

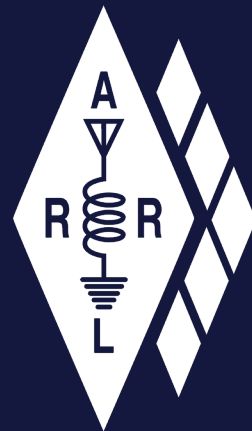
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Family EMCOMM: JS8

wgreene@ARRL.org

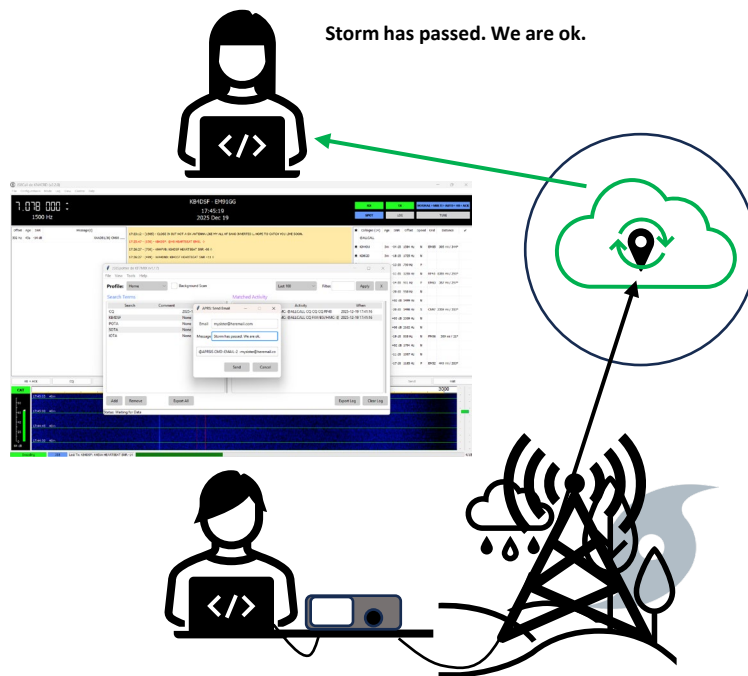


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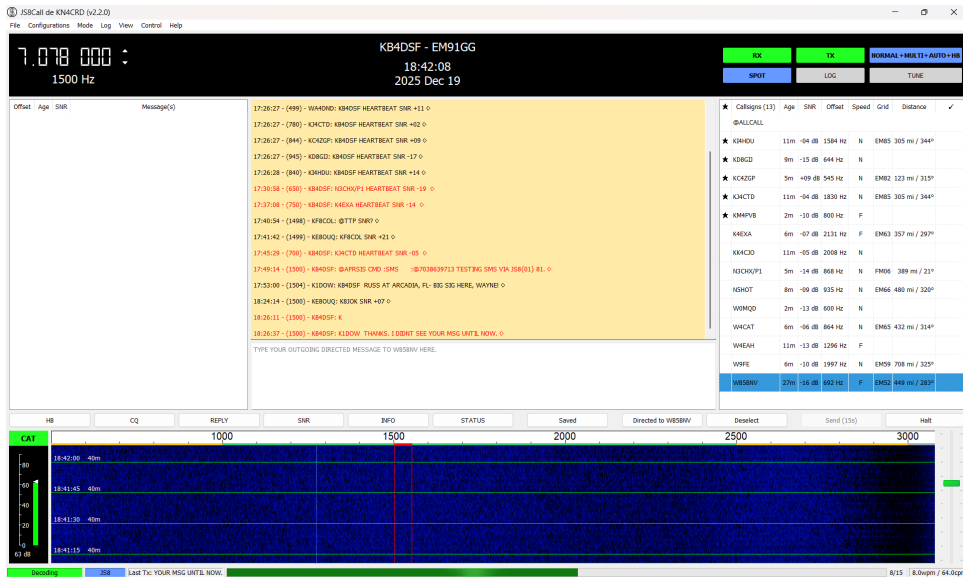
To Cover

- What is JS8
- JS8Call Client
- JS8 Spotter
- SMS via JS8
- Email via JS8
- Demonstrations

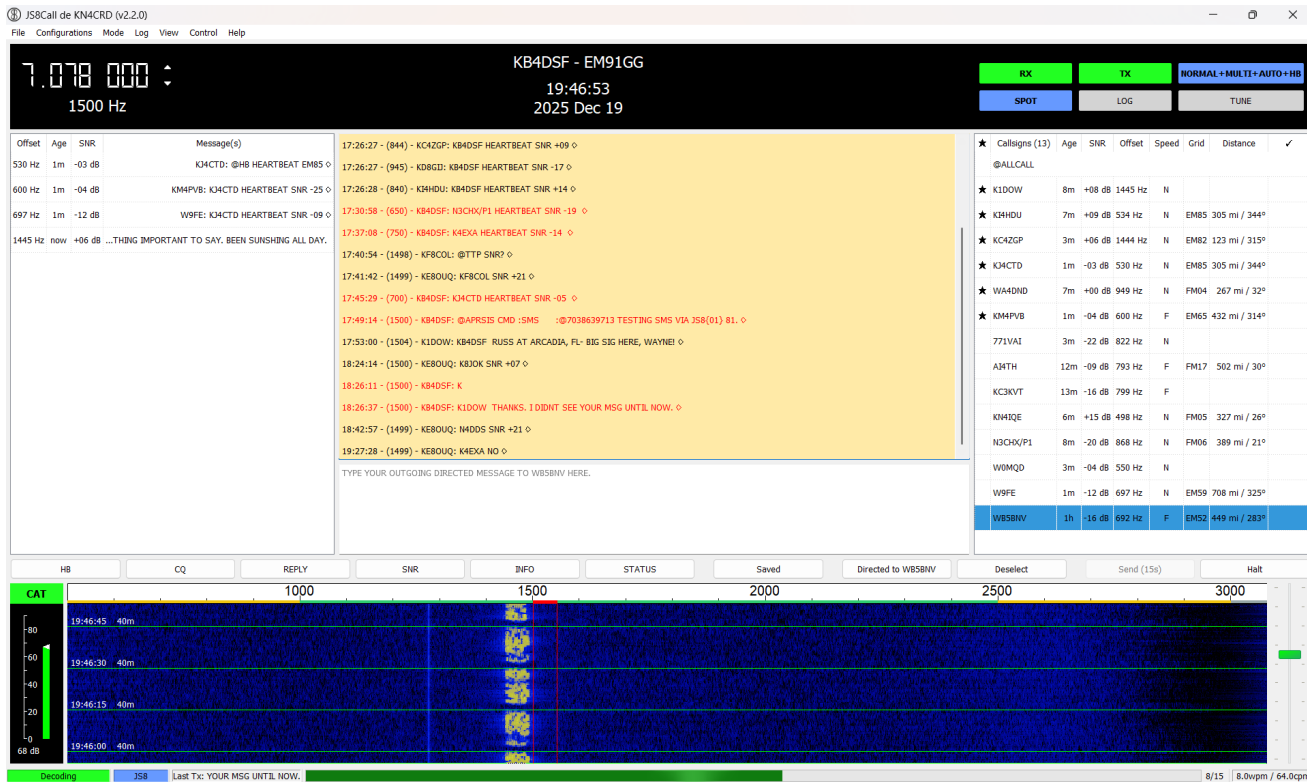


What is JS8?

