## Purpose:

The Richmond Amateur Radio Club's (RARC) mission promotes the enjoyment and advancement of amateur radio and emergency communication. Consistent with that mission, the RARC purchased and operates the W4FJ D-Star repeaters.

## General Rules:

- The use of the W4FJ repeaters is a privilege.
- Repeater usage is at the sole discretion of the repeater trustee, under the direction of the RARC Officers and Board of Directors.
- Acceptable traffic on the repeater must be in line with the RARC mission.
- Good manners and proper repeater protocol are always required. If you are not sure what constitutes good repeater operation, contact any RARC officer or the W4FJ repeater trustee.
- Traffic prohibited by the FCC is always unacceptable and illegal.
- Traffic of a political, religious, sexual or inflammatory nature is not permitted.
- Purposeful jamming or interfering with repeater operations is illegal. RARC takes this seriously and will report violations as necessary.
- Repeated violations or illegal operations will result in a report to the authorities

## **W4FJ Operational Configuration**

• 2 meter (VHF)

Frequency: 147.255 +600 Khz

o Port: C

o RPT1: W4FJ C (3 spaces)

• 70 centimeter (UHF)

Frequency: 443.7125 +5 Mhz

o Port: B

• RPT1: W4FJ B (3 spaces)

23 centimeter

Frequency: 1280.000 -20.00 Mhz

o Port: A

• RPT1: W4FJ A (3 spaces)

## **D-Star Operational Guidelines**:

- Please wait for the Repeater and Gateway ID following each transmission.
- Please wait 1 second after receiving a transmission before responding (keying up).
- Voice identification is optional but highly encouraged; the D-Star digital protocol transmits your callsign on every transmission implicitly meeting the FCC identification rule.
- The preferred methods of "Calling CQ" are:
  - Local Repeater Usage
    - (Callsign) (Status: [Mobile|Portable|Monitoring|etc]) on W4FJ ([2 meters|70 centimeters|23 centimeters])
    - Example: "K8OI Mobile on W4FJ 70 centimeters"
  - Crossband Repeater Usage

NOTE: Please stop crossbanding once the QSO is complete.

- (Callsign) (Status: [Mobile|Portable|Monitoring|etc]) on W4FJ ([2 meters|70 centimeters|23 centimeters]) crossband on W4FJ ([2 meters|70 centimeters|23 centimeters])
- Example: "K8OI Mobile on W4FJ 70 centimeters crossband on 23 centimeters"
- "Busy Lockout" is encouraged, but not required.
- All D-Star registered operators are welcome to link or unlink the repeaters
- D-Star Linking method:
  - NOTE: The 2 meter (VHF), Port C module is typically linked to REF025B during the work week from 07:00 - 19:00. Feel free to unlink as you wish.
  - Check the status of the repeater
    - URCALL
      - Set the field to (Your Callsign) with an "I" (India) in the 8th position.
      - Example: "K8OI I" (3 spaces after the I)
    - RPT2
      - Set the RPT2 setting to "W4FJ G" (3 spaces after the J)
      - This setting tells the D-Star Gateway to "read" the URCALL setting
    - Key up the repeater. This will trigger an announcement with the current state of the link.
  - Ensure nobody else is using the link or the repeater before linking/unlinking.
  - Unlink or Link the repeater as you desire.
  - When you are finished using the link please return it to the previous state

- Transceiver Configuration for RF traffic:
  - MYCALL You are REQUIRED to use your callsign. This is the callsign used for station identification and is required by the FCC for proper identification.
  - RPT1 You must use the appropriate port configuration. For example, if you are using the "Port B" (UHF) module, RPT1 must contain "W4FJ B" (3 spaces after the J)
  - o RPT2 Must contain "W4FJ G" (3 spaces after the J)
- DVAP, Dongle, HotSpot, etc. connections are permitted.
  - MYCALL You are REQUIRED to use your callsign. This is the callsign used for station identification and is required by the FCC for proper identification.
- GPS Auto Beaconing is not permitted.
- GPS data sent during a normal, manual transmission is permitted.