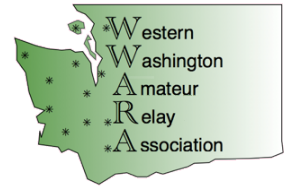




# Western Washington Amateur Relay Association

PO Box 31521, Seattle, WA 98103-1521

Email completed form to [secretary@wwara.org](mailto:secretary@wwara.org)



## (1) ACTION REQUESTED

(Tracking Number) **TR#:** \_\_\_\_\_

New Coordination     Renewal     Modify Existing Coordination     Assignment     Return to Pool

Comments: \_\_\_\_\_

## (2) SYSTEM TYPE *(Use separate form for each transmitter)*

Repeater     Link     Receiver Only     Other: \_\_\_\_\_

## (3) CHANNEL INFORMATION

Band: \_\_\_\_\_ Output Freq: \_\_\_\_\_ Input Freq: \_\_\_\_\_

## (4) SYSTEM STATUS

Fully Operational     Operational but not final     Fully operational by: \_\_\_\_\_ (less than 6 months)

## (5) SITE DATA

Check one -  **TRANSMITTER DATA**     **RECEIVER DATA**

*Provide NAD-83 as DD.mmmm*

City identified with station: \_\_\_\_\_

Latitude: \_\_\_\_\_

Geographic area served: \_\_\_\_\_

Longitude: \_\_\_\_\_

Street address or description: \_\_\_\_\_

Ground elevation (MSL): \_\_\_\_\_

Site name: \_\_\_\_\_

Antenna height on tower: \_\_\_\_\_

Supporting info: \_\_\_\_\_

Allow publication of repeater location –

Station callsign: \_\_\_\_\_

Yes     No

## (6) POWER (ERP) AND ANTENNA DATA *(See worksheet in instructions)*

Repeater Output (Watts): \_\_\_\_\_ Antenna Gain (dBd): \_\_\_\_\_ ERP (Watts): \_\_\_\_\_

Bearing if directional (Deg): \_\_\_\_\_ 3dB Beamwidth (Deg): \_\_\_\_\_ F/B Ratio (dB): \_\_\_\_\_

## (7) MODE AND ACCESS CONTROL AND OUTPUT

**Mode** (Check all that apply)

**Access Control** (Check all that apply)

**Output** (Check all that apply)

- FM – 5 kHz Deviation
- FM-Narrow – 2.5 kHz Deviation
- DSTAR
- APCO P25
- MotoTRBO/DMR
- System Fusion
- Other: \_\_\_\_\_

- Required to activate repeater
- CTCSS (t): \_\_\_\_\_ Hz
- Digital (y): \_\_\_\_\_
- NAC: \_\_\_\_\_
- DMR Color Code: \_\_\_\_\_
- Fusion DSQ: \_\_\_\_\_
- RAN: \_\_\_\_\_
- Other: \_\_\_\_\_

- Response from repeater
- CTCSS (t): \_\_\_\_\_ Hz
- Digital (y): \_\_\_\_\_
- NAC \_\_\_\_\_
- Touch Tone (TT)
- Other: \_\_\_\_\_

**(8) SYSTEM FEATURES**

- Autopatch (a)                       Closed Autopatch (ca)                       Closed Repeater (c)  
 Direct Access to 911 (z)                       Emergency Power (e)                       Linked to (I): \_\_\_\_\_  
 Other: \_\_\_\_\_                      (Please list default node if IRLP,AllStar,EchoLink)

**(9) GROUP, SPONSOR AND WEBSITE INFORMATION**

- Group Coordination                      Sponsor: \_\_\_\_\_  
Web site: \_\_\_\_\_                      ARRL Directory Sponsor: \_\_\_\_\_

**(10) COORDINATION HOLDER (TRUSTEE) FOR THIS SYSTEM (Must be properly licensed individual – Email is required!)**

- Name: \_\_\_\_\_                      Email 1: \_\_\_\_\_  
Address: \_\_\_\_\_                      Email 2: \_\_\_\_\_  
City: \_\_\_\_\_                      Phone #: \_\_\_\_\_  
Zip: \_\_\_\_\_                      Callsign: \_\_\_\_\_                      Alt Phone #: \_\_\_\_\_

**(11) ALTERNATE CONTACT FOR THIS SYSTEM (Email is required!)**

- Name: \_\_\_\_\_                      Email 1: \_\_\_\_\_  
Address: \_\_\_\_\_                      Email 2: \_\_\_\_\_  
City: \_\_\_\_\_                      Phone #: \_\_\_\_\_  
Zip: \_\_\_\_\_                      Callsign: \_\_\_\_\_                      Alt Phone #: \_\_\_\_\_

*(Please provide at least one non @ARRL.net email address)*

**(12) SYSTEM DESCRIPTION**

**Include any information required to process, system configuration, co-channel or ownership issues, linking description, etc.**

**(13) COORDINATION HOLDER CERTIFICATION**

I certify that I have read and agree to abide by the WWARA Coordination Policies, and that the statements above are true, complete and correct to the best of my knowledge and belief.

