

Results of the 2010 CQ WW DX 160 Meter Contests

BY ANDY BLANK,* N2NT

While the delay of strong activity in sunspot Cycle 24 probably makes 10-meter enthusiasts unhappy, the 160-meter crowd certainly won't complain. It was too much to ask for a repeat of the fabulous conditions of 2009, but the 2010 running of the CQ 160 Meter Contest was not too far behind. The conditions on CW were still pretty darned good, producing 48 "Millionaires" (see box) versus the 59 from 2009. There were none on SSB, where conditions were not quite as good, but that is more a function of the activity and inherent QRM.

Almost no records were broken this time, apart from some smaller local records. Some scores were pretty close to the ones set in 2009, but most were noticeably down. The total logs submitted were up on CW from 2009 by 170 to 2390 including check logs (1678 Single Operator, 476 Assisted, 179 Multi). On SSB the total was almost identical to 2009—1094 vs 1096 (785 Single Operator, 188 Assisted, 101 Multi). The distribution was very consistent with the category changes from 2009, indicating most stations tend to gravitate to the same categories.

CW Results

The CW contest seems to bring out intense competition in many areas. From an examination of the results, it is apparent that stations closer to the higher geographic clusters of activity had their normal advantage, as opposed to 2009 when scores were higher all over the world.

The USA Single Op winner, Doug, K1DG, had almost the same score as in 2009, along with fellow Maine stations K8PO and K1UO, who took three out of the four top spots. K3ZM in Virginia filled the fourth spot, and perennial top 10ers W4ZV and AA1K were down a bit, as conditions seem to favor the northeast. Of note is Alex, KU1CW, who took 6th place in the USA from the Midwest (Kansas). Great job, Alex! In Canada, another fierce competition among VE3EJ, VE3TA, and VE3AT resulted in three scores over 1 meg, with EJ pulling out the victory. Congratulations on low power go to VE3NE with the North America high score, and W2TZ with the USA top score. In QRP, Gary, K9AY, repeated his victory of 2009

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Here is Niko, AC6DD, operating from a portable QTH at the Piedras Blancas Lighthouse. Niko made nearly 300k points from Zone 3!

with nearly 135K. In the Assisted category, the North America record was broken by Art, N3DXX, who traveled to Prince Edward Island for a cool 1.13 meg. K3WW and VE6SV took the next two spots, with WW's score a bit down from 2009, but SV almost doubled his prior effort.

The USA Multi-Op competition is one of the most competitive categories in all of contesting. The four "big guns", W8JI, W2GD, KC1XX, and K1LZ seem to swap top spots each year. This time it was K1LZ's turn. The gang braved the elements to put a New England coast station on the air. The pictures can be seen at <<http://picasaweb.google.com/KM1CC.CapeCod>>. What you don't see is that a strong storm destroyed the antennas on Thursday night before the contest. The station used some of the 4-square antennas on Friday, but was way behind the other competitors. They managed to rebuild the antenna on Saturday, and by the end had amassed a victory. That is true teamwork.

On the world stage, it was another run-away victory in Single Op for Jim, CN2R. Jim smoked the competition by over 1 meg! Of course, in this contest being in Africa is a huge advantage, since points are higher outside your continent. The next six spots in Single Op were grabbed by EU stations in a tight battle, with Pertti, OH2PM, at CR2X using his western EU QTH to advantage over TF4X, DJ1YFK, GW3YDX, G3TXF, and OH0X. TF4X was piloted by Yuri, K3BU, who traveled to



Far from Argentina, here is Claudio, VE2DWA/LU7DW, braving the cold. Claudio was #3 in Canada on SSB.

TF4M's fine station at the last minute and put in quite an effort.

The only station with a chance to compete with CN2R was EF8M, but they decided to go Multi-Op this time. The gang at T70A was a close second by a mere 70k. PJ2T, ES9C, and UA2FW all had fabulous efforts that were separated from the winner by only 200k. The 160 Multi-Op competition is just one tough category!

In Single Op Low Power, there was more of a distribution of scores around the world. Lali, VE3NE, managed to grab the top world score. Seppo, OH1VR, traveled to Bermuda and piloted VP9GE's station to the number 2 spot. VE3DZ and HC2SL filled out the next two spots with respectable scores of close to 1/2 meg.

In QRP, Milan, OK2BYW, took the top spot in the world with 240k, edging out HA8BE and OK1FKD in a highly contested category. I have tried QRP on 160 and it takes a lot of patience to stick it out. These ops deserve a lot of credit!

Single Op Assisted brought out a number of big guns. The top spot went to Phillippe, DF1LON, operating LX7I to the tune of 1.44 meg. Close second went to Hermann, CT3FN, only 120k behind.

2010 PLAQUE DONORS AND WINNERS

CW SINGLE OPERATOR

WORLD by Bill Tippet, **W4ZV (DJ8WL Memorial)**. Winner: Jim Sullivan, CN2R(W7EJ op)
USA by Ken Byers, **K4TEA**. Winner: Doug Grant, K1DG
CANADA by Alabama Contest Group. Winner: John Sluymer, VE3EJ
USA ZONE 3 by Milt Jensen, **N5IA**. Winner: Lew Sayre, W7AT
USA ZONE 4 by Steve Schmidt, **K4WA**. Winner: Alex Tkatch, KU1CW
USA ZONE 5 by Paul H. Newberry, Jr., **N4PN**. Winner: Paul Obert, K8PO
AFRICA by James "Skip" Riba, **WS9V**. Winner: Ricardo Martins, CT3KN
ASIA by Missouri DX/Contest Club. Winner: Nodir Tursoon-Zadeh, EY8MM
EUROPE by John Battin, **K9DX**. Winner: Pertti Simovaara, CR2X (OH2PM op)
SOUTH AMERICA by John Rodgers, **WE3C**. Winner: Al Van Buren, CE1/K7CA
OCEANIA by John Battin, **K9DX**. Winner: Massimo Zenobi, KH6ZM
JAPAN by Alabama Contest Group. Winner: Masaki Okano, JH4UYB
NORTH AMERICA by CQ magazine (**N4IN Memorial**). Winner: Bob Patten, C6AKQ (N4BP op)
ASSISTED WORLD by Andy Chesnokov, **UA3AB**. Winner: Philippe Luty, LX7I (DF1LON op)
ASSISTED EUROPE by Carsten-Thomas Dauer, **DL2OBO**. Winner: Vlad Ryabov, ER4KAA (RA4LW op)
ASSISTED USA by Akira Nagi, **JA5DQH**. Winner: Charles Fulp, K3WW
LOW POWER WORLD by Ed Parish, **K1EP**. Winner: Lajos "Lali" Laki, VE3NE
LOW POWER USA by Rich Kennedy, **N4ESS**. Winner: Fred Groner, W2TZ
LOW POWER EUROPE by Petr Ourednik, **OK1RP**. Winner: Gediminas Lucinskas, LY9A
LOW POWER CANADA by Contest Club Ontario. Winner: Yuri Onipko, VE3DZ
QRP WORLD by Wayne Mills, **N7NG**. Winner: Milan Konecny, OK2BYW
QRP USA by Bob Raymond, **WA1Z**. Winner: Gary Breed, K9AY
QRP EUROPE by Gary Breed, **K9AY**. Winner: Bela Nagy, HA8BE

