



Data Mining Digital and RTTY Contests 2025

**TIM SHOPPA N3QE
DAYTON HAMVENTION 2025
DIGITAL CONTEST FORUM**

WEEKEND CONTEST CALENDAR 2025

RTTY

- ▶ 22 RTTY contests
- ▶ BIG: ARRL RTTY Roundup Jan
- ▶ BIG: CQ WPX RTTY Feb
- ▶ BIG: CQ WW RTTY

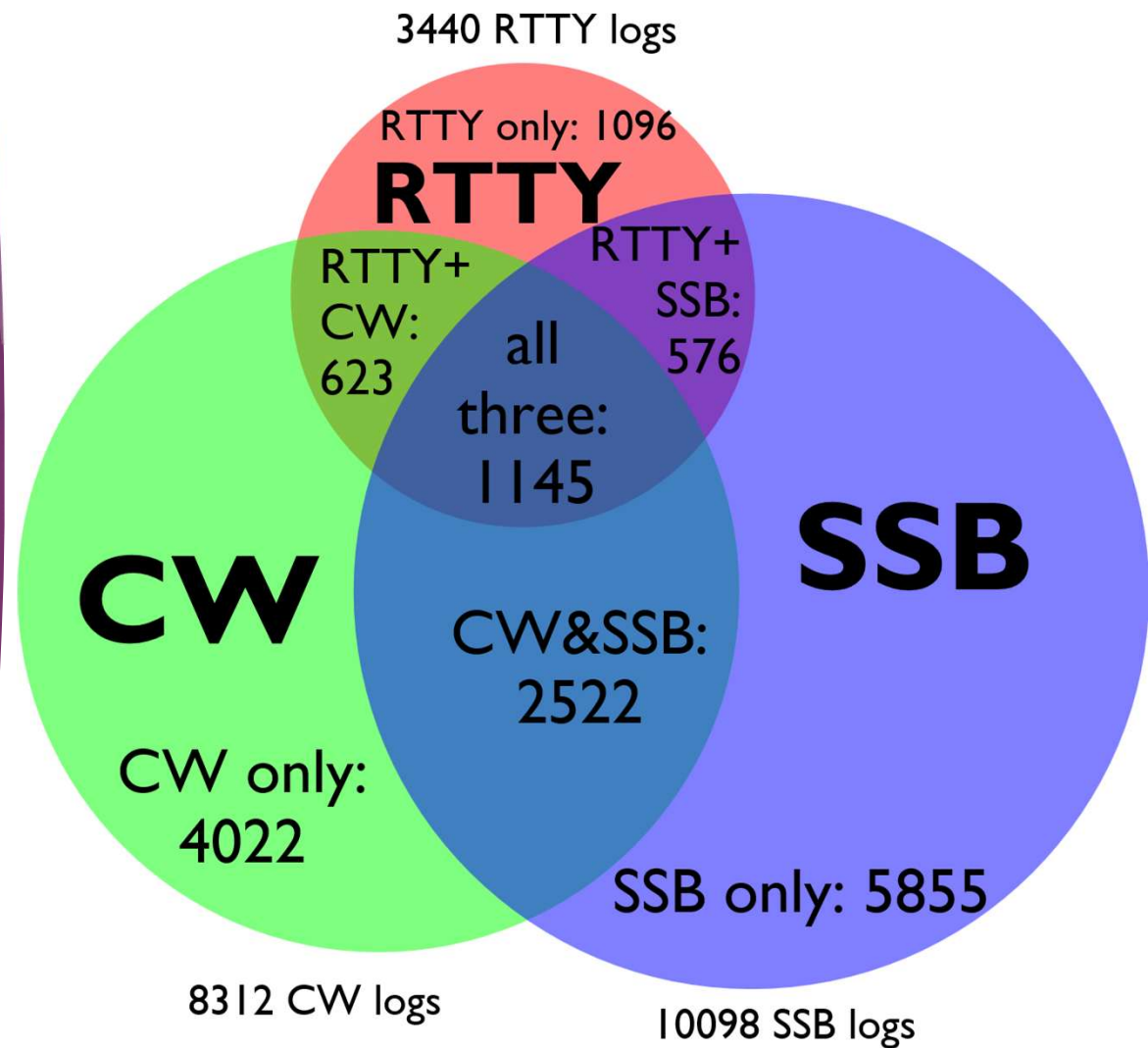
Less big but highly recommended: NAQP's (Feb and July),

