

By Dave Patton, W9QA  
and  
Billy Lunt, KR1R

# 1998 ARRL International DX Contest CW Results

It was a great way to spend a weekend—working DX with 5 W!—K8OUA

**A**fter the last few years of writing about the dearth of sunspots and poor conditions, the 1998 running of the CW version of the ARRL International DX Contest has provided some actual high-band propagation about which to write! Stations around the world commented on the great improvement of the 15-meter band. Other operators were even more pleased to once again hear old friends across the world who had seemingly disappeared with the sunspots.

Activity was high and scores improved over those from 1997. For those of you who are about to experience your first sweeps through the sunspot maximum, start preparing your stations to really take advantage of 10, 15, and 20! And you might want to revisit your strategy for running stations. The general rule of thumb for a station entering one of the all-band categories is to run on the highest band open to a major population area. So, when sunrise rolls around you will find yourself with a terrific problem—which band to run on? Effectively there will be little time to spend on 20 meters (even though 20 will be wide open!), and while 15 may be the “money” band, if 10 meters opens that may be the place to go. If you have the ability and desire to use another radio simultaneously with your running radio (to find multipliers on other bands, scout another band for propagation, etc) great propagation conditions can be even more fun. Keep in mind that often three bands (and possibly four) may be open to the same area at the same time!

There were some great scores and great battles in the 1998 CW contest. How do you recognize a great score? When you read the contest results and look to the score listings, do you find your score and compare it to the other local competitors and then stop reading? If so, you have a lot more to gain by “looking further into the story!” Besides the enjoyment of understanding how great scores are achieved, you can learn much from the score listings including: which stations have favorite bands or modes; discovering that there really is a huge amount of activity from South America if you know where and when to look; finding that there were no entries from your region on a particular band; or maybe discovering that you too could be very successful on a DXpedition with only a vertical antenna from the Caribbean!

Great scores are those that make top score

boxes from an area that has generally worse propagation than the rest of the world—ie, a station located near the Arctic Circle, North Dakota, or the Far East. Of course, a great score does not have to make a top scores box to be “great.” A low-power station that beats a high-power station, a station that works a tremendous number of multipliers despite bad conditions, stations that used small antennas or emergency power and still turned in a superb effort, are all examples of “great scores.” Some of the best scores come from the battles between stations in the same category such as the multi-op categories. Scores that are close together usually indicate terrific competition! Evidence of that can be found in the USA’s multi-two category battle this year!

Starting with the QRP battles, 1998 saw K3PH take the domestic title with a score approaching 500,000! He finished ahead of N7IR who knocked out 397 kilopoints from out west. Both of these scores handily beat

the top score from 1997 and are a great indication of improving conditions. AJ2U jumped on the QRP bus in Bermuda operating VP9ID to a 1.7 million-point victory from the DX side! He far outdistanced the ever-present HP1AC, G0TDX and I3BBK.

KN4T knocked out over 1595 QSOs in the barefoot category for a first place win! Walt’s Florida location probably helped him extend the band openings on 10 and 15 and beat the stiff competition from W2TZ, K1VUT and VO1MP. Farther west, K5RX came in with just under a million points and a seventh-place finish from Texas. The DX side enjoyed lots of low power activity, but it was KE2VB operating WP2Z who took the crown and the record with a 3.3-million point effort that included over 3740 QSOs! K3DI jumped out of the QRP category this year and took second place from VP2EEL. The “Wisconsin guy,” WI9WI placed third with his effort from C6AJZ. The Bahamas proves

## Top Ten

| W/VE Single Operator, QRP, CW | W/VE Single Operator, Low Power, CW | DX Single Operator, QRP, CW | DX Single Operator, Low Power, CW |
|-------------------------------|-------------------------------------|-----------------------------|-----------------------------------|
| K3PH 468,468                  | KN4T 1,602,975                      | VP9ID (AJ2U,op) 1,799,424   | WP2Z (KE2VB,op) 3,369,600         |
| N7IR 397,992                  | W2TZ 1,356,282                      | HP1AC 172,992               | VP2EEL (K3DI,op) 2,422,452        |
| N1TM 362,490                  | K1VUT 1,242,000                     | G0TDX 155,568               | C6AJZ (WI9WI,op) 1,227,150        |
| W8LVN 322,623                 | VO1MP 1,223,508                     | I3BBK 142,884               | KP2/K0DI 1,055,700                |
| W4KY 210,000                  | N8AA 1,148,292                      | JR4DAH 103,068              | 9X0A 1,001,478                    |
| N1CWR 192,192                 | NA2U 1,091,718                      | DL4FN 94,335                | L36E 876,345                      |
| W8QZA/6 185,277               | K5RX 993,300                        | PY2RNJ 72,765               | EA7GTF 779,220                    |
| AA1CA 175,422                 | K4RO 925,704                        | JA6UBK 68,820               | VK5GN 736,020                     |
| W3ZZ 170,016                  | WO4O 910,800                        | JA9RPU 63,840               | ZV8O (PV8ONU,op) 733,026          |
| KD2TT 161,355                 | WT1O 890,781                        | WP4JXD 52,272               | S57DX 730,944                     |



Dan, K1TO, and Ron, WD4AHZ, are busy working stations at K4OJ's multi-multi station in SFL.



