

Third Annual ARRL Ten-Meter Contest

Coming down from a high.

By Jim Cain,* WA1STN

What goes up must come down, including the maximum usable frequency (muf). The 1975-76 operating season was not a good one for the 28-MHz band. Freak long-distance openings in July 1975 and in January 1976 for a few hours did not, unfortunately, coincide with any operating activities, and the openings could not be used to their full potential. Conversely, plenty of stations were standing by the weekend of December 13 and 14, 1975, for the third running of the ARRL 10-Meter Contest, only to discover little in the way of exciting propagation.

Things weren't quite as bad as we thought at the time, though. When the first 10-Meter Contest ran in 1973, the average score of the top ten W/VE entrants was only 56,000 points. In 1975, that average was 80K. (Shhh . . . don't anyone mention that last year it was 133K!) 628 hearty souls reported their results to Hq. this year, down from 720 in 1973 and 886 in 1974. The top scores are pretty hefty, though, considering.

Performance under stinko conditions on 10 takes more than a wire or a trap vertical, as a peek at some of the winners' antennas reveals. For your information, here's a rundown of hardware at the top-ten W entrants: K3OIO, TH6DXX; W4WSF, TH6DXX at 55' plus fixed 4-element Yagis pointed west and south; K9HMB, stacked 4-over-4; WA8ZDF, 8-element Yagi at 106' plus 5 at 88' and 4 at 60'; K9BGL, 3-element Yagi; WA3WIK, TH6DXX at 80'; K2GBC, stacked 6-over-6; W3RRX, 5-element Yagi; W9SZR/3, 3-element quad; K9EGA/2, TH6DXX at 75'.

Height seemed to be of the utmost importance, since much of what was worked was ground wave, backscatter and tropospheric bending. Fifty feet high wasn't bad, but a hundred was better.

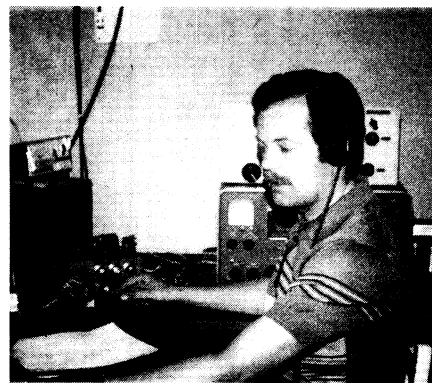
There was some slight confusion about the scoring this year. Multipliers are counted only once, *not* once per mode. One suggestion found on several logs bears mentioning. What about specifying all cw operation to take place in or adjacent to the Novice segment on 10? Perhaps "28.085 and above," or something similar? That might get a little out-of-hand when the sunspots return and the band is packed with worldwide activity (sigh) but it could work while conditions are tough. Drop a note to Hq. with your feelings, and we'll see that the Contest Advisory Committee members all get copies. The ultimate recommendation will be theirs.

Speaking of worldwide DX, conditions were possibly better in the States and Canada than elsewhere. The lack of entries from Europe and the low scores of those who did report their activity reflect the problems they had. The only bright spots were the brief openings from England to the eastern half of North America both mornings of the contest (as far west as Michigan) and the tremendous signals from New Zealand to all parts of the states both afternoons around 1900Z. Things were so strange, though, that when ZD8LS showed up he was able to work only the Central U.S.; no East or West Coast at all. KC4AAC and others to the south were able to work all parts of the states, and FYØBHI even worked an Indonesian. Ron (BHI) worked 39 DXCC countries, counting the U.S. and Canada.

We're writing this just after the final weekend of the 1976 ARRL DX Competition, and conditions on 10 for three of the four weekends of that activity were mighty poor. One of the two 'phone weekends had some decent propagation; decent when compared to *no* propagation, that is. For our December 10-meter activity, the solar flux index declined for a solid week before and during the weekend; it ended up Sunday at 74, and 80 is usually considered the minimum necessary for F-layer east-west propagation on 28 MHz. That we at least had some tropo and multiple-hop E was a blessing.

Hold it a minute. Some new division records *were* set in 1975. Unbelievable? Maybe, but true. They are: K3OIO, Atlantic and W4WSF, Roanoke, both single-operator stations. New multi-operator record holders are: WB4ASA, Delta, W2SKE, Hudson, W1MX, New

When all else fails on 10, turn your antenna south and look for Argentina. This is LU1DZ, one of the "beacons" on 10 in 1975.



