W5NC
Houston, Texas
Northwest Amateur Radio Society
A 501(c)(3) Organization
An ARRL Affiliated Club

NARS NEWS

OCTOBER 2025

Northwest Amateur Radio Society
P.O. Box 11483
Klein, TX 77391
w5nc.net

Contents

President's Message

BY PAUL OWEN, N5NXS

Meeting, TX QSO Party and More of NARS History

I hope everyone enjoyed last month's program on "The Effects of the Atmosphere on Radio Transmissions". I would like to thank Kyle, K5KNV, for setting up that program with Brian Havran, AF5IT. I am still hoping to get ABR Industries to come to a future meeting with a program also.

I'm going to miss another meeting this month. I will be at the Wing Over Houston Airshow. I apologize for last month's meeting that had to be moved to the boardroom. It seems that our standing reservation for 3rd Friday meeting was forgotten about. I was given the forms to reserve the rooms we use and will ask Kyle to fill them out and send to the ESD so our future meetings and VE Test Sessions will be reserved for NARS events. This should also take care of Winter Field Day and the regular Field Day held in June.

Everyone should congratulate Marty, W5MF, for the great job he did with his team working the "TX QSO Party". I knew he was going to do a great job making the club look good. Look for the complete story in this issue.

I would like to make it a regular thing to have one or more weekends a month for an activity in the radio room. We can plan on participating in other state QSO parties or any of the many contests that happen on the weekends.

NARS History

During this time back in 1985 is when a few hams got together and thought that there ought to be a club in the Northwest Houston area. So, a committee was made to explore this idea. They had to find a way to invite hams in the area if they wanted to join a club. Back in those days, the ARRL had the addresses of the hams, but they had to be asked if they would give them to this group of Houston hams. Then they had to find a place to have the meetings since the first gatherings were held at different homes of the founding members. They found that they could use the Cypress Creek Emergency Medical Services building but it's now a Ponderosa Fire Department station near 1960 and just east of Kuykendahl Road on Sugar Pine Road. This group of energetic hams had to write the Constitution and Bylaws of this new club using a template from the ARRL. Annual dues were established at $10 per year by the committee. The interim treasurer opened a bank account. A name for the club was a problem since most of the members didn't live in Houston and they decided to call it Northwest Amateur Radio Society. That name was picked since no one could come up with a better one. Happy 40th Anniversary.

To be continued…

Repeater Status and Weekly Net Operations

The NARS Repeater Team has a lot on the menu going forward, to get the latest Repeater Status check out [Northwest Amateur Radio Society - Repeater Status]

Repeater update, August 2025

LBT Repeater (Downtown) - Is off the air (standby).

Klein Repeater – Fully operational with UHF linked to ALLSTAR.

W5NC HUB (Node 59847) – Allstar and Echo links are operational. DMR repeater (K5MAP) is connected.

NARS General Club Meetings

NARS holds monthly club meetings where a variety of topics are presented from a number of guests. Come learn anything from antenna design, to phasing, emergency response, and more!

Who: All club members, friends, or anyone interested in the Amateur Radio hobby

When: The Third Friday of the Month at 7:30pm

Where: HCESD 16 Admin, 18606 Stuebner Airline Rd, Klein, TX 77379
Zoom Conference Call, Meeting ID: 2815436502, Passcode: 123456

Exam Practice

Are you new to the hobby and looking to pass your Technician exam? Are you preparing to level up your license by taking the next level exam? Check out the questions below to test your knowledge!

Technician (Element 2)

T3A09

Which of the following results from the fact that signals propagated by the ionosphere are elliptically polarized?

A. Digital modes are unusable
B. Both the transmitting and receiving antennasmust be of the same polarization
C. Either vertically or horizontally polarized antennas may be used for transmission or reception
D. FM voice is unusable

General (Element 3)

G3A01

How does a higher sunspot number affect HF propoagation?

A. A zero sunspot number indicates undisturbed conditions
B. Lower sunspot numbers generally indicate greater probability of sporadic E propagation
C. Higher sunspot numbers generally indicate a greater probability of good propagation at higher frequencies
D. A zero sunspot number indicates that radio propagation is not possible on any band

Amateur Extra (Element 4)

E7C01

How are capacitors and inductors of a low-pass filter Pi-network arranged between the network's input and output?

A. A capacitor is connected between the input and ground, another capacitor is connected between the output and ground, and an inductor is connected between the input and output
B. Two inductors are in series between the input and output, and a capacitor is connected between the two inductors and ground
C. An inductor is connected between the input and ground, another inductor is connected between the output and ground, and a capacitor is connected between the input and output
D. Two capacitors are in series between the input and output, and an inductor is connected between the two capacitors and ground

See the answers on Page 17.

NARS Membership – Due Dates and More

DID YOU KNOW ?

Did you know that you can find your membership expiration date on the club website? Simply click the "Membership Reports" link on the home page or visit this link Northwest Amateur Radio Society - Membership Roster . Find your name in the list and look at the "Expires" column of the table!

Amateur Radio News

An excerpt from the ARRL News

Current News...

the ARRL website posts recent news on current events, activities, and policies that are taking shape in the Amateur Radio world. The following is an excerpt from their News section.

