



The Greensboro Amateur Radio Association

Feed Line

Providing Amateur Radio news for the Triad



Brian Wilson, NX4U, Editor

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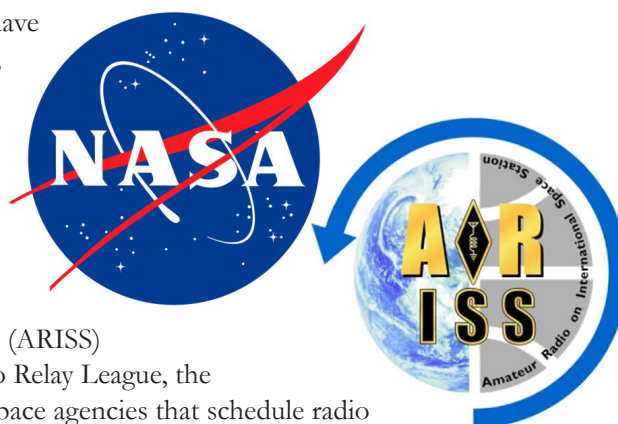
Guilford County Schools Press Release

By Laurie Hogan, Guilford County Schools Media Desk

McNair Elementary Plans to Speak with Astronauts Via Amateur Radio McNair will host a live Q & A session with the International Space Station this spring

Greensboro, N.C. – McNair Elementary students will have the chance to walk in the footsteps of their school's namesake, astronaut Ronald McNair, as they get the rare opportunity to talk directly with crew members on the International Space Station. Guilford County Schools (GCS) announced today during a ribbon cutting for the new school that students will make contact with astronauts via amateur radio this spring.

The event, tentatively scheduled to take place the week of April 29 based on the space station's orbit, is coordinated through the Amateur Radio on the International Space Station (ARISS) program, a cooperative venture of NASA, the American Radio Relay League, the Radio Amateur Satellite Cooperation and other international space agencies that schedule radio contacts between astronauts and schools.



This Month's Program

Our February Meeting will be held on Monday, February 25h at 7:00 pm in Captain Bills Seafood & Steakhouse located at 6108 West Market Street in Greensboro. Topic for the night is "Coaxial Cable Theory & Practice." The presenter will be David Macchiarolo, AJ4TF. David will present a short history of co-ax cable, the theory behind it, how you can apply the theory, and where you can find more information about co-ax cable. He will also be available to answers any of your questions on co-ax cable. This is a chance to ask those questions on which co-ax cable is best for my situation or explain on how you solved your co-ax problems.

During the business part of this meeting the association's membership will vote on adopting the revised GARA "By Laws". You should get an email before the meeting from GARA's Board of Directors which will include a draft copy of the proposed changes to the "By Laws". Please review it before the meeting.

Also February is the start of our "Join /Renew ARRL through GARA" Campaign. You should also get and e-mail from GARA explaining the drive and an application form. If you chose to join/renew through GARA please bring the form along with your payment to this meeting. Craig Bondy, N8STA, GARA's treasurer will be collecting the forms. Craig will have extra forms with him if you forgot yours. See you at the meeting.

NEXT MEETING Monday, February 25

The next meeting of the Greensboro Amateur Radio Association will be Monday, February 25th, at Captain Bill's Seafood & Steakhouse, 6108 West Market Street, Greensboro, NC 27409, between Guilford College Road and Swing Road. This program for this month's meeting will be about Coax Cable. David Macchiarolo, AJ4TF, will present a program entitled "Coaxial Cable Theory and Practice."

GARA Meeting Minutes

Regular Meeting Minutes January 28, 2012

The Greensboro Amateur Radio Association held its monthly meeting on January 28th, 2012, at Captain Bill's Seafood & Steakhouse located at 6108 West Market Street in Greensboro. GARA president, Donna Ferguson, KD4WIK, called the meeting to order at 7:15pm.

Donna introduced the GARA board members for 2013. We then had a round of members identifying themselves.

Officer reports

Donna went over the calendar of events that we have so far.

Tom Bertolino, KB1P, spoke about a program the ARRL has that rewards clubs whose members join or renew their ARRL memberships through their local club.