*Asst. Communications Mgr., ARRL



Logger Greg Hitchen and WA3YBT are "Waiting for an Opening" at multi-op station K2GXT.

England. The only record still standing from the first 10-Meter Contest of 1973 is single-operator, Hudson Division, held by W1BGD/2. We have come a long way in only three years.

Soapbox

The continually changing band conditions made you work quickly for every contact before the band shifted. — (WA3ZTE) With strong openings to New Zealand, the thought of sunspots makes this contest a gangbuster. — (WB2LOF) Got up early and fired up the rig to a good opening, but after a short stint the rig blew up. — (W0YZZ) Frustration — only one signal on the band and he answers everyone except you! — (K4BZH) I have been a Novice for four months and today brought the first time I have heard anybody on the 10-meter Novice band. — (WN6CBY) I don't think that it was the band that was closed but more like the shacks were closed. — (WN7CBA) Luckily the Geminids meteor shower provided scatter contacts to go with the sparse F2 DX coming into this area. — (W0EKB) A pity propagation was so poor. The 10-meter band when open can be the most fruitful. — (PY2BU) Next year please have a few sunspots on hand. — (WN0PAT) I only ran a dipole but still got great reports from the East Coast. — (WB6FHC) More noise than signals. — (W0HW) The opening to Africa was a pleasant surprise. — (WA4FRJ) Conditions over the contest period were poor from central Africa but all in all it was

most enjoyable. — (9J2GJ) One minute you're working a W7, next minute the band dies. — (WN2TQE) About the only thing the old dipole heard was locals. Oh well, there's next year and maybe then my ol' 5-element beam. — (WA7PDW) I can only claim one out-of-state contact but that one was across the U.S. from here, Washington to Massachusetts. — (WN7BJZ) Discouraging to hear other locals working stations I can't even hear. — (K3IXD) Conditions terrible. Two hours into the contest I had contacted . . . 2 stations. — (WA6HXF) The office Christmas party was Friday night and, oh my head, with the phones on Saturday! — (WA4FXW) Big question was where oh where were all the Novices? — (WA8ZDF) Worked my first ZL on 10 during the contest. — (K2ARO) I could write a book on propagation or lack of it. — (WA4HOH) Worked the first six hours on Saturday with only 20 QSOs from Africa and South America . . . but worked the last four hours Sunday and made 90 QSOs — most all from the U.S. — (ZD8LS) Climbed the tower four times Saturday to turn the antenna but no climbing on Sunday because the wind was a little too strong, about 70 mph gusts! — (WB6PXP) QRP operation was lots of fun, not too productive, tho. — (K4KWW/0) Only European stations coming through were Gs. — (K1RQE) I heard a W4 at about 1435 and went out to wind the tower to its maximum height. I called all the Ws and VEs I could hear; not all heard me but 17

responded. — (G3IAS) Monday, the day after it was over, brought the best opening in months. — (WB5LOZ) I wish I had Oscar capability — I could use the multipliers. — (WB5LAL, op. at W5YG) Only reason for sending in my 18-QSOs log is that it was 17 better than my local competition. — (WB6IHU) For sure I will have a beam up for next year — a dipole doesn't make it. — (K7IEY) Conditions here were almost fair. — (WN1TDN) A few exciting openings east-west to Africa and north-south to South America. — (K8YFM) Most unusual to hear signals coming into Missouri from north, south, east and west simultaneously — the rotator got a workout. — (W0ERZ)

Top Ten Single Op

W/VE		DX	
K3OIO	116,556	LU1DZ	92,114
W4WSF	103,340	LU2AFH	77,280
K9HMB	97,600	FY0BHI	74,102
WA8ZDF	95,160	YV5ZZ	66,504
K9BGL	71,280	YV5ENI	48,230
WA3WIK	71,036	KC4AAC	43,920
K2GBC	70,980	ZL3GQ	31,556
W3RRX	62,976	5L2AK	23,368
W9SZR/3	59,400	VP2LAW	14,208
K9EGA/2	57,780	H18MOG	10,944