John, W1BIH, and Jack, W1WEF, celebrate their victory as the first place multioperator single transmitter world winners at PJ9C.

every year to be a great place to operate the ARRL DX Contests. It is easy to get to, warm and radio friendly, and in 1998 there were no fewer than five active C6A stations on the bands! There were also a couple of other terrific low-power scores from places that aren't quite as close as the Bahamas: 9X0A produced a megapoint from Rwanda and VK5GN came out with over 700,000 points from far away South Australia. Operating the ARRL DX Contest from VK5 made Martin really maximize his band openings!

The guys with the kilowatts put on another show this year. W1KM won a repeat victory in '98, but only by 32,000 points over K1ZM! Both of these scores and those from KQ2M and N6BV/1 beat W1KM's 3.16-million point winner from 1997. W9RE came in 7th from Indiana, and N6IG placed W6AX into the number 10 slot from California with over 2 million points. The DX side was won handily by W2SC who once again avoided operating the contest from Kansas, instead taking on the challenge from sunny 8P9JG. Tom almost made it to 6000 QSOs. Following Tom were FM5DN, YV5A (OH0XX), LT1F (LU5CW), and NH7A (N6HR). These guys gave us all lots of multipliers in 1998! The European champion for 1998 is F6FGZ.

The single operator assisted category saw KIIG place KING in the winner's circle again this year, followed closely by K3WW, and eight more W2s and W3s! Obviously the East Coast PacketCluster network works okay! Both KING and K3WW beat W1KM's score and provided solid evidence of the advantage of packet DX spotting assistance.

The single bands were a mixed bag in 1998. The low bands did not perform anywhere near 1997's level, but still great scores abound. W4ZV found 71 countries to win 160 meters from the US, while EA8ZS put his big signal well into North America to win 160 from the DX side. SP7GIQ nearly caught 'ZS with a fine 30,000 score!

Eighty meters saw Rob, W1MK, nearly repeat his score from last year at 274k! K8MK came in second at 173k, and going west, K9DX was third, and K5MR came in at number 5. Way out west, K6SE piled-up 27k from California. The DX side of 80 meters found ON4WW keying OT8T to 121,000 and a win over DF9ZP. In the great score category, KL7RA finished just out of the top 10 with a 32k score from Alaska!

On 40 meters AD6DO abandoned his old KC6CNV call sign, and put up 283,000 points for a terrific winning score over last year's winner, N7DD. One of the C6 stations, C6A/K4PG, produced 227k to win from the DX side. 9A5Y (9A3LG operating) pulled in 2nd worldwide. Interestingly, Europe was a great place to be in 1998 for making the top score boxes. On 160 meters European stations took spots 2 through 10, on 80 they took spots 1 through 10, on 40 they took spots 2 through 10, and on 20 meters, again, Europeans finished number 2 through number 10!

Twenty meters was a battle of zeroes in the US, as W0UA at W0UN took the number one slot over that other "Wisconsin guy" (the

### W/V Single Operator, High Power, CW

| Call Sign       | Score     | 160    | 80     | 40     | 20      | 15     | 10    |
|-----------------|-----------|--------|--------|--------|---------|--------|-------|
| W1KM            | 3,742,200 | 124/51 | 559/69 | 788/78 | 1040/89 | 599/80 | 40/29 |
| K1ZM            | 3,709,221 | 104/52 | 312/67 | 910/83 | 820/88  | 827/89 | 50/30 |
| KQ2M            | 3,457,458 | 85/49  | 510/69 | 796/76 | 821/90  | 723/79 | 43/24 |
| N6BV/1          | 3,219,990 | 80/46  | 291/62 | 787/80 | 1139/82 | 643/74 | 25/18 |
| N2LT            | 3,005,775 | 75/38  | 267/54 | 620/74 | 815/85  | 935/94 | 33/20 |
| K3ZO            | 2,852,700 | 72/40  | 225/57 | 617/69 | 880/87  | 715/84 | 61/33 |
| W9RE            | 2,372,931 | 60/38  | 140/53 | 341/70 | 638/81  | 941/91 | 59/30 |
| W4PA            | 2,290,554 | 37/27  | 170/53 | 525/73 | 905/88  | 564/83 | 25/19 |
| K1ZR (at KB1SO) | 2,185,440 | 39/29  | 203/55 | 660/71 | 1010/84 | 388/63 | 20/12 |
| W6AX (N6IG,op)  | 2,053,716 | 14/12  | 106/43 | 535/70 | 643/85  | 742/81 | 86/31 |

