

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.

*12041 Walker Pond Rd., Winter Garden, FL 34787

**1816 Poplar Lane, Davis, CA 95616



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 Madeira Islands, Martti.

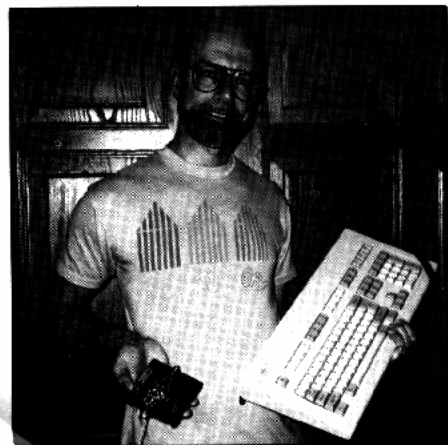
Single Band Categories

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 Sluymer, 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, VE2ZR
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 Blanarovich, 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
FY5YE	149/12/37	302/17/60	554/21/68	1403/30/88	1067/31/98	1993/31/91
HCSM	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
P48G0	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	117/32/80	1252/31/78	1338/27/72
PZ/N3JT	5/2/5	432/17/42	334/15/36	6107/32/74	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	898/29/65	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
P48V	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	1281/26/67	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
K3Z0	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	228/23/76	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	582/33/99	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
K4YX/0	55/16/30	199/23/62	660/36/100	1004/40/134	903/37/106	879/35/111
N1CQ	107/16/47	366/24/72	782/34/105	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.

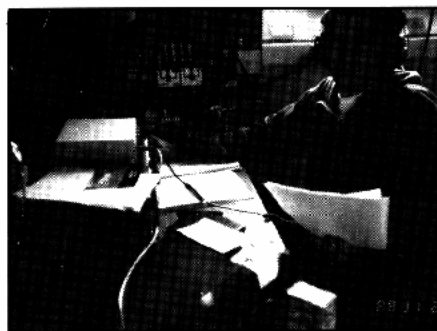
Multi-Operator Winners

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 goliaths, as PJ1B (38.4 M), P48V (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), KH0/JE1CKA, 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, K5NAJ2; 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/Q. 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 . . . W6MWW. 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 contester 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			USA Single Operator All Band			EUROPE Single Operator All Band		
FY5YE	9,574,096	W1KM	4,466,557	CT2NH	4,683,500			
HC5M	8,849,300	K3TUP	4,311,720	TF3WW	3,606,304			
D44BC	7,407,750	K1CC	3,915,620	F6BEE	3,312,240			
8P9HT	7,323,030	K1TO	3,849,115	GW4BLE	2,788,668			
EL7U	6,690,750	N2LT	3,757,462	UP3BP	2,697,081			
P40GO	6,569,485	K3ZO	3,731,904	G3MXJ	2,513,302			
SU1ER	6,134,568	W9RE	3,487,232	YU3BO	2,491,129			
PZ/N3JT	6,013,985	N5AU	3,323,400	OZ1LO	2,412,775			
5H1HK	5,627,686	K3OO	3,191,900	G4BUO	2,348,919			
CT3BZ	5,495,616	N6BV/1	3,170,260	YT3L	2,205,198			

28 MHz			28 MHz			28 MHz		
4M7A	1,145,375	K1ZZ	537,568	RB5VK	469,336			
ZY5EG	1,041,054	W4XJ	340,445	EA7TH	455,259			
KD7P/KH2	1,037,608	W0ZV	331,976	YT3WW	412,596			
VS6UP	712,597	W6YA	293,591	YT3W	395,354			
CE3DNP	671,574	W1WEF	277,815	YT2O	392,490			
K1ZZ	537,568	W6QHS	268,125	G3LNS	375,777			

21 MHz			21 MHz			21 MHz		
CW8B	1,496,556	K3RV/4	682,362	LZ1KDP	752,623			
ZY5ZBA	1,045,304	K4XS	615,884	YT6AA	688,889			
9Y4VU	1,001,607	W1RM	591,038	YT3AA	580,808			
N7DF/NH2	983,268	KW8N	509,878	4N2E	501,552			
HK1KXA	769,600	N2PP	470,304	OH6MCW	480,951			
LZ1KDP	752,623	W1NG	449,536	EA7KW	477,195			

14 MHz			14 MHz			14 MHz		
ZS6BCR	832,524	N5CR	474,084	G3FXB	708,724			
NY6M/KH2	765,872	K2HFX	411,300	OH7MA	534,691			
G3FXB	708,724	N4MO	254,475	UR2RDO	510,416			
EA8BPW	681,458	N6GG	243,036	YU7AV	496,987			
PY5ZBA	573,144	W1RR	203,635	IT9GSF	484,846			
OH7MA	534,691	WA1FCN	186,538	G3TXF	422,408			

7 MHz			7 MHz			7 MHz		
YX5A	1,001,578	K2EK	520,086	I3JSS	582,250			
OH7JT/CT9	904,038	N2DT	399,765	YT0A	553,833			
P40R	874,240	WB8JBM	306,372	LZ1V	509,472			
4Z4DX	859,392	KD2RD	282,535	RU1DZ	489,167			
FM5BH	609,235	W6PU	190,060	YT7A	410,256			
I3JSS	582,250	KB0G	176,624	HG3DXC	362,984			

3.5 MHz			3.5 MHz			3.5 MHz		
NP4A	808,640	W1FV	225,150	4N1A	247,020			
EA8XS	516,390	K1NA	140,192	YT3AW	121,595			
4N1A	247,020	W0GD/8	90,748	YT3FO	118,940			
W1FV	225,150	W4NL	45,982	DL3HAH	118,243			
K1NA	140,192	W5WMU	39,250	UR2QD	117,728			
YT3AW	121,595	W9WAQ	25,200	OH7UE	116,919			

1.8 MHz			1.8 MHz			1.8 MHz		
TA2BK	163,605	K5UR	13,568	HB9AMO	111,245			
HB9AMO	111,245	KG4W	12,213	SP3BQ	89,712			
SP3BQ	89,712	K4TEA	10,266	IK2DVG	76,788			
IK2DVG	76,788	KD9SV	6,800	CT1AOZ	66,439			
CT1AOZ	66,439	NA2M	5,520	UR2RGN	59,520			
UR2RGN	59,520	N6LL	5,430	OK1FCW	55,809			

Multi-Operator Single Transmitter			Multi-Operator Single Transmitter			Multi-Operator Single Transmitter		
VP2MW	9,041,590	K1AR	7,370,285	HG5A	7,775,904			
PJ2X	8,948,660	N3RS	5,648,296	LZ9A	7,455,056			
RL1P	8,360,528	N4WW	5,277,350	IO4IND	6,719,762			
UL8LYA	7,816,200	K8AZ	5,063,990	HG1S	6,678,636			
HG5A	7,775,904	K5NA/2	5,013,162	OK5R	6,474,595			
LZ9A	7,455,056	WM5G	4,341,104	UQ1GWW	6,434,300			

Multi-Operator Multi-Transmitter			Multi-Operator Multi-Transmitter			Multi-Operator Multi-Transmitter		
PJ1B	38,415,760	W3LPL	12,804,154	OL8A	18,653,778			
P40V	35,368,065	NR5M	9,796,680	LX8A	18,476,400			
KP2A	32,325,150	K1ST	7,989,630	UP8A	13,750,580			
EA9EA	31,764,460	K4JPD	7,853,620	PA6DX	10,770,554			
HD8EX	27,503,400	K4VX/0	7,785,450	Y34K	9,862,128			
OL8A	18,653,778	N1CQ	7,623,036	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 ... *WD8LLD*. 5U7/ITU4BR 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 ... *WB8YJF*.

The kilowatts thwarted my attempt at JT1T for zone 23, but I bagged 23 actual zones ... *W8YGR*. VQ9QM answered my CQ on 15 meters ... *WB8HDD/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 ... *WA9EKA*. 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! ... *WA00UI*. 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 ... *WB0O*. 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 ... *AA2U*. 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/0*. 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
Hocsier 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... E14N. 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 courtesies 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... R3ZDZ. 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 QRN 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... 4U1TU (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... JABAJE. 3W8DX was not so hard to QSO... JH8RGQ. Good conditions, but very tired... JH8YCT.