Division Leaders

Single Op	Division	Multi Op
K3OIO	Atlantic	K3EST
K9HMB	Central	WB9KLB
WA0CPX	Dakota	—
WB4NDX	Delta	WB4ASA
WA8ZDF	Great Lakes	WB8OFR
K2GBC	Hudson	W2SKE
W0LGW	Midwest	WB0MCJ
K1RQE	New England	W1MX
W5QQQ/7	Northwestern	WA7LAG
W6KQG	Pacific	WA6UZA
W4WSF	Roanoke	WA4YBV
WB0MIV	Rocky Mountain	—
K4DJC	Southeastern	W4AQL
WB6PXP	Southwestern	K6SVL
WA5LES	West Gulf	—
VE3BVD	Canadian	VE3NCT

Third Annual Ten-Meter Contest

Scores are listed by section within each U.S. call area, by Canadian call area, and by country within each continent. The highest single-operator station in each ARRL section and country receives a certificate. The highest multiple-operator station in each section and country and the highest Novice score in each ARRL section receives a certificate, if there are three or more entries listed in that classification or if, in the opinion of the Awards Committee, the entrant displayed exceptional effort. Read the listings (left to right) call, score, QSOs, multiplier, hours of operation. Asterisks denote Headquarters staff members, ineligible for certificates.

DX

AFRICA

Ascension Island

ZD8LS 8360-110-38- 8
 Liberia
 5L2AK 23,368-254-46-
 5L2T 180- 10- 9- 2
 Ghana
 9G1JX 9594-123-39-
 Zambia
 9J2GJ 15,200-200-38-
 9J2CL 8736-104-42-

ASIA

Japan
 JA6UBK 1314- 73- 9-
 JR1JUV 1216- 76- 8-
 KA6DX 216- 18- 6- 5
 JA3XRC 160- 20- 4-
 JH1CXE 108- 27- 2-
 JA1OP 80- 20- 2-
 JAIYAC(multi-op) 1372- 98- 7-
 JA3YBF(multi-op) 5472-140-19- 7
 JG1EIQ(multi-op) 572- 56- 6-
 108- 18- 3-

EUROPE

West Germany
 DK7MG 80- 10- 4-
 DK8DU 12- 3- 2-
 DL7JB 114- 19- 3-
 DK8TU(multi-op) 2628- 73-18-

England

G3IAL 3002- 79-19-
 G3CWL 120- 20- 4-
 G3YBH 36- 6- 3-

Norway

LA1RN 2- 1- 1-
 Greenland
 OK3AB 18- 3- 3-
 Denmark
 OZ5DX 36- 6- 3- 1

Yugoslavia

YU2CBE 280- 14-10-
 YU2HDE 60- 6- 5-

NORTH AMERICA

Dominican Republic
 HI8MOG 10,944-152-36-
 Costa Rica
 TI2WX 4960-160-12-
 WB5LSU/TI2 2376- 44-27-

St. Lucia

VP2LAW 14,208-218-28-
 Cayman Islands
 ZF1AG 768- 24-16-
 Jamaica
 WB9AJF/6Y5 598- 23-13-

OCEANIA

Australia
 VK3VQ 72- 12- 3-
 New Zealand
 ZL3GQ 31,556-322-49-
 ZL2ARN 1830- 62-15-

SOUTH AMERICA

Antarctica
 KC4AAC 43,920-366-60-
 Argentina
 LU1DZ 92,114-583-79-
 LU2AFH 77,280-483-80-
 Bolivia
 CP1AT 20- 5- 2-
 Brazil
 PY2BU 13,500-125-54-
 French Guiana
 FY9BHI 74,102-469-79-
 Peru
 OA8V 1476- 39-18- 3
 Venezuela
 YV5ZZ 66,504-652-51-
 YV5ENI 48,230-455-53-
 4MSANT 6160-140-22-

CANADA

Quebec
 VE2WA 3120- 52-30-
 Ontario
 VE3BVD 30,048-313-48-
 XJ3EJK 1974- 47-21-
 VE3BGJ 1548- 43-18-17
 VE3FAK 1232- 44-14-
 VE3GDO 868- 31-10-
 VE3NCT(multi-op) 45,240-390-58-21

Alberta

VE6BCC 1672- 44-19- 9
 VE6RW 980- 35-14-
 CY6CGS 84- 7- 6-

British Columbia

VE7EL 18,860-230-41-
 VE7AZG 324- 27- 6-

U.S.A.