ARRL Campaign to Pass Amateur Radio Emergency Preparedness Act

ARRL has launched it nationwide grassroots campaign aimed at the passage of legislation that would grant Amateur Radio Operators the same rights to install antennas on their property as those enjoyed by users of TV antennas, wireless internet and flagpoles. The bipartisan bills – H.R.1094 and S. 459 are designed to prevent restrictive homeowner's associations (HOA) rules that currently prohibit or severely limit the installation of amateur radio antennas. "This legislation is about restoring equal rights to licensed Amateur Radio operators," said ARRL President Rick Roderick, K5UR. "These restrictions hinder not only the enjoyment of Amateur Radio, but also its vital role in emergency communication during disasters."

ARRL is calling on its members and all licensees of the US Amateur Radio Service to take action by sending letters to their congressional representatives. Through a dedicated online tool at HOA page - Legislative, amateurs can easily generate and submit pre-drafted letters with a few clicks. Every letter matters!

National Preparedness Month: Use your Ham Radio for Public Service

Amateur radio has long been a vital partner with served agencies in providing communications support, passing traffic, and performing other tasks, both in times of crisis and in times of community service.

The best way to become a part of serving the greater good in your area is by joining your local ARRL Amateur Radio Emergency Service (ARES) group. The ARRL has a tool to help hams get plugged in with a group near them. An interactive map at www.arrl.org/find-an-ares-group will let those interested in serving connect with local leadership.

As September ends, the lessons from National Preparedness Month shouldn't stop with the change of the calendar. As ARRL Sections prepare for the Simulated Emergency Test (SET) in October, being a trained member of a local ARES group will add to your personal, family, and community resilience.

ARRL Launches Dream Station Sweepstakes

ARRL has introduced a sweepstakes that gives members a chance to win an Icom Dream Station, which includes a limited edition IC-7760 HF/50 MHz transceiver, an IC-PW2 amplifier, and a microphone, all donated by Icom America.

Between January 3 and December 31, 2025, full ARRL members in the US have a chance to win an Icom Dream Station.

The sweepstakes is running from January 3 to December 31, 2025 and is part of a year-long campaign to encourage new membership (and a fun way for current members to extend their support for ARRL). The winner will also receive a limited edition Seiko watch celebrating Icom's 60th anniversary.

Participation is open to full ARRL members in the US. Members will automatically earn sweepstakes entries when they 1) join or renew membership (earn 1 entry), 2) set up auto-renewal (earn 2 entries), 3) donate to the ARRL Diamond Club (1 entry earned for every $50 donated). Members can earn up to six entries during the year-long campaign. For more information about the ARRL Sweepstakes and the official rules, visit www.arrl.org/dreamstation.

Hams Needed to Track NASA Moon Mission

NASA is seeking volunteers to passively track the 2026 Artemis II Orion spacecraft as the crewed mission travels to the Moon and back to Earth.

The Artemis II test flight will send NASA astronauts Reid Wiseman, KF5LKT, Victor Glover, KI5BKC, and Christina Koch, along with Canadian Space Agency (CSA) astronaut Jeremy Hansen, KF5LKU, on an approximately 10-day mission around the Moon.

Targeted for no later than April 2026, the mission will rely on NASA's Near Space Network and Deep Space Network for primary communications and tracking support throughout its launch, orbit, and reentry. Ten volunteers successfully tracked the uncrewed Orion spacecraft on it journey thousands of miles beyond the Moon and back, in 2022. One of those volunteers was Scott Chapman, K4KDR. "All I had was a small S-band dish and receiver and wasn't sure what I could or couldn't hear…but when I started hearing the signals…it made everything worth it," he said.

If you're interested in volunteering for next year's event, all of the information can be found at SAM.gov. The response deadline is October 27, 2025 at 5 PM EDT.

ARRL Audio News

Listen to ARRL Audio News, available every week. ARRL Audio News is a summary of the week's top news stories in the world of amateur radio and ARRL, along with interviews and other features.

The On the Air podcast and ARRL Audio News are available thru podcast host Blubrry.com, iTunes, and Apple Podcasts -- On the Air | ARRL Audio News.

Locally, the Spring repeater KA2EEU, on 444.350, broadcasts the Amateur Radio Newsline on Sunday at 4 pm and it broadcasts ARRL Audio News at 7pm on Monday. The NARS repeater, W5NC, on 444.375, broadcasts the Amateur Radio Newsline on Saturday at 10am.

How to Become a Volunteer Examiner

If you're interested in becoming an ARRL Volunteer Examiner it's easy and free. There are three steps to becoming a VE –

1. Review the Volunteer Examiner Manual, paying special attention to Chapter 2. Also review the published manual Supplemental Information
2. Complete and sign the ARRL Application / Open-Book Review (40 questions).
3. E-mail, fax or mail forms to – ARRL VEC, 225 Main St, Newington, CT 06111 USA. You can also fax to 800-594-0339 or email to VEC @arrl.org

Once you are accredited, you'll receive a laminated VE badge to wear at exam sessions and a certificate suitable for framing. You don't have to be an ARRL member to be a VE, but you must include with your application a copy of your accreditation certification if you aren't an ARRL member.

VE sessions can be paper based or computer based (either in-person or remote sessions). Monthly NARS VE sessions are in-person computer based, using ExamTools software. To grade these computer-based exams a VE must go through a short training course on the ExamTool's website. Once completed they will qualify to grade ExamTools based exams.

