



Northern Amateur Relay
Council of California

POLICIES & PROCEDURES
of the
NORTHERN AMATEUR RELAY
COUNCIL OF CALIFORNIA, INC.
(NARCC)



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I. INTRODUCTION

- A. NARCC is the entity, recognized in Northern California by amateur operators whose stations are eligible to be auxiliary or repeater stations, that recommends transmit/receive channels and associated operating and technical parameters for such stations in order to avoid or minimize potential interference.
- B. The FCC puts the burden of correcting interference on the uncoordinated station.
- C. Amateur licensees are at all times responsible for operating their station(s) in accordance with Federal Communications Commission regulations contained in 47 CFR 97. Nothing in this document and no action by NARCC can supersede the FCC's authority or the licensee's responsibility.
- D. NARCC represents its members' interest in the formulation of regional Band Plans, working cooperatively with other amateurs representing different operating modes.
- E. NARCC is a member of the National Frequency Coordinating Council (NFCC).
- F. NARCC provides repeater directory data for its service territory to the ARRL for inclusion in their repeater directory.
- G. Repeater and Auxiliary station coordination are performed at no charge. Membership is not required to apply for or maintain a coordination. NARCC is financially supported by members who pay annual dues.

II. DEFINITIONS

- A. Board: Elected members of NARCC, who serve, without compensation, as Directors of the organization.
- B. Coordinator: A person appointed by the Board to coordinate repeaters and auxiliary stations within the NARCC Band Plan. Both Coordinators and Assistant Coordinators may be appointed.
- C. Coordination: A determination by NARCC that a repeater or auxiliary station on a specific transmit/receive channel with associated operating and technical parameters does not substantially interfere with co-channel and adjacent-channel repeater operations. A Coordination does not ensure any right to exclusive use of a frequency, or ensure that the Coordination holder has any specific rights NARCC Policies and Procedures, as amended April 12, 2014 4 other than those described in 47CFR 97. Coordinations are granted for three-year terms and may be renewed.
- D. Harmful Interference: The reception of a signal with enough strength that it significantly affects the reception and intelligibility, captures or covers the existing repeater within its recognized coverage area.
- E. Nuisance Interference: The reception of a signal with enough strength that it is heard in the undesired receiver, or that it degrades the existing system to some degree less than would seriously impair the operation of the existing repeater within its recognized coverage area.
- F. Organization: The name of the group to which the Coordination is granted. It may be an individual, club, corporation, sole proprietor, partnership or other entity that owns or operates one or more repeaters. The organization does not have to have an amateur license but must have a

licensed amateur as its Organization Representative.

- G. Organization Representative (Org Rep): A person licensed in the amateur radio service who is the sole person authorized to represent the organization before NARCC. The Org Rep has sole responsibility to represent the interests of the organization and its users in all activities and communication with NARCC.
- H. Service Territory: NARCC provides Coordination Services within the geographic area described as being:
 - 1. North: California - Oregon border.
 - 2. East: The Nevada state line and southward along the summit of the Sierra Nevada range to the Tehachapi pass.
 - 3. Southwest to the ridge line of the Sierra Madre range near Frazier Park.
 - 4. Westward along the ridge line to the Pacific Ocean at a point between Santa Maria and San Luis Obispo near Pismo Beach.
 - 5. West to the Pacific Ocean to the radio horizon.

Applicants close to the border should contact both NARCC and the adjacent coordinating council for joint Coordination.

- I. Where time periods are referred to in this document they shall be calendar days.
- J. Unless noted otherwise, NARCC prefers communication via electronic mail and all required notices, applications, etc. described in this document may be given or received using electronic mail. NARCC is NARCC Policies and Procedures, as amended April 12, 2014 5 not responsible for delays caused by the US Postal Service but will make reasonable accommodation as necessary. Notices shall be sent to com-manager@narcc.net.