STATION OPERATORS Multi-Operator Single Transmitter

AK1L & KA1X. AX3VT: VK3VT, VK3CGH. **AT0N:** VU2JX, VU2NTA, VU2WAP. **BY1PK:** Wang Guo Xiang, Gong Ke Lu, Chen Ping, Yon 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. **DK2OY & DL6MAO.** **DK0MM:** DJ9CB, DL4FJ, DL7JK, DL8WL. **DK0TZ:** DJ5AI, DL1SBF, DF3SV. **DL4BB0 & DJ8RR.** DJ2YA. **DL0ER & DL1EFD.** DF5EN, DK7FP, DL8XY. **DL0LR:** DJ5LE, DF4PM, DJ7PT, DL8RE, DF4WY, DJ3ZX. **DL0WU:** DJ4AX, DL8DA5, DL1HX, DJ85W, DJ2YE. **DX1CW:** DU1CUC, DU1CWT, DU1EFS, 4F1ARC, 4F1BYN, 4F1DMO, 4F1FP, 4F1FZ. **EA3RCL:** Club. **F5IN & F6ARC.** F6IWW, FD1LGE. **F6ENV:** Club. **F6KXP:** F6DZD, F6ETI, F6EUX, F6IFI, F6IPW. **GW8GT:** GW8BIC, GW4JBQ, GW3KYA, GW4LXO, GW5NF, GW3NNS, G3OAY, G4PKT, G3SDX, G44TU. **HA1KRR:** HA1ZZ, HA1DRR, HA1XU, HA1XO, HA1ZV, HA1ZN. **HA3KHC:** Nemeth, Tardi, Nemeth. **HA5KGT/7:** HA7XO, HA5BMS, HA5WU. **HA6KNG:** HA6IOB, HA6OA, HA6NG, HA6GO, HA6AI, Dekany. **HA6KNX:** HA6GD, HA6NW, Szucs, Lccsei. **HA6KVB:** Bocsi, Dienes, Gulyas, Virag, Nagy, Peto. **HA6KCK:** Lulacs, HA8Z0, HA8YK. **HA6KLE:** HA8LC, HA8LM, HA8LO, HA8MK, HA8MM, HA8NNN, HA8OB, HA8VN.

HB4FE: HB9APJ, HB9BEY, HB9CHY, HB9ICU, HB9MPU, HB9PJM. **HB9CIP & HB9ALM,** HB9BL0, HB9CAT, HB9DDY, HB9CY. **HB9GT:** HB9BTI, HB9CKL, HB9CMX, HB9COH, HB9CVQ. **HG1S:** HA1AG, HA1AH, HA1DAC, HA1DAE, HA1SV, HA1TD, HA1TJ, Szoboszlai. **HG5A:** HA5AWH, HA5BNL, HA5FM, HA5GF, HA5JW, HA5LN, HA5MK, HA5ML, HA7RY. **HA5WE.** **HG6N:** HA6ND, HA6NF, HA6NG, HA6NY, HA6ON, HA6OO, HA6PX, HA6YG. **HG6Q:** HABIE, HA8JP, HA8JV, HA8KQX, HA8LKE, HA8PC. **HG6R:** HA9OA, HA9PP, HA9PV, HA9RU, HA9SU, HA9TA. **HG6D:** HA0DU, HA0DR, HA0HG, HA0NAR, HA0AP, HA0HV, HA0IL, HA0ER. **HS0A:** JA0BJC, JK1RJD, JR2BNF, K2BA, N916, SP5DDJ. **I2VXJ & I1XPQ,** I1ZEU, IK4BDZ, IK2EGL, K2VJ. **IO4IND:** I4LEC, I4TJE, I4VQE, I4YRW, IK4CFZ, I4EAT, IK4EWK, I4IND, I4LCK. **JA3YBF:** JF4FUF, JJ2ICA, JJ3IMX, KGS, JN1DPL, JQ3VUZ. **JA3YKC:** JF3VXV, JG3MRT, JG3WDN, JG6VTM, JI3ERV, JI3GAD, JI3HEY, JR5PJ, JA4YA: JG6PAF, JJ3LJU, JM3ILK, JR4KTO, JQ3PGL. **JA5YAV:** JA5MVU, JH5PHC, JJ2FCL, JR5UBE. **JA7YAA:** JE7HLZ, JH0ORW, JJ3CLN, JN1VYN. **JA8YBY:** JE8BR0, JH8GF6, JH8PNE, JH8WBR, J01DFG, JH8DHA, JH8OFF. **JE2YHS:** JA20LJ, JA2XZL, JE2WWB, JF2KPH, JF2PFP, JG2NUJ, JI2XUT, JJ2CEE, JR2JVR. **JE2YRD:** JA7RHJ, JF3E0C, JF3VZU, JH1KRC, JI2KVVW, JI3JGJ, JR2SCJ, JR2SQU. **JE6JH:** JA6JGJ.

JF6DEA, JF6TMM, JG6CVO, JR6GKT, Narumi. **JH8ZCD**: JE8DGG, JF8HOP, JF8MZL, JR8DHA, JR8OXT. **JT1T**: JT1BJ, Khosbajar. **K1AR** & **K1EA**, K1GQ, K1VR, K1CF. **K2SG** & **WA2SRQ**. **K3PA** & **K3YL**. **K5NA/2** & **K5KG**, KU2Q, NU2L, W2BQ. **K6VI** & **W6VO**. **K8AZ** & **K3TUP**, K8NZ, NBAA, NBATR, NB8MM, W8CAR, W8KIC, W8DIXE, **K8NN** & **N8CP**. **K9UWA** & **K9LA**, K9A, K9BU, K9V, K9W, K9H, K9HLB & **N81M**, W8MHS, **K83HH** & **NG1W**. **K83MM** & **K3IE**, N3ARK, **KL7RA** & **AL7CD**, AL7HC, AL7IF, **K07N** & **K70B**, N8XX, W7L, WA7TDZ, WJ7R, WJ7S, **K80U** & **K73M**, W1XE, W8KEA, **K3SF** & **NE3F**. **KX60I** & **KX6GL**, **KX6HE**. **LZ1A**, LZ1FA, LZ1RF. **LZ1KPN**: Club. **LZ1KPG**: Club. **LZ1KRC**: Kasimir, Asen, Vasil. **LZ1KSF**: Club. **LZ1KVF**: Club. **LZ1KVZ**: LZ1GC, LZ1NK. **LZ2KSO**: Steve, Lubo, Zlatko. **LZ9A**: LZ2CC, LZ2DF, LZ2HE, LZ2IL, LZ2PO, LZ2UA, LZ2UO, LZ1-P-54, LZ2-E-41, LZ2-E-72. **N2BA** & **K8HVT**, N2AZS, W2VJN, **N3BNA** & **K03CN**, N3ENR, **N3HW** & **N3RW**, **N3RS** & **K3JUG**, N3VA, **N40W** & **AA4NA**, **K0LZU**, **NG6C** & **AD6C**, **KJ6HC**, **NG6L**, **NG6V** & **K6PJV**, **K6XV**, **NA3K** & **K3NL**, **NM3W**.

NF6S & **KF6VU**, **N6SKF**. **OH1AF**: OH1CN, OH1EB, OH1EH, OH1HS, OH1LI, OH1MDR, OH1NOA, OH1NSJ, OH1XT. **OH2AQ**: OH2BCL, OH2BQW, OH2BUQ, OH2MAZ, OH2MEF, OH2NRV. **OH2BAH**: Club. **OH3AT**: OH3MP, OH3NXN. **OH6AP**: OH6ND, OH6XA. **OH8TA**: OH8DD, OH8MCT, OH8NR, OH8NUP, OH8WM, OH8RZ. **OK1KHK**: Club. **OK1KLV**: Club. **OK1KQJ**: OK1AYP, OK1DC, OK1DXS, OK1ICM, OK1MPA, OK1MR, OK1RR. **OK1KSL**: Club. **OK1KZL**: Club. **OK1OKF**: Club. **OK1OFM**: Club. **OK1ORA**: Club. **OK1OSB/P**: OK1DPF, OK1DXK, OK1FOU, OK1FUM. **OK2KDS**: Club. **OK2KLI**: Club. **OK2KOD**: OK2BDI, OK2BBR. **OK2KUB**: Club. **OK3KGO**: Club. **OK3KUN**: Club. **OK3KYH**: Club. **OK5R**: OK1ADM, OK1ADS, OK1ALW, OK1AWZ, OK1DIM, OK1RI. **OL4A**: OK1AE, OK1AEZ, OK1AI, OK1AP, OK1CF, OK1OC, OK1WT, **ON6AG** & **ON4GO**, ON5IQ, ON6MH, ON7PC, ON8OR, ON7ZV. **PA3ACA** & **PA3ALP**, **PA3BLU**, **PA3BWD**, **PA3CAL**, **PA3ELX**, **PA3ERC**, **P80MCL**, PE1LWN, PE1LZZ, NL-9447. **PA8KHS** & **PA3ADJ**, **PA3ENJ**, **PA3EYZ**. **PJ2K**: K1XM, K2WR, KD2HE, KQ1F. **RB4EXF**: A. Berezchnoj, A. Jurchenko, V. Antonovich, R. Dashko. **RB4IWU**: S. Topolnik, V. Gullisman. **RL1P**: UL7PL, UL7PFA, UL7PCZ, UL7PEZ, RL7PKN, RL8PY, RL8PZ. **RZ6AYU**: RA6A0S, UA6-101-355, UA6BGL. **SK5DB**: SM5API, SM5CRV, SM5CXN, SM5DGA, SM5IRV, SM5LRM, SM5PAX, SM5PEY.

