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# 1997 ARRL International DX Contest CW Results

The sunspots might be at a minimum, but not the fun and enjoyment of the contest.—KK4SM

**T**he 1997 running of the CW side of the ARRL International DX Contest went off once again with nary a sunspot in sight! While the low bands were hopping just about everywhere, the little Energizer Bunny that propels the high bands seemed to have really run out of juice. Not unexpectedly, the all-band categories, multiop categories, and the low bands again favored the East Coast of the US for domestic entrants. The single bands 40 through 10 meters were the domain of the rest of the country.

Activity was relatively high with respect to the sunspots; more than one operator mentioned the scarcity of semi-open frequencies for CQing—especially on 20 and 40 meters. The name of the game for serious competitors in this contest, whether they be domestic or DX, is to call CQ as much as is productive. The need to CQ places obvious demands on the operator to find and use CQ frequencies. Bands with limited space, such as 40 meters, can often be packed with 80 to 100 stateside stations all calling CQ from 7.0005 up to 7.040 MHz. Of course there will be DX stations sandwiched in there also, and the skilled operator has to learn to find and identify those signals while they are mixed in with the often louder stateside signals.

Time of day is also important to contestants when choosing CQ frequencies. Contesters on the East Coast find it relatively easy and productive to CQ on 40 meters in mid-afternoon, when they alone have propagation to Europe and the rest of the country is still on the higher bands waiting for dusk. On the West Coast, operators find it beneficial to CQ on 40 meters long after daybreak on the East Coast and in the Midwest to run Asian stations in far less QRM than earlier in the night. Midwest stations find it easier to work South Americans in the afternoon and break pileups on African stations when the two coasts are working Europe and Asia. Contesting competitively requires knowing where to be and when to really maximize your station's abilities and the propagation of the moment.

For a DX station, the name of the game is run, run, run! Especially from the Caribbean, the idea is to find a band where competition from Europe is not overwhelming and just run the boys as fast as possible. From Europe or Asia, the choices for usable frequencies are easier to make—especially when conditions are poor—because only one or two bands may be usable at the same time. Good

QSO rates are often found higher up in the band, away from the hordes of W/VEs doing their best to establish and use running frequencies. Intuitive stateside contesters know that it is wise to tune through the upper portions of the bands often to catch the weaker, low power DX stations that may be rare multipliers, who have to stay high in the band to attract attention.

The 1997 contest once again saw a multitude of excellent DX operations and expedi-

tions that truly make the contest a great event for all of us. And that works both ways, for certain. The guys who operate from the Caribbean and Central and South America know that they are going to have a blast running W/VEs as fast as they can for most of the weekend! This year we thank the boys at 6Y4A, K3DI at 6Y0A, N6NT down in Panama, V51Z, VP2V/K1DW, N4RP/C6A, P4/K2LE, KR8V/C6A, the JP brothers PJ5JP and VP5JP, V47KP, P40W, ZD8Z, VP2EV, VP5/WJ2O, KH6RS, HV4NAC, DZ5L, ZF2NE, KG4ML, V26CW and V26NA, WP2Z, HH2AW, ZF2NE, TI7/N4MO, PJ9C, P49V, V31TP, PY0FF, J75T, T9DX, XE2L, XA5T, and the many others who made the effort and accepted the expense of traveling to give us lots of QSOs and multipliers! *Bravo!* The list gets longer each year as more and more people get hooked on experiencing the thrill from the other side.

The other side also includes many operators who make it a point year after year to get on and hand out their own multipliers—both garden variety and semi-rare. Without them, the extra Caribbean and Central American multipliers wouldn't be the topping on the cake that they are now.

We also thank our many plaque and award sponsors for unselfishly providing some extra incentive for putting in great efforts in the contest.

In short, a lot of people put a lot of time and effort into contesting, and we need and appreciate every one of them.

And now—to the contest results! On the QRP front we are witnessing one of the great dynasties, in the form of AA2U—who has won his sixth consecutive QRP title! Perseverance and cunning operating have made AA2U the man to beat. Not that others aren't trying! KG5U, K9OM, and W8QZA/6 were representing those areas west this year. K3DI traveled with his portable gear down to Jamaica to win the QRP world title, operating from 6Y0A. He has been successful from several places in the Caribbean in this category. Another guy who has shown real improvement is I3BBK, who has gone from sixth place QRP in 1995 to fourth in 1996, and up to third in the world in 1997! The only natural spot for him in 1998 is second! Where will K3DI be in 1998?

The low power crown for the domestic side was K8PO, who established a large lead over comers K2SG and KN4T. Once again W6JTI led the west with his eighth place finish over-



Carl, P49V, and company really did a bang-up job. Their multi-sintle transmitter netted a second place world finish.

## Top Ten

### W/VE Single Operator, QRP, CW

AA2U	363,156
K3PH	228,957
N1TM	182,880
K2PS	157,356
N1AFC	156,492
KG5U	119,601
K9OM	94,122
AA1CA	90,774
N1CWR	89,667
N4IJ	89,088

### DX Single Operator, QRP, CW

6Y0A (K3DI,op)	1,047,960
ZX2X (PY2OU,op)	629,472
I3BBK	125,304
HP1AC	76,806
G0TDX	75,258
T94YT	47,628
DL3KVR	41,595
ON6TJ	38,136
JJ1VRO	32,754
JAGUBK	32,046

### W/VE Single Operator, Low Power, CW

K8PO	1,476,618
K2SG	1,244,040
KN4T (N4RN,op)	1,019,640
WS1E	774,090
W2TZ	759,684
NA2U	710,424
K1VUT	558,888
W6JTI	558,732
N8AA	543,030
K1VW	530,565

### DX Single Operator, Low Power, CW

HP2/N6NT	3,078,855
C6A/N4RP	1,228,920
VP2V/K1DW	1,208,400
P4/K2LE	1,066,257
LU8HSO	623,700
LU1EWL	597,645
KR8V/C6A	564,921
F5PRH	560,358
EA1DAV	479,208
PU2MHB	401,547



Ahmed, HZ1HZ, taking a well-deserved break. He took first place high power from Saudi Arabia.

all in the highly competitive barefoot class.

On the DX side, one of the more impressive scores worldwide was put together by Bruce, HP2/N6NT. Bruce combined a work trip with the contest (if one considers riding a yacht from the Gulf of Mexico through the Panama Canal to California "work"! ). Lots of portable contest experience helped Bruce; he only used an R5 vertical and a trap dipole to set the highest low power score ever! The key, according to Bruce, is to find a spot right on the ocean for the vertical. A vertical at or in the ocean performs much better than if it were placed several hundred feet inland—or anywhere over land, for that matter. He drove all through Panama two days before the contest trying to find an operating location that was right on the beach. He eventually found the place, even though the accommodations were rather "third-worldish." A lucky break provided him with some local youngsters who helped find a mast and then helped with installation! 3705 QSOs later, Bruce had the 100 W record! See more of his story in the September/October *NCJ*.

The high-power all-band category was hotly contested, as usual. W1KM is starting his own streak, with a repeat of his victory from last year! Greg did a great job by increasing his score over 340k. Tom, W2SC,

sat in K5ZD's favorite chair to make almost 3000 QSOs en route to another second place finish for the Uxbridge "Z'Eve of Destruction" ZD station. Tom recently moved to the heart of the Black Hole in Kansas and returned home to where he knew how good it was! Out in stormy Texas, Dave, K5GN, decided to put the W5KU station through its paces, and led the west with very nearly as many multipliers as were worked from the East Coast. K5GN has done a great job, year after year, competing in the national arena, and he is one great CW operator.

W2GD cruised to a first place finish from the DX side using his sunny P40W location. After so many years of operating from P4, John still has that competitive edge to push him over the top. But shame on you, John, for ribbing HP2/N6NT on the air about having that wonderful steak dinner before the contest while Bruce was feasting on cold pork and beans straight out of the can from his Field Day site in Panama!