| W/V 160      | W/V 80        | W/V 40        | W/V 20        | W/V 15        | W/V 10       |
|--------------|---------------|---------------|---------------|---------------|--------------|
| W4ZV 42,600  | W1MK 274,860  | AD6DO 283,692 | W0UN 495,495  | K5TR 343,200  | K4JYO 11,931 |
| W2VO 20,955  | K8MK 173,826  | N7DD 196,416  | (W0UA,op)     | (at W5KFT)    | W9GIL 11,070 |
| K4TEA 16,692 | K9DX 132,720  | N2PP 188,964  | NS0Z 397,188  | WW4RR 313,020 | W5ZO 9,804   |
| WF2W 15,120  | VE1JF 118,188 | K4VX 186,186  | (W9WI,op)     | (N4ZZ op)     | KC5QBG 7,695 |
| K3OSX 8,322  | K5MR 77,760   | (K9BGL,op)    | WS1M 277,560  | NSN 298,758   | W7USA 5,580  |
| VE3OSZ 7,638 | VE3DO 67,776  | AA7A 137,124  | K1DKX 275,616 | (at K5MR)     | A12C 5,568   |
| W4SVO 7,104  | N2GC 60,450   | N2FY 56,283   | K2BA 220,806  | N4VZ 263,025  | K1DII 3,519  |
| W8WEJ 3,219  | K3JGJ 60,102  | WB8ZWY 33,930 | K7ZA 209,250  | W9IW 218,160  | W1RFQ 1,425  |
|              | W1UK 53,856   | N8PR 27,048   | W9OF 183,456  | (ES2RR,op)    | N3CZB 12     |
|              | W4HM 27,720   | W4NTI 22,344  | W5FO 166,320  | K9QVB 170,748 |              |
|              |               | W3KT 20,736   | K7ZZ 149,202  | W4SO 158,004  |              |
|              |               |               | K9CAN 111,024 | N7BZ 155,034  |              |
|              |               |               |               | N4IR 136,290  |              |
|              |               |               |               | W6BSY 121,626 |              |

### DX Single Operator, High Power, CW

| Call Sign       | Score     | 160    | 80     | 40      | 20      | 15      | 10      |
|-----------------|-----------|--------|--------|---------|---------|---------|---------|
| 8P9JG (W2SC,op) | 5,822,952 | 269/46 | 598/57 | 1198/57 | 1262/57 | 1161/56 | 1376/58 |
| FM5DN           | 4,275,876 | 192/37 | 504/55 | 893/56  | 1043/58 | 1085/59 | 751/54  |
| YV5A (OH0XX,op) | 3,659,880 | 0/0    | 352/54 | 558/55  | 1100/57 | 1125/57 | 1222/57 |
| LT1F (LU5CW,op) | 3,534,732 | 5/5    | 154/41 | 807/54  | 813/57  | 1007/58 | 1483/60 |
| NH7A (N6HR,op)  | 3,172,104 | 155/42 | 287/49 | 842/57  | 472/54  | 954/57  | 679/53  |
| V47KP (W2OX,op) | 2,582,139 | 161/38 | 296/43 | 463/48  | 502/53  | 891/57  | 686/48  |
| OA4SS           | 2,323,785 | 0/0    | 194/42 | 340/52  | 679/57  | 759/57  | 951/57  |
| F6FGZ           | 2,060,658 | 147/35 | 382/43 | 784/52  | 933/55  | 628/54  | 0/0     |
| OK1RF           | 2,046,120 | 122/30 | 365/43 | 838/53  | 829/56  | 736/54  | 0/0     |
| S58A            | 1,883,007 | 99/29  | 230/36 | 821/56  | 759/56  | 631/53  | 43/13   |

| DX 160        | DX 80                   | DX 40            | DX 20                   | DX 15            | DX 10          |
|---------------|-------------------------|------------------|-------------------------|------------------|----------------|
| EA8ZS 36,036  | OT8T 121,476            | C6A/K4PG 226,722 | ZF2NE 350,784           | FM5CD 326,388    | LU3HIP 202,440 |
| SP7GIQ 30,987 | (ON4WW,op) 9A5Y 207,081 | 9A5Y 207,081     | (W5ASP,op) 9A5Y 207,081 | PY0ZFO 317,715   | PY0FF 145,200  |
| S50U 28,128   | DF9ZP 92,355            | (9A3LG,op)       | SP2FAX 244,260          | (W9VA,op)        | CX9BT 76,845   |
| S57M 22,134   | (K8ZB,op)               | S52AW 198,012    | OH8LQ 228,420           | T17/N4MO 235,809 | LU9APM 48,096  |
| I3VHO 18,228  | OM5DX 80,511            | S53M 196,896     | IT9XUC 207,180          | HC2SL 217,500    | PJ5JP 39,216   |
| HA0DU 15,072  | YU1EXY 79,821           | (S51TA,op)       | S50K 190,878            | S50LF 178,350    | VK4XA 32,967   |
| OK1AEZ 10,584 | OM3PA 66,264            | EA7KW 188,442    | OM3NA 181,431           | OT8A 159,390     | CX9BAG 16,920  |
| YU7AU 10,212  | DL5YM 65,898            | HB5H 187,920     | YT1R 174,522            | (ON5UM,op)       | 9A1CAL 252     |
| F6CWA 7,209   | YZ9A 57,933             | (HB9FAP,op)      | (YU1ZZ,op)              | PY2XE 136,950    | (9A3JI,op)     |
| YZ4IZ 7,062   | (YU1NW,op)              | YT7A 175,566     | DL0DAN 160,215          | C6A/N4BP 127,200 | ZV2VT 48       |
|               | ON4AKL 51,786           | YU7KW 166,896    | LA8W 144,420            | IK4WMM 124,497   | JA0RYN/7 42    |
|               | S53X 41,769             | OT8T 159,318     | (LA4DCA,op)             | CO8LY 122,907    |                |
|               | YU1KR 39,975            | (DL2CC,op)       | OK1FPG 141,288          |                  |                |
|               |                         | OM5M 146,172     |                         |                  |                |
|               |                         | (OM2RA,op)       |                         |                  |                |

