

# Propagation

Are you putting out RF and is it going where you need it to go?

# 13 Colonies Bingo Card

## (The Targets)

14th Annual **Fourth JULY** 13 Colonies Special Event

★ K2A/NY

★ K2B/VA

★ K2C/RI

★ K2D/CT

★ K2E/DE

★ K2F/MD

★ K2G/GA



  
JULY 1ST - 7TH 2022





K2H/MA ★

K2I/NJ ★

K2J/NC ★


K2K/NH ★

K2L/SC ★

K2M/PA ★

**CLEAN  
SWEEP**

TM1 3COL

THIS CERTIFICATE CERTIFIES THAT ARS: \_\_\_\_\_ HAS  
PARTICIPATED IN THIS ON - AIR AMATEUR RADIO EVENT HONORING  
THE ORIGINAL THIRTEEN COLONY STATES, OUR INDEPENDENCE, &  
OUR ACTIVE MILITARY / VETERANS, 



CONTACTS

13

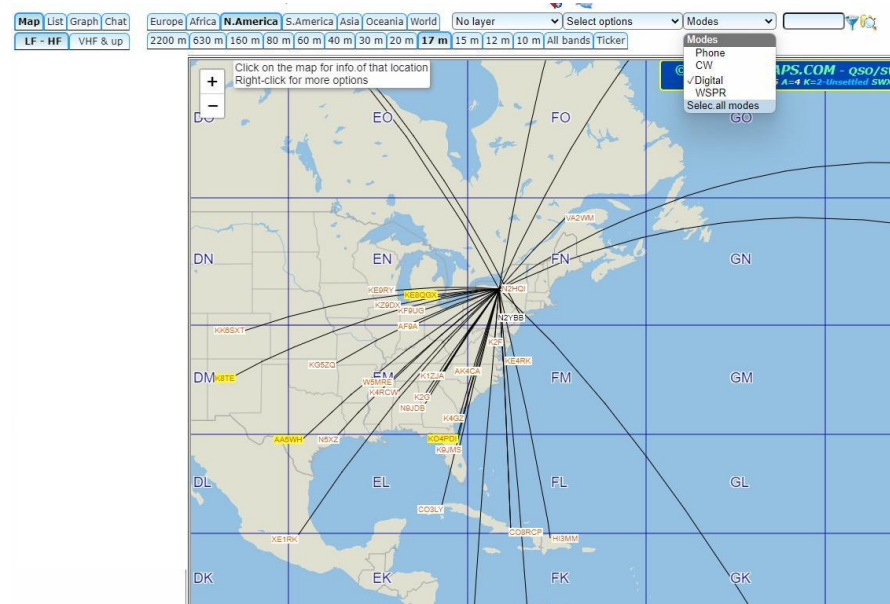


# Use The Tools

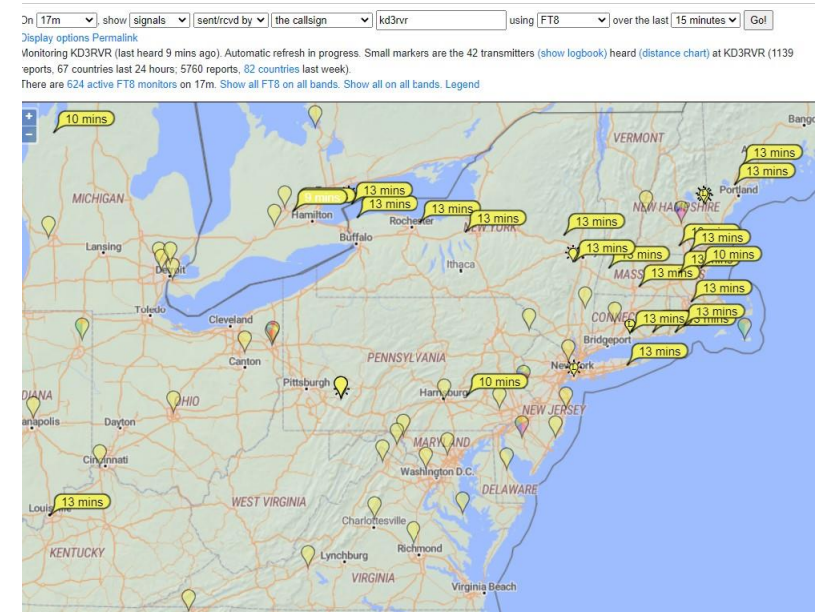
(1894 meets 2022)



