

1983 CQ WORLD-WIDE DX CONTEST C.W. RESULTS

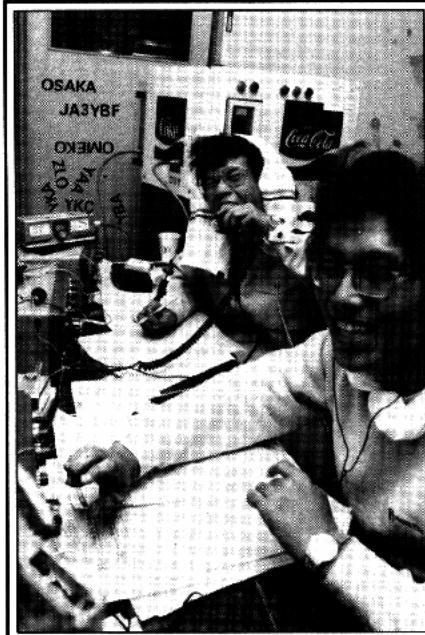
BY BOB COX*, K3EST, AND LARRY BROCKMAN**, N6AR/4

Preparation for the competition of the CQ WW DX Contest usually begins months before the starting bell. This includes putting up new antennas and repairing old ones, getting that state-of-the-art modification, and finally adjusting your strategy to fit your contest goals. Those who want to increase the thrill of the chase or the thrill of being chased plan and carry out the work of going on a DXpedition, in which trucks, boats, planes, and trains are used to transport equipment and operators to far-away QTH's.

Finally it starts. Boy, what fun competing against Hans, Yoshi, Vlad, Carlos, or Bob, and trying to do a little better than last year. Over 200 countries all on the air during the 48-hour contest allows you to pick up the rare ones you're missing and increase your operating skills.

The reasons are many for entering the contest, and the result is the same: concentrated fun. Taking into account all the human factors which govern the contest's outcome, it seems that nature always has the last say. This year propagation on 40, 80, and 160 meters was excellent, making up for decreasing openings on 10 and 15. In addition to radio phenomena, nature threw gale-force winds across Europe, the U.S., and parts of Asia. Many entrants commented that they kept going in spite of having an antenna blow down. Our hats are off to all the planning, work, and perseverance of the thousands of contest-minded amateurs throughout the world.

When the dust cleared, the all-band winner for the world was 9Y4VT operated by Richard Norton, N6AA. Richard made 4,961 QSO's to beat out NP4A operated by K3UA. Phil had the top multiplier count of any single operator in the world. Third place goes to ZS1CT operated by DK3GI. What a score from the tip of South Africa. In spite of a drastic reduction in 10 and 15 meter band openings, 9Y4VT still broke the existing single operator all-band



JA3YBF ops JG3IUG (front) and JA9TOZ shown at the operating position.

record. The top U.S. score was turned in by W1KM out on Cape Cod in Massachusetts. He had more contacts and country multipliers than any other U.S. entrant. Second place went to perennial high-scorer K1AR, and third place was N2LT.

The Low Bands Set New Records

The major story on 1.8 MHz was how good it was. A careful count of over 500 logs showed that there were over 100 countries available. The activity on the top band was so furious that it sounded like 20. Repeating his record-setting pace from the phone section of the contest, UP2BBT/ U6V almost doubled the existing world record. Congratulations! Second was Wally, LZ2CJ, who set a near European 1.8 record. By doing so he worked 59 countries! PA0HIP and G3SZA, long-time beacons on 1.8, were third and fourth, respectively. A new Asian 1.8 record was set by 4X4NJ with 34,200 points. The top U.S. scorer was K1ZM, followed very closely by AA1K/3.

YU3T contest team (from left to right): Peter, YU3HZZ (sitting); Slavka, YU3TUX; YL Lily, YU2CBV; and Robert, YU3EIJ.



VP2KAC operated by N4RJ set a new world record on 80 meters. In doing so, he made 1,302 QSO's. In addition, new continental records were set by EA9EU (second high in the world), UV9AX, and 4M3AGT. In the U.S.A. W1FV took top 7 MHz honors.

An incredible job was done by N4PN operating at VP2KAA to set a new all-time 7 MHz world record. He vacuumed the band clean with 104 countries and 2,461 QSO's. New continental records for 7 MHz were set by EA9TL/9, UB5JMR, and 9Y4VU. For the U.S. W6AM operated by N6AW just edged out K1KI for top 7 MHz honors.

High-Band Scores

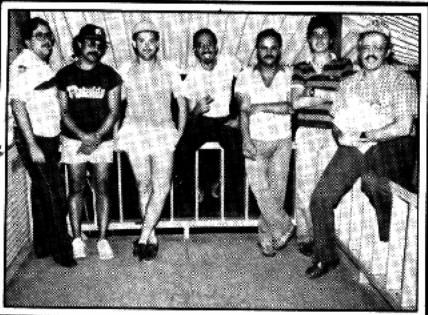
YW5R led the way over PY4OD to claim the high score for 14 MHz in the world. In the U.S.A. Bill, W0ZV, took first place. On 21 MHz YX5A finished number one just ahead of 5Z4MX (who incidentally set a new African 21 MHz record). NA5R turned in the top score on 21 MHz in the U.S., beating out N4WW. You had to be somewhat south of the equator or near it in order to finish with a high score on 28 MHz. C53T took band honors over N4TO/KP4, while top 28 MHz in the U.S. went to KZ5M.

Multi-Operator Scores

The multi-single category is always a popular class of entry. This year HH2VP

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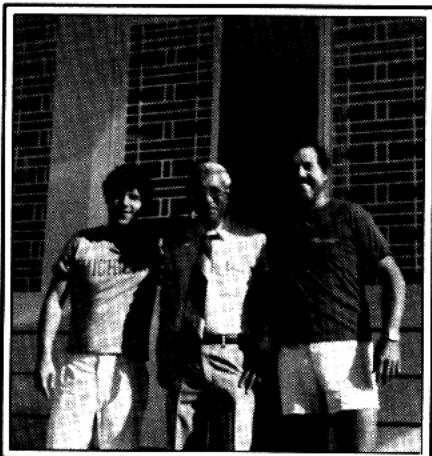
The NP4Z team (from left to right): Hector, NP4CC; Rafy, KP4HA; Luis, NP4C; Carmelo, KP4C; Felipe, NP4Z; and Tim, KP4BZ. Not shown is Carlos, WP4CRS.

topped the pile-up. They sure put Haiti on the map, making more QSO's than any other multi-single station. They were followed by an expedition to UF6V by Ukrainian amateurs who not only gave everyone RF6V, but also had more country multipliers than their competition. In the U.S. K1GQ in New Hampshire topped W2YV for the top multi-single score.

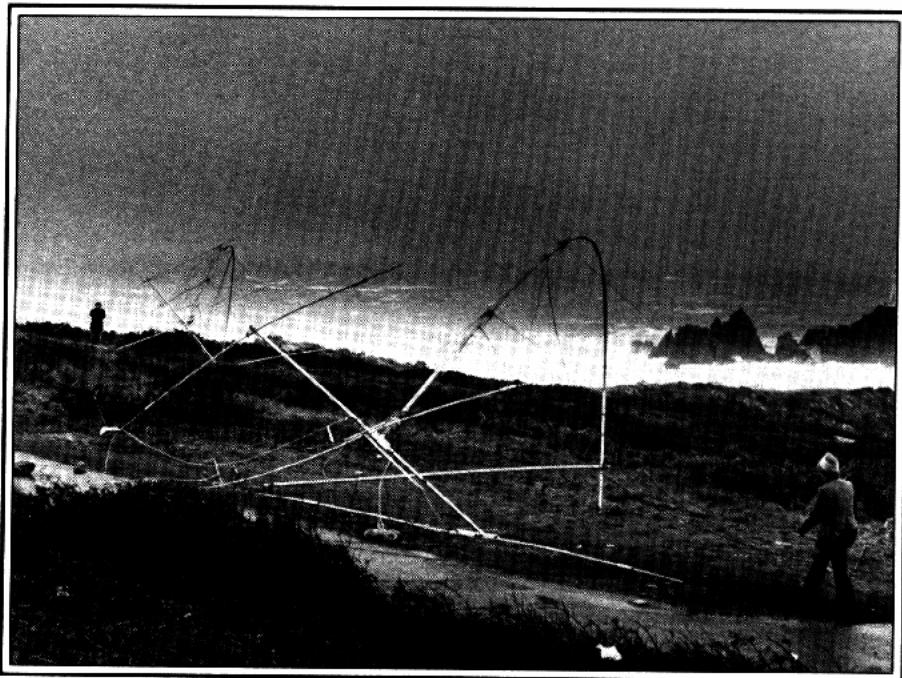
In the battle of the giants the boys from Chelybinsk, RW9A, also known as UZ9AYA, put the southeast Urals in everyone's log with a little over 8 million points. XE2SI ran a close second with more QSO's than anyone else (7,668). They just beat the top U.S. score of N2AA. AH0C way out on Saipan set a new continental record for Oceania.

Club Scores

The Northern California Contest Club led all clubs with a total of over 112 million points. If you look at their various entries, you will find that their strategy was to emphasize as many DXpeditions as possible. That not only made the club score higher, but also provided all of us with more multipliers. Congratulations to all the members! With 4O3WCY and YT3A leading the way, the YU DX Club topped the pack of DX club entrants. They were followed closely by the Ontario Contest Club and the South German DX Group.



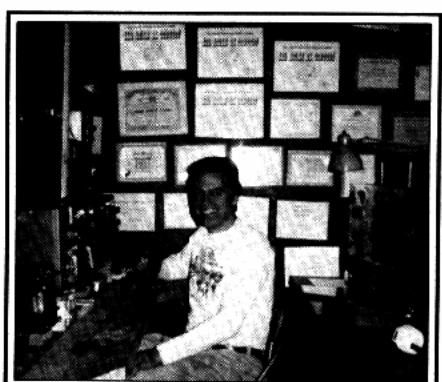
From left to right are Dean, W8ZF, operator of 4V2C; host, Dan, HH2MC; and Steve, K4JP, operator of HH2CQ.



Roger, G3SXW, surveys the damage after gales struck the cliff-top DXpedition of GJ3SXW.



Andrew, SP2UU, shown at his operating position.



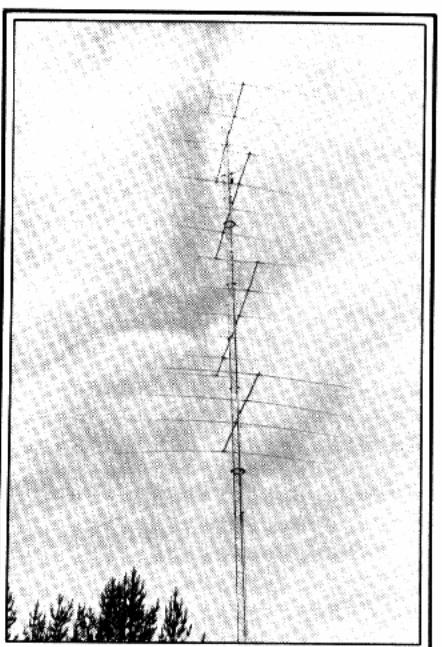
W7DRA at the bench.

Remember

Please always make sure that you look at your log after the contest so that all duplicate contacts are removed. None of us enjoys this task, but it must be done so that the proper winner is recognized. There is no reason for submitting a high-scoring log that contains duplicates or broken calls. There are even log-checking services available if you don't have the time to check your own log. If you notice, this year the rules require a stiff penalty for duplicates left in the log.

Finally, a special thanks to the members of the Contest Committee whose expertise and time make accurate reporting possible: AD6C, K1AR, K2SS, K2VV, K6NA, K9DX, KR2Q, N2AA, N3ED, N6AW, N6CW, N6ND, W1WY, and W7EJ. From all the committee, all the best of luck in the 1984 contest, and remember that all logs for the 1984 contest must be sent to CQ Magazine, 76 North Broadway, Hicksville, NY 11801 U.S.A.

73, Bob, K3EST, and Larry, N6AR/4



OF8AV's operator Jack, OH8PF, who operated single band 14 MHz.

U.S.A. QRM

After years with PVRC, it was an eye-opener to try it with only low power and a vertical from the West Coast . . . W3XYI/7. Snagging four new ones on 80 meters was great . . . KD7H. CQing by U.S.A. station buries the DX . . . W7GUR. Bad conditions, good fun anyway . . . WB7FDQ. We all underestimate the capabilities of the 160 meter band . . . KG7D. Broken rotor, broken heart . . . N8II. Poor propagation will show us the skillful operators . . . K8MNG. My first contest. Learned about my equipment capabilities in a hurry . . . N8EFB. Enjoyed working all the -- WCY stations . . . WB&JBM. Logic should tell us that extra-long calling on 160 meters serves no purpose . . . K8MFQ. My sympathy to PY3YXZ/PP2 for the longest callsign in the contest, and my kudos to him for sending it regularly! . . . W9GXR.

