

Results of the 1988 CQ World-Wide DX CW Contest

BY LARRY BROCKMAN*, N6AR/4, AND BOB COX**, K3EST/6

It is well past midnight now, and Arnold has lost all sense of his original plan. The fingers are working feverishly to a frenzy of high-speed CW. QSOs, more QSOs per minute than Arnold thought were possible, are ringing in his ears. Indeed, Arnold plugs on with his tenth contact in just 5 minutes. What phenomenal conditions! Yes, he just can't afford to miss any of the CQ WW this year. Arnold has made his decision—it will be all 48 hours or bust.

He had told himself before the contest that this is just a hobby, and not to get lured into sitting at the radio all weekend. He could control himself, he was sure. Just listen for a while carefully, and then make a few select contacts; that was his plan. He would be in there like a frog on a bug—snag the good juicy stuff and then be out of it. Arnold was going to use the surgical approach. But in the first minutes of the contest he wavered. There was a 28 MHz opening the likes of which Arnold had never heard before; 3W8CW, BY4SZ, YB0ARA, HS0A, VS6UP, etc., and all of them were as loud as a local! And then there was the switch to 15 meters. Wow, what a crop of Pacific DX in amongst the Africans and South Americans. He couldn't just quit like that after a few minutes on 10. He had to at least try his luck on 15. Of course, it was the same way on 20, 40, and 80 later. And so, Arnold had faltered in his resolve. He had tasted a "hot fudge sundae." He had fallen prey once again to the mighty CQ WW DX Contest, the "Olympics" of all operating events.

Arnold continued on in his new found bliss with fantastic fingers flying on the key and headphones fused to his ears. As Arnold surrendered completely to this temptation, he shed the frustrations and pressures of his normal world and became consumed in an escape from reality. For in that 48 hours of contesting—no matter how exhausting the time spent, no matter how frustrating the pileups, no matter how belligerent it all seemed—Arnold truly forgot his troubles. What welcome therapy and terrific relief the CQ WW Contest is!

Actually, a huge contingent of Arnolds from all over the world rallied to the 1988 call for participation. Over 40,000 calls appeared in more than one log in our computerized data base, more than ten to one in ratio to the number of logs received. These congregated to do battle in a variety of categories. Yet everyone who entered was a sure winner due to the absolutely fabulous propagation conditions on all bands. Some of you winners do deserve special recognition, as 31 world-wide and 6 USA all-time records were set. Here are the details.

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This year's top worldwide single operator was FY5YE, operated by Ville, OH2MM (bottom), shown here with station owner Mario (top).

The All-Band Results

In an encore performance, FY5YE, operated by Ville Hiilesmaa, OH2MM, swept away his own 1987 World and South American records (8.2 M) with a phenomenal 9.6 M points. Ville was followed by Glenn Rattmann, K6NA, operating at HC5M. Glenn's 8.8 M was well above the old world record, and despite a 140 contact advantage, Ville carried the day with his fine multiplier total. Jim Neiger, N6TJ, returned again for guest operation at D44BC, and posted his best effort ever at 7.4 M for a third-place finish, followed closely at 7.3 M by John Laney, K4BAI, who did 8P9HT—good enough for a new North American All-Band record, too. Meanwhile, JE1JKL returned to KC6CS this year to earn a fine 4.9 M points and set a new Oceania Continental record, besting the seven-year-old mark of N6BT/AH0. Top honors in Europe went to Phil Goetz, N6ZZ, at CT2NH. Phil's 4.68 M eradicated I4IND's one-year-old European record, adding a second Continental All Band, all-time record to the 5B4TI Asian mark Phil set last year. Phil was followed by TF3WW, manned by OH4NRC. Iceland is such a tough place to compete from, too.

In the USA there was a complete sweep of the top six by the northeast, with Greg, W1KM, amassing an impressive 4.47 M points. Randy, K5ZD, was second from K3TUP. Randy's multiplier of 609 was 32 more than Greg's, but that wasn't enough to compensate for Greg's extra 200 contacts. The band-by-band breakdown tells us that the low bands were the difference in the QSO count.

Frank Bogataj, YU3BC, set a new QRP World record with a great 1.24 M. He was followed by some strong USA finishes by WA2HZR (890 K) and NX7K (865 K). Congratulations on all those tough QRP QSOs!

In the quest for the combined SSB/CW All-Band Single Operator trophy, it was a three-way race among Martti Laine, Jim Neiger, and Ville Hiilesmaa, but Martti Laine, troubled in the CW contest by a transceiver failure early on Sunday morning, pulled it out. Congratulations on two fantastic efforts from the Madeiras Islands, Martti.

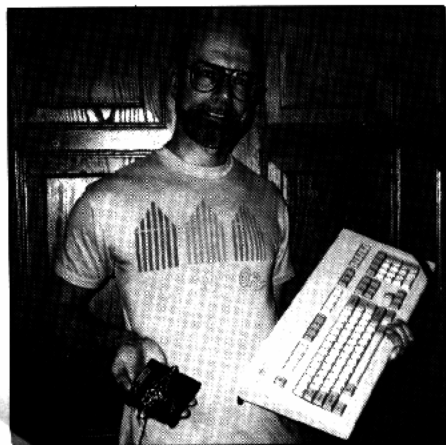
Single Band Categories

An incredible 21 records fell this year in the single band categories, with new World records being set on all of the bands except 20 meters. In fact, balance was a key to this year's propagation, with all six bands providing great propagation over most of the world.

Bahri, TA2BK, led the low-band forces with 163 K on 160 meters, followed by HB9AMO (topping his own European record) with 111 K. The USA winner was K5UR once more, who squeaked out a tough 13 K, down from his earlier scores because of relatively poor stateside 160 meter conditions. KX6DC, operated by NZ8B, gave Oceania its new Continental record of 42 K, topping perennial 160 meter enthusiast KH6CC.

The standard for 3.5 MHz was set by Jeff Briggs, K1ZM, who hammered out 809 K from NP4A to capture a new World and North American record. He was followed by EA8XS at 546 K, good enough for a new African record. W1FV prevailed Stateside, with a fabulous 225 K, while Akim, YU1YV, using the call 4N1A, won the top European slot with 247 K. What a signal Akim has on 80 meters in the States!

Seven MHz top honors and World and South American records go to Jose, YV5ANT, for his YX5A effort, the first ever station to break the 1



Phil Goetz, N6ZZ, shown here, is the holder of two all-band continental records—Europe, for this year's CT2NH effort, and Asia, for last year's 5B4TI effort.

M point barrier on 7 MHz CW. OH7JT/CT9 was very close behind, as his 904 K topped the old 1983 African record set by EA7TL/9 by almost 3 to 1. Dov, 4Z4DX, has a new Asian record with a fine 859 K. Meanwhile, I3JSS led the Europeans with 582 K, followed closely by YT0A and LZ1V at 553 K and 509 K, respectively. Bill, K2EK, wiped out K1OX's old Stateside mark with a great 520 K effort, followed by N2DT and WB8JBM with strong Stateside single band scores.

Twenty meter scores were noticeably down this year on the international front, possibly an indication of the indecision all of us competitors faced with virtually every HF band open at

sunrise and sunset. Nevertheless, Chris Burger, ZS6BCR, found 832 K enough to win it world-wide. Chris was followed by NY2M/KH2 at 765 K, and Al Slater, G3FXB, at 709 K. The USA winners were Conrad, N5CR, with 474 K and Bob, K2HFX, with 411 K.

This year marked the return of long, lucrative 10 and 15 meter openings to just about everywhere. On 15 Jorge, CX8BBH, piled up a remarkable 1.496 M for new World and South American records, pressed by fellow South Americans ZY5ZBA and 9Y4VU. LZ1KDP, operated by Todar, LZ2AX, captured the European honors this year with 752 K, followed by three Yugoslavians—YT6AA, YT3AA, and

4N2E, in that order. K3RV/4 (682 K), and K4XS (615 K), operated by WC4E, finished in a tight one/two fashion in the USA. By the way, Aki, JA5DOH, captured a new Asian 21 MHz record with a 624 K score.

The 28 MHz competition was hot and heavy, with many folks taking advantage of the good conditions. YV7QP, using 4M7A, did it again this year for the second year in a row, with a fine 1.145 M and a new World and South American record. ZY5EG was second at 1.04 M, in a close race with new Oceania record-holder KD7P/KH2 (1.037 M). VS6UP was third and established a new Asian record with 712 K. The USA leader was ARRL's K1ZZ with 538 K, a

CW TROPHY WINNERS AND DONORS

SINGLE OPERATOR, ALL BAND

World

HC5M (Opr. Glenn Rattmann, K6NA)
Donor: W2AB Memorial (Albert Kahn, K4FW)

World QRPp

Frank Bogataj, YU3BC
Donor: Gene Walsh, N2AA

U.S.A.

Gregory M. Cronin, W1KM
Donor: Frankford Radio Club

Canada

John Sluymmer, VE6OU/3
Donor: Canadian DX Association

Caribbean/Central America

8P9HT (Opr. John T. Laney, III, K4BAI)
Donor: Peter Monroe, WB1DQC

Europe

CT2NH (Opr. Philip Goetz, N6ZZ)
Donor: Edward Bissell, W3AU

Africa

D44BC (Opr. James Neiger, N6TJ)
Donor: Gordon Marshall, W6RR

Asia

Tatsuya Sasaki, JH7WKQ
Donor: Japan CQ Magazine

Japan

Akira Asai, JA8RWU
Donor: Japan Crazy Contesters Club

Oceania

Joel Chalmers, KG6DX
Donor: Maui Amateur Radio Club

South America

FY5YE (Opr. Ville Hillesmaa, OH2MM)
Donor: YV5AAZ Memorial (Venezuela DX Club)

SINGLE OPERATOR, SINGLE BAND

World—28 MHz

ZY5EG (Opr. Peter Sprengel, PY5CC)
Donor: Joel Chalmers, KG6DX

World—21 MHz

CW8B (Opr. Jorge Camboni, CX8BBH)
Donor: N5JJ Memorial
(Don Busick, K5AAD)

World—14 MHz

Chris R. Burger, ZS6BCR
Donor: W2JT Memorial
(New Jersey DX Association)

World—7 MHz

YX5A (Opr. Jose Castejon Lara, YV5ANT)
Donor: Alex M. Kasevich, VP2MM

World—3.5 MHz

NP4A (Opr. Jeff Briggs, K1ZM)
Donor: Fred Capossela, K6SSS

U.S.A.—14 MHz

Conrad Romberg, N5CR
Donor: Northern Illinois DX Association

U.S.A.—7 MHz

Bill Gioia, K2EK
Donor: Jan Perkins, N6AW

Canada (14 MHz)

Dave Goodwin, VE2ZP
Donor: Canadian Amateur Radio Federation

Europe

LZ1KDP (Opr. Todar Ivanov, LZ2AX)
Donor: Southern New England DX Club

Japan—21 MHz

Akito Nagi, JA5DQH
Donor: DX Family Foundation

MULTI-OPERATOR, SINGLE TRANSMITTER

World

VP2MW (Opr. AA5DX, KM5R, WQ5W)
Donor: Anthony Susen, W3AOH

USA

K1AR (Opr. K1AR, K1EA, K1GQ, K1VR, KC1F)
Donor: Doug Zwiebel, KR2Q

Canada

VE7ZZZ (Opr. VE7ARS, VE7AV, VE7DP, VE7EME, VE7SK)
Donor: Eastern Canadian DX Association

Europe

HG5A (Opr. HA5AWH, HA5BNL, HA5FM, HA5GF, HA5IW, HA5LN, HA5MK, HA5ML, HA7RY, HA5WE)
Donor: K3AO Memorial (Friends of K3AO)

MULTI-OPERATOR MULTI-TRANSMITTER

World

PJ1B (Opr. K2SB, K2SS, K2TW, K3EST, K3VW, KT3Y, N2AA, N3ED, N3RD, N4RV, PJ9EE, W2GD, W3UM, WA3LRO)
Donor: Hazard Reeves, K2GL Memorial

USA

W3LPL (Opr. W3LPL, A13M, K3RA, KA1GD, KF3P, N8II, ND3A, NW5E, W3EKT, WA8MAZ, WB3FSB, WB3JRU, WD4AXM)
Donor: Jim Rafferty, N6RJ

Europe

OL8A (Opr. OK2FD, OK3CBU, OK3CDV, OK3CGP, OK3CMV, OK3CQR, OK3CSQ, OK3CUM, OK3CZM, OK3EA, OK3EY, OK3GB, OK3GI, OK3JW, OK3LU, OK3LZ, OK3NA, OK3NY, OK3PA, OK3RM, OK3TAP, OK3TPV, OK3YEC, OK3YX, OK3ZAF)
Donor: Finnish Amateur Radio League

CONTEST EXPEDITIONS

World—Single Operator

EL7U (Opr. Jorma Saloranta, OH2KI)
Donor: Yankee Clipper Contest Club

World—Multi-Operator

P48V (Opr. A16V, AJ6V, K7RIE, K7SS, K7WA, K7XX, KE7V, KQ2M, N6IG, N7NG, NB6G, NV6Z, W4ETO, W7WJ, WA6AUE)
Donor: Bill Schneider, K2TT

SPECIAL SINGLE OPERATOR AWARDS

World—Single Band, Combined SSB/CW

Martti Laine, CT9BZ
Donor: Yuri Blannarovich, VE3BMV/W2

World—All Band, Most QSOs, CW

HC5M (Opr. Glenn Rattmann, K6NA)
Donor: KV4AA Memorial
(The 14270 kHz Group)

CLUB

World—SSB/CW

Frankford Radio Club
Donor: CQ Magazine

Non-USA—SSB/CW

Rhein-Ruhr DX Club
Donor: N6AUV Memorial
(Northern California Contest Club)

BAND-BY-BAND BREAKDOWN—TOP ALL BAND SCORES

Number groups indicate: QSO's/Zones/Countries on each band.

WORLD TOP SINGLE OPERATOR, ALL BAND

Station	160	80	40	20	15	10
FVSYE	149/12/37	302/17/60	554/21/68	1403/30/88	1067/31/98	1993/31/91
HC5M	37/10/13	221/18/38	1089/29/71	1297/34/84	1292/33/85	1747/25/85
D44BC	163/12/31	164/16/42	477/26/69	1072/24/67	1269/30/88	1722/28/77
8P9HT	158/9/16	604/22/61	747/22/64	1203/27/70	1583/31/77	1295/28/68
EL7U	76/11/35	127/19/46	512/27/67	1248/33/83	704/31/83	1422/30/85
P40G0	44/13/20	280/16/45	527/20/54	814/33/69	1252/28/74	1698/29/78
SU1ER	7/4/6	395/11/40	910/19/56	617/32/80	1252/31/78	1338/27/72
PZ/N3JT	5/2/5	232/17/42	334/15/36	1107/32/74	1606/27/74	1549/27/70
5H1HK	—/—/—	102/12/24	559/24/55	1269/33/83	1036/34/73	1350/27/72
CT3BZ	207/12/40	416/14/52	904/21/60	896/29/65	585/24/62	961/23/62

WORLD TOP MULTI-OPERATOR SINGLE-TRANSMITTER

VP2MW	99/9/20	232/18/53	1148/25/73	1533/36/107	1650/34/93	1306/29/80
PJ2X	40/9/14	682/20/66	905/24/69	1081/36/98	1546/32/94	1004/31/81
RL1P	167/10/48	382/18/60	1132/36/104	931/39/111	619/39/103	1260/34/107
UL8LYA	75/14/42	492/22/71	1013/36/100	1196/40/100	648/36/102	654/37/100
HG5A	353/12/54	931/21/72	873/36/103	842/40/118	908/40/114	1123/38/108
LZ9A	277/17/64	516/21/69	775/37/106	986/40/124	909/40/117	893/38/111

WORLD TOP MULTI-OPERATOR MULTI-TRANSMITTER

PJ1B	717/17/65	1447/24/82	3119/37/133	3791/40/140	2997/39/134	2850/37/117
P40V	317/16/42	1555/27/84	2867/33/113	3443/39/140	3382/39/142	2569/38/130
KP2A	608/20/63	1549/22/86	2905/36/117	3622/39/134	3743/40/124	2771/34/107
EA9EA	672/16/69	1466/24/88	2354/34/99	3572/40/136	2447/39/109	2694/37/115
HD8EX	369/17/30	1261/26/67	2324/33/84	2617/39/113	3638/38/116	3169/32/95
OL8A	702/17/70	1715/28/89	2047/38/124	2394/40/133	1896/38/119	1919/39/123

USA TOP SINGLE OPERATOR, ALL BAND

Station	160	80	40	20	15	10
W1KM	39/12/30	402/22/60	617/31/79	590/37/98	579/28/79	410/26/75
K3TUP	38/13/30	143/22/60	410/28/74	528/37/107	547/34/85	759/33/86
K1CC	45/13/31	364/20/60	506/23/71	506/32/81	771/28/76	356/25/67
K1TO	48/13/37	220/17/54	292/28/73	590/40/102	736/33/96	359/26/70
N2LT	29/10/21	106/17/47	537/31/78	316/33/88	581/32/90	713/32/84
K3ZO	29/11/28	151/21/58	491/32/79	280/38/94	579/33/93	581/31/90
W9RE	25/10/21	96/19/50	343/28/67	405/37/93	623/34/89	659/31/77
N5AU	31/13/22	77/17/37	309/30/73	489/37/96	502/35/96	598/31/86
K300	46/11/28	253/20/60	294/24/57	365/32/81	589/30/87	514/28/83
N6BV/1	42/8/27	172/16/48	458/24/67	410/36/94	451/28/82	538/29/82

USA TOP MULTI-OPERATOR SINGLE-TRANSMITTER

K1AR	44/14/42	407/26/76	931/35/107	741/40/135	630/35/111	571/35/105
N3RS	36/11/35	229/23/76	896/35/99	452/40/120	630/35/108	479/31/99
N4WW	35/12/33	287/18/61	413/29/77	918/39/117	699/36/99	460/34/95
K8AZ	34/15/31	165/20/60	421/34/87	650/40/128	719/34/110	502/34/105
K5NA/2	51/16/46	199/20/56	583/33/93	522/40/124	662/33/99	578/33/100
WM5G	25/12/18	106/24/51	451/34/103	443/40/127	489/39/128	571/33/115

USA TOP MULTI-OPERATOR MULTI-TRANSMITTER

W3LPL	152/18/52	624/26/82	1205/35/107	1029/40/141	1212/37/119	1165/38/123
NR5M	89/20/31	291/27/59	794/36/100	1232/40/147	946/38/122	1021/35/117
K1ST	57/13/34	330/22/71	968/35/106	1085/40/136	831/35/102	519/34/98
K4JPD	58/16/35	322/26/68	683/32/98	804/40/132	783/36/105	1025/37/115
K4VX/0	55/16/30	189/23/62	660/36/100	1004/40/134	903/37/106	879/35/111
N1CQ	107/16/47	366/24/72	762/34/105	1082/39/124	867/34/94	512/29/90

new USA high, followed by W4XJ and W0ZV. The European competition was close, with all top slots separated by less than 100 K. It was RB5VK, EA7TH, and YT7WW, in that order.

