

## WWARA Coordination Process

This document describes the general path for receiving a repeater coordination with Western Washington Amateur Relay Association. (WWARA)

Disclaimer: Although every repeater system is different, this document describes the “ideal” application. There are many cases where the ideal course can’t be followed, but rest assured that the WWARA officers and staff are used to dealing with “exceptions”.

The reasons for setting up a new repeater station are diverse. WWARA isn’t concerned with value judgments, popularity polls, determining whether a particular repeater is necessary, or desirable. If an applicant steps forward and shoulders the considerable trouble and expense of constructing and operating a repeater station, that is usually good enough for us. WWARA handles applications in the order in which they are received.

The role of WWARA is to protect coordinated repeaters and reduce interference on our repeater sub-bands. We do this by providing advice and guidance with selection of frequency and technical parameters to those who want to join the ranks of repeater operators in Western Washington. If an applicant’s new system operates as designed, meets all the requirements and limitations of Part 97, and doesn’t materially interfere with other existing repeaters, the WWARA can grant Coordination. This Coordination is what the FCC calls to “recommend” a repeater.

Although it’s up to the applicant to select a frequency pair, WWARA can certainly provide assistance with the process. Our Band Committee Chairs are knowledgeable, and can usually suggest an appropriate frequency pair. There are cases where a project is not technically feasible and the Band Chair can advise the applicant that this is the situation and why. It is recommended that a prospective applicant open a discussion with the appropriate Band Chair at an early stage in the project planning, even before formally applying for Coordination.

The WWARA staff needs certain specific information about the proposed repeater. These parameters are spelled out on the Technical Data Sheet (TDS). Filling this out can help the applicant firm up the particulars of the proposed machine. The TDS application is available on the WWARA website. A repeater is Coordinated for a specific frequency pair, location, antenna height above ground, Effective Radiated Power (ERP), and in some cases, bandwidth.

When an application is received by the WWARA, the information is entered into our database for tracking and the status is set to “proposed”. An application consists of a filled-out TDS, a mandatory cover letter, a fee if applicable and written documentation that the owner(s) of any co-channel repeater(s) agrees to cooperate with a test to ensure your new machine doesn’t cause interference (a “co-channel letter”). The cover letter should describe the system in narrative form, including any unusual features, the intended coverage area and anything that would bear on the technical operation of the machine.

The WWARA requires a form of access control. In analog repeaters this can be CTCSS, DCS or a similar system. Carrier access repeaters will not be Coordinated. Digital repeaters generally incorporate access control in their signaling.

Once the application is made, the applicant is expected to have the repeater on the air within 6-months. This deadline can be extended for a further 6-months for emergent extenuating circumstances. More than a year would require a truly exceptional justification. WWARA will not hold a frequency pair for longer than one year.

When the applicant is ready to put the machine on the air for testing, he contacts the Band Chair and the operator(s) of any co-channel repeater(s). The Band Chair then moves the TDS in the database to "pending". The test period nominally lasts 90 days, with the repeater operating per the TDS parameters. The Band Chair will specify a test period and the applicant is responsible to notify all parties when this has concluded.

Any complaints of interference received, either by the applicant or the Band Chair, will have to be addressed. At this stage the applicant has full responsibility to mitigate any interference to other repeaters. This can be done with changes in power, antenna height, gain or directionality. It may even require changing to another location or frequency. When changes are made, the TDS is amended and the test is restarted.

Once any/all complaints are resolved and the test period has been completed, the Coordination can move forward. The Band Chair will poll the Board of Directors. If they agree, notice of the application will be posted to the Members e-mail reflector and the membership will have two weeks to comment. If there is no objection during these phases, the Coordination will be granted and the repeater status in our database will change from "pending" to "open" (or "closed" if that is desired) and a Certificate of Coordination is issued to the trustee.

The Coordination requires some "maintenance" to remain in force. If the repeater goes off the air, the Band Chair must be notified. The owner then has 6-months to get it back on the air. If necessary, an additional 6-month extension can be requested, the so-called "site-is-snowed-in" extension. The Coordination must be "renewed" at least every 5-years (there is no fee). The e-mail address and phone number of the trustee are required to be kept current with WWARA, so we can contact you. If we cannot reach you, the Coordination may be canceled.

A Coordination is canceled if there is a "major change" done to the system. A "major change" is defined as the antenna moving more than 50-feet vertically, or 1000-feet horizontally or a change in power of +/- 1dB (25%). In a case where one or more of these is to be changed experimentally, the original Coordination may be held for up to 6-months while the change is tested using the same procedure as described above. If the new Coordination is granted, then the old one is cancelled. If the experiment fails, the repeater may return to the original parameters and the Coordination will remain in effect.

## WWARA Check-List - Steps to Coordination

This check-list does not necessarily have to be filled out in order. Not all items are completed by the Applicant. The Applicant is responsible for items 1 through 6.

1. Applicant agrees that all FCC regulations, CFR Title 47, Part 97, will be observed and followed.

2. It is the responsibility of the Applicant to select a frequency pair. The Band Committee Chair may assist by suggesting possible frequencies, or eliminating unsatisfactory candidates. This selection process may be carried out before or after a Technical Data Sheet (TDS) is filed, but is more fruitful if the information contained in the TDS is shared with the Band Chair.

3. While much of the work of applying for Coordination may be done before hand, the process officially begins when the application is filed with the Secretary. The application package must include:

3A. Technical Data Sheet (TDS) filled out as completely as possible. The Applicant is responsible to notify the Band Chair of any entries that change during the application process.

3B. Cover Letter, a narrative technical description of the repeater system, including any unusual capabilities, site characteristics, or circumstances. Access technique must be spelled out clearly. Carrier-access is not acceptable.

3C. Co-Channel Letter(s) from the operator(s) of any potentially affected system(s). Such operator(s) must at least agree to let the new system test on the pair. Contact information for the Applicant, co-channel operator(s), and the WWARA Band Chair must be clearly spelled out in each letter. A faithful copy of an e-mail message is acceptable.

3D. Appropriate Fee.

4. Once the application package is filed, the system is expected to be on the air within 6-months. This can be extended (once) up to an additional 6-months for unusual circumstances beyond the Applicant's control.

5. Once the new repeater is on the air, from the site and according to the parameters spelled out in the TDS, a testing period begins. The test is monitored by the Band Chair. The Applicant must report to the Band Chair any complaints received, and the nature and results of any mitigation applied. The Applicant must report any periods when the repeater is not operating and any changes to the station. Test periods are nominally 90-days, but this period may be adjusted by the Band Chair.

6. At the conclusion of the test period, if no unresolved complaints remain, the Band Chair will recommend the repeater to the Board of Directors for consideration. This is done by posting a Poll on the Board Remailer, and notifying the Board.

[7.] The Board votes in the poll to recommend (or not) the application. If passed by the Board, it will be sent to the Membership for comment.

[8.] A 14-day comment period begins upon notification of the Membership on the Members Remailer. If no unresolved objections are received, the application passes to the Secretary for completion.

[9.] The Secretary changes the Database status of the repeater from "Pending" to "Open" (or "Closed" if that is specified by the Applicant), and issues a Certificate of Coordination.