N6TJ at ZD8Z has really produced some big scores in the last few years, and his second place finish will add to Jim's award pile. Maybe Ascension Island is one of those great untapped radio locations that has now been "tapped!"

The European battle for all-band honors found a couple of the biggest signals from the British Isles, G4BUO and GW3YDX, settling in at first and second place. These guys provide a lot of multipliers for the W/VE crowd on the low bands!

The single-operator assisted category requires the op to mold together CQing with multiplier hunting in such a way as to "not damage" the final score. This year KIIG did this in fine fashion, producing a score that is unusual in that it beat W1KM in the unassisted class. Past results have shown this to be an extraordinary achievement. K3WW wasn't far off the pace either, building a second place score that would have been third without packet. From the DX side, KH6RS used the assistance to find those elusive east coast stations and won the category for the world. But we bet that KH6RS needed "assistance" to help stay awake through some of the worst



Sean, V26NA (KX9X), made 1726 QSOs—he really kept those fingers hopping.

conditions!

The single bands played much the same as last year. In the US, the East Coast dominates 160 and 80 meters, the West makes 40 a winning proposition, and the Midwest comes in first on 20. The South takes the high bands of 15 and 10.

The top-band battleground saw three of the US's biggest guns finish 1-2-3: K1ZM, W4ZV and WB9Z. If you have been living in the IQ4A cave all these years, you might not have noticed all the new call signs in the US. This contest was one of the first ones for many contesters to try out their new call signs. If you're not sure who's who any more, once again, check out the September/October *NCJ*.

From the DX side, a couple of "9 boys" went to tropical V2, and NM9H put V26CW into first place on 160 with 662 QSOs! And while close proximity to NA will win the low bands, EI6BT finished third on the band with an excellent 435 QSOs and 47 multipliers from Ireland.

Can you imagine making over 1000 QSOs on 80 meters? W1MK does this regularly, and 1997 was no exception, as Rob blew away the competition from Pennsylva-

## W/VE Region Leaders

Boxes list call sign, score, and power (A = QRP, B = Low Power, C = High Power).

Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)	Southeast Region (Delta, Roanoke and Southeastern Divisions)	Central Region (Central and Great Lakes Divisions; Ontario Section)	Midwest Region (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)	(Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT/Yukon Sections)
AA2U 363,156 A				W8QZA/6 57,681 A
K3PH 228,957 A	N1CWR 89,667 A	K9OM 94,122 A	KG5U 119,601 A	N6AZR 29,346 A
N1TM 182,880 A	N4IJ 89,088 A	N9LMU 39,897 A	N9UR 8,601 A	WA6TLA 25,344 A
K2PS 157,356 A	N4ROA 59,328 A	K8OUA 37,701 A	K5OI 2,457 A	N7IR 20,904 A
N1AFC 156,492 A	W4DEC 34,263 A	NM9C 15,687 A		K7GS 15,840 A
	KE2WB 11,607 A	WD9IAB 3,861 A		
K8PO 1,476,618 B	KN4T 1,019,640 B	N8AA 543,030 B	WD5K 393,918 B	W6JTI 558,732 B
K2SG 1,244,040 B	(N4RN,op)	VE3KP 297,000 B	NN5T 122,988 B	W7YAQ 349,149 B
WS1E 774,090 B	WD4AHZ 515,508 B	N9CO 229,824 B	KØRI 121,656 B	K6WV 214,080 B
W2TZ 759,684 B	WO4O 416,070 B	W8KX 221,352 B	KIØW 113,400 B	AA7KF 195,000 B
NA2U 710,424 B	K5KLA 352,089 B	K9MMS 212,652 B	WØHSC 108,576 B	WN6K 170,235 B
	W4PLL 233,142 B		(KØØ,op)	WN3K 170,235 B
W1KM 3,159,189 C	KT3Y 2,069,793 C	W9RE 1,769,916 C	K5GN 1,761,924 C	WC6H 860,247 C
K5ZD 3,109,509 C	K4AB 1,260,840 C	K9AN 771,144 C	N2IC/Ø 1,698,144 C	(NU6S,op)
(W2SC,op)	N4AF 1,223,100 C	K9MA 759,303 C	W5UN 1,137,090 C	W2VJN/7 823,200 C
N2NT 2,804,976 C	W9LT 1,073,814 C	K9USA 438,381 C	K5YA 1,117,695 C	KØTV 781,140 C
W2RQ 2,767,065 C	WC4E 1,058,169 C	N4XM 298,044 C	K4VX 870,267 C	K7BG 773,721 C
KQ2M 2,708,475 C				N7TT 718,620 C

West Coast Region



### WVE Single Operator, High Power, CW

Call Sign	Score	160	80	40	20	15	10
W1KM	3,159,189	125/51	506/73	732/78	1290/92	239/65	9/4
K5ZD (W2SC,op)	3,109,509	101/46	453/65	829/88	1423/92	145/58	2/2
N2NT	2,804,976	83/45	400/64	729/85	1329/87	175/61	2/2
W2RQ	2,767,065	72/41	297/72	680/91	1325/98	179/57	2/2
KQ2M	2,708,475	54/34	643/75	714/87	1146/84	136/53	2/2
N2LT	2,631,888	61/38	256/59	795/82	1232/85	262/70	5/2
N6BV	2,491,299	49/32	325/62	664/84	1363/86	169/58	1/1
K3ZO	2,417,364	49/31	517/71	700/80	1055/84	161/56	5/2
KT3Y	2,069,793	67/36	308/56	795/88	879/80	227/42	1/1
K2DM	1,855,050	31/22	177/56	585/74	1137/89	143/55	2/2

#### WVE 160

K12M	56,280
W4ZV	44,823
WB9Z	25,488
AA8U	20,988
K4TEA	17,316
K11K	16,950
VE3OSZ	4,320
N1CGP	3,132
W4JKC	2,808
NX5M	2,700

#### WVE 80

W1MK	275,670
K3RR	193,344
K3CR (KB3AFT,op)	184,260
W1UK	119,928
W4BQF	111,987
K3JGJ	50,688
K3SV	50,250
K6GNX	46,020
K9JF/7	45,144
K8ZD	43,263

#### WVE 40

N7DD	390,060
W0UN (W0UA,op)	329,472
W7GG	327,456
W5WU	243,882
W4PA	241,947
WS1M	230,175
WW5DX (KN5H,op)	145,416
WX7K	115,140
KN6M	88,725
N2FY	57,564

#### WVE 20

N8II	552,420
N4ZZ	320,463
K9NW	274,104
W4RRR	263,529
KZ5D	241,680
K9BG	221,352
K5TR	205,200
K9QVB	182,790
N6MU (at N6NB)	173,550
W9OF	145,512
K7ZA	121,980

#### WVE 15

N5LT	61,404
K5NA	50,301
N4BP	50,250
WA7BNM	27,768
AI2C	26,784
WA1FCN	26,280
NN4S	20,592
W9GIL	16,638
W1CU	15,729
NA2X	12,558

#### WVE 10

W5AJ	1,632
W6KVF	1,209
W4YV	1,014
K5LH	480
K1DII	30
VE3MX	3

between Wales and England continued on this band, with GW3WVG beating out G3MXJ for second place!

The Texans loaded up their guns on 15 meters, as N5LT slipped by K5NA for mastery of this band. Ernesto, LU6BEG, took his key over to LU6ETB to take the DX crown, with excellent signals that seemed to be audible all day long. KX9X took second place with his effort as V26NA.

Ten meters in this part of the cycle belongs to those who "stick it out." W5AJ found 34 QSOs to win from the US, while LU8AQE found Argentina perfect for 10 meters in 1997.

