

Results of the 1997 CQ World-Wide DX CW Contest

BY BOB COX*, K3EST

The day finally arrived for the running of the CQ WW CW. Tens of thousands of amateurs from all over the planet were tuned into the annual CW fun festival. What DXpeditions would show up? Would the sun cooperate? Would the new rig and antenna work okay? It was going to be an exciting, fun time for all. The sun cooperated with a vengeance. The SFI was 116 (A and K = 0) until 15Z on the 29th, and after 15Z it only dropped to 112 with the K rising to 2 by the end of the contest. The bands were hopping. Ten meters presented a long-path gift at dawn from the USA east coast into zones 24 and 25.

This year's results were a high-water mark for CW logs. Over 3,250 logs were received from entrants—a big increase over 1996. It is very gratifying to see that CW is easily holding its own against SSB.

Single Operator High Power

José, CT1BOH, had traveled to P4 before. Sometimes he had bad luck by catching the flu just before the contest, but this time at P40E he did everything right. His rival at EA8EA operated by OH2MM was no newcomer. OH2MM had won more All Band world CW titles in the last ten years than anyone else. When the contest ended they had made 12,969 QSOs between them with only a difference of 23 QSOs to the QSO leader (OH2MM)! Jose's multiplier strategy was right on the money, and he took his 59 mult advantage to the bank to collect the world title. Congratulations, José!

Being at the western tip of Europe doesn't hurt, but you also need an expert behind the key. That expert is Andrew, G10NWG, who pushed G10KOW to top honors in Europe and very nearly a new European record. Second-place Europe was more of a struggle. The difference between second and sixth place was only 100K. Dave, G4BUO, pulled out all the stops in taking second place over DL6FBL.

Here in the US, it was an awed contest community after the contest ended. John, K1AR, had keyed himself to about a 3 million point lead over the second-place station! "Wow!" is all anybody could say. Operating from the ideal station and QTH of K1EA, John did more than everything right on his way to shattering the old US record by almost 2 million points. And conditions aren't even good yet. John also broke into the world top ten box (rare for the US) as number 7. Last year's number two reprised his role. Greg, W1KM, put his fabulous low band QTH to real advantage.

Single Operator Low Power

Traveling back to 3V8BB, Hrane, YT1AD, had

*1816 Poplar Lane, Davis, CA 95616
e-mail: <k3est@cqww.com>



YC6PUP is an enthusiastic contester.

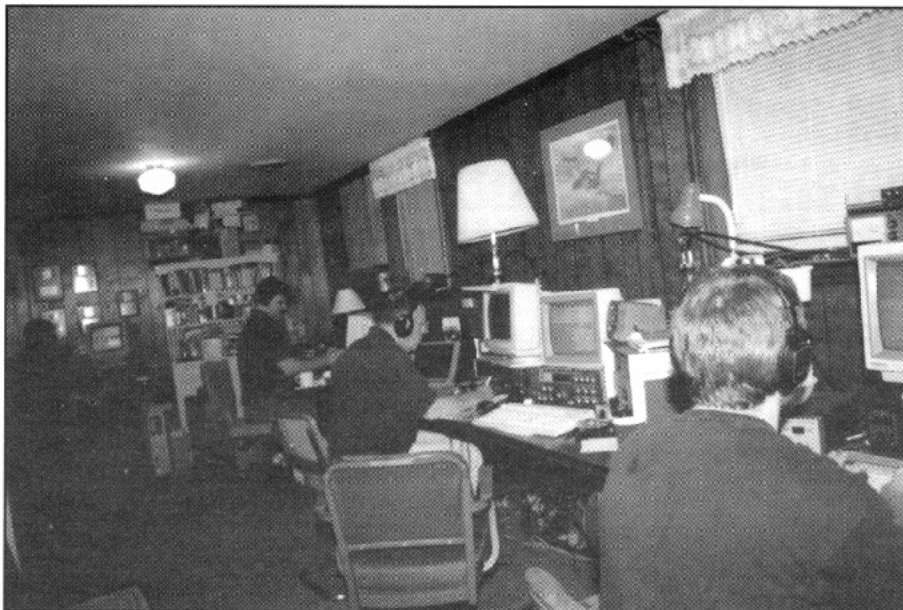
one thing in mind: to try to set a new Low Power All Band record. The record had been set the previous year at the same station by Uli, DL2HBX. When the dust settled, Hrane had the new world record in hand. Not so far behind was Joe, AA3B, who took VP2EEB to new heights to claim a new North American Low Power record. In Europe, Tine, S50A, put aside

his amp and from his countryside shack keyed his way to top honors. He was followed closely by his good friend Franc, S59AA. You can read more about their scores in *CQ Contest* magazine.

Stateside a new USA record was set by Brooke, N2BA. Not far behind was KN4T. This category continues to grow. It is very popular



E22AAA made a lot of people happy. Shown here as E20HKK (left) and E20ACU.



The shack of Multi-Multi NQ4I. Left to right are NQ4I, KS4Q, W1RR, and N4CM. K2UFT and K4OGG were also part of the team.

because it allows city dwellers as well as those living in restricted areas to participate.

QRP

The QRP category continues to provide a challenge for the dedicated. Running less than 5 watts can bring forth skills you did not know that you had. What is surprising is given the right conditions, 5 watts can be quite okay to attract an answer. The world top slot went to perennial QRPer Henry, AA2U. His score reflects a

careful strategy of maximizing his chances. The YU presence on QRP is well known, and YT7TY took second place and number one in Europe.

Assisted

The secret to having a big Assisted score is to not be hypnotized by the packet screen. The second secret is to go somewhere where you can make lots of QSOs. Ranko, YT6A, left Europe and traveled to the sunny Caribbean,

where he guest operated at FM5DN. He set a new North American record along the way to the top world Assisted score. In the USA another guest operator, Malcolm, K11G, traveled over to Rhode Island and keyed K1NG to a new USA Assisted record. Meanwhile, over in Europe, Georgio, I2VXJ, activated his special call, IR2W, and outdistanced his German competitors led by DL2MEH.

Multi-Single

North America was well represented among the top six world multi-singles with four representatives. The leader of the pack was ZF1A. With four ops—including WRTC 1996 Champion K1TO, W5ASP, K0MK, and K9LA—they used their shortened callsign to advantage. Second place went to NW Cyprus, where a Russian team set up shop as P3A. Once again the men from Bologna put on quite a show. IQ4A, operating from their cave QTH, finished just ahead of OT7T. Each year the rivalry in Europe for Multi-Single is fierce. Obeying the distance rule and having no off-site personalized help and still winning must be quite satisfying to the top scorers. In the US, the crew of N2NU far outdistanced the competition to take top USA honors and to fall just short of the USA Multi-Single record. Second place went to the crew of K1ZZ. Dave's gang always does very well. It is interesting to note that two blackholers, W9JA and

TEAM CONTESTING

1. **Neiger's Tigers Team #1: 43,205,232.** By HC8N (N5KO), FS5PL (W2GD), P40E (CT1BOH), 9Y4H (K6NA), ZD8Z (N6TJ).
2. **Contest Club Finland Team #1: 25,790,930.** By 8R1K (OH0XX), CT3BX (OH1EH), DX1A (OH2PM), EA8EA (OH2MM), OH6WZ.
3. **Team Nippon: 15,562,742.** By 3DA5A (JM1CAX), 9M6NA (JE1JKL), JH5FXP, V8EA (JO1RUR), YN6WW (JA6WFM).
4. **Yugoslavian Contest Team #1: 15,020,393.** By YU7AV, 3V8BB (YT1AD), YT1AD, 4N9BW, YT7A.
5. **Neiger's Tigers Team #2: 14,516,099.** By YB1AQS, RK0FWL (N6AA), VK6BAT (N6ZZ), 5X1Z (SM7PKK), CT1ELP.
6. **Desert Warriors Team: 13,993,941.** By 9K9K, HZ1AB (SM0CXU), 7Z5OO (K3UOC), A45ZN, A45XR.
7. **Contest Club Finland Team #1: 7,440,216.** By OF1HS, OH6NIO, OH6RX, ZB2X (OH2KI).
8. **Neiger's Tigers Team #3: 6,847,918.** By N6BV/1, W2VJN/7, W7WHY, K6AW.
9. **Tennessee Contest Gladiators #1: 6,315,247.** By K4RO, WW4RR (N4ZZ), W4PA, W9WI, WO4O.
10. **Lithuanian Team—Not High Power: 2,470,531.** By LY2BM, LY2CX, LY2FE, LY2FN, LY3BA.
11. **Russian Woodpeckers: 1,978,703.** By UA1OMS, UA1OZ, UA1OMZ, UA1OMX, RW1ON.
12. **Yugoslavian Contest Low Band Team: 1,390,994.** By YU7AU, YT1BB, YU7NU, YU7CB, YU1KR.
13. **Team Northern Lights: 1,328,187.** By OH6MRA, OH8BQT, OF8LAE.
14. **Great White North DX eh?: 1,296,599.** By VE6JY (VE6WQ), VE1JF, VE6BMX, XM7A (VE7SV).
15. **Yugoslavian Single Band Team: 1,067,455.** By YT0T (4N1DXX), YU1AR, YZ1AU, YU1EA.
16. **Tennessee Contest Gladiators #2: 41,836.** By N4KN, NT4L, W4OGG.



