

Fun with WSPR

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Agenda

- What is WSPR
- Why WSPR
- How to use it – WSJT-X and WSPR.ROCKS

What is WSPR

- Weak Signal Propagation Reporter
- Kind of like a Beacon Network
- Similar to FT8 / FT4
 - Use WSJT-X (there are alternatives too)
 - 120 second intervals rather than 15 or 7.5
- Typically very low power 5W down to 1mW
 - But up to 1kW is an option
- **Not QSO based**
 - No two-way conversation
 - No back and forth exchanges

Why WSPR

- Test out your rig and antenna(s)
 - RCV and/or XMIT
- Explore Propagation
 - Band
 - Time of Day
 - Time of Year
 - Propagation du jour
- **Because sometimes even FT8 is too much socialization**

WSJT-X in WSPR Mode

WSJT-X v2.6.1 by K1JT et al.

File Configurations View Mode Decode Save Tools Help

UTC	dB	DT	Freq	Drift	Call	Grid	dBm	mi
1650	-25	1.1	14.097073	0	N4DPH	EM64	23	811
1650	-1	0.1	14.097080	0	KI5MQY	EM13	30	819
1650	-4	0.1	14.097085	-2	KF5GCF	EM35	37	662
1650	-21	0.0	14.097096	0	AC0MM	DM67	20	867
1650	-13	0.4	14.097101	0	WE5Q	DM81	23	1064
1650	-18	0.3	14.097120	0	KC5MO	EM10	23	1022
1650	-17	0.2	14.097125	0	NM3R	FN20	33	997
1650	-18	0.2	14.097136	0	VE1VDM	FN85	30	1485
1650	-17	0.1	14.097149	-1	K6MCS	CM98	37	1474
1650	-26	-0.1	14.097170	0	N5VRT	EL09	23	1113
1650	-16	0.3	14.097185	0	N6RY	DM33	37	1303
1650	-20	0.2	14.097187	-1	W0BX	DM58	23	911
1650	-20	-0.0	14.097191	0	N0QDS	EN35	23	43
1650	-17	-0.1	14.097196	0	NK4N	EM85	23	867
17m								
1652	-27	0.3	18.106040	0	KK4NDU	EM60	23	1069
1652	-29	0.2	18.106085	0	WA6ATI	DM14	23	1433
1652	-18	0.3	18.106090	0	KC5MO	EM10	23	1022
1652	-17	0.2	18.106093	0	KM6AL	DM13	23	1476
1652	-18	0.1	18.106098	0	WA3DNM	FM29	37	1028
1652	-6	-0.1	18.106110	0	AF5CX	DM64	23	1015
1652	-21	0.2	18.106129	-1	K3WRG	FM28	23	1062
1652	-19	-0.1	18.106154	0	W4MGA	FM17	23	1010
1652	-18	-0.1	18.106157	0	N0QDS	EN35	23	43
1652	-17	0.1	18.106169	0	AF7XZ	DM42	20	1271
1652	-25	-0.0	18.106190	0	W6VYC	CM87	23	1603

Stop Monitor Erase Decode Enable Tx Halt Tx Tune Menu

15m ● **21.094 600** Pwr

80
60
40
20
0
47 dB

H
FT8
FT4
MSK
Q65
JT65

**2025 Apr 03
16:54:02**

Tx 1500 Hz Upload spots
Tx Pct 20 % Prefer Type 1 messages
 Band Hopping No own call decodes
Schedule ... Tx Next
37 dBm 5 W