The multi-single class is always a popular one—especially when conditions aren't good enough to make all the operators complain that they "need to change bands now because they're all open at the same time—*arrrrh!*" Multi-single can be frustrating when two or three bands are wide open and the ops are champing at the bit to get their turn! In 1997 in the US, one needed a five-character call sign to place well, as evidenced by W3BGN's healthy win over the mountaintop Georgia station at K4AAA.

In the multi-two class in the US, one needed a five-character call sign, 200-foot towers, and a New England address to win! KC1XX did just that, by beating K1AR with a lead of five multipliers! It's hard to imagine multiplier scores getting any closer than this. And it's not like K1AR loses too much, either.

The multi-single winners from further west were N8NR in the number 11 slot from Ohio, and W9SF in the number 12 slot from Wisconsin. Multi-two winners from out west were K8AZ at number 4 (somebody should write about what makes this station work so well!) and W8AV at number 9.

Multi-single from the DX side was just as competitive among the ABC Islands of South America as PJ9C beat out P49V for the top slot. A great score from TM1C at over 3 million points took top honors from Europe. TM1C has certainly proven to be one of the most workable European stations in the contest.

Multi-two from the DX side was quite a battle between 6Y4A and XE2L, with the multi-talented crew on the island pulling it out. 6Y4A's 7257 QSOs represents the high number for the contest and the second highest total ever in the multi-two class, behind 6D2X's 7652 QSOs in 1994. V51Z and KL7Y put in great efforts also in this class, finishing third and fourth, respectively—each with over 3000 QSOs.

The battle of the multi-multi giants found another five-character call sign winning in the US, as W3LPL narrowly defeated the "boys without a John" at N2RM. In the US, a premium is placed on short call signs, but this contest showed the power of five characters. Not too far west, K8CC was at number 8 and way out west was N6RO at number 10. Just a couple more years and things will be hopping on the bands for everyone on the planet.

Talk about streaks: In 1983 W3LPL finished fourth in multi-multi, then second in 1984, and first place from 1985 through the 1991 contest. In 1992 the now-legendary station finished second, first again in 1993, back

### DX Single Operator, High Power, CW

Call Sign	Score	160	80	40	20	15	10
P40W (W2GD,op)	5,263,380	430/56	932/59	1084/59	1297/59	1545/59	127/32
ZD8Z (N6TJ,op)	4,322,640	197/43	636/57	948/57	1037/59	1653/60	177/34
VP2EV (K7BV,op)	3,799,008	417/54	772/59	810/57	1122/59	1122/58	1/1
VP5/WJ2O	3,198,168	202/35	724/58	1147/56	1382/56	675/52	2/1
VP5JP (K8JP,op)	2,914,296	311/50	660/54	950/53	1249/56	637/51	2/2
V47KP (W2OX,op)	2,214,702	233/36	376/47	556/53	980/55	893/52	0/0
G4BUO	2,029,428	236/37	493/51	801/53	1284/58	153/29	0/0
GW3YDX	1,890,213	340/37	613/48	665/48	1049/55	184/33	0/0
IR2W	1,824,705	41/21	284/40	853/55	1100/58	551/41	0/0
F6FGZ	1,815,516	162/31	251/43	832/55	1150/59	331/34	0/0

#### DX 160

V26CW (NM9H,op)	109,230
WP2Z (KE2VB,op)	86,355
EI6BT	61,335
FM5BH	57,450
S50U	33,411
GW0GEI	31,110
SP5GRM	23,562
9A2TW	14,760
9A3B	12,876
S57M	10,725

#### DX 80

HH2AW (9A3A,op)	222,666
OT7T (ON4UN,op)	182,616
GI0KOW	176,814
SN3A (SP3HLM,op)	146,832
G0IVZ	141,750
TM6P	131,175
DL1IAO	124,578
OM5DX	120,999
DK2OY	101,250
YU1EXY	94,500
LY3BS	73,980

#### DX 40

9Y4VU	370,080
S50A	218,367
EA7KW	216,975
LZ5W	207,144
S53M (S51RJ,op)	176,568
HB9FAP	167,562
HV4NAC (I0HCJ,op)	157,743
D25L (PA3DZN,op)	148,050
VK2APK	138,834
HA9PP	138,264

#### DX 20

ZF2NE (W5ASP,op)	396,360
GW3WVG	283,272
G3MXJ	278,046
YU1ZZ	227,268
IT9GSF	217,356
IT9XUC	214,347
S50R	210,240
SP2FAX	209,214
ZD8DEZ	204,972
HA3O (HA3UU,op)	203,019

#### DX 15

LU6ETB	342,942
V26NA (KX9Y,op)	300,324
TI7/N4MO	270,864
LU5FIL	212,046
LW6EFP	136,800
LU3UI	128,370
PP5BRV	108,192
YY4GLD	86,580
CO8LY	81,006
G3TXF	59,787

#### DX 10

LU8AQE	63,066
PU2MRY	27,522
LU2DW	17,745
LU7DW	3,465

nia—K3RR and K3CR (KB3AFT)—who had huge scores of their own.

WRTCer Ivo, 9A3A, working professionally and "contestingly" as HH2AW, worked everything from W/VE that moved on 80 to win the band. John, ON4UN, keyed OT7T from his superstation to win second place with a great score from Europe.

Forty meters saw a battle of some big western guns in the US. N7DD did the job with both multipliers and QSOs from Arizona to win, followed by the stacked Yagis keyed by W0UA at W0UN, and the stacked Yagis at W7GG way out in Oregon. A score of 300k is a great score on 40 meters from anywhere! I get the feeling that stacked Yagis on 40 meters are normal! In 10 years will stacked

Yagis on 80 meters be as normal?

From Trinidad, ever-popular Frank, 9Y4VU, found 60 multipliers and over 2000 QSOs to win the world on 40 meters. Tine, S50A, cleared the pile from Europe on 40 meters to take second place, despite heavy competition from EA7KW and LZ5W. On 20 meters from the US, N8II turned on his amplifier this year and put together a gigantic score from West Virginia. Then we keep moving further west to find second place at N4ZZ, third at K9NW and fourth at W4RRR.

From outside the US and Canada, 20 meters provides the most action on the bands. W5ASP packed up for his Caymans hideaway and won the world for the second straight year as ZF2NE. And the battle

## Top Ten

### W/VE Single Operator Assisted, CW

Call Sign	Score	160	80	40	20	15	10
K1NG (K1G,op)	3,325,560	107/55	350/78	710/104	1113/97	297/85	13/9
K3WW	2,851,110	82/51	359/79	660/95	1108/93	192/73	5/4
N2MM	2,156,952	47/35	227/62	582/92	1103/96	109/60	4/2
AA1K	1,966,920	77/51	147/67	206/79	1165/97	173/72	4/4
K2SX/1	1,907,490	40/34	173/61	478/85	1087/92	112/59	8/4
W6GO (N6IG,op)	1,820,940	23/20	147/65	728/103	675/92	186/51	21/10
AA3B	1,704,990	35/32	310/68	502/80	812/86	100/52	6/4
NN4T	1,572,732	44/37	168/58	301/80	1077/88	60/46	9/7
W2UP	1,522,410	31/30	237/57	368/69	845/88	154/64	2/2
K2BU	1,519,833	71/42	190/60	292/74	691/86	225/78	8/3

### W/VE Multioperator Single Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
W3BGN	3,448,650	86/55	471/79	793/98	1223/105	190/75	7/3
K4AAA	2,706,750	72/43	358/71	615/88	1139/93	206/69	16/11
K1AE	2,019,150	66/42	240/66	569/83	864/88	176/68	8/3
K2NG	1,946,721	65/42	171/53	639/88	968/84	166/56	0/0
AA2FB	1,908,348	57/36	180/63	528/88	975/87	119/63	1/1