original Wisconsin guy we must add!), W9WI, who operated NS0Z in Missouri. W9WI is one of the best CW operators in the US, and has quietly compiled nice scores year after year. One can say the exact same thing about W0UA too! Look at these two zero-district scores and understand that you are seeing great scores! W9WI has also won the KC DX Club's CW copying competition at the Dayton Hamvention several times, so obviously that competition truly reveals the best! Other high finishers in the copying competition year after year include K3ZO and K5ZD. Look for their scores very high up in the standings too! From the DX side, Joe, W5ASP, played 20 meters from his favorite ZF2NE spot. Joe repeats his win from 1997 while beating another fine number 2 score from Poland—SP2FAX!

The big story from 1998 was the improvement in conditions and scores on 15 meters. In the early stages of the sunspot cycle upswing, stations in the southern areas of the US, and in fact, anywhere south and/or near the equator really do well on 15 and 10 meters. K5TR put W5KFT's station to good use in winning the US with a 343 kilopoint score over N4ZZ using his funny looking WW4RR club call at 313k. Last

year's winning 15 meter score from the US was 61,000 points! FM5CD beat W9VA who was operating at PY0ZFO for the top honors on 15 from the DX side. To win from Europe ON5UM keyed OT8A to 159k on 15, so the good conditions were enjoyed everywhere!

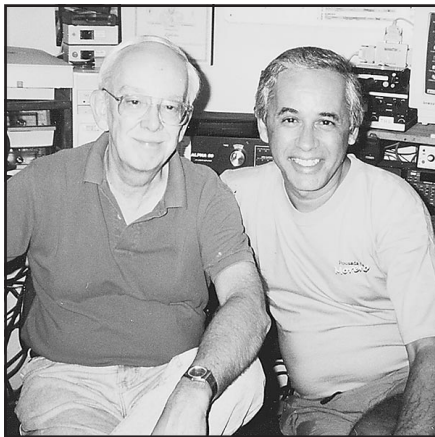
Ten meters just wasn't quite there yet for the US and Canadian stations. K4JYO put together enough QSOs for 11,000 points, which was about 10 times better than 1997! LU3HIP had a much better time on 10 amassing 202,000 points and beating the competition of PY0FF.

The always-competitive multioperator categories provided a lot of fireworks in 1998. The K5ZD station and operators pulled in with a 4 megapoint score and first place domestically in the Multi-single class just ahead of W3BGN and N2RM. From the ABC islands once again this year came the fight for world honors. PJ9C, with W1BIH and W1WEF at the controls beat P49V and V31TP in a 1-2-3 finish that mirrored 1997. Can this finish order happen again next year? Multi-single in Europe is also very popular and TM9C pulled out all the stops to win from the old continent.

Multi-two saw the best competition in 1998. A mere 351,000 points separated the domestic winner, K1AR, from number four,



Cam, HP1AC, tried QRP and finished in second-place single-operator world QRP.



Bill, PYØZFQ (W9VA, operating), and Andre, PYØFF, get together before the contest in Andre's shack.

K1CA. But much closer than that was the distance between first and second as N2NU and crew came up only 10,000 points behind K1AR! Obviously these are great efforts all the way around, and the camaraderie and competition, must have made this contest one to remember. N3RS was sandwiched into third place, but still only 177,000 out of first. A few more QSOs here and there by any of these stations could have made big differences. Keep that thought in mind next year when you have to leave the radio for a bathroom break! From the Caribbean, KP3P piled-up 7.3 million points to win the world in multi-two. As a sign of things to come these guys made over 1100 QSOs on 10 meters. The 6E2L group again finished second followed by a nice effort from Hawaii's KH7R at 5.5 million, and K8CC/C6A at 5.2 million. The European champion of multi-two was G4BUO.

W3LPL again won the battle of the giants nearing 9.4 million points in the multi-multi category. Not far behind were K3LR and K1KI. Both 'LR and 'KI moved up from their 5th and 4th place finishes in 1997—nice job guys! LPL wins M/M for the 4th straight year, and 15th year in a row in either first or second place! The V26B station found itself the "King of the Caribbean" for 1998 with a nearly 10 million-point score that out-

## Top Ten

### W/VE Single Operator Assisted, CW

| Call Sign      | Score     | 160    | 80     | 40     | 20      | 15     | 10    |
|----------------|-----------|--------|--------|--------|---------|--------|-------|
| K1NG (K1IG,op) | 4,145,376 | 107/56 | 314/74 | 774/93 | 1020/99 | 687/93 | 76/49 |
| K3WW           | 4,034,070 | 116/58 | 289/79 | 839/92 | 982/100 | 760/88 | 29/29 |
| W2GD           | 3,367,602 | 92/59  | 277/72 | 649/87 | 821/97  | 581/97 | 58/41 |
| K2NG           | 3,186,366 | 90/59  | 292/78 | 583/90 | 626/95  | 640/92 | 63/49 |
| N2MM           | 2,736,648 | 85/48  | 215/63 | 640/80 | 842/92  | 475/87 | 35/28 |
| N3AD           | 2,708,820 | 83/44  | 368/73 | 513/82 | 756/88  | 463/82 | 52/35 |
| K2WK           | 2,395,176 | 93/55  | 200/67 | 398/81 | 796/97  | 339/83 | 57/41 |
| AA3B           | 2,182,002 | 45/36  | 310/61 | 503/73 | 631/79  | 485/79 | 52/31 |
| K3NZ           | 2,091,000 | 63/51  | 177/68 | 270/81 | 633/95  | 425/90 | 72/40 |
| N3RR           | 1,955,892 | 70/45  | 71/48  | 357/77 | 612/95  | 499/88 | 67/36 |