TVI got me Saturday night . . . KG9N. Most of us suffered down-time and antenna damage due to gigantic ice storm . . . KOLUZ. Found out I can work the same stations as the Big Guns do when I operate from home . . . KMØL. Static discharges from blizzard winds threatened my solid-state receiver, but it lived . . . WØZV. Not only one KH6 on 160, but two! . . . WB4OSN. I got my feet wet anyway. Being a minister makes putting in full-time on a weekend tough . . . KC4HN. What a difference a lack of 10 meters makes! Think sunspots! . . . W5OSJ. OH2MM/EA8 has my vote as best op in this contest . . . N5HB. Operated two single op all-band stations from same QTH . . . W6OKK and W6PBI. Chased RW9A, Zone 17, all morning only to have him answer my CQ! . . . W6DN. "DX IS" but "CONTESTS ARE" . . . W6US. Super signal on 160 from D68GA . . . K5UR.

Getting too old for single op stuff . . . K2RD. Love that early morning "gray line" on 80 meters . . . K3ND. On the air since 1936, but this was my first DX test. Enjoyed it! . . . W2HBE. First C.W. Contest. Be back next year! . . . NC2V. Blew it when my intended one hour nap turned into eight hours! . . . K1TO. Condx took a nose dive the second night . . . AA1K. El Stinko the second night . . . K1ZM. UK1PGO answered my CQ . . . K12P.

DX QRM

A storm with 80 mph winds damaged my small HF antenna, and damaged roofs of the houses next door, so I had to QRT! Hi! . . . DF4ZL. AH0C came in 20 dB over S9 all the time . . . DK8NG. Strong QRM due to high activity. Hi! . . . DJ4AX. The question was not how I would do in the test, but how my antennas would survive the heavy windstorm. All went fine! . . . F3JL. My first full-length effort. Great fun. Two pens ran out during contest . . . G4BUO. Good to hear Africa so well represented . . . G3UKS. First CQ contest I've never worked JA! Biggest surprise working ZL3GQ an hour after 15 meters band gone dead . . . G3HCT. Wish I could get some points for my dupes! . . . G4CNY. Lower bands overcrowded with endless CQ callers. People are getting too lazy to listen in . . . HB9AGA. VY poor condx due to aurora borealis. Mainly European stations heard . . . JW5NM.

Because of TVI, I couldn't work much on Sunday. A storm destroyed the reflector of my antenna . . . LX1WW. Could hear JA's on 80 and 40 meters, but they couldn't hear me . . . OZ8AE. During the second night the band was wide open to North America (80 meters), but my power supply started burning, so I had to QRT . . . SM6CPY. Greatest thrill was strong storm on Europe on contest weekend . . . DL4AAE. This was my first contest weekend . . . DL4AAE. This was my first contest I ever was active. I enjoyed it, and next year I want to move up . . . DJ0OC. Anten-

na insulators burned the first night and had to be repaired in the dark.
Hi! ... *DK5AD*.

Had to work stations thru S7 noise due to rain on ant . . . G3XWZ. Came just to 50,000 QSO's (since 1949) . . . HB9KC. Great to work a few hours in the world's best contest . . . HB9CSA. Low power + low conditions = low score, but it is still fun to be with you in this contest . . . OZ5WQ. A terrible storm broke down all antennas on Saturday evening . . . PA0LVB. Every year the Big Contest! . . . PA0TA. Next year we will use special call OK6WW . . . OK1KTA. Had to shut down Saturday night because of breakthrough with a disco! What is a cross-check log? . . . GB2WCY. The quad broke Saturday in a storm, broken 7 MHz dipole, TVI by the neighbors, DL5BAD at home, VY band condx, enough beer, our mobile antennas were stolen from our cars during the night. See you 1984! . . . DF0DG/P. Thank you very much for the very nice contest . . . HA1KRR. This DXpedition was especially made for CQ WW DX . . . GD4UFB. An ill-fated DXpedition: we lost 16 hours due to winds gusting hurricane force which flattened all antennas. Never say die. We'll do it again next year! . . . GJ3SXW. Finished antenna work Friday night! Condx were real poor this weekend and QRN 9 + 20 from snow showers for long periods. Some fun anyway, especially our QSO with ZS1CT on 80 meters through a big EU pileup! . . . LA1H. At least our score was easy to compute (9,537 points)! . . . 4U1VIC.

Very poor condx this year. Should be more JA activity. We need better antennas . . . CX7CO. Multi-single is the way to go. Had great time with top-notch group of operators/friends . . . HH2VP. First C.W. test from outside continental U.S.A. U.S.A. operators had tremendous discipline in pileups—best in world . . . A16VKH6. New ops, new station, first C.W. multi-single, lots of fun . . . NP4Z. Great contest . . . TI2BEV. First DX trip out of country. Forty meters unbelievable—wide open to all ports . . . V3A. One amp made it hard to snare those multipliers. Low JA contacts . . . VK2WU. Too many dups! Do the European stations never write multiplier checklist? . . . 5H3WCY. Where were the California kilowatts—missed Zone 3 multiplier! . . . UA3AMB. Thank you for another fine contest. Conditions were not so good on 160 meters this year . . . UA9CBO. My first try in the CQ WW operating single/single. Look forward to next CQ WW! . . . UA9ADY. This year's propagation was poorest since last sunspot minimum . . . UK2RDX. Where were all the BY's this year? . . . UK2BAS.

Sometimes (during darkness) 160 meters was even more crowded than 20 meters (beautiful band) ... PA2REH. First time; what a noise! ... PA3CNI. VY GLD to work even the west coast of the U.S.A. with my 28 MHz inverted Vee on 21 MHz ... PA0HOP. My first CQ WW Contest on C.W. It was nice, but they have so "high speed C.W." ... SM2NTU. Enjoyed this contest for the first time in spite of bad propagation ... OK1DMA. Had to work for every QSO—not one new country ... OE1ZES/W1HUE. I got liberation from school when I said I was to participate in radio amateurs' world championship. Hi! ... OF6EE. A lovely contest. I caught three new ones. Good luck with the logs ... OH2BIF. Zones 7, 8, 9 were loud, but propagation to U.S.A. was very poor ... OH1PY. Antenna is 14 AVQ first used in 1964 ... OH2BFS. Many stations wondered about my frosty signals: we had -27°C outside during the contest ... OH8PF (*op.* of OF8AV).

It seems U.S. West Coast did not notice the 40 meter opening to N. Scandinavia around 09-1000 Z . . . OH8SR. Missed the "sure ones"; VS6DO, ZL3GQ, PY1ARS; the double multipliers. Don't know if they have become old or me . . . OH6TI. First year 1.8 MHz available in SV. Lots of fun; two new countries. Many extended periods of receiver hiss . . . SV0AA. Very, very good conditions on 80 meters . . . HA8IE (*op. of*

Get system control and protection...

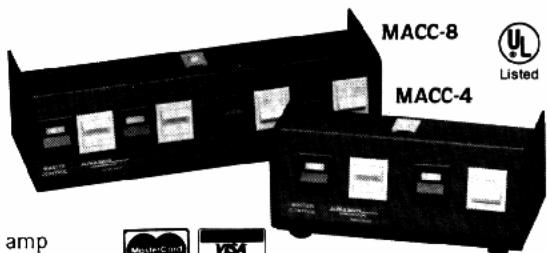
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Say You Saw It In CQ

HA8KQX). Only the low bands were good... I4IND. My first CQ WW DX C.W. Contest. I like it very much... I2QFZ. I was not able to operate last few hours of the contest for QRN and two verticals broken due to strong wind... I4EAT.

Very thanks for the nice contest. I started after long break in Poland. To this time I don't know results of contest from 1981... SP4EEZ. A great pleasure to join hands and ears with OM's around the world in the most important and popular contest... SP5JTR. DXpeditions are expensive but sure are a lot of fun. Saltwater turns dipoles into beams!... SV0CT/SV5. I surely enjoyed the test. I'm sorry I couldn't work more interesting stations; there were plenty of them... YO9CIB. Propagation on 10 meters was very poor through the contest; only 4 stations from the U.S.A. and 18 from Japan... YU3TXU. Many thanks to those stations who got my sigs even in such poor condx... OK2BMA/QRP. My first 3 watt QRP DX QSO (with VK2CE) was 55 years ago!... UB5OE/QRP. After years of DXing I changed and started QRP... OK1DKR.

STATION OPERATORS Multi-Operator Single Transmitter

AH6AZ & A16V, A16V/KH6 & N6AU, AK1L & KA1X, AA3B & WB3DJF, CX7CO & CX8BBH, DF0BV: DL1MAJ, DL6MAO, DL7MAE, DL5MAE, DL6RAJ, **DF0DPL**, DL4BAH, DL4BAD, DL6BH3, DL4BBW, DL5BW, DC1RF, D09BA, DW9WH, **DL8ER**: DL3CJ, DL2LA, DL5GN, DF5J, DL9XY, **DL8WCY**: DL8CH, DL8CM, DL8AM, DL8DC, DL8FR, **EA3VY** & EA3AIR, EA3AVV, EA3DXD, EA3EEE, EA3EER, EA3JKU, EA3PE, EA3DP & EA4DO, E1809, E1449, E1838, **G2BCWY**: G3FCW, G3PSP, G3KWT, G3VTY, G3WS2, G4WKS, G4EJL, G4NXY, **G404FB**: DF7FH, DL4FF, **GG3SXW**: G3TXX, G3MXJ, G3W3VW, G3SXW, **HA1KRR**: HA1ZZ, HA1ZM, HA1XO, HA1XU, **HA2KMR**: Jozsef, Attila, Gabor, Gabor, **HA3KCG**: Pal, Ferenc, Istvan, Jozsef, Attila, **HA3KNA**: Hudanik, Ferencs, Neumann, Janus, Laszlo, **HA5KKG**: HA5MA, HA5LV, HA5MD, HA5MO, HA5OG, HA5PK, **HA6KNI**: Laszlo, Gyurko, Josef, Lajos, Peter, Josef, **HA7KLF**: Antal, Laszlo, Istvan, Bela, Attila, Laszlo, **HA7KLG**: HA7LD, HA7MY, HA7LC, HA7MK, HA7MC, **HA7KPV**: Nemeth, Jankovics, **HA7KSR**: HA7UO, HA7UL, HA7PL, HA7SH, HA7UG, HA5OV, **HA8KCK**: HA8DZ, HA8EK, **HA8KV**: Magyar, Nasz, Edes, **HA9KSF**: Stumpf, Toro, **HB9AD** & **HB9BNJ**, HB9BOU, HB9BQP, HB9CHR, HB9CJG, **W6QL/H1C** & **W6KG**, **HH19HB**: Gyorgy, Lazos, Gyorgy, Istvan, Jozsef, **HG12**: Laszlo, Bela, Tarsoly, Borsai, Gosztola, Harscay, **HG5A**: HA5FN, HA5HM, HA5JJ, HA5ML, HA5MK, HA5WE, HA5UA, HA5GF, HA5OM, HA7RY, HA7SU, **HG6N**: HA6ND, HA6NY, HA6NN, HA6NO, HA6OO, HA6NF, HA6ON, HA6NP, **HG6V**: Simon, Szszer, Varga, Macsuga, Peto, Sopi, **HG8U**: HA8UI, HG8VY, HA8-069, HA8ZC, HA8ZB, HA8UB, **HG9R**: Szczesi Nagy, Orban, Schmidt, Pokker, **HH2VP** & K2LE, K2SX, K4BAI, W1FJ, **HSA**: HS1AJ, HS1ALV, HS1ANH, HS1ANQ, HS1BG, HS1BV, K4TKM, **I02UW**: I2UW, I2KMG, I2ZZZ, I1MIX, **J1YCL**: J100C, J01GAD, JH0DUG, JF1QOB, JK1JSS, JE2R0U, JJ1RAJ, J1B0D, JH8MHZ, **J1YXP**: JH40WG, JH0NPR, JJ1OH, JL1RUT, JM1AQU, JF2PAA, JF2JLY, **JAY6TA**: JH6VLF, JRE6ZE, JH6MW, JH6WJF, **JAY6U**: JH6VZS, JRD6UU, JE6CFB, JE6HQH, JE6UXS, JE6USU, JE6UHU, JF6BH, JF6MOZ, **JAY6YR**: JH6GN, JRD6PB, **JAY7WD**: JE7KEH, JE7LMP, JE7TFG, JE7JVZ, JE7FT, JE7TM, JR8GEK, JP1GD, **JAY8VY**: JH5ONJ, JE3XWH, JR8DOB, JG3DVR, **JAY8Y**: JAR8AW, JH5OB, JH6QOW, JH6NVX, **JG12UY**: JG1ILF, JG1OWV, JG1JMN, JG1ACI, JG1QJ, JH7PKU, JA9-9330, **JE3ZFS**: JI3CSH, JI3GJ, JG3GN, **JAI1YWO**: JN1CRV, J01WZ, **K1G** & K1DG, K1JX, K2KIR, **K1Y** & K1RU, **K2B** & K2O, **K2BU** & N3RC, **K2GH** & W2DNO, WB2CZB, AK4L, **KD5IA** & W5VX, WB5UDX, **K6ANP** & AF6F, K6ZUR, K6GC, KK6X, KM6N, N6BLN, N6DJ, WB6NBR, **K6SG** & KV6H, **K6TQ** & WA6TB0, K57T & KA7LVI, **KB8T** & N8E1, **K58B** & WM4T, AD8P, N3ABL, NABW, WB8N, W8ZD, WAB8AE, **K9RF** & W9OF, W9YYC, **KF9U** & K9PV, **K51N** & K51W, K1R0, **L1A1H**: LA4QK, LA8UL, LA90I, **L21KAU**: LZ1VB, Budinov, **L21KA**: Todorov, Stavikov, **L21KD**: LZ2AF, LZ2IF, LZ2EE, LZ1MF, LZ1MS, LZ1GX, LZ1PZ, **L21KS**: LZ10V, LZ1XS, LZ1ZL, LZ1QX, LZ1-M-270, LZ1-M-280, LZ1-M-290, **L21KZ**: Sapundjiev, Atanasov, Tasev, **L22KDR**: Bonev, Karadongev, **L22KKK**: Kaladjieva, Bodakov, **L22KSU**: Olimtirov, Ivanov, Dicev.

