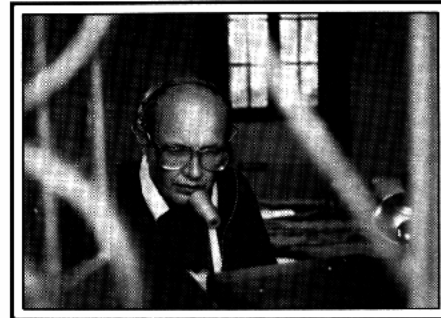
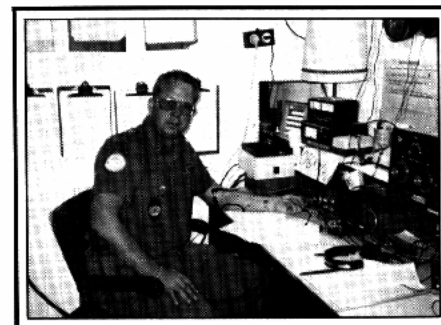


Next time you work Jaime, CE0ZIG, you can remember this photo.



Olli, OH0XX, checking the frequency at CR9BZ just before the test.



Carl handed out YK as OF6XY/4U to a lot of happy hams!

# Results of the 1987 CQ World-Wide DX CW Contest

BY BOB COX\*, K3EST/6, AND LARRY BROCKMAN\*\*, N6AR/4

**T**he name of the game in the CQ WW is fun and excitement. Working that rare country, running stations at fast rates, QRPing your way through the pileups, or operating on a multi-operator team, the contest has something for you. Last year's CQ CW test was certainly a harbinger of the new sunspot cycle. That weekend was the best CW weekend in recent memory.

## All Band Results

The great conditions produced exceptional scores. Continental records fell in large numbers due to good high- and low-band conditions (even with a poor to average 28 MHz band). To challenge for the world cup the best place to be was northern South America. After all the dust settled, the top score in the world was FY5YE operated by Ville, OH2MM. Ville

set a new world record of 8.2 million points. He was hotly contested by P40GD, operated by John, W2GD, and HD5X operated by KQ2M, Bob. In addition to complete concentration during the contest, these fine operators each made over 5,000 QSOs. The QSO leader was NP4A operated by N2NT. The top USA score was generated by K1EA, who set a new US record. In the number two slot was W1KM, who should be noted had a 100 QSO hour rate on 80 meters! The number one score in Europe, setting a new European record, was I4IND. Way up on beautiful Aaland Island, Lars, SM0GMG, put OH0BH into second place. As a matter of fact, single operator, all band continental records were set in Africa (9Q5NW), Asia (5B4TI), Europe (I4IND), North America (NP4A), and South America (FY5YE). Repeating his SSB QRP performance Danny, K7SS, journeyed up to VE7DX, where he won for the world in the QRP category. Not far behind in second place was YU3BC.

The two teams in the Team Contesting category made everyone happy by traveling to 10 different countries. After adding up the scores of the two teams, it was a near photo finish, with Team America just edging out Team

Scandinavia. The two teams set three of the new continental records. Quite an effort!

## Single Band Results

As has been the case for several years, the southern hemisphere led the way on 28 MHz. The top score goes to 4M7A (YV7QP) operating from Margarita Island, followed by Jim at PY5CA. Congratulations to KH2F, who managed to break the top six from Guam. As you can see from the top score listings, conditions still have not opened up for the northern hemisphere. In that part of the world, F6AUS and N4EJW led the way. The 21 MHz story was LU8DQ camouflaged as LO8WW. Jorge keyed his way to a new world record over 5H3BH (SM0AJU), who set a new African record. In the US, K5GO edged out W5VX, while in Europe 4N4A (YU4EJC) crossed the finish line before LZ1KDP (LZ1AX). The high scores on 14 MHz are found in the northern hemisphere, with EA8ID (DK3GI) the number one score setting a new African record and finishing ahead of CW8B. Carl, K3RV/4, placed number 1 in the US, while Tine, YT3AA, did his usual superb job as number 1 in Europe. Forty meters was fan-

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tastic with several entrants having over 120 countries in their logs. The low K and A indices allowed polar signals to be loud and persistent, a welcome change from the usual high absorption. The world winner for 7 MHz was YW10 (YV1DIG) with over 2,016 Qs in the log. Finishing second with 2,012 Qs was YU3ZV returning to the contest after several years absence.

Both operators set new continental records. In the USA the battle on 7 MHz produced real fireworks. In the final analysis Jim, W6YA, edged out KM6B (N6AW) for the title. Dov, 4Z4DX, traveled over to ZC4DX and took away the world high 3.5 MHz score and in doing so set a new Asian record. He was trailed by the outstanding effort from UA2FGA, who set a new

European record on his way to making over 1,900 Qs. The only single band record to fall in the USA was the winning score of W1FV on 3.5 MHz.

Top band continues to produce big scores and big activity. This year we counted over 90 countries in the logs received. Taking away the world title and setting a new Asian record was

## CW TROPHY WINNERS AND DONORS

### SINGLE OPERATOR, ALL BAND

#### WORLD

**FY5YE** (Opr. Ville Hiilesmaa, OH2MM)  
Donor: W2AB Memorial (Albert Kahn, K4FW)

#### World QRP

**VE7DX** (Opr. Danny Eskenazi, K7SS)  
Donor: Gene Walsh, N2AA

#### USA

**Kenneth Wolff, K1EA**  
Donor: Frankford Radio Club

#### Canada

**George Andrew McLellan, VE1ASJ**  
Donor: Canadian DX Association

#### Caribbean/Central America

**NP4A** (Opr. Andrew Blank, N2NT)  
Donor: Peter Monroe, WB1DQC

#### Europe

**Francesco Chiodini, I4IND**  
Donor: Edward Bissell, W3AU

#### Africa

**9Q5NW** (Opr. Richard Norton, N6AA)  
Donor: Gordon Marshall, W6RR

#### Asia

**5B4TI** (Opr. Philip Goetz, N6ZZ)  
Donor: Japan CQ Magazine

#### Japan

**Akito Nagi, JA5DQH**  
Donor: Japan Crazy Contesters Club

#### Oceania

**KC6CS** (Opr. Satoshi Nakamura, JE1JKL)  
Donor: Maui Amateur Radio Club

#### South America

**P40GD** (Opr. John Crovelli, W2GD)  
Donor: YV5AAZ Memorial (Venezuela DX Club)

### SINGLE OPERATOR, SINGLE BAND

#### World—28 MHz

**4M7A** (Opr. Neris Vicent Brancho, YV7QP)  
Donor: Joel Chalmers, KG6DX

#### World—21 MHz

**L08WW** (Opr. Jorge Bozzo, LU8DQ)  
Donor: South Jersey DX Assn. (N2CW Memorial)

#### World—14 MHz

**EA8ID** (Opr. Roland Mensch, DK3GI)  
Donor: North Jersey DX Assn.  
(K2HLB Memorial)

#### World—7 MHz

**YW10**  
(Opr. Paolo L. Stradio Roseano, YV1DIG)  
Donor: Alex M. Kasevich, VP2MM

#### World—3.5 MHz

**ZC4DX** (Opr. Dov Gavish, 4Z4DX)  
Donor: Fred Capossela, K6SSS

#### World—1.8 MHz

**Algis Kregzde, UP2NK/UF**  
Donor: KP4ES Memorial (Chip Margelli, K7JA)

#### USA (14 MHz)

**Carl Kratzer, K3RV/4**  
Donor: Northern Illinois DX Association

#### USA—7 MHz

**James Mc Cook, W6YA**  
Donor: Jan Perkins, N6AW

#### Canada (14 MHz)

**Brian Kelly, V01QU**  
Donor: Canadian Amateur Radio Federation

#### Caribbean/Central America (14 MHz)

**BP9EL** (Opr. Dennis McAlpine, K2SX)  
Donor: DX Club of Puerto Rico

#### Europe (7 MHz)

**Drago Turin, YU3VZ**  
Donor: Southern New England DX Club

#### Australia—14 MHz

**D. F. Kiesewetter, VK2APK**  
Donor: Jay Farr, W6FAY

#### Japan—21 MHz

**JA1YWX**  
(Opr. Muneharu Yokoyama, JO1BMV)  
Donor: DX Family Foundation

### SPECIAL SINGLE OPERATOR COMBINED SSB/CW

#### World—All Band

**Olli Rissanen, OH0XX** (Opr. FY5YE/CR9BZ)  
Total: 15,511,933  
Donor: John Knight, W6YY

#### World—Single Band

**James Hoffman, N5FA** (Opr. PY5CA/ZZ5EG)  
Total: 2,343,548  
Donor: Yuri Blarovich, VE3BMV

#### World—Most Contacts (5382)

**NP4A** (Opr. Andrew Blank, N2NT)  
Donor: KV4AA Memorial (14270 kHz Group)

#### CLUB

#### USA (World)—SSB/CW

**Frankford Radio Club:** 131,509,320  
Donor: CQ Magazine

#### DX—SSB/CW

**Bavarian Contest Club:** 39,145,235  
Donor: No. Calif. Contest Club  
(N6AUV Memorial)

### MULTI-OPERATOR SINGLE TRANSMITTER

#### World

**EA8AGD** (Opr. OH8LP, OH8NW, OH8PF, OH8SR)

Donor: Anthony Susen, W3AOH

#### USA

**K1GQ** (Opr. K1GQ, K1AR, K1JX, KC1F, AK1A, AA2Z)

Donor: Doug Zwiebel, KR2Q

#### Europe

**OK5R** (Opr. OK1ADM, OK1ADS, OK1ALW, OK1AWZ, OK1DIM, OK1RI)

Donor: K3AO Memorial (Friends of K3AO)

### MULTI-OPERATOR MULTI-TRANSMITTER

#### World

**KP2A** (Opr. KP2A, AA6AA, K0RF, K1ZM, K2EK, K5VT, KC7V, N2AA, N2IC, N6DX, N7BG, W0UA, W6MSG, W6OUL, W7CB, WB3JRU, WZ6Z)

Donor: Hazard Reeves, K2GL Memorial

#### USA

**NR5M** (Opr. K2TNO, K2UA, K2UAXYL, K5GA, K5GN, K5LZO, K5MA, K5TU, KE5IV, KG5U, KN5H, KZ5M, N5DU, N5EA, NR5M, NT5D, W5ASP, W9AGH, WB5N)

Donor: Jim Rafferty, N6RJ

#### Europe

**OK7AA** (Opr. OK3CMZ, OK3CSC, OK3CZM, OK3TPV, OK3LU, OK3TJ, OK3CBU, OK3CLD, OK3LZ, OK3YX, OK3CSQ, OK3CRQ, OK3TCJ, OK3CUM, OK3CQW, OK3CEI, OK3CDV, OK3EA, OK3CEM, OK3MB, OK3YEC, OK3TCL, OK3TMM, OK3JW)

Donor: OH-DX-Ring, OH2AM

### CONTEST DXPEDITIONS

#### World Single Operator

**9Q5NW** (Opr. N6AA)  
Donor: Yankee Clipper Contest Club

#### World Multi-Operator

**EA9EA** (Opr. EA9EA, EA4CPX, EA4MY, EA5BRA, EA7BD, EA7LQ, EA7TL, EA7XC, EA9EU, EA9EU, EA9GK)  
Donor: Bill Schneider, K2TT

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

Number groups indicate: QSO's/Zones/Countries on each band.