SK5EU: SM0DRD, SM5GLC, SM4KWO, SM5LZM, SM5ODQ, SM70UU, SM5PHU. **SP3GEM**: Club. **SP5KYW**: SP5MXZ, SP5OAU, SP5RDZ. **SP5PBE**: SP5ANJ, SP5ELA, SP5FKW, SP5GIC, SP5LCT. **SP5PWW**: SP5AUC, SP5LXT, SP5BYJ, SP5GMR. **SP9PDE**: Club. **SP9PZF**: SP9JZT, SP9MAL, SP9MZU, SP9MZW, SP9MZY, SP9MZS, SP9LAS, SP9LAB. **UB3IWA**: UB5IFZ, UB5IML, UB5IOK. **UB4IZA**: UB3IJZ, UB5ITC, UB5ILM, UB5-073-342. **UB3JWW**: UB3JM, UB4JCF, UB5JIM, UB4JDF, UB4JJR. **UB4EXN**: D. Zakharrenchko, S. Kireev, V. Tunduk. **UB4EZA**: V. Bublienick, V. Rozshko, A. Cherginets. **UB4FWC**: Club. **UB4FWH**: RB5FH, UB5FDG. **UB4FXX**: A. Sorokin, W. Kuralles. **UB4IWI**: UB5IHS, RB5IG, RB5IRG. **UB4IZH**: UB4IIQ, UB5IDG. **UB4LWY**: UB5-077-1960, UB5LJC, UB5-077-1859. **UB4LZA**: UY5DV, 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. **UB4WAZ**: UB5WXC, 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. Gorbatowski, O. Kiryanov.

UC1CWB: UC2CEF, UC2CBV, UC2-009-23. **UC1WWE**: I. Ikenkovich, A. Chertkov, A. Sandov. **UL8BWW**: UL7BY, UL7BB, UL7BN, UL7BJ, UL7BU, UL7BQ, UL7-016-389. **UL8CWC**: V. Korshunov, R. Ismaelov. **UL8CWN**: UL7CT, UL7CDQ, UL7-028-270. **UL8GWB**: 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. **UQ1GWW**: UQ2GAG, UQ2DC, UQ2GJR, RQ2GG, UQ2GDW, UQ2-037-116, UQ2-037-83. **UQ1GWZ**: UQ2-037-290, UQ2-037-521. **UQBA**: UQ2GKL, UQ2GM, RQ2GN, UQ2GID, UQ2-037-466. **UR1RWX**: UR2RRR, UR2RU, UR2RDJ, UR2RF, UE2RMC, UR2RNG, UR2RME, UR2RNA, UR2RNT, UR2RNK. **UT4UWL**: UT5UKE, UT5ULI. **UT4UWX**: UT4UZ, UT5UGR, UB5CGN. **UZ1AWD**: UA1-169-2392, UA1-169-2391, UA1-169-2418. **UZ1AWQ**: A. Timofeev, E. Onistenchko, S. Dolzenkov. **UZ1AWT**: UA1ALZ, UA1-169-010, UA1ANA, V. Michailov. **UZ1NFW**: UN1-088-302, UN1NBN, UN1-088-24. **UZ1TWA**: RA1TE, UA1TAF. **UZ2FWA**: UQ2PP, UA2CY, UA2FF.

UZ2FWN: N. Stryuk, I. Stryuk. **UZ3AXX**: RZ3DR, RW3DD, JA3-170-79, UA3AOW, UA3SDX, RA3DUU, UA3-170-210. **UZ3AYT**: Club. **UZ3DXX**: OK1AGE/UA3, OK2BWW, OK3IA, RA3DX, RW3DX, SP5MNP. **UZ3QYA**: Alexey, Alex. **UZ3XWB**: RA3XA, UA3-127-200, UA3-127-216, UA3-127-204. **UZ3XWM**: UA3XFL, UA3XQC, 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. Korotae. **UZ6HWA**: UA6HNV, UV6HSI, UA6-108-3033. **UZ6HXW**: W. Chernetchenko, L. Belolapoltov, 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, RA8UCK, RV9UER. **UZ9WVB**: UA9WOK, 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. **UZ0KWI**: UA0KK, UA0KB. **UZ0QWA**: UA0QDL, UA0QN, UA0QB, UA0QA, UA0QAS. **UZ0QWT**: UA0-038-1621, Stepan, UA0QJ. **UZ0SXF**: UA8-124-404, UA8SNR, UA8-124-044.

UZ0UWE: UW0UO, UA0VF, UA0UY, UA0US, RA8UAR. **UZ0WVP**: RW0WR, UA0WVFA. **VE2UMS**: VE2AKZ, VE2BLX, VE2FFE, VE2GDA, VE2GXS, VE2HMB, VE2ICU, VE2LIB, VE2LPS, VE2PMP. **VE3SPC**: VE3CUI, VE3ERT, VE3GND, VE3KQ, VE3KZM, VE3MCK, VE3MVD, VE3NBE, VE3PUA. **VE6AO**: VE6AM, VE6CJ, VE6CJZ, VE6CTY, VE6EY, VE6JO, VE6KQ, VE6LES, VE6PY. **VE7ZZZ**: VE7ARS, VE7AV, VE7DP, VE7EME, VE7SK. **VO2WL**: K3TM, NB30. **VP2MW**: 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**, K65KI. **W6BA** & **N6AV**, N6AW. **W6DAT** & **W65S**. **W6REC** & **N6TIB**. **W7DG**: K7WF, KA7BLA, N7JXC, N7JXD, WA7ILC. **W7TJ** & **K7GS**, N67P, N07M, WA7EGA. **W7ZR** & **Vladimir**. **W8RLX** & **K0RK**, N0QI. **WA4CTC** & **K8UNP**. **W8P8I** & **K3JT**, W8SJU, W88PAF. **W8BJKI** & **K9MFI**. **W85G** & **K5MR**, K5RX, K5SXQ, K09Y, K8YJ, N5JN, **WJ60** & **W66P**. **XE0DX**: K5JX, K5TSO, W5VX. **Y35L**: Y26IL, Y33T1, Y33UL, Y33VL, Y26WL, Y33ZL. **YB0ARA** & **K5VT**, N7BG. **YT2D** & **YT2HX**, YT2SW, Dario, Gal, Goran, Zronka. **YT3T**: YT3AM, YU3BQ, YU3DE, YT3EW, YU3HP, YT3NA.

YU2CCJ: Mike, Pero, Zlatko. **YU3AI** & **YU3BM**, YU3EO, YU3MM. **YU3DRL**: YT3FF, YU3VS. **ZC4ZR**: W6KG, W6QL. **ZW8CW**: HA5MY, HA5PP, HA5WA. **4N1W**: YU7DR, YU2EU, YU7FN, YU7LL, YU1MM, YU1NZY, 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. **DF8DX**: DF4EN, DF8AE, DF9VB, DK2ZO, DK4QK, DL1SBR, DL1YAW, DL2SAX, DL4YBM, DL6YDE. **DL8KF**: DF3LZ, DF6LI, DJ2BV, DJ3UL, DJ4ZF, DJ6TN, DJ7SW, DJ8HB, DK9AV, DL4LBK, DL8PY. **EAGEA**: EA1AK, EA3KU, EA4DAE, EA4DAS, EA4EFK, EA4KR, EA4MY, EA5BM, EA5BRA, EA5FWU, EA7ALG, EA7TL, EA9EO, EA9EU, EA9GK. **HD8EX**: AA6T, DL7AV, N6RZ, N6TU, W6NV, W66SHD. **JA1YAD**: JH0LFE, JH0NZM, JH0SPE, JH5GHM, JH9AMJ, JI2GT, J01BMV, J01DL, J01RUR, JP1JFG, JP1NWZ. **JA2YKA**: JE2JCU, JE2VBZ, JE4LIK, JE7BJ, JF2DJ, JF2HPN, JF2PZ, JF2UT, JG2VTD, JJ2FAU, JJ2BJF, JK1GRI, JK2CZL, JK2GYO, JL2KRD, JL2TZC, JM2CVT, JM2FDD, JM2RBB, JQ1PB, JR2GMC, JR70MD. **JAGYCU**: JA6BXA, JA6CNO, JA6VZB, JE6IGP, JE6UWK, JE6UWU, JF6MND, JF6TAC, JH6SOR, JI6DUE, JI6EDY, JI6PXB, JI6XZG, JK6LCY, JR6QI. **JAGYBA**: JA9LNJ, JA9OTJ, JA9QWJ, JA9VDA, JH0CAZ, JH9VSF, JA9-10148. **JABZRY**: JH0ILL, JH5XDD, JH9COQ, JP1GQO, JP1NOM, JQ1OTD, JR0BDD, JR0TGI, JR4LIL, N Inukai. **JE1YEM**: JA0OPG, JH1IZR, JI1MUG. **JH1YHS**: JF1MIA, JH1UAE, JR76GD. **JR1ZTT**: JE7PNL, JF3NRI, JF7WED, JN1MSO, J01CEA, JP1MWB, JP1NIR, JR4WKV, JR5PME, JR5RMM. **K1RX** & **Packet**. **K1ST** & **K1FWE**, K1MNS, N1ATN, N1H4, NK1K, N1BL, Q1HNN, WA1TFH. **K2TD** & **WB2R**. **WB2YDF**.