At VE sessions, VE's may be asked to help with checking in examinees so knowing what IDs are accepted and how payment can be made is important. The current VEC Exam fees are $15 for adults and youth under 18 pay $5. If the examinee fails the exam and wants to re-take it during the session they must pay another fee.

NARS Monthly Club Meeting

September Radio Wave Propagation

The September monthly meeting was presided by Club Vice President Kyle Vann. In addition to a discussion on bylaw changes and the Youth Airwaves Initiative Kyle spearheaded, there was a presentation by Brian Havran, AF5IT, on air wave propagation, or ducting. Havran showed PowerPoint slides to enhance his presentation to NARS members and many great questions were asked during the presentation.

Havran became fascinated with the possibilities of air wave transmission when he was in high school and kept up his interest in radio while earning a BS in electronics technology from the University of Houston. His expertise lies in communication circuits. He is an extra class amateur and a member of KARS, as well as a board member of the Lonestar Safety Fest and a commissioner on HCESD 47.

Also at the meeting were two special guests from the Tomball ISD school board, VP Mark Lewandowski and Secretary John McStravick. Kyle Vann is acquainted with the men through his outreach efforts to promote the Youth Airwaves Initiative and had invited them to come to a meeting and tour the meeting place facilities. They were very impressed with the radio room and the club's antenna setup. Both board members are interested in partnering with NARS to encourage Tomball youth to participate in amateur radio. The future of NARS and amateur radio in general lies in creating a desire in our youth to become more involved in the hobby.

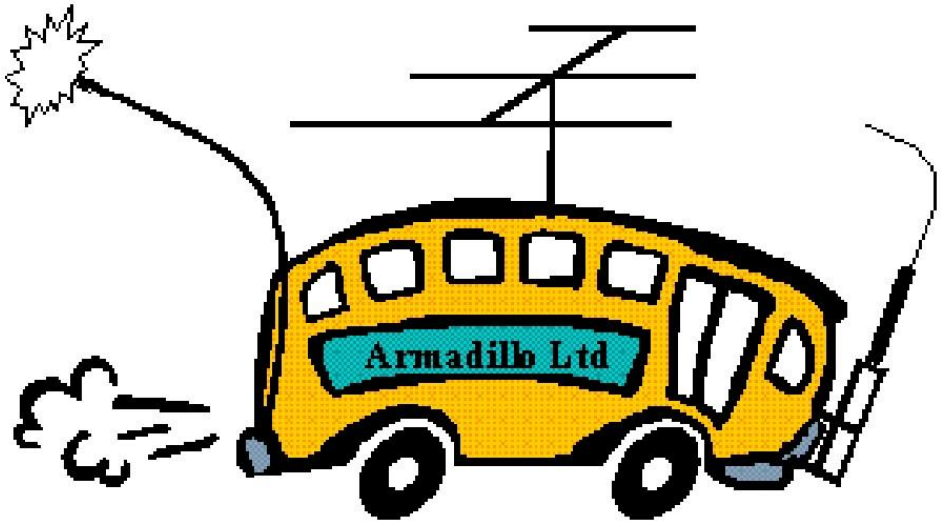
Next Club Meeting

Our next General Meeting will be held on October 17, 2025, at the HCESD 16 Admin Building – 18606 Stuebner Airline Rd, Spring, TX 77379. We hope to see everyone there.

NARS Activities

W5NC Texas QSO Party 2025 by Marty Fitzgerald W5MF

For the first time in club history, a team from NARS participated in the Texas QSO Party, held on September 20-21. With board approval, the club call sign **W5NC** was officially used for this event. Contest categories were Multi-Operator, Mixed Mode and Low Power.



The team of 5, Jerry Davis (N5EKO), Mike Lizzio (WA2TOP), Luke Moore (AA5L), Mark Tyler (K5GQ) and Marty Fitzgerald (W5MF), operated from the Klein Fire Dept Emergency Operations Center (EOC). They used an Elecraft K3 and Yaesu 991A, along with N3FJP logging software and Mosley multi-element beam and End Fed antennas.

The objective of the contest was to make as many contacts as possible during the contest period. Each contact was multiplied by the number of unique Texas counties, U.S. states, Canadian provinces, and foreign countries worked. Mobile stations added to the excitement by activating multiple counties as they travelled.

Results for our team came in at 761 Total Contacts, Multipliers – 134, with a Final Score of 271,814 points. CW contacts were 3 points each, SSB contacts were 2 points each and a Bonus of 1,000 points was awarded for working a mobile station in 11 counties. The team delivered an outstanding performance and is expected to place near the top in their category. Congratulations!

Another TQP Report by Paul Owen N5NXS

For the past nine years I have travelled to Bastrop to activate that county for TQP. Bob, N5KF, and I were based in Bob's shack in McDade, Tx where he has a 75' tilt over tower with a multiple band beam and a HWEF antenna at 70'. I worked 40 meters contacting counties and mobiles, and Bob worked 20 meters, contacting states and Canadian provinces.

This year I contacted 66 counties and one or two mobiles in more than 5 counties, for bonus points. Our team's total score was 104,838 points with NU5DE having 639 phone, 198 digital and 144 multipliers. Only one other station using low power had more multipliers than us.

