

Understanding Log Checking

An Advantageous Operating Benefit

Contest Log Checking

- **Metric of operating skill, balancing:**
 - Speed
 - Accuracy
- **Self-improvement**
 - Compared to prior results
 - Suggests changes next time
- **Equally beneficial to all entrants, whether**
 - First place, or
 - Last place

Score Calculation

- **QSO Points x Multipliers = Score**
- **1 < QSO Points < 81**
 - NA RTTY Sprint: 1 point
 - WW RTTY: 1-3 points
 - WPX RTTY: 1-6 points
 - WW Digi & FT Challenge: 1-7 points
 - ARRL International Digital: 1-81 points
- **Bad QSOs removed**
 - If also a unique Mult, it is also removed
- **Mults vary: states, DXCCs, zones, grids, prefixes ...**

Log Check Report (LCR)

- **Simple text file**
 - p49x.rpt
- **Also called UBN:**
 - *U*nique QSOs not in other logs
 - *B*usted (incorrect) call signs or exchanges
 - *N*ot-in-Logs (NILs)
- **Key components:**
 - Overall log statistics
 - Error Rate
 - Score Reduction (typically greater than Error Rate)
 - NILs
 - Busted call signs
 - Busted exchanges
 - (duplicate QSOs removed)
 - (unique call signs not removed, unless busted)

2023 WW RTTY Overall Log Data

3,357 Logs

1,220,036 QSOs

18,908 Different calls claimed

3,466 Uniques claimed

162 Countries

986,461 (80.9%) qso with exact frequencies

8,587 (0.7%) dupes

1,147,969 (94.1%) qso checked against another log

1,108,464 (96.6%) qso checked good when checked against another log

2.8% error rate

9.4% score reduction

9,320 (0.8%) busted exchange

237 (0.0%) missing exchange

12,129 (1.1%) busted calls

17,738 (1.5%) not in log

901,976,394 Scores Total

Median Data

Error Rate vs. Score Reduction

- **All errors deducted from Claimed (or, Raw) Score**
 - QSO points removed
 - Including any unique mults among those removed QSOs
- **Some errors may have an additional penalty**
 - WPX RTTY & WW Digi: **2x** QSO points removed for:
 - NIL
 - Busted call sign
 - WW RTTY: **3x** QSO points removed for:
 - Nil
 - Busted call sign

2023 WW RTTY P49X LCR

Contest: 2023 CQ WORLD WIDE RTTY DX CONTEST

Call: P49X

Operators: W0YK

Category: Single Op All Band High Power

Processed: 2023-12-27 20:38:33

***** Summary *****

4518 Raw QSO before checking (does not include duplicates or missing exchanges)

4398 Final QSO after checking reductions

13467 Raw QSO points

12636 Final QSO points

255 Raw state/prov

252 Final state/prov

110 Raw zones

109 Final zones

326 Raw countries

319 Final countries

691 Raw mults

680 Final mults

9305697 Raw score

8592480 Final score

2.7% error rate based on raw and final qso counts

7.7% score reduction

29 (0.6%) not in log

51 (1.1%) incorrect calls

40 (0.9%) incorrect exchanges

0 (0.0%) missing exchanges

87 (1.9%) duplicates removed

29 (0.6%) calls unique to this log only (not removed)

2023 WW RTTY P49X LCR

Contest: 2023 CQ WORLD WIDE RTTY DX CONTEST

Call: P49X

Operators: W0YK

Category: Single Op All Band High Power

Processed: 2023-12-27 20:38:33

***** Summary *****

120/4518=2.7% { 4518 Raw QSO before checking (does not include duplicates or missing exchanges)
4398 Final QSO after checking reductions

Error Rate

13467 Raw QSO points
12636 Final QSO points

255 Raw state/prov
252 Final state/prov

110 Raw zones
109 Final zones

326 Raw countries
319 Final countries

691 Raw mults
680 Final mults

9305697 Raw score
8592480 Final score

→ 2.7% error rate based on raw and final qso counts
7.7% score reduction

120
(0.6+1.1+0.9=2.7%) { 29 (0.6%) not in log
51 (1.1%) incorrect calls
40 (0.9%) incorrect exchanges
0 (0.0%) missing exchanges
87 (1.9%) duplicates removed
29 (0.6%) calls unique to this log only (not removed)