Wes, SP4EEZ (SP4Z), up the tower with his brother placing the homebrew 6-element Yagi on the mast.

CW TROPHY WINNERS AND DONORS

**Single Operator
All Band
World
P40E**
(Opr. Jose Carlos Cardoso Nunes, CT1BOH)
Donor: Albert Kahn, K4FW
W9IOP Memorial

**World Low Power
3V8BB (Opr. Hranislav Milosevic, YT1AD)**
Donor: Slovenia Contest Club

**World Single Operator Assisted
FM5DN (Opr. Ranko Boca, YT6A)**
Donor: Snake River Contest Club

**World QRPp
Henry Rand Jr, AA2U**
Donor: Gene Walsh, N2AA

**U.S.A.
John Dorr, K1AR**
Donor: Frankford Radio Club

**U.S.A. Low Power
Brooke Allen, N2BA**
Donor: North Coast Contesters

**U.S.A.—Zone 3
W6AX (Opr. James Pratt, N6IG)**
Donor: Bill Fisher, W4AN

**U.S.A.—Zone 4
Mike Wetzel, W9RE**
Donor: Dennis O'Connor, K8DO

**Canada
Augustus Thomas Samuelson, VO1MP**
Donor: Canadian DX Association

**Caribbean/C.A.
8P9Z (Opr. John Laney III, K4BAI)**
Donor: Chuck Shinn, W7MAP

**Europe
GI0KOW (Opr. Andrew Williamson, GI0NWG)**
Donor: Edward Bissell, W3AU

**Europe—Low Power
Tine Brajnik, S50A**
Donor: Scott Jones, N3RA & Tim Duffy, K3LR

**Africa
EA8EA (Opr. Ville Hiilesmaa, OH2MM)**
Donor: Gordon Marshall, W6RR

**Asia
Chris Dabrowski, A45XR**
Donor: Chuck Shinn, W7MAP

**Japan
Masaki Okano, JH4UYB**
Donor: Japan Crazy Contesters Club

**Oceania
VK6BAT (Opr. Phil Goetz, N6ZZ)**
Donor: Peahi Contest Club

**South America
HC8N (Opr. Trey Garlough, N5KO)**
Donor: Venezuela DX Club

**Single Operator, Single Band
World—28 MHz
CX5X (Opr. Jorge Diez Furest, CX6VM)**
Donor: Joel Chalmers, KG6DX

**World—21 MHz
ZD8Z (Opr. James Neiger, N6TJ)**
Donor: Don Busick, K5AAD—N5JJ Memorial

**World—14 MHz
P40J (Opr. Robert Brockman, WX4G)**
Donor: North Jersey DX Association
W2JT Memorial

**World—7 MHz
C4A (Opr. Ivo Pezer, 9A3A)**
Donor: Alex M. Kasevich, VP2MM/4

**World—3.5 MHz
R. G. D. Stone, GW3YDX**
Donor: Fred Capossela, K6SSS

**World—1.8 MHz
Yuri Blanarovich, VE3BMV/1**
Donor: Kenneth Byers, Jr., K4TEA

**USA—28 MHz
Melvin Brafford, W4YV**
Donor: CQ Magazine

**USA—21 MHz
Charles Thompson, N4CT**
Donor: Wayne Carroll, W4MPY

**USA—14 MHz
W0UN (Opr. George Schultz Jr, W0UA)**
Donor: Northern Illinois DX Association

**USA—7 MHz
Larry Pace, N7DD**
Donor: Jan Perkins, N6AW—W6AM Memorial

**USA—3.5 MHz
Robye L. Lahlum, W1MK**
Donor: Bill Feidt, NG3K

**USA—1.8 MHz
Wallace Eckles, W8LRL**
Donor: Peter Hutter, WW2Y

**Canada (14 MHz)
VE6JY (Opr. Joel Weiner, VE6WQ)**
Donor: Radio Amateurs of Canada

**Carib./C.A. (21 MHz)
FM5DP (Opr. Durica Maletin, YU7DR)**
Donor: Snake River Contest Club

**Europe—28 MHz
ZB2X (Opr. Jorma Saloranta, OH2KI)**
Donor: John Pryor, K4OGG

**Europe—21 MHz
US1E (Opr. UT7EZ)**
Donor: Robert Naumann, N5NJ

**Europe—14 MHz
IR4T (Opr. Stefano Brioschi, IK2QEI)**
Donor: Maud Slater—G3FXB Memorial

**Europe—7 MHz
9A5Y (Opr. Sasa Pokorni, 9A3HM)**
Donor: Ivo Pezer, T93A

**Europe—3.5 MHz
SN3A (Opr. Czelaw Dubicki, SP3HLM)**
Donor: Frankford Radio Club—K3VW Memorial

**Europe—1.8 MHz
Patrick Bittiger, TK5NN**
Donor: Pat Barkey, N9RV & Terry Zivney, N4TZ

**Japan—21 MHz
Akito Nagi, JA5DQH**
Donor: DX Family Foundation

**Japan—14 MHz
Ted Sakabe, JA7XBG**
Donor: Mitsuhiro Nishimura, JA7WME

**Multi-Operator, Single Transmitter
World
ZF1A (Oprs. K1TO, W5ASP, K9LA, K9MK)**
Donor: Anthony Susen, W3AOH

**U.S.A.
N2NU (Oprs. N2NU, K2WI, WW2Y,
W2REH, N2NC, N2NL)**
Donor: Douglas Zwiebel, KR2Q

**Canada
VE3EJ (Oprs. VE3EJ, HA8FW, VE2ZP, VA3RU,
VE3FU, VE3IY, VE3KZ, VE7CC, VE7NTT)**
Donor: Eastern Canadian DX Assn.

**Carib./C.A.
KP3Z (Oprs. NP4Z, KP4BZ, NP3A, KP3L,
WP3A, NP3J, KP4RF, KP3P, NP3HM)**
Donor: North Nevada DX Contest Club

**Africa
5A2A (Oprs. DJ7IK, DL1GGT, DL2EBX,
DL3KDV, DL8OBC)**
Donor: CQ Magazine

**Asia
P3A (Oprs. RA9JX, RA9JR, RV0AR, UN7FZ,
UA9MA, UN7FK, UA9YAB, RU3AA, UA9NN,
UA9LAC)**
Donor: Steve Merchant, K6AW

**Europe
IQ4A (Oprs. I4VEQ, I4IND, I4EAT, I4IKW, I4TJE,
I4LCK, I44EWK, I44CZF, I44XQH, I44DCT,
I44MGP, I44QJH, I42NCJ, I42JUB,
I42MRZ, I44ANU)**
Donor: Friends of K3AO—K3AO Memorial

**Oceania
AH2R (Oprs. JF1SQC, JK3GAD, JR7OMD)**
Donor: Junichi Tanaka, JH4RHF

**South America
ZP9B (Oprs. PY2TI, PY5BI)**
Donor: Tyler Stewart, K3MM

**Multi-Operator, Multi-Transmitter
World
5V7A (Oprs. G3SXW, G3ZEM, G4FAM, GM3YTS,
K5VT, K7PN, K7CV, N7BG, N7MB, W6RGG)**
Donor: Doug Zwiebel, KR2Q—K2GL Memorial

**World—SSB/CW Combined
KH7R: 30,186,719**
Donor: Alpha/Power, Inc.

**U.S.A.
KC1XX (Oprs. KC1XX, AD1C, K1ZM, K1DG,
K1EA, K1GQ, KC1F, N2IC, KM3T,
DL7ALM, Christine)**
Donor: Bob Ferrero, W6RJ—N6RJ Memorial

**Europe
OH2HE (Oprs. OH2HE, OH1JT, OH2BTI, OH2BVI,
OH2BZY, OH2IW, OH2JA, OH2JTE,
OH2XX, OH6CT, OH6DD, OH6EI,
OH7BX, OH7JR, OH8KXK)**
Donor: Finnish Amateur Radio League

**Japan
JH7PKU (Oprs. JH7PKU, JA9SSY, JH7DXZ,
JH7FQK, JO1BMV)**
Donor: Ryozo Goto, JH3JYS

**Contest Expeditions
World Single Operator
V8EA (Opr. Hajime Kato, JO1RUR)**
Donor: Yankee Clipper Contest Club

**World Multi-Single
5A2A (Oprs. DJ7IK, DL1GGT, DL2EBX,
DL3KDV, DL8OBC)**
Donor: CQ Magazine

**World Multi-Multi
6Y4A (Oprs. K2KW, N6BT, N6TV, KE7X,
AG9A, W9QA, W4SO, JE3MAS, JI3ERV)**
Donor: Bill Schneider, K2TT

**Special-Single Operator Award
World SSB/CW Combined
P40W/FS5PL (Opr. John Crovelli, W2GD)**
Donor: Hrane Milosevic, YT1AD

**World All Band: Under 21 years old
Marcus Ilvonen, OF3KCB**
Donor: Chuck Shin, W7MAP

**Club
World SSB/CW
Frankford Radio Club: 366,666,652**
Donor: CQ Magazine—W1WY Memorial

**Non-USA SSB/CW
Rhein-Ruhr DX Association: 117,415,172**
Donor: No. California Contest Club
N6AUV Memorial

NØNI, made the top Multi-Single US box. Congratulations to them for their excellent efforts.

