

Technical Committee Purpose and Processes Outline

Adopted by the TASMA Board of Directors April 7, 2007

Statement of Purpose:

The purpose of the TASMA Technical Committee (TC) is to help fulfill the organization's role of recognized frequency coordinator on the 2 meter amateur band in Southern California as defined by the Federal Communications Commission in its Rules & Regulations, Part 97.3 paragraph a22.

For purposes of this document, "Southern California" is: the Pacific Ocean on the west; Mexico on the south; the combined Arizona-Nevada border on the east, extending up to the Mono-Alpine County line; then south along the Mono-Tuolumne County line, south along the Mono-Madera County Line, south along the Mono-Fresno County Line, south along the Fresno-Inyo County line, south along the Inyo-Tulare County line to the Kern County line, south along Highway 14 just a little west of the Kern-San Bernardino County line to the Los Angeles-Kern County line, then west along that line past the 5 freeway and along the Kern-Ventura County line to an area near the 33/166 intersection, then west along the Santa Barbara-San Luis Obispo County line to the Pacific Ocean.

The Northern Amateur Relay Council of California (NARCC), Southern Nevada Repeater Council (SNRC), Amateur Radio Council of Arizona's Frequency Coordination Committee (ARCA) & (coordinator TBD) in Baja California, Mexico jointly coordinate areas adjacent to their respective service areas so as to avoid conflicts along our overlapping coverage areas.

Coordination Evaluation Process

The TC will execute this directive by administering three distinct processes:

- 1) Initial Repeater coordination
- 2) Change of (pre-existing) repeater coordination
- 3) Repeater de-coordination

These processes will be overseen by the TC Chairman, who will be responsible for assuring that the TC adheres to these processes.

The following are outlines of the three processes.

- 1) Initial Repeater Coordination Process
 - a) Triggers
 - i) Receipt of RFC from applicant
 - b) Inputs
 - i) RFC
 - ii) TC discussions & investigations
 - iii) Written correspondence received during test coordination period
 - c) Outputs
 - i) Notices of test coordination/full coordination posted on TASMA web page
 - ii) System data of coordinated system entered into master database
 - iii) Notice of denial of application
 - iv) Notice of termination of test coordination
- 2) Change of Repeater Coordination Process
 - a) Triggers
 - i) Written correspondence from trustee or authorized representative of system requesting change per data on file in master database
 - ii) Interference complaint
 - b) Inputs
 - i) RFC from system requesting change
 - ii) Interference complaints
 - iii) TC discussions & investigations
 - c) Outputs
 - i) Notices of test coordination/full coordination posted on TASMA web page

- ii) System data of coordinated system in master database modified
 - iii) Notice of denial of change
- 3) Repeater De-coordination Process
- a) Triggers
 - i) TC investigations from process #2
 - ii) Observation of coordinated system being non-operational by TC
 - b) Inputs
 - i) Interference complaint
 - ii) TC discussions & investigations
 - iii) Written correspondence from authorized representative of system in question
 - c) Outputs
 - i) Notice of intent to de-coordinate (certified mail)
 - ii) Notice of de-coordination (certified mail)
 - iii) Coordinated system marked inactive in the master database

Technical Committee Processes

1. Initial Repeater Coordination Process

The Repeater Coordination Process is triggered by the receipt of a completed "Request for Coordination" (RFC) form by the TC Chairman. Upon receipt, the TC Chairman will review the received RFC form for completeness. If any part of the form is incomplete (except for frequency, in the case of a new coordination request), the TC Chairman shall contact the applicant and request the RFC form be completed fully and resubmitted; at this point the Repeater Coordination Process suspends.

If the applicant's RFC form is complete, the TC Chairman or his designee shall log the date of acceptance of the package in the TC Pending Action Log, and post the scanned RFC form on the TASMA file server so that it is available to all TC members for pre-meeting review. At this point the TC Chairman may direct committee members to conduct monitoring and/or other investigatory activities to determine the proposed system's compatibility with other systems operating on the frequency pair requested on the RFC. The TC Chairman may also contact the applicant, coordinators of co-channel and adjacent-channel systems, where appropriate, to help determine the compatibility of the proposed system.

The RFC will be presented for formal discussion at the next regularly scheduled TC meeting. Per TASMA bylaws, any group or person placed on a TC meeting agenda shall be notified in advance of the meeting. For the purposes of TC meetings, such notification provided by a posting on the TASMA web page shall be considered said notification. At this meeting the applicant shall be either granted a test coordination (of length determined by Test Coordination Duration Determination – Appendix I) or rejected based on the TC contacts, investigations and input presented at this meeting. In the event that more evaluation or field measurements are deemed to be required, the application may be tabled.