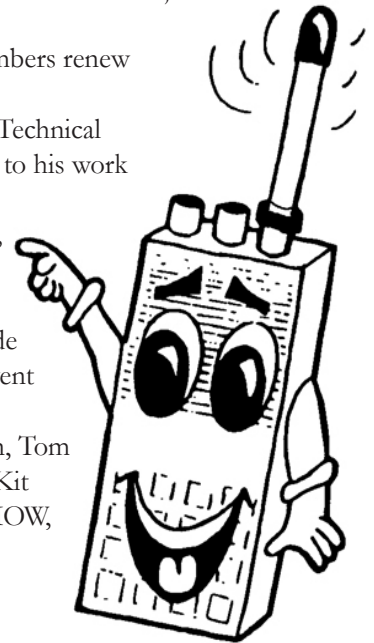
Craig Bondy, N8STA, gave the treasury report and stated that we have had 17 members renew their memberships so far.

Roy Smith, N4BYU, said that Layman Idol, KK4LLY, has agreed to help with the Technical Forum on Sunday nights. Gaither Frye, W4GCF, has resigned from the Tech forum due to his work schedule.

Donna asked for approval of the minutes as posted in *The Feed Line*. Bill Blackwell, KM5DW, made a motion to accept and Mark Siepak, KJ4VSM, seconded; the motion passed.

Tom spoke about public service events that are coming up. He would like to include these in *The Feed Line*, so he asked the club to let him know if there is a public service event upcoming.

Tom and Roy gave a presentation on radio direction finding. After the presentation, Tom held a drawing for two Yagi antenna kits and one complete antenna. The winners were; Kit 1-Layman Idol, KK4LLY, Kit 2- Sheila Whitley, KK4MHZ, Antenna- Bob Mays, KE4MOW, who immediately gave it to Brian Michael Wilson, KJ4UBW.



The Greensboro Amateur Radio Association

President Donna Ferguson, KD4WIK
Vice-President Thomas Bertolino, KB1P
Treasurer Craig Bondy, N8STA
Secretary Greg Spencer, KG4UQV
Financial Todd Smith, AK4TS
Engineering Chair David Macchiarolo, AJ4TF
Operations Roy Smith, N4BYU
Member-at-Large Gaither Frye, W4GCF
Member-at-Large Chan White, KJ4ADX
Appointed Position:
Webmaster & Newsletter Editor
Brian Wilson, NX4U

The Feed Line is ©2012 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.

David Macchiarolo, AJ4TF, gave the engineering report and discussed the repeater outage during the thunder snow event that we had recently. The tower was struck by lightning during the storm, and the repeater went down as a result of a tripped circuit breaker. There was no other damage to our equipment.

David said that he would like to increase the size of the engineering committee.

David also stated that he has the signed permit from the park service in hand and the N4G station is coming together. Equipment has been promised and we still need volunteers to help set up and operate the station.

Roy spoke about the K4NSC station at the Natural Science Center which was built by Ryan Bradley, KM4TMD, as an Eagle Scout project. This station may be removed during the renovations that are currently being done at the center, and it is unclear if the station will be reinstalled. Roy encouraged the membership to use the facility as often as possible.

Bill, KM5DW, made a motion to adjourn, Layman, KK4LLY, seconded.

Respectfully submitted by Greg Spencer, KG4UQV, GARA Secretary.

Board Meeting Minutes February 11, 2012

The GARA board of directors held their monthly meeting on February 11th, 2013, at Captain Bill's Seafood & Steakhouse. The members present were: Donna Ferguson, KD4WIK; Craig Bondy, N8STA; David Macchiarolo, AJ4TF; Roy Smith, N4BYU; Chan White, KJ4ADX; Tom Bertolino, KB1P; Todd Smith, AK4TS; and Greg Spencer, KG4UQV.

Donna called the meeting to order at 7:00pm.

Officer reports

Tom spoke about some updates and changes proposed to the GARA By Laws.

Craig spoke about the bills that have been paid and what is coming up soon. We also discussed a quote that Craig received from State Farm concerning our insurance which could save GARA some money. A direct comparison of the policies will be done before any change is made to insure that there is no loss of coverage. We also discussed a review of the treasury records which will be done as soon as possible.

Greg has updated the club records with the ARRL. Tom said that Greg should double check that the changes were made.