M2R & KB3TN, N8OM, **N3BB** & N3ED, N3RD, **N3LR** & N3CG, **N4AR** & K4FU, K8CC, W3KIC, **N4KG** & KC4ZV, K4AFN, NW4MI, **N4KM** & K4TXJ, K4DU, K4D, **N6AR** & A19, **N6MG** & W3VS, K6DPY, **N6VV** & K6PYJ, K6XV, **N7GM** & W6RRG, WB610A, **N9WA** & W69GY, **NP4Z** & K4PBZ, K4PA4, K4HC, NP4C, NP4CC, WP4B, WP4C, WP4CRS, **OF7AB**: OH6DX, OH7PF, OH7UE, OH7VR, OH7YF, CN7XI, OH7XM, OH9VE, **OH9BH**: OH6UM, SM0GGM, OH23H, **OH2AD**, OH2BC, OH2BUO, OH2LO, OH2BF, **OH9PH** & OH9UW, **OK1KF**: OK1DEF, OK1DXW, **OK1KPU**: OK1DX, OK1DW, OK1PEM, OK2BN, OK2BVH, OK2PD, OK1AES, OK23TW, OK1JAX, OK1DW, OK3TPV, OK2MMW, OK1AMY, OK2DIV, OK1MGW, others, **OK1RK**: OK1ADS, OK1ALW, OK1AWZ, OK1DIM, OK1DWA, **OK1KRQ**: OK1DRO, OK1DLF, **OK1KT**: OK1AD, Laco, **OK1KUR**: OK1DLA, OK1DRY, OK1DWG, OK2BW0, OK1AE, OK1DU, OK1DXS, **OK2KMR**: OK2SS, OK2BQZ, **OK2YC**: OK2BUC, OK2BSK, **OK3KEE**: OK3CTL, OK3CGG, OK3CTA, **OK3KEX**: OK3-2698, OK3-17780, OK3Z2, **OK3KRA**: OK3TDP, OK3TAM, OK3CPC, **OK3KD**: OK3CEK, OK3TCV, OK3TC, **OK3KXR**: OK3YDP, OK3CJB, OK3COR, OK3CKW, OK3CSB, OK3TCN, OK3-26694, OK3-26327, **OK7AA**: OK3ZAF, OK3EA, OK3JW, OK3LU, OK3YX, OK3COW, OK3TW, OK3LZ, OK3CW, OK3TFM, OK3CEM, **ON6BR** & ON4ASV, ON6DX, ON6JN, ON7PY, ON7OU, ON7XN, **PA6GN**: PA3ABA, PA3BPM, PA3CEF, PA0ERA, PA0PCB, PA2GON, PA2LOG, PA3BVM, PJ7A: W2GD, K3VW.

RFB: UB51HO, UB51ML, UB51NI, UB51OR, UB51PP, UB51QS, UB51RM, UB51RN, UB5-037-2077, UB5-073-1151, **RG6WCY**: Andrew, Karen, Karine, Sofi, **RJ8WCY**: UJ8JCL, UJ8JCT, UJ8JCQ, **RJ7WCY**: UL7PAE, UL7PAO, UL7PA2, UL7PBY, UL7PCZ, UL7-023-434, **R05WCY**: U050BU, U050HI, U050WW, **RP2WCY**: UP2BAS, UP2BJ, UP2MB, UP2PX, UP2-038-1052, **RN2WCY**: UR2TAX, **RT5WCY**: U85MDC, UB5ME, UB5MNY, UB5MOA, UB5MSO, UB5MUV, **RV4WCY**: UA4FBL, UA4FCR, UA4FCM, UA4FDS, UA4FER, **RV6WCY**: UA6LB0, UA6LED, UA6LEG, UA6LF, UA6MN, UA6WN, **RV9WCY**: Club, **RV9WCY**: Club, **U0AAA**, **U0AAK**, **U0-1032**, **SK6EI**: SM6JZ, SM6LPM, SM6PLG, SM6LJU, **SK6JA**: SM6AOU, SM6D01, SM6CKU, SM6DEH, SM6FVY, **SK6RR**: SM6CVT, SM6LRR, SM6LGW, **SK7EC**: SM7IDF, SM7VE, **SP5KPV**: SP5LGT, SP5G9V, SP0-102-05, **SP8WCY**: Club, SP9PDG, SP9-2291, SP9-3579, **T2BEV**: K4IA, T1ZP, W4Z, **UK1AWA**: UA3DPX, UA3VIM, UA4NB, **UK1ACT**: Club, **UK1ADR**: JA1-169-251, UA1-169-1052, **UK1NAP**: Club, **UK1ODP**: Club, **UK1TBB**: UA1TAL, UA1TBQ, UA1-1447, **UK2AB**: Alex, Art, Serge, Vlad, **UK2AP**: Max, Serge, Vadim, **UK2BC**: Club, **UK2BA**: UP2BFL, UP2BZ, UP2DT, **UK2BAS**: UP2BIG, UP2PAJ, **UK2BEE**: UP2-038-1162, UP2-038-1180, UP2-038-1193, **UK2BFB**: EZ2BBC, UP2BAU, UP2BKN, UP2BK, UP2BMT, **UK2BB0**: EZ2BB, UP2BYJ, UP2BMQ, UP2-038-1682, UP2-038-1684, **UK2BBX**: Club, **UK2BC**: UP2BDW, UP2BHK, UP2BPK, UP2-038-346, UP2-038-728, UP2-038-1656, **UK2BCW**: UP2BJV, UP2BNC, UP2-038-1091, **UK2FAA**: UA2FC2, UA2FE, UA2FD, **UK2FBR**: Oleg, Serg, Valery, **UK2LAN**: Club, **UK2PC**: UP2BFI, UP2BF, UP2BWW, UP2BZ, UP2PAV, UP2PC, UP2-038-918, UP2-038-1049, UP2-038-1050, **UK2PC**: UP2BWW, UP2BBM, UP2BDM, UP2BIL, **UK2RDX**: UR2CW, UR2QD, UR2RCU, UR2REZ, UR2RHF, UR2RNA, UR2RNJ, UR2RNX, UR2RRJ, UR2-083-166, **UK2WAE**: Club, **UK2WAF**: Alex, Sany, Sasha, Vlad, **UK2WAY**: Dimitry, Ivan, Leon.

UK3ABS: RA3AMW, RA3ART, UA3-170-526, **UK3DBV**: UA3DFO, UA3-142-1752, UA3-170-1770, **UK3DDU**: Club, **UK3GAF**: E23GAY, UA3GAF, UA3GDU, UA3GEM, UA3GFR, UA3GGQ, UA3-137-170, **UK3SAA**: Club, **UK3TB**: Andrei, Serge, **UK3TBY**: Alex, Nick, Pavel, **UK3TCJ**: Club, **UK3XAB**: UA3XAC, UA3XAG, UA3XDF, UA3-127-200, UA3-127-216, **UK3XAV**: Arthur, Slava, **UK4PAE**: UA4PDH, UA4RC, UA4RF, **UK4UAL**: Club, **UK4WAA**: Dima, Igor, Vlad, **UK4WAB**: Club, **UK5CAT**: UB5CAY, UB5CDW, UB5CFN, **UK5DAA**: UB5DBC, UB5DCW, **UK5SHB**: UB5HEW, UB5-07173, **UK5ICX**: Club, **UK5IFN**: EZ51WB, EZ51VX, UB5URX, UB5URX, UB5-073-194, **UK5LN**: UB5LSE, UB5LSL, UB5YDV, UB5-077-1347, **UK5MBO**: Club, **UK5MC0**: UB5MPN, UB5MRN, UB5MTS, **UK5MD1**: UB5MBM, UB5MJS, UB5MRE, UB5MVE, **UK5OAR**: Alexey, Igor, Oleg, **UK5OB0**: UB50GO, UB50KC, UB50WR, **UK5QB**: Club, **UK5SAB**: UB5CXX, UB5NQ, UB5SST, UB5SSB, **UK5SSB**: Slava, Vasili, Vasili, **UK5VA**: Club, **UK5VAY**: Club, **UK5WAZ**: Club, **UK5WCA**: UB5WCG, UB5WDW, UB5-068-309, **UK5WCB**: UB5-068-810, UB5-068-811, UB5-068-814, **UK5YAA**: UB5VAE, UB5YAW, UB5YBC, UB5YBX, UB5-082-298, **UK6AJA**: UA6AJX, UA6AKR, UA6BJB, UA6BJE, UA6-101-1623, **UK6HAA**: Club, **UK6LEZ**: UA6HLP, UA6LCJ, UA6LCN,

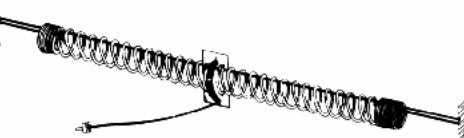
UA6LTI, **UK7GAB**: Club, **UK7LAX**: EZ7LAW, UL7LCH, UL7LDR, **UK8HAA**: UB8DH, UB8HQ, UB8-043-043, **UK8MAA**: Alexander, Igor, George, **UK9AF**: EZ9ADE, UA9ADH, UA9ADI, UA9AFH, UA9ANZ, UW9AT, **UK9FEN**: Leonid, Pavel, **UK9FER**: UA9FAJ, UA9FAU, UA9FAU, **UK9DW**, **UK9OE**: Club, **UK90BK**: Nick, Victor, **UK9UAK**: Alexander, Kostin, Serge, **UK9UBL**: UA9UAR, UA9UIG, UA9UQK, UA9ULL, UW9AT, **UK9XAN**: UA9XEN, UA9-092-426, **UK9XN**: UA9-090-569, **UK9AB**: UA9A3I, UA9AABE, UA9-103-712, **UK9LAB**: UA9LDP, UA9LJ, UA9LMS, **UK9LW**: UA9-107-608, UA9-107-609, **UK9LBC**: UA9LEI, UA9LFD, UA9-107-662, **UK9UB**: Valera, Yuri, **UK9UQ**: UA9QBB, UA9QD, **UK9UH**: UA9QDL, UA9QCN, UA9QCN, UA9QD, **UK9UW**: Doue-San, Iato-San, Omeko-San.

STATION OPERATORS Multi-Operator Multi-Transmitter

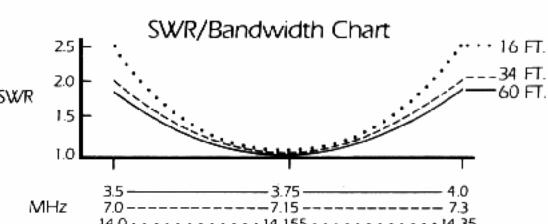
AH8C: N6BT, WA6VEF, **AK6T** & **NB6L**, **DL8KF**: DF3LZ, DF3LP, DJ2BV, DJ3UL, DJ4FZ, DJ4S0, DJ5AZ, DJ5UZ, DJ6TK, DJ6TN, DJ7SW, DJ8BH, DJ8FR, DK3AV, DK7LJ, DK8L, DL8PY, **GB4ANT**: G3JJC, G3LDI, G3MPN, G3V3I, G4BIU, G4BWP, G4DRS, G4DSE, G4FNL, G4JOL, **H12AB**: K5KG, N6OL, W7KJ, K8JJ, **J2YEF**: JA2KEA, JE2UGT, JF2ERH, JF2NC, JF2OH, JF2VNR, JG2LJD, JG2MPX, JG2AJ, JI2V0F, JI2PVI, JI2TPD, JI2UWZ, **J2YJA**: JG16F, JJ1BTA, JJ1BTC, JH2XO, JI2GMC, JE2SPL, JE2TB, JE2TEM, JE2YMM, JE2ZPQ, JF2PZ, JF2PH, JG2BF, JG2AOI, JH4VBL, JI2NPL, JI2XR, JF2JCW, JF2UXO, JA3DET, JA4UDP, JR70MD, JA9SSY, JA9XXS, **J3YBF**: JA3KKO, JF3PGA, JG3IUG, JG3LZG, JH3KZW, JI3XBE, J3M1Z, J3PYI, JA4AGT, JA9RYU, JA9TOZ, JA9UW, **Doce-San**, Iato-San, Omeko-San.