Multi-Multi

The work and planning necessary to produce a chance to finish in the top scores in this category are staggering. The dedication of hundreds of testers to build bigger and better stations is good evidence that the art of station design is alive and well. On the pages of *CQ Contest* magazine you have read about 5V7A and 6Y4A. It is no coincidence that their results are outstanding. 5V7A, the Voodoo guys, put together another winning effort from their hotel setup in Togo. Second place went to 6Y4A. Their operation was extremely well thought out. Using verticals for the most part, their signals were really outstanding. Third place went to EA8ZS with a crew from mainland Spain.

It is rare for a US Multi-Multi to break into the world top six box. But that is exactly what KC1XX pulled off. Matt assembled a stellar crew to drain all the bands dry. Not that far behind was Tim, K3LR, with an international team. Third place went to Frank, W3LPL.

In Europe, the crown traveled to the north and landed on the head of OH2HE. Their efforts to build up a championship station have really

paid off. Just over 100K behind was DFØHQ, the famous quad station. Their antennas sure do work!

Team Contesting

It was another year of continued growth with more teams than ever participating. This year 15 teams sent in lists before the contest. Averaging over 8.5 million points each, Neiger's Tigers Team #1 took top honors. The new Contest Club Finland gathered operators from all over the world to take second place, with Team Nippon third. Of the 15 members of the three top teams, 13 were DXpeditions for the contest! We all appreciate the dedication of these testers.

As was mentioned in the SSB results, if this category gets much bigger, there could be various categories of teams: All Band, Single Band, Low Power, or Assisted. To form a team, just check out the rules in the September *CQ*. Congratulations to all the teams!

Clubs

Just how many points can a club make in a contest? Stay tuned. With the conditions improving, one-half billion is possible! This year the top three USA and top two DX clubs totaled

1.01 billion points! This represents months of planning, DXpeditions, getting everyone on the air, and finally making sure that logs are submitted on time. It's a big job. As the James Bond theme song says, "Nobody does it better," and once again the Frankford Radio Club took top club world honors with a staggering 360 million points. Getting closer and closer each year is the Yankee Clipper Contest Club, who came in second in the world.

Over in Europe the friendly rivalry between the two German goliaths ended up with the Rhein-Ruhr DX Association edging out the Bavarian Contest Club. The new kids on the block, Contest Club Finland, finished a very close third.

New Records, Special Mention

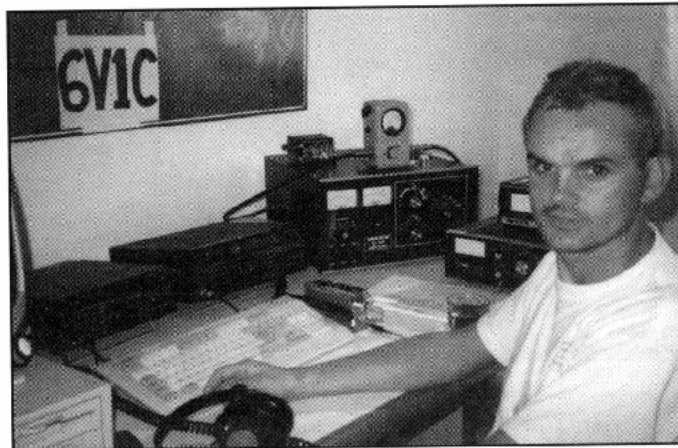
WORLD: 21 MHz ZD8Z (N6TJ), LA 3V8BB (YT1AD), L21 VP5EA (WD5N), Q21 HK3/SM5CCT, A14 DL4NAC.

AFRICA: 21 MHz ZD8Z (N6TJ), 14 MHz CT3BX (OH1EH), 1.8 MHz CT3/OH1MA, LA 3V8BB (YT1AD), L21 7X2RO (OM3CGN).

ASIA: 14 MHz 9K2GS (T97M), L14 RA9AA, Q3.5 UAØQGQ, A3.5 JH1BBT.

EUROPE: L21 UA4LL, A21 DF9ZP, A14 DL4NAC.

NORTH AMERICA: LA VP2EEB, L21



6V1C operated by 6W1RE.

ZONE LEADERS SINGLE OPERATOR

Zone	Call	Score	Zone	Call	Score
1	KL7AC	940,470	21	A45XR	6,440,715
2	No Entry		22	VU2NGB	133,172
3	W6AX	3,024,213	23	JT1BH	620,928
4	W9RE	3,491,945	24	BY4SZ	457,974
5	K1AR	7,681,280	25	JH4UYB	3,787,542
6	XE2DV	393,432	26	3W5FM	180,432
7	YN6WW	1,041,084	27	DX1S	4,292,160
8	8P9Z	9,097,132	28	V8EA	4,886,280
9	P4ØE	12,668,701	29	VK6BAT	5,034,769
10	HC8N	10,475,365	30	VK2AYD	1,311,771
11	ZPØZ	2,433,340	31	KH6TO	1,399,828
12	CE3IDY	54,810	32	FK8HC	764,218
13	AY1I	1,838,852	33	EA8EA	11,794,880
14	G1ØKOW	6,089,722	34	No Entry	
15	4N9BW	3,892,152	35	6V1C	1,905,360
16	UT6Q	3,229,591	36	ZD8Z	2,357,967
17	UA9CDC	1,648,512	37	5X1Z	3,425,360
18	RZ9UA	2,303,818	38	3DA5A	4,946,766
19	RKØFWL	2,018,632	39	3B8/F6HMJ	173,664
20	JY9QJ	3,201,878	40	OX/OZ8AE	399,555

TOP SCORES IN VERY ACTIVE ZONES

ZONE 3		ZONE 15	
W6AX	3,024,213	OZ1IOC	1,492,960
K6LA	1,908,393	DF4SA	1,430,208
W2VJN/7	1,466,328	MJØAWR	1,246,780
K6ZM	1,442,928	DK5PD	1,215,812
*XØ7X	1,112,756	DL4MCF	1,204,347
N6TU	1,050,226		
N7TT	1,032,300		
N6RV	987,374		
W7SE	769,652		
*W6JTI	763,889		
ZONE 4		ZONE 16	
W9RE	3,491,945	RN6BY	3,410,337
K5GN	3,180,156	UT6Q	3,229,591
K5YA	2,704,156	UT4UZ	2,821,250
W4PA	2,596,374	US1U	1,839,816
KØEU	2,421,384	UA6LTI	1,539,522
K5NA	2,157,300	UX1UA	1,062,480
K4AB	2,011,386	UX4CW	919,125
WBØØ	1,871,540	UY1HY	904,791
K9MA	1,739,814	UA1OMS	872,088
K9WIE	1,588,090	EM8I	867,588
ZONE 5		ZONE 25	
K1AR	7,681,280	JH4UYB	3,787,542
W1KM	5,416,800	JH5FXP	3,647,600
K3ZO	5,212,498	JH7WKQ	2,429,616
KQ2M/1	4,940,795	JA8RWU	2,307,312
W4AN	4,818,683	JH7XGN	2,127,034
N6BV/1	4,733,088	JHØFUW	2,052,501
W3BGN	3,897,680	JS3CTQ	1,754,976
K1RU	3,548,171	JF3CCN	1,125,237
W1WEF	3,245,946	JA9CWJ	1,089,842
WC4E	2,962,872	JH8SLS	776,340
ZONE 14			
G1ØKOW	6,089,722		
G4BUO	4,136,175		
DL6FBL	4,088,526		
GØIVZ	3,270,960		
OZ1LO	2,565,871		

TOP SCORES

WORLD

Single Operator
All Band

P40E12,668,701
EA8EA11,794,880
HC8N10,475,365
8P9Z9,097,132
9Y4H9,063,469
FS5PL8,639,730
K1AR7,681,280
A45XR6,440,715
8R1K6,244,185
GI0KOW6,089,722

28 MHz

CX5X863,418
CX5BW733,720
CX9BAG527,975
KH8/N5OLS399,875
PY2XB397,026
9X0A367,875

21 MHz

ZD8Z2,357,967
ZP5XF1,926,056
AY1I1,838,852
FM5DP1,045,050
9Y4VU763,224
JA5DQH575,952

14 MHz

P40J1,548,792
P40R1,545,248
CT3BX1,461,397
5X1T1,243,315
9K2GS1,242,439
5B4AGC1,139,160

7 MHz

C4A1,289,310
9M6NA1,041,012
9A5Y890,841
OK1RF850,402
OH0MAM763,506
JA5THU726,033

3.5 MHz

GW3YDX508,388
SN3A489,402
TK5EP364,650
SM4HCM362,098
LY6K314,557
W1MK297,476

1.8 MHz

VE3BMV/1170,400
TH1C158,842
TK5NN149,940
CT3/OH1MA144,760
UA2FJ134,128
GW7J122,364

Low Power
All Band

3V8BB6,615,489
VP2EEB5,444,340
WP2Z3,678,426
UA0JQ2,479,092
N2BA2,169,720
KN4T2,059,051
S50A2,037,464
S59AA1,924,320
FG5EY1,750,012
K1VUT1,656,348

