

JS8Call HF Net Process (Update)

Over on groups.io, there's a discussion in the JS8Call group about using JS8 to run a Net. Gordon Gibby (KX4Z NCS521) [opened the discussion on Dec 22, 2020](#):

“ A few volunteers are giving a try at creating a protocol for a communications NET managed using JS8. The impetus came from observing the difficulties of voice net check-ins spread over a wide geographic area, with some stations unable to hear the net control station (and vice versa) [likely due to picking a higher operating frequency to get better strength signals, but then having to deal with SKIP ZONES], stations on top of each other in the time domain, difficulties understanding some stations, and on and on.

A first-draft protocol has been written and is about to be tested. The main difficulty accepting an unknown set of stations is a priori attempting to separate them in the frequency spectrum of an audio passband. The trial solution is to assign them in groups to segments of the audio passband, based on the last character of their call sign. This may somewhat reduce the chance of overlap. Anyone have a better solution? Goal was to check in multiple stations SIMULTANEOUSLY using the inherent frequency multiplexing of JS8.

This protocol uses a primary and backup net control (the policy of the voice nets of this group) and then has the primary NCS list all of the recognized stations in a message to the backup. All stations could copy this message, and then reply at the same time as the backup, with callsigns missed by the primary NCS at the first attempt.

Anyone ever done this before or have improved suggestions?”

A few days later, someone else jumped in with a helper program called NetControlJS8:

The screenshot shows two windows side-by-side. The left window is JS8Call de KN4CRD (v2.2.0) and the right window is NetControlJS8.

JS8Call de KN4CRD (v2.2.0) Interface:

- Frequency: 7.078 000, 1792 Hz
- Mode: NF4RC - EL89RQ
- Time: 15:00:11, 2020 Dec 30
- Message(s) area shows several messages with timestamps and call signs, including:
 - 14:52:37 - (1796) - AC8SM: K0RQU HEH, JUST ALONG FOR THE RIDE HIHI. WILL BE DOWN IN FL FOR NY SO HOPE TO DO A LITTLE RADIO ALONG THE WAY
 - 14:55:07 - (1796) - :SMSGTE :@CAT ENROUTE TO THE BEACH :) ATE MUFFINS THIS MORN - THANKS! QPV
- LIST OF STATIONS: N5JST
- Bottom section shows a CAT/S waterfall plot and a list of stations with their offsets, ages, and SNRs.

NetControlJS8 Interface:

An application to assist Net Control with JS8Call

| Call Sign | Offset | SNR | Time Drift (...) | UTC | Status |
|-----------|--------|-----|-------------------|---------------|---------|
| KE4BML/9 | 496 | -12 | 0.10000000149... | 1609340407526 | revised |
| W8BO | 665 | 0 | -0.80000000119... | 1609340399105 | new |
| KC4ZGP | 1398 | 22 | 0.20000000298... | 1609340352164 | revised |
| KD4YDD | 1503 | 17 | 0.10000000149... | 1609340278851 | revised |
| KX4UK | 1249 | 5 | 0.20000000298... | 1609340278111 | revised |
| KC8MCY | 952 | -3 | 0 | 1609340277737 | revised |
| WE4SEL | 842 | -1 | 0 | 1609340277692 | revised |
| K5MKS | 649 | -6 | 0 | 1609340277622 | revised |
| N0LSD | 602 | -5 | 0.10000000149... | 1609340277592 | revised |
| WS3H | 800 | 13 | 0 | 1609340274787 | revised |
| VA3OZO | 747 | -2 | 0.10000000149... | 1609340262419 | new |
| BEACH | 1796 | 15 | 0 | 1609340129660 | new |

Buttons at the bottom: Send all to JS8Call, Send new to JS8Call, Send revised to JS8Call, Clear Status

And yesterday, Gordon posted the [first draft of his proposed protocol](#).¹⁾

This project is very much a work in progress. It would be worth for those interested to join <https://groups.io/g/js8call> and follow the “Net Communications using JS8” topic.

Updated Jan 6, 2020: The helper software is ready.

- Here's the [developer page](#)
- The [Windows Program](#)
- The [OS X Program](#)
- The [Linux Program](#) (Debian 10 / Ubuntu 20.04.1 LTS)

¹⁾

The copy of Gordon's pdf posted here is static and will likely become obsolete soon.