Bob Winters, KD7P, is the 1988 winner of the combined SSB/CW Single Band Trophy for his operations at KH2. Congratulations, Bob.

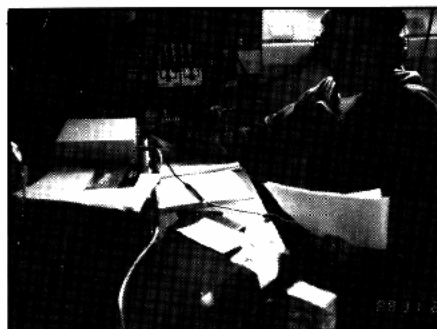
Multi-Operator Winners

The Multi-Single category continued to enjoy healthy growth this year. A Caribbean team at VP2MW led the way with 9 M, followed very closely by the team at PJ2X, which set a new South American record. Meanwhile, the boys at RL1P and UL8LYA fought it out from the Kazakh for third and fourth place with scores of about 8 M. In Europe the HG5A crew took the prize with 7.775 M, a new record. They were pressed by LZ9A at 7.455 M and IO4IND at 6.7 M. John Dorr's K1AR team blew away the Stateside competition with 7.37 M. A group of five in the 5 M region trailed them, including N3RS, N4WW, K8AZ, and K5NA/2.

The world-class Multi-Multi category provided us with a fierce competition of giants, as PJ1B (38.4 M), P40V (35.4 M), KP2A (32.3 M), EA9EA (31.8 M), and HD8EX (27.5 M) all wrangled incredible efforts, in that order. PJ1B emerged as the new all-time World and South American record holder, while KP2A captured a new North American record. Likewise, EA9EA set a new African mark. We almost forgot to mention the new European record set by OL8A in Multi-Multi, with a great 18 M. They were hotly pursued by UP8A. Both of these teams managed a zone multiplier in excess of 200. Wow!

Club Competition

The club competition this year continued to



Jan, G3WVG, is shown operating GW4BLE, one of the top all-band European entries this year.

feature the battle between the Frankford Radio Club and the Yankee Clipper Contest Club. The FRC emerged as the winner with a fantastic 226 M compared to the YCCC's 204 M. The Potomac Valley Radio Club, the Southern California Contest Club, and the North Texas Club rounded out the top five domestic clubs. Two large West German clubs fought it out in the non-US club arena, with the Rhein-Ruhr DX Club taking the prize with 75 M compared to the Bavarian Contest Club's 65 M. The two large Lithuanian Clubs—Northern Lithuania DX Group and Kaunas Polytechnik Institute—and the Osaka University ARC rounded out the top five.

Only one entry was received in the Team Contesting area for the CW mode, and that was for "Team Japonica," consisting of 5H1HK (Opr. JE3MAS), KH0JE1CKA, KC6CS (Opr. JE1JKL), JH7WKQ, and EL2FY (Opr.

JA1XAF). Congratulations on a fine 18 M total. How about some competition next year from the Finns and the Americans?

Some Special News

We did a lot of special checks on the top six in the Multi-Multi and Single Operator categories this year as part of our computerized log-checking process. The checks included determination of unique rates by band, and the analysis of the unique data, followed by cross-checks and other techniques. This special processing took many hours of our time, and was performed as fairly and equitably as we know how. It's particularly tough to do when some of the top entrants don't send us their log on a disk—even though they do send us a nice computerized printout of the log, thereby necessitating manual entry of the data. In some cases we had to enter 15,000 calls. It's interesting that some of the guys who have been talking the loudest about cooperation on log evaluations are the same guys who didn't send their log data on disks! However, the CQ organization is committed to the highest of standards, so we manually entered all the top logs if we had no other recourse. We wanted a uniform procedure applied just to make sure that nobody was hiding anything from us.

A careful comparison of the final results with the high-claimed scores will show that virtually all of the top logs were affected by the above process. Indeed, lots of potential errors were found, and many of these were confirmed with the crosschecks and other techniques, resulting in some significant score reductions. Despite all of this work, only one change in relative position was identified. For all those concerned, you can be assured that all of our findings will be held in the strictest confidence, as it should be.



The boys at LZ9A, also LZ2KTS, sported this fine set of antennas—6 elements each on 10, 15, and 20, and 4 elements on 40.

In order to minimize the problems in building our computerized data base for checking in future years, we have given more thought to the matter of disk submission than what we discussed last month. Although we can't process a rule change for 1989, we will process one for 1990. What we have decided on is a rule

change to the log submission requirement. The rule now states that an original or a photocopy of the original log is required, and that dupe (or crosscheck) sheets are required when more than 200 contacts are made on a band. Strictly speaking, computerized log listings do not comply with this rule anyway.

Therefore, a change is needed to allow for the submission of computer-generated logging data. The rule change will state that a computerized log listing and/or a computerized alphabetical sort of the log data will be accepted in lieu of a copy of the original or a dupe sheet provided the computerized listing is accompanied by a disk, and that ASCII format is required. Failure to submit the disk with a computerized log master will be grounds for disqualification. Of course, a copy of an original log will continue to be acceptable, provided it is accompanied by a manual crosscheck sheet as required.

Parting Comments

This year we expanded the contest committee significantly to account for increases in log submissions and the substantial computerized log-checking process that we initiated several years ago. Our hard-working crew deserves recognition from the participants for the tough job they do—burning lots of midnight oil long after most of you have forgotten about the contest except for the expectation of the results. That crew includes Pat, WA8YVR; Dave, K2SS; Doug, K1DG; John, K1AR; Bill, W2RQ; John, KE7V; Richard, K5NA/2; Ed, N3ED; Fred, AD6C; Jan, N6AW; Glenn, K6NA; Homer, K7RA; Jim, W7EJ; Gene, N2AA; Mike, W9RE; John, K2VV; and Doug, KR2Q.

The days are growing shorter here in the Northern Hemisphere. The bands are growing livelier and livelier. Rumors are rampant on plans for the big one—the 1989 CQ World-Wide DX Contest. As you read this magazine, the Phone event may even be upon us! See you all in the middle of it.

73, Larry, N6AR, and Bob, K3EST

USA QRM

Conditions not as good as on Phone ... N2RM. We could have used more operators, but all had good fun ... K4VX/0. Burned up the 40M beam; broke most everything else ... W8BI. Lots of fun by all ... K4JPD. Packet helped find multipliers and the computer duped well, at last ... K6ZM. Very high noise from the power lines ... WB8K. Working zone 34 on 40 M ... WF4G. Worked VQ9QM on the second call ... W4DEC. Wish I had more time for the contest ... W4YN. Why not switch weekends each year ... W4XJ. Where were all the VKs? ... K4LTA. Wait till next year with a new beam and amp ... KC4W. Operated with the beam stuck north ... W4KM. No 2 M, no Packet, no Software—felt like John Henry ... AA4S. I elected to operate the Senior Citizen's band—28 MHz; work all day, sleep all night ... W4OO. Having a comfortable chair to sit in is contest happiness ... KX4S.

Had a shot at WAZ but missed it ... N4MO. Glad to see DX stations identifying more often ... W3VT/4. First time in contest ... K6ETM/4. First CQ WW with a decent antenna—great fun ... N4ZR. FB propagation; too many dupes ... W4WKQ. Extremely surprised to see LP open so well ... K4PQL. Conditions were great—worked BY, YB, 3W8, and HS0 in 8 minutes ... N4TO. Big thrill to work KH6AT on 160 ... WA4CUG. Best CW contest conditions I've ever heard ... N6AR. Almost 73 years old, but still enjoy it ... W4GTS. This contest is really awesome—I love it ... AD5Q. Many thanks to all the guys in Asia for the exciting multipliers ... WM5K. Had 9 inches of rain during the first day ... N5AU. First score over 1 meg, great contest ... N5AW. Worked VQ9QM as my last contact in the test for number 231 ... N6IBP. Working the 5H1 ... W6MFC.

Worked Europe long path on 40 with a vertical ... N6OM. Working a 9Q5 within the last half hour of the contest was my biggest thrill ... KD6GC. Worked 3W8CW on a QRZ on 10 meters ... W6MVW. Very happy to work SU1ER to complete my 15 M WAZ ... W6JTI. The quality of operators seemed very good throughout ... K6SIK. Sunday morning there was much long delayed echoing on Midwest signals ... WA6TKT. Propagation was disappointing, especially following the Phone test ...

WB6MBF. My last contest was as JY9RL—what a difference back as a W6 ... W6RCL. Missed some good openings with limited time ... AC6H. I didn't call CQ once ... W6PM. Hospitalized Sunday but no contest suites available at hospital ... N6OU. Having a QTH on a 2000 foothill is worth 20 dB ... W6PU. Great to work through the East Coast curtain ... K6ZUR. First time to participate ... W6IFC.

First real contest using great real time logging system (K1EA); weekends should be changed ... W6YA. Excellent band conditions ... NE6I. Contesting is no fun with the flu ... K6CSL. Contest more enjoyable with computer logging (KT5X) ... N1EE/6. Beat W6 old record ... W6QHS. At 77 I'm getting too old for this ... N6AN. All bands overcrowded, and more so this year ... K6DR. Accomplished long-term goal—WAZ and DXCC in one weekend ... N6GG. More zones active in CW than SSB—that's a switch ... K1IU. Installed the tower, antenna, and rotor in the 9 hours prior to the contest ... K1IR. On-line computing—the way to go ... W3MA. The Northeast packet wins! Time to operate single op/single band or quit ... N4WW. Worked SU1ER on 40 meters ... W6BA. Next year bigger antennas up higher ... N6IC. We smelled something burning for an hour; then the power supply died ... W6REC.

Half way through the second day I discovered the traps had filled with water ... WA8LLY/6. Biggest thrill was not signing 3D2XX ... W6SZN. Nothing closer than 20,000 miles was coming through on Sunday morning ... KO7N. Had fun just playing around ... WB9JKI. Lost many hours on Saturday due to multiple amplifier failures ... KR0U. Worked HS0A and 3W8CW in zone 26 but couldn't find zones 17 and 18! ... K7QQ. Worked 4 BYs on 40 ... W7AYY. Will return with real antennas next year ... N0AX/7. WAZ in 48 hours and 116 DXCC countries ... N7TT. The bloody woodpecker now pretty much wipes out 40 meters from midnight till an hour past sunrise ... A17B. Should have done 20 meter single band—20 was great ... WA7BPI. May the bird of paradise fly up the woodpecker's nose ... K5MM/7. Just pileup fodder this weekend, but still had fun ... K7LXC. JA's down and couldn't run Europe ... K7GM.

How about a separate classification for low power? ... N7HUS.

TOP SCORES

WORLD Single Operator All Band

FY5YE	9,574,096
HC5M	8,849,300
D44BC	7,407,750
8P9HT	7,323,030
EL7U	6,690,750
P40GO	6,569,485
SU1ER	6,134,568
PZ/N3JT	6,013,985
5H1HK	5,627,686
CT3BZ	5,495,616

USA

Single Operator All Band

W1KM	4,466,557
K3TUP	4,311,720
K1CC	3,915,620
K1TO	3,849,115
N2LT	3,757,462
K3ZO	3,731,904
W9RE	3,487,232
N5AU	3,323,400
K3OO	3,191,900
N6BV/1	3,170,260

EUROPE Single Operator All Band

CT2NH	4,683,500
TF3WW	3,606,304
F6BEE	3,312,240
GW4BLE	2,788,668
UP3BP	2,697,081
G3MXJ	2,513,302
YU3BO	2,491,129
OZ1LO	2,412,775
G4BUO	2,348,919
YT3L	2,205,198

28 MHz

4M7A	1,145,375
ZY5EG	1,041,054
KD7P/KH2	1,037,608
VS6UP	712,597
CE3DNP	671,574
K1ZZ	537,568

28 MHz

K1ZZ	537,568
W4XJ	340,445
W0ZV	331,976
W6YA	293,591
W1WEF	277,815
W6QHS	268,125

28 MHz

RB5VK	469,336
EA7TH	455,259
YT3WW	412,596
YT3W	395,354
YT2O	392,490
G3LNS	375,777

21 MHz

CW8B	1,496,556
ZY5ZBA	1,045,304
9Y4VU	1,001,607
N7DF/NH2	983,268
HK1KXA	769,600
LZ1KDP	752,623

21 MHz

K3RV/4	682,362
K4XS	615,884
W1RM	591,038
KW8N	509,878
N2PP	470,304
W1NG	449,536

21 MHz

LZ1KDP	752,623
YT6AA	688,889
YT3AA	580,808
4N2E	501,552
OH6MCW	480,951
EA7KW	477,195

14 MHz

ZS6BCR	832,524
NY6M/KH2	765,872
G3FXB	708,724
EA8BPW	681,458
PY5ZBA	573,144
OH7MA	534,691

14 MHz

N5CR	474,084
K2HFX	411,300
N4MO	254,475
N6GG	243,036
W1RR	203,635
WA1FCN	186,538

14 MHz

G3FXB	708,724
OH7MA	534,691
UR2RDO	510,416
YU7AV	496,987
IT9GSF	484,846
G3TXF	422,408

7 MHz

YX5A	1,001,578
OH7JT/CT9	904,038
P40R	874,240
4Z4DX	859,392
FM5BH	609,235
I3JSS	582,250

7 MHz

K2EK	520,086
N2DT	399,765
WB8JBM	306,372
KD2RD	282,535
W6PU	190,060
KB0G	176,624

7 MHz

I3JSS	582,250
YT0A	553,833
LZ1V	509,472
RU1DZ	489,167
YT7A	410,256
HG3DXC	362,984

3.5 MHz

NP4A	808,640
EA8XS	516,390
4N1A	247,020
W1FV	225,150
K1NA	140,192
YT3AW	121,595

3.5 MHz

W1FV	225,150
K1NA	140,192
W0GD/8	90,748
W4NL	45,982
W5WMU	39,250
W9WAQ	25,200

3.5 MHz

4N1A	247,020
YT3AW	121,595
YT3FO	118,940
DL3HAH	118,243
UR2QD	117,728
OH7UE	116,919

1.8 MHz

TA2BK	163,605
HB9AMO	111,245
SP3BQ	89,712
IK2DVG	76,788
CT1AOZ	66,439
UR2RGN	59,520

1.8 MHz

K5UR	13,568
KG4W	12,213
K4TEA	10,266
KD9SV	6,800
NA2M	5,520
N6LL	5,430

1.8 MHz

HB9AMO	111,245
SP3BQ	89,712
IK2DVG	76,788
CT1AOZ	66,439
UR2RGN	59,520
OK1FCW	55,809

Multi-Operator Single Transmitter

VP2MW	9,041,590
PJ2X	8,948,660
RL1P	8,360,528
UL8LYA	7,816,200
HG5A	7,775,904
LZ9A	7,455,056

Multi-Operator Single Transmitter

K1AR	7,370,285
N3RS	5,648,296
N4WW	5,277,350
K8AZ	5,063,990
K5NA/2	5,013,162
WM5G	4,341,104

Multi-Operator Single Transmitter

HG5A	7,775,904
LZ9A	7,455,056
IO4IND	6,719,762
HG1S	6,678,636
OK5R	6,474,595
UQ1GWW	6,434,300

Multi-Operator Multi-Transmitter

PJ1B	38,415,760
P40V	35,368,065
KP2A	32,325,150
EA9EA	31,764,460
HD8EX	27,503,400
OL8A	18,653,778

Multi-Operator Multi-Transmitter

W3LPL	12,804,154
NR5M	9,796,680
K1ST	7,989,630
K4JPD	7,853,620
K4VX/0	7,785,450
N1CQ	7,623,036

Multi-Operator Multi-Transmitter

OL8A	18,653,778
LX8A	18,476,400
UP8A	13,750,580
PA6DX	10,770,554
Y34K	9,862,128
YT2R	8,820,408

(Haven't you heard about our QRP category?—ed.). Had a great time until Murphy struck; where do you find 6146's on Sunday morning? ... K7RA. Called QRL and had 9Q5UN call me ... N7RO. Band conditions were very good except for VK/ZL ... K7UOT. Almost fell off my chair when FR4FAJ answered my CQ on 10 ... N8CXX. Big thrill having 9Q5UN and 9V1OK answer consecutive CQs near the end—both double multipliers ... K8CC. Good contest—only lost one amplifier and one keyer ... W8LLD. 5U7/TU4BR called me in the contest on 80 ... W00CD/8. Next year send some of the redundant P4/PJ expeditions to someplace rare, like ZL ... K8MR. Nice to have decent conditions on 10 meters ... KF8K. Spent 2200-2350 just prior to the contest repairing the long wire ... N8AGU. Spent half the contest fixing my T4XB ... W8BYJF.