David gave the engineering report and stated that he has recruited Layman Idol, KK4LLY, and Ken Worland, KK4GSM, to assist him with the engineering duties. David said that he is suspicious that the VHF repeater's pre-amp may have gotten damaged during the lightning strike a few weeks ago. David said he is going to swap to the backup repeater and see if the receive signal improves.

David said that they are looking for a suitable replacement controller for the VHF repeater in case that one goes out we will have a replacement already selected.

David also gave us an update on the ARISS contact that will be held during the week of April 29th at McNair Elementary School.

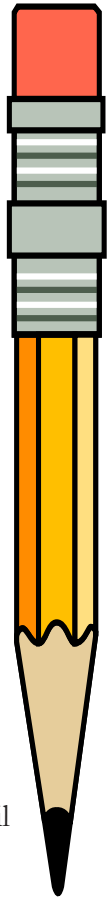
Roy said that he has acquired the GARA financial records from the late Al Allred, K4ZKQ's widow and transferred them to Todd Smith, AK4TS.

We discussed presentations for the coming months with the February meeting's presentation on coaxial cable by David Macchiarolo, AJ4TF.

Tom will send out an email about the proposed changes to the GARA By Laws to the GARA membership.

Roy made a motion to adjourn, David seconded and the meeting ended at 8:15pm.

Respectfully submitted by Greg Spencer, KG4UQV, GARA Secretary.



Recognition

As many of you may know, due to work schedule and other commitments, Gaither has stepped down as the host of the Sunday night Technical Forum. I would like to personally thank Gaither for his 2 years of dedication to the Technical Forum.

Gaither, I know that the Technical Forum meant a lot to you and you did a great job with it. Even though I did not always participate, I listened in quite often and there was always an interesting topic of conversation. You were a wonderful host and your voice will be missed.

Thank You For 2 Years!

ARISS (continued from page 1)

The 10-minute, live question-and-answer session will allow GCS students to speak directly with the astronauts as they orbit 250 miles above Earth. In addition to students from McNair, students from schools across the county will be invited to submit questions for the astronauts.

“As educators, we are excited to provide such a unique opportunity that gives our students the chance to apply concepts they learn in our math, technology and science curriculum,” said Tom Niedziela, Reading and Math through Technology teacher at McNair. “Even after the contact with the International Space Station, we will continue to use amateur radio to enhance our students’ learning, especially in the areas of understanding wireless communication and how we use it for exploration in space.”

The amateur radio connection will be made possible through the help and support of a local organization and business that are partnering with GCS to bring this special learning experience to students. Members of the Greensboro Amateur Radio Association (GARA) are providing expertise in setting up the radio connection and will be preparing students for the event by sharing their knowledge of radio technology and the careers that relate to these skills.

Additionally, RF Micro Devices, a local corporation that specializes in the design and manufacture of radio frequency (RF) solutions for mobile devices and communication equipment, is generously donating the

radio equipment that will be used to make a direct connection with the International Space Station. The direct connection will allow students to talk to the astronauts at the time when the space station passes directly over the school. RF Micro Devices is also loaning the school a specialized antenna necessary to achieve the sophisticated radio connection. Following the event, the donated radio equipment will remain at McNair Elementary, so students and teachers can start their own amateur radio station.

Teachers across all content areas will prepare students for the radio contact by including lessons on space, astronomy, NASA and the International Space Station in their subject curriculum in the weeks leading up to the event.

The ARISS radio contact is one in a series of educational activities organized by Teaching From Space, a NASA Education office dedicated to improving teaching and learning in science, technology, engineering and mathematics using the unique environment of human spaceflight.

RFMD



List Public Service Events Here

By Tom Bertolino, KB1P

As the weather gets better we are approaching the beginning of a new Public Service Event season. In an effort to support area public service events and assist ham coordinators with their recruitment efforts *The Feed Line* will publish a list of Public Service Events held in the Triad area. The event will appear in *The Feed Line* until the event’s date has passed. It will contain the event name, date, where the event will take place, and the ham coordinator’s contact information. If you want to list your event in *The Feed Line* please contact Tom Bertolino at kb1p@arrl.net with the following information: name of event, date of event, where the event take place, and your contact information and any special radio equipment required or if you know of an upcoming event please send me the ham coordinator’s contact information.