III. TECHNICAL COMMITTEE

- A. The Technical Committee will be made up of qualified amateurs with technical or spectrum background who can contribute to the overall strength of the committee. Committee members are appointed by the President, require the approval of the Board and serve at the pleasure of the Board. Members of the Board may be appointed to the committee.
- B. The Technical Committee shall assist the Coordinators and the Board as needed in Coordination disputes and research on technical matters.
- C. The Technical Committee defines technical standards applicable to transmission modes and users that promote operation that is free from harmful interference.
- D. The Technical Committee will also identify “best practices” that may optimize usability and minimize interference.
- E. Technical standards and best practices may be added as Appendices to this document.

IV. REPEATER TECHNICAL STANDARDS

- A. Due to the congestion on the VHF bands and the implementation of splinter channels with 15 kHz splits, all systems coordinated will be required to adhere to technical standards. NARCC may from

time-to-time revise these standards to conform to evolving technology.

- B. Receiver RF and IF stages should be designed and adjusted to narrow band characteristics with sufficient selectivity to avoid interference from adjacent channels. Transmitter deviation peaks should be symmetrical and should not exceed peaks in excess of 4.0 kHz.
- C. In the case of digital systems, they should be designed to remain within channel limits with minimum spill over, and in no event should the transmitter deviation exceed the accepted bandwidth for the mode in use.
- D. Systems should be configured to be a 1-to-1 system. This is defined as one transmitter with coverage sufficient to cover only the area of primary receiver coverage. A system should not transmit further than it can receive.
- E. All stations will have the proper filters, duplexer, isolator, feed lines and antennas to insure proper operation and to minimize the generation of intermodulation products, harmonics, white noise, spurs and spikes to other systems.
- F. It is a condition of coordination that the repeater operator shall adhere to good engineering practices.

V. USE OF CODED SQUELCH

- A. Coded squelch is a method to reduce "nuisance interference." It consists of two basic types, tone and digital, with tone being the most commonly used. Tone squelch is known generically as CTCSS (Continuous Tone Coded Squelch System), branded by several manufacturers as : Private Line™ or PL (Motorola), Channel Guard™ (General Electric), etc. The "digital" version is known generically as DCS (Digital Coded Squelch).
- B. A repeater so equipped will not hear the transmissions of another station or mobile unless they have an identical tone or code. While this offers no protection from on-channel signals that are as strong as or stronger than the desired signal, it prevents unwanted weaker signals from being heard and causing nuisance interference.
- C. NARCC requires use of CTCSS or digital coded squelch on the input of all analog voice systems. Failure to do so will subject the Coordination to suspension or revocation.
- D. NARCC strongly recommends and may in the future require the use of CTCSS or DCS on the output of all analog voice systems.
- E. It is acceptable to disable tone squelch for emergency use, nets and drills as long as it is re-enabled after not more than ten minutes of the conclusion of the event.

VI. COORDINATION COMMITTEE

- A. The Chairman of the Repeater Coordination Committee is appointed by the President requires approval by the Board and reports to the Board. He is responsible for the management of the Coordinators and the Coordination Applications pending in the online database.
- B. Coordinators and Assistant Coordinators are appointed by the Board, serve at the pleasure of the Board and report to the Chairman of the Coordination Committee.

- C. Coordinators are responsible for processing applications for Coordination and management of their band(s) in accordance with the rules outlined in this document and the Bylaws of this organization.
- D. The Coordinator makes a decision as to whether a station can be granted the status of "coordinated". The Coordinator can call upon the Board to help resolve problems as needed.
- E. No Coordinator or Board member may act upon any Coordination that he/she has any direct interest in while serving as a Coordinator or a Board member. Such conflicts of interest shall be referred to the Chairman of the Repeater Coordinating Committee for referral to another Coordinator, who has no interest in the pending action.
- F. Approved Applications not requiring publication (auxiliary stations) will be marked as "coordinated" in the online database. The online repeater listings will show the change the following day.

