



The Greensboro Amateur Radio Association

Feed Line

Providing Amateur Radio news for the Triad



Brian Wilson, NX4U, Editor

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Annual Hams Christmas Social

by Jim Hightower, W4JLH

Hello, and early Seasons Greetings to all!

The annual "Ham Radio Christmas Social" will be held on Tuesday December 9th, 2014

The "SOUTHEAST EXPRESS" will provide the musical entertainment.

There is no admission charged for this event. We ask that you bring some canned goods which will be donated to the Greensboro Urban Ministry. You will, of course, pay for your meal.

All amateur radio operators, their families and/or guests are invited. This notice is being sent to the G.A.S. and G.A.R.A. members on my email list and there may be some newer Hams who will not be notified. So, please mention this event to ... ham who you think may not know about it.

Mark your calendar for.....



see Party, page 10

This Month's Program

Our November Meeting will be held on Monday, November 24th at 7:15 pm in Captain Bills Seafood & Steakhouse located at 6108 West Market Street in Greensboro. Come early have dinner and catch up on the latest club info, gossip, and connect faces to call signs.

There is no presentation topic for this month. November is GARA's annual elections. After the voting, there will be an open meeting. If you could not get to the meeting early this will be an excellent time to catch up on the latest club info, gossip, and to meet/congratulate the newly elected club officials.

Some reminders:

- The annual "Ham Radio Christmas Social" is being held on Tuesday Dec. 9th at Bonnie Kay Seafood Restaurant, 22 Spur Rd, Greensboro. If you plan to attend, you need to reply to Jim Hightower by November 30th. His email address is w4jlh@bellsouth.net.

- GARA's 2015 membership is due by January 1, 2015. You can pay your dues at any meeting. GARA now accepts credit cards, checks, or cash.

- GARA has new name badges; you can get yours at any meeting.

- If your ARRL membership is up soon or you want to join ARRL, you can do it through GARA. Renewal/ Join forms are available at this meeting. Craig Bondy, N8STA, GARA's treasurer will have the forms with him.

- Don't forget GARA's Technical Forum held every Sunday night at 7:30 pm, and GARA's News and Information Net every Sunday night at 9:00 pm.

NEXT MEETING Monday, November 24

The next meeting of the Greensboro Amateur Radio Association will be Monday, November 24th, at Captain Bill's Seafood & Steakhouse, 6108 West Market Street, Greensboro, NC 27409, between Guilford College Road and Swing Road. There is no program for this month's meeting since it is our annual elections. There will be a time of open discussion following the elections.

GARA Meeting Minutes

Regular Meeting Minutes October, 2014

The Greensboro Amateur Radio Association held their monthly meeting on October 27, 2014, at Captain Bills Seafood Restaurant located at 6108 West Market Street in Greensboro. Tom Bertolino, KB1P, called the meeting to order at 7:15pm. Tom asked that every one identify themselves.

CLUB BUSINESS and OFFICER REPORTS

Tom spoke about the officer elections which are coming up at the November meeting. He also recognized the veterans in attendance.

Cameron Conover, AJ4TW, said they are still working on the new website. Contact Cameron if you have any ideas for the new website. You can email him at aj4tw@arrl.net

Craig Bondy, N8STA, said that we have 92 paid members.

Todd Smith, AK4TS, said that dues will be due soon.

Roy Smith, N4BYU, said if you hear some one make a call on the repeater go back to them even if you can't talk long. Roy spoke about VE testing.

Weldon Fields, W4AJT, suggested a program on proper operating procedures. Tom said that we will have a presentation soon.

David Macchiarolo, AJ4TF, said he plans to do some testing on the D-Star repeater soon. David said his work schedule is very busy, and he will have to step down as engineering chairman.

Tom spoke about upcoming events.

Jim Hightower, W4JLH, spoke about the Ham Christmas social which is coming up on December 9th at 7:00pm. It will be held at Bonnie Kay Seafood on Spur Road. Please RSVP by November 22nd

Roy Smith, N4BYU, made a motion to support the N4G special event station again for 2015. Chan White, KJ4ADX, seconded, and the motion passed.