Digital = FT4/FT8 etc

- ▶ ARRL International Digital Jun 7-Jun 8
- ▶ WW Digi Aug 30-Aug 31

The biggest
CW, SSB, and
RTTY contests:
CQ WW
each fall

**21850 logs
submitted in all.**
15839 distinct calls.
**68% of RTTY
entrants also
submitted a log for
CW and/or SSB.**



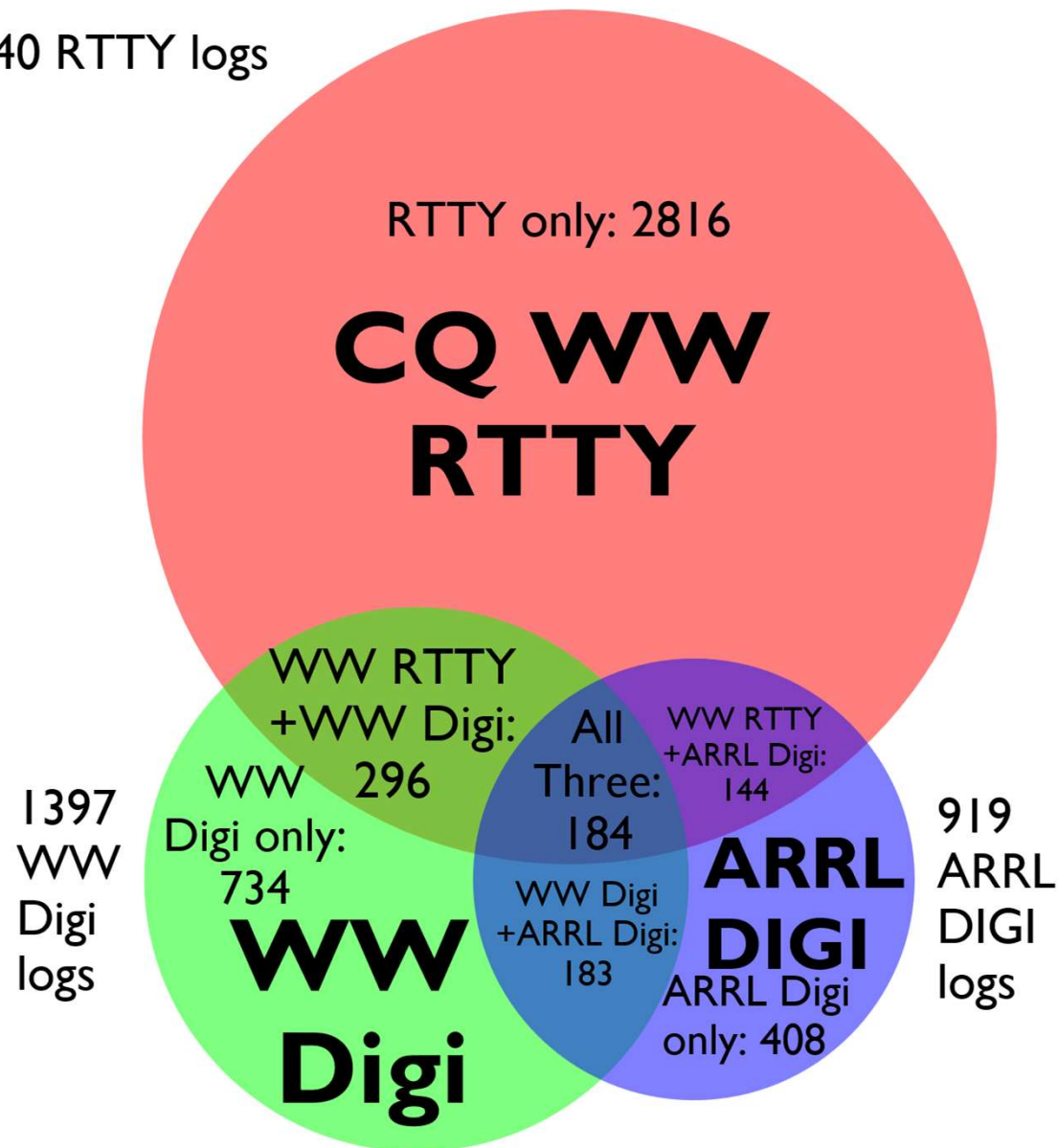
Overlaps between
WW RTTY, WW Digi,
and ARRL Digi
are there but not as
large

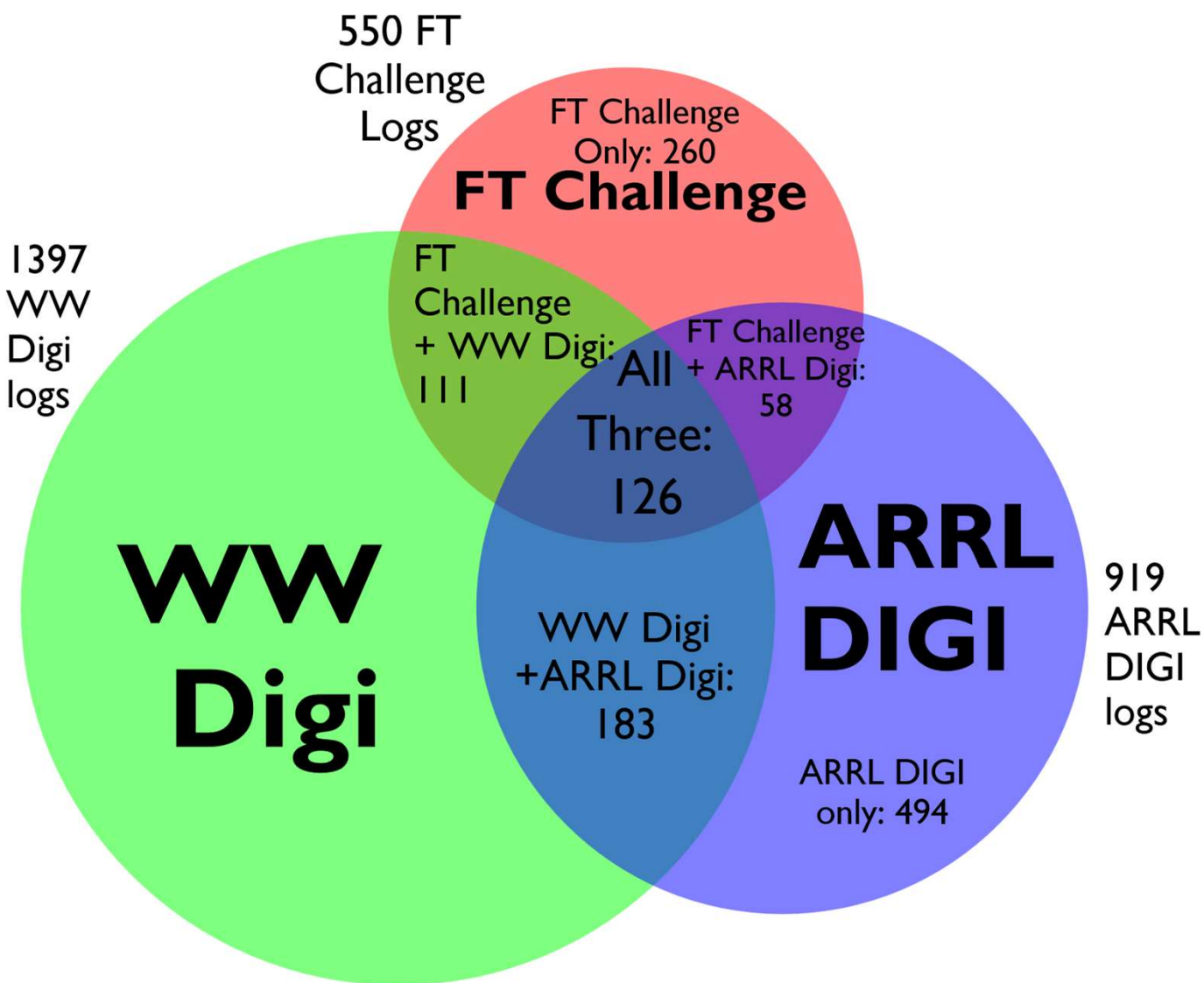
Only 19% of CQWW RTTY
entrants also did WW Digi
and/or ARRL Digi

