

GARS Favorite Websites and Phone Apps

September 12, 2023

K4CQO - Bob

What is WSPR

- The standard message is <callsign> + <4 character locator> + <dBm transmit power>
- Example “K1ABC FN20 37”
- is a signal from station K1ABC
- in [Maidenhead grid](#) cell “FN20”,
- sending 37 dBm, or about 5.0 W
- Standard message components after lossless compression:
 - 28 bits for callsign,
 - 15 bits for locator,
 - 7 bits for power level,
 - total: 50 bits.
- Occupied bandwidth is about 6 Hz

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- WSPR Desktop transmitter
- [WSPR Desktop transmitter | ZachTek](#)

- **Some quick features**

1. Standalone operation, PC required for configuration but not for operation
2. Output of 200 mW
3. Powered from microUSB supply
4. Comes with built-in GPS module and includes external GPS antenna
5. Use the PC configuration SW for set up (call sign & band choices), then can operate in standalone mode
6. Available in three models:
 4. Model 2190TO80 for bands 2190 m, 630 m, 160m and 80m
 5. Model 80TO10 for 80/40/30/20/17/15/12/10 meters
 6. Model 40TO6 for 40/30/20/17/15/12/10/6 meters



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My configuration

The screenshot shows the ZachTek WSPR Transmitter Configuration software interface, Version 1 - Revision 16. The window title is "ZachTek WSPR Transmitter Configuration Version 1 - Revision 16".

Device name: RJH WSPR

WSPR Configuration:

- Call Sign: Prefix Call Sign Suffix **K4CQO**
- Transmit Schedule, transmit every ...
 - 2 minutes [Default]
 - 10 minutes
 - 20 minutes
 - Band coordinated schedule
 - Only when moving (Tracker)
- Band selection:

LP	Band	Progress
<input type="checkbox"/>	2190m	
<input type="checkbox"/>	680m	
<input type="checkbox"/>	160m	
<input type="checkbox"/>	80m	
<input checked="" type="checkbox"/>	40m	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	30m	
<input checked="" type="checkbox"/>	20m	
<input checked="" type="checkbox"/>	17m	
<input checked="" type="checkbox"/>	15m	
<input checked="" type="checkbox"/>	12m	
<input checked="" type="checkbox"/>	10m	
<input checked="" type="checkbox"/>	6m	
<input checked="" type="checkbox"/>	4m	
- Location:
 - Auto (GPS)
 - Manual **EM74**
 - Send a more precise location
- Reported power:
 - Normal mode **23** dBm
 - Encode Altitude as power

Pause after last band (optional): **480**

Device Status:

- Hardware: 2:34
- Firmware: **2:15**
- Restart button
- Current output frequency: **7 040 192.00** MHz kHz Hz
- Transmitter Output:
 - On
 - Off
- Program running:
 - WSPR Beacon
 - Signal Generator
 - Idle

GPS Information:

- Signal Quality:
- Position Lock:
- UTC Time: **16:06:00**
- Position: **EM74XC**
- Az/EI plot of GPS Satellites:

Footer:

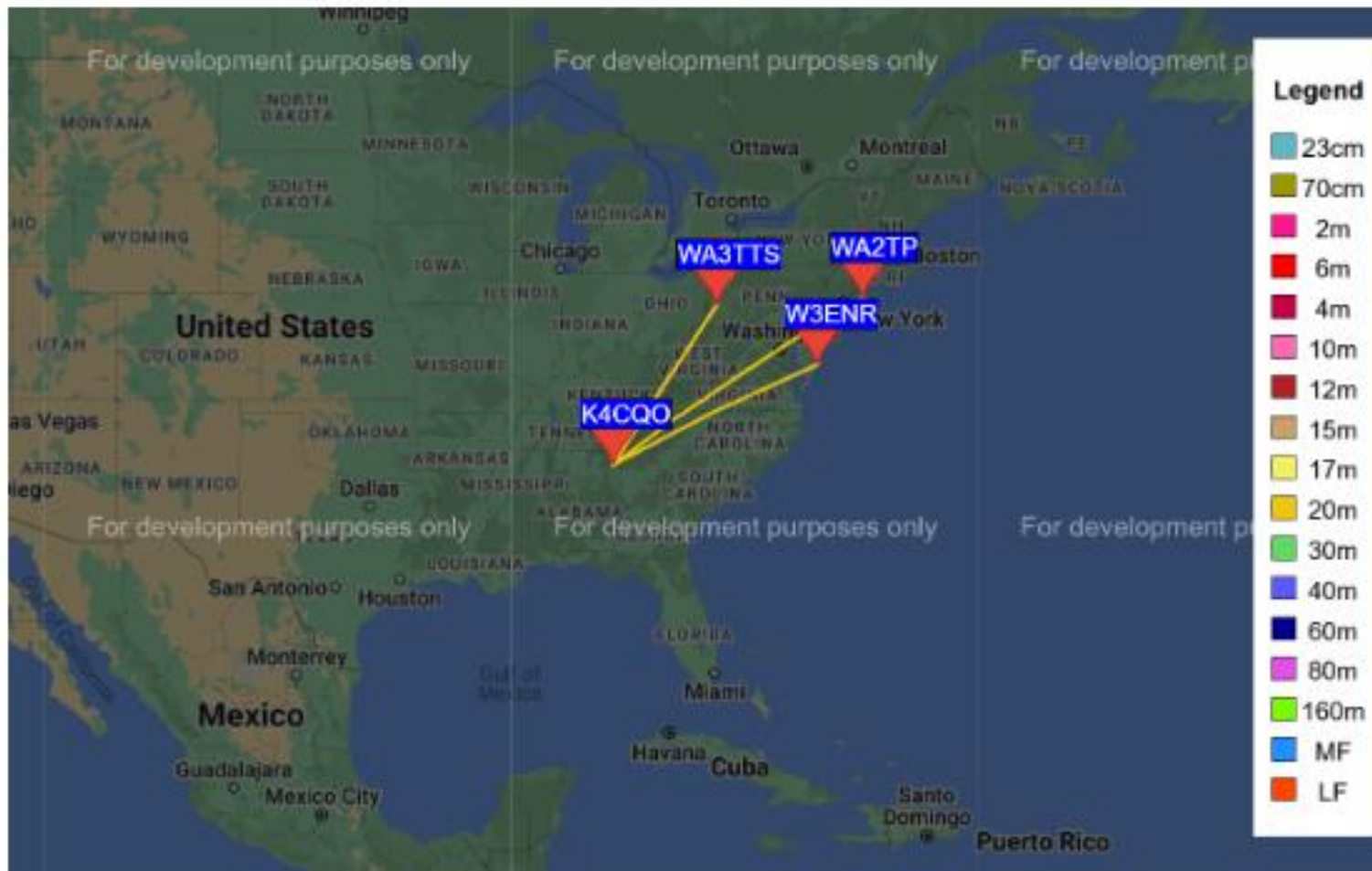
- Debug view:
- Read progress: **100%**
- (Re)Read Settings:
- Save Settings:

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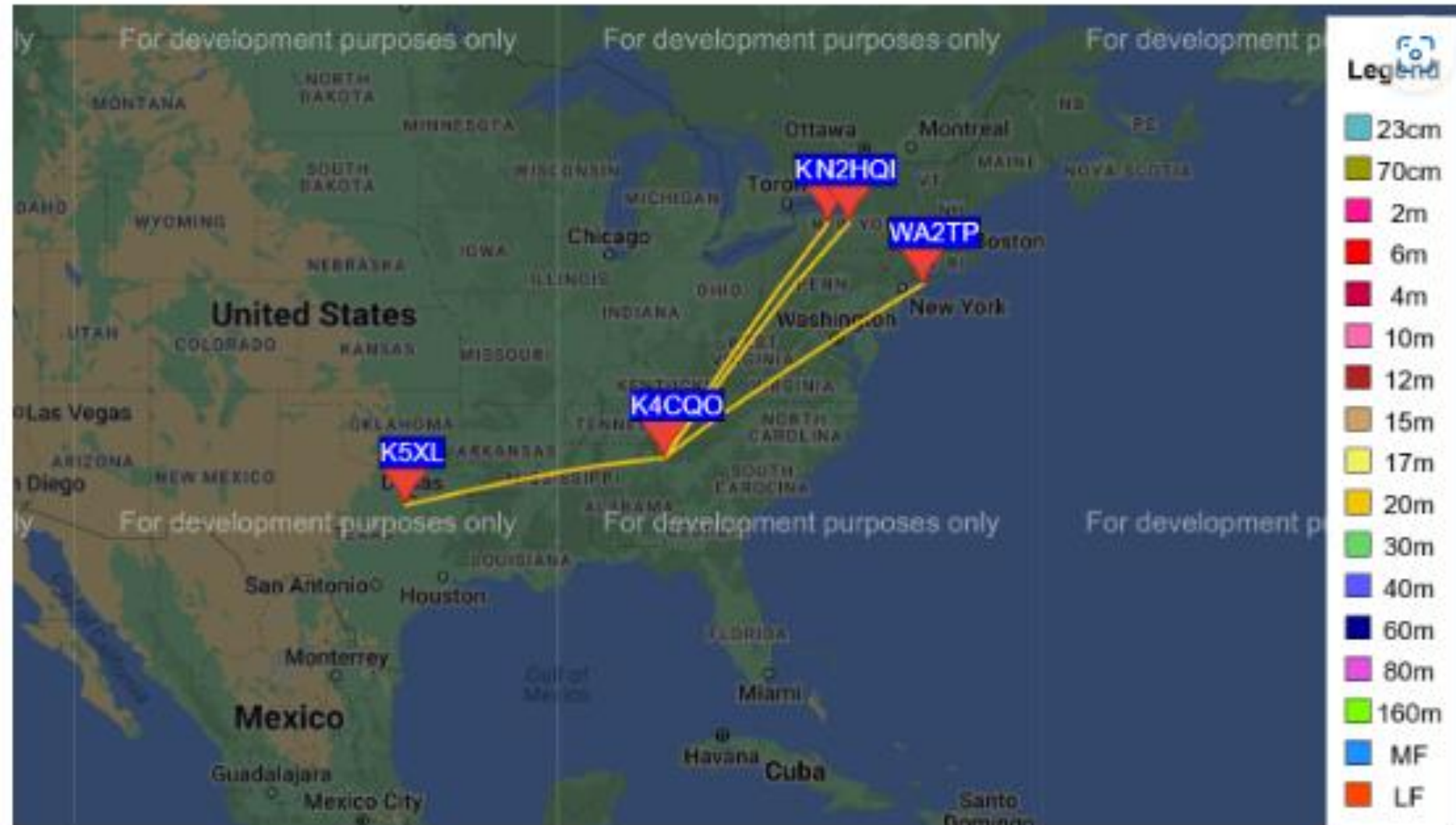
www.wsprnet.org/drupal/wsprnet/map