### W/VE Multioperator Single Transmitter, CW

| Call Sign | Score     | 160    | 80     | 40     | 20      | 15     | 10    |
|-----------|-----------|--------|--------|--------|---------|--------|-------|
| K5ZD      | 4,123,434 | 134/52 | 328/76 | 839/82 | 1048/99 | 774/93 | 44/32 |
| W3BGN     | 4,099,590 | 130/56 | 345/77 | 813/86 | 1006/98 | 666/89 | 70/45 |
| N2RM      | 3,520,860 | 72/35  | 294/66 | 683/88 | 853/94  | 859/94 | 67/38 |
| W4WA      | 2,859,291 | 79/48  | 201/72 | 504/90 | 752/95  | 591/92 | 54/40 |
| K1VR      | 2,761,344 | 69/46  | 429/69 | 800/86 | 783/82  | 289/77 | 27/24 |

### W/VE Multioperator Two Transmitter, CW

| Call Sign | Score     | 160    | 80     | 40       | 20       | 15       | 10    |
|-----------|-----------|--------|--------|----------|----------|----------|-------|
| K1AR      | 6,937,098 | 87/52  | 610/86 | 1278/103 | 1730/112 | 859/101  | 70/45 |
| N2NU      | 6,926,310 | 147/60 | 680/90 | 965/96   | 1443/107 | 1199/105 | 93/52 |
| N3RS      | 6,759,654 | 135/58 | 572/84 | 1266/98  | 1328/110 | 1061/109 | 91/47 |
| K1CA      | 6,585,600 | 105/50 | 823/90 | 862/94   | 1597/111 | 1012/101 | 81/44 |
| K8AZ      | 5,707,065 | 89/49  | 427/81 | 913/97   | 1449/108 | 999/105  | 78/41 |

### W/VE Multioperator Unlimited Transmitter, CW

| Call Sign | Score     | 160    | 80     | 40       | 20       | 15       | 10     |
|-----------|-----------|--------|--------|----------|----------|----------|--------|
| W3LPL     | 9,435,786 | 271/74 | 967/94 | 1304/106 | 1675/122 | 1206/113 | 134/57 |
| K3LR      | 9,006,480 | 218/69 | 801/96 | 1234/108 | 1755/119 | 1226/111 | 127/57 |
| K1KI      | 8,802,990 | 222/65 | 904/90 | 1280/102 | 1742/117 | 1246/107 | 101/53 |
| K1RX      | 5,821,920 | 194/58 | 605/83 | 747/87   | 1637/106 | 768/99   | 92/47  |
| K4OJ      | 5,088,006 | 74/43  | 220/66 | 769/96   | 1132/98  | 1364/106 | 112/53 |

### DX Single Operator Assisted, CW

| Call Sign | Score     | 160   | 80     | 40     | 20     | 15     | 10  |
|-----------|-----------|-------|--------|--------|--------|--------|-----|
| DK3GI     | 1,585,950 | 45/16 | 367/46 | 554/47 | 826/56 | 633/53 | 0/0 |
| S5ØR      | 759,186   | 0/0   | 0/0    | 684/54 | 617/55 | 353/45 | 0/0 |
| IKØHBN    | 589,536   | 6/5   | 179/32 | 270/39 | 336/52 | 307/47 | 6/3 |
| PA3EOB    | 558,714   | 34/13 | 321/39 | 104/26 | 270/47 | 373/44 | 0/0 |
| JH4NMT    | 473,148   | 4/4   | 83/19  | 218/40 | 298/44 | 407/48 | 1/1 |

### DX Multioperator Single Transmitter, CW

| Call Sign | Score     | 160    | 80     | 40      | 20      | 15      | 10      |
|-----------|-----------|--------|--------|---------|---------|---------|---------|
| PJ9C      | 5,802,870 | 254/49 | 658/54 | 1114/58 | 1228/57 | 949/59  | 1571/58 |
| P49V      | 5,480,640 | 288/44 | 497/55 | 1141/58 | 1217/58 | 1115/58 | 1278/57 |
| V31TP     | 4,783,608 | 159/39 | 421/50 | 1092/57 | 1055/58 | 1372/56 | 947/56  |
| T15N      | 4,537,128 | 137/39 | 543/54 | 1032/57 | 1084/56 | 996/56  | 994/54  |
| XA5T      | 4,033,260 |        |        |         |         |         |         |

