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CW Results, 1996 ARRL International DX Contest

Watch for the Phone results next month in October QST.

Ham radio and geography go hand in hand. In the ARRL International DX contest this year, *where you were* had everything to do with *how you placed!* Basically—and this is nothing new—if you were in the US or Canada, the closer you were to Europe, the higher your score was. If you were DX, the closer you were to the US and Canada, the higher your score! Of course, then one must consider distance from the auroral zone and other geomagnetic activity in order to find optimal locations for the ARRL DX contests.

But the contest is about more than making high scores. It is about learning and experiencing different aspects of this hobby. And just as contesting is a niche within Amateur Radio, there are subareas within contesting! I can identify five major subareas: (1) Operating—getting the most out of your equipment and antennas, and experiencing the joys of communication. (2) Competition—the sheer thrill of trying to best your closest competitors. (3) Travel and Adventure—why not combine a contest with a DXpedition? (4) Friends—multi-operator contest weekends can be among the most satisfying times for hams to work together and have fun. (5) DXing—before, during, and after the event. DX contests always draw heavy activity from lots of rare and interesting places, and all those DXpeditions have to get on and test those antennas *before* the contest! Some people really prefer one or two of the above activities. Others like them all. So, regardless of conditions, you can have a blast in the ARRL DX Contest.



Now here's a "real shack." Mike, W7DRA, operated Single Band 80 from WWA.

Operating and Competition

The 1996 ARRL CW DX contest, held last February, is a terrific example of low-sunspot contesting! Practically no sunspots caused virtually no openings on 10 meters, and then at night the MUF dropped below 7 MHz, making 80 and 160 meters the top performers! There's no doubt the high power contest winners—Greg, W1KM, and Tree, N6TR, at TI1C—had a blast as they cruised to the end buoyed with great low-band scores. The 1996 contest was one of those where all that work maximizing the 80 and 160-meter signals paid off. And W1KM and TI1C have world-renowned signals on 80. Gus, VO1MP, enjoyed taking the Number One spot in the US and Canada on low power, while Paul, WX9E, donned his swim trunks and put FS5PL on for a terrific low-power all-band DX score. Paul recorded an excellent 206-QSO first hour for his best-ever, enroute to over 3800 QSOs with 100 W. Tired of a low QSO rate from the Midwest? Head to the Caribbean, where you don't need an amplifier to win! Our QRP winners, AA2U and ZF2OP (K3DI), respectively, had to really battle for their wins over KA1CZF and N1AFC in the US, and KP4DDB and PY2OU overseas. Tom, K5IID, placed well from West Virginia.

The Top Band of 160 meters found K1ZM with a monster single-band score from the US,

followed by WB9Z, and a flurry of European activity was led by winner SP5GRM on the DX side. In a repeat of 1995, W1MK ran away with 80-meter honors and was again followed by WE3C. The 40-meter band has always provided a place where stations in the Western US can be very competitive. That was true again in 1996, with a terrific score and victory by Chuck, NJ6D, operating from N7DD. Chuck ran past W5WMU, KC7EM and N6MU. On the DX side, PY0FF enjoyed his great southerly station location to handily surpass John, ON4UN, who lamented his decision to operate 40 instead of 80 this year!

So from the US and Canada, in 1996 it looks as if the East Coast rules 160 and 80, and the West Coast dominated 40. How about the Midwest? Well, the Midwest had a decent chance on 20. K8GL, N4ZZ and three Illinois stations—K9KU, N4OGW/9, and K9QVB—all made the top six behind the huge 448k score of K1RM.

From the DX side, 20 is *the* band to run the US and Canada! Joe, W5ASP, went a bit southeast of home and won the band, operating from ZF2NE. EA7KW brought home second place with a great score from Europe. Twenty was open for long periods in 1996, but the aurora and weak signal quality made the band less productive than normal.