2023 WW RTTY P49X LCR

Contest: 2023 CQ WORLD WIDE RTTY DX CONTEST

Call: P49X

Operators: W0YK

Category: Single Op All Band High Power

Processed: 2023-12-27 20:38:33

***** Summary *****

4518 Raw QSO before checking (does not include duplicates or missing exchanges)

4398 Final QSO after checking reductions

$831/13467=6.2\%$ $\left\{ \begin{array}{l} 13467 \text{ Raw QSO points} \\ 12636 \text{ Final QSO points} \end{array} \right\}$ 2.7% QSO error rate → 6.2% points reduction due to penalties

255 Raw state/prov

252 Final state/prov

110 Raw zones

109 Final zones

326 Raw countries

319 Final countries

691 Raw mults

680 Final mults

9305697 Raw score

8592480 Final score

2.7% error rate based on raw and final qso counts
7.7% score reduction

29 (0.6%) not in log

51 (1.1%) incorrect calls } x3 points reduction due to penalties

40 (0.9%) incorrect exchanges x1 points reduction

0 (0.0%) missing exchanges

87 (1.9%) duplicates removed

29 (0.6%) calls unique to this log only (not removed)

Score Reductions

2023 WW RTTY P49X LCR

Contest: 2023 CQ WORLD WIDE RTTY DX CONTEST

Call: P49X

Operators: W0YK

Category: Single Op All Band High Power

Processed: 2023-12-27 20:38:33

***** Summary *****

4518 Raw QSO before checking (does not include duplicates or missing exchanges)

4398 Final QSO after checking reductions

$831/13467=6.2\%$ $\left\{ \begin{array}{l} 13467 \text{ Raw QSO points} \\ 12636 \text{ Final QSO points} \end{array} \right\}$ 2.7% QSO error rate $\rightarrow$ 6.2% points reductions due to penalties

255 Raw state/prov

252 Final state/prov

110 Raw zones

109 Final zones

326 Raw countries

319 Final countries

$11/691=1.6\%$ $\left\{ \begin{array}{l} 691 \text{ Raw mults} \\ 680 \text{ Final mults} \end{array} \right\}$

$7.1/93.0=7.7\%$ $\left\{ \begin{array}{l} 9305697 \text{ Raw score} \\ 8592480 \text{ Final score} \end{array} \right\}$

$6.2\%+1.6\% =$

$(6.2\% \times 1.6\%) = 7.7\%$ $\rightarrow$

2.7% error rate based on raw and final qso counts
7.7% score reduction

29 (0.6%) not in log

51 (1.1%) incorrect calls $\left\} \right.$ x3 points reduction due to penalties

40 (0.9%) incorrect exchanges x1 points reduction

0 (0.0%) missing exchanges

87 (1.9%) duplicates removed

29 (0.6%) calls unique to this log only (not removed)

2023 WW RTTY P49X LCR

Contest: 2023 CQ WORLD WIDE RTTY DX CONTEST

Call: P49X

Operators: W0YK

Category: Single Op All Band High Power

Processed: 2023-12-27 20:38:33

***** Summary *****

120/4518=2.7% { 4518 Raw QSO before checking (does not include duplicates or missing exchanges)
4398 Final QSO after checking reductions

831/13467=6.2% { 13467 Raw QSO points
12636 Final QSO points } 2.7% QSO error rate → 6.2% points reductions due to penalties

255 Raw state/prov

252 Final state/prov

110 Raw zones

109 Final zones

326 Raw countries

319 Final countries

11/691=1.6% { 691 Raw mults
680 Final mults

7.1/93.0=7.7% { 9305697 Raw score
8592480 Final score

6.2%+1.6% → 2.7% error rate based on raw and final qso counts
(6.2%×1.6%)=7.7% → 7.7% score reduction