MULTI-OPERATOR

WORLD by Hugh Valentine, **N4RJ**. Winner: EF8M (RD3AF, RZ3AZ ops)
USA by **W8UVZ, W0CD, K8GG**. Winner: K1LZ (K1LZ, K1ZM, KB1GSO, KB1RDZ, K3JO, NU5Y, N8BO, Vinnie ops)
EUROPE by **SKY Contest Club**. Winner: UA2 Contest Club T70A (RV2FW, T77C, UA2FB, UA2FF, UA2FZ ops)
ZONE 3 by Riki Kline, **K7NJ/4X4NJ**. Winner: N7DD (W8TK, N7DD ops)

SSB SINGLE OPERATOR

WORLD by Bill Barr, **N4NX**. Winner: Massimo Cortesi, D4C (IZ4DPV op)
USA by David Thompson, **K4JRB**. Winner: Peter Briggs, K3ZM
CANADA by Alabama Contest Group. Winner: Paul Hudson, VE3TA
ZONE 3 by Dr. Larry Flegle, **N4TMW**. Winner: Jim Stevenson, W6YI
ZONE 4 by Alabama Contest Group. Winner: Jim Eppright, K5RX
ZONE 5 by Jim Monahan, **K1PX**. Winner: Manny Fonseca, W2MF
AFRICA by Carl Henson, **WB4ZNH**. Winner: Manuel De Aguilar, EA8ZS
ASIA by Ed Campbell, **NX7TT**. Winner: Hovik Tarzyan, EK6TA
EUROPE by James "Skip" Riba, **WS9V**. Winner: Dmitri Gorshkov, RW2F (UA2FB op)
NORTH AMERICA by CQ magazine (**K2EEK Memorial**). Winner: John Barcroft, ZF2AM
SOUTH AMERICA by John Rodgers, **WE3C**. Winner: Geoff Howard, PJ2T (WB9Z op)
OCEANIA by AI Teimurazov, **4L5A**. Winner: Pier Iovino, KH7MM (W1NA op)
ASSISTED WORLD by Ray Sokola, **K9RS**. Winner: Emir-Braco Memic, E77DX
ASSISTED EUROPE by Braco Memic, **OE1EMS**. Winner: Marko Muni, S50K
ASSISTED USA by Mississippi Valley DX & Contest Club. Winner: Bob Morris, W4MYA
LOW POWER WORLD by Howard Klein, **K2HK**. Winner: Istvan Vajda, HG10P (HA3MY op)
LOW POWER USA by Boring ARC. Winner: Julius Fazekas, N2WN
LOW POWER EUROPE by Contest Club Ontario. Winner: Gediminas Lucinskas, LY9A
LOW POWER CANADA by Rudy Bakalov, **N2WQ**. Winner: Lajos "Lali" Laki, VE3NE
QRP WORLD by Mike Schwieterman, **K7MS**. Winner: Bela Nagy, HA8BE

MULTI-OPERATOR

WORLD by Southeast DX Club. Winner: Martti Laine, CR2X(OH2BH, OH2PM ops)
USA by Jerry Rosalius, **WB9Z**. Winner: John Rodgers, WE3C (KQ3V, NN3Q, WE3C)
EUROPE by **SKY Contest Club**. Winner: Pete Lindsay, EI7M (EI3JE, EI3DP, EI8IR, LY3MM/EI3JZ, G4CLA, EI6BT ops)
ZONE 3 by Riki Kline, **K7NJ/4X4NJ**. Winner: Patrick Hess, NK7C (NK7C, W7RH, N7CQQ, N7NND, KE7ZIW, KF7HGD ops)

SSB/CW Combined

WORLD by Alex Tkatch, **KU1CW**. Winner: Paul Hudson, VE3TA



Herman, HB9CRV, operated CT3FN to #2 in the world Assisted.



If you've never worked this guy, you haven't been on 160 meters. This is Bela, HA8BE, who operated QRP to #2 in the world.

Rounding out the next spots were ER4KAA, OE9R, and ON4WW all with over 1 meg.

SSB Results

The fabulous conditions on CW did not repeat for the SSB leg this year, with more storms and QRN than for 2009. However, the number of entries did not decrease and we still had some spirited competitions.

In USA Single Op, Peter, K3ZM, used his Virginia QTH to take the number 1 slot again. Peter also had one of the top CW/SSB combined scores. He was followed closely by W2MF, W3BGN, and ND8DX, with K5RX from Texas on their tail. On the Canadian side, Paul, VE3TA, edged out VE3PN by less than 20k, followed by VE2DWA also with over 300k. Paul also took the top honors for the

TOP SCORES

CW SINGLE OPERATOR USA		LOW POWER W/W/E		SSB SINGLE OPERATOR USA		LOW POWER W/W/E	
K1DG	1,240,400	VE3NE	610,698	K3ZM	463,624	VE3NE	162,357
K8PO	1,128,012	VE3DZ	471,335	W2MF	331,668	N2WN	126,048
K3ZM	1,007,262	W2TZ	301,385	W3BGN	313,000	K1HTV	123,825
K1UO	834,570	N2WN	282,960	ND8DX	305,472	W2ID	83,412
W4ZV	800,604	VE2XAA	246,568	K5RX	279,568	NN4F	72,216
KU1CW	761,924	VE1ZA	237,216	K9SG	256,590	K0RH	68,040
AA1K	708,125			K1U	231,378		
W3BGN	669,476	QRP W/W/E		NR5M	226,416	QRP W/W/E	
K5NA	617,474	K9AY	134,848	K5NA	206,624	KP4KE/W4	59,020
K5GO	564,696	N0TT	103,984	W3TS	191,268	WB4MSG	52,896
		W0GJ	80,290			WF4U	18,258
		NK8Q	76,824			VE3KZ	15,776
		KT5E	62,830			W0NV	8,399
VE		MULTI-OPERATOR WORLD		VE		MULTI-OPERATOR WORLD	
VE3EJ	1,614,600	EF8M	1,913,613	VE3TA	356,538	CR2X	870,356
VE3TA	1,371,612	T70A	1,844,808	VE3PN	338,712	E17M	703,813
VE3AT	1,080,093	PJ2T	1,739,500	VE2DWA	307,632	HG8DX	632,205
VE3RZ	682,498	ES9C	1,711,916	VX3CX	198,462	DR1A	571,808
*VE3NE	610,698	UA2FW	1,703,460	*VE3NE	162,357	WE3C	554,624
		OM8A	1,568,700			K1LZ	456,127
Zone 3		TM6M	1,530,696	Zone 3		XE1RCS	417,029
VE7CC	536,544	HG8DX	1,471,248	VE7CC	116,928	N2CW	392,000
W7AT	295,750	P33W	1,443,612	W6YI	116,712	UA2FW	384,264
AC6DD	269,872	E77DX	1,420,668	N6RK	57,401	ES9C	370,251
NN7ZZ	266,255			W7DR	50,022		
KG7H	256,056			N7VF	48,488		
QRP		MULTI-OPERATOR W/W/E		QRP		MULTI-OPERATOR W/W/E	
OK2BYW	240,450	K1LZ	1,388,665	HA8BE	88,504	WE3C	554,624
HA8BE	199,188	W8JI	1,160,992	OK2BYW	71,656	K1LZ	456,127
OK1FKD	145,020	KC1XX	1,112,694	KP4KE/W4	59,020	N2CW	392,000
OK1DVM	142,308	W2GD	1,042,020	WB4MSG	52,896	K4NV	275,690
YP6C	139,320	VE2OJ	979,968	S59D	44,051	NF8J	216,048
DX		ASSISTED WORLD		DX		ASSISTED WORLD	
CN2R	2,604,055	LX7I	1,444,344	D4C	724,427	E77DX	391,886
CR2X	1,468,772	CT3FN	1,321,870	ZF2AM	438,780	W4MYA	385,614
TF4X	1,234,401	VY2/N3DXX	1,137,280	RW2F	422,470	S50K	355,830
DJ1YFK	1,172,864	ER4KAA	1,130,381	CT1JLZ	366,392	OK1CDJ	350,720
GW3YDX	1,147,875	OE9R	1,057,375	PJ2T	349,740	VE3RZ	340,130
G3TXF	1,027,565	ON4WW	1,053,132	OY9JD	324,709	LY4A	334,478
OH0X	1,002,124	DL1AUZ	1,015,734	DJ4PT	306,595	S57DX	301,859
G3LET	936,399	ON4IA	977,304	9A2DQ	296,604	OK4U	301,760
SN3A	931,942	HG3DX	969,804	I4FYF	276,720	SN3R	273,096
EY8MM	923,590	YU1LA	909,708	OM3TWM	218,862	ER4KAA	261,864
LOW POWER WORLD		ASSISTED W/W/E		LOW POWER WORLD		ASSISTED W/W/E	
VE3NE	610,698	VY2/N3DXX	1,137,280	HG10P	181,704	W4MYA	385,614
OH1VR/VP9	498,680	K3WWW	735,224	VE3NE	162,357	VE3RZ	340,130
VE3DZ	471,335	VE6SV	619,028	N2WN	126,048	N8TR	255,668
HC2SL	448,470	VA3DX	572,166	LY9A	125,919	K3WWW	253,232
LY9A	387,225	W4MYA	559,435	K1HTV	123,825	N4PN	205,590
OK1CF	375,067			C6AWL	118,755		