Nate Moreschi, N4YDU, gave the presentation on his experience at the World Radio Sport Team Championship he recently competed in.

Todd Smith made a motion to adjourn, Scott Toth, KV4UP, seconded and the motion passed.

Respectfully submitted by Greg Spencer, KG4UQV, GARA Secretary.



The Greensboro Amateur Radio Association

President Thomas Bertolino, KB1P
Vice-President Cameron Conover, AJ4TW
Treasurer Craig Bondy, N8STA
Secretary Greg Spencer, KG4UQV
Financial Todd Smith, AK4TS
Engineering Chair David Macchiarolo, AJ4TF
Operations Roy Smith, N4BYU
Member-at-Large Fred Lomax IV, KV4PI
Member-at-Large Jesse Lindley, K4AX
Appointed Position:
Webmaster & Newsletter Editor
Brian Wilson, NX4U

The Feed Line is ©2014 by the Greensboro Amateur Radio Association and published monthly. Our address is P.O. Box 7054, Greensboro, NC 27417. The purpose of the newsletter is to provide the club and prospective members information about the club and amateur radio in general. Material and information should reach the editor by the first Friday of the month for the next edition of the newsletter. Opinions expressed in "The Feed Line" do not necessarily represent the views of the officers, directors, editor or members of the Greensboro Amateur Radio Association. Material may be reproduced, provided proper credit is given to GARA.

Board Meeting Minutes - October, 2014

The GARA board of directors held their monthly meeting on November 11th 2014 at Captain Bill's seafood. The members present were; Tom Bertolino, KB1P; Jesse Lindley, K4AX; Craig Bondy, N8STA; and Greg Spencer, KG4UQV. Layman Idol, KK4LLY, was visiting with us tonight.

Tom called the meeting to order at 7:04pm.

Tom stated that he received conformation from the IRS that our application for 501c(3) status was received. Tom said the club will have to amend the bylaws to include a procedure indicating who is responsible for filing the tax return.

Tom said that the Boy Scout Merit Badge College is still on schedule.

Jesse said that GARA's FaceBook account is up and running as well as Twitter and Sound Cloud.

The website committee is making progress on our new website and within the last two weeks a new theme was approved by the board via email.

Craig gave the treasury report.

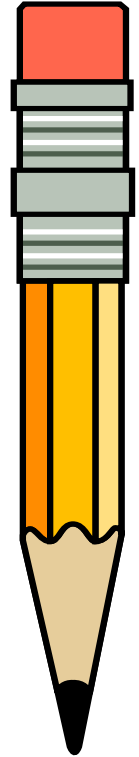
David had sent the engineering report in via email, and Tom outlined some of what was done during a recent visit to the tower site.

The board discussed scheduled events.

Tom went over the list of officer nominations.

The meeting ended at 7:38pm.

Respectfully submitted by Greg Spencer, KG4UQV, GARA Secretary.



2014 SKYWARN Recognition Day December 6th

SKYWARN Recognition Day (SRD) was developed in 1999 by the National Weather Service and the American Radio Relay League. It celebrates the contributions that volunteer SKYWARN radio operators make to the National Weather Service (NWS). On SRD, SKYWARN operators visit NWS offices and contact other radio operators across the world. Information regarding SRD is found at www.wrh.noaa.gov/mtr/hamradio/.

The NWS recognizes the importance that amateur radio provides during severe weather. NWS offices acquire real time weather information from amateur radio operators in the field. These operators, for example, may report the position of a tornado, the height of flood waters, or damaging wind speeds during hurricanes. All of this information is critical to the mission of the NWS which is to protect life and property. The special event celebrates this special contribution by amateur radio operators. For more information, contact Dan Reilly at (281)337-5074 extension 223 or by e-mail at dan.reilly@noaa.gov



From the President's Shack

Well, it's November. Where did the year go? It seems as I get older the years get shorter. It feels as if it was just a couple a months ago that I was elected as GARA's president and stated in my January president's letter, "During the year you will see some changes in the way GARA does business." It is time for an end of the year update.