New Radio for New Hams: Jumpstart Program

Through a partnership with GigaParts, this program is designed to lower the barrier to entry into amateur radio by providing new hams with a high quality radio for **only $17.99 (plus tax and shipping)**. The radio is supplied with an antenna, desktop cradle charger, battery, and belt clip. Effective February 28, 2025, new hams will be entitled to a **70% discount** on the Explorer QRZ-1 VHF/UHF handheld transceiver, as well as a variety of accessories.

The eligible ham must have a QRZ account and be able to log in and apply for the program. Certain types of identification, including a photo ID, will be required. This information is not shared or exchanged with any party and is used only to validate eligibility under this program.

This program is available exclusively to USA licensed amateur radio operators who obtained their first license from the FCC within the last 6 months. The Jumpstart program may be changed or terminated without notice based on availability and corporate sponsors.

How it Works:

1. Apply at https://www.qrz.com/jumpstart
2. Receive your unique discount code from QRZ via email
3. Add a **QRZ-1** to your cart.
4. Add any accessories you may want to purchase.
5. At checkout, enter your unique discount code

NARS Name Badges: Get Yours Today!

Cindy (KM4YGG) and Art (KM4YGH) Grant are offering the club a deal for the NARS club on getting membership name badges.

To order, go to https://badgesunlimitedllc.com/#!/4-2-NARS-CLUB-MEMBERS-ONLY/p/104217140/category=13635038 and pay the fees using the checkout capability on the website.

Amateur Radio Activities

The "Amateur Radio Activities" feature of NARS News highlights various activities related to ham radio. Each issue provides a quick overview for those who may be interested in learning new aspects of the amateur radio hobby. This article with photos is taken from the May 2023 issue of QST.

Surface-Mount Design and Assembly for the Everyday Amateur by Scott Lentz, AG7FF

An easy, inexpensive way to design and build circuits with surface-mount components. For the past 20 years or so, most integrated circuits (IC's) have been available only as surface-mount devices (SMDs). While many through-hole components are still available, they are typically more expensive and much larger than their SMD equivalents. I recently developed an HF CW rig with SMD components, which helped me better understand the SMD design and assembly process.

The Basics

I recommend using the free *KiCad* design suite at www.kicad.org to arrange your SMD. There are many online *KiCad* tutorials, and with practice, you should be able to develop a complex schematic and printed circuit board (PCB) layout within a few hours. Many components are already in the *KiCad* library, but component distributors (Mouse Electronics, Digi-Key, etc) can provide additional symbols and footprints compatible with *KiCad.*

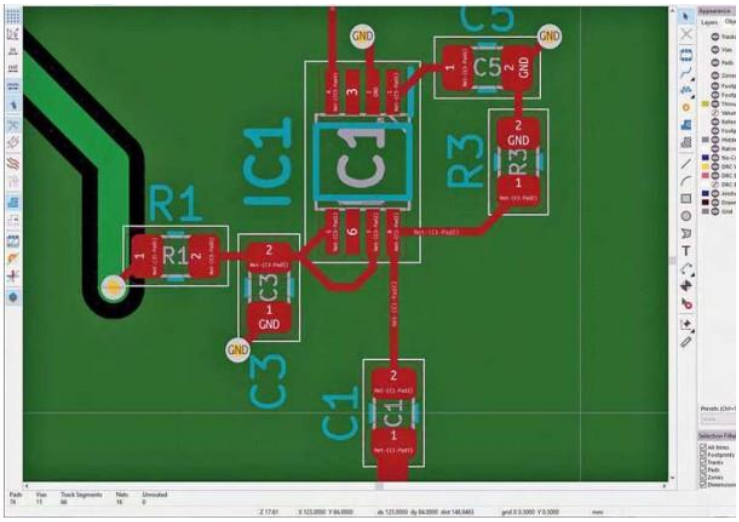


Figure 1 — A screenshot of the *KiCad* PCB design editor. Red traces are on the top layer, and green traces and ground plane fill are on the bottom layer.

In the *KiCad* schematic capture, you can associate symbols with footprints and connect the pins. Footprints include the precise size and shape of the components, solder pads, and stencil openings. Most of your design phase will be spent in the schematic capture. If you arrange your schematic in roughly the same way you plan to lay out your PCB, then footprint placement and trace routing in the PCB design editor will be brief. The PCB design editor allows you to make only connections defined in the schematic. It aids you by highlighting which connections need to be made, so make sure your schematic is correct before moving on to this stage (see Figure 1).

Next, plot the Gerber files to be uploaded to your selected fabricator; each fabricator will have specific upload instructions on their web page. You can compare prices from different fabricators based on board size and quantity at www.pcbshopper.com. The two fabricators I use are JLCPCB (www.jlcpcb.com) , located in China, and US-based OSH Park (www.oshpark.com). Chinese fabricators can be quite inexpensive – sometimes less than $10, including shipping, for five copies of a two-layer PCB sized less

than 100 x 100 millimeters. A US fabricator might ship faster, but it also might charge $5 or more per square inch. Of course, prices vary with the PCB area and number of layers.

You may want to order a stencil, especially if you are using ICs with finely spaced leads. The stencil is automatically generated from the Gerber files generated for the fabricator, so no extra design effort is required. Choosing the thinnest possible stencil will help minimize solder bridges (ie shorts) that can occur due to excess solder paste. I use OSH Park's sister site, www.oshstencils.com, for inexpensive plastic stencils. These typically take less than a week to arrive and cost about $10 each, including shipping.

