

You can work a lot of stations with 5 watts or less. Our world winner for 2009 was Didier, FY5FY, operating FY5KE. Second place world went to John, KK9A, operating as P40A. You had to travel to far western Siberia to find the

QTH of third place world. It went to Yuri, UA9SP. Long-time QRP'er Doug, KR2Q, took fourth place world and repeated as first place U.S. from northern New Jersey. Fifth place world and number one in Europe was Alec, US2IZ. Alec

improved on his second-place finish in 2008. Second in Europe and seventh in the world was Steve, G4EDG. Third in Europe and eighth in the world was Antonin, OK7CM. Second place in the U.S. was Bill, N8ET. Third place U.S. went

TROPHY WINNERS AND DONORS

SINGLE OPERATOR

ALL BAND

World

EF8M (Opr.: Valery Komarov, RD3AF)
Donor: K4FW Memorial (Scott Robbins, W4PA)

World Low Power

V26K (Opr.: Joseph Trench, AA3B)
Donor: Slovenia Contest Club

World QRP

FY5KE (Opr.: Didier Birtonneau, FY5FY)
Donor: Gene Walsh, N2AA

World Assisted

403A (Opr.: Sergey Rebrov, UT5UDX)
Donor: Robert McGwier, N4HY

USA

Randall Thompson, K5ZD/1
Donor: Frankford Radio Club

USA Low Power

Edward Sawyer, N1UR
Donor: North Coast Contesters

USA QRP

Douglas Zwiebel, KR2Q
Donor: Gene Zimmerman, W3ZZ

USA Assisted

Charles Fulp, K3WW
Donor: John Rodgers, WE3C

USA - Zone 3

James Stevenson, W6YI
Donor: Central Arizona DX Association

USA - Zone 4

Michael Wetzel, W9RE
Donor: The Society of Midwest Contesters

Canada

VY2TT (Opr.: Kenneth Wideltz, K6LA)
Donor: John Sluymmer, VE3EJ & Jim Roberts, VE7ZO

Carib./C.A.

V47NT (Opr.: Andrew Blank, N2NT)
Donor: Chuck Shinn, W7MAP

Europe

CR2X (Opr.: Toni Linden, OH2UA)
Donor: W3AU Memorial (Pete Raymond, N4KW)

Europe - Low Power

LY9A (Opr.: Gediminas Lucinskas, LY3BA)
Donor: Scott Jones, N3RA & Tim Duffy, K3LR

Scandinavia

OH0Z (Opr.: Tomi Ylinen, OH6EI)
Donor: W3FYS Memorial (Chas Weir, Jr., W6UM)

Russia

Vadim Ovsyannikov, UA9CLB
Donor: Roman Thomas, RZ3AA

Africa

CR3E (Opr.: Jose Carlos Cardoso Nunes, CT1BOH)*
Donor: CQ magazine

Asia

ZC4T (Opr.: Andy Chadwick, G3AB)
Donor: Chuck Shinn, W7MAP

Japan

Masaki Masa Okano, JH4UYB
Donor: Tack Kumagai, JE1CKA

Japan - Low Power

Nobuhiro Iwasa, JH8SLS
Donor: Western Washington DX Club

Oceania

KH6ZN (Opr.: James Neiger, N6TJ)
Donor: Chris Tran, ZL1CT

South America

P49Y (Opr.: Andrew Faber, AE6Y)
Donor: Venezuela DX Club

SINGLE OPERATOR, SINGLE BAND

World - 28 MHz

Juan Manuel Morandi, LU1HF
Donor: Joel Chalmers, KG6DX

World - 21 MHz

PT5A (Opr.: Oliver Sweningsen, III, W6NV)
Donor: Lew Sayre, W7EW

World - 14 MHz

CW5W (Opr.: Jorge Diez Furest, CX6VM)
Donor: W2JT Memorial (North Jersey DX Assn.)

World - 7 MHz

CN3A (Opr.: Stefano Brioschi, IK2QEI)
Donor: Alex M. Kasevich, W1CDC

World - 3.5 MHz

Mauri Leppala, EA8CMX
Donor: Fred Capossela, K6SSS

World - 1.8 MHz

Nodir Tursoon-Zadeh, EY8MM
Donor: Kenneth Byers, Jr., K4TEA

USA - 28 MHz

Emil Pockock, W3EP/1
Donor: Wireless Institute of the Northeast

USA - 21 MHz

Steve Jarrett, K4FJ
Donor: CQ magazine

USA - 14 MHz

Michael Zak, W1MU
Donor: Northern Illinois DX Association

USA - 7 MHz

Brian Edward, N2MF
Donor: W6AM Memorial (Jan Perkins, N6AW)

USA - 3.5 MHz

Patrick Sonnier, W5WMM/1
Donor: Bill Feidt, NG3K

USA - 1.8 MHz

Robret March, N7UA
Donor: Jeff Briggs, K1ZM

Canada (14 MHz)

VE6JY (Opr.: Gary Caldwell, VA7RR)
Donor: John Sluymmer, VE3EJ

Carib./C.A. (21 MHz)

T15N (Opr.: Phil Krichbaum, N0KE)
Donor: CQ Magazine

Europe - 28 MHz

Jorma Saloranta, OH2KI
Donor: Jay Pryor, K4OGG

Europe - 21 MHz

YT5W (Opr.: Milan Strahinovic, YU8A)
Donor: Robert Naumann, W5OV

Europe - 14 MHz

CR6T (Opr.: Timo Klimoff, OH1NOA)
Donor: G3FXB Memorial (Maud Slater)

Europe - 7 MHz

CT1JLZ (Opr.: Jiri Pesta, OK1RF)
Donor: Ivo Pezer, 9A3A

Europe - 3.5 MHz

Matija Brodnik, S53MM
Donor: K3VW Memorial (Frankford Radio Club)

Europe - 1.8 MHz

Vojislav Kapun, YT3A
Donor: Pat Barkey, N9RV & Terry Zivney, N4TZ

Japan - 21 MHz

Akito Nagi, JA5DQH
Donor: CQ Magazine

Japan - 14 MHz*

Syuichi Sata, JA7FTR
Donor: Chris Terkla, N1XS

Asia - 21 MHz

Streve Hodgson, ZC4LI
Donor: Coconut Wireless Contest Club

Asia - 14 MHz

Akira Asai, JA8RWU
Donor: CQ Magazine

MULTI-OPERATOR, SINGLE TRANSMITTER

World

P33W (Oprs.: RV1AW, RU4HP, RN4WA, RW4WR, RA3AUU)
Donor: Anthony Susen, W3AOH

U.S.A.

KT3Y/4 (Oprs.: KT3Y, K3EST, N2AA)
Donor: Douglas Zwiebel, KR2Q

Canada

VE3EJ (Oprs.: VE3EJ, VE3JM, VE3OI, VE3TA)
Donor: Eastern Canadian DX Assn.

Carib./C.A.

YS4U (Oprs.: DF7OGO, K3WT, N0AT, N0STL, W0OR)
Donor: Kansas City DX Club

Africa

3V3S (Oprs.: 3V8SS, DF1LON, DJ7IK, DJ9CB, DL9USA)
Donor: Harry Booklan, RA3AUU

Asia

A73A (Oprs.: A71BX, K5GN)*
Donor: Steve Merchant, K6AW

Europe

OM8A (Oprs.: OM2VL, OM3BH, OM3GI, OM3RM, OM5KM, OM6AZ, OM7JG)
Donor: Bob Cox, K3EST

Japan

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

Oceania - Pacific Rim

AH2R (Oprs.: JI3ERV, JR7OMD, JK3GAD, JE8KKX)
Donor: Junichi Tanaka, JH4RHF

South America

PJ4A (Oprs.: K4BAI, W4OC, PJ4LS)
Donor: Araucaria DX Group

MULTI-OPERATOR, TWO-TRANSMITTER

World

CR3L (Oprs.: DJ2YA, DJ6QT, DL1CW, DL2CC, DL5AXX, SV1RP)
Donor: Array Solutions

USA

WE3C (Oprs.: WE3C, W3FV, KQ3F, NN3Q, W8FJ, K3TUF)
Donor: Eric Scace, K3NA

Europe

OL4A (Oprs.: OK1RI, OM2TW, OK1FFU, OM5AW, OM6NM)
Donor: Aki Nagi, JA5DQH

MULTI-OPERATOR, MULTI-TRANSMITTER

World

HC8GR (Oprs.: HC8GR, W2VJN, W6NL, N3RD, W6RGG, N6GQ, K2SX, K6BL, N5KO)
Donor: K2GL Memorial (Doug Zwiebel, KR2Q)

USA

KC1XX (Oprs.: KC1XX, JA1BJI, K1GQ, K1QX, K1TR, KA1R, KM3T, N1KWF, W1FV, W2RQ, WA1Z)
Donor: N6RJ Memorial (Bob Ferrero, W6RJ)

Europe

DR1A (Oprs.: DB6JG, DF6JC, DJ6ET, DJ7EG, DK1BT, DK6WL, DL1DVE, DL1MGB, DL2HBX, DL4WG, DL5CW, DL6FBL, DL6LAU, DL8DYL, DL8WPX, DL9DRA, PC5A)
Donor: Finnish Amateur Radio League

Japan

JA3YBK (Oprs.: JG3KIV, JG3MRT, JG3WDN, JP3PZD, JF4FUF, JF4ETK, JH4NMT, JR4ISF, JS1PWW)
Donor: Masahiro Kitagawa, JH3PRR

WORLD - MULTI-MULTI SSB/CW COMBINED

K3LR (Operators)

36,999,947

Donor: W0ID Alpha Award

USA - MULTI-MULTI SSB/CW COMBINED*

KC1XX (Operators)

34,243,296

Donor: N8SM Memorial (Operators of K3LR)

CONTEST EXPEDITIONS

World Single Operator

TX3A (Opr.: Tamas Pekarik, HA7RY)
Donor: Friends of Phil Goetz, N6ZZ

World Multi-Op

VK9XW (Oprs.: DL2RMC, DL2JRM)
Donor: Carl Cook, A16V

SPECIAL - SINGLE OPERATOR AWARD

World SSB/CW Combined

CN2R (Opr.: James Sullivan, W7EJ)
Donor: Hrane Milosevic, YT1AD

CLUB

World SSB/CW

Frankford Radio Club

271,685,415

Donor: W1WY Memorial (CQ magazine)

Non-USA SSB/CW

Bavarian Contest Club

241,524,006

Donor: N6AUV Memorial

(Northern California Contest Club)

* Second Place



Guido, HC8GR, hosted the winning multi-multi team.