120 { 29 (0.6%) not in log
51 (1.1%) incorrect calls } x3 points reduction due to penalties
(0.6+1.1+0.9=2.7%) { 40 (0.9%) incorrect exchanges x1 points reduction
0 (0.0%) missing exchanges
87 (1.9%) duplicates removed
29 (0.6%) calls unique to this log only (not removed)

2025 WPX RTTY P49X LCR

Contest: 2025 CQ WPX RTTY CONTEST

Call: P49X

Operators: W0YK

Category: Single Op All Band High Power

Processed: 2025-03-27 22:37:52

***** Summary *****

149/3528=4.2% { 3528 Raw QSO before checking (does not include duplicates or missing exchanges)
3379 Final QSO after checking reductions

1006/13548=7.4% { 13548 Raw QSO points
12542 Final QSO points } 4.2% QSO error rate → 7.4% points reductions due to penalties

23/949=2.4% { 949 Raw mults
926 Final mults

1.2/12.9=9.7% { 12857052 Raw score
11613892 Final score

7.4%+2.4%
(7.4%x2.4%) → 4.2% error rate based on raw and final qso counts
=9.7% → 9.7% score reduction

149 { 18 (0.5%) not in log
33 (0.9%) incorrect calls } x2 points reduction due to penalties
(0.5+0.9+2.8=4.2%) { 98 (2.8%) incorrect exchanges x1 points reduction
1 (0.0%) missing exchanges
42 (1.2%) duplicates removed
16 (0.5%) calls unique to this log only (not removed)
43 out of time removed

2023 WW RTTY P49X LCR

*******Results By Band*******

	Band	QSO	QPts	Loc	Zone	Cty	Total	
Raw	80M	151	452	32	11	35	78	
Final	80M	144	389	32	11	33	76	
Raw	40M	578	1722	49	15	59	123	
Final	40M	558	1569	49	15	57	121	
Raw	20M	1017	3039	56	29	81	166	
Final	20M	987	2835	55	29	79	163	
Raw	15M	1417	4224	59	28	76	163	
Final	15M	1381	3993	58	28	76	162	
Raw	10M	1355	4030	59	27	75	161	
Final	10M	1328	3850	58	26	74	158	
Raw	All	4518	13467	255	110	326	691	9305697
Final	All	4398	12636	252	109	319	680	8592480

2023 WW RTTY P49X LCR

*******Not In Log*******

14084 RY 2023-09-23 0100 P49X 9 DX K4AOQ 5 FL
14084 RY 2023-09-23 0206 P49X 9 DX AC0C 4 KS
14084 RY 2023-09-23 0248 P49X 9 DX K5OA 3 CA
7099 RY 2023-09-23 0337 P49X 9 DX K8GB 4 MI
7099 RY 2023-09-23 0417 P49X 9 DX K5CCW 4 TX
3596 RY 2023-09-23 0427 P49X 9 DX E79D 15 DX
14089 RY 2023-09-23 0514 P49X 9 DX EA7GE 14 DX
7097 RY 2023-09-23 0541 P49X 9 DX KE6K 3 AZ
7097 RY 2023-09-23 0652 P49X 9 DX TA7I 20 DX
14085 RY 2023-09-23 0824 P49X 9 DX JA6MWW 25 DX
14085 RY 2023-09-23 0835 P49X 9 DX DU7/VK4CCV 27 DX
28109 RY 2023-09-23 1226 P49X 9 DX SP9DTE 15 DX
21106 RY 2023-09-23 1433 P49X 9 DX OH1F 15 DX
21106 RY 2023-09-23 1635 P49X 9 DX IZ4DYQ 15 DX
28084 RY 2023-09-23 1912 P49X 9 DX VE3NFN 4 ON
28086 RY 2023-09-23 1944 P49X 9 DX EA1UQ 14 DX
21094 RY 2023-09-23 2210 P49X 9 DX KZ9DX 4 IL
21094 RY 2023-09-23 2211 P49X 9 DX N4TB 5 FL
21084 RY 2023-09-23 2337 P49X 9 DX AK3B 5 MD
28083 RY 2023-09-23 2359 P49X 9 DX KE5MIS 4 MS
14084 RY 2023-09-24 0305 P49X 9 DX HP1OIA 7 DX
3585 RY 2023-09-24 0305 P49X 9 DX N0BUI 4 MN
3585 RY 2023-09-24 0314 P49X 9 DX IK4RVG 15 DX
3585 RY 2023-09-24 0446 P49X 9 DX W2VQ 5 NJ
28082 RY 2023-09-24 2006 P49X 9 DX LP3D 13 DX
21079 RY 2023-09-24 2015 P49X 9 DX IK3TZB 15 DX
21079 RY 2023-09-24 2106 P49X 9 DX WA2PCN 4 SC
21080 RY 2023-09-24 2317 P49X 9 DX K8ARY 5 SC
14086 RY 2023-09-24 2331 P49X 9 DX K4VTE 5 GA