Assembly

First, apply solder paste to your PCB. I have found that the tin/bismuth/silver-based solder paste manufactured by Chip Quik (part number TS391LT) is easy to use. It requires less heat than other lead-free solder pastes, so it is less stressful on the components and makes rework easier.

If you are using a stencil, tape it down over your PCB on a plastic frame. Then, smear solder paste through the holes and onto the part footprints (see Figure 2). Don't press down too hard, or the paste will get under the stencil and between the holes. If that happens, scrape it off and try again. Figure 3 shows the result of using a stencil. If you don't use a stencil, you can apply a thin layer of solder paste to each pad with the tip that comes with the paste syringe. Place the tip straight up on the board, slightly tilt it to one side, and squeeze the plunger while slowly moving it over the pad (see Figure 4). The *resist*, or surface film between PCB pads minimizes solder bridges, but it may not prevent them. You are more likely to have solder bridges without a stencil, as it is harder to apply the correct amount of solder paste.

SMD components come in plastic or paper strips with a thin plastic film. Peel off the film a little at a time and dump the components out onto your electrostatic discharge (ESD)-safe work mat. Use ESD-safe tweezers to place the components onto the paste. This may be the most difficult part of the process, especially if you don't have steady hands. However, even if the parts are not perfectly placed, they tend to align with the PCB pads while you solder.

Soldering the SMD Components

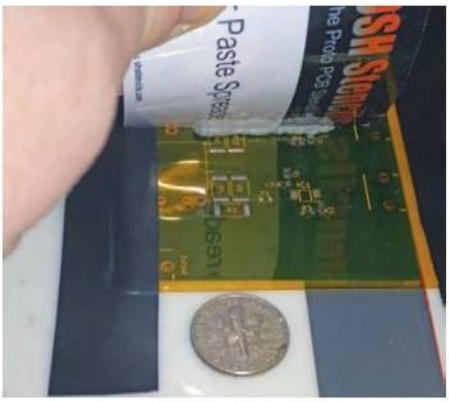


Figure 2 — Applying solder paste through a stencil.

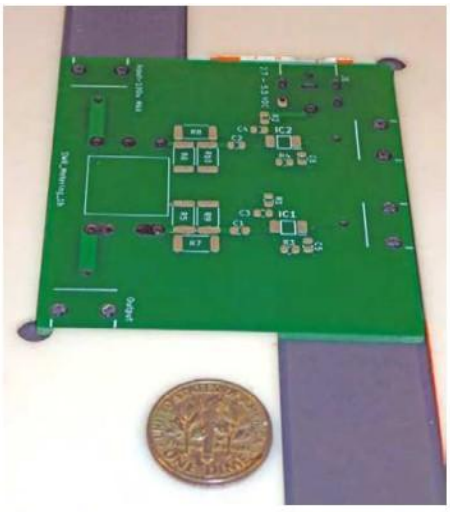


Figure 3 — The stencil-applied solder paste.

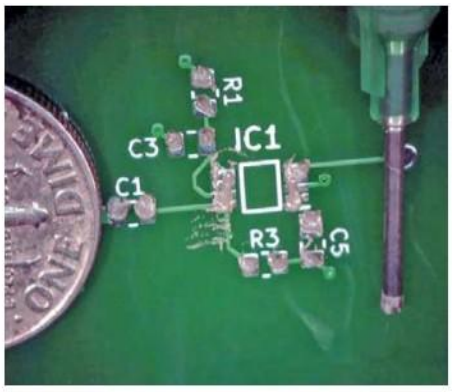


Figure 4 — Syringe-applied solder paste.

To solder larger components, you can buy a hot-air rework station from Amazon for less than $50. But on small boards with many small, crowded components, the hot air often blows the components out of place. I've found that a toaster oven capable of heating to at least 450 degrees F works great for all board sizes with Chip Quik TS 391LT or equivalent low-temperature solder paste. I paid $35 for a 1150 W toaster oven, and another $5 for a digital timer (Figure 5). You may still want a hot-air rework station so you can experiment with different components later.

Figure 5 — The toaster oven soldering station.

Though your results can vary depending on your oven's wattage, the following process closely follows the temperature profile provided by Chip Quik, based on the readout of a termistor taped to a PCB (Figure 6).

Begin by preheating the oven and an aluminum baking plan to 350 degrees F. Remove the pan from the oven and let it cool for a minute so that you can safely handle it. Then, carefully place the PCB on the pan without moving the parts. Place the pan back into the oven and bake for 3.5 minutes for the ramp and soak phases. After this, increase the temperature to maximum – 450 degrees F in my case – and bake for 45 seconds for the reflow phase. Shut off the oven and gently remove the pan to let it cool down. Figure 7 shows the final soldered SMD assembly.