The 15 and 10-meter bands were both marginal. Karl, K9BGL, put in the time and enjoyed his up-and-coming superstation to win 15 in the US, while HC2SL enjoyed his equatorial spot to win for the world. HC2SL has always been such a joy to work on CW for

Top Ten

W/VE Single Operator, QRP, CW	W/VE Single Operator, Low Power, CW
AA2U 266,490	VO1MP 1,066,896
KA1CZF 109,224	W2UP 870,240
N1AFC 106,272	KF2ET 869,868
K5IID 103,950	W2TZ 857,466
N7IR 74,052	AC1O/4 851,760
N1CWR 62,208	N4ZR 573,120
N5NMX 43,146	WA2SRQ 542,445
N9LMU 42,453	WA0QQA 456,504
K2JT 31,746	N8AA 427,770
W3TS 30,222	W6JTI 421,008

Top Ten

DX Single Operator, QRP, CW	DX Single Operator, Low Power, CW
ZF2OP (K3DI,op) 470,925	FS5PL (WX9E,op) 3,066,228
KP4DDB 467,784	P40R (K4UEE,op) 2,758,860
PY2OU 419,166	KP4VA (KP4TK,op) 2,358,048
I3BBK 70,848	V47NZ (N0BSH,op) 1,991,409
YU1EA 57,600	HK0/K1WGM 1,320,174
F6OIE 55,350	P4/K2LE 789,450
G0TDX 43,365	HK0TCN 655,866
WP4JXD 30,927	(W7TSQ,op)
UX2WN 24,786	PJ5JP 420,750
JA6UBK 22,842	LU1EWL 413,100
	VP9MZ 358,020



Twelve-year-old Laura, AD4PU, operated Single Operator Assisted from her NC shack.

VVE 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)			West Coast Region (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT/Yukon Sections)		
AA2U	266,490	A	K5IID	103,950	A	N9LMU	42,453	A	N5NMX	43,146	A	N7IR	74,052	A
KA1CZF	109,224	A	N1CWR	62,208	A	N8AXA	5,031	A	KC5RAS	17,028	A	W8QZA/6	28,182	A
N1AFC	106,272	A	KV8S	27,612	A	N9RIT	4,428	A	KI0G	10,692	A	N6AZR	27,027	A
K2JT	31,746	A	KN4QS	14,514	A	WD9IAB	2,349	A	AB5OU	4,284	A	AA6EQ	10,488	A
W3TS	30,222	A	KE2WB	3,570	A	AA8RR	297	A	WA0RPI	1,872	A	N7JXS	7,437	A
VO1MP	1,066,896	B	AC1O/4	851,760	B	N8AA	427,770	B	W0UO	403,209	B	W6JTI	421,008	B
W2UP	870,240	B	N4ZR	573,120	B	VA3DX	363,204	B	AA0SQ	117,120	B	W7YAQ	235,161	B
KF2ET	869,868	B	WD4AHZ	335,400	B	KJ9C	217,080	B	W7HS	107,280	B	KJ6HO	220,248	B
W2TZ	857,466	B	WR3O	329,427	B	KO9Y	210,456	B	K0OAM	99,360	B	KC6CNV	214,896	B
WA2SRQ	542,445	B	N8VV	216,972	B	K9MMS	139,650	B	VE5SF	86,832	B	K6ATV	133,632	B
W1KM	2,824,638	C	KT3Y	2,090,172	C	W9RE	1,605,915	C	N2IC/0	1,269,696	C	NN7L	486,000	C
N6BV	2,439,315	C	K4PQL	1,558,746	C	K9MA	793,854	C	K5MR	1,088,550	C	WA7FAB	407,520	C
N2LT	2,374,506	C	W4XJ	1,059,870	C	WB9IIQ	606,060	C	W5UN	1,058,145	C	W6YA	357,984	C
W2SC	2,313,552	C	W3VT	594,612	C	VE3KP	409,728	C	NB6U	924,984	C	W6TKF	309,120	C
NX1H	2,294,100	C	WA6KUI	537,075	C	N4XM	406,608	C	WB5VZL	773,490	C	NW6S	277,950	C

The Suffering Midwesterner Goes East!

