Results, 1992 ARRL RTTY Roundup

More fun than I thought was possible.—Don, KC4TIR/N

By Hal Blegen, WA7EGA, and Billy Lunt, KR1R 2021 E Smythe Rd Contest Manager Spangle, WA 99031

wo hours before the gun, you could tell from the excited chatter on the band, the little false starts and the pseudo-exchanges as the operators checked their buffers, that the adrenalin was flowing. Solar flux was 250 +. A quick sweep of the bands found JJ3YYB with a big signal on 20 meters, while off the back of the beam, AH6IX was S9 on 15. From the West Coast on 10 meters, Colorado, Massachusetts and Florida sounded as if they were local. The 1618Z Boulder K-index dropped to 1. The "Grand Prix of RTTY" was about to begin.

Conditions for this year's Roundup were so good that, for at least some of the operators who may have gleefully compared their 1992 scores with those from previous years, the final standings may be disappointing.

Four of the top-10 high-power single ops smashed a record that had been around since 1989. The top-two low-power singles also broke previous class records, and UZ9CWA, operating as a DX-QRO multiop entry, nearly doubled the previous high score in his class. Records were set in four of the eight possible categories!

The Roundup lived up to its growing reputation for fast action. The 1989 results showed 18 stations with more than 400 QSOs. This year, 55 stations topped the 400 mark. There were seven stations with more than 600 QSOs, and for the first time, two stations broke 1000! "We were able to work the US all 24 hours we were on the air," wrote UZ9CWA, and Laurent, FJ5BL, could hardly believe it, "I made my WAS on RTTY in just 24 hours! The pileup was so big it filled my screen!"

On his first try in QRO single-op, Harry Ward, KG5EG, put his new amplifier to good use, netting the highest Roundup score ever logged! Harry used a KAM, an ICOM IC-765 HF transceiver, a new-for-Christmas Alpha 87 linear amplifier and a Hy-Gain TH7 antenna to bag 1010 QSOs and 99 mults. His DX-spotting setup was an ICOM IC-725 transceiver and a Telereader, with a Cushcraft A3 tribander fixed on Europe. On 40 and 80 meters he ran a GAP IV vertical antenna. Harry, who operated as HL9RY in the 1991 Roundup, recently moved to Colorado. His 65-foot tower gets a 7500-foot terrain boost from a hilltop overlooking Colorado Springs.

Harry did very little band hopping, concentrating on a single band and only QSYing when he found a multiplier. This is a key point. There are two philosophies on the use of a second transceiver. With an electronic lockout to keep all but one transmitter off the air, Hal, WA7EGA, was able to call CO on two bands, essentially running rate on both, switching bands for every QSO. The theory is that sending on one band while receiving on the other will increase the rate. The trade-off with this idea lies in the small delays and timing glitches that occur when the two bands get out of synch and that, while both rigs are running rate, it's impossible to search for multipliers.

Over 24 hours, the 18-QSO spread between KG5EG and WA7EGA was negligible, but the extra multipliers Harry found by carefully searching the "off" band won the contest. He said that he passed up a couple of mults when pileups were too large. The only state he missed was Montana.

"Although power line noise on the vertical was a problem on receive, 40 meters

/ most critical band," he said. sed WB2DND's logging program, having only received WF1B's contest software on the morning of the Roundup. Harry rated persistence as the primary contesting skill.

"My only regret," he said, "was in not breaking 100,000 points. This had to be the most fun I've ever had in a contest!" He had stiff competition—WA7EGA (second), KT1N (third) and KØRC (fourth) submitted record-breaking scores. Congratulations, Harry!

The fourth-highest score in the contest, and the highest score ever received from a DX entry, came from UZ9CWA in the DX, high-power, multiop category. The Roundup places a hard-and-fast 10-minute bandchange rule on multiops, but lets the single ops band hop. The effect has been that the top single-operator scores have always been higher than the multis. Considering the RF wall caused by stateside stations working each other with their beams pointed inboard, and remembering that the record US-multiop score is 69k, UZ9CWA's 81,305 points is a feat that deserves high praise!

Denis Mahoney, VE6ZX, made history. This was the first time he won a contest, he was a new record holder for the US/VE low-power single category and he was the first Canadian station ever to win a major



Juan, EA8AKQ, finished at the top of the single-operator, low-power standings.



Jon, KB9ATR, did a multioperator effort to try to get more people interested in digital communications. Shown are (I-r) John, KC9XT; Chris; Linda, N9LVL; Jon, KB9ATR; Jocelyne, WZ9M; Denny, W9XD; John, N9IOX; George, N9LBJ; and Brian, KB9GRP.