The decision as to the compatibility of the proposed system shall be based upon consideration of the coordinated operating parameters of the affected co-channel and adjacent-channel systems, and adherence of said systems to the specifications outlined in the official TASMA Technical Specifications document. The final decision shall be made by a vote of the TC, excluding the TC Chairman. In the event of a tie, the TC Chairman shall cast the deciding vote but is encouraged to first build a consensus from the committee.

The TC Chairman shall send either a notice of test coordination or denial, depending on the TC's decision, to the applicant. In the event a test coordination is issued, the Database Manager shall enter the RFC information into the master TASMA database, indicating the issuance of a test coordination and the date the test coordination was issued.

In the event the RFC is denied, the letter of denial shall offer to the denied applicant the option of his or her application being placed on a coordination waiting list (See Appendix II). If the applicant wishes to be placed on the waiting list, his or her name will be entered on the list along with the desired location and date of acceptance of the original RFC form. Whenever the TC completes the processing of a change or termination of coordination that results in an unused repeater channel in a significant geographic area previously covered by the changed/terminated coordination, each applicant on the waiting list will be considered in chronological

order based on the date of receipt of the RFC. Either outcome completes the Repeater Coordination Process, and the TC Secretary shall indicate the outcome of the process in the TC Pending Action Log.

2. Change of Coordination Process

The Change of Coordination Process is triggered by either

- a) Written correspondence from trustee or authorized representative of system requesting change per data on file in master database
- b) Written interference complaint

In the case of a requested change, the applicant must submit a completed RFC form when there is a change in any of the technical operating parameters of the system, technician or trustee. If the change is strictly administrative in nature (change in mailing address, etc.), an RFC form is not required but encouraged.

Administrative changes are simply entered into the master TASMA database by the Database Manager. Other changes require formal action by the TC. In this case the TC Chairman shall log the date of acceptance of the RFC in the TC Pending Action Log, and post the scanned RFC form on the TASMA file server so that it is available to all TC members for pre-meeting review. At this point the TC Chairman may direct committee members to conduct monitoring and/or other investigatory activities to determine the compatibility of the proposed changes with other systems operating on the frequency pair requested on the RFC. The TC Chairman may also contact the applicant, coordinators of co-channel and adjacent-channel systems, where appropriate, to help determine the compatibility of the proposed changes.

In the case of receipt of a written interference complaint, the TC secretary shall forward the complaint to the TC Chairman. The TC Chairman shall evaluate the nature of the complaint, and using the resources of the TC members as he or she sees fit, determine whether the complaint warrants formal coordination change action by the TC. If it does, the TC Chairman shall inform the TC Secretary that the complaint will be an agenda item for the next TC meeting (to be held no later than 45 days from the acceptance of the complaint), and the TC Secretary shall enter the complaint into the TC Pending Action Log.

The proposed coordination change will be presented for formal discussion at the next regularly scheduled TC meeting (not to exceed 45 days from the official date of acceptance of the RFC or written complaint). Per TASMA bylaws, any group or person placed on a TC meeting agenda shall be notified in advance of the meeting. For the purposes of TC meetings, such notification provided by a posting on the TASMA web page shall be considered said notification. At this meeting the changes to the applicant's coordination shall be either accepted or rejected based on the TC contacts, investigations and input presented at this meeting. The decision as to the acceptance of the changes shall be based upon consideration of the coordinated operating parameters of the affected co-channel and adjacent-channel systems, and adherence of said systems to the specifications outlined in the official TASMA Technical Specifications document. The final decision shall be made by a vote of the TC, excluding the TC Chairman. In the event of a tie, the TC Chairman shall cast the deciding vote but is encouraged to first build a consensus from the committee.

The TC Secretary shall send either a new notice of coordination acknowledging the requested changes or denial of said changes, depending on the TC's decision, to the applicant. In the event the requested changes are accepted, the Database Manager shall enter the RFC information into the master TASMA database, indicating the issuance of the new coordination and the date the coordination was issued. In the event the requested changes are denied, the letter of denial shall advise the applicant that he/she may appeal the decision to the TASMA Board within 60 days of the decision. Either outcome completes the Change of Coordination Process, and the TC Secretary shall indicate the outcome of the process in the TC Pending Action Log.