*Low Power

SUCH A HAM



I wish I knew what band my wife's guilt trip vibes are on, they always come in a good 20 over.

CW/SSB combined score. Now that is dedication!

In low power, at the top there is that call again, VE3NE. Congrats to Lali. In the USA, Julius, N2WN, just edged out Larry, K1HTV, by only 2k points. In Single Op Assisted W4 "Mike Yankee Alpha" took top honors, edging out VE3RZ by a mere 45k. Tony, KP4KE, operated from a Florida QTH to take the QRP high USA score. QRP and SSB on 160? That takes some intestinal fortitude. Sam, WB4MSG, was right behind Tony by only 7k.

On the Multi-Op front in the USA, the gang at WE3C triumphed over K1LZ (at the home QTH) and N2CW (from the W2GD portable QTH) this time around. The scores were down from their CW counterparts, but it takes just as much effort to amass these scores on SSB. Congratulations to John, WE3C, for assembling a first-class crew.

The top Single Op score in the world by a large margin again went to a station from Africa. Massimo, IZ4DPV, made the trek to Cape Verde and scored a hefty 724k, almost 300k higher than the competition. The D4C signal is certainly a beacon on Topband.

The next six scores were all competitively bunched together, with ZF2AM and RW2F breaking 400k, and CT1JLZ, PJ2T, OY9JD, and DJ4PT all above 300k.



The gang at top USA Multi-Op K1LZ operating portable from Cape Cod, Massachusetts. Left to right: Krassy, K1LZ; Jeff, K1ZM; Velimir, K3JO; Mladen, NU5Y; and Micky, N8BD.

In Single Op Assisted, Braco, E77DX, took the top spot by 35k over S50K, OK1CDJ, and LY4A. In low lower, HG0P and LY9A ended up #1 and #2 in the world outside North America. Dim, RL3FT, traveled to C6AWL and had a good showing, providing a nice multiplier for the troops.

The keenest competition once again came in the form of Multi-Op on the DX side. Martti, OH2BH, and Pertti, OH2PM, put their Azores QTH to good use piloting CR2X to the winning score at 870k, the highest point total in the contest! Not far behind at 700k was EI7M, followed by HG8DX and DR1A. There were over 100 Multi-Op entries on SSB, proving its continued popularity.

MILLIONAIRES CLUB CW 2010

CN2R	2,604,055	SK7DX	1,166,468
EF8M	1,913,613	W8JI	1,160,992
T70A	1,844,808	GW3YDX	1,147,875
PJ2T	1,739,500	VY2/N3DXX	1,137,280
ES9C	1,711,916	VY2/N3DXX	1,137,280
UA2FW	1,703,460	ER4KAA	1,130,381
VE3EJ	1,614,600	K8PO	1,128,012
OM8A	1,568,700	UZ2M	1,123,120
TM6M	1,530,696	OH0Z	1,122,786
HG8DX	1,471,248	KC1XX	1,112,694
CR2X	1,468,772	LN3Z	1,108,965
LX7I	1,444,344	VE3AT	1,080,093
P33W	1,443,612	SK3W	1,059,408
E77DX	1,420,668	OE9R	1,057,375
OM7M	1,408,260	ON4WW	1,053,132
K1LZ	1,388,665	UU7J	1,046,966
VE3TA	1,371,612	W2GD	1,042,020
DR1A	1,361,922	G3TXF	1,027,565
CT3FN	1,321,870	XE1RCS	1,021,515
K1DG	1,240,400	OY6A	1,016,855
TF4X	1,234,401	DL1AUZ	1,015,734
RW2F	1,226,358	K3ZM	1,007,262
OL7M	1,213,060	OM5M	1,005,000
DJ1YFK	1,172,864	OH0X	1,002,124

without the help and dedication of the following people: Tree, N6TR, and Doug, K1DG, put in many man-hours checking logs and determining the eventual winners. Also contributing to the process were K5TR, WA1Z, and K3BU. Thanks, of course, to the staff of CQ magazine, especially Gail, K2RED, for their support. Thank you to all for the help.

The records for the contest will be updated and can be found at the website: <www.cq160.com> along with expanded results and QRM. The list of Multi-Op participants and guest operators, plus the full QRM, will also be found on the CQ website: <www.cq-amateur-radio.com>.

Any questions regarding the contest can be sent via e-mail to <director@cq160.com> or <n2nt@verizon.net>. Any stations interested in seeing their log-checking report can request it directly by sending a note to either of these addresses.

73, and CU on Topband!—Andy, N2NT

(Scores on page 102)

Also of note out on the West Coast of North America was the battle for Zone 3. VE7CC edged out W6YI by only 200 points! Boy, that comes down to one QSO and log checking. The iron-man operator of the season went to Paul, VE3TA, who

totaled the highest number of points for Single Op in both CW and SSB combined.

Thanks

Administering the CQ 160 Meter Contest is a volunteer effort and could not be done

2010 CLUB SCORES

(Minimum of three entries required for listing)