- Keyboard-to-keyboard amateur radio data mode
- Derived from FT8's modulation and signal processing
- Allows for messages beyond FT8's limitation
- Excellent weak signal performance
- Multiple speeds available depending on contact conditions
- APRS-IS capabilities



JS8Call Client



JS8Call Client

File → Settings

The screenshot shows the JS8Call Client interface (v2.2.0) with the following components:

- Menu Bar:** File, Configurations, Mode, Log, View, Control, Help. The 'Settings...' option under 'File' is highlighted with an arrow.
- Header:** KB4DSF - EM91GG, 13:21:44, 2025 Dec 22. Frequency: 1489 Hz.
- Controls:** RX, TX, SPOT, LOG, TUNE buttons. A status bar at the bottom shows 'Decoding', 'JS8', and 'Last Tx: KB4DSF: KD0NBV SNR?'. The status bar also indicates '14/15' and '8.0vpm / 64.0cpm'.
- Message Log:** A list of messages with timestamps and call signs. The log is currently empty.
- Waterfall Display:** A frequency spectrum plot showing signal activity. The frequency range is from 1000 to 3000 Hz. The time axis shows 13:21:30, 13:21:15, and 13:21:00. The signal level is indicated by a color scale from 0 dB to 80 dB.
- Collisions Table:** A table listing collisions with columns for Age, SNR, Offset, Speed, Grid, and Distance. The table is currently empty.



JS8Call Client

The screenshot shows the 'Settings' window of the JS8Call Client, specifically the 'Station' tab. The window has a title bar with a question mark and a close button. Below the title bar are tabs for 'General', 'Radio', 'Audio', 'Reporting', 'Frequencies', 'Saved Messages', 'Notifications', and 'UI'. The 'Station' tab is selected, and it contains sub-tabs for 'Station', 'Behavior', and 'Networking & Autoreply'. The 'Station Details' section is highlighted with a yellow border and contains the following fields:

- My Callsign:** KB4DSF
- My Maidenhead Grid Locator:** EM91GG
- Callsign Groups (comma separated):** @GHOSTNET, @SITREP, @TELLURIC, @GARA, @ARES, @AMRRON, @EMCOMM
- ☐ Do not participate in the @ALLCALL group

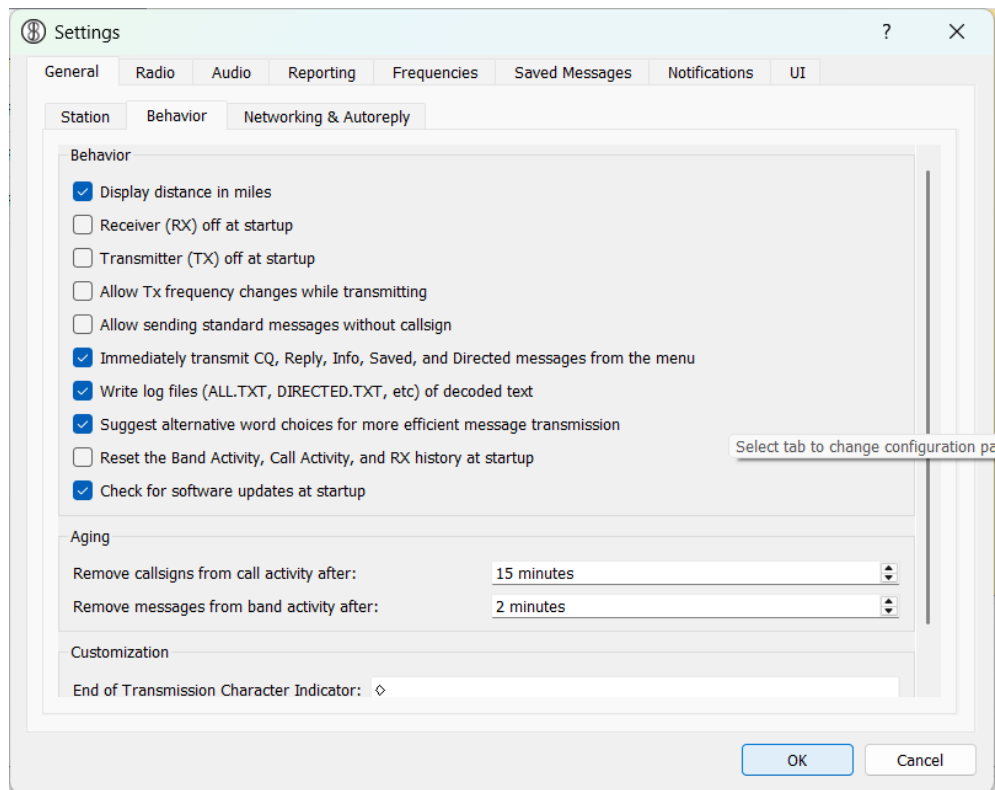
The 'Station Messages' section contains the following fields:

- CQ Message:** CQ CQ CQ <MYGRID4>
- Reply Message:** HW CPY?
- Station Info (Rig, Antenna, Location, etc):** FT-710, OCF UP ABT 45FT, 25W
- Station Status (Weather, Idle Time, Version, etc):** IDLE <MYIDLE> VERSION <MYVERSION>

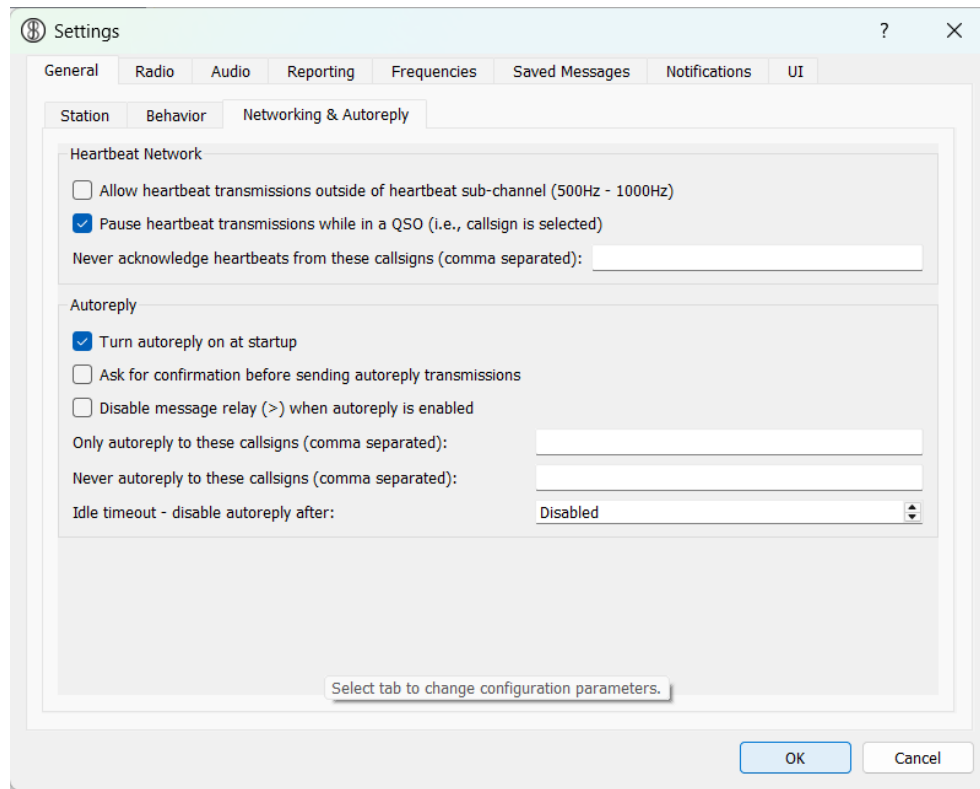
At the bottom right of the window are 'OK' and 'Cancel' buttons.