### DX Multioperator Two Transmitter, CW

| Call Sign | Score     | 160    | 80     | 40      | 20      | 15      | 10      |
|-----------|-----------|--------|--------|---------|---------|---------|---------|
| KP3P      | 7,375,830 | 264/52 | 875/58 | 1534/58 | 1585/57 | 1771/58 | 1181/58 |
| 6E2L      | 6,861,657 | 358/52 | 933/56 | 1617/60 | 1268/58 | 1693/58 | 918/53  |
| KH7R      | 5,575,344 | 282/51 | 611/53 | 1099/57 | 1035/56 | 1743/58 | 896/53  |
| K8CC/C6A  | 5,282,760 | 462/55 | 815/57 | 1282/58 | 1237/57 | 1082/57 | 442/47  |
| G4BUO     | 2,719,317 | 243/36 | 686/55 | 630/50  | 1146/58 | 819/55  | 3/3     |

### DX Multioperator Unlimited Transmitter, CW

| Call Sign | Score     | 160    | 80      | 40      | 20      | 15      | 10      |
|-----------|-----------|--------|---------|---------|---------|---------|---------|
| V26B      | 9,781,728 | 724/58 | 930/59  | 1938/57 | 1767/59 | 2165/60 | 1739/59 |
| VP5FXB    | 8,146,149 | 783/57 | 1224/60 | 1766/58 | 1767/58 | 1901/58 | 522/50  |
| 9A1A      | 3,419,469 | 322/39 | 703/53  | 1164/57 | 1218/58 | 843/54  | 19/6    |
| JA1YFG    | 1,670,493 | 31/15  | 231/42  | 589/53  | 761/56  | 782/52  | 59/9    |
| UU5J      | 1,143,882 | 35/16  | 289/43  | 526/48  | 611/56  | 381/44  | 0/0     |

distanced the G3FXB memorial operation of VP5FXB. 9A1A again won European honors, and JA1YFG pulled in fourth from far away Japan.

## SOAPBOX

### W/VE CW

Great Contest! The conditions were slow but steady and allowed me to finish the contest this year (N6RV). Bad QRN at the end of the contest resulted from a deadly tornado outbreak 100 miles north, four hours after the contest ended. A little too close for comfort (KN4T). Still no Europe on 10 meters. Maybe next year (N7LOX). This is the first time in 30 years that I didn't have an amp in the shack. I had a ball operating low power and I still managed to beat last year's score when I had an amp (W5CWQ). It was fun to have 15 meters back again! The low bands were hopping the first night (K9MMS)! The QRP fun continues (W9UR)! Wow! What a difference a year makes. It was nice to hear all those European signals on 15 meters (WA7BNM). We had excellent propagation here the first two days. However, I should have stayed in bed on Sunday (K5WO). Nice to find a frequency and run it for a change. Highlight of the contest was running Europe Sun-

day morning, great conditions (KA1CLX). Rain static became bad Saturday evening. When the thunderstorms started rolling in, I decided to pull the plug for a few hours (N6ZZ). All was going well until a powerful El Nino storm blew through. I struggled to operate dodging lightning strikes and trying to hear through rain static (W5UN). Great conditions on all band entrants. Could not believe the DX that answered (W3DA)! The rates were great! Had 149 QSOs in a 60-minute period on Saturday morning. Conditions are getting better (NJ2L)! JA opening at the end of the contest really livened things up (K4OGG)! Sure was nice to have good band conditions for QRP. My best ever QRP effort on 80 and 40 meters (K2JT). Signals from Europe combined with usual USA, overloaded my receiver on 40 meters; had to use Beverage antennas to receive (AA4S). Single band effort on 10 meters was not a very good idea. Thank goodness for science fiction books and automatic keys (K4JYO). Great experience to work the contest from this side of the Atlantic (ES2RR). My first DX contest with a Yagi, they really do work (NØUR)! Eighty meters was superb for hunt and pounce, as DX stations seemed to be every 2 kHz (N4UH). Greatly enjoyed the contest in spite of QRN generated by El Nino fueled storms (W4HM). My antenna was a ground plane in my second floor bedroom! Thanks to all