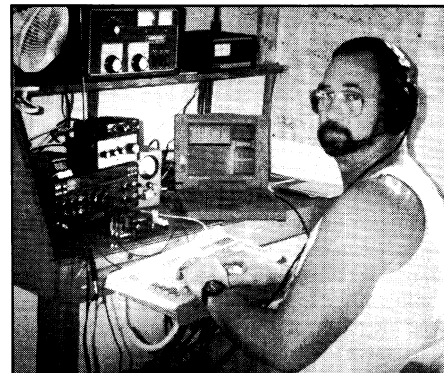
I have never operated the ARRL DX contest from east of Chicago. After lots of years of being beaten by East Coast stations (and occasionally western and southern stations too!) I finally found a great reason and chance to try the ARRL DX CW test "W1 style"!

After being nominated by my club, The Society of Midwest Contesters, as a team leader in the World Radiosport Team Championship (WRTC), I selected Randy, K5ZD/1, as my partner for the competition. While I have known Randy for many years, we had never actually *operated* together. We felt that it might be a good opportunity to help our effort at San Francisco for the WRTC if we operated a contest together first—to learn each other's styles and habits. The first and only chance we had was the ARRL DX CW Contest in February. I bought a ticket to Providence with the only real objective being that of practicing for WRTC. Randy has a nice two-tower station in exurban Boston, and I knew we could do well in the contest, in addition to the fun of camaraderie and planning for WRTC.

I very nearly did not make it to Providence! A huge snowstorm was blanketing New England, and my flight from Chicago was the last one allowed to land. The flight was delayed, and the normally 45-minute drive to Randy's shack would take at least an hour. We arrived at the shack about four minutes before the contest started. Randy sat me on 40 meters and said here is the keyer, computer, antenna switch, and rotator—go at it! That was my introduction to East Coast operating! But—*wow!*—what a difference. The 1000 miles I had traveled made the European signals sound like the W1s I was so used to hearing at home! And I could hear stations I had never heard before—smaller stations, deeper into Europe, and there are *lots* of them!

But I didn't hear the Asian and Pacific stations as well as I did from the Midwest. Randy's antennas are optimized for Europe, and when over 90% of a weekend's contacts are with Europe, this is good! I was truly amazed at the DX that would answer CQs on the low bands. And even more flabbergasted with how easy it was to work Europeans on 40 meters at 2:30 PM, Eastern Time! I had heard this happening from my Midwest locations, but never realized just *how* great it was!

It turned out that KC1XX and his crew beat us, but we had a great time and lots of fun—especially with the competition. The one thing I was worried about was that I may come home with a defeatist attitude, or, as I was warned by Randy "You may be ruined forever!" But I think it made me better. I look forward to each contact from home now more than ever, because I know it is more difficult! And I can't wait for the day when thousands of BY stations are on the air!—*Dave Patton, WX3N*



Joe, K8JP, pounds out another QSO for his fifth-place Single Operator win from VP5JP.

New Jersey. Their lowest numbers were 2 contacts with Manitoba; 3 with Washington, DC, 5 with North Dakota, and 6 each with South Dakota and Wyoming.

The multiop two-transmitter class in the US has been a battleground for some *big* stations and *big* efforts. In 1996 the N2RM station joined the fray (usually multi-transmitter) after a snowstorm caused travel delays in reaching the station. The N2RM station is located in the woods without some of the usual amenities (like a bathroom or running water!) and, unfortunately for the RM crew, an oversight in planning found the boys without the usual portable toilet! Nevertheless, they put together nearly 5M points only to be beaten by a great crew of operators in Massachusetts who had the added advantage of a toilet at K1AR/K1EA.

From Africa, TU5A held forth for easy QSOs and a welcome mult to win the DX side in Multi-two. And the multitransmitter class from overseas saw the fine station of Mr 160 meters—Jack Wheeler, KH6CC—win the world! AA6KX (and W6CYX), who operated from CC says "[Jack's] QTH is at about the 2000-foot level on the northeast side of Mauna Kea (total height almost 14,000 feet) on the Big Island. From his tower you look straight down the slope of the volcano to the ocean, and then it's a straight shot off to the US." KH6CC doesn't have commercial power and relies on a 16-kW generator. The station uses a homebrew amp with pre-WW II tubes. Great job!

all of us for many years. On 10, LU7DW led the all-Argentine top four, and W6KFBV found enough QSOs to win the band from Stateside.

Multioperator efforts bring out the camaraderie that hams are famous for—sort of like bringing the tower-raising party inside!