Phone App  
"Band Conditions"



[DX Maps](#)



[PSK Reporter](#)

**KD3RVR**  
28JUL22



[Ham Radio for Non-Techies](#)



# The Spot

(Is your target out there and where)

The screenshot shows the MY DX SUMMIT website interface. At the top, there's a banner with the text "MY DX SUMMIT" and "RADIO X ARCALA". Below the banner, there's a navigation bar with links: Spots, Spot Search, Daily DX, News, Radio Arcala, Visit Azores, Feedback, and Tutorials. The main content area features a "Filters" section with several green buttons: DIGI, PHONE, DX callsign: FT2, DX callsign: K2F, and DX callsign: TM13COL. To the right of the filters, there are two toggle switches labeled "dx" and "inc", and a search bar with a magnifying glass icon and the word "Search". Below the filters, there's a section titled "KNL NETWORKS" with the tagline "Global data communication. Simple. Secure. Reliable." To the right of this section, there's a clock showing "13:35:43 06 Jul". Below the clock, there's a location input field with a magnifying glass icon and the word "Location". At the bottom right, there's a "Share a spot" section with two input fields: "My call:" and "Callsign", and another two input fields: "DX:" and "DX".

Spotter	Freq.	DX	Time	Info	Country
W5DO-@	18100.0	K2F	13:32 06 Jul	13 COL FT-8	United States
N3CAL	18100.0	K2F	13:09 06 Jul	FT8	United States
F6FET	28498.0	TM13COL	11:36 06 Jul	CQ 13 COLONIES.INFO QRZ.COM	France
DF1GA-@	28500.0	TM13COL	11:03 06 Jul	USB 10m	France
F6FET	28450.0	TM13COL	10:13 06 Jul	CQ 13 COLONIES.INFO QRZ.COM	France

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[DX Summit](#)



# I Can See My Target's Conversations with Others

WSJT-X v2.5.4 by K1JT, G4WJS, K9AN, and IV3NWX

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq	Message
----- 20m				
135115	10	0.1	655 ~	CQ KE2UK FN30 U.S.A.
135115	13	0.1	989 ~	CQ W9JA EN43 U.S.A.
135115	-6	0.1	124 ~	CQ WA4TAW EM73 U.S.A.
----- 20m				
135130	32	0.3	1182 ~	CQ K2L EM93 U.S.A.
135130	20	-0.6	898 ~	CQ K2A FN30 U.S.A.
135130	11	1.0	979 ~	CQ NA8X EM55 U.S.A.
135130	-1	0.2	2280 ~	CQ WJ4HCP EM75 U.S.A.
135130	-12	0.1	2606 ~	CQ NA JR1NHD PM95 AS
----- 20m				
135145	9	0.1	655 ~	CQ KE2UK FN30 U.S.A.
135145	1	0.1	124 ~	CQ WA4TAW EM73 U.S.A.
135145	17	0.1	989 ~	CQ W9JA EN43 U.S.A.
135145	-11	0.1	1664 ~	CQ WD5JIU EM12 U.S.A.
135145	-11	0.3	1254 ~	CQ K2D FN31 U.S.A.
----- 20m				
135200	0	0.9	979 ~	CQ NA8X EM55 U.S.A.
135200	21	-0.7	898 ~	CQ K2A FN30 U.S.A.
135200	-11	0.1	1616 ~	CQ KS4OT EM83 U.S.A.