## WVE Region Leaders

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

### CW

| Northeast Region<br>(New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections) |           |   | Southeast Region<br>(Delta, Roanoke and Southeastern Divisions) |           |   | Central Region<br>(Central and Great Lakes Divisions; Ontario Section) |           |   | Midwest Region<br>(Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections) |           |   | West Coast Region<br>(Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT/Yukon Sections) |           |   |
|--|-----------|---|---|-----------|---|--|-----------|---|---|-----------|---|---|-----------|---|
| K3PH   | 468,468   | A | N1CWR   | 192,192   | A | W8LVN  | 322,623   | A | N0UR  | 151,380   | A | N7IR  | 397,992   | A |
| N1TM   | 362,490   | A | WA8WV   | 137,475   | A | W4KY   | 210,000   | A | KI0G  | 17,919    | A | W8QZA/6   | 185,277   | A |
| AA1CA  | 175,422   | A | K4GEL   | 37,584    | A | K8OUA  | 112,608   | A | N5XJ  | 12,012    | A | WA6TLA  | 76,719    | A |
| W3ZZ   | 170,016   | A | KE4W  | 363       | A | W9UR   | 35,955    | A | K1EQA   | 3,564     | A | NQ7X  | 55,176    | A |
| KD2TT  | 161,355   | A |   |           |   | K8UCL  | 16,380    | A | KI0II   | 1,116     | A | N6AZR   | 50,760    | A |
| W2TZ   | 1,356,282 | B | KN4T  | 1,602,975 | B | N8AA   | 1,148,292 | B | K5RX  | 993,300   | B | W6JTI   | 805,734   | B |
| K1VUT  | 1,242,000 | B | K4RO  | 925,704   | B | N8BJQ  | 738,978   | B | WD5K  | 788,310   | B | K7ED (WA0RJY)   | 608,940   | B |
| VO1MP  | 1,223,508 | B | WO4O  | 910,800   | B | WB8YJF   | 681,615   | B | K5WO  | 365,310   | B | K7FR  | 548,580   | B |
| NA2U   | 1,091,718 | B | K5KLA   | 784,464   | B | WO9S   | 648,024   | B | K5QF  | 354,432   | B | KG7XC   | 432,066   | B |
| WT1O   | 890,781   | B | K1KY  | 737,481   | B | K9OM   | 614,421   | B | N5HRG   | 302,328   | B | K6WVW   | 378,972   | B |
| W1KM   | 3,742,200 | C | W4PA  | 2,290,554 | C | W9RE   | 2,372,931 | C | W5UN  | 1,743,048 | C | W6AX (N6IG,op)  | 2,053,716 | C |
| K12M   | 3,709,221 | C | WC4E  | 1,862,712 | C | N9AG (at N8NR)   | 1,554,021 | C | K5YA  | 1,702,557 | C | K6NA  | 1,528,623 | C |
| KQ2M   | 3,457,458 | C | N4ZR  | 1,707,300 | C | K9MA   | 1,355,328 | C | N6ZZ  | 1,582,056 | C | W2VJN/7   | 1,289,790 | C |
| N6BV/1   | 3,219,990 | C | K0EJ  | 1,562,652 | C | K78X   | 1,283,337 | C | K5NA  | 1,499,736 | C | K7BG  | 1,174,068 | C |
| N2LT   | 3,005,775 | C | W9LT  | 1,305,546 | C | K9BG   | 1,245,270 | C | K5YAA   | 1,180,170 | C | N6RV  | 1,058,583 | C |

those great DX stations that had the patience to pull my call out of QRM (AA8NT). First time ever in the Multi-two category. We had a great time (N4TO). I was pleasantly surprised at how many multipliers I worked barefoot on 10 meters with an inverted V and barefoot on 160 meters (KQ2M). My first time QRP, and the most amazing thing to me is that you can actually make through some big pile-ups with 5 W (W4KY). I was happy to see the ARRL Executive Vice President K1ZZ operating in the contest and was gratified that he took time out to work me for zero points (K5YP). Best conditions I've heard on 15 meters since the last sun spot cycle. It was lots of fun to be able to run JAs (WW4RR). I was surprised to do better on 15 meters than 20 meters (W0TM). I decided to do an all-out effort. I was surprised at what I could do with a modest station (K6PUD). This contest was lots of fun! You can run a lot with low power, so it's mostly a S&P game, except during prime openings (K4RO). It was nice to hear so many calls on 20 and 15 meters, which I haven't heard in several years. Welcome back friends (N0AX)! Great contest! I did better than I've ever done before, still with only dipoles and verticals (N6NR)! I haven't operated this contest for several years (no antennas). Friday I dug an old 14AVQ vertical out and stuck it in the backyard. Hooked the barefoot TS-930 to it hoping to make a few contacts. 400 QSOs later I'm hooked again (N5AW)! I hadn't been on 15 meters in a while and it was nice to find a variety of good DX on the band (KD7H). The band conditions were better than anything I've ever played in before (K1KY)! I'm 17 years old and a relatively new contester, but I'm learning fast. Thanks to all those who pulled me out to give me a new country or band-country (AA8UP).

### DX CW

Very nice contest (ON7CC). EU CQ contesters filled the entire 160-meter band, so it was very difficult to hear US CQ contesters (OZ7NB). Incredible contest! At times I found myself in big pile-ups (IK4ZHH). It's so much fun having contacts with the USA (OH1UP). The sunspots are here again (OH2YL)! This contest was lots of fun! Fifteen meters was wide open (G4KHM). There were big signals on the band, but we couldn't get to the West Coast. We heard Arizona and California, but weren't able to work them. However, I enjoyed myself and that's what really counts (ON4AKL). It was great working the US on 40 and 80 meters and also some new states on 20 and 15 meters (LA8ZJA). The conditions to W6/W7 were beautiful, the first day (OK1FPG)! Another great weekend! See you all next year maybe on 10 meters (GW3SYL). I was pleased with the few 80 meter QSOs I was able to grab on my R7, which is a really poor performer on that band (HO3A). Thanks to all who heard and called my peanut whistle (TI7/N4MO). Working 40 meters barefoot was tough, but it was a lot of fun too (IL3/IK2MRZ)! As usual an enjoyable contest. With more sunspots all the signals rolling in from NA is a lot of fun (DL4AAE). It was obvious that 15 meters was open and playing well. However, there wasn't nearly as much activity on 20 meters as there has been in the past (W5ASP). Very good propagation on 80 meters (RA6LW). Well, the sunspots are coming back, but they're still unpredictable. As usual 15 and 40 meters provided the bread and butter for me (VK5GN). Despite wire antennas, computer problems and low antenna heights I enjoyed the contest (XE2/W5WMU). Fifteen meters was alive, next year I bet it'll be 10 meters! Greater fun to come, see you in 1999 (F6FGZ)! Much better

