

Nacogdoches Amateur Radio Club

2025 CLUB OFFICERS

Pres: Mark Phillips -
KI5POH

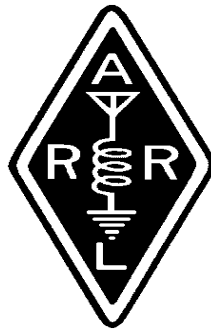
Vice Pres: Aaron Baker -
KI5FIQ

Sec/Treas: Darrell
Thornton - KI5PYQ

Visit our web site at
<https://w5nac.com/>

MISSION STATEMENT

The Mission of the Nacogdoches Amateur Radio Club is to support and promote Amateur Radio by public service, offering training to unlicensed interested parties and licensed Amateurs, mutual support of other Amateurs, engaging events that promote Amateur radio to the general public and other Amateur radio



operators, and continuing fellowship by regularly scheduled organized meetings and events and having fun.

DECEMBER MINUTES

Mark, KI5POH, started the meeting off at 18:00. Introductions were made and minutes were approved. The treasury report was read.

Old Business - Nothing was discussed.

New Business - Rusty, KD5GEN, brought up a podcast about HAM radio during hurricane Melissa

and the effectiveness of amateur radio during emergency situations.

Meeting was adjourned.

2026 ARE DUE NOW!

Dues are just \$20 a year and cover all licensed hams in a family. Please get your dues to Darrell, KI5PYQ, either in person or mailed to his home address. Sooner is better than later. Make checks payable to NARC.

SUPPORT YOUR CLUB

Are you a member of NARC? Do you check into one or more of the weekly nets on 2M? If not, why

not? Do you participate in the club Fox Hunts? If not, why not? Do you participate in the club Special Events K5C and K5T? If not, why? Let us know how we can get you involved in our club. Is there an event or program that you would like to see, let your club officers know.

FROM OUR PRESIDENT

We had a great time at the Christmas Party and White Elephant gift auction. We had some interesting items for the auction.

Our January meeting will be on Tuesday, January 6 th at 7pm and doors open at 6:30pm. I hope everyone will attend our monthly meetings, as they are informative and very interesting. If you have ideas for programs or how our club can be more active or active in our community, please let me know.

The National Weather Service will conduct NWS Skywarn Spotter Training on Thursday, February 5 th . The free training will take

place at the Lufkin Civic Center, mark your calendars now.

Our next monthly meeting will be on Tuesday, January 6 th , doors open at 6:30pm and meeting starting at 7:00pm. I look forward to seeing you there. I hope every one had a Merry Christmas and the New Year is your best one yet!

I am thankful for each of you for being a Ham and being part of our club!

73, Mark KI5POH
KI5POH21@gmail.com

FROM OUR VP

Happy new year everyone. I hope to get more active on the air in 2026, maybe try some POTA activations throughout the year and see how that goes. Also have a few antenna projects I've been putting off that I just finally need to sit down and build. The list of

projects keeps growing so now is a great time to start on it right? Anyway, I hope everyone has a great year and that you're also able to tackle those radio projects that you may have also been putting off.

See you for our first meeting next week or if you can't make it, hope to hear you on the air for our nets, don't forget that since the 32 is linked to Lufkin, that we get a bonus net Tuesday nights along with the wide area net with the whole linked system every third Monday of the month at 8:30.

Aaron Baker KI5FIQ
baker.barisax@gmail.com

VE TESTING

Our December VE testing session did not have anyone show up to test.

Many thanks to our VE team: Dave NR5AT, Army AE5P, Mike AA5HH, Mike W5NXX, and Ralph N6RH

Remember that we provide VE testing sessions the third Wednesday of EVERY MONTH with exams for all classes of Amateur Radio licenses. Sessions are held at the EOC with doors open at 6:30 and testing beginning no later than 7:00 p.m.

TWO METER CLUB NETS

Please join us each week for the two-meter nets sponsored by NARC. All stations are welcome to check into the nets.

Each **MONDAY** is the **NARC ARES/RACES** net, at 20:00 on the club's 146.84 repeater (PL 141.3).

Second, on **THURSDAY** evenings at 20:00 is the **Deep East Texas Skywarn Emergency Weather Net** on the 147.32 repeater (PL 141.3).