The kilowatts thwarted my attempt at JT1T for zone 23, but I bagged 23 actual zones ... W8YGR. VQ9QM answered my CQ on 15 meters ... W8HDD/4. Worked HS0A for a new one 2 minutes before the end of the contest ... W8YTM. Some stations are stingy with their calls ... W9GXR. S7 to 40 over QRN level from the power company was on for over 30 hours ... K9QVB. Not a whole lot of activity from South America or the Pacific Isles—could have been really great with more participation ... W9EKA. Never thought I'd see the day when I'd work a 3W in a contest and not have it count for a new one ... W9SC. My favorite contest; one of these days I'm going to operate the whole thing ... W9SU. Missing most of Saturday and Sunday mornings doesn't help ... NE9U. Great to get back into contesting after several years of other priorities ... N4RR/9. Great run of JAs on both 10 and 15 meters ... KA9OKH.

Found A35KK calling CQ with few takers, with a massive US pileup to Africa just a few kHz up ... NJ9Z. Extremely bad QRN the first night and heavy rain static the second night ... W9WAQ. Band kind of flat—not many DX stations on 160 meters ... KD9SV. Worked an HD8 on 80 meters—only during the CQ WW! ... W00UI. Worked first VK on 80 meters ... W0RXL. Lots of fun, but where did the South Americans go? ... KJ0B. Have worked with receiving loops for 10 years now—finally getting them to work well ... W0UO. Finally worked VU on 40 meters—that's tough from North Dakota ... W00O. A lot of fun even if I'm not a big gun ... K9AY/0. Turned on the radio and amp Friday night to warm up and the whole room started to shake; thought I had an equipment problem but it was only an earthquake ... KQ1V. Gotta learn how to set those alarm clocks ... KM3T (Opr. K1VR). I am a Novice class operator—thanks to all who put up with my shaky attempt at high speed CW ... KA1RPQ.

Could hear Europe strong on 80 meters at 20 Z, but couldn't work them before 24 Z ... K1NA. Great fun with G5RV antenna ... W1WAI. 9Q5NW did not believe I was only using 5 watts ... W4DEC. 80 meters was slow, but managed 29 countries and 12 zones with 2.9 watts ... A42U. Real QRPers don't own beam antennas ... W1HUE. Bringing DXCC total to 104 using 5 watts and a random wire ... W5TB. Making it through another 48 hours without any sleep ... K2HFX. "QRL?" means in 30 microseconds I'm going to call CQ here ... K2EK. Higher QSO rate with 200 watts in the Novice band than with a gallon below ... N2KW. Great way to sharpen skills after years of CW inactivity ... KM2P. Looks like I'll have to start learning to like computers for next year's test ... KD2RD. Worked China, Viet Nam, and Taiwan in the last half hour ... K2WK. 39 zones and 110 countries in a weekend with a vertical—wow! ... N2UN.

I found out that it is possible to operate on CW while holding my 3-month-old son ... KR2J. Felt like a wire man in a great forest of aluminum ... N2NT. Had a 3 AM backyard fire dance after the 160 meter tower matcher exploded ... NM2Y/3. A 3W8 on 15 calling CQ with no takers—the world has ended ... N3CXV. Why couldn't my illness wait until the contest was over? ... K3UA. Wasted 30 minutes and couldn't crack TK5EL pileup—5 minutes later he answered my CQ ... K3SA. The contest is a lot more fun from W1 than W6 ... N6BV/1. Hard to decide what to do when so many bands are open at the same time ... K3ZO.

DX QRM

Very fine contest ... YO2AQB. Conditions were not as good as in Phone ... OH6YF. The ground plane is not good enough to keep the pile ups ... OH4NSG. NP4A was 20 over 9 at 10 AM on 3.5 MHz ... 4N1A. At last worked zones 40 and 31 on 7 MHz ... YT7A. My first WW—working with a computer is very exciting ... YO3FBE. Nice to be called by VK6HD, YB8AX/0, and PY1RO on 160 ... SP3BQ. Although I had many things to do at home, I couldn't be out of the major contest of the year ... SV1NA. It sure helps to have an XYL that helps with the post contest duping ... W9LT/10. Poor conditions on 10 and 15 prevented us from breaking the Canadian MS record ... VE7ZZZ. The pileups were incredible ... VP2MW. First effort in Multi-Single in a CW contest—first time Murphy stayed away in a contest ... AT0N. Heavy snow noise, so it was

no good on the low bands . . . JA8YBY. Hope to see you in the 1989 CQ WW* from XW . . . 3W8CW.

After last year and this year we know where Murphy spends his vacations . . . PJ2X. Worked ten American districts . . . DU1KWT. Sorry so little time, but my horse died and I spent 12 hours digging the grave . . . KH6CC. Get those CBers off of 10 meters . . . 9Q5DX. Had good luck with some European DX on 160 . . . ZL1AIZ. Illegal use of 28 MHz, especially in VS6 and YB, will ruin our internationally exclusive allocations . . . VS6UP (Op. KB7G). Poor operating techniques by European operators caused me to QRT after 2 hours . . . TN4NW (Op. N4NW). Improving since last year, but not enough . . . EL7U. Set up the antenna a few minutes before the contest in a driving rain . . . TA2BK. Nothing special this trip; same room, same antenna, mounted to same tree after five years . . . ZK1TB (Op. W7TB). So many AC power failures I tried to use the car battery, but no way . . . EL2FY (Op. JA1XAF).

Never heard zones 1, 2, and 40 . . . ZS5S. Don't know why old men indulge in a racket like this . . . ZL1AYO. I returned to Belau as I announced in the '87 QRM . . . KC6CS (Op. JE1JKL). Any recognition for the most dupes on a single band? . . . VK5AGX. Still recovering from the

3D2XX operation . . . AX8XX. Ten meter conditions were too good! . . . KD7P/NH2. Thanks to all the Americans who did well to copy my dipole on 80 M . . . V85DA. Wonder if anyone else worked 3W8CW on five bands? . . . HL9JZ. Heard lots of Europe, but almost no answers . . . A35KK (Op. SM7PKK). 1958 was my first year in India; trying again in 1988 at 73 years of age . . . VU2AJ. Heard both VO2WL and TI2CF but couldn't work them for all zones . . . NY6M/KH2. Woodpecker was a real nuisance . . . YB3ASQ. QSO rate was so low my paddle bearing rusted solid . . . ZL1AIH. See you next year from Khartoum as 6T2EE . . . SU1EE (Op. WA9INK).

This was my 261st contest . . . VK2APK. Six percent dupes and I gave my call with every QSO! . . . N7DF/NH2. OM Murphy didn't show up . . . AT0Z (Op. VU2ZAP). I resisted the telephone—consequently, I didn't get a C3 multiplier on any band! . . . C31IHJ. Found out after the contest that the antenna feed to the Yagi was loose . . . CT1DKG. I only made about 520 QSOs in the contest because the power supply for my power amp blew out on Sunday morning . . . DF1LX. I was surprised working DXCC on 10 M in 24 hours . . . DK5WL. This contest is the best in the World! . . . DL1TH. Although I'm no big gun, I had lots of fun . . . DL2OBF.

USA CLUB SCORES

Frankford Radio Club	225,948,064
Yankee Clipper Contest Club	204,223,888
Potomac Valley Radio Club	99,563,971
Southern California Contest Club	56,917,883
North Texas Contest Club	52,362,427
Dixie DXers	52,166,149
Mad River Radio Club	43,811,328
Southeastern DX Club	40,781,911
Northern California Contest Club	27,874,632
Central Florida DX Association	26,186,115
San Diego DX Club	23,154,650
Texas DX Society	19,308,360
Carolina DX Association	18,287,768
Western Washington DX Club	17,267,478
Society of Midwestern Contesters	15,589,025
Willamette Valley DX Club	14,827,585
Overlook Mountain ARC	14,254,910
Northern California DX Club	11,864,950
Hoosier Contesters	9,265,628
Mississippi Valley DX & Contest Club	8,847,000
Minnesota Wireless Association	8,596,218
Southern California DX Club	8,444,451
Kansas City DX Club	8,287,322
South Florida DX Association	8,110,171
Rochester DX Association	7,836,616
South Jersey Radio Association	7,224,357
Eastern Iowa DX Association	7,119,918
Legion of Indy DXers	6,789,680
Southwest Ohio DX Association	6,491,888
Grand Mesa Contesters	6,350,408
Boiled Owls of New York	4,751,493
Rubber Circle Contest Club	4,079,699
Western Pennsylvania DX Club	3,352,872
Meriden ARC	2,931,183
Redwood Empire DX Association	2,714,380
New Mexico Big River Contesters	2,708,212
Central Arizona DX Association	2,357,036
Mile High DX Association	2,325,068
Utah Contest Club	2,307,813
Colorado Contest Conspiracy	1,953,789
Long Island DX Association	1,877,180
Nashua Area ARC	1,758,883
Greater Milwaukee DX Association	1,603,272
Albany Radio Club	1,581,162
Fox Cities ARC	1,481,642
Woodbridge Wireless Inc.	1,444,564
Western New York DX Association	1,167,354
Alamo DX Amigos	1,088,892
Metrocrest ARS	1,077,131
Murphy's Marauders	1,000,634
Metro DX Club	926,233
Ohio Valley ARA	855,462
North Florida DX Association	851,700

Florida West Coast DX Ring	713,790
Red "A" Rangers	684,762
Northern Illinois DX Association	599,169
Northern Ohio DX Association	582,756
Arrowhead Radio Amateur Club	541,508
Four Lakes ARC	466,412
Inland Empire DX Association	372,217
Calumet Amateur Radio Enthusiasts	367,973
Fox River Radio League	361,380
Utica ARC	348,206
DX Association of Connecticut	294,359
Dade Radio Club	152,964
Stark DX Association	114,912
Hamfesters RC	113,208
Fresno ARC	92,118
Tyler Amateur Radio Club	66,130
Congo Valley ARC	4,420

DX CLUB SCORES

Rhein-Ruhr DX Association	75,193,017
Bavarian Contest Club	65,340,168
Northern Lithuania DX Group	54,812,356
Kaunas Polytechnic Institute	26,517,551
Osaka University ARC	20,072,724
Araucaria DX Group	19,436,442
Viimsi Radio Club	10,164,535
Kiev ICAE Radio Club	7,968,836
CDXC Contest Team	7,847,677
OECU ARC	7,324,404
Maui Amateur Radio Club	6,671,970
Hokaido University ARC	6,505,458
SP DX Club	6,461,600
Hill Top Ham Club	5,585,248
Leningrad City Club	4,711,068
South German DX Group	4,356,178
U DX Club	3,694,464
YU DX Club	3,534,330
Fraser Valley DX Club	3,370,320
Lithuanian Contest Group	1,886,967
Tallin Radio Club	1,804,543
Uruguay DX Club	1,650,381
Shakhty Radio Club	1,509,178
Winnipeg DX Club	1,274,918
Grupo Argentina de CW	1,243,562
Shizuoka DX Group	1,154,954
Kiev Radio Club	1,020,558
PZK	981,471
Ehime Radio Club	875,704
The Bullmertz	710,656
Riga Radio Club	444,069
Voroshilovgrad Radio Club	183,998
Les Nouvelles DX Group	89,543



Although amassing an impressive 3.16 M, K1RU placed just fifth in the tough W1 call area, not even enough for the USA top 10. Just what do you have to do?

3W8!! Unfortunately I had no chance on 80 M... DL2HBX. First time I ever worked US stations on 80; great conditions on 10... DL3YBM. No problems with the station, no problems with the contest, and no problems with the wife... DL9OE. Diaz metros—Lascondiciones fueron absolutamente fantasticas!... EA3ALV.

The maximum score for me in this contest in many years, even with a quarter-wave antenna indoors... EA4BV. I am now 72 years old and don't have the stamina for very long sessions... EI4N. Wonderful contest, wonderful conditions... F1JCB. More than 105 countries on 10 M in 12 hours—that's the WW test, thanks... F6AUS. A good Saturday, a poor Sunday, but the best score ever for me... F6IRF. Very enjoyable weekend... G3ESF. Back to the drawing board on antennas... G3GGS. Now have a beam, though only a duobander, but what a difference... G3NKS. Great to get all 40 zones on 14 MHz... G3TXF. Started dozing on Sunday morning when I should have been looking for multipliers... G4BUO. It really made my day being called by 3W8CW... G4CNY. Look, Mom, no pencil; real time computer logging was fun!... NL7DU.

Had to knock ice off the antenna to bring the SWR down... KL7UR. Eighteen consecutive years in the best CW contest... HR1AT (Thank you, Antonio.—ed.) One big 48 hour continuous thrill... VP5U (Op. K3IPK). Used a string tied to my amplifier's sticky antenna relay to "fix" it during stubborn operation... VO1NA. Thanks for the good courtesy when I asked for directional calls... VE2LJ. My last contact at 2359Z was 4S7EA for a zone sweep... VE2ZP. Low bands were the worst in recent memory... VE3IY. A few watts from the loaded, short dipole got me lots of DX from the apartment... VE3SMA. Fun to warm up the old DX-100 and HQ-170 on 160 M... VE3HCT. I'll be back... VE6SWL. Operating portable from the Honeymoon Hotel for our 25th anniversary—not enough time for the radio... W7DRA/VE7. We were amazed at the ultra-high CW speed of 3W8CW—we couldn't copy any letters for several minutes... JH1YHS.

Good conditions on all bands... PA6DX. We tried a new antenna for this contest; will try much better antennas in 1989... JA0ZRY. Fine contest; big score; hope good enough for #1 in Japan... JA6YCU. We were located on the east side of the rock at sea level, so we could only work North America via long path... ZB2/GW3NYY. We enjoyed it very much... JR1ZTT. It's hard to reclaim the wasted effort of over 1000 duplicate QSOs... HD8EX. (What's your call?—ed.) Biggest thrill was learning we were close in score to W3LPL... NL7G. Nice to work 5BDXCC in one weekend... LX8A. We almost gave up on the Thursday before when the wind tore down the 20 M and 40 M beams and 7 operators could not reach Ceuta due to the terrific storm... EA9EA. Good activity on 28 MHz... RZ3DZ. Conditions were very, very bad... UA1PAO. Bad propagation, I believe... RV6AF.

See you next year... RC2AR. Enjoyed operating from my own shack—lots of fans, DXers, QRM... RW3AH. Many USA stations made fine DXpeditions, but getting QSLs from them is a big problem... UP2BZ. Snow and strong QRM on 80... RR2RW. Ten was really open! Seven new countries; hope to meet you in the next contest... UR2RH. First test to run at 79 QSOs in one hour... G4UOL. It was great; 28 MHz was open for the first time since I became a ham 4 years ago... G4ZME. Had 46 years QRT from 1937 to 1983, so I'm relatively a novice in contest terms... G6QQ. Found that it helped to disconnect the doorbell and telephone... G0CGV. My arm got tired; I must be getting old (what

will they think down at the pub?)... G14BBV. My first single op CQ contest. I learned a lot! Great fun!... GW4BLE (Op. G3WVG). The contest got me back onto the code speed which I had to use to get my license a few years ago... HB9DCQ.

It was funny, on a CQ call, a KH0 came in... HB9KC. My antenna, a Telrex TM30, is 25 years old and still doing well... HB9ZY. Very high QRM, but it was fun... OY9JD. Bad luck—worked 3W8CW twice on the same band; what a dupe... OZ1BIZ. Tried my new antenna and found it OK (7 MHz vertical on supermarket metal roof)... PA3BNT. Exciting contest this time: entered the contest with no children but with a chance of finishing with a son or daughter. "It" happened the weekend after the contest... PA3BUD. First time I ever made over 1000 QSOs in the contest... PA3CWL. First contest and I'm definitely infected by the "contest-kick-virus" forever; during the last few hours my fingers started to "tap dance"... PA3FCD. I left my heart in TF... TF3WW (Op. OH4NRC). Spent 30 minutes calling W's long path on 40, but no replies... ZB2/G4FRE. No more all band efforts for me—way too much work for one guy... 4U1ITU (Op. WA2TMP).

XE0DX called us in the last minute of the contest for our 40th zone on 40 meters... UR1RWX. Operators were all school children ages 13-15... UZ3AYT. Very fine propagation on 7 and 28 MHz; even with our special call we still had lots of duplicates... RL1P. We'll grow bigger for the next one—much more fun from UL7 than plain UA9... UL8LYA (Op. UW9AR). Conditions not so good... JF1SEK. It was a nice exercise for my fist and ears... JH1QDB. Wonderful world on 21 MHz... JE1CTA. It was just a warmup for the next CQ WW... JH3PRR/1. Many DX stations picked up my weak 20 watt signal... JA4ENN/1. The band conditions were excellent, so I enjoyed it much in spite of my dipole antenna... JH1NHY. My first operation with my left hand; until now I sent code with my right hand... JA1YWG. Used homebrew electronic keyer... JH1AOU. I could hear USSR zones and other signals, but I couldn't get QSOs... JK1ZIL.

Top band QSOs are very difficult from Japan... JR1EBE. Very exciting, will operate again... JA2ODV. My home call is W1END; be here for the '89 test also... 7J2AAF. My business kept me very busy, so there was no time for the competition... JA2WZ. I got sick during the contest and was in the hospital for 6 hours... JF2HPA. Thanks to HP1AC, 9Q5VM, and 5H1HK... JE3ZFS. I over-rested—the CQ WW contest requires 48 hours continuous operation, and that is so hard for me... JH4NMT. I had a QSO with zone 34 for the first time and made WAZ... JE4CIL. Big blocks of W's against the Caribbean—a little window is requested by many, many JAs... JA4ATV. The first day conditions were very good, but the second day was not so good... JA4CUU. I got a new JA record—see you next year on all bands... JA5DQH. I really enjoyed the big CQ WW Contest, as usual... JE6JRY.

November 27 was poor for Europe... JA6WHC. I like the low bands—thanks for the contest... JA6GGD. My home call is KD7H; I enjoyed working the contest from this side of the Pacific... 7J7AAM. Nothing especially!... JG7JBZ. It was the first time I was ever called on 160 by North American stations... JA7UMT. Enjoyed this test with my GP antenna... JA8AJE. 3W8DX was not so hard to QSO... JH8RGO. Good conditions, but very tired... JH8YCT.

