/22/74	879/33/124	1791/39/148	1995/40/140	1443/40/135	412/34/107
K4JA	132/13/51	652/27/97	1598/38/141	1488/40/146	1478/34/137	389/30/102

WORLD MULTI-OPERATOR MULTI-TRANSMITTER

5U5Z	333/16/59	929/30/87	2062/36/129	4276/39/155	4045/39/153	2602/36/137
K3LR	160/16/58	654/31/103	1441/40/152	1988/40/158	1411/38/147	568/33/112
W3LPL	228/15/54	909/29/101	1575/37/139	1814/40/160	1548/37/149	613/32/109
DF0HQ	878/18/70	1968/35/121	2531/40/158	1905/39/145	1243/38/144	502/33/114
LZ9W	852/17/70	1407/30/106	2749/36/141	2173/36/132	1835/36/137	636/34/115
KC1XX	225/14/50	958/27/103	1322/39/139	1811/40/153	1285/34/136	468/31/109

good news is that very few logs are flagged. Out of approximately 4040 CW logs only 40 were flagged. The great majority of the 40 were stations that innocently forgot to claim the Assisted category. The remaining logs remained suspicious. More sophisticated checking techniques were needed to prove that something was amiss. As you can imagine, this creates a lot of work. Fortunately, the CQ WW CC has dedicated members who are in the highest levels of contesting.

A problem that has been emerging over the last few years is the use of help in the contest. If you are single operator in *any* category, you cannot receive help in *any* way from another person. Each year we receive reports of someone allegedly having another operator spot or work QSOs for him. This is against the rules, and we will enforce CQ WW DX Contest Rule XII in such cases (see the 2005 rules elsewhere in this issue).

Thanks

Thanks to the dedicated CQ WW log checkers who help make the CQ WW the standard of contest log checking. Here is the present list: K1DG, K3WW, K3ZO, KR2Q, N2AA, N2NC, N3ED, N6ZZ, N9RV, W3ZZ, K1AR, KM3T, KT3Y, N5TJ, N5NJ, K6AW and N8BJQ. The DX advisors offered advice and sorted out potential problems: CT1BOH, DL6RAI, EA3DU, F6BEE, G3SXW, I2UIY, JE1CKA, OH2KI, OH2MM, PY5EG, S50A, UA9BA, VA7RR, VE3EJ, RA3AUU, E21EIC.

Dick, N6AA, and Larry, N6TW, once again spent countless hours dealing with incoming logs and making 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 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 as always to John, K1AR, for his advice.

Congratulations to all the participants! See you in the 2005 contests.

73, Bob, K3EST

DX QRM

Great fun! A big thank you to my hosts, the Scouts of Monastir! . . . **3V8SQ**. Definitely the most fun one can have in a contest with just one dipole! Hats off to all the great CW op callers who let us keep the rate up despite our weak signal. . . . **4U1UN**. Huge pile-ups at times made run tough, but it was a great contest. Poor antennas on low bands. I'll be back with a real setup! . . . **6W1RW**. First time on 160m in CQWW. Happy with the result considering I was using an inverted Vee antenna. . . . **7S2E**. Wow, as usual the WW DX contest is the king of the contests! . . . **B4TB**. My 1st SOAB contest. Feels good, although met the tribander problem. See you next year! . . . **BA4RF**. What a hoot! First time as DX in CQ WW CW! . . . **C91F**. My fourth trip to CT8T. Again thanks to Santos family! . . . **CT8T**. Biggest thrill was working CX5AO and LU5FF on an almost dead 20m band Sunday night as country multipliers #100 and #101! . . . **DL4AAE**. Great to work my second CQWW CW on 160m and enjoyed the nice but different condx. Improved my antennas with a helium balloon and DX rate improved

USA TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
K5ZD/1	62/13/34	418/21/83	616/29/106	1174/37/124	803/31/108	131/23/68
N9RV	33/8/16	258/21/72	852/35/102	1125/40/116	889/32/113	175/24/71
K3CR	60/11/31	333/21/80	486/26/97	952/38/118	860/30/105	130/23/64
W1KM	46/11/24	692/21/79	487/24/80	840/32/96	684/26/91	132/23/65
K1DG	42/11/25	253/20/75	514/30/104	913/34/111	675/29/101	157/25/76
AA1K/3	45/11/29	357/19/70	537/24/86	776/37/112	890/26/98	117/20/59
K1TV	56/11/34	412/21/72	647/21/70	829/33/98	613/25/90	139/23/68
N2IC/5	32/12/16	229/25/63	785/34/89	477/38/107	674/32/103	276/29/61
K1ZZ	40/10/24	300/24/79	483/29/101	655/31/100	645/27/90	225/26/85
K5GN	37/11/20	206/20/71	563/35/86	548/37/107	862/33/111	238/26/69

USA MULTI-OPERATOR SINGLE TRANSMITTER

K1IR	37/13/34	489/21/85	766/33/120	1094/37/134	709/31/120	114/24/77
K8AZ	42/15/39	240/24/87	795/38/132	919/40/145	764/32/127	104/26/85
W2FU	34/12/31	447/22/86	544/34/118	706/40/138	827/35/124	105/24/75
K300	22/36/12	341/24/86	540/29/98	730/38/141	832/31/115	88/24/76
N4RV	28/10/26	166/21/80	406/31/112	965/38/129	826/32/122	116/23/74
N0NI	27/12/26	121/23/65	355/34/106	678/39/128	726/35/128	110/26/72

USA MULTI-OPERATOR TWO TRANSMITTER

K4JA	132/13/51	652/27/97	1598/38/141	1488/40/146	1478/34/137	389/30/102
N3RS	81/12/46	644/25/86	1259/38/129	1194/39/141	1408/35/132	292/26/92
K1AR	46/12/27	346/23/87	994/38/129	900/39/136	967/33/126	186/24/83
N4WW	36/11/25	252/21/84	813/37/121	783/39/120	997/34/128	296/24/83
W6YI	29/12/16	239/27/56	1154/38/125	654/39/131	695/35/113	313/30/66
W8AV	47/10/28	215/21/79	422/33/116	1022/40/131	762/33/123	154/24/78



VK9AA, operated by Bernd, VK2IA.

more than I thought. . . . **DL7CX**. Special thanks to my host John, E17BA, for his hospitality, making it a wonderful contest. . . . **E1AB2E**. Sunday saw the band close down very early here but it was interesting to see 10m during low sunspots. . . . **E14CF**. In my 40th year of contesting, and CQ WW is still the top event. A real pleasure to operate from home for a change, but will hit the road again next year. . . . **F5VHJ**. This was my first serious entry in a contest for some years and it was a chance to test my new antenna. The conclusion: it needs improvement! It was a joy to listen to D4B run the 40 metre pile-ups in the wee hours of Sunday morning, and a wonder how he can keep such a mess flowing so smoothly. . . . **G0RTN**. Enjoyable contest, even though conditions were a bit marginal for QRP, and 10m didn't really open. As usual the K2 worked superbly; it really is an ace contest rig. . . . **G3YMC**. Many thanks to the Jersey club G3DVC for letting us rearrange the shack and change all the antennas! No antenna was higher than 45 ft., but we

EUROPE TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
CT8T	181/8/49	732/18/70	1526/26/92	882/28/97	1220/29/99	896/30/96
GI1W	518/9/50	1014/22/75	1156/29/109	1170/29/95	884/27/104	167/21/64
RK4F	192/12/47	786/24/94	1297/34/129	773/33/110	559/32/101	284/29/80
YP3A	155/7/38	607/18/78	1100/35/115	975/33/106	969/34/113	164/30/ 84
IR7G	209/10/50	506/20/67	1227/31/100	649/30/91	759/34/104	347/25/59
EA5FV	43/6/31	236/14/67	1255/29/106	635/33/102	1108/31/103	532/28/75
TM6X	119/10/52	431/21/74	810/27/103	791/31/88	647/34/99	240/25/77
ES5TV	363/15/53	572/25/84	1019/33/110	761/30/80	566/35/93	256/21/65
HA8A	199/10/49	514/19/70	897/34/104	753/31/105	570/35/116	200/32/73
OH1F	201/7/46	335/20/73	669/30/92	1019/35/98	734/31/92	159/19/60

EUROPE MULTI-OPERATOR SINGLE TRANSMITTER

EA6IB	69/16/67	1095/32/109	1769/37/138	1643/38/144	1558/37/135	571/34/116
OM7M	333/21/83	1133/32/118	1428/39/144	1009/39/138	806/37/132	215/34/108
OM8A	278/17/68	1085/34/19	1311/36/138	1323/38/135	783/36/129	255/33/110
S50A	1591/3/60	681/32/109	1497/36/143	869/37/134	1099/37/126	135/33/96
HG1S	167/10/53	1091/29/99	1318/37/137	1334/37/133	826/36/123	139/31/104
RW2F	748/25/81	1008/31/113	1169/38/139	998/36/134	490/34/128	180/32/110

EUROPE MULTI-OPERATOR TWO TRANSMITTER

RU1A	634/22/74	879/33/124	1791/39/148	1995/40/140	1443/40/135	412/34/107
IR4X	3001/14/66	1301/32/113	2016/38/144	1836/38/136	1386/37/131	387/34/105
UU7J	515/19/70	1407/33/118	2140/36/138	2247/40/141	1586/35/128	681/33/127
ES6Q	676/16/67	1374/29/108	1502/38/138	1651/39/133	928/34/134	237/28/86
HG6N	582/16/66	1112/30/106	1236/37/137	1114/36/126	978/35/119	305/32/98
GJ2A	817/12/58	1440/16/108	1372/31/111	1408/33/107	1350/32/123	424/26/92

EUROPE MULTI-OPERATOR MULTI-TRANSMITTER

DF0HQ	878/18/70	1968/35/121	2531/40/158	1905/39/145	1243/38/144	502/33/114
LZ9W	852/17/70	1407/30/106	2749/36/141	2173/36/132	1835/36/137	636/34/115
GM5A	1022/14/63	1720/26/104	1920/35/128	2159/39/134	1350/32/124	347/26/92
LY7A	843/13/59	1321/25/88	1464/33/133	1201/35/121	735/35/120	350/32/96
OZ5E	613/10/51	1073/25/96	838/31/115	894/34/108	348/27/101	89/21/50
UV2L	318/10/50	822/17/75	567/28/90	1022/33/114	382/31/98	140/25/61

had a lot of fun with a small Multi-2 team. . . . **GJ2A**. This was my third QRP entry in CQ WW. It was great to make nearly 1000 QSOs with just 5 watts to simple antennas. . . . **GW4ALG**. A good time to be in HC8. For some reason, we really struggled to work EU on 20. . . . **HC8N**. Had fun, most at the end the last 90 minutes. My first CQWW November 1954 as I1YCZ/Trieste, license 5 months old. . . . **IK2AIT**. 20m is still new to me since until February 2003. I wasn't allowed to transmit there because of my past license privilege, so I'm still learning the propagation using this good opportunity of CQWW contest. . . . **JJ1BDX/3**. What a contest! Had great fun. Loads of DX to be worked. First attempt at a big CW contest. See you all next time. . . . **M3CVN**. Tnx for another nice contest weekend. Unusual: no soldering iron during whole contest. . . . **OE3GSA**. Contest QTH went QRT just in time for the CW leg. Made some QSOs with indoor dipole for 15/20m. Great fun anyway! . . . **OE5OHO**. Second time ever I made over 1,100 QSOs during a single weekend, hi. Running 100W keeps my neighbors happy, hi. No CQ's, only S&P. Did I ever mention my shack is part of the bedroom? Tnx to my XYL. She must be getting used to have dits and dashes as a lullaby. CU agn in the next contest. Pse don't forget the QSL chore, guys! . . . **ON4CAS**. Great contest for little pistol. Low noise from aurora and nice to give out double multi! . . . **OX2KAN**. Great fun. Jacky, P43P, was the consummate host, as always. Spent most of pre-contest time repairing and setting up Jacky's station after separate lightning and tornado strikes. 168 second radio QSOs but still managed to miss lots of easy multipliers. . . . **P40Q (op K0DQ)**. Being a 160m DXer is not good for overall score. . . . **P40W (op W2GD)**. Had a great contest. Worked with my Banaba K2/100 and that little rig performed outstanding. Great filters which is needed on a crowded band. Little concerned about the impact of a packe cluster on a DX station. Not everyone can handle that big pile-up after being spotted. . . . **PA2R**. Thanks to Atilano (PY5EG/PY2OMS) who gave your unbelievable station at my hands. Really hard to work under these special situation, listening pratically to everybody, hi! . . . **PS2T**. 10m was alive and kicking in spite of low solar flux. Saturday was better than Sunday, but Sunday offered some skewed paths and good EU backscatter for many multipliers. . . . **SM6FHZ**. I used the station of Martin, V51WM, on farm Otjikoko near Omaruruin the northern part of Namibia. I'd like to thank Martin and his wife Ursi for their generous hospitality. During the contest, a heavy thunderstorm with 45mm of rain hit the farm. It was really pouring! So I suffered very strong QRN on all bands during the contest weekend, particularly on the low bands. I am sorry to those callers that did not make it through the static. . . . **V51/DL5XL**. Awesome time! I just missed the 1m point mark, so something to shoot for next year. My kingdom for another hour! See everyone again next year. . . . **VE6TN**. Murphy's Law . . . who needs it when you can have an 8 hour power outage on