VII. COORDINATION SERVICE

- A. Coordination will be granted to the applicant after:
 - 1. A NARCC Coordinator has reviewed the proposed operation as described in the application and has found that such operation will meet the conditions and requirements described herein.
 - 2. The membership of NARCC has been notified (except in the case of auxiliary stations) as provided in these rules, of NARCC's intention to issue a coordination to the Applicant and that either no challenge has been received or that any such challenge(s) have been resolved.
- B. NARCC will provide Coordination service for the following types of amateur radio stations:
 - 1. Repeater stations (all modes)
 - 2. Auxiliary stations (all modes)
- C. NARCC Coordination service will consider the following criteria:
 - 1. The best use of the amateur radio frequency spectrum, taking into account the public interest, convenience and necessity and the best interest of the amateur radio community.
 - 2. Number of users.
 - 3. Number of coordinated stations.
 - 4. RACES, ARES, or other affiliation.
 - 5. Existing coverage in the area requested.
 - 6. Individual or club Applicant.
 - 7. Power and location.
 - 8. Local or regional coverage.

- D. Coordination may not be allocated strictly on a "first come, first serve" basis, but with consideration of the Coordination criteria listed above.
- E. Applications for Coordination must follow the NARCC Band Plan.
- F. A Coordination issued for a station as described herein is assigned to the organization whose name is designated in the Application for Coordination.
- G. A coordination expires after three (3) years from approval.
- H. It is the responsibility of the Org Rep to keep all information current by submitting it to the NARCC online database.
- I. NARCC reserves the right to update and change the technical standards required for coordination. Compliance with revised technical standards is required for any new coordination application received after the revision of the technical standard.
- J. Coordination of a repeater or auxiliary station is for a specific mode of operation as well as the elements listed below:
 - 1. Location
 - 2. Primary coverage area
 - 3. Frequency(s)
 - 4. Duplexer output power
 - 5. Feedline type and length
 - 6. Antenna radiation pattern and gain
 - 7. Tower elevation (Above Mean Sea Level) at ground level.
 - 8. Height of antenna on tower
 - 9. CTCSS or digital squelch used on the input of analog voice systems. Use of CTCSS or DCS on the outputs of analog repeater systems is strongly recommended to prevent nuisance interference.
 - 10. Use of voting or additional receivers
- K. Repeater Coordination will take into consideration the impact of transmissions of fixed and mobile stations or other users on the input frequency
- L. Use of a repeater by users outside its recognized coverage area is discouraged. The potential for interference will be minimized through the use of required CTCSS or digital squelch.

VIII. COORDINATION REQUIREMENTS

The following requirements must be met in order for a Repeater or Auxiliary station to be coordinated by NARCC:

- A. Compliance with 47 CFR 97 and other government requirements.

- B. Existing coordinated repeaters must be protected to the fullest extent consistent with good system design.
- C. Some degree of nuisance interference may occur and must be tolerated by operators of coordinated stations and their users.
- D. Episodes of exceptional signal propagation, such as, but not limited to “ducting,” are a natural occurrence and are not considered Harmful Interference.
- E. It is the responsibility of the Coordination Applicant to avoid interference. This requirement may be waived by written consent from affected stations.
- F. Existing Coordination holders are expected to cooperate in conducting tests regarding a claim of interference. All parties should be prepared to substantiate that their station configuration conforms to their documentation.
- G. Field tests may be required. It is the responsibility of the Applicant to arrange for such tests to the satisfaction of the Coordinator.
- H. NARCC will issue a coordination only to stations that are compliant with NARCC’s technical standards and other requirements, which are included as a part of the Coordination.
- I. The station described in the Coordination application must be on-the-air, operational and legally identifying itself using voice, CW or any allowed digital format, with the callsign designated in the application.
- J. The decision to grant or reject an application for coordination is first made by the Coordinator, subject to Administrative Review by the Coordination Committee and subsequent appeal to the Board of Directors.
- K. The Coordination Application shall be filed using the electronic form at www.narcc.org.