Receiving WIN4YAESU WSPR 4 Dav 2/120

WSJT-X Options

Enable Tx Halt Tx

Tx 1500 Hz Upload spots

Tx Pct 20 % Prefer Type 1 messages

Band Hopping No own call decodes

Schedule ... Tx Next

37 dBm 5 W

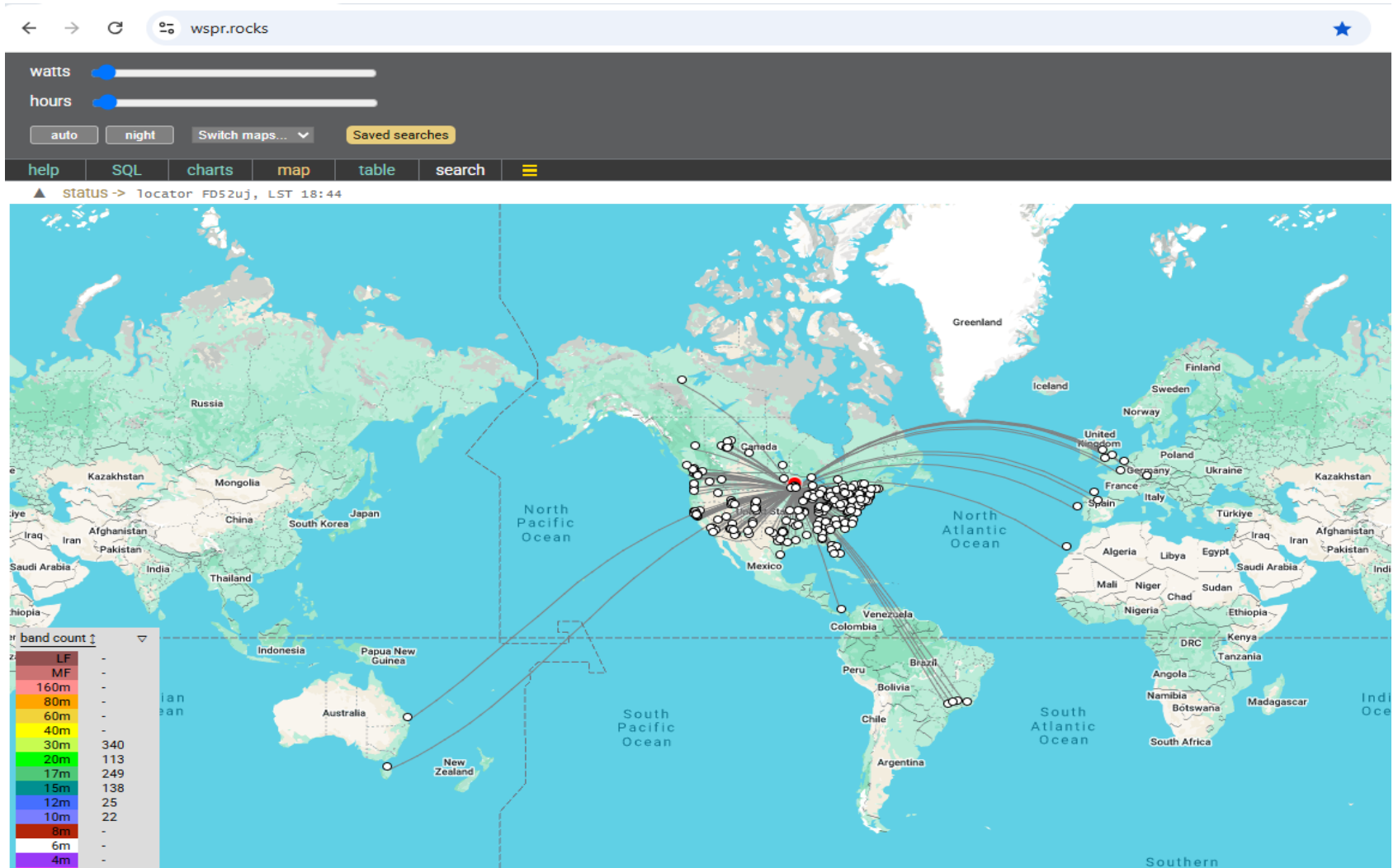
Band Hopping

WSPR Band Hopping

	2190m	630m	160m	80m	40m	30m	20m	17m	15m	12m	10m	6m	2m	70cm	23cm
Sunrise grayline	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunset grayline	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Night	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tune	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rx only	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Gray time: 60min