TOP SCORES IN VERY ACTIVE ZONES

Zone 3			
K6NA	2,249,808	K1DG	4,334,442
K6XX	2,094,344	AA1K3	4,214,421
N7TT	1,534,764	KT1V.....	4,209,712
WA7LT	1,243,032	K1ZZ	3,940,670
KO7X	956,940	KQ2M/1	3,649,088
KG7H.....	942,630	W1WEF	3,572,316
W6UM	800,442		
*K6XV	693,294		
K7ZA.....	671,606		
VA7ST	669,892		
Zone 4			
N9RV	5,847,400	CT8T.....	6,646,626
VC3L.....	5,247,550	GI1W.....	5,215,284
VE3EJ.....	4,322,120	*CT7B.....	4,741,380
N2IC/5	4,050,496	EA5FV	4,448,125
K5GN.....	3,761,008	TM6X.....	4,246,625
VE3JM	3,286,754	DL3YM.....	3,530,565
VE3EY	3,034,010	MW5A.....	3,378,080
K8GL	2,781,914	TM2Y	3,242,400
WX0B/5	2,584,944	DJ1YFK	3,233,508
*VE3DZ.....	2,537,536	*EA7RM	3,152,800
Zone 5			
VY2NT	7,789,028		
K5ZD/1	6,070,659		
K3CR.....	4,976,188		
W1KM.....	4,513,080		
Zone 16			
OK1AVY	2,066,474	RK4FF	4,771,950
*SP4R.....	1,909,200	RW1ZA.....	2,479,598
		*UA4FER	2,183,800
		UV5U	2,001,926
		*RW3GU	1,766,682
		*UR3HC	1,657,436
		RT3T	1,627,909
		*RZ4AG	1,248,102
		UY5HF	1,174,500
		RN6FA.....	1,152,039
		RD4WA.....	1,131,140
Zone 25			
JH4UYB	5,048,535		
JA6GCE	3,437,497		
JE1CKA	2,302,366		
JH0FUW	2,161,614		
JH7XGN	1,917,552		
*JI1RXQ	1,369,695		
JS1OYN	1,218,736		
JK1OPL	1,172,600		
*JA2AXB	1,009,800		
JR3NZC	890,109		
		*Low Power	

Friday night and Saturday morning, and then have your neighbour switch on an electric blanket on Saturday night just when the 160, 80, and 40 meter bands were in good condition, and completely wipe signals out, (except for the strongest stations). On top of that, you have to call in an arborist to top three trees which were preventing you from rotating the beam. Other than that really enjoyed the contest. . . . **VE7NH**. Many equipment failures, hence a small entry! Good fun while it lasted! ICOM IC735, tuned rain guttering on the side of the house as an antenna! . . . **VK2BAA**. I have enjoyed operation on 80m during this contest very much. It is a band I started my hamming on, some 30 years ago. Time flies. . . . **VK6DXI**. Great fun as always. Nice conditions into Europe on the first nite but poor to North America. Roll on CQWW CW 2005! . . . **VK6VZ**. Fun to be one of three (3!) VK9s active for the event! . . . **VK9NW**. What a thrill it was to operate from Montserrat! . . . **VP2MZM**. Good long path conditions. . . . **WH2A**. Team contesting "Aztecs II" first time operation in the 80m band. Conditions were better on Friday night. Saturday night the band had more noise and opening to Europe was shorter. Many thanks to XE1V and XE3KKT for being great hosts. . . . **XE1NW**. I used small equipments in this year but Vy fun. Thanks to all QSOs. . . . **XU7ADE (op E21EIC)**. First time to participate in 40m band. Hello USA! . . . **YC3MM**. Nice contest and good propagation on 80m. I was very surprised by the number of U.S. station that came on my CQ. I operated from my house located on mount of Zlatibor (at 889m ASL). It was very cold and windy before the contest and the antennas were damaged but I managed to fix it before the contest. . . . **YT2A**. Two young kids and wife, but managed 1100 QSOs on 40m! . . . **YU1LA**. Great contest. Few hours before the contest we decided to work Multi-2, without cluster, multiplier stations etc.. We have a nice fun as usual. Thanks to all who called us. . . . **Z37M**. Think that I broke my dupe record 120. Auto Morse "ain't what it used to be." Thanks to all concerned for running the contest. . . . **ZC4LI**. To stations far away (from ZK1): We hear you! We always don't answer because of QRM, so send your call only once, as we have to wait until everybody is finished sending before we can respond. Remember, if we are 459 to you (W, JA, even EU) you are 589+ to us. 747 contacts using a J38 key and a ballpoint pen. . . . **ZK1DRA**. Great contest as always! Lost power to the QTH for 3 days before the event. Conditions down since 2003. Highlights: being called by ZS6MG on 80m and 5U5Z on 10m. . . . **ZL6QH**. My second CQWW contest. This time using a vee beam directed towards North America. Two days of fun and madness! . . . **ZS1AN**.

USA QRM

Here's a tip from experience: Don't break a tooth right before the contest, and spend four hours Saturday morning in the dentist's chair, especially when working single band on a daylight-only band. . . . **AE9F/6**. 15 meters still the band to be on. . . . **K0BX**. Biggest thrill was working several JA's in the last two hours of the contest to bump my contact total above my goal of 1200. I also got a kick out of some rare DX that called me on my frequency, including S9, KH2, KL (not really rare, but sometimes hard to get zone 1 on several bands), TK, and HS. . . . **K1KD**. Special thanks to those who took the time for a QSO with a weak signal instead of hitting the CQ button again! . . . **K2TA**. It's always a great experience to operate with the best CW contest operators in the world. . . . **K2ZR**. Thanks to all the great ops with great ears! . . . **K3UW**. First, the computer crashed. Then by the time I had the laptop working (several hours later) the transmitter smoked and died. Hooked up another rig and managed to get in a couple of hours. . . . **K4GM**. This was a tough contest if you had the overnight shift on 160 and 20 meters. Slow! Breaking in a few new ops and still enjoying the company of all. Thanks to all for

the QSOs and spots. . . . **KB1H**. I ran a homebrew amp (25–50 watts) to a low (10m) dipole fed with ladder line. Not the best setup, but I had a lot of fun. The skill of most of the ops is simply amazing. . . . **KD5CMN**. The conditions this year were incredible for being so near the sunspot minimum. Put up a portable tower this year on top of a mountain. Unfortunately, punctured. Murphy is getting a sense of humor! . . . **KP4US**. Special thanks to A61AJ (op N2AA) for being extra patient and correcting "KI" to "KS" for my only new 40m DX on a wire vertical! . . . **KS7T**. CQWW CW is the contest! . . . **KT1V**. Was glad to finish 80m 4-square 10 minutes into the contest, but was so happy about it that forgot to run 40 meters. . . . **KU1CW/0**. With 4-week-old infant, bottle, burp cloth in one arm, his first contest. A truly single-handed effort! . . . **N2NI**. Now that was a good reason to have been working on my code speed! . . . **N3GNW**. Conditions not as good as CQWW SSB. More

hours in the chair almost the same score. Have to work on my three S's: improve skills, improve strategy, stay in the seat! . . . **N3MX**. No chance to make a full effort this year, but this is one contest you just can't stay away from! . . . **N4GN**. If you're not moving ahead, you're falling behind. My low-power competitors seemed to be following this adage. N5AW added a 4-element SteppIR. N1UR replaced his Field-Day type setup with real towers. W1MU goes to his Maine QTH to be closer to the DX. I, on the other hand, just barely got back to my standard antenna setup by erecting my 80 and 160 antennas the week before the contest. So, while the leaders were falling only 300k or 600k off their last year's scores due to the declining propagation, my score dropped by 1 meg. I like to feel I'm performing a public service by not changing my station; that permits others to more accurately gauge their station improvements despite changing propagation. . . . **N4TZ/9**. What is with the