K4JPD & **AA4LU**, K4XR, K4BHZ, N4FD, N68FM, N04I, W8CNL. **K4VX** & **K4XU**, K9BGL, K9FD, N9JF, NS2B, N4CC, W00G. **K6ZM** & **AK6T**, K16EZ, N60P, N86L, N94W, WR6R. **KA1KPH** & **NCQC**, **Packet**. **KP2A** & **AA6RX**, K0RF, K2NA, K6XD, K0CSD, K07V, KY7M, N2IC, N6DX, N6VI, NP2E, W0JLC, W6RGG. **KQ2Q** & **K2NJ**, KU2C, NR2H. **KY1H** & **KB1W**, KR1R, KS1N, KT1O, N81Y, N1JF, N1JT, N51M, NT2X, W18S. **LX8A**: DF3CB, DF4RD, DF6RI, DF7RX, DJ8IP, DJ1US, DJ2BW, DJ3TF, DK5PD, DK7PE, DK8ED, DK8FD, DK9IP, DL1IHC, DL1NAJ, DL1VJ, DL2WBU, DL3NC, DL4NAC, DL4ZBK, DL5MAE, DL5RDO, DL5UF, DL6BLF, DL6RAI, DL7MAT, DL8BH, DL80D, K1PBD, LA1PBA, LA4DCA, LX1JP, LX1MK, LX1RO, LX1WW, Angela, Thomas. **N1CQ** & **DL7AEY**, K1BW, K8GL, KC1Q, KD2SX, KI2P, KM1P, N51I, W1CJ. **N2RM** & **N2MR**, WM2H. **N6ND** & **K6JV**, K6STI, K6SAR, K6TMS, K7KM, KZ6E, N6W, N6WKU, W660TU. **N8XA** & **AB0X**, K0UAA, K0VBW, K0BU, N0QI. **NF2L** & **K2BU**, KY2T, N3RG. **NK1F** & **Packet**. **NL7G** & **KL7DM**, KL7HF, KL7HFA, KL7PJ, KL7U, KL7Y, NL76P, WL7E. **NR5M** & **AD80**, AK5B, K2TNO, K2UA, K5GA, K5GN, K5LZO, K5RC, K5EIV, K65U, KN5H, KZ5M, N5IVF, NT5D, W5XZ, W85N.

OH1AA: OH1CO, OH1LD, OH1LF, OH1GI, OH1HD, OH1JD, OH1KO, OH1SV, OH1SY, OH1WR, OH1WZ. **OL8A**: OK2FD, OK3CBU, OK3CDV, OK3CGP, OK3CMV, OK3CQR, OK3CSO, OK3CUM, OK3CZM, OK3EA, OK3EY, OK3YB, OK3ZF. **PA6DX**: PA0CLN, PA0COR, PA0JMH, PA0LVB, PA0VAJ, PA3AAV, PA3ABA, PA3BAS, PA3BFM, PA3CEE, PA3CEF, PA3GTM, PA3CWM, PA3DFT, PA3DQW, PA3DWD, PA3EY. **PA8V**: A16V, A16V, K7RIE, K7SS, K7WA, K7XX, K7V, K02M, N6G, N7NG, N86G, NV6Z, W4ETO, W7WJ, W86AUE. **PJ1E**: K2SB, K2SS, K2TW, K3EST, K3EY, K3VW, K73Y, N2AA, N3ED, N3RD, N4RV, PJ1E, W2GD, W3UY, WA3LRO. **UP18ZO**: UP2BFN, UP2BKZ, UP2BMT, UP2BMX, UP2BNC, UP2BQ, UP2DQ, UP2PN, UC2IAP. **UP2-038-346**, **UP2-038-728**, **UP2-038-1751**. **UP2A**: UP2BAW, UP2BIG, UP2BIL, UP2BRF, UP2PAJ, U3WAA. **W3GM** & **AA4II**, K3ND, K3OA, K5ANP, N2EA, N2ZR, W83BN, W3FV, **W3PL** & **A13M**, K3RA, K1GD, K73P, N8II, N03A, N05E, W3EKT, W86MAZ, W83FSB, W83JUR, W84AXM. **WB8I**: K40KC, N8BJO, N9AG, W8DN, W8FN, W8LC, W8OK, W8D9CF. **WB8IH/9** & **K0RFV**, K00B, N8BSH, N8BC, W0UC, W09BW, W08SVR. **WB8K** & **K6YSE**, N8DCJ, W8CZM, W8JGU, W8RCN. **Y34K**: Y23EK, Y23FK, Y24UK, Y252U, Y27FN, Y37XJ, Y42LK, Y42MK. **YU2DZ**, YU2HO, YU2IU, YU2MP, YU2MY, YU2NJ, YU2OG, YU2OH, Y2TF. **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. JI1CBF	549,917
3. NX7K	865,171	8. HA1XR	480,690
4. VP2EQ	808,920	9. G4ELZ	466,272
5. RB5IUU	797,056	10. UD6DFF	421,553