*Computer crash
Forgot to hit Enter
“Working” another pile-up
...*

2023 WW RTTY P49X LCR

*****Incorrect Call*****

7099 RY 2023-09-23 0030 P49X 9 DX VE3MZ 4 ON correct VE3NZ
7099 RY 2023-09-23 0057 P49X 9 DX DP5JS 14 DX correct DL5JS
7099 RY 2023-09-23 0112 P49X 9 DX KX1X 5 MA correct KW1X
7099 RY 2023-09-23 0131 P49X 9 DX DL6RZ 14 DX correct DL6JZ
7099 RY 2023-09-23 0207 P49X 9 DX W0BX 4 MN correct W0BM
14084 RY 2023-09-23 0208 P49X 9 DX MM3X 14 DX correct XM3X
7099 RY 2023-09-23 0317 P49X 9 DX EA8CN 33 DX correct EA8CNR
7099 RY 2023-09-23 0353 P49X 9 DX OH0R 15 DX correct OH0RY
14089 RY 2023-09-23 0443 P49X 9 DX KA9R 3 NV correct KM9R
7097 RY 2023-09-23 0516 P49X 9 DX NP3X 8 DX correct NP3Y
7097 RY 2023-09-23 0620 P49X 9 DX N3EI 5 PA correct N3EEN
7097 RY 2023-09-23 0713 P49X 9 DX N5EP 4 IL correct N9EP
14100 RY 2023-09-23 0803 P49X 9 DX OK1HE 15 DX correct OK1HEH
3584 RY 2023-09-23 0810 P49X 9 DX VE7SK 3 BC correct VE7SAR
14085 RY 2023-09-23 0832 P49X 9 DX YB2HDP 28 DX correct YB2TDP
21104 RY 2023-09-23 1159 P49X 9 DX AC5X 4 DX correct AC5XK
21104 RY 2023-09-23 1202 P49X 9 DX S51J 15 DX correct S50R
28109 RY 2023-09-23 1403 P49X 9 DX K4FT 5 KY correct K4FTO
28086 RY 2023-09-23 1532 P49X 9 DX N3RB 5 PA correct N3RW
28086 RY 2023-09-23 1557 P49X 9 DX N8UU 4 OH correct N8CWU
28086 RY 2023-09-23 1622 P49X 9 DX IK4ZMM 15 DX correct IK4ZHH
28087 RY 2023-09-23 1735 P49X 9 DX N6MU 04 TN correct N6MA
28084 RY 2023-09-23 2111 P49X 9 DX W0BV 4 CO correct W0DC
21094 RY 2023-09-23 2129 P49X 9 DX YV4AW 9 DX correct YV4ABR
21094 RY 2023-09-23 2132 P49X 9 DX K9CI 4 CA correct K9YC

*Copy error (FCC database)
Typing error (0 vs. O, 1 vs. I)*

...