Although the single operator, assisted category isn't exactly multiop, one must rely on others for those juicy DX spots! Only your real friends would give you a tip that PY0TI was on 20 meters with five minutes left in the contest! KI1G at K1NG took advantage of great spotting in the Northeast US to win over K3WW, while LU6BEG piloted LU4FM to the packet peak from Argentina.

Probably the most competitive class in

contesting is the multioperator single transmitter class, and 1996 was no exception. In the US a fired-up Matt, Stu and Krassy at the KC1XX superstation beat K5ZD/1 (see the sidebar). From the DX side, a nice battle ensued between South Americans PJ9C and P49V—with Curacao beating Aruba in the end—but not by much!

Other nice efforts where friends got together and handed out the mults were to be found at North American stations VP2EN and V31EV, and the Mexican standoff between XE2KB and XE2EBE. VP2EN reports making 506 California QSOs, followed by 279 with Pennsylvania, 255 with New York, 209 with Texas, 195 with Illinois, and 191 with

Nearly all stations entering the ARRL DX Contest in the Multioperator Multitransmitter class are world-class super-stations. In 1996, W3LPL, K1KI and K3LR repeated their 1-2-3 finish of 1995—a trio of amazing feats! Each of these operations has seasoned crews of old and new friends who band together in pursuit of that awesome weekend of operation that they will talk about for years.

DXing

Contest DXing is a blast. In 1996, KC7V reported working five HS stations! We had the battle of HKØ, with W7TSQ and K1WGM being easy QSOs for all of us. TA2BK lit up 160 and 80 meters, as did 4K8F, TF3DX/1, VK5GN and 5X4F. Those are some pretty nice catches! Other call signs you may have heard include A92Q, 7Q7EH, 9R1A, 9U/F5FHI, FR/DL1DA, OX3REB and Z2/DL5AWI. And many of the DXpeditioners were on before, during, and after the contest, including VP2EWW, 6Y5XX, VP5JP, V47NZ, TO5A, EA8EA, V31JZ, FS5PL and many others. Thanks for giving us the mult and the many fills for our nine-band DXCC!

For adventure, Tree, N6TR, told us about his trip to TI1C: "I thought I had left the floods and mudslides behind me, but they were even worse in Costa Rica! Normally, I would have arrived at the station a couple of hours after landing at the airport (a one-hour drive). Instead the road was closed with 17 mudslides! So I slept in town and the next day we took the long path. It ended up taking about eight hours and I had some of my first four-wheeling experiences! We found bypasses around other slides by using mountain dirt (read: mud) roads. One of them took 1¼ hours. We got a good look at one slide—a wall of mud at least 20 feet high all the way across the road."

Next year will see a welcome upswing in solar activity! See how many of the contest niches you can fill! Look for the results of the 1996 ARRL International DX contest phone portion next month.

SOAPBOX

W/V/E

I had a great time, even considering the band conditions (K14RO). It was great to work BY5XX on two bands (KE9EX). I sure missed 15! I had to work twice as hard as last year just to stay at the same score (KJ9C). You could make QSOs on 80 during

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

Call Sign	Score	160	80	40	20	15	10
W1KM	2,824,638	135/47	560/71	838/75	1152/84	118/54	4/3
N6BV	2,439,315	91/44	294/58	748/76	1319/91	107/46	6/2
N2LT	2,374,506	71/38	302/62	645/75	1384/94	85/47	2/2
W2SC	2,313,552	82/43	321/66	751/76	1195/79	101/47	6/3
NX1H	2,294,100	60/34	343/65	713/74	1374/86	57/39	2/2
K3ZO	2,269,890	54/31	404/71	742/73	1088/84	103/50	11/5
KT3Y	2,090,172	63/34	339/66	683/75	1120/80	128/41	5/2
AA1K	1,781,532	65/32	229/55	554/70	1152/81	83/45	1/1
W9RE	1,605,915	40/26	224/59	388/65	1168/94	85/37	0/0
K4PQL	1,558,746	35/25	233/50	551/75	888/84	162/44	0/0