2008's winner, PJ4A, took second place award. Taking third place world was the team of A73A. This was a remarkable accomplishment from Qatar. Very nice job! Multi-single is very competitive especially within Europe. Taking the top European honors was OM8A. Finishing second was RU1A. Third place went to another Slovakian team, OM7M. Making their first appearance at the top of the leader board in the U.S. was the team using all wire antennas, KT3Y/4. Phil's team took advantage of 40 and 20 meters to edge out the second-place finish of K9RS/3. Third place went to Tom's team, K8AZ. N7DD edged out W7VJ for top honors from west of the Mississippi river. Outstanding performances were turned in by many teams. A few of the calls appearing in many logs were: 3V3S, YS4U, B5A, VR2C, VU2RMS, JA0QNJ, UO1P, A73A, OY6A, 4U1ITU, TF4X, T70A, AH2R, YE1C, AH0/AH2Y, A31A, and PJ4A.

The continental winners were: North America VE3EJ, Africa 3V3S, Asia P33W, Europe OM8A, Oceania AH2R, South America PJ4A, Japan JA0QNJ, U.S. KT3Y/4.

Multi-Two

The multi-two category needs two stations manned nearly all the time, and stations have to move skillfully as the propagation changes. Taking advantage of their location to find band

openings to the U.S. and Europe, the multinational team of CR3L ran away with world top honors. Taking second place in the world was the Voodoo contesters at 9L5A. Third place went to 6Y1V. First place in Europe went to long-time top finisher OL4A. Second place in Europe went to IR4X. Their signal sure was booming into the states. Reprising their finish on SSB, third place in Europe went to 9A7A. Repeating their win on SSB, WE3C's station in eastern Pennsylvania took the top U.S. honors. Second place went to NY4A. Third place in the U.S. went to K1AR operating from K1EA's QTH. In Japan the teams of JA6ZPR and JA1ZGP really had a good competition. Several stations put rare multipliers on the air and made big scores. When great operators activate tough places, they make contacts easy: 9L5A gave a lot of people a double multiplier, while B7M, C4I, HL0MBC, VK6AA, ZM1A, and ZM4T all added to the fun.

The continental winners were: North America 6Y1V, Africa CR3L, Asia C4I, Europe OL4A, Oceania VK6AA, South America ZY7C, Japan JA6ZPR, U.S. WE3C.

Multi-Multi

Going into the multi-multi category is a real challenge. Months of planning the station site, gathering operators together, and waiting to see what nature deals you make for a combination of satisfaction and excitement. Operating from just below the equator on the side of an extinct volcano, the number one score in the world was HC8GR. The world second high score was the EA8URL team. Third place in the world and repeating as the number one U.S. score was team KC1XX. Not far behind, K3LR took second place in the U.S. Third place went to Frank, W3LPL's fine team from central Maryland. From farther west, NR5M, K5GO, K0RF, and W0AIIH/9 did fantastic jobs. The European crown was taken away by DR1A. Second place went to LX7I. Third place in Europe went to DF0HQ. Finishing number one in Japan was the Nara team of JA3YBK, just edging out JA5FDJ. Putting together a multi-multi from an interesting QTH is tough. The fol-

lowing stations ended up in a lot of logs: B7P and VK9XW.

The continental winners were: North America KC1XX, Africa EA8URL, Asia JA3YBK, Europe DR1A, Oceania VK9XW, South America HC8GR, Japan JA3YBK, U.S. KC1XX.

Team Contesting

A lot of planning goes into the top teams to make potentially make the top scores. Teams can be formed with members from anywhere in the world. You can submit your team list to <teams@cqw.com>. For 2009 CW, top honors went to team Neiger's Tigers, followed by Code Sharks and Contest Group du Quebec - 1. Great job! The results of team contesting are as follows:

1. Neiger's Tigers: 4L0A (N6AA), P40W (W2GD), KH6ZN (N6TJ), V47NT (N2NT), CR3E (CT1BOH): 37,229,591

2. Code Sharks: K5ZD/1, ZS4TX, V26K (AA3B), PZ5X (K5UN), P49Y (AE6Y): 32,362,380

3. Contest Group du Quebec - 1: VA2WDQ, VE2XAA, VE2EZD, VA2EW, VE2IM: 12,039,749

4. Florida Contest Group #1: H13A, K1TO, N2NL, N6AR: 11, 931,593

5. Carolina DX Association: IS0/K7QB, N2TU, N4ZC, W3GQ, W3OA: 9,281,847

6. KTU RC: LY3B, LY4T, LY5R, LY6A, LY9A: 8,653,165

7. Maritime Contest Club #1: VE1OP, VE1RGB, VA1MM, VY2SS, VE1DT: 5,950,088

8. Brazilian Friends Contest Team: PY1DX, PY1NB, PP5BZ, PY2SEX: 5,370,318

9. DXE full calories: XE2WWW, XE2S, XE2GG, XE1EE, XE1MM: 4,714,770

10. Florida Contest Group #2: K2EK, K5RQ, N4UU, WK2G: 3,834,850

11. MONTeam: EA2LU, EA2BVV, EA4ZK, AN4A (EA4CWN), EA2IF: 3,675,387.

12. Florida Contest Group #3: KE1F, NA4CW, W4QM: 2,074,072

13. Florida Contest Group #5: KN4Y, N4BP, N4DXI: 2,016,106

14. PA Team: PA3GVI, PA4B, PA8F, PD2JAM, PE1MPA: 1,055,727

15. Florida Contest Group #6: K4PB, W4LT, WC4E: 979,937

16. Florida Contest Group #4: K8NZ, N4EK, N4WO, W4YA, WB4TDH: 818,071

BAND-BY-BAND BREAKDOWN—TOP ALL BAND SCORES

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

WORLD TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
EF8M	163/10/39	994/21/71	2464/31/98	1687/31/93	1935/24/83	36/9/19
V47NT	235/13/44	622/19/73	2267/31/107	2421/34/112	1676/27/103	81/11/15
CR3E	461/15/63	886/22/79	1822/30/86	1829/31/100	1399/30/92	7/4/7
8P5A	445/16/57	695/23/75	1720/30/101	2063/28/94	1533/28/89	144/1/1/15
CN2R	710/18/66	916/23/86	1474/29/85	1233/28/93	1084/29/77	33/8/19

WORLD MULTI-OPERATOR SINGLE TRANSMITTER

P33W	421/20/79	1365/33/114	2619/38/139	2223/39/133	1458/34/125	34/7/30
PJ4A	193/13/44	609/20/86	2047/35/133	1614/38/125	1591/33/123	353/18/38
A73A	76/13/47	507/25/90	2189/39/141	1303/36/133	1281/35/126	53/14/28

WORLD MULTI-OPERATOR TWO TRANSMITTER

CR3L	495/14/61	1399/25/107	3929/35/124	2849/40/137	2247/34/112	27/11/20
9L5A	74/11/45	971/25/85	2051/33/100	3154/39/131	2780/34/126	229/15/37
6Y1V	508/19/70	1198/25/89	3013/39/128	3059/37/134	2057/33/116	243/13/21

WORLD MULTI-OPERATOR MULTI-TRANSMITTER

HC8GR	1160/26/87	1661/29/110	3296/36/133	3480/37/142	3130/39/137	1285/23/55
EA8URL	307/12/56	1133/24/103	2803/34/131	2429/37/133	1794/35/118	140/19/46
KC1XX	356/22/79	1343/32/121	2256/39/153	2324/39/153	1094/34/136	231/19/52

USA TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
K5ZD/1	94/15/45	479/21/88	1215/31/114	1444/33/117	696/23/99	29/9/17
K1DG	159/18/67	709/21/84	982/33/113	1504/32/112	483/23/101	14/7/8
K3CR	94/19/50	456/24/83	885/32/118	1406/35/113	631/26/101	33/10/16
W9RE	78/15/40	281/22/69	1107/35/105	1015/33/105	491/25/86	28/8/14
N2IC/5	49/18/26	221/26/66	901/35/106	1119/37/123	285/29/84	59/13/25

USA MULTI-OPERATOR SINGLE TRANSMITTER

KT3Y/4	49/16/43	213/25/96	1453/36/135	1506/36/132	126/26/108	17/10/17
K9RS/3	74/17/54	244/24/93	1014/35/135	1489/35/130	383/29/109	26/14/24
K8AZ	86/18/57	389/27/101	915/35/131	1524/37/133	157/29/102	31/14/30

USA MULTI-OPERATOR TWO TRANSMITTER

WE3C	138/20/72	679/31/111	2153/39/151	2016/37/149	1105/31/124	57/16/37
NY4A	54/16/43	676/24/101	1875/37/132	1299/36/135	974/31/125	49/11/19
K1AR	89/16/52	433/26/96	1533/35/130	1652/39/140	678/30/119	38/15/24

USA MULTI-OPERATOR MULTI-TRANSMITTER

KC1XX	356/22/79	1343/32/121	2256/39/153	2324/39/153	1094/34/136	231/19/52
K3LR	367/22/83	1224/34/124	2159/39/156	2446/39/160	1246/32/133	192/18/49
W3LPL	390/22/83	1322/32/120	1961/38/145	2501/39/156	1322/36/141	121/18/41

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Advertising designed by Bruna Begali

17. **DXE low calories 1:** XE1R, XE1CT, XE1AY, LU8ADX, XE3RR: 575,932
18. **Florida Contest Group #7:** N4LZ, W4CU, W4ZW: 337,807
19. **Maritime Contest Club #2:** VE1JF, VE1ZA, VY2LI, VE1AL: 340,802
20. **Contest Group du Quebec - 2:** VE2DWA, VE2FK, VE2QV (VE2FFE): 236,281
21. **DXE low calories 2:** XE2AU, XE2AI, XE2AUD: 104,334
22. **EA5URV (Radio Club de Valencia):** EA5ABH, EA5AIO, EA5HFV, EA5HKS, EA5LA: 61,997

Clubs

Many contesters belong to a club. The collective experience within a club has helped many contesters install equipment and learn how to increase their operating skills. You can help your club's final score by getting on the air and joining in the fun. This year the world top score went to the dedicated operators from the Frankford Radio Club (148 entries). They were followed closely by the Yankee Clipper Contest Club (228). Third place world and first place in Europe was the Bavarian Contest Club (263). Second place in Europe went to the Rhein-Ruhr DX Association (201).