Rx Frequency

UTC	dB	DT	Freq	Message
134530	10	-0.7	898 ~	CQ K2A FN30 U.S.A.
134545	24	0.1	989 ~	CQ W9JA EN43 U.S.A.
134600	9	0.9	979 ~	KA3OHL NA8X -21
134615	22	0.1	989 ~	CQ W9JA EN43 U.S.A.
134630	2	0.9	979 ~	KA3OHL NA8X -21
134645	18	0.1	989 ~	CQ W9JA EN43 U.S.A.
134715	17	0.1	989 ~	CQ W9JA EN43 U.S.A.
134800	8	1.0	979 ~	CQ NA8X EM55 U.S.A.
134815	17	0.1	1829 ~	<TM13COL> KS9G EN60
135100	15	0.1	2103 ~	<TM13COL> KC1NNR FN41
135130	11	0.1	2103 ~	<TM13COL> KC1NNR FN41

☒ CQ only Log QSO Stop Monitor Erase

☐ Tx even/1st ☒ Hold Tx Freq

20m

S

14.074 000

Tx 1450 Hz

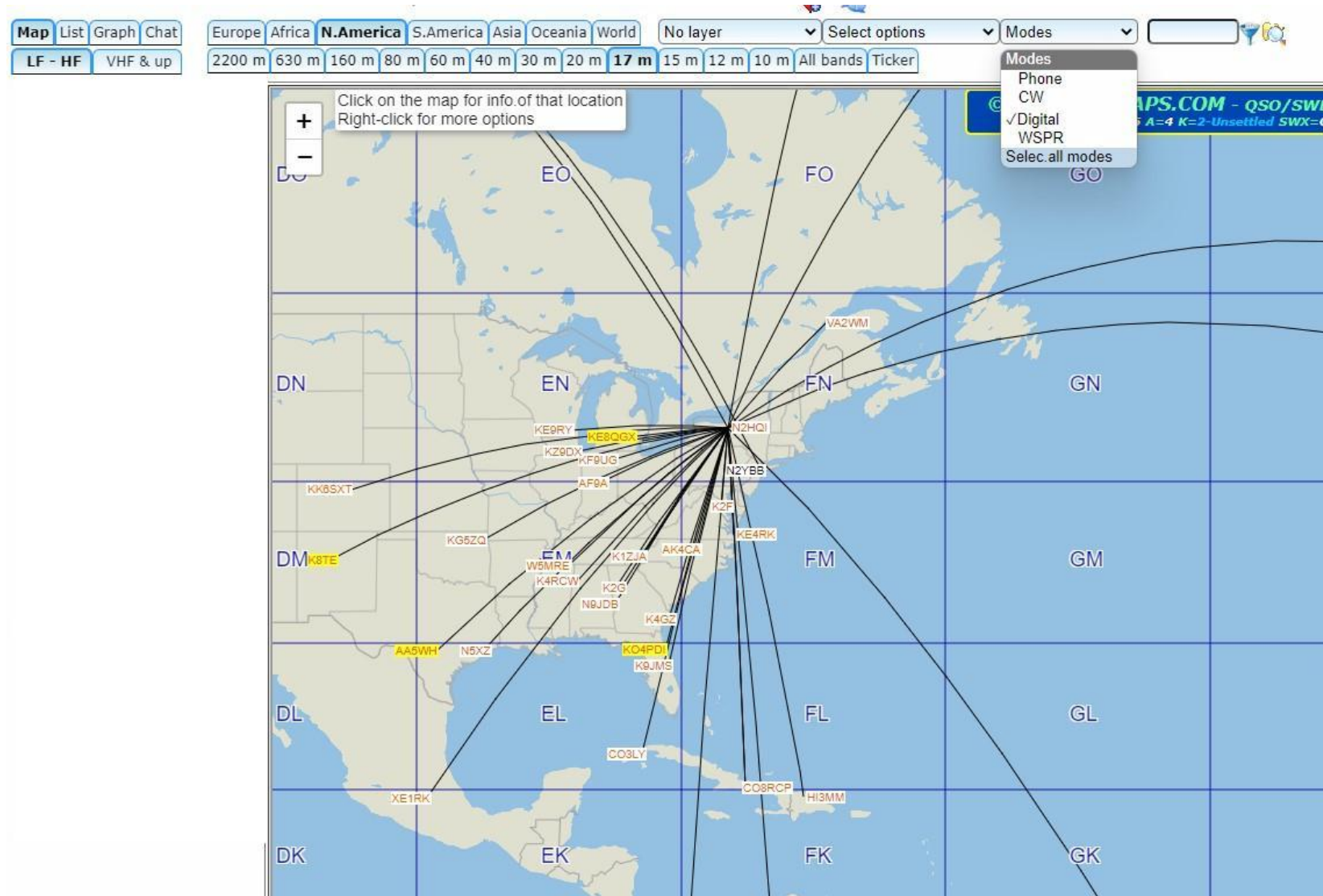
Generate Std Msgs

Next Now



# The Plan

(Can I get there from here)



**KD3RVR**  
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(DX Maps)



# What About My Signal from My Antenna?

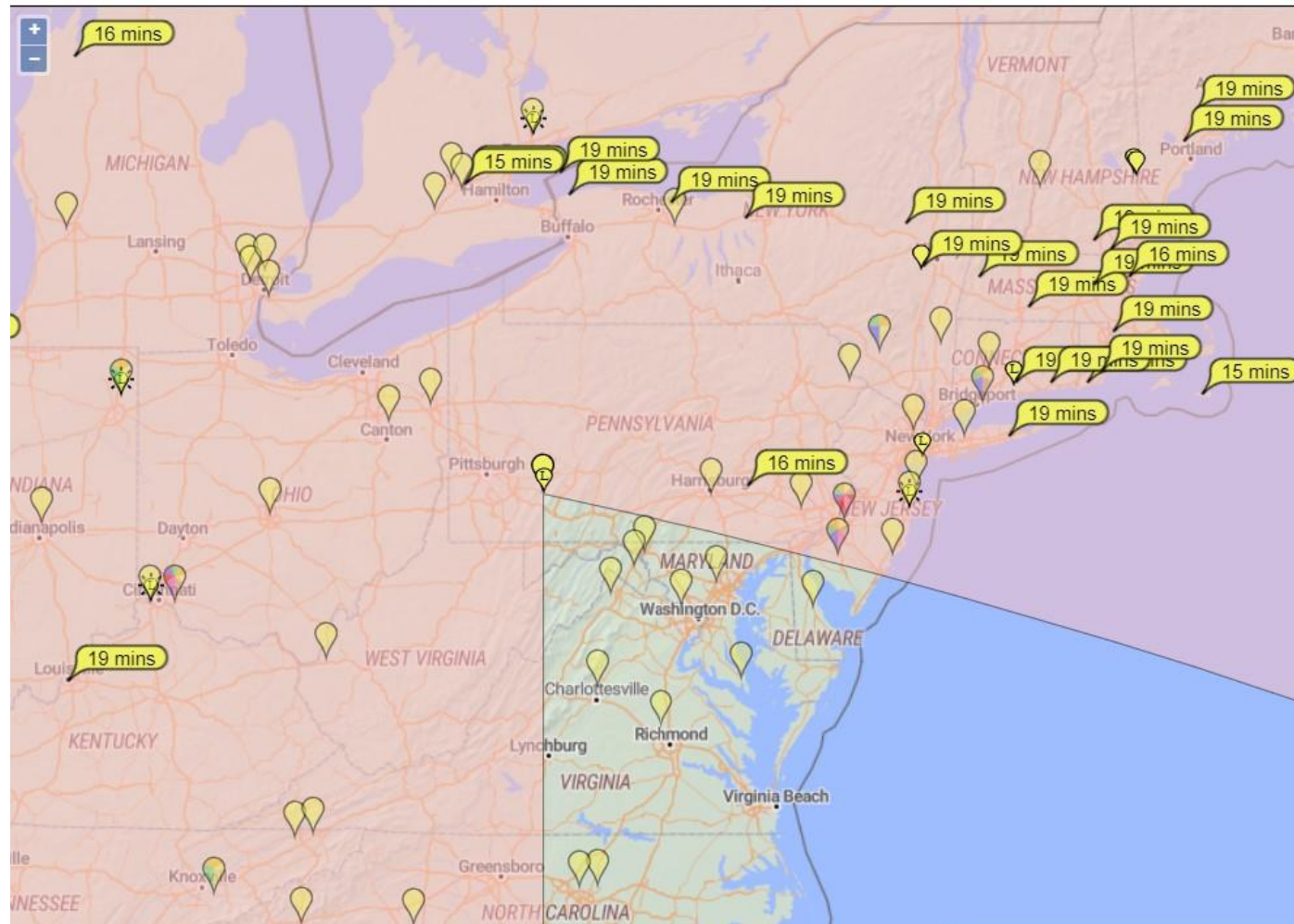
## (Proving out DX Maps with PSK Reporter)