Scores	#Entries	Club	Scores	#Entries	Club
23,970,847	177	BAVARIAN CONTEST CLUB	817,905	5	UTAH DX ASSOCIATION
13,020,930	73	YANKEE CLIPPER CONTEST CLUB	809,035	3	IOWA DX AND CONTEST CLUB
11,785,039	55	CONTEST CLUB ONTARIO	749,728	18	SOUTHERN CALIFORNIA CONTEST CLUB
11,761,424	68	RHEIN RUHR DX ASSOCIATION	737,146	11	CAROLINA DX ASSOCIATION
10,708,249	108	POTOMAC VALLEY RADIO CLUB	729,260	5	ARAUCARIA DX GROUP
10,330,698	64	FRANKFORD RADIO CLUB	727,371	7	YU CONTEST CLUB
7,688,056	18	CONTEST CLUB FINLAND	724,571	14	VRHNIKA CONTESTERS
7,598,061	43	UKRAINIAN CONTEST CLUB	716,838	8	BELARUS CONTEST CLUB
6,184,309	47	BLACK SEA CONTEST CLUB	572,937	9	DEUTSCH AMATEUR RADIO CLUB
6,138,562	23	SLOVENIAN CONTEST CLUB	560,843	9	MARITIME CONTEST CLUB
5,418,463	7	UA2 CONTEST CLUB	470,079	8	TEXAS DX SOCIETY
5,242,735	70	SOCIETY OF MIDWEST CONTESTERS	447,308	5	VYTAUTAS MAGNUS UNIV. RADIO CLUB
5,110,392	18	CROATIA CONTEST CLUB	405,735	10	WESTERN WASHINGTON DX CLUB
4,546,588	34	SP DX CLUB	397,899	5	MISSOURI DX/CONTEST CLUB
4,064,616	10	HUNGARIAN DX CLUB	396,298	4	SASKATCHEWAN CONTEST CLUB
4,037,195	52	CENTRAL ARIZONA DX ASSOCIATION	388,509	3	AUSTRIAN CONTEST CLUB
3,832,059	14	LATVIAN CONTEST CLUB	384,740	12	CONTEST GROUP DU QUEBEC
3,721,653	24	NORTH COAST CONTESTERS	371,307	3	URE BAIX CAMP
3,512,309	29	KAUNAS UNIV. OF TECH. RADIO CLUB	363,241	5	LU CONTEST GROUP
3,238,525	30	FLORIDA CONTEST GROUP	344,003	3	R4F-DX-G
3,172,612	10	BELOKRANJEC CONTEST CLUB	340,342	3	SMOLENSK CONTEST CLUB
3,145,628	46	TENNESSEE CONTEST GROUP	325,962	4	TOP OF EUROPE CONTESTERS
3,087,764	22	MAD RIVER RADIO CLUB	317,862	7	SPOKANE DX ASSOCIATION
2,916,041	17	URAL CONTEST GROUP	284,721	8	NEW MEXICO BIG RIVER CONTESTERS
2,568,871	17	RUSSIAN CONTEST CLUB	275,971	6	LOW COUNTRY CONTEST CLUB
2,451,322	39	MINNESOTA WIRELESS ASSN	274,578	3	ARGO
2,412,421	42	NORTHERN CALIF. CONTEST CLUB	260,339	4	SOUTHWEST OHIO DX ASSOCIATION
2,306,278	19	SOUTH EAST CONTEST CLUB	247,112	7	MOTHER LODGE DX & CONTEST CLUB
2,136,995	17	ALABAMA CONTEST GROUP	243,451	4	SOUTHEASTERN DX CLUB
2,124,017	3	TARTU CONTEST TEAM	231,305	4	ORDER OF BOILED OWLS OF NEW YORK
2,007,132	19	GRAND MESA CONTESTERS OF COLORADO	215,183	6	KENTUCKY CONTEST GROUP
1,836,694	11	CENTRAL TEXAS DX & CONTEST CLUB	206,963	5	KANSAS CITY DX CLUB
1,812,596	3	BOSNIA & HERZEGOVINA CONTEST CLUB	184,735	4	ARCK
1,774,912	9	ROCHESTER DX ASSOCIATION	180,873	4	VERON
1,702,495	5	CHILTERN DX CLUB	179,703	4	TIKIRIKI CONTEST CLUB
1,572,195	9	WORLD WIDE YOUNG CONTESTERS	166,677	6	DELAWARE AMATEUR RADIO ASSOCIATION
1,527,292	25	ALRS ST PETERSBURG	155,415	3	MOSCOW CONTEST CLUB
1,404,917	3	LA CONTEST CLUB (NORWAY)	148,459	7	WEST PARK RADIOPS
1,353,469	3	ALGARVE STAR DX TEAM	138,195	4	RADIOAMATOR
1,166,310	3	DANISH DX GROUP	134,332	5	RU-QRP
1,156,482	8	NORTH TEXAS CONTEST CLUB	122,737	7	WILLAMETTE VALLEY DX CLUB
1,149,280	5	ATCC	790,98	5	STERLING PARK AMATEUR RADIO CLUB
1,137,831	17	HUDSON VALLEY CONTESTERS AND DXERS	65,962	3	FORT WAYNE RADIO CLUB
1,095,701	6	BRITISH COLUMBIA DX CLUB	58,855	3	MAGNOLIA DX ASSOCIATION
1,034,730	10	WESTERN NEW YORK DX ASSOCIATION	52,866	3	GMDX GROUP
897,683	14	CTRI CONTEST GROUP	50,814	3	RADIO CLUB HENARES
895,219	7	YO DX CLUB	45,878	3	VOLYN CONTEST GROUP
868,568	3	LITHUANIAN CONTEST GROUP	22,601	3	PORTAGE COUNTY ARS
843,387	4	GRUPO DXXE	21,644	3	BERGEN AMATEUR RADIOASSOCIATION
			95	3	UKRAINIAN DX CLUB

Number groups after calls denote score, total QSOs, W/V multiplier, countries worked. Total multiplier is the addition of the W/V and countries. Multi-op scores follow single-op listings. An asterisk (*) denotes low power. State, province, and country certificate winners are listed in bold.

**2010 CW RESULTS
SINGLE OPERATOR**

NORTH AMERICA			
UNITED STATES			
CONNECTICUT			
N1ZZ	419,760	973	57 63
K1WV	154,170	576	52 38
W1EQ	108,531	364	51 42
WD5T	60,000	271	50 25
*K1BV	25,155	251	43 2
*W1JQ	20,163	167	39 8
NN1N	12,005	127	28 7
*K2RS	5,796	111	23 0
K1KI	3,933	74	21 1
*W2JU	2,520	63	18 0
MAINE			
K1DG	1,240,400	1701	59 81
K8PO	1,128,012	1641	58 76
K1UO	834,570	1304	58 77
AC1O	123,321	360	51 50
*W1LD	38,324	330	47 5
*NY1E	5,797	72	28 3
MASSACHUSETTS			
W1MK	557,862	1162	55 54
K5ZD	407,770	754	57 53
*K1EP	229,138	873	54 37
W1UJ	169,446	620	53 40
*W1FA	32,900	287	45 5
*N1OY	16,800	88	35 15
*AJ1E	11,172	113	39 3
*N1DC	11,022	133	31 2
WB1AEL	9,386	103	33 5
WJ1R	7,030	88	32 6
KB1W	5,500	103	25 0
*K1DAT	3,432	60	24 2
*WB1FUH	2,318	67	19 0
*NM1J	2,232	43	23 1
NEW HAMPSHIRE			
K1AR	434,072	830	56 60
N1DX	306,705	951	58 47
NS9C	179,450	328	48 49
*W1END	112,285	377	46 39
*K1HI	20,838	188	40 6
*K1OO	16,887	191	34 5
*NJ1H	7,200	102	27 3
*W2AFC	5,966	67	36 2
*AA1SB	2,700	40	25 2
*N1IMW	1,340	33	18 2
*AET1	8	2	2 0
RHODE ISLAND			
K1DFT	164,112	487	52 52
*W1WBB	162,750	598	55 38
W1XX	126,408	410	52 40
*N1NK	23,970	191	44 7
*K3IU	11,376	134	35 1
NS1G	7,029	93	31 2
NB1U	1,328	35	15 1
VERMONT			
K1LI	494,880	1079	57 63
W1SJ	214,110	893	57 33
K1LPS	99,465	241	52 43
*KB1NDV	12,464	156	37 1
KB10DD	8,032	113	31 1
NEW JERSEY			
N2NT	414,920	848	53 57
K2UM	305,694	838	55 56
W2ID	290,598	1038	56 46
N2MM	242,880	719	56 54
*K1JT	94,920	555	53 21
W2LE	415	49	21 0
*K1TN	39,704	310	50 6
N2CG	24,894	124	34 20
K2GN	22,968	124	38 20
*N2LK	19,572	213	40 2
K2LSD	14,478	178	37 1
*W2ZHD	14,229	113	47 4
*N2NF	10,720	149	30 2
*K2ZC	10,115	139	35 0
W2CVW	9,122	104	30 4
*KR2D	8,325	100	37 0
*KD2JC	4,375	75	24 1
*KD2MX	3,588	73	23 0
*K2SQS	2,560	52	20 0
W2JJ	1,700	44	20 0
K2CKZJ	795	24	15 0
*K2FL	688	16	0
NEW YORK			
WF2W	541,835	1273	57 66
N2CU	449,196	1017	56 67
K2NV	349,676	1097	58 49
*N2MF	303,808	783	51 50
*W2TZ	301,385	835	57 52
N2YB	232,300	771	56 48
K2YR	214,268	496	47 45
*W2/E78WW	211,423	690	57 56
*K2FUF	114,144	477	50 32
KW2J	113,150	620	52 31
WA2ETU	101,250	357	53 37
N2GC	84,564	234	49 38
*NA2M	84,530	369	49 18
*WA2MCR	52,780	303	49 16
W2LK	51,173	213	47 26
*N2RI	36,500	310	44 6
*WA2JOK	32,760	263	53 10
*AA2NA	29,427	248	47 4
N2EIK	21,800	259	38 2
*WB2ABD	15,866	135	41 6
*K2RYS	11,580	149	34 1
W2ZDX	11,048	58	24 18
*K2TV	10,608	132	31 3
N2KA	8,806	58	21 16
*WA2YSJ	7,967	106	30 1
*KV2X	6,270	87	33 0
*NP3D	2,553	48	22 1