WORLD TOP SINGLE OPERATOR, ALL BAND							USA TOP SINGLE OPERATOR, ALL BAND						
Station	160	80	40	20	15	10	Station	160	80	40	20	15	10
FY5YE	122/12/27	297/16/41	805/24/63	1305/35/89	1807/30/83	971/25/78	K1EA	59/13/31	367/21/63	612/35/91	825/33/87	693/27/75	53/15/31
P4QGD	358/13/36	626/22/64	1004/26/71	893/29/80	968/30/84	1054/22/70	W1KM	52/14/34	582/25/72	567/30/85	553/29/73	506/25/69	204/21/59
HDSX	34/7/9	243/18/38	909/27/67	1128/33/65	2158/34/102	760/26/60	W3GRF	15/9/11	442/19/60	787/33/91	513/36/91	571/27/78	184/20/49
9Q5NW	45/13/29	121/16/38	733/25/61	1055/33/84	2037/32/94	777/31/79	N2LT	37/13/28	220/21/62	557/33/92	800/33/88	685/28/74	164/18/49
D44BC	133/14/36	273/16/43	719/19/55	882/31/77	1371/30/75	1538/26/82	K1TO	46/11/31	276/20/67	533/30/86	827/33/92	481/24/77	71/17/41
NP4A	279/17/34	617/21/65	1419/25/76	1047/30/81	1219/26/77	801/22/61	K3TUP	55/15/37	217/21/60	491/33/90	604/31/91	699/26/75	73/20/43
CR9BZ	179/12/36	531/17/54	808/19/62	552/25/70	1033/26/74	1344/24/70	K1CC	55/12/36	220/18/61	515/30/83	597/35/85	561/28/78	143/18/43
EA6XS	31/10/27	465/16/48	1549/24/78	581/23/50	1420/25/73	643/20/47	W9RE	44/16/34	230/25/60	427/31/80	536/36/89	515/28/79	116/21/47
5L7U	106/12/27	158/18/38	527/24/53	1066/32/82	902/26/70	1349/29/79	K3LR	47/14/28	144/21/56	373/32/82	498/34/90	540/29/80	120/19/44
5B4TI	167/8/36	479/13/52	1043/25/74	715/29/70	914/28/81	627/23/72	NGAR/4	20/10/13	160/18/54	510/35/89	333/34/84	380/29/81	246/24/60
WORLD TOP MULTI-OPERATOR SINGLE-TRANSMITTER							USA TOP MULTI-OPERATOR SINGLE-TRANSMITTER						
EA8AGD	45/11/44	989/24/73	1243/21/68	906/34/87	1416/27/26	1164/27/78	K1G0	50/13/39	317/23/74	916/36/111	694/37/114	695/29/99	143/24/70
V31A	224/13/24	726/22/53	1187/24/61	1109/35/79	1481/31/91	697/21/40	N2RM	48/18/46	386/24/78	798/35/112	577/36/101	645/32/84	207/26/74
OK5R	88/10/52	943/21/71	865/35/101	1064/35/101	864/33/94	222/29/84	N3RS	42/15/34	227/23/75	999/35/117	472/38/108	677/32/100	120/25/73
LZ9A	139/9/46	414/17/65	1426/34/104	1064/34/104	983/37/96	176/31/86	N4WW	39/16/37	204/21/71	763/34/102	423/33/96	074/33/99	138/29/79
HG5A	205/10/46	771/16/64	1179/36/104	1036/36/104	850/36/92	158/32/88	W3BGN	62/19/45	252/24/74	700/36/107	627/35/109	465/32/94	175/27/78
EA3VY	130/12/54	708/24/73	990/24/75	1085/31/94	872/32/82	424/29/71	N6R0	23/12/15	283/29/64	682/37/102	832/37/105	545/34/85	141/26/46
WORLD TOP MULTI-OPERATOR MULTI-TRANSMITTER							USA TOP MULTI-OPERATOR MULTI-TRANSMITTER						
KP2A	711/23/65	890/23/77	2502/34/115	3422/39/129	2417/37/103	2445/32/106	W3LPL	175/21/54	640/27/87	1209/39/114	1282/38/121	851/35/103	599/28/90
EA9EA	287/11/50	1417/20/74	2084/33/95	3336/37/118	2437/39/107	1570/32/89	NR5M	69/17/29	352/27/73	1012/38/113	1185/38/120	1021/36/108	272/30/75
J6DX	783/17/54	1433/25/72	1557/23/71	1992/33/86	2464/28/84	1604/23/61	N4ZC	47/12/25	290/22/67	791/39/109	786/31/97	756/31/93	351/25/66
OK7AA	749/17/69	1416/25/78	2050/38/123	1994/39/125	1211/38/106	245/28/89	K4VX/0	81/19/37	367/26/68	547/36/98	1068/38/114	766/32/81	154/24/56
UP7A	789/18/76	1221/23/73	1483/34/100	1803/37/107	997/34/102	279/25/78	N1CQ	133/19/58	237/22/68	680/36/101	1105/38/109	616/26/76	159/22/61
W3LPL	175/21/54	640/27/87	1209/39/114	1282/38/121	851/35/103	599/28/90	W3GN	94/18/45	342/23/74	654/31/92	806/37/104	446/31/86	285/26/87

Algis, UP2NK/UF. Not far away UG6GAW settled for second with a score of 103K. The top European score and everybody's first HB QSO on 160 was HB9AMO. Pierre set a new European record. Back in the States top band top score goes to K5UR. Rick had to work hard to overcome the challenge of second-place finisher WB9HAD.

### Multi-Operator

The world and new African multi-single record goes to EA8AGD. Operated as a DXpedition from Finland, they carried on the tradition of Finnish activity from all over the world (just look at the operators from many of the world top scores). In second place from Belize was V31A. In addition to a great effort they submitted the best-looking log we have ever seen. The great conditions allowed the old US record to be crushed by K1GQ by nearly a million points! And OK5R ended up on top in this highly competitive European category.

The new world record in the multi-multi category is held by KP2A. Blessed with great conditions and operators, they broke new ground in QSO and multiplier numbers. Breaking the world record is hard enough, but from a two area into the US makes it quite an accomplishment! Also splendid was the score of EA9EA. They broke the old world record and finished only 1.6 M behind the leader, while setting a new African record. In the US, W3LPL just missed taking the record with a fine 10.2 M effort, finishing ahead of NR5M. While in Europe OK7AA did a fine job in edging out UP7A.

The club scores reflect hundreds of hours of planning and traveling on DXpeditions. Tied together by spotting nets, individual efforts, and overseas operations, they have a special camaraderie. The two clubs that finished top in the world and Europe demonstrated all the above. The Frankford Radio Club reigns number 1, fol-



HS0A: (left to right) K2BA, K3ZO, HS1ALV, JA0JJC, JK1CCO, JA5XOZ, with DL7MAE in front.

lowed by the Yankee Clipper Contest Club. In Europe the Bavarian Contest Club set a new European record over their countrymen to the north, the Rhein Ruhr DX Association.

### Closing Comments

A special thanks to all the fellows who along with their logs submitted floppy disks of their logs. This saved us hundreds of hours in computer work. We use all these inputs to create a data bank which tells us several things: at least 27,000 unique calls were in the contest; at least 220 countries were in the test; and everyone has an error rate in their log.

This latter subject is determined by finding the number of unique QSOs in a top-scoring log and when possible comparing each unique QSO to the claimed or suspected call's actual log to discover whether a copying error is pre-

sent. If an error is present, then this is an unverifiable contact. We never remove a call from a log just based on computer information. After all, the computer only generates soft data. We, who administer the contest, do have an obligation to certify to the best of our ability new world records and world top scores.

Although for years your diligent committee has been quietly looking into error rates and how they are generated, this year at the international DX and Contest forums held in Visalia, California and Dayton, Ohio in the USA, the error problem came out into the open. How can an operator generate very fast QSO rates while maintaining a low error rate? There was no simple answer, but some recommendations can be made. Ask for a call repeat when you are not sure of what you copied. Transmit either as a whole or in parts the call sign of the station you work. If it's wrong, they will probably correct you or try to work you again. Most important, if you intend to submit a world contending log, remember to be careful in your operation.

We encourage the submission of floppy disks along with your hardcopy log. We accept any format but prefer ASCII. Our computer is an IBM.

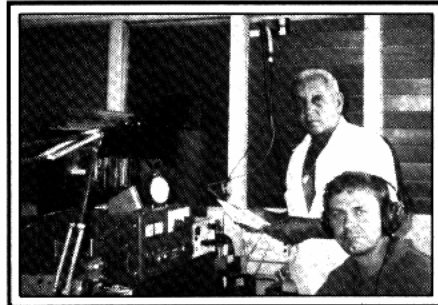
Every year we are gratified by the number of multi-single entries we receive. The growing numbers indicate that you find this category interesting and fun. It allows a group of fellows to all work together to maximize the QSOs and multipliers, a feature not possible in the multi-single categories of other major contests. As a consequence of spotting nets and now packet radio, many single operators have taken advantage of the assistance to help their club scores. This has been especially true of clubs on the east and west coasts of the USA. Of course, the submission is now a multi-single instead of single operator entry even though



The enthusiastic crew at PA6DX.

there is only one op in the shack. If you look at the multi-operator, single transmitter listings for the USA, about one-third of the entries are now single-op assisted logs. Several people have written us asking that a new category of multi-operator, single transmitter be created

called *single op, VHF or packet-radio assisted*. It sounds like a good idea because of the following reasons: (1) packet is growing rapidly in the USA, Japan, and Europe, and the contest should, when appropriate, keep up with technologies; (2) it allows a station with one opera-



New World Record holder Ville, OH2MM, with station master Mario, FY5YE.

tor to ethically tie into spotting systems and compete with other such operators; and, finally, (3) it would allow a single operator the choice of maximizing his effort to help his club's total score. If you have any advice or comments on this matter please write to the CQ WW Contest Committee.

### Special Thanks

A big thanks to the members of the CQ WW Contest Committee: W1WY, AD6C, KR2Q, K2SS, N6AW, W7EJ, W9RE, N2AA, K2VV, K6NA, N6ND, N3ED, K1AR, and KE7V.

We also wish to thank all those who cooperated with the committee in log checking and verification.

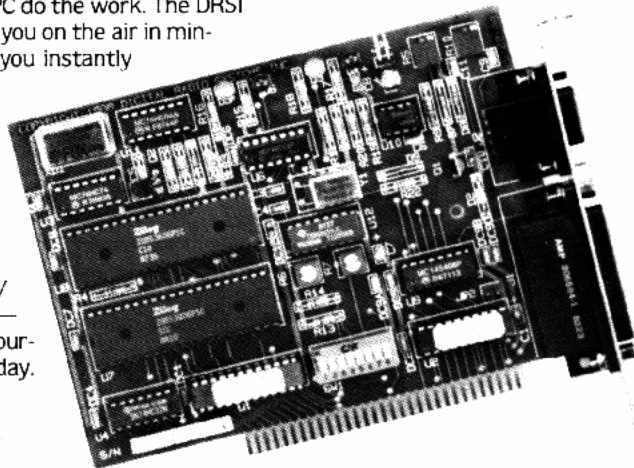
Congratulations to all the winners, and see you in 1988!