From the President's Shack

From Donna Ferguson, KD4WIK

GARA IN SPACE

Well, the school is open and we are on the calendar. GARA is taking McNair Elementary into space (sort of).

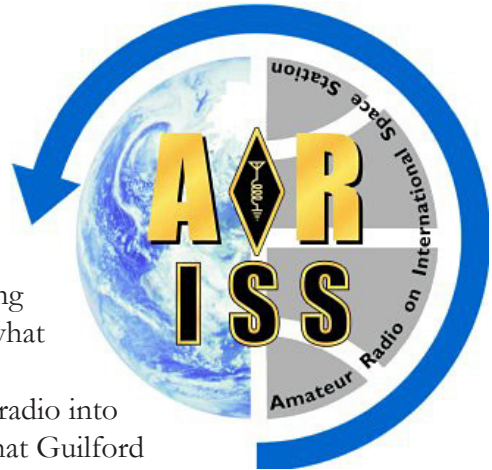
The McNair students started attending classes at the new school on Friday, February 9th. They held a ribbon cutting ceremony on Wednesday, February 13th and announced to the media that GARA and RFMD will be assisting the children in talking to the astronauts. That is fascinating in itself but can you imagine what this really means for GARA?

One of the objectives of any ham radio group is to take ham radio into the community and teach others about the hobby. That's exactly what Guilford County Schools wants us to do. They want us to come into the schools and teach the children about ham radio. This is a golden opportunity to get some of the younger generation excited about ham radio and pass our knowledge on to future operators. If you don't pass on the knowledge and have others pick up the torch, the hobby dies. This is how to keep the hobby alive and inspire others.

I hope everyone is as excited as I am about this new found partnership. After we take them into space, we will bring them back to Earth and start having some fun while sharing some knowledge. It's going to be a great ride. Buckle Up!

Until Next Time,

73s, Donna, KD4WIK



Other Info from around NC

From North Carolina Section News by Bill N2COP

SHELBY HAMFEST TO RETURN TO SHELBY – The “Granddaddy” of hamfests is returning to its roots. The Shelby Amateur Radio Club (SARC) announced that the Shelby Hamfest is coming back to its former home at the Cleveland County Fairgrounds in Shelby. The move was covered in the town's daily newspaper, The Shelby Star, at <http://www.shelbystar.com/news/hamfest-comes-home-1.76544>. The Shelby Hamfest this year will be August 31st and September 1st.



SCHOOL CLUB ROUNDUP – February 11-15 are the next dates for the semi-annual School Club Roundup (SCR), an event which encourages students from elementary school to college to get on the air. Topsail Middle School in Hampstead will be QRV under the direction of 8th grade General class operator Nevin Wetherill, W4ADX, and his grandfather Bill Wetherill, N2WG. You can learn more about School Club Roundup at <http://www.arrl.org/school-club-roundup-scr> and introduce kids to the world of Amateur Radio.

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 February, we had eight (8) individuals who passed their test(s) and earned either their Technician, General or Extra class license. Two (2) of them left before we could take their picture.

Next month's testing session will be on March 16th at Hinshaw United Methodist Church, 4501 High Point Road, Greensboro, 27407, at 9:00am. While walk-ins are welcome contacting the lead VE is preferred. Please contact Roy Smith at (336) 312-0647 or by email at n4byu@arri.net

If you cannot make it to this test session, W4VEC holds a second test every month in this area. Test sessions are held the last Saturday of 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 bobwilliams@northstate.net, phone (cell), 336-812-5500.

All Photos Courtesy of David Macchiarolo, AJ4TF



*Rick M Adams, KK4OJF
Passed Tech*



*Benjamin W. Campbell, KK4OJG
Passed Tech*



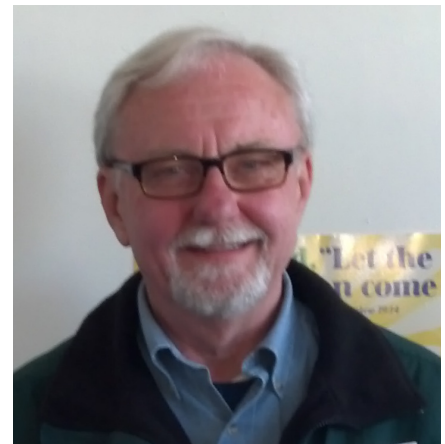
*Paul D. Ware, KK4OJM
Passed Tech*



*Jack L Culbertson Jr, KK4OJH
Passed Tech*



*Harold E. Richardson, KK4OJK
Passed Tech*



*Glen A Denny, KK4OJI
Passed Tech*

Engineering Update for February, 2013

From David Macchiarolo, AJ4TF

The word of the month: Thundersnow!