J3YKC: N6BT, JH3VOT, JH3KEG, JE3BLA, JE3MSA, JE3MXO, JF3PMM, JF3RAL, JF3UNQ, JG3CXJ, JG3HJG, JG3HLV, JG3LBB, JI3DNR, JI3ERV, JI3GR, JH4RH, JH4WER, JRA4DS, JRA4DQV, JRA4MK, JG5ZB, JH6EML, JH6EZP, JRE6JNF, JRE6NWN, **J47YFB**: JE7MLJ, JH7XKI, JH7XMO, JH8QNT, JI1GXY, JH7GYC, JI7JLU, JI7JYV, JI7JYR, JI7JYU, JA9JNQ, JA9JOM, JA9JOTX, JA9JOW, JA9JWQ, JA9JWV, JH0CAZ, JH0QH, JA9NFO, JA9OJM, JA9OTX, JA9PQC, JA9QOC, JA9QWV, JA9QZL, JA9UAD, JA9VBEW, JH0CAZ, JH0QH, JA9VUG, **K1RX** & **W1KKF**, KA2AEV, K2ZS, **K1XM** & K1O, K1F, K1W, K2TB, KR2J, KR2O, K2C, K2U, K2M, K3EST, Faro, WB4SCV, KSNA, **N6R0** & **K6GP0**, N6IG, NSNE, N6NO, WAD6IL, **N6TU** & N6DA, NR6Z, WB6NOV, WB6OCV, WB6SHD, **N9MM** & K9FN, K9NN, K9UWA, K9A, K9MD, N9NB, N9NS, W9LF, W9RE, W9ZR, W9LTY, WB9PH, **OH1AA**: OH1BM, OH1CF, OH1CX, OH1DL, OH1JX, OH1MD, OH1II, OH1NH, OH1SV, OH1WR, OH3OM, OH3ZE, **RW9A**: OA9ACZ, OA9AFV, UA9AGR, UA9AIA, UA9AIS, UA9AJD, UA9AKI, UA9AN, UA9SM, UA9ND, UA9NN, UW9BY, UA9-165-938, **VE3PCA**: VE2ZP, VE3CRG, VE3KKB, VE3MHI, **W3GM**: WB2YOF, K3GM, K3ND, K3MT, N3DAY, N3VW, W3FV, KH6CP, **W3LPL** & A13M, W3ABC, W3FG, W3AKC, WD4AXM, KC8C, KC9J, **WB1AH/9** & KB9S, K0FVF, KM0, W0UC, W0Z2Z, WB4RBW, **XE2SI**: AA6RX, AE6E, N6TR, N6VZ, N6E1, WA6OTU, **YT3A**: YU1PKC, YU3B0, YU3D0M, YU3D2R, YU3E0, YU3F, YU3M, YU3S0, YU3TAE, YU3TC, YU3TC0, YU3TU, YU3TV, YU1EW, YU1FD, YU1RL, YU1UU, YU3IW, YU7QD, Dragon, Vel, Slavko, Mike, Gan.

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- REGULATION: ± 0.5 volts no load to full load & low line to high line.

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RS-35A, RS-35M, VS-35M	25	35	5 × 11 × 11	27
RS-20A, RS-20M, RS-20S, VS-20M	16	20	5 × 9 × 10 1/2	18
RS-12A, RS-12M, RS-12S	9	12	4 1/2 × 8 × 9	13
RS-10A	7.5	11	4 × 7 1/2 × 10 1/4	11
RS-7A, RS-7B	5	7	3 1/4 × 6 1/2 × 9	9
RS-4A	3	4	3 1/4 × 6 1/2 × 9	5

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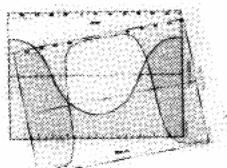
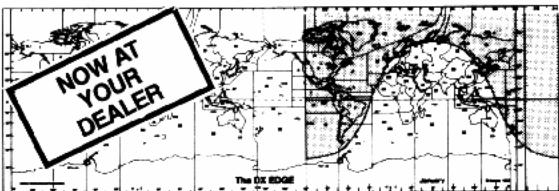
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ZS1CT 5,549,304	N2LT 2,201,625
OH2MMI 4,923,660	W3GRF 2,042,880
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CT3BQ 4,708,626	N5AU 1,971,050
N6XI/4X 3,109,722	K2VV 1,872,582
4V2C 3,038,732	WA8YVR 1,844,602
W1KM 2,699,775	W4RX 1,758,038
K1AR 2,374,344	N6QR 1,668,850

Single Op Single Band 28 MHz

KZ5M 37,345

WA6FGV 23,394

W4ORT 19,728

K1UO 16,388

K0KX 13,725

KA8NUV 8,200

21 MHz

NA5R 347,340

N4WW 311,911

K1ZX 274,040

W6YA 224,880

W5VX 217,160

WB4TDH 190,592

AD0O/VP9 395,520

21 MHz

W0ZV 412,416

W8TA 346,622

N5CR 315,980

WB8JBM 308,085

W1IHN 303,232

N9NC/0 273,372

7 MHz

W6AM 267,624

K1KI 262,680

K4XS 230,139

K1BW 171,392

K4PI 168,099

K3TW 161,168

VE3BMV 361,845

3.5 MHz

W1FV 83,729

W9LT 37,062

N7RM 26,376

WA8DXB 24,817

LZ2PP 181,888

4Q1WCY 184,575

UV9AX 173,445

DJ4AX 157,964

1.8 MHz

K1ZM 15,677

AA1K/3 15,006

W8RLR 12,996

K5SUR 10,835

K1NA 9,306

G3SZA 7,488

YU3EF 38,808

YU4CF 37,356

Multi-Op Single Transmitter

K1GQ 3,712,412

W2YV 3,063,684

W3BGN 2,919,478

N4AR 2,854,338

W4NL 2,704,248

N3BB 2,502,864

NP4Z 4,019,424

</tbl_struct

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
9Y4VT	94/6/8	421/18/53	838/20/69	1439/31/80	1288/27/76	881/25/73
NP4A	153/11/24	400/21/64	1191/28/79	1164/32/88	1000/25/75	829/22/69
ZS1CT	1/1/1	91/17/83	377/24/56	1119/32/87	1560/31/90	806/23/72
OH2MM/						
EA8	14/5/11	388/12/45	956/20/62	485/25/61	1468/21/74	622/21/63
KV4FZ	141/8/16	353/19/47	673/20/67	1239/28/76	1220/26/78	811/23/64
CT3BQ	5/2/5	414/14/45	1068/20/64	1008/26/74	1145/20/71	291/14/47
N6XI/4X	2/1/2	397/9/38	880/18/58	869/23/57	1025/17/59	219/6/30
4V2C	151/8/11	509/16/34	743/20/51	980/26/59	832/21/48	883/14/26
W1KM	19/8/15	367/24/71	326/25/78	612/30/94	463/25/94	50/18/34
K1AR	31/10/20	122/20/60	225/25/74	667/32/97	48/18/32	

USA TOP SINGLE OPERATOR—ALL BAND

Station	160	80	40	20	15	10
W1KM	19/8/15	367/24/71	326/25/78	612/30/94	463/25/94	50/18/34
K1AR	31/10/20	122/20/60	225/25/74	667/32/97	48/18/32	
N2LT	13/8/11	158/19/62	337/27/77	710/34/91	349/26/75	39/16/29
W3GRF	14/9/30	172/19/59	271/24/68	421/33/87	553/26/82	65/19/44
K1TO	20/9/13	67/18/46	265/27/76	741/32/90	442/23/77	35/13/26
N5AU	22/11/16	112/24/44	367/30/71	355/34/95	454/29/76	85/22/47
K2VV	19/8/12	69/17/50	182/27/66	698/35/101	407/25/75	50/16/29
WA8YVR	20/11/15	93/23/54	305/32/76	621/34/93	262/24/68	48/16/32
W4RX	28/12/17	151/21/62	294/29/79	447/30/87	282/24/73	59/19/40
N6QR	31/10/10	105/17/27	416/32/65	467/32/85	291/28/58	147/19/34

WORLD TOP MULTI-OPERATOR SINGLE TRANSMITTER

HH2VP	142/8/15	562/21/62	1193/28/83	1238/34/105	1586/30/94	749/24/63
RF6V	180/12/41	811/18/82	1088/27/108	1006/31/110	992/27/104	289/26/100
PJ7A	124/7/13	404/17/47	1134/19/79	1051/24/84	1390/25/81	663/22/68
V3A	36/7/7	604/17/48	1390/21/61	996/31/73	1335/28/81	677/19/41
5H3WCY	—	26/11/26	317/26/57	1013/33/85	1260/33/86	533/23/68
NP4Z	11/7/9	216/13/37	798/23/66	1324/31/83	1165/27/80	387/20/51

WORLD TOP MULTI-OPERATOR MULTI-TRANSMITTER

RW9A	350/16/47	869/22/70	1244/34/103	1340/36/87	1099/34/88	298/17/43
XE2SI	300/12/14	811/16/36	1594/31/58	2219/34/90	1704/29/73	1040/20/37
N2AA	93/17/38	436/28/90	917/37/108	1378/37/124	779/33/108	149/23/65
YT3A	373/12/49	849/20/78	1533/37/105	1341/38/119	758/35/101	229/27/76
AH0C	45/10/8	522/23/39	868/25/59	1305/35/80	1765/32/76	664/24/40
KN30	61/15/32	377/24/81	724/35/113	1403/36/118	746/29/98	150/23/60

USA TOP MULTI-OPERATOR SINGLE TRANSMITTER

K1GQ	26/13/26	165/25/81	597/34/103	776/34/109	483/26/93	43/19/44
W2YV	18/12/17	152/20/70	521/33/84	792/33/96	486/27/88	41/17/36
W3BGN	33/13/26	174/21/74	302/28/84	778/34/107	437/29/93	54/20/49
N4AR	21/12/20	88/24/69	435/32/86	775/35/105	429/31/85	53/20/47
W4NL	33/13/25	114/19/60	189/31/78	833/36/97	468/29/93	69/20/51
N3B	23/10/17	94/19/63	425/31/92	425/30/97	571/28/92	49/20/47

USA TOP MULTI-OPERATOR MULTI-TRANSMITTER

N2AA	93/17/38	436/28/90	917/37/108	1378/37/124	779/33/108	149/23/65
KN30	61/15/32	377/24/81	724/35/113	1403/36/118	746/29/98	150/23/60
W3LPL	80/17/38	195/22/68	661/36/110	998/36/109	788/30/102	133/22/58
K6UA	98/15/21	371/30/57	835/37/98	692/38/105	585/33/79	271/21/46
N9MM	75/16/31	137/23/63	590/34/89	1095/36/118	489/29/88	169/22/51
K6HNZ	208/17/23	230/21/40	760/33/74	867/37/108	409/30/71	282/21/43

WORLD TOP 10 QRPs

(5w input)

All Band

1. UB5UCJ	416,643
2. KZ2E	345,321
3. K8IA	273,408
4. DF4RD	232,674
5. UB5AAL	207,603
6. UA3AGW	101,870
7. SM5CCT	92,700
8. K3WS	88,810
9. DL9CE	73,805
10. JA7AS	66,148

Number groups after call letters denote following: Band (A = all), Final Score, Number of QSO's, Zones, and Countries. Certificate winners are listed in Bold Face.