1

Connecticut

WA1STN* 42,750-373-57- 8
 WA1UAD 39,298-398-49-23
 W1BCG 21,414-249-43-22
 W1KOC 17,063-249-34-13
 K1WJB 14,906-257-29-21
 WA1SSH 13,756-180-38-10
 W1VW 11,356-167-34-5
 K1MNX 9300-147-31-17
 W1HEK 4242-100-21-26
 WA1RYL 4200-100-21- 6
 WA1UAC 3840- 80-24- 3
 W1HDQ* 3344- 85-19- 6
 W1ASO 3108- 74-21-14
 W1CDC 1980- 52-18-10
 W1IVB 1488- 61-12- 3
 W1NRF/1 1440- 59-12- 6
 WA1RUS 1260-126-10- 3
 WA1NKK 1034- 47-11- 1
 WA1UOU 828- 69- 6- 5
 W1RZA 592- 37- 8- 2
 WA1SQB* 484- 22-11- 1
 WN1TD 432- 34- 6-17
 W1VZ 400- 38- 5- 4
 W1GTP 360- 20- 9- 2
 W2CCO/1 (+WA1NGR) 29,892-273-52-26
 W1AW*(multi-op) 5472-140-19- 7
 WA3NAF/1(+WA3UKU) 936- 36-13- 1
 WA1RDN*(multi-op) 144- 24- 6- 1

Eastern Massachusetts

W1CWU 52,828-563-47-
 WA1HFN 52,796-421-50-24
 W1B 21,714-219-47-18
 W1PL 11,264-174-32-
 WA1LMZ 11,128-206-26-
 K1AGB 8960-127-32-
 K1HRV 4620-108- 7
 WA1RNE 4410-101-21-
 W1HJN 2928- 61-24-
 W1KZR 2736- 68-19-12
 W1IEOT 1984- 62-16- 2
 W1CLR 1140- 38-15-10
 W1MX(multi-op) 74,712-556-66-32
 W1NJL/1(multi-op) 18,400-229-40-
 WN1UUF(+WN1UGJ) 832- 43- 8-24
 WN1TMV(multi-op) 174- 23- 3-14

Maine

K1RQE 53,550-422-63-16
 W1XNR 18,684-196-43-17
 W1SD 832- 26-16-

New Hampshire

W1FMF 32,800-405-40-20
 W1HDI 2622- 67-19-10
 WN1VKN/1 462- 24- 7-

Rhode Island

K1IKN 51,520-458-56-22
 W1OP(WA1POJ, opr.) 10,944-152-36-
 WA1IJC 19,780-214-46-19
 K1EGH 12,768-302-14-14
 K1HMO 8784-122-36-11
 WN1VQY 90- 30- 3-10

Vermont

K1IHK 7236-133-27- 7
 Western Massachusetts
 WA1RWU 27,270-302-45-17
 W1YK(WA1TUH, opr.) 14,850-220-33-28
 W1DSK 12,560-157-40-13
 WA1TAI 12,060-193-30-

2

Eastern New York

K2GBC 70,980-545-65-27
 Z2ARO 31,968-421-37-15
 K2ZAR 29,920-272-55-25
 WB2FVX 27,763-403-40-24
 K2OW 8050-158-25-
 WB2BXL 7398-136-27-
 W2OQJ 3596- 58-31-16
 K2JUM 1938- 89-11- 6
 WB2SHE 1184- 37-16-14
 WB2STZ 912- 79- 6- 6
 WB2WGA 896- 29-12-15
 WA2YBF/2 698- 29-12- 3
 K2RES 648- 27-12- 2
 WA2TKM 638- 29-11-12
 W2SKE(+W2GLM) 104,580-828-63-24

N.Y.C.-L.I.

W2KDI 25,830-308-41-
 W2FVS 21,770-305-35-
 K2OV5 20,740-251-40-23
 WA2FUL 17,020-226-37-14
 WB2MAN 16,120-256-31- 9
 WA2SUH 12,096-218-27-17
 WB2TLQ 7612-180-21-21
 WB2TSB 5916-102-29-10
 WB2JSL 5400-146-18- 6
 WB2UFG 4454-128-17- 4
 W2GFR 2160- 79-26- 9
 WB2AMU 3960-104-18-16
 WB2UO 3960-157-12-24
 WB2DQK 2200-110-10-
 WA2YHK 2112- 96-11- 6
 W2KZE 2070- 65-15-
 K2MFC 1520- 88- 8- 5
 W2MCB 1476- 73- 9-10
 WA2ATL 1176- 45-12-10
 WN2ZOR 610-51- 5-17
 WN2YYL 600-40- 6- 4
 WN2TGE 444- 33- 6- 5
 WA2OVG 440-44- 5-
 K2HTO 408-34- 6- 3
 WN2BMU 376-40- 4-11
 W2HAE 360-36- 5-
 WA2YEI 348-50- 3- 4
 WA2YLP 276-39-13- 9
 W2HSQ 184-19- 4- 3