IX. PUBLICATION OF THE PROPOSED COORDINATION

- A. Applications for a new Coordination or modification to an existing coordinated station that the Coordinator has marked “Pending,” will be publicized as described below.
- B. The purpose of publicizing a coordination in pending status is to provide an opportunity for station owners and operators to object if the proposed operation will cause interference with their operation.
- C. Publication is required for the following:
 - 1. New station Coordination
 - 2. Update of a previously coordinated station for:
 - 3. Site change
 - 4. Frequency change
 - 5. Any change that causes a change to the coverage area
- D. Notice of the proposed Coordination will be published on the NARCC website. In addition, an email notification will be sent to Org Reps that have requested such notice.

- E. Any objections to the granting of the Coordination must be in writing and received by NARCC within 60 days of the date the application is marked as pending by the Coordinator.
- F. If no valid objections to the Coordination are received, the Coordinator may set the station's status to "Coordinated".
- G. NARCC reserves the right to withhold coordinated status if further material information becomes available subsequent to publication.
- H. After approval of the Coordination, a Certificate of Coordination shall be made available either by providing a downloadable online Certificate or by mailing a printed certificate to the applicant.

X. REJECTED APPLICATIONS

- A. If the Application for Coordination is rejected for any reason, notice of such rejection shall be sent to the Applicant stating in reasonable detail the justification for such rejection. This notice shall be sent as soon as reasonably possible and in no event more than 30 days following the rejection.
- B. The notification of rejection shall advise the Applicant of the right to an Administrative Review of the rejection. The purpose of this review is to reconsider the reasons given for the rejection, plus any new information available.
- C. Upon notification of the rejection, the applicant has ten days to submit a request for an Administrative Review of the rejection and to submit any additional information to be considered.
- D. If no coordination decision has been made within 120 days following first publication of the application as "pending," the applicant may at any time thereafter request an Administrative Review of the application.
- E. The Administrative Review shall consist of the Coordination Committee reviewing the application and reasons for its rejection. The Coordination Committee has 21 days to make its decision.
- F. The ruling, stating the reason(s) for the Committee's decision, shall be sent to the applicant within 30 days from the applicant's request for the Administrative Review.
- G. The decision of the Coordination Committee is subject to appeal to the Board of Directors, whose decision shall be final. The notice of rejection by the Committee shall advise the applicant of the right to appeal the decision.
- H. Applications for Coordination on frequencies between 420 and 450 MHz require mitigation of potential interference to the PAVE PAWS military radar system at Beale Air Force Base. The NARCC 440 Coordinator will advise the applicant of how to achieve the mitigation necessary. If the Applicant disputes the Coordinator's decision on PAVE PAWS mitigation, the Applicant may submit their system information and other pertinent data to the ARRL for review, also sending a copy of the request to the NARCC 440 Coordinator. The applicant must provide copies of all ARRL correspondence and results to NARCC.

The recommendation of the ARRL has precedence over that of the NARCC 440 Coordinator. During the period of time the application is under review by the ARRL, NARCC time limits are suspended, and the application will remain marked as pending.

