

Results of the 2012 CQ WW DX CW Contest

BY RANDY THOMPSON,* K5ZD

The 2012 CW World-Wide DX Contest CW once again delivered the magic of wireless communication to all participants. Reading the comments in the 7,227 logs submitted, it seems that it was the best weekend of radio ever, or the most difficult. I guess it all depends on where you were and what times you were on.

A solar belch in the form of a CME impacted the Earth just as the contest was beginning. Europe and the northeast USA were driven immediately to the low bands. The USA West Coast and Asia enjoyed some openings on the high bands at the start before they too were hit. One bright spot during the first night was nice conditions on 160 and 80 meters. There were only limited openings on 10 meters during Saturday. Many logs reported multi-path echoes that made it impossible to separate dots from dashes! For those operators who kept at it, they were rewarded with a second 24 hours that provided some thrilling conditions. Forty meters was open far and late. Ten meters finally opened and provided some decent rates overall, but most the northerly paths.

It was different to the south. VK3TDX reported "Excellent weekend with the best conditions in memory. In VK3 ten meters was open until almost midnight both nights..." The PW7T multi-op was only one country away from 5-band DXCC at the 24-hour mark.

And then there's the ever present visitor named "Murphy." It seemed as if stuff was breaking everywhere. Rotators quit turning. Rigs quit hearing. Amplifiers went bang. Coax connectors failed. Antennas became dummy loads. The wind was a gale. Cows got into the antennas. You name it. Despite all the issues, there was always an attitude of perseverance. Find the problem. Fix the problem. Keep operating. The CQ WW CW comes only once per year and can't be missed!

Perhaps the CQ WW should be sponsored by an airline or a tourist bureau. Despite enjoying a game that can be played from the comfort of our own stations, there is something about being the hunted that gets operators packing their bags and heading for far-off islands, even if it means carrying all of their gear, working outside in heat or cold to set up antennas, and then operating for hours in spite of fatigue and jet lag. It's all because the magic of CQ WW only happens once per year and can't be missed!

Is it the activity that brings out the rare DX? Or is it the DX that brings out the activity? Regardless of the answer, we have to thank the operators behind these calls that travelled far and wide to fill our log books with some exciting moments and new multipliers: 3A2MW, 3B8/SM6GOR, 5R8IC, 5T0SP, 5W1SA, 6V7V, 7P8D, 9H3TX, 9J3A, A52SV, AH0DX, C5A, CR2X, D3AA, E51TLA, ED9Z, EL2A, FK/VK6DXI, GJ2A, J28AA, J75Z, JW5E,

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P33W, P40F, PJ2T, PJ7I, PZ5T, T6LG, T8NS, TC2M, TI5A, TG9IDX, TO7A, V26K, V6A, VE2EKA, VK9/OG1M, VK9/OH3X, VP2MMM, VP2V/AA7V, YN2CC, Z38N, Z60WW, and ZD8W. There were contacts with 218 different DXCC entities in the logs we received!

Only 39 of the 40 zones were active this year. Zone 34 was not heard on the bands, but there was an active operator there. Andrey, RW3AH, was in Egypt on business, but could not obtain a local license. He operated a remote station via the Internet and made over 1700 contacts from New York using the callsign KL1A/2. Even though he sent zone 5, that call caused lots of confusion on the bands, as people thought they might be working Alaska. It is somewhat ironic that the elusive missing zone 34 was active, but with RF emanating from far away in zone 5.

Single Operator All Bands

The top single operator all band scores were all made by travelers. The winner was Jose, CT1BOH, one who always finds his way to a DX location for CQ WW. This was Jose's seventh world high finish; only N6AA and OH2MM have won more times. Alex, UA5C, travelled from Moscow to the Canary Islands to take second. Yuri, VE3DZ, suffered with the flu and then an 11-hour flight delay in Miami before arriving at PZ5T in Suriname. Valery, RG5A, was another Moscovite seeking the sunshine and travelled to P40F for the weekend. Kim, OH6KZP, stepped into the Radio Arcala station CR2X in the Azores for his first experience of DX operating. He did rather well! Dave, N2NL, put up another big score from his station in the jungle on Guam. His eighth place finish was also a new Oceania record.

Think DXpeditions are all fun? John, W2GD, visited his station in Aruba to find one of the towers had corroded and fallen down. He made repairs, had the station ready to go, and then attended Thanksgiving dinner with P49Y, P40F, P43A, and P43L. When he returned, the amplifier refused to turn on. He was up most of the night trying to make repairs. Eventually he had

Recent History Solar Indices for CQWW DX CW

2012:	SFI=118	A=6	K=2	SSN= 84
2011:	SFI=135	A=4	K=1	SSN=139
2010:	SFI=78	A=2	K=1	SSN= 22
2009:	SFI=73	A=2	K=1	no sunspots
2008:	SFI=68	A=2	K=0	no sunspots

to borrow an amp from one of the locals. Just three hours before the contest, the computer hard disk failed. He was able to borrow a laptop and load the N1MM logging software, but there were no serial COM ports to communicate with the radio or drive the keying. The next 48 hours were a real throwback to the early 1980s. John operated the entire contest manually, sending every dit and dah of every CQ and every callsign by hand, with no memory keyer assistance of any kind. That perseverance earned John 10th place in the World standings!

The top low power scores were also by travelling operators. With Aruba already well represented in the high power category, Andy, AE6Y, debated doing a single band effort before choosing to go low power all bands as P49Y. Good choice, as it resulted in the world high score! Close behind was a remarkable effort by Bud, AA3B, operating as V26K. Bud is a perennial winner in the low power category, but he overcame a number of obstacles this year.

Just days before the contest, the station on Antigua was badly destroyed in a fire. Bud described his arrival: "We arrived at the station on Wednesday. It was an awful sight. The building was gutted. The fire had burned through the roof. I saw the charred remains of multiple control boxes, FT1000MP and MLA2500. All the cables going into the shack were cut and some were melted. It struck me that it was amazing that Roy Carty, V21N, had survived." Roy got access to an unused apartment nearby and began setting up the station. Bud "located the remnants of the coax cables for nine antennas, labeled the cables, and installed connectors on the ends. [He] also found several pieces of



If you worked Aruba in the contest it was probably one of these three guys (left to right): P40F (Valery, RG5A), P49Y (Andy, AE6Y), P40W (John, W2GD)

2012 WW DX CW TROPHY WINNERS AND DONORS

**SINGLE OPERATOR
ALL BAND
WORLD**
CR3E (Opr.: Jose Carlos Cardoso Nunes, CT1BOH)
Donor: Vibroplex

World - Low Power
P49Y (Opr.: Andy Faber, AE6Y)
Donor: Slovenia Contest Club

World - QRP
LZ0M (Opr.: Boyan Mitev, LZ2SX)
Donor: Gene Walsh, N2AA

World - Assisted
LP1H (Opr.: Ramon de La Rue, LU5DX)
Donor: Robert McGwier, N4HY

World - Assisted - Low Power
VP2MMMM (Opr.: Alan Donziger, N3AD)
Donor: Lyubomir "Leo" Slavov, OR2F

World - Assisted QRP
Zoltan Nemeth, HA1ZH
Donor: Steve "Sid" Caesar, NH7C

USA
K3CR (Opr.: Alex Avramov)
Donor: Frankford Radio Club

USA - Low Power
Maury A. Peiperl, W3EEF
Donor: North Coast Contesters

USA - QRP
Bill Kelsey, N8ET
Donor: W3ZZ Memorial (Andy Blank, N2NT)

USA - Assisted
Randy Thompson, K5ZD/1
Donor: John Rodgers, WE3C

USA Assisted - Low Power
James P. Bowman, KS1J
Donor: LA9Z/LN9Z Leia Contest Club

USA - Zone 3
W6YI (Opr.: Daniel Craig, N6MJ)
Donor: Central Arizona DX Association

USA - Zone 4
Steve London, N2IC/5
Donor: The Society of Midwest Contesters

Europe
CR2X (Opr.: Kim Ostman, OH6KZP)
Donor: W3AU Memorial (Pete Raymond, N4KW)

Europe - Low Power
Tine Brajnik, SS0A
Donor: Tim Duffy, K3LR

Europe - QRP
Aleksandar Tomic, YU8B*
Donor: I4FAF Memorial (Sergio Carloteti, IK4AUY)

Europe - Assisted
ER4A (Opr.: Serge Rebrov, UT5UDX)
Donor: I4IND Memorial (Claudio Veroli, I4VEQ)

Europe - Assisted - Low Power
Kristjan Kodermač, S50XX
Donor: Alex Goncharov, R3ZZ

Africa
EF8M (Opr.: Alexandr Gimakov, UA5C)*
Donor: K5KA Memorial (Ralph "Gator" Bowen, N5RZ)

Asia
Chris Dabrowski, A45XR
Donor: W5PG Memorial (DFW Contesting Group)

Carib./C.A.
TO7A (Opr.: Dimitry Stashuk, UT5UGR)
Donor: W5PG Memorial (DFW Contesting Group)

Oceania
NH2T (Opr.: David W. Mueller, N2NL)
Donor: Chris Tran, ZL1CT

South America
P40W (Opr.: John Covelli, W2GD)
Donor: Dave Farnsworth, WJ2O

South America - Southern Cone - High Power
CW5W (Opr.: Jorge Diez, CX6VM)
Donor: Dale Long, N3BN

South America - Southern Cone - Low Power
Cesar Escobar, LU5FR
Donor: LU Contest Group

Scandinavia
Mikael Larssmark, SJ2W
Donor: W3FYS Memorial (Chas Weir, Jr., W6UM)

Canada
VY2TT (Opr.: Kenneth S. Widelitz, K6LA)
Donor: John Sluymer, VE3EJ & Jim Roberts, VE7ZO

Russia
Vadim Ovsyannikov, R9DX
Donor: Roman Thomas, RZ3AA

Japan
Masaki Masa Okano, JH4UYB
Donor: Phil Yasson, AB7RW

Japan - Low Power
Nobuhiko Iwasa, JH8SL
Donor: Western Washington DX Club

**SINGLE OPERATOR, SINGLE BAND
World - 28 MHz**
PT5T (Opr.: Simone Candotto, IV3NVN)
Donor: Joel Chalmers, KG6DX

World - 21 MHz
FY5KE (Opr.: Laurent Haas, F6FVY)
Donor: Lew Sayre, W7EW

World - 14 MHz
EA8CUU (Opr.: Markku Rantala, OH6CS)
Donor: W2JT Memorial (North Jersey DX Assn.)

World - 7 MHz
IH9R (Opr.: Emilio Borea, IZ1GAR)
Donor: Alex M. Kasevich, 8R1A

World - 3.5 MHz
OL8M (Opr.: Pavel Pok, OK1DRQ)
Donor: Fred Capossela, K6SSS

World - 1.8 MHz
EF8S (Opr.: Mauri Lepala, OH2BYS)
Donor: Kenneth Byers, Jr., K4TEA

USA - 28 MHz
William R. Tippett, II, W4ZV
Donor: dxcoffee.com

USA - 21 MHz
Dave Patton, NN1N
Donor: Bob Naumann, W5OV

USA - 14 MHz
Brian Edward, N2MF
Donor: Northern Illinois DX Association

USA - 7 MHz
NR5M (Opr.: Bill Bradford, Jr., K5GA)
Donor: W6AM Memorial (Jan Perkins, N6AW)

USA - 3.5 MHz
Robye L. Lahluh, W1MK
Donor: Bill Field, NG3K

USA - 1.8 MHz
Thomas M Greenway, K4PI
Donor: Jeff Briggs, K1ZM

Europe - 28 MHz
ED3T (Opr.: Josep Gene, EA3AKY)
Donor: Jay Pryor, K4OGG

Europe - 21 MHz
CS2C (Opr.: Jiri Pesta, OK1RF)
Donor: Robert Naumann, W5OV

Europe - 14 MHz
CR6T (Opr.: Timo Klimoff, OH1NOA)
Donor: G3FBX Memorial (Maud Slater)

Europe - 7 MHz
Ivan Mastilovic, YU1LA
Donor: Ivo Pezer, 9A3A

Europe - 3.5 MHz
Emil Tafro, E71A*
Donor: K3VW Memorial (Frankford Radio Club)

Europe - 1.8 MHz
Algirdas Uzdunas, LY7M
Donor: Pat Barkey, N9RV & Terry Zivney, N4TZ

Asia - 21 MHz
4X2M (Opr.: Artur Avrunin, 4X4DZ)
Donor: Coconut Wireless Contest Club

Asia - 14 MHz
Victor Kiriyenko, UN9GD
Donor: W5FO Memorial (Ralph "Gator" Bowen, N5RZ)

Asia - 7 MHz
Serge Gursky, UN0L
Donor: Nodir Tursoon-Zadeh, EY8MM

Carib./C.A. (7 MHz)
C6AKO (Opr.: Bob Patten, N4BP)
Donor: David Hodge, N6AN

Canada (21 MHz)
Dave Goodwin, VE3AAQ
Donor: John Sluymer, VE3EJ

Japan - 21 MHz
Akito Nagi, JA5DQH
Donor: Bob Wilson, N6TV

Japan - 14 MHz
Syuichi Sato, JA7FTR
Donor: Chris Terkla, N1XS

China
Jack Zheng, BY5CD
Donor: LZ Contest Team

**MULTI-OPERATOR, SINGLE TRANSMITTER
WORLD**
P33W (Opr.: 5B8AD, RA2FA, RA3AUU, RT9T, RV1AW,
RW4WR, UA4FER)
Donor: BARC

U.S.A.
K1LZ (Opr.: AE2W, K1LZ, K1VR, K3JO, KB1RDZ, N8BO,
W1UE)
Donor: Douglas Zwiebel, KR2Q

Africa
ED9Z (Opr.: DF4SA, DL2CC, EA9LZ, HA1AG, HA3NU, N5OT)
Donor: Harry Booklan, RA3AUU

Asia
RW0A (Oprs.: RA0ALM, RA0AM, RU0A, RW0AR, RZ0AF,
RZ0AT, UA0AFL)*
Donor: Steve Merchant, K6AW

Carib./C.A.
ZF1A (Oprs.: K5P, K5WA, K6AM, N6AN)
Donor: Kansas City DX Club

Europe
OM8A (Oprs.: OM0WR, OM2KW, OM2VL, OM3BH, OM3GI,
OM3RM, OM7JG)*
Donor: Bob Cox, K3EST

Oceania - Pacific Rim
AH2R (Oprs.: JE8KKX/AH2K, JG7PSJ/KW2X, JI3ERV/NH2C,
JR7OMD/WI3O)
Donor: Junichi Tanaka, JH4RH

South America
LT1F (Oprs.: LU1AEE, LU1FAM, LU1FJ, LU1FKR, LU2FE,
LU4FPZ, LU5FF, LU4EU)
Donor: Araucaria DX Group

Canada
VY2ZM (Oprs.: K1ZM, N2NT, VE1RGB)
Donor: Eastern Canadian DX Assn.

Japan
JA0QNJ (Oprs.: JA0QNJ, JH0USD)
Donor: Madison Jones, W5MJ

**MULTI-OPERATOR, TWO-TRANSMITTER
WORLD**
CR3L (Oprs.: DJ2YA, DK7YY, DL1CW, DL5AXX, DL7JV,
DL8WAA, UA9MA, UA9ONJ, UA9PM)
Donor: Array Solutions

U.S.A.
N3RS (Oprs.: N3RS, N3RD, W8FJ, WA3LRO, NA3D, NG7M,
W3FV)
Donor: Tom Horton, K5ID

Europe
EA2EA (Oprs.: EA2AYD, EA2EA, EA2ET, EA4KD, EA4KR,
EA7TN, EC2DX)
Donor: Aki Nagi, JA5DQH

**MULTI-OPERATOR, MULTI-TRANSMITTER
WORLD**

D4C (Oprs.: IK2NCJ, IT9BLB, LY2IJ, LY9Y, YL1ZF, YL2BJ,
YL2KL, YL3DQ, YL3DW)
Donor: K2GL Memorial (Doug Zwiebel, KR2Q)

U.S.A.
K3LR (Oprs.: G4BUO, G4TSH, K3LR, K3UA, K5GN, KL9A,
MD0XR, N2NC, N3GJ, N3SD, N6TV, VE3FWA, W2RQ)
Donor: N6RJ Memorial (Bob Ferrero, W6RJ)

Europe
9A1A (Oprs.: 9A2DQ, 9A2EU, 9A2WJ, 9A4WW, 9A5E, 9A5W,
9A6A, 9A6M, 9A7IMR, 9A7R, 9A9A, 9A9AB)
Donor: Finnish Amateur Radio League

Oceania
KH6LC (Oprs.: AH6RE, KH6KM, KH6LC, KH7Y, KX7M, N6DA,
NH7O)
Donor: JA9SSY Memorial (Tack Kumagai, JE1CKA & Masa
Sakurada, JR2GMC

Japan
JA3YBK (Oprs.: JF3NRI, JF4FUF, JG3KIV, JG3MRT,
JG3WDN, JH4NMT, JI3OPA, JR4ISF, JS1PWV)
Donor: Masahiro Kitagawa, JH3SPRR

CONTEST EXPEDITIONS
World Single Operator
V26K (Opr.: Bud Trench, AA3B)
Donor: Friends of Phil Goetz, N6ZZ

World Multi-Operator
EL2A (Oprs.: A65BD, AA7A, EL2DT, G3SXW, G4IRN, N7CW,
KC7V, KV7M)
Donor: Carl Cook, AI6V

XTREME
YR1C (Oprs.: YO4NA, YO9GZU, YO4NF)
Donor: K3TUP Memorial (Tim Duffy, K3LR)

SPECIAL - SINGLE OPERATOR AWARD
World SSB/CW Combined
8P5A (Opr.: Tom Georgens, W2SC)
27,355,024
Donor: Hrane Milosevic, YT1AD

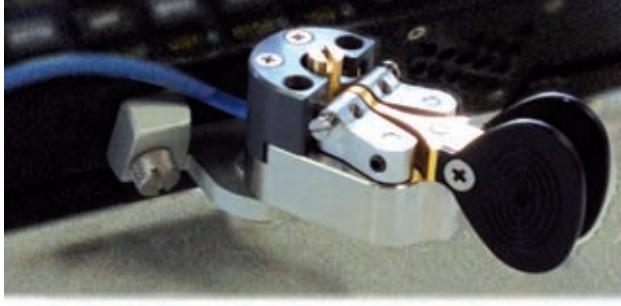
SPECIAL - TRIATHLON AWARD
World SSB/CW/TRTY Combined
David Mueller, N2NL
26,239,827
Donor: Rudy Bakalov, N2WQ

CLUB
World SSB/CW
Yankee Clipper Contest Club
478,430,080
Donor: W1WY Memorial (CQ magazine)

Non-USA SSB/CW
Bavarian Contest Club
385,825,731
Donor: N6AVU Memorial (Northern California Contest Club)

*Awarded to second place finisher

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Advertising designed by **Stefano Begali**

RG213 that had survived and built up a single piece that was long enough to reach from the apartment to any of the antenna feeds scattered about the property." Bud continues, "All the work was completed approximately 1800z on Friday. The apartment was set up and comfortable. I had working antennas for all bands and working rotors for 10m, 15m, and 20m. Band changes would require going into the field and moving the coax and rotor extensions from among the various feeds, taking approximately 10 minutes to complete. The contest was a blast." Such is the attraction of the CQ WW!

The competition among the top USA single operators was just as intense. Alex, LZ4AX, broke through for his first win operating as K3CR. Very close behind was Admiral Scott, K0DQ/1, operating from the "battleship" station of WW1WW. (*Watch for an article by Scott on the planning and construction of "Battleship New Hampshire" in an upcoming issue, or two, of CQ—ed.*) Last year's winner, Doug, K1DG, could only muster 3rd place in the face of such stiff competition. Dan, K1TO/4, put up a great score from down south in Florida. Steve, N2IC/5, did a fantastic job to make the top 5 from New Mexico.

The USA low power race was as close as it gets. Maury, W3EF, finished just 12K points ahead of Ed, N1UR. Ed had more contacts and Maury had more multipliers, but it was log-checking accuracy that ultimately determined the winner. Honorable mention goes to Bob, WA1Z, for pushing wires and a tribander at 30 feet into the third spot. Marv, N5AW, did his usual fantastic score from Texas chased by Terry, N4TZ/9, in Indiana.

Single Bands

The top high power single band score was on 15 meters. Laurent, F6FVY, operated from FY5KE near the European Space Port. He was followed close behind by Bernie, ZS4TX. Thomas, PY2ZXU, visited ZW5B for third and Jiri, OK1RF, operated from CS2C in fourth. The top four finishers were from four different continents! Dave, NN1N, easily captured the top USA score and just missed breaking the USA record.

On 10 meters the spotty conditions favored stations to the south. In a remarkable event, CN2R didn't win. It was Simone, IV3NVN, operating as PT5T who had the winning score. Jim, W7EJ, operating from CN2R, finished a very close second. Another traveler was Dale, VE7SV,

who enjoyed his new CE2AWW callsign in third. Nodir, EY8MM, fought the propagation challenges to finish fourth. In the USA, it was a reversal of the order of finish from SSB. This time Bill, W4ZV, managed to outscore Tom, K1KI, for the top spot.

Twenty meters offered a little bit of everything. The winner was Markku, OH6CS, operating from EA8CUU followed by Alan, CE1/K7CA. Third overall and top European was Timo, OH1NOA, operating in his 11th CQ WW CW from Portugal as CR6T. The USA winner was Brian, N2MF. Once again the top four scores came from four continents.

Xtreme Category Results

By Doug Grant, K1DG

The Xtreme category allows stations to experiment and test leading-edge technology within the CQ WW DX Contest. Scoring is based on final contest score combined with an innovation score. Seven stations entered the Xtreme category this year. All used at least one remote station.

In the single-operator section, Andrey, RW3AH, sitting in Cairo, Egypt (Zone 34), linked into the W2RE station in northern New York and managed over 1,700 QSOs and a 1.6M point score as KL1A/2. Other single-op entrants included LA9GY, OH2XX, and OM2DT.

In the multiop section, AA3K's long-time operating partner W3CC had moved about 10 miles away and they still wanted to do a multi-two. Using the N1MM logging software configured via Windows Networking over the Internet, they were able to operate both stations despite the physical separation, and racked up almost 900k points. The Z60WW operation in Kosovo, with a team of operators led by Martti Laine, OH2BH, had planned to operate from one QTH, but discovered severe noise problems on the low bands. They moved part of the station to another QTH 3 km away and continued, ultimately running up a 5.25M point score and 58 Innovation Points. They used a real-time scoreboard system with a display in a public area to promote radiosport in Kosovo for a "social innovation."