### W/VE Multioperator Two Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
KC1XX	5,861,124	126/60	846/94	996/112	1727/104	438/92	15/9
K1AR	5,779,485	89/55	700/88	1150/112	1803/113	395/93	6/4
K1ZZ	4,385,964	128/60	465/81	906/104	1436/104	328/88	15/9
K8AZ	3,842,028	55/37	524/85	753/106	1497/102	271/71	16/10
K4OJ	3,585,015	52/37	390/73	669/88	1440/103	429/89	15/9

### W/VE Multioperator Unlimited Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
W3LPL	7,246,491	260/68	1042/96	1151/119	1740/119	508/97	26/12
N2RM	7,071,102	221/73	903/89	1321/116	1659/112	613/100	16/8
N3RS	6,413,784	172/62	801/93	1153/116	1841/113	397/98	17/6
K1KI	6,032,712	239/65	815/94	1106/112	1671/112	325/91	16/8
K3LR	5,948,700	168/64	751/94	979/123	1613/114	413/92	26/15

### DX Single Operator Assisted, CW

Call Sign	Score	160	80	40	20	15	10
KH6RS	1,712,196	72/30	209/45	832/53	627/50	608/53	40/8
F5NBX	1,125,450	1/1	272/39	480/47	909/57	388/39	0/0
ZZZE (PY2EX,op)	964,404	0/0	13/10	294/45	650/54	804/58	45/11
DL1ASA	703,080	65/18	300/39	252/36	738/57	40/18	0/0
IK0HBN	564,480	1/1	162/38	351/42	559/53	103/26	0/0
IK5TSS	260,064	0/0	36/16	152/35	342/49	142/29	0/0

### DX Multioperator Single Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
PJ9C	5,602,896	525/57	886/59	1252/58	1300/60	1560/59	171/35
P49V	5,124,072	324/56	757/60	1303/60	1349/59	1437/59	118/29
V31TP	3,824,724	214/48	723/54	1049/58	1251/56	1277/56	72/6
XA5T	3,512,781	241/48	741/58	1005/58	1546/58	626/53	8/6
PY0FF	3,489,360	92/28	557/53	874/54	1157/58	1577/59	83/16

### DX Multioperator Two Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
6Y4A	6,509,529	577/56	1311/60	1849/60	1943/59	1549/59	28/5
XE2L	5,961,480	557/54	1152/60	1752/60	1694/59	1379/60	46/9
V51Z	2,699,580	78/26	487/54	902/57	945/56	970/51	79/16
KL7Y	2,299,770	250/48	672/54	622/53	1168/58	317/39	1/1
DL3OI	1,927,284	78/22	804/53	941/53	1003/57	176/29	0/0
JA2ZJW	493,725	15/6	154/35	401/45	533/52	32/7	0/0

### DX Multioperator Unlimited Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
KP3Z	5,055,492	276/54	961/59	1329/58	1538/60	1506/59	26/9
9A1A	2,811,294	229/34	842/57	1136/55	1358/59	389/32	0/0
EA4ML	2,114,505	126/33	491/43	930/54	1227/57	331/40	0/0
4N0V	1,921,968	46/21	609/48	1062/59	1036/57	213/31	0/0
RW2F	1,335,780	223/35	499/49	582/52	825/58	43/11	0/0

to second in 1994, and now back again to a solid first place from 1995 through 1997—14 years first or second, with 11 wins. That is an awesome statistic, one that may never be equaled. Frank and his dedicated crews deserve congratulations and high-fives all around for this remarkable achievement. Just keeping a station on the air for 14 years is a terrific accomplishment.

Multi-multi from the DX side was an easy win for KP3Z and a battle within Europe—9A1A made nearly 4000 QSOs to beat the team at EA4ML. Special mention goes to the RW2F ops, who provided a rare multiplier in the multi-multi format.

Next year will the streaks continue? Will the sunspots return? (Will the sunspots ever

return?) Who will be the first W9 to work Europe on 10 meters off the F layer? Who will be the first W8 to work Japan on 10 off the F layer? Heck, who will be the first to win a multiop category with a six-character call sign? Tune in next year to find out... A special thanks to Assistant Contest Manager Bev Hernandez, N1NAZ.

## Errata

The score of KH6RS, operated by Hiller Raamat, N6HR, was 680 left out of the 1996 score listings. KH6RS's score was 1,078,680 points and should have won for Hawaii. We apologize for the omission and hope that Hiller will continue to give us the KH6 multiplier for many years to come!

## SOAPBOX

### W/VE

What a contest! I used a new 40 meter wire beam. It's hard to imagine what it would be like with rotatable beam antennas (KQ2M). UA9FGR called me on 80 meters. I had to take time off Saturday afternoon to repair the balun connection to the tribander's driven element—then thaw my fingers so I could feel the keyboard (WS1E). The contest was a lot of fun. Although conditions were fairly poor, I was pleased to find some decent multipliers on 15 meters. I was especially pleased to work D25L on 40 meters, my only new country during the contest (W1SA). Conditions were very good on 80 meters. Wow, it was fun to pick out some of the weaker stations and not have to deal with the normal static on 80 meters (WB2AMU). Great to hear ZS8IR on the band in the contest. I finally got him by calling below his frequency, and he stuck with me through the QRN at his QTH for a great QSO; an all-time new one for me! (AJ2U). Conditions poor, but I still enjoyed the contest. It was the first time in 12 years that I operated at home (W2ZZ). At age 72, I was still able to get in the contest (AE2N). The low bands were great, even for 100 W and wire antennas! (K2CS). Always great fun, even on a busy weekend (F6IIE). Conditions were outstanding on the low bands and incredibly bad on 10 and 15 meters! I didn't make a single QSO on 10 meters, but 20 meters seemed bottomless. I never expected to make 1100 QSOs there with just a four-element tribander (NJ2L). I was disappointed that so many DX stations only identified in a contest every 8 to 10 minutes and then at about 50 WPM! How about giving us all a break and identify, after each QSO, at the speed you are normally transmitting at (KK2M). I hope the sunspots make an appearance soon; over the first 40 kHz of 40 meters there was nothing but stateside stations calling CQ. As usual, however, it was fun breaking pileups with a modest setup (N2AU). Lots of fun due to good conditions and operators, even with low power, low sunspots, and wire antennas (N8NA). Great ears on ZD8Z; he managed to hear me to for a six-bander. It was a most enjoyable contest (W3DA). I have been in contests for many years and have about the worst fist on the band. I have yet to meet a DX station that is not kind or even ready to assist me in completing contacts (WA3DMH). The 80 meter band was a real surprise! Saturday night 40 meters was dead, but 80 sounded like 40 should have. I worked 19 countries on 80, three times as many as last year. However, 20 meters is still the queen of the DX bands (N3UMA). I used my new FT-1000-MP for the first time in a major contest. The 80 meter band was great, but 10 meters was as bad as I've ever heard it (K3ZO). Some periods of good conditions. I worked Europe on 80 meters both evenings—unusual for my "pure" QRP and low antennas (K3WWP). Finding out that 6B2X was really 6D2X was a bit of a bummer. I listened to that operator for about 15 minutes and was amazed that he hardly ever asked for a fill (WA3SES). The propagation conditions were the worst I've seen in years. I couldn't even work the few Asians or the Eastern European stations I heard. Even 80 meters was nearly empty. Boy, do we need some sunspots! (N2EM). The sunspots might be at a minimum, but not the fun and enjoyment of the contest (KK4SM). After being off the air for over 20 years, I started back in 1996. The DX contest was a blast! I never heard one like that 20 years ago. Strong signals; low noise; lots of DX stations! I can't wait for the next one! (W4YNG). I thought working DX was supposed to be difficult. I just hope they will QSL! (KE4AGT). This was my first contest since 1980. Thanks for the work running it; it was a blast! (N4HI). Even a newly tweaked transceiver couldn't overcome the puny propagation (N8LM). It didn't sound like the bottom of the cycle (K4FXN). I have been licensed for 65 years and I am 83 and blind. I can see slightly with optical amplification and a computer large-screen program called *Zoom Text*. I built an Index QRP PLUS along with key, tuner, and a 7 A-h gel cell into an apparatus case with a separate Naugahyde cover for my solar cell and regulator; and decided to check it out in the DX Contest. Unfortunately, my eyestrain limits the time I can spend in operating (K4JO). I worked several new band-countries for DXCC, one all-time new one. YC8TZR was loud and clear on 40 meters! It was also great to work the Pacific, South America, and the Caribbean on 10 meters (WO4O). Would like to see single ops limited to 30 hours