Please join us for one or both.

HAMLIST

Are you on Hamlist? Check it out and join at:

<https://w5nac.com/about/email-reflectors/>

NEXT MEETING

The next regular NARC meeting will be **TUESDAY** January 6th at the Nacogdoches EOC. Doors will open at 18:30 and meeting will start promptly at 19:00. We hope to see you there. Aaron (KI5FIQ) and Steve (WB5IDY) will have us a wonderful program setup.

FOX HUNT

The Fox Hunts will be on hold for now. We currently do not have enough attendance to continue currently. If you would like to have another fox hunt, please let Darrell KI5PYQ

or Mark KI5POH know that you would like to participate.

UPCOMING EVENTS OF NOTE

Mark your calendars for the following events coming up in the next few months. Full information on these events and much more can be found at <https://www.contestcalendar.com/contestcal.html> You will need to scroll to find the correct month.

Link to ARRL Contest Calendar

<https://www.arrl.org/contest-calendar>

Club Meeting Dates

Jan 6th 19:00

Feb 3rd 19:00

March 3rd 19:00

Tips for Reducing Noise on Your Ham Radio Receiver - Part 2

Jim Edmondson, AE5JE

Last month, I discussed the types of noise, how to find man-made noise sources and how to minimize noise by grounding, antenna selection, ferrites, and elimination of the noise source. This article will focus on managing noise by the controls on your receiver and, if needed, software or hardware accessories.

The guiding principle to controlling noise at the speaker is to reduce as much noise as possible as early in the receive chain as possible. In a superheterodyne or hybrid (superhet / digital) receiver, that means stopping noise in the RF (radio frequency), the IF (intermediate frequency) and in the AF (audio frequency) sections, in that order. Understanding your receiver's architecture at a block diagram level is important to understanding how to reduce noise. Below are two diagrams showing the block diagram of the Kenwood TS-890S receiver front-end.

