

AmRRON operators are on the air almost any time of day.

Statement of Purpose:

Introduce and explain the AmRRON *Persistent Presence Net* concept and give guidance for participating stations for training and real-world applications of its use.

Intent:

During real-world emergencies in the past, AmRRON has had volunteer stations take to the airwaves, standing by continuously to receive emergency traffic. In the past couple of years on a normal, day-to-day basis, our operators have increasingly kept their stations on the air. They engage in testing, practicing, and mentoring other operators over the airwaves. This also provides an excellent opportunity for beaconing throughout the day or night to keep track of band conditions and determine path quality between stations.

While maintaining continuous coverage on the bands (what we've come to call 'Persistent Presence Nets') we have received several real-world reports involving extreme weather, power outages, wildfires, and other developments. This is because the operators who have been participating know that if they tune in to one of the AmRRON digital mode HF frequencies, there will be someone there, somewhere, on one or more of the bands. Usually there are several operators on each of the bands, especially during the day.

This (until now) 'unofficial' Persistent Presence Net has become a valuable training environment and has been invaluable for team building as well.

While the Scheduled S.O.I. Nets are considered 'controlled' nets (meaning they are run by Net Control Station operators), the Persistent Presence Net is not controlled. Operators may make contact and pass traffic as the situation requires and band conditions permit.

The 'Persistent Presence' Digital Net was implemented for:

- A. Real-world emergency situations; Operators who have sufficient backup power and the time to continue monitoring between the Scheduled S.O.I. Net cycles.
- B. Maintaining a lifeline for those who need to pass priority or emergency traffic when there is not a scheduled net taking place.
- C. Allowing for stations to assess band conditions and determine propagation paths to other stations, through beaconing (or sounding/heartbeating) and signal reports.
- D. Creating an opportunity for stations to directly pass point-to-point traffic,

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relieving the scheduled S.O.I. nets of congestion. The following schedule has been developed as guidance reflecting our experience as it relates to best band performance at various times of the day and night. Band conditions can and do deviate greatly.

General Guidance:

Here are the most commonly-used modes by AmRRON operators. Many stations run multiple modes simultaneously.

In order of the most commonly used:

JS8Call: Used for sending propagation beacons, determining path quality with other stations, and understanding band conditions. Great for sending short messages to individuals or groups (such as @amrron). Designed as a weak signal mode, works very well when using low power, or poor band conditions. Stations can leave messages, such as Abbreviated Status Reports which may be queried and received by other stations. See white paper on JS8Call Operations for AmRRON, which addresses settings and procedures used most commonly by AmRRON operators.

FLDIGI: Standard program, using contestia 4/250 mode, for general messaging and receiving reports and files with the use of FLMSG and FLAMP. FLDIGI is the cornerstone of AmRRON digital operations and is the program all operators should have. All AmRRON digital nets use FLDIGI, and with the companion FLMSG and FLAMP programs, is used for sending error-free reports, files, net check-ins, sending images, etc.

gARIM: The ARIM program with graphic interface uses the ARDOP mode and is excellent for sharing files. May also be used for storing files in folders which can be retrieved by other stations, even if you are away from your station. Has peer-to-peer chat feature and ARQ mode, which connects your station with another station for increased privacy (not secure or encrypted).

FSQ4.5: This is used for text file sharing, sending images, chatting, and beaconing ('sounding') allowing the operator to determine what other stations are on the air, and the signal strength of each station. There are several queries available which allow the operator to get basic information about the status of other stations, and it allows for direct messaging with text window notifications of a message received, in case you were away from your station when the message came in.

A stand alone program for (windows only) exists, named FSQcall. For Linux and Raspberry Pi users, a second instance of FLDIGI is usually opened up and FSQ4.5 is selected from the OpMode menu.

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Generally, JS8call has grown to the point that it possesses many of the same features as FSQ, and is preferred. Still, most of us run FSQ in multimode because it is an excellent backup to JS8call when there is congestion on the frequency.

IMPORTANT TIP: Be sure to remove all beacons/sounders/heartbeats prior to the beginning of scheduled nets. If you are going to leave your station monitoring, unattended, do not leave your station beacons on when there are nets scheduled to take place. This is extremely disruptive. We've all been 'that guy'. Don't be '*that guy*.'

TIP: If you are operating multiple modes simultaneously, be sure to refer to the [AmRRON Digital Mode Waterfall white paper](#).

PERSISTENT PRESENCE DIGITAL NET SCHEDULE

Do not think of this as a hard, fixed time schedule. The Persistent Presence Net is extremely flexible. You will likely find operators on 40m and 80m at any time of the day and many nights.

Band conditions change widely, often several times in a day, and depend on the time of the year (solar cycle), and the time of the day. A band may be long all afternoon and then go short, or dead, where it seemed to be magical at the same time of the day yesterday. Be flexible!

Below is listing of 'generally' what we have experienced as the the most favorable times of the day for each of these bands.

Various factors will affect each band. Sunset/sunrise, peak sun position, etc. are going to be different depending on your location, even within the same time zone.

Local Time	Band/Freq.
Early evening through Early Morning	80M 3.588
Mid-morning through late afternoon	40M 7.110
18:00-22:00 ZULU Time	20M 14.110

If you missed traffic that was passed around on the scheduled nets, or if you missed the transmission time for the weekly AIB (AmRRON Intelligence Brief), you'll likely be able to find another station who can pass the traffic along to you at just about any time of the day, somewhere on the bands.

Scheduled nets are still critically important, and we really need maximum participation in the regularly-scheduled practice nets and during training exercises. Still, the Persistent Presence Net has its place and will continue to play a vital role into the future. See you on the air!