

The Alabama Repeater Council met in an online session on Sunday, September 12, 2021 at 2:00 pm local time. Kirk Junkin, N4KRJ hosted the meeting through an online service. Dennis, K4DL moderated the meeting as President of the ARC.

In attendance were:

Kirk Junkin, N4KRJ	Grady Evans, W4GLE	Kris Kirby, KE4AHR
JR Lowry, KK4CWX	Robby Workman, AC4RW	Bob Luman, W4MPQ
James E Nelson, KE4GWW	Dennis Littleton, K4DL	Wiley Boswell, KE4LTT
Patrick Nagle, N4GLE		

Treasures Report:

Checking: \$132.58 Savings: \$5790.96

Kirk, N4KRJ noted that no major expenses have been incurred, and membership dues are lagging behind due to COVID, and not having and in-person formal ARC meetings.

Motion was made by Wiley Boswell to suspend the rules and allow all currently elected Directors and Officers to vote on all actions during the meeting. Motion was seconded by Bob Luman, and carried by voice vote.

Dennis Littleton, began the process of Board of Directors elections. (NOTE: Elections are held in August of each year at the Huntsville Hamfest. Huntsville ARC meeting was cancelled due to COVID concerns)

Northern Region: Bill Rogers, WB4NQH has notified ARC that he does not want to continue to serve as Director. After discussions of potential candidates from the region, Motion was made by Grady to nominate Patrick Nagle, N4GLE who was in attendance in the meeting to serve this open position. Kris seconded the motion, and carried by voice vote.

North-Central Region: After discussions Robby Workman, was nominated and agreed to continue to serve, and carried by voice vote.

South-Central Region: Dennis Duren was no in attendance at the meeting, but had no notified ARC of any updated, on continuing to serve, or not. Dennis was nominated to continue to serve, and carried by voice vote. Dennis Littleton will contact Dennis Duren to confirm is availability to serve.

Southern Region: James E. Nelson has chosen not to run for re-election to this position. After discussions, no name was placed into motion to fill the position; It will remain vacant until filled.

Under new business for the ARC, Dennis, K4DL, recommended to appoint James E. Nelson, KE4GWW as Frequency Coordinator effective immediately. Patrick, N4GLE made a motion to approve, Bob Luman, W4MPQ second. After discussions and questions, vote carried, with one vote opposing, nine affirm.

Additional items for discussion include setting up an online payment method for ARC membership. Kirk, N4KRJ and Robby, AC4RW have been working on this prior to the meeting, and will work out a few issues with the website and PayPal accounts moving forward.

Prior to the meeting, Kris Kirby, KE4AHR had sent proposals to the Officers and Directors for their approval. Email attached to this document.

- Kris made motion to approve the action items in the email to set new parameters for coordination of frequencies and other items.
Implement a plan to migrate all existing carrier-squelch (CSQ) triggered repeaters over to CTCSS tone decoding in receivers and CTCSS tone encoding on the transmitters
- Motion died for lack of second.
- Kris made motion to approve action item to adjust distance of coordination:
That the +/- 10 kHz Center Frequency (Fc) difference radius for 2m be decreased from 90 miles to 50 miles (e.g.: the 147.010 and 147.030 channels around 147.020). No change to the existing +/- 5 kHz limits, which are equal to co-channel at 100 miles.
- Motion died for lack of second.
- Kris made motion to approve action item to adjust manner and details of published data.
That the location published for a repeater locality changes from applicant-determined to a coordinator-determined locality not more than 2 miles from the repeater coordinates given.
 - After questions and discussion, amendments were added to the motion to allow repeater locations to be listed based on zip code; motion was approved. Action item placed in motion is: That the location published for a repeater locality changes from applicant-determined to a coordinator-determined locality not more than 2 miles from the repeater coordinates given and the listing could be based on commonly recognized community name, valid U.S. Postal Service Zip Code, or applicant supplied Latitude / Longitude coordinates. The ARC Frequency Coordinator as the discretion in this decision. Any grievances from this decision can be submitted in writing to the ARC Executive Committee.

Kris Kirby, Kris Kirby, KE4AHR, made a motion to appoint himself as Assistant ARC Frequency Coordinator. Point of order was voiced that a person cannot motion themselves to an appointed position.

Robby Workman, made a motion to appoint Kris Kirby as Assistant ARC Frequency Coordinator. Bob Lumen second motion, and carried by voice vote.

Robby Workman gave a update on the ARC website. He, Kirk, N4KRJ and James E Nelson, KE4GWW, are working on the transfer of hosting, and website enhancements.

Motion to adjourn by Grady Evans; Second by Bob Luman.
Meeting adjourned at 3:00 pm local time.

Submitted
Kirk R Junkin, N4KRJ
ARC Secretary / Treasurer

Kris Kirby <ke4ahr.arc@gmail.com>

Sun, Sep 12, 8:55
AM

In the forthcoming meeting, I have attached a legal-sized spreadsheet of dB loss differences between distances. 3 dB is double your power, half your power, **or** double the distance or half the distance. The FM receiver's "capture ratio" determines which signal is decoded by the receiver. For many radios this is 10 dB or less, equivalent to multiplying or dividing a signal by a factor of 10. This is also the difference between 1 watt and 10 watts **or** 10 watts and 100 watts. While two signals can appear above the noise floor, the stronger of the two signals will "win" due to the FM capture effect. Once the stronger signal goes away, the weaker signal is still far enough above the noise floor to be heard with a noise-gate carrier squelch.

Therefore, we must implement a plan to migrate all existing carrier-squelch (CSQ) triggered repeaters over to CTCSS tone decoding in receivers and CTCSS tone encoding on the transmitters. It is my suggestion that we implement this today with a goal of all FM (e.g.: not D-Star, and not DMR) repeaters in a year, with a requirement for compliance with this policy two years in the future. As it stands, this policy will only impact existing repeater owners who are not at present using decoding tone squelch, and will require adding a CTCSS tone.

I further recommend the following:

1) That the +/- 10 kHz Center Frequency (Fc) difference radius for 2m be decreased from 90 miles to 50 miles (e.g.: the 147.010 and 147.030 channels around 147.020). No change to the existing +/- 5 kHz limits, which are equal to co-channel at 100 miles.

Additionally,

2) That the location published for a repeater locality changes from applicant-determined to a coordinator-determined locality not more than 2 miles from the repeater coordinates given.

3) Approve or deny the publishing a list of 25 CTCSS tones reflecting those already in use across the state for the express purpose of unlimited disclosure. This allows for a person without a copy of the ARC published listings to use that subset of tones to determine which one is used by a given repeater through testing each of those tones on a particular input frequency. This does not apply to D-Star and DMR repeaters.

Thank you for your consideration.

Kris Kirby, KE4AHR
Alabama Repeater Council
Frequency Coordinator