STATION OPERATORS Multi-Operator Single Transmitter

AK1L & KA1X. AX3VT: VK3VT, VK3CGH. **ATBN:** VU2JX, VU2NTA, VU2WAP. **BY1PK:** Wang Guo Xiang, Gong Ke Lu, Chen Ping, Yan Pi Dong, Chen Si Dong, Tong Xiao Yong. **BY4SZ:** Xu Gennan, Zhao Jiren, Gao Jun, Jin Qingfen, Chen Shiwei. **CT3FN:** DK3KD, DL1EK. **DF0RR:** DL7APU, DL7AEN, DL7AKC, DL7UX, DL7ON, DL7SI, DL6YCG, DJ0GK. **DK20Y & DL6MAO.** **DK0MM:** DJ9CB, DL4FJ, DJ7IK, DL8WL. **DK8TZ:** DJ5AI, DL1SBF, DF3SV. **DL4BB0 & DJ8RR.** DJ2YA. **DL0ER & DL1EFD.** DF5EN, DK7FP, DL8XY, **DL0LR:** DJ5LE, DF4PM, DJ7PT, DL8RE, DF4WY, DJ3ZX. **DL0WU:** DJ4AX, DL8DAS, DL1HX, DJ8SW, DJ2YE. **DX1CW:** DU1CJC, DU1CWT, DU1EFS, 4F1ARC, 4F1BYN, 4F1DMO, 4F1FP, 4F1FZ. **EA3RCL:** Club. **FS1N & FGARC:** F6IWW, F61LGE. **F6ENY:** Club. **FF6KPQ:** F6DZD, F6ETI, F6EUX, FE1FI, F61PW. **GW8GT:** GW8BIC, GW4JBQ, GW3KYA, GW4LXO, GW5NF, GW3NNS, G3OAY, G4PKT, G3SDX, GW4TTU. **HA1KRR:** HA1ZZ, HA1DRR, HA1XU, HA1XO, HA1ZV, HA1ZN. **HA3KHC:** Nemeth, Tardi, Nemeth. **HA5KGT/7:** HA7XD, HA5BM, IK2EGL, K2VJ. **IO4IND:** I4LEC, I4TJE, I4VEQ, I4YRW, IK4CFZ, I4EAT, IK4EWK, I4IND, I4LCK. **JA3YBF:** JF4FUF, JJ2ICA, JJ3IMX, KGS, JN1DPL, JQ3VUZ. **JA3YKC:** JF3VXV, JG3MRT, JG3WDM, JG6VTM, J13ERV, J3KGD, J13HEY, JR5PDJ. **JA4YA:** JG6PAF, JJ3LUJ, J3M3LK, JR4KTO, JQ3PGL. **JA5YAV:** JA5MVU, JH5PHG, JJ2FCL, JR5UBE. **JA7YAA:** JE7HLZ, JH0ORW, JJ3CNL, JN1YVN. **JA8YBY:** JE8BRD, JH8GBF, JH8PNE, JH8WBR, JQ1DFG, JH8JDA, JH8OFF. **JE2YHS:** JA2OLJ, JA2XZL, JE2WWB, JF2KPH, JF2PQF, JG2NUD, J12XUT, JJ2CEE, JR2JVB.

JE2YRD: JA7RHJ, JF3EOC, JF3VZU, JH1KRC, J12KVM, J13JGJ, JR2SCJ, JR2SQU. **JE6JIH:** JA6QJG, JG2YRD.

JF6DEA, JF6TMH, JG6CVO, JR6GKT, Narumi. **JH8ZCD**: JE8DGG, JF8HOP, JF8MZL, JR8DHA, JR8OXT, JT1T: JT1BU, Khosbajay. **K1AR** & **K1EA**, K1GQ, K1VR, K1CF. **K2SG** & **WA2SRQ**. **K3PA** & **K3YL**. **K5NA/2** & **K5KG**, KU2Q, NU2L, WB2Q. **K6VI** & **W6VOV**. **K8AZ** & **K3TUP**, K8NZ, NB8AA, NB8AT, NB8DM, WB8CA, W8KIC, W8BIE, K8BN/2 & **N6CP**. **K9UUA**, K9ZUA, K9RU, K9RV, N9OH. **K8HLB** & **N8LM**, W8MHS, K8BHH & **NG1W**. **K8BMM** & **K3IE**, N8ARK. **KL7RA** & **AL7CQ**, AL7HC, AL7IF. **K07N** & **K7DBV**, N0XX, W7L, WA7TDZ, WJ7R, WJ7S. **K8BU** & **K7SM**, W1XE, W0KEA. **K3SF** & **NE3F**. **KX601** & **KX6GL**, K06HE. **LZ1A**: LZ1FA, LZ1RF. **LZ1KNP**: Illia, Viado. **LZ1KPB**: Club. **LZ1KRC**: Kasmir, Asen, Vasil. **LZ1KSF**: Club. **LZ1KVF**: Club. **LZ1KVZ**: LZ1GIC, LZ1NKK. **LZ2KSG**: Steve, Lubo, Zlatko. **LZ9A**: LZ2CC, LZ2DF, LZ2HE, LZ2L, LZ2PO, LZ2UA, LZ2UW, LZ2P-54, LZ2-E-41, LZ2-E-72. **N2BA** & **K7HVA**, N2AZS, W2VJN, N3BNA & **K03CN**, N3ENR, N3HW & **N3RW**, N3RS & **K3JUG**, N3NA, W3XU. **N4WV** & **AA4NA**, K0LZU. **NGIC** & **AD6C**, KJ6HC, H6SAL, N6VR, N6VV & **K6PJY**, K6XV. **NA3K** & **K3NL**, NM3W.

NF6S & **KF6VU**, N6SKF. **OH1AF**: OH1CN, OH1EB, OH1EH, OH1HS, OH1LI, OH1MDR, OH1NOA, OH1NSJ, OH1XT. **OH2AQ**: OH2BCI, OH2BQW, OH2BUQ, OH2MAZ, OH2MEF, OH2NRV. **OH2BAH**: Club. **OH3AT**: OH3MP, OH3NXN. **OH6AP**: OH6NIO, OH6XA. **OH8TA**: OH8DD, OH8MCT, OH8NR, OH8NUP, OH8WM, OH8ZZ. **OK1KHK**: Club. **OK1KLV**: Club. **OK1KQJ**: OK1AYP, OK1DQ, OK1DXS, OK1ICM, OK1IMP, OK1MR, OK1RR, OK1KSL: Club. **OK1KZD**: Club. **OK1OFK**: Club. **OK1OFM**: Club. **OK1ORA**: Club. **OK1OSB/P**: OK1DPF, OK1DXK, OK1FOU, OK1FUN. **OK2KDS**: Club. **OK2KLI**: Club. **OK2KOD**: OK2BDI, OK2BGR, OK2KUB: Club. **OK3KGO**: Club. **OK3KUN**: Club. **OK3KYH**: Club. **OK5R**: OK1ADM, OK1ADS, OK1ALW, OK1AWZ, OK1DIO, OK1DML, OK1AEW, OK1AIE, OK1APJ, OK1CF, OK1CW, OK1WT. **ON6AG** & **ON4GO**, ON5IQ, ON6MG, ON7PC, ON6OR, ON7ZV. **PA3ACA** & **PA3ALP**, PA3BLU, PA3BWD, PA3CAL, PA3ELX, PA3ERC, PD0MCL, PE1LWN, PE1LZZ, NL-9447. **PA8KHS** & **PA3ADJ**, PA3ENJ, PA3EYZ. **PJ2X**: K1XIM, K2WR, KD2HE, KQ1F. **RB4EXF**: A. Berezhnoi, A. Jurchenko, V. Antonovich, R. Dashko. **RB4IWU**: S. Topolnik, V. Gultsman. **RL1P**: UL7PL, UL7FAE, UL7PCZ, UL7PEZ, RL7PKN, RL8PY, RL8PZ. **RZ6AYO**: RA6AOS, UA6-101-355, UA6BGL. **SK5DB**: SM5API, SM5CVR, SM5CXN, SM5DGA, SM5IRV, SM5LRM, SM5PAX, SM5PEY.

SK5EU: SM0DRD, SM5GLC, SM4KWO, SM5LZM, SM5ODQ, SM70UU, SM5PHU. **SP3GEM**: Club. **SP5KYV**: SP5MXZ, SP5OAU, SP5RDZ. **SP5PBE**: SP5ANJ, SP5ELA, SP5FKW, SP5GIC, SP5LCT. **SP5PWC**: SP5AUC, SP5LXT, SP5BYF, SP5GMC. **SP9PDF**: Club. **SP9PZF**: SP9JZT, SP9MAL, SP9MZU, SP9MZV, SP9MZY, SP9MZS, SP9LAS, SP9LAB. **UB3IWA**: UB5IFZ, UB5IML, UB5IOK. **UB4IZA**: UB3IJZ, UB5ITC, UB5ILM, UB5-073-342. **UB3JWW**: UB3JM, UB4JCF, UB5JIM, UB4JDF, UB4JUR. **UB4EXN**: D. Zakharovich, S. Kireev, V. Tunduk. **UB4EZA**: V. Bubienick, V. Rozshko, A. Cherginets. **UB4FWC**: Club. **UB4FWH**: RB5FH, UB5FDG. **UB4FFX**: A. Sorokin, W. Kuralles. **UB4IWI**: UB5IHS, RB5IGD, RB5IRG. **UB4IZH**: UB4IIO, UB5IDG. **UB4LWY**: UB5-077-1960, UB5LJC, UB5-077-1859. **UB4LZA**: UB5DVB, UB5LEE, UB5LSL. **UB4MWU**: UB5MBM, UB5-058-431. **UB4NWA**: UB5-057-558, UB5NCO. **UB4QYA**: Club. **UB4SWB**: UB5NQ, RB5X, RB5SB. **UB4TWL**: Club. **UB4VWM**: S. Kassov, A. Mananikov, A. Zhuralov. **UB4WZA**: UB5WCX, UB5WGR. **UB4WZB**: Petrenko, Pozigun. **UB4XWB**: UB5XBY, UT5QG, UB5-062-33. **UC1AWB**: RC2AZ, UC2AA, UC2AAX, UC2ADZ, UC2AAV, UC2AJB, A. Kosarev. **UC1AWC**: A. Kabask, L. Burdin, W. Gorbatski, O. Kiryanov.

UC1CWB: UC2CEC, UC2CBV, UC2-009-23. **UC1WWE**: I. Linkevich, A. Chertkov, A. Sandov. **UL8BWW**: UL7BY, UL7BB, UL7BN, UL7BJ, UL7BU, UL7BQ, UL7-016-389. **UL8CWC**: V. Korshunov, R. Ismaelov. **UL8CWW**: UL7CT, UL7CDQ, UL7-028-270. **UL8GVB**: V. Ivanov, I. Goncharenko, V. Plicyn. **UL8LYA**: UL7LEN, UL7LER, UL7LEZ, UL7LD, RA9AD, UL7LT, UW9AR. **UP18XF**: Club. **UP18XL**: RP2BFL, R. Zoderka. **UP18XM**: UP2BON, UP2-038-1172. **UP18YC**: UP2BTA, UP2CY, UP2-038-2504. **UP18YK**: UP2BFY, UP2BJV. **UP18YL**: Club. **UP18ZG**: UP2BCO, UP2QA, UP2BCW, UP2BCT, UP2BRJ, UP2-038-439. **U01GWW**: U02GAG, U02QC, U02GJR, R02GG, U02GDW, U02-037-116, U02-037-83. **U01GWZ**: U02-037-290, U02-037-521. **U0BA**: U02GKL, U02GM, R02GN, U02GID, U02-037-466. **UR1RWX**: UR2RRR, UR2RJ, UR2RDJ, UR2RHF, UR2RMC, UR2RNG, UR2RME, UR2RNA, UR2RNT, UR2RNX. **UT4UWL**: UT5UKE, UT5ULI. **UT4UXX**: UT4UZ, UT5UGR, UB5CGN. **UZ1AWO**: UA1-169-2392, UA1-169-2391, UA1-169-2418. **UZ1AWQ**: A. Timofeev, E. Onistenchenko, S. Dolzenkov. **UZ1AWT**: UA1ALZ, UA1-169-010, UA1ANA, V. Michailov. **UZ1NWF**: UN1-088-302, UN1NBN, UN1-088-24. **UZ1TWW**: RA1TE, UA1TAF. **UZ2FWA**: U02PP, UA2CY, UA2FE.

UZ2FWN: N. Stryuk, I. Stryuk. **UZ3AXX**: RZ3DR, RW3DD, UA3-170-79, UA3ACW, UA3DSP, RA3DUU, UA3-170-210. **UZ3AYT**: Club. **UZ3DXC**: OK1AGE/UA3, OK2BWW, OK3IA, RA3DX, RW3DX, SP5MNP. **UZ3QYA**: Alexey, Alex. **UZ3XWB**: RA3XA, UA3-127-200, UA3-127-216, UA3-127-204. **UZ3XWM**: UA3XFL, UA3XCO, UA3XCM. **UZ4AXN**: UA4ADG, UA4ABS, UA4AHT, UA4AGF. **UZ4FXA**: UA4FMO, UA4-248-666, UA4-148-723, UA4-148-473. **UZ4WVB**: B. Baranov, I. Gaboitov, A. Nekrosov, A. Korotav. **UZ6HWA**: UA6HSV, UV6HSI, UA6-108-3033. **UZ6HXX**: W. Chernetchenko, L. Belolapokov, I. Kovaljov. **UZ6LWZ**: Club. **UZ9QWN**: UA9QO, UA9-134-128, UA9QFN. **UZ9SWY**: UA9SA, UA9SAW, UA9SDR, UA9SDW, UA9SCJ, UA9SJJ, UA9SM, UA9TS, UA9TX, UA9TZ. **UZ9UWK**: Club. **UZ9UZZ**: UA9URR, RA9UCK, RV9UER. **UZ9WWB**: UA9WQK, UA9-084-2031, UV9WR, UA9-084-1535, UA9-084-2007. **UZ9XWY**: UA9-090-1053, UA9-090-747, UA9-090-1088, UA9-090-1058, UA9XC. **UZ9YXI**: A. Putincev, D. Salivanov, A. Firsov. **UZ9YXL**: Club. **UZ9AWB**: RA0AFI, UA0-103-9, UA0-103-73. **UZ9KWI**: UA0KK, UA0KB. **UZ9QWA**: UA0QDL, UA0ON, UA0QBB, UA0QAS. **UZ9QWT**: UA0-038-1621, Stepan, UA0QEI. **UZ9SXF**: UA0-124-404, UA0SNR, UA0-124-044.

UZ9UWE: UW0UO, UA0VF, UA0UY, UA0US, RA0UAR. **UZ9WWP**: RW0WR, UA0WVFA. **VE2UMS**: VE2AKZ, VE2BLX, VE2FFE, VE2GDA, VE2GXS, VE2HMB, VE2ICU, VE2LIB, VE2LPS, VE2PMP. **VE3SPC**: VE3CUI, VE3ERT, VE3GND, VE3KQJ, VE3KZM, VE3MCK, VE3MYD, VE3NBE, VE3PAA. **VE6AO**: VE6AMR, VE6CIZ, VE6CJZ, VE6CTY, VE6EY, VE6JO, VE6KK, VE6LES, VE6PY. **VE7ZZZ**: VE7ARS, VE7AV, VE7DP, VE7EME, VE7SK. **V02WL**: K3TM, NB30. **V2MWW**: AA5DX, KM5R, W05W. **VU2IIT**: VU2MAQ, VU2TER. **VU2TEC**: VE2TEL, VU2WXX, VU2WZY, VU2ZMZ. **W2UI** & **N3KR**. **W3GG** & **K3YGU**, K03JH, K5IG. **W5ASP** & **K5MA**, K5RVK, K5VWW, N5CJQ, N5EA, W5VAH. **W5VWN**. **W5EHM** & **AA5BT**, K05KI. **W6BA** & **N6AV**, N6AW. **W6DAT** & **W6SS**. **W6REC** & **N6TB**. **W7DG**: K7WF, KA7BLA, N7JXC, N7JXD, WA7ILC. **W7TJ** & **K7GS**, N67P, N07M, WA7EGA. **W7ZR** & **Vladimir**. **W8RLX** & **K0RK**, N08I. **WA4CTC** & **K8UNP**. **W8PHI** & **K3JT**, W8SJJ, W8BPAF. **W8BKI** & **K9MFI**. **W8SG** & **K5MR**, K5RX, K5SXQ, K09Y, K8RY, N5JN. **WJ6D** & **W6GP**. **X0BDX**: K5JX, K5TSO, W5VX. **Y3SL**: Y26IL, Y33T1, Y33UL, Y33VL, Y26WL, Y33ZL. **YB0ARA** & **K5VT**, N7BG. **YT2D** & **YT2HX**, YT2SW, Dario, Gal, Goran, Zronka. **YT3T**: YT3AM, YU3BQ, YU3DE, YT3EW, YU3HP, YT3NA.

YU2CJ: Mike, Pero, Zlatko. **YU3AI** & **YU3BM**, YU3EO, YU3MM. **YU3DRL**: YT3FF, YU3VS. **ZC4ZR**: W6KG, W6QL. **W6NCW**: HA5MY, HA5PP, HA5WA. **4N1W**: YU7DR, YU2EU, YU7FN, YU7LL, YU1MM, YU1NZV, YU1SV. **4N2D**: YU2CC, YT2DU, YU2DZ, YU2FK, YT2VM, YU2WQ, Ante, Bobo, Dado, Lee, Luksa, Mato, Tomy, Vido. **4N4D**: Boris, Edi, Salih, Tom. **4N4K**: YU4MH, YU4MV, YU4RS-4776, YU4XA.