TEAM CONTESTING

Team Japónica by 5H1HK (Opr. JE3MAS), KH0/JE1CKA, KC6S (Opr. JE1JKL), JH7WKQ, 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
K1VR	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
W1B1H	851,160 861 106 240
K3FN/1	848,331 669 128 323
W1AX	751,729 643 112 295
N1ELN	710,073 715 101 250
W1BR	672,920 665 116 244
W2R	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 63 160
W1FM	145,036 266 72 130
K1VKO	142,606 233 76 150
K1YRP	130,134 323 99 95
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
W0RSG/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
K1K	58,824 160 24 60
K01V	29,241 130 21 62
WA1RPO	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
K1EPI	215,560 645 34 102
WB1DXD	187,000 539 26 74
W1RR	203,635 510 38 101
WA1FCN	186,538 458 39 100
W1YK	107,210 263 40 102
K1W1	18,312 117 21 35
K2MN/1	6,248 49 12 32
W1PLJ	319 10 4 7
W1G1H	82,062 292 25 72
AA1M	12,750 39 10 41
WB1AEL	12,320 79 16 39
W1FV	3.5 225,150 691 30 84
K1NA	140,192 468 27 77
W1AB	1.8 2,146 30 9 20
N2LT	A 3,757,462 2289 155 408
N2MM	2,705,547 1819 143 376
NY2L	2,358,240 1586 150 360
N2NT	2,161,905 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
N2UN	717,360 855 75 219
N2QN	651,525 623 105 260
W2BYA	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
WF2W	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 89 162
KA2AOT	200,548 267 88 189
W2GKZ	198,843 304 73 164
W2ZKL	198,050 300 77 156
W2ZUDT	185,472 294 74 150
W2AWF	157,030 263 57 148
KW2J	140,700 259 67 134
W2A2RX	136,990 232 63 143
W2ASZO	124,605 228 63 132
KC2KU	82,641 175 53 110
W2VZO	82,100 289 26 72
W2C	79,514 171 58 108
W2FUI	60,048 152 46 93
K2SWZ	56,573 161 48 91
KA2WQ	56,544 143 54 98
KQZTA	35,420 138 41 74
AG2S	35,092 105 45 79
W2PHT	32,274 115 33 66
N2KA	27,250 89 34 75
N2WK	21,156 86 26 60
W2BK	19,344 71 41 63
W2JEK	2,340 27 15 21
N2KW	227,304 609 32 100
K2MFY	128,904 385 32 91
KC2X	118,826 381 30 76
WB2YQH	86,358 270 28 83
KB2NU	46,369 179 26 63
W2DND	27,840 121 24 56
N2PP	47,304 1109 37 107
K2WK	315,792 783 35 101
N2DWT	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
KD2RD	282,535 826 29 92
KM2P	162,722 503 31 87
K3GV/S/2	7,956 58 16 35
W2FR	3.5 23,146 117 19 52
NA2M	1.8 5,520 45 14 32
K3TUP	A 4,311,720 2425 167 442
(Opr. KSZD)	
K3ZD	3,731,904 2111 165 442
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
W3GM	1,006,206 873 112 290
K3MD	980,658 930 103 259
N6CO/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 96 227
WB2EKK/3	366,163 445 88 201
W3MZ	357,588 417 96 212
W3EVW	345,300 414 99 201
K3NZ	322,834 442 77 177
W3FW	285,384 393 89 175
N03B	292,494 371 82 192
KQ3F	261,016 390 78 158
N3AM	247,164 344 80 178
W3WZ	232,932 359 70 166
WB3AVN	230,307 347 71 160
K3II	210,231 346 56 157
KW3F	207,315 291 85 170
N3WV	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
W3DIR	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
WA3EOP	6,536 61 12 36
K3WVX	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
KM9P/4	2,952,100 1914 145 385
K4P0L	2,920,133 1952 128 381
W4RX	2,687,208 1825 133 365
W4XG	2,613,475 1692 151 384
W3VT/4	2,077,400 1388 146 374
AA4S	1,602,888 1351 120 286
AA4U	1,294,472 1091 116 308
K4GKD	1,069,665 899 128 307
KA4MC	1,027,356 973 107 255
W4MAI	744,345 626 126 291
W4Z4	692,736 648 118 266
N4XM	650,522 641 112 249
K4PB	612,102 610 112 241
W60KX/4	472,860 470 113 257
KA2D1V/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
W4WKQ	248,784 415 81 138
W44SSB	185,664 334 66 126
W4RZ	183,758 1236 94 184
N4RK	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
AC6H	103,200 208 59 121
W4KMS	93,208 200 72 119
W44CUG	80,262 167 64 118
N4TO	72,446 144 67 111
K4WX	56,561 123 58 105
K6ETM/4	53,250 144 55 87
KA7LKV/4	35,991 113 50 79
W4BUD	25,400 59 37 63
K04G	19,380 80 30 55
N4UH	18,630 83 30 57
W4BBH	18,354 58 57 57
AB4IO	11,084 89 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

UA9MHV	11,178	89	15	31	OE3RE	245,729	556	74	177	OK28HV	21	329,328	979	38	106	G3GGG	250,008	418	71	193	OH7NW	26,125	306	46	129
UASL7	2,880	61	8	8	OE3JS	140,140	304	67	129	OK1KL	184,125	670	34	91	G4ZFE	200,655	550	56	139	OH2VZ	47,376	140	54	62	
U9S9C	18,536	148	17	39	OE30LW	30,328	223	50	86	OK1AXV	99,296	355	35	81	G4XTM	81,048	614	36	96	OH2BVS	18,012	66	49	65	
UA9ND	16,002	130	11	31	OE1JNB/3	311,148	872	37	97	OK1DRR	94,503	382	30	79	G6NKK	12,882	141	17	21	OH9RR	13,728	59	41	47	
UA9CBM	105,999	471	22	67	OE5KE	259,749	720	33	100	OK1FFU	93,112	404	31	72	G4ZME	11,283	183	36	66	OH1PY	9,300	52	26	49	
UA9QA	91,589	556	15	52	OE3GSA	319,000	1200	33	92	OK3CDZ	71,730	354	29	61	G3LNS	375,777	1303	35	94	OH7SM	8,280	110	26	43	
UA9SGN	85,775	431	16	57	Balearic Islands					OK1DZJ	62,127	300	28	53	G0CKP	91,512	329	34	89	OH9RP	7,871	242	40	53	
RA9AE	66,072	430	15	49	EA6GP	A 186,592	632	52	144	OK3ZAC	35,036	194	25	51	G4UZN	79,540	319	27	70	OH2RL	7,314	62	14	51	
UA9WNR	29,392	244	9	35	EA6VQ	28 149,316	739	28	64	OK2BTP	23,912	152	23	38	G6000	48,585	259	24	55	OH2TI	28 167,256	560	35	193	
UA9XCH	1,116	35	7	11	Belgium					OK2VX	22,620	155	21	39	G40BK	11,280	91	20	27	<i>(Opr. OH2BZV)</i>					
UA9AGN	54,780	334	11	49	ON4KFM	A 55,424	245	38	90	OK3IR	21,000	122	27	48	G4CNY	21 361,800	1175	37	98	OH6RC	55,818	201	33	93	
UW9CQ	50,930	336	11	44	ON4XG	14 15,216	607	30	82	OK1AXA	8,456	59	19	37	G3SXW	380,720	1108	37	107	OH9UW	52,325	260	30	85	
UA9SAR	27,047	222	8	35	ON6LO	22,326	206	16	45	OK2BHE	3,420	69	8	10	G0CGV	42,476	295	20	54	OH2EJ	51,816	211	29	73	
UA8LH	489,311	760	102	167	Bulgaria					OK1DIL	78,890	295	33	82	G3FXB	14 708,724	1836	39	124	OH8RV	10,812	81	24	44	
UW8CM	199,245	456	71	114	LZ2TU	A 625,809	935	94	243	OK1SZ	60,442	354	28	66	G3TXF	422,408	1332	40	112	OH5MQ	2,418	59	8	23	
UA8WM	109,040	300	48	97	LZ1CW	260,592	479	83	184	OK2PAJ	58,042	337	32	74	G3KDB	7 196,440	846	32	88	OH5MX	2,054	43	9	17	
RA8SR	91,980	274	46	94	LZ2QV	239,365	577	74	171	OK1FKW	54,805	343	25	71	G3GVG	130,074	631	28	86	OH6MCW	21 480,951	1361	38	102	
UA8LCZ	91,840	211	66	98	LZ1BJ	40,255	204	29	68	OK3DU	37,600	154	29	71	G3GUV	121,220	596	28	82	OH7LC	140,544	544	34	88	
UA8DA	81,726	359	41	65	LZ2RM	2,916	29	15	19	OK1DHJ	37,584	270	21	60	G4ARD	18,854	285	9	39	OH8LE	57,909	358	29	68	
UA8SFB	75,992	320	42	76	LZ1PZ	62,775	270	31	62	OK3CAB	33,375	288	20	55	Faroes Islands										
UA8SY	65,241	257	38	61	LZ1AZ	53,126	232	31	70	OK3CMW/P	33,022	251	24	55	OY9JD	1.8 10,845	216	8	37	OH3MC	41,412	144	30	86	
UA8UAG	40,641	270	41	62	LZ1KOP	21 752,623	2101	37	110	OK2BEM	26,832	141	23	63	Federal Republic of Germany										
UA8FDX	12,802	270	16	21	LZ1K0Z	375,235	1092	39	112	OK3CAY	26,462	148	34	67	DK6NP	A 1,621,710	1254	149	406	OH3WD	31,773	135	29	60	
UA8KCL	3,876	28	24	27	LZ1KXA	339,712	1296	35	93	OK2BP6	9,360	164	10	35	DK6NF	750,375	975	100	275	OH6MBQ	20,043	228	13	38	
UA8KAT	2,548	46	26	34	LZ1KBL	96,336	424	33	75	OK3CX5	4,512	71	10	37	DL1JF	652,638	823	110	259	OH8NLC	18,662	167	20	42	
UA8AG	144,550	8529	27	71	LZ2FH	65,208	456	26	62	OK1HR	4,095	102	7	31	DL5BM	643,968	761	101	286	OH1FQ	14,080	143	17	38	
UA8YO	127,696	642	25	67	LZ10D	19,200	201	21	41	OK1FSW	3,116	64	10	28	DL7CJ	628,633	733	115	294	OH7VUW	9,160	153	10	30	
RW8AM	56,636	260	27	62	LZ10F	3,332	86	26	66	OK3R0S	1,620	53	7	20	DL8JW	643,968	761	101	286	OH3MP	1,728	64	6	18	
RA8JD	32,508	261	21	42	LZ10J	19,200	201	21	41	OK1DLS	342	18	3	15	DL9M	628,633	733	115	294	OH7DF/8	1,034	35	6	16	
UA8LAF	27,633	159	23	38	LZ10K	19,200	201	21	41	OK10FF	7 98,307	600	24	75	DL3BI	604,070	964	83	207	OH7MA	14 534,691	1501	39	112	
UA8LS	19,716	124	20	42	LZ10L	19,200	201	21	41	OK1ABP	69,960	330	26	80	DL7CF	480,201	682	89	222	OH8LO	127,050	908	23	52	
UA8OCZ	66,528	424	18	54	LZ10M	19,200	201	21	41	OK1XJ	65,268	404	22	62	DL3BYM	458,058	731	86	213	OH3BU	46,614	315	29	73	
UW8CQ	27,552	122	26	58	LZ10N	19,200	201	21	41	OK1AYQ	40,448	311	24	55	DF30G	387,595	524	99	236	OH3R0	27,740	219	21	52	
UA8SCL	4,800	123	10	20	LZ10O	19,200	201	21	41	OK1AJY	26,752	228	16	48	DL20BF	377,559	724	78	195	OH2BCD	16,775	142	22	39	
RA8JJ	187,924	738	34	77	LZ1KBC	120,582	609	29	70	OK1DLF	26,715	192	17	48	DL8SCG	361,494	672	85	181	OH50T	15,400	120	21	49	
RA8SP	47,512	254	23	45	Crete					OK1DOH	16,170	192	14	41	DL8JW	322,140	542	83	190	OH6DZ	1,680	32	12	16	
UA8FAD	39,193	254	29	48	SV9ADH	14 100,584	895	26	62	OK1MGW	8,851	80	12	41	DL8JK	318,288	443	98	251	OH4NSG	7 94,653	462	31	86	
UA8BCK	31,722	112	34	68	Czechoslovakia					OK3CSQ	8,375	47	25	42	DL7SD	318,288	443	98	251	OH5PZ	30,310	194	20	50	
UA8UAV	23,055	164	21	32	OK1VD	A 1,528,320	643	131	349	OK3CQD	5,112	53	18	28	DJ5AV	279,980	605	60	160	OH9PH	2,914	39	13	34	
UA8CF	4,160	34	24	28	OK3CDX	1,357,185	1067	139	380	OK3CVI	1,840	37	7	16	DL3NAA/A	273,240	656	63	167	OH7VE	1.5 116,919	766	27	72	
UA8JB	74,305	392	26	51	OK2BFN	1,226,668	1378	117	332	OK1MAW	3.5 79,219	665	19	70	DK8KC	264,095	501	75	164	OH7VR	3.8 17,507	226	12	49	
UW9QA	44,660	237	19	51	OK2RZU	978,492	1136	119	319	OK1JUF	62,848	744	12	52	DL1TH	260,072	551	71	181	France					
UA8AO	100,347	539	22	61	OK2QX	799,995	1019	112	285	OK3GDN	13,850	237	10	39	DL8ZAJ	224,612	470	69	164	FJ6EE	A 3,312,240	2502	150	405	
UA8FEO	32,804	281	21	38	OK2EC	618,266	827	101	257	OK2PFX	12,204	132	12	42	DJ1FC	218,988	431	73	164	F1JCB	882,299	1652	75	236	
Azerbaijan					OK2AMF	608,000	732	115	265	OK2BIU	8,358	198	7	35	DJ5JH	211,200	313	99	176	F6JJA	175,972	481	40	141	
UD6DKW	A 256,511	462	62	137	OK3QPQ	595,737	808	99	234	OK1DUA	4,284	107	6	30	DL9NCR	204,491	446	64	159	F8EGV	109,585	304	53	102	
RD6BJ	28 45,000	219	22	50	OK2ABU	526,878	959	87	210	OK2BOW	2,002	78	5	21	DK4RM	203,820	372	78	186	F6HSL	51,118	310	31	91	
RD6DE	15,470	86	22	43	OK1FEP	421,291	558	98	201	OK2PDN	1,825	72	6	19	DL2JU	200,013	473	59	150	F9QE	41,236	158	43	79	
RD6DAB	3.5 44,252	369	10	36	OK3FON	402,115	574	80	219	OK3TNA	1743	86	4	17	DJ4ZR	159,848	299	79	153	F81NL	38,270	233	32	57	
Georgia					OK2PFC	364,455	750	70	197	OK2BCA	784	31	4	18	DL1ZQ	154,851	421	58	155	F8TM	31,872	136	35	61	
RF6FR	28 85,020	502	20	40	OK3YCA	357,192	562	83	181	OK1HCG	342	21	3	15	DF4EX/A	152,280	401	60	128	F3AT	30,636	168	31	61	
UF6QAL	29,460	193	21	39	OK1DGN	315,951	662	70	171	OK1FCW	1.8 55,809	543	15	66	DL5BG	131,236	400	51	121	F9BB	21,338	108	34	60	
UF6QAC	14 260,883	778	35	88	OK3JAG	289,002	586	85	209	OK1DRD	29,370	389	10	56	DL9SDD	123,546	352	50	127	F1NLX	19,920	170	28	55	
RF6FGK	259,853	775	36	87	OK2POT	257,754	594	61	177	DK3CQW	29,160	345	13	59	DL1MC	121,044	361	47	107	F6CXL	19,890	245	16	29	
UF6XC	5,832	44	23	31	OK1MNV	249,645	380	87	180	DK3CZQ	22,456	401	11	45	DL4RU	105,462	325	55	131	F6CCI	17,784	112	30	46	
UF6FAL	7 27,405	153	17	46	OK1MKU	224,238	451	70	172	OK1MIG	21,960	235	14	58	DL3MCC	134,160	301	54	86	F5UB	9,240	116	9	26	
UF6VBC	1.8 54,392	410	11	41	OK1MNV	218,736	546	58	159	OK1DRU	17,550	281	10	44	DL8TE	95,140	314	46	88	F6AUS	28 364,715				