The top score, with 5.31M points and 68 Innovation Points for a total Xtreme score of 168, and winner of the K3TUP Memorial Trophy, is the YR1C team (YO4NA, YO9GZU, and YO4NF). The station was located at YO4NA's holiday house, while the operators were located three separate sites up to 200 km away from the station. A well-planned and executed mix of purchased and homebrew hardware and software allowed full control of radio, amplifier, rotator, and even a noise-cancellation system.

2012 CQ WW DX CW TOP SCORES

WORLD	RG9A.....	9,012,276	P12T.....	27,201,440	S53MM.....	6,252,230	21 MHz	
SINGLE OP	K3WW.....	8,748,408	V5EJ.....	21,367,555	D5JMW.....	6,186,348	TM6M (F1AKK).....	
HIGH POWER	NP4Z.....	8,199,750	PW7T.....	20,373,108	ED3T (EA3KY).....	506,548	1,047,536	
All Bands	NY3A.....	7,414,071	T2CM.....	19,932,904	DH8B0A.....	353,580	9A1CCY (9A7DX).....	
CR3E (CT1BOH).....	15,221,316		K5ZD/1.....	10,523,916	J43J (DJ5JH).....	348,232	880,785	
EF0M (UA5C).....	14,206,275	28 MHz	K3WW.....	8,749,408	CS2C (OK1RF).....	1,228,990	OK8WW.....	
P25T (VE3DZ).....	13,170,634	CX700.....	1,378,240	NV3A.....	7,414,071	E6ASX.....	763,256	866,570
P40F (R5GA).....	13,151,040	PV3DX.....	1,157,143	K3WI.....	7,254,240	YU1KX.....	757,212	14 MHz
CR2X (OH6KZP).....	11,839,500	4Z5L.....	834,620	K1AR.....	5,681,208	TM5Y (F8DBF).....	1,414,304	
T07A (UT5UGR).....	11,807,340		K1L2.....	31,610,598	TF2CW (TF3CW).....	1,012,662		
28 MHz			K3LR.....	30,132,800	OH8L (OH8LQ).....	945,066		
PT5T (IV3NNV).....	1,683,536	21 MHz	W3LPL.....	29,026,101	21 MHz			
CN2R (W7EJ).....	1,518,457	TMM6 (FI4KK).....	1,047,536	K2SSS.....	388,888	UW4I (UY5VA).....		
CE2AWW (VE7SV).....	1,294,944	A73A (A71BX).....	307,128	N5XJ.....	271,328	S52AW.....		
21 MHz		9A1CCY (9A7DX).....	880,785	WB9Z.....	256,950	EA3NT.....		
FY5KE (F6FVY).....	2,147,322	14 MHz						
ZS4TX.....	1,197,120	TM5Y (F8DBF).....	1,414,304	21 MHz				
ZW5B (PY2ZXU).....	1,476,722	PR5B (PY2LSM).....	1,085,124	W0MM/5.....	676,800	CR6T (OH1NOA).....		
7 MHz		TF2CW (TF3CW).....	1,012,662	N4PN.....	668,682	SE5E (SM5AJV).....		
EA8CUU (OH6CS).....	1,303,614		K3CR (LZ4AX).....	9,875,565	AU2KW (AU2PB).....	803,427		
CE1K7CA.....	1,225,686		K0D01/1.....	9,607,806	7 MHz			
CR6T (OH1NOA).....	1,074,192		K1DG.....	8,630,788	YU1LA.....	1,252,693		
3.5 MHz			K1D4.....	7,088,315	Y7A (YU7GW).....	814,810		
IH9R (I21GAR).....	1,622,230	28 MHz	KU5B.....	618,222	OH1TX (OH2PM).....	687,104		
YW4D (VY1D1G).....	1,431,040	W4ZV.....	552,052	K6WG.....	205,062	1.8 MHz		
YU1LA.....	1,252,693	OK2BW.....	541,242	WR2G.....	153,738	LN9Z (LB1G).....		
1.8 MHz		DL70N.....	459,732			F5IN.....		
EF8S (OH2BYS).....	276,000	7 MHz	K9GS.....	279,774	RK3SWB (R3S-367).....	93,296		
LY7M.....	181,044							
UN4L.....	145,386	28 MHz						
SINGLE OP								
LOW POWER								
All Bands								
P49Y (AE6Y).....	8,821,296	14 MHz	N6SS/7.....	568,824	SINGLE OP ASSISTED LOW POWER All Bands			
V26K (AA3B).....	8,447,562	W4ZV.....	512,236	K7NJ.....	354,560	S50XX.....		
IR4X (I23EYZ).....	5,686,912	OK2BW.....	468,802	K9GS.....	181,044	OR2F.....		
EF8X (EA8AY).....	5,185,804	DL70N.....	415,680		114,062	YL0Y (YL2GOT).....		
VP5CW (W5CW).....	5,057,425	1.8 MHz	RX9CAZ.....	137,190	RL6M.....	2,885,760		
YN2CC (AJ9C).....	4,769,904	W5BGN.....	93,972	N9IN.....	131,150	ES6O (ESSRY).....		
28 MHz			K9NW.....	715,595	MD2C.....	2,843,580		
9J3A (S53A).....	1,396,764	21 MHz	N4ZZ.....	633,204				
C42 (S54AIZ).....	574,832							
UK9AA.....	474,370	3.5 MHz						
21 MHz								
5X1NH.....	1,122,653	28 MHz	W1MK.....	420,665	28 MHz			
5C5W (CN8KD).....	606,720		WV4G.....	135,875	IR4X (Z3EYZ).....	5,686,912		
UK8AR.....	468,027	3.5 MHz	NR5M (K5GA).....	669,445	S50A.....	4,681,296		
14 MHz			K6NA.....	529,247	L28E (LZ2BE).....	4,178,304		
C6AUM (K4RUM).....	724,599		N6MA/7.....	165,804	LY9A.....	3,602,886		
RX9AF.....	362,388	7 MHz	K5J.....	3,206,820	FE3A (EA3KU).....	3,135,995		
JG2KKG.....	314,279		K9LA.....	43,848	DL4MCF.....	2,734,544		
7 MHz		28 MHz	W5GH.....	495,968				
DJ1YFK.....	397,474		WD5R (N5ECT).....	20,355	21 MHz			
HK30.....	340,459	14 MHz			HG5D (HA8QZ).....	508,248		
CO6YAC.....	261,600	7 MHz	VE1ZA.....	454,724	S53F.....	495,968		
3.5 MHz			W3EF.....	3,998,400	HA3U.....	431,462		
YU2FG (VY1GCT).....	541,814	21 MHz	N1UR.....	3,986,828	14 MHz			
YU2AA.....	492,024		WA1Z.....	3,815,427	OK6RA.....	367,131		
YU2A.....	384,088	3.5 MHz	N5AW.....	3,260,572	YT7B.....	341,955		
			K7SS.....	2,890,209	ER100.....	309,281		
21 MHz			N9YDU.....	2,741,184	RM5D.....	334,900		
LZ2SC.....	165,438	1.8 MHz			21 MHz			
DJ30.....	141,474		W84TDH.....	187,136	LG9R (LZ3YY).....	433,600		
HA5BSW.....	140,911	28 MHz	K2PS/3.....	177,891	ER100.....	305,250		
1.8 MHz			M4JU/5.....	172,638	GW0ETF.....	283,250		
YU2AA.....	49,802	21 MHz	K9STX.....	292,800	7 MHz			
UR5AS.....	32,016		W5ZD/0.....	230,206	YU2FG.....	541,814		
UA3MIF.....	31,781	3.5 MHz	K2MFY.....	171,150	YU2A.....	384,088		
3.5 MHz			K7EX.....	292,800	S52W.....	295,054		
9A2AJ.....	116,460	21 MHz	N9MZ.....	43,656	3.5 MHz			
OL4W (OK1IF).....	101,106		K2PO/7.....	37,056	LZ2SC.....	165,438		
PA2REH.....	99,858	7 MHz	N9CO.....	6,116	YT2AA.....	141,474		
1.8 MHz		28 MHz			HA5BSW.....	140,911		
GM4AFF.....	61,628				14 MHz			
LZ3YY.....	33,969	1.8 MHz	K9GW.....	175,560	DJ1YFK.....	397,474		
SM7MX (SM5MX).....	32,428		KQ8Z/4.....	89,472	S6P0JE.....	230,124		
SINGLE OP QRP All Bands		21 MHz	W8IQ.....	76,608	R45A.....	208,206		
OK1DO.....	1,095,504				1.8 MHz			
RT4W.....	1,052,192	3.5 MHz	N2OT/4.....	1,095,504	GM4FF.....	61,628		
US5Z/2.....	596,372		K9WV.....	499,968	Z3YY.....	33,969		
S92P.....	584,575	7 MHz	K9ZT.....	478,940	SM7MX (SM5MX).....	32,428		
21 MHz			W2VQ.....	98,237	SINGLE OP QRP All Bands			
LZ0M (LZ2SX).....	1,008,800	28 MHz	N6KI.....	97,650	IK2BCP.....	30,602		
N8F.....	913,830		W4QO.....	90,644	Y08DP.....	26,988		
YU0W.....	848,990	1.8 MHz			IK1DO.....	1,052,192		
UU2CW.....	766,458				RT4W.....	1,046,523		
JR4DAH.....	733,150	21 MHz	N2OT/4.....	1,095,504	28 MHz			
HG6C (H61AM).....	728,025		K9WV.....	499,968	DL1EFW.....	114,456		
28 MHz		3.5 MHz	W3EF/9.....	177,891	HG20IP (HA3JB).....	102,724		
LUTHZ.....	257,103		K9STX.....	114,436	SV1JGX.....	33,984		
KX9X/1.....	191,019	28 MHz	W5ZD/0.....	29,040	21 MHz			
KR20.....	137,875		K9ZT.....	290,209	RU5TT (UA3TW).....	223,200		
21 MHz		7 MHz	W2RE.....	98,237	Y0P0CW (Y06EX).....	132,736		
YT7Z (YU7SK).....	116,292		N6KI.....	97,650	SP6DDJ.....	100,965		
N3JT/4.....	103,812	28 MHz	W4QO.....	90,644	PG2AA.....	91,567		
SP5DJD.....	100,965				21 MHz			
14 MHz		1.8 MHz	K4CIA.....	36,045	LZ1DNY.....	138,138		
LZ1DNY.....	138,138				YU1WC.....	124,843		
YU1WC.....	124,843	21 MHz	K1LZ.....	15,586,106	UR5FCM.....	63,546		
UR5FCM.....	63,546		W3U/A/1.....	11,206,701	14 MHz			
7 MHz		3.5 MHz	NR4M.....	11,076,912	RU5TT (UA3TW).....	223,200		
UT3L (UR5LO).....	49,140		W2RE.....	10,768,816	Y0P0CW (Y06EX).....	132,736		
RW9C.....	14,196	28 MHz	K5GO.....	10,093,044	SP6DDJ.....	100,965		
7 MHz			AD4Z.....	7,863,480	PG2AA.....	91,567		
9A3JH.....	164,208	1.8 MHz			21 MHz			
E73TT.....	80,740		K9CT.....	11,984,070	Y7TZ (YU7SK).....	116,292		
E73R.....	58,788	21 MHz			SP6DDJ.....	100,965		
3.5 MHz		28 MHz	K9X/1.....	191,019	Y2RZ.....	58,788		
YL2QN.....	26,838		KR20.....	137,875	14 MHz			
W1UU.....	21,672	1.8 MHz	W5GA/1.....	100,674	USSVX.....	128,381		
HA6VA.....	12,261				P9NSV.....	107,274		
1.8 MHz		21 MHz	N3JT/4.....	103,812	RM3G.....	49,980		
LY4BF.....	12,100		W7IJ.....	85,575	28 MHz			
GM3YEH.....	11,804	3.5 MHz	AE9F/6.....	22,774	9A3JH.....	164,208		
M0ZWW.....	1,131				E73TT.....	80,740		
SINGLE OP ASSISTED HIGH POWER All Bands		21 MHz	WA4PIG.....	551	E73RZ.....	58,788		
LP1H (LU5DX).....	10,600,140		W9YA/5.....	322	3.5 MHz			
K5ZD/1.....	10,523,916	28 MHz			Y2RZ.....	26,838		
MULTI-OP TWO-TRANSMITTER			WT11.....	15,778,850	H6V6A.....	12,261		
P33W.....	17,233,104	14 MHz	W3EA.....	11,928,087	E3C (EA3CKX).....	7,950		
ED9Z.....	20,403,225		K9RF.....	11,578,384	21 MHz			
6V7V.....	19,876,472	7 MHz			Y2RZ.....	26,838		
OM8A.....	16,044,698		K3LR.....	30,132,800	14 MHz			
ZF1A.....	15,918,686	28 MHz	W3PL.....	29,026,101	Y2RZ.....	26,838		
K1LZ.....	15,586,106		N04I.....	17,163,840	28 MHz			
SINGLE OP ASSISTED HIGH POWER All Bands		3.5 MHz	W7IJ.....	16,044,698	Y2RZ.....	26,838		
LP1H (LU5DX).....	10,600,140		AE9F/6.....	22,774	1.8 MHz			
K5ZD/1.....	10,523,916	MULTI-OP SINGLE-TRANSMITTER			Y2RZ.....	26,838		
MULTI-OP TWO-TRANSMITTER			W4QO.....	11,928,087	21 MHz			
CR3L.....	37,281,102		N3JT/4.....	103,812	Y2RZ.....	26,838		
PJ4A.....	28,442,709	28 MHz	W1UU.....	21,672	3.5 MHz			
			K1D/5.....	1,564	Y2RZ.....	26,838		
SINGLE OP ASSISTED HIGH POWER All Bands					28 MHz			
CR3L.....	37,281,102	1.8 MHz	K3T/W4.....	47,160	Y2RZ.....	26,838		
K5ZD/1.....	28,442,709		N8VW.....	18,615	1.8 MHz			
MULTI-OP TWO-TRANSMITTER		3.5 MHz			Y2RZ.....	26,838		
					21 MHz			
EUROPE SINGLE OP HIGH POWER All Bands					Y2RZ.....	26,838		
CR2X (OH6KZP).....	11,839,500	28 MHz	CR2X (OH6KZP).....	11,839,500	21 MHz			
					Y2RZ.....	26,838		
					14 MHz			
					Y2RZ.....	26,838		
					7 MHz			
					Y2RZ.....	26,838		
					21 MHz			
					Y2RZ.....	26,838		
					3.5 MHz			
					Y2RZ.....	26,838		
					28 MHz			
					Y2RZ.....	26,838		
					14 MHz			
					Y2RZ.....	26,838		
					7 MHz			
					Y2RZ.....	26,838		
					21 MHz			
					Y2RZ.....	26,838		
					3.5 MHz			
					Y2RZ.....	26,838		
					28 MHz</b			

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Forty meters continued the pattern of top four from four continents. Emilio, IZ1GAR, gave everyone a new multiplier as IH9R. Paolo, YV1DIG, put the YW4D call in many logs. Ivan, YU1LA, worked over 1100 USA stations and 470 Japanese stations to finish in third. Ivan missed setting a new Europe record by less than 1K points! Bob, N4BP, carried his radio and some wires over to Bermuda to finish fourth. The top USA score was by Bill, K5GA, piloting the big stacks at NR5M.

On 80 meters, it was Pavel, OK1DRQ, operating from OL8M with an impressive 2130 contacts and 119 countries! Robye, W1MK, was tops in the USA and experienced a rare 2 hours of propagation to Japan on Sunday morning. On 160 meters it was EF8S, operated by Mauri, OH2BYS, winning the world.

2012 WW DX CW TOP SCORES IN MOST ACTIVE ZONES

Zone 3		W2FU (K2TJ)	5,800,860
W6YI (N6MJ).....	5,609,560	VC2T (VE2TZT)	5,770,534
VE7SV (VE7CC)	5,243,168		
K6XX	4,382,315		
K7RL	4,091,612	CR2X (OH6KZP).....	11,839,500
K7GK/6 (@NGRO)	4,049,720	CR6K (CT1ILT)	9,858,906
W6PH	2,630,595	DJ5MW	6,186,348
VA7ST	1,821,952	SJ2W	5,926,944
K7KU (K0KR)	1,644,275	NL8W (LB1GB)	4,478,599
K7QQ	1,569,308	EF5F (EA5FV)	3,744,900
KG7H	1,553,040	DK9PY	3,481,068
Zone 4		*EF3A (EA3KU)	3,135,995
XL3A (VE3AT)	7,892,633	M7A (LY4Y)	3,077,762
VE3JM	7,265,271	G3XTT	2,982,287
N2IC/5	7,034,265		
W9RE	5,788,320		
WX0B/5 (AD5Q)	4,615,824		
N5RZ	4,479,234		
K8GL	4,139,386		
K0EJ/4	3,961,113		
N9RV/7	3,850,137		
K0EU	3,764,218		
Zone 5			
WY2TT (K6LA)	10,365,486		
K3CR (L24AX)	9,875,565		
K0DD/1	9,607,806		
K1DG	8,630,788		
K1TO/4	7,088,315		
K1ZZ	6,965,514		
K1RX	6,589,375		
K1KM	6,426,168		
Zone 6			
UU7J (UU0JM)	4,653,684		
UA6B	4,044,418		
UA4W	3,766,467		
RM3F (UA3DPX)	3,346,460		

*Low Power

The single band low power competitions were dominated by big efforts from southerly locations. Niko, S53A, put 9J3A well ahead of everyone on 10 meters. Nick, 5X1NH, set a new world record on 15 meters while making a lot of people happy with the zone 37 multiplier. Mike, K4RUM, travelled over to C6AUM for the top score on 20. Fabian, DJ1YFK, operated from DJ6ZM in Munich to win 40 meters. The top score on 80 meters was by UN2C, but because the log was received after the deadline, the win is awarded to Victor, LY2T. Tops on 160 meters was Stewart, GM4AFF.

Single Operator Assisted

There were 2,658 logs received in the Assisted category. The race for top spot in the All Bands High Power category was extremely close between Martin, LU5DX, operating from LP1H, and Randy, K5ZD/1. Martin's 700 extra QSOs made up for a deficit of 100 multipliers to give him the world championship. Randy took home the new USA record in his first try at the Assisted category. Yuri, RG9A, finished in third. On the low power side, Alan, N3AD, traveled to VP2MMM in Montserrat for a commanding win.



BY7KTO is a primary school amateur radio club. The 10-11-year-old operators were in their first CW contest. Yang is operating while Su watches.

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On 10 meters, Carlos, CX7CO, was the leader. Paul, PY3DX, overcame multiple equipment failures to finish a close second. Zeljko, K2SSS, had the top USA score on 10 meters. Oli, F1AKK, operated from the big club station TM6M in western France to win 15 meters. Ali, A71BX, used the call A73A to set a new record for Asia in finishing second. The USA race on 15 was between Laurent, WØMM/5, and Paul, N4PN. Sebastian, F8DBF, used the contest call TM5Y to win 20 meters over a very close three-way race among PR5B, TF3CW, and NP3X. Sebastian was less than 5K points from breaking the world record! Colin, KU5B, was the USA winner.

The low bands offered some very close races. Only 3,368 points separated UW4I (op Victor, UY5VA) and second place Karl, S52AW, on 40 meters. Victor worked 39 zones and 145 countries! The top USA score and 7th overall was Preston, N6SS/7. On 80 meters it was all Europeans in the Top Ten led by Olaf, DL7CX operating DM7C. The top USA score was Doug, W3NO. Silvo, S51V, had the high score on 160 meters, but his log was received after the deadline. This gives Andy, RX9CAZ, the win.

QRP

"Being a QRPer under these conditions is like the scraggly dog going from garbage can to garbage can, looking for any leftover scraps." — KX9X/1

There were 456 entries in the QRP category this year. The top all band score was earned by Boyan, LZ2SX, operating as LZ0M. He made 1550 contacts and 311 countries running just 5 watts! Close behind was

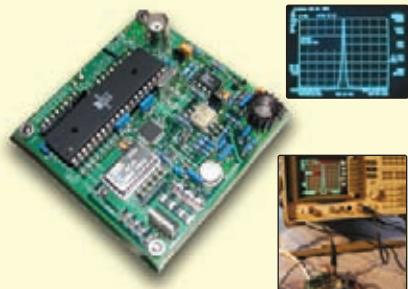


The 10-meter position at multi-multi K3LR. Ed, VE3FWA (left), is looking for multipliers and George, N3GJ, is manning the run station.

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Operating team at the ZF1A multi-single (left-right): Bob, K5WA; John, K6AM; Robert, K5PI; and David, N6AN.