On Thursday, January 17th, the Triad area got something we don't normally see around here: a winter storm accompanied by lightning and thunder! One of those lightning bolts found its way to the W4GSO antenna tower, and knocked the power out to all of the equipment at the repeater site. Fortunately, there was no damage to the club's equipment, and only some minor damage to the site owner's equipment, but lightning tripped off the circuit breaker that feeds our equipment. Our power was turned off for at least 18 hours, and all of our backup batteries went flat. This required a trip to the site to reload the digital voice recorder on the VHF repeater, to restart the computers that operate the D-Star repeater, and to inspect everything to make sure there was no lightning damage. Everything looked OK. Sometime in the next few months, we will try to re-measure the sensitivity of the receiver to make sure it was not harmed during the lightning event.

Last month I told you about a couple of projects that I am considering for the VHF repeater, and that I was looking for some volunteers to be a part of the Engineering Committee. I am happy to report that the Engineering Committee is now a real committee! Ken (KK4GSM), Layman (KK4LLY), and Craig (N8STA), have all volunteered to be a part of the action.

Here is the status of the projects I told you about last month:

1) Investigate replacement controller: As you know the existing repeater controller, while it works well, is obsolete, and in the case of a hardware failure, we do not have a backup controller on hand. Ken and Layman are currently looking at the differences between the controller commands for the existing controller, and a proposed replacement controller, and I'll have them report on that activity when they are done with their initial investigation.

2) Replacement for AR Newsline Phone Patch: We would like an audio playing interface connection to the VHF repeater controller.

I have some ideas on this that I have drawn up, and Craig has volunteered to construct a prototype audio isolation interface that could connect into an unused port on the VHF repeater controller. I will report more on this as we get further along.



D-Star Repeater:

The lightning strike and power outage on Jan 17th did not seem to cause any damage, and (for once) did not seem to scramble the gateway. There are some clean up activities that I need to do on the gateway computer, which I will work on during the next couple of months.

As always, if you have any questions or concerns about your club repeaters, either VHF or D-Star, or any other technical topic, please contact me at aj4tf@arrl.net

ARRL Membership Through Affiliated Clubs Drive

By Tom Bertolino, KB1P

GARA is looking at ways to cut the Club's expenses and increase the Club's revenue. One way to increase the Club's revenue is to take advantage of ARRL's Membership Through Affiliated Clubs program. This program allows an affiliated club to retain a proportion of ARRL's membership dues when a club member renews his ARRL membership or joins ARRL for the first time through his Club. The affiliated club receives \$2.00 for every ARRL membership renewal and \$15.00 for every new member. A new member is defined as anyone who has never joined ARRL or someone who has let his membership lapse for more than two years.

If you are a member of ARRL you can help the GARA by renewing your membership through the Club. If you are not a member of ARRL, and plan to join ARRL in the future please consider joining through GARA.

Since a renewing ARRL member can renew at any time, before their current membership expires, GARA will conduct an ARRL Membership Through Affiliated Clubs drive every 3 or 4 months. This allows the Club to cut the monthly expense of processing renewals/new memberships and insures your renewals/applications arrive in a timely manner to ARRL. We will start our first drive in February. So if your membership expires between April and the end of June or if you want to join ARRL please consider renewing/joining through GARA during our drive in February.

How do you renew/join through GARA? You fill out an ARRL Membership Application form (attached at the end of newsletter). Then you give/mail the application along with your ARRL dues to the Club's Treasurer. (The Club's address is: Greensboro Amateur Radio Association, P.O. Box 7054, Greensboro, NC 27417.) The Club then submits all application forms to ARRL less the Club's commission.