- GARA changed the phone service for the repeaters from AT&T to Basic Talk. The savings to the club was just over \$40.00 per month.
- You can now pay your club or ARRL dues by credit card at a general meeting.
- GARA has applied for 501(c)(3) certification (Federal non-profit status). The application was received at the IRS on Nov 3, 2014. We should hear something back from the IRS in 90 to 180 days.
- GARA is now on Facebook, Twitter, Google+, YouTube and Sound Cloud.
- The club now has Name Badges.
- The new website should be up and running sometime after the beginning of the year.

I want to thank the current board members and the club members who volunteered this year for donating your valuable time and effort to help make this a successful year.

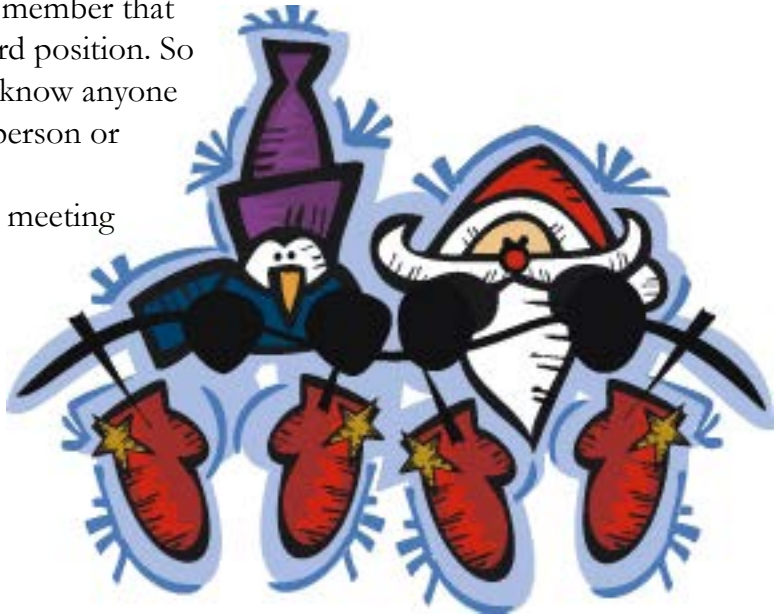
As I alluded to in the first paragraph, November is the month that GARA holds its annual elections. All the board positions are open. If you do not like the direction GARA is heading or you want to be part of the way GARA is managed, this is your chance to be part of GARA's Board. Any GARA member can nominate any GARA member that holds an amateur radio license for any board position. So if you want to run for a board position or know anyone who wants to run, you can nominate that person or yourself during meeting.

Just a reminder! There will be no club meeting and Feed Line in December.

Since Thanksgiving is the traditional start of the holiday season. I would like wish all; a Happy Thanksgiving, Happy Hanukkah, Merry Christmas and a Happy New Year, or if you prefer Happy Holidays.

If you are driving to visit family and friends for the holiday season please drive safely.

This is also time of the year when most of our men and women in the armed forces (who are not deployed) return home to celebrate the holidays with their family and friends. So if you see a uniformed service member, please take the time to thank them for their service.



Tom Bertolino, KB1P

President, GARA

November, 2014

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Congratulations! You Passed!

Every month on the second Saturday, except in March when it is the third Saturday, W4VEC holds a testing session for those who live in the area. This provides an opportunity for individuals to be able to test for their amateur radio license or upgrade. Thanks to Roy Smith, N4BYU, and a group of volunteers, each month there are new or upgraded hams in our area.

In November, there were two(2) who passed their test(s), and earned either their Technician, General or Extra class license.

Next month's testing session will be on December 13th at Hinshaw United Methodist Church, 4501 High Point Road, Greensboro, 27407, at 9am. While walk-ins are welcome contacting the lead VE is preferred. Please contact Roy Smith at (336) 312-0647 or by email at n4byu@arrl.net

If you cannot make it to this test session, W4VEC holds a second test every month in this area. Test sessions are held at 10am on the last Saturday of each month at the Red Cross High Point Chapter, 815 Phillips Ave., High Point, NC 277262. Walk-ins are welcome. Contact information is Bob Williams, KB4TWG, email robwilliams@northstate.net, phone (cell), 336-812-5500.