JS8Call Client



JS8Call Client



JS8Call Client

Settings ? X

General Radio Audio Reporting Frequencies Saved Messages Notifications UI

Rig: Yaesu FT-DX101D Poll Interval: 1 s

CAT Control Rig Options

PTT Method

☐ VOX ☐ DTR

☒ CAT ☐ RTS

Port: COM12

Mode

☐ None ☐ USB ☒ Data/Pkt

Transmit Audio Source

☐ Rear/Data ☒ Front/Mic

Split Operation

☒ None ☐ Rig ☐ Fake It

Advanced

PTT command:

Test CAT Test PTT

OK Cancel



JS8Call Client

Settings

General Radio Audio Reporting Frequencies Saved Messages Notifications UI

Rig: Yaesu FT-DX101D Poll Interval: 1 s

CAT Control Rig Options

Serial Port: COM12

Parameters

Baud Rate: 38400

Data Bits

☒ Default ☐ Seven ☐ Eight

Stop Bits

☒ Default ☐ One ☐ Two

Handshake

☒ Default ☐ None ☐ XON/XOFF ☐ Hardware

Force Control Lines

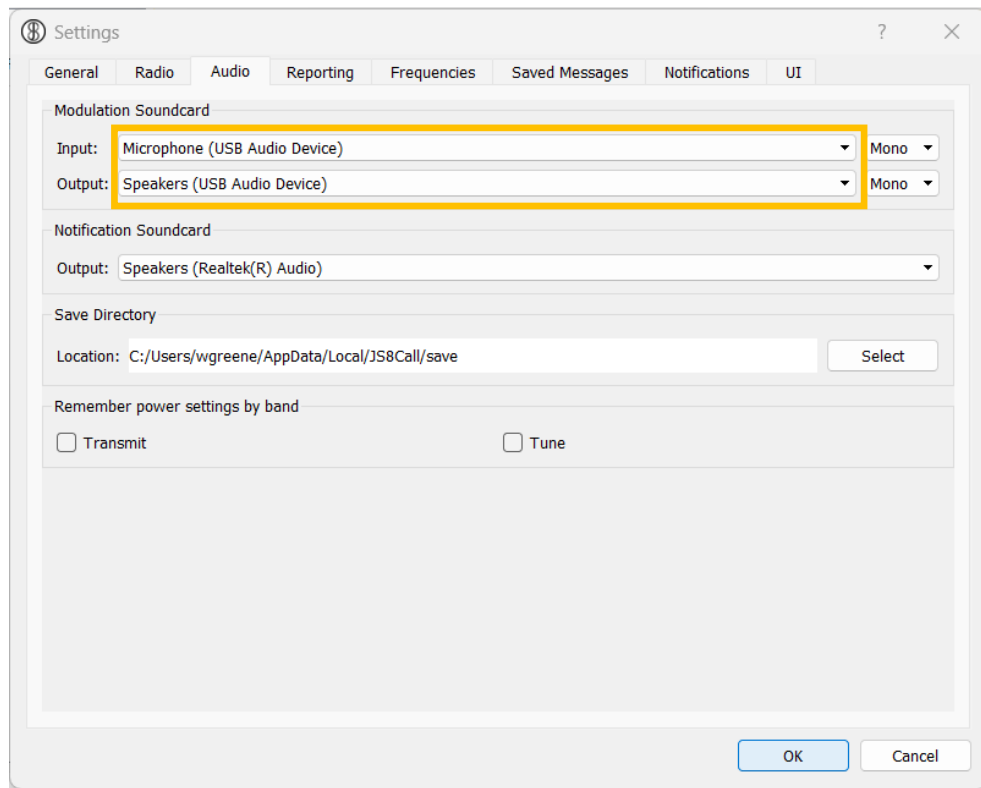
DTR: RTS:

Test CAT Test PTT

OK Cancel



JS8Call Client



JS8Call Client

The screenshot shows the 'Settings' window of the JS8Call Client, specifically the 'Reporting' tab. The window has a title bar with a question mark and a close button. Below the title bar are several tabs: 'General', 'Radio', 'Audio', 'Reporting' (selected), 'Frequencies', 'Saved Messages', 'Notifications', and 'UI'. The 'Reporting' tab contains several sections: 'Logging' with a text field for 'Operator Callsign'; 'Network Services' with two checked checkboxes for enabling spotting to reporting networks and the APRS-IS network, an 'APRS Server' text field with 'rotate.aprs2.net', an 'APRS Server Port' spinner set to '14580', and a text field for 'Never send spotting reports from these callsigns'; 'API' (highlighted with a yellow border) with a checked checkbox for 'Allow setting station information', and fields for 'UDP Server Hostname' (127.0.0.1), 'UDP Server Port' (2242), 'TCP Server Hostname' (127.0.0.1), 'TCP Server Port' (2442), and 'TCP Max Connections' (1), each with a corresponding 'Enable' and 'Accept' checkbox; and 'N3FJP Logger' at the bottom. At the bottom right are 'OK' and 'Cancel' buttons.