On  show     using  over the last  Go

[Display options](#) [Permalink](#)

Monitoring KD3RVR (last heard 15 mins ago). Automatic refresh in 5 minutes. Small markers are the 62 transmitters ([show logbook](#)) heard ([distance chart](#)) at KD3RVR (1139 reports, 67 countries last 24 hours; 5760 reports, [82 countries](#) last week).

There are 667 active FT8 monitors on 17m. [Show all FT8 on all bands.](#) [Show all on all bands.](#) [Legend](#)



# 13 Colonies Log Summary

Rec#	Call	Date / Time	Bnd	Mode	Power	Snt	Rec	Off	Country	ST	County	Name	Other	S	R	Comments	Frequency
8	GB13COL	2022/07/04 10:47	20	FT8	35	+15	-13	10:48	England					N	N	FT8 Sent: +15 Rcvd: -13	14.076
6	K2A	2022/07/02 22:23	40	FT8	35	+12	+03	22:24	USA					N	N	FT8 Sent: +12 Rcvd: +03	7.076
4	K2B	2022/07/02 16:59	40	FT8	35	+33	+05	17:00	USA					N	N	FT8 Sent: +33 Rcvd: +05	7.076
13	K2C	2022/07/04 18:26	20	FT4	35	+19	+00	18:26	USA					N	N	FT4 Sent: +19 Rcvd: +00	14.081
10	K2D	2022/07/04 15:56	40	FT8	35	+11	+07	15:57	USA					N	N	FT8 Sent: +11 Rcvd: +07	7.075
9	K2E	2022/07/04 13:00	40	FT8	35	+05	-05	13:04	USA					N	N	FT8 Sent: +05 Rcvd: -05	7.075
16	K2F	2022/07/07 12:26	17	FT8	35	+27	+06	12:27	USA					N	N	FT8 Sent: +27 Rcvd: +06	18.101
2	K2G	2022/07/02 16:51	20	FT8	35	+24	-13	16:52	USA					N	N	FT8 Sent: +24 Rcvd: -13	14.076
3	K2H	2022/07/02 16:56	40	FT8	35	-09	+04	16:57	USA					N	N	FT8 Sent: -09 Rcvd: +04	7.076
12	K2I	2022/07/04 16:38	20	FT4	35	+10	-02	16:39	USA					N	N	FT4 Sent: +10 Rcvd: -02	14.081
11	K2J	2022/07/04 15:58	40	FT8	35	+03	+02	15:59	USA					N	N	FT8 Sent: +03 Rcvd: +02	7.075
7	K2K	2022/07/03 19:40	20	FT8	35	+21	-07	19:41	USA	NH	Hillsborough	13 Colonies ...		N	N	FT8 Sent: +21 Rcvd: -07	14.076
1	K2L	2022/07/02 16:48	15	FT8	35	+01	+10	16:49	USA					N	N	FT8 Sent: +01 Rcvd: +10	21.076
5	K2M	2022/07/02 17:02	40	FT8	35	+24	+00	17:03	USA					N	N	FT8 Sent: +24 Rcvd: +00	7.076
17	TM13COL	2022/07/07 00:28	20	SSB	100	59	59	18:58	France					N	N		14.295
15	W9MDB	2022/07/07 11:58	20	FT8	35	-24	-17	12:02	USA					N	N	FT8 Sent: -24 Rcvd: -17	14.075
14	WM3PEN	2022/07/05 21:27	30	FT8	35	-20	-21	21:29	USA					N	N	FT8 Sent: -20 Rcvd: -21	10.137