Multi-Operator Multi-Transmitter

DF2RG & **DF7MV**, DJ1DJ, DJ4YS. **DL7MAE**. **DF0DX**: DF4EN, DF8AE, DF9VB, DK2ZO, DK4QK, DL1SBR, DL1YAW, DL2SAX, DL4YBM, DL6YDE. **DL0KF**: DF3LZ, DF6LI, DJ2BV, DJ3UL, DJ4FZ, DJ6TN, DJ7SW, DJ8HB, DK9AV, DL4LBK, DL8PY. **EA0EA**: EA1AK, EA3KU, EA4DAE, EA4DAS, EA4EFK, EA4KR, EA4MY, EA5BM, EA5BRA, EA5FWU, EA7ALG, EA7TL, EA9EO, EA9EU, EA9GK. **HD8EX**: AA6T, DL7AV, N6RZ, N6TU, W6NV, W6SHD. **JA1YAD**: JH0LFE, JH0NZN, JH0SPE, JH5GHM, JH9AMJ, JI2GUT, JO1BMV, JO1IDL, JO1RUR, JP1JFG, JP1NWZ. **JA2YKA**: JE2JCU, JE2VBZ, JE4LIK, JE7BIZ, JF2DJ, JF2HPN, JF2PZH, JF2UTI, JG2VTD, JJ2FAU, JJ2BJF, JK1GRI, JK2CZL, JK2GYO, JL2KRD, JL2TZO, JM2CVT, JM2FDO, JM2RBB, JR0IPB, JR2GMC, JR70MD. **JA6YCU**: JA6BXA, JA6CNO, JA6VZB, JE6IGP, JE6UWK, JE6UWU, JF6MND, JF6TAC, JH6SOR, JI6DUE, JI6EDY, JI6PXB, JI6XZG, JK6LCY, JR6IQI. **JA8YBA**: JA8LNU, JA8OTX, JA8QWJ, JA8VDA, JH8CAZ, JH9VSF, JA9-10148. **JA8ZRY**: JH8ILL, JH5XDD, JH9COQ, JP1GQO, JP1NOM, JO1OTD, JR8BDD, JR01GI, JR4LIL, N. Inukai. **JE1YEM**: JA0QPG, JH1TZR, JI1MUG. **JH1YHS**: JI1MIA, JH1UAE, JR7GGD. **JR1ZTT**: JE7PNL, JF3NRI, JF7WED, JN1MSO, JO1CEA, JP1MWB, JP1NIR, JR4WKV, JR5PMI, JR5RMM. **K1RX** & **Packet**. **K1ST** & **K1FWE**, K1MNS, N1ATN, N1BH, NK1K, N1BL, Q1HNN, WA1TFH. **K2TD** & **WB2R**. **WB2YDF**.

K4JPD & **AA4LU**, K4XR, KB4HZ, N4FD, N6BFM, NQ4I, W8CNL. **K4VX/2** & **K4XU**, K9BGL, K9FD, N9JF, NS0Z, N4CC, W00G. **K6ZM** & **AK6T**, K1EGZ, N6OP, N8BL, NP4IW, WR6R. **KA1KPH** & **NCQC**, Packet. **KP2A** & **AA6RX**, K0RF, K2NA, K6XD, K0SD, K07V, KY7M, N2IC, N6DX, N6VI, NP2E, W0JLC, W6RGG. **KQ2D** & **K2MJ**, KU2C, NR2H. **KY1H** & **KB1W**, KR1R, KS1N, KT1O, N81Y, N6JF, NJ1T, NS1M, NT2X, W1BS. **LX8A**: DF3CB, DF4RD, DF6RI, DF7RX, DJ0IP, DJ1US, DJ2BW, DJ3TF, DK5PD, DK7PE, DK8ED, DK8FD, DK9IP, DL1HCM, DL1NAJ, DL1VJ, DL2WBU, DL3NC, DL4NAC, DL4ZBK, DL5MAE, DL5RDO, DL5UF, DL6BLF, DL6RAI, DL7MAT, DL8NBH, DL8OH, DL9RDL, LA1PA, LA4DCA, LX1JP, LX1MK, LX1RO, LX1WW, Angela, Thomas. **N1CQ** & **DL7AEY**, K1BW, K8GL, K1CQ, KD2SX, K12P, KM1P, NS1I, W1CJ. **N2RM** & **N2MR**, WM2H. **N6ND** & **K6JYO**, K6STI, KA6SAR, K16MS, K17M, K26E, N6W, N16W, W6KUT, WA60TU. **N8XA** & **AB0X**, K0UAA, K0VBU, K8BU, NX0I. **NF2L** & **K2BU**, KY2T, N3RG. **NK1F** & **Packet**. **NL7G** & **KL7DM**, KL7HF, KL7HFA, KL7PJ, KL7U, KL7Y, NL7GP, WL7E. **N85M** & **AD80**, AK5B, K2TNO, K2UA, K5GA, K5GN, K5LZO, K5RC, K5EIV, K5GU, K5NH, K25M, N5IVF, NT5D, W5XZ, W85N.

OH1AA: OH1CO, OH1LD, OH1LF, OH1GI, OH1HD, OH1JD, OH1KO, OH1SV, OH1SY, OH1WR, OH1WZ. **OL8A**: KE2FD, OK3CBU, OK3CDV, OK3CGP, OK3CMV, OK3CQR, OK3CSO, OK3CUM, OK3CZM, OK3EA, OK3EY, OK3GB, OK3GJ, OK3JW, OK3LU, OK3LZ, OK3NA, OK3NY, OK3PA, OK3RM, OK3TAP, OK3TPV, OK3YEC, OK3YX, OK3ZAF. **PA6DX**: PA0CLN, PA0COR, PA0JMH, PA0LV8, PA0VAJ, PA3AAV, PA3ABA, PA3BAS, PA3BFM, PA3CEE, PA3CEF, PA3CTM, PA3CWM, PA3DFT, PA3DQW, PA3DWD, PA3EY. **PA8V**: A16V, A16V, K7RIE, K7SS, K7WA, K7XX, KE7V, K02M, N6IG, N7NG, N8BG, NV6Z, W4ETO, W7WJ, W8AAUE. **PJ1B**: K2SB, K2SS, K2TW, K3EST, K3VW, K73V, N2AA, N3ED, N3RD, N4RV, PJ9EE, W2GD, W3UY, WA3LRO. **UP1BZO**: UP2BFN, UP2BKZ, UP2BMT, UP2BMX, UP2BNC, UP2BQ, UP2DQ, UP2PNK, UC2IAP. **UP238-72B**, UP2-038-72B, UP2-038-1751. **UP8A**: UP2BAW, UP2BIG, UP2BIL, UP2BRF, UP2PAJ, UW3AA. **W3GM** & **AA4II**, K3ND, K3OA, K5ANP, N2EA, N2ZR, W3BGN, W3FV. **W3LPL** & **A13M**, K3RA, K1AGD, K3P, N8II, N03A, NW5E, W3EKT, WA8MAZ, W8F8B, W8JRU, W4AXM. **W8BI**: KA8OKC, N8BJQ, N9AG, W8DN, W8FN, W8LC, W8OK, W8DNC. **W8AH/9** & **K0FV**, KM00, N8BSH, N8BC, W0UC, WA0RBW, WA0SVR. **W8BK** & **K6YE**, N8DCJ, W8CZD, W8JGU, WA8RCN. **Y34K**: Y23EK, Y23FK, Y24UK, Y25ZO, Y27FN, Y37XJ, Y42LK, Y42MK. **YT2R**: YU2CQ, YU2HO, YU2IU, YU2MP, YU2MY, YU2NJ, YU2OG, YU2OH, YT2FI. **ZB2/GW3NYY** & **K1RBY**.



Don Guido, HC8GR, of the Association DX-ED, provided a rustic volcano-top QTH for the gang at HD8EX. The tough hombres behind the key were (left to right) Lloyd, AA6T; Tom, DL7AV; Oliver, W6NV; Bruce, N6TU; Dave, N6RZ; and Rob, WB6SHD.

WORLD TOP 10 QRPp

(5 W Input)

All Band

1. YU3BC	1,241,286	6. KR2Q	565,128
2. WA2HZR	889,913	7. J11CBF	549,917
3. NX7K	865,171	8. HA1XR	480,690
4. VP2EQ	808,920	9. G4ELZ	466,272
5. RB5IU	797,056	10. UD6DFF	421,553

TEAM CONTESTING

Team Japonica by 5H1HK (Opr. JE3MAS), KH0/JE1CKA, KC6CS (Opr. JE1JKL), JH7WQK, and EL2FY (Opr. JA1XAF) 18,154,582.

Number groups after call letters denote following: Band (A = all), Final Score, Number of QSOs, Zones, and Countries. Cardicate winners are listed in boldface.

CW RESULTS SINGLE OPERATOR NORTH AMERICA

United States	
W1KM	A 4,466,557 2632 156 421
K1CC	3,915,610 2548 141 386
K1TD	3,849,115 2245 157 432
N6BV/1	3,170,260 2071 141 400
K1RU	3,166,800 2016 144 402
K1VR	2,564,992 1893 121 343
(Opr. KM3T)	
KG1D	1,483,299 1245 111 300
W1WAI	1,446,192 1057 126 358
N4XR/1	1,378,236 929 139 377
W1FJ	1,331,512 987 127 345
K2SX/1	1,037,700 818 123 327
W1MX	989,825 812 121 304
W1MK	982,620 1063 94 224
K1WJL	903,260 814 109 271
W1BIH	851,180 861 106 240
K3FN/1	848,331 669 128 323
W1AX	751,729 643 112 295
N1ELN	710,073 715 101 255
W1BR	672,920 665 116 244
W2AX/1	595,296 590 96 255
KA1DWX	588,245 600 99 244
W1XN	355,911 471 85 182
K1CLN	295,960 387 86 194
AB1U	236,903 348 75 166
N1RC	202,725 329 63 180
W1FM	145,036 266 72 150
K1VKO	142,606 233 76 130
K1YRP	130,134 323 39 99
K1SA	115,564 232 58 115
WA1UAR	95,228 193 61 118
N1DC	94,308 199 51 123
N01I	79,520 175 52 108
N1AU	78,120 156 64 116
K1ZZJ	59,360 149 48 92
W3WDX/1	32,450 103 46 72
W0RSO/1	19,646 81 36 58
W1CNU	7,024 76 15 35
W1GG	6,954 42 22 39
K1ZZ	537,568 1235 34 123
W1WEF	277,815 731 31 92
K1UO	219,252 617 30 91
W1PH	60,705 221 26 69
K1IK	58,824 160 24 62
K01V	29,241 130 21 60
KA1RPO	22,605 156 18 37
W1RM	591,038 1235 36 127
W1NG	449,526 1013 37 117
K1XA	417,745 1021 36 109
K1MX	315,392 855 33 95
K1EFI	215,560 545 34 102
WB1DXD	187,000 639 26 74
W1RR	203,635 510 38 101
WA1FCN	186,538 458 39 100
W1YN	107,210 263 40 102
K1KI	18,312 117 21 35
K2MN/1	6,248 49 12 32
W1PLJ	319 10 4 7
W1GHI	82,062 292 25 72
AA1M	12,750 89 10 41
WB1AEL	12,320 79 16 39
W1FV	225,150 691 30 87
K1NA	140,192 468 27 77
W1AB	2,146 30 9 20
N2LT	A 3,757,462 2289 155 408
N2MM	2,705,547 1819 143 376
N2YL	2,358,240 1586 150 370
N2NT	2,161,906 1500 132 373
K2ZS	2,140,000 1707 116 312

K2LE	1,752,661 1263 133 346
W2REH	1,658,853 1206 136 333
W1GD/2	1,261,800 1072 110 300
W2GGE	1,219,509 996 118 305
AB2E	1,033,728 959 107 277
W2XL	891,616 894 104 248
K2QAR	883,596 763 109 293
KN2Q	717,360 855 75 219
N2UN	651,525 623 105 260
W2BYYA	603,684 584 112 257
K2BK	567,630 623 93 225
NQ2O	562,542 557 107 259
W2HG	455,107 503 100 223
K2YGM	391,840 440 90 220
K2FL	389,597 457 88 211
K2OWE	378,750 421 89 214
W2FW	375,380 493 84 190
W2TZ	362,152 539 65 167
KF2O	334,313 410 91 202
K3JG/2	330,000 436 79 185
K2PS	327,033 442 79 182
W2KHQ	260,750 365 73 177
K2PH	256,563 353 80 181
N2JAF	235,224 316 84 180
KD2YP	214,316 291 88 174
KT2D	202,587 320 69 162
KA2AOT	200,548 267 88 189
W2GKZ	198,843 304 73 164
W2IKL	198,050 300 77 156
W2AUDT	185,472 294 74 150
W2AWF	157,030 263 57 148
KW2J	140,700 259 67 134
W2AORX	136,990 232 63 143
W2ASQ	124,605 228 63 132
KC2KU	82,641 175 53 110
W2VZO	82,100 289 26 72
W2AC	79,514 171 58 108
W2FUI	60,048 152 46 93
K2SWZ	56,573 161 48 91
NA2U	56,544 143 54 98
KC2TA	35,420 138 41 74
AG2S	35,092 105 45 79
W2PHT	32,274 115 33 66
N2KA	27,520 89 34 75
W2WK	21,156 86 26 60
W2KJ	19,344 71 41 63
W2JEK	2,340 27 15 21
K2NWK	227,304 609 32 100
K2MFY	128,904 365 32 91
KC2X	118,826 381 30 76
W2YQH	86,358 270 28 83
K2BNU	46,369 179 26 63
W2DND	27,840 121 24 56
N2FP	470,304 1109 37 107
K2WK	315,792 783 35 101
N2DTW	168,840 497 30 90
K2HFX	411,300 650 38 112
KC2FD	74,592 369 19 55
K2EK	520,086 1244 37 110
N2DT	399,765 950 36 109
K2RD	282,535 826 29 92
KM2P	162,722 503 31 87
K3GV/S/2	7,956 58 16 35
W2FR	23,146 117 19 52
NA2M	5,520 45 14 32
K3TUP	A 4,311,720 2425 167 442
(Opr. KSZD)	
K3ZD	3,731,904 2111 166 442
K300	3,191,900 2061 145 396
N3AD	3,050,415 2212 125 352
K3NA	2,369,134 1742 131 348
K3UA	2,276,274 1452 153 393
N3CXV	2,033,848 1490 135 337
NM2Y/3	1,879,080 1555 119 301
K3ZZ	1,653,771 1334 118 309
W3GRF	1,571,724 1181 126 336
W3UJ	1,104,100 1058 89 273
AA3B	1,048,730 920 109 289
W3GU	1,006,206 873 112 290
K3MD	980,658 930 103 259
N6CQ/3	903,190 867 104 258

W3OV	898,391 836 114 263
N3LR	895,208 884 107 246
K3TEJ	736,164 728 98 265
K3NW	682,864 613 110 282
K3SA	583,745 622 89 224
W3HVQ	540,540 527 86 200
W3FG	424,125 467 88 227
W3HVV	366,163 445 88 201
W3MZ	357,588 417 96 212
W3EVW	345,300 414 99 201
K3NZ	322,834 442 97 177
W3FW	285,384 393 89 175
N03B	282,494 371 82 192
K03F	261,016 390 78 158
N3AM	247,164 344 80 178
W3WZ	232,932 359 70 166
W3AVN	230,307 347 71 160
K3JQ	210,231 346 56 157
KW3F	207,315 291 85 170
N3WW	190,624 306 71 153
N3II	183,310 282 75 155
W3EAN	147,042 277 54 135
K3ZA	120,350 253 49 253
W3HVM	98,875 204 60 115
W3QIR	53,361 134 51 96
W3AP	48,664 122 58 96
W3CPB	29,295 109 36 69
W3FQE	12,240 72 23 37
NK3U	10,281 58 27 42
W3CEI	3,564 40 11 22
W3AZ	28 140,970 433 30 81
W3ALFY	132,594 488 27 71
W3AEP	6,536 61 12 36
K3WUW	21 182,192 531 31 87
KC3X	153,625 426 34 91
W0FJ/3	7 173,799 489 33 90
K3BSY	58,030 298 21 49
N6AR/4	A 3,106,488 1874 159 415
W24F	3,043,194 1975 156 383
K4P0L	2,952,100 1914 145 385
K4P0L	2,920,133 1952 128 381
W4RX	2,687,208 1825 133 365
W4X4	2,613,475 1692 151 384
W3VT/4	2,077,400 1388 146 374
AA4S	2,002,888 1351 120 286
AA4U	1,294,472 1091 116 308
K4GKD	1,069,665 899 128 307
K4AMC	1,027,356 973 107 255
W4MAI	744,345 626 126 291
W24Z	692,736 648 118 266
N4XM	650,522 641 112 249
K4PB	612,102 610 112 241
W0KX/4	472,860 470 113 257
KA20IV/4	448,346 430 119 254
AA4UJ	422,675 472 96 223
KK4SM	382,030 457 93 209
K1ZZI/4	327,186 522 66 153
K4EZ	260,538 366 83 168
W4YE	257,580 365 71 172
W4WQK	248,784 415 81 138
W4A5SB	185,664 334 66 126
W4RK	183,758 1236 94 184
K04J	173,092 273 73 145
K04J	171,600 288 71 149
W4DXI	170,156 284 69 137
W4YN	135,924 270 62 126
AA4GA	129,198 250 61 122
W3FTG/4	112,442 203 66 143
K4FF	103,545 207 55 122
K40D	103,320 208 59 121
W4ACUG	93,208 202 72 119
W4KMS	80,262 167 64 118
N4TO	72,446 144 67 111
K4WX	56,561 123 58 105
K6ETM/4	53,250 144 55 87
KA7LVK/4	35,991 113 50 79
W4U8D	25,400 59 37 63
W4GB	19,380 80 30 55
N4UH	18,630 83 30 57
W4BBH	18,354 58 57 57
AB4IO	11,084 69 26 42

W3TB/4	8,004 48 23 35
K4PR	1,288 16 11 16
W4XJ	28 340,445 854 35 102
KX4R	241,957 632 33 98
N4BP	195,728 655 27 77
K4JYS	189,312 584 32 84
N4WJ	86,460 233 33 98
W400	83,058 263 31 78
KD1U/4	47,223 204 23 58
W3NL/4	32,731 170 22 49
N4EEB	26,713 153 21 40
W4GTS	8,262 67 17 34
K3RV/4	21 582,362 1385 39 128
K4XS	615,884 1316 39 119
(Opr. W4CE)	
AA4NC	440,706 1030 36 111
W4TDH	359,196 836 37 111
K4LTA	259,090 705 33 97
N4IR	220,545 654 30 87
KA4S	113,672 382 31 73
(Opr. W4NL)	
N4BU	34,680 123 31 71
W4DEC	33,900 160 22 53
N4MO	14 254,475