Settings

General Radio Audio **Reporting** Frequencies Saved Messages Notifications UI

Logging

Operator Callsign (if different than Station Callsign):

Network Services

☒ Enable spotting to reporting networks (JS8NET, PSKReporter, etc)

☒ Enable spotting @APRSIS messages to the APRS-IS network

APRS Server: rotate.aprs2.net

APRS Server Port: 14580

Never send spotting reports from these callsigns (comma separated):

API

☒ Allow setting station information (Grid, Info, Status, etc) from the APIs

UDP Server Hostname: 127.0.0.1 ☒ Enable UDP Server API

UDP Server Port: 2242 ☒ Accept UDP Requests

TCP Server Hostname: 127.0.0.1 ☒ Enable TCP Server API

TCP Server Port: 2442 ☒ Accept TCP Requests

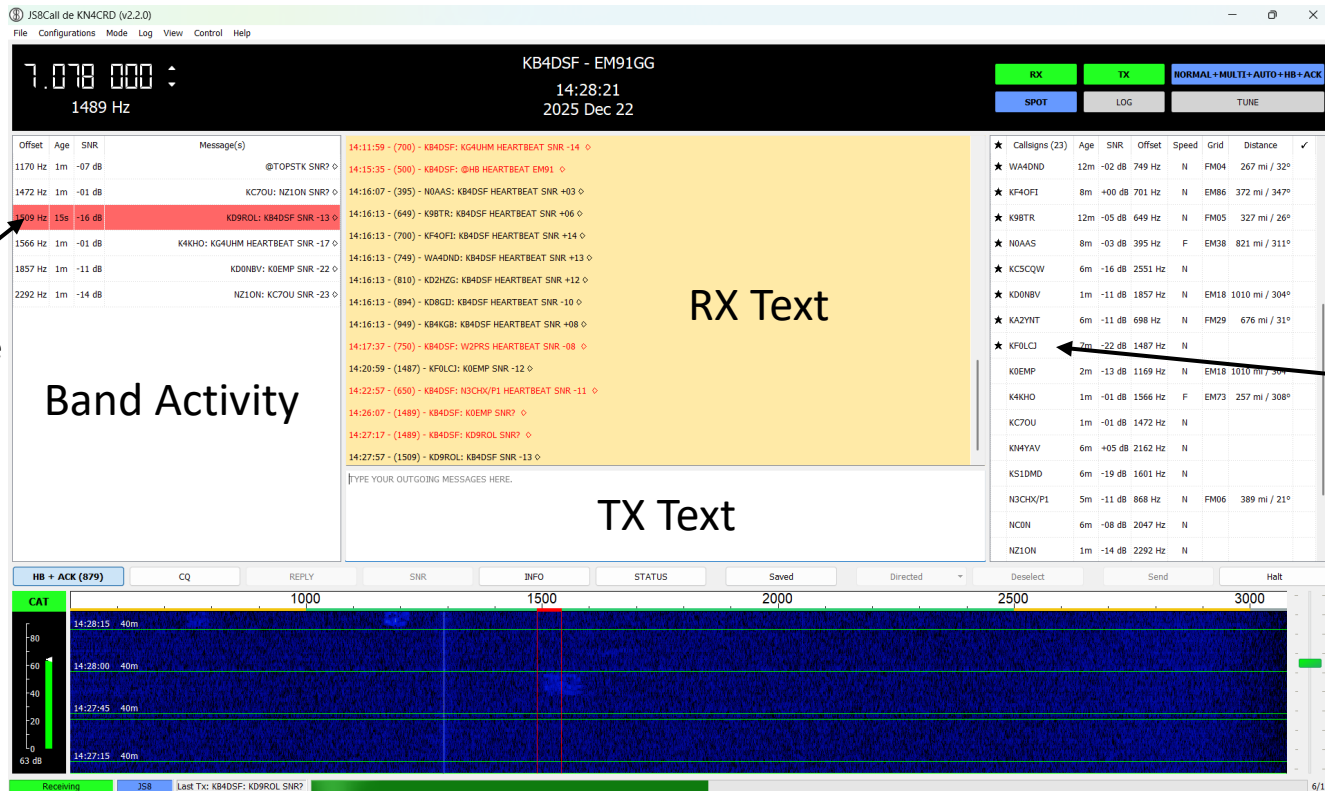
TCP Max Connections: 1

N3FJP Logger

OK Cancel



JS8Call Client



Call directed to me

Band Activity

RX Text

TX Text

Received call signs
★ = Those who also received me



JS8Call Client

JS8Call de KN4CRD (v2.2.0)

File Configurations Mode Log View Control Help

7.078 000 :
1489 Hz

KB4DSF - EM91GG

15:27:02
2025 Dec 22

RX
SPOT

Decoder Sensitivity...
✓ Enable Simultaneous Decoding of All Speeds (MULTI)
✓ Enable Autopilot (AUTO)
✓ Enable Heartbeat Networking (HB)
✓ Enable Heartbeat Acknowledgments (ACK)

Call Sign (S) Age
@ALLCALL
@AMRRON
@ARES
@EMCCOM
@GARA
@GHOSTNET
@SITREP
@TELLURIC

★ KD2HZG 2m -12 dB 810 Hz N FM18 561 m / 26°
★ KJ4CTD 11m -05 dB 730 Hz N EM85 305 m / 344°
977 FQ 14m -28 dB 1537 Hz S
AA3IC 8m -03 dB 547 Hz N FN20 734 m / 28°
W2PRS 9m -13 dB 2996 Hz F EM85 305 m / 344°

Offet Age SNR Message(s)
540 Hz 30s -14 dB 93PO02FY2:

14:27:57 - (1509) - KB4DSF: KB4DSF SNR -13 0
14:28:27 - (800) - KB4DSF: W1PTD HEARTBEAT SNR -11 0
14:31:28 - (500) - KB4DSF: DVN2R/RY9 HEARTBEAT SNR -19 0
14:32:07 - (1475) - K4KHO: KICKYT QUERY MSGS 0
14:33:26 - (1476) - K4KHO: K4YAV QUERY MSGS 0
14:35:16 - (1476) - K4KHO: @HB HEARTBEAT EM73 0
14:35:17 - (650) - KB4DSF: K4KHO HEARTBEAT SNR +01 0
14:36:13 - (550) - KB4DSF: K4KSR HEARTBEAT SNR -07 0
14:36:43 - (850) - KB4DSF: K4LHM HEARTBEAT SNR -10 0
14:44:58 - (750) - KB4DSF: N3CH/P1 HEARTBEAT SNR -09 0
14:47:48 - (750) - KB4DSF: W2PRS HEARTBEAT SNR -15 0
14:52:13 - (750) - KB4DSF: K9BTR HEARTBEAT SNR -05 0
14:54:43 - (650) - KB4DSF: K8DDV HEARTBEAT SNR -12 0
15:02:28 - (750) - KB4DSF: K3VVO HEARTBEAT SNR -08 0
15:11:28 - (700) - KB4DSF: N3CH/P1 HEARTBEAT SNR -11 0
15:15:27 - (900) - KB4DSF: KCCTD HEARTBEAT SNR -05 0
15:17:58 - (750) - KB4DSF: W2PRS HEARTBEAT SNR -13 0
15:18:58 - (750) - KB4DSF: AA3IC HEARTBEAT SNR -03 0

TYPE YOUR OUTGOING MESSAGES HERE.