Single Operator Division Leaders

| | Low Power | | High Power | | | |
|----------------|-----------|--------|------------|--------|--|--|
| Division | Call | Score | Call | Score | | |
| Atlantic | NT3B | 40,800 | W2UP | 57,058 | | |
| Central | W9XU | 30,743 | N9ITX | 68,600 | | |
| Dakota | NJØM | 54,646 | KØRC | 74,008 | | |
| Delta | AA5AU | 58,930 | WJ5V | 17,280 | | |
| Great Lakes | WB8YJF | 48,638 | AB8K | 50,537 | | |
| Hudson | KC2FD | 25,568 | N2DL | 63,648 | | |
| Midwest | KØBX | 27,876 | NUØP | 29,160 | | |
| New England | KC1YZ | 37,350 | KT1N | 84,840 | | |
| Northwestern | WB7AVD | 54,285 | WA7EGA | 94,576 | | |
| Pacific | W6/GØAZT | 25,200 | N6GG | 44,968 | | |
| Roanoke | KA4RRU | 38,505 | WB4M | 61,250 | | |
| Rocky Mountain | N7GVV | 19,668 | KG5EG | 99,990 | | |
| Southeastern | KB4GID | 48,048 | AA4TH | 52,954 | | |
| Southwestern | KE7NF | 51,012 | AA4M/6 | 73,358 | | |
| West Gulf | KI5GX | 26,106 | WF5E | 73,098 | | |
| Canada | VE6ZX | 68,484 | VE3XO | 71,973 | | |

Single Operator Continental Leaders

| Continent | Low Powe | r | High Power | | |
|---------------|---------------------|--------|------------|--------|--|
| | Call | Score | Call | Score | |
| Africa | EA8AKQ | 57.240 | СТЗВХ | 48.024 | |
| Asia | JA3DLE/1 | 24,735 | JR4GPA | 4.590 | |
| Europe | GØARF | 32,172 | HA6PX | 40.940 | |
| North America | KG4DD | 48.587 | FJ5BL | 35.926 | |
| Oceania | AH6IX | 10,400 | AH6JF | 16,320 | |
| South America | 4M5RY (YV5KAV,op | 43,884 | CE3BFZ | 2,738 | |

category in the Roundup. Denis ran a 10-year-old Yaesu FT-902 HF transceiver and FL-2100 power amplifier. He throttled the power down to 150 watts on the low bands, but with the old tubes, the most he could get on 10 meters was 55 watts out. RTTY came from a HAL PCI-3000 board in his IBM PS/2 and he hand logged the contest. For antennas, he ran a 3-element quad at 60 feet, a wire delta quad on 40 and a half-sloping dipole on 80.

Denis said that, for him, the key to successful contesting was the 10-meter opening. "Up here in Edmonton," he said, "we seldom get 10-meter openings that last all day. This was an unusual weekend."

He said that he couldn't run enough power to work 20 meters, so his band strategy was to start the contest on 10 and alternate between 10 and 15 meters as long as they were open. When asked about logging software, he said, "You have to remember, I'm only two years off a Model 28."

Don Hill, AA5AU, who finished in second place in the low-power single class, rates special mention because his score of 58,930 broke the previous class record. By the end of the contest, when a multiplier was worth 700 points, that 9k spread between first and second was a close race. Don's was a familiar lament: "Where was Montana?"

Although he had the class pretty much to himself, SV1SV and his eight-man crew deserve a tip of the hat for setting a record in the multioperator, low-power DX category.

In the closest finish of the contest, Ray Ortgiesen, WF1B, coached a three-man crew to a 1500-point photo finish against Jim's crew at KC5PO to win the barnburner section of the US/VE multiop class. "Our stateside runs were excellent," he said. "This is definitely a fun contest and I was glad to see so many new faces joining the fun."

Ray's effort was run from K1NG's contest station in Exeter, Rhode Island. When you start listing antennas, it reads like Noah's Ark (two by two up the ramp). He has a pair of towers with monobanders on each for 10-40 meters and dipoles on 80. The gear included more than one Yaesu FT-1000 HF transceiver, an Amp Supply linear amplifier and Kantronics KAMs for RTTY. They, of course, ran the latest version of WF1B's contest software.

Ray said that although they got more multipliers on 15 meters, 40 was the best stateside band. On the first QSO of the contest, they blew up the 10-meter amplifier. Because of the operating position layout, this made 10 meters a barefoot operation for most of the contest and severely limited their QSO total on that band. They missed North Dakota and Montana.

WF1B wasn't the only station with gremlin trouble. There's something about contest RF that seems to seek out the weakest point in a system and destroy it. Glenn, AEØQ: RF ruined the serial ports on my new computer, but I still had a blast. James, WB6SMX: I'm getting tired of being a foster home for Murphy during the contest. Michael, WB9YJF: I managed 200 more QSOs than last year, even though my computer kept crashing.

You could almost hear the sigh when Warren, KC3ST, wrote, "This is a great contest for the little guy. Now if I could keep everything working for 24 hours...."

It's Not All in the Equipment

KG4DD took the honors for low-power

DX and, in the process, allowed a lot of new operators to add Guantanamo Bay to their RTTY country list. 4M5RY nosed out KP4FP for second place, with only an 8k point spread between first and third.

When examining strategies and listing the stacks of equipment that seem to be required to reach the winner's circle, it's refreshing to be reminded that in the Roundup, a major category can still be won by sheer exuberance.

To illustrate the point, Jon Slough, KB9ATR, and his crew of mostly brandnew RTTY ops won this year's US/VE multiop, low-power category. Jon ran a Kenwood TS-140S transceiver to a 3-element tribander at 62 feet. He has a dual-band inverted V for 40 and 80 meters. For RTTY, they used an AEA PK-232MBX with no special filters and they hand logged the contest.

Although the people at OSHA probably would have shut him down, Jon should probably be nominated for this year's "Press On, Regardless" award. With 45 minutes to go, they blew the rig's power supply. He said it took 11 minutes to tear it down and get it running again, and they finished the contest with it breadboarded on the operating bench (shudder!).

