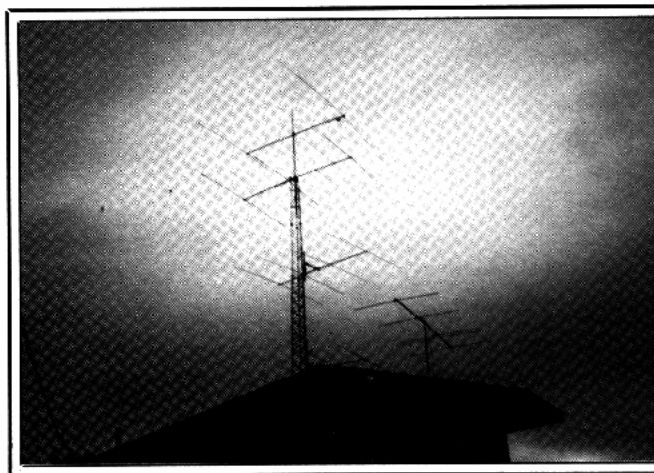


Bill, N1GL, finished 4th in the World at P40A.

Here's what it takes to win the CQ WW—the setup at 9Y4TT, operated this year by Rick, NQ4I.



Danny, K7SS, enjoys "post contest bliss" following his record demolishing of the World QRP record with that 3M plus effort.



Results of the 1987 CQ World-Wide DX SSB Contest

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

The computer revolution is alive and well in ham radio. Even more to the point, the computer is becoming a significant force in the CQ WW Contest! This year the contest results were entered directly into N6AR's computer, transferred electronically to CQ, and dumped into CQ's typesetting machines, thereby eliminating many stages of translation and checking from the process. Hopefully, the output will be more accurate. Then, as we will discuss later, the computer is being put hard at work on

the processing of your log entries in our never ending attempt to keep the contest results on the up and up.

For years we have seen a gradual growth in the use of computer duping of the entries. Many of you routinely feed your contacts into your computers to obtain an alphabetical listing of the calls on each band, a great way to "dupe check" your logs. There are even services available out there from those who are in love with their keyboards. The "ABC" dupe checking service, for example, will take your log, and for a fee will provide you with a dupe-free entry. Others enter their logs in total into the computer after the contest, providing a data base file that can be sorted six different ways from Sunday. That data base file provides a convenient way of cleaning up the log,

yielding a nice, clean, printed output; it allows a dupe check sheet to be generated easily as an alphabetical listing by band; it solves your QSL chores, since labels can be printed quickly for each QSO. Yes, indeed, the computer is the ideal toy to add to the complex electrical maze that is your rig. You just couldn't go wrong using your computer, right.

Wrong! Oh, to be sure, the computer-generated outputs referenced above are all fantastic time-savers if they are used properly. Improper usage, by the way, is evidenced by the emergence of the "GIGO" principle—garbage in, garbage out. Perhaps an example of how computers are being used to generate mistakes would be helpful.

Every one of us is imperfect. If we had a way to measure each operator's abilities absolute-

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Olli, OH0XX (left), presents Mano, FY5YE, a copy of the computerized version of his contest logs. Olli finished in the world runner-up slot in the single op, all band category.

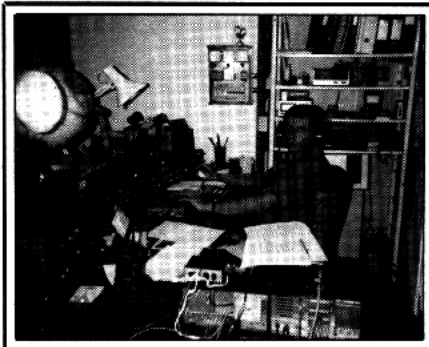
ly, then we could see how they would compare in accuracy. For example, I duped my 1986 CQ WW CW log as I operated the contest. Later, I duped them again by hand after the contest, and of course, found some dupes I didn't find the first time. But, when I computer duped them the third time, guess what—I found one or two more dupes. The point is that human error occurs every time we engage in a processing step. Now, if you enter your log into the computer, but you don't thoroughly check the accuracy of your entries, then you may well generate more errors than you catch. When N6AR entered the results into his computer, he sure found out how critical the editing process is!

This year we had several large computer entries where this problem existed in spades. That's one of the reasons why we have asked for a copy of the original log in the past—to confirm whether errors are keypunch or operating errors. But, guess what. Having been besieged with computer logs the past several years, we are changing our policy. From now on it won't matter to us what the source of the error is. If it's a copying error, a handwriting error, a keypunch error, even a computer interface error—they're all going to be treated the same from now on. If it's an error, and we find it, you are responsible for it and it will count against you, no matter how obvious it is. So just remember, be careful, please.

The All Band Results

The big story for 1987 was the phenomenal new QRP World record set by Danny, K7SS, at PJ2FR. With just 5 watts, Danny exploded the old record set by TG9GI in 1982 by a factor of 3, with 3.17 million points and over 3200 contacts. Congratulations on a super effort, the only World record set in any of the all band categories this year.

Our Single Operator, All Band winner was 9Y4TT, operated by Rick Dougherty, NQ4I. The Atlanta-based pilot helped put up new antennas at the host station, and then amassed an impressive 10.4 M, followed by Olli, OH0XX, at FY5YE, with a fine 9 M, and Lars, SM5GMG, who scored 7.5 M at CR9BZ. Our only entry for team contesting this year, Team Scandinavia, boasted 4 entries in the top 10, with T30RY and ZB2X joining FY5YE and CR9BZ. Their fine 25 M team score would have blown away almost any competition—or would it? Team captain Martti Laine, OH2BH, challenges anyone to



Ville, OH2MM, takes a brief pause during his operation at EA8RCT to pose for this photo. Ville says his "CQ voice machine" put out a hectic CQ for him.

put a team together to beat them in next year's fracas. Bill, N1GL, finished fourth at P40A, and vowed to do better next year, as did TR1G, who was in fifth place. Finishing seventh worldwide, but first in Europe with 4.8 M, was ZB2X, followed by Pasi, OH6UM, who guest operated OH0BH to the tune of 4.3 M. Incidentally, we have included a "Top Score" block for Europe this year for the first time, like the ones we have traditionally had for World and USA winners. SU1ER (by Jim Neiger, N6TJ) and WR6R/KH6 rounded out the top ten, both at about 4.1 M. We are all indebted to Jim for putting zone 34 on the air on all bands!

Once again the East Coast dominated the top 10 USA with 9 of the top 10 scores. In fact, the top four scores were posted by a New England contingent led by Stu, KC1F, who racked up 3.2 M. He was heavily pursued by K1ZM (2.7 M), KM1H (2.6 M), and K1DG (2.5 M), respectively. Our hat is off to Jim Stevenson, KM6B, who managed to invade the top 10 from California with a fine 2.16 M, just a hair behind the fifth place finish of Steve, W3BGN.

The KP2A crew organized by Darryl, N6DX,

edged out fellow North American competitor 8P9HR in the Multi-Single category with a fine 10.7 M. AZ4F finished third at 9.8 M. The high European score came from the group at LZ9A with 7.9 M, and USA honors went to John Dorr's crew at K1AR (4.53 M). The K1AR guys had lots of stiff competition, with 3 other teams finishing in a virtual dead heat with them, as K3TUP (4.51 M), N2RM (4.34 M), and N4WW (4.29 M) gave it their all.

It was a three-way dogfight for World high Multi-Multi this year, with PJ1B emerging as the victor with a fantastic 35.8 M. Nearby, P40V finished second at 34 M, with HC8DX rounding out the top three with 33.7 M. Frank, W3LPL, led his team to an impressive 9.5 M USA first place in Multi-Multi, followed by two fives—N5AU (7.9 M) and NR5M (7.3 M). The European top dog was UP7A with 10.7 M.

Single Band Categories

Monoband entries continue to thrive, especially as the propagation on 10 meters and 15 meters improves. World records were set on four of the six bands in some of the most heated competition of the contest. This year 10 meters showed some of the flair we enjoyed at the cycle peak, with all continents available from most locations. Yet South American entries continued to dominate the World competition on the high bands, sweeping the top 5 on 10 meters, and the top 6 on 15 meters. ZY5EG, operated by PY5CC, took the 10 meter honors with 1.77 M, enough to top fellow South Americans LU1E, CX4HS, CE6EZ, and CW2A, in that order. EA8VV finished sixth with 648 K. The stateside winner was John, K6SVL, who found the band open to Japan in style, enough for 176 K. He was followed by KE5FI and N4EJV, both at or about 150 K. CQ7NH ran away with it in Europe, with a fine 350 K score.