Northern New Jersey

K9EGA/2 57,780-527-54-
 K25UO 35,250-363-47-14
 WB2LDN 24,682-278-43-23
 W2EQK 24,390-267-45-18
 WB2HYO 13,596-306-33-22
 K2CFE 10,480-131-40-10
 WB2RKK 1456- 56-13- 2
 WB2VFT 1410- 47-15-

K2QQJ(WA2ZNV,opr.)

1028- 73- 7- 4
 WB2UAN 480- 40- 6- 2
 WB2QWU 378- 27- 7- 2
 WB2SXT 56- 7- 4- 1

Southern New Jersey

W2LYL 35,112-418-42-12
 WA2VYA 21,200-254-42-12
 WA2VCZ 19,462-256-37-18
 WB2JUN 19,006-221-43-12
 W2PAL 12,028-196-31-11
 W2HKE 10,406-121-43-10
 WA2AML 8778-133-33-26
 WA2CZI 8100-135-30-16
 W2HVO 5192-116-22-15
 W2FGY 1100- 55-10- 3
 WN2AYA 170- 11- 5- 7
 W2FBF 72- 6- 6- 1

Western New York

WA2BYJ 37,368-342-54-24
 K2IGW 20,504-229-44-17
 WA2VCM 17,220-210-41-27
 WB2LOF 15,662-185-41-18
 W2GEV 624- 89-11- 3
 K2IJ 5184- 80-32-13
 W2EOS 4992- 78-32-15
 WB2EVW 1728- 48-18-17
 WA2SFP 1600- 29-12- 9
 WA2WDE 1504- 45-16- 6
 WB2BXM 272- 17- 8-13
 K2GKT(multi-op) 22,050-245-45-32

3

Delaware

K3JZU 8262-153-27-10
 K3HBP 4320- 80-27- 8
 K3BYW 1664- 52-16- 7

Eastern Pennsylvania

K3OIO 116,556-873-66-
 W3BGN 34,104-406-28-10
 WA3INW 16,644-219-38-10
 WA3JZD 15,408-243-26-26
 W3ETB 12,210-185-33-16
 K3EF 7208-106-34- 3
 WA3WVT 6148-106-29-12
 WA3SPF 6151- 76-27-11
 WA3GJA 3486- 76-21-15
 W3ARK 3388- 77-22-
 W3ADE 2226- 51-21-10
 W3WFM 1600- 29-12- 9
 WA3UDS 1232- 86- 7-15
 WA3NQY 680- 31-10- 2
 W3BQP 440- 20-11- 3
 W3TTP 28- 7- 2- 1
 WA3ZTE(multi-op) 12,960-162-40-19
 WN3WSB(multi-op) 384- 23- 6-17
 WN3AND(multi-op) 90- 12- 3-10

Maryland-D.C.

W3RRX 62,976-492-64-25
 W9SR/3 59,400-495-60-
 WA3ELE 31,720-305-52-21
 LU1BAR/W3 17,072-194-44-
 W3HVM 13,440-208-32-10
 W3PWO 13,376-150-44-17
 K3AHS 11,232-156-36-24
 K3XHD 10,890-165-33-12
 W3USS(WA1FEO, opr.) 8650-172-25- 6
 WA1FEO/3 5456-124-22-12
 K3UMU 3900- 26-12- 2
 WA3QKB 3570- 85-21-12
 WB3AHN 2546- 66-19-12
 W3JPT 1824- 76-12-14
 K3AZK 1458- 81- 1- 9
 W3KS 216- 18- 6- 1
 K3DI 72- 9- 4-
 WN3ZEO 8- 4- 1-
 K3EST(+WA3UTA) 152,352-1055-72-
 W3BQV(multi-op) 16,848-215-38- 9

