

Loudoun Amateur Radio Group
Regular Meeting Notes September 19, 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 August meeting can be accessed via the club web site.
- Steve KN4HOZ club treasurer was absent. Mike N4PDY reported that the beginning balance in the club bank account \$10,008.97. There was one deposit of \$95.88 from PayPal since the August meeting. The ending balance is \$10,104.85.
- The Reston Bike Ride went well last month. Steve KS1G rode his bicycle equipped with a radio. He reported that many riders were happy for our support of the event.
- The Lovettsville Oktoberfest has been cancelled. Kurt KI4FWB was recognized as the event organizer if not for the cancellation.
- The Holiday Party is still planned for the QTH of John W5ODJ. This event is subject to cancellation dependent on the level of Covid infections at that time.
- Bryan K1NSA was recognized as the new chair of the IT committee. The club still needs a volunteer for the chair of the Education committee. Kevin WA4KBM has volunteered to be a member of the Education committee.
- Steve KS1G introduced Rick N1RM for the meeting presentation. The features and design of the Elecraft K4 transceiver were presented. The K4 is the latest transceiver from Elecraft. The antenna is connected directly to the main analog to digital converter. All signal processing is performed using microprocessors and software functions. The hardware is designed in a modular fashion. This architecture allows all features to be updated by replacing one or more hardware boards or updating the software in the radio.

Options for the K4 include a 10-watt power amplifier rather than the 100-watt PA that is standard. A second analog to digital converter and various bandpass filters are also available. Rick's unit includes an antenna tuner, two complete receivers, and a high-quality touch screen. The radio operates on 160 through 6 meters.

The radio connects to a computer using a USB port. Two virtual USB ports are accessible on the USB port and a physical serial port is present on the back panel. An HDMI port is also on the back panel to allow the front panel to be displayed on a standard computer monitor. The radio has PowerPole power connectors.

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Many software programs such as N1MM and WSJT require no configuration changes compared to operation with a K3 radio. Rick recommended running the power supply voltage setting at 14 volts to allow the final power amplifier to run with minimal distortion. The user interface allows a screen shot to be captured and dumped to a USB drive that is plugged in to the radio.

CW operation is excellent. The transmitter does not generate key clicks when keying. For phone operation in Single Sideband mode, the transmitter allows audio compression which is useful for better quality audio at the far end receiver when the signal is weak. PSK and RTTY digital modes are built into the radio. A sound card interface is accessible on the USB interface to allow operation using other digital modes.

Some operational features are not yet available. Control of the radio through the network interface is available, but remote operation is not implemented. This is mostly due to the inability to send the audio signal over the network connection. A digital audio recorder is not implemented. It was noted that the expected lead time for delivery of the radio is approximately one year.

- Ed KK4WXO volunteered to serve on the Education Committee.
- Dave KE4S is participating in the Ultra Marathon CW contest. The event runs the entire calendar year.
- The next club meeting is scheduled for October 16.
- The meeting adjourned at 9:45 AM.

- Attendance

Bryan	KO4QKM
Bryan	KG4UPR
Chris	KO4OZJ
Collins	AB3KC
Ed	KK4WXO
Jim	N4FAF
Jim	KG4OAP
John	WB4UNA
Kevin	WA4KBM
Merc	N4TGA

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Mike	N4PDY
Paulson	KG4TIH
Rick	N1RM
Steve	KS1G
Steve	KO4ROK
Bill	K3WD
John	KO4PXG
Frank	K4FWD
Chris	KT9N
Steve	KN4HOZ
Dave	KE4S
Paul	Stephens
Denny	KF4TJI
Chris	KO4OZJ