Atilano, PY5EG, took the 15 meters prize with a fantastic 2.468 M, edging out Mario, CW4C, at 2.3 M. This was a new World and South American record, topping last year's 2.1 M effort at the same station by N5FA. K3RV/4 piled up 663 K stateside to lead a pack



The number four score worldwide on 160 meters was posted by SV8CS, shown with his station.

of contenders that included W5VX, K4XZ, and W6PU in that order. 4N4A led in Europe with 942K, with 4 of the top 6 scores coming from Yugoslavia.

Dave Donnelly toppled the old South American record, as P40SS bested a tough set of contenders for the top spot on 14 MHz with a great 1.79 M. He was followed by ZZ5EG (Opr. N5FA), and YW1A with 1.6 M and 1.5 M, respectively. Alex, UF6FFF, set a new Asian record at RF0FWW with 1.447 M, while LZ1KGB smashed the European record at 1.39 M to finish fifth worldwide. John, K2VV, was USA high at 812 K.

Ville, OH2MM, travelled to EA8RCT for a try at single band 40 meters, which just has to be the toughest of all phone categories with all

that QRM to contend with. Ville captured a new World record at 859 K, nudging out the old '86 mark of 850 K set by VP2ET. FJ5BL (654 K) and EA8ACH (583 K) finished second and third. IO3MAU set a new European standard with a fine fourth place Worldwide score of 430 K, followed by VE3CDX and JA8IXM. KV0Q was tops in the States with 102 K.

Conditions were fantastic on 75 meters this year with long openings beginning before sunset and ending well after sunrise. Bob Allphin, K4UEE, mastered P40R to the tune of 552 K to demolish the old 383 K World record of VE3BMV set back in 1985. 8R1RPN was second with 231 K. A new European record was established by UA2FGA with 197 K, a tad above DL6RAI's one year old standard from

LX9BV. Meanwhile, WB8JBM nosed out W6RJ 105 K to 101 K, to win it Stateside.

The low band showed great signs of activity, as new World and Asian records were set at UG7GWO with 255 K, a mind-boggling 160 M score that broke the 4 year old standard by UP2BBT/U6V. Wally, LZ2CJ, came in second and was tops in Europe, but failed to better his '86 record score. The only record set by a US station this year in any category was on 160 meters, as WB9HAD's super 27 K effort made AA1K/3's '85 mark of 25 K history.

Some Special News

This year we were blessed with a continuing increase in activity, especially from continents

PHONE TROPHY WINNERS AND DONORS

Single Operator, All Band World

9Y4TT (Opr. Rick Dougherty, NQ4I)
Donor: Dave Doheny, K2GM
(WA2RAU Memorial)

World QRPp

PJ2FR (Opr. Danny Eskenazi, K7SS)
Donor: Milliwatt Books

U.S.A.

KC1F, Stuart Santelmann
Donor: Potomac Valley Radio Club

Caribbean/Central America

H13JH, Julio Henriquez
Donor: Alex M. Kasevich, VP2MM

Europe

ZB2X, Jorma Saloranta
Donor: Potomac Valley Radio Club,
W4BVV Memorial

Africa

CR9BZ (Opr. Lars Mohlin, SM5GMG)
Donor: Gordon Marshall, W6RR

Asia

UA9YX, G. G. Shulgin
Donor: Japan CQ Magazine

Japan

JR6EZE, Kazu Kuroki
Donor: Japan Crazy Contester's Club

Oceania

T30RY, Pikka Kolehmainen
Donor: Northern California DX Club

South America

FY5YE (Opr. Olli Rissanen, OH0XX)
Donor: Special CQ Plaque

Single Operator, Single Band World—28 MHz

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

World—21 MHz

PY5EG, Atilano De Oms
Donor: Lee Wical, KH6BZF

World—14 MHz

P40SS, Dave Donnelly
Donor: North Jersey DX Association
(K2HLB Memorial)

World—7 MHz

EA8RCT (Opr. Ville Hillesmaa, OH2MM)
Donor: Fred Laun, K3ZO (K7ZZ Memorial)

World—3.8 MHz

P40R (Opr. Bob Allphin, K4UEE)
Donor: Fred Caposella, K6SSS

U.S.A.—28 MHz

K6SVL, John Alexander
Donor: Donald Thomas, N6DT

U.S.A.—21 MHz

W5VX, William Parry
Donor: West Jersey DX Group

U.S.A.—14 MHz

K2VV, John Yodis
Donor: Southern California DX Club

U.S.A.—7 MHz

KV0Q, William Johnson
Donor: Stanley Cohen, WD8QDQ

U.S.A.—3.8 MHz

WB8JBM (Opr. Patrick Collins, NZ4K)
Donor: Arnold Tamchin, W2HCW

Canada (14 MHz)

VO1QU, Bryan Kelly
Donor: Gene Krehbiel, VE7KB

Caribbean/Central America

T12LTA, Luis Tinoco
Donor: Pedro Piza, Jr., NP4A
(KP4ES Memorial)

Europe—28 MHz, Zone 14

CQ7NH, Luis Teixeira
Donor: A. G. Anderson, GM3BCL

Japan—21 MHz

JK1JQQ, Sam Suzuki
Donor: DX Family Association

Multi-Operator, Single Transmitter World

KP2A (Opr. KP2AA, KW8N, N6DX, N6PO,
N7RT, NE8Z, WZ6Z)
Donor: Southern California DX Club
(W6AM Memorial)

U.S.A.

K1AR (Opr. K1AR, AK1A, K1GQ, K1JX,
AA2Z)
Donor: Carolina DX Association

Europe

LZ9A (Opr. YU5AD, YU5RU, LZ1YE,
LZ1DB, LZ1RB, LZ2HE, LZ2PO, LZ2DF,
LZ2CC)
Donor: Bob Cox, K3EST

Canada

VE1DH (Opr. VE1DH, K2NJ, KU2C, KY2O,
NR2H, VE1ASJ, VE1ZJ)
Donor: Calgary Amateur Radio
Association

Multi-Operator, Multi-Transmitter World

P40V (Opr. AI6V, N6KT, N6TR, N6TU,
NU6S, W6OAT, W6SZN)
Donor: Radio Club Venezolano

U.S.A.

W3LPL (Opr. W3LPL, AI3M, K1DQV, K3DI,
K3RA, K0FVF, KA1GD, KC8C, KM3T,
N3GB, N8II, NW5E, W3EKT, W3EMH,
WB2EKK, WB3JRU, WD4AXM, WP4J)
Donor: DX Incorporated Club

Europe

HB0/DL80H (Opr. DL80H, DF4TD,
DF7RX, DF9YY, DK2OY, DK3RG,
DK8MZ, DL6RAI)
Donor: OH-DX-RING (OH2AM)

Contest Expeditions

World- Single Operator

P40A (Opr. Bill Ovca, N1GL)
Donor: Stuart Meyer, W2GHK

World—Multi-Operator

HC8DX (Opr. HC2CG, HC2RG, N6AA,
N6VI, N6ZZ, W6MKB, W6NV)
Donor: The German CDXG & SDXG
(DJ3NG & DJ4EI Memorial)

SPECIAL CQ MAGAZINE PLAQUE

World Multi-Multi

PJ1B (Opr. K3EST, KB2XZ, N3ED, N4RV,
N7ZZ, W7ZR, WA3LRO)
Donor: CQ Magazine



Up goes the 20 meter beam at TF3CW.

This year's Multi-Op DXpedition Trophy goes to the crew at HB0/DL8OH shown here adorned with their gear. Left to right are Dieter, DL8OH; Gunnar, DK3RG; Reinhard, DF4TD; Wolfgang, DK8MZ; Ben, DL6RAI; Bernhard, DF7RX; Uschi, DF9YY; and Manfred, DK2OY.

other than North America and Europe. We cannot help but notice the significant increase in participation in Indonesia, China, Africa, and most of South America, all welcome additions to the fun of the contest. Those early morning Asian openings to the USA East Coast on 10 meters were something else, too. And of course, the VU4 station was a great surprise, especially on 10 meters and 160 meters. Activity from several zone 23 stations was in evidence, not to mention the great all band effort at SU1ER, a zone 34 delicacy. My favorite was the HS0 on 20 meters right at the beginning of the test. The list of goodies is endless—the 5V7, the 3DX2, the FK, the 3X, etc. Only the CQ WW Contest provides so many pleasant surprises. But did you know that only about 1 in 6 active stations enters their log in the contest? Take a look at the listings this year, particularly if you didn't send in your log. Would you have been a winner? Think about it. Next time, send in your log. Another thing worth mentioning. If you didn't get a certificate or a trophy, the man to contact is John Dorr, K1AR. Drop John a line at 2 Baldwin St., Windham, NH 03087 if you need help.

Random Comments

The situation on 75 meter phone in the "DX Window" continues to worsen. A few guys tend to monopolize the window. Some stations get cued by their buddies of DX somewhere else on the band. The buddy even offers to hold the frequency for his friend. Some guys even appear to be running lists for fellow contestants! A list operation is a blight to DXing, but it is just plain ridiculous in the contest. We may just tape a few of the shenanigans in 1988. If what we heard last year is repeated, and we get it on tape, then some of you may just find you have been reclassified as Multi-Single!