XI. RESOLUTION OF DISPUTES

- A. In the event that parties to a Coordination dispute are not able to resolve their differences among themselves, said dispute may only be presented to the Board of Directors following a ruling by the Coordination Committee, as follows:
1. Within 30 days of a decision by the Coordination Committee, any party to the dispute may submit a Request for Dispute Resolution in writing to the Board of Directors and to each party to the dispute setting forth the facts and the reasons for the dispute.
 2. The Board shall, after conferring with the parties, set a date for the hearing and give all parties to the dispute at least thirty days notice in writing of the time and place.
 3. The responding party or parties to the dispute may submit a responsive brief to the Board.
 4. Unless otherwise directed by the Board the brief shall be sent to the Board and all other parties at least ten days prior to the hearing.
 5. Once the dispute process is commenced the parties are not to discuss any material issues of the dispute with individual Board members. Inquiries on procedural matters relating to the dispute process should be directed to the president or his delegated representative.
 6. The dispute hearing shall take place in front of a quorum of the full Board of Directors.
 7. The board will rely on the parties to present the facts. However, the Coordinators and the technical committee shall cooperate with the parties in making information available for presentation at the hearing.
- B. A Board member shall disclose any bias, relationship to any of the parties or discussions relating to the matter he has had with any of the parties after the filing of the dispute and excuse himself from participating in the proceedings if such facts would prevent him from being fair and impartial. This would not prevent him from testifying at the request of any party at the hearing. Any of the parties or members of the Board may raise the issue of ability of a Board member to be fair and impartial.
- C. All written documentation that is to be presented at the hearing must be exchanged between the parties at least ten days prior to the hearing date.
- D. Each party shall be allowed a reasonable time to present the issues and for rebuttal and closing. The presentation may consist of written documentation and oral testimony by the parties and witnesses.
- E. At the request of any party or on its own motion the Board may continue the hearing to allow the presentation of further evidence or for the filing of briefs by the parties.
- F. After presentation by the parties the Board shall make its decision within a reasonable period of time. The deliberations shall be at a meeting open to the public.
- G. The decision and the reasons for the decision together with the vote of each member shall be set forth in writing and entered in the minutes of the meeting.
- H. Copies of the decision shall be sent to each party.

XII. COORDINATION MAINTENANCE

- A. To maintain a Coordination, an organization must submit an updated Application (with or without changes) during the six month period prior to the Coordination's expiration.
- B. Routine notification of coordinations approaching expiration is sent to the organization representative by email approximately sixty days prior to expiration and includes instructions for renewal. A second email notification is sent the day after the coordination has expired.
- C. It is the Organization's responsibility to update its Coordination in a timely fashion regardless of whether or not the notification of expiration was received.
- D. If no changes are necessary and the coordination is within six months of expiring use the Quick Update option to automatically renew the coordination for the next period. An email will be sent to the Org Rep confirming the renewal.
- E. If there are no changes, but the coordination has been expired for less than six months, use the Update With Changes option not making any changes, but adding in the "Notes To Coordinator" field that you are renewing the coordination and explaining that station parameters have not changed. The coordinator will validate there are no changes on the application and renew the coordination for the next period. If the coordination has been expired for more than six months, the coordinator will perform a complete coordination examination of the station.
- F. The coordinator shall promptly notify the organization representative of any change deemed to be material found in the application. The message must state any operational issues noted that must be corrected prior to renewing the Coordination.
- G. This communication shall be via email and must be responded to within thirty days. If no response is received by the end of that period, a second notification will be sent.
- H. If no response is received by the end of the second thirty day period, the application is moved to the archive file with appropriate notation as to why.
- I. In the event the applicant does not have an email account, a first class letter will be sent.
- J. If, for any reason, a coordinated station is continuously inoperative for more than 30 days the Org Rep must notify NARCC in writing or the Coordination is suspended. For good cause, the Board may permit the Coordination to remain in effect for a reasonable period even though the station is off the air. A Coordinator may permit the Coordination to remain in effect until the next Board meeting.
- K. In the event there is any change in the parameters for the repeater, the Coordination is suspended. However, the Coordination may be reinstated at any time within six months by compliance to the parameters of the Coordination. The Board may, in its discretion, extend the period for a reasonable time or provide time for the filing of a new or updated application to address the changes.

XIII. TERMINATION OF COORDINATION

A coordination may be terminated for the following reasons:

- A. Failure to file timely update forms in the absence of an extension of time granted by the Board or Coordinator.