*W2TPS	2,268	45	21 0
*N2LQ	490	7	0 7
DELAWARE			
AA1K	708,125	1363	58 67
*NB8A	70,763	310	51 26
*WW3DE	39,159	298	48 9
*NY3C	1,972	55	17 0
DISTRICT OF COLUMBIA			
K3VOA	39,528	319	49 5
MARYLAND			
KD4D	469,566	1256	59 55
K3ZD	368,380	1069	57 56
K3TC	212,798	729	57 46
N3UM	182,210	698	57 38
*K3STX	81,213	476	51 18
N3AM	65,870	376	54 16
*K3PLF	34,614	251	42 12
N3XL	7,412	96	32 2
*K3KU	6,177	96	29 0
*K3YDX	4,620	75	28 0
*KB3MXM	2,175	47	24 1
PENNSYLVANIA			
W3BGJ	699,476	1361	58 66
W3TS	361,286	1218	57 47
W3GH	325,911	740	55 64
W3SO	120,208	485	55 33
*AD8J	62,301	492	52 5
*N4XU	53,460	306	50 16
W3PN	39,000	263	50 10
*W3KB	38,564	269	54 8
*W3WS	33,110	248	50 5
N4JG	20,102	141	35 0
W3TDF	17,847	290	24 3
W3FVT	16,464	185	39 3
*N3KR	16,040	169	37 4
*W3WH	14,582	136	42 4
K4JLD	13,365	123	39 6
WA3AAN	13,248	166	35 1
W3F3F	12,549	116	36 11
N3R1X	10,791	141	30 0
*N3RN	8,547	110	32 1
*KN3A	6,656	87	31 1
*N3CR	4,732	77	26 0
*W3EC	3,712	55	28 1
K3NK	3,135	22	2 17
*K3TX	1,530	38	17 0
ALABAMA			
K4AB	186,865	785	58 37
*WA1FCN	102,888	643	53 19
*K4CWW	91,130	624	54 11
W4YRW	66,980	418	55 13
N4BCB	57,348	435	49 10
*N4UC	36,936	317	49 5
*K4YF	34,944	276	50 2
K4H4L	23,544	178	47 7
*K54L	13,735	148	39 2
*K4WI	13,588	135	39 4
*AG4W	10,080	95	36 6
*K8AJX	8,930	103	34 4
*K3CQU	1,800	38	22 2
*W4UAL	1,728	47	18 0
FLORIDA			
K9DM	258,456	516	55 66
K9EY	205,810	625	56 54
N4TB	167,286	638	56 42
*W4AA	156,870	485	54 51
N6AR	124,224	390	53 43
*N9CM	94,520	389	52 33
*W2TX	77,462	380	53 24
K2EK	34,161	212	46 13
W4F2A	25,730	101	39 23
*W4KJ	22,178	79	42 4
*K4FJA	20,832	209	35 6
*K4Y4	16,851	188	36 5
*A12S	13,100	118	42 8
N4DXP	9,480	106	36 4
K4RH	7,488	89	36 3
K4HV	6,688	87	28 4
*W4CU	4,290	64	27 3
*K2EJH	2,926	29	11 11
W8IM	1,743	35	18 3
*W6BXQ	1,050	29	13 2
GEORGIA			
KUBE	128,920	573	56 32
N09E	116,025	550	55 30
K1ZZ	60,984	312	46 26
*NAWD	20,800	169	45 7
*AE4O	16,148	166	40 4
K4ZBJ	15,933	117	36 11
*K4EOR	975	26	24 1
KENTUCKY			
W5MX	423,510	1138	58 56
N4QS	68,965	467	53 12
*K4C4W	49,248	386	51 34
*WA4JOS	6,380	57	6 10
*AC4PY	5,396	75	37 1
NORTH CAROLINA			
W4ZD	800,604	1494	58 68
N4ZD	290,933	818	55 52
K4SV	93,240	254	47 43
*M4YDU	90,919	589	51 16
*M4CV	79,104	550	54 10
K4DJ	48,793	364	52 7
K2LS	37,464	300	49 4
KY4P	22,981	207	45 4
K4YKZ	20,915	187	41 7
*W4TMO	11,952	104	41 7
*A4GR	11,911	122	40 3
*MADE	11,154	123	37 2
*K4BSK	9,842	113	36 2
*AJ4CU	8,288	97	34 3
*W4KAZ	6,006	74	30 3
SOUTH CAROLINA			
K2SX	194,194	797	56 41
W7DD	143,412	406	56 55
*W8A0JR	7,786	104	33 1
TENNESSEE			
W04D	300,300	1084	58 47
*N2WN	282,960	945	56 52
N4IR	174,760	846	56 29
AD4EB	163,592	750	57 31

K4RO	155,483	615	54 35
N4AA	86,436	618	55 8
*K1GU	76,012	543	53 9
*N4AN	66,965	430	53 12
N4KN	63,278	372	49 3
K4LTA	61,976	454	55 6
*N4ARO	47,616	324	53 11
*K4BP	45,880	296	51 11
W4EEH	38,720	313	49 6
*N4AK	36,972	314	47 5
*N4MJ	33,117	254	51 6
K4AMC	33,000	304	46 4
W4LLUR	31,550	47	22 2
*N84M	23,479	184	47 6
AB4GG	20,090	177	46 3
*W4HZD	15,312	162	43 1
*NA4C	14,360	158	40 1
*W4BK	10,374	127	36 2
W4BRYC	10,212	105	45 1
*W83JKQ	4,719	71	32 1
*W0ZZ	4,644	51	35 0
*K4EDI	1,197	27	21 0
*W4R1O	627	16	19 0
VIRGINIA			
K3ZM	1,007,262	1555	57 81
N4RM	533,106	1103	58 68
N4UA	372,240	997	59 61
*K1HTV	225,482	949	58 35
K4FJ	119,354	516	52 31
N3UA	94,188	247	42 52
N4FX	93,432	254	54 48
*W4YE	72,917	416	55 16
N4MM	65,208	312	52 24
K4ZW	63,720	452	48 12
N3JL	59,528	280	50 24