HB + ACK (433) CQ REPLY SNR INFO STATUS Saved Directed Deselect Send Halt

CAT 1000 1500 2000 2500 3000

15:26:45 40m
15:26:30 40m
15:26:15 40m

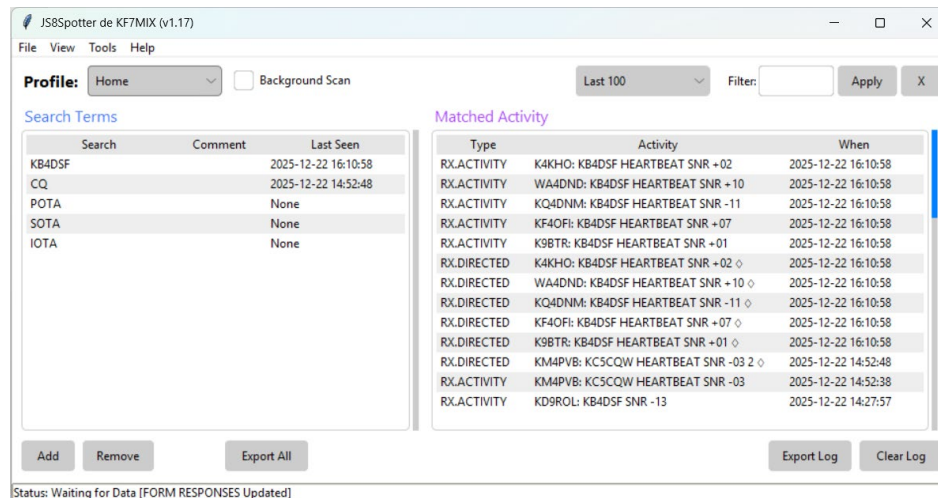
Decoding JS8 List Tx: KB4DSF: AA3IC HEARTBEAT SNR -03 2/15



JS8 Spotter

- <https://kf7mix.com/js8spotter.html>

- “JS8Spotter was created to fill gaps in the JS8Call feature set. It can help users sort and track band activity, send APRS messages more easily, view stations on an offline map, send custom automated responses, and even implement simple forms.”



JS8 Spotter

JS8Spotter de KF7MIX (v1.17)

File View Tools Help

Switch Profile ▾
New Profile
Edit Profile
Remove Profile
Sort Profiles
Settings
Exit
SOTA
IOTA

Background Scan ☐

Last 100 ▾ Filter: Apply X

Comment	Last Seen
	2025-12-22 16:10:58
	2025-12-22 14:52:48
	None
	None
SOTA	
IOTA	

Matched Activity*

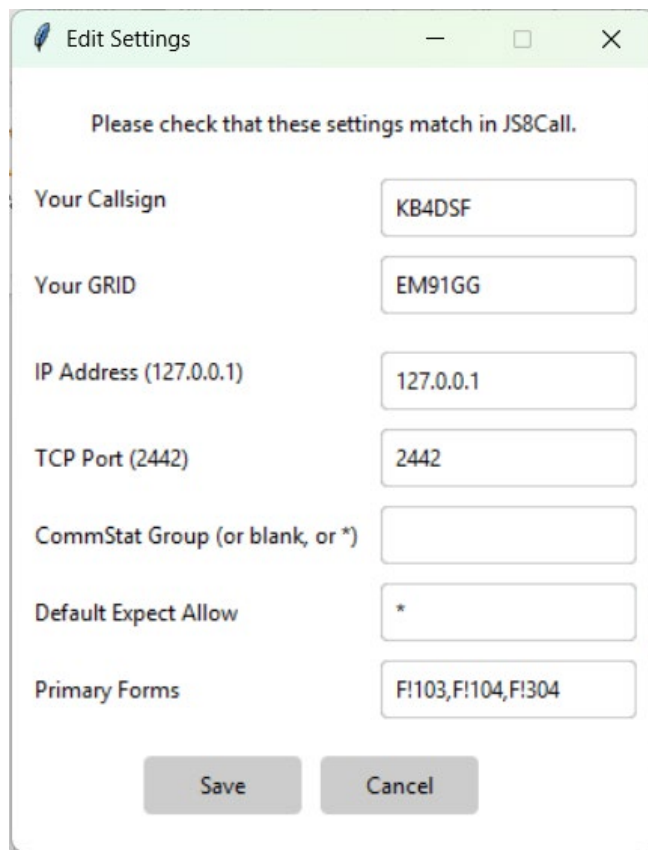
Type	Activity	When
RX.ACTIVITY	KD9ROL: KB4DSF SNR -13	2025-12-22 14:27:57
RX.DIRECTED	KD9ROL: KB4DSF SNR -13 ◇	2025-12-22 14:27:57
RX.ACTIVITY	KC5CQW: K0EMP SNR -18	2025-12-22 14:22:15
RX.DIRECTED	KC5CQW: K0EMP SNR -18 ◇	2025-12-22 14:22:15
RX.ACTIVITY	KI0KY: @ALLCALL CQ CQ CQ DM68	2025-12-22 13:50:38
RX.DIRECTED	KI0KY: @ALLCALL CQ KI0KY: @ALLCALL CQ CC	2025-12-22 13:50:38

Add Remove Export All Export Log Clear Log

Status: Waiting for Data [FORM RESPONSES Updated]



JS8 Spotter



The image shows a software dialog box titled "Edit Settings". It contains a message "Please check that these settings match in JS8Call." followed by several input fields. The fields are labeled "Your Callsign", "Your GRID", "IP Address (127.0.0.1)", "TCP Port (2442)", "CommStat Group (or blank, or *)", "Default Expect Allow", and "Primary Forms". Each field has a corresponding text box with the following values: "KB4DSF", "EM91GG", "127.0.0.1", "2442", an empty box, "*", and "F!103,F!104,F!304". At the bottom of the dialog are two buttons: "Save" and "Cancel".

Setting	Value
Your Callsign	KB4DSF
Your GRID	EM91GG
IP Address (127.0.0.1)	127.0.0.1
TCP Port (2442)	2442
CommStat Group (or blank, or *)	
Default Expect Allow	*
Primary Forms	F!103,F!104,F!304



JS8 Spotter

JS8Spotter de KF7MIX (v1.17)

File View Tools Help

Profile:

- Simple Offline Map
- Visualize Waterfall
- Expect System
- Expect - Pause Replies
- Expect - Pause Auto TX
- Expect - Blocklist
- MCForms - Forms
- MCForms - Responses
- Datecode Tool
- CommStat - StatReps Received
- CommStat - Send StatRep
- CommStat - Send Checkin
- APRS - SMS Text**
- APRS - Email
- APRS - Message
- APRS - Report Grid
- APRS - POTA Gateway
- Database Search
- Database Trim
- Disable Sounds

Search T

KB4DSF

CQ

POTA

SOTA

IOTA

Add

Last Seen

2-22 16:10:58

2-22 14:52:48

Last 100

Filter:

Apply X

Matched Activity*

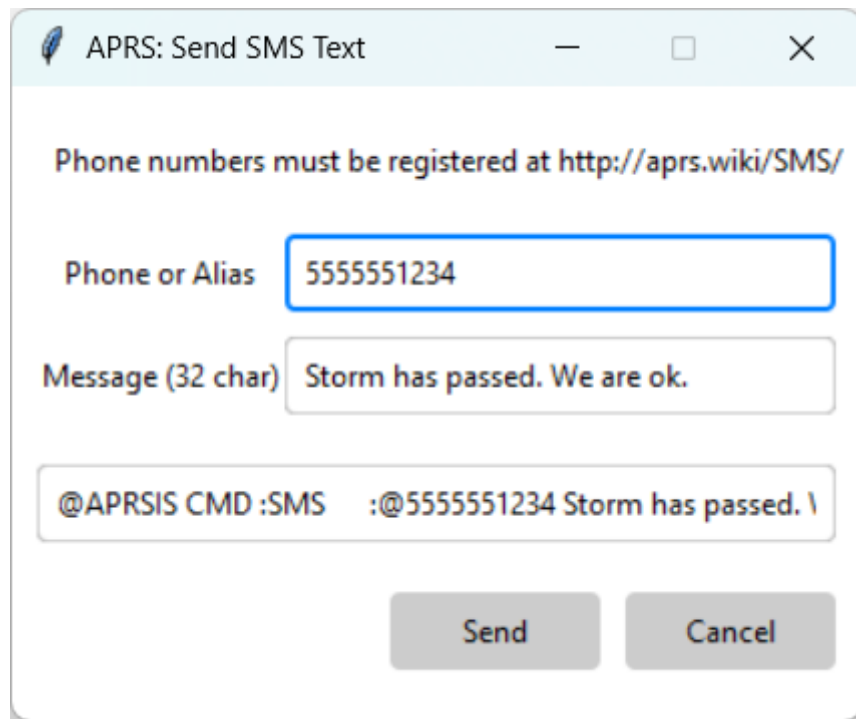
Type	Activity	When
RX.ACTIVITY	KD9ROL: KB4DSF SNR -13	2025-12-22 14:27:57
RX.DIRECTED	KD9ROL: KB4DSF SNR -13 ◇	2025-12-22 14:27:57
RX.ACTIVITY	KC5CQW: K0EMP SNR -18	2025-12-22 14:22:15
RX.DIRECTED	KC5CQW: K0EMP SNR -18 ◇	2025-12-22 14:22:15
RX.ACTIVITY	KI0KY: @ALLCALL CQ CQ CQ DM68	2025-12-22 13:50:38
RX.DIRECTED	KI0KY: @ALLCALL CQ KI0KY: @ALLCALL CQ CC	2025-12-22 13:50:38

Export Log Clear Log

Status: Waiting for data [FORM RESPONSES Updated]



JS8 Spotter



APRS: Send SMS Text

Phone numbers must be registered at <http://aprs.wiki/SMS/>

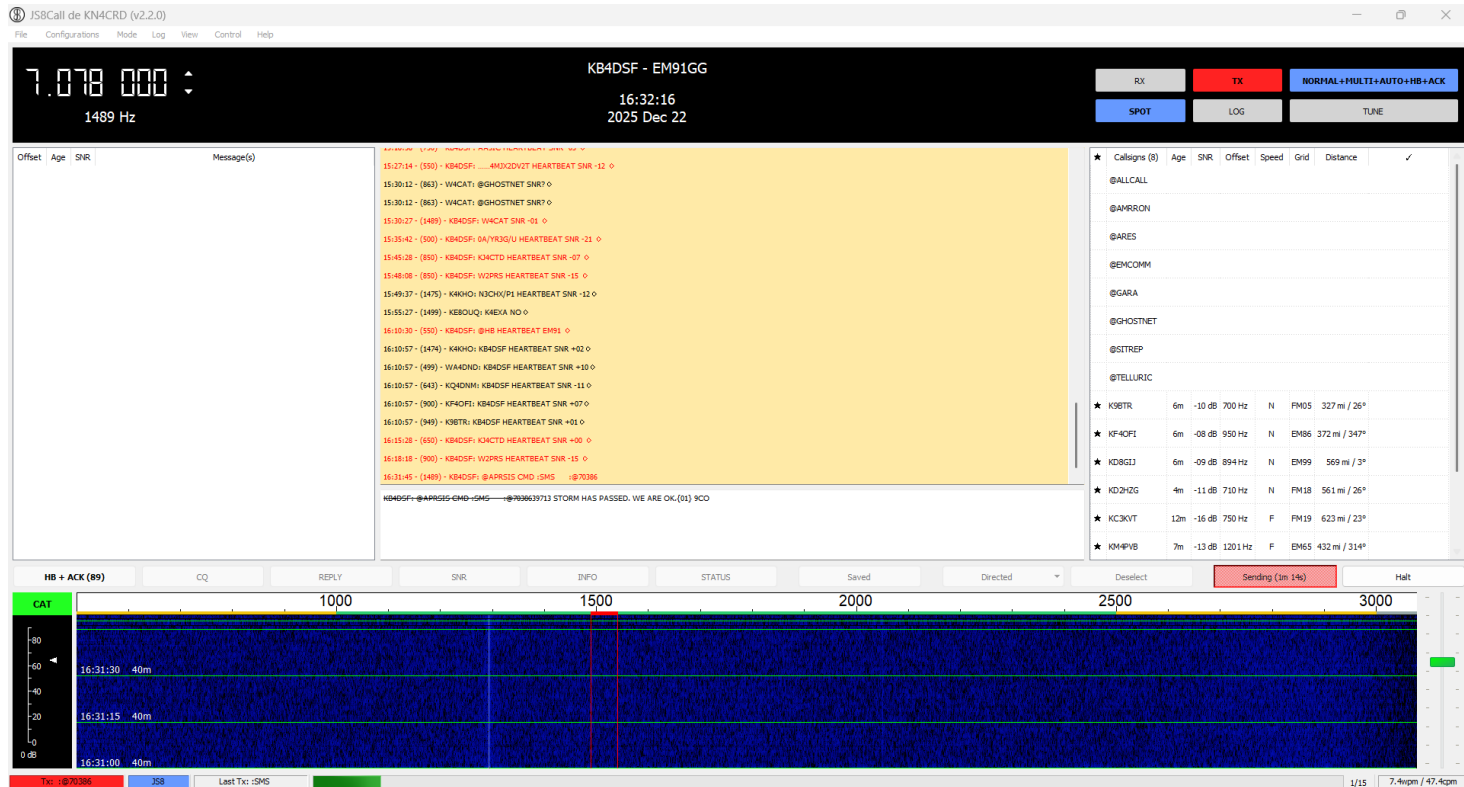
Phone or Alias

Message (32 char)