73, Bob, K3EST/6, and Larry, N6AR/4

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## TOP SCORES

WORLD			USA			Europe		
Single Op All Band			Single Op All Band			Single Op All Band		
FY5YE	8,201,163	K1EA	3,961,980	I4IND	4,188,034			
P40GD	7,952,283	W1KM	3,885,464	OH0BH	2,848,711			
HD5X	7,850,590	W3GRF	3,828,883	HA0MM	2,361,485			
9Q5NW	7,586,300	N2LT	3,587,045	G3MXJ	2,233,868			
D44BC	7,384,104	K1TO	3,444,319	F6BEE	2,165,946			
NP4A	7,247,449	K3TUP	3,363,110	OZ1LO	2,133,460			
CR9BZ	6,508,205	K1CC	3,194,147	DL4BBO	1,958,190			
EA8XS	6,162,093	W9RE	2,957,682	G4BUO	1,935,810			
5L7U	6,121,080	K3LR	2,629,659	YU7BJ	1,797,600			
5B4TI	5,816,907	N6AR/4	2,507,960	DF3CB	1,732,776			

Single Op Single Band 28 MHz			Single Op Single Band 28 MHz			Single Op Single Band 28 MHz		
4M7A	741,312	N4EJW	105,369	F6AUS	177,749			
PY5CA	695,728	K1ZZ	104,244	G4CP	92,105			
AY6EF	552,448	KU2Q	46,228	DF2UU	86,920			
LU1E	492,140	K7QQ	37,944	YU3ZO	76,320			
AY4F	353,682	KA2AEV	35,112	IY4FGM	72,520			
KH2F	320,528	N9RD	27,158	LZ1YQ	70,928			

21 MHz			21 MHz			21 MHz		
LO8WW	1,391,355	K5GO	451,764	4N4A	491,419			
5H3BH	1,098,810	W5VX	421,850	LZ1KDP	474,157			
ZS6BCR	989,820	K1RM	395,508	YU1LA	397,980			
CX7BY	972,257	W1WEF	373,320	G3HCT	375,310			
YB0ARA	695,610	K1ZX/4	370,800	G4CNY	323,520			
LU1AF/D	693,765	KA5W	323,963	F6IRF	287,850			

14 MHz			14 MHz			14 MHz		
EA8ID	1,212,384	K3RV/4	553,415	YT3AA	627,414			
CW8B	1,011,036	K58S	508,950	4N7N	575,355			
8P9EL	911,400	K1UO	502,152	RO4OA	380,986			
YT3AA	627,414	K2SS	479,479	F6GCP	343,430			
4N7N	575,355	WX4G	463,696	IT9GSP	319,924			
VO1QU	574,990	N5CR	408,480	SL4ZXE	318,682			

7 MHz			7 MHz			7 MHz		
YW1O	758,898	W6YA	353,829	YU3ZV	709,104			
YU3ZV	709,104	KM6B	351,090	IK2DVG	572,958			
YX5A	621,489	N2DT	315,530	HB9CIP	417,028			
IK2DVG	572,958	W4XJ	299,482	YT7A	387,393			
XE1FUX	548,977	K2DM	280,140	LZ1KSN	318,230			
JA7HMZ	477,450	K5FR	269,698	HA9RE	307,840			

3.5 MHz			3.5 MHz			3.5 MHz		
ZC4DX	430,566	W1FV	270,692	UA2FGA	403,686			
UA2FGA	403,686	WB8JBM	120,420	IO3JSS	226,164			
W1FV	270,692	K5RX	116,584	UP2PCI	192,276			
IO3JSS	226,164	KD2RD	114,760	DF0DX	146,580			
UP2PCI	192,276	W8UVZ	95,676	DL3HAH	145,260			
HK1AMW	177,120	W4NL	92,055	OH2JA	137,016			

1.8 MHz			1.8 MHz			1.8 MHz		
UP2NK/UF	113,718	K5UR	28,635	HB9AMO	97,064			
UG6GAW	103,016	WB9HAD	24,382	SV1NA/9	77,183			
HB9AMO	97,064	W0ZY	18,054	CT1AOZ	71,336			
SV1NA/9	77,183	K5NA/2	17,940	OK1DFP/P	60,270			
CT1AOZ	71,336	K4TEA	13,632	YO3CD	48,672			
OK1DFP/P	60,270	N4SU	9,686	G3XTT	47,808			

Multi-Op Single Transmitter			Multi-Op Single Transmitter			Multi-Op Single Transmitter		
EA8AGD	9,816,540	K1GQ	5,524,602	OK5R	6,038,351			
V31A	6,089,044	N2RM	5,222,100	LZ9A	5,886,114			
OK5R	6,038,351	N3RS	4,979,475	HG5A	5,787,055			
LZ9A	5,886,114	N4WW	4,724,200	EA3VY	5,566,462			
HG5A	5,787,055	W3BGN	4,485,280	HG6N	4,973,020			
EA3VY	5,566,462	N6RO	4,229,248	G0AAA/LX	4,538,229			

Multi-Op Multi-Transmitter			Multi-Op Multi-Transmitter			Multi-Op Multi-Transmitter		
KP2A	25,019,982	W3LPL	10,289,144	OK7AA	11,980,725			
EA9EA	23,425,035	NR5M	7,879,168	UP7A	8,996,130			
J6DX	13,375,437	N4ZC	5,405,537	LX9BV	8,747,440			
OK7AA	11,980,725	K4VX/0	5,364,112	PA6DX	6,928,293			
W3LPL	10,289,144	N1CQ	5,320,776	YZ1U	6,584,320			
UP7A	8,996,130	W3GM	4,793,674	YT5R	5,961,228			

## USA QRM

Good cndx, my personal best score but I sleep too much... *K7ABV*. Fun working a BY for the first time since 50 years ago... *W0RXL*. Finally worked a UG6 after 28 years of this stuff... *K9UIY*. Now for the QSLs from those new countries... *W7IIT*. For once the predicted poor cndx did not happen!... *W8AUB*. Needed only zone 23 for a sweep on 40, found out after test my neighbor worked it!... *K8MFO*. Babysitting slowed me down but I caught a JA run while the kids napped... *KQ7I*. 40 was fantastic!!... *N8BC* (and many others). 80 sounded like 20... *K0RF*, *W0UA* op. Does anyone make a 10 Hz CW filter?... *W7WOC*. We all experience occasional power failures, but would you believe 8 in one weekend!... *K9QVB*. Where are all the VK's and ZL's?... *K8EF*. Look forward to *CQ WW* every year even though I have to use low power with small antennas from my apartment... *W8BYJF*.

Packet radio was a big help... *K4JPD*. Is this the highest US score with no packet?... *K4VX/0*. Decided to go Multi-Multi at 20 hours into the contest... *NB1H*. Packet makes contesting more fun... *K1GW*. Great way to test a new Yagi!... *K3BSY*. One of the most frustrating things is the failure of "hot-shot" stations to identify for long periods... *W3VT/4*. Surprised how well a small antenna works on top band... *K3UA*. Note the drawings on the back of most log pages. My 4.5-year-old daughter enjoyed the contest too!... *K1RX*. Biggest thrill was *VS6DO* calling me Sunday AM... *KM1X*. It's getting too tough to wrestle the station away from my 9-year-old *N1HFO*... *K1SA*. Nice working *BY1PK* on 40M... *KS1L*. Cannot burn ice off antenna with 5 watts!... *VE1AGZ*. Ten meters is alive again, yea!... *W1FCN*. QRP in contest always thrilling—77 different countries, 28 zones!... *W8VSK*. Missed my own country—OOPS!!... *KA3CRC*. First *CQ WW* contest; can't wait till next year... *N2GZL*. Had a bad cold, keyer broke, new antenna looked good: worked bad—great contest!... *W6BJMS*. Worked last few contacts for *5BDXCC*... *W1LVW*.

## DX QRM

Unfortunately, same problem as in SSB—job! But very good propagation on 10/15 meters... *SP5TT*. Thanks for contest. Very enjoyed 80. A lot of W's came in with good signals... *OH1PY*. This year I was celebrating the 70th anniversary of Finland with *OF6* call sign... *OF6YF*. Worked only 80 W input, no TVI!... *OK3DG*. This year 28 MHz was not open to VK, but instead shortly to JA... *OH3TY*. Worked two new countries, *7X* and *FY* on 1.8 MHz... *SP5GH*. After 7 years on VHF, returned back to HF. What a difference!... *YU3ZV*.

A good 40 meter band and lots of W's made a good score... *I4IND*. Unfortunately, it was a sudden break-down in the pre-driver stage of my *TR-7*... *HA9RE*. Past history as a navy intercept opr. just keeps me tuning for new ones... *SV0AA*. Five days *DXpedition* to Crete to take part in the contest. Good cndx on 160 meters... *SV1NA/9*. I operated only 25 hours with about 100 W out, dipoles for 80 and 40 at 15 meters and a vertical lying on the roof... *IS0XIE*. Was glad to work many new countries for my *5BDXCC*. Better cndx on 10 but not 160—80 than last year... *UP3BO*. I was very pleased to work on 160 M for first time... *UA9WZ*. Good cndx on 80 M for Japan and USA. Many tnx for a fine contest... *UA2FGA*. Nice to work in the pileups. *CU* next year!... *UA2FZ*.

Thanks for good contest. It's my first from home position!... *UP0BA*. Thanks nice contest. My best wishes to the contest committee!... *UP2NK/UF*. Too much QRM from all the strong European stations... *CT1YH*. Excellent contest, congratulations!... *CT1CWT*. My very first entry in a *CQ WW CW* as single op/all band—have a lot to learn and improve the antenna... *F6BEE*. RF got into clock—time was 11 minutes past the first morning... *G3XVR*. Many calls from DX when calling *CQ*, including *W6!*... *DK5AD*. Best HF cndx for years... *GM3RAO*. Cndx good on all bands. Enjoyed every minute... *G3ESF*.

*WW* fever turned into a genuine 100 F fever on Friday... *PA3BUD*. *N3JTHK0* said that bloody mosquitoes were devouring him! I hope he is still alive... *F6AUS*. Another good weekend for fishing. See you next year!... *OZ8AE*. *VFB* 40 M openings to states both via short and long path... *HB9CIP*. I believe 235K points are enough for my age (75) Hi!... *DL1TH*. Could not avoid sleeping in school the next morning... *DL3NCI*. Power troubles let work only 13 hours. Hope next year things run better... *CU3AA*. My CW filter was like a swimming pool. I'll have to buy a better one... *E1DWI*. On bands since 1926! (81 years old)!... *F8TM*. Good to get past the first page on 28 MHz... *G4BUO*. Great fun! Boy do I need a beam... *G3NKS*. Biggest thrill was listening to own echos traveling around the world in the morning when using *QSK*... *DL4AAE*.

Got to wondering how many others were using old equipment. How about a museum station award!... *G3GGS*. Nice to work *KG6DX* on long path despite the furious European QRM... *F6BBJ*. My first contest ever, but it's surely not my last!! Keep up the good work... *OZ1BIZ*.

### U.S.A. CLUB SCORES

Frankford Radio Club	131,509,320
Yankee Clipper Radio Club	104,747,270
Southern Calif. Contest Club	69,356,747
Northern Calif. Contest Club	63,485,141
Potomac Valley Radio Club	60,230,401
Dixie DXers	53,950,365
Mad River Radio Club	23,529,256
North Texas Contest Club	23,467,266
Southeastern DX Club	19,432,304
Texas DX Society	16,865,273
Kansas City DX Club	15,475,287
Southwest Ohio DX Assn.	13,632,669
Willamette Valley DX Club	13,632,373
Central Florida DX Assn.	12,758,600
Western Washington DX Club	12,692,285
Carolina DX Assn.	11,363,141
Hoosier Contest Club	7,033,641
Society of Midwest Contesters	6,558,962
Southern Calif. DX Club	6,557,929
Over the Hill Contest Club	6,019,000
N. Florida DX Assn.	5,972,278
Northern Ohio DX Assn.	5,142,543
South Florida DX Assn.	4,856,612
Central Arizona DX Assn.	4,112,381
Northern Calif. DX Club	3,939,244
Eastern Iowa DX Assn.	3,937,751
San Diego DX Club	3,585,406
Order of Boiled Owls (NY)	3,096,540
Colorado Contest Conspiracy	2,204,068
Mississippi Valley DX & CC	2,183,033
Grand Mesa Contesters	1,933,612
Redwood Empire DX Assn.	1,886,361
Rochester DX Assn.	1,165,951
Delta DX Assn.	983,685
Rubber Circle Contest Club	852,075
Alamo DX Amigos	779,951

Murphy's Marauders	641,300
Northern Illinois DXA	602,721
Ohio Valley ARA	553,996
Greater Milwaukee DXA	366,413
Metrocrest ARS	228,690
Ashtabula County ARC	197,566
Inland Empire DX Assn.	63,838
River City Contesters	43,142
Last Resort Contest Club	12,774

### DX CLUB SCORES

Bavarian Contest Club	39,145,235
Rhein Ruhr DX Assn.	24,288,394
North Lithuanian DXG	21,556,682
Kaunas Polytechnic IRC	11,965,851
Club Grupo Paranes (PY)	11,673,129
Bullmertz	11,403,533
Riga RC	9,155,587
Lithuanian Contest Group	8,861,592
Viimsi Radio Club	6,846,964
SP DX Club	5,931,315
Hill Top Ham Club (JA)	5,893,741
Alaska DX Assn.	4,978,357
South German DX Group	4,773,696
Kiel-Canal Activity Group	4,771,602
Tohoku Univ RC (JA)	4,307,404
Uruguay DX Club	3,494,593
YU DX Club	2,426,300
Warsaw DX Club	1,805,465
G.A.C.W. (LU)	1,483,028
Z-DX-C Lvov (UB)	1,209,529
Voroshilovgrad RC (UB)	493,383
Radio Club Venezolano	458,735
DX Club Saar-Pfalz	213,048
YU1FJK Foxes Club	190,306
RC Tallinn	79,630

Meeting so many old friends from 5Z4KL days, also working across the pond on 160 for the first time with a limited power/antenna system ... GM3VLB. Nice to work zone 36—9Q5NW with big signal ... CTAOZ. Used to practice fly fishing for last couple of years instead of contesting. Probably going to change my mind ... DK6QX. Mrs. Propy is clearly the number 1 in this contest, yet I hope to beat her soon with the help of Mr. Sun ... EA2BLH. 40 M quad did not stay up in the air from last year, hence the entry on 15 M ... G4CNY. My first CW contest, a lot of new countries ... DL3SBI.