*K0TI	7,616	97	34	0	*EA8CQW	135	6	2	3	UA0BA	3,762	37	0	18	JH1QDB	2,041	19	6	7	Azores					
*WA0LJM	3,190	50	29	0	*EA8RY	1	0	0	1	*RW9MC	2,470	18	0	19	*JA1CP	1,350	24	7	3	CR2X	1,468,777	1586	58	73	
										*UA0CNX	2,420	99	0	5	*JA6WFM	752	16	0	8	*CU8AS	6,356	34	9	19	
										UA9LBO	2,325	17	0	15	*JF2FU	540	20	0	6						
K0JPL	MISSOURI	368	51	16	*SU9HP	Egypt	70	5	36	RW0CN	1,360	17	7	1	*JH8DBJ	256	18	0	4	Belarus					
W0TY	18,228	165	46	3		Madeira Islands				*UA0ZC	1,224	13	0	12	*JAZCUS	245	12	0	5	EW2AA	234,669	653	8	61	
*W7KU	17,568	156	46	2	CT3KN	500,716	502	45	57	RU0LL	1,188	16	4	7	*K1MAG	235	7	0	5	*EU1AZ	215,269	674	4	57	
K0DEQ	16,840	172	42	2						*RAGANO	968	22	0	8	*JAXBW	183	23	0	3	EW3LN	155,851	489	5	56	
*N0AX	12,382	138	41	0		Morocco				UA9LR	738	10	0	9	*JK2VOC	112	25	0	2	EW8KY	142,830	501	2	52	
*W0YZZ	11,484	116	44	0	CN2R	2,604,055	1810	56	89	*UA0SBQ	140	11	0	4	*JROPJR	90	3	2	1	EW8EW	140,125	445	3	56	
*W0H8H	10,920	123	42	0		South Africa				*TA2AL	Asiatic Turkey	226,480	474	0	51	JY1YPA	75	1	3	2	EW7BR	134,552	592	0	44
AA0A	2,640	39	30	0	ZS4TX	40	2	0	2		China					*JN1MSO	69	10	0	3	EW8DX	125,700	475	1	49
*KA0P	1,500	31	20	0		ASIA				*BD1TCC	14,364	143	0	18	*J03RCK	54	12	0	2	*EW6GF	109,428	487	1	43	
*K0LAF	216	13	9	0		Asiatic Russia				*BA4QO	4,158	59	3	11	*JE3UHV	12	6	0	1	EW1DO	103,920	415	2	46	
					RC90	742,815	1029	3	82	*BD1ISI	1,764	29	0	9	*JN1BBO	12	6	0	1	*EU4GQ	100,674	418	0	47	
					UA9KAA	480,559	763	2	71	BA4SI	896	25	0	8						*EW8DD	99,736	408	1	47	
					UA9CMQ	374,094	676	3	60	C4M	Cyprus	522,258	669	10	72	UN9GD	98,294	230	0	49	*EV6M	86,900	375	0	44
					RZ9IR	303,192	504	1	71	*UN5C	59,014	192	0	38	UN6P	88,572	245	0	44	*EW6CU	85,360	378	0	44	
					*UA9CBM	217,728	432	1	55	UN5J	62,820	164	0	45	*EW8DJ	59,700	230	5	45	*EW1JN	36,990	154	0	45	
					UA9TF	185,787	336	0	63	UN8GV	52,873	191	0	37	*EW2ES	22,923	177	0	27	*EU6RO	22,110	149	0	30	
					UA9OM	171,360	425	0	48	*UN9LU	29,484	125	0	28	EU7SR	15,718	103	0	29	*EU7SR	15,718	103	0	29	
					R0DC	158,600	342	23	38	*UN7CH	23,016	95	0	28	*EU6AA	13,166	94	0	29	*EU2EU	10,792	47	1	37	
					RA9AE	155,379	364	0	49	*UN8PT	4,708	66	0	11	*EU2MM	7,656	53	0	29	EU7SA	1	4	3	4	
					*UA9AOL	139,178	300	0	53	UN7CN	3,360	49	0	10						Belgium					
					RV9LM	134,701	303	0	49	*UN7PV	2,964	36	0	13						*O03R	241,563	569	22	57	
					UA9UCK	122,589	285	0	53						*ON7RU	92,585	302	11	47	*ON6LY	54,824	179	10	46	
					*UA9SP	112,145	229	0	55						*OT7X	17,226	119	0	29	ON7ON	16,888	58	0	24	
					RW9RW	111,458	292	0	46	4Z5J	707,532	867	18	66	*EX2A	33,300	106	0	36	*O09O	616	16	0	8	
					*RU9WZ	108,363	308	0	41	*4X/SM8A	99,322	201	4	49	*EX8AB	2,255	29	0	11	Bosnia-Herzegovina					
					UA9FGJ	107,184	252	0	48											*E77R	13,692	103	0	28	
					RV9DX	92,261	234	0	47	JH4UYB	389,664	552	27	61						*E77J	1,455	20	0	15	
					RV9LF	74,997	221	0	39	JASDDH	262,438	417	23	66						*E74A	42	4	0	3	
					UA0DC	74,256	266	12	30	JR1JU	99,693	222	23	34						Bulgaria					
					*UA9AX	74,256	179	0	51	JA6LCJ	82,320	162	16	44						LZ9A	460,733	929	22	69	
					*RU9UG	65,013	215	0	39	JK1OPL	64,786	138	19	39						*LZ4UU	122,112	452	1	52	
																				LZ3FN	118,755	358	1	62	
																				LZ2DF	55,370	220	0	49	
																				LZ2UJ	15,718	103	0	29	
																				LZ1GL	11,132	97	0	23	
																				LZ1ONK	1,235	19	0	13	
																				Crete					
																				*S19COL	9,175	79	0	25	
																				Croatia					
																				9A8WW	921,272	1356	44	72	
																				9A4W	617,897	1049	35	68	
																				9A5MT	394,570	862	17	68	
																				*9A8W	164,486	511	4	58	
																				*9A4WY	65,688	253	0	51	
																				*9A2NO	57,510	199	0	54	
																				*9A2BW	11,352	109	0	22	
																				*9A6Z	9,831	73	0	29	
																				Czech Republic					
																				OLBW	753,624	1269	37	71	
																				OLBA	603,408	1077	37	67	
																				*OK1CF	375,067	971	18	59	
																				*OK1FPS	303,912	849	13	59	
																				*OK2VZ	291,635	804	14	59	
																				OK2BMU	265,654	687	22	64	
																				*OK1HFP	236,118	680	10	59	
																				OK1MVC	183,612	449	15	63	
																				*OK1DKR	135,432	398	16	50	
																				OK2SAR	130,312	526	3	49	
																				*OK1TC	127,906	410	12	50	
																				OK1DDF	96,236	410	1	48	
																				OK1DDT	96,063	254	18	53	
																				*OK3XX	94,452	392	4	47	
																				*OK2PBG	89,980	340	3	52	
																				*OL4W	88,182	403	0	46	
																				*OL2U	83,115	379	1	44	
																				*OK1KJA	82,395	391	0	45	
																</									