Photos Courtesy of Tom Bertolino, KB1P, and/or Roy Smith, N4BYU



***Eric Whitehead - KM4FTP
Passed Tech***



***Robert Nichols - KM4FTQ
Passed Tech and General***

W4GSO - The Call Sign

Last month GARA received an email from Kenny Austin from Williamson, GA. Kenny's father, Albert (Al) Austin (September 13, 1918 – December 25, 1975) was an amateur radio operator who received his license in the 30's. Al's call sign was W4GSO. Kenny went on to say that far back as he can remember he can hear his father sending his call sign W4 George Sugar Oboe. Kenny has his father's log books and mentioned an entry made on December 7, 1941, "War is Declared" and another entry, "Peace is Declared".

Kenny thanked us for carrying on his father's call sign in a proud way.

I asked Kenny if he could send us some more information about his father. The following paragraphs is his reply.

Tom Bertolino, KB1P



Sorry it has taken so long to get back to you. I will apologize in advance about the picture of dad. Since he died so long ago, there are not many good pictures of him. The picture I am sending was taken as his health really began to go south. Also, I told you that my brother who would be my greatest source of info on dad has been admitted to a home due to Alzheimer's. I actually took dad's mike to show him to see if it would just spark a small memory. However, I ran across a letter my brother sent to my two boys so he could tell them about the grandfather they never got to know.

So, here is the story:

Albert Marion "Al" Austin was born on September 13, 1918 in Winder, Georgia. He was named after his uncle, Albert Marion Austin, a private in the 30th Infantry, 3rd Division, who was killed in WWI. Dad and his brother, William Ralph Austin, were left as orphans after their mother died in 1923 and their father died in 1924. They were sent to The Methodist Children's Home in Decatur, Georgia where they lived until Dad was in the 8th grade. Their uncle pulled them from the children's home to take them to work on his farm in Statham, GA. Dad and his brother both joined The Civilian Conservation Corp (CCC) and that is where dad learned his radio career, earning his HAM Radio License as a teenager. When WWII broke out, dad was rejected from serving in the Army due to respiratory problems, an affliction that was present all the way to his death. However, he was hired as a civilian radio instructor, assigned first to Fort McPherson and then to Fort Benning. It was at this point that he met Polly Nell Greer from Covington County, AL. They were married on September 6, 1941. He was later transferred to Fort Jackson, SC.

When the Allies planned their invasion of North Africa, they began sending planes across the Caribbean to South American and on to Africa. Dad was sent to San Juan, Puerto Rico to communicate with pilots en route. He could read Morse Code on earphones and type 65-70 words per minute. After the war, dad went to work with the Civil Aeronautics Administration in Evergreen, AL, transferred to Dothan, AL, attended the CAA Center in Oklahoma City, OK and then transferred to the Knoxville, TN airport. With the constant turmoil, he was transferred to Pensacola, FL, back to Dothan, to Tampa, FL, and back to Dothan before finally ending up in LaGrange, GA in 1958. Along the way, there were four boys born. Wayne, in Columbia, SC in 1941, Tom, in Andalusia, AL in 1946, Ron, in Dothan, AL in 1949 and finally, Kenny in Pensacola, FL in 1952.

In LaGrange, Dad was the Supervisory Electronics Technician at Callaway Airport in LaGrange, GA. He was responsible for the operation and maintenance of 3 microwave repeater stations in Lafayette, AL, West Point, GA and Luthersville, GA. After more than 30 years with the CAA/FAA, dad had to retire due to health reasons, and he died on Christmas Day, 1975. Our mom, Polly Austin, died on May 19, 1975.

You know more about his career now, but now I'll speak of his character. Al Austin was a well-respected man in his work family, a committed member of his church wherever he lived, a friend to everyone, but, for his boys, he was a real life inspiration. He taught us how to show respect for our mom and respect for all around us, regardless of differences. As the youngest, at 62 years old, there is not a day that goes by that I still use the character traits he instilled in me. How I wish that he would have been able to enjoy influencing the lives of the grandchildren that have been born.