Spent half a day cutting radials (50). It was worth the effort ... DL3HAH. Was good to hear the W's pounding in again ... G3HCT. First time I have entered a contest. Wife and kids carried meals to shack for 48 hours ... GM4JV. Computer-assisted CW far too fast at times ... GM0I/O. It is great that we no longer have the handicap of 160 meters ... OZ1LO. Thanks for the contest with many DX stations on the air ... PA0SKP. Many new ones for DXCC ... PA3DMH. Always a pleasure to shake "keys" with old friends ... GW3JI. Mni stations with big signals but no ears! ... HB9DDZ. Biggest thrill to stand up after 42 hour contest and only 5 hours sleep, because of the university! Thanks for nice contest ... DL4BBO.

Without CW filter, first time I enter the contest with very much modest equipment ... EA5BQG. The best contest! ... F6GCP. Enjoyed every minute ... G3ESF. If only I could have worked all those I heard on 160! ... TR1G, op. TR8JLD. Tnx to all those stations who only worked me once ... SM0AJU, op. 5H3BH. 75N 95W is not the place to be during a DX contest ... VE8CDX. The hard disk of my computer broke during log processing ... OH5XT, op. EA8XS. Listened twenty minutes to a station in zone 24; never got his call because he never sent it! ... VE3NBE. Extreme QRN on 40 and 80 allowed me a few hours sleep ... ZS6BSZ. Surprised at the lack of S. American activity on 40M ... KG6DX. Next year hope to have better antenna, high power or better propagation, whichever is cheaper ... KD6TB/KH2.

I need this contest to help my DXCC ... YC3HCM. Great to work the rare DX ... VU2REC. A great contest! Pity I had to take time off to eat and sleep ... VK8AV. Long way to travel for a contest but worth it ... KY0T, op. ZD9CM. In spite of my visual disability I was able to make 803 QSOs ... VU2TTC. What a thrill to be on the end of a 10M pileup! ... ZC4EE. Was mistaken for a terrorist by the security police when working on aeriels at 03Z ... 4Z4DX, op. ZC4DX. Still can't believe I didn't hear zones 9, 14 or 38 ... KH2F. I had an important appointment in the USA but decided not to miss the fun and postponed it until next week ... HZ1HZ (We all appreciate it, Ahmed! —eds.). Glad to catch D44BC and LU1ZA ... VE6APN.

I will return to Belau for the '88 contest ... JE1JKL, op. KC6CS. My first CQ WW CW contest, FB! ... DU3BAA. Murphy, who's that? ... TA1KA/2. Operated from a hotel room on the north shore of Oahu ... WR6M/KH6. Thank God for CW filters, memory keyers and computers in that order ... VO1QU. Only three new countries because of power line damage after 20 hours ... YC2UDH. As usual a great contest! ... VE7DLM. Low band antennas must be improved! ... OH2KI, op. 5L7U. 40M was best to states around 07Z ... 9L1GG. Hope to have a beam and 80M dipole next year ... CT3CU. The phone kept ringing! Fun contest ... DU1KWT. Worked USA on 10! ... VU2ZAP, op. VU2Z. Good propagation on 10 ... EA8ABR. I'm afraid I could not break the world record with my inverted vee and barefoot xcvr ... EA8BLC.

Having to work first 10 hours and having uninvited guests sure puts a crimp in time ... YB3ASQ. Was going to pick USA ops as the best until I did the dupe sheets. JA's still #1 ... K5BDX, op. YJ0A. Lost 40M beam on Thursday so decided to go single band ... ZS6BCR. Just received the CN8 ticket ... WA4UAZ, op. CN8FC. Propagation unfortunate this year on 20M ... JY5DP. Thanks to a good 10M opening, a better result than last year ... YB0ATB/3. First single band effort in a long time ... YB0ARA. Top band poor until last 2 hours of test, then excellent ... VE3INQ. This is my first CW contest for last 5 years ... YB1BZ. Exciting



**WORLD TOP 10 QRP**

(5w output)

All Band

1. VE7DX	687,690	6. LZ2QV	282,741
2. YU3BC	512,148	7. RA1AL	253,344
3. G4ELZ	359,883	8. W8VSK	248,638
4. RT4UB	340,380	9. UA4LDJ	240,100
5. UB5WAB	310,764	10. UD6DF	227,700

**Team Contesting**

1. Team America (P40GD, 9Q5NW, D44BC, 5B4TI, XE2MX) 30,525,064
2. Team Scandinavia (FY5YE, CR9BZ, EA8XS, 5L7U, OH0BH) 29,841,252

Number groups after call letters denote following: Band (A = all), Final Score, Number of QSOs, Zones, and Countries. Certificate winners are listed in boldface.

**CW RESULTS  
SINGLE OPERATOR  
NORTH AMERICA  
UNITED STATES**

K1EA	A	3,961,980	2608	144	378
W1KM	"	3,885,464	2464	144	392
K1TO	"	3,444,319	2236	135	394
K1CC	"	3,194,147	2091	141	386
K1XA	"	2,318,818	1755	124	333
K1VR	"	2,227,980	1678	129	341
KS1J	"	1,190,226	1275	93	235
W1BH	"	1,057,032	881	121	303
W1FJ	"	926,094	870	104	279
W1WAJ	"	754,280	784	98	248
K1RDW	"	728,330	735	100	246
K1RX	"	675,402	870	69	204
KF3N/1	"	605,634	552	104	282
W1MK	"	517,845	765	64	173
W1A1UDH	"	440,664	523	89	212
KG1D	"	369,252	495	81	184
N1ELN	"	361,514	474	76	195
NB1B	"	331,224	419	92	204
K1SA	"	316,110	429	76	181
K1CLN	"	296,468	391	86	188
W1BR	"	277,389	383	80	179
W1GH	"	158,700	256	73	157
K1TR	"	146,730	260	72	129
KAI1CLV	"	96,824	195	53	129
W3SOH/1	"	90,000	185	56	124
W8SWM	"				
/1	"	86,668	177	67	121
K1NH	"	79,336	166	66	122
W1JR	"	53,583	122	58	101
N1DC	"	46,480	155	34	78
K1MEM	"	34,181	92	49	84
KR1F	"	29,596	109	34	64
AB1U	"	28,888	113	33	59
WA1LWV	"	28,595	114	33	62
WB2DND	"				
/1	"	23,500	83	35	65
KC1F	"	16,562	79	37	54
K1FIR	"	13,688	84	20	38
W1OPJ	"	8,732	58	19	40
W1PLJ	"	8,415	59	19	32
N1ACH	"	7,150	48	20	35
KM1K	"	4,982	43	19	28
N1ZZ	28	104,244	376	28	74
WA1FCN	"	25,272	125	19	53
W1AX	"	24,180	117	21	57
K1RM	21	395,508	971	35	103
W1WEF	"	373,320	938	34	102
KM1X	"	170,772	549	28	79
N1BUE	"	46,956	200	23	61
K1UJ	14	502,152	1180	38	109
K1EPI	"	115,649	368	29	80
W1XN	"	109,120	431	27	61
K2MM/1	"	34,608	146	25	59
K8P0/1	7	267,312	647	34	102
KS1L	"	240,956	702	32	86
N1AC	"	204,620	539	35	95
W1WF	3.5	270,692	790	28	90
K1IK	"	6,292	52	12	30
N2LT	A	3,587,045	2272	146	393
W2REH	"	2,445,048	1603	141	381
N2YL	"	2,330,470	1640	130	352
K2LE	"	1,689,800	1239	130	346
W2VJN	"	1,684,254	1155	141	366
W2GD	"	1,049,846	916	118	295
			(Opr. KU2C)		
W2TZ	"	514,567	761	71	168
K2FL	"	416,292	480	94	213
W2GGE	"	332,985	417	92	189

K2QIL	"	327,366	498	65	169
KX2A	"	308,568	402	96	180
N2AZS	"	306,250	452	78	152
W2FTY	"	217,550	346	73	156
W2A0RX	"	183,065	285	81	154
N2AIF	"	177,840	270	74	166
W2ASQ	"	168,586	315	60	134
W2A5F	"	112,689	232	49	122
W2DWF	"	109,980	230	62	118
W2GKZ	"	109,382	228	62	120
K2TD	"	101,904	220	56	120
N2MR	"	88,500	186	58	119
W2IQB	"	71,189	139	71	123
KW2J	"	67,050	166	53	97
W2KHQ	"	53,328	147	42	90
K2SWZ	"	45,990	140	40	86
W2FUI	"	40,135	152	30	65
W2A2UT	"	28,576	111	31	63
N2A2U	"	28,100	96	13	87
W2BDVU	"	4,900	40	18	32
KK2B	"	3,520	30	16	28
KU2D	28	46,228	178	27	64
KA2AEV	"	35,112	172	22	55
K2AW	"	15,841	83	21	52
W2KTF	"	4,158	37	14	28
WB2D	21	280,960	762	33	95
K2MFY	"	98,645	309	29	80
K3JGJ/2	"	83,980	306	25	70
K2FE	"	32,544	121	22	74
K2SS	14	479,479	1136	37	106
N2MG	"	304,732	900	33	83
NG2X	"	274,048	737	34	94
W2HPF	"	252,018	742	33	84
W2AYJ	"	50,336	196	24	64
W2FYA	"	15,900	100	15	41
N2DT	7	315,530	806	35	103
K2DM	"	280,140	712	36	104
K8XR/2	"	143,635	436	31	84
NT2S	"	38,033	181	16	57
KO2RD	3.5	114,760	459	23	72
N2US	"	9,312	73	14	34
KN2A	"	3,290	38	10	25
K5NA/2	1.8	17,940	121	18	51
N2AM	"	2,156	33	11	17
WB2ULL	"	1,560	20	10	16
N2KA	"	1,050	18	10	15
K2PH	"	348	15	5	7
W3GRF	A	3,828,863	2512	143	380
			(Opr. KDDQ)		
K3TUP	"	3,353,110	2139	146	396
			(Opr. K5ZD)		
K3LR	"	2,629,659	1722	149	380
K3NA	"	2,355,548	1769	130	337
N3AD	"	2,176,697	1722	121	316
N3CXV	"	1,800,162	1439	127	314
K3IPK	"	1,634,919	1338	119	310
KO3F	"	1,352,736	1193	113	293
K3ZZ	"	1,278,700	1166	111	299
W3UM	"	1,081,905	910	117	298
W3OV	"	744,808	830	95	219
K3WUJ	"	607,513	584	109	244
W3UJ	"	495,096	576	90	206
W3FW	"	398,094	527	80	178
W3NZ	"	347,616	412	94	212
W3NX	"	292,400	391	94	178
W3EVW	"	255,024	371	88	176
AA3B	"	248,007	381	70	159
W3HVQ	"	243,600	380	71	161
K3AV	"	224,908	336	70	166
W3GN	"	179,580	269	89	157
W3EAN	"	121,800	253	52	122
K3BSY	"	112,998	345	30	81
N3WV	"	74,620	159	57	107
W3HYM	"	70,518	166	58	102
K3TEJ	"	68,554	179	52	99
N3HW	"	66,555	183	45	90
K3KM0/M	"	60,900	154	45	100
W3QIR	"	52,584	156	57	111
KW3W	"	45,214	164	28	66
W3FGS	"	38,625	138	36	67