TOP SCORES

World All Band	LU5FC.....664,724	Europe All Band	HG8I.....304,022	USA All Band	K5ZD/1.....6,070,659
D4B.....13,605,364	LO2F.....661,149	S57L.....209,166	N7WA.....145,250	N9RV.....5,847,400	
EA8ZS.....11,484,894	CO8LY.....567,936	YT1RA.....192,172	K9AW/4.....84,600	K3CR.....4,976,188	
P40Q.....10,597,877	EA6/LY1DF.....515,247		K1VSJ.....24,882	W1KM.....4,513,080	
A45XR.....10,488,336		14 MHz	K1DG.....4,334,442	N1LW.....15,762	
8P5A.....9,447,417	CX5AO.....799,444	CT8T.....6,646,626	AA1K/3.....4,214,421	WA2ASQ.....12,154	
VY2NT.....7,789,028	3V8SF.....708,246	GI1W.....5,215,284	KT1V.....4,209,712	WA0KDS/7.....11,250	
S9A.....7,499,328	5K5Z.....618,788	RK4FF.....4,771,950*	DL1LH.....256,247		
CT8T.....6,646,626	SUBBHI.....571,956	YP3A.....4,670,469*	SV1BJW.....239,136		
6W1RW.....6,610,774	ZZ8Z.....560,120	IR7G.....4,456,917			
9M6NA.....6,316,800	CX9AU.....504,668	EA5FV.....4,448,125			
		TM6X.....4,246,625			
28 MHz		ES5TV.....3,848,544			
CX5BW.....1,196,103	YZ1W.....515,732	HA8A.....3,829,344			
CX6VM.....1,133,008	4N1FG.....508,680	OH1F.....3,725,334			
5B/KI0BP.....528,220	VE7SV.....464,310				
PS2E.....415,758	A45WD.....403,795	7 MHz			
OH0Z.....263,238	LZ9R.....293,832	YZ1W.....515,732			
RF4R.....239,612	JA6WFM/HI8.....296,370	4N1FG.....508,680			
		LZ9R.....293,832			
21 MHz		T94FC.....263,790			
ZS4TX.....1,606,140	C6ATP.....235,000	OH0Z.....263,238			
EA8EW.....1,566,126	OH0I.....231,516	RF4R.....239,612			
IH9P.....1,480,720	YU7CB.....192,572	LZ9X.....174,178			
8R1K.....1,316,412	YT2A.....159,430	EA5HT.....154,854			
ZC4LI.....993,876	SP5KEH.....141,350	9A6A.....146,765			
WH2A.....900,136	Y5Z.....138,075	HG8Z.....108,406			
14 MHz		21 MHz			
CN2KM.....2,023,740	OH0RB.....56,355	9A80A.....760,416			
EA8EA.....1,833,008	ER5GB.....41,210	OH0V.....670,806			
3E1A.....1,577,532*	ES6GP.....35,264	T97M.....590,226			
4M5X.....1,304,206	9A3RE.....33,600	YU3X.....491,508			
A61AJ.....1,245,904	UT1FA.....29,504	YZ5Z.....449,226			
4L8A.....1,162,560	OL6T.....29,315	UR5IAW.....294,600			
7 MHz		1.8 MHz			
P40A.....4,078,977	YT6A.....901,458	OH0RB.....56,355			
YT7TY.....1,348,496	OH4A.....826,200	ER5GB.....41,210			
T15N.....1,295,256	9A5W.....812,337	ES6PZ.....35,264			
HG5Z.....1,159,878	SO2R.....788,072*	9A3RE.....33,600			
KT8X.....953,520	YTZ9A.....704,802	UT1FA.....29,504			
LY4XXX.....905,464	G3TFX.....699,524	OL6T.....29,315			
N4KG.....782,768					
		QRP			
P40A.....4,078,977	T9/9AE.....1,048,017	YT7TY.....1,348,496			
YT7TY.....1,348,496	OH0B.....898,275	HG5Z.....1,159,878			
T15N.....1,295,256	F6ARC.....778,260	LY4XX.....905,464			
HG5Z.....1,159,878	YT7A.....771,711	RN6AL.....739,276			
KT8X.....953,520	OH2U.....757,390	YT2T.....695,622			
LY4XXX.....905,464	SK3W.....748,744	OK1VBA.....651,024			
N4KG.....782,768		S52P.....594,688			
		LY5G.....531,456			
3.5 MHz		HB9DAX.....461,898			
CN2R.....1,037,704	SN3A.....541,650	OH4MFA.....440,176			
EA8/OH4NL.....693,264	OK2RZ.....511,820				
SN3A.....541,650	OH2BH.....408,455	3.5 MHz			
OK2RZ.....511,820	YU7AV.....389,536	YT7TY.....1,348,496			
A61AJ.....432,279	OH0M.....381,545	HG5Z.....1,159,878			
OH2BH.....408,455	G0IVZ.....376,740	LY4XX.....905,464			
		RN6AL.....739,276			
1.8 MHz		YT2T.....695,622			
IH9U.....274,032	SP3BQ.....155,870	OK1VBA.....651,024			
SP3BQ.....155,870	ON4WW.....151,368	S52P.....594,688			
ON4WW.....151,368	YR21.....125,557	LY5G.....531,456			
YR21.....125,557	S57M.....118,464	HB9DAX.....461,898			
S57M.....118,464	HA8BE.....117,059	OH4MFA.....440,176			
HA8BE.....117,059	LY3UM.....114,777				
		Assisted, All Band			
Low Power All Band		DJ5MW.....5,004,964			
P40L.....13,592,412		RX4HZ.....3,622,592			
E6AIB.....11,026,533		UW8M.....3,288,976			
UA9AYA.....10,647,435		D3KGI.....3,249,372			
V26K.....7,468,593		RA6CM.....3,178,300			
CT9M.....7,165,665		LY9Y.....3,023,943			
3V8SQ.....5,446,230		W3GH.....5,040			
KP4KE.....5,086,719		K7OX.....2,784			
CT7B.....4,741,380		KJ7WY.....1,020			
HI3K.....4,092,192		K4PIC.....860			
J79A.....3,596,216					
EA7RM.....3,152,800		Low Power All Band			
UO2M.....2,804,358		W1MU.....2,125,404			
		N1UR.....1,822,503			
28 MHz		N5AW.....1,728,720			
LT7W.....506,883		AK2P.....1,668,080			
CT1AOZ.....163,215		K0EJ4/.....1,612,840			
9A3VM.....130,458		W1AO.....1,570,465			
9A7D.....114,720		K2PS.....1,542,238			
RA9SO.....94,168		N4TZ/9.....1,486,448			
RU4SS.....80,586		W2EF.....1,427,736			
		Multi-Op, Single Trans			
21 MHz		E6AIB.....11,026,533			
V31LZ.....748,500		OM7M.....9,028,938			
EA8NN.....705,012		W1MU.....2,125,404			
		N1UR.....1,822,503			
		N5AW.....1,728,720			
		AK2P.....1,668,080			
		K0EJ4/.....1,612,840			
		W1AO.....1,570,465			
		K2PS.....1,542,238			
		N4TZ/9.....1,486,448			
		W2EF.....1,427,736			
		28 MHz			
		RU1A.....13,021,632			
		LY9A.....1,672,825			
		UR3HC.....1,657,436			
		21 MHz			
		CT1AOZ.....163,215			
		9A3VM.....130,458			
		9A7D.....114,720			
		RU4SS.....80,586			
		4N1N.....80,228			
		SX5R.....72,675			
		Multi-Op, Multi-Trans			
		YT7Z.....454,020			
		J43J.....424,760			
		EA4KR.....344,410			
		21 MHz			
		WB4TDH.....238,176			
		N2BA.....220,159			
		GM5A.....10,975,578			
		LZ9W.....13,875,100			
		W6YI.....5,561,792			
		OZ5E.....3,842,067			
		UV2L.....2,979,880			
		K9WA.....98,413			
		Multi-Op, Single Trans			
		K1IR.....6,249,717			
		K8AZ.....5,732,240			
		W2FU.....4,897,353			
		K3OO.....4,710,015			
		N4RV.....4,143,328			
		N0NI.....3,516,498			
		Multi-Op, Two-Trans			
		K4JA.....12,901,632			
		N3RS.....9,921,186			
		K1AR.....6,675,226			
		N4WW.....5,658,241			
		W6YI.....5,561,792			
		W8AV.....4,636,816			
		Multi-Op, Multi-Trans			
		K3LR.....15,170,944			
		W3PL.....15,067,008			
		KC1XX.....13,408,500			
		K9NS.....10,441,362			
		K1TTT.....9,651,102			
		K1RX.....9,397,960			

CLUB SCORES

DX

Bavarian Contest Club (DL)	263,199,539
Rhein-Ruhr DXA (DL)	226,830,817
Contest Club Finland.....	116,455,732
Contest Club Ontario.....	107,670,337
Slovenian Contest Club.....	71,633,922
Russian Contest Club	54,895,893
Ural Contest Group	51,215,002
Araucaria DX Group (PY5).....	48,119,972
Croatian Contest Club	45,275,314
Mt. RF (JA3)	35,451,100
Kaunas Techology University (LY)	35,023,776
Central Siberia DX Club (UA0A)	33,254,835
YU Contest Club	30,432,106
Bashkortostan DX Club (UA9W)	30,343,792
BC DX Club (VE7).....	29,949,395
Tartu Contest Team (ES)	27,467,295
VK Contest Club.....	26,750,405
Crimean Contest Club (UU)	24,990,702
Tikirriki Contest Club (I).....	24,295,101
Bad Power (LU)	24,152,709
GMDXC (GM)	24,022,665
Latvian Contest Club	22,839,359
Marconi Contest Club (I)	21,731,104
HA DX Club	19,241,018
Maritime Contest Club (VE1/9VY2).....	19,190,125
SP DX Club	18,832,104
East Coast Canada CC (VO)	15,693,078
Ukrainian Contest Club	15,660,251
Vrhniaka Contesters (S5).....	13,594,396
Lithuanian Contest Group	13,302,065
Bosnia-Herzegovina CC.....	13,076,466
South Ural Contest Club (UA9A)	12,641,320
Southwest Ohio DXA	12,275,643
LNDX (F)	11,983,490
Chiltern DX Club (G)	11,853,036
Top of Europe Contesters	10,432,940
LU Contest Group	9,888,387
Beemster Contest Club (PA)	8,873,375
Aruk (EX)	8,438,276
UA2 Contest Club	7,612,752
Danish DX-Group	6,876,316
Kiev Contest Group	6,539,847
Sky Contest Club (YU)	5,470,757
Guara DXG (PY7/8)	5,150,971
RAAWG (SV)	4,916,904
University of Tokyo Contest Club	4,817,109
GACW (LU)	4,728,666
Orenburg Contest Group (UA9S)	4,587,203
Moscow Contest Club	4,339,282
Temirtau Contest Club (UN)	3,765,124
LYNX (EA5)	3,334,192
Mother Lode DXCC (W6)	3,213,941
ATCC (EY)	3,197,197
KKKK (UA6A)	3,159,904
Udmurtia (UA4W)	3,049,433
Z30M Contest Team	2,782,384
Belarus Contest Club	2,781,325
TuPY DX Group (PY2)	2,717,036
Aztecias II (XE)	2,496,982
South German DXG	2,440,347
Pizza & Pasta CC (I2)	2,359,670
Alberta Clippers (VE6)	2,323,754
Ivanovo DX Club (UA3U)	2,316,100
SP Contest Club	1,999,007
Bloemfontein ARC (ZS)	1,954,143
Jiangsu DX Club (BY)	1,923,254
Fox Contest Club (YU)	1,872,440
KRS (UR-H)	1,736,248
Sao Paolo Contest Group	1,717,888
Brimham Contest Group (G)	1,567,859
Venezuela DX Club	1,512,576
Amateur Radio Club of Saipan.....	1,445,120
Kemerovsky RC (UA9U)	1,426,423
Banat DX Group (YU7)	1,417,984
ADXC (PA)	1,163,975
Siam DX Group (HS)	1,063,280
Kiel Canal Activity Group (DL)	964,124
Uirapuru DX Club (PY8)	823,617
Belokranje Contest Club (S5)	808,712
Low Land Crazy Contesters (PA)	730,059
Serpukhov RC (UA3)	722,684
Obninsk-QRU-Club (UA3X)	693,881

Vladimir Radio Club (UA3V)	616,203
ARCK (UA0)	601,465
Far East ARC (UA0C)	591,034
Yaroslavl Club (UA3M)	581,329
SK6AW Club	572,560
BFRR (EU)	568,443
Mediterraneo DX Club (I8)	558,245
RK0BWW Team	556,242
YO DX Club	521,703
Pushkino (UA3)	520,399
West of Scotland ARS	430,402
ALRS St. Petersburg	426,451
URE Cartagena (EA5)	399,144
Taganrog RC (UA6L)	368,129
Noviomagnum DX Club (PA)	328,874
ARM (ER)	325,235
HA6KNX Club	298,797
Cocosolo Sibichi Club (V4)	287,806
Club 22 (UA3I)	180,794
Wythall Radio Club (G)	159,530
SK4BX Club	133,014
Russian QRP Club	127,579
Krivbass (UT)	62,129
Arrow Communications (W8)	54,180
Parnu RC (ES)	45,655
CSM Craiova (YO)	35,129
SK6HD Club	15,805
CSM Y07KFA	14,352

USA

Frankford Radio Club (W3)	387,506,863
Yankee Clipper Contest Club	331,489,157
Potomac Valley Radio Club (W3/4)	169,644,326
Northern California CC	116,712,815
Florida Contest Group	71,416,703
North Texas Contest Club	60,216,014
Southern California Contest Club	50,222,126
Society of Midwest Contesters (W9/0)	49,255,436
North Coast Contesters (W3)	48,707,192
Minnesota Wireless Assn	45,082,827
Southeast Contest Club (W4)	43,925,777
Mad River RC (W8)	27,515,488
Western Washington DX Club	24,430,389
Willamette Valley DX Club (W7)	24,430,389
Carolina DX Assoc. (W4)	23,246,423
Hudson Valley DXCC (W2)	20,877,990
Central Texas DX & Contest Club	20,611,505
Tennessee Contest Group	16,932,596
Grand Mesa Contesters (W0)	13,415,575
Rochester DXA (W2)	11,152,776
Texas DX Society	6,042,677
Kansas City DX Club	5,844,893
Central AZ DXA	5,255,175
Spokane DXA (W7)	4,263,065
Eastern Iowa DXA	3,836,154
Northern Illinois DXA	3,658,372
Kentucky Contest Group	3,206,487
Oklahoma DXA	2,621,279
North Alabama DXC	2,601,155
Western NY DXA	2,303,243
Sterling Park ARC (W4)	1,922,490
North Florida DXA	1,375,887
Northern Rockies DXA (W7)	1,323,333
Salt City DXA (W2)	1,268,991
Bergen ARA (W2)	1,196,225
Redwood Empire DXA (W6)	731,940
Northern Arizona DXA	559,550
West Park Radio Ops (W8)	523,666
Order of Boiled Owls of NY	402,239
South Jersey DXA (W2)	394,398
Metro DX Club (W9)	385,864
Northern Ohio DXA	302,387
Great South Bay ARC (W2)	295,817
South Texas DXCC	235,711
Boring ARC (W7)	223,631
Central Oregon DX Club	189,274
Southeastern DX Club (W4)	142,116
CT RI Contest Group	132,135

A index going to 60! Wow! . . . **N6IC**. This was an amazing contest, full of surprises. . . . **N6WG**. Strange propagation. I could easily work ZL and 3D2 from Florida with 4 watts but had trouble into the normally easy parts of Europe! . . . **NA4CW**. My first time in WW DX CW, and I had a blast! Thanks to the many ops who were understanding about my sending. . . . **NO6E**. What strange conditions! 78 countries with only 75 watts and an aluminium rain gutter for an antenna. I love CW! . . . **W3UTD**. A great team. Integrated networking made a difference. A special hats off to AA7CQ for his low band efforts! . . . **W7VJ**. Small problem: XYL left the microwave oven door open; picked up RF and acted as a monitor. First case I ever heard of MOI! . . . **W9LYA**. Fifty-four years of contesting and I still enjoy putting in 40 hours in this one. . . . **WA7LT**. My first time using N3FJP contest software. Slick! Propagation was strange here in Michigan with aurora flutter and sigs in and out like twinkling stars! Wkg Madeira Island on 10 meters QRP through a pile-up using a dipole 6 feet off the ground was a huge thrill. Special tnx to several DX stns who hrld my weak sig and sent an as to other stns in order to complete the exchange. . . . **WA8REI**. Full-size 80 meter vertical not finished but did well with only four radials! Had lots of interruptions from kids and guests. Murphy hit hard when I was in the shower Sunday AM, though. Water pressure died! Only got washed on the right side (no kidding) before the pressure went to zero. Seems the windmill overcharged the batteries and the system shut down during the night! Had it rewired and operational in about an hour, but never made it back to the shower — after all, the bands were open and I was actually dressed. Spent the rest of the day precariously favoring the clean side. Quick note for next year: Turn the lights on when you enter the shack so when it gets dark and the action is hot you don't have to sit in the dark hoping the XYL will look in so she can turn them on! PS: Put deodorant in the shack for emergency usage. . . . **WT6G**. The ops from Croatia had excellent fists! Best I heard all weekend. . . . **WW9R**.