WSPR.ROCKS – Map View



WSPR.ROCKS – Table View

← → ↻ wspr.rock

[167 spots] 166 to 0
wsp.live search time was 0.023756309 secs

Table options find duplicates Saved searches

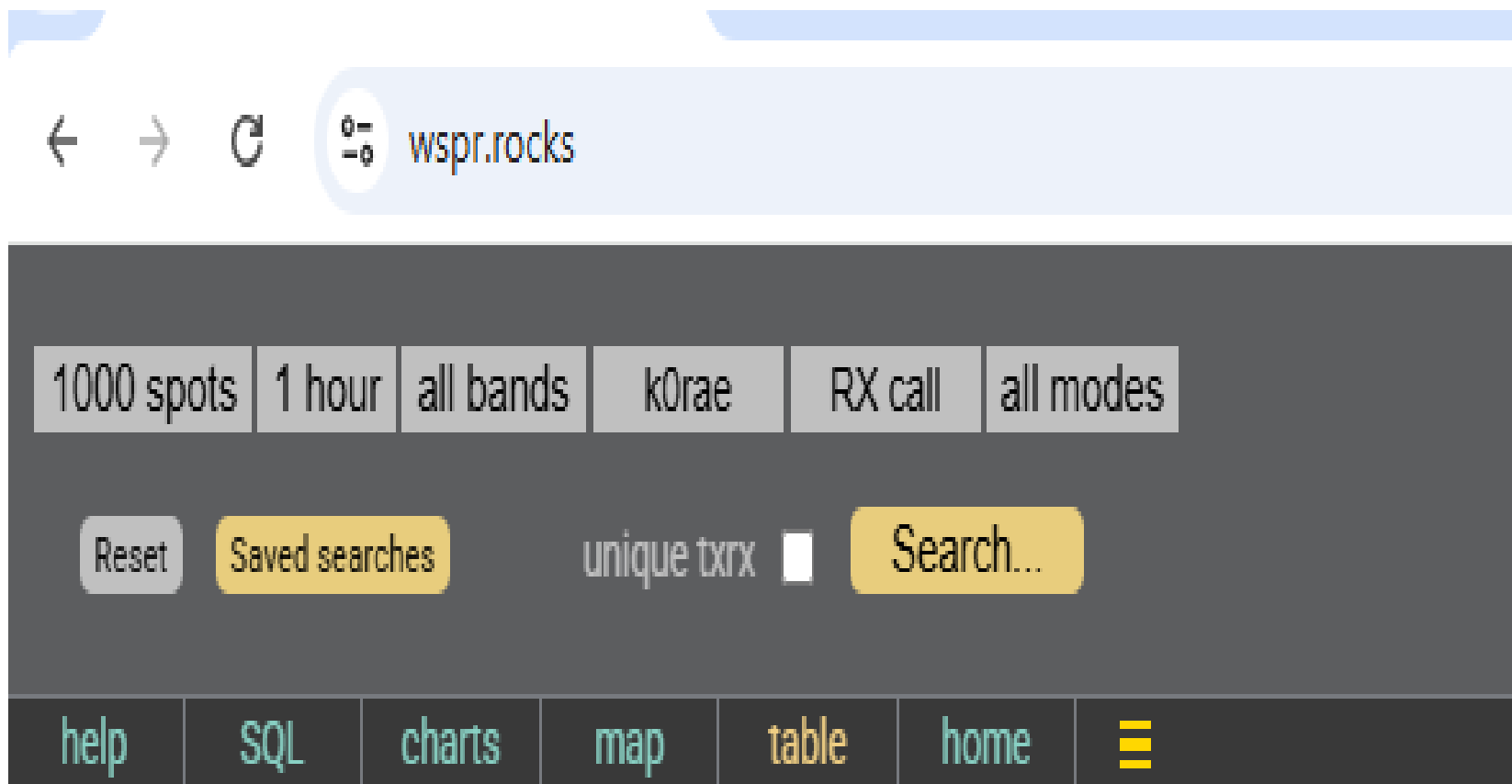
help SQL charts map table search ☰

▲ status -> locator RR42hv, LST 10:33

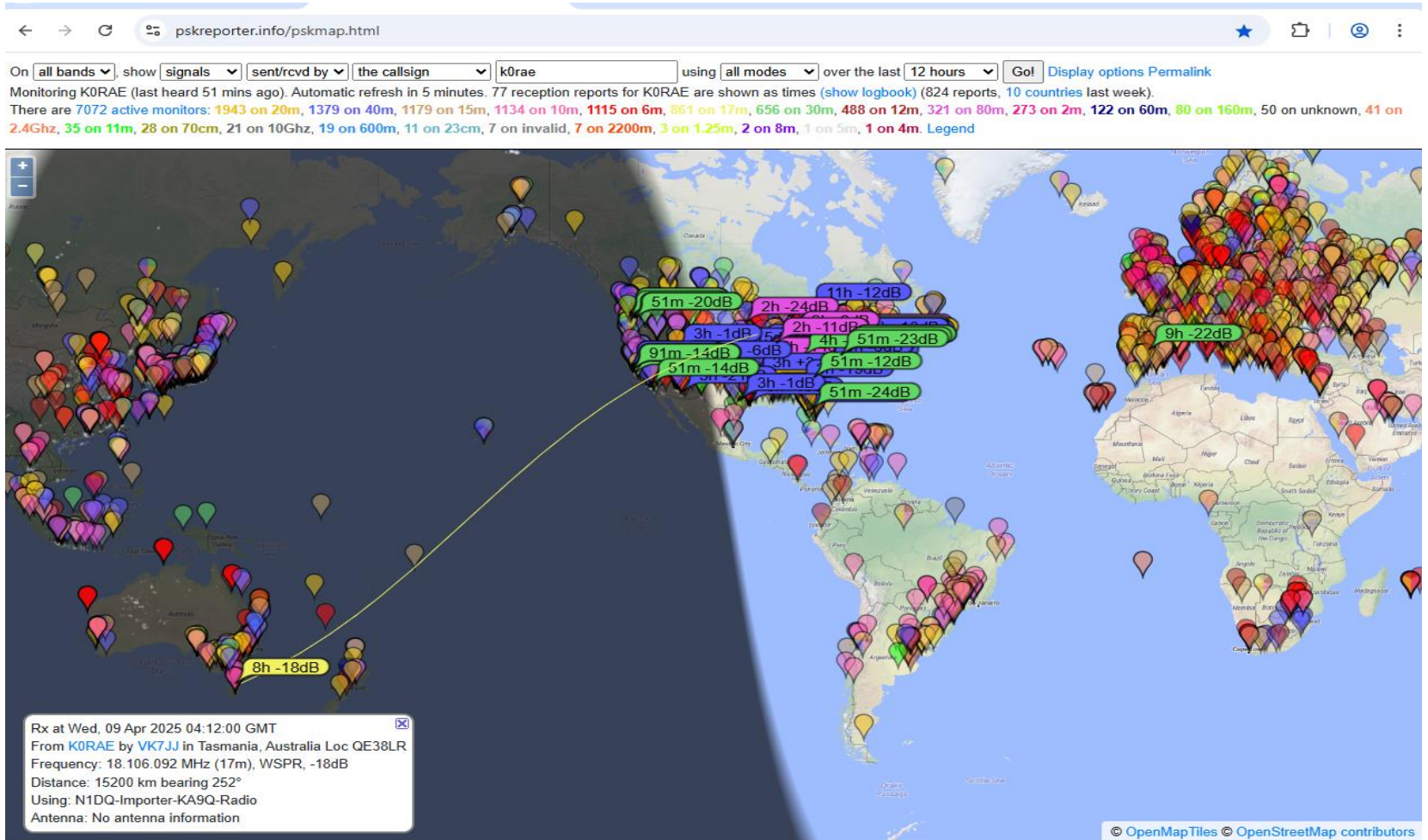
** Click table cells for more info. **

y-m-d	local	txCall	txGrid	rxCall	rxGrid	MHz	W	SNR	drift	k	txAz°	mode	k/W	spotQ	version
2025-04-08	17:54	K0RAE	EN35ec	N2YCH	FN31jg	21.096092	5	7	0	1704	97	WSPR2	341	409	WD_3.2.3
2025-04-08	17:54	K0RAE	EN35ec	K1VL	FN33om	21.096092	5	-16	0	1662	89	WSPR2	332	180	web-888
2025-04-08	17:54	K0RAE	EN35ec	N0QDS	EN35ga	21.096093	5	-16	0	16	125	WSPR2	3	2	1.4A Kiwi
2025-04-08	17:54	K0RAE	EN35ec	KPH1	CM88mc	21.096092	5	-13	0	2544	263	WSPR2	509	320	WD_3.3.1-1
2025-04-08	17:54	K0RAE	EN35ec	KFS	CM87tj	21.096092	5	-12	0	2536	260	WSPR2	507	333	WD_3.3.2-1
2025-04-08	17:54	K0RAE	EN35ec	KPH	CM88mc	21.096092	5	-13	0	2544	263	WSPR2	509	320	WD_3.3.1-1
2025-04-08	17:54	K0RAE	EN35ec	K5TR	EM00uf	21.09618	5	1	0	1703	195	WSPR2	341	351	CWSL_DIGI
2025-04-08	17:36	K0RAE	EN35ec	WA9WTK	FN42fk	24.926093	5	-21	0	1792	92	WSPR2	358	143	2.6.1
2025-04-08	17:36	K0RAE	EN35ec	KFS/SE	CM87tj	24.926091	5	-22	0	2536	260	WSPR2	507	188	WD_3.3.1-1