If you have any questions about this program you can contact me. My contact information is: email kb1p@arrrl.net ; phone 781-608-6186



Reminder Club Dues are Due

Just a reminder your Greensboro Amateur Radio Association dues is due in January 2013. Club membership runs from January to December of each year. You can pay your dues at a club meeting or fill out the GARA Dues Form 2013 and mail it along with your dues to the address on the top of the form. You can down load the form by go to the club's web site at: <http://www.w4gso.org> and click on "Join GARA" on the left side of the page, then follow the instruction.

Exam Time, Number 3

By David Macchiarolo, AJ4TF

At the October meeting, Donna, KD4WIK, gave us all some brain teasers from the FCC examination question pools. Many people seemed to like this, so we decided to pick some questions out of the pools each month and give the answers. The entire question pools are available for download from the ARRL web site and other places as well. The General and Extra pools have 10 major topic sections. Between the two pools, there are over a thousand questions so we will not get through all of them in a short time, but what I plan to do is each month pick 5 questions from the General pool, and 5 from the Extra pool, from different topics sections. If you have not upgraded yet, perhaps you will find this column useful and maybe give you a jump-start into your own studying. Caution: Do not just memorize that the answer to question E0A11 is "C". The actual tests mix up the order of the answers that are presented, so you need to know which answer is actually the correct one. For each question, I will provide the actual question as it is worded in the pool, and the possible answers that are part of the pool. I will tell you the correct answer, and try to explain why. For each question, the relevant section of the Part 97 rules (if applicable) is given. So, here we go:

GENERAL

G1A03 [97.305]

On which of the following bands is image transmission prohibited?

- A. 160 meters
- B. 30 meters
- C. 20 meters
- D. 12 meters

The answer is (B). See 97.305.

G2A03

Which of the following is most commonly used for SSB voice communications in the VHF and UHF bands?

- A. Upper sideband
- B. Lower sideband
- C. Vestigial sideband
- D. Double sideband

The answer is (A). By convention, upper sideband is used on frequencies above 10 Mhz.

G3A03

Approximately how long does it take the increased ultraviolet and X-ray radiation from solar flares to affect radio-wave propagation on the Earth?

- A. 28 days
- B. 1 to 2 hours
- C. 8 minutes
- D. 20 to 40 hours

The answer is (C). The approximate average distance between the earth and the sun is about 93 million miles. Since electromagnetic radiation travels at 186,000 miles per second, $93,000,000 / 186,000 = 500$ seconds, or just over 8 minutes. So, when you look at the sun, you are actually seeing it as it was 8 minutes ago!

G4A03

What is normally meant by operating a transceiver in "split" mode?

- A. The radio is operating at half power
- B. The transceiver is operating from an external power source
- C. The transceiver is set to different transmit and receive frequencies
- D. The transmitter is emitting a SSB signal, as opposed to DSB operation

The answer is (C). During a contest, or a pileup, sometimes a station will listen on a different frequency than she transmits on, to make it easier to hear the people calling her. Normally the operator will let you know that she is working split by saying something like "5 up". This means she is listening 5 kHz up from where she is transmitting. This means that YOU have to transmit 5 kHz up from where you are listening. If you try to work a station working split, and you have not done it before, it's best to listen for a while on both frequencies to see how it is done. If you happen to transmit on the same frequency as the DX station is transmitting on, you'll get told politely or maybe not so politely, by the others listening, that "SHE'S WORKING SPLIT!"

Exam Time (continued)

G5A03 Which of the following causes opposition to the flow of alternating current in an inductor?

- A. Conductance
- B. Reluctance
- C. Admittance
- D. Reactance

The answer is (D). Reactance = AC impedance.

EXTRA

E1A03 [97.301, 97.305]

With your transceiver displaying the carrier frequency of phone signals, you hear a DX station's CQ on 14.349 MHz USB. Is it legal to return the call using upper sideband on the same frequency?

- A. Yes, because the DX station initiated the contact
- B. Yes, because the displayed frequency is within the 20 meter band
- C. No, my sidebands will extend beyond the band edge
- D. No, USA stations are not permitted to use phone emissions above 14.340 MHz

The answer is (C). A sideband phone signal is about 3 kHz wide. Since in the example, the carrier frequency is only 1kHz away from the end of the 20 meter band (14.350 Mhz), a 3 KHz USB signal will go over the edge of the band and you would be transmitting illegally. See FCC rules 97.301 and 97.305.