Al Austin was a tremendous person and it is my sincere hope that your HAM Radio Organization will continue honor the legacy of W4GSO, W4 George Sugar Oboe!

I send my warmest regards to your organization from Wayne and Linda, and their daughters, Laura and Amanda, Tom and Betty, and their daughters, Kathryn and Karen, Ron and Alena and Kenny and Jennifer and our boys, Cliff and Walt.

Kenny Austin



Engineering Update for November, 2014

From David Macchiarolo, AJ4TF

I hope everyone is doing well, and getting some good DX stations. As I reported last month, this will be my last monthly column as the chair of the GARA Engineering committee, after nearly 4 years of doing this. It's time to give someone else a chance to perform an interesting duty for the club. My primary interests in the ham radio hobby are the technical aspects of radio, radio propagation and electronics, so you may still see the occasional article from me in those arenas. And, I am still planning the N4G special event station for next March.

* UHF (D-STAR) REPEATER

We are still operating on the borrowed power amplifier, and it is still working well.

On Friday, October 31, 2014, myself, Arch, KT4AT, and Tom, KB1P, visited the W4GSO repeater site with the intent to measure receive sensitivity of the W4GSO D-Star repeater after some reports of perceived decreased performance.

Test Procedure:

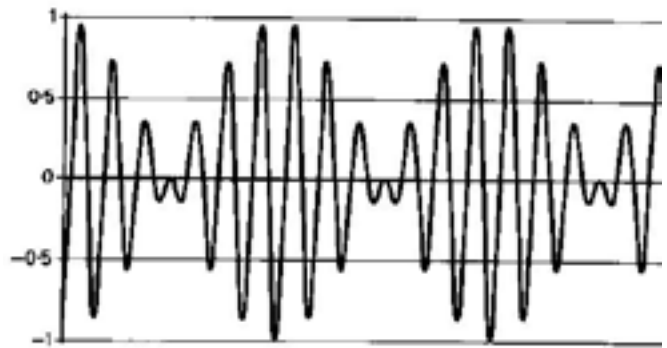
Using a calibrated HP synthesizer, we injected a 442.8625 MHz carrier directly into the preamp input of the receiver, and verified that the reported RSSI (received signal strength indication) is within approximately 0.5 dB of the calibrated levels.

We then used Arch's "D-Star Generator" which is a triple-shielded IC-91 in a box, with a step decade attenuator on the output which allows varying signal levels to be applied. This box was connected to the preamp input to determine the sensitivity of the receiver. The repeater correctly decoded transmissions 100% of the time at -120 dBm, about 75% of the time at -124 dBm, and the limit of performance was about -126 dBm. This was the same performance as had been recorded when the unit was installed 6 years ago.

We then connected the D-Star box to the feedline input at the repeater cabinet, and repeated the above test. The duplexer, bandpass filter, and jumpers & connectors associated with them have about 2 dB of loss, which is as expected.

We then proceeded to measure desense. We connected the antenna back up, and monitored the noise floor of the receiver while the transmitter is off, and while it is on. The noise floor is -134 dBm with the transmitter off, and -127 dBm while it is on. So there is about 7 dB of desense. While this isn't what you want to see, it is still 1 dB below the decode sensitivity threshold of the radio, which is -126 dBm as measured above.

To locate where the transmitted power is getting back into the receiver, we disconnected the antenna feedline at the entrance to the equipment shelter on the ground. At this point is a Polyphaser gas tube lightning protector. Sometimes those can go bad and cause desense or intermod.



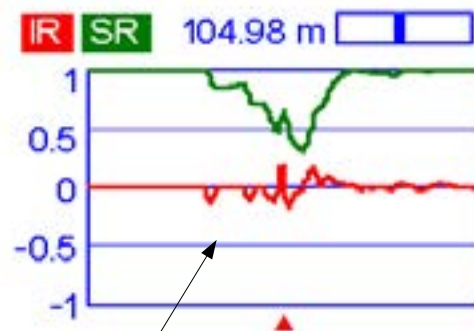
Engineering (continued from page 7)

We connected a dummy load outboard of the Polyphaser and keyed the transmitter. The noise floor of the receiver remained steady at -134 dBm. This shows that the duplexer, bandpass filter, connectors, and jumpers on the ground are NOT the source of the desense. The transmitter power into the tower feedline is approximately 60 watts which is as it should be.