Peru			
0A4ZV	A	1,414,446	1529 104 215
0A4BR		42,297	107 14 11
Surinam			
PZ/N3JT	A	6,013,965	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
K1IU		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 55
W1JR		14,976	59 41 55
K9NA/2			
N2BA		5,013,162	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		5,648,296	2722 175 537
K3WW		3,193,697	1798 164 447
W3GG		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
K2ZH		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		360,960	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
WA3IJ		120,170	215 65 132
N4WW		5,277,350	2812 168 482
WA4CTC		1,851,568	1312 139 357
W3ZF/4		1,783,520	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
AA4DD		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
MUSG			
W5ASP		4,341,104	2085 182 542
W5ASP		1,617,084	1169 136 347
W5EHM		178,425	280 72 153
W5BE		77,140	162 47 86
N6VV		2,090,000	1469 157 343
W6BA		1,937,430	1344 155 340
N6IC		1,560,075	1205 150 315
W6REC		1,019,466	916 143 263
NF6S		677,950	748 119 206
KEVI		674,928	708 108 219
N6JV		476,788	494 124 222
W6OAT		347,480	336 130 235
WJ6O		323,565	407 97 168
KGMA		181,373	299 91 136
AD6E		141,351	311 64 95
WB6IP		95,040	305 32 78
KE5WL		32,736	91 47 77
WA8LLY/6		23,421	77 45 66

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
WB8PHI		897,600	831 113 261
W8FN		200,353	263 91 190
WB9JKI		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		3,485,605	3401 132 275
Canada			
VE2WL		1,318,900	2168 88 187
VE2UMS		199,356	601 58 90
VE3SPC		205,254	473 61 120
VE6AO		391,428	1053 64 102
VE7ZZZ		3,295,416	2802 155 337
Mexico			
XE0DX		5,420,040	4909 140 325
Montserrat			
VP2MW		9,041,590	5968 151 426