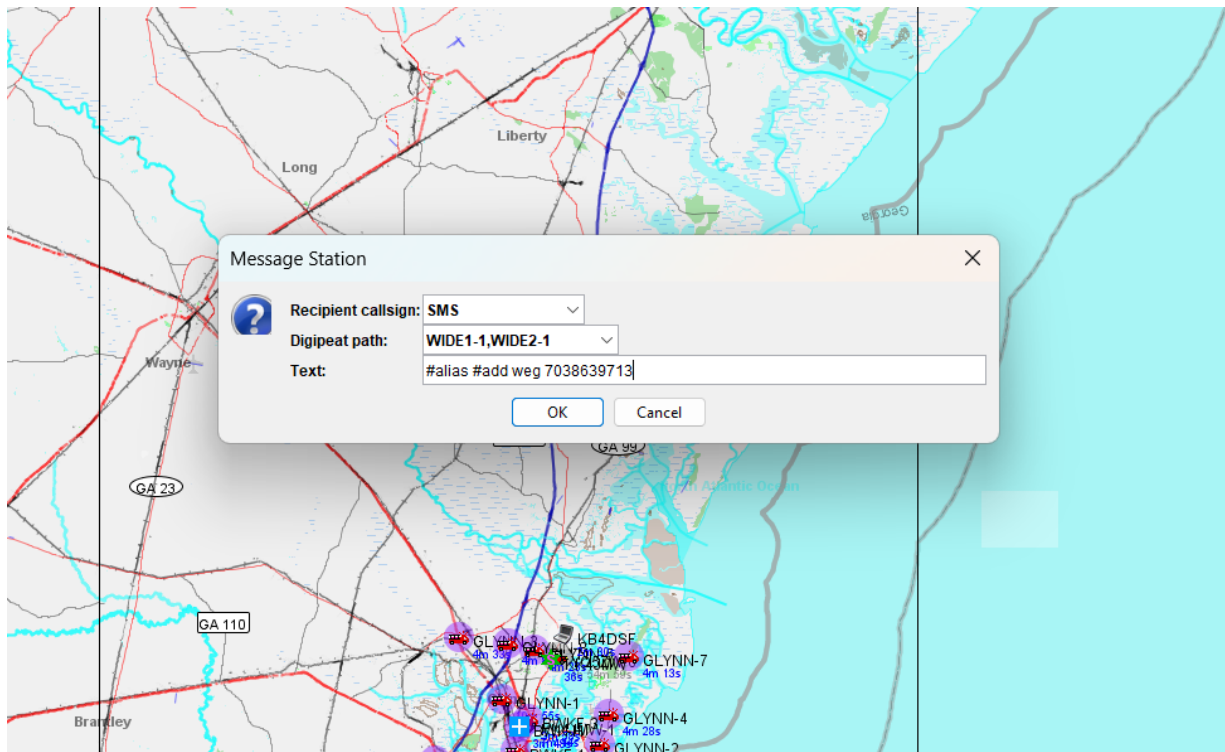
@APRSIS CMD :SMS :@5555551234 Storm has passed. \

Send Cancel

JS8 Spotter



JS8 Spotter



JS8 Spotter

APRS: Send SMS Text

Phone numbers must be registered at <http://aprs.wiki/SMS/>

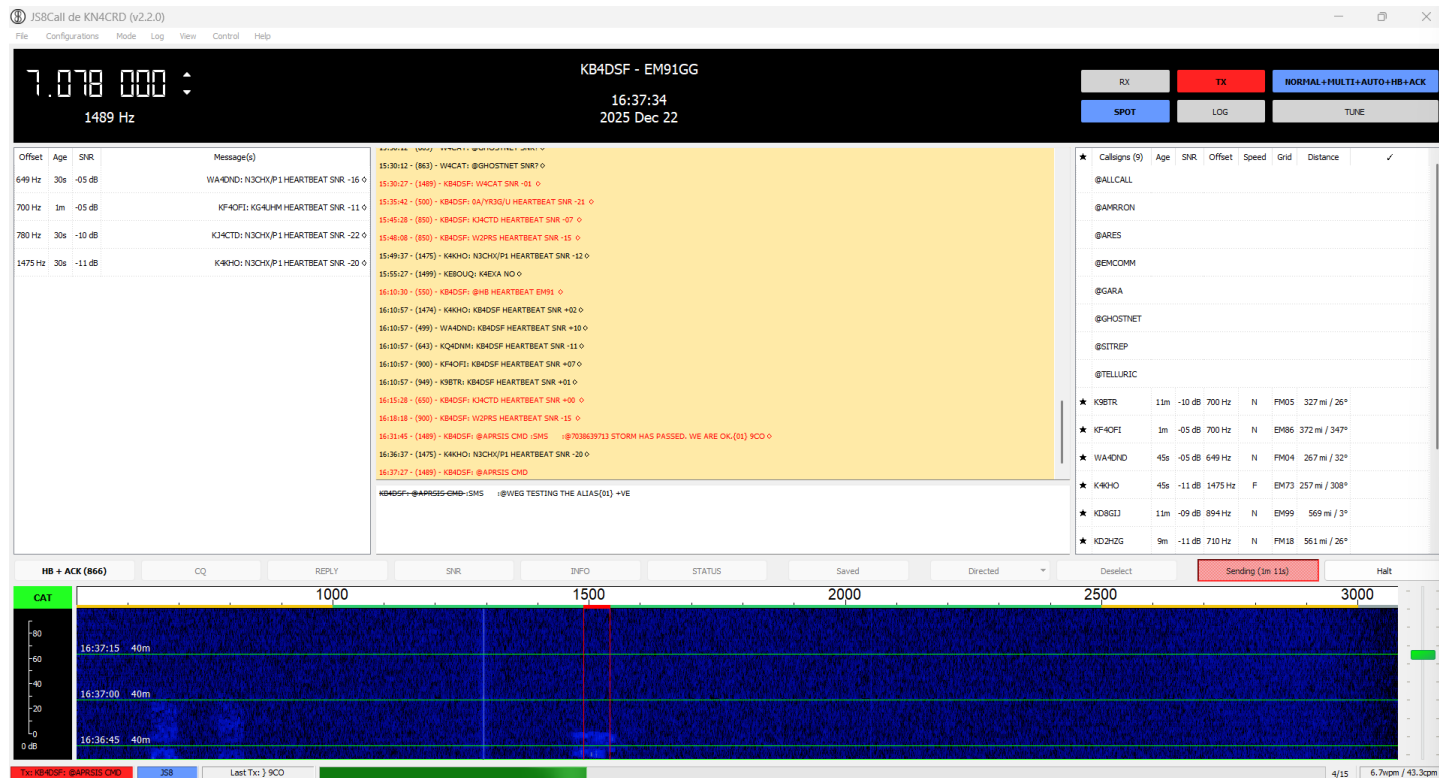
Phone or Alias

Message (32 char)

@APRSIS CMD :SMS :@weg Testing the alias{01}

Send Cancel

JS8 Spotter



JS8 Spotter

JS8Spotter de KF7MIX (v1.17)

File View Tools Help

Profile:

- Simple Offline Map
- Visualize Waterfall
- Expect System
 - Expect - Pause Replies
 - Expect - Pause Auto TX
 - Expect - Blocklist
- MCForms - Forms
- MCForms - Responses
- Datecode Tool
- CommStat - StatReps Received
- CommStat - Send StatRep
- CommStat - Send Checkin
- APRS - SMS Text
- APRS - Email**
- APRS - Message
- APRS - Report Grid
- APRS - POTA Gateway
- Database Search
- Database Trim
- Disable Sounds