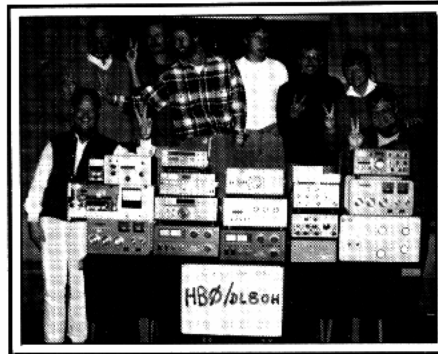
Earlier we commented on the computerized checking we've been doing with the logs. This

year we have expanded our operations on the computer significantly. For example, all logs submitted are entered into a master file of known entries on each band. Then, we pick one or two target bands, and enter a fair number of the large logs on those bands into the computer. We can cross correlate between the entrants to see who worked whom. The data shows interesting patterns that relate to operator accuracy. For example, we can determine which operators have a large percentage of calls in their logs which are unique. It is not true, for example, that the guy with the most contacts has the largest percentage of unique calls. A further look at the unique calls reveals that they are often very similar to calls everyone else has worked—circumstantial evidence that perhaps a "unique" call is actually a busted call. Some of you may have seen the presentation at Dayton or Visalia by some of the W6 faithful. In essence, their analysis and ours are qualitatively similar.

The results of the computer checking show that everyone makes mistakes, some more so than others. There is a fine line between acceptable human error and unacceptable operating, but it is hard to define. So, we continue to work on it. Some general statements can be made, though, about the quality of logging. If you have a substantial score (in excess of 1 M), and you have not dupe checked your log, you will probably have in excess of 5 to 7% dupes. If you kept a cross check sheet during the contest, but didn't check it a second time after the contest, you probably have 2 to 3% dupes still in your log. If you are super careful at copying calls during a run, making sure you always confirm the station's call on every QSO, you probably still have a couple of percent error in your calls. But if you operate as a machine and concentrate on sustaining rate rather than accuracy, you're probably pushing 10 to 15% error. Because the burden of a clean entry is on you, not the contest committee, we use stiff



Here's part of the crew at FK/JH4RHF—Kei, JG3MRT (front), and Yugh, JR3KEG, who was busy running contacts.



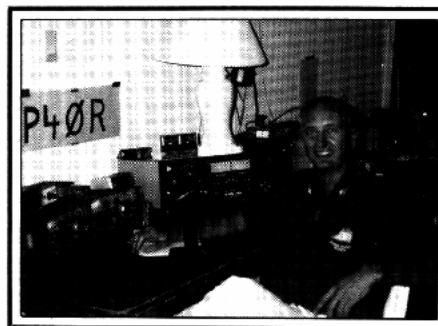
penalties for errors we catch. For a dupe or busted call that we detect in excess of 1%, you will be penalized as much as 10 to 1. That includes zone copying errors, too. If you list an LZ as zone 14, you're going to lose credit for that contact. If you list an Alabama station as zone 5, you're going to lose credit for that contact, too. So, we urge all of you to concentrate on proper balance between rate and accuracy. The next time you are in the thick of a run, and you're not sure of the call, ask for it again. Do it right.

Parting Comments

This year we are honored to have had the support of the following committee members in processing almost 3,000 phone logs: Rick, N6ND; Dave, K2SS; John, K1AR; John, KE7V; Ed, N3ED; Fred, AD6C; Jan, N6AW; Glenn, K6NA; Jim, W7EJ; Gene, N2AA; John, K2VV; Mike, W9RE; and Doug, KR2Q.

The 1988 test is just a few weeks away. Good luck and good DX!

73, Larry, N6AR, and Bob, K3EST



Bob, K4UEE, won this year's 80 meter single band category at P40R.

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
9Y4TT	74/8/18	449/18/53	716/24/75	1622/31/88	1907/31/102	1644/24/81
FY5YE	41/7/15	121/11/44	258/19/66	1326/28/89	1777/30/103	2199/23/96
CR9BZ	21/5/18	458 14/58	483/21/74	1190/29/85	1649/30/96	914/23/83
P48A	30/7/13	217/17/56	562/21 65	1269/31/94	1408/30/89	1407/27/65
TR1G	—	—	35/11/17	1641/31/82	1935/30/94	1372/29/97
T30RY	24/6/7	382/18/25	798/28/52	1052/34/82	1474/33/63	859/22/39
ZB2X	103/8/44	369/14/62	664/24/86	1074/29/79	1333/26/88	587/24/76
OH0BH	240/8/47	426/19/75	615/30/91	993/35/101	939/39/106	204/25/68
SU1ER	7/2/5	218/11/46	493/19/59	1053/32/91	496/20/52	988/24/72
WR6R/KH6	25/4/4	183/12/15	653/27/39	787/32/74	1326/32/66	788/28/47

USA TOP SINGLE OPERATOR, ALL BAND

Station	160	80	40	20	15	10
KC1F	39/9/30	117/13/53	119/23/62	1120/38/120	629/30/94	83/19/36
K12M	76/15/45	153/18/69	112/26/68	775/35/100	493/28/97	77/18/43
KM1H	75/15/38	216/20/69	113/23/64	826/35/108	407/28/94	90/15/43
K1DG	33/11/25	137/17/55	80/18/55	798/36/114	607/29/96	57/17/33
W3BGN	50/13/32	145/15/51	100/21/56	863/34/90	417/26/96	82/16/39
KM6B	22/13/14	158/23/40	416/28/47	390/32/80	629/31/68	138/18/38
N2LT	16/8/12	81/16/50	90/20/52	685/36/108	543/31/102	88/20/47
K5ZD/3	33/10/23	103/17/46	129/20/63	583/37/112	439/29/96	124/19/53
KS1L	20/8/12	118/14/55	61/17/41	792/35/106	557/26/80	36/10/24
K1YR	17/9/11	137/19/58	113/25/68	430/35/106	547/28/97	101/21/50

WORLD TOP MULTI-OPERATOR SINGLE TRANSMITTER

KP2A	66/11/27	569/20/73	648/26/88	2120/38/111	2190/32/112	1398/25/83
8P9HR	104/9/23	420/17/63	934/29/99	2448/32/104	1501/29/100	1374/27/88
AZ4F	10/5/9	34/12/22	60/27/58	887/36/98	2665/33/108	2462/33/104
KP4BZ	94/8/26	510/11/64	1462/31/95	1416/30/103	1973/29/107	1303/22/86
LZ9A	46/10/48	388/19/68	825/28/97	1051/39/123	2195/39/135	245/35/120
ZC4DX	119/8/36	565/15/62	754/24/75	955/26/70	1433/27/88	873/26/79

USA TOP MULTI-OPERATOR SINGLE TRANSMITTER

K1AR	32/11/31	288/22/80	144/29/88	1020/39/139	717/31/131	81/21/66
K3TUP	40/11/30	103/22/62	138/29/80	1136/19/147	832/30/125	104/22/66
N2RM	27/11/25	242/21/71	126/24/84	980/38/143	795/31/130	105/20/65
N4WW	32/12/28	139/22/72	134/26/82	1033/36/130	959/31/125	116/24/76
N4ZC	32/11/24	191/24/79	147/31/100	702/38/127	582/32/129	211/26/85
N4RJ	39/13/32	126/23/63	107/29/71	767/38/129	711/34/133	190/25/81

WORLD TOP MULTI-OPERATOR MULTI-TRANSMITTER

PJ1B	495/17/46	1043/23/79	1732/27/98	4558/37/153	4024/36/139	3373/30/111
P48V	226/9/31	975/20/70	1974/30/114	4583/37/136	4119/35/131	3725/29/101
HC8DX	451/17/37	1091/26/84	1548/30/103	3737/37/125	5077/33/127	3633/24/92
VP9AD	760/15/47	1630/21/83	1721/29/100	4375/36/128	3089/34/131	1465/30/99
KH6XX	137/8/11	450/24/36	1337/33/61	1926/37/113	3193/38/86	1649/26/51
UP7A	1107/11/60	674/21/75	1297/35/113	2468/39/131	1587/37/122	490/27/83

USA TOP MULTI-OPERATOR MULTI-TRANSMITTER

W3LPL	116/14/49	487/23/84	295/32/99	1672/38/155	1235/35/144	416/25/93
N5AJ	77/14/45	181/25/78	378/32/102	1212/39/141	1320/34/138	543/29/88
NR5M	83/15/36	223/23/68	479/32/92	1065/38/134	1204/32/130	639/27/96
N6ND	50/12/22	138/21/44	327/30/64	1002/38/114	1192/33/91	672/23/66
K2TR	74/13/43	235/18/60	100/22/59	1040/39/132	568/32/126	182/19/67
K4VX/8	77/11/28	149/21/62	245/31/92	829/36/137	428/30/108	269/25/76