28085 RY 2023-09-23 2233 P49X 9 DX KQ4D 5 FL correct KQ4DQS
14086 RY 2023-09-24 0105 P49X 9 DX S50U 15 DX correct S50W
14086 RY 2023-09-24 0108 P49X 9 DX VA3FP 4 ON correct VA3FF
14086 RY 2023-09-24 0115 P49X 9 DX VA3UW 4 ON correct VA3AUW
14116 RY 2023-09-24 0205 P49X 9 DX SV8SXB 20 DX correct SV8SXD
7037 RY 2023-09-24 0211 P49X 9 DX LV7D 13 DX correct LP7D
14084 RY 2023-09-24 0236 P49X 9 DX W3ULS 5 PA correct W3UL
3585 RY 2023-09-24 0316 P49X 9 DX WQ9X 4 MS correct WQ5L
3584 RY 2023-09-24 0432 P49X 9 DX YL2CV 15 DX correct YL2CI
7037 RY 2023-09-24 0617 P49X 9 DX KC7PC 03 WA correct KC7JPC
14084 RY 2023-09-24 0628 P49X 9 DX KB3A 5 MD correct KB3AAY
21114 RY 2023-09-24 1239 P49X 9 DX EW8DW 4 DX correct EW8DX
28115 RY 2023-09-24 1245 P49X 9 DX S56Y 15 DX correct S56A
21114 RY 2023-09-24 1247 P49X 9 DX ON8BE 14 DX correct ON8BB
21080 RY 2023-09-24 1512 P49X 9 DX M5T 14 DX correct OM5TX
28082 RY 2023-09-24 1520 P49X 9 DX N9TK 4 IL correct N9TTK
28082 RY 2023-09-24 1527 P49X 9 DX YD0VQ 28 DX correct YD0RVQ
21080 RY 2023-09-24 1711 P49X 9 DX EA3Q 14 DX correct EA3CS
28083 RY 2023-09-24 1909 P49X 9 DX ZL3IO 32 DX correct ZL3P
28082 RY 2023-09-24 1917 P49X 9 DX K7VT 3 OR correct K7BVT
21079 RY 2023-09-24 1923 P49X 9 DX EA7JWP 14 DX correct EA7JW
21079 RY 2023-09-24 1935 P49X 9 DX N7OR 3 OR correct NF6R
21079 RY 2023-09-24 1936 P49X 9 DX SP2U77 15 DX correct SP2UU
21079 RY 2023-09-24 2058 P49X 9 DX IK2GBU 15 DX correct IK2GZU
14085 RY 2023-09-24 2153 P49X 9 DX KB1JL 5 ME correct KB1QU
21080 RY 2023-09-24 2358 P49X 9 DX K7MO 3 WA correct K7NOJ

2023 WW RTTY P49X LCR

*****Incorrect Exchange Information*****

14084 RY 2023-09-23 0125 P49X 9 DX W7BOB 3 DX correct ID
14084 RY 2023-09-23 0144 P49X 9 DX NTOK 5 TN correct 4
7099 RY 2023-09-23 0158 P49X 9 DX WA1JAY 5 MA correct NC
7099 RY 2023-09-23 0233 P49X 9 DX NG2H 5 NY correct VA
7097 RY 2023-09-23 0523 P49X 9 DX KT4Q 5 CO correct 4
7097 RY 2023-09-23 0730 P49X 9 DX N7QXB 04 UT correct 3
21104 RY 2023-09-23 1330 P49X 9 DX WA4IPU 5 DX correct FL
28109 RY 2023-09-23 1410 P49X 9 DX K5EK 5 DE correct NC
21106 RY 2023-09-23 1613 P49X 9 DX N7GVV 3 IN correct 4
28087 RY 2023-09-23 1718 P49X 9 DX WB3J 5 DX correct PA
28084 RY 2023-09-23 1743 P49X 9 DX NTOK 5 TN correct 4
21087 RY 2023-09-23 1756 P49X 9 DX N8URE 5 OH correct MD
28084 RY 2023-09-23 1758 P49X 9 DX EE3O 37 DX correct 14
21087 RY 2023-09-23 1815 P49X 9 DX NTOK 5 TN correct 4
28086 RY 2023-09-23 1948 P49X 9 DX VE7KDU 3 DX correct BC
21094 RY 2023-09-23 2012 P49X 9 DX W7HTA 3 AZ correct WA
28084 RY 2023-09-23 2037 P49X 9 DX K7RB 4 NY correct 5
28084 RY 2023-09-23 2114 P49X 9 DX K4VTE 4 GA correct 5
28084 RY 2023-09-23 2141 P49X 9 DX K7CS 4 VA correct IL