2025-04-08	17:36	K0RAE	EN35ec	WD8KRV	DM42nf	24.926004	5	-15	1	2064	232	WSPR2	413	236	2.7.0
2025-04-08	17:36	K0RAE	EN35ec	K1VL	FN33om	24.926092	5	-17	0	1662	89	WSPR2	332	171	web-888
2025-04-08	17:36	K0RAE	EN35ec	WB2TQE	EL96vh	24.926095	5	-6	0	2408	146	WSPR2	482	399	2.8.0
2025-04-08	17:36	K0RAE	EN35ec	K7NNT	DM43cj	24.926127	5	-3	0	2027	236	WSPR2	405	370	2.6.1
2025-04-08	17:36	K0RAE	EN35ec	WA6JRW	DM14hd	24.926104	5	-15	0	2358	247	WSPR2	472	270	2.5.4
2025-04-08	17:36	K0RAE	EN35ec	HP1COO	FJ08bn	24.926098	5	-15	0	4273	158	WSPR2	855	489	2.5.1
2025-04-08	17:36	K0RAE	EN35ec	W4USF	EL88tb	24.926143	5	-4	0	2140	149	WSPR2	428	379	2.6.1
2025-04-08	17:36	K0RAE	EN35ec	K6VZK	DM13nh	24.926092	5	11	0	2381	245	WSPR2	476	626	WD_3.2.3-1
2025-04-08	17:36	K0RAE	EN35ec	VA3XA	FN25ge	24.926093	5	-19	2	1422	83	WSPR2	284	130	2.7.0-rc3
2025-04-08	17:36	K0RAE	EN35ec	W1CK	DM13ie	24.926091	5	-7	0	2419	245	WSPR2	484	387	WD_3.2.3-1
2025-04-08	17:36	K0RAE	EN35ec	KPH1	CM88mc	24.926091	5	-11	0	2544	263	WSPR2	509	349	WD_3.3.1-1
2025-04-08	17:36	K0RAE	EN35ec	K6PZB	CM88nk	24.926092	5	-17	0	2521	263	WSPR2	504	259	WD_3.1.7
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2025-04-08	17:36	K0RAE	EN35ec	KJ5HY	FN34fh	24.926091	5	-17	0	1585	86	WSPR2	317	163	WD_3.1.5