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Number groups after call letters denote following: Band (A - all), Final Score, Number of QSOs, Zones and Countries. An asterisk (*) before a call indicates low-power Certificate winners are listed in bold. (All country terminology reflects the DXCC list at the time of the contest.)
2004 CW RESULTS
SINGLE OPERATOR
NORTH AMERICA
UNITED STATES
K5ZD/1 A 6,070,659 3204 154 523
W1KM " 4,513,080 2881 137 435
K1DG " 4,334,442 2554 149 492
K1TV " 4,209,712 2696 140 452
K1ZZ " 3,940,670 2348 147 479 (OP: N6ZZ)
KO2M/1 A 3,649,088 2350 141 451
W1WEF " 3,572,316 2266 140 454
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W1ZK " 568,606 613 100 263
N1RR " 502,590 614 91 239
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W1FM " 254,196 411 74 202
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K1PH " 210,474 408 44 154 (OP: LZ4AX)
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W6ZF/1 " 105,872 218 56 152
W1YRC " 95,207 214 66 137
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WB2HJV " 259,116 348 71 215
KD2HE " 192,525 321 66 189
W2CVW " 144,064 278 62 173
W2UDT " 125,079 309 72 169
W2LK " 119,637 241 61 128
N2CG " 94,116 211 53 133
W2GB " 93,860 259 61 129
WB2TPS " 77,231 158 54 133
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K2SX " 39,168 140 46 82
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AE9B/Ø	7	15,688	80	21	53	VE7VR	A	479,603	1080	76	135	CN2KM	14	MOROCCO	"	*RW9MJ	"	10,614	74	13	45	JAA1Z	"	166,140	345	83	130		
KHOR	"	4,779	90	11	16	VE7XR	14	464,690	1313	40	115	VE7ZKC	3.5	162,748	761	30	62	*RW9QA	"	6,501	80	7	26	JAA1CP	"	145,824	324	73	113
*W0ETT	A	389,064	519	102	21	VE7CC	3.5	162,748	761	30	62	VE7ZKJ	1.8	1,243	79	6	5	*UAQ9AU	1.8	4,576	69	9	23	JAA1EMO	"	140,010	308	74	121
K7RE/Ø	"	222,215	370	73	172	VE7ZK	"	"	"	"	"	VE7ZK	3.5	1,037,704	2410	34	118	(OP: SM2EKM)	"	396	24	5	17	JAA1COB	"	133,003	370	63	106
*K0SO	"	180,560	309	76	16	*VATST	A	669,892	1410	80	143	VE7ZK	"	"	"	"	"	JAA1GHT	"	121,581	280	61	110	JAA1HNG	"	102,375	254	73	102
AK0M	"	180,509	32	159	VE7NH	"	595,875	1146	88	139	VE7ZK	"	"	"	"	"	JAA1PSR	"	100,536	246	70	107	JAA1SRG	"	97,774	239	71	95	
*W0PI	"	146,496	262	73	151	*VATLC	"	192,049	455	77	110	VE7ZK	"	157,766	435	77	114	NAMIBIA	"	"	"	"	"	JAA1TCF	"	97,774	239	71	95
*K0RAY	"	116,050	278	67	144	*VETALN	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1SPK	"	92,508	258	62	94	JAA1ZPN	"	89,798	324	48	70
*N0BUJ	"	111,672	310	57	131	*VETCI	"	78,840	268	54	81	VE7ZK	"	"	"	"	"	JAA1CPZ	"	89,798	324	48	70	JAA1ZPN	"	89,798	324	48	70
NN7AV/Ø	"	63,550	158	61	94	*VETWU	"	17,860	72	35	60	VE7ZK	"	"	"	"	"	JAA1JGI	"	82,422	209	67	104	JAA1XPU	"	81,288	228	62	90
*N0RA	"	53,592	160	48	84	*VETYU	"	14,348	90	31	37	VE7ZK	"	"	"	"	"	JAA1XPU	"	81,288	228	62	90	JAA1ZPN	"	81,288	228	62	90
NAØN	"	53,066	130	55	102	*VATCAB	"	13,600	138	24	26	VE7ZK	"	"	"	"	"	JAA1ZSL	"	63,717	203	62	10	JAA1ZPN	"	63,717	203	62	10
*K2HT/Ø	"	41,165	128	62	90	*VETIN	21	54,739	353	23	44	VE7ZK	"	"	"	"	"	JAA1ZPN	"	63,492	185	68	80	JAA1ZSL	"	63,492	185	68	80
*WA2MNO/Ø	"	34,263	131	51	90	*VETNI	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1ZPN	"	60,676	201	58	96	JAA1ZSL	"	60,676	201	58	96
*K0RY	"	30,240	144	40	65	*VETSV	7	464,310	1486	33	101	VE7ZK	"	"	"	"	"	JAA1HNM	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*N0IBT	"	14,768	82	34	37	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*WG0M	"	12,784	71	37	57	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*WA0BNX	"	7,884	75	32	41	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*N0BM	"	7,682	52	30	36	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*K0KG5	"	6,372	48	20	39	*TI3M	A	1,785,875	3060	91	234	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*W0QOS	"	6,622	54	26	35	*TI3M	A	1,785,875	3060	91	234	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*N0AC	"	4,389	72	30	47	*TI3M	A	1,785,875	3060	91	234	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*KB0NES	"	4,056	49	23	29	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*WA0IAF	"	3,328	42	22	30	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*KA0BHO	"	2,226	53	20	33	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*N0PFY	"	1,107	22	11	16	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
ALASKA	"	370,812	1137	67	89	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
KL7WV	A	370,812	1137	67	89	(OP: W3YQ)	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
VP2ETL	A	852,274	1871	76	163	(OP: DL2RUM)	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
VP2ETL	A	852,274	1871	76	163	(OP: DL2RUM)	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
V26K	A	7,468,593	5437	135	426	(OP: AA3B)	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
C6AQK	7	762,542	2445	33	104	(OP: N4BP)	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*C6AQQ	A	2,361,195	2740	108	303	(OP: ND3F)	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*C6AWS	"	180,115	558	53	110	(OP: W6W)	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*C6ATP	3.5	235,000	1188	19	75	BAHAMAS	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
8P5A	A	9,447,417	6522	152	457	(OP: W2SC)	"	"	"	"	"	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
VE1MM	"	1,380,672	1364	106	326	VY1JA	A	5,016	74	14	19	VE7ZK	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
V2ELIZ	"	1,054,956	1204	92	307	VY1JA	A	4,092,194	206	121	347	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
V31JP	7	743,960	2319	34	106	(OP: K8JP)	"	"	"	"	"	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*V31LZ	21	749,500	2197	32	118	VY1JA	A	210,700	1049	23	75	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
CANADA	"	3,532,382	3226	110	349	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
VY2NT	A	7,789,028	5220	138	473	(OP: N2NT)	"	"	"	"	"	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86
VY2TT	"	2,905,089	2741	109	344	(OP: K6LA)	"	"	"	"	"	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86
VY2AYU	"	947,140	1133	95	260	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*V2U3U	A	579,554	910	82	211	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
*V2E2FF	A	104,076	341	47	100	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
VY2SS	"	37,485	188	35	70	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
VY2ASG	"	33,354	189	37	65	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115	189	59	86	JAA1ZPN	"	56,115	189	59	86
VY2OWL	"	22,042	108	40	67	VY1JA	A	1,230,820	2452	84	205	VY1JA	"	"	"	"	"	JAA1HNY	"	56,115</td									