1628/23/91

DX QRM

Running 80M with a dipole instead of a vertical with 100 radials is like riding a bike without pedals . . . *UR1RWX*. Worked WAC, WPX, and DXCC! . . . *UZ6XWC*. Very bad conditions to North America, and awfully bad conditions due to local jammers. Was trying to do my best as always . . . *UB5WE*. Sorry, I had a TVI problem . . . *UA1OT*. Propagation on 10 M was not bad throughout the contest, but where were all the WIK's this year? . . . *UB5UAT*. Nice to work the SSB test, but CW is much better . . . *UQ1GX*. My 14th CQ WW DX SSB Contest . . . *UT4UZ*. First contest with new call sign . . . *U1BA*. Enjoyed every minute of the contest—hope to do better next year . . . *UR2RE*. Lot of DX was in the WW DX Phone . . . *UA3ASL*. The station and antennas were built by the OM himself . . . *F9OJ*. First time worked VU! Biggest thrill—called by CR9BZ . . . *GJ3XZE*. Must have been the only person to miss the S0 . . . *GW4BLE*. Have to build a 40 M beam for next year . . . *GW4BKG*. First entry—lots of new prefixes and countries for me . . . *PA3ELD*. CQ WW brings us DXers Christmas time in October . . . *SM5KNV*. Like always, it was midnight in the yard repairing something . . . *HK3IXJ*. My category is: married, two sons, barefoot, small antenna, high TVI . . . *IK4FNF*. No conditions on 10 M: no NA, no Far East, only Florida like from an Aircraft Carrier . . . *I00KHP*. First time worked split frequency on 40 M to USA—great fun . . . *SP9FIH*. Thanks for the contest . . . *YO3NL*. Great fun for my first ever effort on 160 M SSB. Lost a couple of rare ones (PJ1B, VP9AD). Look forward to the CW section . . . *YO2IS*. Was operating for the first time from my second location—out of the city and on a flat hill top . . . *OK2RZ*. Unfortunately some stations only operated above 3.8 MHz . . . *HA4KYN/HA4XH*. A little better than last year, but not at the top again . . . *CT1CLR*. I have been operating since 1937, the age is 73 . . . *CT1QF*. 10 M is getting alive again, at last, for Europeans . . . *CT4NH*. Knowing very little English, I thought I was in big trouble. But, I learned very much, indeed, so I'll be there again next year . . . *CT1BMQ*. Almost lost my voice due to below normal propagation . . . *DJ4AX*. Couldn't get through the European pileup to VU4GDG . . . *DK8AX*. Russians still making more QRM than QSOs . . . *DL5RBW*. My old Heathkit gave up after a number of hours . . . *DL1XAS*. After 110 QSOs I went QRT because I had some DX visitors . . . *DJ8OT*. Unfortunately no transatlantic QSOs on 10 M with my mini-antenna—maybe next year . . . *DJ0NY*. Thanks for running a great contest . . . *E12VKL*. Much too tired to be a serious competitor, but a true single op . . . *F6BEE*. Very nice weekend for me, but very bad for my neighbor (TVI) . . . *FE6FNA*. I am getting old, only 637 QSOs but more points than last year . . . *F6BBJ*. What a thrill—working VU on 15 with ease and then hearing all Europe and their linears let loose . . . *G0CCCH*. Meeting so many

old friends from my days as 5Z4KL . . . *GM3VLB*. Poor propagation caused by aurora . . . *JW0B*. To have worked HC8DX as a new country, because I spent my vacation at Galapagos this year . . . *LA9SN*. My first CQ test was in 1951—and I still like it . . . *OZ7HT*. Working HC8DX, HS0A, 5T5BC, CR9BZ, ZC4DX, SU1ER, and WB8DIT/VP2M within 48 hours on top band was a real thrill . . . *LZ2CJ*. Very big surprise being called by HS0A on 160 M . . . *SV8CS*. Quite a challenge to try to stay awake for 48 hours for the first time in single op, all band . . . *OH0BH/OH6UM*.

Thrill to have a field day station work so well right off the boat . . . *P40V*. New station on hilltop with a small building just for multi-multi . . . *KL7RA*. Nothing in particular . . . *JA7YRR*. 2 amps burned; 2 transmitters shortcircuited; one rig blew; 4 element 80 M yagi quit; but 9 happy ops . . . *YB0WR*. Many power failures made us rest very often . . . *FKJ4HRHF*. We had a blast and will be back next year . . . *V47Z*. Even with 24 hours of sunshine—40 degrees is still cold . . . *KC4USV (Opr. W7SW)*. 121 countries on 14 MHz, but no VK, no IT9, no ZL. Something's wrong here . . . *VE2ZP*. Got HC8DX first call on the top band with 60 watts . . . *VE3INQ*. Even with barefoot FT-7, 5 watts, and dipole I was able to make 119 QSOs on 28 MHz . . . *VU2TTC*. Finished contest and life saving emergency operation within the contest period . . . *YC2CTW*. No power meant I could not turn my beam except at night, when it came on . . . *5L7Q*. Discouraging to know that the massive JA curtain only counts one point each . . . *BY1QH (Opr. K5IID)*. I always had a hard time getting through pileups because I was using only a simple antenna and no amplifier . . . *YB3CEW*. Look forward to breaking 1,000,000 points next year with my 75 watts output . . . *K1BAZ/DV1*. Next time I need a shorter call . . . *VE7CRW/VE8*. I am still surprised how it is possible to get 1500 QSOs on 10 M with a vertical antenna and 300 watts . . . *9J2EZ*. More fun each time . . . *TR1G (Opr. TR8JLD)*. Nearly all stations giving 59—really? . . . *YC3OSE*. 15 M was the only game in town . . . *AH6FL*. Finished antennas 2 hours before the contest started . . . *5T5BC (Opr. WB4ZNH)*. Heard some of the best operating ever in the contest . . . *5T5MH (Opr. WN4FVU)*. Too bad the K index snuck up to 6 on Saturday night . . . *VE6OU/3*. My first contest and I had a big time on 10 M . . . *VU2CAP*. Linear blew up just when the Europeans started to come in *T30RY (Opr. OH1RY)*. My first contest in 24 years . . . *KH6FKG*. I love this contest, but I'm never fully prepared for it . . . *VK3PU*. A monobander helps a monoband score for sure . . . *VE3XN*. People need to examine the map to find out where KH0 really is . . . *KH0AC (Opr. WA2TMP)*. Who said it's easy from a DX location—low band dipoles blew down twice, lightning hit 80 M dipole, 5 hours of power failure . . . *CR9BZ (Opr. SM5GMG)*. CQ WW from Israel is quite different than from W6 land . . . *4X/K6KLY*. Only in the CQ WW can I go around the World in less than 2

TOP SCORES

WORLD Single Op All Band		USA Single Operator All Band		EUROPE Single Operator All Band	
9Y4TT	10,370,962	KC1F	3,219,970	ZB2X	4,895,520
FY5YE	9,003,728	K1ZM	2,711,650	OH0BH	4,283,244
CR9BZ	7,530,264	KM1H	2,629,728	GW4BLE	2,928,000
P40A	7,481,920	K1DG	2,494,580	HA0MM	2,861,108
TR1G	5,758,257	W3BGN	2,283,393	OH6LK	2,156,880
T30RY	5,147,334	KM6B	2,158,272	RB5DX	2,127,972
ZB2X	4,895,520	N2LT	2,162,616	IV3PRK	1,971,935
OH0BH	4,283,244	K5ZD/3	2,083,725	RB5MF	1,882,010
SU1ER	4,157,233	KS1L	1,958,956	DJ2YA	1,636,992
WR6R/KH6	4,086,436	K1YR	1,951,481	UC2OR	1,522,163

28 MHz		28 MHz		28 MHz	
ZY5EG	1,777,508	K6SVL	176,176	CQ7NH	352,352
LU1E	1,486,650	KE5FI	158,256	UA6LQ	249,630
CX4HS	1,326,894	N4EJV	149,388	YU3C	141,638
CE6EZ	1,224,492	WB7FDQ	117,792	EA4EAP	133,380
CW2A	876,990	WA7KLL	76,518	4N1A	116,875
EA8VV	648,094	WA6VNR	72,956	YU7GW	97,092

21 MHz		21 MHz		21 MHz	
PY5EG	2,468,529	K3RV/4	663,993	4N4A	942,039
CW4C	2,266,308	W5VX	573,207	YT3L	846,360
HC1OT	1,813,395	K4XS	425,941	YT7NW	707,085
LU2E	1,576,995	W6PU	399,750	OF5BM	675,032
P40T	1,317,081	KA5W	381,350	4N4Y	552,902
LU4L	1,237,956	K0RF	335,575	GB5NN	436,900

