

# Loudoun Amateur Radio Group

## Regular Meeting Notes December 18, 2021

Venue: Due to the ongoing national health crisis, the meeting was held virtually using Google Meet

- 8:00-8:30 The Google Meeting connection was active for informal discussions.
- Pledge of Allegiance
- Jim N4FAF reported that the minutes from the November meeting can be accessed via the club web site.
- Steve KN4HOZ club treasurer reported that the beginning balance in the club bank account \$11,104.85. There were no transactions in the club bank account although several payments for dues that apply to 2022 have been received through PayPal. Donations to the VFW and the church are not reflected in the reported balance.
- Previous plans to return to in-person meetings are still on hold. The level of Covid infections is being monitored by the club leadership. A poll of the members present asked the question of whether the members would return to an in-person meeting. The results of the anonymous poll were 11 yes, 5 no and 5 maybe. After the poll, there was a suggestion that all those present at an in-person meeting should wear masks.
- The club is still in need of a head of the education committee. Interested members should send email to [leadership@k4lrg.org](mailto:leadership@k4lrg.org).
- Dues for 2022 must be paid by January 5 to vote in the club election. Before the end of January, club members whose dues are unpaid will be removed from the club email reflector.
- The members who will appear on the January ballot for club officers was announced. All officers except the current Treasurer will continue in their posts.
- John W5ODJ presented information about JS8 Call digital mode operation. Much of his presentation is available on the club website. Under the Weekly Nets toolbar heading, select Digital Modes. It was noted that all digital modes use USB operation regardless of frequency. Many radios have a digital mode operation setting which should be used because it mutes the microphone to allow a signal with less distortion.

JS8 Call uses receive algorithms that are more efficient at rejecting noise. The protocol allows lower transmit power levels to be used and less efficient antennas. Operators should be aware that the duty cycle of the transmit power is nearly 100%. Long periods of transmission should include extra cooling consideration for the radio equipment. In most cases, high power is not required and should not be used. If the transmitter is not being heard, it is more likely that the band conditions have reduced propagation, and a higher power level will not help.

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JS8 Call is a text based conversational mode protocol. Conversations are accomplished using the keyboard. Many keyboard shortcuts are taken from CW operation including K to indicate over, KN to indicate over to a specific operator rather than a general yield of the frequency, BK to indicate break, and CQ to indicate a call to all stations. Note that the shortcuts are not rigidly required to use the protocol. As long as station identification is in compliance with the law, any method of operation that gets the point across is generally tolerated.

A Raspberry Pi processor card can be used to run JS8 Call. VNC is loaded with the Pi operating system which allows management and operation of the Pi computer using a network connection rather than an attached keyboard and monitor. It is recommended to use an SD Card rated at mode 11 or better.

The RF bandwidth required for the protocol is very narrow. Many digital modes use 7.040 MHz on 40 meters, but the frequency allocated for JS8 Call is 7.078 MHz. For a long QSO, the frequency can be changed to reduce QRM for other operators.

JS8 Call has similar weak signal response to FT8. The software can decode in 4 different speeds. Slower speeds allow better performance when higher noise is present. The software includes a heartbeat function that allows the receive noise level to be communicated back to the sender. The program API allows custom interface features to be coded using the Python programming language.

- All club members are encouraged to present at a monthly meeting. Contact the club vice president, Steve KS1G to schedule your presentation for a meeting. There was a suggestion to use multiple short presentations occasionally rather than a single longer presentation during the club meeting.
- Kevin AK2M reported that he has been promoted in the Virginia Defense Force. Any members interested in volunteering with the VDF should contact him. He noted that the age limit for new members is 65 years.
- It was recommended that operators interested in learning CW should investigate the CW Academy at [cwops.org](http://cwops.org).
- The next club meeting is scheduled for January 15.
- The meeting adjourned at 10:05 AM.
- Attendance

KT9N            Chris

KE4S            Dave

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K1NSA	Bryan
W4PMP	Chris
AB3KC	Collins
K0ZR	Jeff
N4FAF	Jim
K4FW	Jim
W0MPM	John
WB2UNA	John
W5ODJ	John
AK2M	Kevin
N4TGA	Merc
N4PDY	Mike
KG4TIH	Paulson
KS1G	Steve
KN4HOZ	Steve
K3WD	Bill
KG4UPR	Bryan
WA4KBM	Kevin
KM4GC	Doug
KK4WXO	Ed
N4PD	Paul