*JK3AHS	*	60	4	3	3	MONGOLIA	BELGIUM	*OK2BH	286,754	586	73	196	*MOCOP	*	13,158	130	32	70								
*JN3DSH	14	26,100	140	30	57	JT1DA	A 418,692	1245	68	154	*OK1FD	242,760	706	67	222	*G4MKP	*	4,928	89	28	49					
*JJ1BDVX3	*	15,980	99	24	44	JT1CD	A 101,660	485	38	92	*G6OKU	216,530	495	71	210	*G3CVP	*	3,416	68	18	38					
*JA3AYX	*	7,725	75	20	35	JT1BH	28 154,245	932	29	76	*OK2BNC	182,009	380	75	232	*GORDO	28	3,515	118	23	58					
*JL30XR	*	1,392	21	14	15	*JT1BJ	A 553,340	1215	109	256	*OK2BPD	169,884	404	65	177	*G3KJX	*	55,419	284	24	67					
*JK3DGX	7	39,788	174	28	70	OMAN	*OK1FW	155,875	530	50	165	*G3ZRL	21	117,360	425	30	90									
*JA3HC	*	6,946	71	18	28	A 10,488,336	5547	173	533	*OK1MZD	147,371	390	63	196	*G4MKJ	*	22,981	244	18	49						
*JA3GN	*	16,813	126	22	47	*A45XR	A 37,985	183	32	75	*OK2BJ	143,136	352	61	163	*G3M	14	320,951	1274	32	107					
JH4UVB	A	5,048,535	3144	183	432	*A45WD	7 403,795	1210	34	105	*OK2BZ	129,833	505	55	179	*G3VYI	*	18,480	155	20	50					
JA4EZA	*	303,858	461	105	201	SINGAPORE	(OP: Y09HP)	*OK2BZG	129,684	426	52	162	*G4ZOB	*	31,800	324	12	63								
JM4WUZ	*	229,414	388	92	159	9V1YC	A 3,546,724	2981	150	406	*OK2BV	123,375	403	49	126	*G4EBK	*	26,733	373	9	58					
J4A0AZ	14	25,492	142	23	50	9V1GO	A 66,063	243	71	112	*OK1BMW	120,782	295	66	196	*G4KIV	1.8	1,568	63	4	24					
*JA4BAA	A	137,096	341	74	121	*V91GO	*	*OK1BWJ	108,580	364	48	130	OD5NJ	A 247,632	572	41	127	LEBANON	*	99,892	239	69	152			
*JA4AOR	*	105,820	292	55	93	*V91CW	27,258	110	45	73	*OK1FSE	92,429	283	71	144	ESTONIA										
*JH1MTR/4	*	94,520	233	69	101	SRI LANKA	BOSNIA-HERZEGOVINA	*OK1IAOU	86,535	382	42	131	ES5TV	A 3,849,544	3537	159	485									
*JA4AZS	*	15,400	104	46	54	9V1YC	A 81	5	4	5	*OK2TRN	86,028	289	36	112	*ES5DJ	A 641,802	990	94	319						
*JH4OYA	*	7,776	61	25	35	*A45NI	7 14,908,017	3295	39	138	*OK2SWD	85,750	275	34	103	*ES5D2J	A 115,280	252	72	190						
*JA4CZM	*	6,716	57	18	28	TAIWAN	9V1GZ	A 65,534	334	40	111	*OK2ZBL	87,250	164	48	77	*ES5NM	*	1,161	35	17	26				
*JH4UK	*	225	9	5	4	*V91GZ	7 11,780	84	19	43	*OK2CP	80,244	195	23	61	*ES5K6W	*	4,312	53	16	28					
*J4CDW	28	4,981	54	18	31	*B2UAI	A 126,732	357	69	108	*OK2BND	105,960	130	29	91	*ES5RC	28	124,474	828	27	92					
*JR4GP4	21	116,688	503	29	59	TAJIKISTAN	*V91GZ	7 10,476	131	6	38	*OK1FW	10,165	61	39	56	*ES5D60	*	28,179	311	21	72				
*JM4MGM	*	40,115	287	24	47	E8Y8MM	14 91,000	2006	38	137	*OK1KZ	10,920	39	15	20	*ES5V1	3.5	3,132	96	6	30					
J5D0H	21	746,346	1707	37	122	E8Y8Q	7 659,310	1688	36	129	*OK2V	10,920	39	15	20	*ES5D60	*	2,220	51	7	30					
J5APU	14	163,471	745	34	87	E7YAF	3.5 292,880	1094	24	88	*OK2ZP	10,920	39	15	20	*ES5D60	*	35,264	504	11	53					
*JA5RB	A	42,588	159	51	66	*V91GZ	21 130,462	774	21	65	*OK2ZQ	10,920	39	15	20											
*JG5DHX	14	9,396	76	20	34	THAILAND	HS0ZAR	A 1,396,992	1625	111	292	*OK1KWWJ	10,920	39	15	20										
*JA5ATN	3.5	6,194	77	15	23	E8Y8MM	(OP: K3ZD)	*V91GZ	28 174,178	594	33	113	*OK1KWWJ	10,920	39	15	20									
*JA5JGV	1.8	196	6	6	6	TURKMENISTAN	*V91GZ	21 115,115	442	30	85	*OK1KWWJ	10,920	39	15	20										
J6GCN	A	3,437,497	2657	157	354	*EZ4XX	A 449,328	963	43	133	*OK1KWWJ	10,920	39	15	20											
*JA6CYL/6	*	389,462	570	95	182	*EZ8CW	14 251	8	5	7	*OK1KWWJ	10,920	39	15	20											
*JA6VU	*	165,912	364	83	165	*HSBKG	A 6,560	62	34	46	*OK1KWWJ	10,920	39	15	20											
*JA6WB	*	16,568	126	42	61	*HSOEHF	A 3,456	31	24	30	*OK1KWWJ	10,920	39	15	20											
*JA6AKW	*	3,906	42	17	14	*HS10HW	A 3,190	47	29	29	*OK1KWWJ	10,920	39	15	20											
*JA6KD	*	2,825	42	28	23	*E20LYM	A 1,836	45	19	32	*OK1KWWJ	10,920	39	15	20											
*JH6WHN	28	62,376	294	31	70	*HSQZD	A 1,748	21	18	20	*OK1KWWJ	10,920	39	15	20											
*JA6BF1	21	26,784	169	24	48	(OP: SM3DYU)	*V91GZ	28 174,178	594	33	113	*OK1KWWJ	10,920	39	15	20										
*JS6FO7	14	8,517	81	24	32	*JA6SHL	3.5 7,520	91	19	28	*OK1KWWJ	10,920	39	15	20											
JH7GNX	A	1,917,552	1663	149	290	*EZ4XX	A 449,328	963	43	133	*OK1KWWJ	10,920	39	15	20											
J71IC	*	3,000	29	20	40	*EZ8CW	14 251	8	5	7	*OK1KWWJ	10,920	39	15	20											
JH7XMO	28	77,964	389	29	60	ZC4LI	21 993,876	2889	34	104	*OK1KWWJ	10,920	39	15	20											
J71NUF	21	360,045	1055	36	91	UK BASES ON CYPRUS	BROTHMAN	*OK1KWWJ	10,920	39	15	20														
JA7NVF	*	317,897	1224	33	74	A61AJ	14 1,245,904	2830	38	138	*OK1KWWJ	10,920	39	15	20											
J7C01	14	6,450	248	34	66	A61AJ	7 1,245,904	2830	38	138	*OK1KWWJ	10,920	39	15	20											
J7M7J	3.5	16,576	114	20	44	A61AJ	21 1,245,904	2830	38	138	*OK1KWWJ	10,920	39	15	20											
*JA7BME	A	153,510	285	91	147	A61AJ	7 1,655,109	3690	37	134	*OK1KWWJ	10,920	39	15	20											
*JA7DNO	*	151,076	339	57	122	A61AJ	7 1,655,109	3690	37	134	*OK1KWWJ	10,920	39	15	20											
*JA7AEJM	*	52,304	208	51	61	A61AJ	3.5 432,279	1638	30	99	*OK1KWWJ	10,920	39	15	20											
*JA7HONG	*	16,740	115	36	57	A61AJ	3.5 432,279	1638	30	99	*OK1KWWJ	10,920	39	15	20											
*JA7CPW	*	12,666	55	45	44	A61AV	A 14,208	175	33	78	*OK1KWWJ	10,920	39	15	20											
J8BLN	7	6,593	62	18	41	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
J8DNV	3.5	16,513	123	26	44	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
*JA8AJE	A	220,750	410	87	132	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
*JG8HVD	*	1,560	22	15	15	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
JF9TS	A	235,265	431	86	137	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
J9C9WJ	14	285,870	824	33	97	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
*J4RPU	28	23,100	152	26	40	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
*JR9NVB	7	6,621,62	281	29	70	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
JH0FUW	A	2,161,614	1764	144	337	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
JAOQW	*	355,028	604	80	147	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
JHEON	28	11,275	85	22	33	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
JR0PJR	21	25,536	123	29	57	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
JEOEHE	*	6,247	61	20	30	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
JEOVJW	3.5	17,600	100	28	53	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
*JIONXA	A	129,440	368	62	98	A61AV	7 390,000	1366	56	184	*OK1KWWJ	10,920	39	15	20											
JAOBMS	*	113,724	310	66	90	A61AV	7 390,000																			

*HA8MD	3.5	132,114	1139	20	77	LY2BOS	*	102,109	406	52	151	*SP4JCQ	"	824,772	1557	107	335	YR7M	"	2,669,651	3758	111	350	(OP: YO3JR)	SPAIN	A	4,448,125	3809	141	484
*HA8CQ	*	4,452	101	7	35	LY2TX	*	92,901	425	40	133	*SP9GFI	"	561,792	1088	78	274	YR7BA	"	686,154	1267	87	270	EAS5FV	EAZ2URD	"	1,632,800	2861	124	323
ICELAND						LY2DX	*	27,720	146	36	90	*SP2DN	"	553,602	1133	82	261	YR9BGV	"	8,694	90	18	36	EA4AKA		"	928,620	1460	75	233
TF3CW	A	922,863	1831	69	214	LY2BNL	*	19,503	103	32	67	*SP6LV	"	506,726	1099	78	263	YR6BHN	14	346,860	1278	36	128	EA1JO		"	515,970	845	84	267
J11NCJ/T/F						LY1DM	*	17,622	216	15	74	*SP9FMU	"	485,482	884	81	270	YR2AOB	3.5	34,385	466	27	55	EA1FD		"	442,555	97	75	230
*TF3GB	A	392,770	1070	49	168	LY2FF	21	11,316	61	28	54	*SP2HPD	"	445,484	995	78	260	YR21	1.8	125,557	1083	22	81	EA2CA		"	124,218	361	51	150
*TF3MA	*	3,724	43	16	22	LY2TE	14	161,280	952	27	85	*SP3ASN	"	433,225	839	73	252	YR21					EA3NB		"	12,260	71	31	54	
IRELAND						LY2LF	*	61,655	404	24	71	*SP6NA	"	383,724	856	84	222	YR2RR	"	15,552	338	7	41	EA3HT		"	154,854	644	31	95
EI4DW	A	531,335	816	79	250	LY3ID	*	38,790	267	23	67	*SP9MZ	"	367,291	722	85	226	*YQ3APJ	A	2,257,668	2267	138	440	EA3AKY		14	637,920	2219	39	121
EI2JD	*	188,160	592	62	183	LY6A	7	210,648	1120	31	103	*SP5LGS	"	313,617	779	75	246	*YQ5CBX	"	319,056	758	74	215	EA7RM	A	3,152,800	2861	124	439	
*EV1SP4Z	A	1,154,550	1785	91	339	LY7A					*SP3DIK	"	293,664	671	74	202	*YQ7LG	"	259,000	599	65	194	EA4NP		"	1,721,937	2062	115	386	
*E1SD1	A	1,075,620	1619	55	166	LY7AC	*	62,604	562	19	75	*SP6REN	"	259,558	520	77	221	*YQ3FRI	"	234,256	480	84	242	EA4DRV		"	1,590,105	2239	97	322
*E17CC	*	62,643	199	48	109	LY1CT	3.5	104,742	930	19	80	*SP3V	"	219,457	414	81	212	*YQ5CRO	"	198,004	492	71	165	EA7TG		"	1,391,688	1763	99	309
*E17JK	*	29,882	215	149	100	LY2GW	*	84,830	862	15	70	*SP6TRX	"	199,515	488	73	210	*YQ4AAC	"	195,803	578	59	200	EA2AZ		"	1,344,688	2071	106	352
*E19ES	*	2,009	45	10	31	LY3CW	*	67,235	709	15	70	*SP7ZB	"	190,896	467	69	177	*YQ8KG	"	149,295	686	42	143	EA7AJR		"	955,240	1392	85	249
*E14CF	28	15,785	109	20	57	LY2FN	*	18,444	401	9	44	(OP: SP4CECS)	"	155,552	338	7	41	EA3HT	28				EA7WA		"	751,365	1425	71	212	
*E19JN	7	89,395	269	8	45	LY2OU	1.8	6,740	175	8	37	(OP: SP8AIC)	"	117,208	385	57	139	EA2BNU					EA2BNU		"	727,583	1187	81	256	
IR7G	A	4,456,917	3697	150	471	LX1NO	A	129,087	440	59	130	LUXEMBOURG		94,830	400	45	129	EA2PA		659,543	1518	71	222	EA2PA		"	16,929	318	81	256
IO1N6CY	*	580,320	931	98	262	LX1JH	*	51,207	234	39	130	*SP3OL	"	177,475	424	64	165	EA2TMA					EA2TMA		"	388,800	710	76	244	
IK2LUCK	*	472,056	747	85	227	LX1RQ	*	16,896	104	28	68	*SP9DX	"	175,294	578	56	174	EA2PQ					EA2PQ		"	91,125	243	39	64	
IV3RLB	*	45,580	392	21	85	LX1KC	7	11,396	119	16	61	*SP9LAS	"	145,644	386	62	150	*YQ8RFS	"	30,459	233	36	107	EA5EOH		"	243,651	439	72	169
IO2A	*	39,114	173	46	113	(OP: K2RZP)					*SP9FT	"	126,166	364	53	146	EA1CXH					EA1CXH		"	212,298	505	57	189		
IK1WEG	*	100	34	8	20	Z32AF	3.5	36,982	354	15	67	*SP7FAH	"	120,802	352	62	147	EA3SEF					EA3SEF		"	137,144	383	61	156	
IU3X	21	491,508	1394	35	127	(OP: V3K3Q)	*	41,210	636	10	55	*SP3JUN	"	112,012	354	48	116	*YQ7AWZ	"	28,457	229	37	106	EA7CWA		"	131,502	328	58	144
IK2AOO	*	44,737	264	22	61	MACEDONIA					*SP9HJW	"	104,228	259	51	91	*YQ7ARZ	"	1,104	22	10	13	EA4TWA		"	131,502	328	58	144	
IK0YUT	14	52,164	494	15	48	Z32AF	1.8	55,104	458	19	77	*SP9DQY	"	101,430	313	46	101	*YQ7LYM	"	1,014	56	14	25	EA40A		"	31,242	166	40	87
IU3X	*	491,508	1394	35	127	(OP: V3K3Q)	*	55,104	458	19	77	*SP9GK	"	99,050	194	17	58	*YQ8RIX	"	1,044	56	12	27	EA1AUS		"	99,044	121	41	85
IK2AH	*	35,530	303	17	68	NETHERLANDS					*SP2AYC	"	96,695	227	54	19	*YQ3JW	28	5,060	57	14	30	EA3AXM		"	16,929	122	27	72	
IK2AR	3.5	108,066	1153	17	66	PA3AV	A	1,756,950	2192	113	397	*SP6NE	"	93,526	269	64	138	*YQ9AG1	21	75,544	399	29	81	EA3AXM		"	16,929	122	27	72
*I4EWX		786,361	1142	98	303	PA5TT	*	768,587	896	113	380	*SP3HC	"	86,320	365	45	121	*YQ6EZ	"	8,250	117	15	40	EA4IE		"	10,787	92	21	46
*IB2BD	A	419,040	814	93	267	PA0OLU	*	515,352	878	100	294	*SP3DSC	"	74,185	390	50	135	*YQ4AH	"	6,519	82	15	38	EC3CJN		"	7,519	88	22	51
IK4UHN	*	358,785	640	76	239	PA5KT	*	409,676	952	81	211	*SP3XR	"	70,839	322	39	114	*YQEX	14	88,250	604	29	88	EA5OB		"	64,578	254	89	122
*IK2SN	*	169,890	645	53	153	PA4AT	*	112,424	270	58	130	*SP9BJ	"	56,154	295	37	110	*YQ8BIG	"	87,714	695	22	77	(OP: A5OB)		"	156,844	515	57	169
*IK1YLL	*	163,750	418	69	193	PA2P	14	282,480	964	37	128	*SP9DQY	"	54,014	194	33	70	*YQ4BBH	"	31,463	283	21	64	EA3CWT		"	6,970	120	29	56
*IK3ORD	*	145,934	363	72	190	PA5WT	7	55,104	458	19	77	*SP9GK	"	52,390	185	42	127	*YQ9RJ	"	6,351	66	31	56	EA4CRP		"	16,929	122	27	72
*IK2AIT	*	116,242	401	46	115	PA0BLW	*	18,544	194	17	59	*SP1R0Z	"	49,612	278	40	117	*YQ2DLCW	7	68,432	537	25	79	EA4WD		"	16,929	122	27	72
*I2A2Z	*	82,967	333	41	122	*PA3BFH	A	64,497	1236	80	297	*SP4AAZ	"	45,600	272	50	150	*YQ2ZJC	"	49,632	422	20	74	EA1DMY		"	5,073	77	16	41
*IK5TUZ	*	63,794	302	45	122	*PA0ADP	A	444,664	957	81	260	*SP1DTG	"	41,888	135	52	102	*YQ8PPV	"	27,544	248	21	67	EA2AHZ		"	12,512	305	35	127
*IN3ZWF	*	49,300	297	31	114	*PA3EMN	*	41,524	324	81	252	*SP2MKI	"	19,594	107	35	66	*YQ7TQ	"	17,827	231	50	74	EA1CRL		"	1,920	37	11	19
*I2ZEUU	*	20,634	107	40	74	PA0LSK	*	21,632	158	28	76	*SP5CN	"	17,132	59	36	56	*YQ8BTW	"	1,620	256	37	7	EA1CEC/1		"	1,581	17	10	23
*IK3OII	*	18,540	126	41	62	PA1BX	*	15,771	244	35	112	*SP2KJF	"	14,103	241	37	101	*YQ1BU	"	2,562	321	71	55	EA1DFP		"	1,518	17	10	23
*IK2SAE	*	15,552	104	32	64	PA1HGX	*	14,208	113	30	66	*SP2PLD	"	9,744	28	49	14	*YQ2LGW	"	1,972	59	6	28	EA3GE		"	7,90	112	29	50
*IK2SYE	*	5,025	51	28	39	PA2ACQ	*	4,995	76	17	53	*SP6BSL	"	5,561	37	30	37	*YQ3PL	"	4,022,925	1962	78	267	EA1BRB		"	6,314	101	23	54
*IK2SE	*	1,037	29	8	9	PA0RRS	21	43,992	227	23	71	*SP2AVE	21	84,478	382	31	95	*YQ3UW	14	11,440	216	128	50	EA2RA	28		55,186	409	19	63
*IZZFWG	*	416	22	9	17	PA1XKA	*	14,145	92	20	49	*SP3AL	"	4,002	28	22	10	*YQ3UW	14	11,440	216	128	50	EA4WD		"	16,929	122	27	72
*IK0VAQ	*	198	6	5	6	PA4GI	14	14,014	39																					