28 MHz

AZ9W685,170
LU9AUY631,359
LW4DYI552,288
LU2DPW335,875
PU2RUX316,479
LU3WEU311,745

21 MHz

VP5EA802,560
PU2MHB508,896
7X2RO382,044
LW9ETY335,219
UA4LL309,907
UA4POL294,460

14 MHz

VK2APK521,254
RA9AA340,950
LU4FM338,883
HA8RH309,694
S58AL297,024
JA7XBG295,659

7 MHz

5B4/EU1AA434,248
PA3AAV328,017
T95A234,496
OM5AW192,194
VP5EA188,595
CO2JD143,699

3.5 MHz

IK4WMG156,840
YU7CB129,375
4L5O122,375
YU1KR112,765
HA8EU107,278
YP2RU95,510

1.8 MHz

HA8BE60,553
OM3OM44,557
UU4JMG37,347
HA0EQ29,898
YU1RA34,488
OK1JOC26,260

QRP
All Band

AA2U839,272
YT7TY769,923
DL6RDR726,396
LY3BA617,100
WA2HZR612,968
K3PH507,540
K1RC476,640
N7IR386,450
DL3KVR348,150

Assisted
All Band

FM5DN7,215,779
K1NG6,168,504
K3WW5,585,568
K3MM4,521,866
K2TW3,961,313
K2NG3,895,115
N3AD3,340,500
K1AM3,141,040
K3NZ2,929,379
W2XX2,867,193

Multi-Operator
Single Transmitter

ZF1A11,971,520
P3A11,755,121
KP3Z10,135,725
5A2A9,614,220
N2NU9,139,372
6D2X8,881,075

Multi-Operator
Multi-Transmitter

5V7A31,971,148
6Y4A29,752,404
EA8ZS21,915,001
J39A19,336,338
VE3EJ18,437,120
KC1XX16,680,192

USA

All Band

K1AR7,681,280
W1KM5,416,800
K3ZO5,212,498
N2NT5,207,938
N2LT5,054,070
KQ2M/14,940,795
W4AN4,818,683
N6BV/14,733,088
W3BGN3,897,680
K1RU3,548,171

28 MHz

W4YV152,750
W4XJ98,672
KZ5MM80,569
NT6T54,400
W3NO48,384
K0KE47,380

21 MHz

N4CT471,520
K9IG441,524
K4ZA435,587
WW4RR393,000
W6YA366,324
W6NL335,064

14 MHz

W0UN722,520
K8DX556,160
W9IW550,605
K9BG414,024
N4PN370,662
N7BZ343,305

7 MHz

N7DD488,160
W5UN424,855
NX7K375,914
K9DX330,750
N2PP326,808
W7GG326,120

3.5 MHz

W1MK297,476
WB9Z99,232
K5NU89,568
W8RT81,918
W1UK78,176
K0RF65,439

1.8 MHz

W8LRL20,999
K2XA14,559
K8MK12,408
W2VO11,868
N6SS710,058
K1VW9,570

Low Power
All Band

N2BA2,169,720
KN4T2,059,051
K1VUT1,656,348
WA1LNP1,639,602
WA1S1,622,464
KM1X1,468,138
NA2U1,341,649
W2TZ1,145,388
WO4O1,057,920
N8AA949,172

28 MHz

K4WA37,149
AI2C/436,576
W3EP/131,824
W5ZO23,489
K9OM14,012
N6EE9,733

21 MHz

WB4TDH237,020
WA1FCN193,294
K2MFY125,608
K2ACW/4121,240
K5MU117,602
K9RN/M94,637

14 MHz

N4MO241,251
K1NO200,610
K7ZA162,833
W0UMR64,513
W0ETT57,039
WA2ASQ34,679

7 MHz

N2TN84,924
W0AH75,537
KJ0B40,923
N4OT32,969
K4LDR30,030
W3CP28,282

3.5 MHz

W4HM6,120
KB3AFT168

1.8 MHz

KG7D4,375
W4WS828

QRP
All Band

AA2U839,272
WA2HZR612,968
K3PH507,540
K1RC476,640
N7IR386,450
N1TM329,199
KG5U187,935
W6YJ183,975
N9CIQ166,782
KV8S138,067

Assisted
All Band

K1NG6,168,504
K3WW5,585,568
K3MM4,521,866
K2TW3,961,313
K2NG3,895,115
N3AD3,340,500
K1AM3,141,040
K3NZ2,929,379
W2XX2,867,193
W3EEE2,788,236

Multi-Operator
Single Transmitter

N2NU9,139,372
K1ZZ6,751,382
K8AZ6,473,736
W4WA4,548,258
W9JA4,469,888
N0NI4,459,806

Multi-Operator
Multi-Transmitter

KC1XX16,680,192
K3LR15,430,912
W3LPL14,586,038
K1KI14,480,136
N3RS11,837,336
W1MD9,982,868

EUROPE

All Band

GI0KOW6,089,722
G4BUO4,136,175
DL6FBL4,088,526
4N9BW3,892,152
S51BO3,660,589
G0IVZ3,270,960
UT6Q3,126,126
RN6BY2,885,145
UT4UZ2,821,250
SP4Z2,717,734

28 MHz

ZB2X291,896
S53X173,505
DK5QN100,993
IR4D97,626
EA2IA92,153
OK1XW48,888

21 MHz

US1E506,527
CT1FJK462,834
S50R373,920
OM3PC354,354
S54AA329,586
OT7L297,640

14 MHz

IR4T744,040
YT7A672,324
M7Z551,418
YU1ZZ494,649
F5PGP493,334
S53M464,725

7 MHz

9A5Y890,841
OK1RF850,402
OH0MAM763,506
S52AW741,650
S50C716,096
TK/DF9LJ563,030

3.5 MHz

GW3YDX508,388
SN3A489,402
TK5EP364,650
SM4HCM362,098
LY6K314,557
SP7GIQ284,445

1.8 MHz

TK5NN149,940
UA2FJ134,128
GW7J122,364
S50U106,215
SP5GRM104,562
OY9JD99,166

Low Power
All Band

S50A2,037,464
S59AA1,924,320
HA1CW1,604,397
Z31JA1,416,850
DL2OBF1,326,214
S57DX1,297,642
S51F1,284,780
S57J1,193,914
GD4UOL1,058,742
S58MC966,231

28 MHz

CU2/
G3WVG172,161
SP9W56,931
CT1AOZ47,073
S52OT43,296
S51W34,335
S50Q32,805

Multi-Operator
Single Transmitter

IR2W2,384,280
DL2MEH2,283,147
DJ2YA2,228,666
DL7ON1,738,352
S58A1,635,400
DF4RD1,473,395
DL7MAE1,207,584
DK9IP1,166,592
IK5TSS882,534
GW3JXN873,964

Multi-Operator
Multi-Transmitter

OH2HE12,140,675
DF0HQ12,036,354
EA6IB10,580,839
SL3ZV10,498,326
TF3IRA10,358,889
HG6N10,295,646

21 MHz

UA4LL309,907
UA4POL294,460
CT1BQH293,624
HA3MQ228,245
OK1FKM173,100
Z38G155,550

14 MHz

HA8RH309,694
S58AL297,024
U5WF277,277
ES2RJ273,812
RZ3FA270,206
OK2PAY252,770

7 MHz

PA3AAV328,017
T95A234,496
OM5AW192,194
UT1FA130,243
RW1ZZ127,489
ON4AEB116,166

3.5 MHz

IK4WMG156,840
YU7CB129,375
YU1KR112,765
HA8EU107,278
YP2RU95,510
SP5JTF94,376

1.8 MHz

HA8BE60,553
OM3OM44,557
UU4JMG37,347
HA0EQ29,898
YU1RA34,488
OK1JOC26,260

QRP
All Band

YT7TY769,923
DL6RDR703,125
LY3BA617,100
LY2FE393,499
DL3KVR348,150
OE2S341,715
YU1LM333,450
YU1EA292,050
YU1KN258,896
H1BAY177,840

Assisted
All Band

IR2W2,384,280
DL2MEH2,283,147
DJ2YA2,228,666
DL7ON1,738,352
S58A1,635,400
DF4RD1,473,395
DL7MAE1,207,584
DK9IP1,166,592
IK5TSS882,534
GW3JXN873,964

Multi-Operator
Single Transmitter

IQ4A8,660,429
OT7T8,468,264
TM2Y8,186,880
HG1S7,424,128
OM8A6,967,919
RU1A6,942,530

Multi-Operator
Multi-Transmitter

OH2HE12,140,675
DF0HQ12,036,354
EA6IB10,580,839
SL3ZV10,498,326
TF3IRA10,358,889
HG6N10,295,646



KG7XC during the contest. (Photo by W7IVB)

VP5EA (WD5N), L3.5 XM7A (VE7SV); Q14 K3OO, AA FM5DN (YT6A).