Records

The records are maintained on the <cqww.com> website. Take a look at the record list. You may find one you can try to beat. Each country, continent, and zone has its own set of records. We ask you help in detecting errors within the records. If you discover an error, please document it and let us know at <questions@cqww.com>. The following stations used their skill to obtain new CW records. Congratulations! **World:** 7 CN3A (IK2QEI); A7 YM3A (LZ1NK). **U.S.:** No Records. **North America:** No Records. **Africa:** 7 CN3A (IK2QEI); A21 IG9X (IK1QBT). **Asia:** A14 4L8A; A7 YM3A (LZ1NK); A3.5 9K2HN; A1.8 RA9FW. **Japan:** Q7 JA6GCE; A14 JH3AIU; A7 JS3CTQ. **Europe:** 7 CT1JLZ. **Oceania:** A21 ZL1BYZ; M2 VK6AA. **South America:** LZ.5 HK1AA; A3.5 PV8DX.

Special Mention

If you want to work rare and interesting places over a weekend, the CQ WW is famous for many DXpeditions. This year why not plan a trip to an exotic QTH? You will be surprised how much fun you will have when you become the chased. Some of the DXpeditions that made the CQ WW CW more interesting for all of us were: V26K, 8P5A, 8P9SS, V31CW, VP2V/DL7VOG, TE1W, J79WE, J37T, J39BS, TO4D, HQ9R, TO5T, YN2GY, V47NT, VQ5V, VP5CM, IG9W, A25NW, EF8M, EA8/OH6L, EA9/OL8R, J28OO, SU9HP, 9G5XA, 5Z4/DL8NBE, 5R8ZO, CR3E, CN2R, CN3A, V5/DJ4SO, 6W1RW, 5H3EE, ST2AR, 9J3A, 5B/HA5PP, 4L0A, VR2EH, 4X0G, 4X/SM8A, BW3/DJ3KR, HS0AC, YM2W, ZC4T, 9M2CNC, OH0Z, OH0X, OH0V, OE9R, CR2X,

EUROPE TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
CR2X	395/16/59	677/24/87	1589/31/101	1733/34/109	1791/32/102	33/10/11
S50A	155/15/57	812/28/85	1468/38/123	1239/31/101	318/34/83	15/9/14
OH0Z	518/11/49	1535/28/99	1453/34/101	968/31/87	218/28/74	32/6/17
DL3YM	336/13/53	566/20/68	1179/33/111	1192/33/98	326/29/77	14/3/11
9A5K	97/4/36	892/18/74	1181/33/100	1210/34/106	422/32/89	34/7/26

EUROPE MULTI-OPERATOR SINGLE TRANSMITTER

OM8A	486/24/90	1147/34/127	2083/39/137	1588/39/141	420/37/134	86/13/55
OM7M	412/26/93	1117/34/116	1944/40/154	1302/39/137	645/35/136	87/11/53
RU1A	303/25/84	1721/36/137	1620/40/155	1808/39/141	183/32/120	41/5/26

EUROPE MULTI-OPERATOR TWO TRANSMITTER

OL4A	920/26/91	1480/34/117	2570/38/136	1711/38/138	813/35/135	55/11/49
IR4X	565/22/79	1713/33/125	2189/40/151	1483/37/130	1053/36/128	78/14/52
9A7A	450/18/69	1474/31/107	2099/40/148	1624/38/139	750/37/138	73/11/45

EUROPE MULTI-OPERATOR MULTI-TRANSMITTER

DR1A	1357/23/83	2235/33/128	2892/40/159	2057/40/156	1044/37/135	166/12/50
LX7I	1521/22/81	2259/30/102	3144/37/132	2337/39/133	951/35/119	221/13/53
DF0HQ	1217/22/78	2380/35/128	3021/40/162	1766/39/151	710/35/128	255/14/59

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US Club Scores

FRANKFORD RADIO CLUB.....	271,685,415
YANKEE CLIPPER CONTEST CLUB.....	270,861,472
POTOMAC VALLEY RADIO CLUB.....	146,916,763
NORTHERN CALIFORNIA CONTEST CLUB.....	105,320,200
FLORIDA CONTEST GROUP.....	79,731,252
NORTH COAST CONTESTERS (W3/W8).....	58,926,747
MINNESOTA WIRELESS ASSN.....	48,169,887
SOCIETY OF MIDWEST CONTESTERS.....	46,642,318
SOUTH EAST CONTEST CLUB.....	39,876,427
SOUTHERN CALIFORNIA CONTEST CLUB.....	539,869,219
MAD RIVER RADIO CLUB (W8).....	33,002,104
CENTRAL TEXAS DX AND CONTEST CLUB.....	30,411,056
CAROLINA DX ASSOCIATION.....	424,942,122
HUDSON VALLEY CONTESTERS AND DXERS.....	23,216,583
ARIZONA OUTLAWS CONTEST CLUB.....	21,927,534
WESTERN WASHINGTON DX CLUB.....	17,403,730
TENNESSEE CONTEST GROUP.....	16,837,980
GRAND MESA CONTESTERS OF COLORADO.....	13,829,045
ROCHESTER (NY) DX ASSN.....	212,441,868
WILLAMETTE VALLEY DX CLUB (W7).....	12,059,099
NORTH TEXAS CONTEST CLUB.....	111,747,255
IOWA DX AND CONTEST CLUB.....	9,639,897
ALABAMA CONTEST GROUP.....	9,563,825
LOUISIANA CONTEST CLUB.....	15,510,419
SOUTHWEST OHIO DX ASSOCIATION.....	5,443,076
CTRI CONTEST GROUP.....	4,878,650
CENTRAL ARIZONA DX ASSOCIATION.....	24,805,249
MOTHER LODE DX/CONTEST CLUB (W6).....	4,539,730
OKLAHOMA DX ASSOCIATION.....	4,076,417
UTAH DX ASSOCIATION.....	3,679,653
WESTERN NEW YORK DX ASSOCIATION.....	2,418,586
SPOKANE DX ASSOCIATION.....	1,800,785
KANSAS CITY DX CLUB.....	1,593,858
SOUTHERN CALIFORNIA DX CLUB.....	1,560,207
NORTH CAROLINA DX AND CONTEST CLUB.....	1,521,501
TEXAS DX SOCIETY.....	1,410,435
CENTRAL OREGON DX CLUB.....	1,253,150
BERGEN ARA (W2).....	1,073,893
SALT CITY DX ASSOCIATION (W2).....	1,037,310
METRO DX CLUB (W9).....	1,034,144
SOUTHEASTERN DX CLUB.....	956,763
NORTHEAST WISCONSIN DX ASSN.....	942,832
FALMOUTH ARA (W1).....	905,682
MAGNOLIA DX ASSOCIATION (W5).....	866,137
BORING AMATEUR RADIO CLUB (W7).....	787,229
NORTHERN ROCKIES DX ASSOCIATION (W7).....	658,488
MISSOURI DX/CONTEST CLUB.....	654,204
STERLING PARK AMATEUR RADIO CLUB (W4).....	602,789
ALLEGHENY VALLEY RADIO ASSOCIATION (W3).....	541,471
DELAWARE COUNTY AMATEUR RADIO ASSN.....	470,503
ALAMANCE AMATEUR RADIO CLUB (W4).....	363,344
WEST PARK RADIOPS (W8).....	331,990
KENTUCKY CONTEST GROUP.....	330,554
SKYVIEW RADIO SOCIETY (W3).....	294,474
NORTHERN ARIZONA DX ASSN.....	283,095
PORTAGE COUNTY ARS (W8).....	250,413
BLUE RIDGE AMATEUR RADIO CLUB (W4).....	150,315
CENTRAL OHIO OPS KLUB EXTRA-NOVICE.....	91,139
ATHENS COUNTY ARA (W8).....	67,626
LOW COUNTRY CONTEST CLUB (W4).....	28,365
FOX RIVER RADIO LEAGUE (W9).....	6,661

DX Club Scores

BAVARIAN CONTEST CLUB.....	241,524,006
RHEIN RUHR DX ASSOCIATION.....	161,679,642
CONTEST CLUB ONTARIO.....	96,019,128
ARAUCARIA DX GROUP (PY).....	76,276,776
CROATIAN CONTEST CLUB.....	75,725,405
CONTEST CLUB FINLAND.....	74,710,950
SLOVENIA CONTEST CLUB.....	67,707,633
BLACK SEA CONTEST CLUB (UR/ER).....	61,267,260
UKRAINIAN CONTEST CLUB.....	58,220,429
LZ CONTEST TEAM.....	51,907,432
KAUNAS UNIV. OF TECHNOLOGY RC.....	40,738,240
BOSNIA & HERZEGOVINA CONTEST CLUB.....	38,838,161
HUNGARIAN DX CLUB.....	38,129,925
LU CONTEST GROUP.....	37,698,950
URAL CONTEST GROUP.....	35,924,145
SP DX CLUB.....	33,056,641
YU CONTEST CLUB.....	25,460,909
*WORLD WIDE YOUNG CONTESTERS.....	24,018,747
SKY CONTEST CLUB (40/YU).....	23,374,072
RUSSIAN CONTEST CLUB.....	22,855,897
CHILTERN DX CLUB (G).....	22,180,209
LATVIAN CONTEST CLUB.....	21,463,290
RADIO CLUB HENARES (EA).....	20,036,661
UA2 CONTEST CLUB.....	18,986,870
SOUTH URAL CONTEST CLUB.....	16,868,755
CE CONTEST GROUP.....	16,781,057
LITHUANIAN CONTEST GROUP.....	16,760,308
CT3 MADEIRA CONTEST TEAM.....	16,390,722
BRITISH COLUMBIA DX CLUB.....	13,489,312
LA CONTEST CLUB.....	12,186,011
LYNX DX GROUP (EA).....	11,220,558
MARITIME CONTEST CLUB (VE1).....	11,166,618
BELARUS CONTEST CLUB.....	10,490,296
VYTAUTAS MAGNUS UNIV. RADIO CLUB (LY).....	10,280,556
VRHNIKA CONTESTERS (S5).....	10,115,556
TORRENT CONTEST CLUB (EA).....	8,957,423
VK CONTEST CLUB.....	8,332,417
GRUPO DXXE (XE).....	7,743,737
MICHRINSK CONTEST GROUP (UA3).....	7,305,025
CONTEST GROUP DU QUEBEC.....	7,245,548
TARTU CONTEST TEAM (ES).....	6,658,157
MEDITERRANEO DX CLUB (I).....	6,647,404
RIO DX GROUP.....	6,565,641
DANISH DX GROUP.....	6,488,593
599 CONTEST CLUB (JA1).....	6,463,443
LES NOUVELLES DX (F).....	6,436,289