48% of WW Digi also
entered either WW RTTY
and/or ARRL Digi

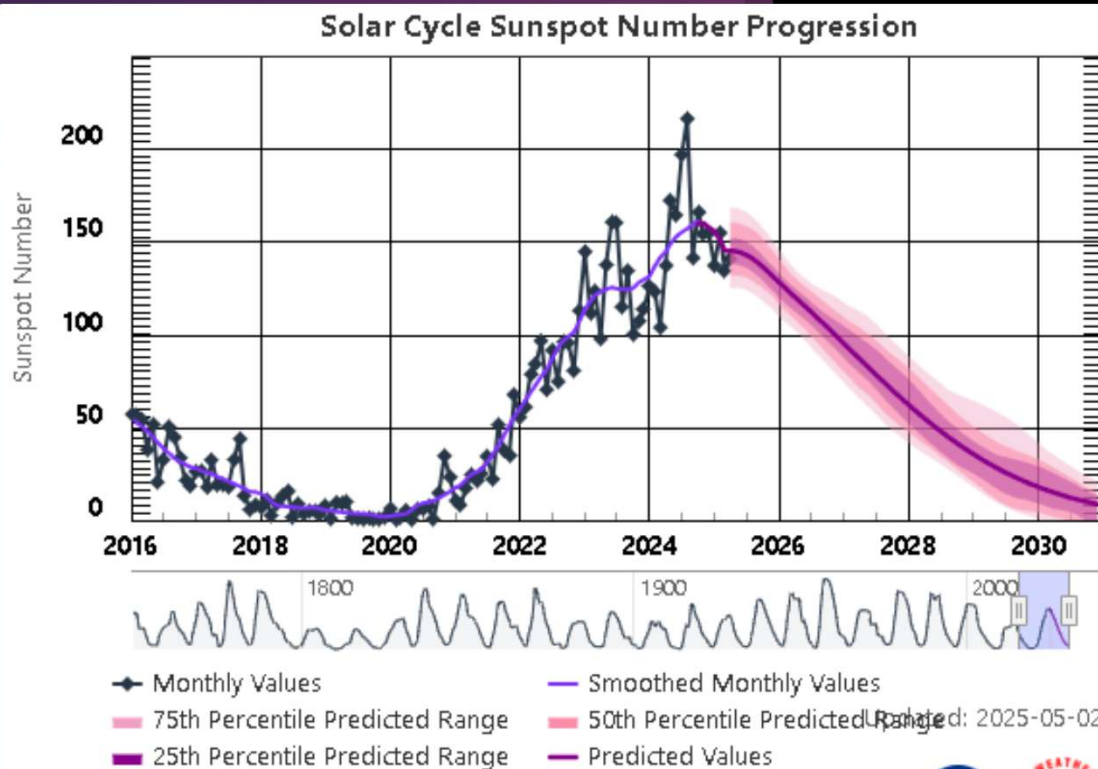
55% of ARRL Digi also did
at least one or both of
WW RTTY or WW Digi

3440 RTTY logs





Entrants in
the three
largest
Digital
mode
contests
2024



Solar Cycle
25 – we are
still near the
max!!!

OPTIMIZE YOUR
CONTEST BAND
CHOICES!



40M Rarely Goes Long near solar max and is open for locals and useful after dawn and before dusk.

When states or grids are mults, hit 80M for local mults at the very least.

WW Digi (end of August) has 160M mults to pick up!

LOW BANDS – ESPECIALLY IF MULTS ARE PER BAND

(In purely distance based scoring, like ARRL Digi, you might ignore!)



**If 10M and 15M are wide open for DX,
there might not be much activity on 20M.**

**HOWEVER especially in a mult based
contest you may find rare over-the-pole
mults on 20M at this time.**

**20M CAN BE BETTER AT NIGHT THAN DAY AT
SOLAR MAX**



15M may be open well into the evenings and even after midnight at solar max!!!

Look for a couple sunspot number excursions above 200 remaining in this solar cycle!

10M and 15M for DX at solar max!

In distance based scoring, like WW Digi or ARRL Digi, where the points come from!

RTTY: Avoid
FT8
Frequencies.

We have a
VFO
knob!!!

**FT8 activity on 3573-3576,
7074-7077, 14074-14077,
21074-21077, and 28074-
21077 is a fact of life. They
aren't gonna spin their big
knob (VFO).**

Some FT4
segments for
RTTY ops to
avoid if they
don't want
to be
QRM'ed

- ▶ **Most notably:**
- ▶ **40M FT4: 7047.5-7050.5**
- ▶ **20M FT4: 14080-14083**

RTTY
Contesters
and Digital
Mode Non-
Contesters
have to share
the digi sub-
bands

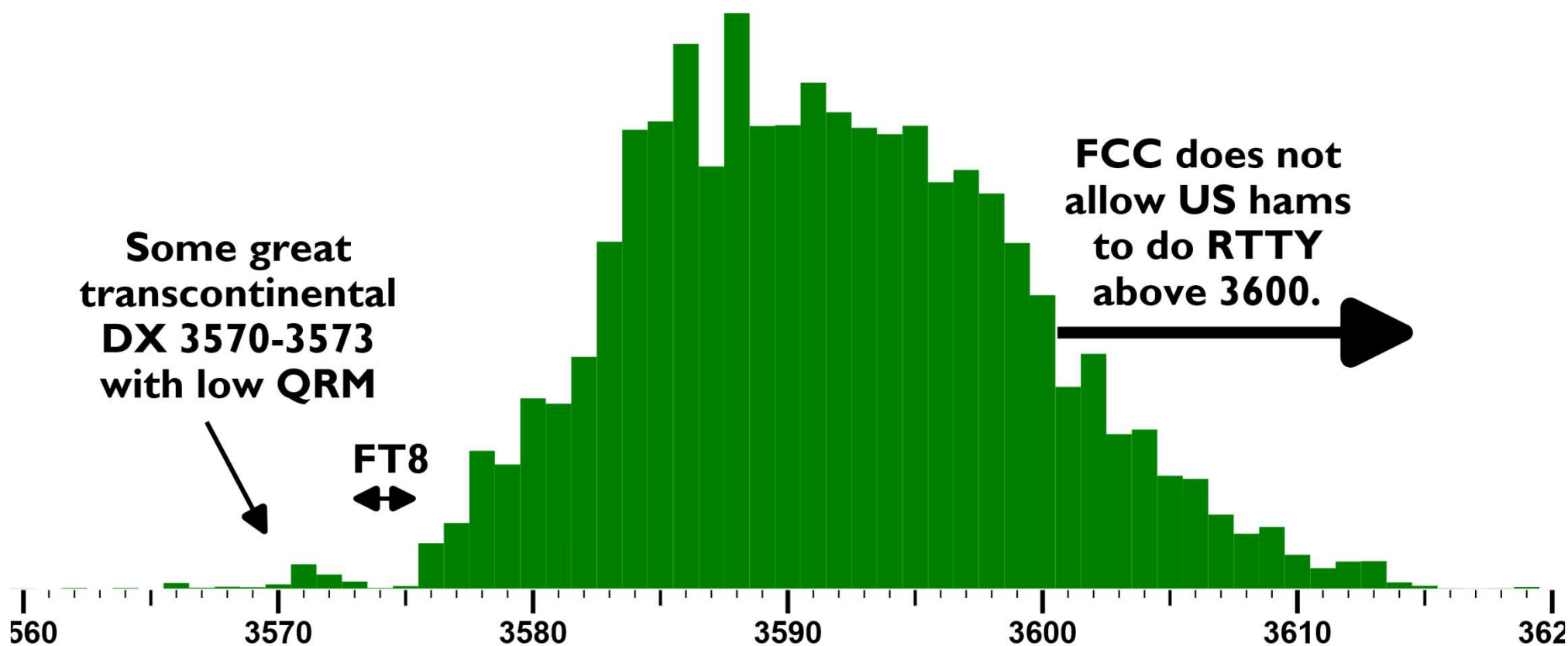
SPIN THE BIG
KNOB!!!