USA: ALL K1AR, LA N2BA, Q14 K3OO, AA K1NG (K1G).

OCEANIA: 7 MHz 9M6NA (JE1JKL), 1.8 MHz KH6CC, L14 VK2APK, Q21 KH6/W1VT, Q3.5 YC2OK.

SOUTH AMERICA: 21 ZP5XF (LU2BRG), L28 AZ9W (LU5UL), Q21 HK3/SM5CCT, A21 LU7EAR.

Several battles that bear special mention took place during the contest. Out in the western USA, it took a real effort to nail down first on 21 MHz in W6. Jim, W6YA, just edged out Dave, W6NL (ex-W6QHS), with K6AW (at N6RO) and N6MU not far behind. On 7 MHz in W7 four stations finished with over 1000 QSOs, with Larry, N7DD, leading the way. Over in Yugoslavia a similar rivalry occurred. YU7NU took first place over YT1BB and YT7AA.

If you really want to check out where heat was generated look at second place in the All Band High Power of W4. Seven stations led by Jeff, WC4E, broke the 2 million point barrier. They turned off their amps and went low power with a vengeance. In the first call area USA the battle was terrific for third place. Take a look at their scores. K1VUT was ahead at the bell over WA1LNP, WA1S, and KM1X.

The friendly 14 MHz rivalry between Bob, WX4G (P40J) and Bob, K4UEE (P40R) was a virtual dead heat. Congratulations to both fine operators. For top Multi-Multi honors above 60 degrees latitude the competition was tough, and when the aurora cleared up KL7Y had just edged out the fine Finnish station OH2HE. The new NA Low Power record belongs to VP2EEB (AA3B). Joe's log was very accurate. What a good job.

A real special mention must be made of KH7R, who had the highest combined SSB/CW Multi-Multi total in the contest. We all know that their effort was remarkable. They stuck with it and the trophy is theirs.

The long-anticipated DXpedition of a German team to activate 5A2A came off right on schedule. I imagine they were a new country and zone for thousands of the deserving. It took a lot of planning to bring about their effort. On SSB 5A1A submitted a log, and now there was the Multi-Single effort of 5A2A. Let's hope more chances occur for 5A activity.

Two Russian Multi-Op groups headed to warmer parts of Asia. The P3A group was mentioned earlier. The Multi-Single effort of 8Q7DV sure handed out a lot of the elusive zone 22 multipliers.

Special mention must be made of three new



CABLE X-PERTS, INC.

COAX (50OHM "LOW LOSS" GROUP)

	100FT/UP	500FT	1000FT
FLEXIBLE 9913 STRD BC CNTR FOIL + 95% BRAID 2.7dB @ 400MHz NC/DB/UV JKT...	.58/FT	.56/FT	.54/FT
LMR 40C SOLID CCA CNTR FOIL + BRAID 2.7dB @ 450MHz WP/UV JKT	.59/FT	.57/FT	.55/FT
LMR 40C "ULTRA-FLEX" STRD BC CNTR FOIL + BRAID 3.1dB @ 450 MHz TPE JKT	.79/FT	.78/FT	.77/FT
LMR 60C (OD.590") SOLID CCA CNTR FOIL + BRAID 1.72dB @ 450 MHz WP/UV JKT	1.25/FT	1.22/FT	1.20/FT
LDF4-50A 1/2" ANDREW HELIAX™ 1.51dB @ 450MHz	2.5FT/UP		2.10/FT

COAX (50 OHM "HF" GROUP)

	100FT/UP	500FT	1000FT
RG213/U STRD BC MIL-SPEC NC/DB/UV JACKET 1.2 dB/2500WATTS @ 30MHz	.36/FT	.34/FT	.32/FT
RG8/U STRD BC FOAM 95% BRAID UV RESISTANT JKT 0.9dB/1350WATTS @ 30MHz	.32/FT	.30/FT	.28/FT
RG8 MINI(X)95% BRAID UV RESISTANT JACKET 2.0dB/875 WATTS @ 30MHz	.15/FT	.13/FT	.12/FT
RG58/U 95% BRAID UV RESISTANT JACKET 2.5dB/400 WATTS @ 30MHz	.15/FT	.13/FT	.11/FT
RG58A/U STRD CENTER 95% TC BRD UV RESISTANT JKT 2.6dB/350 WATTS @ 30MHz	.17/FT	.15/FT	.13/FT
RG217/U SOLID BC 2.95% BC BRD NC/DB/UV JKT .70dB/4000WATTS @ 30MHz	1.00/FT	.85/FT	.80/FT

COAX (50 OHM Teflon® GROUP)

RG142/U SOLID SCCS 2-95% SILVER BRAIDS Teflon® JKT 8.2cB/1100WATTS @ 400MHz	25FT/UP	1.25/FT
RG303/U SOLID SCCS 1-95% SILVER BRAID Teflon® JKT 8.6cB/1100WATTS @ 400MHz	25FT/UP	1.00/FT

COAX (75 OHM GROUP)

RG11/U SOLID BC (VP-78%) 95% BRAID NC/DB/UV JKT 1.1cB/800WATTS @ 400MHz	38/500FT	36/1000FT
RG11A/U STRD BC (VP-66%) 95% BRAID NC/DB/UV JKT 1.3cB/1000WATTS @ 400MHz	42/100FT	40/500FT
RG6/U CATV FOAM 18GA CCB FOIL + 60% ALUM Braid	14/100FT/UP	12/500FT

LADDER LINE GROUP

450 OHM 18GA SOLID CCS (POWER: FULL LEGAL LIMIT)	12/FT	10/FT	09/FT
FLEXIBLE 450 OHM 16GA COMPRESSED STRD CCS(PWR-FULL LEGAL LIMIT+)	20/FT	18/FT	16/FT
FLEXIBLE 450 OHM 14GA COMPRESSED STRD CCS(PWR-FULL LEGAL LIMIT+)	25/FT	24/FT	23/FT
300 OHM 20GA STRD (POWER: FULL LEGAL LIMIT)	15/FT	13/FT	12/FT

ROTOR & CONTROL CABLES

	100FT/UP	500FT	1000FT
5971 8/COND (2/18 6/22) BLK UV RES JKT. Recommended up to 125ft.	20/FT	18/FT	16/FT
5971CPS125. 125ft (cable same as above) w/Jones plug to socket assembly.			\$39.95/ea
1618 8/COND (2/16 6/18) BLK UV RES JKT. Recommended up to 200ft.	35/FT	34/FT	32/FT
1418 8/COND (2/14 6/18) BLK UV RES JKT. Recommended up to 300ft.	47/FT	45/FT	43/FT
1216 8/COND (2/12 6/16) BLK UV RES JKT. Recommended up to 500ft.	78/FT	74/FT	70/FT
2206 22GA STRD 6/COND PVC JACKET	18/FT	16/FT	14/FT
1806 18GA STRD 6/COND PVC JACKET	23/FT	21/FT	19/FT

ANTENNA WIRE (UNINSULATED BARE COPPER)

	100FT/UP	500FT	1000FT
14GA 168 STRD "SUPERFLEX" (great for Quads & Portable set-ups etc.)	12/FT	10/FT	08/FT
14GA 7 STRD "HARD DRAWN" (perfect for permanent Dipoles etc.)	08/FT	07/FT	06/FT
14GA SOLID "COPPERWELD" (for long spans etc.)	08/FT	07/FT	06/FT
14GA SOLID "SOFT DRAWN" (for ground radials etc.)	08/FT	07/FT	06/FT
ROPE: 3/16" DOUBLE BRAID "DACRON" 770# TEST WEATHERPROOF	12/FT	09/FT	08/FT

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CONNECTORS Both connectors fit 9913 types and LMR400 MADE IN USA
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 N (2PC) SILVER Teflon®/GOLD TIP.....10PC \$32.50.....25PC \$75.00.....50PC \$143.75.....100PC \$275.00

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100FT *FLEXIBLE* 9913 FOIL+95% BRAID 2.7dB @ 400MHz	69.95/EA
75FT *FLEXIBLE* 9913 FOIL+95% BRAID 2.7dB @ 400MHz	54.95/EA
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25FT *FLEXIBLE* 9913 FOIL+95% BRAID 2.7dB @ 400MHz	24.95/EA

OCTOBER 98 SPECIAL.

500FT SPOOL of 3/16" DOUBLE BRAID DACRON® ROPE.

Color: Black Ultra-Violet and Mildew Resistant.
 Test strength: 770#. Just right for supporting wire antennas & tripods etc.

PRICE: \$50.00/each spool

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ON THIS SPECIAL ONLY: Shipping included within the 48 contiguous states.