PERM RADIO CLUB.....	5,375,609
RADIO CLUB SPORADIC (UA3W).....	5,077,711
SIAM DX GROUP.....	4,988,062
TEMIRTAU CONTEST CLUB (UN).....	4,983,923
BEEEMSTER CONTEST CLUB (PA).....	4,875,876
KIEV CONTEST GROUP.....	4,861,309
DNEPR CONTEST GROUP.....	4,658,378
HONG KONG AMATEUR RADIO DX ASSN.....	4,601,756
CANTAREIRA DX GROUP (PY2).....	4,525,231
AUSTRIAN CONTEST CLUB.....	3,895,016
VU CONTEST GROUP.....	3,733,218
CSTA BUCURESTI.....	3,719,529
LYON DX GANG (F).....	3,598,834
BELOKRANJEC CONTEST CLUB (S5).....	3,329,060
GMDX GROUP.....	3,247,593
YO DX CLUB.....	3,207,929
SAO PAULO CONTEST GROUP.....	3,190,371
FOX CONTEST CLUB.....	2,681,186
BRIMHAM CONTEST GROUP (G).....	2,617,715
SERPUKHOV RADIO CLUB (UA3D).....	2,507,024
SP CONTEST CLUB.....	2,421,474
RADIO CLUB PARMA.....	2,379,529
JAKARTA DX CONTEST TEAM.....	2,176,424
ARCK (UA0).....	2,120,768
SOUTH GERMAN DX GROUP.....	2,068,898
R4F-DX-G.....	2,055,168
SHAKHAN CONTEST CLUB.....	2,034,867
KIEL CANAL ACTIVITY GROUP (DL).....	1,973,699
DOMODEDOVO (UA3).....	1,839,014
RU-QRP CLUB.....	1,826,772
MOSCOW RADIO CLUB.....	1,771,535
ALRS ST PETERSBURG.....	1,738,281
NOVOSIBIRSK CONTEST CLUB.....	1,672,795
STAVROPOL REGIONAL CONTEST CLUB.....	1,654,824
NOVOKUZNETSK RADIO CLUB.....	1,649,811
CS PETROLUL PLOIESTI (YO).....	1,581,778
ORENBURG CONTEST CLUB.....	1,543,864
BALKAN CONTEST CLUB (LZ).....	1,532,606
INTERNATIONAL RADIO CONTEST GROUP (DL).....	1,527,823
TOP OF EUROPE CONTESTERS (SM).....	1,378,484
GRIMSBY AMATEUR RADIO SOCIETY (G).....	1,319,708
GUARA DX GROUP (PY7).....	1,310,439
SOUTHERN OSAKA CONTEST CLUB.....	1,297,481
ARKTIKA (UA9).....	1,228,749
SASKATCHEWAN CONTEST CLUB.....	1,225,287
BEIJING SUNNY HAM CLUB.....	1,216,745
KIEV RADIO CLUB.....	1,148,641
WATERLAND (PA).....	1,132,051
VLADIMIR RADIO CLUB.....	1,091,484
ALBERTA CLIPPERS.....	1,087,018
YAROSLAVL CONTEST CLUB.....	1,076,285
Z37M CONTEST TEAM.....	1,056,149
MAYCOPSKIJ RADIO CLUB (UA6Y).....	1,018,431
AMSTERDAM DX CLUB.....	919,242
DONBASS.....	917,454
LOMA DEL TORO CONTEST CLUB (HI).....	914,121
VK2AWA CONTEST GROUP INC.....	901,578
ARGO (UR).....	893,372
UNION FRANCAISE DES TELEGRAPHISTES.....	881,395
HAROS RADIO CLUB (HA).....	869,500
GERMAN DX FOUNDATION.....	868,270
RADIOAMATOR (UR).....	867,229
RADIOCLUBUL RADU BRATU (YO).....	851,500
OMSK RADIO CLUB.....	783,896
IRKUTSK RADIO CLUB.....	774,540
WEY VALLEY AMATEUR RADIO GROUP (G).....	771,587
ARUK(EX).....	712,046
VOLYN CONTEST GROUP (UR).....	684,436
SAMARA RADIO CLUB.....	673,387
STAVROPOL REGIONAL RADIO CLUB.....	664,389
CSTA SUCEAVA (YO).....	646,048
GIPANIS CONTEST GROUP (UR).....	634,950
CSM BAIA MARE (YO).....	610,707
HUANCANILCA DX RADIO CLUB (HC).....	603,756
OBNSK QRU CLUB.....	598,374
STV RADIO CLUB (ES).....	597,666
GRUPO ARGENTINO DE CW.....	589,326
ROSTOV.....	588,606
PODOLSK.....	553,601
LOW LAND CRAZY CONTESTERS (PA).....	533,520
CS AEROSOL BACAU (YO).....	509,629
CZECH CONTEST CLUB.....	508,412
MARCONI CONTEST CLUB (I).....	497,130
KKKK CONTEST CLUB KRASNODARSKOGO KRAYA.....	456,120
JIANGSU DX CLUB.....	428,280
BASHKORTOSTAN DX CLUB.....	423,268
NEWBURY AND DISTRICT ARS (G).....	419,741
TIRAS(ER).....	417,357
SAMOTLOR (UA9J).....	411,019
CENTRAL SIBERIA DX CLUB.....	401,285
CSM CRAIOVA (YO).....	269,024
UNITED DX CLUB (UA6).....	265,870
SVARKE (SM).....	245,846
KEMEROVO RADIO CLUB.....	226,789
ESHANESS RADIO CLUB (G).....	223,488
UR-QRP-CLUB.....	167,007
RADIOCLUBUL NOSTRU DIN CONSTANTA (YO).....	134,948
BORISOV AMATEUR RADIO CLUB.....	126,913
CS SILVER FOX DEVA (YO).....	125,914
VORONEZH RADIO CLUB.....	118,959
CWJF GROUP (PA).....	94,448
UKRAINIAN DX CLUB.....	93,053
EAST COAST CANADA CONTEST CLUB.....	71,046
BRESCIA CONTEST GROUP.....	69,746
NANAIMO AMATEUR RADIO ASSOCIATION.....	63,130
KIROV RADIO CLUB.....	61,386
SK6AW HISINGENS RADIOKLUBB.....	53,167
SK2AT FORENINGEN UMEA RADIOAMATORER.....	50,375
ICELANDIC RADIO AMATEURS.....	36,497
KRISTIANSTADS RADIOAMATORER.....	34,706

* Does not comply with club rules.

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Mamuka, 4L2M, was first in the world low power 3.5 MHz.



ZS4TX, Bernie, finished 6th world all band.



Courtney, K4WI, took on the challenge of 28 MHz.

EA6IB, M7A, R3/SM6LRR, ZB2X, J43J, MD6V, GJ2A, 9H3HH, ER0FEO, CR6T, CT1JLZ, GM0IIO, MZ5B, TX3A, 9M6LSC, 9M8YY, WH2D, KH6ZN, TX1B, ZL3TE, T88CI, P29CW, 5W0KH, P49Y, P49V, P40W, 3G3V, CE2/K0MD, CE0Y/SM6CUK, ZP0R, P40A, VP5/N5KW, EA8/OH2BEM, VP9I, ZF2AM, TI5A, YS1/W3MKT, IG9X, ED4R/8, EL8RI, C91LW, 5B/G4IRN, YM3A, MD4K, ER4DX, 4O3A, IS0/K7QB, ZL4NX, DP1POL, PZ5X, 3V3S, P33W, 4U1ITU, VK9XX, AH2R, AH0/AH2Y, A31A, PJ4A, 6Y1V, CR3L, 9L5A, C4I, PJ2T, VK9XW, VK9XX, HC8GR.

Comments

Conditions were far from excellent. The sun was just teasing us with the SSB weekend. Nevertheless, contesters found a way to extract the maximum CW fun. All the bands suffered. In spite of the conditions, the 2009 CQ WW CW Contest set an all time high! We received 5,966 CW contest logs, of which about 5,751 were electronic! Between SSB and CW 12,031 logs were received! That's a 16% increase in one year ... with 28 MHz on life support! Your continued submission of an electronic log allows the CQ WW Contest Committee to process the enormous amount of data received. We have

again provided open logs so that you can learn about propagation and how the top scorers do their operating. Thanks to all the contesters around the world who sent in a log. *Please send in your log no matter how small.* Submitting an electronic log is easy. Send your CW log to <cw@cqww.com> (SSB logs go to <ssb@cqww.com>). Please send your log in Cabrillo format. If you did everything OK, you will get back an acknowledgment. If there was something wrong, you will get a message telling you what to do to correct the error. You can then resubmit your log to the same above addresses. *If your radio has the capability, please submit a log with exact frequencies for each QSO.* Each year anyone who submitted an electronic log receives an UBN report of how their log was judged. The CQ WW CC provides many ways for an entrant to check his/her log for category, club, operator, and score accuracy. Long before the final results are published, logs received list, with your category and your report are posted on the CQ WW site. Double-check your Cabrillo submission. Please make sure the correct category is indicated and the call you used in the contest is shown. Everyone enters the contest to have fun, meet friends, perhaps work some new ones, and *fairly compete.* You can see information concerning the CQ WW on the web at: <<http://www.cqww.com>>.

If you plan to try to make the Top Scores box, you can count on your log being carefully checked. Those contesters trying to win a top scoring position must realize the necessity of *honesty in their efforts.* In a perfect world we would not have to spend this extra effort to check potential top contenders; however, some entrants feel they must win even if it means not following the rules. Just as in other aspects of life, cheating will not be tolerated. Those few contenders who enter the top scores box are important because they set an example of what is possible in our sport.

In order to maintain separation between the categories of single operator and single operator assisted, honesty in high-scoring logs must be the number one priority. The use of a QSO help—spotting network of *any kind*—places the entrant in the assisted category. The assisted category is fully competitive and fun. When you do use a spotting aid, please claim to be assist-

Xtreme Category

The new Xtreme category was introduced in 2009 as a way of allowing stations to use Internet connectivity to link multiple sites, both receiving and transmitting. The number of entries was small, but met the expectations of the Committee. After computing the CQWW scores, and normalizing them to other entrants in the category, and a careful review of the station descriptions, the winners are multi-site station B1Z in the Multi-Operator category with 147 out of a possible 200 points, and OL5Q (OK1HRA, opr.) in the Single-Operator category with 149 points. Honorable mentions are due LZ2NKM, who has crafted an outstanding remote station using a good deal of home-brew interface hardware, and NP2KW, who attempted an operation using multiple remote operators but suffered network problems and was forced to enter as a Single-Op station. We look forward to a growing number of entries in this category in the coming years. —K3EST

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3CX100A5	4CX250B	4CX15000A	945
3CX400A7	4CX250BC	4X150A	866-SS
3CX400U7	4CX250BT	YC-130	5867A
3CX800A7	4CX250FG	YU-106	5888
3CX1200A7	4CX250R	YU-108	6146B
3CX1200D7	4CX350A	YU-148	709Z
3CX1200Z7	4CX350F	572B	3-500ZG
3CX1500A7	4CX1000A	805	4-400A
3CX2500A3	4CX1500A	807	M328/TH328
3CX2500F3	4CX1500B	810	M338/TH338
3CX3000A7	4CX3000A	811A	M347/TH347
3CX6000A7	4CX3500A	812A	M382

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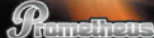
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ed. The use of undeclared packet, the use of additional operators for a single operator entry, two signals at the same time on the same band or on separate bands at the same time, if you are single operator, is in violation of the CQ WW rules.