*UR5KED	21,210	124	0	35	NEW MEXICO	W5GZ	3,025	67	24	1	Italy	IV3AOL	3,794	58	0	14	N3GJ	33,426	249	46	8	ND8L	14,130	132	40	5	
*UT1AA	16,576	123	0	28	AE5OV	832	23	15	1	IZ3NVR	768	14	0	12	W3AG	30,580	234	50	6	*W8EH	12,382	136	39	2			
*UR7ZO	16,146	135	0	27	TEXAS	RA2FB	Kaliningrad	30,888	186	0	33	N3NR	15,180	130	38	6	AA8L	9,840	102	37	4						
*UR3MP	15,736	121	0	28	NF5P	16,732	161	44	3	Moldova	ER1DA	132,800	511	1	49	N3MX	6,501	51	22	11	ILLINOIS	WX9U	146,568	586	57	36	
*UX3JO	14,950	50	1	49	K10G	3,509	55	26	3	ER3AU	6,141	55	0	23	N3GNW	3,472	48	26	2	W09S	100,177	541	57	20			
*UT7VR	14,700	69	2	40	K5ZE	1,452	30	21	1	California	PA0RBO	Netherlands	2,074	27	0	17	*K03TB	826	26	14	0	N2BJ	539	339	54	3	
*UR4U	14,670	104	0	30	W0NV	18,326	154	44	5	Poland	SP2DN	76,187	333	3	44	ALABAMA	N4KG	192,816	429	57	60	NM9M	17,460	173	45	0	
*UT7MR	14,624	99	0	33	N7MAL	ARIZONA	2,704	80	16	0	SP9RH	11,286	326	0	42	KR4F	177,200	685	56	44	N910	9,953	108	34	3		
UR7EO	12,448	71	0	32	W89V	UTAH	32,832	265	51	3	SP4GL	67,236	326	0	42	K4IQJ	96,162	322	51	43	K19A	3,108	50	27	1		
*US7IB	9,500	74	0	25	W09V	15,523	160	40	3	SP9RH	11,286	326	0	42	N4NM	10,206	93	34	8	*K69IL	1,464	27	23	1			
*UR3GO	8,242	70	0	26	WASHINGTON	KX7L	10,465	124	33	2	Romania	YU2DX	32,912	197	0	34	FLORIDA	W4SV0	185,720	464	55	65	WA0LIS	2	1	1	0
*UX8IR	7,820	35	4	30	WYOMING	WC7S	16,368	171	44	0	Scotland	IT9LNH	720	11	0	12	N8PR	133,980	307	52	58	INDIANA	W91U	352,536	1111	58	53
UJ2JG	6,300	35	1	27	W8GP	54,595	389	54	7	Serbia	S59D	43,806	218	0	42	K4PB	125,341	345	53	48	K8LEE	34,577	129	39	32		
*UT5AR	1,800	28	0	15	KC8LTL	9,612	118	36	0	Slovenia	IT9LNH	720	11	0	12	N4QV	25,420	125	39	23	*N9DD	22,746	185	46	5		
UT5EM	957	21	0	11	OHIO	K8ZT	29,696	218	51	7	Spain	S59D	43,806	218	0	42	W90Y	1,232	38	16	0	WISCONSIN	K9KU	181,258	631	57	50
*UR3QM	850	15	1	9	W88RTJ	29,521	248	50	3	EASGDW	E15SB	41	0	23	N4PN	376,736	1055	59	63	N9JA	99,736	366	56	35			
*UR5QDM	850	15	1	9	W8VE	15,660	135	34	11	AM3A	5	1	0	1	N4RJ	304	304	44	44	W99R	17,766	160	45	2			
UY1HY	160	5	0	8	WEST VIRGINIA	K8OWL	10,188	125	36	0	Switzerland	H89AYZ	12,300	100	0	25	WB4MAK	50	50	20	20	COLORADO	N0KE	164,218	620	58	36
Wales	1,147,875	1524	49	76	ILLINOIS	W9SE	1,957	47	19	0	Ukraine	UT2AA	150	0	41	N4V4	46,272	301	52	12	K0EY	30,968	223	41	15		
GW3YDX	1,147,875	1524	49	76	W9SE	1,957	47	19	0	Venezuela	YV6BXN	364	7	2	5	N4W4	44,070	263	47	18	W4MY	25,550	214	44	6		
GW3XJM	257,654	429	39	55	INDONESIA	K9AY	134,848	592	57	29	ASSISTED NORTH AMERICA	W09V	18,326	154	44	5	N4T1	18,810	116	42	15	K4ARB	20,625	139	41	13	
GW4BLE	50,388	168	7	50	INDONESIA	K9AY	134,848	592	57	29	UNITED STATES	W09V	18,326	154	44	5	N4TL	1,602	44	18	0	AA4VV	16	3	4	0	
*MW6CRI	6,510	51	0	30	INDONESIA	K9AY	134,848	592	57	29	CONNECTICUT	W09V	18,326	154	44	5	W6UB	117,789	594	53	26	TENNESSEE	N4V4	230,394	653	55	59
OCEANIA	Australia	VK6DXI	15,960	87	2	19	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	N4V4	230,394	653	55	59				
Australia	VK3IO	5,952	47	0	16	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	N4Z2	118,499	737	55	16					
VK3TDX	212	10	0	4	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
East Malaysia	*9M6YBG	4,060	34	5	9	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
Hawaii	KH6ZM	479,479	639	56	21	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
KH7Y	307,230	453	52	18	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
*NH6AH	210	12	5	2	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
Indonesia	*YB3XM	2,236	23	0	13	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
YB3LOW	990	21	0	9	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
Y4BIR	816	18	0	12	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
*Y2WVWV	378	13	0	7	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
*Y1C0Z	189	15	0	7	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
*YB3BOA	81	8	0	3	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
*Y2CLV	46	10	0	2	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
Philippines	*N7ET/DU7	2,522	24	0	13	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
South America	Argentina	LU50I	5,037	27	13	10	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26				
Argentina	LU50I	5,037	27	13	10	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
Aruba	P49V	262,650	315	46	39	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
P43JB	27,495	73	27	12	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
Brazil	PY2NO	13,845	42	13	26	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
*PY2XAT	20	2	0	2	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
*PY7ZY	5	1	0	1	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
Chile	CE1/K7CA	606,326	635	55	43	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
Colombia	HK3CQ	49,164	108	35	16	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
*HK30	8,446	40	21	11	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
Ecuador	*HC2SL	448,470	487	54	45	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
Uruguay	CX6VM	18,720	54	18	21	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
URP	W1TW	24,009	167	39	14	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
UNITED STATES	W1TW	24,009	167	39	14	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
CONNECTICUT	W1TW	24,009	167	39	14	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
N1TM	3,013	58	21	2	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
W1IG	530	25	10	0	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
MASSACHUSETTS	W1TW	24,009	167	39	14	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
NEW HAMPSHIRE	W1FMR	26,400	198	48	7	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
AA1CA	16,170	200	33	2	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26						
RHODE ISLAND	KO1H	9,435	104	35	2	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
NEW JERSEY	K2JT	6,129	102	26	1	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856	727	55	41	W6UB	117,789	594	53	26					
W2JEK	5,400	97	25	0	INDONESIA	K9AY	134,848	592	57	29	ARIZONA	N4W4	197,856														