*SM3D	"	117	8	6	7	*YU8/OK1CRM	*	505,254	1166	82	239	*LU4HKN	*	57,015	345	23	40	KG5U	"	210,154	364	75	163	RZ6HX	"	107,457	481	32	97	
*7S7V	14	166,500	618	36	114	*YU7AM	*	480,004	842	82	234	*LU8ADX	3.5	864	18	11	13	EA2CAR	"	206,448	373	72	200	J1IAQY	"	98,208	404	31	68	
*SM3JUR	7	10,416	107	16	46	*YU1ED	*	68,322	255	46	131	*ARUBA	*	205,842	581	39	135	UA9MZ	"	96,480	472	20	60							
*SM5AOI	3.5	2,300	66	6	32	*YU1JW	*	14,464	213	34	94	*ARUBA	*	195,567	606	49	170	SP9H	"	91,728	347	30	87							
*SWITZERLAND	"	"	"	"	"	*YU7Z	21	80,228	337	31	93	P40Q	A	10,597,877	6404	141	448	K7ZD	"	86,536	282	32	84							
HB9CPS	A	"	"	"	"	(OP: YU7EUE)	"	"	"	"	P43JB	21	176,015	743	26	81	I0ZUT	"	178,294	439	62	177	JT1RNK	"	61,337	303	25	58		
HB9APJ	A	362,260	751	67	240	*YU1RA	*	192,172	973	25	82	P40J	7	936,720	2465	33	111	I1BAY	"	170,522	551	63	190	W9JWU	"	49,653	205	24	83	
HB9IQB	14	167,314	715	32	101	*YU1IG	*	158,873	551	33	110	*ARUBA	*	156,524	283	65	153	K4ORD	"	44,240	236	23	56							
*B9CF	A	1,123,402	176	107	299	*YU1EL	*	130,698	504	32	105	*ARUBA	*	145,842	277	64	154	JL3SBE	"	32,682	178	21	57							
*B9ARF	"	904,285	1196	103	312	*YU1HH	*	27,141	200	23	60	*BRAZIL	*	142,847	500	44	170	EW6CU	"	30,189	206	23	64							
*B9DCM	"	582,912	814	109	305	*YU1EZ	*	18,928	473	30	82	P2T2ZEG	A	39,298	194	35	63	JM2RUV	"	28,211	146	29	54							
*B9HDX	"	90,246	456	33	136	*YU2AA	14	489,372	1783	37	119	PS2E	28	415,758	1106	34	99	J7TRIT	"	24,336	168	27	51							
*B9HAU	"	7,344	66	26	42	*YU2W	7	515,732	2204	35	128	PS2T	14	994,004	2237	36	126	M0O	"	20,706	194	17	41							
*B9CBR	14	45,632	234	69	"	"	"	"	"	"	(OP: YU7TTE)	"	"	"	"	(OP: PY2NUY)	"	"	"	"	(OP: G4JZO)	"	19,672	156	22	53				
UKRAINE	"	"	"	"	"	*4N1FG	*	508,680	1975	32	125	PX2A	21	365,864	861	38	114	ES1CR	"	14,250	112	18	32	EA1BP	"	15,180	129	15	31	
UV5U	A	2,001,926	1976	141	430	*YU1LA	*	228,816	1064	31	113	PY7ZY	7	349,568	1032	29	99	WA6FGV	"	12,916	422	41	141	W5LDR	"	11,874	144	22	52	
UY5HF	"	1,174,500	1402	120	402	*YU1Y	*	107,734	640	23	95	PY3DX	A	430,650	635	90	185	KR20	"	16,796	91	17	51	NO8C	"	15,180	129	15	31	
UY5ZZ	"	888,000	1226	131	259	*YU7HC	3.5	30,515	289	17	68	PY5BLG	*	336,564	76	18	120	KA1O1	"	13,374	358	60	166	GU4YBW	"	11,826	118	14	40	
UR60S	"	857,120	1293	108	332	*YU2A	*	11,214	138	12	51	PY3OL	*	296,370	468	83	184	E1AFO1	"	10,742	649	52	162	F5VBT	"	10,927	132	16	33	
US5II	"	777,096	1024	122	380	*YU2W	*	159,430	1152	21	86	PY7GK	*	167,528	434	57	115	HB9AYZ	"	10,468	442	43	144	BD4ALC	"	8,112	81	19	29	
UT2UB	"	651,744	1110	107	331	*YU1BN	*	23,622	373	10	52	PY7EG	*	160,083	427	51	96	J7AJNF	"	10,432	241	52	142	NOH6PV	"	6,383	66	18	29	
UT4EK	"	611,292	986	93	270	*YU1RA	1.8	25,515	417	9	54	PY7EB	*	138,075	311	61	114	OK1O1	"	10,080	223	67	123	OK1O1A	"	4,639	54	19	30	
UT5ECZ	"	216,916	620	59	195	*YU1AST	*	8,976	217	6	38	PY7PB	*	97,410	238	56	114	RX9JM	"	9,047	277	31	115	Y04ATW	"	3,234	44	11	22	
UT7NY	"	132,924	745	31	128	*YU1Y	*	508,680	1975	32	125	PY7P7C	*	68,607	287	42	129	DL1LAW	"	9,520	482	34	147	DUI5DT	"	1,462	36	7	10	
UT8JL	"	56,924	298	32	101	*YU1Y	*	107,734	640	23	95	PY7PW	*	26,536	139	39	68	KL7GN	"	9,368	261	54	157	I21DBY	"	3,30	18	3	8	
UT9LJ	"	39,295	163	45	100	*YU1Y	*	107,734	640	23	95	PY7VW	*	19,598	164	36	146	ES1CR	"	10,455	470	44	171	W5LDR	"	15,180	129	15	31	
UR5IAW	21	294,600	1226	35	115	*VK1KI	A	5,137,178	3622	161	352	PY7BRZ	*	11,952	173	12	16	EA1GT	"	11,645	442	43	148	EA1GT	"	13,956	609	31	101	
UV5WW	"	110,998	534	32	95	*VK4BU1	*	178,996	241	90	202	PY7HR	*	12,155	100	31	54	DK1MAX	"	12,720	507	31	108	OK2WB	"	11,050	504	27	93	
UWF5F	14	305,456	1269	31	105	*VK7GM	*	43,648	195	40	48	PY7VH	*	6,516	57	22	26	ES1U	"	10,455	239	46	137	OK2JFF	"	10,455	544	29	86	
UU1JO	"	16,605	186	18	52	*VK2CZ	28	15,540	95	24	46	PY7VW	*	1,1	2	2	2	H3N3U	"	10,455	239	46	137	OK2JFF	"	10,455	544	29	86	
UT4ZG	3.5	75,050	771	16	63	*VK6LW	14	1,055,835	2336	39	126	PY4CEL	28	39,748	211	24	52	ES1AU	"	10,455	239	46	137	OK2JFF	"	10,455	544	29	86	
US2WU	"	70,406	665	21	86	*VK6DXI	3.5	103,140	487	25	65	PY4CEL	*	11,592	173	12	16	EA1GT	"	11,646	336	36	108	DL1DQY	"	10,455	239	46	137	
UX7IA	"	56,120	484	20	72	*VK2MM	A	62,160	782	95	197	PY4CEL	*	8,548	66	18	36	CL3HJ	"	11,672	196	62	177	DL2MR	"	12,362	423	21	76	
UR4ZWL	"	43,384	572	12	56	*VK2NU	*	391,552	535	92	124	PY4CEL	*	10,327	372	27	77	LA2MOA	"	11,672	196	62	177	LA2MOA	"	11,672	196	62	177	
UT7NY	"	18,323	184	19	54	*VK2GR	*	111,162	298	67	124	PY4FQ	*	9,156	428	26	58	LY4BF	"	10,456	442	43	144	LY4BF	"	8,112	81	19	29	
UY0ZG	1.8	45,372	547	12	64	*VK3DBQ	*	27,474	139	45	69	PY4FQ	*	10,327	372	27	77	UR6C	"	10,456	442	43	144	UR6C	"	8,112	81	19	29	
UR3HC	A	1,657,436	1777	132	424	*VK3YB	*	8,064	64	26	38	PY4FQ	*	11,562	98	19	28	W3Z2M	"	10,456	442	43	144	W3Z2M	"	8,112	81	19	29	
UT2UZ	"	1,029,000	1230	155	375	*VK4AN	21	96,390	281	30	96	PY4MVL	*	1,959	41	9	16	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UY1VG	"	942,208	1021	125	315	*VK4DX	14	138,496	390	32	96	PY4MVL	*	1,136	35	117	117	T93	"	10,456	442	43	144	W3Z2M	"	8,112	81	19	29	
UY1VG	"	712,391	1541	26	45	COCOS-KEELING ISLAND	A	5,341,410	3548	137	405	PY4MVL	*	100	13	33	109	W3Z2M	"	10,456	442	43	144	W3Z2M	"	8,112	81	19	29	
UY1VG	"	11,470	107	24	50	*AH0Z	3.5	98,766	751	21	33	PY4MVL	*	1,799,444	1847	38	119	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UT3FM	21	141,960	578	30	100	*KH6NOCO	A	64,630	241	53	62	PY4MVL	*	504,668	1317	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UX5EF	"	56,487	285	28	80	*AH6HH	*	47,594	176	48	58	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UX3HA	"	12,739	163	14	40	*KH6FI	*	18,837	82	43	48	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UT5TGF	14	275,710	1088	35	123	INDONESIA	A	1,492,504	311	24	64	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UY5LO	"	118,008	842	24	76	*VE0X	3.5	58,872	311	24	64	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UT7OK	"	101,280	718	18	78	MARSHALL ISLANDS	A	235,320	609	78	81	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UY6IM	3.5	24,344	307	20	80	NEW ZEALAND	A	281,939	443	102	172	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UR5IKN	"	26,676	235	13	63	ZL2J	*	152,272	271	93	155	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UR8OR	"	18,239	302	9	52	ZL2BR	7	417,571	1274	30	89	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29	
UT1FA	1.8	29,504	461	10	54	ZL2TE	*	97,903	803	120	104	193	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,112	81	19	29
USAEX	"	23,838	422	8	50	ZL2WDX	*	229,008	611	50	106	PY4MVL	*	1,736	21	33	109	PA1RE	"	10,456	442	43	144	PA1RE	"	8,1				