2012 CQ WW DX CW BAND-BY-BAND BREAKDOWN—TOP ALL BAND SCORES

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

WORLD SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
CR3E	181/15/50	872/23/86	2032/33/104	1100/34/100	1555/33/107	1535/32/109
EF8M	269/14/50	598/20/63	2104/29/89	1343/29/81	1408/31/86	2258/26/95
PZ5T	158/12/26	604/19/74	1050/28/93	1731/37/111	1799/35/114	1516/27/98
P40F	186/14/37	574/22/78	1484/29/95	993/33/99	2013/34/102	1679/30/92
CR2X	307/14/54	846/21/80	1516/31/109	1403/34/112	1489/34/119	1648/31/111

WORLD SINGLE OPERATOR ASSISTED ALL BAND

LP1H	6/4/5	208/23/55	544/32/95	917/34/113	1376/38/132	2268/35/129
K5ZD/1	132/13/59	603/23/94	1065/32/118	945/36/123	1113/34/125	789/29/110
RG9A	267/10/51	894/23/94	1173/32/114	783/33/116	798/33/129	593/26/95
K3WW	100/17/67	460/23/96	1042/32/121	909/37/127	702/34/124	703/30/116
NP4Z	185/16/51	459/22/87	1123/30/104	929/34/111	993/34/104	1199/27/105

WORLD MULTI-OPERATOR SINGLE TRANSMITTER

P33W	481/18/76	1398/31/112	2535/38/146	2042/38/147	2079/39/158	1479/36/150
ED9Z	112/12/58	723/25/101	2492/37/129	1391/38/142	1927/39/149	1244/36/139
67V7	66/19/62	405/23/90	1654/35/127	1727/38/142	2317/38/146	1702/36/146
OM8A	207/22/85	940/31/129	1920/39/146	1769/38/153	1696/38/149	658/38/150
ZF1A	122/15/35	796/26/103	2431/36/125	1062/37/138	2261/36/142	1186/33/127

WORLD MULTI-OPERATOR TWO TRANSMITTER

CR3L	387/16/70	1777/25/107	3359/38/136	1926/37/151	3564/39/157	2561/35/140
PJ4A	256/17/39	1208/28/94	2768/35/121	2631/38/132	3155/37/127	2388/32/101
PJ2T	344/19/56	1019/24/93	2803/33/121	1936/36/123	3214/36/123	2595/32/119
VE3EJ	412/24/75	1278/30/107	2330/38/135	1683/39/141	2270/38/145	1238/32/131
PW7T	1/1/1	614/23/95	1957/35/123	1826/38/141	2680/39/150	1974/36/136

WORLD MULTI-OPERATOR MULTI-TRANSMITTER

D4C	1396/23/86	1753/28/106	3818/38/143	5323/39/164	4341/39/169	4476/38/157
C5A	904/20/77	1827/29/95	3103/37/136	4236/39/153	4527/39/162	3401/38/148
HK1NA	878/21/65	1679/26/92	3238/34/126	3491/39/150	3330/37/142	3114/38/135
EL2A	402/17/58	1302/26/92	2245/34/112	2494/36/140	2884/38/147	3262/37/142
K3LR	330/22/83	1309/32/118	2448/39/149	3084/39/166	2416/37/156	1398/34/143

Bill, N8ET, and Alex, YUØW. Zoltan, HA1ZH, took the top spot for all bands assisted. Sean, KX9X/1, dramatically increased the USA record on 10 meters in finishing second overall behind Pedro, LU7HZ, not bad given the difficult conditions on Saturday. Another giant record was set by Didier, FY5FY, who increased the 7-year-old 20 meter score record from 468K to over 710K! The world record for QRP Assisted on 20 meters also fell, as Nick, UA3TW, drove RU5TT to over 223K points.

Multi-Operator

The Multi-Operator Single-Transmitter catego-

ry has become the Formula 1 of contesting. Stations employ sophisticated technology and operating strategy to capture the top spot. The winning team and new world record holders at P33W used multiple interlocked transmitters to work within the rules and get every QSO out of the bands. A temporary Field-Day-style setup earned second-place honors for ED9Z. OM8A took the top spot in Europe, just falling short of a new record. The top USA entry, and sixth in the world, was K1LZ.

In the Two-Transmitter class, the top score and new World Record was set by CR3L in Madeira with over 13,500 contacts! The next two spots were a battle of neighboring islands

with PJ4A finishing ahead of PJ2T. The gang at VE3EJ did an outstanding job to finish fourth overall, and the highest score not from an island! The USA winner was N3RS ahead of NY4A and K8AZ.

The Multi-Transmitter category brought lots of travelers to Africa this year. D4C used their mountaintop location to good advantage. Second place went to the travelling Czech team who returned to C5A. Line noise could make this their last effort from this beachfront location. The guys at HK1NA keep getting louder, but could only finish third.

After nearly 20 years of CQWW CW trips to West Africa, the VooDoo Contest Group (affectionately known as the VooDudes) piloted

2012 WW DX CW Team Scores

Pile-Up Survivors (CR3E, PZ5T, P40F, 8P5A, NH2T)	64,559,451
CCF TEAM SISU (CR2X, ES5TV, OHØX, OHØZ, OHØX)	30,823,660
Cereal Killers (EF8X, LN8W, CGAQW, N1DG, K5ID)	16,522,956
KTU Radio Club (LY6A, LY9A, M7A, LY3B, LY4T)	15,215,353
Team Araucaria (PS2T, PT5T, ZW5B, PR5B, PX2C)	14,316,940
Carolina DX Association (N4ZC, N2TU/4, W3QG/4, W3OA/4, W7DO/4)	14,021,610
Mad River Radio Club Team # 1 (K8GL, W8MJ, K1LT/8, K9NW, N8DE)	12,456,819
The 257km Ring of Awesomeness (VE1OP, VE9HF, VE9AA, VA1CHP, VE90A)	6,423,124
Minnesota Wireless Assn Team Mosquito (K0KX, K0RC, N0HJZ, ND0C, WØERP)	5,681,588
Russian CW Club (RA9DZ, RD9CX, UA9CLR, U18CM, UB9CAC)	4,612,126
Team Orca - CW Pod (VA7ST, VA7KO, VE7VR, VE7XF, VE7WO)	3,727,509
Mad River Radio Club Team # 3 (N8AA, K8MM, N8EA, K8GU)	3,507,534
PSE QRSS - Hungarian Contest Team (HA1ZH, HA7GN, HAØGK, HG4F, HA6PJ)	2,999,233
Mad River Radio Club Team # 2 (WB8JUI, N8ET, KT8K)	2,547,087
DELARA # 1 (KV8Q, N9AUG/8, W8KTQ)	2,184,686
DELARA # 2 (K8MP, K8ROX, NT8Z, N8OB)	1,277,110
Contest Group du Québec team 2 (VE2EZD, VE2EBK)	1,203,038
Water Banana's (PY2MTS, PY1ZV, PY1KR, PY1TJ)	1,012,051
Grupo DXE Super Dawgs (XE2S, XE2AU, XE1EE, XE1CT, XE1NW)	722,300
The Single Banders (VE1ZA, VE9BK, VE9ML)	677,470
Minnesota Wireless Assn Team Eelput (W9LHG/Ø, ACØW, KA8HDE/8, WGØM)	516,095
The Frozen Radiators (VE1AL, VE1JS, VE1JF)	101,368

A team must be preregistered and may consist of any 5 single operator entries.



Jan, LB1G, operated through difficult conditions on 160 meters from LN9Z.

EUROPE TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
CR2X	307/14/54	846/21/80	1516/31/109	1403/34/112	1489/34/119	1648/31/111
CR6K	265/13/51	849/22/85	1614/34/108	1220/34/105	900/35/117	1393/30/113
403A	540/17/69	782/20/79	1943/33/109	1171/28/88	1535/28/95	993/28/97
OE3K	336/11/44	774/19/69	1399/30/92	1210/30/87	1182/31/75	750/28/79
S53MM	178/11/50	762/18/63	1475/31/84	925/30/85	1036/30/89	496/30/69

EUROPE SINGLE OPERATOR ASSISTED ALL BAND

ER4A	360/15/61	1132/23/94	1121/32/120	1274/34/115	991/34/121	314/33/103
S59ABC	107/13/54	476/22/83	1278/37/131	932/35/121	961/38/130	224/34/112
IR2C	136/11/55	482/22/92	1116/37/111	634/36/116	708/39/133	723/35/117
YP9W	66/10/44	561/15/69	1647/33/123	850/34/111	1248/33/120	214/32/103
SN7Q	217/14/55	597/25/95	881/35/104	976/36/118	862/37/131	324/33/120

EUROPE MULTI-OPERATOR SINGLE TRANSMITTER

OM8A	207/22/85	940/31/129	1920/39/146	1769/38/153	1696/38/149	658/38/150
IR4M	84/20/81	1053/29/116	1838/37/142	1726/38/151	1224/38/143	741/36/141
E7DX	196/20/78	768/29/114	2004/35/136	1759/39/147	1346/38/144	625/35/145
UZ2M	444/25/90	951/31/123	2321/39/150	1755/38/137	1271/37/142	435/35/135
OM7M	193/18/78	806/30/118	1636/39/147	1558/37/151	1280/38/146	562/38/149

EUROPE MULTI-OPERATOR TWO TRANSMITTER

EA2EA	180/17/71	1768/29/111	2289/38/133	1732/38/139	2160/39/146	1142/34/131
9A7A	301/15/63	1634/31/108	1989/37/140	1822/37/133	1636/39/152	867/37/134
ED1R	259/15/71	1278/27/109	2231/38/139	1381/38/140	1809/39/148	1198/36/135
HG7T	405/15/62	1660/31/124	1747/39/132	1526/37/134	1259/39/145	562/37/138
YT2W	417/13/56	1551/23/90	1797/36/127	1558/37/115	1734/38/143	740/36/124

EUROPE MULTI-OPERATOR MULTI-TRANSMITTER

9A1A	1530/23/92	2263/32/126	3139/38/149	2440/39/151	2122/39/149	1173/37/143
DR1A	1197/20/84	2202/33/128	2747/39/151	2703/39/152	1683/39/158	1615/36/157
LZ9W	1144/19/72	1873/32/124	3463/39/151	2449/38/148	1870/38/147	1130/38/149
Z38N	1339/18/72	2424/27/103	3126/37/140	2525/36/132	2458/38/139	1477/35/141
DF0HQ	926/17/73	1889/29/111	2634/39/154	2119/39/157	1735/39/153	999/36/146

EL2A to fourth place in their final effort. (See G3SXW's article on the *VooDudes elsewhere in this issue—ed.*) They disposed of their large, ageing stock-pile of equipment, with much of it donated to the Liberian Radio Amateur Association. They vow to return to CQ WW from somewhere else in the world using newer, more lightweight gear. Well done, boys!

The team at K3LR duplicated their USA victory on SSB with one on CW. This is only the third time K3LR has won the Multi-Multi category on CW in 20 years of trying. W3LPL was nipping at their heels.

Club Competition

The Club Competition gives clubs of all sizes an opportunity to encourage members to get on the air, work DX, and have fun. The top club score for 2012 goes to the Yankee Clipper Contest Club. Its 259 entries generated over 478 million points! The top DX club score was once again won by the Bavarian Contest Club of Germany. Its 284 entries were the highest of any club.

Final Thoughts

There were many comments about the fun and excitement of live scoreboards during the contest. The most popular scoreboard site was www.cqcontest.ru. Stations post their score in real-time during the contest. The scoreboard removes some of the isolation of contesting by letting you see how others are doing. It can be motivational to chase down your rival—or try to stay ahead of them! The Radio Arcala stations CR2X, OH8X, and OH0X augmented the live scoreboard with audio and video streams so you could see and hear the operator. According to OH6KZP, “This is a trial exercise in openness and transparency that I think is very good for radiosporting ... the scoreboard also adds a new dimension of in-contest excitement.”

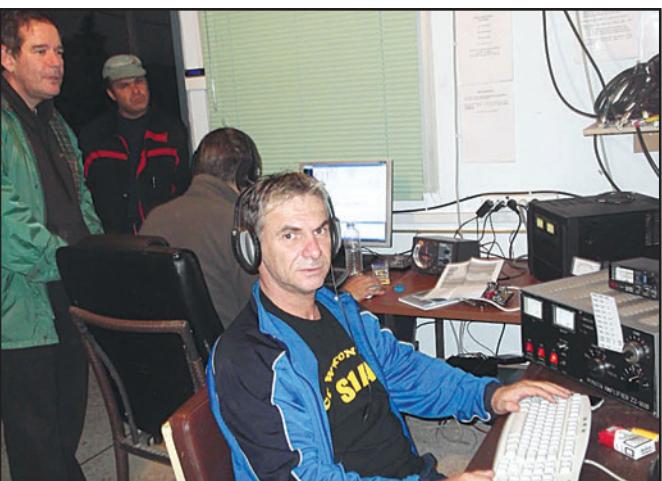
It seems to be an annual topic of complaint

about stations not sending their call enough. Running stations are happy to send TU to finish a QSO, leaving everyone listening to wonder what their callsign could be. More and more there are calls for rule changes to require signing the call as part of each QSO. Perhaps it would be better if these ops offered a little courtesy and sent their call more often. They may find dupes go down and score goes up!

Bad signal quality was another complaint. Bad tone, wide fuzzy signals, or key clicks ruin the fun of others. Now that the SDR recordings are in place we are considering disqualifications for those stations that show poor sportsmanship with their bad signals.



This impressive antenna farm at PZ5T was used in the single operator category by Yuri, VE3DZ.



Vassilis (SV1DPJ) is operating the run station at SZ1A while Takis (SV2FWV) and Panos (SV1HKH) look on.

CQ WW CW 2012 on the Web

- SZ1A photo album: <https://picasaweb.google.com/114195421952141682894/ContestCQWWCW2012>
- PJ2T photo album: <http://www.pj2t.org/ccc/CQWWCW2012/CQWWCWContestAlbum/cqwwcw2012.html>
- P40F photo album: <http://r5ga.com/photos.php?id=15>
- One and half hours of CQWW DX CW in eleven seconds: <http://youtu.be/D4P9ZIDMIQA>
- CQWW CW 2012 Activity as seen from New Zealand: <http://youtu.be/n4K2KvIDJ5I>
- Interview with OH6KZP operator of CR2X: http://www.contestclubfinland.com/documents/PileUp2_12.pdf
- Best QSO rates: <http://rate.pileup.ru/qso.php?contest=CQ-WW-CW&year=2012>
- LT1F CQWW CW 2012 LU1FAM: <http://youtu.be/YCP5sq4m4FY>
- LP1H CQWW CW 2012 SOAB (A) op. LU5DX: <http://youtu.be/-zQ0V3zaYno>
- K9CT CQ WW CW M/2: <http://youtu.be/qF8NtdPezXQ>
- ED1R - CQ WW DX CW 2012: <http://www.youtube.com/watch?v=lbmsO-xLCRo&feature=share&list=PL2C9F29413E837A32>
- HK1NA - CQ WW CW 2012 @HK1R Jumanji Field Contest Station: <http://youtu.be/XEPJwDMjq5U>
- CQWW CW 2012 - EI2KC on 80 metres: http://youtu.be/x-FO9_pJ57o
- CQ WW CW 2012 - TC7X: http://youtu.be/_pF7f8JNyY
- CQWW CW 2012 RT3F: <http://youtu.be/A3UVzSuuTKg>
- HF8N CQWW CW 2012: <http://youtu.be/rymfeLRkELY>

The CQ WW Contest Committee works hard to keep the contest fun and fair for everyone. There is a working group that helps you submit your logs and another that investigates those logs we suspect may have a rules violation. The SDR team recorded all bands from multiple places around the world. Volunteers typed in the 68 paper logs so they could be included in the checking. As always, thanks to Ken, K1EA, for all of his work to develop the log-checking software. John, K1AR, handles the plaque program, and Barry, W5GN, makes sure the 1,811 certificates will get into the mail.

We have changed the organization of the line scores. The Assisted category entries are now listed immediately after the single operator entries for each call area or country. Assisted scores are indicated by an extra "A" appended to the category in the line scores.

The new five-day log deadline was a tremendous success. Having the logs early enabled us to immediately begin the checking process and get the results into the magazine four months earlier than before! Late logs are shown in italics in the line scores.

We hope you enjoyed the 2012 CQ WW DX CW Contest. For expanded results, including more extensive Top Scores boxes, ops of multi stations, and DX and USA QRM, go to www.cq-amateur-radio.com.

A complete review of the rules is planned, so please check the cqww.com and www.cq-amateur-radio.com websites before the 2013 WW DX SSB and CW contests for any changes. The 2013 WW CW contest will be November 23–24, 2013. This is *not* on the USA Thanksgiving holiday weekend, so make plans to be on the air. See you there! 73, Randy, K5ZD

(Continued on page 101)

2012 CQ WW CW & SSB COMBINED CLUB SCORES

Club	#Entrants	Total Score
United States		
YANKEE CLIPPER CONTEST CLUB	.259	478,430,080
FRANKFORD RADIO CLUB	.169	353,267,002
POTOMAC VALLEY RADIO CLUB	.221	300,914,986
NORTHERN CALIFORNIA CONTEST CLUB	.117	129,251,659
FLORIDA CONTEST GROUP	.103	110,942,271
NORTH COAST CONTESTERS	.36	100,974,740
MINNESOTA WIRELESS ASSN	.123	96,779,035
SOCIETY OF MIDWEST CONTESTERS	.119	86,738,715
ARIZONA OUTLAWS CONTEST CLUB	.89	71,577,941
SOUTHERN CALIFORNIA CONTEST CLUB	.64	61,309,448
MAD RIVER RADIO CLUB	.36	50,095,560
SOUTH EAST CONTEST CLUB	.32	49,846,651
CAROLINA DX ASSOCIATION	.58	49,233,286
WILLAMETTE VALLEY DX CLUB	.52	42,190,027
WESTERN WASHINGTON DX CLUB	.56	36,806,573
CENTRAL TEXAS DX AND CONTEST CLUB	.36	34,446,553
ALABAMA CONTEST GROUP	.45	32,688,468
TENNESSEE CONTEST GROUP	.49	32,451,323
DFW CONTEST GROUP	.39	23,932,998
GEORGIA CONTEST GROUP	.21	22,995,189
GRAND MESA CONTESTERS OF COLORADO	.34	22,768,710
HUDSON VALLEY CONTESTERS AND DXERS	.32	15,831,028
LOUISIANA CONTEST CLUB	.13	12,425,687
CTR CONTEST GROUP	.11	10,742,730
MADISON DX CLUB	.14	10,051,224
NORTH TEXAS CONTEST CLUB	.12	9,014,069
MOTHER LODE DX/CONTEST CLUB	.25	8,791,077
SPOKANE DX ASSOCIATION	.20	8,387,993
IOWA DX AND CONTEST CLUB	.5	8,356,549
LONE STAR DX ASSOCIATION	.5	7,910,854
SOUTHWEST OHIO DX ASSOCIATION	.10	7,690,749
UTAH DX ASSOCIATION	.22	7,672,611
ROCHESTER (NY) DX ASSN	.25	7,389,945
WESTERN NEW YORK DX ASSOCIATION	.21	6,918,451
NORTHERN ROCKIES DX ASSOCIATION	.4	6,482,299
DELAWARE LEHIGH AMATEUR RADIO CLUB	.7	4,209,044
BRISTOL (TN/VA) ARC	.15	3,976,194
DELARA CONTEST TEAM	.11	3,606,358
MISSISSIPPI VALLEY DX/CONTEST CLUB	.8	3,398,827
HILLTOP TRANSMITTING ASSN	.5	3,373,985
NORTHERN ILLINOIS DX ASSOCIATION	.5	2,998,742
KANSAS CITY CONTEST CLUB	.12	2,704,300
CENTRAL ARIZONA DX ASSOCIATION	.5	2,272,598
SAN DIEGO DX CLUB	.5	2,263,779
BORING AMATEUR RADIO CLUB	.3	2,259,618
SOUTHERN CALIFORNIA DX CLUB	.7	2,173,923
BERGEN ARA	.8	2,110,609
TEXAS DX SOCIETY	.7	1,809,712
SALT CITY DX ASSOCIATION	.4	1,576,484
KANSAS CITY DX CLUB	.8	1,519,726
ALLEGHENY VALLEY RADIO ASSOCIATION	.4	1,384,580
KENTUCKY CONTEST GROUP	.6	1,361,676
SOUTHEASTERN DX CLUB	.4	1,209,087
METRO DX CLUB	.15	1,108,032
BRAZOS VALLEY AMATEUR RADIO CLUB	.5	1,030,917
59 DX ASSOCIATION	.7	860,669
NORTHERN ARIZONA DX ASSN	.4	844,669
NORTHEAST WISCONSIN DX ASSN	.4	836,247
ALBUQUERQUE DX ASSN	.6	728,285
RADIO CLUB OF REDMOND	.4	700,199
WEST PARK RADIOS	.12	698,546
PORTAGE COUNTY AMATEUR RADIO SERVICE	.5	692,584
PUEBLO WEST AMATEUR RADIO CLUB	.5	557,024
PADUCAH AMATEUR RADIO ASSOCIATION	.3	528,894
STERLING PARK AMATEUR RADIO CLUB	.9	517,296
MILFORD OHIO AMATEUR RADIO CLUB	.10	444,467
SKYVIEW RADIO SOCIETY	.10	440,266
LOW COUNTRY CONTEST CLUB	.4	432,107
SOUTH JERSEY DX ASSOCIATION	.4	410,465
REDWOOD EMPIRE DX ASSOCIATION	.3	389,408
EASTERN IOWA DX ASSN	.4	369,831
GREAT SOUTH BAY AMATEUR RADIO CLUB	.3	276,636
FORT WAYNE RADIO CLUB	.3	256,065
NORTH CAROLINA DX AND CONTEST CLUB	.4	233,715
BLUE RIDGE AMATEUR RADIO CLUB	.3	175,700
SOUTH TEXAS DX AND CONTEST CLUB	.4	104,600
BADGER CONTESTERS	.3	89,344
QSY SOCIETY	.3	66,327
LINCOLN AMATEUR RADIO CLUB	.3	65,364
DX		
BAVARIAN CONTEST CLUB	.284	385,825,731
RHEIN RUHR DX ASSOCIATION	.208	261,225,539
CONTEST CLUB ONTARIO	.109	198,558,034
CROATIAN CONTEST CLUB	.78	144,382,999
LU CONTEST GROUP	.56	107,651,451
SLOVENIA CONTEST CLUB	.56	105,889,191
CONTEST CLUB FINLAND	.72	105,428,414
UKRAINIAN CONTEST CLUB	.104	103,910,153
ARAUCARIA DX GROUP	.62	103,277,730
BLACK SEA CONTEST CLUB*	.119	85,308,618
URAL CONTEST GROUP	.33	80,080,037
SP DX CLUB	.134	67,320,424
HA-DX-CLUB	.21	62,507,905
KAUNAS UNIVERSITY OF TECHNOLOGY RC	.54	56,939,062
RUSSIAN CONTEST CLUB*	.70	56,892,778
LZ CONTEST TEAM	.6	43,183,588
VK CONTEST CLUB	.33	39,780,130
CT3 MADEIRA CONTEST TEAM	.3	39,475,183
ORCA DX AND CONTEST CLUB	.42	36,953,476
ARAB CONTEST CLUB	.6	33,926,914
BOSNIA AND HERZEGOVINA CONTEST CLUB	.18	33,195,388
LES NOUVELLES DX	.12	31,968,331
LATVIAN CONTEST CLUB	.44	30,776,454
CONTEST GROUP DU QUEBEC	.17	30,595,855
SOUTH URAL CONTEST CLUB	.29	26,821,234
WORLD WIDE YOUNG CONTESTERS*	.17	26,266,611
CLIPPERTON DX CLUB	.17	24,930,576
WEST SERBIA CONTEST CLUB	.9	23,078,662
VYTAUTAS MAGNUS UNIVERSITY RC	.12	20,721,263
SKY CONTEST CLUB	.5	20,652,431
MARITIME CONTEST CLUB	.32	20,584,499
BELARUS CONTEST CLUB	.24	20,305,405
RIO DX GROUP	.53	18,870,505
CHILTERN DX CLUB*	.33	18,386,109
RADIO CLUB HENARES	.11	17,608,311
YU CONTEST CLUB	.25	16,190,221
SOUTH GERMAN DX GROUP	.15	16,189,506
RUSSIAN CW CLUB*	.50	14,126,880
TARTU CONTEST TEAM	.4	14,038,324
VRHNIKA CONTESTERS	.9	13,665,673
LYNX DX GROUP	.4	13,343,173
WEY VALLEY AMATEUR RADIO GROUP	.5	10,540,636
BRITISH COLUMBIA DX CLUB	.3	10,370,402
DANISH DX GROUP	.15	10,139,103
BELOKRJANES CONTEST CLUB	.13	9,726,021
UNIVERSITY OF TOKYO CONTEST CLUB	.7	9,673,532
LITHUANIAN CONTEST GROUP	.15	9,650,073
599 CONTEST CLUB	.7	9,066,941
RADIO CLUB VENEZOLANO CARACAS	.7	8,890,165
RADIO AMATEUR ASSOC OF WESTERN GREECE	.5	8,849,347
GRIMSBY AMATEUR RADIO SOCIETY	.7	8,730,626
TORRENT CONTEST CLUB	.4	8,502,432
IVANOVO DX CLUB	.6	8,377,394
CSTA BUCURESTI	.15	8,136,274
VU CONTEST GROUP	.12	7,974,869
NOVOKUZNETSK RADIO CLUB	.12	7,906,904
SHAKHAN CONTEST CLUB	.5	7,685,139
YO DX CLUB	.23	7,573,131
DONBASS CONTEST CLUB	.30	7,535,316
LA CONTEST CLUB	.14	6,819,618
EAST COAST CANADA CONTEST CLUB	.4	6,732,621
RU-OPR CLUB*	.26	6,599,389
LIPETSK RADIO CLUB	.4	6,593,929
CE DX GROUP	.3	6,552,114
RADIOCLUBLUB RADU BRATU	.6	5,787,574
ALRS ST PETERSBURG	.18	5,624,061
VERENIGING VAN RADIO ZEND AMATEURS	.8	4,638,013
SIAM DX GROUP	.7	4,438,572
KYIV DX AND CONTEST CLUB	.4	4,056,866
SASKATCHEWAN CONTEST CLUB	.8	3,893,947
TEMIRTAU CONTEST CLUB	.9	3,666,387
SP CONTEST CLUB	.10	3,484,546
CSM BAIA MARÉ	.4	3,386,168
RADIO CLUB PARMA	.3	3,369,635
GRUPO DXXE	.18	3,281,746
THRACIAN ROSE CLUB	.16	3,237,330
PERM RADIO CLUB	.4	3,161,477
STIRLING DISTRICT AMATEUR RADIO SOCIETY	.3	3,105,862
ARCK	.20	3,009,524
FALKOPINGS RADIOCLOUD	.6	3,095,348
R4F-DX-G	.9	2,957,041
RIIHIMÄKI KOLMOSET	.7	2,942,277
FIRST CLASS CW OPERATORS CLUB*	.4	2,775,525
NEWBURY AND DISTRICT ARS	.6	2,775,473
NICOSIA CONTEST GROUP	.4	2,725,241
OMSIE RADIO CLUB	.10	2,721,447
SKOQQ SODERTORNS RADIOAMATORER	.3	2,505,513
GMDX GROUP	.5	2,409,641
ARGO	.4	2,325,797
DOMODEDOVO	.6	2,275,789
YAMAL RADIO CLUB	.5	2,190,087
KOREA CONTEST CLUB	.5	2,172,773
UA2 CONTEST CLUB	.9	2,141,449
STAVROPOL REGION CONTEST CLUB	.11	2,019,043
CENTRAL SIBERIA DX CLUB	.5	2,015,027
BESSARABIAN CONTEST CLUB	.5	2,011,850
ORENBURG CONTEST CLUB	.6	1,967,842
SK6AW HISSINGENS RADIOKLUBB	.10	1,935,540
CLUB DE RADIO EXPERIMENTADORES		
DE OCCIDENTE	.4	748,806
I2MAIL RADIO CLUB	.3	60,252
KRISTIANSTADS RADIOMATATORER	.4	43,803
GEMILANG DX CONTEST GROUP	.3	35,729
SHETLAND CONTEST GROUP	.5	24,138
BARIVM DX TEAM	.3	992