propagation than last year, but it is tough to compete with the west Europeans in this contest (OK1RF). I entered the contest as 160 meters single band and worked with only 100 W. It was very exciting! I could hear many USA stations, but few people transmit "CQ contest" (JE1SPY). I again found the North American operators to be both patient and courteous (GM3ZAS). My wife only allowed me five hours in the contest. I will make a better arrangement for next year (SM5CIL). I enjoyed the contest; I was able to make a lot of calls on 50 meters with only a fishing rod and whip antenna (JA1MXY). Great conditions; my first call was answered with just 5 W (K3TW)! Many thanks for the contest, unfortunately there were rather bad conditions, at times (SM5ALJ). Very nice propagations and a nice weekend. I was able to work all stations with simple antennas. I worked my first 50 QSOs with an amplifier and all others with only 100 W, without a problem (S57AW). Conditions weren't bad, however I was unable to work a lot of East Coast stations (JA6SHL). As usual a fine contest, but low frequency conditions weren't too good. I was only able to reach as far west as Nebraska on the top band (SM6CPY). Fifteen meters has always been my favorite band. This time around it was fantastic (DL4FN)! Propagation to USA reasonably good for my 100 W and vertical. However, I didn't hear any US on 10 meters (G6QQ). My best effort in ARRL CW! What 100 W can do is unbelievable (EW1NY)! Conditions were nice and to our surprise we made QSOs even on 160 meters. However, 80 meters could have been better (OH5NQ). Had a lot of fun working the contest, even with low power and dipole antennas (DL8ZAW). Tiny contester, but big fun (F6CAV)! Enjoyable contest and good propagation on 15 meters, this year (G3RSD).

## WVE Plaque Winners—CW

| Single Operator    | Winner          | Donor                                     |
|--------------------|-----------------|---|
| All Band           | W1KM            | Frankford Radio Club                      |
| 3.5 MHz            | W1MK            | Thomas Rylander, SM3DMP                   |
| 7 MHz              | AD6DO           | Northern Arizona DX Assn                  |
| 14 MHz             | W0JUN (W0UA,op) | QSLs By W4MPY                             |
| 21 MHz             | K5TR (at W5KFT) | Carl Luetzelschwab, K9LA                  |
| 28 MHz             | K4JYP           | Green River Valley, IL ARS                |
| Low Power          | KN4T            | Dauberville DX Assn                       |
| QRP                | K3PH            | Tod Olson, K0TO                           |
| Assisted           | K1NG (K1G,op)   | Richard Hallman, N7TR                     |
| Multioperator      |                 |   |
| Single Transmitter | K5ZD            | Northern Illinois DX Assn                 |
| Two Transmitter    | K1AR            | Order of Boiled Owls of NY, W2AO Memorial |
| Unlimited          | W3LPL           | Alpha/Power, Inc.                         |

## DX Plaque Winners—CW

| Single Operator                   | Winner          | Donor   |
|-----------------------------------|-----------------|---|
| World                             | 8P9JG (W2SC,op) | North Jersey DX Assn                              |
| Africa                            | 9X0A            | Byron P. Peebles, Jr, NZ3O                        |
| Asia                              | JH5FXP          | Alamo DX Amigos                                   |
| Europe                            | F6FGZ           | Jerry Griffin, K6MD                               |
| North America                     | FM5DN           | Potomac Valley Radio Club                         |
| Oceania                           | NH7A (N6HR,op)  | Steve Franke, K9AN and John Brosnahan, W0UN       |
| 1.8 MHz                           | EA8ZS           | Fred Race, W8FR, DL1FF, Memorial                  |
| 3.5 MHz                           | OT8T (ON4WW,op) | Jim Knutson, KD0AV                                |
| 7 MHz                             | C6A/K4PG        | Thomas P. Gannon, W3YX, Memorial                  |
| 28 MHz                            | LU3HIP          | Ft Wayne DX Assn                                  |
| Low Power                         | WP2Z (KE2VB,op) | Jim Stevens, K4MA                                 |
| QRP                               | VP9ID (AJ2U,op) | Jerry Griffin, K6MD                               |
| Assisted                          | DK3GI           | Willamette Valley DX Club                         |
| Multioperator, Single Transmitter |                 |   |
| World                             | PJ9C            | John Brosnahan, W0UN                              |
| Asia                              | JA7YAA          | Yankee Clipper Contest Club                       |
| Europe                            | HG1S            | The Radio Place                                   |
| Multioperator, Two Transmitters   |                 |   |
| World                             | KP3P            | Tom De Meis, K2TD, Memorial, Frankford Radio Club |
| Europe                            | G4BUO           | Jim George, N3BB                                  |
| Oceania                           | KH7R            | Oklahoma Comm Center and AH9B                     |
| Multioperator, Unlimited          |                 |   |
| World                             | V26B            | H Stephen Miller, N0SM                            |
| Asia                              | JA1YFG          | Hajime Kato, JO1RUR/2, KH0G                       |
| Europe                            | 9A1A            | Texas DX Society                                  |
| North America                     | VP5FXB          | Alpha/Power, Inc.                                 |







