THE COMPASS

Official Newsletter of the Great South Bay Amateur Radio Club

November 2016 | Volume 44 | Issue #11

Upcoming Club Events

Next General Meeting: Thurs. Nov. 17th, 8 PM at the EOC 1 week early due to Thanksgiving

Club Elections will be held at next meeting.

GSBARC's FREE License Classes Tuesday nights 7–9:30 PM.

General License Class begins Tues. Nov. 22nd.

Open Houses on Wednesday nights from 7:30 to 9:30 p.m. and also Saturdays from noon to 3 p.m

Visit us on Facebook at www.facebook.com/gsbarc

After a long day of antenna work the sun finally sets on K2TV's QTH.

Inside this issue of The Compass...

Upcoming Special Events

Hope for the Warriors Run, Saturday Nov. 12

GSBARC 2nd Annual Winter Night Out at La Famiglia in Babylon—January 14th at 6 p.m. $60 per person includes: food, wine, beer, cappuccino and espresso and gratuities.

President's Message

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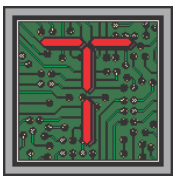


he weather is starting to get cooler so I hope that by now all of your antenna projects are almost done.

To the crew members who were at K2TV's QTH to help with his new installation: thank you!! It was a full day but in the end, K2TV has a palm tree in his yard.

As by now you might have heard I made a change after 22 years with one company. I decided it was time to make a change. I must say that having a great board of executives has helped me out tremendously. At the general meeting on October 27th I was once again nominated to be your president. Once again, I am honored to be the president of this great club. Look at what we have done during the last few years. It is truly remarkable. We still have a lot to do but we will get it all done. To all of our newest members, welcome to the club! I hope you get involved with events such as Field Day as well as the American Air Power Museum and Fire Island lighthouse events. We have a great time doing everything.

We have a few things coming up soon. The November meeting is a week earlier than usual. It will be held on the 17th

We have the club elections that night. Be part of the shaping of the club by attending. I hope to see you all there.

So what to do when it gets a little colder outside? There are a few things! A good one is to clean up your shack. Like I should talk right now!! Mine is a complete mess. It's back on the air, though. The water damage that occurred back in February is still not completely handled. Anyway, I hope that you can all find some cool stuff to do over the fall and winter months. I know there is something we can all do – it's our Winter Night Out on January 14th -- see the details elsewhere in The Compass. If you were there last year, you know how much fun we had and how great the food was. So we are doing it again. I hope you can all make it.

Thank you to all who helped with the 2nd Suffolk County Marathon. It was a great event and you all did a great job. I hope you all had fun -- it was a beautiful day for a run.

Any questions please email us @ info@gsbarc.org

NPOTA is still going strong so get on the air and have some fun. By the way, the Washington D.C. crew did a great job. Our thanks to Mike KC2SYF for heading up that awesome event. To the operators who went down to Washington, you did a great job working the park outside the White House. Thank you for taking the time to do that event.

I wish everyone and their families a Happy Thanksgiving. I am not working the night shift for the parade. I get to go to sleep like a normal person and then eat and sleep again after too much turkey.

73, John Melfi, W2HCB

Club Election Slate for 2017

- ***President:***
  John Melfi, W2HCB
- ***Vice President:***
  Bob Myers, K2TV
- ***Secretary:***
  Kevin Morgan, AB2ZI
- ***Treasurer:***
  Bob Reinhart, W2YW

Board of Directors (2 Positions)

- Bill Fastenau, WB2QGZ
- Mike Sartoretti, KC2SYF

All Positions Unopposed

Voting will be held at the November 17th General Meeting

Inside the Squirrel Cage

by Caryn, KD2GUT

If I could have done it on Nov. 8 – Election Day - I would have voted for KB2GSD. Once known as the "most trusted man in America," the anchorman Walter Cronkite, a Silent Key since 2009, had the character and demeanor that could restore faith even in born skeptics. It wasn't any magic; it was simply the professionalism of straight talk and hard work.

Suddenly right before Election Day itself, some of us found KB2GSD on the air with us once again for a few brief days. He was not on CBS this time but on HF. In his honor, the Metro DX Club of South Suburban Chicago was calling CQ as Special Event Station W9C and celebrating the legendary anchor. The most cantankerous of presidential elections just happened to be unfolding at the same time these hams were marking the 100th birthday of broadcast news' "Uncle Walter." The Metro DX hams wanted an appropriate way to honor him and the answer came during those 7 busy days of operation as W9C.

The Nov. 4 birthday may have belonged to Cronkite but the birthday gift was intended for us, a nation stressed by an array of combative debates and poison rhetoric. Here was our fortunate position as amateur radio operators: As a community, we got to opt out of all that for a bit and play in radio's equivalent of the mosh pit – the pileup. We could jump in and acknowledge this journalist and, in turn, be acknowledged with a simple signal report and a 73. Special Event stations have the power to do this: such commemorative events teach us history, science and, in this instance, they can give us a respite from the world's meanness and insanity and restore our perspective.

Anyone who, like Cronkite, could end each night's newscast with the easy phrase "and that's the way it is" surely had the kind of grip on reality we can only envy. 73 for now KB2GSD. This is KD2GUT, all clear.

Celebrating Your Club's Elmers Might Encourage Others

By Dan Romanchik, KB6NU

am, W5KF, recently sent me a link to the Elmers' page on the Norman, OK South Canadian Amateur Radio Society (SCARS) website. Not only is it a listing of the club members who have stepped forward to Elmer new members, but also provides ways to honor current and past Elmers. This is from the SCARS newsletter:

"Elmer List on the W5NOR.org website

"This week we talk about a brand new feature on the W5NOR web site. In the amateur radio community, an experienced amateur radio operator who mentors a new or prospective ham is commonly called an "Elmer". In our hobby, that seems to be a great way for knowledge to be transferred.