*Club entry does not meet all rules.

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. An 'A' after the band indicates Assisted category. Certificate winners are listed in bold. Late logs are listed in italics. (All country terminology reflects the DXCC list at the time of the contest.)

2012 CQ WW DX CW RESULTS SINGLE OPERATOR NORTH AMERICA

United States - District 1

KODD/A	9,607,806	4616	165	576	NU10	"	160,560	266	81	159	NJ1F/2	"	270,286	350	75	223	WA3F	"	1,558,455	1085	123	412	*N9CM/4	"	835,744	719	113	303	
K1DG	8,630,788	4333	160	562	K8SJ	AA	143,175	232	77	172	AB2DE	"	242,094	307	96	218	NE3H	"	1,511,520	1335	110	360	*W4YE	"	759,717	707	108	281	
K1ZZ	6,965,515	3724	153	504	W1NT	"	93,526	201	74	128	WA2MCR	"	201,051	355	85	182	N3NA	"	1,323,426	968	111	383	*K4IE	"	636,727	641	95	273	
K1RX	6,589,375	3914	142	482	N1EN	"	86,800	201	44	111	WK2KH	"	138,450	249	49	164	K3SV	"	1,279,044	1001	100	362	*W4GDG	"	391,986	505	84	222	
W1KWM	"	"	"	"	WY1U	"	85,772	200	45	119	W2GDJ	"	108,741	225	54	147	N3ZA	"	1,225,564	825	136	402	*N3D6/4	"	260,843	399	71	182	
K1ZP	5,348,940	3263	144	456	W1CU	"	62,363	148	41	110	K2YR	"	104,799	203	51	130	N3GJ	"	1,140,593	901	100	385	*KS4X	"	252,450	357	81	189	
K02M/1	3,859,755	3003	115	352	N1A1P	"	58,995	166	37	98	NJ1P/2	"	100,334	169	55	166	W3GK	"	1,100,223	250	199	32	*N4AO	"	240,350	349	68	184	
K1RU	3,467,569	2582	127	370	W1FA	"	44,240	124	48	92	K2EP	"	89,994	199	36	123	NB3R	"	1,063,120	1060	82	306	*W4AGQG	"	110,204	239	59	137	
W2JU/1	2,521,440	1713	111	404	K2K0/1	"	38,520	159	19	71	NG2P	"	32,395	126	28	67	KC3WX	"	958,230	898	101	286	*K4FJW	"	235,764	381	57	165	
W1HIS	1,110,012	902	130	346	K1DT	"	22,050	99	20	70	WA3AFS/2	"	8,100	55	54	54	W9E/3	"	924,924	746	100	359	*K4NC	"	203,299	316	90	173	
W1EQ	1,065,334	1108	88	258	W1MAW	"	16,700	70	41	59	W2FB	"	7,998	49	24	36	K9RS/3	"	908,215	616	111	243	*K4RD	"	636,727	641	95	273	
K1BV	925,287	942	84	279	K2AKON/1	"	13,440	76	27	53	WB2AIV	"	6,652	48	16	36	K3NM	"	944,351	583	66	239	*W4OG/4	"	431,320	525	90	238	
K1YT	625,702	592	91	283	K1QS	28A	18,334	113	23	66	N2HO	"	5,136	41	16	32	N3MX	"	828,084	688	120	333	*W8MSG	"	391,986	505	84	222	
KC1XX	586,360	796	69	205	W1FQ	7A	104,164	312	32	102	K2SSS	28A	388,838	949	29	129	K3VA	"	631,627	592	100	295	*K4TO	"	236,379	255	57	137	
K1JJ	"	"	"	"	W3IZ/1	"	38,520	159	19	71	W2R	"	5,180	154	36	107	W3AAAN	"	518,896	601	80	248	*K4PRK	"	108,330	199	66	162	
W1FM	427,062	493	84	245	K1H	14A	3,206,820	1983	116	54	W2R	"	55,245	164	30	97	W3W	"	500,786	500	102	272	*K4LTA	"	107,937	270	54	125	
K1LU	353,808	819	92	232	K1Z	14A	4,287,417	3724	153	504	W2R	"	380,100	384	22	408	W3Q	"	458,351	583	66	239	*W4NA	"	100,500	216	63	138	
K2PO/P1	232,368	302	89	257	K1T	7A	1,487,808	201	115	389	W2R	"	4,175,108	1125	115	363	K3AT0	"	301,167	388	87	220	*K4N	"	94,351	186	64	127	
NG7A/1	205,288	461	70	198	W1FA	"	1,456,270	982	127	408	W2R	"	3,420,161	361	104	260	K3DB	"	186,864	268	72	200	*AA4KD	"	70,905	199	53	110	
AA1SU	161,974	306	71	147	K1JJ	21A	39,295	109	61	84	W2R	"	3,221,904	83	90	226	N3XL	"	180,276	295	71	178	*N8IK/4	"	69,188	186	54	112	
K1CN	124,701	255	62	149	K1JJ	21A	39,295	109	61	84	W2R	"	3,221,904	83	90	226	N3XL	"	180,276	295	71	178	*W4AGQG	"	69,188	186	54	112	
K1RM	81,284	316	24	70	W1T	21A	39,295	109	61	84	W2R	"	3,221,904	83	90	226	N3XL	"	180,276	295	71	178	*W4AGQG	"	69,188	186	54	112	
K8TS/WB	"	"	"	"	W1T	21A	39,295	109	61	84	W2R	"	3,221,904	83	90	226	N3XL	"	180,276	295	71	178	*W4AGQG	"	69,188	186	54	112	
W1OHH	67,039	204	40	117	W2BC	21A	4,604,202	208	140	448	W2ZOW	21A	63,304	154	50	114	W3HY	"	2,453,032	151	125	453	*K4HOK	"	37,170	180	50	105	
K1KL	51,322	166	40	94	W2BC	21A	4,604,202	208	140	448	W2ZOW	21A	63,304	154	50	114	W3HY	"	2,050,368	139	126	417	*W4EUL	"	36,771	118	37	82	
WB1AEL	36,704	164	52	96	K2V	21A	3,355,700	217	135	421	W2ZOW	21A	63,304	154	50	114	W3HY	"	1,686,707	676	98	307	*K4WUH	"	31,784	124	34	82	
K1KI	31,195	137	29	56	W2BC	21A	3,641,826	1797	120	409	W2ZOW	21A	63,304	154	50	114	W3HY	"	1,304,368	437	114	316	*W4JFZ	"	29,458	113	55	88	
K1KT	28	541,242	1239	32	130	W2BC	21A	1,162,130	888	130	333	W2ZOW	21A	63,304	154	50	114	W3HY	"	870,334	437	114	316	*W4JFZ	"	55,173	131	50	101
K1MM	28	369,414	1239	32	130	W2BC	21A	697,300	736	91	276	W2ZOW	21A	63,304	154	50	114	W3HY	"	870,334	437	114	316	*W4JFZ	"	55,173	131	50	101
K1WH	21	599,955	2045	37	131	W2BC	21A	691,698	788	93	291	W2ZOW	21A	63,304	154	50	114	W3HY	"	870,334	437	114	316	*W4JFZ	"	55,173	131	50	101
K1WM	3.5	420,665	1307	31	131	W2BC	21A	557,350	627	78	236	W2ZOW	21A	63,304	154	50	114	W3HY	"	870,334	437	114	316	*W4JFZ	"	55,173	131	50	101
K1XT	"	3,988,828	2629	131	431	W2BC	21A	541,414	100	231	323	W2ZOW	21A	63,304	154	50	114	W3HY	"	2,453,032	151	125	453	*K4HOK	"	37,170	121	37	82
K1WU	A	3,988,828	2629	131	431	W2BC	21A	525,200	800	101	255	W2ZOW	21A	64,490	122	45	145	W3HY	"	2,050,368	139	126	417	*W4EUL	"	36,771	118	37	82
K1WV	"	3,815,427	2381	143	454	W2BC	21A	128,991	231	64	155	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,686,707	676	98	307	*K4WUH	"	31,784	124	34	82
K1WZ	"	1,842,047	2301	123	401	W2BC	21A	126,800	231	64	155	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,304,368	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WY	"	1,442,430	1262	108	315	W2BC	21A	51,528	217	90	171	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WT	"	1,278,900	1262	106	311	W2BC	21A	51,528	217	90	171	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WVJS	"	1,184,976	996	103	319	W2BC	21A	234,400	652	25	105	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WZ	"	1,631,614	281	70	152	W2BC	21A	97,820	653	70	232	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WFX	"	157,850	235	50	157	W2BC	21A	96,820	593	60	96	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WPU	"	141,240	265	59	143	W2BC	21A	485,784	553	94	257	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WNV	"	129,600	222	56	139	W2BC	21A	396,967	482	86	237	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WNN	"	105,939	221	52	127	W2BC	21A	290,304	401	68	220	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1WDFY	"	81,516	173	32	127	W2BC	21A	291,790	37	87	223	W2ZOW	21A	64,490	122	45	145	W3HY	"	1,236,388	437	114	316	*W4JFZ	"	31,784	124	34	82
K1GIV	14	46,500	181	22	117	W2BC	21A	22,000	301	76	180	W2ZOW																	

W7WZ/4	231,085	460	107	302	WA5LFD	"	21,321	80	41	62	W5D0/6	"	153,900	267	89	136	K7KU	"	1,644,275	1346	131	314	N7RVD	"	14,280	66	39	45
K4HAL	228,855	419	61	148	KK5JY	"	15,159	83	36	57	W5OM/6	"	134,575	337	70	105	(OP:KK0R)	"	10,676	61	31	37	W7GT	"	10,676	61	31	37
W4AS	227,815	295	87	196	A45B	28	57,024	229	26	62	N6MI	"	128,439	271	83	118	K7QO	"	1,569,308	1433	130	282	K7FL	"	9,559	51	34	45
K4GMH	224,710	381	45	185	K25J	"	21,801,810	555	29	94	W06M	"	117,810	279	60	110	KG7H	"	1,553,040	1092	147	393	N6VR/7	"	4,232	40	19	27
W4TUN	224,576	352	98	152	N5NU	14	676,915	1441	38	147	W6RF	"	113,163	279	80	121	W6AEA/7	"	95,480	1107	98	218	AD7KG	"	2,730	26	19	20
NE4M	213,920	339	63	159	NR5M	7	669,445	1513	37	118	W6WD	"	73,692	198	54	84	W7PU	"	479,895	578	105	194	K7MZ	"	2,418	25	19	20
W2YE/4	211,958	295	83	179	(OP:K5GA)		6	1	1	1	K6ZB	"	71,036	193	64	108	(OP:N7EPD)		1,593,005	193	117	254	K7AWB	"	936	13	11	13
N3BM/4	199,307	325	56	185	K5WL	"	6	1	1	1	W6KNB	"	68,202	179	59	103	K7LY	"	477,477	539	117	254	K7AWB	"	192	8	8	8
K4JRA	186,924	297	59	163	WD5R	1.8	20,355	195	19	50	W6GDW	"	56,576	179	52	76	K7XZ	"	440,832	496	104	224	(OP:K8BN)	"	103,270	400	29	86
AF4RK	181,412	336	50	159	(OP:N5ECT)		52,026	156	56	82	(OP:K8BN)		46,846	155	54	64	K7CF	"	413,655	626	112	215	N7DD	"	397,280	885	35	125
K4RCG	177,889	362	66	196	(OP:K8BN)		1,490,760	1087	129	376	W6AYC	"	38,129	159	41	50	K2VB/7	"	362,304	514	95	177	(OP:W7CT)		357,238	867	34	42
WK4Y	176,748	246	75	211	WD5K	"	983,875	823	124	301	K6UO	"	18,032	75	37	55	W7FI	"	349,056	513	105	183	W7ZR	"	357,238	867	34	42
W4ZN	171,360	293	63	155	K5KLA	"	92,185	859	117	310	W6DAS	"	8,378	109	48	70	K5T	"	343,089	444	91	200	AB7R	"	205,335	574	32	103
K4AOA	154,880	239	74	182	K5KU	"	617,210	608	115	247	W6UG	"	162	16	9	7	W0XG	"	288,496	454	98	194	W7V	"	37,312	167	28	60
K4EDI	143,104	213	82	174	N5PO	"	685,650	700	93	257	K6GAO	"	88,072	320	28	73	N7YQ	"	187,726	297	97	156	K7PI	"	144	115	39	122
K8KU/4	140,239	297	55	154	WQ5L	"	539,462	611	96	245	W7DR/6	"	67,332	255	28	65	W6KGP/7	"	161,586	297	75	141	N6SS/7	"	568,821	1199	35	125
AD4IE	138,087	281	54	147	K5LH	"	537,655	650	104	263	N5ZD/6	21	379,951	1054	33	110	K0TH	"	160,555	299	87	111	K7N	"	354,560	830	38	122
NS4X	120,625	241	67	126	W5RYA	"	370,815	475	85	210	W0YK/6	"	301,098	882	32	102	W7IT	"	132,012	345	88	140	W7RN	"	334,695	750	38	121
ND4V	109,720	195	59	152	N5XE	"	52,026	156	56	82	K6GDW	"	46,846	155	54	64	K7CF	"	413,655	626	112	215	N7DD	"	397,280	885	35	125
N4LR	102,342	177	71	151	WA5ZKO	"	242,824	374	78	161	W6UM	"	156,455	386	33	112	W7XVS	"	121,638	286	66	128	K7FA	"	4,740	46	19	41
AJ4CG	101,304	182	53	148	N5KWN	"	208,008	283	124	301	K6UO	"	18,032	75	37	55	W7FI	"	349,056	513	105	183	W7ZR	"	357,238	867	34	42
K1PT/4	100,572	193	63	141	(N7F5L/5)		197,520	375	80	160	K6NA	7	529,474	1249	37	120	W7CQ	"	110,864	248	82	126	W6RL/7	"	3,5A	6,063	119	18
K4OV	93,034	195	60	121	K0GE0/5	"	144,720	278	64	137	N6RV	A	1,098,480	957	135	325	W4U/7	"	111,798	215	60	106	*N7CM	AA	962,615	961	117	205
K8YC/4	82,824	173	69	135	N5OSQ	"	136,200	273	66	134	W6NK	"	642,786	877	95	203	W7ON	"	88,218	220	67	102	*K6WS/7	"	538,219	636	123	310
AA4CF	79,895	198	49	96	K5CJU	"	133,950	274	59	131	N6MU	"	330,400	445	91	189	W7UG	"	84,846	387	57	101	*AF7S	"	262,295	416	94	80
W200/4	75,820	177	61	109	N5FY	"	122,324	217	75	137	(WB7YQ/6)		184,086	380	65	124	K7NT	"	81,926	252	87	147	K7UM/7	"	190,960	311	81	139
N1MGU/4	72,906	175	49	125	WQ5R	"	93,450	277	76	134	K4A9V6	"	96,448	254	69	107	N5LZ/7	"	77,182	207	53	96	K7SS/7	"	87,669	208	48	105
W4PV	67,488	273	79	149	N5IF	"	73,515	204	97	96	K6BX	"	77,430	194	71	103	K7BN	"	75,600	182	77	98	K7X/L	"	73,002	192	65	73
W4GV	59,713	231	77	134	N9OF/5	"	72,905	159	56	118	K6GKX	"	69,058	193	57	89	W7GT	"	61,904	206	53	93	*AK7AT	"	68,926	194	60	83
K4AR	58,880	221	57	148	N5WH	"	63,796	192	55	109	(A6EE)		46,774	241	74	108	N7RK	"	36,096	108	49	79	K7CAVJ	"	67,734	153	60	99
K4ZHJ	57,122	176	136	46	N9NM/5	"	59,830	194	54	101	K6QRT	"	44,599	158	45	82	K7DT	"	22,347	94	43	74	N7VEA	"	53,406	144	58	80
WA2BCB/4	55,808	159	34	94	N5PU	"	55,955	174	52	103	N6BHX	"	40,406	172	42	47	K7XT	"	18,960	96	36	43	K7HV	"	52,096	125	57	119
W4KW	53,106	187	50	101	N5W	"	51,944	188	53	100	N6W	"	37,000	144	62	83	K7E7U	"	33,598	122	46	61	AE7U	"	33,598	122	46	61
K21X/4	53,431	182	50	101	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WC3W/4	53,749	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114	K7Q	"	31,020	113	84	114
WB7Z/4	52,989	160	50	122	N5W	"	51,944	188	53	100	W6PVG	"	37,000	144	62	83	N7JB	"	31,020	113	84	114</td						