Western Pennsylvania

WA3WIK(WA3SZX,opr.) 71,036-599-59-27
 K3DE 28,566-253-56-28
 K3HXL 18,616-179-52- 9
 W3IWT 2392- 52-23- 3
 W3GNN 2808- 69-17- 4
 W3HDH 2160- 46-24- 2
 K3CHD 204- 17- 6-
 K3LVO 156- 13- 6- 1
 WA3SWP 92- 22- 2-10

4

Alabama

W8FAW/4(WB4FZQ,opr.) 39,750-375-53-
 WB4GXX 26,352-239-54-19
 WB4ASV 15,915-16-12-
 W4RAL 504- 21-12- 3

Georgia

K4DJC 45,902-387-59-23
 K4BAI 26,400-275-48-
 WB4RBJ 15,640-170-46-20
 WB4RUA 14,028-167-42- 6
 K4Z 13,680-100-38-21
 K4TWK 8512-112-38-11
 W4R0 7276-107-34-
 WB4LOK(WB4TV, opr.) 28,522-159-21- 5
 WB4WKE 5876-111-26-26
 W4DXI 3608- 81-22-
 K4HQI 3538- 61-29- 5
 W4KKN 4610- 29-12- 9
 WA4APG 1980- 53-18- 6
 W4JM 56- 14- 2- 2
 WA4QL(multi-op) 1352- 51-13-

Kentucky

WA4JQS 31,584-336-47-13
 WA4OSS 18,124-197-46-13
 WA4EBN 466-118-24-17
 WA4FOT 446- 88-24-
 K4RZK 4200- 70-30- 7
 WA4JHE(multi-op) 16,354-221-37-22

North Carolina

K4DJ 14,496-151-48-
 WA4DEQ 13,376-151-44-15
 WA4MWP 2484- 52-23- 3
 WA4OMW 2376- 51-22-
 K4FJN 302- 27-13- 5
 WA4AF 32- 5- 2- 8
 WA4FB(multi-op) 682- 21-11-23

Northern Florida

W4LUN 15,600-200-39-21
 K4LAN 1080- 36-15- 3
 WA4WC 600- 21-12- 6
 WA4HMC 30- 5- 3- 1

South Carolina

WB4QNP 44,700-447-50-
 W4FVY 13,051-136-48-19
 WB4VTM 4032- 96-21- 6
 WA4ULL 2784- 58-24-12
 WA4EWX 2508- 57-22-14
 WB4IUX 744- 31-12- 1
 K4II 600- 25-12- 4

Southern Florida

WB4OSN 31,104-288-54-26
 WB4DFV 7216- 82-44-13
 W4BVT 6612- 87-38-18
 K4TSV 4266- 79-27-
 K4HSV 4200- 75-28-
 WA4HOH 3916- 89-22-16
 W4CZF 3818- 83-23- 8
 WA4JLX 2436- 57-21-12
 K4DBZ 2360- 59-20- 3
 WB4HYN 2074- 61-17-
 WA4LZR(WA4FCF,opr.) 1888- 51-16-
 WA4LWL 690- 23-15-
 WB4WDH 532- 19-14- 7
 K4WP 440- 20-11-
 WA4TQ/4 330- 15-11-
 K4BZH 48- 6- 4-

Tennessee

WB4NDX 19,968-208-48-
 W4DUP 16,168-188-43-
 W4PHW 4968- 91-27-
 WB4WHE/4 2600- 65-20- 5
 WA4WZ 1088- 34-16-14
 K4JZ 330- 15-11-
 WB4ASA(multi-op) 9870-141-35-

Virginia

W4WSF 103,340-700-74-29
 K3IGA/4 87,408-605-72-28
 WA5DJJ/4 12,540-165-38-22
 WA4UGE 12,000-200-30- 4
 WA4GX 11,070-135-12-22
 K4JM 6696-103-31-
 WB4BUL 5474-119-23-1
 WA4KMS 2226- 53-21-3
 W4U 5472-11-24- 2
 W4KFC 1400- 50-14-
 W4NW 1080- 45-12- 1
 K4EJG 648- 26-12- 6
 WA4YBV(multi-op) 39,648-353-56-
 WA4FRJ(multi-op) 35,530-323-55-18
 WN4AYI(multi-op) 68- 16- 2-