If you use a toaster oven with a different wattage, you may need to test the thermal profile, particularly for the reflow phase. To test PCB temperature, use an unpopulated PCB and a multmeter that has a

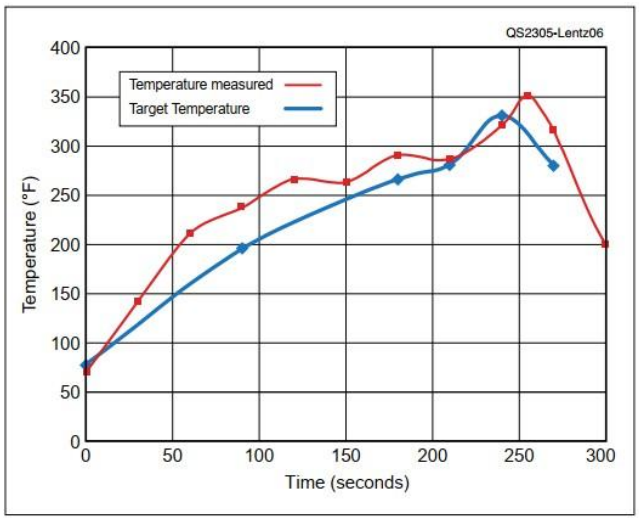


Figure 6 — A graph of the Chip Quik TS391LT recommended soldering temperature profile (blue) versus the measured temperature profile (red). This depicts the PCB surface temperature, not the oven air temperature.

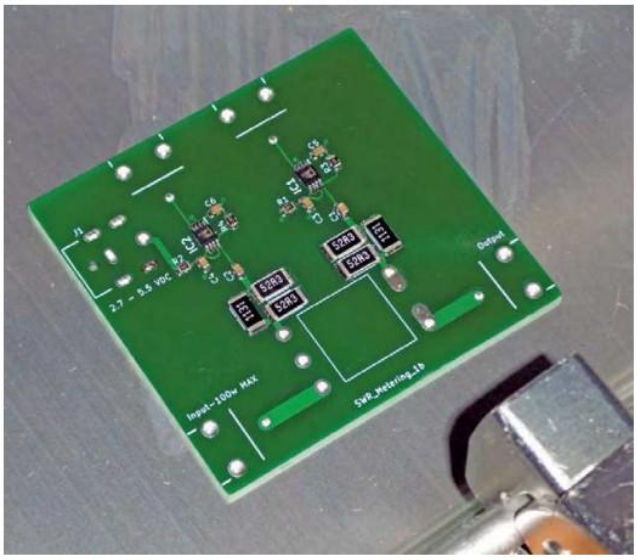


Figure 7 — The final soldered SMD assembly.

thermistor and temperature readout. With tape, attach the termistor to the PCB and measure the temperature every 30 seconds. The ramp and soak phase of 3.5 minutes at 350 degrees F should yield fairly consistent results among varous ovens. For the relow phase described earlier, carefully watch the temperature and record the time it takes for the PCB temperature to reach 350 degrees F. Once you know the reflow stage time, you will need a timer for any future board soldering

Results

That's it for the soldering process. Before applying power to your circuit, use a 10x magnifying glass, a USB microscope, and/or an ohmmeter to confirm that there are no solder bridges, especially between IC pins. If you find any, drag a lightly tinned soldering iron tip (one that is wide enough to cover the adjacent pins) over and away from the pins. This should wick the solder away from the pins. If the solder bridge is substantial, use a desoldering braid to wick away the excess.

Depending on circuit complexity, schematic design and PCB layout normally take me 2-4 hours. The boards typically arrive after 3 weeks, and it takes me less than an hour to apply solder paste, pick and place parts, and bake the board. Up-front costs can total slightly more than $100 for a hot-air rework station, a toaster oven, solder paste, tweezers, and a magnifying glass. Constructing circuits with SMD components does not have to be difficult.

About the author – Scott Lentz, AG7FF, retired from the US Forest Service, where he worked as a fisheries biologist and a communications technician during major fire events. Scott was first licensed in 2003, and his ham radio interests shift every few years. You can contact Scott at scott.ag7ff@gmail.com.

VE Sessions and Results

PROVIDED BY SYNOMEN HEBERT, KG5IRS

Attendees

On Saturday, Sept. 20, 2025, a VE Test Session was held at HCESD 16 Admin, 18606 Stuebner Airline Rd, Klein, TX 77379 in conjunction with Field Day. During the testing session, 3 candidates took 5 tests.

Technician (Element 2)	General (Element 3)	Amateur Extra (Element 4)
3 Passed	1 Passed	0 Passed
3 Tests Given 0 Failed	2 Tests Given 1 Failed	0 Tests Given 0 Failed

Congratulations!

Congratulations to the following for passing their license exams[1]:

- Eathan Finner – new Technician
- Bill (Greg) Shumake – new Technician
- Charles S. O'Neill (youth) – passed Technician and General

Pre-registration for Testing Sessions

To pre-register for an upcoming testing session, you can use the following link:

HamStudy.org page link: https://hamstudy.org/sessions/arrl/77070/inperson
The next session will be October 18, 2025 at the HCESD 16 Admin Building. Please visit Northwest Amateur Radio Society - License Exams for the announcement.

[1] Successful candidates will only receive their **NEW** licenses if they pay the $35 fee to the FCC within 10 days of receipt of their notification emails. They will have to request the ARRL VEC to resubmit their paperwork if they miss the 10-day deadline. They do **NOT** have to retest.

Thanks and Gratitude

Thanks to the Exam VE's in attendance:

- Brett Hebert KG5IQU – session manager
- Synomen Hebert KG5IRS
- A. John Canik KI5YPD
- Robert Ewers K9HOU
- Mike Lizzio WA2TOP
- Benjamin Springs KR1BBT
- Kyle Vann K5KNV

VE Session Guidelines

If you have a temperature or feel ill – DO NOT attend.