WD8KNC	•	19,435	105	41	74	*K9CW	*	46,843	120	51	88	*WD0ECO	*	432,563	516	83	224	*VE3TG	21	148,180	428	25	99	XE1MM	A	914,373	1443	84	199						
W8TE	•	17,114	60	32	74	*NOLAH	*	29,501	129	44	96	*K9VU	*	367,080	422	103	219	*VE3GUY	14	32,172	177	40	52	XE1L	A	44,650	279	26	69						
K9WV	28A	127,788	392	99	198	*NGUN	*	26,781	119	38	75	*W0VDX	*	285,186	357	98	200	*VE3UTT	AA	4,579,400	2592	158	542	XE2MX	A	200,499	349	97	197						
W8CZN	14A	123,272	343	34	118	*K9JU	*	15,957	72	32	49	*W0VDX	*	285,186	357	98	200	*VE3MMQ	*	3,282,768	2183	131	465	*XE2AU	"	193,500	557	67	105						
WA3C/S	7A	169,850	461	37	128	*K9BQ	*	15,820	94	44	69	*K9ODEB	*	225,320	321	86	176	*VE3RZ	*	2,797,200	301	99	185	K9E1/AA0AA	*	49,141	147	57	100						
K082Z	•	39,071	168	52	67	*K9CRNK	*	11,259	55	35	46	*AOVW	*	210,728	176	93	185	*VE3KI	*	2,280,465	1947	116	379	*XE2YWH	28	15,950	128	17	38						
KU1/T/8	3.5A	5,880	74	18	42	*W0ST	*	11,008	60	24	40	*K9FTC	*	124,389	283	63	117	*VE3XAT	*	1,255,905	1135	97	346	2/	293,632	1006	31	97	1						
W8U/NZ	1.8A	25,149	206	22	29	*W9AKS	*	7,332	71	15	32	*W0RAA	*	73,602	170	62	121	*VE3AD	*	231,579	399	68	175	*XE1ZTW	"	1,100	23	9	11						
*K9GT	AA	610,722	552	103	290	*WB3RFB/9	*	5,917	45	26	35	*K9ZG/0	*	58,320	166	47	88	*VA3DX	*	51,820	141	47	96	*VE1AY	14	24	2	2	2						
*K9BL	•	108,870	201	71	150	*W0BT	*	4,814	47	29	30	*K9PDR	*	47,428	142	55	97	*VE3CX	7A	421,993	1261	33	110	*XE1AY	14	24	2	2	2						
*W8DW	•	92,278	217	62	123	*K9LA	28A	123,660	325	30	105	*K9PDR	*	47,428	142	55	97	*VE3UTT	AA	4,579,400	2592	158	542	XE1MM	A	914,373	1443	84	199						
*NS9Q	•	62,168	152	53	99	*W9XR	21A	19,656	111	19	53	*K9BIDE/0	*	45,261	159	52	89	*VE3MMQ	*	3,282,768	2183	131	465	*XE2MX	A	200,499	349	97	197						
*MV8F	•	38,989	149	35	92	*W9LY	14A	211,885	497	35	120	*W0SOK	*	22,041	89	31	62	*VE3RZ	*	2,797,200	1900	130	454	*XE2AU	"	193,500	557	67	105						
*K9GZ/8	7A	29,040	127	22	66	*N9XQ	*	162,576	442	30	104	*NIOR	*	15,600	79	33	47	*VE3KI	*	2,280,465	1947	116	379	*XE2YWH	28	15,950	128	17	38						
*N8MZ	3.5A	43,656	169	23	79	*K9CO	1.8A	6,116	64	12	32	*WOGN	*	15,400	88	23	47	*VE3XAT	*	1,255,905	1135	97	346	*XE1ZTW	"	1,100	23	9	11						
United States - District 9														United States - District 0																					
W8RE	A	5,788,320	3414	157	463	K9EU	A	3,764,218	2490	148	415	K9DO	CVO	5,427	48	26	41	*VE3GUY	21	148,180	428	25	99	*VE3UTT	AA	4,579,400	2592	158	542	Mexico	A	914,373	1443	84	199
N9CK	•	3,314,855	209	138	427	K9XT/0	*	1,916,706	132	145	369	K9DU/0	*	225,320	321	86	176	*VE3MMQ	*	3,282,768	2183	131	465	*XE2MX	A	200,499	349	97	197						
K9MA	•	2,376,802	1633	141	380	K9FX	*	1,581,944	1198	138	395	K9NR	*	22,041	89	31	62	*VE3RZ	*	2,797,200	1900	130	454	*XE2AU	"	193,500	557	67	105						
K9JC	•	1,444,030	1070	116	374	K9OOR	*	1,211,427	1063	123	318	K9FIQ	*	15,600	79	33	47	*VE3KI	*	2,280,465	1947	116	379	*XE2YWH	28	15,950	128	17	38						
W8OP	•	1,434,244	108	123	375	K9EU	*	965,600	609	115	310	K9DU/0	*	188,725	751	111	188	*VE3XAT	*	1,255,905	1135	97	346	*XE1ZTW	"	1,100	23	9	11						
K1TM/9	1.0A	1,025,550	885	109	321	K9DU/0	*	886,725	91	118	193	K9DU/0	*	15,400	59	26	41	*VE3CX	*	5,620	153	43	103	*VE1AY	14	24	2	2	2						
KV9KYD	•	346,656	468	95	219	K9DEQ	*	795,340	891	82	240	AL1G	A	212,056	987	48	56	*VE3UTT	AA	5,352,100	182	27	84	*VE1MM	A	914,373	1443	84	199						
K9DU/0	•	326,608	455	78	196	K9IO	*	684,432	712	113	275	NL7G	AA	2,821,975	2606	130	315	*VE3MMQ	*	5,620	153	43	103	*VE1MM	A	914,373	1443	84	199						
W8GDH/9	•	313,168	405	85	211	K9AP	*	679,686	637	105	279	*KL8DX	A	797,062	1862	69	128	*VE3RZ	*	5,620	153	43	103	*VE1MM	A	914,373	1443	84	199						
W9MS	•	234,684	379	73	173	K9ZX	*	240,748	363	95	183	NL7G	AA	2,821,975	2606	130	315	*VE3MMQ	*	5,620	153	43	103	*VE1MM	A	914,373	1443	84	199						
K9GN	•	200,186	455	43	115	NL7G	*	235,944	379	81	180	AL1G	A	212,056	987	48	56	*VE3UTT	AA	5,352,100	182	27	84	*VE1MM	A	914,373	1443	84	199						
K9FO	•	96,960	212	79	123	W8MHW/0	*	229,350	306	90	188	*KL8DX	A	797,062	1862	69	128	*VE3MMQ	*	5,620	153	43	103	*VE1MM	A	914,373	1443	84	199						
K9JJ	•	76,809	152	52	101	NL7U	*	220,394	389	83	180	NL7U	*	2,821,975	2606	130	315	*VE3MMQ	*	5,620	153	43	103	*VE1MM	A	914,373	1443	84	199						
W9GT	•	44,890	148	47	87	W0ZQ	*	207,394	335	82	160	W0ZQ	*	740,801	1554	78	125	*VE3UTT	AA	5,352,100	182	27	84	*VE1MM	A	914,373	1443	84	199						
K9AU	•	15,477	89	34	43	K9WA	*	200,382	277	72	201	W0ZQ	*	38,739	141	46	65	*VE3MMQ	*	5,620	153	43	103	*VE1MM	A	914,373	1443	84	199						
W8V/6G	•	10,672	72	27	37	K9CWN	*	154,000	269	73	147	AL9A	AA	59,995	419	23	42	*VE3UTT	AA	200,744	515	58	128	*VE1MM	A	914,373	1443	84	199						
N9GH	•	88	4	4	4	K9ALT	*	148,533	277	67	130	*AL7L	AA	1,802	20	16	18	*VE3MMQ	*	64,090	184	61	109	*VE1MM	A	914,373	1443	84	199						
WR9D	28	93,780	377	25	65	W0BLCW	*	148,200	267	80	148	*WL7BD	AA	3,612	74	10	11	*VE3MMQ	*	14,596	84	36	53	*VE1MM	A	914,373	1443	84	199						
K9NW	21	715,595	1502	36	131	W0ZQ	*	4,848	44	14	34	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
W9VA	•	42,001	157	27	70	N0BR	*	33,354	117	43	59	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
K9OT	•	41,612	185	29	74	W0TQ	*	26,076	114	50	73	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
W9LX	14	97,784	295	35	101	W0EB	*	21,470	85	40	55	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
W93AY	•	6,142	266	101	253	W0GLB	*	4,848	44	14	34	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
K9JAC	•	11,778	59	29	49	AD0H	*	45,402	150	51	90	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
N9D9	•	10,008	68	29	43	N0NC	*	36,576	131	50	77	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
AC9DE	•	9,198	68	28	45	AA0FO	*	30,401	107	33	68	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
AB9YC	•	7,308	84	34	50	W0GFM/0	*	17,516	89	28	45	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
K9PMV	•	4,290	82	43	23	K9C/0	*	17,516	89	28	45	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
W8PDT/0	•	3,105	28	21	24	K9TC	*	16,595	60	28	37	*V26K	A	8,447,562	6268	132	426	*VE3MMQ	*	4,740,800	1515	90	155	*VE1MM	A	914,373	1443	84	199						
K9BYG	•	2,584	28	17	21	W0A/LJM	*	10,595	60	28</td																									

*V5TYJ	21	Namibia						RA9DZ UA9PS RL9I UA9YE	2,354,579 1,500,360 696,540 478,485 RA9AAA RN9CM	1768 117 412 1431 99 322 610 118 352 104 239 390 97 244 333 105 280	*YM3KB	Asiatic Turkey						4X2M A 6,644 51 12 32 (OP:TA3DJ)	21	1,003,054 4,310,211 3211 128 389	28	23,800 152 26 33 17,346 155 23 34							
		320,117	808	32	107							A	5,657,124 14,043 14,043	3710 129 432 (OP:U4AL)	*4Z4DX *4Z5ML *4Z5MU *4Z5QO	A 6,644 14A 61,275 389 16 41	21	2,277 (OP:4X4DZ) 389 16 41	21	1,003,054 4,310,211 3211 128 389	28	48 4 3 3							
South Africa	21	South Africa						TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X	TC7X *TA3X						
		A	1,458,474	1968	72	186	R8MC	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA	RA9AAA				
		21	1,972,120	3583	39	149	117,688	90	97	244	30,134	316,134	333	105	280	165,432	165,432	165,432	165,432	165,432	165,432	165,432	165,432	165,432	165,432	165,432			
		ZA9NF	285,752	536	63	121	R8K8	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR	RA9JUR			
		ZS1EL	125,048	285	59	95	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR		
		ZS4T	21,328	116	30	56	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR		
ZS1LS	AA	15,100	70	37	63	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR			
		ZS6A	4,727	61	12	17	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR		
ZS6WN	AA	148,575	309	56	119	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR		
		ZS6C	21,328	116	30	56	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
5H3EE	A	6,023,160	4096	132	37	375	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR		
		Tanzania	7,985	67	16	29	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
*3V8BB	A	1,135,420	1517	66	220	(OP:KF5EY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		Tunisia	1,605,124	1507	34	125	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
*5X1NH	21	1,122,653	2519	37	124	(OP:KF5EY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		Uganda	1,605,124	1507	34	125	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
*9J3A	28	1,396,764	3025	33	129	(OP:SS53A)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		ASIA	3,868,599	2228	144	483	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
*T6LG	AA	3,863,955	2946	126	393	(OP:LZ12G)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		Afghanistan	1,210,548	1625	63	218	(OP:KG9GY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR
*E6GLP	28	102,443	636	15	52	(OP:KG9GY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		Armenia	304,257	1080	24	34	(OP:WR9W0)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR
Asiatic Russia - District 9	A	7,319,020	4836	141	439	(OP:WR9W0)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		R8DX	5,840,614	4250	121	408	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		R6TR	2,692,480	2392	121	248	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		UA9NWA	2,598,603	1990	143	309	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		UA9OG	762,705	1113	60	195	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		R8MD	740,399	1087	60	197	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
RA9SAW	A	553,963	973	99	147	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		RW9I	339,006	612	66	145	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR
RA9UJ	AA	135,650	494	39	101	(OP:KG9GY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		RW9J	14,480	494	39	101	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR
RA9AF	A	637,495	368	65	202	(OP:KG9GY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		RW9J	305,088	239	65	202	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
RA9AG	A	394,274	774	17	54	(OP:KG9GY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	
		RW9K	311,263	203	23	71	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR
RA9B	A	57,159	294	22	65	(OP:KG9GY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR
		RW9L	210,274	774	17	54	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR
RA9C	A	7,181,301	231	23	71	(OP:KG9GY)	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR	RA9UR

*J02OUL	3,132	45	30	28	*JK4DUJ/4	15,810	86	35	50	*JH8XVH	28	25,612	152	31	45	Republic of Korea	AA	264,793	502	87	149	
JH2HMYN	28	23,870	175	29	48	*JH4PTI	5,600	56	35	50	*JARCEA	21	25,344	102	29	50	H1L0UQ	A	264,793	502	87	149
JR2VRN		23,852	168	29	48	*J44ATV	3,990	38	20	18	*JECRA		8,142	81	19	27	H1L1WD		162,309	489	73	104
J2A2RPZ		7,755	15	8	13	*J15KS4/	1,776	35	12	12						DSSVTG		72,228	192	63	93	
J2AKKA	21	56,925	299	24	51	*J15PV	3,991	12	10	9	*JH8CXW	AA	362,805	529	103	182	H1L3AMO	3.5	7,399	94	11	14
J2RZNC		53,010	239	29	51	*J4RGAPE	28	328	25	45	*JAC8C0E	AA	153,596	314	12	31	H1L2FDW	1.8	3,025	118	11	14
J2F2FU		52,374	248	28	59	*J4RFILW/4	21	89,232	352	32	*JL8BTI		912	20	13	11	*H1L6GE	A	100,200	293	67	101
J2RLBF		7,440	66	19	28	*J4HUFU	4,756	47	20	21	*JH8DBJ	28A	10,187	71	27	40	DSSWWS		21,780	191	43	47
J2FKWM		7,252	68	18	31	*JJ4CDW	14	116,510	367	35	*JG8IBY	21A	5,320	79	16	24	*H1LS1CB		5,292	48	26	23
J2FAUJ		2,475	33	9	16	*JE4URN					*DS2G00	7	2,419	44	16	25						
J2KVOV		1,840	39	10	10	*JA4AVO	7	1,170	47	14	*H1LS2Y											
J2G2QUM		416	12	5	8	*JA4CUU	1.8	2,780	55	12	*H1LS3Y											
J2GKKG	14	314,279	894	35	98																	
J2LPX		88,724	344	32	77	JH4UTP	AA	1,755,845	1610	142	J19GL											
J2AHYD	7	15,184	119	18	53	J04B08	414,946	629	98	178	J19CWJ	14	308,420	817	33	107	*H1L4AU	AA	688,900	906	107	225
J2FWX		5,459	56	16	37	J04CTB		327,968	539	113	J19USW	A	146,264	339	68	120	*H1L5Y		252,587	435	86	143
J2AZWH		1,170	25	9	9	J19USW		123,740	233	81	JH1TXG/9	21	113,080	420	32	78	*H1L2KAU	28A	513	15	8	11
J2ABQZ		950	22	9	16	JE4PU		35,340	205	27	J19XG/9											
J1G2ZC		384	14	6	6	J4MM0	28A	218,163	711	37	J19XG/9											
JF20ZH	AA	942,375	1043	121	21	J04CFV		12,495	102	20	J19XG/9											
JF20NM		285,476	543	93	121	J04FHE	3,544	98,670	443	27	J19XG/9											
JR2PMT		256,828	370	108	178	J19JEN	AA	253,800	475	69	J19XG/9											
J1ZXIU		47,082	163	41	77	JM4WUZ	8A	81,718	354	31	J19XG/9											
JK2TPT		1,395	20	15	16	JH4CES	3,54A	23,920	168	21	J19XG/9											
J2AXYY	21A	313,728	834	36	116																	
J2FSFM		3,248	44	14	15																	
JF2WLN	14A	4,968	73	14	13																	
JR2SCJ	3,5A	27,392	201	23	43																	
JR2UXL		8,550	90	17	28																	
JH2XXK	1,8A	19,345	148	16	13	J5B2LZL	1.8	2,929	38	9	J19XG/9											
JF2GXF		2,464	47	13	15	J5GDH	A	431,897	621	94	J19XG/9											
J2D2LM		924	20	8	13	J5HJDH		129,766	318	75	J19XG/9											
J1D2WDL	AA	18,400	88	43	49	J5MCBU		85,510	285	67	J19XG/9											
J2EVYM	28A	1,050	18	11	11	J5MRB		59,796	204	56	J19XG/9											
J2EXHL	21A	46,240	269	23	45	J5ASUD		12,441	73	33	J19XG/9											
J2RAAN/2		20,475	122	23	40	J5AVG/5		12,300	70	36	J19XG/9											
JR2LJS		77	6	5	6	J5MSGG		11,214	123	41	J19XG/9											
JM2LHB	14A	825	18	12	13	JH5FTY	28	41,919	209	33	J19XG/9											
JJ2PUG		7A	1,708	27	14	J5ATVN		8,234	81	17	J19XG/9											
Japan - District 3																						
J1B2FC	A	1,363,712	1221	132	316	*J5XPD	3.5	1,426	32	13	J19XG/9											
JU3JL		833,100	1092	191	191	J5D0WY	AA	11,880	91	38	J19XG/9											
JR3DQH		370,052	588	102	192	J19XG/9																
J3A3AV		345,600	523	90	166	J19XG/9																
J300OS		285,905	470	111	160	J19XG/9																
JG3LGD		138,627	249	86	133	J19XG/9																
J3R3EX		85,760	293	48	80	J19XG/9																
J3R3KE		82,295	260	65	86	JAGLCJ	A	3,064,560	2597	140	J19XG/9											
J3R3VQ		66,240	214	63	93	JAEFFK		396,738	572	112	J19XG/9											
J3R3ZY		31,524	121	46	65	J5SRGY	28	504,729	132	36	J19XG/9											
J3R3XJ		16,188	112	25	53	JH6DUI	21	25,058	126	26	J19XG/9											
J3R3BYR		7,938	67	32	31	JAGSHL	7	37,103	1318	29	J19XG/9											
J3C3DK		1,683	24	16	15	JAGPCH	3.5	182	9	6	J19XG/9											
J4A3EGE	28	45,756	223	33	60	*J56GIN	A	231,661	413	76	J19XG/9											
J4A3DAY	14	83,104	278	31	81	*JEF6TN		108,290	276	74	J19XG/9											
J4A3HFB		198,225	383	84	141	J4EL6V	7	9,720	80	21	J19XG/9											
J4A3VAX		176,128	243	63	107	J46GIM	3.5	30,552	181	23	J19XG/9											
J4R3NDM		159,588	374	69	129	J46BZJ	AA	2,179,590	1479	156	J19XG/9											
J5S3E0E		104,652	281	71	100	J47ACM		1,067,307	1191	124	J19XG/9											
JH3BXY		87,230	280	54	76	J47EXR		142,641	256	93	J19XG/9											
J3A3EBT		58,480	210	51	85	J47AW0	28A	68,250	303	32	J19XG/9											
J3A3NOJ		53,439	155	51	90	J19XG/9																
J3A3BDP		37,323	153	47	70	J46XGP	14	17,721	95	41	J19XG/9											
JH3PTC		30,800	147	49	51	J56RTJ	21A	131,625	404	34	J19XG/9											
JG3LDD		25,543	121	42	47	J19XG/9																
J303UKG		140	6	5	4	J7AVNF	21	291,580	983	33	J19XG/9											
JF3IYW	28	41,272	270	26	41	JAD7DT		25,443	104	31	J19XG/9											
JN3D5V		35,624	200	27	46	J47FR	14	66,199	1659	37	J19XG/9											
JN3LWSL		14,756	104	34	34	J47UJ		46,626	160	43	J19XG/9											
J3A3GW		9,620	74	30	44	J47UJ		23,278	345	31	J19XG/9											
J3A3EVW		3,102	36	20	27	J47JHT		26,265	119	48	J19XG/9											
J3A3TJOY		2,1	2	1	1	J47JXP		11,173	49	28	J19XG/9											
J4R3EVI	21	344,720	1063	34	90	JH7T0Q	A	1,458,728	1587	126	J19XG/9											
J4A3RAZ		329,208	956	34	98	JH7T0Q	A	514,053	792	151	J19XG/9											
J4A3G3UVN		8,325	111	11	14	JH7T0Q	A	94,488	145	124	J19XG/9											
J4A3KRH		1,984	25	13	18	J47CPW		93,912	235	7												