14 MHz		14 MHz		14 MHz	
P40SS	1,792,056	K2VV	812,392	LZ1KBG	1,388,628
ZZ5EG	1,647,820	N2AA	707,616	IO1ZEU	1,224,818
YW1A	1,540,170	K1UO	657,900	YT3AA	1,073,340
RF0FWW	1,447,128	W7WA	649,250	ISMXX	914,104
LZ1KGB	1,388,628	K1RU	607,749	4N7N	882,882
IO1ZEU	1,224,818	KW8N	563,313	DJ4PT	719,831

7 MHz		7 MHz		7 MHz	
EA8RCT	859,362	KV0Q	102,891	IO3MAU	430,332
FJ5BL	654,258	N6BFM/4	64,546	OF2HE	228,404
EA8ACH	583,476	K8XR/2	63,220	RU1DZ	227,432
IO3MAU	430,332	KP4AKB/8	45,144	RB5MR	212,736
VE3CDX	365,700	N4FIG	44,700	SM5AQD	210,140
JA8IXM	311,360	K8PO/1	39,330	SP3RBR	193,210

3.8 MHz		3.8 MHz		3.8 MHz	
P40R	552,786	WB8JBM	105,138	UA2FGA	196,992
8R1RPN	231,822	W6RJ	100,820	HA4KYN	177,154
UA2FGA	196,992	WA4SVO	77,559	CU2AK	144,894
HA4KYN	177,154	KC7EM	50,172	RB5FF	138,112
NP4AT	148,960	W4PZV	26,660	OK2RZ	126,584
CU2AK	144,894	W2HZ	22,230	I4EWH	122,232

1.8 MHz		1.8 MHz		1.8 MHz	
UG7GWO	255,852	WB9HAD	27,181	LZ2CJ	94,247
LZ2CJ	94,247	W0ZV	12,204	SV8CS	39,294
WB8DIT/VP2M	40,392	W4DR	10,605	LZ1KOZ	34,038
SV8CS	39,294	W2FCR	10,004	OK3CWO	25,665
KH6CC	37,138	K7IDX	7,080	CT1AOZ	22,680
LZ1KOZ	34,038	N1ACH	5,245	SP8INQ	18,468

Multi-Operator Single Transmitter		Multi-Operator Single Transmitter		Multi-Operator Single Transmitter	
KP2A	10,693,238	K1AR	4,531,168	LZ9A	7,858,944
8P9HR	9,993,160	K3TUP	4,513,041	I4EAT	6,865,768
AZ4F	9,807,275	N2RM	4,344,639	OK7MM	6,390,300
KP4BZ	9,621,259	N4WW	4,288,284	OK5R	6,173,352
LZ9A	7,858,954	N4ZC	3,705,794	IK4CFV	5,925,744
ZC4DX	7,098,784	N4RJ	3,503,291	HG6N	5,836,276

Multi-Operator Multi-Transmitter		Multi-Operator Multi-Transmitter		Multi-Operator Multi-Transmitter	
PJ1B	35,815,586	W3LPL	9,529,968	UP7A	10,717,356
P40V	34,073,237	N5AU	7,871,630	HB0/DL8OH	7,599,620
HC8DX	33,663,000	NR5M	7,253,136	YZ1U	4,788,156
VP9AD	23,236,827	N6ND	5,155,920	HB0/DF1JC	3,078,350
KH6XX	13,305,408	K2TR	3,828,510	LX50RL	2,326,912
UP7A	10,717,356	K4VX/0	3,536,345	ON6NL	2,001,230

days . . . YC1JZS. No amp, typhoon, big mess . . . XX9T (Opr. 4X6TT). A lot of fun putting a very rare zone and country on the air . . . SU1ER (Opr. N6TJ). My digital voice machine thanks its fellow machines worldwide for the nice QSOs . . . EA8RCT (Opr. OH2MM). Spent 15 minutes using my dummy load—worked VE1CYL 2 blocks away . . . VE1CBF/QRP. Duplicated my last year's score, and already getting ready for 1988 . . . TI2MEN. Great propagation and fine sportsmanship on this band . . . TI2LTA. My first pileup from the other end . . . K8UE/VP2M. Went outside to stretch my legs at 3 AM and bumped into a cow . . . WB8DIT/VP2M. Getting 5V7WD, 9Q5NW, and 5T5BC on 20 M—all new DX within an hour . . . KP4CZ. Nine hours before the end, Mr. Murphy came to visit . . . KP4EQF. Great host and local hams, but equipment problems and a few mistakes—wait till next year . . . P40A. First night was tough going—big pileups and poor propagation to Europe; the second night was fun, but where were the Africans and VKs on 75? . . . P40R. Conditions really helped me, and my physical condition allowed me to be awake for 44 hours . . . PY5EG.

Good conditions on 20 M—band conditions seem to be improving . . . CE3NR. Definitely the best contest of all . . . HK1LDG. Worked BY4SZ, OX3LX, P29KRE, Y11BGD, ZC4DX, and 88 more countries on 10 M . . . HK3MAE. This time my score went up 610%; who knows what next year will bring . . . HK7IMB. One year is too much time to wait for the next contest . . . HK1KXA. I could have done better if I had some other antennas . . . 8R1RPN. Hearing Chitra from the Andaman Islands call me by name, I couldn't believe it . . . CX4HS. Very hard to work barefoot with a vertical . . . PT2TD. Got off to a bad start by sleeping through the first 4 hours of the contest . . . SV0FE. Power supply QRT, a big bang in the night . . . I5OVS. Our second big contest and will do it more times again . . . EA3MM. This year we used your contest to train SWLs and newcomers . . . FF6KAW. Worked HC8DX on 5 bands, VU4GDG on 10 M, and K5ZD/3 on 6 bands . . . F6EXV. Fantastic contest . . . LZ2KSQ.

USA QRM

Breaking pileup for HS0A on 20 M . . . NK1F. We operated multi-multi with 9 operators—6 of them had never operated a contest before and they loved it . . . KT9M. Every year you learn something brand new in the contest . . . NR5M. My no-doq quit working, had to sleep . . . AA4NC. New tower, new antennas, new rig—new Murphy . . . WB4MAI. Heard N5AU so much I think I may have used his call a couple of times . . . N5IMO. 34 hours with a popgun station in a big gun game . . . N5KDA. Had not worked China yet and had 3 BYs call me in the contest . . . W5VX. Worked BY1QH with QRP over a local running 1.5 KW who called at the same time . . . W0KEA. I kept yelling "QRP", "QRP" . . . N3RS. A lot easier to obtain a winning score from Tel Aviv than from Los Angeles . . . WB6JHC (Opr. 4X11F). First 15 minutes, 40 QSOs; downhill from there . . . N2AA. Stayed up the first night—was a zombie the second morning . . . K1VR. Shame on those who can't control their foul language . . . W1IH. I knew it was time to go to bed when I reached into my coffee instead of the raisins . . . KM1P. First contest—wish I had more time . . . WD2AHD. What luck! First contact in the contest was China . . . KA2CHX. Think you should pick a log or two at random, and the winners can have their spouses go on a trip for the CQ WW weekend . . . KT2D. JA/YB long path on 10 M was a real surprise . . . W2GD. Finding a big pileup on a JA with a JW ½ kHz down calling CQ with no takers . . . KE2CG. After meeting Jim Smith at Dayton, nice to finally work him . . . N2BSA. XYL says I gotta get grass up before the towers



One of the three big 30 M plus multi-multi efforts this year was P40V, ably manned by, left to right, Tree, N6TR; Bruce, N6TU; Rusty, W6OAT; Carl, A16V; Tim, NU6S; Rich, N6KT; and Kip, W6SZN.

... KN2Q. Getting called by SU1ER on 15 ... KQ3F. Rotor stuck SSE entire contest ... WB3CIW. New cycle—glad you're back ... K1RX. Murphy spent the contest at our house ... KQ1F. Worked BY, HS, and JT as the first 3 QSOs ... NJ1F. First time ever in an SSB contest—now I know why I like CW ... WB1CNM. Biggest thrill was finishing the logs ... W2RQ. This op is 71 years old and nearly deaf, but I still loved it ... W4GTS. My junior op, KB6RFX, age 10, caught on fast to the standard "the YL go ahead" ... W6TMD. Fun working several Western Washington Club members on DXpeditions ... N7TT. My first time using computer logging ... K7NO.

Count on the WW test to help us work new ones ... NW7U. Fourteen years old and looking forward to many more WW contests ... NY8L. Had to change bad coax in the rain; still had a great time ... N8EXS. Everything broke ... WA8YTM. Nothing broke ... K8KUH. 15 M signal made my burglar alarm go off, and when the police came, their mobile radios wouldn't work due to my overload ... W9NSZ. Wow. VU4GDG on 160 M! ... WB9HAD. We need better sportmanship in the DX windows ... NS0B.