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100FT RG213/U MIL-SPEC BURIAL JKT 1.5dB @ 50MHz	49.95/EA
75FT RG213/U MIL-SPEC DIRECT BURIAL JKT 1.5dB @ 50MHz	39.95/EA
50FT RG213/U MIL-SPEC DIRECT BURIAL JKT 1.5dB @ 50MHz	29.95/EA
25FT RG213/U MIL-SPEC DIRECT BURIAL JKT 1.5dB @ 50MHz	19.95/EA
6FT RG213/U MIL-SPEC DIRECT BURIAL JKT 1.5dB @ 50MHz	11.95/EA
3FT RG213/U MIL-SPEC DIRECT BURIAL JKT 1.5dB @ 50MHz	9.95/EA
100FT RG8MINI(X) 95% BRD UV RES JKT 2.5dB @ 50MHz	24.95/EA
50FT RG8MINI(X) 95% BRD UV RES JKT 2.5dB @ 50MHz	15.95/EA

FLEXIBLE 2/COND RED/BLK DC POWER "ZIP" CORD

8GA (rated:40 amps)	25FT \$16.00	50FT \$31.00	100FT \$60.00
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14GA (rated:15 amps)	25FT \$6.00	50FT \$10.00	100FT \$18.00

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416 Diens Drive, Wheeling, IL 60090



CLUB SCORES

USA			
Frankford Radio Club	360,666,652	Marconi Contest Club (I)	49,525,800
Yankee Clipper Contest Club	296,323,389	Slovenian Contest Club	47,938,084
Potomac Valley Radio Club	135,331,448	Araucaria DX Group	35,175,089
North Coast Contesters	71,646,476	LYNX DX Group (EA)	35,081,467
Southern California Contest Club	63,201,476	Croatian Contest Club	28,300,977
Northern California Contest Club	38,745,146	Chiltern DX Association (G)	26,397,844
Southeast Contest Club	35,595,321	SP DX Club	23,883,031
Society of Midwest Contesters	34,906,592	YU Contest Club	22,747,850
Central Arizona DX Association	28,732,781	Low Land Crazy Contesters (PA)	22,259,544
Mad River Radio Club	27,739,830	GPDx (CT)	21,638,374
North Texas Contest Club	21,731,953	Rosario RC (LU)	20,272,951
Florida Contest Group	15,245,003	Kaunas University Technical College	19,015,762
Southern California DX Club	14,802,986	Japan Crazy Contesters	17,380,502
Minnesota Wireless	14,691,580	Mt. RF (JA3)	17,263,731
North Florida DX Association	14,600,358	HA DX Club	16,905,411
Tennessee Contest Group	12,890,801	LNDX (F)	15,776,397
Willamette Valley (W7)	12,212,833	Sky Sat Contest Club (YU)	12,783,115
Western Washington DXC	11,280,915	Vojvodina Contest Club (YU)	12,727,213
Texas DX Society	9,552,727	UA2 Contest Club	12,494,706
Rochester DX Association	9,267,057	Lithuanian DX Group	12,481,569
Central Texas DX & Contest Club	8,989,189	Top of Europe Contesters	12,197,178
Order Of Boiled Owls NY	8,347,756	Ukrainian Contest Club	11,159,628
Carolina DX Association	6,701,107	YU DX Club	9,946,743
Kentucky Contest Group	6,439,882	Crimean Contest Club	8,443,562
Southwest Ohio DXA	6,340,185	Ural Contest Group (UA9)	7,673,454
Oklahoma DX Association	5,404,169	Czech Contest Club	7,309,752
Grand Mesa DX Club	5,381,721	Lyon DX Gang (F)	7,093,526
River City Contesters	4,564,742	Pretoria Contest Club	5,631,697
Mile High DX Association (W0)	3,832,300	Taganrog Contest Club	5,617,137
Southeast DX Club	3,493,434	TuPY (PY2)	5,545,415
Hoosier Contesters	3,100,356	OZ9EDR Club	4,649,135
Carolina DX Association	2,962,680	Kharkov Region ARS (Ukraine)	3,973,675
Western New York DXA	2,952,399	Sao Paolo Contest Group	3,965,891
Eastern Iowa DX Association	2,927,536	Far East Island DX Club	3,629,577
Kansas City DX Club	2,729,716	Bavarian DX Group	2,993,861
Central Florida DX Association	2,048,640	Danish DX Group	2,977,438
Salt City DX Club (W2)	1,943,399	Koryazhma DX Company	2,792,782
Northern Ohio DX Association	1,926,956	LU4AA Club	2,450,380
Mother Lode Contest & DXC (W6)	1,847,687	Sarajevo DX Group (T9)	2,387,624
Northern Minnesota DX Association	1,799,927	SP Contest Club	2,358,821
American Red Cross EC	1,268,504	GADX (LU)	2,339,346
CT & RI Contest Group	1,089,088	GACW (LU)	2,331,803
No Dot Dxers (W9)	877,008	Z30M Contest Team	2,194,274
Metro DX Club (W9)	845,357	Radio Club Uruguay	2,137,678
Northern California DX Club	817,081	SV2TSL Club	1,895,068
Mississippi Valley DXCC	713,484	Fox Contest Club (YU)	1,554,303
Northern Arizona DXA	648,551	West Island ARC (VE2)	1,487,082
Sterling Park ARC (W4)	589,524	Shizuoka DX Association (JA2)	1,466,799
CA Central Coast DX Club	589,156	NOL (ON)	1,223,032
San Diego DX Club	567,877	Saipan ARC	1,196,429
Bay Area DXers (W8)	566,764	Perugia Radio Club (I)	1,180,860
West Park Radio Ops (W8)	511,604	BC DX Club (VE7)	1,030,736
Valley RC of Oregon	448,890	Southern Germany DX Group	1,019,636
Northern Shenandoah DXA	411,040	Osona (EA3)	1,019,213
Great Falls ARC (W7)	403,118	SN6O Club	1,007,591
Ozaukee Radio Club (W9)	378,491	CW Philippines	979,735
Franklin Co ARC (W4)	245,661	Susa Valley Team (I1)	913,208
Northrop-Grumman RC	172,084	Warsaw DX Club	844,906
Yegua Valley Contest Club (W5)	147,966	Tallinn Radio Club	643,503
Roanoke Valley ARC	112,084	Granada (EA)	617,488
Downey ARC	104,823	OH3NE Club	584,408
Weekend Warriors Contest Club (W3)	66,121	Nr. 13 (EA1)	533,059
South Jersey Radio Association (W2)	45,257	Northern Lithuania DX Group	442,629
		Globus (Ukraine)	422,030
		Macedonia DX Club	323,684
		Beenster Contest Club	256,277
		Geo DX Group (DL)	235,193
		French CQ Contest Gang	193,927
		Tokyo Internationl ARA	173,597
		LY CW Contest Club	148,273
		Ivanovo DX Club	124,988
		EA DX Club	69,801
DX			
Rhein-Ruhr DX Association	117,415,172		
Bavarian Contest Club	100,424,862		
Contest Club Finland	98,856,233		
Russian Contest Club	64,250,564		
French Contest Club	50,189,267		



QRPer HB9XY puts another QSO in the log.

QSO records set in the contest. Jim, ZD8Z (N6TJ), made 4589 QSO on 21 MHz only! This is a new all-time single QSO total for any single band in the CQ WW CW. The Multi-Multi station 5V7A had a 20 meter QSO total of 4506 for a new 14 MHz QSO record, and the Multi-Multi 6Y4A had a 7 MHz QSO total of 3724 for a new Single Band record.

Comments

With all the modern tools available to validate the scores and allow the winners to really cel-

brate their win, there might be a tendency to lose focus about what contesting is about. You enter a contest to have fun! The buzz of the bands coming to life is a siren's song that can't be resisted. The new ones you might work, finding that your signal *can* work a lot of people, and your personal motivation to do well are just the tip of the iceberg. Each contest is a learning experience about propagation, your own skills, and the skills of others. The UBN's that the CQ WW Contest Committee released about last year's contest were received with enthusi-

asm. Each entrant can privately review his log and other data in his/her directory on the CQ WW web site. What a great opportunity to have fun and increase your operating skills at the same time.

Please send us your log in electronic format. The easiest way to do this is to send your CW log to <cw@cqww.com> and your SSB log to <ssb@cqww.com>. Your log will help validate the winners, and you get something back, too. You can check the CQ WW home page at <http://www.cqww.com>. There you will find the latest rules and other interesting information, including directions on how to submit an e-mail log entry.

The Distance Rule

One of the unsettling parts of this job is the rumors each year we receive about some Multi-Op station that is operating in violation of the distance rule (Rule III). The rule states, "All transmitters and receivers must be located within a 500 meter diameter circle or within the property limits of the station licensee's address, whichever is greater." Some teams decide that they cannot win if they must be confined to only 500 meters. We have heard many reasons to justify this type of thinking: "We cannot afford it." "We are in a city and can't find 500 meters." We find it easier to reduce interference if we locate stations 30 km apart; after all isn't everyone doing it?"