*E77R	21	181,545	668	33	100	OK2ABU	*	573,954	1072	88	243	OKLZ	*	654,900	2078	38	139	G4BJM	*	70,488	304	37	62	RV3F	*	961,870	1501	99	356
*E74GZ	*	17,464	199	14	45	OK1RU	*	510,842	950	87	239	OKYK	*	460,840	1587	38	126	G4HKO	*	66,312	210	25	83	OA5D	*	774,684	1152	103	180
*E70M	14	164,654	725	33	103	OK2FH	*	433,600	1098	78	189	OK2FH	*	50,090	250	39	96	R30M	*	584,600	1094	88	306						
*E71W	*	91,320	488	29	91	OK1AMF	*	263,088	441	94	215	OK1AWZ	7A	463,806	1758	35	121	G4GFO	*	44,187	129	54	89	UA3QGT	*	573,288	1024	104	193
*E79SD	7	41,616	416	17	47	OK1DCS	*	250,258	310	120	194	OK1UG	*	304,423	1208	34	123	M0AAC	*	43,292	289	47	111	R30I	*	265,965	348	119	238
*E75A	1.8	25,114	499	11	47	OK4MM	*	162,378	291	97	188	OK2BYW	3.5A	468,802	1741	34	121	G4PQO	*	32,922	143	41	77	R43D	*	262,845	535	81	214
E71DX	AA	270	11	6	9	OK1AYY	*	37,944	215	33	91	OK1DQT	*	51,205	387	19	76	G37QA	*	31,284	168	39	144	UA3DUJ	*	214,830	409	88	191
E73M	28A	671,784	1632	37	147	OK1VD	2B	196,350	545	35	130	OK1	*	43,792	617	13	55	G3YEC	*	27,004	168	30	56	RV3E	*	161,595	234	105	180
E74WN	3.5A	170,577	1357	17	82	OK1XC	*	135,375	555	29	96	OK1INW	*	40,641	583	11	58	M0DDT	*	12,190	85	47	68	R3NAA	*	160,395	289	86	169
*E74A	28A	296,592	816	35	132	OK1IE	21	84,375	312	34	91	OK1ND	*	239,134	358	81	185	G3TFX	28A	724,314	1726	36	147	R30N	*	142,188	534	70	176
*E74E	21A	289,380	928	38	129	OK1MBZ	*	61,020	25	30	83	OK1KTT	*	236,281	365	77	144	G3PJT	21A	329,824	866	38	138	R2D2N	*	138,355	271	75	220
*E71EE	*	1,400	37	15	20	OK57	14	157,412	964	28	64	OK1ABF	*	57,438	238	44	129	M0VKY	*	46,659	251	29	74	R2ZDM	*	101,911	366	51	172
Bulgaria																													
L2100	A	409,792	1018	86	251	OK6CX	"	39,783	265	21	68	OK2HZ	28A	9,048	58	16	36	G3RTE	*	33,390	23	29	97	R5T5	*	72,576	252	62	130
L2121	*	336,640	655	85	235	OL6T	7	334,719	150	30	117	OK7**	*	40,641	583	11	58	G3WPW	7A	205,618	1055	29	104	R3NQQ	*	68,623	243	50	113
L220C	*	287,028	848	53	148	OK1FZM	*	210,798	926	32	115	OK6RA	14A	367,131	1340	35	125	G4N4Y	3.5A	215,644	1327	27	95	R5V5	*	57,711	192	52	95
L21GE	*	203,988	591	69	188	OK25AR	*	57,722	423	23	76	OK1AY	3.5A	83,066	95	17	67	M*SE	AA	2,112,515	1893	140	461	UA3JTF	*	36,584	161	40	96
L22RP	*	127,516	331	53	83	OL8W	3.5	509,808	2130	33	119	OK1	*	43,792	617	13	55	(OP:OK1D1M)	*	35,462	223	28	71	R3UDX	*	39,120	163	51	89
L21AO	14	197,274	819	35	122	OK1EP	*	6,448	69	17	97	OK1KDG	*	1,008	43	5	19	G4WGE	*	415,950	89	65	217	R30A	*	2,617	130	53	144
L22PT	*	414	19	8	9	OK5AX	1.8	36,294	547	13	56	OK1	*	917,088	1033	24	117	G4MKR	*	352,248	618	84	223	R3T2	*	2,310	121	56	138
*L2E6	A	4,178,304	3720	148	500	(OP:L2Z2E)	*	4,000	270	17	100	OK1	*	4,000	270	17	100	(OP:OK1AXB)	*	3,740	563	91	163	R30R	*	9,461	252	51	89
*L21K1Y	*	258,382	613	74	200	OK1DM	*	35,624	509	12	49	OK2SW	*	589,056	897	92	239	G4AF	*	156,283	345	72	63	R3ALF	*	5,546	86	21	42
*L24V	*	223,456	527	73	187	OK1ET	*	30,736	410	11	57	OK2Z	*	405,884	696	79	234	G4AF	*	147,630	332	63	147	R3ALAR	*	2,617	130	53	144
*L21Z	*	173,884	566	59	160	OK1HPF	*	9,360	187	7	51	OK2Z	*	393,000	813	80	220	M0CKE	*	12,130	311	56	138	R3AL	*	2,310	121	56	138
*L24KP	*	96,624	296	56	160	OL6P	A	2,665,930	356	133	249	OK1	*	369,292	563	91	177	G4FSU	*	100,296	258	71	144	R3AJOL	*	1,736	73	23	76
*L21ZM	*	48,000	297	32	89	(OP:OK1ZP)	*	15,323	144	26	51	OK1AW	*	788,640	1926	81	237	G4WGF	*	96,400	277	57	155	R3AF	*	1,365	71	21	14
L21TL	*	15,323	144	26	51	OK1	*	724,584	995	102	297	OK2BKK	*	142,324	455	33	168	M0MFR	*	60,300	349	37	111	R3AWB	*	592	35	11	26
L21XL	*	3,933	33	25	52	OK1DKR	*	569,160	1056	103	269	OK1	*	103,600	308	60	140	G4MMDR	*	27,504	157	57	207	R3AMU	28	93,571	551	30	76
L21MDU	*	2,538	33	16	28	OK1CRM	*	509,376	1009	91	245	OK1	*	509,376	1009	91	245	G3VWQ	*	12,160	250	94	131	R3AV	*	6,696	258	30	103
L21DU	*	1,204	31	11	22	OK1KMU	*	201,575	570	195	246	OK2SGW	3.5	505,375	570	195	246	G4ZK	*	3,479,000	774	32	112	R3ZAV	*	3,116	42	25	73
L21CF	28	47,565	234	31	74	OK1	*	507,375	570	195	246	OK2Z	3.5	38,394	540	12	110	M0BQL	28A	245,952	774	32	112	R3ZVA	*	2,128,858	764	32	110
L22HR	*	44,240	285	22	60	OK1HEH	*	465,141	882	75	246	OK1	*	32,720	322	31	64	M3KNU	*	13,086	120	15	39	R3AV	*	64,285	279	27	88
L21Z	*	17,174	140	20	42	OK2TRC	*	451,188	727	88	244	OK1	*	25,024	640	64	212	M0BNDZ	21A	27,300	183	19	51	R45B	*	52,152	338	29	77
L21ZP	*	3,154	67	15	25	OK2EA	*	43,160	922	200	80	OK1	*	7,250	120	11	38	M0GWB	14A	287,550	1108	34	108	R3ZOM	7	90,250	573	30	95
L23R	21	433,600	1400	35	125	(OP:L2Z1Y)	*	201,591	571	11	54	OK1KSD	*	20,499	284	24	132	G1N	7A	51,175	399	18	71	R43ST	*	30,485	209	23	73
L22HA	AA	608,295	1123	96	283	OK1EV	*	109,990	362	52	118	OK2DQN	28A	24,110	303	16	54	Dodecanese	*	15,200	148	9	38	Estonia	*	66,332	594	18	74
L21YE	*	8,758	101	15	26	OK1BLU	*	95,200	373	55	168	OK1AZX	7A	19,440	130	20	60	S05TVA	A	5,230,990	4653	156	475	RW2DA	*	7,520	148	9	38
L25ZI	*	5,192	40	26	33	OK2VK	*	91,044	332	48	114	OK1AZX	7A	19,440	130	20	60	S05TVA	ES2MC	554,582	2053	33	119	RW3DQ	*	3,852	120	7	29
L22HM	28A	374,289	2013	36	143	OK1AUO	*	85,902	322	63	143	OK1AUO	1.8	2,485	80	50	30	ES2JL	*	723,945	1107	86	327	R3VQ0	*	9,174,159	1903	104	331
L21NG	*	242,373	668	33	137	OK1AUO	*	85,785	263	53	76	OK1DQJ	21A	2,495	805	50	30	ES1WST	A	2,851,088	1739	176	650	R30A	*	9,091,194	1704	86	288
L24OYE	*	13,300	84	25	45	OK2BWB	*	84,780	262	55	102	OK2DQJ	21A	82,026	709	17	76	ES5TF	*	200,344	384	94	223	R3V3F	*	3,371,226	594	18	77
L27J	*	3,900	44	18	32	OK2PBG	*	7,084	240	17	97	OK2Z	28	13,578	224	20	40	ES28H	*	30,098	200	27	74	R3V4W	*	2,943,366	651	40	251
L22ZG	1.8A	3,384	70	8	39	OK2PZ	*	13,740	180	79	123	OK1DSX	*	3,808	37	21	35	ES28H	*	17,850	96	31	39	R3ZGV	*	2,935,550	642	80	229
L21ZDJA	*	67,554	326	35	104	OK1DDV	*	3,481	90	17	42	OK1	*	57,508	1349	35	121	ES28M	*	17,850	96	31	39	R3AD3	*	24,252	374	30	125
L21ZQ	7A	43,480	432	37	95	OK1CZ	*	19,404	155	17	49	OK1	*	162,500	363	67	183	ES28M	*	21,775	294	13	54	R3AD3	*	39,156	334	74	181
L22CM	*	22,336	235	14	50	OK1MMN	*	16,254	133	17	47	OK1	*	139,944	293	70	168	ES28M	*	31,272	473	70	168	R3AD3	*	65,464	334	74	181
L22SC	3.5A	165,438	993	23	103	OK1	*	16,254	133	17	47	OK1	*	60,348	220	46	95	G3SVK	*	22,750	515	61	186	R3N3Z	*	131,332	264		

*RA3UAG	*	137,193	562	32	109	*RW4LZ	*	130,168	415	56	156	*RK6AX	7	51,330	390	18	69	*DF3AX	*	815,790	1422	89	266	*DL7DZ	*	16,896	85	26	62						
*RYF2	*	113,040	583	28	95	*UA4PCF	*	128,256	389	51	141	*R7AC	7	30,276	297	18	69	*D56YL	*	699,936	1207	89	266	*DH6BH	*	16,434	106	20	46						
*RV2DHC	*	7,748	28	6	16	*RG4F	*	101,920	768	25	73	*RX6LOL	1.8	3,712	115	8	34	*D55ARM	*	637,938	1110	89	277	*DJ2GM	*	16,434	92	20	20						
*BX2DFL	7	12,545	111	18	49	*UA4FDL	*	94,140	355	49	131	*R7AC	*	57,030	116	166	237	*DL6DCD	*	5,750	66	66	16	30	*	16,434	92	20	20						
*RU5ATJ	*	561	19	7	14	*R4FA	*	83,916	362	54	168	*R7AC	*	574,938	980	88	263	*DL8U6F	*	4,690	49	13	22	13	*	16,434	92	20	20						
*RZ3AMW	3.5	41,205	91	56	28	*RU4LM	*	80,370	291	45	126	RCTA	*	1,767,088	1763	144	473	*D93YD	*	2,993	51	44	14	27	*	16,434	92	20	20						
*UA3AKI	*	26,952	398	10	51	*UA4PAQ	*	75,978	297	51	139	RAGW	*	977,683	1000	140	389	*D54ZL	*	506,410	773	92	249	*DL1GRD	*	1,599	44	6	7	7	*	16,434	92	20	20
*RV3MVR	*	6,888	134	7	39	*RX4HB	*	63,873	398	33	113	R6AF	*	951,548	1267	109	268	*DL7OU	*	459,688	817	88	248	*DL2YED	*	1,003	47	7	10	10	*	16,434	92	20	20
*RA3EC	*	5,300	92	10	33	*RA4CBN	*	46,948	152	46	75	RTA	*	897,600	1076	125	355	*DL1TRK	*	428,198	743	86	261	*DL3SM	*	1,003	47	7	10	10	*	16,434	92	20	20
*RD3PX	1.8	9,798	199	7	39	*RK4PA	*	46,404	146	51	94	UAGC	*	767,113	1289	94	307	*D93WN	*	412,506	865	94	218	*D01DXX	*	7,738	15	7	11	11	*	16,434	92	20	20
*RM6Z	*	9,259	200	8	39	*UA4HU	*	35,136	183	36	86	R7HF	*	668,257	925	110	353	*D93CN	*	416,814	750	79	218	*D13DTX	21	260,876	715	36	118	118	*	16,434	92	20	20
*RV3A	*	2,442	74	5	28	*RA4DB	*	34,580	178	36	104	RAGAN	*	605,570	794	110	300	*D2RUG	*	400,810	843	76	222	*D5FBM	*	99,190	359	31	99	99	*	16,434	92	20	20
RM2U	AA	4,493,186	2997	176	633	(OP:RU3UR)	*	94,410	332	68	138	*RA4LKK	*	378,490	554	102	308	*D57EE	*	31,498	810	72	211	*DL9LM	*	16,058	649	32	105	105	*	16,434	92	20	20
RT3T	*	1,480,518	1246	153	13	*R4AZ	*	13,195	93	34	77	R6UM	*	175,752	341	83	221	*DL5RA	*	374,170	756	72	238	*DL1AKL	*	19,494	242	10	105	105	*	16,434	92	20	20
RA3NC	*	1,386,492	1848	116	40	*RA4FAU	*	10,350	56	29	46	R7AL	*	135,124	92	51	147	*DL6UNF	*	322,076	620	70	222	*D12LZP	14	248,979	944	36	113	113	*	16,434	92	20	20
RU5UA	*	1,269,350	1694	109	371	*UA4FTA	*	2,205	26	15	20	RN7F	*	125,108	557	42	144	*DL7YXG	*	299,570	488	73	217	*DL4XU	*	47,430	374	21	64	64	*	16,434	92	20	20
RA3DNC	*	798,150	799	124	36	*RA4UAT	*	1,680	29	21	27	RV6LN	*	125,280	253	33	150	*DK7H	*	293,356	636	71	196	*DL1AL	*	37,128	223	24	78	78	*	16,434	92	20	20
RA3TT	*	681,471	997	94	279	*UA4AMZ	*	1,455	34	11	24	RZ6AK	*	24,522	92	51	153	*D6FRI	*	274,176	645	65	191	*DM2TO	*	12,920	82	86	17	40	*	16,434	92	20	20
R3BM	*	634,680	632	126	304	*RA4LU	28	89,088	416	27	89	RAGIE	*	3,172	73	20	41	*D63ZVN	*	264,525	665	75	202	*DL2WJT	*	2,345	32	9	17	17	*	16,434	92	20	20
R3AT	*	529,176	176	103	301	*UA4SN	*	19,564	147	18	49	RAGXV	*	299,148	925	34	140	*D44UK	*	236,220	674	66	212	*DL3VZL	*	1,079	247	10	105	105	*	16,434	92	20	20
R3LA	*	454,104	184	140	333	*RA4WO	*	3,132	10	26	40	RT77	28A	383,732	1353	35	137	*D44UK	*	227,088	584	70	179	*D3VX	7	397,474	1434	33	121	121	*	16,434	92	20	20
RZ3QS	*	445,016	735	101	288	*RA4US	21	210,041	812	32	115	RTY7G	*	299,148	925	34	140	*D45L5	*	220,980	567	60	185	*DL5KUD	*	128,256	587	56	103	103	*	16,434	92	20	20
R3CF	*	339,918	828	76	23	*RA4I	*	63,246	298	26	86	UCTA	14A	218,129	176	37	121	*D45L5	*	214,840	540	64	198	*DL2YAK	*	13,398	195	14	44	44	*	16,434	92	20	20
R3AJ	*	263,940	582	72	193	*UA4AV	*	57,342	296	28	86	R7NK	3.5A	85,064	570	19	79	*D3XKA	*	203,812	525	57	194	*DL6UAM	*	3,360	172	30	83	83	*	16,434	92	20	20
R3OK	*	110,966	185	86	140	*RA4RW	14	81,995	462	29	85	*R6L6M	AA	2,885,616	700	2705	146	*D45L5	*	199,800	523	58	167	*D2KFG	3.5	92,232	614	20	88	88	*	16,434	92	20	20
R3BA	*	105,635	202	62	123	*RAWFZ	*	25,272	229	18	63	*R6L6M	AA	2,885,616	700	2705	146	*D45L5	*	16,101	581	67	165	*D2KFG	3.5	92,232	614	20	88	88	*	16,434	92	20	20
R3J4	*	101,010	403	52	142	*R4ZU4	*	23,832	255	16	56	*R7MM	*	818,763	1052	107	366	*D45L5	*	14,674	519	54	170	*D1L1VU	*	3,410,104	2183	165	59	59	*	16,434	92	20	20
R3AT	*	22,338	211	15	59	*RA4SA	7	208,206	935	30	99	*R6L6M	AA	2,885,616	700	2705	146	*D45L5	*	13,348	550	55	157	*D2LHVA	*	8,996	172	30	83	83	*	16,434	92	20	20
R3A3E	*	33,319	112	59	84	*RA4SA	7	208,206	935	30	99	*R6L6M	AA	2,885,616	700	2705	146	*D45L5	*	13,348	550	55	157	*D2LHVA	*	8,996	172	30	83	83	*	16,434	92	20	20
R3A3U	*	29,328	89	55	85	*RA4CO	*	4,365	62	12	33	R6E6	*	282,486	680	70	193	*D45L5	*	12,948	565	55	158	*D2LHVA	*	3,001,173	1978	167	56	56	*	16,434	92	20	20
R3A3A	*	12,596	151	75	79	*RA4CO	*	93,800	343	33	101	R6E6	*	282,486	680	70	193	*D45L5	*	12,948	565	55	157	*D2LHVA	*	3,001,173	1978	167	56	56	*	16,434	92	20	20
R3A3B	*	38,374	112	33	77	*RA4CO	*	5,132	207	108	275	R6E6	*	282,486	680	70	193	*D45L5	*	12,948	565	55	157	*D2LHVA	*	3,001,173	1978	167	56	56	*	16,434	92	20	20
R3A3C	*	38,374	112	33	77	*RA4CO	*	5,132	207	108	275	R6E6	*	282,486	680	70	193	*D45L5	*	12,948	565	55	157	*D2LHVA	*	3,001,173	1978	167	56	56	*	16,434	92	20	20
R3A3D	*	17,056	105	38	56	*R4TAO	*	14,904	67	35	46	R7AY	*	282,486	680	70	193	*D45L5	*	12,948	565	55	157	*D2LHVA	*	3,001,173	1978	167	56	56	*	16,434	92	20	20
R3A3E	*	7,968	70	34	49	*R4TAO	*	92,625	189	15	52	R7AY	*	282,486	680	70	193	*D45L5	*	12,948	565	55	157	*D2LHVA	*	3,001,173	1978	167	56	56	*	16,434	92	20	20
R3T3M	*	5,044	35	23	29	*R4TAO	*	28,065	126	14	45	R7AY	*	282,486	680	70	193	*D45L5	*	12,948	565	55	157	*D2LHVA	*	3,001,173	1978	167	56	56	*	16,434	92	20	20
R3RRF	*	1,414	48	19	42	*R4TAO	*	18,446	124	12	44	R7AY	*	282,486	680	70	193	*D45L5	*	12,948	565	55	157	*D2LHVA	*	3,001,173	1978	167	56	56	*	16,434	92	20	20
R3A3U	*	1,414	48	19	42	*R4TAO	*	18,446	124	12	44	R7AY	*	282,486	680	70	193																		

DL1YM	*	31,730	118	39	56	OH6XY	*	368,520	580	99	271	*F0EZE	*	6,161	46	21	40	TF2CW	14A	1,012,662	3010	38	124	*IZ1GOI/ *IX1CKN	*	896	44	6	26						
DJ6TB	*	31,000	149	39	51	OH2VZ	*	278,616	538	70	212	*F5GGL	*	6,111	40	28	37	TF3SG	3.5A	30,552	401	13	63	*15NOKV	*	320	20	6	10						
DR4W	*	30,360	149	39	51	OH6BA	*	220,866	533	67	147	*F4EP	*	5,720	43	23	38	TF3VS	AA	23,912	149	27	71	*125FDE	*	8,700	218	8	42						
DKEZ	*	24,822	114	47	85	OH2BR	*	96,915	230	66	147	*F4XG	*	2,914	91	16	46	E14DW	A	136,512	314	61	131	Ireland	*	1,147,958	1069	127	364						
DJ9RR	*	24,750	134	26	64	OH2XF	*	31,603	120	40	103	*F5OJN	*	3,519	33	23	28	E14CTB	A	70,560	296	13	108	I2JLNU/1	*	642,996	1129	89	248						
DK1FW	*	16,867	79	39	53	OH6DH	*	23,074	118	36	103	*F3MT	*	2,077	30	15	15	E11DG	*	27,262	134	34	52	I2JLNU/1	*	245,656	507	73	175						
DL5SVB	*	16,150	113	30	60	OH8MM	*	18,312	121	31	78	*F5TR	28	20,066	135	23	56	I2JDVY	*	200,340	397	90	175	I2JLNU/1	*	400,611	958	68	169						
DL3AP0	*	15,153	77	41	60	OH9MM	*	690	15	9	14	*F5SDD	*	3,248	10	18	18	E14HQ	21	81,328	480	22	62	I2JLNU/1	*	642,996	1129	89	248						
DF3FT	*	7,389	55	26	32	OH9A	28	295,137	1057	33	120	*TM2T	21	230,746	997	29	84	E14JZ	14	6,164	134	10	36	I2JLNU/1	*	1,147,958	1069	127	364						
DL1KWK	*	4,350	31	21	25	OH10	*	59,290	23	27	94	*F5MWW	7	85,885	623	19	70	E13KG	AA	3,887,524	336	14	442	I2JLNU/1	*	642,996	1129	89	248						
DH1PAL	*	4,136	35	22	25	OH5TS	21	376,040	1037	39	131	*F6HHR	1.8	2,736	72	6	30	E16Z	*	398,660	719	75	235	I2JLNU/1	*	200,340	397	90	175						
DL3HVM	*	1,972	20	15	19	OH1TX	7	667,104	2164	37	139	(OP:-PH2P)	*	(OP:-PH2P)	*	(OP:-PH2P)	*	E17CC	*	334,944	599	72	216	I2JLNU/1	*	115,274	334	55	122						
DK2GZ	28A	412,712	939	36	148	OH1TX	*	417,274	1683	34	109	(OP:-PH2TA)	*	(OP:-PH2TA)	*	(OP:-PH2TA)	*	E19KC	*	179,046	359	81	180	I2JLNU/1	*	109,523	349	55	117						
DM9K	*	304,730	890	34	121	(OP:-DH7KU)	*	(OP:-DH7KU)	*	(OP:-DH7KU)	*	E14OHD	*	576,135	2037	34	121	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DH8WE	*	254,769	747	34	129	(OP:-DH5AN)	*	(OP:-DH5AN)	*	(OP:-DH5AN)	*	E14OHD	*	576,135	2037	34	121	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DL5AN	*	224,588	570	36	130	OH9W	*	107,068	310	130	109	(OP:-DH2TA)	*	(OP:-DH2TA)	*	(OP:-DH2TA)	*	E14OHD	*	444,744	428	130	206	I2JLNU/1	*	115,274	334	55	122						
DJ6TK	*	124,862	397	33	116	OH6ID	1.8	4,182	139	7	34	*F6HLC	*	411,177	532	95	276	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DL4YAO	*	107,068	310	130	109	*OH3LB	A	127,488	649	41	125	*F4EUN	*	253,043	692	74	185	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DL9USA	*	96,944	253	33	133	*OH1X	*	121,588	336	56	170	*F6BEE	*	204,480	328	82	238	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DJ80G	*	41,736	166	30	81	(OP:-DH18O)	*	(OP:-DH18O)	*	(OP:-DH18O)	*	E14OHD	*	303,870	789	82	201	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DK1QH	*	17,984	137	16	48	DL1A	21A	570,381	1448	35	138	*F6HDP	*	103,730	278	68	162	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DL1WA	*	206,266	1090	37	135	*OH2K	*	86,880	379	43	138	*F6IDJ	*	42,320	161	43	72	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DL1IAO	*	390,639	949	38	139	*OH6TN	*	65,988	304	38	117	*F6CZV	*	1,595	19	12	17	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DC4A	*	350,366	901	38	129	*OH3HD	*	38,962	211	36	85	(OP:-DH2P)	*	(OP:-DH2P)	*	(OP:-DH2P)	*	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122						
DL78Y	*	270,108	767	36	128	*OH1HTS	*	32,004	271	30	96	*TM6	21A	1,047,536	2388	39	160	(OP:-DH2NC)	*	(OP:-DH2NC)	*	(OP:-DH2NC)	*	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122
DL8WEM	*	242,651	622	33	128	*OH2LP	*	24,030	170	35	100	*TM6	21A	1,047,536	2388	39	160	(OP:-DH2NC)	*	(OP:-DH2NC)	*	(OP:-DH2NC)	*	E14OHD	*	576,135	2037	34	121	I2JLNU/1	*	115,274	334	55	122
DL11H	7A	227,076	1052	33	116	*OH2BW	*	21,692	139	35	81	*F6CIL	*	220,520	677	34	115	E14OHD	*	257,307	689	65	134	I2JLNU/1	*	115,274	334	55	122						
DM7C	3.5A	512,236	1974	31	121	*OH2HZ	*	4,224	40	19	125	*F5NBX	*	149,924	498	35	113	E14OHD	*	169,002	459	74	172	I2JLNU/1	*	115,274	334	55	122						
DL7ON	*	415,680	1635	34	126	*OH3MC	28	13,920	20	60	70	*TM5	14A	1,414,300	3601	39	154	(OP:-DL7X)	*	(OP:-DL7X)	*	(OP:-DL7X)	*	E14OHD	*	605,988	1530	38	143	I2JLNU/1	*	115,274	334	55	122
DJ0MDR	*	391,816	331	29	107	*OH2BC	*	1,870	26	12	22	*TM6	21A	2,400	86	9	21	(OP:-DL7X)	*	(OP:-DL7X)	*	(OP:-DL7X)	*	E14OHD	*	250,700	259	60	98	I2JLNU/1	*	115,274	334	55	122
DL9GFB	*	107,124	814	20	93	*OH1KH	*	1,066	27	8	18	*TM6	21A	2,400	86	9	21	(OP:-DL7X)	*	(OP:-DL7X)	*	(OP:-DL7X)	*	E14OHD	*	82,834	321	54	112	I2JLNU/1	*	115,274	334	55	122
DJ4AX	1.8A	66,750	626	15	75	*OH3WR	21	52,771	223	28	85	*F5IN	1.8	93,972	849	15	67	(OP:-DL7X)	*	(OP:-DL7X)	*	(OP:-DL7X)	*	E14OHD	*	42,984	212	33	99	I2JLNU/1	*	115,274	334	55	122
DK3UA	*	23,288	250	13	58	*OH7FF	*	35,568	311	16	60	*F5OYL	*	474,192	771	87	247	(OP:-DL7X)	*	(OP:-DL7X)	*	(OP:-DL7X)	*	E14OHD	*	10,350	82	39	109	I2JLNU/1	*	115,274	334	55	122
*DL8UM	AA	1,952,145	1497	141	488	*OH6RC	3.5	4,075	66	9	46	*TM5FT	*	381,321	884	93	198	(OP:-DL7X)	*	(OP:-DL7X)	*	(OP:-DL7X)	*	E14OHD	*	223,933	865	115	116	I2JLNU/1	*	115,274	334	55	122
*DL3YV	*	1,857,562	1757	130	424	(OP:-DL20D)	*	(OP:-DL20D)	*	(OP:-DL20D)	*	E14OHD	*	2,499,000	1742	155	580	*F6FLU	*	18,334	72	41	62	I2JLNU/1	*	188,860	591	33	107	I2JLNU/1	*	115,274	334	55	122
*DL1DXA	*	1,084,461	211,112	92	227	*OH2FT	*	1,052,029	901	141	50	*F6DVA	*	3,872	41	18	25	E14OHD	*	299,624	359	71	163	I2JLNU/1	*	115,274	334	55	122						
*DFO10	*	300,861	553	76	221	(OP:-DH7KU)	*	(OP:-DH7KU)	*	(OP:-DH7KU)	*	E14OHD	*	33,024	133	21	111	*V8WGE	*	21,240	390	32	77	I2JLNU/1	*	115,274	334	55	122						
*DL1ANT	*	263,725	617	65	210	OH1F	21A	631,638	1584	39	150	(OP:-DH7KU)	*	(OP:-DH7KU)	*	(OP:-DH7KU)	*	E14OHD	*	338,845	1064	37	132	I2JLNU/1	*	115,274	334	55	122						
*DL1ARJ	*	220,311	462	79	190	OH4A	*	33,094	331	74	204	(OP:-DH6AN)	*	33,024	133	21	101	(OP:-DH6AN)	*	(OP:-DH6AN)	*	(OP:-DH6AN)	*	E14OHD	*	338,845	1064	37	132	I2JLNU/1	*	115,274	334	55	122
*DL1HBT	*	200,994	331	74	204	OH4KZM	*	107,166	311	30	126	(OP:-DH6AN)	*	107,166	311	30	126	E14OHD	*	299,624	359	71	163	I2JLNU/1	*	115,274	334	55	122						
*DL50BY	*	181,686	383	65	149	OH4KZM	*	107,166	311	30	126	(OP:-DH6AN)	*	107,166	311	30	126	E14OHD	*	299,624	359	71	163	I2JLNU/1	*	115,274	334	55	122						
*DL5JQ	*	174,330	507	66	168	OH4KZM	*	16,238	305	25	144	(OP:-DH6AN)	*	16,238	305	25	144	E14OHD	*	299,624	359	71	163	I2JLNU/1	*	115,274	334	55	122						
*DL5IQ	*	172,842	455	66	168	OH4KZM	*	16,238	305	25	144	(OP:-DH6AN)	*	16,238	305	25	144	E14OHD	*	299,624	359	71	163	I2JLNU/1	*	115,274	334	55	122						
*DL5IQ	*	172,842	455	66	168	OH4KZM	*	16,238	305	25	144	(OP:-DH6AN)	*	16,238	305	25	144	E14OHD	*	299,624	359	71	163	I2JLNU/1	*	115,274	334	55	122						
*DL5IQ	*	172,842	455	66	168	OH4KZM	*	16,238	305	25	1																								