W/V/E 160

K1ZM	57,267
WB9Z	23,373
K1IK	23,040
W2VO	17,289
AA8U	11,115
K4TEA	10,578
N8EA	9,288
N6SS	5,670
K2FL	4,212
VE3OSZ	3,168

W/V/E 80

W1MK	214,485
WE3C	142,911
K3RR	117,648
K9DX	111,888
WA4SVO	41,220
K3JGJ	39,420
K1VWL	34,161
W9XT	26,712
K8OQL	25,704
KD1SG	24,939

W/V/E 40

N7DD (NJ6D,op)	279,864
W5WMMU	249,210
KC7EM	245,763
N6MU	188,838
W3GH	185,913
K6LEB	113,955
W9LT	93,960
K5KT/6	84,219
N9JCL	48,678
W4NTI	48,441

W/V/E 20

K1RM	448,050
K8GL	335,160
NAZZ	315,861
K9KU	245,376
N4OGW	238,920
K9QVB	237,405
N7TT	209,352
WB9HRO	179,265
K7JYE	135,300
W9OF	120,228

W/V/E 15

K9BGL	23,556
KR4DL	21,948
A12C	18,126
N4BP	13,500
WA1FCN	12,420
K9OM	11,880
W9GIL	11,592
W4JKC	10,584
WA9BOW	8,400
WB5UDX	5,568

W/V/E 10

W6KFF	744
KE5FI	675
KB6JOX	225
K1DII	135
K8CH	45
KC5ALW	45
WA3EEE	30
WB5CRG	24
WD8PNL	3
VE3HX	3

DX Single Operator, High Power, CW

Call Sign	Score	160	80	40	20	15	10
TI1C (N6TR,op)	4,658,634	301/50	615/55	1227/57	1527/59	1382/55	159/22
TO5A (YT6A,op)	3,351,846	288/50	488/51	931/60	1299/59	1013/58	0/0
VP2EWW (AA7VB,op)	3,112,200	302/53	641/58	826/59	837/58	1034/57	0/0
EA8EA (OH2MM,op)	2,978,940	152/40	578/54	982/55	1207/56	871/57	0/0
VP5JP	2,857,428	331/47	447/51	747/54	1301/58	507/53	118/13
G4BUO	1,347,429	204/34	390/43	394/43	1173/56	96/23	0/0
OK1RF	1,332,114	91/23	365/42	717/45	910/56	171/31	0/0
IR2W (I2VXJ,op)	1,321,515	11/10	216/37	837/53	918/57	277/38	0/0
OA4SS	1,308,540	0/0	161/42	471/52	498/52	645/55	155/25
SN2B (SP8ENR,op)	1,164,546	127/28	329/39	482/47	1133/57	16/15	0/0

DX 160

SP5GRM	23,835
9A2TW	16,368
I3VHO	14,787
OY1CT	11,424
9A4D	9,828
JE0MUV	8,019
HABBE	5,589
XE2MX	5,292
JA7NI	5,148
WP4IHW	4,896

DX 80

9A3A/4U	186,648
EA1AK/EA8	140,562
S50U	105,693
4N1A (4N1DXX,op)	90,663
T93M	86,112
DL1IAO	70,065
YU7JX	64,242
S57M	62,370
S51X	57,684
9A1HDE	56,088

DX 40

PY0FF	274,284
ON4UN	201,042
HG1P (HA1TJ,op)	186,507
S53R	155,925
9A3IQ	147,672
YT7A (YU7GO,op)	139,707
SP7GIQ	138,300
LZ5W (LZ5DB,op)	137,940
EA8CN	131,040
XE2DV	122,271

DX 20

ZF2NE (W5ASP,op)	432,588
EA7KW	263,730
N4MO/HR6	255,780
GM3POI	252,402
OI8LQ	220,320
GI0KOW	213,285
RW1ZA	204,612
4N0AV (YU7AV,op)	198,360
OH0MYF (OH6YF,op)	193,284
9A7A (9A4RX,op)	178,947

DX 15

HC2SL	265,002
LU7FJ	214,776
PY1KN	83,268
YV4ABK	33,927
XE1/JA1QXY	32,832
EA2IA	22,686
HG1G (HA1DAE,op)	22,080
F5GHP	15,660
CM8TW	14,880
YV7QP	14,787