UA9NHV	11,178	89	15	31	OE3RE	245,729	556	74	177	OK2BHV	21	329,328	979	38	106	G3GGS	250,008	418	71	193	OH7NW	26,125	306	46	129	
UA9LT	2,880	61	8	8	OE3JS	140,140	304	67	129	OK1ZL	184,125	670	34	91	G4ZFE	200,685	550	56	139	OH2VZ	47,376	140	54	62		
UY9CC	7	18,536	148	17	OE3OLW	30,328	223	50	86	OK1AXV	99,296	355	35	81	G4XTM	81,048	614	36	96	OH2BYS	18,012	66	49	65		
UA9ND	16,002	130	11	31	OE1NJB/3	28	311,148	872	37	OK1DRR	94,503	382	30	79	G6NKK	12,882	141	17	21	OH9RR	13,728	59	41	47		
UA9C8M	3.5	105,999	471	22	OE5KE	259,749	720	33	100	OK1FFU	93,112	404	31	72	G4ZME	11,283	183	36	66	OH1PY	9,300	52	26	49		
LA90A	81,589	556	15	52	OE3GSA	7	319,100	1200	33	OK3CDZ	71,730	354	29	61	G3LSN	28	375,777	1303	35	94	OH7SM	8,880	110	26	43	
UA9SGN	85,775	431	16	57						OK1DZJ	62,177	300	28	53	G0CKP	91,512	329	34	89	OH9RP	7,871	242	40	53		
RA9AE	66,072	430	15	49						OK3ZAC	35,036	194	25	51	G4UZN	79,540	319	27	70	OH2RL	7,314	62	14	51		
UA9WNR	29,392	244	9	35						OK29TP	23,912	152	23	38	G6QQ	48,585	259	24	55	OH2TI	28	167,556	560	35		
UA9XCH	1116	35	7	11						OK2VX	22,620	155	21	39	G4QBK	11,280	91	20	27							
UA9AQN	1.8	54,780	334	11	EA6GP	A	186,592	632	52	144	OK3IR	21,000	122	27	48	G4CNY	21	361,800	1175	37	108	OH6RC	55,518	201	33	93
UY9C0	50,930	336	11	44	EA6VQ	28	149,316	739	28	64	OK1AXA	8,456	59	19	37	G3SXW	380,720	1106	37	97	OH9UW	52,325	260	30	85	
UA9FAR	27,047	222	8	35						OK2BHE	3,420	69	10	8	G0CGV	42,476	295	20	54	OH2JE	51,812	211	29	73		
UA9LH	A	489,311	760	102	167					OK1DIL	14	78,890	295	33	82	G3CFG	14	708,724	1836	39	124	OH8RV	10,812	81	24	44
UW8CM	199,245	456	71	114	ON4KFM	14	125,216	507	30	82	OK1SZ	60,442	354	28	66	G3TXF	422,408	1332	40	112	OH5MQ	2,418	59	8	23	
UA9WO	109,040	300	48	97	ON6LO		22,326	206	16	45	OK2PAJ	58,042	337	32	74	G3KDB	7	196,440	846	32	88	OH5MX	2,054	43	9	17
RA9SR	91,980	274	46	94						OK1FKW	54,805	343	25	71	G3IGW	130,074	631	28	86	OH6MCW	21	480,951	1061	38		
UA9LCZ	91,840	211	66	98						OK3DU	37,600	154	29	71	G4ODV	121,220	596	28	89	OH6RM	283,155	1010	38	91		
UA9DA	81,726	359	41	65						OK1DHJ	37,584	270	21	60	G4ARI	3.5	18,854	285	9	32	OH7EU	140,544	544	34	88	
UA9SPB	75,992	320	42	76						OK3CAB	33,375	288	20	55						OH8LC	57,909	358	29	68		
UA9SY	65,241	257	38	61						OK3CMW/P	33,022	251	24	55						OH3MC	41,412	144	30	86		
UA9UAG	40,641	270	41	62						OK2BEM	26,832	141	23	63						OH3WD	31,773	135	29	60		
UA9FDX	12,802	270	16	21						OK3AY	26,462	148	34	67						OH6MBO	20,043	228	13	38		
UA9KCL	3,876	28	24	27						OK2BP6	9,360	164	10	35						OH8NLC	18,662	167	20	42		
UA9KAT	2,548	46	26	34						OK3CX5	4,512	71	10	37						OH1FC	14,080	143	17	38		
UA9AG	28	144,550	8529	27						OK1HR	4,095	102	7	31	UK6NP	A	1,621,710	1254	149	406	OH7NVU	9,160	153	10	30	
UA9YO	127,696	642	25	67						OK1FSW	3,116	64	10	28	UK6GT	750,375	975	100	275	OH3MP	1,728	64	6	18		
RW0AM	56,636	260	27	69						OK3ROS	1,620	53	7	20	DL1JF	652,638	823	110	286	OH7DF/8	1,034	35	6	16		
RA9JD	32,508	261	21	42						OK1DLS	342	18	3	15	OF5BM	643,968	761	101	286	OH7MA	14	534,691	1501	39		
UA9LAF	27,633	159	23	38						OK1DFF	7	98,307	600	24	75	DL31U	628,633	733	115	294	OH8LO	127,050	908	23	52	
UA9LS	19,716	124	20	42						OK1ABP	69,960	330	26	80	DJ6BW	604,070	964	83	207	OH3BU	46,614	315	29	73		
UA9BCZ	21	66,528	424	18						OK1XJ	65,268	404	22	62	DL7CF	480,184	682	89	222	OH3RO	27,740	219	21	52		
UW0C0	27,552	122	26	58						OK1AYQ	40,448	311	24	55	DL3YBM	458,058	731	86	213	OH2BCD	16,775	142	22	39		
UA9SCL	4,800	123	10	20						OK1AJY	26,752	228	16	48	DF3QG	387,593	524	99	236	OH5OT	15,400	120	21	49		
RA9JP	14	187,924	738	34						OK1DLF	26,715	192	17	41	DL20BF	377,559	724	78	195	OH6DZ	1,680	32	12	16		
RA9BS	47,512	254	23	45						OK1DOH	16,170	192	14	48	DL8SCG	361,494	672	85	181	OH4NSG	7	94,653	462	31		
UA9FAD	39,193	254	29	48						OK1MGW	8,851	80	12	41	DL8KJ	322,140	542	83	190	OH5PZ	30,310	194	20	50		
UA9BCK	31,722	112	34	68						OK3CSO	8,375	47	25	42	DF1SD	318,288	443	98	251	OH9PH	2,914	39	13	34		
UA9UAW	23,055	164	21	32						OK3COD	5,112	53	18	28	DJ5AV	279,980	605	60	160	OH7UE	3.5	116,919	766	27		
UA9CF	4,160	34	24	28						OK3CVI	1,840	37	7	16	DL3NAA/A	273,240	656	63	167	OH7VR	1.8	17,507	226	12		
UA9JB	7	74,305	392	26						OK1MAW	3.5	79,219	665	19	70	OK8KC	264,095	501	75	164						
UW9DA										OK1JLF	62,848	744	12	52	DL1TH	260,072	551	71	181							
UA9D	3.5	100,347	539	22						OK3CDN	13,850	237	10	39	DL8ZAJ	224,612	470	69	164	F6BEE	A	3,312,240	2502	150		
UA9FEO		32,804	281	21						OK2BFX	12,204	132	12	42	DJ1FE	218,998	431	73	154	F1JCB	882,929	1652	75	236		
										OK2BU	8,358	198	7	35	DJ5JH	211,200	313	99	176	F6JJA	175,972	481	40	141		
										OK1DUA	4,284	107	6	30	DL9NCR	204,491	446	64	159	F6EUV	109,585	304	53	102		
										OK2BWJ	3,546	110	4	29	OK4ARM	203,820	397	72	186	F6HSL	51,118	310	31	91		
										OK2BBQ	2,002	78	5	21	DL2JO	200,013	473	59	150	F9QE	41,236	158	43	79		
										OK2PDN	1,825	72	6	19	UJ4ZR	159,848	299	79	153	F81NOL	38,270	233	32	57		
										OK3TNA	1743	86	4	17	DL1ZQ	154,851	421	58	155	F8TMM	31,872	136	35	61		
										OK2BCA	784	31	4	18	DF4EX/A	152,280	401	60	128	F3AT	30,636	168	31	61		
										OK1HCG	342	21	3	15	DL5SGB	131,236	400	51	121	F9BB	21,338	108	34	60		
										OK1FCW	1.8	55,809	543	15	66	DL9SDD	123,546	352	50	127	F61NLK	19,920	170	28	55	
										OK1DR0	29,370	389	10	56	DL1MCD	121,044	361	47	107	F6CLX	19,890	245	16	29		
										OK3CWQ	29,160	345	13	59	DL8CM	110,000	212	78	197	F6CCI	17,784	112	30	46		
										OK3CZQ	22,456	401	11	45	DL4RU	105,462	325	55	131	F6SUS	9,240	116	9	26		
										OK1MG	21,960	235	14	58	DL3MCG	144,160	301	54	86	F6AUS	28	364,715	1054	37		
										OK1DRU	17,550	281	10	44	DL8TE	35,140	314	46	88	FD1LJY	124,032	592	34	62		
										OK1DQT	10,620	138	12	47	DJ9MH	91,200	254	55	103	F6JIE	76,220	501	25	49		
										OK1DWJ	9,387	112	11	52	OK3LM	89,845	305	58	95	F1JJD	53,556	390	22	44		
										OK2BWM	8,648	156	9	37	DJ2JU	52,884	228	36	77	F5AH	39,664	242	24	43		
										OK2HJF	8,085	159	8	41	DL2BBB	51,850	140	56	114	F1JJD	35,670	283	21	37		
										OK1FUA	7,172	155	8	36	DL6LAG	46,593	214	31	62	F6IRF	21	437,512	1337	39		
										OK1FZM	5,175	96	7	38	DF3QN	32,834	180	34	74	FF5QJ	120,156	715	26	67		
										OL9CUD	3,762	107	6	32	DJ1DR	22,022	148	27	50	F9DK	14	48,298	348	21		
										OK1OPT	3,710	103	6	29	OK8AX	19,698	106	27	40	FF6TB		9,688	86	19		
										OL9CUH	3,040	104	5	27	DL4NBV	17,458	125	26	60	F/OH6GO	7	64,800	529	17		

Y32VK	"	40,992	143	50	72	Y23QD	"	1,035	45	4	19
Y24GB/A	"	40,920	126	55	65	Y24HM	"	540	31	5	15
Y39ZH	"	39,852	369	43	65	Y340L/A	"	195	15	2	11
Y24SH/A	"	36,300	155	41	69	Gibraltar					
Y23SF/A	"	35,964	224	29	82	ZB2					
Y56WG	"	34,131	99	56	75	/G4FRE	7	22,649	251	14	57
Y24SG	"	34,080	119	40	56	Greece					
Y22BK	"	32,307	154	35	54	SV1RP/2	14	279,433	1267	31	102
Y31JA	"	32,011	105	48	71	SV1NA	1.8	6,204	134	8	34
Y22IH	"	28,854	102	46	80	Hungary					
Y54TD	"	27,144	98	48	68	HABHW	A	724,850	1103	109	241
Y26ML	"	27,144	150	30	57	HA0DD	"	235,848	432	82	166
Y38ZM	"	26,299	85	49	70	HA1SL	"	204,102	502	59	148
Y78VL	"	24,696	159	28	44	HA3FO/1	"	111,045	259	62	103
Y41ZH	"	23,016	111	35	49	HA7ML	"	88,543	346	38	41
Y21EA	"	21,216	100	40	62	HA0IR	"	62,491	210	45	98
Y23CM	"	19,760	92	34	61	HA4YK	"	36,207	264	19	62
Y32ZD	"					HABRJ	28	162,261	598	32	89
/Y32KI	"	19,266	130	23	55	HA8UD	"	145,034	431	37	90
Y34PB	"	17,892	107	31	40	HA3GU	"	2,772	34	14	19
Y36YM	"	17,394	160	18	60	HA4XX	21	215,586	783	35	91
Y24KB/A	"	14,490	68	36	54	HA7UI	"	151,690	647	30	80
Y53XN/P	"	13,923	81	31	32	HA1CC	"	63,665	355	26	59
Y23OH/A	"	11,880	79	25	29	HA3HE	14	29,376	231	20	48
Y26MH/A	"	11,431	65	31	40	HG3DXC	7	362,984	1456	35	101
Y23XD/A	"	11,023	113	21	52			(Opr. HA4XT)			
Y24JB	"	10,787	110	17	50	HA5NG	"	88,704	554	24	72
Y25DA	"	10,730	58	33	41	HA3PT	"	84,164	506	23	68
Y22DK/A	"	10,706	79	23	30	HAGNL	3.5	106,925	875	16	75
Y31XN	"	10,368	73	24	40	HAGPX	1.8	31,806	486	13	49
Y24YH	"	10,004	58	25	36	Iceland					
Y58ZA	"	8,175	41	36	39	TF3WW	A	3,606,304	4102	105	311
Y66ZF	"	7,910	83	23	47			(Opr. OH4NRC)			
Y25GH/A	"	7,592	52	24	28	TF3SD	21	23,332	143	20	56
Y62QH	"	7,436	51	22	30	OH4NS/TF	14	64,859	448	23	56
Y53ED	"	7,350	73	17	18	Ireland					
Y23WO	"	6,555	51	23	34	EI4N	A	85,560	307	37	87
Y77YH	"	6,352	112	9	43	Isle of Man					
Y23JF/A	"	6,270	92	15	40	G24UOL/A	A	615,600	1431	74	226
Y22HF	"	5,760	46	25	35			(Opr. G4UOL)			
Y36VM	"	5,742	44	19	39	Italy					
Y75YL	"	5,645	72	24	31	I0ZUY	A	936,540	1410	99	231
Y26WM/A	"	5,460	42	22	38	IK8EJN	"	211,370	919	67	163
Y66VF	"	5,445	72	24	31	IK2AHB	"	207,045	472	71	144
Y26DM/A	"	5,220	58	14	22	IK0FEC	"	69,913	213	49	102
Y25J	"	4,400	44	16	34	IK2AIT	"	65,219	263	42	79
Y31ON	"	4,176	31	21	27	IK3HHY	"	37,080	108	37	53
Y580A	"	4,140	44	17	27	IK3HFX	"	12,240	88	25	26
Y390H	"	3,978	32	23	28	IK46NK	"	10,150	116	17	53
Y53KM	"	3,471	71	11	28	I03JWR	28	197,768	1040	34	84
Y56SG	"	3,225	27	16	26	I1BAY	"	174,915	645	31	86
Y53VL	"	3,180	40	14	16	W9LTI/0	"	128,592	571	30	80
Y28WG/A	"	3,015	25	20	25	I03VJW	21	304,051	1022	33	98
Y65LN	"	1,700	22	16	18	IK2GSN	"	289,845	1019	35	96
Y26LG	"	1,519	17	14	17	IK0ADY	14	12,688	164	15	46
Y41UF	"	1,500	33	20	10	I3JSS	7	582,259	1860	32	105
Y72XG	"	380	14	6	4	IK2DVG	1.8	76,788	728	16	63
Y32KE	28	168,168	512	37	95	I3VHO	"	36,499	482	15	50
Y21VF/A	"	159,075	600	30	75	ITU Geneva					
Y39TF	"	152,375	542	31	84	4U1TU	A	739,53	1298	84	213
Y41FL	"	44,506	241	26	51	Luxembourg					
Y22LE	"	42,126	174	28	31	LX2PA	A	44,660	164	50	90
Y43TD	"	37,050	210	25	50	LX2AA	14	34,804	282	19	58
Y33WJ	"	26,400	177	22	38	The Netherlands					
Y25NA/A	"	24,616	130	26	42	PA0INA	A	840,708	1059	97	266
Y25MG/A	"	17,447	104	24	49	PA3CWL	"	528,699	1016	86	223
Y630	"	15,437	178	15	28	PA0VU	"	223,960	490	67	153
Y87VL	"	13,986	82	21	42	PA3CJP	"	212,676	461	63	159
Y21XH/A	"	11,180	63	25	40	PA3ACC	"	153,900	426	51	129
Y51VJ	"	10,300	76	22	28	PA3BDU	"	132,867	312	56	133
Y23JA/A	"	9,853	80	21	38	PA0SKP	"	58,344	203	44	99
Y37EO	"	8,645	48	24	41	PA3BTH	"	30,952	118	51	77
Y27PM/P	"	8,151	53	23	34	PA3BNH	"	26,544	177	29	55
Y21UL	"	7,258	74	16	22	PA3BBP	"	14,418	63	40	49
Y42WB	"	4,180	41	14	30	PA3CAU	"	10,907	126	25	48
Y21NM/A	"	2,580	32	14	16	PA0YN	"	8,322	98	16	22
Y52XF	"	1,936	41	9	13	PA3DKX	"	6,630	67	38	58
Y26KL	"	832	18	7	9	PA3CCF	"	6,120	36	24	36
Y37ZE	21	80,892	328	29	78	PA3CNI	"	3,850	77	22	28
Y22IC	"	77,896	315	29	75	PA3AMA	"	1,404	18	11	15
Y24XA	"	58,520	274	25	63	PA3CXC	28	111,996	473	31	77
Y21JH	"	25,404	140	25	48	PA3FCD	"	63,080	310	27	68
Y34RG	"	10,200	99	18	32	PA3EWM	"	56,727	235	31	68
Y21CL	"	9,782	63	21	46	PA2REH	21	163,488	730	29	75
Y83ZN	"	5,382	84	13	26	PA0PLN	14	7,152	97	12	36
Y87PL/P	"	4,480	56	10	22	PA3BNT	7	20,033	164	67	299
Y37WK	"	1,566	24	14	15	PA3E0B	"	8,883	92	11	36
Y48YV	14	141,858	703	31	80	PA0TA	3.5	7,089	87	12	39
Y26SO	"	19,360	126	24	56	PA0DIN	"	6,063	124	8	35
Y21EF	"	13,736	99	20	48	Northern Ireland					
Y22CF	"	10,036	134	14	38	GM4BV	A	350,208	562	71	217
Y23HN	"	6,950	98	12	38	Norway					
Y24FH	"	4,448	58	13	19	LA7MFA	A	843,557	1326	95	252
Y72XM	"	2,744	55	9	19	LA6YN	"	254,978	425	80	161
Y23BF	"	1,470	21	12	18	LA9HFA	"	193,578	365	71	160
Y44WA	"	1,008	40	6	18	LA1T	"	140,679	359	68	135
Y92ZL	"	64	8	3	5			(Opr. LA4BO)			
Y56SF	7	27,072	200	21	51	Poland					
Y32EE	"	26,250	202	19	56	SP9GDB	A	228,182	469	78	293
Y23ZF	"	6,450	70	14	36	SP9BBH	"	198,121	511	59	158
Y25ZN	3.5	11,139	200	9	38	SP3HC	"	164,250	361	65	160
Y23GB	"	8,096	139	11	35	SP3ADJ	"	157,724	377	61	111
Y21AL	"	5,148	119	8	28	SP3BEJ	"	155,039	416	59	138
Y21UH	"	2,860	63	9	31	SP9NSV	"	151,432	385	61	123
Y24KG	"	2,226	37	10	32	SP9EEC	"	92,236	285	53	133
Y23KF	1.8	12,324	218	9	43	SP2BME	"	71,610	224	51	103
Y47YM	"	5,676	132	6	37	SP9FNA	"	45,453	117	57	82
Y27QH	"	4,477	124	5	32	SP3JUN	"	28,240	182	29	51
Y21HF	"	1,248	53	3	21	SP9MRM	"	26,768	155	35	77
						SP5DIR	"	112,660	348	43	97
						SP5JTR	"	49,928	234	28	51
						SP3LPR	"	49,140	215	28	62
						SP8MJ	"	30,415	153	26	51
						SP9AOA	"	25,530	142	22	52
						SP9IGY	"	15,456	131	18	30
						SP9ZD	"	3,570	30	17	34
						SP5BYF	"	1,188	20	3	12
						SP6BFK	"	860	20	9	11
						SP3IBS	"	240	10	5	7
						SP6HEK	21	246,510	849	37	98
						SP2FAP	"	222,750	611	37	113
						SP6FVF	"	87,914	410	32	81