"There was a lot of activity above 28.100 MHz in the Novice subband. It's a real mistake to forget the Novices and Techs," he said.

Their best US band was 40 meters, with the most multipliers on 10. They missed Montana and Nevada. Of the 13 operators involved in the effort, only three, including Jon, had ever worked RTTY before.

"Our only goal," he said, "was to have a good time and to beat last year's score."

KB9ATR didn't have a monopoly on new RTTY ops. Bob, VS6AI: It was my

| TOP TEN Single Oper High Power W/VE | • | Single Operator, High Power, DX | | | | | | |
|---|--|---|--|--|--|--|--|--|
| Call | Score | Call | Score | | | | | |
| KG5EG WA7EGA KTIN KØRC AAAM/6 WF5E VE3XO AI7B WF5T N9ITX | 99,990 94,576 84,840 73,358 73,098 71,973 71,949 70,296 68,600 | CT3BX HA6PX OH2LU FJ5BL AL7LD RC2AZ J37WA AH6JF SM5FUG I2SVA | 48,024 40,940 37,890 33,926 33,086 29,568 21,024 16,320 12,736 10,816 | | | | | |
| Single Oper Low Power | | Single Operator, Low Power, DX | | | | | | |
| W/VE | | Call | Score | | | | | |
| Call | Score | KG4DD | 48,587 | | | | | |
| VE6ZX AASAU NJØM WB7AVD KE7NF WB8YJF KB4GID NT3B | 68,484 58,930 54,646 54,285 51,012 48,638 48,048 40,800 | 4M5RY (YV5KAJ,op) KP4FP GØARF EA8AKQ JA3DLE/1 UA9CI PA3DBS | 43,884 40,504 32,172 25,902 24,735 23,700 23,380 | | | | | |

TOP TEN

| Multioperate High Power W/VE | | Top Multioperator Scores, High Power, DX | | | | | | |
|---|---|---|---|--|--|--|--|--|
| Call WF1B KCSPO VE7ZZZ KY1F N7FYT WAAVQR KI7T WAAVQR KI7T WAAVGR MASTI N8ASI Multioperati Low Power W/VE | | Call UZ9CWA JJ3YBB NL7HP LZ2KIM Top Multi Scores, Low Pow Call SV1SV | • | | | | | |
| Call KB9ATR KO0Z W5VZF VE3UR AB4TC NSSAO W8UMD W83YON W84WOR W84WOR W84WOR | Score 30,340 21,655 21,389 12,036 8,957 8,556 7,228 7,038 4,368 3,458 | | | | | | | |

first contest. Geoffrey, KH6LP: I had never made a contact on RTTY before the contest started. Tom, N8IYV: This was my first RTTY contest. Patrick, ON5SV: I really enjoyed this, it was my first RTTY contest. Mark, N2IRY: This was my first time operating RTTY and now I'm hooked!

A big factor in the popularity of the Roundup is the ability of the "little guy" to have as much fun as the "big guns." In the nine hours that he worked the contest, Joe, NI1L, worked 74 QSOs and 34 mults. That may not sound like a big deal, except for his comment that "All my contacts were made with five watts to a dipole in the attic." Bruce, WA7BNM, was also surprised: "I didn't think it was possible to



David, WBØQIR, beat his antenna restrictions by running coax out to the antenna on his car, making 153 QSOs in the process.

work RTTY with a vertical and 100 watts," he said.

Overall, the activity continues to build, as most of the comments indicated. David, N2DL: I couldn't believe the number of stations on the air. I worked 25 states in the first two hours, and worked all but 5 by the end of the contest. Barry, W2UP: I still had a great rate going at 1 AM! Michael, N9ITX: It was another great contest, with participation definitely up. I almost tripled last year's score. Jack, NT3B: This has got to be the best RTTY contest going. The call signs come out of the woodwork for this one.

About 400 logs were submitted, which is up 25% from last year. As always, these numbers don't include the operators who join in for a few hours just for fun. Lowpower ops outnumbered the QROs by more than three to one. The wall-to-wall activity cooled a little between 0400-1300 UTC (six-hour rest breaks), but during peak hours the only limits were operator efficiency and the receiver passband. "What a difference a 500-Hz filter makes," wrote Ronald, KOØZ, "I doubled last year's score." Daniel, KA1BNO, posed a good question, though: "Where do all the stations go after the Roundup is over?'

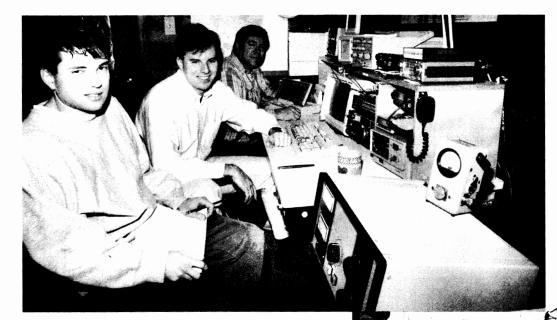
Contesting is a good test of your equipment layout. "I never knew how uncomfortable it was to run my station until now," wrote James, N9MWU, after eight hours on the keys. Another year is coming up. With the summer weather, this is the time to get those antennas ready, fix that chair and relocate the keyboard. Keep the first weekend in January open. Michael,

KA4RRU, sez, "I can't wait for the next one!"