- ▶ Automated packet modes in HF digital sub-bands have gotten marginally “smarter” about not starting up on your RTTY freq but still happens.
- ▶ QRM from WINLINK still present but not as bad as 5 years ago.

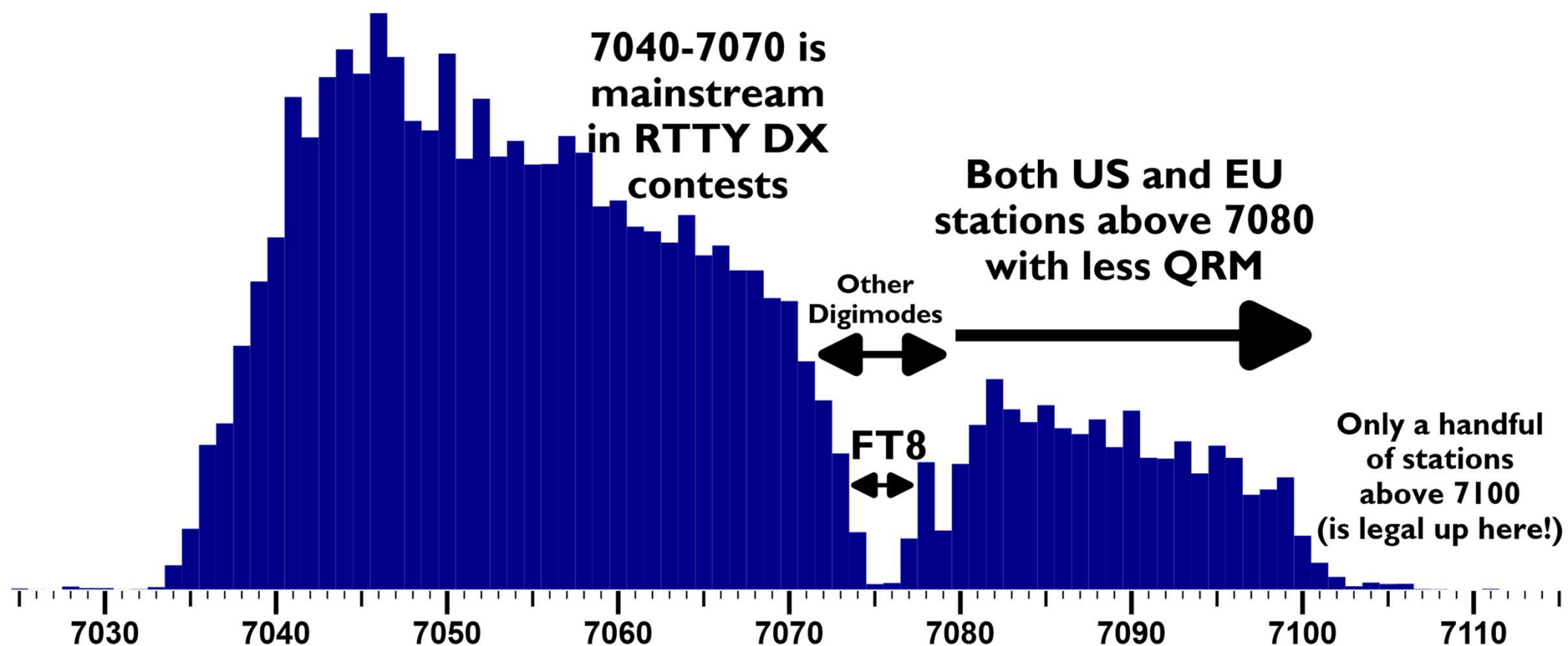
Amateur
regulations
(FCC) rule
compliance

**US Stations face FCC
regulations prohibiting
RTTY above 3600, 7125,
14150, 21200, and
28300. DX stations
may be there but we
can't work them.**