On Friday November 14th, we returned to the site with a spectrum analyzer to look at the receiver noise floor with the transmitter on to see if the noise floor increase is broadband or due to intermodulation products. Connecting the spectrum analyzer to the receiver input (on the output of the preamp) we first scanned the spectrum from 10 MHz to 1 GHz looking for any unusual signals. The only thing we saw was a small (-90 dBm) signal at 541 MHz, which is probably CATV leakage in the area. We then keyed the transmitter while watching the receive input frequency, and, yes, we could see the increase on the noise floor as we suspected from our earlier measurements. However, the frequencies observed were random and intermittent, which probably isn't due to intermodulation. We lowered output of the MASTRII power amplifier to about 20 watts, and observed the same (although at a reduced level) elevated noise on the receiver input. To further rule out the ground equipment, we then bypassed the MASTRII power amplifier and set the RP4000 transmitter radio to its maximum power output (around 20 watts), and observed the desense was still present. We even swapped in a borrowed duplexer that Arch had in his shop, tuned to the repeater frequencies, and observed the same desense.

Lastly, we put everything back together, and applied my newly-acquired RigExpert AA-600 antenna analyzer to the feedline. [In case you are not familiar with this instrument, it is a pretty nice piece of engineering: <http://www.rigexpert.com/index?s=aa1000>]. The measured SWR at 442 MHz was 1.04:1. I then switched the instrument to TDR (time domain reflectometer) mode. In this mode, the instrument sends a series of frequencies (a set of impulses in the frequency domain), measures the reflected results, and does an Inverse Fourier Transform on the results to display a graph of reflection coefficient vs. distance. Any impedance mismatches are visible as either positive or negative disturbances in the reflection coefficient. Our main reason for doing this was to see if there was anything visible near the base of the tower where the feedline has a single splice in it. We did not observe any discontinuities in the reflection coefficient until the distance reached approximately 106 meters, which is where the antenna is, where we could see some fluctuations in the reflection coefficient.

Reflection Coefficient vs. Distance
W4GSO UHF Antenna and Feedline



This is the approximate location of the end of the feedline and the antenna, just over 100 meters from the beginning of the feedline

see Good News, page 9

Good News (continued from page 8)

The conclusion after the measurements of October 31 and November 14 is that something outside (on the tower feedline at the antenna) is causing approximately 7 dB of receiver desense. It is possible that a connector has gotten moisture in it over the nearly 10 years that this antenna has been on the tower. Since the tower feedline is spliced (no connectors) all the way up to the antenna, the only connector is at the antenna itself (about 300 feet above the ground).

The good news:

All of our radio equipment, repeater controller, RF hardware, preamp, duplexer, bandpass filter, and lightning arrestor is performing as specified. In other words, everything on the ground appears to be good. The desense, while not desired, is still maintaining the noise floor below the decoding threshold of the receiver.

The bad news:

Any repairs of this condition will require a tower climb. This would have to be coordinated with the site owner, and would likely cost the club \$2000 - \$3000 minimum, unless we could coordinate with another service mission for one of the other antenna owners on the tower. Due to liability issues, the site owner does not allow amateur tower climbers on their tower, only professionals. We have contacted the site owner and asked that they contact someone on the GARA Board whenever they know of any planned tower climbing missions in the future.

A few weeks ago, while on a trip to Asheville, NC, I tested the receive capability of the repeater along with W4CMK. I was able to converse with him with minimum dropout nearly to the Tanglewood exit (west of Clemmons, NC) on I-40. This is approximately 32 air miles from the repeater. The elevation profile shows significant terrain between these two points as well. On the east side, I have been able to successfully use the repeater east of Mebane, just before the 40/85 split, which is about 38 miles from the repeater. The elevation profile in this direction is better, with the repeater being about 80 meters higher. Both of these extremes were performed with an ICOM ID-880 at 50 watts, with a Diamond NR770 dual band antenna.