Wear a mask if you are not fully vaccinated or feel the need to wear them.

Please send an email to either of the following if you plan on attending the test session:
Brett or Synomen Hebert – vec@w5nc.net

Volunteering and Becoming a Volunteer Examiner

Anyone who wants to observe and/or participate in a session is always welcome. Please let Brett or Synomen Hebert know if you want to learn more about becoming a volunteer examiner.

New & Renewing Club Members

New Club Members

- Richard Hanf, KJ5LLT

Renewing Club Members

Thank you to all the members who renewed their NARS membership this past month:

- James Freeman, WN5BSA
- Beth Kasper, KI5SCM
- Fred Davila, N5BDJ
- David Holden, WJ9O
- Rich Jones, W5VEK

Training and Education

NARS

NARS Meeting Presentations - Northwest Amateur Radio Society - Meeting Presentations

ARRL

ARRL Online Course Catalog - http://www.arrl.org/online-course-catalog

ARRL Emergency Communications Training - http://www.arrl.org/emergency-communications-training

ARRL Webinars - http://www.arrl.org/ARRL-Learning-Network#schedule

Exam Review for Ham Radio - http://www.arrl.org/examreview

Find an Amateur Radio License Class - http://www.arrl.org/find-an-amateur-radio-license-class

Free Study Guides

A study guide for Technician license preparation, Dan Romanchik, KB6NU

A study guide for Technician license preparation on the Inland Empire VHF Radio Club website, Jack Tiley, AD7FO (Click on "Training Links" and go to the Technician training link)

Online Video/Audio Courses

Online Technician license exam self-study course, Fred Benson, NC4FB - The purpose of the resources developed for this course is to provide candidates in geographical areas that do not provide classes and candidates who cannot attend a class with the means to prepare for the Technician license exam. The materials cover all questions in the question pool with explanations, sub element tests, and sample license exams. Help is available upon request via email.

Benson also offers a "kid friendly" self-study course and a self-study program especially designed for emergency services personnel.

"The Ham Whisperer" Video Course, Andy Vallenga, KE4GKP – This course is based on the FCC question pool sequence to assist with Technician license preparation.

A Self-Study Video Course, Dave Casler, KE0OG – This course provides a guided self-study video course based on ARRL's Ham Radio License Manual curriculum.

Online Technician License Preparation Course – Chris Johnson, N1IR

Study Tools

HamStudy.org: Cutting edge amateur radio study tools - Free ham radio flash cards, practice tests, and question pools as well as introduction to ham radio and explanations for questions.

HamTestOnline – Study Tips for the Ham Radio License Exams

HamExam.org - Free Amateur Radio Practice Tests with Flash Cards

eHam.net Ham Radio Practice Exams

Paid Resources

W5YI Group - Your Resource for Ham Radio and Commercial Radio Licensing

HamRadioPrep - Enroll in Ham Radio Prep, the industry's #1 online test prep and training program, and pass your FCC Amateur Radio License exam on the first try - or your money back.

HamTestOnline - Study for your Ham Radio License Exam!

NARS Club Documents and Minutes

Did you know that you can find all of the club's public documents, including board meeting minutes, financial statements, and newsletters on the Northwest Amateur Radio Society - Home website?

Exam Practice Answers

Technician: T3A09 – C. Either vertically or horizontally polarized antennas may be used for transmission or reception

General: G3A01 – C. Higher sunspot numbers generally indicate a greater probability of good propagation at higher frequencies

Amateur Extra: E7C01 – A. A capacitor is connected between the input and ground, another capacitor is connected between the output and ground, and an inductor is connected between the input and output

Of Interest to the Club

Houston Local Traffic Net

The Houston Local Traffic Net (HLTN) was formed July 14, 2020 in preparation for ARRL Field Day 2020. Originally called the Fort Bend County Traffic Net, the HLTN has been in continuous operation since then.

The nets ran on Monday nights for one hour with training sessions during the net. Because of the volume and interest in the Traffic Net, on April 15, 2021 an additional session was added on Thursday nights for 30 minutes and in 2020 the time was increased for up to an hour to also accommodate training.

The Houston Local Traffic Net currently meets from 6:30pm – 7:30pm twice a week handling National Traffic System (NTS) traffic (Radiograms) into and around the Houston Metro area and also includes, time permitted, traffic handling/training.

Monday's net: 146.940 (-) PL 167.9
Thursday's Net: 147.000 (+) PL 103.5

Backup repeater for both: 147.190 PL 123.0

A complete schedule of Area Traffic Nets is located on the HLTN.org 'Nets' web tab with the times and frequencies. Visitors are welcome and encouraged to check-in to listen and learn this important Amateur Radio skill. Direct any questions, via phone or email, about the Houston Local Traffic Net, Radiograms, and Traffic handling to: Sheree Horton WM5N, ARRL South Texas Section Traffic Manager