MULTI-OPERATOR SINGLE TRANSMITTER NORTH AMERICA

AFRICA			
Maderas Islands			
CT3FN		2,586,418	2770 89 225
ASIA			
China			
BY1PK		1,924,790	2687 100 210
BY4SZ		438,102	1104 81 102
British Cyprus			
ZC4ZR		1,345,274	1494 86 227
India			
AT0N		1,208,546	1501 101 210
VU2IIT		441,512	782 88 153
VU2TEC		165,912	479 43 81
Japan			
JE2YRD		4,355,448	2926 164 355
JE2YHS		790,050	1209 91 138
JA2YBF		2,468,626	2039 140 289
JA3YKC		2,362,262	1920 147 287
JA4YJA		1,535,694	1514 116 245
JA5YAV		447,640	634 95 165
JE6ZIH		2,036,953	1953 129 244
JATYAA		3,241,050	2181 170 357
JABYBY		3,187,698	1763 164 334
JH8ZCD		17,582	109 28 31
Mongolia			
JT1T		590,178	1335 56 111
Thailand			
HS8A		3,888,108	3525 134 310
Viet Nam			
3W8CW		7,125,608	5677 163 369
U.S.S.R. ASIATIC			
Asiatic Russia			
UZ9SWY		6,107,033	3425 173 474
UZ9WWB		593,761	847 81 190
UZ9UWQ		351,604	583 80 164
UZ9YXI		160,360	400 48 104
UZ9UZZ		32,736	142 28 60
UZ9YXL		30,162	232 24 42
UZ9QWM		27,675	152 20 55
UZ9XVW		17,716	72 45 58
UZ9QWA		2,620,304	2505 144 277
UZ9BWA		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			
RL1P		8,360,528	4491 176 533
UL8LYA		7,816,200	4078 185 515
UL8GBW		2,922,048	2220 137 319
UL8BWW		2,107,894	1816 120 323
UL8CWW		1,320,564	1580 94 222
UL8CWC		3,765	44 22 39

EUROPE			
Belgium			
ON6AH		1,653,624	2220 103 283
Bulgaria			
LZ9A		7,455,056	4356 193 591
LZ1KVZ		2,071,380	2002 145 425
LZ1A		2,094,400	2585 125 315
LZ2KSQ		1,136,037	1672 96 233
LZ1KSF		993,168	1426 109 254
LZ1KNN		649,295	1077 103 252
LZ1KRC		178,135	839 32 83
LZ1KPG		110,047	283 63 136
LZ1KVF		50,224	140 54 118
Czechoslovakia			
OK5R		6,474,595	3955 179 540
OL4A		5,620,270	3564 174 505
OK1KQJ		2,098,080	1817 147 417
OK1KSL		1,276,992	1436 113 319
OK2KOD		964,782	1210 116 287
OK2KL		643,680	971 97 263
OK10FM		548,098	788 103 255
OK1KZO		348,920	751 75 169
OK1KSZ		288,477	571 80 161
OK3KGD		240,329	668 61 150
OK2KUB		151,200	307 71 181
OK10RA		132,864	341 55 118
OK3KUN		37,534	196 33 65
OK10FK		32,200	196 36 64
OK1KLV		30,622	188 26 35
OK10SB/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			
DL4880		3,202,714	2503 145 393
DL0WU		2,705,844	2421 141 368
DK0MM		2,325,887	1865 153 424
DK2OY		1,966,518	1647 141 408
DF0RR		1,675,600	1790 126 346
DL0ER		1,011,752	1299 91 265
DL0LR		870,495	1114 108 285
DK0TZ		156,342	345 68 145
Finland			
OH1AF		4,082,238	2976 165 504
OH2AQ		2,313,290	2237 132 358
OH2BAH		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			
F5IN		5,673,122	4090 167 470
FF6KPO		889,840	1835 66 179
F6ENV		18,291	101 22 45
German Democratic Republic			
Y35L		3,229,221	3099 139 405
Hungary			
HG5A		7,775,904	5030 187 570
HG1S		6,678,636	5063 168 468
HG6N		6,166,544	3976 175 513
HA0KLE		5,578,002	3935 183 536
HG8Q		5,085,829	3718 182 531
HG9R		3,925,628	3324 163 465
HG0D		3,545,076	2668 170 498
HA1KRR		2,279,506	2575 122 324
HA8KCK		1,777,272	1961 132 365
HA8KVK		1,598,400	1882 119 313
HA6KVR		1,029,869	1510 99 242
HA6KNG		872,400	1482 88 212
HA3KNC		403,788	1020 62 169
HA6KHX		329,061	577 78 173
HA5KGT/7		23,150	341 43 92
Italy			
IO4IND		6,719,762	4035 183 535
I2VXJ		3,886,300	3048 147 403
The Netherlands			
PA0KHS		1,297,800	2030 96 254
PA3ACA		669,080	1098 92 252
Poland			
SP3GEM		4,943,857	3245 179 530
SP5PBE		1,794,043	2353 112 285
SP5KVV		1,388,244	1611 123 306
SP9PZF		578,886	1072 91 203
SP9PDT		264,000	600 86 530
SP5PWK		61,576	685 79 184
Spain			
EA3RCL		1,058	45 6 17
Sweden			
SK5EU		2,521,500	2543 132 368
SK5DB		531,916	1056 90 224
Switzerland			
HB9CIP		1,553,418	2059 125 321
HB9GT		1,113,435	1598 88 239
HB4FE		152,928	530 50 127

Wales			
GW8GT		3,044,352	3172 135 377
Yugoslavia			
4N1W		4,335,267	3277 170 483
YT3T		2,928,168	2439 146 390
YU3AI		2,673,945	2679 119 317
YT2D		2,368,586	2103 134 372
4N2D		1,787,229	20