2025-04-08	17:36	K0RAE	EN35ec	KFS/SW	CM87tj	24.926091	5	-24	0	2536	260	WSPR2	507	159	WD_3.3.1-1
2025-04-08	17:36	K0RAE	EN35ec	KP4MD	CM98iq	24.926092	5	-5	0	2385	262	WSPR2	477	409	WD_3.3.2-1
2025-04-08	17:36	K0RAE	EN35ec	KF6ZEO	CM87sr	24.926092	5	-19	0	2524	261	WSPR2	505	231	WD_3.2.3-1
2025-04-08	17:36	K0RAE	EN35ec	KFS	CM87tj	24.926091	5	-22	0	2536	260	WSPR2	507	188	WD_3.3.2-1
2025-04-08	17:36	K0RAE	EN35ec	WB7ABP/K	CM88ok	24.926091	5	-13	0	2514	263	WSPR2	503	316	WD_3.2.1
2025-04-08	17:36	K0RAE	EN35ec	WA2TP	FN30lu	24.926092	5	-22	0	1734	99	WSPR2	347	129	WD_3.2.3
2025-04-08	17:36	K0RAE	EN35ec	N0QDS	EN35ga	24.926092	5	-18	0	16	125	WSPR2	3	1	1.4A Kiwi
2025-04-08	17:36	K0RAE	EN35ec	KPH	CM88mc	24.926091	5	-11	0	2544	263	WSPR2	509	349	WD_3.3.1-1
2025-04-08	17:36	K0RAE	EN35ec	N2HQI	FN13sa	24.926091	5	-23	0	1388	94	WSPR2	278	95	
2025-04-08	17:28	K0RAE	EN35ec	N6RY	DM33sp	10.140195	5	-22	0	2051	238	WSPR2	410	152	2.7.0
2025-04-08	17:28	K0RAE	EN35ec	WC2L	FN32bs	10.140152	5	-13	0	1598	92	WSPR2	320	201	CWSL_DIGI
2025-04-08	17:28	K0RAE	EN35ec	N7LEM	DM78pw	10.14021	5	-18	0	1142	237	WSPR2	228	111	2.7.0
2025-04-08	17:28	K0RAE	EN35ec	VE6JY	D033or	10.140242	5	0	0	1677	312	WSPR2	335	335	2.8.0