Sample maps

You need to be a registered WSPR member to view the maps (www.wsprnet.org/drupal/wsprnet/map).



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W3DJS - Dave

- HamPi, HamPC and HamIQ.
- <https://linktr.ee/HAMPIW3DJS>

WD4NET - Neil

- miklor.com (radio reviews)
- repeater-builder.com

WB2OGY - Steve

- <https://timesmicrowave.com/> Has good information about coax specifications.
- <https://educ.jmu.edu/~fawcetwd/archive/AndrewCatalog38.pdf>
The old Andrew catalog is preserved online and contains some great data on waveguide and cable.

KN2TOD - Mark

<https://rpilocator.com/>

Leads to these two excellent sources (Pi's, Arduinos, etc. Cases, fans, cables, etc. Displays, oh my! etc. etc. etc.):

<https://chicagodist.com/>

<https://www.pishop.us/>

(also: <https://www.pishop.ca/> up north somewhere)

A SHACK FOR A

CAT! <https://www.instructables.com/Cardboard-Geodesic-Dome/>

W4LON - Fisher

- WXWARN: "heads up" NWS developing weather conditions: <https://wxwarn.affirmatech.com/>
- NWS (cell phone): <https://mobile.weather.gov/#typeLocation>
- NWS (Skywarn): <https://www.weather.gov/skywarn/>
- Gwinnett County ARES: [Gwinnett ARES – Gwinnett Amateur Radio Emergency Service](#)
- SouthEast / Georgia ARES:
<https://georgia-ares-oldtopographer.hub.arcgis.com/apps/9695e774a1c64971b43bb89a8bae766e/explore>
- POTA Spotter App: <https://pota.app/#/>
- WINLINK: Global radio email: <https://www.winlink.org/>
- VARA [HF/FM/ Sat/Chat) modem programs for Winlink: <https://rosmodem.wordpress.com/>
- VarC (HF): free real-time HF P2P chat app, use with Vara modem: <https://www.varac-hamradio.com/>
- Audacity: open source audio editor: <https://www.audacityteam.org/>

K4GTR - Kevin

- <https://www.camras.nl/en/about-the-radio-telescope/>
- <https://www.kicad.org/download/windows/>
- <https://grp-labs.com/qmx.html>
- hamGPS app



Other entries

- KC4SR – Ken [Solar Conditions and Ham Radio Propagation \(w5mmw.net\)](#)
- WD4AMC – Bill [HamStudy.org: Cutting edge amateur radio study tools](#)
- W4KIB – Kevin <https://sotl.as/map>
- AK4AM – Alex [VHF Propagation Map \(dxview.org\)](#)
- W4KLY - Paul - [Parks on the Air | POTA](#)
- John - [Welcome to the Radio Society of Great Britain - Portal \(rsgb.org\)](#)