## W/VE Plaque Winners

### Single Operator

All Band W1KM  
1.8 MHz K1ZM  
3.5 MHz W1MK  
7 MHz N7DD  
14 MHz N8II  
21 MHz N5LT  
28 MHz W5AJ  
Low Power K8PO  
QRP AA2U  
Assisted K1NG (K1G,op)

Frankford Radio Club  
George Schultz, W0UA, K0ZZ Memorial  
Thomas Rylander, SM3DMP  
Northern Arizona DX Assn  
QSLs By W4MPY  
Carl Luetzelschwab, K9LA  
Green River Valley, IL ARS  
Dauberville DX Assn  
Tod Olson, K0TO  
Richard Hallman, N7TR

1.8 MHz V26CW (NM9H,op)  
3.5 MHz HH2AW (9A3A,op)  
7 MHz 9Y4VU  
14 MHz ZF2NE (W5ASP,op)  
28 MHz PU2MRY  
Low Power HP2/N6NT  
QRP 6Y0A (K3DI,op)  
Assisted F5NBX

Fred Race, W8FR, DL1FF Memorial  
Jim Knutson, KD0AV  
Thomas P. Gannon, W3YX, Memorial  
Bencher Inc.  
Ft Wayne DX Assn  
Jim Stevens, K4MA  
Dr Jerry Griffin, K6MD  
Willamette Valley DX Club

### Multioperator

Single Transmitter W3BGN  
Two Transmitter KC1XX  
Unlimited W3LPL

Northern Illinois DX Assn  
Order of Boiled Owls of NY, W2AO Memorial  
Ehrhorn Technological Operations Inc.

### Multioperator, Single Transmitter

World PJ9C  
Asia JR1ZTT  
Europe TM1C  
North America V31TP  
Oceania AH6MZ

John Brosnahan, W0UN  
Western Washington DX Club  
The Radio Place  
Steve Morris, J07LXC, and Up the Tower  
Gary Stilwell, KI6T, and Glenn Stilwell, WR6O

## DX Plaque Winners

### Single Operator

World P40W (W2GD,op)  
Africa ZD8Z (N6TJ,op)  
Asia JH7DNO  
Europe G4BUO  
North America VP2EV (K7BV,op)  
Oceania KH6RS  
South America OA4SS

North Jersey DX Assn  
Byron P. Peebles Jr, N23O  
Alamo DX Amigos  
Dr Jerry Griffin, K6MD  
Potomac Valley Radio Club  
Steve Franke, K9AN, and John Brosnahan,  
W0UN  
Dean Straw, N6BV

### Multioperator, Two Transmitters

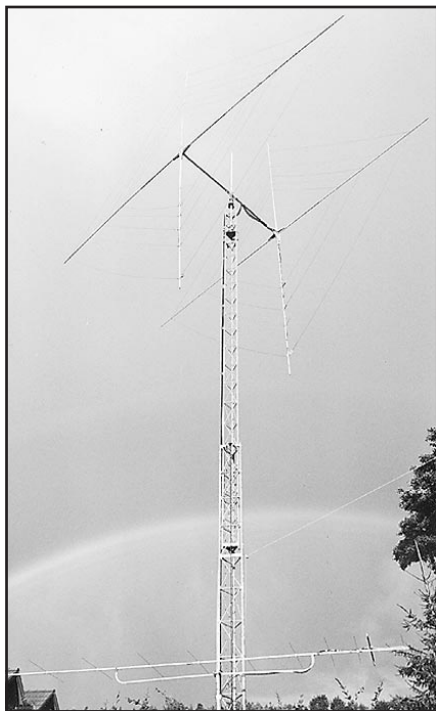
World 6Y4A  
Europe DL3OI  
North America XE2L

Tom De Meis, K2TD, Memorial, Frankford  
Radio Club  
Jim George, N3BB  
Texas DX Society

### Multioperator, Unlimited

World KP3Z  
Asia JA1YDU  
Europe 9A1A

H. Stephen Miller, N0SM  
Hajime Kato, J01RUR/2, KH0G  
Texas DX Society



Hans, DJ8UL, operating low power all bands from Germany, did not win the contest, but he had a beautiful ending.

operating time (K4LTA). I put in part-time effort, about 20 hours total. I had the flu and was operating under the influence of NyQuil, which adds an extra dimension to contesting! A few hours on, several hours off (K4RO). This was a fun contest, and my first with computer logging—what a difference! It was the maiden voyage of my newly constructed low-band vertical, which allowed me to work across the pond on 160 meters for the first time, and also to have a wonderful time on 80 meters. Not too bad for 50 W, battery powered. (AB4I). I had to operate from my mobile setup this year. Part of the time I operated on the ac power supply and the other part on the car battery. I wasn't able to hear anything on 10 meters and didn't try 80 or 160 meters due to my busy schedule in the evenings (K4UK). Great contest! My first contest since Sweepstakes 1979. I had a lot of fun and look forward to the next one! (N4BTO). Excellent European opening both days,

but poor conditions to other parts of the world (W4RRR). Great contest! A lot of signals; however, 10 meters was pretty poor (WA4JUK). Started at low power because my amp was broken on 40 meters, but switched it on for the other bands and had lots of fun. I hadn't planned on competing before the event started, but got caught up in the spirit of the competition! (W5OT). I was able to make contacts on all five bands, with my best results coming in on 15 meters, followed by 20 meters. I am an ex-Navy radio operator from the Vietnam era, and the outstanding CW operators who participated in this contest made it a pleasurable weekend (KA5KLU). Parts of the conditions were terrific, especially the unexpected brief opening on 10 meters in the last hours on Sunday (K5GN). My new Beverages work, but need more attention. It's better than it was before though. (NX5M). Weak European signals, but strong Asian signals (KI6OY). Conditions good, with over 30% of my contacts in Europe! Signals on Sunday were very good to Europe with a five-hour band opening. I think someone ordered a few sunspots for the test (K6CEO). My highlight was being called by XX9TR in the middle of a JA run! Most productive band for South America was 15 meters! (WK6C). This is my theory: There is no correlation between HF propagation and solar activity. Proof: ZD8Z on three bands! Perhaps he makes his own sunspots! (K6GT). I overheard a funny thing while tuning on 20: "QRZ contest, this is JA#?" "November 7 Kilo...woops!" (I assume that meant he had just noticed that the JA was a dupe.) "November 7 Kilo Woops you're 59 500" (I can't imagine what the JA call sign was!) (K6GT). It was very hard trying to work Europe from the Left Coast with 100 W and a vertical antenna (KN6YD). Using QRP lends a new dimension to "hunt and pounce." It usually comes out "hunt and pounce and land in a heap" (K6ZX). A hearty "thank you" to all the patient stations that worked so hard to dig my 5 W signal out of the din (K8OUA). New antennas for 80 and 40 meters sure made a difference! (WT8P). What an incredible run Saturday morning! I stayed on essentially the same frequency and was actually running a pileup six or more stations deep on few occasions (N8II). I don't know about you, but at my new QTH the conditions were so bad that this should be called the "Caribbean Kilowatt Contest," since those were about the only stations I got (KE9EX). This contest is always good for a few new countries for me, no matter how little I operate (N9CIQ). I had good runs for the first time on 20 meters. The Fox Tango 400 Hz filters allowed me to actually hear on a crowded band (W4NF). The biggest shock I had during the contest was XX9TR answering my CQ on 40 meters (KC6X). Oh, foo! No JA run. Well, at least I won't get writer's cramp filling out QSL cards (AA0CY). Our first effort from the renovated station of N8NR (ex-WB8ENR). Temporary low-band antennas strung from a hal-yard between towers were noisy on receive. As a result, on Saturday afternoon we put a 170 foot



Marin, YO4DCF, with that look of determination, is getting ready for the CW contest.