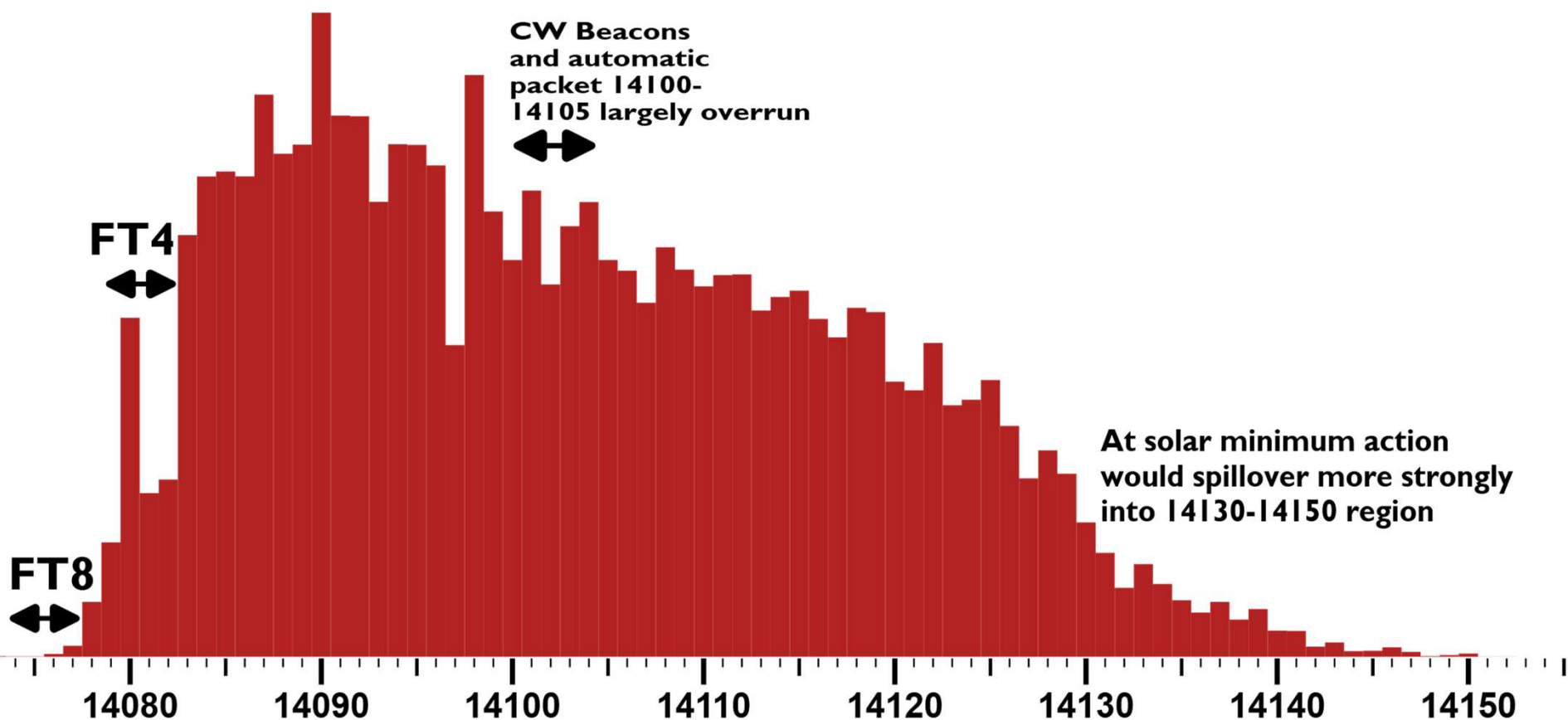
80M RTTY BAND USAGE CQWWRTTY 2024



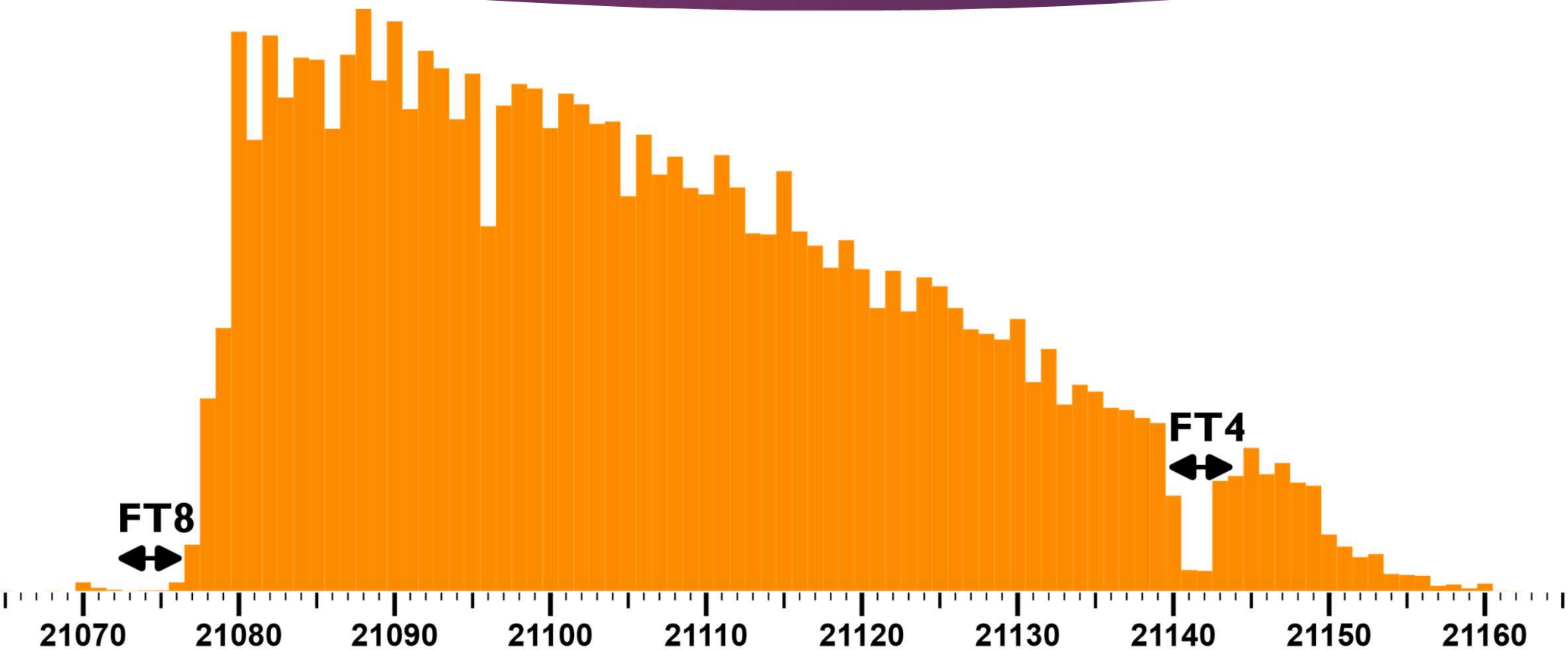
40M RTTY BAND USAGE CQWWRTTY 2024



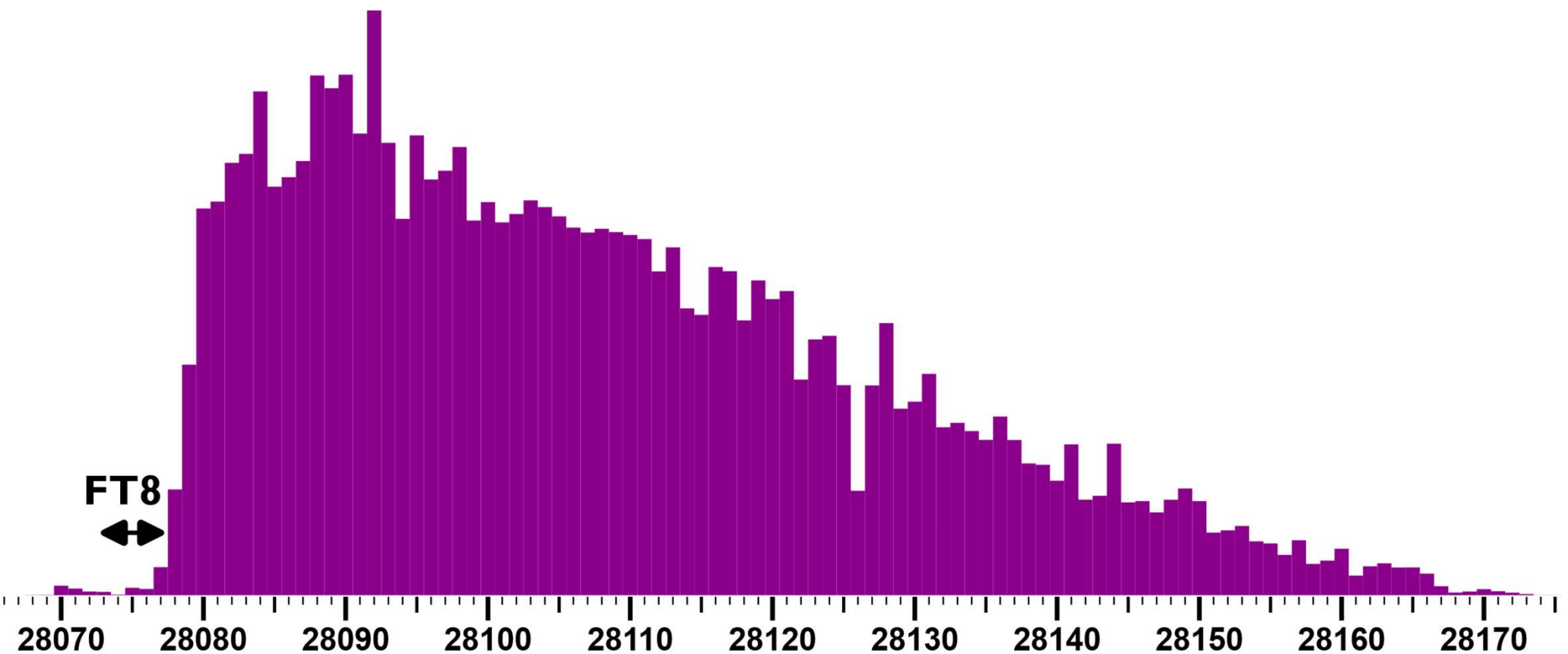
20M RTTY BAND USAGE CQWWRTTY 2024



15M RTTY BAND USAGE CQWWRTTY 2024



10M RTTY BAND USAGE CQWWRTTY 2024



Look at CQWW
RTTY 2025 US
Single-Op
Assisted winner's
log

AA3B

3974 QSOs

43 hours on the
air

Best 80M run freq: 3582

---- bottom skirt of activity