LY4T	*	1,993,419	2195	129	420	*PG2D	*	9,522	94	24	45	SP7HOA	*	22,410	105	27	56	SP9KR	*	145,236	290	83	183	*Y09GV/P	*	8,215	97	14	39				
LY2MM	*	1,652,112	1750	128	400	*PC3H	*	8,673	102	20	39	SP9VW	*	7,696	23	49	51	SP5CH	*	110,834	232	49	51	*Y09LJ/P	*	1,950	83	23	60				
LY2BKT	*	981,879	1678	85	326	*PA3AFF	*	8,547	103	17	40	SP9TRG	*	5,984	48	29	47	SP9DTE	*	61,190	188	47	63	*Y07LYM	*	1,230	145	22	60				
LY3I	*	80,618	315	48	149	*PA0B	*	8,136	149	23	49	SP9EUF	*	3,878	29	23	28	SQ3A	*	48,112	213	37	67	*Y02MTG	*	1,008	24	10	47				
LY1BX	*	39,054	227	35	104	*PD0LFJ	*	5,535	75	18	45	SP9CXH	28	31,647	147	28	49	SP6T	*	29,784	81	31	57	*Y05ALI	28	84,668	389	30	92				
LY5O	*	19,032	179	54	30	*PA0JHS	*	4,796	54	18	26	SP6DHH	14	8,556	152	8	33	SP1MKW	*	23,051	106	42	47	*Y02IS	*	77,575	309	30	77				
LY80	21	649,615	1708	36	137	*PA3EZC	*	2,955	66	16	23	SP9PMA	*	6,250	61	15	24	SP2FVC	*	22,932	118	40	58	*Y03JV	*	11,214	117	20	43				
LY2KA	14	3,354	66	13	30	*PG2W	*	1,392	48	7	22	SP2PGTS	3.5	226,170	1248	24	10	SP7IT	*	6,916	63	28	48	*Y07MGG	*	5,340	49	23	37				
LY2TS	3.5	19,176	230	14	54	*PA3CVR	*	1,295	25	15	20	SP2FAP	*	819	23	6	15	SP7IT	*	6,240	42	27	33	*Y05BSJ	*	342	10	9	9				
LY7M	1.8	181,044	3111	22	85	*PA3GU	*	646	41	10	24	*SP1AEAN	A	1,205,100	1651	89	352	SP5BB	*	3,762	45	25	22	*Y08RHM	21	57,645	308	29	76				
*LY9A	A	3,602,886	3289	150	504	*PD0RON	*	594	31	8	19	*SP5CNA	*	657,672	1082	104	298	SP9KDA	28A	103,680	421	28	92	*Y08COO	*	51,448	241	29	89				
*LY6I	*	1,320,060	1690	120	370	*PD0NMF	*	400	15	8	12	*SO3VWW	*	505,000	797	89	279	SP5XO	*	42,448	186	30	82	*Y09CWY	14	69,620	481	21	71				
*LY2OM	*	377,536	844	85	262	*PF7DKW	28	137,033	506	33	94	*SP2FGU	*	395,507	781	91	232	SQ8GBG	*	72	4	3	3	*Y04BEX	*	47,932	412	21	71				
*LY2N	*	252,720	556	66	194	*PA3DTR	*	8,970	104	12	27	*SP1PWP	*	345,400	663	73	202	3Z5N	21A	625,695	1610	37	105	*Y09FPV	*	47,932	412	21	71				
*LY2DV	*	68,460	315	65	145	*PA2REH	3.5	99,850	940	15	74	*SP2FAP	*	298,707	698	79	211	(OP:SP7GCR)	*	6,240	42	27	33	*Y05BSJ	*	342	10	9	9				
*LY3Z	*	35,682	251	35	79	20,007	139	26	55	PA3AV	AA	3,441,382	3023	142	471	*SP31QE	*	262,904	708	67	169	HF3A	*	594,000	1496	38	138	*Y08RHM	21	57,645	308	29	76
*LY2BF	*	16,936	159	24	49	PE3V	*	2,043,478	2025	134	459	*SO9EIJ	*	199,727	534	59	169	SP9KDA	28A	103,680	421	28	92	*Y08COO	*	51,448	241	29	89				
*LY2AJ	*	11,885	124	21	56	PA5WT	*	1,685,080	2067	15	400	*SP49HL	*	147,560	434	62	176	SP5XO	*	42,448	186	30	82	*Y09CWY	14	69,620	481	21	71				
*LY3ID	7	23,334	264	15	87	PA0AO	*	1,250,493	1124	153	370	*SP3CIC	*	145,780	405	53	144	SP3ASN	*	342,495	832	37	140	*Y04BEX	*	47,932	412	21	71				
*LY2T	3.5	116,460	1155	16	74	PA0ABM	*	1,030,120	1113	131	435	*SO7LQJ	*	137,344	365	57	175	SP3TCN	*	269,010	651	38	145	*Y09FPV	*	47,932	412	21	71				
LY2SA	AA	1,554,202	1528	141	457	PA0LOU	*	470,111	811	87	230	*SP9IBJ	*	114,537	361	57	162	HF5A	*	594,000	1496	38	138	*Y08RHM	21	57,645	308	29	76				
LY2KM	*	395,326	809	84	23	PA3GVI	*	313,200	931	53	172	*SP9IBJ	*	123,892	387	85	183	SP5XO	*	355,406	1056	37	129	*Y09HG	*	28,032	240	17	47				
LY3CY	*	363,419	967	58	211	PA3GRM	*	136,644	201	51	126	*SP9IBJ	*	124,800	387	85	183	SP9KDA	28A	103,680	421	28	92	*Y08COO	*	51,448	241	29	89				
LY2CX	*	299,976	878	57	175	PA5TT	*	116,441	297	52	117	*SO5JUP	*	82,080	263	66	114	SP5XO	*	355,406	1056	37	129	*Y09HG	*	28,032	240	17	47				
LY1R	*	246,126	426	85	238	PA2PKZ	*	88,077	466	46	111	*SP4CQO	*	80,337	225	60	123	SP5XO	*	31,232	122	29	99	*Y09CWY	14	69,620	481	21	71				
LY1CT	28A	55,448	239	25	87	PA3AC	*	39,446	137	42	121	*SP2HMM	*	79,261	218	59	110	SP5XO	*	4,845	50	15	42	*Y05ODT	7	35,112	298	17	60				
LY2BAW	*	36,022	266	20	63	PA6PK	*	38,745	220	33	90	*SP3HC	*	77,916	357	41	131	SP5XO	*	4,845	50	15	42	*Y09HG	*	1,219,964	174	54	144				
LY3BN	21A	142,800	369	36	132	PA0PAWU	*	1,003,200	100	29	120	(OP:PA2AWU)	*	74,970	251	49	104	SP5XO	*	4,845	50	15	42	*Y09HG	*	1,219,964	174	54	144				
*LY3B	AA	2,640,977	2425	14	529	PA1DX	28A	232,284	853	35	121	*SP3EV	*	69,200	305	51	122	SP5XO	*	897,750	2255	39	151	*Y05PUMJ	Y9P9W	6,466,665	4586	157	570				
*LY7Z	*	2,396,358	2108	143	526	(OP:LY2T)	*	PA1AW	21A	558,560	1379	39	148	*SP3EV	*	69,200	305	51	122	(OP:SP5PUMJ)	Y9P9W	6,466,665	4586	157	570								
*LY2NY	*	525,382	1086	85	245	PA3EW	7A	279,650	1103	37	133	*SP7FRO	*	66,600	274	48	102	SP4JCQ	7A	355,406	1056	37	129	(OP:SP59UJ)	Y9P9W	3,934,458	3360	163	519				
*LY40	*	560	24	14	21	PA3CWN	*	123,120	353	32	120	*SO8O	*	64,020	189	56	109	SP5XO	*	31,232	122	29	99	(OP:Y08TTT)	Y9P9W	3,934,458	3360	163	519				
*LY2OU	28A	50,778	281	31	86	*PA3EMN	AA	447,468	842	67	277	*SP2HMM	*	60,897	255	47	112	Y03APJ	*	3,305,684	2572	148	54	(OP:Y08TTT)	Y9P9W	3,934,458	3360	163	519				
*LY1YM	7A	5,922	77	13	34	PA7BZ	*	301,443	511	67	200	*SP2HMM	*	54,397	257	40	93	Y03APJ	*	2,129,964	174	54	144	(OP:Y08TTT)	Y9P9W	3,934,458	3360	163	519				
*LY2RJ	3.5A	56,643	638	15	64	PA4APS	*	175,350	582	153	157	*PA3AQL	*	157,731	513	50	158	Y03APJ	*	53,861	686	116	333	(OP:Y08TTT)	Y9P9W	3,934,458	3360	163	519				
Luxembourg																																	
UX1ER	A	77,748	199	74	154	PA5DT	*	134,037	500	44	115	*SP6TRX	*	48,450	197	38	112	SP5XO	*	47,970	188	36	83	(OP:SP5PQH)	Y9P9W	2,354	117	30	52				
UX1NO	AA	2,537,536	2918	122	374	PA0AMR	21A	97,857	340	32	99	*PA0AMR	21A	8,664	100	16	41	SP6WY	*	49,680	126	73	107	(OP:PA0HTS)	Y9P9W	161,324	936	27	97				
*PA5AA	*	256,563	831	67	194	PA1RA	*	39,864	253	18	48	(OP:PA1RA)	*	14,194	90	36	58	SP5XO	*	40,750	188	36	89	(OP:PA0HTS)	Y9P9W	161,324	936	27	97				
*PA6AA	AA	2,263,940	2523	142	486	PA0RCLP	28A	39,864	253	18	48	(OP:ER1LW)	*	4,704	38	23	33	SP5XO	*	4,704	38	23	33	(OP:PA1RA)	Y9P9W	161,324	936	27	97				
*ER3DX	*	1,995,928	1817	148	465	LN8W	A	4,478,599	4140	133	436	(OP:LB1GB)	*	3,600	42	19	26	SP5XO	*	3,600	42	19	26	(OP:PA1RA)	Y9P9W	161,324	936	27	97				
*ER3AU	*	459,846	912	62	262	LA2I	*	53,196	215	45	111	(OP:LB1GB)	*	3,600	42	19	26	SP5XO	*	3,600	42	19	26	(OP:PA1RA)	Y9P9W	161,324	936	27	97				
*ER2ZZ	*	109,710	239	68	162	LN3Z	21	66,984	1844	39	135	(OP:LA6YE)	*	8,094	72	28	43	SP5XO	*	7,094	72	28	43	(OP:PA1RA)	Y9P9W	161,324	936	27	97				
*ER5DX	*	67,280	180	55	90	PA0JHN	*	182,074	500	30	80	(OP:PA0JHN)	*	1,685,080	2067	15	400	SP5XO	*	1,685,080	2067	15	400	(OP:PA1RA)	Y9P9W	161,324	936	27	97				
Monaco																																	
*3A2MW	AA	4,316	36	21	31	PA0GJW	*	357,840	749	63	217	*SP7OGP	*	10,864	105	17	39	SP5XO	*	3,876	58	15	36	(OP:SP9PME)	Y9P9W	9,108	202	5					

*YU7D	-	19,880	187	12	58	*S57U	*	1,317,162	1619	117	345	EA3AKA	3.5A	13,000	146	13	52	*SE6N	*	182,054	598	55	172	*UT8IK	*	64,790	163	70	139	
*YT2AA	3.5	35,178	399	14	64	*S57A	*	187,869	547	76	192	*EA1NK	AA	543,590	1035	75	254	*SMBSO	*	129,000	229	54	161	*UX7MA	*	61,380	154	67	98	
*YT1JW	1.8	30,680	601	10	49	*S55N	*	163,615	391	63	152	*EA1JK		282,388	606	50	171	*SMSC	*	124,928	306	74	182	*UX3IRX	*	58,870	163	55	90	
YT7R	AA	3,666,494	3055	152	449	*S51JZ	*	151,568	196	51	147	*EA4CWVW		223,212	381	27	156	(*OPUY7CWW)		105,228	316	53	184	*UR5PFD	*	54,636	196	53	104	
YT7AW	-	3,107,720	1719	161	608	*S57YK	*	47,700	226	24	74	*EASDKU		216,752	384	74	174	*SMSCNQ	*	105,228	316	53	184	*UT5EPP	*	54,279	300	39	124	
YT9A	28A	525,890	1346	37	145	*S52CU	*	27,913	189	28	82	*EA2AZ		200,736	272	32	115	*S16W	*	70,052	276	52	141	*UX1YL	*	49,083	134	68	95	
YT5M	21A	512,082	1680	37	125	*S54A	28	164,550	462	35	115	*EA7MT		142,545	295	79	142	*SM1WRA	*	32,769	133	43	56	*UX3IW	*	46,683	189	43	128	
YT4W	14A	687,225	2203	37	138	*S57KW	21	198,373	791	30	89	*EA1CBX		130,776	460	37	87	*S1UJCB	*	12,284	105	21	53	*US3ITA	*	45,904	204	47	105	
YT0A	-	594,854	1925	39	129	(*OPUY1DW)		198,520	787	32	108	*EA3BHK		68,000	156	58	127	*SM6RZK	*	360	35	12	28	*UV5ME	*	45,453	274	31	109	
YT7U	3.5A	214,701	1240	27	86	*S53AR	3.5	13,608	221	10	46	*EA4EDD		51,597	189	35	82	*SM20DB	7A	52,836	328	24	67	*US0U	*	44,930	230	39	109	
*YU1KT	AA	335,688	902	74	210	(*OPUY1UX)		13,654	9	50	50	(*EASND	28A	180,000	632	32	93	*UU4JO	*	44,100	161	48	92			41,503	258	32	89	
*YU2U	-	210,784	591	54	170	S59ABC	AA	7,179,840	3978	179	631	(*OP-S51DS)	*ED7D	89,112	442	29	70	H9B9ST	A	106,650	329	55	170	*UR8GX	*	41,418	236	32	86	
*YU6MM	-	1,760	44	13	19	S57DX	*	5,356,470	4060	158	532	(*ED6W		2,052	66	12	16	H9B9FM	*	64,176	147	71	120	*UR5UBR	*	38,364	184	45	93	
*YT2B	28A	226,953	636	35	133	S59AA	*	5,308,695	364	152	513	(*EA3VW)	21A	51,332	303	21	61	H9B9AZZ	*	31,850	150	34	57	*UX2HP	*	35,673	192	43	98	
*YU8NU	-	11,501	105	17	36	S55AA	*	2,016,399	1679	142	467	(*EA1CKX)		1,182,237	1730	96	303	H9B9FBG	3.5	26,650	384	12	53	*UX5TO	*	34,780	122	47	101	
*YU5M	21A	209,124	676	36	121	S59AA	*	355,642	985	162	561	(*EA1CBX)		164,550	425	35	105	H9B9ARF	A	1,182,237	1730	96	303	*UR7INK	*	34,290	109	37	139	
*YT5N	-	104,640	455	37	89	S55Z	*	1,312,786	169	112	324	(*EA1CX)		89,112	457	24	70	H9B9WDY	*	66,861	302	44	127	*UT5ZY	*	32,092	132	55	87	
*YT7B	14A	341,955	1385	36	113	S58N	*	1,172,375	951	143	422	(*EA2BD)	14A	89,987	515	24	83	H9B9HQX	*	47,302	301	32	102	*US1UX	*	26,864	121	40	52	
*YU1ED	-	76,255	459	25	76	S57D	*	69,799	640	135	319	(*EA1WK)		54,312	370	23	70	H9B9ELD	*	24,617	128	33	70	*UT2AA	*	26,386	109	52	106	
*YU2FG	7A	541,814	1740	36	133	S540	*	500,088	790	104	298	(*EASYY)	3.5A	23,976	163	16	65	H9B9RV3DH	*	17,334	156	23	58	(*UR5F3)	*	22,528	140	34	54	
*YU2A	-	384,088	147	35	129	S560	*	420,180	809	80	218	(*EASYY)		35,793	511	15	74	H9B9AFH	28	6,030	59	23	44	*UT4UP	*	20,200	85	44	71	
*YU1TO	-	12,342	149	18	48	S51Z	*	388,242	597	77	189	(*EASYY)		388,242	597	77	189	H9B9CSA	7	6,251	106	9	38	*UT7MR	*	18,894	125	29	65	
*YT2AA	3.5A	141,474	1129	21	81	S57WJ	*	364,812	743	72	186	(*EASYY)		364,812	743	72	186	H9B9CSA	*	6,251	106	9	38	*US2IF	*	18,297	107	34	73	
*YU5T	-	64,350	237	18	64	S50K	28A	51,1530	1306	37	140	(*OPUY1UU)	SJ2W	A	5,926,944	4491	157	485	Sweden		718,620	1025	90	258	*UV7IS	*	16,244	217	29	95
*YT1Z	-	22,550	175	23	86	S52AW	7A	820,400	2813	37	138	(*OP-S53WG)	SE0X	2,134,024	2878	123	365	H9B9CIC	AA	718,620	1025	90	258	*UR3ID	*	1,716	34	11	22	
Shetland and Fair Isle	MZ5B	28	29,172	270	15	S52AW	7A	575,400	2668	34	126	(*OP-S53WG)	S56X	*	5,926,944	4491	157	485	H9B9CIC	AA	718,620	1025	90	258	*UR4LIN	*	1,2019	122	35	66
MM0XA	21	18,980	157	16	94	S57Z	*	752,700	2641	34	122	(*OP-S53WG)	S56X	*	60,350	239	49	121	H9B9CFZ	28A	396,643	1043	34	135	*UT6LX	*	10,625	53	37	88
*MZ8A	2B	18,512	38	7	14	S51DX	*	32,495	404	15	52	(*OP-S53WG)	S56X	*	1,145,738	1595	113	305	H9B9HDG	7A	94,017	801	15	62	*UR5MV	*	7,760	71	27	53
*MSDZET	21	5,754	99	12	30	S53V	*	292,099	1526	21	80	(*OP-S53WG)	S56X	*	93,197	1388	100	330	H9B9HOJ	7A	8,340	141	9	51	*UR2MO	*	4,459	37	24	54
GZ5Y	AA	82,248	377	41	97	(*GM4SSA)	S52X	820,400	2813	37	138	(*OP-S53WG)	S56X	*	685,125	1165	95	280	H9B9IHM	AA	3,450	40	16	34	*UT4MW	*	4,095	67	24	41
Sicily						S50XX	AA	3,398,188	2504	165	568	(*OP-S53WG)	S56X	*	655,784	2097	180	501	H9B9JNM	AA	924,760	1091	122	366	*UT3ID	*	1,260	101	21	63
IW9HHB	A	346,175	960	70	23	S54X	*	2,409,075	1830	144	501	(*OP-S53WG)	S56X	*	502,918	229	105	304	H9B9JNM	AA	924,760	1091	122	366	*UR5CC	*	300	12	9	11
IW9FI	-	23,226	177	32	66	S56C	*	930,810	1916	93	262	(*OP-S53WG)	S56X	*	502,918	229	105	304	H9B9JNM	AA	924,760	1091	122	366	*UT7JM	*	24	2	2	2
*IT2AU	A	275,945	914	59	135	S52AU	*	280,630	601	69	197	(*OP-S53WG)	S56X	*	15,048	62	31	75	H9B9JZ	28A	396,643	1043	34	135	*UR3ID	*	12,019	21	63	66
*IT9AP	A	84,987	245	59	154	S51MF	*	245,385	428	48	122	(*OP-S53WG)	S56X	*	8,987	76	19	24	H9B9JZ	28A	396,643	1043	34	135	*UR5MV	*	7,760	71	27	53
*IT9UCS	-	79,924	305	61	105	S57KM	*	165,680	589	62	128	(*OP-S53WG)	S56X	*	22,107	315	31	99	H9B9JZ	28A	396,643	1043	34	135	*UR5MV	*	7,760	71	27	53
*IT9BWE	-	15,744	151	39	89	S57ZT	*	64,644	248	24	108	(*OP-S53WG)	S56X	*	14,976	71	28	86	H9B9JZ	28A	396,643	1043	34	135	*UR5MV	*	7,760	71	27	53
*IT9NVA	14	46,050	521	19	56	S52WV	7A	87,318	971	16	65	(*OP-S53WG)	S56X	*	28,070	313	30	125	H9B9JZ	28A	308,826	1075	37	132	*UT3ZQ	*	13,732	44	11	31
*IT9BXR	-	18,644	253	14	45	S57S	28A	47,124	215	25	56	(*OP-S53WG)	S56X	*	17,300	297	11	13	H9B9JZ	28A	308,826	1075	37	132	*UT3ZQ	*	13,732	44	11	31
*IT9IZY	7	23,940	370	14	56	S52W	7A	295,054	1327	31	120	(*OP-S53WG)	S56X	*	18,393	310	22	65	H9B9JZ	28A	308,826	1075	37	132	*UT3ZQ	*	13,732	44	11	31
ITM0MU	28A	339,675	1033	37	138	S54X	*	647,322	925	89	297	(*OP-S53WG)	S56X	*	1,196,222	2149	83	213	H9B9JZ	28A	116,028	480	32	102	*UT3ZQ	*	11,028	220	32	109
ITM0W	21	1,275,743	1411	106	324	S57W	*	550,528	988	72	223	(*OP-S53WG)	S56X	*	1,196,222	2149	83	213	H9B9JZ	28A	116,028	480	32	102	*UT3ZQ	*	11,028	220	32	109
*OM5NL	A	1,277,743	1411	106	324	S57W	*	550,528	988	72	223	(*OP-S53WG)	S56X	*	1,196,222	2149	83	213	H9B9JZ	28A	116,028	480	32	102	*UT3ZQ	*	11,028	220	32	109
OM7RU	A	2,202,984	2260	134	424	S54E	*	647,322	925	89	297	(*OP-S53WG)	S56X	*	1,196,222	2149	83	213	H9B9JZ	28A	116,028	480	32	102	*UT3ZQ	*	11,028	220	32	109
OM3IA	-	916,566	1341	113	304	S54E	*	174,484	476	15	24	(*OP-S53WG)	S56X	*	174,484	476	15	24	H9B9JZ	28A	116,028	480	32	102	*UT3ZQ	*	11,028	220	32	109
OM3T																														