Me, too, Mike. See you then.-WA7EGA

SOAPBOX

I have a modest station and my score shows that anyone can be a contester (WB7AVD). The bands were interesting, but not spectacular (CT3BX). Band conditions were poor the first 12 hours. There were few or no signals on 80 meters (K4IBP). It was good to see so many new RTTY ops (W8PBX). Where were Montana and Nevada? (NM3E). This contest is fun! (N8FEH). It was an enjoyable contest! I wish there had been more DX signals, but I managed to work some new states—such as Delaware—that had been elusive (WN1G). Propagation was good during the few hours we had daylight (SM5FUG). For a poor typist, I had a great time (K2PF). The bands were up and down all day (WA8FLF). I had strong wind conditions Saturday night and was afraid to (N6GG). We had a blast this year! We tried for 25 minutes to work a Maine station (NL7HP). Although I wasn't in the contest to win, I had a good time (W8PHG). I did much better this year. I tried to call CQ more often, but with 100 watts, it was hard to find a clear frequency. It seemed like there were many more stations on this year. (AH6IX). The DX wasn't as good this year as it was last year but there were plenty of stateside ops on, and I worked a few more for my RTTY WAS (AL7MK). There were plenty of stations to work, although DX multipliers were in short supply (NJØM). I missed one QSO to make 200; next year I won't sleep as much (VE2OWL). Conditions were good on 10 meters and I made 60 W/VE contacts on 40 meters! (HA6PX). It was a fast-paced contest (4M5RY). I had a lot of fun, even if I didn't have a lot of oper-ating time (WA3RRS). I learned a lot from the super operators. I worked a number of new states, which was my primary objective (W4MTE). The level of activity was excellent (KI7T). It's a pity more people don't know about this contest! (I2SVA). I wish I'd had my beam back up instead of the vertical (WA6VZI). I was nervous in the beginning, but as got into the contest, the strain wore off (WB6VSE).





With the family home for the holidays (I-r), Jerry, N7FYS; Dave, N7FYT; and Allen, N7FYU; decided to give the RTTY Roundup a whirl. They finished with 597 contacts—good enough for fifth place, Multioperator, High Power.

> Hector, KC1YZ, won a tight race in Eastern Massachusetts by only a handful of multipliers.

Al, RC2AZ, designed and built all his equipment for the contest. He exclaimed, "This was my first ARRL RTTY contest and it was a great one!"

V



Ed, AA4TH, claims, "This contest has taken over as the best of all RTTY contests."



Scores

Scores are listed by continents, DXCC countries and ARRL/Canadian Sections. DX stations are listed first, then the US and Canada. Within each country or Section, singleoperator scores are listed first, and then multioperator scores. Each line score lists call sign, final score, number of QSOs, number of multipliers, hours operated and power (A = less than 150-W output; B = more than 150-W output).