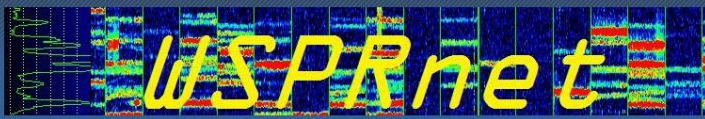
Total Targets = 16 (13 Col, Philly, GB, FR)

- 7 on 40m
- 1 on 30m
- 6 on 20m
- 1 on 17m
- 1 on 15m

\* All but France on digital modes

Total Contacts = 17

# WSPRnet



## WSPRnet

Welcome to the Weak Signal Propagation Reporter Network

### User login

Username \*

Password \*

Create new account  
Request new password

Log in

The Weak Signal Propagation Reporter Network is a group of amateur radio operators using K1JT's MEPT\_JT digital mode to probe radio frequency propagation collected are available to the public through this site.

### WSPRnet server changes

Tomorrow, I will be making a change which will redirect all access to the wspmnet community drupal web site (this site) from wspmnet.org to www.wspmnet.org. You to another server to improve performance and separate that functionality from spot reporting.

By W1BW at Fri, 2021/08/27 - 02:49 [Read more](#)

WSJT-X v2.5.4 by K1JT, G4WJS, K9AN, and IV3NWW

File Configurations View Mode Decode Save Tools Help

UTC	dB	DT	Freq	Drift	Call	Grid	dBm	mi
1438					Transmitting WSPR			40m
1442					Transmitting WSPR			20m
1444	-20	0.1	14.097160	0	KV4XY	EM75	37	452
1446					Transmitting WSPR			20m

Stop Monitor Erase Decode Enable Tx

20m 14.095 600



52 dB

Tx 1480 Hz

Tx Pct 20 %

☐ Band Hopping

Schedule ...

☒ Upload spots

☒ Prefer Type 1 messages

☐ No own call decodes

Tx Next

37 dBm 5 W

2022 Jul 08  
14:48:31

Receiving WSPR Last Tx: KD3RVR FN00 37

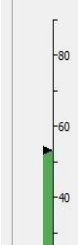
WSJT-X v2.5.4 by K1JT, G4WJS, K9AN, and IV3NWW

File Configurations View Mode Decode Save Tools Help

UTC	dB	DT	Freq	Drift	Call	Grid	dBm	mi
1412	-18	0.0	14.097146	-3	KG4ODC	EM85	23	384
1414					Transmitting WSPR			20m
1416	-20	0.3	14.097165	0	<...>	EL96CD	23	982
1418	-16	0.4	14.097168	0	WU4R	EM66	23	492

Stop Monitor Erase Decode Enable Tx

20m 14.095 600



80

60

40

Tx 1480 Hz

Tx Pct 20 %

☐ Band Hopping

Schedule ...