STATION OPERATORS

Multi-Operator Single Transmitter

AZ4F: LU2FA0, LU9FFU, LU6FEC, LU3FA0, LU9FFA, LU2FYA, LU2FFD, LU1F0W, LU5FGG, LU1FT, LU1FJH, LU6FN, LU4FFD. **BY4SZ:** Jiang, Kang, Zhai. **BY5QA:** Xu Hua-Fuan, Dan Y-Qun, Wen He-Fui. **BY5RA:** Lin Shao-Wen, Dai Jia-Qi, Lu Man-si, He Wei-Hua. **C3BW:** OH2BSS, IH3TY, OH6MR, OH6GY, OH7KR, OH90M, OH7NA, OH7RH, C3ILK. **CE2AA:** CE2FME, CE2LCP, CE2MH, CE2MU, CE2MUZ, CE2NHU. **CE4TA:** CE4B0Q, CE4C0T, CE4EBJ, CE4EM, CE4ETZ, CE4EUV, CE4EVR, CE4FXV, CE4J0, CE4JZS, CE4MLN, CE4MVK. **CE6OS:** CE6JOS, CE6MBO, CE6NOT, CE7GEY, X06CFX. **CQ9MI:** CT3BD, CT3BM, CT3CR, CT3CU, CT3DL, CT3DZ. **DF4RD & DK6NP:** DL2NBU, DL3NCI, DL4NAC. **DF8EB:** DF5RA, DL1RAK, DL9RDS. **DF8SO:** DL2NAP, DL4NAQ. **DJ10J & DF7MV:** DL7MAT, DL7MAE. **DK6WL & DL4MCI:** DL1MAJ & DL6MAO. **DL2DBH & DL1YDD:** DL3MAA & DL5MAE. **DL8MB:** DL8MBS, DL8MWB, DL8RAW, DL3RFF. **DL8ER:** DK7FP, DL8EA, DL9EDB, DL1EAD, DF2EY. **DL8JK:** DK1DU, DK2X, DK6FT, DK8ZL, DL3ZBA, DL8ZBR, DF22D, DG3FK. **DL8UM:** DK7ZJ, DL5ZBA, DG1ZB. **DL8WH:** DK2GA, DF2IC, DF6IH, DF7IT. **DX1A:** DU1AHS, DU1AU, DU1LB, DU1RU, DU1SW, DU1TDY, DU1UY. **DX1CW:** DU1CJC, DU1CQO, DU1CWT, DU1DLC, DU1DXY, DU1EAO, DU1KWT, DU1GPE, DU1MDS, 4F1AED, 4F1ARC, 4F1ANX, 4F1BYN, 4F1DMO, 4F1FF, 4F1FZ. **DX9HT:** DU6AF/9, DU9AA, DU9CV, DU9TV. **EA3APS & EA3BI:** EA3BLB, EA3COW, EA3CCI, EA3DJK, EA3DMN, EA3G. **EA3MM:** EA3FJM, EA3CAC, EA3DIF. **EA3QD:** EA3BCW, EA3BO, EA3CVA, FA3DGA, EA3EIO. **ED6BCT:** EA6ET, EA6GP, EA6NP, EA6OF, EA6SX, ED30U. **EA6V, EA6W, EA6X, EA6Z:** ED7RKC: EA7ESA, EA7GFA, EA7DZL. **F6EXV & F6BK:** FT8XB. **FD1LGE & F6IWW:** F6AWN. **F6GDRP & Liorel:** F6BKAW: F6BPP, F6GWN, F6GDK, F6GVV, F6HMO, F6GFR, FD1MAY, FC1JVV, FC1JWJ, Plus 10 SWLS. **G3NAS & G3NLY:** G3UOA: G0AAF, G4WMH, G4IWA, G4JVG, G1MLK, G1XJK, G4JYE, G6HFX, G6VWA. **G4FKG & G0BI:** Miss White. **G4XOM & G4YBT:** G4MWA & G4BGH. **GW8GT:** GW3KYA, GW3NWS, GW4IGR, GW4LXO, GW4TTU, GW4JBO, GW5NF, GW0BIC, GW0BRG, GW0EID, G3OAY, G4VXF. **H1KRR:** HA1DRR, HA1ZN, HA1XO, HA1XU, HA1ZZ, HA1ZY. **HA6KD:** HASMY, HA5BBC, HASAIY, HA5TS, HASNP, HA5CP. **HASKKC:** HA5LU, HA5MA, HA5MD, HA5MO, HA5OG, HA5WU. **HA6KNJ:** Jozsef, Gyula, Zsolt, Nandor. **HA6KQD:** HA6QD, HA6XE, HA6VV. **HA6KLE:** HA6LC, HA6NNN, HA6OB, HA6MK, HA6VI, HA6LO. **HA6SA:** HB9UH, HB9AWF, HB9BVS, HB9VWN, HB9CBT, HB9CJJ, HB9COB, HB9COC, HB9COF, HB9CTU, HB9CYK, HB9CFZ, HB9DJ, HB9RYB. **HB9BLG & HB9AJ:** HB9ALM, HB9CIP, HB9CXZ, HB9SFD, HB9STL, HE9FFX. **HB9FR:** HB9ADD, HB9B0U, HB9CJG. **HB9GT:** HB9CMX, HB9C0H, HB9CWP. **HG1S:** HA1TJ, HA1DAC, HA1SV, HA1TD, HA1SK, HA1DAE, Finta, Tobor. **HG5A:** HA5GF, HA5AWH, HA5UA, HA5WE, HA5LN, HA5OM, HA5FM, HA5ML, HA5MK, HA5AVW, HA7RY. **HG6N:** HA6ND, HA6ON, HA6OG, HA6G, HA6YV, NY HA6NG, HA6NF. **HG6V:** Jozsef, Zoltan, Gyula, Laszlo, Beredik, Peter. **HG7B:** HA5WA, HA7UG, HA8FM, HA5DW, HA7JAO, HA8DU. **HG8Q:** HA8IE, HA8LKE, HA8JV, HA8-806, Pantya, Attila. **HG9R:** HA9OA, HA9RP, HA9RX, HA9PP, HA9RU, HA9RG. **HH2MC & K4XR:** HK4R: HK4DUM, HK4FZ, HK4HHG. **HL9OB & HL9CU:** HL9MM, HL9RAT. **HS8A:** DF2RG, DJ3UI, HS1AM4, HS1AM0, HS1AOR, HS1BG, HS6AMO. **IE4AT & I4ND:** I4RYC, I4IKW, I4VEO, I4TJE. **IS0VS & IS1JHW:** I5ECW, I5NSR. **IC2WZ & I8LS:** IK8DCI, IK4CFV & I4JMY, I4OUT, I4WZT, I4YSS, I4ZNU, IK4HLV, I4UFH, I4UCS, IK4HLG. **IU2HM:** I2MQP, 