It sure makes life easier and the score bigger if 20 meters is in one city and 40 meters is in another! The multi can then even run two signals on each band. Many of these Multi-Op teams are driven by wrong information or past bad habits. The truth is that most Multi-Op entries obey the distance rule. Through their skill they have overcome station interference

BAND-BY BAND BREAKDOWN—TOP ALL BAND SCORES

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

WORLD TOP SINGLE OPERATOR, ALL BAND

Station	160	80	40	20	15	10
P40E	352/16/32	778/23/79	1476/30/98	1085/30/98	1706/34/107	1076/28/76
E48EA	112/14/44	751/22/67	1237/35/92	1473/35/92	1736/34/93	1187/27/94
HC8N	398/16/38	480/16/60	1122/28/84	878/30/84	2002/32/101	312/26/71
9Y4H	239/13/35	396/21/66	1598/31/94	704/30/83	1355/31/87	999/30/78
FS5PL	283/11/29	726/18/71	1072/26/83	1111/33/91	1639/33/92	1341/28/78
K1AR	50/12/38	400/20/79	1238/32/105	1063/38/118	982/32/106	314/24/76
A45XR	174/7/37	354/19/60	718/27/74	779/33/97	1254/32/97	810/28/78
8R1K	97/9/17	304/13/50	1074/22/73	1031/32/89	1145/26/84	755/29/77
G10K0W	350/14/62	824/18/75	1267/31/104	1056/30/90	942/29/94	470/19/53

USA TOP SINGLE OPERATOR, ALL BAND

Station	160	80	40	20	15	10
K1AR	50/12/38	400/20/79	1238/32/105	1063/38/118	982/32/106	314/24/76
W1KM	65/16/50	529/23/73	725/26/89	910/32/98	748/30/90	195/19/58
K3ZD	34/11/23	303/18/68	808/32/100	875/34/105	786/29/94	314/21/64
N2VT	49/14/29	201/17/62	1105/32/101	742/33/92	947/27/98	212/22/62
N2LT	28/11/20	238/14/62	669/34/107	804/36/107	904/29/94	335/24/77
KQ2M/1	47/13/37	246/19/69	1052/32/109	757/32/98	646/26/102	248/23/69
W4AN	32/10/29	76/19/53	839/30/95	763/35/109	1110/27/95	186/24/70
N6BV/1	44/13/33	204/13/59	815/23/86	835/34/102	863/24/91	252/21/65
W3BGN	54/13/39	150/17/58	596/30/95	704/32/91	642/24/91	281/24/73

WORLD MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
ZF1A	121/16/44	568/20/76	2332/30/103	1397/38/130	2139/32/109	489/28/78
P3A	367/11/56	1223/21/89	1600/33/108	1152/35/116	1815/36/123	311/28/77
KP3Z	158/17/59	618/23/93	1730/28/102	945/37/126	1666/32/106	1015/31/91
5A2A	294/13/53	769/17/78	1533/29/95	760/33/103	1254/32/97	381/28/78
N2NU	51/17/53	198/23/91	1202/35/128	1072/38/132	1015/34/129	304/31/105
6D2X	255/14/30	517/22/70	2000/33/108	1136/37/108	1786/33/111	435/28/72

USA MULTI-OPERATOR SINGLE TRANSMITTER

Station	160	80	40	20	15	10
N2NU	51/17/53	198/23/91	1202/35/128	1072/38/132	1015/34/129	304/31/105
K1ZZ	59/15/49	162/22/81	898/34/119	935/37/130	730/30/122	261/29/105
K8AZ	33/18/38	117/24/81	926/35/125	826/37/138	773/35/121	257/29/93
W4WA	107/21/29	107/21/69	656/34/114	816/38/121	902/33/119	134/28/82
W9JA	32/17/36	94/24/83	589/36/114	561/38/126	687/33/118	211/23/90
N8NI	59/15/30	92/21/75	777/36/109	708/38/122	632/33/117	87/26/80

WORLD MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
5V7A	326/19/56	683/26/74	2805/38/120	4506/39/145	3725/38/136	1556/30/115
6Y4A	886/22/66	1908/28/95	3724/33/125	3719/40/148	3032/35/127	1501/29/88
E48ZS	320/13/61	1066/22/81	2122/33/115	2738/37/138	2834/39/138	1068/31/101
J39A	395/14/49	1274/24/93	2381/31/109	3570/36/131	2371/33/113	1512/31/74
VE3EJ	67/17/55	1074/27/98	2382/36/132	2335/40/146	1894/34/124	820/30/93
KC1XX	175/20/75	672/26/100	1937/37/136	2011/39/141	1643/35/135	708/30/114

USA MULTI-OPERATOR MULTI-TRANSMITTER

Station	160	80	40	20	15	10
KC1XX	175/20/75	672/26/100	1937/37/136	2011/39/141	1643/35/135	708/30/114
K3LR	141/22/64	520/30/102	1778/33/136	1768/40/149	1654/36/135	643/33/111
W3LPL	175/20/64	625/29/97	1550/35/134	2028/40/144	1526/33/129	641/31/109
K1KI	137/19/61	491/24/85	1555/38/129	2151/40/152	1531/34/129	415/30/105
N3RS	76/16/48	357/21/84	1484/36/128	1692/39/140	1458/34/133	495/39/102
W1MD	90/18/50	424/23/88	805/34/120	1734/38/139	1398/34/124	353/29/101



HZ1AB operated by Thomas, SM0CXU.

and other problems inherent in placing up to six stations in a confined area. Most Multi-Op entries are from well-populated areas of Europe and the US. If violations of the distance rule occur, others can see it or hear it. Competition is tough especially for the top positions. It makes it mean more if you place well and have obeyed the rules.

Thanks

Thanks to the CQ WW log checkers who validated the winners and provided insight into many contesting topics. The 1998 crew includes: K1DG, K3UA, K3ZO, K6NA, KR2Q, N2AA, N2NC, N3ED, N5TJ, N3RA, N6ZZ, N8BJQ, N9RV, W3ZZ, and W7EJ. Our DX advisors were very helpful in offering advice, providing information, and sorting out potential problems. They are CT1BOH, DL6RAI, EA3DU, F6BEE, G3SXW, HS0/G4UAV, I2UIY, JE1CKA, OH2KI, OH2MM, OK2FD, ON6TT, PY5EG, S50A, SM3SGP, UA9BA, and VE3EJ.

A special thanks to Dick, N6AA, who again spent countless hours to make the CQ WW database the best in contesting. The CQ WW uses the software developed by Tree, N6TR, to create the database. John, K2MM, created the entire WWW log entry information. His robot worked smoothly in acknowledging receipt of a log. He also created the search engines utilized by committee members to aid in log checking. Tack, JE1CKA, has created the appearance and non-log data on <cqww.com>. Translations of the rules into Spanish, Japanese, German, and French were done by EA3DU, JE1CKA, DL6RAI, and F6BEE, respectively. Larry, N6TW, was invaluable in retrieving and processing data from e-mail submissions. Thanks to John, K1AR, for his advice and hard work to make the CQ WW so successful.

Congratulations to all the winners! Try to get a fellow contestester on for a local, friendly competition. To participate and have fun is what contesting is all about!

73 and CU in '98!

Bob, K3EST

DX QRM

Goose bumps to listen to KH8 on 28 MHz! . . . IV3TQE. Because of TVI, I used 20W on 20m during the evening and I made a QSO with KL7RA with only 20W! We can only do this during the CQ WW Contest . . . F5PHW. At 2130Z, the bands 7-28 MHz were very open for DX . . . LU3DSI. A big thanks to WA7UVJ and W7KJL for tcvr. It is my second life. I have no left foot and with this tcvr I worked many stations . . . UA4PA. Thoroughly enjoyed the contest! The improved sunspot condx helped. However, I had to shut down twice due to lightning and thunderstorms overhead! Bloody amazing! We have not seen rain for months . . . VK8AV. I could work 6 continents on 3 bands with a simple dipole. Better condx are coming . . . JL7PVR/1. My operation is devoted to my beloved son, Zvonimir, who passed away Nov. 17, 1997 . . . YU1BO. Got the tower and beam up 48 hrs before the test. One hr before the test the Galah's decided it was the best perch in VK . . . VK2AYD.

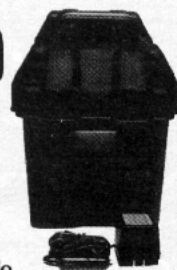
My antenna is a fishing rod whip only up 3 meters . . . JA1MXY. This was the best contest I have ever taken part in! I have never heard 15 meters so open to the USA . . . G0VQR. Thanks again to KH7R and KL7Y for precious multipliers . . . CT1FJK. I used this contest for hunting DX and meeting old friends . . . OH2KQ. Finding marvelous conditions on 15 . . . G3ESF. A great contest, lots of fun, and my code speed went up. Was sorry to see the contest end . . . VE2SKA. Many operators are very professional in automatic sending (very high speed from computer) but have difficulty receiving! . . . SP3FIM. My proficiency in CW is somewhat limited so I cannot be absolutely sure that all contacts are 100% correct. When answering me the speed of my counterpart was sometimes so high that I could have misheard their message . . . SM5PEY.