C.W. RESULTS SINGLE OPERATOR NORTH AMERICA UNITED STATES

W1KM	A	2,699,775	1837	130	376
K1AR	C	2,374,344	1637	132	372
K1TO	C	2,040,300	1570	172	328
K1XA	C	1,312,934	1201	109	273
W1DA	C	1,156,072	981	119	293
K1EA	C	1,090,575	950	111	282
W1YH	C	944,656	855	113	278
KS1L	C	611,940	706	91	219
K1WJL	C	608,316	564	89	237
KC1F	C	598,176	748	82	197
AG1C	C	519,440	621	90	212
AK1A	C	407,924	557	77	177
W1BH	C	344,432	412	94	210
K1SA	C	319,060	437	86	179
W1WAI	C	296,846	422	79	183
W1CWU	C	245,310	416	65	157
W1WEF	C	148,092	304	60	112
W1LQO	C	115,710	250	56	118
N1EE	C	100,016	263	39	94
N1WU	C	81,008	199	56	110
WA1ZAM	C	64,400	162	52	109
KS1J	C	57,540	156	43	96
KR1R	C	53,060	153	49	91
N1AU	C	39,910	115	44	86
KM1C	C	31,875	136	28	57
N2LT	A	2,201,625	1605	130	345
K2VW	A	1,872,582	1425	128	333
W2VJN	A	1,550,060	1159	131	339
K2RD	A	1,250,762	1037	123	308
N2JJ	A	555,104	614	103	229
K2OF	A	416,150	510	89	201
W2GGE	A	362,208	436	82	212
W2KTP/3	A	302,080	369	94	201
W2NC	A	302,080	369	94	201
W3HVM	A	293,250	420	74	181
W3GL	A	293,250	420	74	181
K2QL	A	293,250	420	74	181
W2XL	A	226,676	345	78	166
K2P0F	A	214,137	349	66	165

W3GRF	A	2,042,880	1496	131	349
(Opn. K9DD)					
N2AU	3.5	203,216	105	21	55
K2F0	18	18,282	105	18	95
WA2LOG	7	6,678	252	27	71
N2UN	7	31,652	143	23	59
K2P	14	203,962	566	32	95
W3VT/4	7	91,504	826	95	304
W4WJ	7				

U.S.A. Club Scores

Northern California Contest Club	112,689,102	North Florida DX Assoc.	894,770
Frankford Radio Club	97,885,067	Northern Ohio DX Assoc.	749,087
Yankee Clipper Contest Club	85,014,728	Mississippi Valley DX/Contest Club	734,020
Southern California Contest Club	34,850,276	Neemah-Menasha R.C.	722,872
Potomac Valley Radio Club	33,371,626	Boiled Owls of New York	680,718
North Texas Contest Club	20,526,652	Michigan DX Assoc.	657,022
San Diego DX Club	19,314,682	Alamo DX Amigos	596,939
Dixie DX'ers	13,907,454	Metro DX Club	556,469
Northern California DX Club	11,981,187	Connecticut Wireless Assoc.	479,047
Texas DX Society	8,544,873	Southwest Ohio DX Assoc.	464,012
South Florida DX Assoc.	7,989,459	Ashtabula County A.R.C.	295,125
Southern California DX Club	7,789,900	Ohio Valley A.R.A.	265,093
Eastern Iowa DX Assoc.	6,356,923	Four Lakes A.R.C.	257,907
Kansas City DX Club	6,133,869	Southeastern DX Assoc.	114,488
Murphy's Marauders	6,118,362		
Willamette Valley R.C.	5,815,208		
Colorado Contest Conspiracy	5,782,729		
Mad River Radio Club	5,465,811		
Carolina DX Assoc.	4,484,617		
Northern Ohio A.R.S.	4,357,637		
Rochester DX Assn.	4,072,502		
Redwood Empire DX Assoc.	3,708,922		
Grand Mesa Contesters	3,173,666		
Southeastern DX Club	3,168,375		
Central Arizona DX Assoc.	3,160,987		
Northern Illinois DX Assoc.	3,133,874		
Greater Milwaukee DX Assoc.	2,328,953		
Meriden A.R.C.	2,207,878		
Mile High DX Assoc.	1,470,665		
Western Washington DX Club	1,412,664		
Fraser Valley DX Club	1,179,294		
Contest Assoc. of South Texas	1,141,890		
III-Wind Contesters	1,048,914		
Fort Wayne Radio Club	907,661		

DX Club Scores

YU DX Club	19,887,692
Ontario Contests Club	17,566,167
South German DX Group	16,634,684
Kaunas Polytechnic Institute R.C. (UP)	11,026,591
Israel Contest Club	8,572,326
Lithuanian Contest Group	8,019,588
Argentina DX Assoc.	7,627,790
University of Tokyo Contest Club	7,434,443
Uruguay DX Club	6,105,059
Voroshilovgrad Radio Club (UB5)	4,968,199
Northern Lithuania DX Group	4,827,762
Radio Amateur Society of Thailand	4,621,810
The Builmertz (SM)	4,170,880
Alaska DX Assoc.	3,336,952
Condor DX Group (CE)	3,325,222
DX-Club Saar/Pfalz (DL)	1,866,605
A.S. Filaret DX Club (YO)	1,423,963
G.A.C.W. (LU)	1,105,273
SP DX Club	574,835

N5TP	..	19,152	103	24	48	W6RR/7	..	543,780	660	94	171	WB8JBM	..	308,085	767	36	105	W9RN	..	5,593	50	16	31	VE18NN	28	14,818	100	20	42
K25D	..	13,334	86	17	42	W7AYY	..	177,632	355	72	110	W8TWA	..	115,560	380	30	77	K4VX/B	A	1,578,260	1217	138	322	VE1YX	1.8	7,435	169	14	30
K5NU	..	10,520	78	20	39	W7IIT	..	175,230	369	62	103	N8AKY	..	72,450	249	32	73	KBLUZ	..	996,391	960	120	259	VE2AYU	A	601,020	933	83	188
NJSU	..	7,392	61	18	30	W7FGT	..	167,890	378	60	103	WABAFX	..	18,525	101	20	45	W0WP	..	869,000	840	122	273	VE2DPO	"	198,940	656	53	92
K5UR	1.8	10,835	125	19	36	W7OM	..	158,424	346	65	103	W8WVU	..	16,043	100	22	39	VE3DZV	A	304,008	636	71	141	VE3HPI	"	70,000	267	43	69
N6QR	A	1,688,850	1457	138	279	W7TC	..	124,108	316	66	76	N8RA	7	104,967	367	30	77	W0RSG	..	269,500	397	94	156	VE2AEJ/3	"	45,010	157	55	106
N6GG	..	892,584	969	114	208	W7EKW	..	98,527	245	58	85	(Op. K8WW)	"	230,688	407	78	137	KM0I	..	207,501	327	87	154	VE3NBE	14	47,916	302	21	45
N6HR	..	405,880	528	106	172	W7KSA	..	94,975	286	46	85	W8LJU	..	75,495	254	28	77	K0BQJ	..	176,460	327	74	130	VE38MV	7	361,845	1149	33	96
WB8BSY	..	404,448	521	94	170	K7UU	..	71,672	197	53	83	W8BXK	..	4,294	42	13	25	N0ZAA	..	146,200	269	73	127	VE3IN	1.8	10,636	214	10	16
K6HH	..	397,245	671	84	129	W7KLK	..	59,605	164	51	80	W8RXL	3.5	24,817	114	22	61	K0BQF	..	91,656	209	62	109	VE3MFA	"	10,179	173	12	17
W6OKK	..	339,160	501	93	151	K7KJM	..	59,148	233	37	56	W8UVZ	..	22,989	126	25	54	K0BQG	..	79,758	176	71	118	VE4AEX	A	47,385	169	45	74
N6AN	..	337,484	514	91	147	KC7V	..	46,592	137	52	76	W8LNU	..	20,596	100	22	54	K1QJG	..	103,455	225	62	109	VE4AIY	"	43,928	251	25	51
WB8YKM	..	293,092	579	70	118	KN7L	..	39,050	145	50	60	W8LNO	..	12,412	97	18	40	K0UK	..	93,240	287	50	6	VE5AE	14	18,202	223	15	23
WB8FSJ	..	255,148	409	88	139	W7IEU	..	36,396	125	46	62	W8LRL	1.8	12,996	98	18	39	K0MF	..	7,404	236	59	80	VE60U	"	138,330	637	26	64
K6DR	..	247,544	408	88	144	W3KY/7	..	31,668	144	30	54	W8KKI	..	8,692	50	15	38	W0BSH	..	7,404	27	44	24	VE7WJ	A	2,075,000	2489	121	225
KD9E/6	..	239,598	365	86	157	WA1OEM	..	24,510	100	34	52	W8RXL	..	4,017	46	14	25	W0RXL	..	47,402	145	54	83	VE7Q	21	3,816	86	10	8
WB8JMS	..	232,065	363	93	150	KA7FEF	..	20,992	104	36	46	W9OP	..	1,776	39	10	14	W6FN/0	..	45,296	145	55	94	VE7BS	1.8	7,182	164	11	10
WA8HAE	..	229,229	359	86	143	K0D7	..	18,250	94	33	40	W9PHT	..	1,776	39	10	14	K0CXK	..	45,076	152	48	70	CUBA					
N6JL	..	205,540	425	65	107	WTGUR	..	3,762	43	16	17	W9KXK	..	28,035	104	45	60	CM2QP	A	1,820	91	7	3	W8ZRL/0	"	28,035	104	45	60
W6CS	..	200,644	354	78	128	W8TFQ	21	120,640	419	31	73	K9DX	A	1,506,505	1166	136	319	W8ATKJ	..	22,359	100	38	49	GRAND CAYMAN					
W6WB	..	180,294	328	70	129	N7RQ	..	80,964	380	26	52	K9CAN	A	418,880	478	98	222	W8RJ	..	59,290	225	25	72	ZF2HF	A	1,982,396	3396	87	181
K6DC	..	174,736	375	64	99	K7ZA	14	170,202	518	34	80	K9AB	..	178,752	312	73	155	W8ZV	14	412,416	982	36	108	ZF2CC	"	906,224	2088	74	135
K6YK	..	152,468	304	74	114	AG7M	..	70,880	299	27	53	K9BQJ	..	178,623	290	73	150	N9NC/0	"	273,372	723	33	99	(Op. KM5R)					
K6LAN	..	144,109	312	67	106	K7UR	7	111,552	401	30	66	K9BQF	..	366,267	456	118	245	K0ZKX	..	178,758	236	52	107	(Op. K4JP)					
AA6EE	..	104,140	238	64	100	KC7EM	..	37,440	159	28	52	W9MD	..	313,472	465	77	171	W8JU	3.5	7,098	72	13	26	GUANTANAMO BAY					
K6OC	..	97,474	19	44	72	N8II	..	1,208,040	927	114	276	W9RGI	..	103,376	330	73	153	KL7RA	A	981,120	1840	86	133	K4VFW/K7	"	9,275	111	18	17
WA6TKT	..	45,492	169	42	60	KE8M	..	328,356	459	78	174	K9ABE	..	42,108	212	51	81	KL7AN	14	5,796	75	13	15	HH2CQ	"	1,016,345	2653	65	122
W6PBI	..	40,950	129	43	74	W8QBO	..	274,428	401	82	170	K9MD	..	20,210	87	40	54	WL7E	3.5	8,993	158	10	13	BAHAMAS					
K6CSL	..	39,346	142	44	59	K8SS	..	221,010	306	97	181	K9EY	..	103,179	186	84	127	W9YDP	..	10,964	176	58	99	HONDURAS					
K6GK	..	26,754	135	36	42	W8GO	..	209,990	334	84	146	W9HRO	..	60,445	157	60	97	W9YDF	..	1,581	21	12	19	HAITI					
K6SH	..	19,716	136	23	30	W8QWY	..	204,544	309	82	174	W9JKI	..	55,944	146	57	91	VP2EAG	14	288,456	1530	20	64	MEXICO					
W6ODE	..	11,904	73	30	34	K8MNG	..	187,669	325	81	153	W9GKE	..	43,524	134	44	80	VP2EEW	7	562,080	1929	28	92	PANAMA					
WA6FQV	28	23,394	219	18	24	W8WPH	..	61,851	157	52	107	K9QVB	21																

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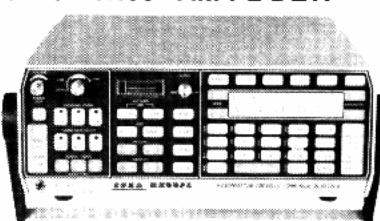
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World QRPP

Val Chigyr, UB5UCJ

Donor: Gene Walsh, N2AA

U.S.A.

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Donor: Canadian DX Association

Carib./C.A.

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Donor: Japan CQ Magazine

Japan

JA1QPU

Donor: Japan Crazy Contestors Club

Oceania

FO0JO (Opr. Jay O'Brien, W6GO)

Donor: Maui Amateur Radio Club

SINGLE OPERATOR, SINGLE BAND

World (7 MHz)

VP2KAA (Opr. Paul Newberry, Jr., N4PN)

Donor: W2JT Memorial (No. Jersey DX Assn.)

World—3.5 MHz

VP2KAC (Opr. Hugh Valentine, N4RJ)

Donor: Fred Capossela, K6SSS

World—1.8 MHz

Arvydas Vingrys, UP2BBT/U6V

Donor: Chip Margelli, K7JA (KP4ES Memorial)

USA (14 MHz)

William Tippett II, W9ZV

Donor: No. Illinois DX Association

Canada (14 MHz)

John Sluymer, VE6OU

Donor: Canadian Amateur Radio Federation

Carib/C.A. (7 MHz)

VP2EEW (Opr. Jeffrey Clarke, KU8E)

Donor: DX Club of Puerto Rico

Europe—14 MHz

OF8AV (Opr. Jukka Keskkaho, OH8PF)

Donor: G2LB Memorial (From Friends)

South America (21 MHz)

YX5A

Donor: Rafael Ponce de Leon, CX3BR

MULTI-OPERATOR SINGLE TRANSMITTER

World

**HH2VP (Oprs. HH2VP, K2LE, K2SX,
K4BAI, W1FJ)**

Donor: Anthony Susem, W3AOH

U.S.A.

K1GQ (Oprs. K1GQ, K1DG, K1JX, K2KIR)

Donor: Doug Zwiebel, KR2Q

MULTI-OPERATOR MULTI-TRANSMITTER

World

**RW9A (Oprs. UA9ACZ, UA9AFV,
UA9AGQ, UA9AGR, UA9AIQ, UA9AIS,
UA9AJD, UA9AKI, UA9AN, UA9MR,
UA9ND, UA9NN, UW9BY, UA9-165-938)**

Donor: James Rafferty, N6RJ

U.S.A.