| (, , , , , , , , , , , , , , , , , , , | | | | | | • • | | | | | | | | | | | | |
|--|--------------------|------------------|--------------|------------------------------|------------------|------------------|--------------|-------------------------------------|------------------|------------------|--------------|------------------------------|------------------|----------------------------|--------------|-------------------------------------|--------------------------|--------------------|
| Africa | | | | Alaska AL7LD | 33,086 | 466 71 | 24 B | W2YRH KA2MYD | 7,896 1,161 | 43 27 | 14 B 10 A | K4KIY W5TTE | 18,090 3,366 | 270 67 99 34 | 24 A 13 A | W8VQI NBIRS/T | 1,456 56 1,232 56 | 22 11 4 |
| Madeira Is CT3BX | 48,024 | 522 92 | 24 B | KL7IWC AL7MK | 8.003 | 151 53 143 39 | 24 B 24 A | KA2WYE/T KB2BYQ/T | 960 760 | 40 24 38 20 | 13 A 12 B | K5FSB N5MOC | 2,555 | 99 34 73 35 55 32 | 6 B 14 A | W8UMD (KB8s IN LUP.NRV.NSA.OB | F,KNC,LOE,N | 8s KDJ, ZUZ |
| Canary Is | | | | NL7HP (+op) | 32,494 | | 24 B | 3 | | | | Oklahoma | ., | 00 02 | | KABU I W,ops) | 7,228 139 | 52 21 A |
| EA8AKQ Ascension is | 25,920 3 | 360 72 | 24 A | Puerto Rico KP4FP | 40,504 | 488 83 | 20 A | Delaware | | | | KI5GX KB5ILS | 26,106 24,895 | 458 57 383 65 | 17 A 22 A | West Virginia WA8FLF | 7,353 129 | 57 19 A |
| ZD8LII | 11,220 | 170 66 | 24 A | | -0,50- | -00 00 | 20 1 | N8NA | 13,794 | 209 66 | 24 A | WBØQIR N5SAO (+N5PYD | 6.579 | 153 43 138 62 | 24 A | 9 | 1,000 120 | |
| Asia | | | | Oceana Hawaii | | | | Eastern Pennsylva W2UP | nia 57,058 (| 807 94 | 15 B | South Texas | , 9,000 | 130 02 | 24 1 | Illinois | | |
| Japan | | | | AH6JF | 16,320 | 272 60 | 17 B | NT3B NM3E | 40,800 | 510 80 | 22 A 24 A | N5NMX N5CSE | 11,484 11,330 | 198 58 | 20 A 22 A | N9ITX KS9W | 68,600 686 62,613 773 | |
| JA3DLE/1 JA1AYC | 24,735 1 11,628 | 171 68 | 14 A | AH6IX NH6NZ/T | 10,400 308 | 200 52 | 11 A | W3FV | 26,560 | 332 80 | 24 B | KB5OG | 6,670 | 115 58 | 19 A | WU9P W9IL | 22,044 334 20,775 277 | 66 24 A |
| JE2UFF JR4GPA | 7,598 4,590 | 131 58 102 45 | 9 A 24 B | Papua New Guine | | 70 00 | ~ • | N3FOG KC3ST | 24,710 | 173 62 | 19 A 20 A | N5FTR K5HX | 3,589 | 130 40 97 37 | 10 A | W9HLQ | 6,424 146 | 44 15 A |
| JA1WYQ JJ3YBB (JA3s FI | HL.LHL.PJI | 50 37 JE3TX | | P29BT Australia | 1,000 | 73 22 | 24 A | WT3W N3HSH | | 106 47 | 24 B 12 A | WD5DAX KA5QAP | 1,682 1,404 | 58 29 54 26 | | WD9DZV WA9ZXM | 4,738 103 3,828 116 | 33 10 A |
| JH3s FQF,UHG | ,ops) 40,572 | | | VK3EBP | 2,040 | 60 34 | 17 A | WA3RRS KA3TOV | 2,800 2,580 | 70 40 86 30 | 6 A 11 A | West Texas | | | | W9FFQ N9MWU | 3,393 87 2,516 68 | 37 8 A |
| Asiatic Russia | | | | South America | 1 | | | KA3SDO/N N3HKX/T | 2,108 1,638 | 62 34 63 26 | 24 A 10 A | WF5E | 73,098 | 786 93 | 24 B | W9IB WA9LKZ (+KA9TI | 1,680 56 DG) 192 16 | 30 24 A 12 2 A |
| UA9CI UZ9CWA (UA9s | 23,700 CEV CGA | | | Chile | 0 700 | 74 07 | | WA3SDV WT3P | 840 368 | 42 20 23 16 | 6 A 3 B | 6 East Bay | | | | Indiana | | |
| ops) | 81,305 | 707115 | 24 B | CE3BFZ Colombia | 2,738 | 74 37 | 24 B | WA3YON (+KA3s | EEO,ZH | T) 153 46 | 15 A | W6/GØAZT | 25,200 | 400 63 | 24 A | W9KDX KF9CX | 40,584 534 13,578 219 | 76 24 B 62 24 A |
| Hong Kong VS6AI | 2 090 | 95 22 | 10 A | HKILAQ | 7,420 | 140 53 | 24 A | N3FTI (+N3IOK) WA3BAT (KA3YIW) | 6.396 | 123 52 | 17 B | Los Angeles | | | | KC9UU KE9CU | 6,765 123 4,950 110 | 55 11 A 45 18 A |