For 2009 we had to reclassify and issue red and yellow cards (see the CQ WW Rules on the CQ WW website, <<http://www.cqww.com>>) to several stations. These few individuals take up hundreds of hours of work by the CQ WW CC to find what they are trying to hide. Our software and extensive data analysis suggested that some logs should probably be in the assisted category. After sending each of these contestants an inquiry asking them to verify their category of entry, the following entrants responded and confirmed their category as assisted. We wish to publicly thank each of them for their cooperation and honesty and for helping to maintain the high integrity of the Top Scores box: 5B4AIA, 9A0AA, 9A4W, CT3KN, DL1LH, DL4UL, DL7AU, EA3AR, EA9/OL8R, EI6DX, HG3M, IG9U, IK0XBX, K2MFY, LY2IJ, LZ2JA, LZ6W, LZ9X, M2X, N9BX, NI1L, OH8L, OK1NY, OK2ZO, OK3R, OM7CA, OT4A, PP5BZ, PY1KN, PY2SEX, RA9FTM, RC9O, RW6AH, RX9TL, S51FB, S52AW, S53O, SM5CEU, SN3A, SN7C, SP9W, SV2BFN, UA9UHN, UT2B, UT3L, UZ0U, W4UAT, YO9HP, YR9F, and YT1T.

It is an exciting time in contesting. There have been recent advances in remote radio-control and CW decoding software. Both of these interesting advancements will surely impact future contesting. CQ has developed a new Xtreme category, which allows for innovation and implementation of new technologies. The results of the Xtreme category can be found elsewhere in this article.

We would like to dedicate this CQ WW CW Contest to Andrey, RU1AO, who was riding on the train on November 27th to participate in the 2009 CQ WW CW Contest. The train was destroyed by terrorists and Andrey was killed.

Thanks

The final line scores you see here in CQ magazine are the product of a lot of work. With your help and our bookkeeping, we hope the results are as accurate as possible. We use many log-checking tools and data sources to certify the winners. The members of the Committee who provided insight into many contesting topics are: CT1BOH, EA3DU, ES5TV, F6BEE, G3SXW, JE1CKA, K1AR, K1DG, K1EA, K3LR, K3WW, K3ZO, K5TR, K5ZD, K6AW, KR2Q, KM3T, KT3Y, LY3BA, N2AA, N2NC, N2NT, N3ED, N5KO, N6AA, N6TR, N6TW, N8BJQ, N9RV, OH2MM, OH6L, PA3AAV, PY5EG, S50A, VA7RR, VE7EJ, W3ZZ, W5GN, W5OV, W0YK, and W6OAT. A special thank you to Ken, K1EA, who spent countless hours making the CQ WW database the best in contesting. We want to thank Barry, W5GN. Barry has provided the machinery to send certificates to you in a timely manner. We also want to acknowledge two members who are leaving the CQ WW Contest Committee—Sergio, EA3DU, and Oms, PY5EG. The contest community owes a big "thank you" for all the help these two members have provided over many years. The expertise they brought to our group has been invaluable.

Congratulations to all the winners and entrants! CU in the 2010 contests! 73, Bob, K3EST

(Continued on page 101)

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Results of the 2009 CQ WW DX CW Contest (from page 26)

Number groups after call letters denote following: Band (A=All), Final Score, Number of QSOs, Zones, and Countries. An asterisk (*) before a call indicates low power. Certificate winners are listed in bold. (All country terminology reflects the DXCC list at the time of the contest.)

2009 CW RESULTS
SINGLE OPERATOR
NORTH AMERICA

United States			
K5ZD/1	A	6,845,832	3957 132 480
K1DG		6,614,634	3851 134 485
W1WEE		3,975,309	2650 127 422
K9P0/1		3,590,648	2547 114 390
W1FJ		3,378,816	2525 114 390
KQ2M/1		1,894,445	1462 115 364
K1ZZ		1,516,841	1530 84 269
W1MK		1,481,594	1169 116 341
N1IX		975,792	1091 85 263
K1BY		841,680	948 77 257
K1YT		744,022	935 71 206
W1EQ		660,415	618 83 233
K1ZE		605,456	613 83 233
W1HIS		508,690	558 81 257
AK1N		406,840	545 73 207
K1RM		232,068	389 66 167
N4XR/1		230,574	513 37 129
NW1N		181,760	275 72 184
W1WQ/1		126,117	193 64 179
W20D/1		113,364	261 58 143
W1DD		96,385	214 58 127
		92,120	218 54 134
(OP: W1YRC)			
K1KU		74,108	210 54 137
W1LWH		56,608	179 27 89
W1OHM		50,022	163 38 88
AD1L		14,080	73 27 53
KB10DD		5,720	48 22 33
W3EP/1	28	7,176	82 15 31
W1MU	14	738,474	1546 37 130
K1IM		232,740	630 31 104
W1XX	7	206,336	603 29 99
WB1AEL	3.5	37,296	166 20 64
K1UO	1.8	36,045	182 18 63
N1UR	A	2,605,372	1977 114 370
K1BX		2,232,322	1706 117 354
W1UQ		1,098,108	977 100 323
K1SJ		1,060,928	1114 88 284
W2JU/1		747,999	722 98 265
K1HT		617,967	623 89 268
KB1T		497,991	574 88 251
KG1E		469,500	590 78 225
W1GCE		430,350	561 75 227
K1VJ		386,656	504 72 209
K1VW		192,632	343 71 171
W3SM/1		190,361	328 66 167
N1JW		128,115	249 63 132
K1PU		120,365	269 52 129
N1NN		60,984	203 35 91
N1LU		54,520	187 49 96
K1EP		46,816	138 55 97
K1DUQ		26,970	37 22 55
W1PID		25,370	128 28 58
K1NEF		24,475	132 29 60
N1JH		21,976	104 22 60
W1B1FH		18,810	96 30 60
W1FA		16,863	89 20 53
K1SM		14,356	78 26 48
K1VMG		9,090	78 36 54
K1YM		7,560	49 20 40
N1MMW		6,636	109 25 54
AA1M		1,050	18 6 15
K1HI		792	16 11 6
W1MJ		143	6 5 6
KB1DOT		120	23 6 6
N1NK	21	80,976	259 21 91
K1ZK		36,970	18 18 68
KG1V	14	60,585	219 23 82
W1NK	7	53,760	199 23 82
AB1J		32,172	143 19 65
W1WBB	1.8	1,380	36 10 13
N2LT	A	3,425,076	2273 123 411
W2BC		2,434,803	1809 119 378
(OP: W2B2C)			
W2XL		1,966,660	1665 102 326
K2NV		1,590,840	1176 125 366
A12N		750,336	742 95 289
K2FU		715,125	711 99 276
N1RK/2		455,895	546 70 227
K2XF		446,682	505 80 247
KE2WY		396,924	490 60 211
KW2J		363,236	486 83 201
W59M/2		188,256	412 60 152
KM2L		158,886	304 59 135
W25H		129,280	261 59 143
W2FU		79,426	192 48 103
N2CG		65,850	163 45 105
N23W/2		60,688	161 49 103
W23B		53,683	148 100
N2EK		51,984	175 32 82
K2YR		35,168	125 36 76
W2UDT		12,470	93 30 56
WA3AFS/2		266	7 7 7
W2RR	28	3,584	50 11 17
N2MF	7	632,277	1433 36 127
KR2AA	14	161,720	463 28 102
W2VW	1.8	38,637	229 18 63
W2VO		8,109	65 15 38
K1TN/2	A	437,835	544 79 224
K2ZF		431,550	546 81 234
K2TW		268,167	461 60 163
K2CTA		181,930	321 65 161
W2CVW		178,485	305 60 159
W2ZYW		157,248	269 66 158
K2IY		103,116	258 43 113
W2AJQ		101,360	291 40 210
K2DAR		71,100	213 42 108
AE2T		65,896	174 52 106
N2R1		60,915	183 63 184
K2TV		57,962	162 45 101
K2DMX		52,070	164 40 87
W2AMCR		49,842	142 50 92
W2BEE		44,748	152 44 88
K2S2		33,274	151 33 94
N2S7/2		26,445	127 38 85
W29G0B/2		19,656	111 38 76
K2I7		16,355	87 30 84
W2ZOW		16,065	82 29 56
N2NF		11,778	59 29 49

*K2MEN		9,576	73 26 50
*W2LB		9,476	101 38 65
*WA2BMH		5,768	45 21 35
*K2ZR		3,462	79 37 53
*K2RNY		3,381	32 22 27
*W3P/2		2,891	39 23 26
*WY1H/2		2,192	27 15 19
*WA2ART		448	21 14 14
*KV2Z		180	11 6 9
*KC2RXS		84	6 6 6
*W2AW	14	281,400	736 31 109
*WA2ZSK		7,900	95 13 37
*W2XM		1,150	17 7 16
*W2EG	7	139,008	396 30 80
NK1N/2		3,388	53 8 20
K3CR	A	6,103,845	3505 146 481
(OP: LZAAK)			
AA1K/3		3,890,164	2561 130 432
K3ZD		3,258,984	2179 129 412
K3NK		1,620,780	1254 114 362
N1WR/3		1,615,700	1372 103 325
K3IPK		1,372,672	1120 109 339
N3UM		1,247,330	1311 89 257
K3TC		1,102,050	906 120 345

*N3KR		3,200	34 8 24
*K3JHT		1,344	23 7 17
*W3DF	21	18,564	106 20 48
*K1EF/3	14	81,270	274 22 83
*NK3U		73,575	256 26 83
*W3OD		21,402	101 22 60
*W1ZE/3	7	62,916	220 26 81
*K3STX		27,054	123 21 60
*K3TW	3.5	35,588	165 17 65
*NS3T		22,644	134 16 58
K3ZM/4	A	3,479,916	2690 116 376
K1TD/4		2,837,950	1972 128 410
W4RX		1,825,584	1516 110 356
W0AO		1,790,752	1616 108 320
N6AR/4		1,568,450	1222 119 356
K4R0		1,501,485	1243 117 348
K1GU/4		1,310,088	1116 124 318
W4QM		1,160,423	949 113 338
N4RA		1,072,996	917 111 325
N4UJ		973,080	837 88 196
W4AC/4		825,944	887 88 196
N4MM		621,250	644 93 257
K4DJ		574,434	643 87 242
K4MF		527,244	604 84 234