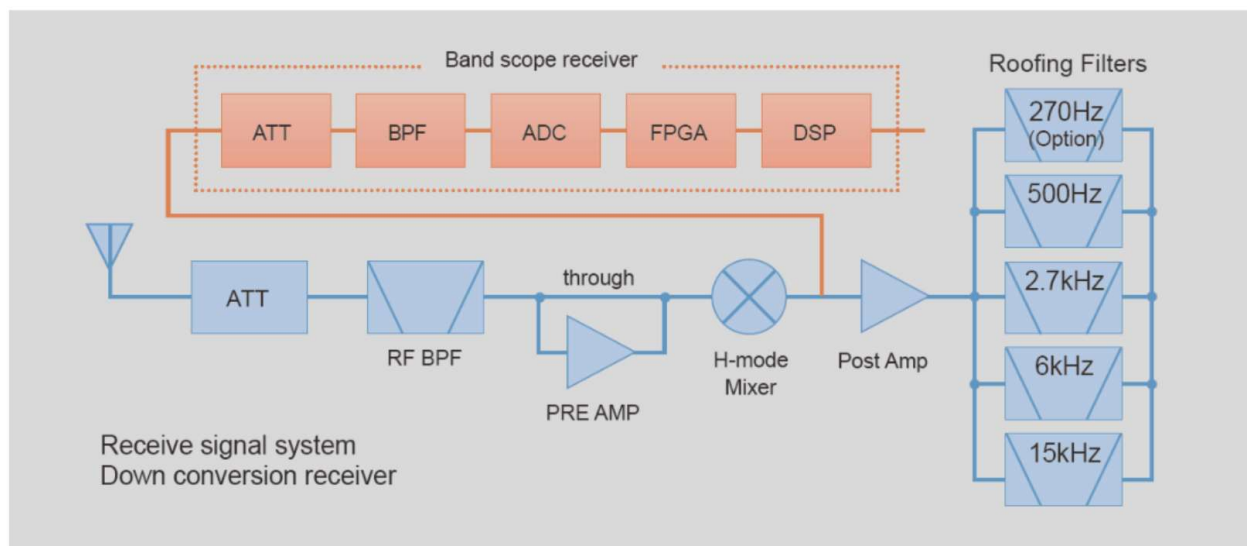


Fig. 1 Block Diagram of the Front-end Circuit for the Receiver

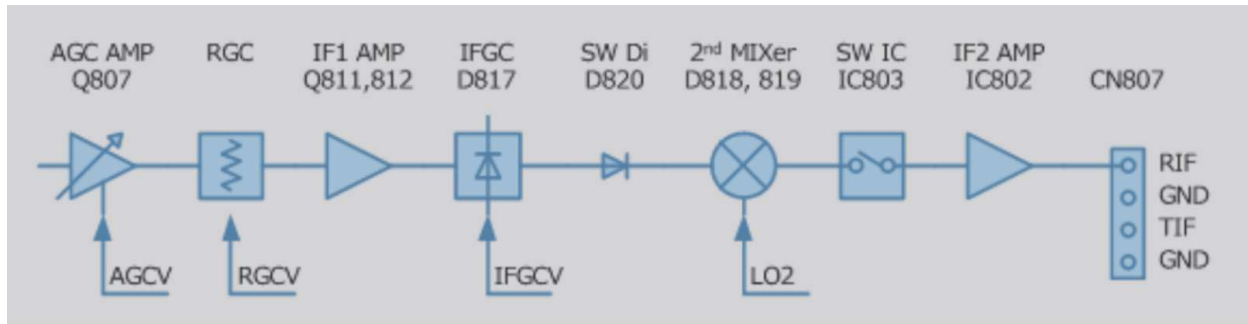


Fig. 2 Block Diagram of the IF Circuit for the Receiver

Some receivers (Yaesu FTdx101, Icom IC-7610) have an analog or digital preselector, which is a tunable band pass filter. For other radios, there are outboard preselectors that can be used. The primary function of the preselector is to narrow the RF pass band and prevent interference by spurious signals that mix with the local oscillator to produce signals at the IF. These will pass through the filters to the audio section and produce interference. Narrowing the RF pass band also reduces noise that will be amplified through the receiver chain.

The next barrier to noise is use of the proper roofing filter which operates in the IF section. A roofing filter is a crystal-based mechanical filter used in some receivers. Other receivers may have a digital filter to narrow the IF frequency response. Hybrid receivers will often have a roofing filter supplemented by a digital filter. While a digital filter alone is not as effective, it serves the same purpose. Use the narrowest filter setting to give an intelligible signal to reduce background noise. Typical IF filter settings are 50 - 300 Hz for CW, 500 Hz for RTTY, 1800 - 3000 Hz for SSB (3000 for FT8 using USB), 6 kHz for AM, 12 kHz for FM.

Once tuned to a desired signal with preselector and filters set, it is time to work with controls that affect RF and AF gain. If the signal is strong, make sure that any preamplifier is turned off. If the signal is still strong, attenuation can be used to further reduce the noise level. The attenuator is right after the antenna connection, so noise sent to all subsequent amplifier stages is reduced. Ne, reduce the RF gain and increase the AF gain to reduce the noise level and keep the signal audible.

At this point, if the noise is still objectionable, AF-based DSP (digital signal processing) can be used. The NR (noise reduction) is specifically designed to remove noise without affecting the signal level. The use of "too much" NR can affect speech quality giving the voice an "underwater" sound. The NB (noise blanker) is designed

specifically for impulse noise such as that from a vehicle ignition system. Finally, many receivers have an equalizer. This can be used to boost or reduce specific audio frequency ranges (at a minimum bass and treble). This can help with speech intelligibility. If the receiver has many narrow ranges (the TS-890S has 18 ranges of 300 Hz width), the equalizer can serve as a noise reducing "backstop" in the audio section.

If your receiver lacks some of these tools to reduce noise, there are outboard options. In the January 2024 Newsletter, I discussed RM Noise, an online AI noise reduction system. Since RM Noise is web-hosted there is a delay of about 0.25 seconds between receiver and PC audio. PA9X has a blog page describing some other AI tools. Another is one of the various electronic noise reduction systems. West Mountain Radio, bhi, Elan and Timewave ANC (formerly ANC) all make well-regarded noise reduction systems. I have personally used West Mountain Radio's CLRDsp with an older Kenwood TS-50 and now have the bhi Dual In-line and use it as needed with the TS-890S. Both work quite well when the above receiver controls cannot reduce noise enough.