Print error

Typing error

Pre-fill

SO2R serial number

...

21094 RY 2023-09-23 2226 P49X 9 DX W6RYI 3 VA correct CA
14086 RY 2023-09-24 0036 P49X 9 DX W3ZO 5 DX correct PA
14086 RY 2023-09-24 0058 P49X 9 DX WA2PCN 4 SC correct CO
14116 RY 2023-09-24 0145 P49X 9 DX KB1H 5 NY correct ME
14084 RY 2023-09-24 0322 P49X 9 DX K0IP 4 MN correct ID
14084 RY 2023-09-24 0330 P49X 9 DX KC0V 4 MN correct CO
14084 RY 2023-09-24 0354 P49X 9 DX W3ZF 4 PA correct CO
21080 RY 2023-09-24 1504 P49X 9 DX K4HRK 5 TN correct 4
21080 RY 2023-09-24 1654 P49X 9 DX W0HRO 14 MO correct 4
21080 RY 2023-09-24 1845 P49X 9 DX KN4TFR 5 TN correct 4
21080 RY 2023-09-24 1858 P49X 9 DX KB2VOP 5 NC correct NJ
21080 RY 2023-09-24 1859 P49X 9 DX K8VE 4 WV correct 5
28082 RY 2023-09-24 1922 P49X 9 DX KT4Q 5 CO correct 4
21079 RY 2023-09-24 1947 P49X 9 DX K7RB 4 NY correct 5
28082 RY 2023-09-24 2112 P49X 9 DX K8VE 4 WV correct 5
21080 RY 2023-09-24 2127 P49X 9 DX W3ZF 4 PA correct CO
14085 RY 2023-09-24 2159 P49X 9 DX K4HRK 5 TN correct 4
21080 RY 2023-09-24 2307 P49X 9 DX KB0IXX 4 IA correct ND
21080 RY 2023-09-24 2311 P49X 9 DX KK6L 3 NC correct CA
14086 RY 2023-09-24 2318 P49X 9 DX W8JE 4 MS correct OH
14086 RY 2023-09-24 2326 P49X 9 DX NU2Q 5 DX correct NY