K14UZ	"	21,238	118	20	54
N4WJ	"	20,075	96	18	55
K4TEA	1.8	13,632	92	20	44
N4SU	"	9,686	66	19	39
W4DR	"	4,704	45	15	27
N4UH	"	4,346	46	15	26
N5AU	A	2,463,318	1645	159	363
			(Opr. WN4KKN)		
AD5Q	"	762,552	779	119	238
N5JB	"	692,152	692	121	238
N5TP	"	646,254	516	133	313
NT5G	"	547,027	540	122	255
K13L/5	"	532,416	693	103	179
N5AW	"	527,276	518	129	257
W5AICD	"	366,047	437	101	210
W5ZKR	"	325,888	461	85	171
K5DB	"	277,635	401	83	166
W5CD	"	230,184	316	99	177
NN5T	"	214,368	351	83	148
N5UA	"	212,368	351	83	148
K5FUV	"	208,854	316	87	159
N5HB	"	185,313	307	79	144
N5JEE	"	123,420	237	67	120
W5MW	"	119,579	210	74	123
AA5BT	"	102,087	189	71	128
N5GPP	"	80,685	184	63	102
K5DX	"	73,688	177	52	99
W5NJ	"	60,090	140	57	99
W5HNS	"	39,406	121	52	90
W5JC	"	37,240	98	60	80
W5EJT	"	28,250	91	46	67
K5NV	"	21,150	97	40	54
W5SSSD	"	3,388	29	19	25
W5HRF	"	1,768	21	14	20
K9LA/5	28	13,975	78	22	43
N7RP/5	"	9,858	71	20	33
K5G0	21	451,764	1094	36	105
W5VX	"	421,850	1009	36	107
K5ASU	"	323,963	865	32	99
KA7SW	"	278,652	724	34	98
W5B0S	"	191,646	573	30	87
W5DF	"	92,983	319	32	75
W5BUDX	"	67,996	266	26	63
W5ASP	"	34,144	140	26	62
W5KCR	"	12,663	71	22	41
N5CR	14	408,480	946	37	111
W5FO	"	245,340	637	37	104
K5MK	"	62,532	206	30	78
K5RR	7	269,698	661	38	105
			(Opr. WD5K)		
KM5R	"	181,200	526	33	87
W5FE	"	84,564	279	34	74
W5WQN	"	82,340	272	35	70
KN5S	"	4,662	45	12	25
K5RX	3.5	116,584	399	27	77
KD5IA	"	13,104	89	18	38
K5UR	1.8	28,635	148	26	57
K9MK/5	"	3,196	46	13	21
W6TMD	A	1,390,350	1253	138	252
W6G0	"	1,152,900	1136	130	236
W6G6	"	635,268	732	108	209
W6JT1	"	576,760	669	115	197
N6EK	"	519,684	739	101	153
W6FSJ	"	426,274	525	116	181
K6HH	"	317,148	505	104	143
N6AN	"	281,980	455	88	142
K6DR	"	247,660	368	98	146
N2UN/6	"	245,105	378	94	141
W6UJX	"	221,598	344	94	140
W6NKR	"	199,800	315	77	145
KS6H	"	194,350	411	93	137
WA7G/6	"	190,080	337	79	119
K6ZUR	"</				



WB3KX	240,030	634	36	99	VE3TCC	17,570	116	28	42	MOROCCO					JH10HZ	231	10	6	5	JRSJAD	21	130,795	467	33	68
W8CAR	8,008	59	18	34	VE30MU	280	8	6	8	JH1ADR	120	6	4	6	JASBOX	14	36,210	190	22	49					
WB8JBM	3.5	120,420	392	27	81	VE3EJ/3	28	16,854	147	19	34	JY1YWX	21	391,152	1189	35	81	JASPOD	3.5	1,742	36	10	16		
					VE3INQ	1.8	25,696	297	16	28	(Opr. J01BMV)					JR5MYC	3.5	18,135	106	23	42				
W8UVZ	95,676	339	28	74	VE3P3V		9,750	190	8	18	NIGERIA					JEGJRY	A	514,083	1653	110	201				
K8DD	19,800	13	19	47	VE4AEX	A	125,395	342	61	94	JH1AEP	290,375	899	36	79	JH6TYD		138,367	321	79	100				
N8EA	1.8	4,563	59	13	26	VE6AXB		117,044	455	52	64	JY1YAG	143,406	566	30	63	J16HRW		70,448	220	50	69			
					VE6YDZ		110,502	366	57	64	J01QUB	61,576	268	31	55	J6AKAV		37,128	156	37	54				
W9RE	A	2,957,682	1868	157	399	VE6APN	21	54,318	364	25	41	JY1YWG	31,168	180	24	40	JF6JQM		34,230	121	43	62			
					VE6LQ	3.5	13,680	188	15	21	(Opr. JG2TSL)					JF6AKJ		28,405	110	39	56				
N9NS	549,926	616	113	225	VE7DLM	A	507,672	1121	82	116	JY1EMO	26,197	141	23	44	J66HJP		22,692	104	35	58				
W90P	525,132	605	104	212	VE7WO		410,182	629	104	137	J11CQA	24,806	116	30	49	J66JUV		12,430	82	24	31				
NA9J	425,522	554	92	182	VE7HDX		204,996	672	64	68	JY1JGP	21,186	117	25	41	JH6IOM		10,530	66	28	37				
K9UIY	342,912	457	94	188	VE7CXR	21	57,672	466	23	31	JK10XU	15,939	86	26	43	JR6CF		6,393	41	28	35				
WB9HRU	308,005	419	87	182	VE8CDX	A	198,100	611	52	88	JY1QKW	9,102	87	18	23	JH6WHN	28	16,524	118	26	42				
W9GXR	231,840	400	65	138	COSTA RICA					JY1GPP	7,215	82	17	20	J66YCU	21	97,438	401	30	56					
AG9S	153,438	266	77	137	T12CCC	28	183,092	889	24	67	JY1BPN	7,076	123	25	33	JF6DSZ		87,440	388	26	54				
K90SH	119,988	233	74	124	TE4T	1.8	4,608	143	9	7	JH1BUB	5,920	61	15	22	JF6M1T		7,585	75	16	21				
W9HE	82,485	215	46	89	(Opr. T14SU)					JH1ADU	4,142	49	15	23	J66QDU		336	15	4	4					
NG9L	67,760	185	45	95	DOMINICAN REPUBLIC					JY1WOW	3,584	42	15	18	J66YFL	14	101,412	366	33	75					
W9CA	30,525	97	35	76	N2BA/H18	21	367,968	1631	26	70	JY1MIG	570	20	7	8	J66NKZ		15,390	106	22	35				
NJ9Z	28,600	104	42	68	H18C	3.5	12,132	159	10	26	J11JCN	180	12	5	3	J66NPN	3.5	2,850	41	12	18				
W9LND	7,372	40	39	37	GREENLAND					JY1XFS	428,472	1132	37	95	J66GCE		312	17	7	6					
W9YCV	3,600	29	21	27	OX3KD	A	161,838	690	42	69	JR1BWA	223,740	693	37	76	JH7LVK	A	1,303,743	1392	131	212				
W9REC	2,800	32	23	27	HR1AT	14	19,795	261	15	22	JF1SEK	75,270	331	29	49	J7MAD		238,388	365	108	136				
N9RD	27,158	141	19	55	MARTINIQUE					JY1JBP	20,368	141	26	41	J7SUR		188,235	470	61	80					
K9QVB	196,467	524	33	96	FM5ES	7	335,844	1312	33	81	JY1JUB	16,531	95	24	37	J7JHT		145,080	309	72	108				
W9YSX	186,461	538	30	91	XE2MX	A	1,785,470	2568	113	192	JY1JUB	14,788	106	21	31	J7JHT		105,252	283	63	84				
W90F	84,637	262	31	82	XE1GVK		726,138	1520	85	141	JY1YAG	7,728	66	16	30	J7BTE		105,248	235	77	107				
K9T	281,029	735	35	98	XE1GCK		88,608	372	48	56	(Opr. JG2CEZ)					J7BTE		50,244	186	46	60				
M9AEF	138,030	445	29	78	XE1FUX	7	548,977	1893	34	87	J01QZI	5,254	56	15	22	J7BTE		42,389	164	44	53				
K9CAN	137,516	381	33	91	MONTSEERRAT					JY1KKA	648	12	8	10	J7BTE		20,160	80	33	51					
K9UON	5,640	50	9	31	VP2MU	A	4,797,732	3771	125	373	JY1LRP	288	24	8	4	J7BTE		8,056	56	21	32				
W9QZT	5,000	45	18	22	NP4A	A	7,247,449	5382	140	394	JY1RFM	121,980	415	33	74	J7BTE		5,904	56	24	24				
KK9V	235,438	606	34	100	PUERTO RICO					JY1YWG	51,120	236	29	51	J7BTE		13,144	95	21	32					
K9RS	211,820	527	37	103	SAINT ANDREAS					JY1BUN	10,800	79	20	30	J7BTE		9,430	86	17	24					
WB9POH	181,229	513	35	92	N3JT/HK8	A	2,875,839	3917	92	229	JY1XCI	1,197	23	10	11	J7BTE		2,580	36	13	17				
N4TZ/9	132,300	351	38	97	SANT MAARTEN					JY1YWG	84	7	2	1	J7BTE		4,761	69	11	12					
N4CC/9	124,206	341	36	91	PJ7X	A	2,497,440	3102	93	237	JY1RFE	75,715	287	29	66	J7BTE		407,543	1127	38	89				
K9KPF	45,276	167	33	65	UNITED NATIONS					JY1OND	51,428	235	27	59	J7BTE		84,252	291	32	70					
K9FNF	11,323	63	21	46	AFRICA					JY1CJA	42,742	226	25	46	J7BTE		67,248	340	24	48					
W9MAG	9,238	55	19	43	CANARY ISLANDS					JY1GO	8,424	63	19	35	J7BTE		38,304	216	23	40					
K9RA	54,897	231	23	64	EA8XS	A	6,162,093	4699	118	323	JY1SJV	6,804	56	16	26	J7BTE		19,951	99	28	43				
W9WAQ	50,964	200	25	68	EA8BIE		330,072	548	55	149	JY1RCQ	3,993	50	15	18	J7BTE		18,849	105	26	35				
W9RN	48,881	208	25	62	EA8ABR		102,060	317	35	73	JY1RFE	1,037	28	8	9	J7BTE		12,265	80	20	35				
KE9U	28,684	147	21	50	EA8BLC		50,094	249	19	50	JY1RFE	5,508	71	16	18	J7BTE		4,777,540	1134	40	110				
WB9HAD	24,382	127	22	51	EA8ID	14	1,212,384	2336	39	134	JY1RFE	1,037	28	8	9	J7BTE		26,352	181	19	35				
WB9NSZ	8,094	60	20	37	CAPE VERDE ISLANDS					JY1RFE	688,055	1074	94	147	J7BTE		24,896	147	24	40					
W9YYG	3,552	47	14	23	D448C	A	7,384,104	4916	136	368	JY1RFE	53,550	240	39	51	J7BTE		1,269,996	1302	134	230				
K9BL	3,240	42	14	22	(Opr. K8GL)					JY1RFE	18,150	98	32	43	J7BTE		504,546	641	111	182					
K9RF	A	1,976,620	1533	147	313	PUERTO RICO				JY1RFE	14,271	73	30	41	J7BTE		111,132	280	66	81					
					NP4A	A	7,247,449	5382	140	394	JY1RFE	13,545	108	19	26	J7BTE		72,720	203	58	86				
W9WP	1,268,630	1072	132	286	SAINT ANDREAS					JY1RFE	31,955	164	29	48	J7BTE		6,120	56	22	33					
K9MOL	888,140	893	120	247	N3JT/HK8	A	2,875,839	3917	92	229	JY1RFE	24,702	150	27	42	J7BTE		224,126	827	34	64				
K9JH	656,978	709	111	223	SANT MAARTEN					JY1RFE	20,412	135	25	38	J7BTE		16,848	124	23	29					
K9KUK	364,806	540	90	144	PJ7X	A	2,497,440	3102	93	237	JY1RFE	89,262	391	33	54	J7BTE		7,995	87	16	25				
W9EJ	336,441	458	97	162	UNITED NATIONS					JY1RFE	70,380	297	32	58	J7BTE		4,674	49	17	21					
W9RXL	308,751	399	106	185	AFRICA					JY1RFE	25,480	172	23	33	J7BTE		72,590	301	32	53					
N10G	184,064	276	87	169	CANARY ISLANDS					JY1RFE	15,900	101	20	40	J7BTE		17,920	107	22	42					
W9RT	158,400	247	83	157	EA8XS	A	6,162,093	4699	118	323	JY1RFE	14,820	95	21	36	J7BTE		331,583	585	83	126				
NS0B	138,580	257	75	130	EA8BIE		330,072	548	55	149	JY1RFE	37,060	160	28	57	J7BTE		32,025	105	42	63				
KE9U	74,568	173	66	90	EA8ABR		102,060	317	35	73	JY1RFE	18,150	111	22	44	J7BTE		18,081	97	29	34				
KF8T	71,292	180	60	96	EA8BLC		50,094	249	19	50	JY1RFE	12,997	99	21	28	J7BTE		62,744	288	30	58				
NS0GB	57,226	157	52	62	EA8ID	14	1,212,384	2336	39	134	JY1RFE	18,582	128	22	35	J7BTE		45,600	233	28	45				
W9FZ	35,970	125	39	64	CAPE VERDE ISLANDS					JY1RFE	7,257	74	17	24	J7BTE		115,072	359	36	80					
KF8Z	34,553	132	45	64	D448C	A	7,384,104	4916	136	368	JY1RFE	387	18	5	4	J7BTE		360	12	4	6				
N0FTZ	19,635	93	35	42	(Opr. N12L)					JY1RFE	622,790	911	91	154	J7BTE		239,456	398	85	139					
K0BT	12,012	58	32	46	AFRICA					JY1RFE	493,265	780	95	140	J7BTE		55,418	182	54	67					
K0ZX	227,448	687	32	85	CANARY ISLANDS					JY1RFE	309,778	533	85	133	J7BTE		49,290	215	43	63					
KV8																									