K1MZ	•	338,365	429	76	219	K5UN	•	833,310	846	123	347	ASIA	F6IRF	7	644,112	2106	36	132	S53AU	•	33,536	108	46	85
K1NU	•	322,870	311	103	286	K5AF	•	559,404	626	101	278	ASIATIC RUSSIA	TM2S	•	96,466	512	31	108	S51FB	21	402,480	1192	37	119
K1BD	•	294,752	403	75	227	N5BO	•	471,549	639	91	146	(OP: UA9AM)	DJ5MW	A	3,044,964	3513	165	599	S50R	•	337,976	977	37	129
NC1N	•	231,312	364	67	170	KU5S	•	206,700	266	99	201	(OP: UA9AM)	DJ3GI	•	3,249,372	2367	165	542	S53M	7	581,525	2011	37	138
K1TW	•	225,071	319	70	189	N1CC/5	•	176,252	291	79	199	(OP: UA9AM)	DJ2YA	•	2,125,088	1500	161	555	(OP: S53ZD)					
W1HR	•	216,550	64	83	222	K5LP	•	148,740	200	95	173	RG9A	A	3,455,097	2110	144	485	DJ9ZD	•	1,723,898	1734	139	478	
						(OP: K10X)	K5HDU	•	54,600	145	53	103	RK9CWV	21	520,133	1315	34	129	EAT7TN	A	1,460,700	1577	114	426
N1AU	•	162,526	257	73	174	NE0P/5	•	47,655	141	52	83	(OP: RA9CMO)	DJ1MGB	•	1,055,232	1034	126	386	SPAIN					
K1AE	•	125,994	190	74	179	N5TJ	•	24,522	78	48	74	(OP: RA9CMO)	EA3GM	•	632,271	1200	93	326	(OP: EA1AK)					
KV1J	•	103,917	216	65	136	AC5AA	•	7,280	47	25	40	(OP: RA9CMO)	EA4KD	•	541,683	709	103	330						
N1AP1	•	63,448	172	48	106	N9RQ/5	•	5,145	40	13	36	(OP: RA9CMO)	EAV5N	•	64,368	215	46	98						
W1NK	•	10,530	51	29	49	N5ER	7	30,870	157	22	68	(OP: RA9CMO)	FA1FB	•	49,680	315	36	108						
W1MAT	•	7,345	48	27	38	NA4M/5	3.5	4,704	40	15	33	(OP: RA9CMO)	FA5RS	14	613,645	1853	38	147						
W1AWB	•	5,475	44	33	42							(OP: RA9CMO)	FA2YD	7	1,924	55	11	26						
K2NG	A	3,522,717	1682	170	613	N6WS	A	1,334,647	948	156	385	(OP: RA9CMO)	FA5BY	3.5	170,520	897	31	109						
W2RE	“	2,972,365	2001	135	470	W6T1	“	1,227,172	999	143	339	(OP: RA9CMO)	FA5FID	•	67,770	602	16	74						
N1EU/2	“	2,875,640	1564	52	518	K16T	“	883,535	842	128	287	(OP: RA9CMO)	FD2UU											
N2MM	“	2,269,326	1527	143	474	W76G	“	697,694	683	126	272	(OP: RA9CMO)	FD6QV											
N02R	“	2,173,444	1284	142	495	K6RIM	“	542,916	628	130	266	(OP: RA9CMO)	DL4FAY											
NA2U	“	1,944,075	1269	134	441	N6DA	“	469,216	511	101	240	(OP: RA9CMO)	DL8NFU											
N2ED	“	1,920,696	1452	136	437	W6KJ	“	306,464	380	105	209	(OP: RA9CMO)	DK3QJ											
W2EN	“	1,759,835	1241	134	405	N6VH	“	304,977	409	94	183	(OP: RA9CMO)	DL6YR											
W1GD/2	“	1,443,344	994	123	403	N6LT	“	290,019	343	119	230	(OP: RA9CMO)	DK3WN											
K2SG	“	1,341,198	109	116	371	N6IC	“	274,131	386	97	200	(OP: RA9CMO)	DK3WS											
K2TE	“	1,322,692	1030	115	372	K6GT	“	213,980	323	93	167	(OP: RA9CMO)	DK4RN											
W2CG	“	1,176,946	1001	114	349	N6QO	“	175,392	344	80	172	(OP: RA9CMO)	DK4LW											
W2GDJ	“	1,013,592	823	116	355	K6EP	“	161,188	257	85	151	(OP: RA9CMO)	DL8QS											
K2EP	“	974,398	855	103	319	K6OWL	“	150,288	331	73	113	(OP: RA9CMO)	DK4TJ											
K2SB	“	772,926	689	111	351	W0YK/6	“	78,772	172	67	121	(OP: RA9CMO)	DK4ZU											
K2GN	“	682,500	688	92	292	K6DW	“	34,200	111	43	71	(OP: RA9CMO)	DK4ZV											
K2XF	“	615,445	588	101	314	W6L5O	“	20,274	76	42	67	(OP: RA9CMO)	DK4ZW											
N2AB	“	612,122	696	71	251	K6DGW	“	7,378	52	24	38	(OP: RA9CMO)	DK4ZY											
K2AD	“	573,650	571	88	296																			
K2NP	“	514,285	527	93	272	W7GG	A	1,438,421	1397	144	249													
N2NI	“	358,772	404	92	257	KY7M	A	911,078	880	120	293													
N1JF/2	“	346,112	419	93	245	K7GO	“	549,120	589	116	236													
N2CO	“	258,189	73	73	194	W7CT	“	455,406	588	93	201													
WK2H	“	247,968	868	69	219	K7ABV	“	357,434	471	91	200													
AJ3K/2	“	221,709	324	77	204	N7OR	“	271,946	430	70	157													
W2RD	“	183,376	239	95	219	W6SA/7	“	255,636	416	91	152													
K2BX	“	170,269	267	66	187	W7SW	“	208,116	350	91	155													
WA2PIP	“	154,377	252	83	207	W4IMA/7	“	181,222	298	78	173													
N2FF	“	119,706	222	55	158	W7VP	“	178,620	359	73	156													
NJ2OM	“	114,480	230	65	151	KU7J	“	89,024	212	57	142													
AA2GF	“	61,359	156	58	123	N7JB	“	14,625	73	33	42													
N2SS	“	50,711	122	53	104	WU9B/7	“	10,250	66	31	51													
W2NRA	“	11,664	60	19	53	AB7CF	“	1,107	17	11	16													
KF20	“	513	10	9	10	W7ZR	21	124,371	431	31	86													
K8IA/7	7	346,164	874	36	120																			
K3WW	A	4,435,981	252	154	517	N8BQJ	A	1,727,372	1144	134	418													
K3PH	“	3,689,206	1668	136	462	N8BQJ	A	1,075,804	862	106	343													
K02F	“	2,658,225	1701	130	445	N8RA	“	1,075,804	862	106	343													
W2UP/3	“	2,640,330	1697	128	456	K5ZC/G	“	58,432	153	58	108													
W3V1	“	2,204,140	1483	122	425	WC9VOA	“	48,216	192	49	115													
N3AM	“	2,167,452	1405	135	429	AB8SC	“	9,520	66	24	44													
WE3C	“	1,792,752	1102	153	510	K8C	“	4,559	39	19	28													
W3GG	“	1,623,942	1217	121	401	KM4YY/8	“	3,360	76	20	50													
K3ND	“	1,399,080	994	129	409	K9ORJ	“	81,288	152	73	136													
N3NQ	“	1,397,925	1012	124	389	N9CKX	“	35,128	152	73	136													
K3SV	“	1,249,759	997	124	367	N9QJ	“	35,612	152	73	136													
K3CP	“	1,252,444	524	87	251	N9QJ	“	9,880	52	29	47													
W3E3A	“	425,722	435	96	311	K9PG	“	28,050	317	34	108													
W3E4A	“	295,596	356	96	261	W9VA	14	123,824	317	34	108													
A3YY	“	230,124	301	60	194	N9AU	7	122,400	304	35	115													
N3KN	“	206,916	301	60	194	K9JC	“	107,640	324	31	99													
K3UW	“	135,585	254	54	153	N9OJH	“	24,554	314	86	230													
WA3RHW	“	89,199	217	56	131	W7OP	“	26,378	107	39	70													
K4KTD	“	67,944	120	52	117	KOOF	“	510,354	585	100	251													
W4NZ	“	57,967	152	52	117	KOOF	“	185,280	472	61	179				</									