Beverage between other towers, which made a lot of difference on both 80 and 160 meters (N8NR). The combination of double stubs (tnx, K2KW) and W3NQ band-pass filters (tnx, K3LR) provided interference-free operation for the first time ever (N6RO).

## DX

Many thanks to all operators who heard my QRP signals (G00GN). I got a great pleasure out of working this contest. Thank you (F5YJ). I was operating outdoors in a portable location. It was tough! (JM1LPN/1). My small antenna could not catch many USA/VE but I enjoyed 132 QSOs (JR4GPA). I wish I could have operated all 48 hours (CT1BQH). The first day I had a nice pileup from the USA. The second day was quieter (DL9FBS). Conditions weren't perfect on 14 MHz during the day, but it was good to hear so many US stations. On Sunday evening, 7 MHz was very good, but I was causing TVI at home, so I had to restrict my transmissions (G4ZMG). Great contest—plenty to work, especially the West Coast. However, it's a shame I couldn't contact Mississippi (ZD8DEZ). The high bands didn't open and heavy snow noise the second

night. Nevertheless, I enjoyed the contest very much (JH7XGN). Conditions were good for long path (JA6SHL). Conditions were good the first night; unfortunately, the second night they were not. I found that the low power category is the best for me, because of less interference (JEISPY). I'm always astonished by the excellent ears of the USA operators (9A200). My first US QSOs on 3.5 MHz (DL6MWG). Due to the antenna laws in Germany, I had to work in this contest with an indoor dipole two meters long. This is not easy or a pleasure, but if you call each station six times, it works! (DL3SEM). I was very pleased to meet some of the US operators. I had a lot of fun working low power (DV3DM). During this contest I ran my oldest rig barefoot, using old-fashioned operating ways; it

was fun! (EA3ALV). Roll out the sunspots! It's a good sign when you work more stations on 80 meters than on 15 meters. At the peak of the cycle, I worked 40 states using 5 W (G3KNU). It was the first time I was able to work the US during this contest on 40 meters. Unfortunately, I missed some Canadian provinces (HB9FAP). Sunday morning was good on the top band, but the wind took down my lazy quad (L0KHP). I hope to work state-side again next year! (LA4EJ). The contest was a lot of fun from Finland, especially during the sunspot maximum. This time it seemed as if 14 MHz was the only competitive choice for me (OH4OC). My biggest thrill in this contest was to repeat my power to several stations who were astonished by my QRP

2 W (PA0RBO). It is obvious that power counts. Although I heard many stateside stations on 7 MHz with booming signals—well over S9—I got no answers on that band (SM5CLE). Many stations answered on my first call with just 3 W output to a half-wave vertical (SO5TW). Very poor conditions here in northern Russia. The temperature was -30° C outside, and -5° C inside. I was almost frozen without pileups to keep me active (UA1OMS). The 15 meter band was hot! Running just 100 W into a R-5 vertical allowed me to have some incredible runs (HP2/N6NT). I wondered why 15 meters had closed so early on Saturday night. I then found out Sunday morning that the rotor brake went south, along with my antenna! (V2BNA).

### Scores

Scores are listed by DXCC countries and ARRL/RAC sections. Within each country or section, scores are listed in descending order, by power categories, followed by multipliers. Line scores list call sign, score, QSOs, multipliers, hours of operation, power (A = QRP, B = Low Power, C = High Power), and band. Division and continental leaders are listed in **bold**.