QRP				WB6JMS				CHECK LOGS				
YU3BC	A	1,241,285	1295 114 329	UA3DAT	23,976	113 37 71	15,561	98 20 37	Our thanks to the following stations who sent in check logs: CT1YH, DJ3VC, DK506, EA18FZ, EA1CYL, EA4EDU, EA5AGD, EA5TD, EA6VQ, EA7ATE, EA7EJZ, EA7KN, EA7OI, EA8UP, EC7DMU, G15TK, HA1CC, HA1UB, HA3KHM, HA8XK, HG8LP, HK3DDO, 1V1TX, 17ALE, JA2YEF, JA3UWB, JE4MY, KSV, LA4IAA, LA4KO, LA4NE, LA5LT, LA5SAA, LA7AFA, LA7XCF, LA8CE, LA9OI, LA9PCA, LA9EW, LU2FFY, LU2FD, LU2HX, LZ1HY, LZ1IA, LZ1IT, LZ1KIA, LZ1QV, LZ1VQ, LZ2KAC, N4RM, N20R, OH1FJ, OH1FS, OH2BMH, OH2FO, OH2KO, OH3NWC, OH3TY, OH4RR, OH5PT, OH6BC, OH6NEQ, OH6NH, OH6QP, OH6UC, OH7OR, OK1AYU, OK1FGU, OK1MNV, OK1US, OK2BMA, OK2BW, OK2KN, OK2PNN, OY7ML, OZ1BUR, OZ1CAR, OZ1EUO, OZ1FSG, OZ1IQC/A, OZ1JLX, OZ1JMN, OZ1JNR, OZ1JUSZ, OZ2JI, OZ2RH, OZ3Q, OZ4RS, OZ5MJ, OZ5PA, OZ5UR, OZ5UR, OZ7BW, OZ7JO, OZ7L, PA3ERV, PY1AJK, PY10Q, PY3CJ, PY3DL, PY3TD, PY6BG, RA1WT, RA3AGN, RA3ALA, RA3ATM, RA3AUC, RA3DN, RA3DOL, RA3EA, RA3EF, RA3VR, RA3V, RA4CC, RA4CG, RA4NBG, RA4NBZ, RA4NDM, RA4PR, RA4SAE, RA4YM, RA6AAW, RA6AHN, RA6AU, RA6AV, RA6LB, RA9UNR, RB4IKA, RB4MYC, RB5CB, RB5QR, RB6FK, RH8AA, R05OW, RT4UA, RV4LA, RV6AB, RV9CFP, RV9US, RV9UV, RV8YF, RW6AF, RZ0CZ, RZ3DM, RZ90WA, SM3CBR, SM3CYM, SM3OPZ, SM3OJ, SM4ADH, SM4ASJ, SM5APS, SM5FNU, SM5FUG, SM5MLE, SM5PAX, SM6AKY, SM6DNF, SM6GR, SM6LJP, SM6DF, SM6OLL, SM600I, SM7CUY, SM7QY, SM8CMH, SM8CSX, SM8KOC, SN70BYT, SP2BRN, SP2FAP, SP2GV, SP2MHB, SP2US, SP2UJU, SP2ZJ, SP3AGE, SP3CDO, SP3GVX, SP3JIA, SP3LWO, SP4BY, SP4EAK, SP4GDC, SP4JWR, SP4NKO, SP5BKA, SP5DQ, SP5GQ, SP5PNA, SP5GQX, SP5ILO, SP6ANY, SP6LTF, SP7GAQ, SP8GSC, SP8JMA/A, SP9DAE, SP9PPP, SP9PT, TU2KC, TU4CO, UA1AUA, UA1CT, UA1OB, UA1OD, UA1OZ, UA1OLL, UA1000, UA1WES, UA1ZD, UA3ACZ, UA3ACM, UA3AGW, UA3AIF, UA3DCX, UA3DFV, UA3DUL, UA3DNR, UA3DOS, UA3EJC, UA3EDH, UA3IAK, UA3ICX, UA3IDT, UA3JDL, UA3JEM, UA3PTW, UA3QIF, UA3QNV, UA3RAG, UA3RB, UA3RF, UA3RJ, UA3RMW, UA3RNM, UA3RU, UA3XBY, UA3XGM, UA4AFT, UA4AMT, UA4CDL, UA4HRZ, UA4HVV, UA4LC, UA4NDF, UA4NEZ, UA4NF, UA4PJA, UA4PMO, UA4PND, UA4YAQ, UA4YS, UA4YZ, UA6AUI, UA6EJ, UA6JW, UA6LDF, UA6UBR, UA6VY, UA6WAV, UA6YAV, UA6YFV, UA9AKW, UA9ACQ, UA9CJV, UA9JH, UA9LBI, UA9MAC, UA9MCM, UA9ODP, UA9OHR, UA9OO, UA9OS, UA9UTW, UA9UY, UA9ABB, UA9DA, UA9KBC, UA9OCA, UA9OCZ, UA9DZ, UA9ZDN, UB1RR, UB4JW, UB4LM, UB4WWS, UB5CAD, UB5CDF, UB5ES, UB5EN, UB5JN, UB5JX, UB5KDD, UB5MEC, UB5PCS, UB5QGD, UB5QJA, UB5QMU, UB5VKK, UB5ZAL, UB5ZK, UB5ZY, UC1AWZ, UC2AV, UC2CAV, UC2LB, UC2LR, UF6FJ, UH8ED, UL7BW, UL7EAR, UL7EZ, UL7PE, UL7TJ, UL7TX, UL8GAK, UL8LWA, UM8MGM, UO4WU, UC5OAL, UC5ODA, UO2GCV, UO2GLQ, UO2GLW, UO2GLY, UO2GT, UT4UB, UT4UH, UT5UC, UT5UFI, UV3DN, UV4CD, UV6ANA, UV6ARL, UV6AY, UV6HLC, UV6UA, UV9CAF, UW1OR, UW3AD, UW3AO, UW3DM, UW3PK, UW3PN, UW4CU, UW6AA, UW9AD, UW9SL, UZ1AXB, UZ1NWO, UZ1OWJ, UZ1QWK, UZ3DWW, UZ3YWH, UZ4SWN, UZ9MZ, UZ0AB, UZ0AM, UZ0BDW, UZ0KWT, UZ0XCU, VE1ACK, VE28IF, VE30TL, VE7COP, VE7DIA, VU2IN, WZ6FF, W4DQJ, W9YCN, WF4G, Y21AE, Y21BC, Y21DG, Y21DG/A, Y21G0, Y21G1, Y21G2, Y21OR/A, Y21UD, Y21XF/A, Y22GD, Y22JD, Y22JF, Y22MC/P, Y22FF, Y22TO, Y22UB, Y22VJ, Y23EF/A, Y23IG, 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, Y37ZM, Y39SL, Y43RJ, Y44ZN, Y45RJ, Y53LU, Y54L, Y54ZA, Y57ZL, Y59QA, Y59VA, Y61XM, Y74XG, Y03AB, Y05TA, Y08CF, Y08MF, YU1EX, YU1LS.			
WA2HZR		869,913	870 102 251	UA9UUD	16,170	98 26 50	14,152	110 17 44				
NX7K		865,171	884 122 227	OK1DRO	15,921	97 28 59	8,569	80 14 27				
VP2EQ		808,290	1783 58 152	K1EQA/6	14,580	103 32 28	7,916	20 33				
RB5IU		797,066	1067 111 305	N6NF	24,508	96 27 29	4,544	9 17				
KR2O		565,128	592 95 239	UW4N	12,040	70 24 46	2,522	44 9 23				
JY1CBF		549,917	697 112 169	W5TB	11,952	53 21 51	2,223	39 9 10				
HA1XR		480,640	821 90 230	N8CQA	10,647	66 39 52	528	20 7 17				
S4ELZ		466,272	790 67 221	Y03AIS	9,768	51 30 34	230,528	715 35 93				
UD6DF		421,553	563 89 202	Y2SSA	10,440	176 9 51	60,697	410 25 66				
H89ADD		408,444	807 86 217	SP5SDA	8,515	61 25 40	32,085	329 16 53				
YU2TY		390,111	561 90 237	UA3TT			28,743	267 18 49				
UB5WAB		348,986	553 97 222	/RFBF	6,420	37 27 33	30,540	210 23 37				
SM5CCT		316,848	680 78 198	YQ3BDP	4,250	65 12 38	10,325	85 15 44				
K1CGJ		312,760	402 82 198	GD3HDL	3,666	78 7 32	8,050	149 9 37				
N1AFC		287,698	442 66 160	E8BUP	3,525	48 7 18	6,216	70 16 40				
WB0MK/1		258,054	377 76 170	JE7DOT	2,583	42 11 10	3,420	41 14 22				
NCBO		255,277	360 91 162	UA1NCC	2,232	64 2 24	630	20 18 13				
UA6LIG		252,237	694 61 188	DJ5KX	2,208	39 10 14	25,462	256 13 45				
4X1F		236,028	488 56 122	G3DOP	2,045	85 14 30	24,340	231 16 49				
UP28FE		234,972	649 61 183	VE7EKS	1,540	38 12 8	4,896	51 4 22				
SM8DJZ		218,784	474 69 189	WB0B	493	11 9 8	3,090	53 7 18				
UQ2GM		194,997	541 60 149	CX7CO	153,825	500 31 74	406	14 8 6				
JATAS		170,918	341 79 108	UL7ACI	79,695	431 16 47	14,840	244 10 43				
UA4YBR		145,908	388 73 179	J01CRA	76,076	295 34 57	14,784	210 14 42				
IS8LYN		130,491	349 48 131	W5VGX	65,472	261 26 62	7,611	160 12 31				
KZ1L		128,444	231 56 141	AA4M/6	50,020	214 27 55	6,048	130 7 35				
W1HUE		119,274	226 60 133	LZ1QN	46,656	265 26 55	5,775	160 5 30				
PA3ELD		116,023	412 46 111	AK5E	41,022	165 25 61	5,412	52 12 29				
NU4B		114,369	208 66 135	Y05KLE	36,722	245 19 42	2,556	54 8 28				
Y21NE		112,216	428 40 126	UA9FGJ	33,796	187 17 51	1,932	80 5 18				
Y54WM/P		111,589	312 64 137	N9AW	25,831	124 24 49	1,584	34 7 26				
PABAT		109,480	354 42 98	G3VNY	23,055	193 19 34	819	40 4 17				
Y05BQ		109,068	327 59 124	DK1CZ	20,800	137 23 41	378	22 4 14				
Y02AQB		106,774	749 58 139	UB5ZEL	14,481	137 14 37	22,754	325 11 51				
Y23TL		101,970	294 57 108	G3CWL	8,855	107 14 21	21,600	176 9 36				
DK4CU		96,612	308 47 119	RA9XDQ	8,352	79 7 29	15,640	148 8 32				
JR4GPA		86,250	248 48 77	UA9XAB	6,401	65 10 27	13,771	279 8 39				
UB4IM		70,684	278 45 119	JA8JVS	5,772	57 18 21	13,750	253 10 40				
M8KHP		70,528	261 43 109	JO6TK	2,242	32 13 25	7,486	141 7 31				
Y26JD		62,177	303 29 66	NO1E	1,232	24 9 13	6,916	168 7 31				
UV3TD		52,682	213 39 103	W4DEC	39,185	161 25 60	6,279	55 7 32				
UC2WAO		48,314	246 28 70	UL7JGX	36,498	198 22 55	4,309	49 6 25				
LA1XDA		42,582	221 35 106	UB4LCB	31,500	294 17 43	3,740	116 4 30				
W6LC		35,802	128 41 61	UA9SG	31,171	216 19 42	3,008	117 5 27				
VE1NH		31,320	187 25 47	DK1DKR	26,767	181 23 48	2,604	63 6 25				
UA8UAG		29,750	216 34 51	UR2CR	25,916	245 18 44	1,798	66 7 22				
UQ2GSW		27,874	305 19 58	UA9DXP	19,093	151 19 42	1,794	56 5 21				
DL4GBR		27,280	148 24 38	UA9XGJ	16,368	141 13 31	1,456	39 6 22				
UA4LAF		24,521	164 28 84	EA1GT	18,524	235 13 31	1,173	42 6 17				
							345	22 3 12				
							224	17 3 11				

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