WB1GOF D-Star Linking Policy

D-Star being a relatively new repeater technology and with it incorporates some new methods of usage. From time to time our users have inquired on how to use major features or our repeater system, this document attempts to address the issue of linking on the WB1GOF D-Star repeaters and others.

In the past; linking of D-Star repeaters has been restricted to administrators due to the lack of tools to enable RF users to know the status of a repeater's linked state; is it linked?; where is it linked to?; who is using the repeater?; why is it linked? These are not trivial questions to answer and need or should be known prior to linking. The only tools available have been www.dstarusers.org and https://wb1gof.dstarusers.org which provide enough of the repeater state to guess 80% correctly. These tools require a user to have Internet access and do not really support the mobile and HT user. Recently there have been some tools/apps for the smartphone which may assist a user not connected to the internet in a traditional fashion.

All gateways/repeaters use a common tool set to determine repeater status; is the repeater linked (the “I” command)?; where is the repeater linked linked (also the “I” command)?. It does not provide the "why is the repeater linked?" which may be addressed at some time in the future. However, know the physical status and practicing good D-Star usage policies, there is sufficient information available information to allow all users of our WB1GOF repeaters to execute the linking feature.

This is the usage policy that addresses 95% of potential conflicts (not all). These may sound familiar but have some differences. These are also just common sense courtesy to others.

1. Monitor the repeater for a few minutes to ensure it is idle, no audio or text QSOs in progress; then announce on the local repeater, your call sign and intention of linking to whatever repeater or reflector; then wait a moment for replies; if no replies continue.

2. Check to see if the repeater is linked. This is done using the (I command). If linked, note the link because you will need to re-establish the original link when done.

3. If the repeater is linked, monitor for a few minutes to ensure the repeater is idle, no audio or text QSOs in progress; announce to both the local and remote linked repeater or reflector, your call sign & local repeater call sign, then your intentions to unlink your repeater; wait for a 1 minute then if no response to your announcement, proceed. There are several reasons to "wait" after making the announcement; 1.) the link may be a net that is silent, waiting for a user on the local repeater to finish a task who is not listening; 2.) there may be a "text" net currently operating and not listening; 3.) a net is scheduled and not started (scheduled nets should have priority). (We currently have no tools available to indicated "scheduled nets").

4. Unlink the repeater.

5. Execute a Link to your desired repeater or reflector; then prior to any transmission, listen for a full 2 minutes to make sure you do not step on an ongoing conversation on the remote linked repeater or reflector. Note of Caution: Technically with gateway software and the Internet, there can be a short delay immediately after establishing a link before actual packets are passed through from the remote repeaters gateway or reflector (this is not always the case, but the exact moment & timing of the link and the establishment of packet routing at the beginning of a QSO packet stream is critical. After that initial QSO packet stream is completed, the next QSO packet stream is routed to you correctly. For this reason, it is difficult to tell if the remote linked repeater is idle or busy and is really a guess; hence the reason for waiting 2 minutes which is an average QSO length).

5. Make your call, scheduled call, or NET check-in; CQ or scheduled contact; hold your QSO.

6. When you have completed your QSO, announce your call sign and your intention to unlink the repeaters; listen; then execute the "unlink". You may want to give a quick "thanks for the use of the remote repeater or reflector" before unlinking.

7. If the repeater was previously, make an announcement your intention to re-link the repeater, wait for a response, then proceed to execute linking the repeater to its original location.

You are done.

This policy covers the discovery of 95% of the case to avoid disruptions and conflicts. It isn't perfect. As D-Star matures through development of operating practice this policy may be modified.