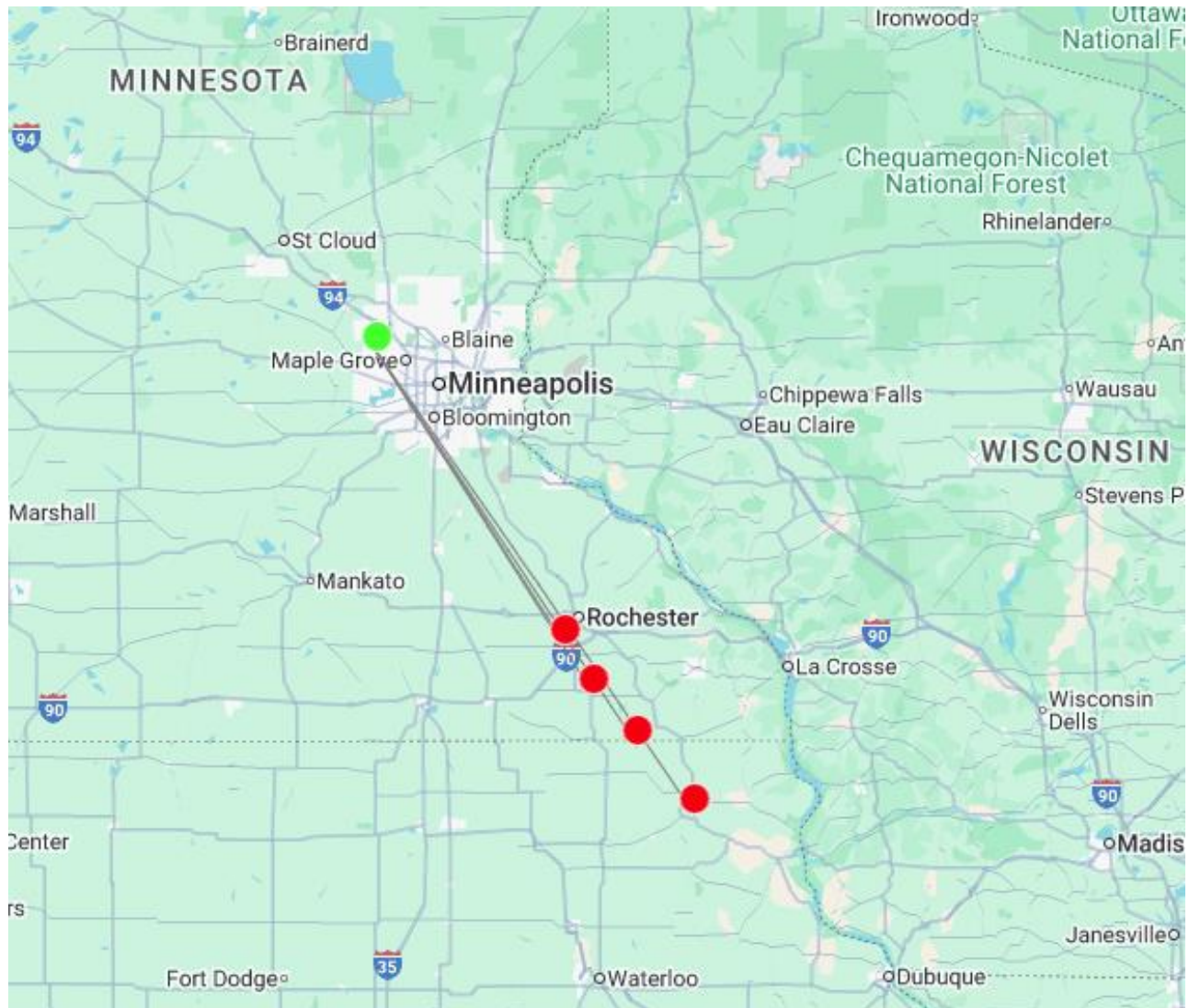
WSPR.ROCKS – Search Options



PSK Reporter



WSPR Balloons



WSPR Balloons

WSPR Rocks! x +

← → ↻ 🏠 wspr.rocks

[4 spots]