CENT	UTC	MON	TUE	WED	THU	FRI
8 AM	1300		FAST CODE	SLOW CODE	FAST CODE	SLOW CODE
9 AM-2^{45} PM	1400-1945	VISITING OPERATOR TIME				
3 PM	2000	FAST CODE	SLOW CODE	FAST CODE	SLOW CODE	FAST CODE
4 PM	2100	CODE BULLETIN				
5 PM	2200	DIGITAL BULLETIN				
6 PM	2300	SLOW CODE	FAST CODE	SLOW CODE	FAST CODE	SLOW CODE
7 PM	0000	CODE BULLETIN				
8 PM	0100	DIGITAL BULLETIN				
8^{45} PM	0145	VOICE BULLETIN				
9 PM	0200	FAST CODE	SLOW CODE	FAST CODE	SLOW CODE	FAST CODE
10 PM	0300	CODE BULLETIN				

W1AW Schedule

Morse code transmissions on 1.8025, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675, 50.350, 147.555 MHz

Slow code = practice sent at 5, 7 ½, 10, 13, and 15 wpm

Fast code = practice sent at 35, 30, 25, 20, 15, 13, and 10 wpm

Code bulletins are sent at 18 wpm

Voice transmissions on 1.855, 3.99, 7.29, 14.29, 18.16, 21.39, 28.59, 50.350 and 147.555 MHz.

Digital transmissions on 3.5975, 7.095, 14.095, 18.1025, 21.095, 28.095, 50.350 and 147.555 MHz. Bulletins sent using 45.45-baud Baudot, PSK31 in BPSK mode and MFSK16 on a daily revolving schedule. For more information, visit W1AW at www.arrl.org/w1aw

Calendar

Club Activities and Events

NARS General Meeting – October 17, 2025 - HCESD 16 Admin – 18606 Stuebner Airline Rd, Klein, TX 77379

VE Test Session –October 18, 2025 – 18606 Stuebner Airline Rd, Klein, TX 77379 - Check-in will start at 8:30am with testing lasting from 9:00am - 11:00am. All testing activities will be completed by noon.

The full NARS calendar can be viewed at: https://w5nc.groups.io/g/main/calendar

Social Events

Wed Lunch Break – North

Take a break with fellow radio operators and enjoy a lunch together!

Locations are announced weekly on the NARS email reflector!

Lunch Break – Medical Center

Near the Medical Center and want to take a break with fellow radio operators and enjoy a lunch together?

Watch the NARS email reflector for details!

Saturday Breakfast

Saturdays at 7 am Broken Yolk Café, 16803 Stuebner Airline Road, Spring, TX 77379

Monday Lunch (Taildraggers Lunch)

Mondays at 11 am; Aviator's Grill at Hooks Airport Terminal

Hamfests and Conventions

October 4 | ARRL Hamfest at Cadence Bank Center 302 W. Loop 121 Belton, TX

October 12-17 | RVRN Radio Network Fall Rally, Elmendorf, TX

December 6 | Minden Amateur Radio Christmas Hamfest, 711 Gradney St, Minden, LA

Contests and Radiosport

ARRL Contest Corral

October 2025 - https://www.arrl.org/files/file/Contest%20Corral/2025/October%202025%20Corral.pdf

For a calendar of ARRL contests, please see http://www.arrl.org/contest-calendar.

For resources and results for all ARRL contests, please see https://contests.arrl.org.

For a list of Special Event Stations, please see https://www.arrl.org/special-event-stations

Did you know...

NARS has a social media presence! Thanks to Sam Labarbera, K5FM, we have a Facebook page for those who would like to follow us there. Visit the W5NC Facebook page and join! It is open to ham radio operators, so there is a short quiz to qualify new members.

NARS Club Officers and Information

Board Officers with Voting Privileges

President: Paul Owen, N5NXS, officers@w5nc.net

Vice President: Kyle Vann, K5KNV, officers@w5nc.net

Treasurer: Tom Hoherd, KK5YU, treasurer@w5nc.net

Secretary: Brandon Rogers, K5BLR, officers@w5nc.net

Director: Rich Jones, W5VEK, officers@w5nc.net

Director: Jorge Gutierrez, WK5J, officers@w5nc.net

Committee Team Members

Administrative Secretary: Neal Naumann, N5EN

Social Media Liaison: Sam Labarbera, K5FM

Newsletter Editor: Vicki Owen, AC5EW

Public Information Officer: TBD

VE Team Lead: Brett Hebert, KG5IQU

Repeater Team Lead: Rich Jones, W5VEK

Lead Net Control Operator: Mike Lizzio, WA2TOP

Webmaster: Bill Buoy, N5BIA, webmaster@w5nc.net

Trustee: Paul Owen, N5NXS

Did you know...

that NARS has a messaging service, called Groups.io, that allows you to connect with a giant group of experts, club members, and resources. Get more information on our club website at Northwest Amateur Radio Society - W5NC Groups Email Reflector

Club Nets

The Weekly Tuesday Evening Net - Every Tuesday at 7:00 pm. Join us on one of the W5NC DMR access points:

- Hotspot: Brandmeister NARS Talk Group 3146211 CC 1 Slot 2
- Klein: 440.3000 DMR Repeater CC3 Slot 1
- Droidstar/Dudestar Apps: CC1 Slot 2

The Weekly Wednesday Evening Net - Every Wednesday at 8:00 pm. Join us on one of the W5NC Analog access points:

- NARS Analog Access
- Klein: UHF Analog Repeater 444.3750 Tone 100
- Access points:
  - ALLSTAR: 59847
  - Echolink: W5NC-R

Please be on the lookout for a weekly message from Mike WA2TOP on w5nc.groups.io/g/main for more information.