5

Arkansas

WA5WMC 1584- 44-18- 8

Louisiana

W5WMU 5568-116-24- 5
 W5HGT(WB5GVE,opr.) 4440- 73-30-10
 WB5NAL 252- 15- 7- 4

Mississippi

W5PWW 17,572-190-46-25
 W5POP 3108- 56-21-22
 W5TNG 1600- 40-20-18
 W5SHVY 1260- 45-14- 3

New Mexico

W5QNN 60- 6- 5-
 Northern Texas
 WB5NXA 224- 16- 7- 5
 W5SOD 160- 10- 8-

Oklahoma

K2GKK/5 10,260-133-38-28
 WB5GMK 4216- 67-31-36
 WB5LOZ 2622- 23-19-
 K5CM 2016- 55-18-
 W5SDBJ 676- 26-13- 7
 WB5KGP 320- 20- 8-10

Southern Texas

WA5LES 19,260-214-45-17
 K5OOU 5328-110-24-18
 WB5IQG 3744- 78-24- 5
 W5N 3400- 32-20-12
 W5OQJ 558- 31- 9-24
 W5QCL 384- 24- 8- 9
 K5RVF 216- 18- 6- 3
 WB5LFE 120- 12- 5- 7
 W5YG(WB5LAL,opr.) 44- 22- 1- 2
 WA5FOE 22- 11- 1-10
 WB5OOV 16- 8- 1- 1

6

East Bay

WB6H 28,268-382-37-
 WA6VVH 7912-167-23-17
 W6IQT 4180- 95-22- 5
 W6OT(multi-op) 5720-143-20-17

Los Angeles

WB6PXP 51,888-552-47-26
 K6VNX 12,528-211-29-
 WB6PN 12,528-211-29-
 WB6ZVC 4978-128-19-10
 WA6GLC 3420-109-15-30
 WB6UCC 3400-100-17- 8
 WB6OE/W 3192- 76-21-12
 W5RTQ/6 3154- 83-19- 7
 W6RQZ 1080- 60- 9-
 K5MHG/6 880- 44-10-
 WB6WU 766- 60- 6-
 W6VPZ(W6CFM,opr.) 736- 45- 8- 5
 WB6EJ 420- 42- 5-
 K6A 384- 30- 5- 2
 WA6PXY 230- 23- 5- 2
 WB6VAE 68- 17- 2- 2
 WA6HFX 48- 24- 1-11
 WB6VY 30- 12- 1- 1
 K6SVL(multi-op) 47,168-530

Ohio

WA8ZDF 95,160-728-65-28
 WA8YEE 42,784-381-56-
 WB8UKX 37,948-356-53-
 K8UQA 30,820-335-46-
 WB8IAY 23,940-266-45-16
 WB8AMI 14,880-186-40-17
 WA8ZAN 14,720-184-40-
 K8YFM 13,968-186-37-
 WB8JBR 10,286-136-37-22
 WB8ORV 4888- 93-26-24
 W8LCY 4560- 76-30-11
 WA8KQF 3696- 88-21-
 WB8JVT 3300- 50-33- 8
 W8MH 2952- 81-18-10
 WB8OOE 864- 48- 9- 4
 K8UFW 280- 19- 7- 5
 K8OGH 66- 11- 3- 2
 K8MLO 60- 9- 3- 1
 WN8UFO 48- 11- 2- 9
 K8OCL 24- 6- 2- 2

WB8OFR(multi-op)
 46,800-467-50-32
 W8UNB(multi-op)
 43,460-410-53-
 W8CCI(multi-op)
 28,336-308-46-28
 W8LT(multi-op)
 29,584-341-43-24
 WB8JBM/8(multi-op)
 26,508-281-47-16
 WB8PHI(multi-op)
 16,544-183-44-24
 WA8RUT(multi-op)
 13,528-177-38-22
 W8EDU(multi-op)
 6864-102-33- 6
 WN8WKB(multi-op)
 800- 31-10-12

WN8VTA(multi-op)
 390- 33- 5-31

West Virginia

WB8EKG 1824- 57-16-

9**Illinois**

K9HMB 97,600-800-61-22
 K9BGL 71,280-592-60-28
 WB9HAD 41,700-416-50-
 WA9IXF 28,224-285-49-
 W9YH(WB9MEK,opr.)
 23,760-268-44-