Database search time was 0.017714221 secs

Table options find duplicates

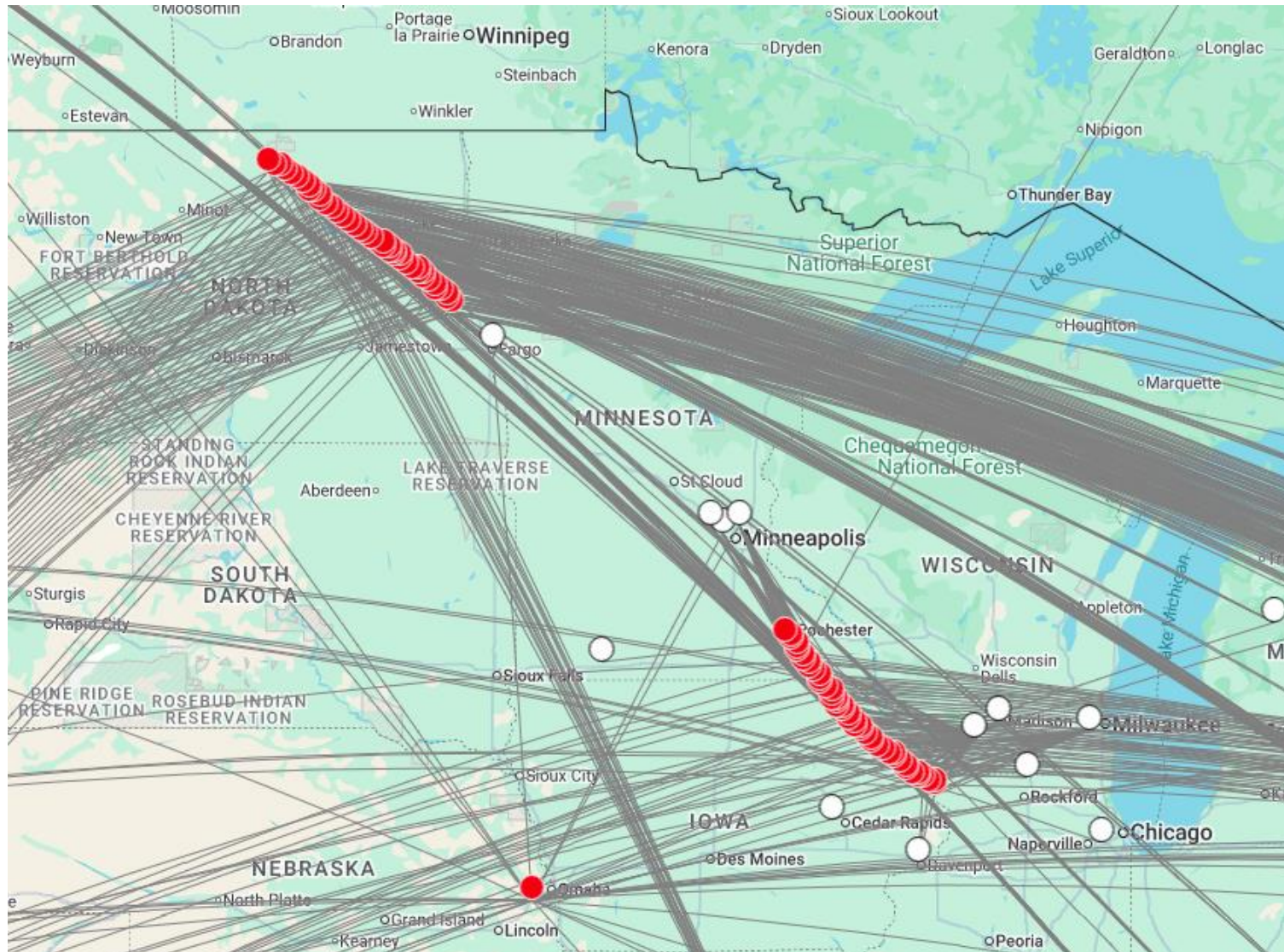
Saved searches ▼ nav pref sql table chart map search