Best 40M run freq: 7053

---- thick of EU-US prime
time

Best 20M run freq: 14121

---- well above QRM

Best 15M run freq: 21120

---- well above QRM

Best 10M run freq: 28110

---- well above QRM

FT4 vs FT8 mode and sub-band usage in ARRL Digital Contest 2024

41% FT4

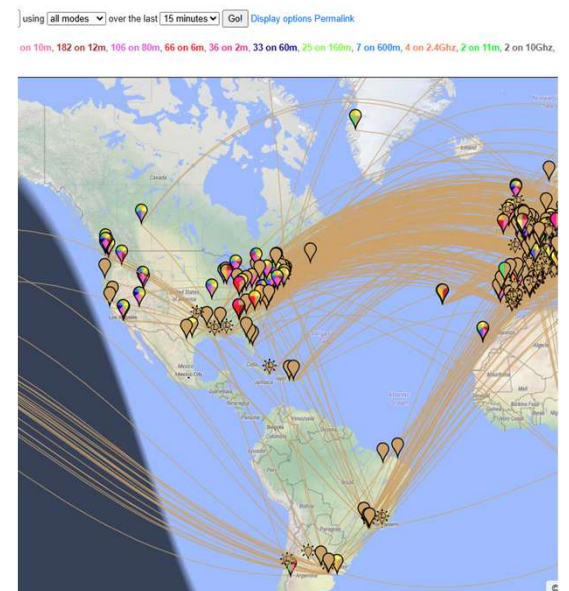
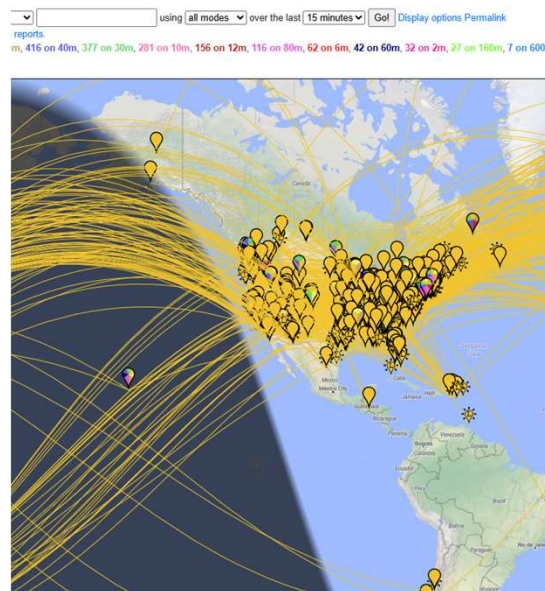
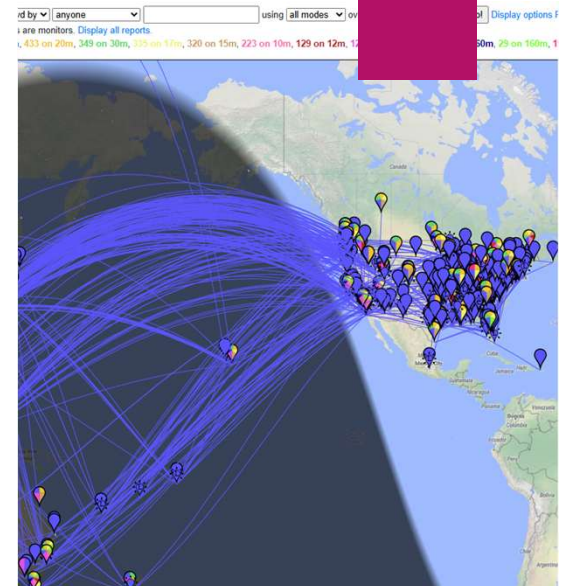
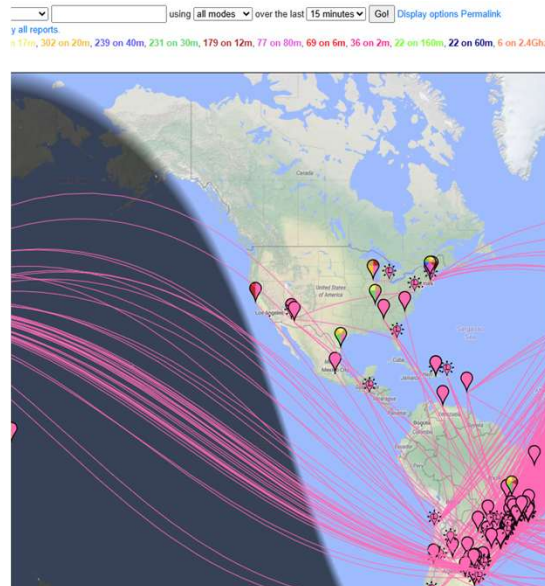
59% FT8