Wales		UA1AFM	221,490	665	59	155	UQ2GN	21	65,326	360	25	54	UY5JC	39,438	164	43	83	YB6ZES	441,097	817	64	117		
GW4BLE	A	2,788,668	2592	117	336		UQ2CR		28,860	223	19	46	UT4UW	39,114	134	48	75	YB6ATB				(Opr. YB6NOX)		
GW3GWX	1.8	4,551	101	7	34		UQ1GX		24,417	220	19	42	RB5IF	36,482	119	56	86	/3	387,072	614	76	140		
Yugoslavia		UA4AB	151,998	358	73	158	UQ2GEC	14	15,028	100	22	46	RB5HT	36,630	146	44	67				(Opr. PA8LOU)			
YU3BO	A	2,491,129	2058	139	388		UQ2GIP	7	40,255	273	22	61	UB4LAT	36,344	138	44	74	YB2FEA	213,447	459	66	103		
YT3L		2,205,196	1752	156	426		UQ2GNL	3.5	40,235	469	15	50	RB5FN	34,870	125	43	67	YB7H8	28	94,050	363	45	59	
(Opr. YU3EJA)		UA4ANZ	104,580	304	53	113	UQ2PJ		31,868	400	12	50	UB5IPH	31,707	147	37	80	YB7H8	21	28,644	124	31	46	
YU7BJ		958,665	1183	110	285		UQ2GGE		17,355	166	13	52	UB5SDP	28,220	160	32	51	YB8A5Q	7	21,050	199	20	30	
YU3OI		858,648	846	131	325		UQ2GBJ		10,017	145	12	41	RB5VL	25,350	123	42	88	YB3ASQ		87,192	411	26	46	
YT7KW		435,200	819	93	227		UQ2GOV		4,747	60	12	35	UB4EL	23,426	93	41	65	YB7KD		5,520	63	17	23	
YU7SF		370,077	680	83	198		UQ2GFU	1.8	9,856	200	7	37	UB5MPD	15,664	118	27	61							
YU1WR		321,966	606	80	199		UP3BP	A	2,697,081	2204	152	391	UB5EIT	14,440	92	29	66	Mariana Islands						
YU7LS		129,355	320	65	140		U23BP		1,123,005	1273	112	331	UB5SFB	5,390	34	23	32	KH#						
YU3SB		48,620	303	22	46		U23BU		1,044,100	1313	109	285	UB4RWV	3,318	35	18	24	/JEICKA	A	3,581,912	3112	128	261	
YU1PJ		45,347	135	52	85		U23BO		784,824	1019	111	313	RB5ICV	1,344	32	10	18	Marshall Islands						
YT7WW	28	412,596	1049	38	119		U23BOW		717,649	1167	95	258	UB5ZAL	253,400	811	35	105	KX6DC	1.8	42,723	297	22	25	
YT3W		395,354	1051	38	109		U23BJK		521,300	757	97	228	UB2VA	253,368	781	36	100						(Opr. NZ8B)	
(Opr. YU3EJF)		UA4AO	54,020	222	43	105	U23BK		447,868	762	80	204	UB5BZ	59,800	267	31	73	New Zealand						
YU2NW		393,120	1048	38	102		U23PAQ		395,469	747	82	209	RB5RF	40,392	164	32	70	ZL3GO	A	2,286,384	1716	149	307	
YT20		392,490	1038	38	109		U23BR		283,248	396	95	241	UB5RZ	32,572	250	21	47	ZL1AIZ		455,464	552	108	181	
(Opr. YU20B)		RV6AF	43,921	144	60	107	U23BA		200,634	549	72	166	RB5VF	1,330	26	10	9	ZL1AYO	28	52,500	294	21	39	
4N4C		311,190	944	36	102		U23BY		105,554	440	47	131	UB5W	21	406,853	1221	38	101	ZL1BSG	21	58,504	283	24	47
YU3BU		271,054	797	38	95		U23BOS		67,697	341	32	101	UB5IUH	238,124	1008	34	84	ZL2MM		6,372	63	16	20	
YU3M		232,050	730	37	93		U23BC		67,080	374	34	96	UB5EAZ	175,232	674	37	91	ZL1AIH	3.5	5,226	51	17	22	
YU3QA		96,408	343	34	80		U23BK		64,094	268	42	104	UB5BV	98,070	496	30	75	Philippines						
YT6AA	21	688,889	1857	38	120		U23BQ		61,244	350	34	88	UB5PCU	92,208	399	29	73	DU3AAL	28	34,202	238	19	30	
YT3AA		580,808	1495	39	119		U23BLA		59,400	379	28	82	UB5KQ	63,940	375	29	63	DU3BAA	21	37,418	408	25	28	
4N2E		501,552	1577	35	109		U23BHA		50,286	329	30	72	UB5IOV	57,009	354	25	68	DU1KWT	14	9,639	122	13	14	
YU1DW		331,680	1189	33	87		U23PCF		27,416	148	28	64	UB5YV	53,530	223	29	77	K45XT						
4N2B		13,281	102	17	40		U23BRT		6,576	91	16	32	UB5KW	34,204	212	18	50	/DU3	7	123,487	468	29	62	
(Opr. YT2IK)		UA4OK	14,045	163	14	39	RP2BJZ		2,520	55	9	33	RB5VW	32,261	171	20	47	Southern Cook Islands						
YU7AV	14	496,987	1408	39	124		U23UO	28	138,250	439	33	92	UB5JL	29,925	207	24	51	ZK1TB	A	595,002	889	105	157	
YU3VQ		180,933	770	33	90		U23BZ		82,806	333	30	81	UB5TU	19,389	140	20	49						(Opr. W7TB)	
YU3TW		22,732	180	22	52		U23BFB		16,600	100	24	44	UB5INT	13,545	109	16	29	Tonga Islands						
YU4CYL		3,648	114	12	20		U23BH	21	120,375	410	33	92	UB5JL	12,825	123	16	29	A35KK	A	516,272	1100	72	92	
YT8A	7	553,833	1733	37	112		U23BMO		47,104	239	28	64	UB5AJP	1,482	32	8	11						(Opr. SM7PKK)	
YT7A		410,256	1543	35	109		U23BAT		42,328	220	21	67	UB5LST	83,334	502	30	72	Western Caroline Islands						
(Opr. YU70A)		UW4CN	363	16	4	11	U23ZF	14	15,953	151	18	35	UB5MTM	52,716	239	31	61	KC5CS	A	4,906,470	4053	137	273	
YU3JZ		109,150	473	30	88		U23BEI		146,013	677	33	86	UB5KCU	44,361	270	29	64						(Opr. JE1JKL)	
YU5FU		86,104	472	26	58		U23BLF		115,692	716	27	66	UB5VK	11,524	100	20	47	SOUTH AMERICA						
YZ1Z		50,320	491	18	56		U23AG		13,440	126	18	46	UB5MWR	11,270	169	13	33	Argentina						
YU7FT		31,608	238	20	52		U23BB		10,854	858	18	36	UB4BMR	1,917	25	13	14	LU1EWL	A	409,696	612	85	151	
YU4ECC		28,224	448	15	48		U23SA	7	46,526	315	26	60	UB5MA	180,195	766	33	90	A4YF	28	431,664	1576	26	66	
4N1A	3.5	247,020	1170	26	89		U23BKT	3.5	34,782	430	12	54	UB5CDX	29,722	190	20	57	LU4AE		127,010	658	20	45	
(Opr. YU1YV)		UA3ABT	100,233	502	29	82	U23CT		29,524	370	12	49	UT5UGN	11,440	99	16	39	LU1ICX	21	216,535	583	34	93	
YT3AW		121,595	1464	19	64		U23BIC		26,226	305	12	50	UB5BH	7,616	73	15	41	LU2FFV		47,871	204	25	56	
(Opr. YT3AW)		UA4PBN	78,106	414	31	67	U23BIP		20,191	227	15	46	UB5RZ	6,486	81	12	35	LU1DHI		14,041	97	13	36	
YT3FO		118,940	755	21	74		U23DT		16,758	236	13	44	UB4AR	504	25	5	13	LU6DLK		5,958	77	13	26	
YU3JO		105,340	733	20	72		U23BHK		5,049	121	7	26	UB7VA	79,704	666	10	62	LU8EIN	14	65,934	336	20	46	
YU5RU		92,316	649	18	66		U23BKA		3,531	43	11	22	UB5IFN	77,968	552	23	65	Aruba						
YT2ER		59,080	565	14	56		U23BBL		2,158	80	5	21	UB5NC	70,520	572	19	67	P48GO	A	6,569,485	4615	139	340	
YT3FF		1,378	53	5	21								UB5WCF	42,900	492	12	53					(Opr. K560)		
YU3MM	1.8	42,075	421	14	61		RO40A	A	1,260,430	1349	133	349	UB5JRR	39,760	374	17	54	P48R	7	874,240	2290	33	95	
(Opr. YU3MM)		RW3AH	140,608	611	32	72	UO5JU		75,432	322	48	120	UB5IUA	23,912	223	15	46	Brazil						
U.S.S.R. EUROPEAN		RA3UC	72,128	340	32	80	UO5WU		36,630	156	31	79	UB5IHO	15,455	209	12	43	PP1RR	A	641,750	936	73	177	
Byelo Russia		UA10BV	57,800	364	29	71	RO40R	21	113,928	612	25	69	UB5EEP	12,393	200	11	40	PY2RLQ		225,256	515	44	104	
UC20T	A	1,720,706	2180	124	318		RO40W		47,061	281	24	59	UB5UH	4,620	72	10	32	PP1CZ		172,937	564	31	72	
UC20AF		230,208	583	67	151		UO500	14	75,040	422	32	80	UB5MA	1.6	41,475	418	15	64	ZY3TG	28	1,041,054	2378	36	111
UC20GN		65,832	210	52	104		UO5AP	7	111,014	571	25	69	RB5IPT	16,536	259	8	44					(Opr. PY5CW)		
UC20W		55,451	325	38	101		UO5G	3.5	11,295	225	10	35	UB5EPV	2,490	73	6	24	ZY3TD		177,317	814	26	47	
UC20AG		19,680	144	28	68		UO5GR	1.8	6,118	85	13	33						PP2AMX		59,269	247	27	56	
UC20WJ		19,136	100	31	61		UB4MM	A	1,440,576	2443	135	353						PY2VH		16,440	170	13	27	
UC20AID		14,973	129	23	46		UB4IQ		948,616	1264	122	297	VK8AV	A	803,400	896	110	199	ZY5ZBA	21	1,045,304	2318	39	113
UC20AG0		6,849	71	22	41		UB4WJ		931,821	1064	123	331	AX2BQO		351,799	597	78	125					(Opr. PY2RN)	
RC2AC		759	35	17	21		RB5IA		847,161	1032	122	319	VK3DNC		14,877	91	20	37	PP3YEG		172,937	564	31	72
UC20CH	28	212,892	795	33	90		UB4IRO		691,308	1109	92	254	AX4XA	28	254,196	969	29	63						
UC20WAZ		109,368	362	32	92		UB4UO																	

Peru			
0A4ZV	A	1,414,446	1529 104 215
0A4BR	"	42,297	107 14 11
Surinam			
PZ/N3JT	A	6,013,985	4833 120 301
Trinidad & Tobago			
9Y4VU	21	1,001,607	2465 34 103
Uruguay			
CW8B	21	1,496,556	3112 40 122
(Opr. CX8BBH)			
CX8CG	14	290,577	986 33 68
Venezuela			
4M7A	28	1,145,375	3073 36 89
(Opr. YV7QP)			
YV5HVS	"	68,880	421 15 41
YV4ABR	21	267,256	1027 26 62
YX5A	7	1,000,578	2506 33 101
(Opr. YV5ANT)			
YV10B	1.8	34,959	278 14 29

MULTI-OPERATOR SINGLE TRANSMITTER NORTH AMERICA

United States

K1AR	7,370,285	3324 185 576
K1D6	3,489,624	1955 162 455
K1U	1,525,510	1025 148 370
AK1A	1,397,046	1114 117 317
K1IR	1,304,384	1003 125 333
AK1L	812,000	807 99 251
K1TR	614,505	621 112 243
KA1CB	503,923	473 111 262
W1XS	427,200	429 106 250
NC1M	415,496	482 88 223
N1TZ	134,216	216 71 151
KA1CLV	73,748	146 56 123
KT10	22,550	82 41 69
W1JR	14,976	59 41 55
K5NA/2		
N2BA	5,013,182	2495 175 518
K2SG	4,328,164	2394 163 463
WB2P	1,905,080	1364 135 350
W2UJ	929,040	590 156 404
N2EA	542,724	530 93 231
N2EA	45,628	140 43 79
N3RS		
K3WW	5,648,296	2722 175 537
W3GG	3,193,697	1788 164 447
K3PA	2,591,372	1690 149 383
K3PA	2,546,171	1606 147 404
KB3MM	1,520,694	1091 131 355
W3MA	1,502,961	1107 132 339
N3BNA	1,021,380	835 124 311
K23H	1,005,784	718 144 350
N3RR	869,415	705 139 308
K3UEI	858,912	810 109 259
NN3Q	854,904	835 106 252
W3UJ	822,906	775 108 270
W3NX	760,158	701 116 262
K3YGU	751,320	732 106 254
NA3K	600,402	588 107 256
A1SE	521,284	500 104 257
W3GN	513,360	493 124 244
W3KV	497,710	493 106 249
K3SF	497,274	454 123 279
KB3HH	475,160	625 83 197
K3ND	360,360	354 128 248
N13P	242,784	308 91 197
N3HW	211,792	342 63 154
N3GB	133,977	219 71 142
K3RL	125,442	212 73 134
WA3LJZ	120,170	215 65 132
N4WW		
WA4CTC	5,277,350	2812 168 482
W4ZFC	1,851,568	1312 139 357
W4ZFC	1,763,520	1092 159 409
K4PI	1,649,700	1036 162 402
N4VZ	1,515,000	1048 132 368
K4MF	1,192,480	885 134 330
K0HLB/4	877,680	783 115 299
W4LWM	463,335	464 107 238
AA4DO	186,534	273 94 164
WS4G	121,636	237 71 117
AK0M/4	28,808	95 38 66
WA4KIL	25,410	85 44 61
AA2X/4	12,716	67 22 46
K4KUZ	1,870	19 16 18
M5SG		
W5ASP	4,341,104	2085 182 542
W5ASP	1,617,084	1169 136 347
W5HEM	178,425	280 72 153
W5BE	77,140	162 47 86
N6VV		
W6BA	2,090,000	1469 157 343
N6IC	1,937,430	1344 155 340
W6REC	1,560,075	1205 150 315
N6IC	1,019,466	916 143 263
NF6S	677,950	748 119 206
KEV1	674,328	708 108 219
N6JV	476,788	494 124 222
W6OAT	347,480	336 130 235
W6JO	323,565	407 97 168
K6MA	181,373	299 91 136
AD6E	141,351	311 64 95
W6BIP	95,040	305 32 78
KE6WL	32,736	91 47 77
WA8LLY/6	23,421	77 45 65

WX6M	20,909	86 44 59
W6SZN	17,672	66 39 55
K07N	3,405,324	2386 156 342
W7TJ	1,557,936	1649 120 229
W7DG	630,294	886 100 158
WA7G	391,210	480 111 179
W7ZR	273,735	416 95 142
W7ZI	109,416	200 76 118
KA7CSE	34,254	173 43 56
N7OT	3,496	30 19 19
K8AZ	5,063,990	2491 177 521
W8BPHI	897,600	831 113 261
W8FN	200,353	263 91 190
W8BJKI	615,092	593 114 253
K9UWA	455,895	519 101 206
KK9V	453,264	1023 36 116
KR0U	1,489,278	1307 134 279
W0RLX	1,368,425	1161 140 291
K8NN/0	549,814	611 108 206
W0CP	297,910	351 114 196