Search:

- KB4DSF
- CQ
- POTA
- SOTA
- IOTA

Add

Last Seen

2-22 19:04:33
2-22 17:31:44

Last 100 **Filter:** **Apply** **X**

Matched Activity*

Type	Activity	When
RX.ACTIVITY	KD9ROL: KB4DSF SNR -13	2025-12-22 14:27:57
RX.DIRECTED	KD9ROL: KB4DSF SNR -13 ◇	2025-12-22 14:27:57
RX.ACTIVITY	KC5CQW: K0EMP SNR -18	2025-12-22 14:22:15
RX.DIRECTED	KC5CQW: K0EMP SNR -18 ◇	2025-12-22 14:22:15
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RX.DIRECTED	KI0KY: @ALLCALL CQ KI0KY: @ALLCALL CQ CC	2025-12-22 13:50:38

Export Log **Clear Log**

Status: Waiting for Data [FORM RESPONSES updated]



JS8 Spotter

Messages

File View Filter Query Message Window Help

☐ Show every message (not just addressed to this station)

Date/Time	Sender	Addressee	Text	Seq#	Clear
22/Dec/2025 14:19:40	EMAIL-2	KB4DSF	Email sent to WGREENE@ARRL.ORG	XXJ01	Clear
22/Dec/2025 14:19:36	EMAIL-2	KB4DSF	Email sent to WGREENE@ARRL.ORG	XXJ01	Clear
22/Dec/2025 14:19:33	EMAIL-2	KB4DSF	Email sent to WGREENE@ARRL.ORG	XXJ01	Clear
22/Dec/2025 14:16:52	EMAIL-2	KB4DSF	Email sent to wayne.greene489@gmail.com	1220	Clear
22/Dec/2025 14:16:47	EMAIL-2	KB4DSF	Email sent to wayne.greene489@gmail.com	1220	Clear
22/Dec/2025 14:15:17	EMAIL	KB4DSF	Email sent to wayne.greene489@gmail.com	954	Clear
22/Dec/2025 14:15:12	EMAIL	KB4DSF	Email sent to wayne.greene489@gmail.com	954	Clear
22/Dec/2025 14:11:48	EMAIL-2	KB4DSF	No email address found!	1219	Clear
22/Dec/2025 14:11:45	EMAIL-2				Clear
22/Dec/2025 14:11:41	EMAIL-2				Clear
22/Dec/2025 14:11:23	EMAIL				Clear
22/Dec/2025 14:11:20	EMAIL				Clear
22/Dec/2025 14:11:03	EMAIL				Clear
22/Dec/2025 14:11:01	EMAIL				Clear
22/Dec/2025 14:10:58	EMAIL				Clear

Message Station

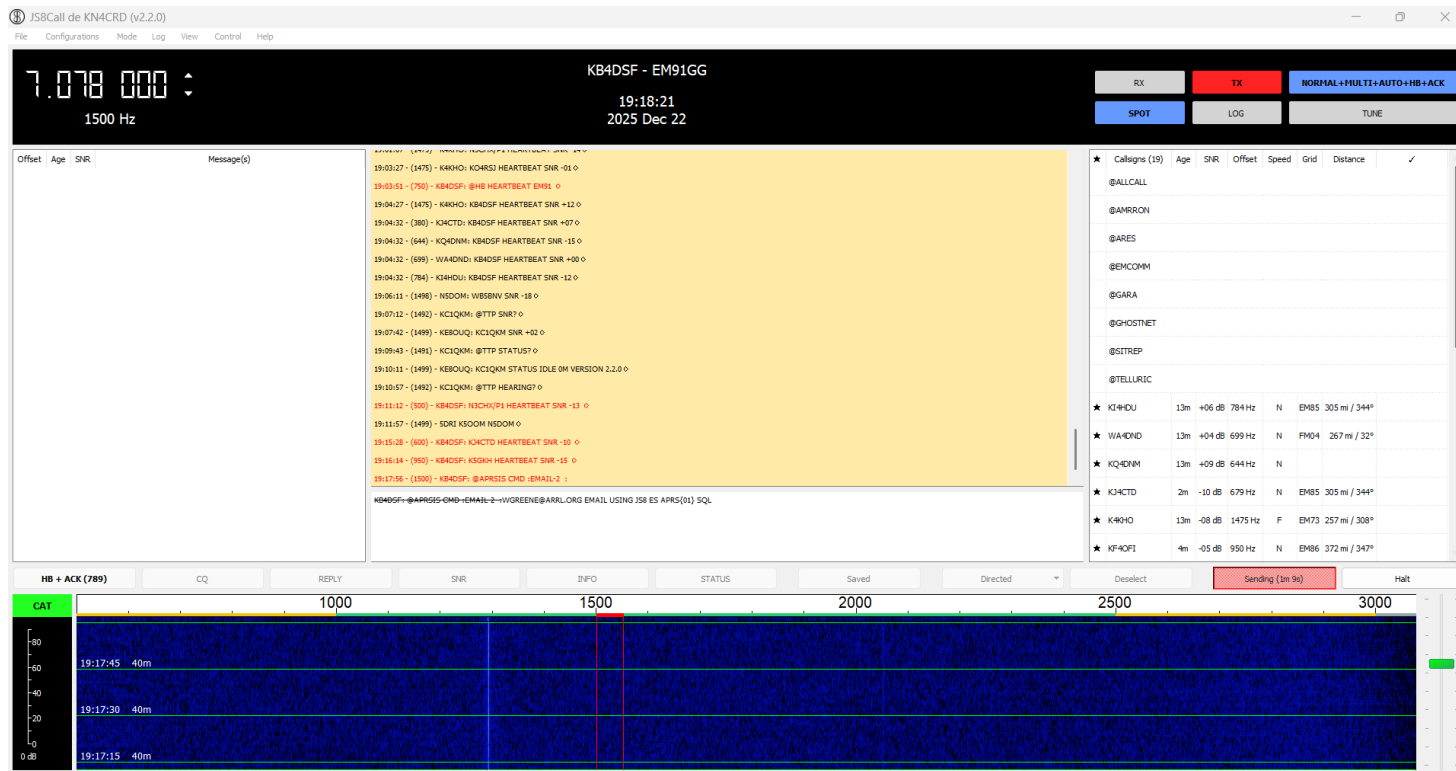
Recipient callsign: EMAIL-2

Digipeat path: WIDE1-1,WIDE2-1

Text: wgreene@arrl.org Email using JS8 es APRS

OK Cancel

JS8 Spotter

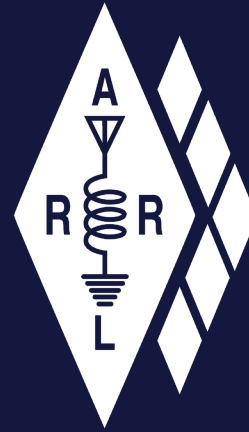


Next Month On the Air Live
January 27 @8pm Eastern

NVIS Antennas



Thank You!



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Amateur Radio®