K4FJ	21	224,910	550 33 114
K4RDU	14	59,670	206 27 78
W0UC/4	3.5	60,200	271 22 75
K4PI	1.8	53,053	245 19 72
W5MX/4		21,183	120 16 53
AB4IC		8,480	69 17 36
W4YDU	A	1,536,912	1270 111 357
W3AU/4		1,188,630	1033 109 314
(OP: K4GKD)			
*M1G		858,753	826 96 291
*N2WN/4		815,150	757 118 307
*N4AK		722,424	715 99 273
*W4G2/4		720,200	1074 71 206
*N4CW		679,899	696 97 268
*W4YE		492,660	576 82 233
*W4RQ		317,395	465 65 192
*N4WO		185,760	343 59 157
*K4IE		180,264	315 66 156
*K4HA		163,652	259 73 178
*K4LRP		157,527	327 64 143
*W4NSB		136,565	279 59 132
*K4KY		131,950	276 56 126
*K1ADQ		131,040	226 67 143
*AA4N		124,972	250 60 139
*K2SD/4		124,168	275 53 134

*W8OWS/4		10,200	58 29 39
*W4D4PZ		7,830	51 18 40
*K9IA/4		6,552	81 22 56
*K14EJC		6,400	48 25 39
*WB4JZ		6,363	51 20 30
*K6ETM/4		4,800	62 22 43
*N4R4		4,332	51 34
*N4DXI		2,808	40 14 22
*K14NXC		2,479	25 16 21
*KT4MM		2,272	25 14 18
*AA4K		1,798	26 14 17
*K4RST		1,485	21 16 17
*AL7HW/W4		1,456	40 22 30
*K4EOR		1,400	31 17 18
*AF6S7/4		246	3 3
*K4WI	28	8,316	142 14 30
*WB4DTH	21	79,739	246 29 92
*W4DL		5,096	72 16 33
*K4NO	14	420,626	634 33 118
*N4MO		118,950	382 30 100
*K4NJV		72,688	224 31 87
*W4ZSQ/4		13,195	56 16 49
*N3UA/4	7	75,194	233 30 101
*N3GD/4		53,988	230 23 75
*N4FD		35,259	167 14 59
*N04K		27,812	147 16 52
*K14EGT		5,490	79 15 30
*N4AX		2,584	29 13 21
*N4AW	1.8	4,494	53 14 28
(OP: K4WI)			
N2IC/5	A	4,157,160	2634 158 430
WX0B/5		2,768,790	2022 142 392
(OP: AD5Q)			
K5WA		836,876	850 120 277
N5PO		667,242	746 97 245
K2SD		376,584	393 21 83
W5VQ		383,580	480 104 228
K5EJW		322,368	471 92 200
K7IA/5		239,166	399 83 175
W5PF		187,148	302 81 163
N5VU		146,248	320 67 135
N5DY		130,851	250 69 132
K5MV		129,024	291 60 132
KD5JAA		104,961	228 69 108
NK5Z		80,800	399 53 107
AB5I		48,430	143 54 91
W0ZV/5		34,925	108 52 75
AB5C		28,672	101 53 75
W25H		8,890	48 33 37
W6PU/5	7	95,356	337 31 93
W5WML	3.5	140	

*UA9AFS	54,975	300	20	55	*4X/SM8A	28	36	3	2	2	JF2FU	5	20,522	135	25	37	*JA7AEM	85,800	311	53	79	ZC4LI	21	648,432	1646	34	124
*UA9CF	25,016	200	18	41	*4Z5Q0	21	30,858	181	23	51	JE2DTM	1.8	798	31	10	11	*JH7HX	44,616	233	39	65	United Arab Emirates					
*R9RMR	73	6	21	60	*4Z4XK	1.8	10,492	95	6	37	*JAZ2XB	A	802,878	929	118	227	*JA7CSP	91,275	95	27	36	*A65CA	A	310,758	470	80	214
*UA9UX	3,259	38	18	25							*JAZCJUS	A	605,264	830	99	205	*JA7TJ	11,830	78	34	36	Uzbekistan					
*R9UCD	5,661	9	5	8							*JAZKVB	A	395,129	487	106	223	*JA7AXP	2,133	27	14	13	*UK7F	21	2,378	24	20	24
*R9APAF	327,500	971	28	97	JF1MHD	A	2,633,708	2707	122	252	*JZJQFV	A	252,540	428	90	154	*JA7ARW	1,218	22	14	15	*UK7AZ	21	25,506	166	23	55
*R9RVJR	207,552	861	22	72	*JF19JK	A	1,799,421	1852	122	255	*JZJQJG	A	88,578	277	53	80	*JF7CUO	128,928	502	29	73	*UK9AA	14	555,520	1615	31	109
*R9ABUJ/V	181,764	771	20	79	JAI1JK	A	932,670	1454	68	170	*JZJQJW	A	62,208	200	54	74	*JF7GDF	7,056	79	13	23	Vietnam					
*R9AGUJ	93,888	383	23	73	JAI1JK	A	882,290	997	104	238	*JZJQJW	A	42,108	191	48	68	*JF7GDF	4,389	49	13	20	XV1X	A	818,048	1325	85	223
*R9AGSZ	75,308	417	13	51	JF1SQC	A	610,272	993	89	145	*JZJQJW	A	20,776	78	45	53	*JF7GDF	3,007	55	17	18	West Malaysia					
*R9AGNT	51,000	303	17	58	JR1CFC	A	567,615	1029	70	159	*JZJQJW	A	10,935	95	36	45	*JF7GDF	3,007	55	17	18	9M2JKL	A	56,992	226	50	87
*R9AXHT/9	51,000	303	17	58	JH1F5F	A	476,073	637	106	207	*JZJQJW	A	10,595	68	26	39	*JF7GDF	3,007	55	17	18	9M2CNC	7	300,312	927	33	96
*R9ASXU	46,847	236	18	61	JH1LAL	A	354,574	603	84	143	*JZJQJW	A	4,428	50	19	22	*JF7GDF	3,007	55	17	18	*9M2TO	A	111,086	375	42	92
*R9AF9Z	31,992	203	13	49	JH1LFX	A	335,014	671	76	115	*JZJQJW	A	6,000	23	12	12	*JF7GDF	3,007	55	17	18	EUROPE					
*R9Z0PF	7,500	76	11	39	JR1LJL	A	156,096	338	78	114	*JZJQJW	A	2,000	23	12	12	*JF7GDF	3,007	55	17	18	Aland Islands					
*R9XSL	1,113	22	6	15	JH1HIC	A	141,531	328	72	119	*JZJQJW	A	21,421	119	23	30	*JF7GDF	3,007	55	17	18	OH0Z	A	4,697,945	4724	138	427
*R9ABXV	180	11	3	9	JH1HIC	A	134,532	396	53	95	*JZJQJW	A	31,782	16	11	12	*JF7GDF	3,007	55	17	18	OH0X	14	635,972	2048	36	122
*UA9DC	93,522	358	28	87	JAI1HP	A	133,131	281	83	116	*JZJQJW	A	90,544	966	34	90	*JF7GDF	3,007	55	17	18	OH0V	1.8	190,365	1471	21	84
*R9VQC	71,946	311	11	52	JAI1VM	A	127,737	307	63	108	*JZJQJW	A	103,564	316	82	111	*JF7GDF	3,007	55	17	18	Andorra					
*UA9MW	9,880	103	8	32	JAI1MJN	A	103,418	252	67	111	*JZJQJW	A	17,922	499	33	104	*JF7GDF	3,007	55	17	18	*C31CT	7	9,396	121	12	46
*UA9CL	9,272	128	9	29	JAI1BDJ	A	94,180	245	70	100	*JZJQJW	A	31,126	181	25	54	*JF7GDF	3,007	55	17	18	OE9R	A	216,102	341	21	88
	924	19	13	28	JN1RQV	A	67,536	185	61	83	*JZJQJW	A	26,910	166	19	46	*JF7GDF	3,007	55	17	18	OE2BZL		1,032,264	1806	81	273
RW0LT	994,290	974	132	194	JH1A1KA	A	60,916	205	67	90	*JZJQJW	A	22,165	158	21	34	*JF7GDF	3,007	55	17	18	OE3K		398,068	1094	58	160
UA0AFI	839,550	1363	192	182	JH1A1KA	A	32,330	136	47	75	*JZJQJW	A	336	14	8	8	*JF7GDF	3,007	55	17	18	OE80	7	654,306	2307	36	131
UA0AD	827,475	1518	103	192	JH1A1KA	A	30,199	152	101	51	*JZJQJW	A	319	14	6	5	*JF7GDF	3,007	55	17	18	OE18KA	A	24,616	178	26	68
UA0AM	657,475	1122	84	205	JAI1JWV	A	22,470	109	42	63	*JZJQJW	A	3	40	2	2	*JF7GDF	3,007	55	17	18	OE1MCL	A	2,460	176	22	62
UA0ANZ	496,080	1184	81	131	JAI1FWY	A	18,720	80	34	46	*JZJQJW	A	600,544	1008	83	141	*JF7GDF	3,007	55	17	18	OE27KE	7	83,276	457	22	87
UA0AV	257,260	639	61	129	JF1MZW	A	11,426	77	24	34	*JZJQJW	A	182,672	340	94	139	*JF7GDF	3,007	55	17	18	CR2X	A	7,656,880	6218	147	469
UA0AYV	249,612	448	75	169	JL1LNC	A	11,045	89	19	28	JAI3AVO	A	111,033	274	72	97	*JF7GDF	3,007	55	17	18	CU2JT	21	9,360	65	20	40
UA0AZ	225,576	434	54	130	JH1QYU	14	250,380	903	28	79	JAI3AA	A	74,880	263	64	96	*JF7GDF	3,007	55	17	18	*C12AF	28	920	23	8	12
UA0BQ	167,717	433	64	179	JK1LJN	7	503,438	1525	35	99	JAI3AA	A	37,296	188	45	67	*JF7GDF	3,007	55	17	18	EA6AZ	A	124,722	328	48	121
UA0BSA	158,004	402	62	127	JH1A1K	A	36,892	159	31	61	JAI3BCF	21	196,625	645	33	92	*JF7GDF	3,007	55	17	18	EA6ZS	A	44,286	218	29	93
UA0BV	119,400	404	48	102	JH1A1K	A	36,892	159	31	61	JAI3DAP	21	66,785	270	29	66	*JF7GDF	3,007	55	17	18	EA6IB	7	725,298	2879	32	115
UA0ANW	96,600	373	49	89	JH1A1K	A	44,793	260	26	53	JF3LOP	3.5	35,520	199	25	55	*JF7GDF	3,007	55	17	18	*EAGUP	A	1,375,570	2187	151	58
RW0BM	26,248	175	17	51	JH1A1K	A	3,115	55	14	21	*JH3CUL	A	443,439	685	89	172	*JF7GDF	3,007	55	17	18	*EAGNB		268,320	936	39	169
UA0BA	13,987	86	20	51	JH1A1K	A	2,541	41	15	18	*JH3NKA	A	321,492	604	72	147	*JF7GDF	3,007	55	17	18	EA6JN	A	1,375,570	2187	151	58
RA0AA	152,689	643	27	80	JAI1KVT	A	1,033,632	1222	115	218	JH3CJUC	A	244,732	496	88	156	*JF7GDF	3,007	55	17	18	EA6KZ	A	1,002,436	1490	25	84
UA0BSW	13,248	123	22	42	*JH1KJY	A	892,440	1022	110	250	*JH3CJUC	A	223,488	493	66	128	*JF7GDF	3,007	55	17	18	EA6LQ	A	1,002,436	1490	25	84
UA0BDC	209,660	488	31	79	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
UA0BYM	282	44	11	52	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
UA0CZ	190,876	656	29	90	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
UA0ACG	77,044	397	30	73	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
UA0AVU	45,075	281	18	57	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
UA0ANW	45,075	281	18	57	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
RZ0SR	1.925	46	9	16	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*RW0BAJ	503,976	792	69	184	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*RV0AL	471,360	859	71	169	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*UA0SDX	450,515	244	68	171	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*UA0DQW	158,004	402	62	127	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*UA0CUX	246,558	1041	70	160	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*UA0APV	239,096	501	49	104	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*R90LQ	127,466	307	55	108	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*R90UA	39,995	204	31	64	*JH1KJY	A	639,288	815	103	209	*JH3CJUC	A	19,527	66	5	3	*JF7GDF	3,007	55	17	18	EA6LW	A	1,002,436	1490	25	84
*UA0AKY	32,591	124	35																								