**87% Contest
Segments**

**13% non-Contest
segments**

Regardless of mode, do Realtime Data Mining of PSKReporter to see band conditions in any contest

► Have a spare PC or TV in your shack? Open 4, 5, or 6 browsers on <https://pskreporter.info/> each showing a single band for past 15 minutes



It's 6000 miles to Moscow, we got a full hundred watts, we're running Eastern EU on 15M after midnight... and we're wearing sunglasses. HIT IT



2025 ARRL International Digital Contest

is Jun 7-8, last year

C

QSO:	21074	LS	2024-06-02	0404	N3QE	FM19	R4ADV	LN28
QSO:	21074	DG	2024-06-02	0405	N3QE	FM19	R4ADV	LN28
QSO:	21074	DG	2024-06-02	0406	N3QE	FM19	S51WB	JN75
QSO:	21074	DG	2024-06-02	0407	N3QE	FM19	SP6CRZ	JO81
QSO:	21074	DG	2024-06-02	0408	N3QE	FM19	RQ1A	NO13
QSO:	21074	DG	2024-06-02	0410	N3QE	FM19	RA6FC	LN13
QSO:	21074	DG	2024-06-02	0411	N3QE	FM19	RA6FC	LN13
QSO:	21074	DG	2024-06-02	0411	N3QE	FM19	UN7EAX	MO52
QSO:	21074	DG	2024-06-02	0412	N3QE	FM19	UR4LMZ	KN88
QSO:	21074	DG	2024-06-02	0413	N3QE	FM19	SP8LBK	KO10
QSO:	21074	DG	2024-06-02	0414	N3QE	FM19	SP8LBK	KO10
QSO:	21074	DG	2024-06-02	0416	N3QE	FM19	RA1CK	KO49
QSO:	21074	DG	2024-06-02	0418	N3QE	FM19	RX3AEX	KO85
QSO:	21074	DG	2024-06-02	0419	N3QE	FM19	SP9MQS	JN99
QSO:	21074	DG	2024-06-02	0420	N3QE	FM19	DO5XO	JO62
QSO:	21074	DG	2024-06-02	0423	N3QE	FM19	R6LFO	LN06
QSO:	21074	DG	2024-06-02	0424	N3QE	FM19	SM5TAF	JO89
QSO:	21076	DG	2024-06-02	0426	N3QE	FM19	YO4NA	KN44
QSO:	21076	DG	2024-06-02	0429	N3QE	FM19	LA8ENA	JO48
QSO:	21076	DG	2024-06-02	0430	N3QE	FM19	RW3XB	KO84
QSO:	21076	DG	2024-06-02	0431	N3QE	FM19	RQ3P	KO84
QSO:	21076	DG	2024-06-02	0431	N3QE	FM19	RA3DEJ	KO95
QSO:	21076	DG	2024-06-02	0432	N3QE	FM19	RW3XB	KO84
QSO:	21076	DG	2024-06-02	0433	N3QE	FM19	R6TJ	LN13
QSO:	21076	DG	2024-06-02	0435	N3QE	FM19	PA3HFT	JO21
QSO:	21076	DG	2024-06-02	0436	N3QE	FM19	RN7B	KN85
QSO:	21076	DG	2024-06-02	0437	N3QE	FM19	RC5F	KO85
QSO:	21076	DG	2024-06-02	0438	N3QE	FM19	LY2J	KO14
QSO:	21076	DG	2024-06-02	0439	N3QE	FM19	SP8XGU	KO00

Contest Logger usage – CQ WW RTTY vs WW Digi.

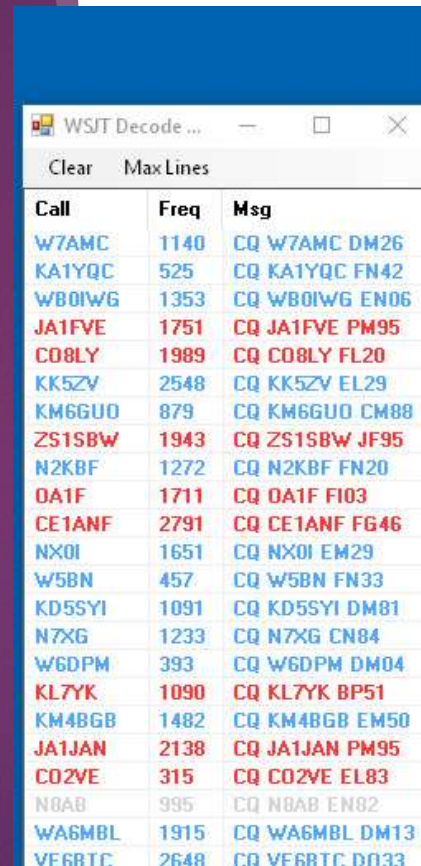
Beginning Digi Mode
Contesters can
upload WSJT Cabrillo
or use ADIF to Cabrillo
Converter.

	CQ WW RTTY 2024	WW Digi 2023
NIMM+	56%	28%
QARTest	6%	
MixW	5%	
DXLog	4%	
CTESTWIN	4%	2%
UcxLog	3%	
N3FJP	3%	8%
Win-Test	3%	
Writelog	3%	1%

N1MM+ offers a high level of integration with WSJT.

The “Decode List” (left) highlights new mults.