3. Repeater De-coordination Process

The Repeater De-coordination Process is triggered by either

- a) TC investigations & observations triggered from one of the other TC processes
- b) Observation of a coordinated system being non-operational by the TC

In the case of TC investigations and observations triggered from one of the other TC processes or observation of a coordinated system being non-operational by the TC, the TC Chairman shall make a determination based on his or her observations along with input from TC members as to if the system in question may be operating outside of its coordinated parameters, or not operating at all. Based on the findings, the TC Chairman may direct the TC Secretary to send a written letter to the coordinee of the system in question to advise him or her of the TC's findings and/or to request additional information, including but not limited to an on-site inspection of the system in question, or a request to demonstrate that the system is in fact on the air. If the response to this letter from the coordinee is acceptable to the TC Chairman, the process is terminated. Otherwise, the matter becomes an agenda item for the next TC meeting (to be held no later than 45 days from the receipt of a response of the TC inquiry letter from the coordinee, or 90 days from the date the letter of inquiry was received, whichever comes first).

Per TASMA bylaws, any group or person placed on a TC meeting agenda shall be notified in advance of the meeting. For the purposes of TC meetings, such notification provided by a posting on the TASMA web page shall be considered said notification. At this meeting the matter shall be resolved based on the TC contacts, investigations and input presented at this meeting. The decisions made shall be based upon consideration of the coordinated operating parameters of the affected systems, and adherence of said systems to the specifications outlined in the official TASMA Technical Specifications document. The final decision shall be made by a vote of the TC, excluding the TC Chairman. In the event of a tie, the TC Chairman shall cast the deciding vote but is encouraged to first build a consensus from the committee. The TC's final decision shall be to either de-coordinate, defer the matter until the next TC meeting, or take no action. The decision shall be recorded by the TC Chairman in the TC Pending Action Log. In the case of de-coordination, the TC Secretary shall send the notice of de-coordination by certified U.S. mail to the (former) coordinee. If the matter is deferred, the process is restarted; otherwise it is terminated.

Appendix I – Test Coordination Duration Determination

This appendix discusses what determines a test coordination’s “test period” as issued by the TASMA Technical Committee?

The Technical Committee takes into account several points pertaining to each unique situation when it determines the length of a test, and other associated parameters:

- System Location
 - Site elevation and proximity to natural barriers
 - Generally known RF environmental conditions at the proposed site
- System Operational Parameters
 - Proposed output power
 1. Resultant ‘Effective Radiated Power’ (tied to review of Antenna)
 2. Power applied to feedline
 - Antenna parameters
 1. Type (Omni, Directional, Specialized Patterns)
 2. Gain characteristics
 - Generally known equipment specs as provided in the RFC, or asked by the T.C.
 1. Receiver IF response (e.g. 6dB and 60dB points)
 2. Transmitter sideband noise level @ a given distance from the center frequency of operation.
 3. Transmitter audio frequency response cutoff neighborhood
 4. Receiver modulation acceptance
- Adjacent-channel and co-channel neighbors and the potential for problems pertaining to them due to proximity and/or equipment used
 - Any overlap in coverage areas between the system applying, established co-channel or adjacent channel systems, and where primary user-bases are concentrated for each respectively
 - Where these overlaps are with respect to primary service areas vs. “fringe area crossover”
- Estimated amount of system usage

The Technical Committee takes these main points, as well as other variables pertinent to each situation, into consideration when determining what is collectively felt (by discussion and voting on the item) is the appropriate length. For instance, a high-level system applying would likely be at a more congested site RF-wise, as well as likely seeing other co-channel or adjacent-channel radios line-of-sight.

The desired coverage area would be looked at, as well as the other parameters specified in the RFC package. For example, say, we have a high-level site with some adjacent-channel and co-channel overlaps, in a rather densely populated RF-environment, with an omni antenna rated for 6dBi of gain, with a power output of 40W to the feed-line, and ~2dB loss. This system, and its neighbors are all *ideally* compliant with the Technical Committee’s Technical Parameters document. The system owner expects to have a fairly active radio, as well. We look at the coverage plots, and all seems well. However, given the overlaps, the expected activity, RF-density at the site, and high level location, a test between 9 months and 1 year is likely to be issued.

This shall ensure that observations can be made over time to see how well the system fits. A system with a wide coverage area, and the overlaps that it might have with other systems, naturally will take more time to be observed fully. Troposphere-induced ducting can also be a factor. The system owner may find that due to the site’s RF environment, they may need to move if there is too much interference. A longer test provides more time for problems like this to develop and be spotted, and if the system moves, the coordination isn’t in jeopardy, since it is a test coordination only. Instead, the system can notify of their intent, submit a new RFC, have a new test issued, and move.

A low-level system with similar parameters, some or little to no overlaps with other co-channels, and some with adjacent-channels can be afforded a shorter test time since there is less potential for problems, and a smaller area doesn’t take as much time to examine.

A totally isolated system may be coordinated without any test coordination period.

Test coordinations run for the prescribed period from the point where the repeater is first noted to be active, or from the point where TASMA is advised the repeater is active by the applicant.