E2A04

What is meant by the term mode as applied to an amateur radio satellite?

- A. The type of signals that can be relayed through the satellite
- B. The satellite's uplink and downlink frequency bands
- C. The satellite's orientation with respect to the Earth
- D. Whether the satellite is in a polar or equatorial orbit

The answer is (B). The mode of a satellite tells you what bands it transmits and receives on. A good primer for this can be found at AMSAT's web site (slightly dated, but still informative):

http://www.amsat.org/amsat/intro/sats_faq.html#RTFTOC5

E3A03

When scheduling EME contacts, which of these conditions will generally result in the least path loss?

- A. When the Moon is at perigee
- B. When the Moon is full
- C. When the Moon is at apogee
- D. When the MUF is above 30 Mhz

The answer is (A). Perigee is the point in an elliptical orbit around the earth that the orbiting body is closest to the earth (apogee is when they are the furthest apart).

E4A04

Which of the following test instruments is used to display spurious signals from a radio transmitter?

- A. A spectrum analyzer
- B. A wattmeter
- C. A logic analyzer
- D. A time-domain reflectometer

The answer is (A). A spectrum analyzer shows the amplitude of the frequency components of a signal.

E5A03

What is the magnitude of the impedance of a series RLC circuit at resonance?

- A. High, as compared to the circuit resistance
- B. Approximately equal to capacitive reactance
- C. Approximately equal to inductive reactance
- D. Approximately equal to circuit resistance

The answer is (D). The circuit will resonate if the resistive and reactive elements have the same impedance.

That's all for this month. Let me know how you like this, and whether it is useful for you.

Calendar of Events

February 25	GARA General Meeting (Captain Bill's Seafood & Steakhouse)
February 23	VE Session (Red Cross Building, High Point)
March 8-9	Charlotte Hamfest (Concord, NC http://www.charlottehamfest.org)
March 11	GARA Board Meeting
March 16	VE Session (Hinshaw United Methodist Church, Greensboro)
March 16-17	N4G Event (Guilford Courthouse National Military Park)
March 25	GARA General Meeting (Captain Bill's Seafood & Steakhouse, Presentation: Co-Ax Cable)
March 30	VE Session (Red Cross Building, High Point)
March 30	NC State Conventions (Raleigh Hamfest http://www.rars.org/hamfest/)
April 8	GARA Board Meeting
April 13	VE Session (Hinshaw United Methodist Church, Greensboro)
April 20	Catawba Valley Hamfest (Morganton, NC http://www.arrl.org/hamfests/)
April 27	VE Session (Red Cross Building, High Point)
April 29	GARA General Meeting (Captain Bill's Seafood & Steakhouse, Presentation: ARRL's LoTW)
May 11	VE Session (Hinshaw United Methodist Church, Greensboro)
May 13	GARA Board Meeting
May TBA	GARA Picnic (Hagan-Stone Park)
May 17-19	Dayton Hamvention 2013 (Dayton, Ohio http://hamvention.org/)
May 25	VE Session (Red Cross Building, High Point)
May 27	GARA General Meeting (Captain Bill's Seafood & Steakhouse, Presentation: Field Day)
June 8	VE Session (Hinshaw United Methodist Church, Greensboro)
June 8	Winston-Salem Classic Hamfest
June 10	GARA Board Meeting
June 22-23	Field Day (Tannenbaum Park Greensboro)
June 24	GARA General Meeting (Captain Bill's Seafood & Steakhouse)
June 29	VE Session (Red Cross Building, High Point)
July 8	GARA Board Meeting
July 13	VE Session (Hinshaw United Methodist Church, Greensboro)
July 20	Mid-Summer Swapfest (Cary, NC)
July 22	GARA General Meeting (Captain Bill's Seafood & Steakhouse)
July 27	VE Session (Red Cross Building, High Point)
July 27	WCARS Hamfest (Waynesville, NC)

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 17C)

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 March to Aug. 2013

March 16, 2013

April 13, 2013

May 11, 2013

June 8, 2013

July 13, 2013

August 10, 2013

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

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Greensboro, NC 27417

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FIRST CLASS MAIL

The Official Publication of GARA