2VXJ, I2EOW, I2EGL. **KN5X/J3:** KN5X, NT5C, WB5N. **JA1YFG:** JI20GT, JI3BKF, JI1BLW, JI1RJR, JI1LW, JI10GL, JI1BRW, Hosokawa, Nishimura, Yamamoto. **JA2YDC:** JE2EZO, JF2AIB, JF2KZO, JF2TGS, JG2XYV, JI2KAN, JK2ALA, JH9PVB, Hisa, Miho, Shin, Taka. **JA3YDS:** JG1LNY, JI3GAB, JJ3JBM, JR4WEI, JE4CWT, JE4JFX, JR6DQH, JI30PT. **JA3YKC:** JF3XV, JG3CPF, JG3PLV, JI3SERV, JO3LSH, JE4STH, JF4IXU, JR4PMX, JR5ARO, JR5WLA, JG6LPM, JG6VTM, H. Ninomiva. **JA6YCU:** JG6UWK, JESUWU, JG6BRL, JF6MND, JIGDUE, JIBEDY, Gohbaru, Inoue. **JA7YAA:** JN1VYN, JP1EIR, JG3JRM, JI3CNL, JE4KZ, JE7FLZ, JH7HW, JE7QC, JH0ORW. **JA7YAF:** JF7KEG, JG7JFZ, JG7XDB, Takashiishi, Shinichi Sasaki, Hideo Yoshida. **JA9YAA:** JG1UZD, JN1EDR, JI1MRL, JG2KKG, JI2SVY, JI2VJ, JI30CB, JH9TOW, JH0XVT. **JA9YB:** JS1PTU, JE7GWO, JA9VX, JH0PPM, JH0VU, JH0NVX, JH0OPX, JH0GJ, JH0SDA, JH0JSD, JH0YVG, JH0XUP, JR0DVM, K. Chinda, A. Nitta. **JE2YRD:** JA2EZO, JI2KW, JR2SCJ, JR2SQU, JE3MXO, JE3LZG. **JE3ZFS:** JG3VBB, JI3CSH, JI3GJ, JK3ZH, Ted Kurosaki. **JE6ZIH:** JP1LRT, JH5GLL, JR5CPX, JE60FE, JF6DEA, JF6TMM, JG6CVO, JG6GNR, JG6CFE, JH6QJ, JR6GKT, JR6NXJ. **JH1YDT:** JH4UTP, JKI1PV, JH6UNN, JH9EFT, JN11BF. **JH3YDH:** JA3BCT, JN3ACR. **JT1KAI:** Sh. Chulun-Bat, J. Suhe. **K1AR & AK1A:** K1G0, K1JX. **AA2Z:** K1RX & KA110N, KC8PE. **K1TD & K8HV1:** NJ1V, NJ2L. **K2TD & WB2YOF:** K3NZ & KJ3X. **K30D & K3ZUF:** K3TUP & K3LR, KJ3L, N3BJ, K8MR, KB8I. **K5NA & K2RIH:** KD2NE, KU2D, KY2J, NA2N, W2XL, WB2D. **K5RVK & GW0FCS:** N5AOT, N5EA, W5ASP, WA9VLI. **K6ZM & AK6T:** CE3AQI, K4UVT, K6EZ, NB6L, WB2MZQ. **K8CC & WB3KXK:** NB6E, W8UA, W8WD, W8BRHO. **K9MK/S & K9LA:** WB9TYI. **K0GAS & KJ06:** K8HPY & KA0EMM, KA0EK, KA0QB, N0FCD, N0DNG, W00DIH. **KATGG & K1KJT:** N1ZE, W1KM. **K8BG & AB0X:** AK0A, KM5L, K0VBV, K0XVU, K8U0, KM0L, NW0F, NX0I. **K8BK & KA80I:** KC3NG & KZ3N, N3EHD, N3FPD. **KC5BX & K6SEY:** NN5E. **KCTV & W2UE:** K7WK, KY7F, K77M, W9RY. **K09ST & KA9SQ:** KA9SQS, KA9SOT. **KE6WL & K06NT:** AC0P. **KFBH & KZ0C:** KG1F & K1XM. **KG6LF & KB6TYL:** N6PKZ, N6PMY. **KH2F/KHA:** KH2F, NY6M, W10DD. **KP2A & KW8N:** N6DX, N6PO, N7RT, NE8Z, WZ6Z. **KP4BZ & NP4CC:** NP4Z, WP4K. **KR0B & AF9T:** KA0YFN, KB0LC, KD0BK, KJ0B, N0BK, N0BK, N0BK. **KX6DC:** NZ6B, WB8SBH. **KY1H & K1RE:** KB1W, KR1R, WA1ZAM, NT2X. **L2D:** LUS0E, LU7DXT. **LA40:** LA9HW, LA6EV. **LU1DNQ:** LW1DLF, LU4EG., LU6DV, LUEEJ, LU7EXD. **LU1VZ:** LU1VBC, LU1VFS, LU1VK, LU1YK, LU1VJR, LU1VJ, LU1VPI, LU3DXL, LU7VCA, LU9VA, LU9VV. **LU2F:** LU1FKR, LU2FDR, LU5FH, LU9FA, LU9FG. **LU7DID:** LU3EGT, LU5DRY, LUSDJ, LU7DDC, LU8EGO, LU8EVE, LU9DXM, LU9EUS, LU9EXV, Landoni Sergio. **LZ1KAP:** Glushkov, Mullaov. **LZ1KBG:** LZ1HX, LZ10V, LZ1TV. **LZ1KBL:** Spasov, Kirilou. **LZ1KRR:** LZ1-M334, LZ1-M320, LZ1-KVF, LZ1-C75, LZ1-C94, LZ1-C187. **LZ1KVZ:** LZ1-F1941, LZ1-F2081, LZ1-F1951. **LZ1KWT:** LZ1-MC, LZ1-I256. **LZ2KPD:** LZ2C, LZ2CT, LZ2FC, LZ2SC, LZ2VP, LZ2-0106, LZ2-064. **LZ2KSQ:** Zlatko Kochev, Ogi Huenov. **LZ9A:** YU5AD, YU5RU. **LZ1YE:** LZ1D8, LZ1RB, LZ2HE, LZ2PC, LZ2DF, LZ2CC. **N2M0 & KD2RD:** NQ2D. **N2RM & KB2BF:** N2ME, WA2HGM, K3KNU. **N3ARK & K3IF:** KB3MM. **N3RW & W3YFV:** N3UN & N2FB. **N4H0H & N40CZ:** N4UO. **N4KG & KC4ZV:** N4RJ & K4SB, K4TEA, KL7JAR, KM9P, N4D0V, N4NX, N4QJW, WA4FBH, W8ZF. **N4WW & KW4T:** NX4N, K0LUZ. **N4ZC & KZSD:** AA4S, K4MGQ, KD4RH, N4GVF, WA4UNZ, WD4BT, N5RZ, N5TR. **N7RD & KC7G:** W7EKM, WA7ZGW, WB7GLU. **N8CXX & K8.M:** KN8R, N8BTU, NE8T, NIBI. **N89C & K09L:** N9CPW, NF9S, NS9L, WB9NOV. **NE3F & KS3F:** NJ1F