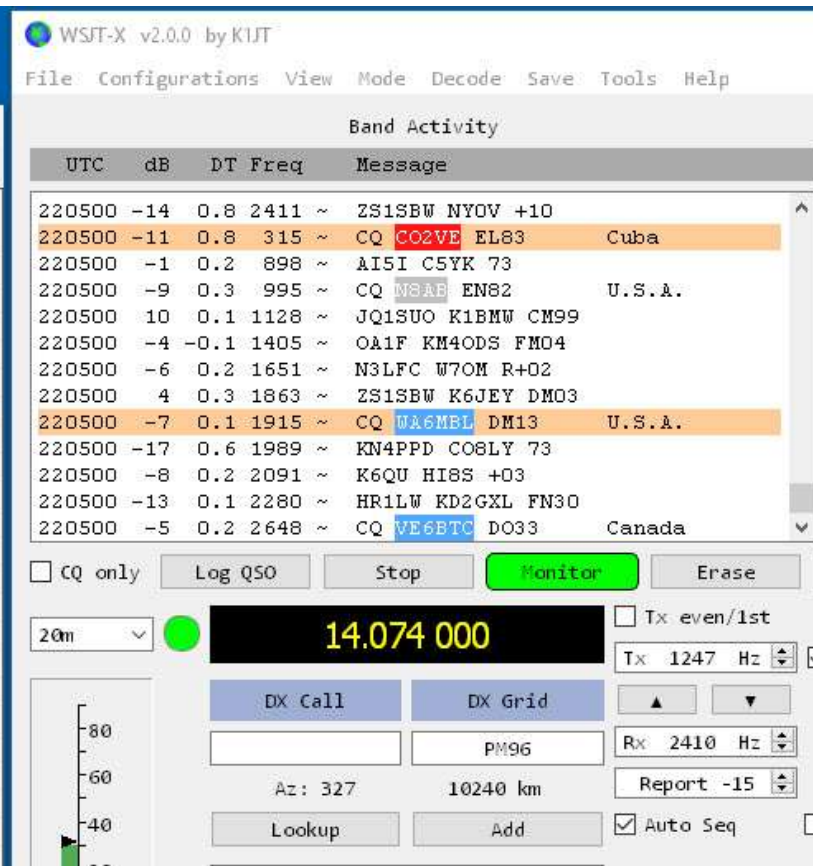
My wish? That Decode List also sorted by point value/distance.



WSJT Decode ...

Clear Max Lines

Call	Freq	Msg
W7AMC	1140	CQ W7AMC DM26
KA1YQC	525	CQ KA1YQC FN42
W80IWG	1353	CQ W80IWG EN06
JA1FVE	1751	CQ JA1FVE PM95
C08LY	1989	CQ C08LY FL20
KK5ZV	2548	CQ KK5ZV EL29
KM6GU0	879	CQ KM6GU0 CM88
ZS1SBW	1943	CQ ZS1SBW JF95
N2KBF	1272	CQ N2KBF FN20
0A1F	1711	CQ 0A1F FI03
CE1ANF	2791	CQ CE1ANF FG46
NX0I	1651	CQ NX0I EM29
W5BN	457	CQ W5BN FN33
KD5SYI	1091	CQ KD5SYI DM81
N7XG	1233	CQ N7XG CN84
W6DPM	393	CQ W6DPM DM04
KL7YK	1090	CQ KL7YK BP51
KM4BGB	1482	CQ KM4BGB EM50
JA1JAN	2138	CQ JA1JAN PM95
C02VE	315	CQ C02VE EL83
N8AB	995	CQ N8AB EN82
WA6MBL	1915	CQ WA6MBL DM13
VE6BTC	2648	CQ VE6BTC D033



WSJT-X v2.0.0 by K1JT

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq	Message
220500	-14	0.8	2411 ~	ZS1SBW NYOV +10
220500	-11	0.8	315 ~	CQ C02VE EL83 Cuba
220500	-1	0.2	898 ~	AI5I C5YK 73
220500	-9	0.3	995 ~	CQ N8AB EN82 U.S.A.
220500	10	0.1	1128 ~	JQ1SUO K1BMW CM99
220500	-4	-0.1	1405 ~	0A1F KM4ODS FM04
220500	-6	0.2	1651 ~	N3LFC W7OM R+02
220500	4	0.3	1863 ~	ZS1SBW K6JEY DM03
220500	-7	0.1	1915 ~	CQ WA6MBL DM13 U.S.A.
220500	-17	0.6	1989 ~	KN4PPD C08LY 73
220500	-8	0.2	2091 ~	K6QU HI8S +03
220500	-13	0.1	2280 ~	HR1LW KD2GXL FN30
220500	-5	0.2	2648 ~	CQ VE6BTC D033 Canada

☐ CQ only Log QSO Stop Monitor Erase

20m 14.074 000

☐ Tx even/1st Tx 1247 Hz Rx 2410 Hz Report -15 Auto Seq

DX Call DX Grid PM96 Az: 327 10240 km Lookup Add

Monday RSGB FT4 Contests

- ▶ Sponsored by Radio Society Of Great Britain
- ▶ 2025: Two hour sessions, once per month.
- ▶ 2000Z-2200Z Each Monday (Monday afternoon in US time zones)
- ▶ Over 100 logs submitted for each session
- ▶ Real logchecking done
- ▶ Exchange is Signal Report
- ▶ Multiplier is DXCC countries
- ▶ https://www.rsgbcc.org/hf/rules/2025/r80m_ft4.shtml

Tuesday night NCCC FT4 Sprint

- ▶ Sponsored by Northern California Contest Club
- ▶ Every Tuesday night 0100Z-0130Z (that's Wednesday night UTC)
(that's 8PM EDT, 7PM CDT, 6PM EDT starting time)
- ▶ Only a half-dozen regulars often working many non-contesters
- ▶ Usually 30+ QSOs in a half hour
- ▶ Exchange is Gridsquare which you is a common FT4 exchange element
- ▶ Multiplier is Gridsquares per band
- ▶ <https://www.ncccsprint.com/ft4ns.html>

Thursday Weekly RTTY Test

- ▶ RTTY is little-used outside contests, Gives you an opportunity to “tune up” the station, op, or computer for a big RTTY test
- ▶ Slots into traditional NCCC Thursday night lineup
- ▶ Half-hour each Thursday night, 0145-0215Z (Wed UTC time)
i.e. starts 8:45PM EDT, 9:45PM CDT, 10:45 PDT
- ▶ Activity starts on 15/20, moves to 40, then to 80
- ▶ Regularly 30+ participants, and nearly 200 occasionals

DATA MINING SOURCES – look at what winning stations in your area did

- ▶ CQWWRTTY public logs: <https://cqwwrtty.com/publiclogs/>
- ▶ CQWWRTTY entry stats: <https://cqwwrtty.com/stats.htm>
- ▶ ARRL Digi public logs: <https://contests.arrl.org/publiclogs.php?cn=dig>
- ▶ Reversebeacon Archive: https://reversebeacon.net/raw_data/
- ▶ PSKReporter Archive: <https://pskreporter.info/cgi-bin/pskstats.pl>