**N2AA (Oprs. K2BQ, K2NG, K2GM,
K2GL, K2SS, K2TT, K2TW, KR2J,
KR2Q, KC2X, KU2M, K3EST, WB4SGV,
K5NA, Fara)**

Donor: Hazard Reeves, K2GL

CONTEST EXPEDITIONS

World—Single Operator

3V8AS (Opr. Walter Skudlarek, DJ6QT)

Donor: Yankee Clipper Contest Club

World—Multi-Operator

**RF6V (Oprs. UB5IHO, UB5IML, UB5INI,
UB5IOK, UB5IPP, UB5IQS, UB5IRM,
UB5-073-2077, UB5-073-1151)**

Donor: Bill Schneider, K2TT

CLUB—Phone/C.W.

Northern California Contest Club

(Score 112,689,102)

Donor: CQ Magazine

SPECIAL—MOST IMPROVED CLUB

San Diego DX Club

Donor: Southeastern DX Club

SPECIAL—SINGLE OPERATOR MOST QSO'S

World—All Band

9Y4VT (Opr. Richard Norton, N6AA)

(4961 QSO's)

Donor: KV4AA Memorial (14,270 MHz Group)

State of the Art Kits by Hal-Tronix, Inc.

KEYERS AND OPTIONAL MEMORY KITS

ACCUKEYER KIT \$19.95
 THIS ACCUKEYER KIT IS A REVISED VERSION OF THE FAMOUS WB4VVF ACCUKEYER, BUT WITH SIDE TONE ON BOARD. COMES COMPLETE WITH ALL ELECTRONIC PARTS, LESS SOCKETS, POWER SUPPLY AND CASE.

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 #2 BUY THE ACCUKEYER AND 2102 OPTION TOGETHER (ONLY) \$37.00
 #3 BUY THE ACCUKEYER AND 2102 OPTION ALONG WITH THREE EXTRA 2102'S AND SOCKETS (ONLY) \$40.00
- PROXIMITY KEYER** \$19.95
 KEYER PADDLE ENABLES ONE TO GENERATE DOTS AND DASHES WITH THE TOUCH OF A FINGER (NO MOVING PARTS) COMES COMPLETE WITH ALL ELECTRONIC PARTS LESS CASE AND POWER SUPPLY.

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HAL-8314 (Most Famous Clock Kit) \$12.95
 6 DIGIT ELECTRONIC CLOCK KIT, 12 OR 24 HOUR FORMAT, COMPLETE KIT LESS POWER SUPPLY ADAPTOR AND CASE. RUNS OFF ANY 12 VOLT A.C. SOURCE REQUIRES 250 MA.

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 6 DIGIT ELECTRONIC CLOCK KIT, 12 HOUR FORMAT ONLY, OPERATE ON 12 VOLTS A.C. OR D.C. HAB TIME BASE ONBOARD. COMES COMPLETE LESS POWER ADAPTOR AND CASE.

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 4 DIGIT BASIC ELECTRONIC KIT, WITH OPTIONS AND PROVISIONS TO MAKE IT AN ALARM CLOCK AND A D.C. OPERATED CLOCK. COMPLETE LESS OPTIONS, POWER SUPPLY ADAPTOR AND CASE.

OPTION #1 - TO MAKE IT AN ALARM CLOCK \$2.95
OPTION #2 - TO MAKE IT A.D.C. 12V CLOCK \$4.95

CLOCK CASE - Reg. \$8.50 Clock Case - When Bought with Clock Kit (ONLY) \$4.50
 12 VOLT A.C. ADAPTOR - Reg. \$4.95 - When Bought with Clock Kit (ONLY) \$2.95
 Complete - \$4.95

60HZ TIME BASE CRYSTAL TIME BASE KIT USING MM5369.

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 BUILD YOUR OWN VIDEO RF MODULATOR. A MINI T.V. TRANSMITTER. FOR CHANNELS 3 OR 4 USING A S.A.W. OUTPUT FILTER KEEPING CO-CHANNEL INTERFERENCE AT A MINIMUM. COMES COMPLETE LESS CASE POWER SUPPLY AND HARDWARE.

NOTE: CASE, POWER SUPPLY AND HARDWARE ENCLOSE \$12.95 Extra

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 FUNCTION GENERATOR KIT, 1 Hz TO 100 KHz IN FIVE BANDS. AMPLITUDE AND OFFSET ADJUSTABLE. OUTPUT IMP. 500 OHMS. WAVE FORMS: SINE, SQUARE AND TRIANGULAR AND TTL CLOCK 0 TO 5 LEVEL, 200 NS RISE AND FALL TIME. COMPLETE KIT WITH CASE AND POWER SUPPLY AND ALL ELECTRONIC PARTS INCLUDING MANUAL.

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 P.O. BOX 1101 - DEPT. C
 SOUTHGATE, MICH. 48195
 PHONE (313) 285-1782



"HAL" HAROLD C. NOWLAND
 W8ZXH



Jose, EA7CFW, single band 3.5 MHz.

SINGLE OP ZONE WINNERS

Zone Call	Score	Zone Call	Score
1 KL7RA	981,120	21 UF6FER	1,342,750
2 No Entrant		22 VU2JXO	514,350
3 VE7WJ	2,016,000	23 UA0YAE	90,965
4 N5AU	1,971,050	24 No Entrant	
5 W1KM	2,699,775	25 JA1QPU	1,525,658
6 XE2MX	1,698,554	26 No Entrant	
7 HP1AC	261,516	27 KD7P/KH2	574,332
8 NP4A	6,027,752	28 YC0VM	1,127,705
9 9Y4VT	7,153,434	29 VK6AJ	56,006
10 OA4SS	109,275	30 VK2BQQ	516,146
11 PY4OD	687,152	31 KH6WT	71,690
12 CE1ADG	165,636	32 FO0JO	1,493,152
13 CX5AO	634,365	33 OH2MM/EAB	4,923,660
14 G4BUO	1,034,208	34 No Entrant	
15 I4IND	1,570,536	35 KC7UU/5N6	1,159,350
16 UB5EC	1,780,680	36 TR6JLD	325,844
17 UA9SAX	1,814,424	37 5Z4MX	820,338
18 UA9OCI	845,910	38 ZS1CT	5,549,304
19 UA9JAD	122,544	39 No Entrant	
20 N6XI/4X	3,109,722	40 JW5NM	69,930

SAINT MAARTEN

P47E A 498,870 1099 69 138

MOROCCO

CN8CX A 15,876 115 16 33

ST. KITTS

VP2KBZ A 2,063,630 2976 89 216

NIGERIA

KC7UU/ 5N6 A 1,159,350 1333 84 211

VP2KAA 7 837,366 2461 30 104

(Opn. N4PN)

VP2KAC 3.5 332,880 1302 28 86

(Opn. N4RJ)

U.S. VIRGIN ISLANDS

KV4FZ A 4,917,768 4437 124 348

REP. OF SOUTH AFRICA

ZS1CT A 5,549,304 3954 128 344

(Opn. K3G6I)

AFRICA

CANARY ISLANDS

SENEGAL

DK7PE/ 6W8 3.5 8,721 194 8 9

OH2MM/ EA8

SWAZILAND

3D6AK A 220,704 656 46 68

EA5BAV/ 8

TUNISIA

3V8AS A 593,342 859 63 178

EA8ABV/ 9

(Opn. DJ6QT)