| Europe | 2,000 | 30 LL | Nº A | Argentina | | | | | 3,458 | 91 38 | 23 A | KK6PD WB6SSW | 22,743 | 531 65 361 63 | 21 A | KB9ABI/T KB9ATR (+KB9s | 570 30 | 19 3 B |
| Germany | | | | LU3DSU Yenezuela | 4,183 | 89 47 | 24 A | KA3HNM (+KA3D | 1,400 | 50 28 | 16 B | KF6HI WA6VZ1 | 16,579 8,400 | 281 59 175 48 | 19 A 24 B | KE9NR,N9s IOX, MRY,W9s JOE,X | IUS KKR LBJ | ,ĽŶĽ, |
| DL9MBZ Y26GA | 12,740 5,586 | 196 65 147 38 | 24 A 21 A | 4M5RY (YV5KAJ, | xp) | 477 92 | | Maryland-DC KA3VYN | 36,113 | 460 77 | 24 A | AB6CX WA7BNM | | 133 43 126 45 | | WITT, W35 JOE, X | 30,340 410 | 74 24 A |
| DF3NA DL2DBS | 3,564 | 81 44 | 24 A 24 A | W/VE | 43,004 | 4// 92 | 8 A | WB8WRY | 22,712 | 334 68 | 24 A 21 A | WB6SMX WA6BIE | 4,455 3,456 | 99 45 64 54 | 16 B | Wisconsin W9XU | 30,743 433 | 71 18 A |
| DL8HCO | 1,595 | 55 29 | 24 A | | | | | WA3GGM N3II | 13,545 | 215 63 | 24 A | KM6JV | 2,812 | 74 38 | | KD9BC KA9LAQ | 24,771 359 | 69 21 A |
| DF5BX DK5KJ | 1,134 806 | 42 27 31 26 | 24 A 24 A | Connecticut | | | | N3GWV W3EKT | 6,204 | 165 58 141 44 | 11 A | Orange KA6GMA | 2,992 | 88 34 | 11 A | N9CCI | 21,158 298 16,884 268 | 63 23 B |
| Balearic Is | | | | WA1FCN KEØKB/1 | 19,040 | 280 68 170 56 | 24 A 24 A | WA3SCW W3CPB | 2,204 | 104 46 58 38 | 9 A | WA6NOL | 2,112 | 64 33 | 19 A | KB9AIT KB9OWV | 9,450 175 6,270 110 | 57 18 A |
| EA62S England | 550 | 25 22 | 24 A | WA1MBK | 4,300 | 100 43 | 8 A | W4MTE W3/VK1GN (+WD | 1,786 4KUI) | 47 38 | | Santa Barbara K7SDW | 3 078 | 81 38 | 24 A | N9BCA W9HR | 4,922 107 4,324 92 | 47 12 A |
| GØÄRF | 32,172 | | | KD1DU W1TSJ | 3,959 2,660 | 107 37 70 38 | | | 12,992 | 232 56 | 24 B | Santa Clara Valle | | 0.00 | 2474 | W9ERW | 2,145 65 | 33 9 A |
| G4SKA G4MKO | 22,599 10,380 | 173 60 | 21 A 9 A | NI1L K1CE | 2,516 1,431 | 74 34 53 27 | 9 A 6 A | Western Pennsylv KA3JFI | ania 32,078 | 373 86 | 24 B | KI6OA WA6SDM | 8,550 8,379 | 171 50 171 49 | 24 A 24 A | 0 | | |
| G4XDD | 6,050 | 110 55 | 24 A | WB8IMY NJ1Q | 1,325 9 | 53 25 3 3 | 1 A | K3UA | 5,880 | 105 56 | 6 A | N6RJB WD6FYJ | | 160 51 92 35 | 24 A | Colorado KG5EG | 99,9901010 | 99 24 B |
| Wales GWØANA | 10,443 | 177 59 | 21 A | KY1F (+W1WCG) NF1J (+NET) | 2,214 | 618 78 82 27 | 20 B 2 A | 4 | | | | WB6VSE | 1,664 | 52 32 | | AEØQ AAØCY | 19,380 323 1,769 61 | |
| Hungary | | | | Eastern Massach | | | | Alabama KE4BM | 13,888 | 224 62 | 21 A | San Diego AA4M/6 | 73 358 | 853 86 | 24 B | WD5CMP | | 26 24 A |
| HA6PX Italy | 40,940 | 460 89 | 24 B | KT1N KC1YZ | 37,350 | 840101 450 83 | 24 A | AB4GR | 10,615 | 193 55 | 22 A | KH6LP | 3,293 | 89 37 | 24 A | iowa NUØP | 29,160 405 | 72 24 B |
| I2SVA IK2PZC | 10,816 | 208 52 | 24 B | N1HOQ WF1F | 27,720 | 450 75 440 63 | 21 A | Georgia AA4TH | 52,954 | 638 83 | 24 B | San Francisco W6JOX | 19 314 | 333 58 | 24 A | Kansas | | |
| 100KHP | | 108 54 | | N1FIO N1HMR | 23,310 22,981 | 333 70 343 67 | 23 A 21 A | KB4GID KL7TF/4 | 48,048 | 572 84 158 49 | 24 A | San Joaquin Vall | | | | KFØLZ WK5M | 21,889 371 10,812 212 | 51 24 A |
| Norway LA7AJ | 14.050 | 230 65 | 20 A | WA1IML N1DM | | 208 61 184 55 | | WB4ABY WA4DXD | 3,276 2,952 | 91 36 82 36 | 24 A 24 A | W6MTJ | | 44 29 | 7 B | WAØD N7AQX | 7,920 198 2,112 66 | 32 16 A |
| LA5RBA | 3,293 | 89 37 | 24 A | NO1J NR1J | 6,288 | 131 48 117 52 | 7 A | Kentucky | -, | | | Sacramento Valle N6GG | | 584 77 | 24 B | NWØF | 836 38 | 22 5 B |