**\*\* SIGNATURES \*\*** For electronic submissions, simply type name in the boxes below

Applicant or coordination holder: _____	Call: _____	Date: _____
Individual authorized to assign coordination: _____	Call: _____	Date: _____

**WWARA Date Received:** \_\_\_\_\_

## TECHNICAL DATA SHEET INSTRUCTIONS

This form is the single instrument with which to handle any aspect of frequency coordination. It is to be filed only by an individual amateur with license privileges covering this frequency of operation. This person will be solely responsible for any and all correspondence with the WWARA and will be the coordination holder of record. This person can be the owner of a system, a partner in a repeater group, a trustee of a radio club, or any other designee who has sole system responsibility. This form must be complete and all appropriate boxes checked. **Incomplete forms will not be processed.**

### Tips for form completion

**PDF Form:** This document can be either filled out *manually* by printing it or *electronically*. Unlike most PDF documents, this one has the ability to be electronically filled out. Simply checking the necessary boxes or selecting a field will allow you to provided the necessary information.

#### (1) ACTION REQUESTED:

- **New coordination** is for a frequency not currently assigned to you or for an additional frequency, to change location, ERP, antenna height, or any other operation that will change the technical parameters of the system.
- **Renewal** update is used when making the required update of the WWARA files with no changes or administrative updates only. Technical changes that impact system performance must be marked as a **New coordination**.
- **Modify existing coordination** allows for a change in call sign, access mode or system features. Use the space provided to explain the modification desired. This can only be used for administrative changes, nothing that impacts the performance of the system. Performance changes must be marked **New coordination**.
- **Assignment** of coordination is used when the coordination holder is being changed.
- **Return to Pool** allows the pair to be assigned to someone else when it is no longer needed.

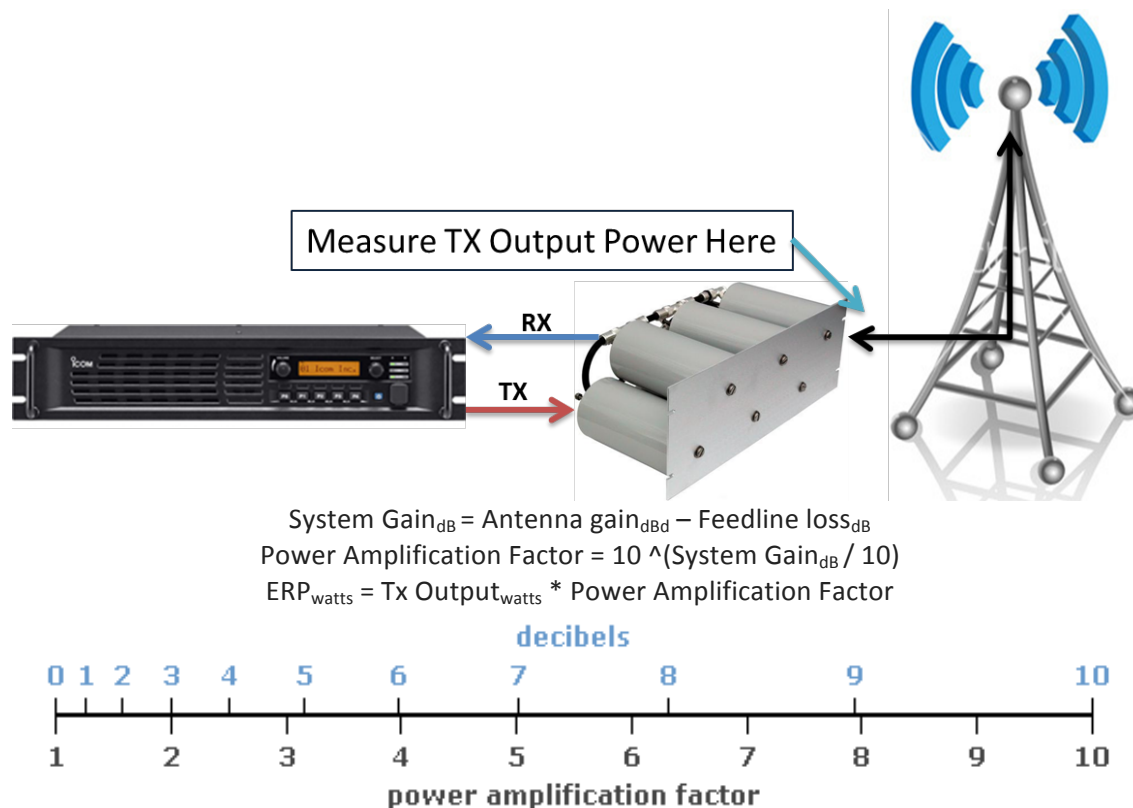
(2) **SYSTEM TYPE:** Check only one box in this section. Use an individual form for each transmitter in a system, an additional frequency for a link, or information for a receiver you wish to be identified in the WWARA database.