N4RV	4,143,328	2237	155	543	OH7MM	FINLAND	6,284,820	3945	173	572	N3RS	9,921,186	4878	175	626	
K4JLD	1,633,023	1195	133	396	OH5Z	FRANCE	4,808,790	3318	174	591	W3PWP	4,187,709	2458	155	544	
W5VX	2,362,912	1469	159	497	F6KHM	FRANCE	2,310,741	2312	119	430	K4JA	12,901,632	5737	182	674	
W6RAO	511,920	634	115	245	F6KAR	FRANCE	2,236,928	2510	121	393	N4WW	5,658,241	3177	166	561	
W6YRA	14,300	80	42	58	F6KJX	FRANCE	370,527	903	86	253	W5KFT	4,260,454	2589	167	515	
W7VJ	2,423,673	1781	150	377	F5NCU	GERMANY	326,349	1109	61	182	W6YI	5,561,792	3084	181	507	
K8AZ	5,732,240	2864	175	615	DF3CB	GERMANY	5,739,976	3530	178	658	W6YX	3,104,244	2005	160	434	
N8PR	1,916,145	1390	137	416	DK3DM	GERMANY	4,075,088	3085	160	592	W6OAT	2,772,972	1723	171	441	
N9AG/8	1,667,012	1087	146	450	DK0BN	GERMANY	2,800,182	2594	144	483	W6FA	736,560	786	129	243	
WN9O	2,307,285	1508	154	479	DL4WA	GERMANY	1,299,408	1915	104	324	W8AV	4,636,816	2622	161	555	
N0NI	3,516,498	2017	169	525	DF0CI	GERMANY	1,029,680	1277	120	368	W8ZA	1,581,440	1115	136	424	
KT5E/0	1,304,317	1548	121	268	DL0IT	GERMANY	875,145	1298	141	474	K0RKF	2,986,901	2363	153	418	
4U-UNITED NATIONS																
4U1UN	863,902	1886	72	151	HG1S	HUNGARY	7,440,275	4875	180	649	V31RM	7,452,504	6664	142	392	
VP2VVV	BRITISH VIRGIN ISLANDS	637,296	1173	73	HG1R	HUNGARY	1,612,254	2873	112	371	VP9I	7,398,003	5790	123	450	
CANADA																
VE7GL	3,738,515	3565	150	355	EI7M	IRELAND	5,090,005	4510	139	516	VP9I	7,412,000	4915	155	525	
VE7UF	2,786,952	3110	133	291	VE7JF	IRELAND	5,691,996	3973	170	604	VE7SCC	487,278	1218	84	123	
VO2AAA	2,598,638	3168	104	315	IR2R	ITALY	5,342,382	3681	174	605	J7OJ	8,873,865	7597	148	443	
VE6AO	1,944,052	2479	109	265	IO3GA	ITALY	279,360	895	79	212	WP5W	TURKS & CAICOS ISLANDS	8,828,424	7292	142	426
VE20J	2,560	136	4	6	IR3J	ITALY	206,180	821	41	128	WP2Z	U.S. VIRGIN ISLANDS	12,582,528	8625	161	511
MONTSERRAT																
VP2MZM	6,772,428	5972	134	388	RW2F	KALININGRAD	7,225,119	4583	196	705	RT9W	13,556,710	6403	178	637	
PUERTO RICO																
KP4US	3,766,020	3991	125	335	LX7I	LUXEMBOURG	6,214,453	4849	162	587	UA0AZA	8,763,748	5291	176	557	
AFRICA																
C91F	1,299,800	1551	93	242	Z37CXY	MACEDONIA	1,015	17	13	16	CT9L	MADEIRA ISLANDS	22,157,172	10275	165	607
ASIA																
ASIATIC RUSSIA																
UA9AYA	10,647,435	5048	182	613	PI4D	NETHERLANDS	2,490,384	2689	130	484	RT9W	13,556,710	6403	178	637	
RY9YC	8,225,890	4433	172	608	PI4CC	NETHERLANDS	2,442,168	2640	138	496	UA0AZA	8,763,748	5291	176	557	
RZ9OZO	5,879,700	3399	162	543	SP1YCL	NORWAY	4,383,083	4060	160	567	B1Z	439,990	1227	82	148	
RK9UW	2,143,632	2179	111	315	LN8W	NORWAY	159,464	474	59	189	YI9KT	2,313,383	2276	90	299	
RK9AWN	1,796,000	1605	108	341	LA2AB	ROMANIA	175,801	509	58	203	JA8RWU	5,536,020	3638	176	412	
RZ9WXK	1,041,656	1163	77	279	OM7MT	ROMANIA	9,028,838	4924	202	729	JA1ZLO	3,643,656	3187	145	326	
RZ9UWZ	635,700	877	79	246	OM8MA	ROMANIA	8,877,313	5035	194	699	JF3GKE	1,975,652	1557	155	363	
AZERBAIJAN																
4K7Z	2,333,019	2176	113	376	SP6KFA	POLAND	274,364	962	49	177	RT9W	5,536,020	3638	176	412	
JAPAN																
JA7YAA	4,145,097	2593	184	443	SP1YCL	NETHERLANDS	10,950	59	33	42	YI9KT	2,313,383	2276	90	299	
JE1ZWT	3,612,245	2534	175	420	SP3KPN	NETHERLANDS	1,639	30	17	27	JA8RWU	5,536,020	3638	176	412	
JAZ2JW	2,256,815	2208	135	272	SK6AW	NETHERLANDS	4,046,400	4440	181	643	JA1ZLO	3,643,656	3187	145	326	
JA1YPA	1,120,240	1431	105	230	SK6AW	NETHERLANDS	1,035,134	2120	81	268	K3LRL	15,170,944	6222	198	730	
JO1ZIW	87,010	250	53	101	SK6AW	NETHERLANDS	475	27	7	18	W3PLP	15,047,008	6687	190	712	
JA1ZGP	4,578	41	20	22	SK6AW	NETHERLANDS	1,939,920	2598	111	361	K1CXX	13,408,500	6069	185	690	
KAZAKHSTAN																
UO1P	1,946,490	1575	121	362	SK6AW	SLOVAK REPUBLIC	8,046,400	4440	188	668	K1TTT	9,651,102	4266	174	648	
KOREA																
6L0NJ	31,373	501	64	73	SK6AW	SLOVAK REPUBLIC	6,782,344	4297	181	643	K1TTT	9,651,102	4266	174	648	
MALDIVE ISLANDS																
8Q7DV	9,244,364	5255	165	541	SK6AW	SWEDEN	5,655	146	6	33	K1TTT	9,651,102	4266	174	648	
MONGOLIA																
JT1JA	3,885,056	3809	138	374	EA1CS	SWEDEN	165,189	550	56	181	K1TTT	9,651,102	4266	174	648	
EUROPE																
4U1VIC	4,280,214	4157	146	496	HE3RSI	SWITZERLAND	1,835,780	2981	103	277	RU1A	13,021,632	7154	208	728	
OE2S	6,453,202	4691	177	641	HK90K	SWITZERLAND	1,035,134	2103	81	268	ES6Q	8,842,550	6368	184	666	
OE4A	5,187,704	3884	173	605	DU1YVZ	SWITZERLAND	316,404	789	68	238	ES1A	2,624,407	3000	145	508	
EA6IB	11,026,533	6705	194	709	UR4LWV	SWITZERLAND	308,484	618	83	259	DK6WL	5,376,585	4077	173	622	
BELGIUM																
OT4L	4,529,910	3452	160	582	USQSO	SWITZERLAND	97,149	290	45	114	DK6WL	4,505,952	4002	161	587	
OT4P	1,178,360	2285	109	336	DU1YVZ	SWITZERLAND	475	27	7	18	DL7IO	3,589,040	3483	155	525	
ON4BBD	1,738,400	1488	84	289	DU1YVZ	SWITZERLAND	1,233,765	2252	77	170	DL0A0	1,516,250	1472	140	485	
OCEANIA																
9A1P	5,342,870	4041	170	560	AH2R	GUAM	7,103,700	5279	188	512	DL0KFF	728,128	5075	165	607	
9A6C	48,825	695	15	60	PI4D	GUAM	10,283,700	5279	188	512	DL0KFF	728,128	5075	165	607	
CZECH REPUBLIC																
OK5W	6,691,264	4047	192	680	YB0ZZ	INDONESIA	2,235,522	2099	112	290	IR4X	12,791,640	7226	193	695	
OL3A	5,554,172	3910	173	620	ZM1A	INDONESIA	5,590,774	4181	141	377	GJ2A	7,638,274	6811	150	571	
OL7R	4,960,460	3519	157	611	PHL95	INDONESIA	669,515	1218	88	147	LY4A	4,234,005	3912	162	549	
OL3Z	1,743,665	2389	129	410	DX1DBT	INDONESIA	307,130,273	3496	138	404	LY4A	4,234,005	3912	162	549	
OL1C	1,678,066	2183	120	346	DU1YVZ	INDONESIA	1,233,765	2252	77	170	DU1YVZ	5,949,216	5064	166	562	
OK1KDO	1,023,780	1456	120	346	DU1YVZ	INDONESIA	1,233,765	2252	77	170	DU1YVZ	5,949,216	5064	166	562	
OL2J	965,440	1687	97	334	DU1YVZ	INDONESIA	1,233,765	2252	77	170	DU1YVZ	5,949,216	5064	166	562	
OL1P	689,850	1372	82	268	DU1YVZ	INDONESIA	1,233,765	2252	77	170	DU1YVZ	5,949,216	5064	166	562	
OL2A	446,400	756	88	222	DU1YVZ	INDONESIA	1,233,765	2252	77	170	DU1YVZ	5,949,216	5064	166	562	
OL9S	224,238	594	67	199	DU1YVZ	INDONESIA	1,233,765	2252	77	170	DU1YVZ	5,949,216	5064	166	562	
OK5SWL	6,069	74	15	36	DU1YVZ	INDONESIA	99,273	273	77	170	DU1YVZ	5,949,216	5064	166	562	
ENGLAND																
G6PZ	5,763,352	4331	161	615	P40L	ARUBA	13,592,412	6690	169	578	LA1K	135,519	549	43	156	
M2A	2,735,775	3214	135	444	P40L	ARUBA	13,592,412	6690	169	578	LA1K	135,519	549			

EM1HO put Antarctica on the map for the contest.

ULTI-OPERATOR ULTI-TRANSMITTER

		LITHUANIA		
LY7A	6,915,660	5914	173	617
		SCOTLAND		
GM5A	10,975,578	8518	172	645
		UKRAINE		
UV2L	2,979,880	3251	144	488
		OCEANIA		
		FJII		
3D2XA	12,659,168	7408	178	430
		NEW ZEALAND		

CHECK LOGS

The following stations submitted check logs, which are always appreciated. Thank you:

L1DX, L5H3K, 81RPRN, 9Y4TB (DL4MEH),
35R3K, AK70, D4AC, DJ3VC, DJ6NL, DH1DR,
DL1DVN, DL1LRA, DL1TH, DL2CL, DL2HM,
DL3CF, DL3JON, DL3KVR, DL5DW, DL5MRH,
DL7VAF, DL7VMM, DL9RN, EA1BYA, EA1CBX,
EA1RCO, EA3DU, EA5BCX, EA6/DH5CM, ER2CQ,
EL8MD, HA0KLKU, HA5OAT, HZ1V, HB9LDO,
IP1/DM6LY, JE3KXT, JH9QOL, K4EU, K4TRH,
K5WW, K9WUJ (W9CGC), KFCV3, L4B7A,
LA4YJ, LA5DF, LA8HG, LA9TJA, LBBCA,
Y2DU, LY2VG, LZ1LH, LZ1ND, LZ1XL, MOBLF,
N1INN, N5NA, O9B2CD, OHN5H, OHNZP, OK1DMP,
OK1DSU, OK1GS, OK2BV0, OM4KW, PA0DVM,
PA0DVB2, PYU2, RA0N3D, RA3TS3, RA6YD3,
RA6YJ, RA9MX, RD3DK, RK3J, RK3TT,
RK3WVA (RA3WDK), RA6SU, RV100, RV13,
RV13DT, RV3ML, RV6ASU, RW1Z23, RW3V7,
RW4W9N, RW4WF, RS4XAH, RX3DFV, S4XW,
S2320V, RZ3TXY, SW46 (SM6PBV), SK5PZP
(SM5APS), SMOXG, SM5APS, SEMENX,
MF5UG, SM5INC, SM5NDI, SM6BWQ, SM6CDN,
SN17 (SP7PS), SO90 (SP99), SP2DWA, SP2E2E,
P4DZT, SP2FK, SP3BPV, SP3E, SP3LCP,
SP2FBV, SP2FV, SP3BPV, SP3E, SP3LCP,
SP4PZT, SP5VBF, SP5YD, SP5YD, SP5YD,
SP6PJ, SP6YF, SP7HOV, SP7HO, SP7XKJ,
SP8HDJ, SP9KAG, SP9MJD, SO1EID, SO2AJ,
SO4CUM, SO5TA, SO9CAO, SV5DZK, UO4CA,
UO4ZAM, UA1AIR, UA1NFA, UA1TRG, UA3AVR,
UA3DCW, UB3SWB, UB3UW, UA4NN, UA4WLI,
UA6ACP, UA9XK, UR5WCW, UT3NF, UT7UJ,
UO1UJO, U1JO, U2JA, UX1L, VE3IO, UT7UJ,
W4MY, WL7NG1, W8UE, YO3F, YO6ADW,
YO8BDW, YU7FW.