TURKEY				
TAIKA/2	A	2,232,819	2144	100 269
WEST MALAYSIA				
9M2AX	A	20,064	119	42 46
U.S.S.R. ASIATIC				
ARMENIA				
U66GRA	28	20,904	182	10 29
U66GGG	21	65,455	433	15 38
U66GG	14	237,838	814	32 77
U66GAW	1.8	103,016	498	18 61

ASIATIC RUSSIA				
UA9YI	A	1,779,954	1555	125 322
RA9JX	**	781,811	1093	84 213
UA9HTT	**	497,290	871	68 155
UA9XS	**	267,852	494	50 154
UA9XHX	**	230,044	452	71 128
RA9FA	**	157,860	404	56 124
UV9CC	**	122,120	280	52 120
RA9JNR	**	93,932	466	27 65
UA9YAD	**	55,627	227	34 109
UA9WZ	**	51,310	276	15 55
UA9AU	**	48,900	183	37 63
UA9YJD	**	35,200	140	39 71
UA9WC	**	32,604	171	22 56
UA9URF	**	18,224	131	26 42
RA9AE	**	15,480	103	27 45
UA9NP	**	12,025	80	23 42
RA9YG	28	154,521	651	29 68
UA9DA	**	37,944	213	25 47
UA9LCU	**	9,976	124	10 19
UA9FGO	**	9,856	110	13 31
UA9QBT	**	6,840	71	13 25
UA9AOV	**	2,542	34	9 22
UA9GK	21	88,938	505	26 55
UA9ULC	**	76,896	397	24 65
UA9UCN	**	67,878	422	23 58
UW9YM	**	61,268	442	23 45
UA9XHT	14	95,508	425	23 61
UA9SFV	**	46,699	272	21 46
UA9XBD	**	37,995	279	15 36
UV9CJ	**	23,001	195	10 31
UA9OS	**	5,537	43	16 33
UA9FGJ	7	58,884	268	24 60
UA9FD	**	16,284	143	14 32
UA9CAO	**	242	14	5 6
UA9AL	3.5	96,876	521	15 54
UA9SGN	**	63,012	402	12 47
UA9KM	**	60,555	452	13 42
UA9FM	**	33,072	240	10 38
UA9SEX	**	13,104	119	10 29
UA9XFJ	**	4,975	74	6 19
UV9FM	1.8	57,997	355	11 48
UA9FAR	**	40,284	278	10 44
UA9SJJ	**	31,248	275	8 34
UA9AB	**	22,755	206	8 33
UA9CBO	**	15,696	165	7 29
UA9WNF	**	3,650	66	6 16

AZORES ISLANDS				
CU3AA	3.5	84,286	656	15 52

BALEARIC ISLANDS				
EA6GP	A	94,019	433	42 107
EA6CL	**	65,067	291	35 63
EA6WY	21	3,597	57	11 22
BELGIUM				
ON4XG	14	69,264	479	20 58
ON7JC	**	3,736	61	8 15
ON5EJ	**	1,484	46	7 21
BULGARIA				
LZ1CW	A	326,928	589	86 208
LZ1VA	**	249,223	546	79 168
LZ2KAD	**	138,387	606	46 117
(Opr. LZ2RS)				
LZ1BJ	**	110,856	339	61 125
LZ1WL	**	88,920	256	64 107
LZ1IT	**	75,350	590	36 92
LZ2AG	**	61,380	350	32 99
LZ1FJ	**	29,580	200	33 83
LZ1KZM	**	16,800	134	19 81
LZ1YQ	28	70,928	314	29 75
LZ2ZA	**	18,096	87	24 63
LZ1KDP	21	474,157	1400	37 100
(Opr. LZ1AX)				
LZ1RB	**	78,600	316	29 71
LZ1MG	**	37,688	256	23 75
LZ2VW	14	188,460	920	32 46
LZ1DF	**	16,896	153	19 47
LZ1KSN	7	318,230	1447	33 88
(Opr. LZ1ON)				
LZ1RU	**	243,452	1181	31 90
LZ1KAZ	**	108,800	772	21 68
LZ1K0Z	3.5	39,402	572	11 50

AZERBAIJAN				
UD6DKW	A	86,658	270	48 95
UD7DZA	**	56,248	260	25 54
(Opr. UD6DCY)				
RD6DEX	28	58,460	291	23 51
RD6DAB	3.5	29,216	281	10 34

GEORGIA				
UF6FI	A	148,947	425	35 96
RF6FR	21	193,914	847	22 59
UF6FAL	3.5	102,960	561	13 53
UP2NK/UF	1.8	113,718	613	12 54
UF6FDR	**	25,715	251	8 29

KAZAKH				
RL7AB	A	2,202,134	2109	112 286
RL7MAF	**	162,857	439	43 106
UL7BN	**	97,180	260	62 110
RL7LCT	**	5,992	77	22 34
UL8GBV	21	21,828	286	20 65
UL7EAR	14	70,680	280	28 65
RL7ARK	**	32,400	221	15 39
RL7GO	**	8,280	79	15 30
UL7TCU	7	38,918	270	16 42
UL8GBI	**	8,178	82	14 33
RL7AC	3.5	48,978	353	12 42
UL7TX	**	13,728	168	13 31
RL7LCV	1.8	7,328	99	9 23
UL7CCA	**	4,260	96	6 14

KIRGHIZ				
RM6MA	28	2,370	80	12 18
UM6MRG	21	141,532	732	20 62
UM6MAE	14	6,946	61	15 31
UM6MBA	7	66,082	376	21 53
UM6MM	1.8	228	14	5 7

TADZHIK				
UJ8AO	28	4,716	65	14 22
UJ8JA	21	248,184	855	30 78
UJ8JW	14	83,555	393	13 56
UJ8JCM	7	37,000	280	13 37

TURKOMAN				
RH8AA	7	13,920	135	13 27

UZBEK				
UI8ADR	A	224,000	553	49 111
UI8AFI	**	3,624	190	27 53
UI9AWX	**	54,180	170	46 80
UI8AFA	7	298,920	1093	27 79
UI8BAA	3.5	32,426	242	17 45

EUROPE				
AALAND ISLANDS				
OH8BH	A	2,848,711	2697	153 434
(Opr. SM5GMB)				

AUSTRIA				
OE3RE	A	166,252	410	59 119
OE9SLH	**	109,440	308	44 100
OE3HCS	**	23,175	181	25 78
OE7SEL	**	20,972	127	35 63
OE1KU	**	945	27	7 28
OE3GSA	7	186,004	909	30 68
OE1TKW	1.8	561	21	5 16

AZORES ISLANDS				
CU3AA	3.5	84,286	656	15 52

BALEARIC ISLANDS				
EA6GP	A	94,019	433	42 107
EA6CL	**	65,067	291	35 63
EA6WY	21	3,597	57	11 22

BELGIUM				
ON4XG	14	69,264	479	20 58
ON7JC	**	3,736	61	8 15
ON5EJ	**	1,484	46	7 21

BULGARIA				
LZ1CW	A	326,928	589	86 208
LZ1VA	**	249,223	546	79 168
LZ2KAD	**	138,387	606	46 117
(Opr. LZ2RS)				
LZ1BJ	**	110,856	339	61 125
LZ1WL	**	88,920	256	64 107
LZ1IT	**	75,350	590	36 92
LZ2AG	**	61,380	350	32 99
LZ1FJ	**	29,580	200	33 83
LZ1KZM	**	16,800	134	19 81
LZ1YQ	28	70,928	314	29 75
LZ2ZA	**	18,096	87	24 63
LZ1KDP	21	474,157	1400	37 100
(Opr. LZ1AX)				
LZ1RB	**	78,600	316	29 71
LZ1MG	**	37,688	256	23 75
LZ2VW	14	188,460	920	32 46
LZ1DF	**	16,896	153	19 47
LZ1KSN	7	318,230	1447	33 88
(Opr. LZ1ON)				
LZ1RU	**	243,452	1181	31 90
LZ1KAZ	**	108,800	772	21 68
LZ1K0Z	3.5	39,402	572	11 50

CORSIKA				
TK5VN	A	63,623	169	51 112

CRETE				
SV1NA/9	1.8	77,183	815	14 65

CZECHOSLOVAKIA				
OK2BHV	A	1,463,712	1544	123 351
OK1VD	**	1,097,366	1559	107 266

SINGLE OP ZONE WINNERS									
Zone	Call	Score	Zone	Call	Score				
1	NL7DU	31,482	21	HZ1HZ	2,181,480				
2	VE8CDX	198,100	22	VU2TJW	1,167,680				
3	W6TMD	1,390,350	23	No entry					
4	W9RE	2,957,682	24	VS6TQ	172,985				
5	K1EA	3,961,980	25	JA5DQH	1,894,644				
6	XE2MX	1,785,470	26	No entry					
7	N3JT/HK0	2,875,839	27	KC6CS	2,618,226				
8	NP4A	7,247,448	28	9M6ZR	1,541,288				
9	FY5YE	8,201,163	29	VK8AV	1,012,971				
10	HD5X	7,850,590	30	VK2BQQ	601,920				
11	ZY8AA	1,156,480	31	AH6AZ	1,238,496				
12	CE1IDM	640,209	32	TO8KPG	1,719,843				
13	L08WW	1,391,355	33	CR9BZ	6,508,205				
14	G3MXJ	2,233,868	34	PA0GAM/ST2	422,592				
15	I4IND	4,188,034	35	D44BC	7,384,104				
16	RU1DZ	1,481,193	36	9Q5NW	7,586,300				
17	RL7AB	2,202,134	37	5H1HK	3,213,756				
18	UA9YI	1,779,954	38	ZS6BSZ	1,008,730				
19	RA0FA	683,826	39	S79D	17,328				
20	5B4TI	5,816,907	40	OX3KD	161,838				