* VHF REPEATER:

While we were at the site on October 31, we also inspected the antennas with a 60x spotting scope (courtesy of KB1P). There were no obvious signs of damage to either antenna or feedline, however we can see that a portion of the VHF repeater feedline has broken loose from the tower for a short ways; one of the tie-wraps has come loose. It does not appear that this feedline is causing any strain to the antenna connection. This would be something else that would have to be inspected and repaired by a professional tower climber.

The club has an on-line problem reporting system that is available to members to submit reports of repeater operation or any other concerns. You can find this on the club web site.



see VHF, page 10

VHF (continued from page 9)

To read more about different types of antenna analyzers and how they work, this is an informative article: <http://www.rigexpert.com/index?s=articles&f=aas>

ARRL also has a short Youtube video that has some comparisons of various types of analyzers at <http://www.youtube.com/watch?v=iHEHqRazv-g>

For a demo on a similar product, check out the videos made by M0VST (in four parts:) <http://www.youtube.com/watch?v=WNFMqAGYvYM>

From the RigExpert AA-600 manual comes the manufacturer's explanation of how this instrument performs Time Domain Reflectometry: "Time domain reflectometers are electronic instruments used for locating faults in transmission lines. A short electrical pulse is sent over the line, and then a reflected pulse is observed. By knowing the delay between two pulses, the speed of light and the cable velocity factor, the DTF (distance-to-fault) is calculated. The amplitude and the shape of the reflected pulse give the operator idea about the nature of the fault. Unlike many other commercially-available reflectometers, RigExpert AA-600 does not send pulses into the cable. Instead, another technique is used. First, R and X (the real and the imaginary part of the impedance) are measured over the whole frequency range (up to 600 MHz). Then, the IFFT (Inverse Fast Fourier Transform) is applied to the data. As a result, impulse response and step response are calculated. This method is often called a 'Frequency Domain Reflectometry', but the TDR term is used since all calculations are made internally and the user only sees the final result."



As always, if you have any questions or concerns about your club repeaters, either VHF or D-Star, please contact anyone on the GARA board. But not me after December!

73 from the GARA Engineering Committee!

Party (continued from page 1)

Ham Radio Christmas Party: Tuesday, December 9th at 7:00 p.m.

Bonnie Kay Seafood Restaurant

222 Spur Road , Greensboro , NC 27406

(The event will be in the private room on the right side of the building).

Directions to the restaurant: South on Randleman Rd. from I-40 to the flashing caution light which is just past where Elm-Eugene intersects, turn left on Spur Road and the restaurant is ¼ mile on right.

Please respond to this message by November 30th with a number in your party so I can notify the restaurant of the number to expect at the event.

Thanks & 73, Jim

November, 2014

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Calendar of Events

- Nov 29 VE Session (Red Cross Building, High Point)
- Dec 8 GARA Board Meeting
- Dec 9 Ham Radio Christmas Social, Bonnie Kay Seafood Restaurant, 22 Spur Rd, Greensboro
- Dec 13 VE Session (Hinshaw United Methodist Church, Greensboro)
- Dec 27 VE Session (Red Cross Building, High Point)
- Jan 10 VE Session (Hinshaw United Methodist Church, Greensboro)
- Jan 12 GARA Board Meeting
- Jan 26 GARA General Meeting (Captain Bill's Seafood & Steakhouse, Greensboro)
- Jan 31 VE Session (Red Cross Building, High Point)
- Feb 9 GARA Board Meeting
- Feb 14 VE Session (Hinshaw United Methodist Church, Greensboro)
- Feb 23 GARA General Meeting (Captain Bill's Seafood & Steakhouse, Greensboro)
- Feb 28 VE Session (Red Cross Building, High Point)
- Mar 9 GARA Board Meeting
- Mar 13 Charlotte Hamfest (N C Section Convention, Concord, NC) www.charlottehamfest.org
- Mar 14-15 N4G at Guilford Courthouse National Military Park (GCNMP), Greensboro
- Mar 21 VE Session (Hinshaw United Methodist Church, Greensboro)
- Mar 23 GARA General Meeting (Captain Bill's Seafood & Steakhouse, Greensboro)
- Mar 28 VE Session (Red Cross Building, High Point)
- Apr 4 NC State Convention (43rd Annual RARSFest Raleigh, NC) <http://www.rars.org/rarsfest>
- Apr 11 VE Session (Hinshaw United Methodist Church, Greensboro)
- Apr 13 GARA Board Meeting
- Apr 25 VE Session (Red Cross Building, High Point)
- Apr 27 GARA General Meeting (Captain Bill's Seafood & Steakhouse, Greensboro)
- May 9 VE Session (Hinshaw United Methodist Church, Greensboro)
- May 11 GARA Board Meeting
- May 16 GARA Picnic, Hagan Stone Park, Shelter #5
- May 25 GARA General Meeting (Captain Bill's Seafood & Steakhouse, Greensboro)
- May 30 VE Session (Red Cross Building, High Point)