Call Sign	Score	QSOs	Mult	Hours	Power	Band
<b>CW</b>						
<b>W/VE</b>						
<b>Single Operator</b>						
<b>USA</b>						
<b>1</b>						
<b>Connecticut</b>						
N1TM	182,880	381	160		A	
K1WV	530,565	815	217		34 B	
<b>K1NO (KF5UV)</b>						
288,068	502	178		B		
W1EQ	246,753	481	171		B	
K1EFI	205,452	439	156		B	
NA1I	97,536	254	128		B	
KA1JVR	76,962	254	101		B	
W1AB	46,500	155	100	17	B	
AB1U	45,510	185	82		B	
K8CH	7,326	66	37	4	B	
KQ2M	2,708,475	2695	335		C	
W1VC	112,119	281	133		C	
N1HR	66,660	202	110		C	
W1UK	119,928	526	76	8	C 80	
W1VT	32,436	212	51	A	20	
WA1FCN	26,280	146	60	B	15	
W1CU	15,729	107	49	C	15	
K1DII	30	5	2	B	10	
<b>Eastern Massachusetts</b>						
K8PO	1,476,618	1721	286		B	
K1VUT	588,888	803	232		B	
W1ZZ	345,462	559	206	17	B	
K1HT	153,900	342	150		B	
K1DC	146,700	326	150		B	
K1OA	92,565	255	121	7	B	
K1EP	62,160	185	112		B	
N1OY	26,418	119	74		B	
W1UF	23,664	116	68	8	B	
N1ET	20,601	109	63		B	
W1OHM	15,753	89	59		B	
K1MC	6,669	57	39	10	B	
N1HOW	6,426	51	42		B	
K1AGD	1,944	27	24	4	B	
<b>W1KM</b>						
3,159,189	2901	363		C		
AA1ON	1,052,526	1334	263		C	
WT1O	589,535	883	215		C	
K5MA	532,140	980	181	15	C	
KA1DWX	517,608	728	237		C	
N1DG	253,989	409	207		C	
AA1HB	209,592	426	164		C	
W1RH	184,824	408	151		C	
N1IA	142,650	317	150		C	
NZ1Q	93,534	262	119		C	
K1VJ	76,935	223	115		C	
KB2R	22,248	103	72		C	
WR1P	9,150	61	50		C	
K2LP	4,680	52	30		C	
W1MK	275,670	1021	90	C	80	
WS1M	230,175	775	99	C	40	
<b>Maine</b>						
N1AFC	156,492	378	138		A	
NX1C	10,956	83	44		B	
K1EU	22,200	100	74		C	
N1CGP	3,132	36	29	C	160	
NR1F	3	1	B	20		
K1JB	8,820	70	42	C	15	
<b>New Hampshire</b>						
AA1CA	90,774	246	123		A	
WS1E	774,090	1098	235		B	
N1SNB	127,710	330	129	15	B	
K1WD	10,488	76	46	5	B	
N1SMB	10,206	63	54	12	B	
KC1F	9,360	65	48	1	B	
N6BV	2,491,299	2571	323		C	
K1ZR (at KB1SO)	1,071,036	1692	211		C	
K1PTF	362,850	590	205		C	
W1ECT	268,056	584	153		C	
K1BV	189,891	541	117		C	
W1END	3,741	43	29	4	B 15	
<b>Rhode Island</b>						
K1ZE	203,175	387	175	11	B	
K1VJSJ	31,005	159	65	7	B	
K1AM	1,255,188	1628	257		C	
W1WZF	180,642	374	161		C	
K1MO	141,636	319	148		C	
W1RFQ	9,471	77	41	C	15	
<b>Vermont</b>						
W1SA	383,799	757	269		B	
W1ZK	464,448	656	236		B	
N1RJF	181,770	415	146		C	
K1IK	16,950	113	50	C	160	
KD1SG	40,533	229	59	B	80	
<b>Western Massachusetts</b>						
KD1YN	108,927	273	133		B	
AA1OK	11,250	75	50	9	B	
KSZD (W2SC.op)	3,109,509	2953	351		C	
KV1W (K1MBO.op)	780,678	1098	237		C	
WF1L	102,051	493	69	B	20	
WB2NLR	33,453	177	63	B	20	
<b>2</b>						
<b>Eastern New York</b>						
W2QYA	1,575	25	21	A		
K2UF	92,355	235	131	B		
K2RI	17,181	83	69	B		
NJ1F	5,040	48	35	B		
W2XL	703,044	993	236	C		
WA4VKD	281,160	568	185	C		
K2XF	207,927	459	151	C		
W2UD	157,191	347	151	C		
W2GDJ	124,581	317	131	C		
K1ZM	56,280	268	70	C	160	
WX2N	4,350	50	29	18	B 15	
<b>NYC-Long Island</b>						
W2HLI	285,696	512	186	B		
KG2BI	17,460	97	60	B		
W3EH	8,496	59	48	B		
N2MBM	5,775	55	35	B		
N2UN	210,195	405	173	C		
K2AW	64,530	239	90	C		
W2KPA	18,618	107	58	C		
WB2AMU	10,647	91	39	B	80	
K2MFY	50,400	240	70	12	B 20	
<b>Northern New Jersey</b>						
AA2U	363,156	571	212	A		
K2JT	5,550	50	37	4	A	
<b>K2SG</b>						
1,244,040	1481	280	B			
NA2U	710,424	1012	234	B		
K2SZ	76,593	211	121	B		
WB2VWV	52,155	183	95	B		
KJ3D	31,974	146	73	15	B	
W2LRO	31,185	135	77	12	B	
N2NF	11,475	75	51	11	B	
<b>N2NT</b>						
2,804,976	2718	344	C			
W2RQ	2,767,065	2555	361	C		
NZLT	2,631,888	2611	336	C		
K2DM	1,855,050	2075	298	C		
K2WK	1,819,098	1773	242	C		
W2EN	752,229	1007	249	C		
W2VYA	553,356	809	228	C		
K2GN	260,820	460	189	C		
W2HCA	134,400	320	140	11	C	
AJ2U	17,112	92	62	3	C	
WA2ASQ	6,588	61	36	B	80	
NZTN	49,680	207	80	B	40	
K2WJ	26,718	146	61	C	40	
W2CG	21,948	124	59	B	40	
W9NTU	27,552	164	56	B	20	
<b>Northern New York</b>						
N2TNW	5,616	52	36	5	B	
W2ZZ	70,074	229	102	15	C	
<b>Southern New Jersey</b>						
K2PS	157,356	372	141	A		
WA2VSO	2,418	31	26	A		
K2JLA	121,800	290	140	B		
K2ZA	80,712	236	114	B		
KA2GSL	49,995	165	101	B		
K2SWZ	22,236	109	68	B		
W2UL	15,555	85	61	7	B	
W5KI	1,584	24	24	B		
WA2VQV	912	19	16	B		
N2MR	307,536	596	172	C		
W2BE	60,300	201	100	C		
NN2Y	9,900	66	50	21	C	
W2ESX	24,600	164	50	C	80	
W2PAU	14,310	106	45	C	80	
AE2N	5,688	79	24	B	20	
WA3RHW	741	19	13	B	20	
<b>Western New York</b>						
W2TZ	759,684	1073	236	B		
NA2Q	290,700	570	170	B		
N2PEB	154,128	338	152	28	B	
WA2EYA	108,966	286	127	13	B	
WA2YSJ	78,234	221	118	B		
KJL	56,430	171	110	B		
WB2JFP	37,752	143	88	B		
KG2HS	11,448	72	53	B		
N2IXD	7,500	50	50	B		
NJ2L	1,526,784	1792	284	C		
W2FU	1,357,200	1560	290	36	C	
W6XR	1,143,750	1525	250	C		
K2NV	845,964	1119	252	C		
KW2J	391,680	768	170	C		
WA2ABN	201,891	389	173	C		
KE2WY	179,490	386	155	C		
W2OMV	167,388	377	148	C		
W2QIP	142,197	341	139	C		
KU2N	105,732	267	132	C		
WB2YQH	89,964	252	119	C		
KK2M	54,378	171	106	C		
NZUM	45,000	150	100	C		
W2EZ	40,248	156	86	15	C	
KQ2K	37,674	161	78	C		
W2QOP	33,948	138	82	C		
WF2Y	10,971	69	53	C		
WB2RAJ	10,080	60	56	C		
K2FR	6,318	54	39	4	C	
W2ACDJ	1,242	23	18	B	160	
KA2R	18,285	115	53	9	C 80	
W0VU	16,560	120	46	B	80	
NZAU	51,333	241	71	C	40	
WB2DVU	15,444	117	44	C	40	
WA2BGI	2	2	2	A	40	
NA						