EA8AGH 14 164,346 650 25 66

ZIMBABWE

EA8RL 7 329,080 1159 22 75

CEUTA

AFRICA

CANARY ISLANDS

EA9GK 14 70,832 315 23 53

JA1AAV

Z23J0 A 45,212 410 30 57

EATL/9 7 354,308 1175 21 80

JH1RNZ

28 43,344 247 27 45

EAKQK 9 89,388 387 19 59

JH1RNZ

21 223,992 767 33 69

EAE9U 3.5 229,150 787 14 75

JJ1NUB

21 169,078 465 31 60

DJIBOUTI

ASIA

INDIA

JG1NBD A 258,335 760 37 85

JA1HGY

227,584 637 37 90

JA1JXU

34,645 190 22 43

JG1QGO

21,655 126 25 35

JA1EMQ

14,848 94 24 24

JA1UP0

10,138 95 17 20

JJ1DBA

7,439 67 19 24

JA1BDI

3,948 30 20 27

JK1FOC

3,224 44 13 13

JA1OYB

612 19 6 6

JH1RES

3.5 37,595 203 24 49

JA1QPU A 1,525,658 1410 139 250

JH1RFT

7 288,090 928 33 77

JH4LZ

7 129,752 484 30 68

JA1DYZ

7 174,400 633 31 69

JH4CUU

7 14,355 97 23 32

JA1AYU

JH4LKB

1.8 160 11 3 5

JF1SEK

JH5XIX

A 479,600 625 109 166

JA1KCO

JH7CDL

7 13,570 101 27 32

JA1BOK

JH7BRG

7 16,492 280 21 38

JA1BOI

JH7CVU

7 44,793 199 28 51

JA1OYB

JH7JND

7 29,952 164 28 50

JA1OYB

JH7EC

7 17,136 125 20 31

JA1OYB

JH7YCQ

7 9,432 95 16 20

JA1OYB

JH7YJF

7 14,448 101 21 30

JA1OYB

JH7YR

7 10,492 87 19 24

JA1OYB

JH7YX

7 3,437 42 14 17

JA1OYB

JH7YX

7 30,307 135 45 44

JA1OYB

JH7YX

7 3,201 37 15 18

JA1OYB

JH7YX

7 1,479 17 15 14

JA1OYB

JH7YX

7 527 11 9 8

JA1OYB

JH7YX

7 700 20 6 8

JA1OYB

JH7YX

7 16,128 113 22 34

JA1OYB

JH7YX

7 12,690 90 22 32

JA1OYB

JH7YX

7 8,413 64 22 25

JA1OYB

JH7YX

7 41,910 253 26 49

JA1OYB

JH7YX

7 576 19 7 5

JA1OYB

JH7YX

7 JA7N1 1.8 4,512 69 15 17

JA1OYB

JH7YX

7 360,580 548 94 148

JA1OYB

JH7YX

7 163,000 364 66 97

JA1OYB

JH7YX

7 77,112 222 55 71

JA1OYB

JH7YX

7 30,000 244 25 51

JA1OYB

JH7YX

7 45,902 280 21 38

JA1OYB

JH7YX

7 44,793 199 28 51

JA1OYB

JH7YX

7 33,408 204 22 36

JA1OYB

JH7YX

7 29,952 164 28 50

JA1OYB

JH7YX

7 17,136 125 20 31

JA1OYB

JH7YX

7 9,432 95 16 20

JACQAD	34,532	126	47	50	UA9TS	"	90,785	500	16	51	LZ1EP	"	24,192	97	8	28	OK1MC	"	7,958	146	8	38	DJ4AX	3.5	157,964	1058	18	74							
JR8JTO	27,456	118	39	49	UA9CBM	"	86,670	394	18	63	LZ2KZA	"	19,032	176	15	46	OK2BVG	"	6,802	179	7	31	DLBLW	"	60,384	742	13	55							
JW8G02	27,432	103	52	56	UA9SJL	"	77,694	410	15	54	LZ2PP	3.5	181,888	1072	26	86	OK1MW	"	6,510	142	7	35	DK5AD	"	56,018	522	15	58							
JABKSD	14,927	251	32	61	UA9ABB	"	22,678	182	15	42		"	49,302	513	11	55	OL9PCG	"	5,624	159	6	31	DL8ZAJ	"	14,006	284	9	38							
JAAQO	40,612	110	60	82	UA9QWD	"	12,255	108	13	33	LZ1RU	"	54,747	534	18	59	OL4BET	"	3,360	106	5	25	DJ2YE	"	1,656	41	6	30							
JAZQZD	"	9,200	79	17	23	UA9FBE	"	11,644	171	14	22	LZ2CJ	1.8	12,740	220	10	39	OK2BUV	"	3,256	85	6	31	DL1YD	1.8	30,290	391	14	51						
JAKSUW	"	6,231	71	13	18	UA9QCA	"	11,044	139	14	30		"	10,042	194	9	33	OK9CPN	"	2,296	84	4	24	DL1RK	"	10,608	201	8	40						
JABDNV	3.5	19,602	142	21	33	UA9ICO	"	6,021	128	13	14	LZ1DQ	"	3,630	111	6	24	OK3CC	"	2,212	78	5	23	DL1GBZ	"	1,012	57	4	18						
JAJF0	A	230,864	445	82	116	UA9VF	"	2,392	48	10	16	CZECHOSLOVAKIA																							
JAJF0	A	230,864	445	82	116	UA9SMA	"	2,184	75	9	12	OK2F0	A	1,308,438	1428	123	340	OK1BIR	"	1,932	73	4	24	FINLAND	"	2,148	105	10	48						
JAJXWR	"	7,008	73	15	17	UA9JAX	"	418	40	4	7	OK3FM	"	682,992	1258	74	205	OK3CPY	"	1,764	60	5	23	OH2PM	A	394,658	637	82	229						
JAJLJS	14	131,097	515	31	58	UA9ADY	1.8	31,038	279	8	34	OK2R0	"	415,950	687	89	206	OK2BHZ	"	1,508	67	4	20	OF6MM	"	154,090	623	45	144						
JAJCGJ	A	194,417	417	67	101	UA9CBO	"	21,042	194	9	33	OK3PO	"	395,038	725	80	198	OL8COS	"	756	39	4	17	OH2ZAR	"	86,086	346	46	97						
JH0BBE	28	12,144	109	19	27	GEORGIAN S.S.R.																													
JAVVHI	"	232	9	7	7	OK6FER	A	1,342,750	1933	63	187	OK1ZP	"	208,467	544	63	126	OK1BZ	"	202,860	454	72	173	OH5NT	"	24,568	246	31	54						
JAVVU	21	35,685	202	22	39	UF6FCZ	21	18,394	199	14	20	CK2DX	"	192,600	489	68	148	OK2CZ	"	1,574	60	4	20	OH3OS	"	21,008	130	33	71						
JA0JCJ	7	7,240	67	20	20	UF6FFF	14	358,722	1099	34	83	CK2LS	"	171,754	454	59	152	OK3FON	"	578	34	4	13	OH3SS	"	19,594	117	34	67						
JA0ADT	"	1,200	27	7	9	UF6F0AS	7	135,324	579	20	64	CK1KZ	"	126,464	486	44	108	OK3FON	"	396	24	3	15	OH5PT	"	58,404	152	62	124						
JA0BGZ	"	700	26	6	4	UF6FAL	"	2,664	142	22	50	CK3D0	"	110,831	267	63	160	OK2BCZ	"	270	8	4	11	OH2JQ	"	58,322	221	42	120						
JH0NVX	"	496	22	4	4	UF6FJ	3.5	49,491	381	9	38	CK1MKU	"	93,224	273	51	121	OK3FON	"	99	1	2	7	OH2BF	"	14,996	67	59	33						
JH0RVF	"	135	12	3	2	UF2B8T/	"	UVG	1.8	83,160	481	14	49	CK3TAY	"	71,806	304	44	117	OK2BZ	"	10,519	137	20	47	OH2VZ	"	27,830	139	35	80				
JORDAN					RF6FPW	"	7,326	85	6	16	OK1AXB	"	68,320	276	40	100	OK1AWF	"	66,432	291	41	87	OH2BZ	"	10,000	100	20	60							
JYBKV	21	364,344	454	25	69	UF6DA	"	5,448	82	6	18	OK1DKU	"	60,836	340	38	98	OK2BZ	"	5,810	51	29	41	OF6EE	"	6,144	87	16	48						
KAZAKH																																			
KOREA					UL7WH	A	420,693	690	56	217	OK2OR	"	48,762	169	49	77	OK2AFA/A	"	5,215	58	15	20	OH2BAH	21	24,563	150	25	52							
HL9TX	A	149,660	547	59	81	UL7FDD	"	68,656	308	39	73	OK3TAO	"	45,144	270	30	78	OK2AFA/A	"	27,776	167	37	75	OF2SX	"	22,989	137	23	56						
HL1CG	21	26,740	143	26	44	UL7PFH	"	15,355	225	22	42	OK1MZO	"	32,330	236	30	76	OK2AFA/A	"	90	10	3	6	OH1PE	"	18,432	106	22	50						
MONGOLIA					UL7QP	21	117,604	639	18	53	OK2PBG	"	32,028	141	38	64	OK2AFA/A	"	3,402	31	18	24	OH2BF	"	3,990	50	16	26							
JT0APE	3.5	3,332	186	7	7	UL7AAS	14	77,235	435	22	60	OK1AOR	"	31,388	142	37	81	OK2AFA/A	"	12,312	1'5	21	51	OH2BF	"	11,115	87	19	46						
SAUDI ARABIA					UL7TAY	"	67,032	360	19	53	OK1DKV	"	26,180	118	38	72	OK2AFA/A	"	2,345	32	14	21	OH2BF	"	2,345	32	14	21							
HZ1HZ	A	933,751	1042	100	231	UL7LAW	7	91,399	439	21	58	OK1MIU	"	25,608	105	41	47	OK2AFA/A	"	5,810	51	29	41	OH5OY	"	1,617	43	9	24						
TURKEY					UL7LCM	3.5	140,630	693	18	64	OK2BCI	"	22,581	92	39	78	OK2AFA/A	"	17,808	1'0	25	31	OH2BAH	21	24,563	150	25	52							
TA2TAT	A	175,336	612	21	80	UL7CAL	"	59,568	313	20	53	OK2BCP	"	21,755	167	29	66	OK2AFA/A	"	38,269	273	21	56	OF2SX	"	22,989	137	23	56						
TA2WCY	3.5	120,500	828	8	42	(Opn. TA2BK)	"	4,806	90	9	18	OK1AVG	"	20,805	118	31	42	OK2AFA/A	"	1,021	50	21	56	OH1PE	"	185,432	993	29	75						
UG6GAF	28	55,247	367	18	55	OE3DSA	A	446,285	956	84	203	OK1HCR	"	11,294	102	26	47	OK2AFA/A	"	7,920	164	7	37	OH6EI	"	185,432	993	29	75						
UG6GBO	7	97,218	253	19	47	OE3RE	"	112,749	351	43	99	OK1HCR	"	12,445	65	37	48	OK2AFA/A	"	1,071	45	6	21	OH1EB	"	23,688	273	17	39						
UG6GAI	"	77,656	419	18	50	OE1ZES	"	35,168	213	29	83	OK1HCR	"	11,062	365	41	123	OK2AFA/A	"	11,174	358	38	104	OH7VN	"	19,488	246	14	34						
EZ6GAW	1.8	7,584	95	9	23	OE1FW	1.8	1,120	56	4	16	OK1HCR	"	11,385	305	37	111	OK2AFA/A	"	10,16	352	22	57	OH6CD	"	17,672	238	15	32						
UD6CN	A	11,194	206	16	42	AZORES ISLANDS	CT2CQ	A	884,616	1499	62	186	OK1HCR	"	11,210	163	11	30	OK2AFA/A	"	12,631	964	80	221	OH6SR	7	27,392	1236	31	80					
ASIANIC S.S.R.					UZBEK																														
UA9SAX	A	1,814,424	1889	94	252	UI8ADR	14	12,643	125	16	31	OK2BWT	"	16,380	95	24	36	OK3HCT	"	174,758	662	30	88	FRANCE	"	121,101	580	29	82						
UA9SSB	A	1,062,742	1336	74	207	ON7BX	A	52,416	243	38	74	OK2BWT	"	7,293	83	11	22	OK4FAM	"	396,500	1031	68	192	F3JL	A	353,159	722	69	122						
UA9OC1	"	845,910	1319	78	192	ON4ALC	21	116,154	647	24	57	OK2BWT	"	5,106	77	10	13	OK4FAM	"	280,765	682	57	161	T06ENO	"	322,671	775	56	121						
UA9UBW	"	248,774	660	63	110	ON4ABW	"	92,400	517	21	63	OK2BWT	"	7,700	17	9	13	OK4FAM	"	116,092	365	41	123	T03AT	"	66,289	262	47	104						
UA9AG	"	236,187	511	67	140	ON4XGK	"	1,239	27	7	14	OK2BWT	"	1,722	45	7	7	OK4FAM	"	116,882	365	41	123	F6ERZ	"	67,515	669	22	65						
UA9AJAD	"	122,544	505	59	89	ON5CWAS	"	40,369	242	24	45	OK2BWT	"	56,560	275	26	54	OK4FAM	"	10,037	143	30	81	OK2BWT	"	11,174	358	38	104						
UA9AYAE	"	98,955	441	34	79	ON5CWAS	"	12,740	351	49	99	OK2BWT	"	45,080	259	22	48	OK4FAM	"	10,106	352	22	57	OK2BWT	"	11,174	358	38	104						
UA9X9S	"	68,912	235	33	85	ON5CWAS	"	24,240	350	18	42	OK2BWT	"	11,340	124	17	35	OK4FAM	"	11,174	358	38	104	OK2BWT	"	11,174	358	38	104						
UA9ASB	"	61,722	209	35	77	ON5CWAS	"	16,932	128	26	42	OK2BWT	"	8,756	104	13	31	OK4FAM	"	11,174	358	38	104	OK2BWT	"	11,174	358	38	104						
UA9ASU	"	16,240	115	18	38	ON5CWAS	"	9,659	297	51	116</td																								