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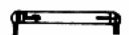


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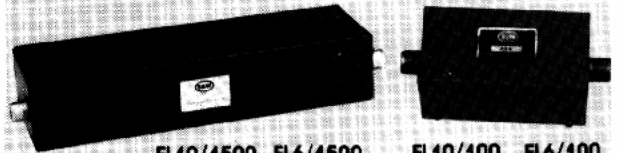
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NK7U & KE7DO, N7GPO, N7T7. **N07F** & KF7DO. **0E3GEA/3**: 0E3GEA, 0E5VBL. **0F5N0**: 0H5KS, 0H5N0, 0H5BA, 0H4MI & 0H4JK. 0H4ZS. **0H7AB**: 0H7UE, 0H7RS, 0H7MA, 0H7X1, 0H7YR, 0H7YF, 0H7KA, 0H7PF, 0H7XM. **0H7AI**: 0H7ER, 0H7HK, 0H7UW. **0H2BEJ/OH8**: 0H2BEJ, 0H2BFV. **0K10RA**: 0K1-21652, 0K1DHP, 0K1DHT, 0K1AYD. **0K2RAB**: 0K2PEM, 0K2PKP, 0K2HBY. **0K5R**: 0K1ADM, 0K1ADS, 0K1ALW, 0K1AWZ, 0K1RI. **0K7MM**: 0K3CDB, 0K3CEI, 0K3CJM, 0K3CNC, 0K3CSC, 0K3CUM, 0K3CVM, 0K3CZW, 0K3JW, 0K3TMM, 0L8CTA, 0L8CTW, 0L8CLV, 0K3-27537, 0K3-27427, Jan Kudla. **0Z1KWC** & **0Z1BQA**. **0Z3FYN**: 0Z11ZL, 0Z11ZB, 0Z11LC, 0Z11QM. **PA8KS** & **PA8ERA**, **PA8NZH**, **PA3AWN**, **PA3DOW**, **PA3ENJ**, **PB8AH0**, **PE1LBX**, **SP4FC6**. **PIATTC**: **PA2JKM**, **PA3DOX**, **PA3DJC**, **PA3DZP**, **PA3ENJ**, **PE1LTC**, **PE1LTC**, **PD00CP**, **PD00XM**. **PJ8J**: K4PI, K4NR, K4XR, K4YR. **RI9PZ**: R1-7PE0, U1-7PBH, U1-7PCU, U1-7PEA, U1-7PHB, U1-7PZ. **RW4LYL**: UA4LEI, UA4LU, JAAYDZ. **RZ4HWW**: RA4HF0, UA4HBR, UA4HEM. **RZ6AWH**: Club. **SM5AZU** & **SM0MC**, **SM0BGM**, **SM0ATN**. **SP2PM0**: SP2JKC, SP2JSX, Jacek. **SP3PLD**: SP3HBF, SP3DUG, SP3SBB, SP3IBM. **SP5PBE**: SP5ANJ, SP5ELA, SP5FKW, SP5JTF, SP5JTM. **SP5JTM**: Club. **SP6PAX**: SP-050JG, SP-0187JG. **W06XZ**: SP6FJG, SP6JZG. **SP7KWW**: Club. **SP8KBM**: SP8GWI, SP8L8K, SP8ARY, SP8GOU. **SP9KJT**: SP9OUB, SP9MQA. **SP9PDJ/9**: SP9YP, SP9LLH. **SV0FE** & **K0TLM**. **K5UC**: PA3CEF, PA3DWD, TK5EP. **UB3IWA**: RB5II, UB5EJF, UB5MLI, UB5QIC. **UB4CWW**: RB5CB, RB5CW, UB5DCN, UB5-0807, UT5-1862. **UB4EWG**: Club. **UB4EYJ**: UB5EFW, UB5EPU, UB5EQX, UB5EJZ. Club. **UB4IZA**: Club. **UB4LZA**: Club. **UB4LZG**: UB5L5L, UB5LTO. **UB4MWA**: UB5MDA, UB5MDD. **UB4MWU**: UB5MBM, UB5-059139, UB5-059254. **UB4MXX**: Club. **UB4OXU**: Audrey, Oleg, Toly. **UB4SSN**: UB5SBB, UB5SFF, UB5-074296. **UB4TWL**: Club. **UB4XWZ**: Club. **UB4WBY**, UB5-063453. **UB5XBN**: UB5-06256, UB5-062240. **UC1ACW**: Club. **UC1AWU**: Club. **UC1WVF**: Alex, Vic, Vlad. **UC1WUW**: UC2W0, UC2-00641, UC2-006138. **UF7FWF**: UFGAW, UFGFFH, UFGFII, UFGWOW. **UF6QAL**, **UF6QAW**, **UF6QR**. **UG7GWS**: UG6-004242, UG6-004259. **UH9AWE**: RH8AD, UH8B8H, UH8-819132. **UI8AWH**: UI8AA, UI8AC, UI8AGH. **UI8JWA**: UI8JCM, UI8JW, UI8BWW. **UL7BAV**, **UL7BBO**, **UL7BWW**, **UL7BY**, **UL7-016389**. **UL8CWW**: Club. **UL8DZZ**: UL7DA, UL7DAR, UL7DBW, UL7DCW. **UL8LWA**: UL7-026587, UL7-026653, UL7-026663. **UL8LWZ**: UL7LAA, UL7LDS, UL7-026177. **UL8LYA**: UL7LE6, UL7LEA, UL7LEF, UL7LEZ, UL7LQ. **UM5MWA**: UM8MAA, UM8MDD, UM8MRG. **U0450WN**: U050B, U050BT, U050CP. **UP1BWW**: UP2BJJ, UP2BKW, UP2BLA, UP2BMW, UP2PK, UP2-038892, UP2-0381052. **UP1BXR**: Club. **UP1BYC**: UP2CYC, UP2-038254, UP2-0382505. **UP1BYK**: UP2BAH, UP2BDB, UP2BFY, UP2BJV, UP2-0381682. **UP1BZG**: UP2QA, UP2BC0, UP2BCW, UP2BCT, UP2BRJ, UP2-038439. **UP1BZL**: UP2BBL, UP2BGG, UP2BJF, UP2BNW. **UP1BZO**: UC2IAP, UP2BFW, UP2BGM, UP2BNC, UP2BQN, UP2-038346, UP2-038728, UP2-0381751. **UP1BZO**: UP2BMQ, UP2-0381682. **U01GXJ**: Club. **UQ1GZW**: UQ2GID, UQ2GKL, UQ2GM, UQ2GN, Ingus. **UR1RWO**: Club. **UR1RWX**: UR2FJ, UR2RDJ, UR2RHF, UR2RJ, UR2RNA, UR2FJN, UR2RNX, UR2RRR. **UR2-083165**, **UR2-0831005**. **UR1RYA**: Club. **UR1RYJ**: UR2RPZ, UR2-0831700, UR2-0831771. **UZ1CXF**: Club. **UZ1OWZ**: Club. **UZ2FWZ**: Serge, Vital. **UZ3DKH**: Club. **UZ3DKW**: UA3-1421755, UA3-1421925. **UZ4AWB**: RA4AK, UA4-156986. **UZ4FZP**: RA4PJP, RA4PMX, UA4PMI, UA4PNX. **UZ4WVB**: Club. **UZ6HXK**: UA6-1081838, UA6-1081857, UA6-1081867. **UZ6LWZ**: UA6LV, UA6LVQ, UA6-1501336, UA6-1501403. **UZ6XWC**: Club. **UZ9CYP**: UA9CJA, UA9-1542105. **UZ9CZZ**: Club. **UZ9DWO**: UA9-103554/UA90, UA9-145168, UA9-145338. **UZ9DWW**: UA900, UA9-145500. **UZ9DXI**: UA90F, UA90FB, UA90LW, UA9-145206, UA9-145207. **UZ9DWW**: UA90A0, UA90C0, UA9-134222. **UZ9SWR**: Artur, Sergej, Vad. **UZ9XMK**: JA9XF, UA9XL, UA9-00472, UA9-098790. **UZ9YX0**: ACYII, UA9YI4, UA9YJP, UA9-098940. **UZ9AXX**: UA0AGI, UA0AMA, UA0-103729, UA0-103712. **UZ9CWA**: RA0CBS, RA0CA, RA0CBF, RA0CBI, RA0CCD, RA0CCG, UA0CA, UA0CN. **UZ9JWA**: UA0JJ, UA0JA, UA0JB. **UZ9QWT**: Club. **VE1DH** & **K2NJ**, **KU2C**, **KY20**, **NR2H**, **VE1ASJ**, **VE1ZJ**. **VE1DX**: VE1AQN, VE1ATY, VE1BIG, VE1BIH, VE1BII, VE1BZO, VE1BZX, VE1CIT, VE1DX, VE1GB, VE1UA, VE1VBL. **VE3SPC**: VE3CLL, VE3DAX, VE3ERT, VE3EJP, VE3KZE, VE3MKK, VE3NBE, VE3OGE, VE3PLR, VE3PUB, VE3SBK, VE3SLL, VE3VEE, F. Kern. **VE3UOT**: VE1BHA, VE3HTT, VE3SMA. **VE4SI** & **VE4ATC**, **VE4ATN**. **VE5GF** & **VE5ELJ**, **VE5GHC**, **VE5HG**, **VE5RC**. **VK2HSP**: VK2CXK, VK2FGV. **DF9ZP/VP9**: DF9ZP, DK8ZB. **W1AQ** & **K1AGA**, **K1AMC**, **KM1X**, **WA1VEF**, **WA1VPC**. **W2R0** & **KR2J**, **N2NT**. **W2RH** & **KAZVYV**, **KAZWIK**, **NV2A**, **W2KWK**, **W2A0G**, **W2B2AD**, **W2B2CL**, **W2BY0W**. **W2UJ** & **N3KR**. **W3HHG/4** & **AA4GM**, **WR4S**. **W3KWH** & **K430Y1**, **KT3L**, **N3OP**, **NG3H**. **W3G6** & **K3YGU**, **N3COB**. **W3XU** & **KC3R9**. **W4MGX** & **KB4WGV**. **W4PR0** & **AA4NG**, **KB4VIR**, **WA4YTL**, **WB4IJA**, **WB4HDD**. **W5EHM** & **CE3LAR**, **KB1CM**, **KA5WSS**, **KA5ZJR**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **KA5ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, 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**W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. 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**N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB** & **N54NG**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**, **K5LZ0**, **K5WA**, **N5GH**, **N5JF**. **W65ZUB**, **N5LAR**, **WR5J**, **WW5X**, **KD6AR**. **WDBEP**. **W5WU** & **K5GA**,

Table with multiple columns listing various items and their corresponding numerical values. Includes sections for different regions like Alaska, Anguilla, British Virgin Islands, Canada, Cayman Islands, and Costa Rica.

Table with columns for country codes and values. Includes entries for HL2INX, HL1AYK, HL1LW, HL9HP, Macau, Mongolia, Pakistan, Singapore, and APZZA.

EUROPE section containing sub-sections for Aland Islands, Austria, Azores Islands, Belgium, and Bulgaria. Lists country codes and corresponding values.

Table for England and Federal Republic of Germany, listing country codes and values.

Table for France, listing country codes and values.

Table for Gibraltar, Greece, and Hungary, listing country codes and values.

UNION OF SOVIET SOCIALIST REPUBLICS section containing sub-sections for Armenia, Asiatic Russia, and Azerbaijan. Lists country codes and values.

Table for Czechoslovakia, listing country codes and values.

Table for Denmark, listing country codes and values.

Table for German Democratic Republic, listing country codes and values.

Table for Iceland, Ireland, and Italy, listing country codes and values.

Table for Georgia, Kazakhstan, Kirghiz, and Tadzik, listing country codes and values.

Table for Finland, listing country codes and values.

Table for Iceland, Ireland, and Italy (continued), listing country codes and values.

Table for Iceland, Ireland, and Italy (continued), listing country codes and values.

Table for Iceland, Ireland, and Italy (continued), listing country codes and values.

Table for Uzbek, listing country codes and values.

Table for Uzbek (continued), listing country codes and values.

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