*OK2FKF	1,100	20	0	11	SV2FLQ	21,238	116	0	37	*S58MU	16,200	136	0	25	NORTH CAROLINA	52,896	421	49	8	N3MX	8,544	83	23	9	
*OK1DLO	704	20	0	8	*SV2CUU	649	13	0	11	*S57U	10,416	79	0	18	AA3B	4,380	53	25	5	ALABAMA	41,250	335	48	7	
										*S53F	5,035	56	0	29						N4NM	16,600	133	43	7	
										*S52WV	469	13	0	7						KRAF					
OZ1ADL	Denmark	277	1	48	*H610P	181,704	524	7	60	*S53DJJ	434	12	0	7	SOUTH CAROLINA	550	25	11	0	FLORIDA	23,520	150	41	15	
502T	38,048	188	0	41	*HA7JOK	4,860	50	0	20	*E44KD	13,545	67	6	29	TEXAS	3,068	56	25	1	N4QV	22,660	154	43	12	
OZ1HHH	21,736	120	0	37						*E41ETW	7,500	65	0	25	CALIFORNIA	3,168	60	18	4	W4TBB	12,986	111	30	13	
*OZAMA	14,640	100	30	37						*E41DTP	3,696	37	0	22	UTAH	18,258	154	47	4	N4PN	205,590	955	56	33	
*OZ1JVX	5,800	40	0	25						*E41DFP	3,344	38	1	18	OHIO	2,116	44	23	0	N4G6	18,250	137	42	8	
										*E41DPP	3,344	38	1	18	WISCONSIN	52	5	4	0	N4R1	10,480	103	29	11	
										*E41DFP	3,344	38	1	18	KANSAS	8,399	100	36	1	W84MAK	8,120	90	36	4	
M8M	England	383	0	60	*E1ENB	9,483	66	0	29	*E41DFP	3,344	38	1	18	W8WTS	2,116	44	23	0	*ND4V	7,848	90	32	4	
G4PIQ	37,848	201	0	38						*E41DFP	3,344	38	1	18	K8ZT	1,900	37	19	1	K4WW	61,760	398	53	11	
*G5G	12,780	92	0	30						*E41DFP	3,344	38	1	18	AF9J	52	5	4	0	NORTH CAROLINA	19,398	145	43	10	
*G7DDN	6,631	63	0	23	I4FYF	276,720	605	14	66	*E41DFP	3,344	38	1	18	K00Q	1,764	39	21	0	KANSAS	8,399	100	36	1	
G4FFN	3,360	39	0	20	IW2LLH	84,588	329	3	50	*E41DFP	3,344	38	1	18	W0NV	6,878	84	37	0	N4VV	8,085	100	29	4	
*G4NXG/M	400	12	0	10	*I2KXC	62,400	251	4	48	*E41DFP	3,344	38	1	18	N0J0R	207	10	9	0	VIRGINIA	385,614	1111	57	54	
*MOE2P	60	4	0	2	*IKSRUN	43,146	169	2	49	*E41DFP	3,344	38	1	18	VE3KZ	15,776	100	34	0	AJ4IM	63,714	317	51	23	
					I8UZA	38,313	177	0	43	*E41DFP	3,344	38	1	18	VA3RKM	558	16	9	0	N3MK	58,112	352	46	18	
					*IW1RMD	34,684	168	1	45	*E41DFP	3,344	38	1	18	EUROPE	3,440	43	0	16	K5VIP	27,242	202	42	11	
					*IK0XBX	23,244	119	0	39	*E41DFP	3,344	38	1	18	Czech Republic	71,656	282	2	50	N4RA	17,112	143	34	12	
					I4VGLX	15,436	97	0	34	*E41DFP	3,344	38	1	18	Belarus	3,440	43	0	16	N4WDK	10,101	82	27	12	
					I3BKH	9,275	47	1	34	*E41DFP	3,344	38	1	18	Switzerland	462	15	0	7	*N3UA	429	12	13	0	
					*I2KXC	62,400	251	4	48	*E41DFP	3,344	38	1	18	Ukraine	145,553	521	2	57	MISSISSIPPI	23,030	228	43	4	
					*IKSRUN	43,146	169	2	49	*E41DFP	3,344	38	1	18	UKRAINE	145,553	521	2	57	TEXAS	37,701	269	50	9	
					I8UZA	38,313	177	0	43	*E41DFP	3,344	38	1	18	ESTONIA	1,066	17	0	13	CA	28,380	214	46	9	
					*IW1RMD	34,684	168	1	45	*E41DFP	3,344	38	1	18	EUROPEAN RUSSIA	23,760	146	0	16	W6DR	28,210	171	50	12	
					*IK0XBX	23,244	119	0	39	*E41DFP	3,344	38	1	18	GERMANY	37,575	192	2	43	N6KI	23,128	201	45	4	
					I4VGLX	15,436	97	0	34	*E41DFP	3,344	38	1	18	HUNGARY	88,504	335	0	52	*K6QR	2,055	65	13	2	
					I3BKH	9,275	47	1	34	*E41DFP	3,344	38	1	18	IRELAND	135	6	0	5	ARIZONA	19,872	174	40	8	
					*I2KXC	62,400	251	4	48	*E41DFP	3,344	38	1	18	ITALY	324	12	0	2	WABKDS	2,730	49	25	1	
					*IKSRUN	43,146	169	2	49	*E41DFP	3,344	38	1	18	IV3AOL	I21DGG	24	3	0	K7R7K	10	1	0	1	
					I8UZA	38,313	177	0	43	*E41DFP	3,344	38	1	18	SP2DNI	Poland	30,285	169	0	38	*W8TK	10	1	0	1
					*IW1RMD	34,684	168	1	45	*E41DFP	3,344	38	1	18	SLOVENIA	44,051	177	1	48	IDAHO	61,312	407	54	10	
					*IK0XBX	23,244	119	0	39	*E41DFP	3,344	38	1	18	Wales	21,000	100	1	39	MONTANA	4,640	63	31	1	
					I4VGLX	15,436	97	0	34	*E41DFP	3,344	38	1	18	HAWAII	124,074	209	49	12	OREGON	55,380	389	51	9	
					I3BKH	9,275	47	1	34	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	KITM	55,380	389	51	9	
					*I2KXC	62,400	251	4	48	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	*W3CP	450	18	9	1	
					*IKSRUN	43,146	169	2	49	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	WASHINGTON	59,580	397	51	9	
					I8UZA	38,313	177	0	43	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	MICHIGAN	134,550	722	56	22	
					*IW1RMD	34,684	168	1	45	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	W8TE	78,292	422	55	19	
					*IK0XBX	23,244	119	0	39	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	OHIO	255,668	1115	57	35	
					I4VGLX	15,436	97	0	34	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	W8TK	10	1	0	1	
					I3BKH	9,275	47	1	34	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	KD7DCR	4,640	63	31	1	
					*I2KXC	62,400	251	4	48	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	OREGON	55,380	389	51	9	
					*IKSRUN	43,146	169	2	49	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	KITM	55,380	389	51	9	
					I8UZA	38,313	177	0	43	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	*W3CP	450	18	9	1	
					*IW1RMD	34,684	168	1	45	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	WASHINGTON	59,580	397	51	9	
					*IK0XBX	23,244	119	0	39	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	MICHIGAN	134,550	722	56	22	
					I4VGLX	15,436	97	0	34	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	W8TE	78,292	422	55	19	
					I3BKH	9,275	47	1	34	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	OHIO	255,668	1115	57	35	
					*I2KXC	62,400	251	4	48	*E41DFP	3,344	38	1	18	INDONESIA	24	3	0	2	W8TK	10	1	0	1	
					*IKSRUN	43,146	169	2																	