This purpose of this calendar to provide information on events in and around our area that might be of interest to our readers. As you might expect, there are many more events (public service, hamfests, flea markets, etc.) taking place in North Carolina and around the Greater Greensboro Area. If you know of an event that would be of interest to our readers, please contact Tom, KB1P at kb1p@arrl.net.

Area Happenings

FOURTH MONDAY – at 6:30pm, the Greensboro Amateur Radio Association have their regular monthly meeting at Captain Bill's Seafood & Steakhouse, 6108 West Market St., Greensboro, NC 27409. Please plan to gather at 6:30pm for dinner. The meeting is scheduled to start at 7:15pm

CLUB NETS:

SUNDAYS – at 7:30pm, the **Technical Forum** on the 145.150;

- at 9pm, the **GARA News and Information Net**. This net features *NewsLine* and is on the 145.150, W4GSO repeater. Roy Smith, N4BYU is always looking for net controls. Contact him if you would like to help.

TUESDAYS – at 8:30pm **The Triad SkyWarn Net** meets on the 147.225, K4ITL repeater, no tone required.

TUESDAYS – at 9pm, the **D-STAR Net** meets on 442.8625 (W4GSO B and Reflector 54C)

WEDNESDAYS – at 8:30pm, **The Guilford Amateur Society Rag Chew Net** holds their weekly net on the 145.250, W4GG repeater with an 88.5 Hz. tone. Jim Hightower, W4JLH is the net control.

THURSDAYS – at 9pm, The **Guilford County ARES Net** meets on the 145.150 repeater (100 Hz. tone).

OTHER ACTIVITIES :

FIRST MONDAY – The **Guilford County A.R.E.S.** monthly meeting is held at 1002 Meadowood St. off W. Wendover Ave, in the EMS building, beginning at 7pm.

THIRD MONDAY – at 6:15pm **The Guilford Amateur Society** holds their monthly meeting at Tex & Shirley's Restaurant in Friendly Shopping Center. Eat at 6:15pm and the business meeting begins at 7pm.

THURSDAY – at 11:15am, Greensboro Hams get together for lunch. Thursday lunch group is meeting at the K&W Cafeteria, 300 Forum VI Mall at Friendly Shopping Center. Talk-in is on the 145.150, W4GSO repeater with a 100 Hz. tone.

EVERY FRIDAY – at 8pm (approximately) Greensboro Hams get together for coffee at Starbucks at Edney Ridge Rd.

The W4VEC Testing Schedule Dec. 2014 to Apr. 2015

Dec. 13, 2014

Jan. 10, 2015

Feb. 14, 2015

Mar. 21, 2015

Mar. 11, 2015

Location: Hinshaw United Methodist Church, 4501 High Point Road, Greensboro, NC 27407,

Time: 9:00am

Contact: Roy Smith

Phone: (336) 312-0647

E-mail: n4byu@arrl.net

GARA REPEATERS

145.150 MHz - offset, 100 Hz. tone

442.8625 MHz. + offset, Digital D-Star



Greensboro Amateur Radio Association

P.O. Box 7054

Greensboro, NC 27417

www.w4gso.org

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