SPIRKB	4,140	60	23	B	YU1EA	26,568	164	54	C	47,637	237	67	C	IO2L (I2OKW, IK2s NCF, PIG, IYE, IZ2ACZ, ops)	321,408	837	128	C
SQ9DXN	3,564	44	27	B	4N7ZZ	264	11	8	C 160					ES5Q (ES5s MC, MG, RN, RY, QX, ops)	215,412	619	116	C
SP9FHJ	2,448	34	24	B	YU1EY	94,500	630	50	19	C 80				EA4EAD (+EA4AFD)	211,014	617	114	B
SQ3CQ	1,172	26	15	B	YU1EY	27,027	231	39	B 40					I2ZABW (+HK2JUB)	205,434	606	113	C
SPRQGU	169,764	602	94	C	YU1BO	8,928	124	24	B 40					RK6AYN (RN6BP, RU6AV, RW6ACM, UA6AH, ops)	121,212	444	91	C
SP4GHL	37,062	213	58	C	YU1ZZ	227,268	1284	59	C 20					OL2A (OK2s HBY, PDK, PEM, ops)	87,543	411	71	C
SP1MHO	30,600	150	68	C	YU1BJ	48,951	333	49	B 20					OK1KZD (OK1s JEF, TO, ops)	62,568	474	44	C
SP2AVE	16,506	131	42	C	4N1N	27,360	240	38	B 20					OH3FX (+OH3KCB)	4,726	252	63	B
SP6BAA	8,004	92	29	C	YU1LS	18,576	172	36	C 20					OK1OKE (OK1DUT, OK1VBA, ops)	35,577	201	59	C
SP8FUX	7,728	92	28	C	YU1MP	15,264	159	32	B 20					UR4PWC (+UPTPZ)	29,928	172	58	C
SP5GRM	23,562	238	33	C 160	YU1AAV	7,332	94	26	B 20					OK1KCF (+ops)	24,900	166	50	B
SN3A (SP3HLM, op)	146,832	874	56	C 80	YU1KX	41,055	391	35	C 15					HB9MG (HB9s CNV, JAW, JB, JCF, ops)	22,680	189	40	2 C 20
SP5GH	7,704	107	24	B 80	YU1TB	25,500	250	34	2	C 15				9A1CEI (9A3RE, 9A4IP, 9A6NPF, ops)	20,418	166	41	B
SP4JWR	7,200	96	25	C 80	4N1Z	4,536	84	18	C 15					SM0AJV (+ops)	2,394	42	19	C
SP9ZC	5,928	76	26	B 80	<b>Macedonia</b>									<b>North America</b>				
SP9AAB	3,132	58	18	B 80	Z31RB	22,815	169	45	B 40					<b>Jamaica</b>				
SP5ANX	2,655	59	15	B 80	Z31JA	44,649	363	41	B 40					<b>6V0A (K3DI, op)</b>	1,047,960	1704	205	A
SP3FAR	1,710	38	15	C 80	Z30M	125,226	773	54	C 20					<b>Bahamas</b>				
SP7WJ	528	16	11	C 80										<b>C6A/N4RP</b>	1,228,920	1862	220	B
SP3GTS	9,075	121	25	C 40										<b>KR8V/C6A</b>	564,921	1281	147	B
SP9KJU	1,974	47	14	B 40										<b>C6A/W7DRA</b>	12,555	135	31	B 40
SP2FAJ	209,214	1182	59	C 20										<b>Cuba</b>				
SP7GIQ	160,428	922	58	C 20										<b>CM8TW</b>	73,008	468	52	B 40
SP9ATE	72,864	506	48	C 20										<b>CM2LG</b>	21,000	175	40	B 40
SP3SLA	22,896	212	36	B 20										<b>CO8LY</b>	81,006	587	46	B 15
SP2QCH	22,311	201	37	B 20										<b>Martinique</b>				
SP3CYY	19,584	204	32	B 20										<b>FM5BH</b>	57,450	383	50	C 160
SP8BAB	17,280	160	36	B 20										<b>Haiti</b>				
SP6YGB	14,784	154	32	B 20										<b>HH2AW (9A3A, op)</b>	222,666	1258	59	C 80
SP1BLE	10,668	127	26	B 20										<b>Panama</b>				
SP2JGK	6,060	100	22	B 20										<b>HP1AC</b>	76,806	251	102	A
SP6STS	6,180	103	20	B 20										<b>HP2/N6NT</b>	3,078,855	3705	277	B
SP1LJP	4,356	44	33	B 20										<b>HP3XUG</b>	5,460	65	28	B 40
SP6SYF	4,320	80	18	B 20										<b>Guantanamo Bay</b>				
SP3FPF	3,600	48	25	B 20										<b>KG4ML</b>	1,541,592	2196	234	C
SP3VZY	3,564	66	18	B 20										<b>Alaska</b>				
SP3XR	2,166	38	19	C 20										<b>KL1R</b>	18,165	173	35	5 B
SOSTW	336	14	8	A 20										<b>KL7RA</b>	202,122	1182	57	C 20
<b>Greenie</b>														<b>Virgin Islands</b>				
SV2AVP	2,016	42	16	B 80										<b>WP2Z (KE2VB, op)</b>	86,355	505	57	C 160
SV2BOH	23,310	210	37	B 40										<b>Puerto Rico</b>				
SV2BFN	11,760	140	28	C 20										<b>WP4LNY</b>	8,058	79	34	B
<b>Bosnia-Herzegovina</b>														<b>St Maarten Saba</b>				
T94YT	47,628	252	63	A										<b>PJ5JP</b>	315,000	700	150	B
<b>Kaliningrad</b>														<b>Costa Rica</b>				
RA2FZ	32,118	202	53	B										<b>T17/N4MO</b>	270,864	1584	57	B 15
<b>European Russia</b>														<b>Antigua and Barbuda</b>				
UA4FAO	13,545	105	43	B										<b>V6CW (NM9H, op)</b>	109,230	662	55	B 160
RX3DRU	2,337	41	19	B										<b>V26NA (KX9X, op)</b>	300,324	1726	58	B 15
UA1OMX	147	7	7	B										<b>St Kitts and Nevis</b>				
RZ4AYT (UA4ALI, op)	45,120	235	64	C										<b>V47KP (W2OX, op)</b>	2,214,702	3038	243	C
RV1CC	27,000	150	60	C										<b>Anguilla</b>				
UA1OMS	7,104	74	32	C										<b>VP2EV (K7BV, op)</b>	3,799,008	4397	288	C
RA4NW	1,344	28	16	B 20										<b>British Virgin Islands</b>				
RZ6LG	12,528	144	29	C 80										<b>VP2VK1DW</b>	1,208,400	1900	212	B
RU1AO	780	26	10	C 80										<b>Turks and Caicos Islands</b>				
RX3QAM	513	19	9	B 80										<b>VP5WJ2O</b>	3,198,168	4132	258	C
UA6ART	162	9	6	C 80										<b>VP5JP (K8JP, op)</b>	2,914,296	3666	266	41 C
RA4AR	44,550	330	45	C 40										<b>Cayman Islands</b>				
RW1AC	36,237	257	47	C 20										<b>ZF2NE (W5ASP, op)</b>	396,360	2202	60	C 20
RZ3FA	27,972	222	42	C 20										<b>Oceania</b>				
RK6AD	6,888	82	28	C 20										<b>Philippines</b>				
UA1OMZ	6,072	88	32	B 20										<b>N7ET/DU7</b>	15,015	143	35	A
RA6AMU	5,313	77	23	B 20										<b>DU3/W4NXE</b>	17,763	191	31	C 80
UA6QK	1,800	40	15	B 20										<b>Hawaii</b>				
UA4BV	480	10	16	B 20										<b>KH6/WB6FZH</b>	5,766	62	31	A
RU6B	360	15	8	B 20										<b>KH6RS</b>	1,712,196	2388	239	C
<b>Ukraine</b>														<b>KH6BZF (KH6ND, op)</b>	1,449,252	1988	243	37 C
UY8TE	29,205	177	55	B										<b>WB6FZH/KH6</b>	750	25	10	3 A 20
UR5IBG	8,658	78	37	B										<b>American Samoa</b>				
UT4WT	394,902	927	142	C										<b>KH8/N5OLS</b>	65,550	230	95	C
UT4UZ	312,039	819	127	C										<b>Australia</b>				
UT5JAJ	136,323	459	99	C										<b>VK2AYD</b>	172,827	519	111	B
UT2UB	42,639	233	61	C										<b>VK8AV</b>	94,335	331	95	B
UR5UW	39,168	204	64	C										<b>VK4XA</b>	21,717	127	57	B
UT3JA	38,610	198	65	C										<b>VK2KM</b>	58,500	300	65	C
UT9IR	36,456	196	62	C										<b>VK2VM</b>	38,834	274	47	B 40
UT1FA	212	57	27	C 80										<b>VK2ZPK</b>	138,934	857	54	B 40
UX7IA	35,496	204	58	C										<b>VK1FF</b>	29,484	234	42	5 B 40
UX1HW	23,124	164	47	C										<b>VK6HG</b>	10,500	100	35	B 40
UU2JA	14,208	128	37	C										<b>Indonesia</b>				
UT4XU	6,570	73	30	C										<b>YB0ASI</b>	6,240	80	26	C
UT5UGR	5,700	76	25	C										<b>YC8TR</b>	37,440	320	39	B 40
UT5UT	37,146	302	41	C 80										<b>YB2UDH</b>	0,060	101	20	B 40
UT5UJA	29,970	270	37	C 80										<b>New Zealand</b>				
UY0ZG	8,640	120	24	C 80										<b>ZL1ANJ</b>	51,576	307	56	B
U5WIF	8,136	113	24	C 80										<b>Trinidad and Tobago</b>				
UY5YZ	4,884	78	22	C 80										<b>9Y4VU</b>	370,080	2056	60	C 40
UT7WW	2,925	39	25	C 80										<b>Chile</b>				
UR0QR	690	23	10	C 80										<b>CE3B (CE3BFZ, op)</b>				
UT3C	82,992	532	52	C 40														
UT7L	67,821	481	47	C 40														
UT0QA	20,826	178	39	C 40														
UT1MW	9,999	101	33	C 40														
UT5USQ	8,064	96	28	A 40														
UT8J	4,920	82	20	C 40														
US1PM	1,089	33	11	C 40														
UR5WA	130,152	748	58	C 20														
US6L	30,240	240	42	C 20														