DX 10

LU7DW	13,776
LU1FNH	13,590
LU2DW	2,475
LU8AQE	189

W/V/E Plaque Winners—CW

Single Operator

All Band	W1KM	Frankford Radio Club
1.8 MHz	K1ZM	George Schultz, W0UA; K0ZZ Memorial
3.5 MHz	W1MK	Thomas Rylander, SM3DMP
7 MHz	N7DD (NJ6D,op)	Northern Arizona DX Assn
14 MHz	K1RM	QSLs by W4MPY
21 MHz	K9BGL	Carl Luetzelschwab, K9LA
28 MHz	W6KFF	Green River Valley ARS
Low Power	VO1MP	Dauberville DX Assn
QRP	AA2U	Tod Olson, K0TO
Assisted	K1NG (K1G,op)	Richard Hallman, K13V

Multioperator

Single Transmitter	KC1XX	Northern Illinois DX Assn
Two Transmitter	K1AR	Order of Boiled Owls of NY, W2AO Memorial
Unlimited	W3LPL	Ehrhorn Technological Operations Inc

DX Plaque Winners—CW

Single Operator

World	TI1C (N6TR,op)	North Jersey DX Assn
Africa	EA8EA (OH2MM,op)	Byron P. Peebles Jr, NZ3O
Asia	JH5FXP	Alamo DX Amigos
Europe	G4BUO	Dr Jerry Griffin, W8MEP

North America	TO5A (YT6A,op)
Oceania	KH6JHM (N5CT,op)

South America

1.8 MHz	OA4SS
3.5 MHz	SP5GRM
7 MHz	9A3A/4U
14 MHz	PY0FF
28 MHz	ZF2NE (W5ASP,op)
QRP	LU7DW
Assisted	ZF2OP (K3DI,op)
	LU4FM (LU6BEG,op)

Multioperator, Single Transmitter

World	PJ9C	John Brosnahan, W0UN
Asia	JA7YAA	Western Washington DX Club
Europe	TM1C	The Radio Place
North America	VP2EN	Steve Morris, K7LXC, and Up the Tower
Oceania	VK5GN	Gary Stilwell, K16T, and Glenn Stilwell, WR6O

Multioperator, Two Transmitters

World	TU5A	ARRL
Europe	IQ4A	Jim George, N3BB

Multioperator, Unlimited

World	KH6CC	H Stephen Miller, N0SM
Asia	JA1YDU	Hajime Kato, JO1RUR/2, KH0G
Europe	9A1A	Texas DX Society