My first time in CW mode . . . EA7FR. Enjoyable though tiring. Next year must make a more serious effort to work more zone and country multipliers . . . G0WHO. First time QRV in a CW contest, but not the last one . . . PA6IJM. This is my second attempt at a major international contest, and I must say I gained a lot from the experience. I'll

(Continued on page 94)

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NEW ZEALAND			
ZM2K	4,212,468	3551	135 333
PHILIPPINES			
DX1HB	2,583,031	3032	110 213
4G1A	555,9795	1165	77 130

SOUTH AMERICA			
PARAGUAY			
ZP9B	1,395,300	1794	94 206

**MULTI-OPERATOR
MULTI-TRANSMITTER
NORTH AMERICA**

UNITED STATES			
KC1XX	16,680,192	7146	187 701
K3LR	15,430,912	6504	199 697
W3PL	14,586,038	6545	189 677
K1KI	14,480,136	6280	185 661
N3RS	11,837,336	5562	177 635
W1MD	9,982,868	4804	176 622
K8CC	8,976,852	4566	174 600
K2LE/1	8,648,220	4735	157 551
K1WD	8,630,136	4645	181 623
N2RM	8,147,220	4276	159 531
K4VX/0	7,920,933	4382	165 526
W3EA	7,162,430	3786	170 575
W0AIH/9	6,902,082	3851	173 553
NQAI	6,631,020	3726	170 578
K1RX	6,414,510	3831	160 570
W3MM	6,155,360	3215	164 566
W8AV	5,541,184	3146	169 535
W6BA	5,460,852	3304	170 472
W4MYA	5,411,916	3276	156 510
W3PP	4,593,653	2773	165 536
W7RM	4,293,622	3152	162 424
K81H	3,708,787	2400	144 473
K2WS	3,252,080	1920	156 533
K5RT	2,695,625	1597	158 467
N3DL	2,670,392	1844	144 487
K1GW	2,436,885	1804	134 413
W2YC	1,337,526	1171	135 423
W4ZR	1,208,151	1247	117 336
K6SG	1,201,830	986	140 345
K3KNH	720,564	814	106 341
K3ANS	659,894	759	104 313
N1MD	564,186	549	92 307
K1CN	215,710	311	78 187

ALASKA			
KL7Y	12,699,080	9391	167 417

ANTIGUA			
V26KW	9,902,857	7525	138 451

CANADA			
VE3EJ	18,437,120	9176	184 648
VE5RI	560,443	1129	91 156

CUBA			
T49C	7,352,694	7627	128 358

GRENADA			
J39A	19,336,338	11503	169 569

JAMAICA			
6Y4A	29,752,404	14770	187 649

AFRICA

CANARY ISLANDS			
EA8ZS	21,915,001	10148	175 634

IVORY COAST			
TU3F	1,640,412	2250	92 240

TOGO			
5V7A	31,971,148	13601	190 646

ASIA

UNITED ARAB EMIRATES			
A61AJ	9,108,396	6793	142 452

JAPAN			
JH5ZJS	10,120,230	5545	186 504
JA3ZOH	9,416,844	4976	182 487
JA1YFG	3,954,720	3216	163 365
JA3YKC	3,221,240	3262	136 304

EUROPE

BALEARIC ISLANDS			
EA6IB	10,580,839	8339	172 579

CZECH REPUBLIC			
OK10KE	545,072	1219	69 235
OK1KIR	429,307	684	87 244

DENMARK			
OZ5WQ	2,458,979	3357	122 387

DODECANESE			
J45T	1,102,686	4397	93 309

EUROPEAN RUSSIA			
RZ3Q	6,664,224	5915	176 576
RW6AWT	6,349,716	5617	173 584

FINLAND			
OH2HE	12,140,675	7062	205 690

GERMANY			
DF0HQ	12,036,354	7607	186 657
DL0KF	5,570,565	4600	168 567
DK5EZ	2,028,024	2225	114 378
DL5RBR	27,768	159	27 62

HUNGARY			
HG6H	10,295,646	7242	186 611
HG6Y	3,291,314	3735	133 421

ICELAND			
TF3IRA	10,358,889	10210	134 445

LITHUANIA			
LY5A	7,478,400	5677	178 582
LY7A	4,048,328	4480	156 487

NETHERLANDS			
PI4COM	7,876,140	6362	174 571

SPAIN			
EA4ML	8,489,760	7128	155 535

SWEDEN			
SL3ZV	10,498,326	7594	180 573

OCEANIA

HAWAII			
KH7R	15,794,111	8765	183 470

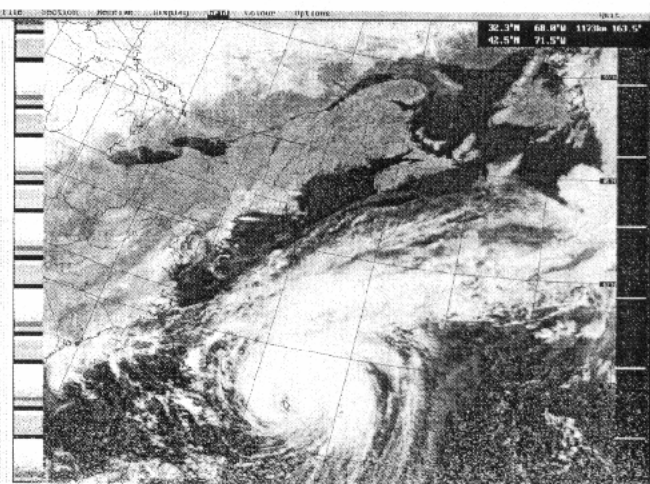
CHECK LOGS

Our thanks to the following stations who sent in check logs:

4X4NJ, 4Z5DW, AA4WX, AA7VG, DF2KK, DJ0SH, D,5AA, DK5OS, DL1DWT, DL2HFW, DL2MIH, DL3HXX, DL5AMF, DL5DWW, DL6KWJ, DL6MWG, DL6UNF, DL7VAF, DL7VAF, DL8DZV, EA1AUI, EA1FAE, EA1KW, EA3AEI, EA4AWJ, EA4FW, EA4RCE (Opr. EA4BSC), EA5AL, EA5JC, EA5LA, EA5OT, EA5WI, EA5YN, EA6BD, EA7CA, EA7XC, ES6MO, EU1TU, EW3LB, G8PW, GW0VSW, HA5AEX, HK3YH, K3SWZ, K4VUD, K6FM, K7AA, LA2TD, LA2XIA, LA4BN, LA4LN, LA4NE, LA4OGA, LA5LT, LA5CC, LA5XX, LA7SI, LA3CD, LA9VGA, LU6XQI, LY1FM, LY3ID, LZ1IQ, LZ2UZ, LZ4UU, M0AEF, N0XCF, OE1GDA, OF3WR, OH1BOI, OH1PY, OH2WD, OH2LYP, OH3MAF, OH3TY, OH3WD, OH4LJL, CH5PT, OH6NEV, OK1ANS, OK1ARQ, OK1DP, OK1DSU, OK1FFP, OK1TW, OK2DA, OK2PKY, OK2FQ, OM2XW, OM5RJ, OZ1EUO, OZ5MJ, OZ5PA, OZ6TL, OZ7AX, OZ7OB, PA0RBA, PA3AEO, PA3ASC, PA3DUS, PS2A (Opr. PT2BW), PU2WDD, PY1ARS/4, PY1BNE, PY3CEM, PY3CJ, PY3TD, PY4AST, PY4OD, RA0ZD, RA0ZN, RA1AZ, RA3XP, RA4YM, RU3DG, RV3DND, RV9XM, RW3DM, RW9AO, RX4CD, RX6LIX, RZ0SO, RZ9UR, SM0BGM, SM0BXT, SM0CSX, SM0LZT, SM4AWC, SM5BEU, SM5BFJ, SM5BUH, SM5MX, SM5OL, SM5PEY, SM6BCK, SM6OLL, SM7CNA, SM7CZC, SP2DWA, SP2FMN, SP2FMN, SP2GUC, SP2LWW, SP2MHD, SP3CYY, SP3ESV, SP3FZN, SP3VA, SP4JSH, SP5FLB, SP5MHI, SP6CES, SP6NIG, SP7BDS, SP7GAQ, SP7H0A, SP7QHS, SP8HKT, SP8JMA, SP9DAE, SP9DOW, SP9DUX, SP9IBJ, SP9MDV, SP9XCN, UA0ZC, UA1A70, UA3DFV, UA4PCB, UA4YJJ, UA6BS, UA9CES, UA9XK, UN6T, UR0RR, UR4LEP, UR5FCD, UR5TAM, US7UJW, US7CQ, UU4JN, VE3AWE, VE3BR, VE3KLM, VE6JO, VK3KS, VK3XB, YK4AJH, W7GSW, W8LYT, YL2PG, Y03BWK, Y03RU, Y05AY, Y05YJ, Y06BHN, Y06FGN, Y06LV, YC6UO, Y08GF, Y08ROO, Y09IF, Y14I, YU7ADA, YU7UA, YZ4IZ, ZY2NW (Opr. PY2NW).

Disqualified: Unverifiable contacts G4KIV.

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