OK1AJN	**	568,584	1002	85 233
OK3PQ	**	453,618	701	94 191
OK3FON	**	305,869	526	72 191
OK2PCF	**	216,505	625	52 163
OK2TBC	**	193,584	366	72 150
OK1EP	**	190,460	349	78 136
OK3YCA	**	1		

DK6GX	**	26,414	125	40	54	Y47MN	**	232,906	783	58	144	Y24YM	**	6,444	206	5	30	<b>NORTHERN IRELAND</b>				Y03NP	7	173,040	972	28	77																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
DK4RM	**	17,559	158	15	54	Y28XL/A	**	219,792	602	62	166	Y25NA/A	**	2,752	47	9	23	GI4BBV	A	185,922	415	57	141	Y08AXP/P	**	93,748	779	23	79																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
DF3QN	**	13,921	108	27	56	Y78ZN	**	201,685	548	59	134	Y62TI	**	1,728	72	4	20	<b>NORWAY</b>				Y08GDU	**	59,976	440	20	64																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
DF2RG	**	12,537	94	25	38	Y63SI	**	197,136	455	71	151	Y21RO	**	1,620	59	6	21	LA9XG	A	45,816	136	49	89	Y04CAH	**	51,074	445	21	55																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
DL4NBV	**	12,155	121	22	43	Y32VN	**	168,432	390	71	161	Y26PL	**	819	40	3	18	LA9VW	**	40,224	187	33	63	Y05CYH	**	33,356	229	13	49																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
DF6RI	**	8,190	96	16	23	Y25JA/A	**	140,049	478	48	141	Y23FI	1.8	5,572	159	6	31	LA9VD	**	31,395	199	33	82	Y04BBH	**	25,476	170	10	51																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
DL5NCR	**	8,113	68	24	37	Y24SK/A	**	129,240	371	50	130	Y23XC/A	**	3,680	118	4	28	LA9VLA	**	31,395	199	33	82	Y05CIU	**	13,671	128	12	37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
DL3SCR	**	5,635	43	21	28	Y43VL	**	125,355	377	46	137	SV8AA	A	2,380	63	5	29	LA9VLA	**	31,395	199	33	82	Y04FE	**	4,633	75	11	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
DF2UW	28	86,920	335	28	78	Y22WF	**	108,570	260	58	152	<b>GREECE</b>				LA9PEA	**	19,125	135	28	47	Y03CD	1.8	48,672	519	15	63																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
DL2HBX	**	44,339	196	27	74	Y43XL	**	87,492	459	34	104	<b>HUNGARY</b>				LA20G	**	6,396	61	17	24	Y030K	**	2,108	54	6	25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
DK3KD	**	35,328	155	28	68	Y55ZE	**	86,826	263	47	127	<b>ICELAND</b>				LA1HCA	**	5,220	40	19	26	Y06AJ	**	561	34	4	13																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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DL4YAO	**	15,834	238	11	31	Y46IF	**	23,902	264	20	54	<b>ROMANIA</b>				LA9HFA	**	756	28	4	5	EA4EP	**	227,968	502	54	154																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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HB9CX	376,922	758	68	179
HB9CV	113,142	296	53	120
HB9AG	55,238	152	55	87
HB9DF	21,160	148	30	62
HB9QA	11,771	65	34	45
HB9BD	5,865	60	20	31
HB9DD	6,579	47	19	32
HB9CG	21	183,860	678	33
HB9DX	24,592	891	31	85
HB9CIP	7	417,028	1601	35
HB9CEY	23,458	153	17	57
HB9AM	1.8	97,064	762	19

**U.S.S.R. EUROPEAN**

**BYELO-RUSSIA**

UC20T	A	440,928	1001	75	213
RC2AU		132,000	624	46	130
UC2AT		15,390	99	16	41
UC20CH	21	138,852	539	32	84
UC2WCY		8,789	80	16	31
UC20AR	14	64,436	385	26	63
UC2WCX	7	24,156	264	17	49
UC2SD		8,096	140	10	36
UC2WAO		4,240	82	10	30
UC2SMC		260	18	5	8
UC2W0	1.8	15,778	269	9	40
UC2II		8,100	208	7	29

**ESTONIA**

UR2RER	A	61,344	308	39	105
RR2RW		32,760	110	53	87
UR2RKO		32,172	244	22	62
RR2RU		17,952	70	42	60
UR2RBO		12,474	102	20	57
UR2RHF		5,605	45	24	35
UR2RND	28	7,202	23	7	13
UR2QA	21	60,334	272	28	69
RR2RY		5,472	94	13	25
RR2RX		3,915	49	15	30
UR2RMB		3,408	28	20	28
UR2RDO	14	275,538	1153	33	81
UR2RDB		40,211	218	22	57
UR2D0	7	36,300	224	23	52
UR2FU		9,666	117	14	40
UR2RIG		9,648	129	11	37
RR2RT	3.5	7,134	78	12	46
UR2RCD		980	32	4	24
UR2RME	1.8	11,004	229	7	35

**EUROPEAN RUSSIA**

RU10Z	A	1,481,193	1681	129	330
RA3DX		499,356	712	100	296
UA4KC		467,370	849	83	187
RZ3AM		428,420	798	90	220
UA1Z0		421,006	876	56	125
UA1TC0		359,988	878	64	198
RZ3DF		356,400	693	91	239
RW3AU		269,126	476	85	201
UA4YJ		248,330	695	52	138
UA6YAH		240,221	529	69	160
UA4AL		220,224	566	71	151
UA6BJQ		205,600	715	49	133
UA3ECJ		193,499	631	46	133
UA4LCL		145,612	940	32	86
RW3ZC		129,885	390	57	128
UA4AHA		128,064	467	48	126
UA3VL0		114,296	398	47	135
RA3A0D		106,005	302	58	133
UA6LIG		99,900	364	51	134
UA4ANZ		86,625	273	50	115
UA3ST		83,144	311	44	108
RZ3DZ		75,060	256	51	129
RA3VA		69,454	321	36	85
UA3ASL		65,520	257	44	82
UA4LQC		58,725	239	50	85
UA6YHR		52,334	144	53	84
UA10ML		51,272	250	33	83
UA3ICJ		49,105	217	32	83
UA3Z0Y		44,104	210	50	98
UA10IZ		43,179	148	44	67
UA3RA		42,362	236	32	86
UA4NEJ		39,675	174	41	74
UA3TAM		35,595	225	29	76
UV1CD		33,925	238	28	67
UA4UCC		31,059	239	23	64
RV6AF		30,160	117	53	77
UA30BX		25,576	164	29	63
UA6LFW		24,198	120	37	74
RA10E		22,058	155	24	58
UA4SSS		17,700	173	22	53
UA10AM		16,236	98	26	56
RW3DC		16,000	122	25	55
RA3GD		15,189	172	16	45
RZ3DM		14,852	86	29	65
RA3WZ		13,650	143	22	53
RA10AK		4,510	42	21	20
RV6AA		1,500	26	12	13
UA3TGO		1,500	34	11	19
UA4HNP	28	19,600	167	21	49
UA6BPM		18,396	163	21	52
RA3RN		3,034	42	12	25
UA3PB		399	11	8	11
UW3AA	21	173,228	659	33	91
RZ3DX		133,340	542	31	87
UW3U0		100,293	535	28	73
UW6MA		67,868	352	26	68
UA4HKJ		60,952	472	24	52

UA4PMG		30,780	241	22	54
RV6AA		29,346	264	20	47
UA3XCT		29,064	131	25	59
UA3LAR		27,450	160	25	50
UA3LHA		26,082	188	23	40
UA4CFM		20,384	240	15	37
UA3XEH		18,538	192	16	30
UA3XBB		16,317	128	23	40
UA3PNN		14,750	131	18	32
UA10BQ		12,626	117	18	41
UA3XDF		1,344	24	10	18
UA6AJJ	14	196,677	848	33	84
UA1TAL		62,582	367	22	61
UA1ANP		59,748	418	21	57
RA3JC		33,495	190	22	55
UA1QBV		26,068	181	24	52
UW3HY		22,754	173	20	42
UA4ZV		17,199	222	13	36
UZ2GH		16,640	114	23	42
UA4NEA		8,832	128	18	46
UW3ICF		6,615	69	14	21
UA1AJ		6,475	131	11	24
UA3XN		1,368	39	7	17
UW3CE		225	0	7	8
RA4PC	7	77,616	335	27	72
UW1CX		46,137	215	26	65
UA3XAW		33,078	320	16	58
UA4CEU		24,675	168	20	55
UA3BK		12,654	139	16	41
UA3TDR		8,060	124	10	42
UA3XGO		2,923	46	10	27
UA3XDM	3.5	73,863	588	19	68
UW3QA		59,276	605	15	58
RV6AC		37,275	376	16	59
UA6AX		32,460	426	12	48
UA1AUA		31,691	381	13	54
UA1AMR		30,186	442	11	43
UA3PFW		23,088	328	9	43
UW6AL		20,955	305	13	42
UA6BBS		18,304	249	10	42
UA3DIJ		15,350	254	10	40
UA3YAO		13,038	270	7	34
UA4A0		13,008	192	7	41
UA6AQV		13,005	224	9	36
UA3TU		12,264	171	12	44
RA1QC		10,140	210	8	31
UA1ZGT		9,620	249	8	29
UA3ADG		8,382	213	6	27
UA3YFT		5,828	166	7	24
UA4FY		3,298	82	6	28
UV4CD		3,120	54	9	30
UA3PNO		817	28	6	13
RA3DOX	1.8	21,728	295	9	47
RA6AOS		19,209	261	10	47
UA3D.G		11,776	193	7	39
UA6ATC		8,008	148	9	35
RA3ATV		7,654	138	8	35
RV6PB		6,588	129	7	29
RA6LW		5,544	119	6	30
UA3DQS		3,162	74	6	28

**KALININGRAD**

UA2FZ	A	87,769	391	27	52
UA2FFA		15,600	99	28	50
UA2FGA	3.5	403,686	1918	30	93
UA2FJ	1.8	37,635	490	10	55

**KARELIA-FINNISH**

UN1CD	A	18,080	138	95	250
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**LATVIA**

RQ2GN	A	743,820	1254	95	250
UQ2GT		150,245	486	63	136
UQ2GU		123,840	408	49	123
UQ2GD		16,289	106	30	61
UQ2GKO		1,566	50	8	19
UQ2GBJ		1,334	42	9	20
UQ2GKO	28	405	15	7	8
UQ2GLQ	21	5,512	40	22	31
UQ2GIZ	14	160,160	763	28	82
UQ2GMB		48,972	323	21	56
UQ2GQ		8,900	86	15	35
UQ2GEO		5,434	79	10	16
UQ2GEC		224	10	7	9
UQ2GIP	7	54,384	350	23	65
UQ2GJV		41,840	384	18	52
UQ2GCV		5,760	56	13	23
UQ2GM	3.5	114,580	785	20	65
UQ2GN		98,560	220	19	61
UQ2GPP		21,489	305	12	45
UQ2GHJ		19,680	492	14	46
UQ2GHB		18,974	309	9	44
UQ2GIG		15,340	240	9	43
UQ2GOV		4,620	127	10	32
UQ2PJ	1.8	20,280	269	10	50
UQ2GQD		6,981	150	6	33
		1,750	66	5	20