the late afternoon both days, but conditions were not optimal (WB2AMU). I couldn't even muster a token QSO on 10! (KK4SM). I had to scrounge for the QSOs on 20, and fight for the mults on the low bands (WR3O). It's hard to do well from the West Coast when there's no JA run on 15! (KG6LF). I only heard seven countries (VE6BMX). There's only one sunspot left, and it's getting tired! (N3UMA). I was a little disappointed I couldn't make a QSO on 160 or 10, but I had a great time on the other bands. Twenty was awesome! (KB3AFT). I had a good run going to JA the last hour—when my XYL informed me that the car was on fire. At least something was hot this weekend (AA7BG). While this was a learning experience, I had fun! (WA6KUI). It was really nice to hear good signals coming out of Europe (N2MZH). Senior Night Basketball + (3 milkings x 80 cows) + flu = lousy score (N9JF). Who said the bands were dead during the low part of the sunspot cycle? (WA8AHK). Conditions weren't bad at all for the bottom of the cycle and from the Black Hole (K9MA). I needed a bigger antenna for 15 on Saturday—I couldn't hear any of the European spots (K2SX). It was kind of fun to operate part time and just run stations (KQ2M). I look at this as a training period for when the sunspots return! (KC7EM). This is the best contest format of all, and I had plenty of time for the family Saturday afternoon and Sunday morning (K0OAM). I had good, solid European and JA openings, but I didn't hear any South Americans (WB9HRO). It was a challenge to run barefoot on 20, 15 and 10 (W6YA). This was my first CW contest ever, and I was turned on at the end (W6EEN). Maybe there should be a single-op "hindered" class—anyone with a two-year-old should know what I mean (KN6DQ). I went high power for the first time in years, and it made a big difference. The JAs on 160 were as loud as I've ever heard (K5RX). I didn't hear even the multi-multi's on 10 (KB4GID). I didn't use packet this year, and my multipliers increased! (KM0L). The Sunday opening to JA was as much fun as I've had in years (ND8L). We thought propagation last year was bad, but this time it was worse (W6GO). If it wasn't for our JA friends, it would have been tough on the West Coast (W6TKF). It was embarrassing to work two HK0 stations and no HK (K8GL). I wish there was some way to do something with the neighbor's electric fence besides testing the noise blander! (K1NG). As far as 10 meters is concerned, what goes down must come up! (VE3HX). I love to listen to the big guns! (WA2ASQ). Running QRP was definitely a challenge with the marginal band conditions (AA3GM). This may be a miserable score to the rest of you, but I'm thrilled! (N3BDA). I'm 15, and this is my idea of a weekend date! (N9RIT). I wish I had worked more European stations, but QRP still amazes me (AB5OU). I wish my code speed at the end of one contest would hold up until the beginning of the next one (K9OSH). Bring back the sunspots! (K9KU). Slogging it out on 40 and 80 with 5 W and wires is really tough! (K5HD). Having 15 meters generally dead beyond the countries that feature rum punch was certainly a factor (N1QY). We had a nice 20-meter opening Sunday morning (AI7B). It didn't take a lot of experience to recognize that 15 was dreadful (N4ZR). There wasn't any European sunrise opening on 40, what with the MUF so low (K3ZO). It was nice to hear UA stations on 20 (WD9GGY). I sure hope this is the bottom! (N2PEB). I couldn't believe how much DX I could work on 80 with an inverted V (KB8PK). I don't remember any time during the past 50 years that the conditions were this bad! (W3VT). 160 seemed slower this year (N4UH).

DX

It was an eye-opener to listen on a Beverage for the first time. We had an unexpected 21-MHz opening Sunday afternoon (DK0SU). Conditions seemed to be very good on 160, but 40 meters was very difficult again (EI7M). There was a nice long-path opening on 40 that lasted over an hour (VK3APN). I tried to operate from 3DA0, but the historic floods made me stay home (ZS6CAX). It was hard to make QSOs with 15 and 10 meters dead (UR5FCM). I was impressed with the signal strengths on 40 and by how early the band opened (SO5TW). I could only find one short Es opening on 10 late Saturday afternoon. It felt like the PA, NJ and FL QSO Parties combined (VP2EN). It doesn't take big antennas to make a lot of QSOs—the three most important things are location, location, location! (P19C). I worked the contest with my left arm in a cast! (N4MO/HR6). We really enjoyed ourselves, despite the low sunspots and the fact that 10 meters never really opened (V31EV). It was a thrill to make a DXpedition in the middle of

Top Five

DX Single Operator Assisted, CW

Call Sign	Score	160	80	40	20	15	10
LU4FM (LU6BEG,op)	1,912,590	83/34	598/52	646/54	1105/59	258/38	0/0
ZZ2E (PY2EX,op)	1,016,724	0/0	92/34	350/45	425/48	827/54	62/12
IK0HBN	563,220	5/4	144/30	644/48	347/44	120/23	0/0
OK1AU	104,121	1/1	8/6	27/12	467/50	0/0	0/0
EA7DPU	99,144	0/0	0/0	0/0	612/54	0/0	0/0

Top Five

DX Multioperator Single Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
PJ9C	4,402,065	411/53	757/56	1165/57	1422/57	1427/58	3/2
P49V	4,282,152	307/49	643/57	1173/59	1515/59	1384/58	4/2
VP2EN	3,572,634	226/50	442/52	1091/56	1321/58	1121/56	37/9
V31EV	3,520,656	262/45	530/52	1050/53	1318/56	992/57	100/13
XE2KB	2,971,710	136/41	655/54	1055/54	1322/58	531/52	11/8