2023 WW RTTY P49X LCR

***** Unique Calls Received **Credit (not removed)*******

7099 RY 2023-09-23 0213 P49X	9 DX G1YJC	14 DX
14084 RY 2023-09-23 0215 P49X	9 DX W5QM	4 TX
7099 RY 2023-09-23 0248 P49X	9 DX WB3EGD	5 PA
7099 RY 2023-09-23 0340 P49X	9 DX OT7V	14 DX
7097 RY 2023-09-23 0604 P49X	9 DX SP4TB	15 DX
14100 RY 2023-09-23 0732 P49X	9 DX OG2B	15 DX
28109 RY 2023-09-23 1218 P49X	9 DX SQ8P	15 DX
28109 RY 2023-09-23 1319 P49X	9 DX M0CTC	14 DX
28084 RY 2023-09-23 1833 P49X	9 DX AH6EZ	3 WA
28084 RY 2023-09-23 2010 P49X	9 DX K9TV	4 WI
14086 RY 2023-09-24 0101 P49X	9 DX W0MM	4 TX
14116 RY 2023-09-24 0203 P49X	9 DX KP4M	8 DX
14084 RY 2023-09-24 0251 P49X	9 DX W8MQT	4 MI
14084 RY 2023-09-24 0347 P49X	9 DX PY2VN	11 DX
14086 RY 2023-09-24 0436 P49X	9 DX SV2OEX	20 DX
3582 RY 2023-09-24 0450 P49X	9 DX KS3D	5 DE
14086 RY 2023-09-24 0532 P49X	9 DX SP9Y	15 DX
28115 RY 2023-09-24 1223 P49X	9 DX DL1EAR	14 DX
28115 RY 2023-09-24 1229 P49X	9 DX W4AM	5 TN
28115 RY 2023-09-24 1252 P49X	9 DX G8B	14 DX
28082 RY 2023-09-24 1513 P49X	9 DX OH2N	15 DX
21080 RY 2023-09-24 1638 P49X	9 DX OK1RI	15 DX
28081 RY 2023-09-24 1812 P49X	9 DX G3VPI	14 DX
28081 RY 2023-09-24 1827 P49X	9 DX EE5K	14 DX
21080 RY 2023-09-24 1905 P49X	9 DX KD2A	5 NY
21079 RY 2023-09-24 1911 P49X	9 DX KI5CVM	4 OK
28082 RY 2023-09-24 2043 P49X	9 DX GI7ULG	14 DX
14085 RY 2023-09-24 2133 P49X	9 DX RJ3A	16 DX
14085 RY 2023-09-24 2207 P49X	9 DX MI0I	14 DX

Most are busts, but no “proof”

2023 WW RTTY P49X LCR

*******Lost Multipliers*******

14084 RY 2023-09-23 0125 P49X	9 DX W7BOB	3 DX correct 03 ID S
7099 RY 2023-09-23 0353 P49X	9 DX OH0R	15 DX correct OH0RY C
3596 RY 2023-09-23 0427 P49X	9 DX E79D	15 DX Not in log C
7097 RY 2023-09-23 0652 P49X	9 DX TA7I	20 DX Not in log C
14085 RY 2023-09-23 0835 P49X	9 DX DU7/VK4CCV	27 DX Not in log C
21104 RY 2023-09-23 1159 P49X	9 DX AC5X	4 DX correct AC5XK S
28087 RY 2023-09-23 1718 P49X	9 DX WB3J	5 DX Incorrect exchange S
14084 RY 2023-09-24 0305 P49X	9 DX HP1OIA	7 DX Not in log C
3584 RY 2023-09-24 0432 P49X	9 DX YL2CV	15 DX correct YL2CI C
28083 RY 2023-09-24 1909 P49X	9 DX ZL3IO	32 DX correct ZL3P C,Z

2023 WW RTTY P49X LCR

***** Multipliers by Band *****

<SNIP>

20M multiplier total 163

4L 4X 5B 9A 9V A4 A6 CE CM CT
CT3 CX DL E7 EA EA8 EI ES EU F
G GD GI GM GW HA HB HI HS I
IT9 JA K KH2 KH6 KL KP4 LA LU LX
LY LZ OA OE OH OK OM ON OZ PA
PY S5 SM SP SV SV9 TA TA1 TF TG
TI UA UA2 UA9 UN UR V3 VE VK VU
XE YB YL YO YT YV Z3 ZF ZL

1 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 20 21 22
25 26 27 28 30 31 32 33 40

AB AL AR AZ BC CA CO CT DC DE
FL GA IA ID IL IN KS KY LA MA
MD ME MI MN MO MS NB NC ND NE
NH NJ NM NV NY OH OK ON OR PA
PE QC RI SC SD SK TN TX UT VA
VT WA WI WV WY

<SNIP>

2023 WW RTTY P49X LCR

***** Stations Copying P49X Incorrectly *****

7099 RY	2023-09-23	0119	N6DW	05	VA	P49XK	09	DX
14084 RY	2023-09-23	0152	WA9IVH	04	IL	P3X	09	DX
14000 RY	2023-09-23	0538	CO2AV	08	DX	TUP49X	09	DX
14097 RY	2023-09-23	0810	S58W	15	DX	P49M	09	DX
3582 RY	2023-09-24	0519	W8KEN	04	OH	P49O	09	DX
14087 RY	2023-09-24	2149	K3YDX	05	NC	P40X	09	DX
14086 RY	2023-09-24	2258	AA9JS	4	IL	P49XX	9	DX

Could P49X have CAUSED these busts?