**LITHUANIA**

UP3BP	A	1,676,988	1757	120	324
UP3B0		746,250	1114	95	280
UP2BR		660,330	1085	93	252
UP3BU		555,472	1140	70	228
UP2BSP		358,608	808	62	179
UP2BKJ		179,578	580	50	152
UP2BIP		147,456	280	80	176
UP3BA		136,530	603	47	138

UP2BOS		131,480	489	47	126
UP2ND		100,320	327	46	119
UP2PAC		81,540	363	37	98
UP2BBF		79,756	266	52	105
UP2BB		44,034	254	31	92
UP2PBM		36,850	249	31	79
UP3BQ		36,252	223	37	77
UP2BDO		23,712	171	27	77
UP2PCF		19,360	131	26	54
UP2BKT		16,874	234	16	43
UP2BA		1,904	52	10	24
UP2OU	28	17,082	100	24	54
UP3BX	21	85,130	320	30	80
UP2FF		13,939	110	19	34
UP2BEJ	7	62,010	439	22	68
UP2BKA		40,762	250	21	68
UP2PCI	3.5	192,276	1175	26	72
UP2BOA		58,888	698	13	55
UP2Q0		51,150	546	13	53
UP2RIW		50,197	560	17	54
UP2BKM		47,190	575	13	53
UP2CT		39,034	565	12	46
UP2BRE		20,950	384	10	40
UP2BHK		8,816	200	8	30
UP2BGG		7,514	206	6	28
UP2BLF		3,681	21	4	12

**MOLDAVIA**

UO50EW	A	285,138	770	58	159
UO5CDA		64,328	22		

PY2RN	56,538	252	29	52
PY2CAR	29,108	139	25	51
PY1AJK	19,089	129	27	36
PY2GJR	1,092	23	12	9
<b>ZYSAKW</b>	<b>14</b>	<b>45,985</b>	<b>189</b>	<b>29 56</b>
PY2FRD	15,496	104	19	33
PY2VH	1,040	23	9	7
PY2DP	3.5	24,780	145	20 40
PY1BYV	1.8	4,824	92	10 8

**CHILE**

CE1IDM	A	640,209	1268	67 110
CE3BFZ		64,988	292	32 45
<b>CE2BFR</b>	<b>14</b>	<b>142,320</b>	<b>574</b>	<b>25 55</b>
CE8PD	7	33,304	249	18 28
CEBHJ		16,308	160	15 20
CEBNOT		2,712	43	11 13

**COLOMBIA**

HK1KXA	21	417,150	1365	29 74
HK1AMW	3.5	177,120	728	22 60

**EASTER ISLAND**

CE8ZIG	14	223,737	697	34 73
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**ECUADOR**

HD5X	A	7,850,590	5153	145 361 (Opr. KQ2M)
HC7SK	3.5	103,273	567	19 42

**FRENCH GUIANA**

FY5YE	A	8,201,163	5307	142 381 (Opr. OH2MM)
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**NETHERLANDS ANTILLES**

P48GD	A	7,952,283	5163	142 405 (Opr. W26D)
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**PERU**

0A4ZV	A	1,769,116	2001	103 199
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**SOUTH ORKNEY ISLANDS**

LU1ZA	A	110,000	679	26 29
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**TRINIDAD & TOBAGO**

J6LAD/9Y	A	377,316	695	65 123
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**URUGUAY**

CX7BY	21	972,257	2300	37 106
CW8B	14	1,011,036	2182	36 120 (Opr. CX88BH)
CX6RM	7	28,272	131	27 49

**VENEZUELA**

4M7A	28	741,312	2448	23 73 (Opr. YV7QP)
YV4ABR	14	37,296	261	16 32
YW10	7	758,898	2016	32 94 (Opr. YV1DG)
YX5A		621,489	1879	29 82 (Opr. YV5ANT)

**MULTI-OPERATOR SINGLE TRANSMITTER NORTH AMERICA**

**UNITED STATES**

K1G0	5,524,602	2815	162	507
AA1K	3,559,869	2009	164	455
KY1H	2,912,620	1860	141	406
KM1C	2,086,884	1415	142	372
K1DC	1,967,338	1364	140	362
W1PH	1,693,536	1240	128	344
K11U	1,519,479	1095	144	363
KA1X	471,675	565	88	197
WB1CNM	421,008	455	98	238
W1GG	299,184	388	79	197
KT10	293,040	404	88	176
KA1CB	282,486	374	70	197
N1AU	187,615	280	79	160
A13E/1	143,090	247	64	141
KA1KPH	115,962	190	81	150
NC1B	44,880	108	68	97
N2RM	5,222,100	2673	171	505
N2MM	2,525,592	1553	160	404
K2D0	1,332,027	1100	114	309
K2T0	1,306,800	1044	119	313
W2UI	413,542	492	94	215
NF2L	264,759	448	66	147
<b>N3RS</b>	<b>4,979,475</b>	<b>2537</b>	<b>168</b>	<b>507</b>
<b>W3BGN</b>	<b>4,485,280</b>	<b>2281</b>	<b>173</b>	<b>507</b>
K300	3,064,812	1818	153	429
K3WW	2,901,384	1883	144	387
W3XU	2,397,860	1821	128	324
W3GG	1,990,660	1453	136	346
K3IE	1,377,385	1143	114	301
WB3CAC	737,352	750	97	245
K3UEI	505,630	650	92	203
K3NZ	473,310	608	79	191

W3AZ	437,844	485	96	225
KS3F	377,190	472	96	201
AJ3H	100,825	210	60	125
W43JZ	26,935	182	42	94
<b>N4WW</b>	<b>4,724,200</b>	<b>2541</b>	<b>166</b>	<b>484</b>
<b>N4RJ</b>	<b>3,997,947</b>	<b>2085</b>	<b>178</b>	<b>495</b>
W4RF	1,479,623	1215	119	312
W8ZF/4	1,086,876	725	158	374
K4CEF	1,024,320	773	143	337
K4MF	811,047	707	119	290
AA4D0	786,016	704	127	279
N8LM/4	781,500	757	113	262
W4A00V	636,928	749	105	206
K3KG/4	561,204	465	153	323
K4XR	432,788	447	135	286
AA4MJ	285,418	401	87	172
W4ACTC	126,850	210	75	140
W4AKIL	75,096	159	61	107
W4BNT	31,174	108	36	73
<b>N98/5</b>	<b>2,242,200</b>	<b>1551</b>	<b>152</b>	<b>353</b>
N5RM	1,408,554	1129	140	317
<b>N6RD</b>	<b>4,229,248</b>	<b>2506</b>	<b>175</b>	<b>417</b>
<b>N6VV</b>	<b>1,830,650</b>	<b>1373</b>	<b>153</b>	<b>317</b>
W6R6	1,387,488	1367	130	258
W6VN	563,040	696	112	176
W6BA	474,328	590	100	181
N6JV	448,920	474	124	224
W60AT	413,826	426	124	230
W6BIP	413,616	468	126	210
K6TO	382,510	482	113	177
W6ERS	65,709	171	66	83
KE6VL	13,530	60	37	45
N60U	4,628	43	25	27
<b>K6AZ</b>	<b>3,537,100</b>	<b>1959</b>	<b>166</b>	<b>454</b>
W8A0XG	1,891,536	1308	151	351
<b>W8RLX</b>	<b>859,878</b>	<b>794</b>	<b>134</b>	<b>268</b>
W8NA	357,022	484	95	179

**ALASKA**

KL7RA	1,946,487	2855	102	179
KL7HXX	588,984	1342	84	100

**BELIZE**

V31A	6,089,044	5424	146	494
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**CANADA**

VE2LJ	2,460,843	2749	95	276
VE7ZZZ	1,651,287	1898	130	233
VE7UBC	422,786	1080	72	89
VE30XT	283,464	677	66	120
VE2UL	133,338	939	57	95

**TURKS & CAICOS**

VP5W	4,841,910	5011	112	283
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**AFRICA**

**CANARY ISLANDS**

EA8AGD	9,816,540	5763	144	426
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**REPUBLIC OF SOUTH AFRICA**

ZS1CT	89,428	572	57	101
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**ASIA**

**INDIA**

VU2TEC	275,064	640	52	105
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**JAPAN**

JE2YRD	3,002,810	2300	153	314
JA9Y8A	2,839,992	2316	149	289
JA7YAA	2,171,143	1839	154	289
JA7YAB	2,090,735	1933	138	257
JA3YBF	1,879,570	1758	128	257
JA0YAK	1,684,088	1536	136	270
JF1YPF	1,599,345	1662	127	232
JH1YDT	1,558,832	1504	133	241
JE6ZIH	1,341,816	1440	119	224
JE3ZFS	1,214,301	1315	126	215
JA8YBY	799,663	1028	107	182
JR1ZTT	651,840	872	109	171
JA4YJA	468,384	754	91	147
JA7YFB	267,438	607	57	102
JH4YNT	191,646	405	73	116
JJ1ZXE	89,646	287	46	68
JA2YAC	33,852	148	47	46
JA2YEF	20,910	110	37	48
JA9YAA	8,234	80	19	27
JA1YAD	5,976	60	18	18

**PEOPLES REPUBLIC OF CHINA**

BY1PK	1,441,035	2598	92	187
BY4AA	338,751	1288	76	95
BY4SZ	107,107	578	51	40

**SAUDI ARABIA**

HZ1AB	1,592,608	1974	94	220
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**THAILAND**

HS8A	3,995,852	3525	158	374
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**U.S.S.R**

**ASIATIC RUSSIA**

<b>UZ9AYA</b>	<b>4,173,974</b>	<b>2629</b>	<b>150</b>	<b>412</b>
<b>UZ9BAX</b>	<b>3,371,411</b>	<b>2427</b>	<b>165</b>	<b>412</b>
<b>UZ9SUY</b>	<b>3,475,680</b>	<b>2295</b>	<b>147</b>	<b>410</b>
<b>UZ9SWA</b>	<b>2,592,990</b>	<b>2266</b>	<b>135</b>	<b>335</b>
<b>UZ9CWB</b>	<b>2,035,206</b>	<b>1602</b>	<b>124</b>	<b>335</b>
<b>UZ9CWB</b>	<b>1,468,704</b>	<b>1315</b>	<b>115</b>	<b>305</b>
UZ9QWA	947,961	1545	106	181
UZ9JWA	922,992	1448	95	173
UZ9AWD	852,222	1065	96	213
UZ9LWO	768,108	1218	88	165
UZ9OWA	702,047	1183	84	167
UZ9LWX	586,735	1349	95	120
UZ9SWT	370,200	681	57	143
UZ9XXM	366,930	583	69	174
UZ9FWD	303,100	1017	50	90
UZ9AWH	291,577	763	44	99
UZ9QWF	281,400	760	47	93
UZ9BWA	221,408	588	77	99
UZ9CWW	217,151	583	66	108
UZ9UWK	165,977	491	71	110
UZ9CYP	151,420	432	40	94
UZ9SXC	102,376	412	34	157
UZ9XVV	90,510	314	31	74
UZ9XVV	73,149	256	33	78
UZ9QWM	69,363	420	14	49
UZ9OWC	6,432	151	20	22

**GEORGIA**

RF9FWW	772,464	1815	38	114
UF7QWW	595,260	1171	47	133

**KAZAKH**

RL8PYL	3,801,103	2958	145	402
UL8BWW	1,120,862	1337	101	236
RL7PZZ	626,566	1008	90	167
UL8CWW	471,960	843	72	156
UL8CWA	446,050	654	90	185

**EUROPE**

**BELGIUM**

ON6AH	968,951	1851	85	208
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**BULGARIA**

LZ9A	5,886,114	4202	162	501
LZ9KSO	752,700	1151	89	236
LZ1KNP	634,172	1142	89	219
LZ1KRC	388,974	894	83	186
LZ1KHB	142,460	465	46	124
LZ1KTM	100,368	484	29	73
LZ1KKI	42,656	229	41	83

**CZECHOSLOVAKIA**

OK5R	6,038,351	4046	164	503
OK5W	3,782,990	2747	155	475
OK2KOD	428,953	936	80	191
OK2KMR	303,000	787	57	149