Y55VH	22,768	158	27	61	I.T.U. GENEVA				PORTUGAL				HB9DX	21	11,583	62	22	59	U44CK	..	73,040	308	45	111				
Y58ZA	22,512	143	28	56	4U1ITU				CT1CBW	A	145,110	588	30	75	HB9BPP	14	15,900	77	28	72	U4ANED	..	69,149	370	40	83		
Y75YH	22,022	200	25	65	(Opr. K3NA)				CT1BOL	28	112,690	588	25	94	HB9ZY	7	15,288	101	16	62	U43QLC	..	68,176	328	37	92		
Y36XC	21,000	168	28	77	LIECHTENSTEIN				CT1IAU	"	21,797	144	19	52	HB9QA	"	272	12	6	11	U4A6JG	..	59,356	252	42	100		
Y22HF	19,995	107	33	60	DJ8UY/ HB8				RHODES				WALES				HB9AGA	A	587,650	956	90	232	U4APNP	..	58,986	390	23	64
Y51W0	19,656	201	20	58	296,255				SV9CT/ SV5	21	149,877	1182	23	68	GW3JI	A	194,098	535	54	160	U44LR	..	46,646	207	46	82		
Y47VM	19,488	147	27	57	296,255				SV9CT/ SV5	7	19,720	209	13	55	GW3MPB	..	44,512	257	32	72	U41DF	..	44,069	185	33	94		
Y23HJ	14,014	118	25	66	LUXEMBURG				ROMANIA				YUGOSLAVIA				U43TF0	..	40,824	174	37	89	U43RDH	..	38,400	142	44	106
Y23HN	12,638	131	20	51	LUXEMBURG				Y03CD/p	A	671,772	933	108	248	YU3EA	A	1,037,590	1049	110	320	U43SBV	..	37,557	176	33	74		
Y21XC	12,144	96	18	26	NETHERLANDS				Y08FR	..	202,005	694	56	145	YU7PXT	..	263,906	583	76	178	U4ACDY	..	35,730	235	28	62		
Y30AJB	11,660	100	22	31	NETHERLANDS				Y03CR	"	51,303	198	45	102	YU2CZA	..	224,289	548	59	154	U43DPM	..	33,970	230	22	57		
Y39JA	11,584	115	23	41	NETHERLANDS				Y07DO	"	45,720	193	41	79	YU9WCY	..	124,733	356	52	121	U43DPM	..	28,512	211	25	71		
Y30RM	6,890	67	15	37	PA8XPO				Y05ANN	"	19,019	201	17	60	YU1NYY	..	102,529	319	51	100	U44ALI	..	23,744	261	22	34		
Y31ZE	6,545	55	22	33	PA8XPO				Y04CBT	"	14,490	90	33	57	YU1OVO	..	82,620	286	49	131	U43AJK	..	19,720	161	21	64		
Y21EA	6,500	78	17	48	PA8XPO				Y04BBH	"	9,163	153	11	38	YU2TY	..	52,560	202	38	82	U44AYZ	..	18,615	123	23	60		
Y31AL	6,468	74	17	27	PA8XPO				Y03CF	14	5,334	64	16	26	YU1PQJ/4	..	19,890	221	30	60	U44AIY	..	17,580	173	19	41		
Y30FCI /A	5,280	67	16	28	PA8XPO				Y08DP	7	31,659	443	14	47	YU2CQ	..	14,904	123	20	44	U43WV	..	17,025	144	22	53		
Y26BL	4,029	29	23	28	PA8XPO				Y04ATW	"	21,276	109	13	41	YU3TAQ	..	7,693	111	12	35	U44OK	..	11,712	197	9	13		
Y23FA	4,025	43	17	18	PA8XPO				Y04DCF	"	6,000	100	11	37	YU3TXU	28	33,731	190	27	62	U44ACA	..	10,224	75	25	46		
Y31YL	3,630	79	12	21	PA8XPO				Y09CIB	"	5,148	72	11	33	YU7AV	..	20,670	114	24	54	U43TES	..	7,191	71	20	31		
Y35UB	3,605	35	16	19	PA8XPO				Y06AAD	"	682	25	7	15	YU1W0	21	191,590	772	29	86	U46ARX	..	7,020	90	12	40		
Y31ON	3,440	63	13	30	PA8XPO				Y05EAB	"	10,865	85	23	30	YU3TMF	..	31,837	157	24	55	U41ASK	..	5,733	173	7	46		
Y27IL	2,904	43	12	32	PA8XPO				Y05EAB	3.5	14,589	361	5	32	YU1N7W	..	3,784	46	14	30	U43AGU	..	5,640	63	14	44		
Y24DG	2,409	31	15	18	PA8XPO				Y08REH	"	6,254	102	17	42	YU7ORQ	..	3,540	48	13	17	U44CHH	..	5,159	93	22	45		
Y38ZB	2,310	26	15	20	PA8XPO				Y03AMA	"	3,752	58	11	15	YU3TXU	28	33,731	190	27	62	U44ACA	..	10,224	75	25	46		
Y53ZF	2,232	34	12	19	PA8XPO				Y03AMA	"	520	12	11	11	YU7AV	..	20,670	114	24	54	U43TES	..	7,191	71	20	31		
Y33VL	1,728	14	18	18	PA8XPO				Y03ACC	"	14,040	105	21	57	YU1W0	21	191,590	772	29	86	U46ARX	..	7,020	90	12	40		
Y42UH	1,485	23	13	20	PA8XPO				Y03ACC	"	10,865	85	23	30	YU3TMF	..	31,837	157	24	55	U41ASK	..	5,733	173	7	46		
Y79AN	1,475	25	12	13	PA8XPO				Y03ACC	"	13,541	65	31	52	YU1N7W	..	3,784	46	14	30	U43AGU	..	5,640	63	14	44		
Y31SG	1,200	29	9	11	PA8XPO				Y08REH	"	6,254	102	17	42	YU7ORQ	..	3,540	48	13	17	U44CHH	..	5,159	93	22	45		
Y61UF	420	14	6	8	PA8XPO				Y03AMA	"	3,752	58	11	15	YU3TXU	28	33,731	190	27	62	U44ACA	..	10,224	75	25	46		
Y30AHN	33	11	3	3	PA8XPO				Y03AMA	"	520	12	11	11	YU7AV	..	20,670	114	24	54	U43TES	..	7,191	71	20	31		
Y31KK	28	286	6	7	PA8XPO				Y03ACC	"	14,040	105	21	57	YU1W0	21	191,590	772	29	86	U46ARX	..	7,020	90	12	40		
Y37ZE	21	30,124	174	24	44	PA8XPO				Y03ACC	3.5	7,566	148	7	39	YU3TMF	..	31,837	157	24	55	U41ASK	..	5,733	173	7	46	
Y42YG	28	269	185	22	45	PA8XPO				Y03ACC	1.8	45,066	473	15	59	YU1N7W	..	3,784	46	14	30	U43AGU	..	5,640	63	14	44	
Y57RH	17,613	118	21	36	PA8XPO				Y08REH	"	6,254	102	17	42	YU7ORQ	..	3,540	48	13	17	U44CHH	..	5,159	93	22	45		
Y30ATL	5,889	71	14	25	PA8XPO				Y03AMA	"	3,752	58	11	15	YU3TXU	28	33,731	190	27	62	U44ACA	..	10,224	75	25	46		
Y53RA	4,268	36	17	27	PA8XPO				Y03AMA	"	48,654	220	35	70	YU7AV	..	20,670	114	24	54	U43TES	..	7,191	71	20	31		
Y87VL	3,552	41	14	23	PA8XPO				Y03AMA	"	23,700	200	25	75	YU1W0	21	191,590	772	29	86	U46ARX	..	7,020	90	12	40		
Y59QA	14	10,959	136	14	25	PA8XPO				Y03AMA	"	15,840	230	23	49	YU3TMF	..	31,837	157	24	55	U41ASK	..	5,733	173	7	46	
Y38YE	8,148	87	15	27	PA8XPO				Y03AMA	"	6,608	102	15	44	YU1N7W	..	3,784	46	14	30	U43AGU	..	5,640	63	14	44		
Y23UH	7,632	101	16	32	PA8XPO				Y03AMA	7	24,310	333	14	51	YU7ORQ	..	3,540	48	13	17	U44CHH	..	5,159	93	22	45		
Y24HJ	2,568	55	10	14	PA8XPO				Y03AMA	7	24,310	333	14	51	YU3TXU	28	33,731	190	27	62	U44ACA	..	10,224	75	25	46		
Y21FL	2,490	40	10	20	LA90K				Y03AMA	"	12,600	393	55	145	YU7AV	..	20,670	114	24	54	U43TES	..	7,191	71	20	31		
Y23RJ	1,540	34	9	13	LA90K				Y03AMA	"	12,600	393	55	145	YU1W0	21	191,590	772	29	86	U46ARX	..	7,020	90	12	40		
Y25XL	510	17	6	11	LA90K				Y03AMA	"	12,600	393	55	145	YU3TMF	..	31,837	157	24	55	U41ASK	..	5,733	173	7	46		
Y64YG	216	17	3	5	LA90K				Y03AMA	"	12,600	393	55	145	YU1N7W	..	3,784	46	14	30	U43AGU	..	5,640	63	14	44		
Y49ZL	162	2	2	2	LA90K				Y03AMA	"	12,600	393	55	145	YU7ORQ	..	3,540	48	13	17	U44CHH	..	5,159	93	22	45		
Y27XJ	7	62,192	415	23	69	POLAND				Y03AMA	"	326,250	787	80	170	YU3TXU	28	33,731	190	27	62	U44ACA	..	10,224	75	25	46	
Y51XE	35,073	254	19	62	POLAND				Y03AMA	"	21,314	799	55	171	YU7AV	..	20,670	114	24	54	U43TES	..	7,191	71	20	31		
Y35TE	34,632	370	17	57	POLAND				Y03AMA	"	130,854	404	59	134	YU1W0	21	191,590	772	29	86	U46ARX	..	7,020	90	12	40</		

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HA7KSR	1,225,500	1835	104	271	KALININGRADSK	2,461,888	2606	141	397	ALASKA	2,361,594	2932	119	208
HG1Z	1,206,322	1802	96	242	UK2FAA	99,203	426	79	90	KL7Y	2,493,424	2575	121	291
HA5KRC	1,146,992	1733	96	247	UK2FBR	61,271	450	34	68	VE3PCA	1,878,600	7668	142	308
HG8U	1,068,953	1549	103	280	KARELO-FINISH	1,011,681	1622	89	274	ASIA	8,035,971	5200	159	442
HA1KRR	818,082	1485	80	202	UK1NAP	799,000	1373	81	259	ASIATIC U.S.S.R.	4,839,968	3516	164	332
HA8KCK	688,510	1220	68	222	UK2BAS	673,685	1178	86	249	JAPAN	4,692,792	3349	167	340
HG19HB	581,854	1120	86	213	UK2BCG	486,640	1133	68	218	JA9YBA	3,066,750	2650	144	291
HA7KLG	577,709	1062	98	221	UK2BBX	410,982	951	68	218	JA2YKA	2,455,916	2209	148	256
HA7KPF	114,576	397	53	123	UK2BCM	213,888	700	50	142	JA3YBF	1,311,000	1354	113	187
HA7KSF	8,064	108	18	46	UK2BBO	21,212	377	11	42	JA2YEF	869,550	3410	104	151
IRELAND	527,310	1186	73	206	UK2BBI	1,932,280	2100	153	362	SAUDI ARABIA	3,120,307	2994	105	274
EI3DP	434,196	943	67	185	RP2WCY	1,732,125	2552	112	335	GB4ANT	3,321,614	4421	121	322
HA2KMR	431,469	1113	65	186	UK2PRC	1,680,096	1913	129	344	EUROPE	4,047,819	3745	147	424
360,725	842	65	167	UK2BAS	1,011,681	1622	89	274	ENGLAND	3,487,000	3452	138	412	
HA7KLF	196,648	710	51	137	UK2BCG	799,000	1373	81	259	FED. REP. OF GERMANY	7,176,312	5083	169	528
HA7KPF	114,576	397	53	123	UK2BBX	634,680	1399	58	188	DLOKF	101,870	349	46	143
HA7KSF	8,064	108	18	46	UK2BCM	588,071	1262	89	188	FINLAND	5,788,687	4536	160	469
ISLE OF MAN	527,310	1186	73	206	UK5QBE	334,488	914	60	171	OH1AA	10,241	74	15	34
GD4UFB	2,587,130	3262	111	344	UK5YAA	309,262	955	67	135	NORWAY	14,630	144	17	38
ITALY	711,744	1890	99	165	UK5QBM	246,512	732	61	156	LG5LG	426,500	1002	64	166
IO2UIY	1,021,649	1728	88	235	UK5CAT	130,272	515	47	130	SP7KTE	64,246	149	65	117
JERSEY	159,276	657	39	117	UK5QBM	93,684	470	42	106	SP1KNU	14,976	259	9	39
GJSSXW	2,004,702	2415	102	311	UK5QBM	85,910	471	36	85	YUGOSLAVIA	98,418	424	28	66
NETHERLANDS	1,012,424	1562	99	259	UK5QBM	61,919	271	47	96	YT3T	578,716	1325	82	216
PA0GN	78,202	368	35	87	UK5QBM	49,848	211	55	79	YT3L	427,270	1577	42	127
NORWAY	89,540	677	79	192	UK5QBM	32,628	330	21	68	4N3A	421,750	852	61	189
LA1H	1,177,290	1358	100	281	UK5QBM	14,446	216	12	50	YU4CBC	108,864	312	46	98
POLAND	24,664	140	37	65	UK5QBM	10,707	317	11	18	YU2AKL	54,069	447	22	45
SP9KVM	1,612	40	10	21	YUGOSLAVIA	969,969	1536	92	265	YU1EXY	7,176,312	5083	169	528
SP8WCY	57,845	363	30	85	YT3T	578,716	1325	82	216	YT3A	5,788,687	4536	160	469
SP6PDT	24,664	140	37	65	YT3L	427,270	1577	42	127	YU1EXY	101,870	349	46	143
SP9PDG	1,612	40	10	21	YUGOSLAVIA	421,750	852	61	189	YU1EXY	92,700	397	37	113
ROMANIA	376,068	960	76	201	YU1EXY	108,864	312	46	98	YUGOSLAVIA	88,810	203	54	112
Y05KAU	3,729,792	3569	125	403	YU1EXY	54,069	447	22	45	YT3A	7,176,312	5083	169	528
SWEDEN	9,537	133	16	35	YUGOSLAVIA	969,969	1536	92	265	YT3A	5,788,687	4536	160	469
EA3VY	578,716	1325	82	216	YU1EXY	101,870	349	46	143	YU1EXY	14,630	144	17	38
SWITZERLAND	785,232	1061	104	232	YUGOSLAVIA	88,810	203	54	112	YU1EXY	92,700	397	37	113
U.N.—VIENNA	1,259,020	1745	98	242	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
4U1VIC	116,820	475	45	120	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
EUROPEAN U.S.S.R.	847,704	1371	75	211	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
BYELD-RUSSIA	423,260	1196	68	217	YU1EXY	101,870	349	46	143	YU1EXY	14,630	144	17	38
UK2AAB	121,184	350	62	129	YU1EXY	88,810	203	54	112	YU1EXY	92,700	397	37	113
UK2WAF	79,983	556	44	96	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
UK2WAY	18,765	261	22	47	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
UK2LAW	10,010	134	18	37	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
UK2WAE	5,504	61	15	28	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
ESTONIA	2,478,112	2338	149	443	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
RR2WCF	273,064	937	65	167	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
EUROPEAN S.S.R.	847,704	1371	75	211	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
RV4WCY	2,711,790	3279	131	391	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
RV6WCY	1,575,999	3028	102	267	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
UK4WAB	1,538,249	1974	115	314	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
UK4WAA	700,260	1265	87	243	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
UK1TBB	504,210	953	83	211	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
UK4PAE	401,308	1001	81	193	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
UK3GAF	407,809	1168	72	169	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
UK6AJA	356,421	922	69	178	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
UK4UAL	355,431	863	68	189	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
UK6LEZ	316,602	585	55	231	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
UK3TBY	218,688	711	44	174	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
UK1ODP	201,292	599	51	131	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
UK3DBV	191,208	643	52	134	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
UK1AAW	175,525	775	43	132	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
UK6HAA	170,625	661	48	147	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
UK3XAB	133,974	423	44	118	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
UK3TCJ	100,595	425	41	114	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
UK3DDU	36,957	206	45	82	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
UK1ADR	33,568	614	33	77	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
UK3SAA	23,436	103	25	68	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
UK1ACT	22,145	131	22	55	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
UK3XAV	21,082	341	25	81	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
UK3ABS	11,286	120	19	47	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
UK3TBF	195	9	6	9	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
YU4WCY	2,711,790	3279	131	391	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
YU6WCY	1,575,999	3028	102	267	YU1EXY	7,176,312	5083	169	528	YU1EXY	7,176,312	5083	169	528
YU4WAB	1,538,249	1974	115	314	YU1EXY	5,788,687	4536	160	469	YU1EXY	5,788,687	4536	160	469
YU4WAA	700,260	1265	87	243	YU1EXY	101,870	349	46	143	YU1EXY	101,870	349	46	143
YU4WAA	504,210	953	83	211	YU1EXY	88,810	203	54	112	YU1EXY	88,810	203	54	112
YU4PAE	401,308	1001	81	193	YU1EXY	7,176,312	5083	169	528	YU1EX				