- B. Failure or refusal to correct changes made to the coordinated station causing it not to be in compliance with the conditions for which coordination was granted.
- C. If correction is not made within sixty days of notice, or such other time as may be granted by the Board or Coordinator, the Coordination is terminated immediately.
- D. If Harmful Interference is experienced by other repeater systems as a result of the system changes, it must be returned to its original configuration or the Coordination will be terminated.
- E. The Organization Representative shall be given notice of the proposed termination. The notice shall state the grounds for the proposed termination, the proposed effective date of termination and shall grant a reasonable time to correct any violation or deficiency. Disputes regarding termination of coordination shall be resolved in accordance with the Dispute Resolution procedures described in this document.
- F. Notice of termination will be via first class mail addressed to the organization representative for the organization holding the Coordination at the most recent address in NARCC's records.
- G. It is the responsibility of the organization representative to maintain accurate contact information in their online and editable organization record.

XIV. ABANDONED FREQUENCIES

- A. If NARCC determines that a repeater is off the air for more than 30 days then, unless the organization has met the requirements permitting a temporary off air status, NARCC shall notify the Org Rep by first class mail to his last known address and also sent to his last known email address that his Coordination will be revoked 30 days after the mailing and emailing of the notice unless he objects in writing by letter postmarked within such 30 day period.
- B. If the Org Rep so objects within the 30 day period the Board shall set a date for a review at which time the Rep may present facts showing that the repeater was, in fact, on-the-air.
- C. If NARCC determines that a previously on-air uncoordinated repeater is off the air for more than 30 days then NARCC may issue a coordination for the frequency used by such repeater, provided NARCC gives notice by first class mail to the last known address of the operator of the repeater and also to his last known email address that the frequency will be reassigned unless he objects in writing by letter postmarked within such 30 day period.
- D. If the repeater operator so objects within the 30 day period the Board shall set a date for a review at which time the operator may present facts showing that the repeater was, in fact, on-the air. E) The required notices shall be sent by the Communications Manager or any other officer or Board member designated by the President.

XV. ORGANIZATION NAME OR ORGANIZATION REPRESENTATIVE CHANGE

- A. The Org Rep may request a change of Org Name, but, since the Coordination is granted to the organization, NARCC may require confirmation from a person with authority within the organization.
- B. The Org Rep may be changed online by the current Rep.
- C. If a request to change an Org Rep is made by than the current Org Rep:
 - 1. The organization shall send a written letter to the Communications Manager signed by two officers from the Organization, with a copy to the current Org Rep.

2. The communications manager will then send a copy of the request back to the current Org Rep by registered mail with return receipt.
3. The change will then wait for one of the following to occur, whichever is first:
 - a) an approval from the current Org Rep is received, or
 - b) 30 days passes after Communications Manager receives the return receipt signed by the current Org Rep, or
 - c) 60 days passes after the Communications Manager sent the letter to the current Org Rep.
4. If the current Org Rep objects, the change will not occur and the matter will be referred back to the club for resolution.

XVI. AGREEMENT OF NONDISCLOSURE

- A. All Board members, Coordinators, officers, database managers or other persons involved with the operations of NARCC will have on file with the secretary of the corporation a statement of nondisclosure.
- B. This statement, which is binding, will state that any coordination information, software development, programs and corporation frequency database contents, except for the basic information for the ARRL directory and web page directory is of a confidential nature, is the sole property of NARCC and will be surrendered to NARCC upon their leaving office.
- C. The persons listed above shall make no claim of ownership to any data acquired during their term of office and acknowledges by virtue of accepting the position of responsibility that all data and information gathered for purposes of granting and/or maintaining coordination records shall be the sole copyright property of NARCC as a corporation and in all other respects the sole property of NARCC.
- D. All NARCC coordination records are considered to be copyrighted by NARCC pursuant to laws pertaining to same and may only have limited publication such as frequency directory use with or without fees as determined by the Board.

XVII. CONCLUSION

- A. The Policy and Procedures as adopted by the Board does not create any right to a coordination.