| LAØBX Bulgaria | 2,108 | 68 31 | 13 A | AI6E | 936 | 36 26 | | W4TOY KU4A | 31,169 17,024 | 439 71 266 64 | 19 B 17 A | KB6WIJ | 3,698 | 86 43 | 11 A | Minnesota KØRC | 74,008 841 | 88 24 B |
| LZ2KIM (LZ2s A | F,LJ,ops) | 375 79 | 04 B | Maine WN1G | 20.907 | 303 69 | 24 A | North Carolina | | | | 7 | | | | NJØM WØYHE | 54,646 614 34,524 548 | 89 24 A 63 20 A |
| Finland | 29,025 | 3/5 /9 | 24 D | N1FJG W1VXV | 19,497 | 291 67 236 67 | 24 A | WB4M N4ROL | 61,250 28,390 | 625 98 334 85 | 24 B 24 B | Arizona KE7NF | 51.012 | 654 78 | 24 A | NØILS W2JGR/0 | 30,680 472 23,700 395 | 65 24 A |
| OH2LU | 37,890 | 421 90 | 22 B | W9FXV/1 KA1SSU/T | | 65 31 | 10 A | KS4S KN4GC | 13,140 | 219 60 158 46 | 21 A | W6RLL KE7KU | 31,682 | 511 62 171 48 | 24 A | WA9WFA WBØIQT | 9,408 168 4,312 98 | 56 24 B |
| OH2GI OG1TD | 440 | 146 50 22 20 | 19 A 24 A | New Hampshire | | | 14 | KC4WVC WA4DAZ | 5,117 | 119.43 126.39 | 13 A | Eastern Washing | | | | KØVW WEØQ | 4,144 112 4,085 95 | 37 8 A |
| Czechoslovakia OK2BXW | 1 050 | 50 39 | 04 A | N1AKS K1PTF | 12,350 | 190 65 164 63 | 24 A 24 A | WB7OND/4 WB4WOR (+WN4 | 1,620 | 54 30 | | WA7EGA WB7AVD | 94,576 54,285 | 028 92 | 24 B 24 A | WAØQIT NØAEV | 3,382 89 3,348 93 | 38 24 A |
| Belgium | 1,900 | 50 38 | 24 1 | WW1Y KA1OEO/T | 3,526 345 | 86 41 23 15 | 24 A | | 4,368 | 104 42 | 13 A | Montana | | | | KØSK KEØLX | 3,192 84 | 38 7 A |
| ON6CR ON5SV | 1,815 660 | 55 33 30 22 | 24 A 3 A | Rhode Island | 540 | 20 10 | 37 | Northern Florida KC4TIR/N | 6 100 | 122 50 | 24 B | KC7UO | 224 | 16 14 | 24 A | WAØVQR (+WBØ | 2,312 68 /PK) | |
| Denmark | 000 | 30 22 | 34 | WG1A KA1BNO | 45,390 2,108 | 534 85 62 34 | 24 B 8 A | South Carolina | 0,100 | 122 00 | 240 | Oregon Al7B | 71,949 | 827 87 | 24 B | Missouri | 39,285 485 | 81 23 8 |
| OZ1FGS OZ7XE | 2,760 2,240 | 69 40 70 32 | | WF1B (+K1NG,N | 1FGJ) | 763 88 | | N4IQ NU7F/4 | 23,595 10,100 | 363 65 | 20 B 7 A | WJ7S KI7Y | | 399 65 181 54 | | KØBX WØPIQ | 27,876 404 13,330 215 | 69 20 A |
| Netherlands | 2,240 | 10 32 | 24 0 | Vermont | 07,144 | /05/00 | 240 | KO4GS | | 178 49 | | Utah | | | | NØMQB | 5,084 124 | 41 16 A |
| PA3DBS | 23,380 | 334 70 | 18 A | W2IJB W5VWD | 6,215 4,320 | 113 55 96 45 | | Southern Florida KK4DK | 23,544 | 327 72 | 22 A | N7LMO | | 162 49 | 8 B | KOØZ (+NFØQ) North Dakota | 21,655 305 | 71 20 A |
| Sweden SM5FUG | 12,736 | 199 64 | 9 B | Western Massach | | 00 40 | NV A | WA4VQD KB4U | 11,711 | 239 49 | 11 B | Western Washing NM7N | 22.624 | 404 56 | 24 A | WØLHS | 8,816 152 | 58 8 A |
| SM4LLP SM5EIT | 1,488 999 | 48 31 37 27 | 13 Å | W1BYH WJ1Y | 34,720 | 434 80 210 54 | 20 A 24 A | N4ONQ W1UDB/4 | 3,570 1,200 | 85 42 50 24 | 24 A 24 A | KB7JMW N6RY | 14,304 12,903 | 298 48 253 51 | 24 A 18 A | Nebraska KBØFNH | 3,168 88 | 36 11 A |
| SM3MID | 266 | 19 14 | 24 A | WN1E KA1ULT | 8,650 | 173 50 57 30 | 19 A | AB4TC (+ N4UNE) | 8,957 | 169 53 | 22 A | N4JLF/7 WA7YGB | 9,984 6,006 | 208 48 | 24 B 13 A | WØEGV KBØUZ | 1,540 55 | |
| Poland SP3SUN | 4 400 | 100 44 | 24 B | 2 | 1,710 | 0, 00 | 54 | Tennessee K4IBP | 26,286 | 337 78 | 24 A | WA7PVE N7VEA | 5,400 340 | 135 40 20 17 | 11 A 8 A | South Dakota | 1,025 41 | 20 5 A |
| SP3BGD | | 100 43 | | Eastern New Yor | k | | | WA4MCZ WA1MPB | 24,682 12,096 | 301 82 | 17 A | N7FYT (+N7s FY | S,FYU) | 597 68 | | NØJPE NØIGX | 33,796 476 | |
| Greece SV1SV (SV1s A | AW AHV AI | | | N2DL WB2EAR | 63,648 | 663 96 411 71 | 24 B 23 B | AC4LS | 1,334 | 46 29 | 5 A | KI7T (+WB7HVL) | 15,400 | 280 55 | 16 B | VE | 6,364 148 | 43 24 A |