Alaska			
KL7RA	3,489,605	3401 132 275	

Canada			
1,318,900	2168	88	187
199,356	601	58	90
205,254	473	61	120
391,428	1053	64	102
3,295,416	2802	155	337

Mexico			
5,420,040	4909	140	325

Montserrat			
9,041,590	5968	151	426

AFRICA

Maderas Islands			
2,586,418	2770	89	225

ASIA

China			
1,924,790	2687	100	210
438,102	1104	81	102

British Cyprus			
1,345,274	1494	86	227

India			
1,208,546	1501	101	210
441,512	782	88	153
165,912	479	43	81

Japan			
4,355,448	2926	164	355
790,050	1209	91	138
2,468,626	2039	140	289
2,362,262	1920	147	287
1,535,694	1514	116	245
447,640	634	95	165
2,036,953	1953	129	244
3,241,050	2181	170	357
3,187,698	1763	164	334
17,582	109	28	31

Mongolia			
590,178	1335	56	111

Thailand			
3,888,108	3525	134	310

Viet Nam			
7,125,608	5677	163	369

U.S.S.R. ASIATIC

Asiatic Russia			
6,107,033	3425	173	474

UZ9SWY	593,761	847	81 190
UZ9WWB	351,604	583	80 164
UZ9UWK	160,360	400	48 104
UZ9YX1	32,736	142	28 60
UZ9U2L	30,162	232	24 42
UZ9QWM	27,675	152	20 55
UZ9XVW	17,716	72	45 58
UZ9QWA	2,620,304	2505	144 277
UZ9BWB	1,078,798	1595	75 176
UZ9QWT	1,061,100	1225	108 210
UZ9UWE	654,360	995	86 194
UZ9KWI	625,485	1207	64 121
UZ9SKF	359,658	585	9 170
UZ9WWP	2,576	57	14 14

Kazakh			
8,360,528	4491	176	533
7,816,200	4078	185	515
2,922,048	2220	137	319
1,207,894	1816	120	323
1,320,564	1580	94	222
3,765	44	22	39

EUROPE

Belgium			
1,653,624	2220	103	283

Bulgaria			
7,455,056	4356	193	591

4N1W	2,071,380	2002	145 425
YT3T	2,094,400	2585	125 315
YU3AI	1,136,037	1672	96 233
YT2D	993,168	1426	109 254
4N2D	649,295	1077	103 252
4N4D	178,135	839	32 83
YU2CCJ	110,047	283	63 136
4N4K	50,224	140	54 118
YU3DRL			

Czechoslovakia			
6,474,595	3955	179	540

OL4A	5,520,270	3564	174 505
OK1KQJ	2,098,080	1811	147 417
OK1KSL	1,276,992	1436	113 319
OK2KOD	964,782	1210	116 287
OK1KZJ	643,680	971	97 263
OK1OFM	548,098	788	103 255
OK1KZG	348,920	751	75 169
OK1KSZ	288,477	571	80 161
OK3KGD	240,329	668	61 150
OK2KUB	151,200	307	71 181
OK1ORA	132,864	341	55 118
OK3KUN	37,534	196	33 65
OK1OFK	32,200	196	36 64
OK1KLV	30,622	188	26 35
OK1OSB/P	25,272	215	24 80
OK2KDS	24,948	134	38 61
OK1KHK	13,184	104	23 31
OK3KYH	1,950	42	14 25

Federal Republic of Germany			
3,202,714	2503	145	393

DL4BBO	2,705,844	2421	141 368
DL0WU	2,325,887	1865	153 424
DK0MM	1,966,518	1647	141 408
DK2OY	1,675,600	1790	126 346
DF0RR	1,011,752	1299	91 265
DL0ER	870,495	1114	108 285
DL0LR	156,342	345	68 145

Finland			
4,082,238	2976	165	504

OH1AF	2,313,290	2237	132 358
OH2AQ	2,256,390	2218	141 408
OH6AP	1,238,720	1508	113 282
OH8TA	1,094,852	1546	92 242
OH3AT	38,460	196	41 89

France			
5,673,122	4090	167	470

F5IN	889,840	1835	66 179
FF6KPV	18,291	101	22 45

German Democratic Republic			
3,229,221	3099	139	405

Hungary			
7,775,904	5030	187	570

HG5A	6,678,636	5063	168 468
HG1S	6,166,544	3976	175 513
HG6N	5,578,002	3935	183 536
HA0KLE	5,085,829	3718	182 531
HG9R	3,925,628	3324	163 465
HG0D	3,545,076	2668	170

QRP										CHECK LOGS															
YU3BC	A	1,241,285	1295	114	329	UA3DAT	23,976	113	37	71	W86JMS	15,561	98	20	37	Our thanks to the following stations who sent in check logs: CT1YH, DJ3VC, DK506, EA18FZ, EA1CYL, EA4EDU, EA5AGD, EA5TD, EA6VG, EA7ATE, EA7EJZ, EA7KN, EA7OI, EA8UP, EC7DMU, G1STK, HA1CC, HA1UB, HA3KHM, HA8XX, HG0LP, HK3DDO, 1V1TX, 17ALE, JA2YEF, JA3UWB, JE4MY, KSVT, LA4IAA, LA4KQ, LA4NE, LA5LT, LA5SAA, LA7AFA, LA7XCF, LA8CE, LA9OI, LA9PCA, LA9EW, LU2FFY, LU2IFX, LU2IHX, LU2IHY, LU2IJA, LU2IIT, LU2KIA, LU2LVQ, LU2LVQ, LU2KAC, N4RM, N20R, OH1FJ, OH1FS, OH2BMH, OH2FO, OH2KQ, OH3NWC, OH3TY, OH4RR, OH5PT, OH6BG, OH6NEQ, OH6NH, OH6QP, OH6UC, OH7QR, OK1AYU, OK1FGU, OK1MNV, OK1US, OK2BMA, OK2BW, OK2KJ, OK2PNN, OY7ML, OZ1BUR, OZ1CAR, OZ1EUO, OZ1F6S, OZ1I0C/A, OZ1JLX, OZ1JMN, OZ1JNR, OZ1JSZ, OZ2JI, OZ2RH, OZ3Q, OZ4RS, OZ5MJ, OZ5PA, OZ5UR, OZ5UR, OZ7BW, OZ7JQ, OZ7L, PA3ERV, PY1AJK, PY1QD, PY3CJ, PY3OL, PY3TD, PY6BG, RA1WT, RA3AGN, RA3ALA, RA3ATM, RA3AUC, RA3DN, RA3DOL, RA3EA, RA3EF, RA3VR, RA3YC, RA4CG, RA4NB, RA4NBZ, RA4NDM, RA4PR, RA4SA, RA4YM, RA6AAW, RA6AHN, RA6AU, RA6AY, RA6LB, RA6UNR, RA6IK, RA6MYC, RB5CB, RB5QR, RB6FK, RH8AA, RS0SW, RT4UA, RV4LA, RV6AB, RV9CF, RV9US, RV9UV, RV8YF, RW6AF, RZ0CZ, RZ3DM, RZ9OWA, SM3CB, SM3CYM, SM3PZ, SM3QJ, SM4ADH, SM4AS, SM5AF, SM5FNU, SM5FUG, SM5MLE, SM5PAX, SM6AKY, SM6DNF, SM6GR, SM6LJP, SM6OFF, SM6OLL, SM6OOI, SM7CUY, SM7QY, SM8CMH, SM8CSX, SM8KCO, SN70BYT, SP2BRN, SP2FAP, SP2GUV, SP2MHB, SP2US, SP2UJU, SP2ZJF, SP3AGE, SP3CDO, SP3GVX, SP3JIA, SP3LWO, SP4BY, SP4EAK, SP4GDC, SP4JWR, SP4NKK, SP5BKA, SP5DJO, SP5ENA, SP5GQX, SP5ILO, SP6ANY, SP6LTF, SP7GAQ, SP8GSC, SP8JMA/A, SP9DAE, SP9PPP, SP9PT, TU2KC, TU4CO, UA1AUA, UA1CT, UA1OB, UA1OD, UA1OZ, UA1OLL, UA1PPP, UA1WES, UA1ZD, UA3ACJ, UA3ACM, UA3AGW, UA3AIF, UA3DCX, UA3DFV, UA3DLU, UA3DNR, UA3DOS, UA3ECJ, UA3EDH, UA3IAK, UA3ICX, UA3IDT, UA3IDU, UA3NEM, UA3PTW, UA3QIF, UA3QNV, UA3RAG, UA3RB, UA3RF, UA3RJ, UA3RMW, UA3RNM, UA3RU, UA3XB, UA3XGM, UA4AFT, UA4AMT, UA4CDL, UA4HRZ, UA4HVV, UA4LC, UA4NDF, UA4NEZ, UA4NF, UA4PJA, UA4PMO, UA4PND, UA4YAQ, UA4YV, UA4YZ, UA6AUT, UA6JD, UA6JW, UA6LDF, UA6UBR, UA6VY, UA6WAV, UA6YAV, UA6YFV, UA9AKW, UA9ACA, UA9CVJ, UA9JH, UA9LBI, UA9MAC, UA9MCM, UA9ODP, UA9OHR, UA9OO, UA9OS, UA9UTW, UA9UY, UA9ABB, UA9DA, UA9KBC, UA9OCA, UA9ZC, UA9ZK, UA9ZDN, UB1RR, UB4JW, UB4LM, UB4WWS, UB5CAD, UB5CDF, UB5ES, UB5EVN, UB5JW, UB5K, UB5KDD, UB5MEC, UB5PCS, UB5QGD, UB5QJA, UB5QMX, UB5YKK, UB5ZAL, UB5ZK, UB5ZY, UC1AWZ, UC2AV, UC2CAV, UC2LB, UC2LR, UF6FJ, UH8ED, UL7BW, UL7EAR, UL7EZ, UL7PE, UL7TJ, UL7TX, UL8GAK, UL8LWA, UM8MGM, UO4OWX, UC50AL, UC50DA, UO2GCV, UO2GLQ, UO2GLW, UO2GLY, UO2GT, UT4UB, UT4UH, UT5UC, UT5UFI, UV3DN, UV4CO, UV6ANA, UV6ARL, UV6AY, UV6HLC, UV6UA, UV9CAF, UW1OR, UW3AD, UW3AO, UW3DM, UW3PK, UW3PN, UW4CU, UW6AA, UW9AO, UW9SL, UZ1AXB, UZ1NWO, UZ1OWJ, UZ1QWK, UZ3DWW, UZ3YWH, UZ4SWN, UZ9MZ, UZ0AB, UZ0AM, UZ0BDV, UZ0KWT, UZ0XU, VE1AK, VE2BIF, VE3OTL, VE7COP, VE7DIA, VU2IN, W2GF, W4DGJ, W9YCN, WF4G, Y21AE, Y21BC, Y21DG, Y21DG/A, Y21GO, Y21IC, Y21OR/A, Y21UD, Y21XF/A, Y22DG, Y22JD, Y22JF, Y22MC/P, Y22PF, Y22TO, Y22UB, Y22YJ, Y23EF/A, Y23G, Y23LM, Y23PF, Y23UL, Y24EA, Y24FH, Y24HJ, Y24SL/A, Y24WJ, Y24XD, Y25FI, Y26BL/A, Y26FO, Y26GN, Y26WL, Y27BN, Y27GL, Y27IO, Y27KO, Y28TO, Y31KJ/P, Y33TL, Y33UL, Y36SG, Y37ZB, Y37ZM, Y39SL, Y43RJ, Y44ZN, Y45RJ, Y53UL, Y54JL, Y54ZA, Y57ZL, Y59OA, Y59VA, Y61XM, Y74XG, Y03ABL, Y05TA, Y08GF, Y08MF, YU1EK, YU1LS.									
YU38C		889,913	870	102	251	UA9UUD	16,170	98	26	40	WG8R	7,791	20	33		Disqualifications: N2GZL (unverifiable QSOs), 4Z4NUT (unverifiable QSOs), 6Y5JH (unverifiable QSOs).									
NX7K		865,171	884	122	227	OK1DRO	15,921	97	28	59	RA1ACW	4,544	94	9	23										
VP2EC		808,290	1783	58	152	K1EQA/G	14,580	103	32	28	UB5IDG	2,522	44	9	17										
RB5IU		797,065	1067	111	305	N6NF	24,508	96	27	29	JA8RJE	2,223	39	9	10										
KR20		565,128	592	95	239	UW4NN	12,040	70	24	46	SP2FF	528	20	7	17										
J11C8F		549,917	897	112	169	W5TB	11,952	53	21	51	UW1BI	230,528	715	35	93										
HA1XR		640,840	821	90	230	N8CQA	10,647	66	39	52	SP4FG	60,697	410	25	66										
G4ELZ		466,272	790	67	221	Y03AIS	9,768	51	30	34	OK1NR	32,085	329	16	53										
UD60FF		466,273	563	89	202	Y2SSA	10,440	176	9	51	RA3XC	28,743	267	18	49										
HB9ADD		408,444	807	86	217	SP5SDA	8,515	61	25	40	UL7PT	30,540	210	23	37										
YU2TY		390,111	561	90	237	UA3TT					OK1AQW	10,325	85	15	44										
UB5WAB		348,986	553	97	222	/RFBF	6,420	37	27	33	OK3TUM	8,050	149	9	37										
SM5CCT		315,848	680	78	193	YQ3BDP	4,250	65	12	38	Y05CUQ	6,216	70	16	40										
K1CGJ		312,760	402	82	198	G03HDL	3,666	78	7	32	Y2ATG	3,420	41	14	22										
N1AFC		287,698	442	66	160	E8UP	3,525	48	7	18	Y22DK/P	630	20	18	13										
W0MHHK/1		258,054	377	76	170	JE7DUT	2,583	42	11	10	14KRF	25,462	256	13	45										
NC80		255,277	360	91	162	UA1NCC	2,232	64	2	14	UA3YFT	24,340	231	18	49										
UA6LIG		252,237	694	61	188	DJ5KX	2,208	39	10	14	JA6GCE	4,896	51	14	22										
4X11F		236,028	488	56	122	G3DOP	2,045	85	14	30	Y05COJ	3,090	53	7	18										
UZ2BFE		234,972	649	61	183	VE7EKS	1,540	38	12	8	JK2VHU	406	14	8	6										
SM8DZ		218,784	474	69	189	W80B	493	11	9	8	UQ2PM	14,840	244	10	43										
UQ2GMR		194,997	541	60	193	CX7CQ	153,825	500	31	74	OK2SSS	14,784	210	14	42										
JA7AS		170,918	341	79	108	UL7ACI	79,695	431	16	47	HA8IO	7,611	160	12	31										
UA4YBR		145,908	388	73	179	JOICRA	76,076	295	34	57	Y28AN	6,048	130	7	35										
IS5LYI		130,491	349	48	131	W5VGX	65,472	261	26	62	SP9GKM	5,775	160	5	30										
KZ1L		128,444	321	56	141	AA4M/G	50,020	214	27	55	AA2U	5,412	152	12	29										
W1HUE		119,274	226	60	133	LZ1ON	46,656	265	25	55	Y25XA	2,556	54	8	28										
PA5ELD		116,023	412	45	111	AK5E	41,022	165	25	61	OK1DAM	1,932	80	5	18										
NU4B		114,369	208	66	135	Y05KLE	36,722	245	19	42	Y26YG	1,584	34	7	26										
Y21NE		112,216	428	40	126	UA9GJ	33,795	187	17	51	Y22XF	819	40	4	17										
Y54MWP		111,589	312	64	137	N9AW	25,831	124	24	49	Y23OH	378	22	4	14										
PABADT		109,480	354	42	98	G3VNY	23,055	193	19	34	UQ2GMB	22,754	325	11	51										
Y05BQ		109,068	327	59	124	OK1CZ	20,800	137	23	41	RV9CFA	21,600	176	9	36										
Y02ABD		106,774	749	58	139	UB5ZEL	14,481	137	14	37	UL7CAC	15,540	148	8	32										
Y23TL		101,970	294	57	108	G3CWL	8,855	107	14	21	UB5KN	13,771	279	8	39										
DK4CU		96,612	308	47	119	RA9XDO	8,352	79	7	29	UA3ZOV	13,750	253	10	40										
JR4GPA		86,250	248	48	77	UA9XAB	6,401	65	10	27	UA4CPW	7,486	141	7	31										
UB4IM		70,684	278	45	119	JA8GV	5,772	57	18	21	RB5HL	6,916	168	7	32										
WBKH		70,528	261	43	109	DJ6TK	2,242	32	13	25	RA9CTK	6,279	55	7	31										
Y26JD		62,177	303	29	68	NO1E	1,232	24	9	13	UQ6KZ	4,309	49	6	25										
UV3TD		52,682	213	39	103	W4DEC	39,185	161	25	60	OK1D5A	3,740	116	4	30										
UC2WAO		48,314	245	28	70	UL7JGX	36,498	198	22	55	UL6BTN	3,008	117	5	27										
LA1XDA		42,582	221	35	106	UB4LCB	31,500	294	17	43	UA4CBD	2,604	63	6	25										
W6LC		35,802	128	41	61	UA9SG	31,171	216	19	42	UC2AGJ	1,798	66	7	22										
VE1NH		31,320	187	25	47	OK1DKR	26,767	181	23	48	UA3PUG	1,794	56	5	21										
UA9UAG		29,750	216	34	51	UR2CR	25,916	245	18	44	RB5IUL	1,456	39	6	22										
UQ2GWS		27,874	305	19	58	UA3DPX	19,093	151	19	42	UB5FBG	1,173	42	6	17										
DL468R		27,280	148	24	38	UA9XGI	16,368	141	13	31	OK1DOX	345	22	3	12										
UA4LAF		24,521	164	28	84	EA1GT	18,524	235	13	31	OK2PPM	224	17	3	11										

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