(3) **CHANNEL INFORMATION:** Indicate the band (10m, 6m, 2m, 222, 70cm, 33cm, 23cm) and the input/output frequencies.

(4) **SYSTEM STATUS:** Fully Operational indicates the system is live as documented and ready for WWARA testing. Operational but not final indicates the system exists and is on the air but some changes need to be made to match the application before the WWARA testing phase can begin. **Will be on by** and the dates indicate when the system will be fully operational. The WWARA testing phase cannot begin until the system is live and configured as presented in this application. Note all applications must be in the WWARA testing phase within 6 months from the application date. Extensions for an additional 6 months can be granted but only if the system is operational but not final (hardware exists at a temporary location).

(5) **SITE DATA:** This box is used to indicate the specifics of a site used for a transmitter or a receiver. Registering receiver information in the WWARA database will help protect from interference by a transmitter inadvertently placed near the system receiver. Coordinates are to be provided from NAD-83 reference and in the decimal degree format. (Entered as **DD.mmm**) Use the Supporting Info field to indicate the location of the associated transmitter in the case of a "Receiver only" application, or for any other information related to this site. Station callsign refers to the ID emitted by the transmitter. Allow publication of site location will allow WWARA to pass this information to ARRL and include it in web listings.

(6) **POWER (ERP) AND ANTENNA DATA:** ERP (Effective Radiated Power) must be provided for all transmitters and should take all system gains and losses into account. TX Output power should be the measured after the duplexer to account for their loss. Antenna gain should be dBd (subtract 2.15 from a dBi figure for dBd). Subtract feedline loss from antenna gain to calculate system gain. Use the formula or chart below to calculate the power amplification factor. Multiply the power amplification factor by the transmitter output in watts to determine the ERP value.



Provide antenna description if make and model info is unknown (i.e. “6-element beam” or “4-bay dipole”, etc). If antenna is not omni-directional, enter **Bearing, Front to Back Ratio, and -3db Beam width**.

**(7) ACCESS MODE and (8) SYSTEM FEATURES:** The letter codes next to each box indicate the coding that will appear in the ARRL repeater directory. Check all appropriate box or boxes as they apply. All coordinated systems are required to have an appropriate access mode. Be sure to include the access mode for all modes supported by the system. (A dual mode system locked into a single mode should only be shown as that single mode.) If System Fusion is checked, you must provide a Fusion Digital Squelch Code (three digits), if DMR is selected, you must provide a DMR Color Code (CC0 – C15), if P-25 is selected, you must provide a NAC code (3 digit alphanumeric) and if NXDN is selected, you must provide a RAN (2 digit number). If DSTAR, APCO P-25 digital or other narrow-band (including FM narrow-band) is checked, then select NARROWBAND box. The **Output section** allows recording whether the repeater generates a tone or other access control for the user’s radio.

**(9) GROUP, SPONSOR & WEBSITE INFO:** Check the Group box if this coordination is associated with a structured group, club, or organization, and changes or updates can be initiated by the group’s “Chief Officer” on behalf of the Trustee as outlined by the Coordination Policies. Sponsor can be any club or organization name for use in directory listings. Website address, if provided, may be used in WWARA directory listings to assist users obtain further information about this coordination. ARRL Directory Sponsor is used only for the ARRL Repeater Directory. Field length is limited by the ARRL to 10 characters.

**(10) COORDINATION HOLDER FOR THIS SYSTEM and (11) ALTERNATE CONTACT FOR THIS SYSTEM:** This block will be filled in by the responsible individual that will hold the coordination for this frequency. All information is to be for this individual and not a club, organization or group. All coordination activities by the WWARA will be directed to the coordination holder. The alternate contact will be used if the coordination holder can’t be reached.

**(12) SYSTEM DESCRIPTION**

Include any information required to process, system configuration, co-channel or ownership issues, etc.

**(13) CERTIFICATION:** The Signature of applicant or coordination holder will be that of the individual listed in the coordination holder section. For an Assignment of coordination, the previous Coordination holder or the Chief Officer (if Group coordination) must also sign this form in the space provided. Be sure to date this form where indicated. For electronic submission, simply type the name on the signature line.

**COORDINATION PROCESSING: No fees required!**

This form can be submitted by postal mail or email. When emailing, the form can be in the original electronic format or a scanned PDF. (Emailing is preferred) The WWARA secretary will enter the application in the database and insure the application is complete. The band chair will review the application technically. Once the band chair is notified by the applicant the system is fully operational as per the application, the testing phase can begin. The testing phase is necessary to insure there are no interference issues before certification. The band chair will determine when the testing phase has been successfully completed and the system will be recommended to the WWARA board for a vote, followed by a general membership comment period. If not issues are raised, the system will be coordinated, recorded in the database, published and a certificate issued.