☒ Upload spots

☒ Prefer Type 1 messages

☐ No own call decodes

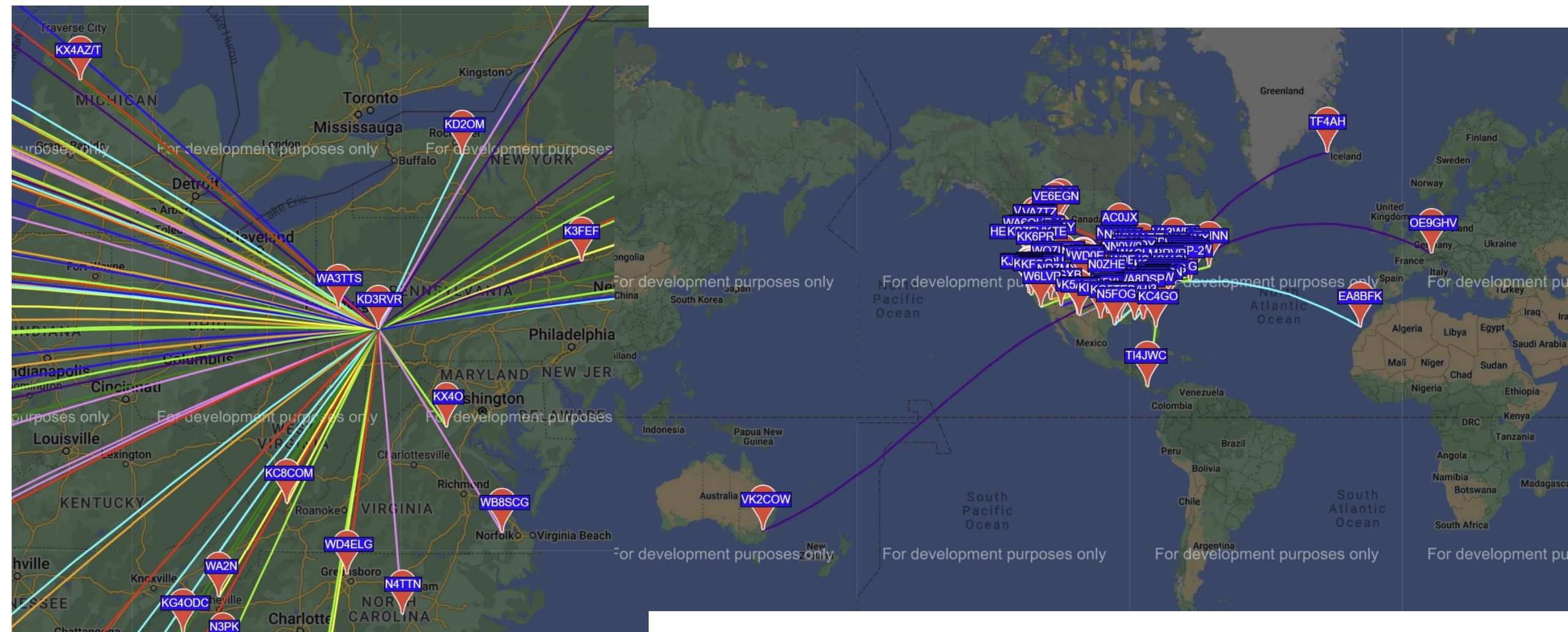
Tx Next

37 dBm 5 W



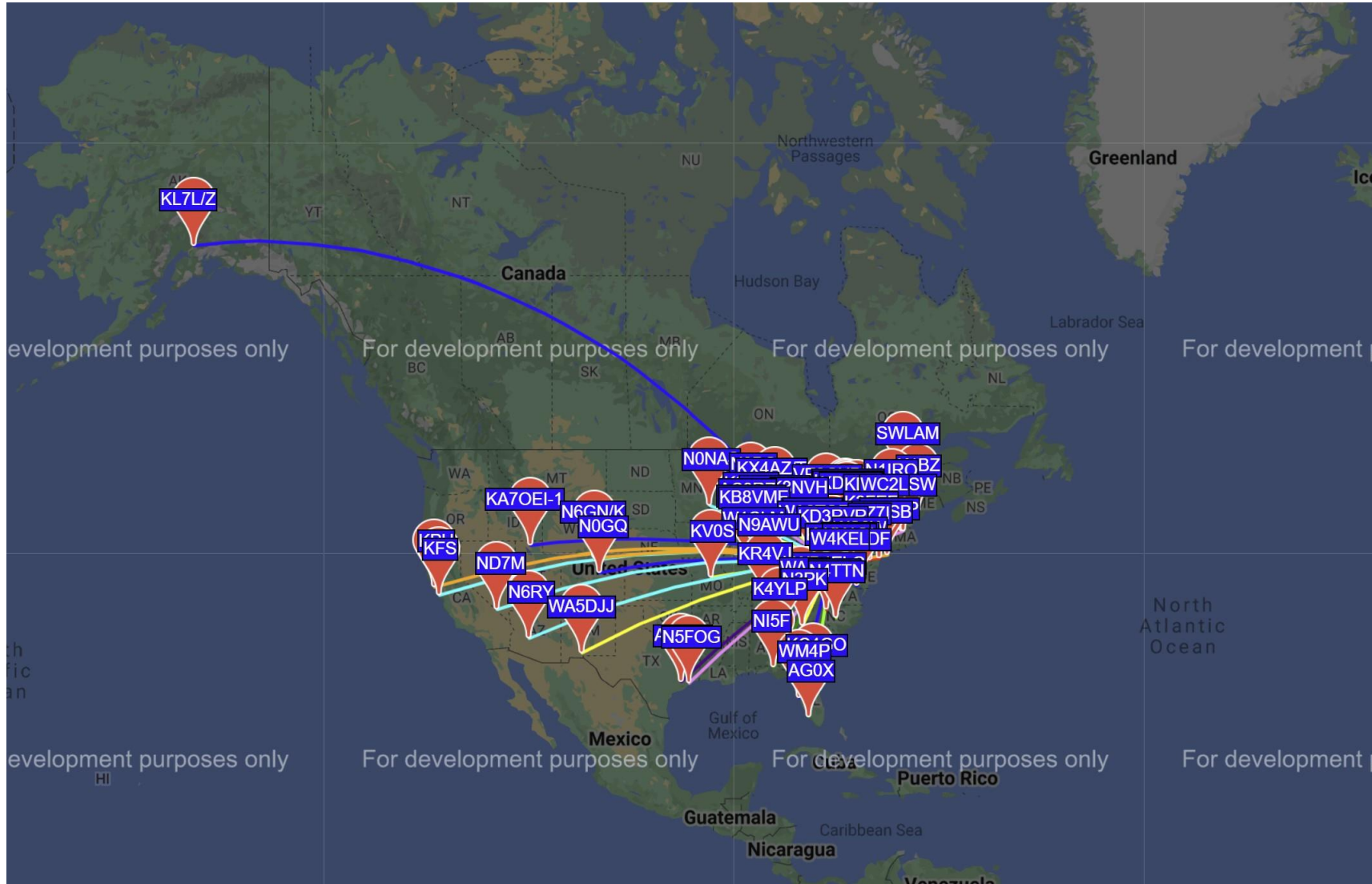
# WSPRnet Maps

## 20 Meter TX



# WSPRnet Maps

40 Meter TX



# Understand the Bands

(May the Bands be with you)

## 160/80M

These are essentially nighttime bands, so you can forget about them during daylight hours except for local communications. In the summer, they're sometimes plagued with lightning static from storms. But in the winter, they're much quieter and good bands for contacting Hams across the U.S. and worldwide, especially if you have a good antenna and an amplifier.

## 60/40M/30M

I've grouped these bands together because they have similar characteristics. They're usable for daytime communications, but they're usually best at night. If you're a CW fan, you'll find lots of company on 30M. Sixty meters has five channels, but you can operate SSB, CW, and digital modes. 40M is one of the most popular bands, and it provides some good DX opportunities—listen in and you'll probably hear someone at any time of day.

## 20M/15M/17M

These are best for daylight DX, especially around sunrise and sunset. Sometimes they're active well into the evening, depending on conditions. These are the bands to be on when working stations around the world, particularly at the peak of the sunspot cycle.

## 10M/12M

Ten and 12 meters are primarily daylight bands. But at peak times of the solar cycle, they can be alive with long-distance signals appearing well before sunrise and continuing into the night. Even during solar minimums, these bands still have DX possibilities. Sporadic E propagation can bring signals from a hundred to many thousands of miles away, occurring mainly as a seasonal event in late spring through summer.

## 6M

Six meters is known as "The Magic Band" and has characteristics of the HF and VHF bands. This is a great band if you don't mind having frequent surprises courtesy of Mother Nature. There's tropospheric propagation, aurora, meteor scatter, trans-equatorial propagation, sporadic-E propagation, and, of course, the sunspot cycle. One minute, there's nothing on the band. Suddenly, there are signals everywhere. You can expect local SSB coverage of 100 miles or more, and plenty of skip with band openings when conditions are favorable.

KD3RVR

28JUL22

[On All Bands](#)

[Mark Haverstock, K8MSH](#)



# Thank You

## Open for Questions, Comments and Input