US8CM	1.8A	75.735	618	21	78	WB4JTT/KH63.5	3,234	67	10	11	*PY4ZQ	"	436,182	569	81	197	*VY5GJO	A	165,704	401	52	178	WORSP/7	"	18,630	101	36	54						
UP5AKU	"	17,537	190	14	57	KH6DX	1.8	5,140	93	10	*PR7HR	"	434,730	763	61	154	*VY8AD	AA	2,872,444	2158	124	378	OK4JR	"	18,538	175	24	72						
UZ5ZV	"	6,837	115	8	29	KH6CJJ	A	321,584	602	81	111	*PY1KR	"	217,700	612	54	121	*VY5TX	"	20,925	101	33	60	KD9R/4	"	18,228	75	32	66					
UT2IU	"	4,900	138	6	29	KH6/NDA	"	6,960	28	32	*PY2MC	"	205,461	322	87	174	RX1AL		16,833	18	25		IKTZB	"	14,499	94	32	49						
UT9P9	AA	1,477,191	1184	145	502	KH600	A	477,626	668	98	164	*PY2TAW	"	94,375	317	57	108	LZ0M	A	1,008,800	1550	105	311	JG3MG	"	14,322	80	24	43					
US0HZ	"	1,349,992	1847	114	370	KH6NF	A	128,979	317	61	92	*PY3DQ	"	30,225	142	29	78	N8ET	"	913,830	830	114	301	DL6JKL	"	14,256	142	23	40					
UT5EO	"	1,295,406	1730	109	83	KH6NF	28A	1,470	23	15	15	*PY4QD	"	317,734	137	47	82	YU0W	"	849,990	1377	94	27	D1J1TS	"	12,240	107	17	50					
UR5IFB	"	1,230,957	1519	118	393	KH6NF	"	1,470	23	15	15	*PY7QJ	"	16,450	97	42	82	UU2CW	"	766,458	1146	100	204	KO2RP	"	12,141	71	22	50					
UX1UX	"	1,084,980	1775	108	220	KH6NF	"	1,470	23	15	15	*PY2MTS	28	456,000	1367	29	86	W17W	"	12,078	102	39	61	W17W	"	12,078	102	39	61					
UY2IC	"	986,860	1236	107	362	KH6NF	"	1,470	23	15	15	*PY1MX	"	264,607	944	29	74	DL6MWG	"	11,664	106	39	49	DL6MWG	"	11,664	106	39	49					
UT5IA	"	823,762	1164	110	336	KH6NF	A	500,694	987	71	166	*PY2RH	"	227,592	781	27	82	JM1KLO		11,620	76	39	44	JM1KLO	"	11,620	76	39	44					
US5IR	"	811,275	1289	105	330	KH6NF	A	183,872	390	60	109	*PY4FO	"	98,223	294	25	76	RA3WDK		11,495	126	23	49	RA3WDK	"	11,495	126	23	49					
UY5IF	"	492,882	491	131	403	KH6NF	A	22,348	116	26	48	*PY5BLG	"	58,084	337	22	51	F5VBT	"	689,156	1376	83	294	WOPW	"	11,100	69	31	49					
UT5IM	"	364,914	666	84	258	KH6NF	28	8,900	280	27	76	*PY2KC	"	42,336	238	19	53	RA3AN	"	670,377	1222	83	272	W1JK	"	11,100	69	31	49					
UR7OM	"	305,370	489	95	252	KH6NF	"	72	6	2	2	*PY1PM	"	40,480	276	18	37	EU1AA	"	655,616	1130	94	300	US0YA	"	9,891	56	22	41					
UT5ULX	"	294,705	597	85	248	KH6NF	A	1,470	23	15	15	*PY0AKM	21	111,760	365	31	79	*PY4YY	"	40,145	485	16	15	N7IR	"	8,727	112	249	SR9DEM	"	9,890	102	39	49
UY5ZI	"	262,793	486	84	233	KH6NF	A	110,134	386	29	77	*PY1WX	"	30,702	225	18	33	W17W		11,664	106	39	49	W17W	"	11,664	106	39	49					
UT3Q	"	191,036	378	76	250	KH6NF	A	1,470	23	15	15	*PY1DLB	"	19,504	196	31	71	RA3WDK		11,495	126	23	49	RA3WDK	"	11,495	126	23	49					
UX3IO	"	171,666	355	85	204	KH6NF	A	1,470	23	15	15	*PY1BJX	"	17,655	22	33	73	RA3WDK		11,495	126	23	49	RA3WDK	"	11,495	126	23	49					
UR5E	"	126,360	338	72	162	KH6NF	A	2,640	34	12	18	*PY1CR	"	2,640	12	18	18	RA3WDK		11,495	126	23	49	RA3WDK	"	11,495	126	23	49					
UT1AA	"	111,240	343	59	157	KH6NF	A	1,470	23	15	15	*PY1BH	"	1,470	23	15	15	RA3WDK		11,495	126	23	49	RA3WDK	"	11,495	126	23	49					
UX8IW	"	78,408	263	44	118	KH6NF	A	1,470	23	15	15	*PY1BR	"	1,470	23	15	15	RA3WDK		11,495	126	23	49	RA3WDK	"	11,495	126	23	49					
UX2LU	"	75,328	235	57	197	KH6NF	A	1,470	23	15	15	*PY1BT	14	27,675	139	25	50	*PY2RW	21	13,794	92	17	40	Y1L2C	"	50,226	105	98	327					
US0TA	"	68,951	236	46	145	KH6NF	A	1,470	23	15	15	*PY1BV	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K90U	"	55,036	1189	72	25					
UX8JW	"	58,968	177	60	108	KH6NF	A	1,470	23	15	15	*PY1BW	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	J3K4	"	55,036	1189	72	25					
UT5TE	"	58,366	255	44	110	KH6NF	A	1,470	23	15	15	*PY1BX	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
UT5TE	"	58,366	255	44	110	KH6NF	A	1,470	23	15	15	*PY1CX	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
UT5TE	"	58,366	255	44	110	KH6NF	A	1,470	23	15	15	*PY1CY	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
UT5TE	"	58,366	255	44	110	KH6NF	A	1,470	23	15	15	*PY1CZ	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
Lord Howe Island		58,366	255	44	110	KH6NF	A	1,470	23	15	15	*PY1DAB	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
VY4RGS	AA	1,999,206	1415	130	376	KH6NF	A	1,470	23	15	15	*PY1DC	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
PY2YKJ	"	1,385,560	1307	101	275	KH6NF	A	1,470	23	15	15	*PY1DD	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
PY5FB	"	783,364	906	106	210	KH6NF	A	1,470	23	15	15	*PY1DE	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
PY5FJ	"	119,016	349	50	102	KH6NF	A	1,470	23	15	15	*PY1DF	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
PY2SHF	"	115,440	274	62	123	KH6NF	A	1,470	23	15	15	*PY1DG	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
PY2ZY	"	62,828	192	49	133	KH6NF	A	1,470	23	15	15	*PY1DH	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
PV8AA	"	16,797	146	38	123	KH6NF	A	1,470	23	15	15	*PY1DM	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
PV5WG	3.5A	2,550	133	35	19	KH6NF	A	1,470	23	15	15	*PY1DN	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
PV5WG	1.8A	6,090	63	8	21	KH6NF	A	1,470	23	15	15	*PY1DP	14	24,310	131	28	57	*PY2ZC	14	5,044	46	17	35	K7SEL	"	4,815	97	17	28					
ZL4NR	A	73,556	199	45	103	KH6NF	A	199,800	711	31	61	*PY1DZ	28	203,369	725	28	75	N9UR	"	309,350	441	73	196	KN80MK	"	4,532	147	10	23					
ZL3TE	A	199,800	711	31	61	KH6NF	A	199,800	711	31	61	*PY1DZ	28	203,369	725	28	75	JG1PS	"	301,790	869	65	22	AF8J	"	4,408	51	18	20					
ZL3PAH	AA	76,152	190	190	67	KH6NF	A	310,607	761	51	100	*PY1DZ	28	337,676	551	81	203	RAW3D	"	402,084	851	75	249	DL4NBW	"	3,976	60	16	40					
ZL4M	AA	240,112	1009	26	60	KH6NF	A	310,607	761	51	100	*PY1DZ	28	337,676	551	81	203	RAW3D	"	402,084	851	75	249	DL4NBW	"	3,976	60	16	40					
ZL1TM	A	131,245	156	34	45	KH6NF	A	6,644	25	26	30	*PY1DZ	28	337,676	551	81	203	RAW3D	"	402,084	851	75	249	DL4NBW	"	3,976	60	16	40					
ZL1VZ	28	129,857	559	23	18	KH6NF	A	1,470	23	15	15	*PY1DZ	28	337,676	551	81	203	RAW3D	"	402,084	851	75	249	DL4NBW	"	3,976	60	16	40					
ZLW5EE	"	28,416	178	21	17	KH6NF	A	1,470	23	15	15	*PY1DZ	28	337,676	551	81	203	RAW3D	"	402,084	851	75	249	DL4NBW	"	3,976	60	16	40					
ZLW2HF	"	3,399	42	16	17	KH6NF	A	1,470	23	15	15	*PY1DZ	28	337,676	551	81	203	RAW3D	"	402,084	851	75	249	DL4NBW	"	3,976	60							



The antenna system of world high single operator CR3E (operated by Jose, CT1BOH) from a mountain in the northern side of Madeira Island.

EUROPE			HA5RST	1,520,925	1850	126	399	UU5J	1,418,536	1068	162	532	9A7A	15,134,544	8249	196	730	SOUTH AMERICA	
EW6WF		Belarus	HA6KZS	134,208	548	56	136	UX4E	523,709	968	99	268	ED1R	14,437,335	8156	193	742	HK1NA	
1,170,468		1697	106	362	16,443	122	26	55	UZ1I	71,145	373	37	116	HG7T	12,784,899	7159	198	735	
OP4K		Belgium	EI7M	9,774,384	5725	172	635	UR6GWZ	2,880	54	11	37	YT2W	12,474,880	8311	183	703	KH6LC	
3,968,244		3364	148	461	4,590,688	3391	141	515	UT3IZZ	378	10	8	10	LZ5R	12,062,937	8037	182	677	ZM4T
Bosnia-Herzegovina		Italy	IR4M	14,153,292	6666	198	774	VK4CT	8,968,134	5243	164	445	AH2R	9,024,809	5999	177	623	OCEANIA	
E7DX		13,403,520	6698	196	764	I05O	7,973,568	5223	148	592	YE1C	9,384,378	5856	178	663	YE2W			
E7RS		847,110	1523	90	284	IR2T	4,014,644	3370	154	499	YE3J	9,446,464	7552	132	529				
E7CW		82,650	839	22	73	IK1RIM	1,572,480	2441	102	318	ZL2J	10,804,544	7016	174	628				
E7AVW		27,921	194	32	91					LY2W	10,675,728	6647	184	694					
Bulgaria		Latvia	YL1S	1,038,312	1104	129	423	VK4CT	8,968,134	5243	164	445	DR4A	9,897,648	6441	182	702	Z60WW	
LZ1QN		1,367,448	2111	103	351	Z3TY	924,888	1973	81	275	YE3J	9,155,034	4883	178	500	A3AK			
Croatia		Macedonia	PA6V	1,848,326	2318	121	408	VK4CT	8,968,134	5243	164	445	GUAM	9,024,809	5999	177	623	OCEANIA	
9A1P		11,605,840	5720	201	755	P14AMF	90,324	424	39	78	AH2R	9,155,034	4883	178	500				
9A8M		8,574,181	4941	177	670	P14ZOD	7,973,568	5223	148	592	Indonesia	2,360,791	2256	103	276				
9A7T		3,218,322	2265	168	585	L1F	4,014,644	3370	154	499	DLOGL	7,167,462	5234	172	606				
Czech Republic		Netherlands	PA6V	1,848,326	2318	121	408	VK4CT	8,968,134	5243	164	445	DR4A	9,758,498	5017	171	636	SOUTH AMERICA	
OK5KW		10,361,472	5241	198	770	PA6V	92,760	100	98	178	DR4A	7,167,462	5234	172	606				
OL7M		8,719,306	480	197	744	PA6V	90,324	424	39	78	DLOGL	7,167,462	5234	172	606				
OL1C		6,085,332	4184	154	572	PA6V	7,973,568	5223	148	592	DLOGL	7,167,462	5234	172	606				
OL2U		926,208	1654	99	303	LAZAB	1,428,610	2129	120	395	DLOGL	7,167,462	5234	172	606				
OL24		114,798	428	36	78	LT5X	2,360,791	2256	103	276	DLOGL	7,167,462	5234	172	606				
OK5SWL		1,638	35	14	28	LU1UM	92,760	100	98	178	DLOGL	7,167,462	5234	172	606				
England		Poland	HF8N	3,241,305	2970	156	513	PA6V	13,101,312	6197	179	589	PY2NA	10,419,710	3925	116	296	OCEANIA	
G5W		9,004,200	5029	177	683	SP4PNND	9,032,200	2560	148	522	LT1F	10,419,710	3925	116	296				
GSD		5,685,124	4195	160	558	SP4PNND	2,797,200	2573	155	545	LS1D	10,419,710	3925	116	296				
M4A		761,862	1464	91	235	SP2KPD	1,799,256	2345	117	371	LT5X	10,419,710	3925	116	296				
G3YNW		30,712	168	29	59	SP9KAO	1,074,528	1414	113	379	LU1UM	92,760	100	98	178				
European Russia		South Shetland Islands	SP8KHT	144,228	525	55	149	RH1ANF	17,569,500	8230	108	314	RH1ANF	17,699,500	8846	190	510	OCEANIA	
RU1A		11,944,240	6244	205	775	Y04KCC	5,305,374	4027	166	557	SP4PNND	9,032,200	2560	148	522				
RT10		1,962,016	2266	131	401	Y04KCC	505,768	1233	76	255	Y04KCC	9,032,200	2560	148	522				
RZ1AWT		38,500	197	31	94	ZL1F	1,435,870	2787	165	605	Y04KCC	9,032,200	2560	148	522				
RK1QW		17,050	163	27	83	Y04KCC	3,866,968	3198	157	537	Y04KCC	9,032,200	2560	148	522				
R3A		Scotland	GM0EGI	1,146,734	1174	122	392	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689	SOUTH AMERICA	
RT5G		6,480,380	4597	189	703	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689				
RTF2E		4,960,224	3464	182	682	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689				
R02E		4,900,320	3594	173	641	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689				
U43R		3,071,388	3187	166	556	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689				
RM5A		3,038,410	2961	138	448	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689				
RN300		2,725,090	2236	156	574	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689				
RK3R		1,324,356	1781	116	392	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689				
R05D		481,850	699	101	318	YU1AAV	13,417,648	5629	188	689	YU1AAV	13,417,648	5629	188	689				
RK3YWA		294,077	758	78	223	OM8A	16,044,698	7190	206	812	YU1AAV	13,417,648	5629	188	689				
RZ3AWM		70,094	287	46	156	OM7M	12,652,277	6035	200	789	W2YC	6,462,208	3205	166	601				
RT2M		1,734	46	10	24	OM5M	4,812,698	3196	163	610	W2YC	6,415,285	3863	181	644				
RZ4FWW		4,039,812	3069	173	609	OM3RRC	3,049,614	2724	154	512	W2CG	8,694,388	2091	149	419				
RC4HAA		539,688	971	96	283	OM3KZ	1,641,335	2095	105	358	W2CG	2,144,200	1513	149	419				
RK4HYT		381,210	691	104	289	EB1LA	4,848,279	639	63	188	W8BI	523,404	626	107	265				
RT6A		10,388,072	5972	195	737	Slovenia	10,587,520	5356	196	736	NORTH AMERICA	21,367,555	9781	201	734				
Fed. Rep. of Germany		7,977,288	4376	187	715	S50G	644	31	8	15	VE3EJ	12,046,755	7788	145	506				
DP9A		5,399,856	3851	173	619	S50T					VE3EJ	10,661,440	6026	165	515				
DA01		3,618,153	2977	152	529	EA5RS	12,447,588	6229	196	746	VE3EJ	857,790	1613	97	173				
DD1A		2,740,470	2655	128	419	EF7X	10,039,425	5578	181	668	VE3EJ	12,447,588	6229	196	746				
DF7ZS		1,055,808	944	139	485	ED5O	7,129,188	4963	165	583	VE3EJ	12,447,588	6229	196	746				
DQ1V		58,302	236	44	114	EF5X	6,325,156	4450	165	599	VE3EJ	12,447,588	6229	196	746				
Finland		Switzerland	Svalbard	1,516,404	1730	107	321	JW5E	527,298	430	174	416	ASIA	19,932,904	9111	183	670	ASIA	
OH8A		3,895,619	3612	142	481	SK9Q0	1,652,889	1895	139	512	ASIA	6,424,660	4332	168	415	ASIA			
OH2BAH		2,548,308	2096	146	498	SK9NL	378,740	687	73	217	ASIA	5,169,164	3764	157	415	ASIA			
OF3I		1,296,625	1371	134	441	SI9AM	243,968	766	56	200	ASIA	5,169,164	3764	157	415	ASIA			
TM4Q		8,154,090	4566	183	609	BY4AE	1,802,088	2060	122	290	ASIA	4,888,485	2564	159	576	ASIA			
F0NAN		309,608	1004	52	117	BY4AE	914,004	1430	88	164	ASIA	4,884,144	3308	170	446	ASIA			
F6KBF		30,195	178	28	71	BY4AE	302,689	999	75	104	ASIA	4,884,144	3308	170	446	ASIA			