W9VBV 20,500-250-41- 8
 WB9NLO 6272-111-28-15
 WA9SVZ 3900- 75-26- 6
 W9RHE 2774- 73-19-
 WB9ONP 2508- 57-22-
 K9ZKN 1920- 47-20- 7
 W9NU 1760- 43-20-
 WN9RNP 1428- 33-17-12
 W9DJZ 1316- 46-14-
 W9UDK 1224- 51-12-
 K9EEH 1178- 31-19- 9
 K9BJM 1102- 29-19- 3
 WA9LEY 1008- 36-14-
 K9DTB 780- 30-13-
 WB9PXP 560- 26-10-
 WB9NEY 552- 23-12-
 W9ATF 406- 29- 7- 5
 K9GHR 364- 26- 7-
 W9REC 360- 20- 9-
 W9NJZ 336- 24- 7- 6
 WB9NIO 36- 9- 2- 2
 W9WR 18- 9- 1-

WB9KLB(multi-op)
 25,830-315-41-16

Indiana

W9LT(K9UWA,opr.)
 55,696-468-59-26
 WA9JGN 42,328-407-52-
 WB9REU 38,046-371-51-27
 WB9CEP 24,930-276-45-20
 WB9LHI 9408-146-32- 5
 W9JO 8704-136-32-13
 WB9MDB 8664-114-38-
 WB9FNR 8128-127-32-17
 K9IU(WB9SDX,opr.)
 6832-122-28-
 6322-109-29-
 W9LKI 6180-103-30-22
 WB9QPK 6000-100-30- 7
 W9SFR 5520- 92-30-16
 WB9LUG 5220- 90-29-10
 W9NNC 3360- 70-24- 9
 W9WCE 1380- 46-15-10
 WB9NEU 840- 35-12-16
 WA9EPF 420- 21-10-10
 WB9CEX 360- 18-10-
 WB9PUM 96- 16- 3-
 WA9BWY 8- 2- 2- 1
 W9UC 17,304-206-42-23
 W9CXD(multi-op)
 8514-129-33-26
 WA9ASZ(multi-op)

Wisconsin

K9DAF 26,520-257-51-
 WB9ANQ 17,220-209-41-18
 WB9DWG 6014- 97-31- 9
 K9REE 1978- 43-23-

W9ERW 572- 26-11- 6
 WN9SHL 12- 4- 1-

0**Colorado**

WB9MIV 22,090-234-47-31
 W9OOW 13,338-171-39-31
 WB9MJG 10,640-140-38-30
 W9MVR 3786- 90-21-11
 WA9MOJ 1024- 32-16-
 WA9YNQ 410- 41- 5-13
 WB9LFO 162- 25- 3- 7
 WB9LFN 36- 18- 1- 3
 WN9ODK 30- 12- 1-22
 WN9RBX 24- 11- 1-10

Iowa

WB9FHH 17,020-230-37-18
 W9II 3944- 68-29- 6
 W9PUR 1482- 39-19-
 WA9TAQ 1378- 53-13- 2
 WA3PWL/0
 1312- 41-16-

Kansas

K9IEW 3456- 71-24-20
 WB9NCB 3350- 66-25-21
 WA9PBQ 1872- 52-18-12
 K4KWW/0 1320- 33-20-12
 WN9QLC 2- 1- 1- 1

Minnesota

WA9SBZ 8160-120-34-
 WB9HLS 3744- 78-24-18
 WB9HSN 1092- 39-14-21

WB9PMZ 272- 17- 8- 6
 K9MPH 228- 19- 6-
 W9HW 72- 12- 3- 1
 WB9FKW 2- 1- 1- 1

WB9MCJ(multi-op)
 6032-104-29-32

Missouri

W9LGW 28,600-260-55-28
 WB9DGO 5040- 89-28-10
 W9QHY 4212- 81-26-16
 W9ERZ 3066- 72-21- 6
 WA9CNS 2160- 54-20- 7
 WA9NVZ 1634- 43-19- 4
 W9MQL 1230- 41-15- 5
 WB9OTA 1190- 35-17-
 W9CDC 598- 23-13-
 WA9KDT 154- 11- 7-
 WB9ODF 144- 22- 3- 5
 W9YZZ 48- 5- 4- 1

W9EEE(multi-op)
 30,820-335-46-18

WB9NXX(+WA9SFS)
 1024- 32-16-12

W9LWY(+WN9PAT)
 352- 15-11- 4

Nebraska

W9EKB 6386-103-31-
 K9ETA 1472- 46-16-17
 WA9HAL 48- 6- 4- 3

North Dakota

K9RDF 1152- 36-16-15

South Dakota

WA9CPX 27,540-306-45-