Z35T	7	752,928	2578	40	136	YUSA	21	359,535	1039	37	128	UT8LO	*	426,932	727	72	241	Venezuela	21	140,490	820	25	65	OK5W	7,519,381	4584	181	660	Czech Republic	7,519,381	4584	181	660																												
Z37M	3.5	217,496	1269	26	98	YU6D	14	451,500	1879	38	137	UR2VA	*	402,570	666	92	286	AMS1R	21	140,490	820	25	65	OL3Z	7,365,258	5048	164	582	Denmark	7,365,258	5048	164	582																												
Z31MM	1.8	25,600	419	9	55	YU7P	7	667,620	2324	40	146	UR2VA	*	392,784	606	91	243	MULTI-OPERATOR SINGLE TRANSMITTER NORTH AMERICA										OV3X	1,445,491	2064	116	341	England	7,329,052	5196	154	570																								
Z5X	1.8	98,612	959	17	72	YU9X	7	667,620	2324	40	146	UR2VA	*	308,788	737	87	219	United States										6P4	67,710	206	55	130	European Russia	9,158,520	5676	177	663																								
Moldova																														W3UA/1	5,657,499	3133	144	517	RU1A	9,158,520	5676	177	663																						
ER4DX	A	3,255,816	3260	149	437	YU0A	7	386,880	1334	37	123	UT8LO	*	122,488	307	61	183	K1KI	3,298,304	2362	123	389	R16A	6,006,090	4716	165	606	Finland	6,006,090	4716	165	606																													
ER5WU	*	150,150	522	52	143	*YU7EY	3.5	580,018	2361	33	125	UT8LO	*	86,697	288	42	129	K1KI	542,166	655	81	246	RK4FWX	5,567,705	4825	159	556	France	5,567,705	4825	159	556																													
ER3ZZ	*	94,950	259	62	149	YU1UN	7	321,322	1747	33	103	UT8LO	*	260,574	520	34	96	W3BGN	3,282,880	391	87	243	RK3RWA	3,977,568	3768	149	523	Germany	3,977,568	3768	149	523																													
Montenegro																														W3UA/1	5,657,499	3133	144	517	YU4A	7	96,152	630	25	94	UT8LO	*	203,056	561	63	196	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Italy	3,336,564	3671	139	489
Netherlands																														W3UA/1	5,657,499	3133	144	517	YU7U	7	91,131	673	22	89	UT8LO	*	128,744	579	45	109	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Japan	3,336,564	3671	139	489
PA5KT	A	1,003,605	1725	82	263	YU1T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Korea	3,336,564	3671	139	489																													
PA3AJ	A	893,916	1619	93	279	YU2U	1.8	5,719	136	5	38	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Latvia	3,336,564	3671	139	489																													
PA1WT	*	798,330	1688	67	232	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA5WT	*	721,180	1172	75	262	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA5TT	*	677,928	1007	85	291	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA6OU	*	558,204	908	88	274	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA6MIR	*	473,022	921	76	238	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA7RA	*	100,217	396	47	122	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA4B	*	56,625	293	30	95	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA3HGF	*	39,795	209	28	77	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA0WRS	*	37,164	145	34	80	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA3EMN	*	32,670	181	29	92	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA0W	*	29,478	158	29	73	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA0JED	21	75,712	332	30	124	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA0AD	7	194,814	834	34	174	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
PA1HEM	*	6,384	92	15	42	YU9T	1.8	19,437	401	8	49	UT8LO	*	22,748	189	25	96	W3BGN	3,282,880	391	87	243	IA3R	3,336,564	3671	139	489	Lithuania	3,336,564	3671	139	489																													
Norway																														W3UA/1	5,657,499	3133	144	517	LA6HA	A	284,004	704	60	210	UT8LO	*	335,404	1647	30	112	N7DD	2,515,320	1873	144	365	OV6A	2,400,816	3716	108	420	Faroe Islands	2,400,816	3716	108	420
LA3ZA	*	102,005	346	43	162	LA3ZA	*	102,005	346	43	162	UT8LO	*	335,404	1647	30	112	N7DD	2,515,320	1873	144	365	OV6A	2,400,816	3716	108	420	Finland	2,421,570	3897	146	508																													
LA5HPA	*	144,944	270	36	128	LA3ZA	*	102,005	346	43	162	UT8LO	*	335,404	1647	30	112	N7DD	2,515,320	1873	144	365	OV6A	2,400,816	3716	108	420	France	3,333,996	3463	154	512																													
LB1KF	*	620	21	13	18	LA3ZA	*	102,005	346	43	162	UT8LO	*	335,404	1647	30	112	N7DD	2,515,320	1873	144	365	OV6A	2,400,816	3716	108	420	Germany	1,971,915	1966	132	423																													
LA20M	21	46,556	252	27	76	LA3ZA	*	102,005	346	43	162	UT8LO	*	335,404	1647	30	112	N7DD	2,515,320	1873	144	365	OV6A	2,400,816	3716	108	420	Italy	9,129,411	5806	167	604																													
LA7GIA	7	35,598	288	24	78	LA3ZA	*	102,005	346	43	162	UT8LO	*	335,404	1647	30	112	N7DD	2,515,320	1873	144	365	OV6A	2,400,816	3716	108	420	Japan	5,802,192	4610	151	515																													
LA4RT	3.5	66,960	605	18	75	LA3ZA	*	102,005	346	43	162	UT8LO	*	335,404	1647	30	112	N7DD	2,515,320	1873	144	365	OV6A	2,400,816	3716	108	420	Korea	4,221,570	3897	146	508																													
Poland																														W3UA/1	5,657,499	3133	144	517	SP4ZT	A	3,766,000	3023	159	541	UT8LO	*	108,490	1049	20	75	K8AZ	5,891,928	3102	160	554	OH7M	3,333,996	3463	154	512	Latvia	1,971,915	1966	132	423
SN1I	*	899,808	1307	102	314	SP4ZT	A	3,766,000	3023	159	541	UT8LO	*	108,490	1049	20	75	K8AZ	5,891,928	3102	160	554	OH7M	3,333,996	3463	154	512	Lithuania	1,971,915	1966	132	423																													
SP9LAS	*	375,463	757	105	244	SP4ZT	A	3,766,000	3023	159	541	UT8LO	*	108,490	1049	20	75	K8AZ	5,891,928	3102	160	554	OH7M	3,333,996	3463	154	512	Lithuania	1,971,915	1966	132	423																													
SN9R	*	374,868	690	82	242	SP4ZT	A	3,766,000	3023	159	541	UT8LO	*	108,490	1049	20	75	K8AZ	5,891,928	3102	160	554	OH7M	3,333,996	3463	154	512	Lithuania	1,971,915	1966	132	423																													
Portugal																														W3UA/1	5,657,499	3133	144	517	SP3GXH	*	324,090	626	68	209	UT8LO	*	170,000	229	19	78	W9NO	1,494,262	1324	114	320	TM6M	9,129,411	5806	167	604					
SP3GFM	*	180,400	477	53	167	SP3GXH	*	324,090	626	68	209	UT8LO	*	170,000	229	19	78	W9NO	1,494,262	1324	114	320	TM6M	9,129,411	5806	167	604	France	5,802,192	4610	151	515																													
SP1RKR	*	144,266	443	50	134	SP3GXH	*	324,090	626	68	209	UT8LO	*	170,000	229	19	78	W9NO	1,494,262	1324	114	320	TM6M	9,129,411	5806	167	604	Germany	4,192,913	3545	152	501																													
SP6T	*	119,680	171	107	165	SP3GXH	*	324,090	626	68	209	UT8LO	*	170,000	229	19	78	W9NO	1,494,262	1324	114	320	TM6M	9,129,411	5806	167	604	Italy	3,049,698	3465	108	385																													
SP6FXV	*	47,652	185	44	88	SP3GXH	*	324,090	626	68	209	UT8LO	*	170,000	229	19	78	W9NO	1,494,262	1324	114	320	TM6M	9,129,411	5806	167	604	Japan	441,090	1020	70	191																													
SP5CIB	*	19,888	109	28	60	SP3GXH	*	324,090	626	68	209	UT8LO	*	170,000	229	19	78	W9NO	1,494,262	1324	114	320	TM6M	9,129,411	5806	167	604	Korea	3,049,698	3465	108	385																													
SP1MHZ	*	19,116	138	16	65	SP3GXH	*	324,090	626	68	209	UT8LO	*	170,000	229	19	78	W9NO	1,494,262	1324	114																																								