Top Five

DX Multioperator Two Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
TU5A	2,301,048	8/6	329/46	1362/57	1190/59	662/48	0/0
IQ4A	2,202,144	107/27	464/47	1013/53	1328/59	336/40	0/0
DL4RDJ	1,418,916	39/16	355/38	915/50	961/58	168/32	0/0
DL5AXX	1,411,263	50/14	600/51	755/49	1045/57	39/18	0/0
OZ5W	690,015	105/26	375/42	65/24	901/56	19/9	0/0

Top Five

DX Multioperator Unlimited Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
KH6CC	2,830,200	321/50	400/51	852/52	1122/55	812/53	53/4
9A1A	2,534,994	264/39	692/45	1124/52	1225/59	353/36	0/0
RW2F	972,792	175/29	364/38	266/43	1014/58	13/9	0/0
JA1YDU	701,319	31/16	320/42	489/42	620/50	29/7	0/0
EM2I	588,672	14/9	176/31	611/52	541/52	2/2	0/0

Top Ten

WVE Single Operator Assisted, CW

Call Sign	Score	160	80	40	20	15	10
K1NG (K11G,op)	2,811,816	109/53	268/72	708/92	1146/92	154/79	6/4
K3WW	2,638,020	93/50	311/74	559/83	1220/103	94/69	7/6
W2GD	2,214,072	86/51	179/65	550/84	1000/103	108/72	9/7
N2MM	1,705,536	58/40	226/61	515/79	819/87	109/61	1/1
K1XM	1,646,286	86/48	127/56	526/76	785/88	114/62	5/4
K2WK	1,597,860	68/41	235/63	396/69	832/91	80/64	3/2
N3AD	1,512,060	69/37	141/57	469/75	791/93	107/55	3/2
AA3B	1,384,368	30/26	117/50	475/73	799/94	97/54	10/5
K2SX/1	1,371,750	57/32	137/57	398/67	844/83	107/54	7/2
K2PS	1,138,500	51/30	116/53	251/64	729/89	112/59	6/3

Top Five

WVE Multioperator Single Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
KC1XX	3,673,800	118/52	584/81	721/83	1545/100	168/72	4/2
K5ZD	3,500,640	154/54	409/77	837/87	1439/100	148/69	5/3
W3BGN	2,899,632	123/51	311/74	647/87	1295/103	119/67	9/4
N4RJ	2,439,738	70/43	266/68	696/84	1038/89	205/71	3/2
N4AR	1,679,766	86/48	149/64	333/75	974/97	100/56	0/0

Top Five

WVE Multioperator Two Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
K1AR	5,095,977	172/56	675/84	1185/94	1637/112	245/82	9/5
N2RM	4,934,799	177/56	759/89	907/94	1639/113	256/82	9/5
N3RS	4,427,232	124/51	566/81	813/94	1709/115	223/80	13/7
K1ZZ	3,250,170	116/50	264/65	830/83	1398/102	196/80	10/5
K8AZ	3,049,524	69/37	307/69	641/90	1449/105	190/73	12/7

Top Five

WVE Multioperator Unlimited Transmitter, CW

Call Sign	Score	160	80	40	20	15	10
W3LPL	5,927,628	164/54	809/89	1120/105	1732/125	298/92	28/11
K1KI	5,749,080	278/64	829/90	1113/101	1697/115	231/84	18/6
K3LR	4,618,593	103/46	618/82	891/105	1629/119	233/80	17/8
W4MYA	3,406,152	103/50	316/70	668/92	1424/111	245/78	20/8
KY3N	2,642,769	128/52	202/63	733/95	992/100	186/75	12/6

snow and cold weather (OH6YF). We had a big aurora the first night, so I decided that there wasn't anything to do the next night (LY5W). The QRM from Europe was unbelievable. It was tough trying to find a clear frequency (LZ1KPP). The first day was great; the second day left a lot to be desired (FS5PL). TGFF—Thank God for forty (VK5GN). It

was difficult without a beam, but it was a lot of fun to work so many excellent operators (DK3WW). I was happy to see the good opening on 15! (IR2W). It was tough going for QRP! (OH2YL). I had S9+ line noise on 160. My apologies to everyone I could hear calling, but couldn't copy (OY1CT). I missed the guys in the "Wild West" completely (PA3DUS).