2023 WW RTTY P49X LCR

***** Stations Receiving Not In Log From P49X *****

14085 RY 2023-09-23 0008 YO6HSU 20 DX P49X 09 DX
14084 RY 2023-09-23 0112 K4AOQ 05 FL P49X 09 DX
14086 RY 2023-09-23 0157 DL3YM 14 DX P49X 09 DX
14000 RY 2023-09-23 0228 KQ3K 05 FL P49X 09 DX
7097 RY 2023-09-23 0300 AE0DX 04 IA P49X 09 DX
7099 RY 2023-09-23 0354 KE7NGO 03 AZ P49X 09 DX
7097 RY 2023-09-23 0429 K5CCW 04 TX P49X 09 DX
14088 RY 2023-09-23 0534 EA7GE 14 DX P49X 09 DX
7096 RY 2023-09-23 0538 W9YV 04 WI P49X 09 DX
7097 RY 2023-09-23 0555 KK0D 04 CO P49X 09 DX
7095 RY 2023-09-23 0608 4A7V 06 DX P49X 09 DX
7097 RY 2023-09-23 0609 W9KM 04 IL P49X 09 DX
14000 RY 2023-09-23 0625 HP1OIA 07 DX P49X 09 DX
14087 RY 2023-09-23 0632 N3EEN 05 PA P49X 09 DX
14099 RY 2023-09-23 0658 UT3SO 16 DX P49X 09 DX
14098 RY 2023-09-23 0732 DG2BWG 14 DX P49X 9 DX
14100 RY 2023-09-23 0804 YO9BCM 20 DX P49X 09 DX
28000 RY 2023-09-23 1201 TC100TC 20 DX P49X 09 DX
28109 RY 2023-09-23 1203 DF7EE 14 DX P49X 09 DX
21089 RY 2023-09-23 1207 OE2E 15 DX P49X 09 DX
21103 RY 2023-09-23 1211 YO2IS 20 DX P49X 09 DX
<SNIP>

*125 NILs or 2.8%
P49X caused?*

2023 WW RTTY P49X LCR

***** Stations Copying P49X Exchange Incorrectly *****

14083 RY 2023-09-23 0154 SQ4CTS	15	DX	P49X	33	DX	correct 9
7098 RY 2023-09-23 0250 US6CQ	16	DX	P49X	33	DX	correct 9
14000 RY 2023-09-23 0546 F6HBR	14	DX	P49X	00	DX	correct 9
7098 RY 2023-09-23 0643 F1GMA	14	DX	P49X	14	DX	correct 9
14099 RY 2023-09-23 0653 IW3IOD	15	DX	P49X	19	DX	correct 9
14099 RY 2023-09-23 0721 PD5PET	14	DX	P49X	06	DX	correct 9
14099 RY 2023-09-23 0730 F4FDR	14	DX	P49X	11	DX	correct 9
21104 RY 2023-09-23 1237 F5TLF	14	DX	P49X	05	DX	correct 9
28000 RY 2023-09-23 1351 F6HBR	14	DX	P49X	00	DX	correct 9
21105 RY 2023-09-23 1452 TF2CT	40	DX	P49X	08	DX	correct 9
28089 RY 2023-09-23 1642 F1GMA	14	DX	P49X	14	DX	correct 9
21093 RY 2023-09-23 2134 WA9IVH	04	IL	P49X	20	DX	correct 9
21080 RY 2023-09-24 1816 DL7CX	14	DX	P49X	40	DX	correct 9

Final Comments

- Study your LCR
- Accuracy vs. speed → optimize score
- Repetitive mistakes
- Priority is OOF (Order of Finish)
- Reverse log → busts exchanges
- Dupes are OK: DON'T REMOVE!
- Rare stations may have high uniques