UW4E UT0AZA UW0L UX4E UJ4JWC UR6GWZ UX8IX	2,799,567 1,138,800 467,062 229,120 92,700 78,588 48,184	3105 2222 941 545 43 347 291	138 89 78 187 46 134 32	453 511 269 160 160 134 120	European Russia 1,329,356 2380 112 370 Finland 5,789,520 5064 162 558 431,268 1165 76 243 Germany 6,824,235 5224 155 546 5,753,150 4368 150 539 5,568,520 4654 142 538 1,742,789 1964 115 412 Hungary 7,665,265 5878 173 622 Italy 11,281,193 7081 182 665 Latvia 7,251,489 6590 153 558 Lithuania 4,280,342 4049 143 495 4,147,500 4392 144 481 Netherlands 5,422,760 4458 152 572 4,020,000 3942 141 484 21,000 149 19 51 Poland 1,107,792 1515 113 358 Serbia 7,402,428 6530 152 530 Slovenia 6,895,929 5617 164 555 Spain 6,241,642 5905 151 520 Switzerland 7,428,730 5927 152 558 Ukraine 463,752 1057 71 268 OCEANIA Australia 12,331,144 6524 162 502	Hawaii 9,591,778 6752 153 346 New Zealand 6,847,660 5149 136 344 2,899,740 3091 118 254 Philippines 214,081 691 54 65 SOUTH AMERICA Argentina 3,502,648 3434 101 266 Brazil 16,742,385 7873 167 578 4,095 37 16 29 Netherlands Antilles 16,075,368 8278 152 532 Uruguay 5,179,488 3937 124 365 MULTI-OPERATOR MULTI-TRANSMITTER NORTH AMERICA United States 17,757,558 7604 185 694 17,488,408 7633 184 705 17,328,545 7617 185 686 15,645,202 7024 178 664 12,922,640 6396 171 644 11,049,660 5458 167 615 10,903,992 5346 170 632 10,481,354 5477 164 590 10,274,565 5082 150 585 10,151,358 5343 179 619 9,085,882 4757 171 596 6,624,141 3868 178 575 4,991,217 3056 163 534 4,738,816 2626 159 533 4,063,735 2446 145 474 2,359,979 1784 123 404 240,536 520 97 184 9,024 84 20 28 Canada 3,675,084 4407 126 276 AFRICA Canary Islands 18,358,912 8606 161 587	ASIA Asiatic Russia 4,716,545 3155 131 456 China 7,549,440 5525 165 475 Japan 11,707,080 6080 182 553 10,979,696 5818 185 543 5,291,253 3832 156 395 EUROPE Bulgaria 11,325,240 8801 177 638 Croatia 2,750,115 2389 165 530 Germany 15,740,928 9751 185 711 13,910,292 9349 185 706 Lithuania 6,715,034 6267 153 560 Luxembourg 14,234,072 10433 176 620 Spain 12,301,761 9719 168 585 Sweden 9,892,844 7589 171 635 Ukraine 10,486,896 7904 184 642 OCEANIA Christmas Island 7,809,323 4924 139 412 SOUTH AMERICA Brazil 11,473 126 34 43 Galapagos Islands 34,307,742 14012 190 664 CHECK LOGS 4Z5MU, 9L1BTB, A35A, AASTB, AB1FY, D44AC, DD5KG, DF0WLG, DF9FK, DG1CMZ, DG8VE,	ASIA DJ3RA, DK3RED, DL1BZA, DL1DXL, DL1LFA, DL1ZRE, DL2MJ, DL2QE, DL2RUS, DL3HWD, DL3JON, DL5JAG, DM1JM, DM5DX, DM5JL, EA2OK, EA4Y08DH, EA5BY, EA7BJ, ESSJR, ES6CO, EW8CF, FSKAR, FMSB, G30RY, G3RAU, G3RWL, G3SWH, G4FKA, G6LUG, GM3CFS, HA1SN, HA5FG, HA5LQ, HA6NN, HA8JV, HA8KW, H3JTE, I0KHP, I0KMYM, I0W7CE, I2ZFO5, I140ZD, JAKYD, J1TCS, K7BK, K9BD, LA2GH, LA3BD, LA4NE, LA7RA, LA8JA, LA8HGA, LA8UL, LA1JK, LU5FF, LU7RT, LU2HBF, LZ2BNL, LY2CO, LZ1AG, LZ1AQ, LZ1EO, LZ1MS, LZ2AG, M0CFF, M0NDZ, M0SKI, M0W0DX, N0RC, N9ADG, O0H0JS, O4BEN, O8H2G, O8HSE, O8HUS, O81BMW, O81DI, O81DMP, O81D5U, O81DVM, O81FAI, O81VVC, O81ZE, O82BD, O82CSU, O82ED, O82OP, O82PCL, O82SS, O8MM, O8PQ, O8R7J, O8SA, O8ZJ1, P435P, PH0AS, PY2MNL, PY2SD, PY7OJ, RA0SS, RA3CO, RA3OJA, RA3DXD, RA3ZOM, RA4ST, RA6EE, RA9MLX, RF4M, RJ3FJ, RK1AQ, RK3BA, RK9DR, RK9UC, RL3Z1, RN0JX, RN1AC, RN1AJ, RN6FK, RU3AA, RU3EJ, RU3SE, RU4CS, RV3DI, RV6ASU, RV6FG, RV0SD, RX3MA, RX9VN, RZ3AWM, RZ3FW, RZ4U, RZ9UO, RZ9UW, S51AY, S52OM, SF7MT, SK0TM, SKPZ, SM3KIF, SM5AS, SM5GLE, SM5EN, SM5GMZ, SM5NDI, SM7N, SM7PAF, SM4F, SM7F, S01EK, SP2FO, SP3CGK, SP3EP, SP3OY, SP3RNZ, SP4COU, SP4GDG, SP5BYC, SP6BSL, SP6GIC, SP6CZ, SP6NVN, SP7AWG, SP7CWW, SP7HOV, SP7MFO, SP7MFR, SP7XX, SP8AJ, SP8BV, SP8FNA, SP8HKT, SP8JMA, SP9OYV, SP9MP, SP9TJ, SP9WZS, SO3AJA, SO6NTE, SO6OR, UA0CW, UA1AIR, UA1AJW, UA1AKE, UA3AAW, UA3QL, UA3OQ, UA4AGD, UA4FTA, UA4NU, UA4PI, UA4UBW, UA6G, UA6GU, UA9NP, UN7ECA, UR4WG, UR5DDM, UR5ZOV, UT2XX, UT3NF, UT4WA, UT5UJ, UT7CL, UT7WZ, UT8IT, UW5QR, UW7LL, UW7W, UX1AA, UX1UL, VEH3UR, VK7XX, VK7ZE, VP8NO, VR2LN, VU2JR, W7J, WB9MM, YL2CA, YL2PN, YL2TB, Y0ZCM, Y03JR, Y0GADW, Y0GEX, Y0TBA, Y07DO, Y08DH, Y08RA, Y09XC, Y13W, Y5L1, Z32ID, ZL2BR, ZX2B.
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RADIO WORKS™

Antenna Fever™ Low Prices, Top Quality

CAROLINA WINDOWS® - The best simple wire antenna yet!
1.5 kW CW/SSB, 6m 200 W, 14w takeoff angle for DX, use your tuner
CW 80 80-6m, 132' long. You'll make a big signal \$140
CW 160 Compact™ 160-6m, 69'; 1500w 160-10m 200w 6m \$150
CW 40 40-6m, 66' long Used to set world records \$130
CW 40 Compact™ 40-6m, 34'; 1500w 40-10m 200w 6m \$140
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SuperLoop 80 80-10m, 116' long, exceptional performance \$175
GSRV Plus 80-10m, 102' with high power current balun \$75

NEW **OCFD 80+15**
The Off-Center-Fed Dipole that Works!
80, 40, 20, 17, 15, 12, 10, 6 m
1.5 kW HF 200w on 6
79.95 Free 15 m kit, installed
See website for full details 40m version available

Current Baluns

B1-2K+	1:1	2 kW SSB 80-6m	\$36.95
B1-4K Ultra	1:1	4 kW SSB High isolation version B1-5K	\$49.95
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B1-200	1:1	500W SSB 80-10 small "Low Profile"	\$37.95
Y1-5K+	1:1	5 kW SSB 160-6m Yagi Balun™	\$56.95
B4-2KX	4:1	2 kW SSB 160-10m Precision	\$62.95

RemoteBalun™ 4:1 coax-to-ladder line interface \$63.95

RFI Quick Fix™
For really tough RFI and RF feedback problems, you can't beat the new T-4 and T-4G. Its isolation factor is higher than previous models.
The T-4G goes even further with its built-in ground strap for direct Line Isolator grounding. Before coax enters your shack, stray RF is shunted directly to ground. To prevent ground loop problems, install a T-4 between your transmitter and linear and another T-4 after your linear.

T-4-500 Line Isolator™ 1/4 the size with the same isolation as the T-4. Convenient size. Rated 500 W CW/SSB. \$38.95

All Line Isolators™ have Silver + Teflon SO-239 input and output connectors. T-4 & T-5 rated 160-10m, 2 kW+

T-4	The Standard - High Isolation	\$44.95
T-4G	Higher Isolation with direct ground path	\$47.95
T-4G+	Like T-4G but covers 160m - 6m	\$51.95

Ferrite Snap-on Cores
1 1/4" i.d. (RG-8X size) \$2.50 ea. 1/2" i.d. (RG-213 size) \$4.50 ea
#31 mix is also perfect for mic cables and other equipment cables.

PL-259ST Silver-Teflon SALE \$2.19
Coax and Cable prices by the foot <100'/100'+

RG-8X 95% shield - Premium 35¢/30¢
RG-8X 100' with installed PL-259s + strain relief \$48.95
Super 240 RG-8X 100% shield, 1.5 kW rated 60¢/52¢
RG-213+ Premium, 97% shield, IIA jacket 73¢/63¢
9096 Extra Flex Same specs as 9913, flexible 85¢/75¢

New! CAROLINA WINDOW® 80 Compact™
Half-size, full coverage, full power
80-6 m in only 69' (use tuner) **\$150**
1500 w 80-10m 200 2 6m See our website for full product details

#14 Hard-drawn, 7x22 stranded wire 16¢/ft
#14 FlexWeave™ 168-strand, bare copper wire 22¢/ft
#13 Insulated, stranded copper-clad steel wire 26¢/ft
Tinned-copper braid for grounding 1/2" @ 85¢/ft or 1" @ \$1.29/ft
Weatherproofing Coax Seal™ 1/2"x5' \$3.25/roll
STUF \$6/tube Cold Shrink Tape \$7.50 per 3/4" x 30' roll
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