▲ status -> locator EN051u, LST 11:41

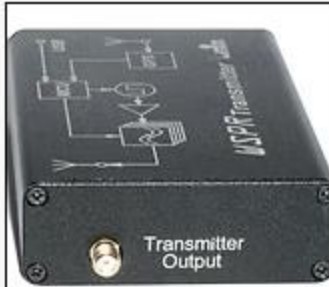
Countries: Germany -> America [List the countries spotted below]

y-m-d	local	txCall	txGrid	rxCall	rxGrid	MHz	W	SNR	drift	k	txAz°	mode	k/WspotQversion
2025-09-02	11:32	D03GU/7	EN43ce	K0RAE	EN35ec	18.106033	50	-28	0	258	326	WSPR2	5 1 2.7.0
2025-09-02	10:32	D03GU/7	EN33wL	K0RAE	EN35ec	18.106177	50	-22	0	217	327	WSPR2	4 1 2.7.0
2025-09-02	09:38	D03GU/7	EN33tq	K0RAE	EN35ec	28.1261	50	-22	3	186	328	WSPR2	4 1 2.7.0
2025-09-02	08:32	D03GU/7	EN33rv	K0RAE	EN35ec	18.106059	50	-16	0	159	328	WSPR2	3 2 2.7.0

WSPR Balloons



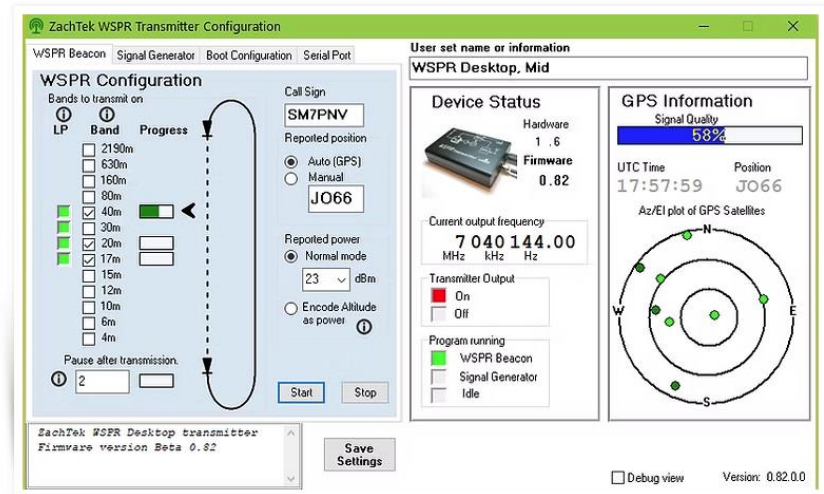
WSPR RCVR / XMTR



WSPR Desktop transmitter
\$139.00



Multi-band WSPR Receiver
\$87.00



Zacktek.com



Ultimate3S QRSS/WSPR kit

Product Code: U3S

Availability: 88

\$35.99

Available Options

* LPF Band

2200m (+\$0.30)

Add kits

- 6-band Relay switch kit (+\$16.00)
- U3S enclosure kit, incl airmail shipping (+\$38.50)
- QLG2 GNSS/GPS receiver (+\$23.00)
- BS170 experimenters pack, 10pcs (+\$3.50)
- 50-ohm 20W Dummy Load kit (+\$8.50)
- Receiver kit (same BPF band) (+\$25.00)
- Polyphase network (+\$11.00)



Questions

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