| BDO,BJV,BKE, | TN,ops) | 255 61 | | WM2U W2ZPO | 18.330 | 282 65 201 87 | 24 A | Virginia KA4RRU | 38,505 | 453 95 | 24 A | Wyoming N7GVV | 19.668 | 298 66 | 20 A | Prince Edward Isl | and | |
| Ukraine | 10,000 | 200 01 | 2477 | N2KAD | 10,746 | 199 54 | 18 B | KM4IG AB4SF | 23.256 | 323 72 245 59 | 24 B | .8 | | | | VY2SS | 53,928 642 | 84 24 B |
| RYØH (RBØHZ, (UB4HQ | op) 6,510 | 155 42 128 47 | 24 B | W2KHQ WB2SPN | 5,978 | 151 49 122 49 | 15 A | K4FPF | 8,056 | 152 53 | 12 A | Michigan | | | | Quebec VE2OWL | 10 140 100 | E1 20 A |
| Byelorus | 0,010 | 120 47 | 247 | WA3INC N2FTR | 3,995 2,346 | | 10 A | N4YPP WA4DTE | 3,528 3,080 | 88 35 | 9 A | N8FEH N8ABW | 24,300 | 324 75 324 71 | 24 A 18 B | VE2AXO | 10,149 199 8,372 161 | 51 20 A 52 13 A |
| RC2AZ UC2SF | 29,568 946 | 352 84 43 22 | 21 B | N2LBZ N2HIG | 1,860 1,620 | 60 31 54 30 | 24 A | NCØU N3RC | 1,456 500 | 52 28 25 20 | 4 A 24 A | WW8Q W8PHE | 17,050 | 310 55 167 58 | 24 A | Ontario VE3XO | 71,973 727 | 00 04 0 |
| Moldova | 540 | -0 -22 | | WA2KFS | 1,537 | 53 29 | 7 A | 5 | | | | NN8H | 5,060 | 115 44 | 14 B | VE3FJB | 16,900 260 | 65 24 A |
| UOSOLW | 3,772 | 82 46 | 24 B | NYC-Long Island NN2G | 58,468 | 622 94 483 87 | 24 B | Arkansas | | | . | KE9DZ N8LXQ | 3,120 2,470 | 78 40 65 38 | 24 A | VE3WZ VE3JAN VE3UR () VE3NIT | 4,700 100 4,042 86 | 47 11 A 47 16 B |
| Yugoslavia YU3MJ | 2.491 | 53 47 | 24 A | N2FF KC2FD | 25,568 | 376 68 | 24 A | WJ5V KF5JH | 17,280 13,932 | 288 60 258 54 | 24 B 24 A | KA8IZE KD8LZ | 1,595 195 | 55 29 15 13 | 4 A | VE3UR (+VE3NIT |) 12,036 204 | 59 24 A |
| North Americ | | | | WB2DZH WY2E | 20,377 18,662 | 287 71 301 62 | 24 A 17 A | AA5BE WA5RHG | 12,879 | 243 53 | 24 A 20 A | N8ASI (+KIBJ) Ohio | 2,590 | 74 35 | 16 B | Manitoba VE4SF | A 664 | 46 14 4 |
| St Martin | | | | KD2BW KE2NK | 9,724 | 187 52 178 48 | 19 A | AA5CV WØLK | 2,077 | 67 31 45 24 | 24 A | AB8K | 50,537 | 521 97 586 83 | 24 B | VE45P Saskatchewan | 4,554 99 | 40 14 A |
| FJ5BL | 35,926 | 506 71 | 23 B | Northern New Je | rsey | | | Louisiana | | | | WB8YJF WA3DTO | 20.736 | 324 64 | 17 A | VE5SF | 5,412 132 | 41 9 A |
| Panama HP1AC | 2.310 | 66 35 | 24 B | NO2T WA2PNI | 47,895 | 515 93 265 63 | 24 A | AA5AU WA5JWU | | 96 42 | 14 A | KA8WAS W8PBX | 17,920 | 313 64 280 64 | 24 A | Alberta VE6ZX | 68,484 878 | 79 04 4 |
| Dominica | | | | N2KAW/T K2PF | 8,366 | 178 47 | 17 A | WD5CBL KC5PO (+KC4ZN | 1,674 | 54 31 | | WB8STO KA1S | 15,688 12,700 | 296 53 254 50 154 47 | 14 B 18 A | VEGKRR | 34,086 494 | 78 24 A 69 23 A |
| J37WA | | 288 73 | 24 B | ND2K N2IRY | 2,160 | 60 36 | 4 A | | 65,653 | 791 83 | 24 B | AF8A N8IYV | 3.828 | 87 44 | 24 A | British Columbia VE7SSS | 32,208 528 | 61 21 A |
| Guantanamo Ba KG4DD | | 631 77 | 20 A | Southern New Je | rsey | | | Mississippi W5VZF (+KB4HB | ,WA4OD | E) | | N8JIW WB8CKI | 3,192 2,888 | 84 38 76 38 | 12 A 24 A | VE7IN VE7ZZZ (VE7s AV, | 2.898 69 | 42 24 B |
| | | | | N2BCF N2CQ | 3,840 1,334 | 96 40 46 29 | 13 A 7 A | | 21,389 | 293 73 | 24 A | W8LIL KA8OUT | 2,562 | 61 42 54 31 | 8 A 10 A | SRI,ops) | 49,734 614 | 81 24 B |
| | | | | Western New Yo | rk | | | New Mexico WF5T | 70,296 | | | WD9FTZ WB8WTS | 1,643 | 53 31 54 28 | 5 A 2 A | Checklogs DL2BQV, NW8E, S | M419F 9M | |
| | | | | WB2ZQP | 27,375 | 375 73 | 24 A | W7LHO | 38,998 | | | KABMKO | 1,508 | 52 29 | 12 A | Y21YT. | | QST |
| | | | | | | | | | | | | | | | | | | |