"Yes, we all have taken an FCC test to receive our license, however that's only the starting point. Remember that person that helped you set up your first radio, or gave you the courage to press the PTT button, or answered endless questions about a radio, or an antenna? That's the kind of thing we're talking about.

"Thanks to a great suggestion from Gary Skaggs WB5ULK [not sure it was my idea. – Editor], we've created the SCARS Elmer Page, located at http://w5nor.org/elmers, for us to celebrate Elmers; past, present, and future. We provide a place for Elmers to list their specialty, and contact information, which allows new hams to find someone they can ask questions of.

"Since this is a new section of the web site, this list is rather short. If you're willing to help others on a given topic, send a message to n5hzr@arrl.net and you will be added to the list. Right now we need lots of different categories, like antennas, radio setup, HT programming, contesting, satellite operation, high power operation, test gear, building your own gear, repairing radios, APRS, D-Star, DMR, CW, logging, etc. oh well, you get the idea.

"You don't need a PhD to be listed here. You just need a willingness to help others in a given area. It's OK to be a new ham, and be listed here. You may have just struggled through your first space contact, but you'll have infinitely more knowledge than the person who's been a ham for 40 years, and has never tried that portion of the hobby.

"Also, there is a link to the "ARRL Elmer Award" page of the American Radio Relay League's web site. Here, you can enter your favorite Elmer's name and callsign. The ARRL will print a nice certificate, and mail it to the address you enter. Yes, for FREE! This certificate can either be mailed to your favorite Elmer, or you can mail it to yourself so you can present it to them personally. Feel free to order an Elmer certificate, and present it to your Elmer at an upcoming SCARS meeting. Talk with one of the officers before the meeting to get your place on the agenda. What a great way to recognize these people for their extra efforts.

"Finally, we've got a place to list YOUR favorite Elmer in our SCARS Elmer Hall-of-Fame. This is the place to memorialize your Elmer, whether they are SCARS members, Silent Keys, or not. I've already listed a few Elmers on the list from my own travels through the hobby. We'd love to list the people that help us all succeed.

"So, please help make this page useful, visit the SCARS Elmer page at: http://w5nor.org/elmers and be listed as an Elmer, and list your favorite Elmers."

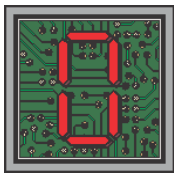
I think this is a wonderful idea, and I hope that you will consider doing something similar in your club. A little recognition could go a long way, and we need all the Elmers we can muster. And, if you're already doing this, please send me a link. I'll add that link to my website, KB6NU.Com.

When he's not Elmering new hams, you'll find Dan building kits and working CW on the HF bands. He is the author of the "No Nonsense" amateur radio license study guides, and blogs about amateur radio at KB6NU.Com. You can contact him by e-mailing cwgeek@kb6nu.com.

Inside the Classroom with AB2ZI

Things Every Ham Should Know: Ohm's Law

By Kevin, AB2ZI



hm's Law is one of the first formulas hams learn. You first encounter it in the test materials for the Technician license and in every license manual thereafter.

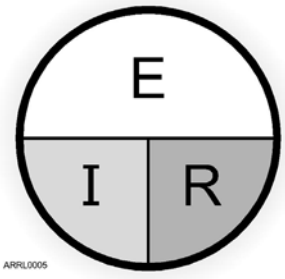
Ohm's law is our first introduction to understanding simple electrical circuits. At its simplest it is:

$$E = I \times R$$

Where ***E*** stands for voltage (the ***E*** is for electromotive force), ***I*** is for current, and ***R*** is resistance.

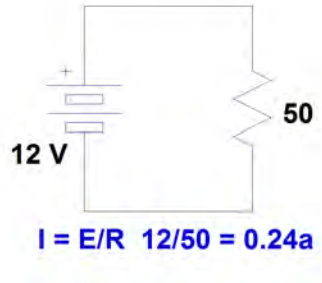
This equation is a fundamental building block in your foundation on which all electrical and electronic theory is built upon. If you don't learn this formula, and its transpositions for solving for current and resistance, you will never really fully grasp anything else about circuit behavior. It MUST be memorized and you need to be able to use it!

In the beginning you are given a handy diagram to put these letters in that allow you to do the mathematical transpositions simply by covering up the letter you want to find and seeing what the result is:



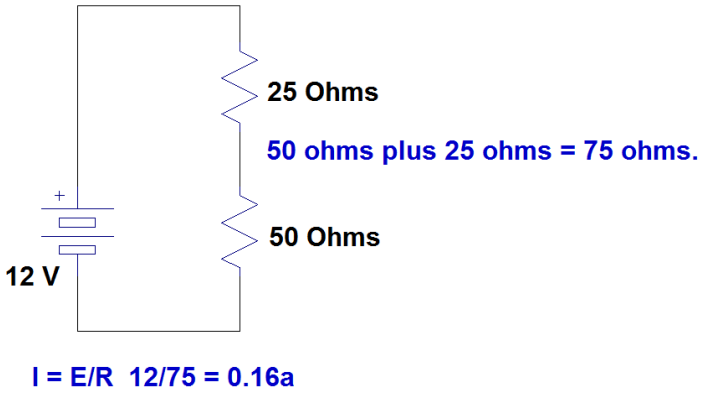
This is fine in the beginning. I know it's probably been a very long time for most of us to be accessing high school algebra after being away from it for so long, but it's all about practice and repetition. The more you use any skill, and math is a skill that you can be proficient at with practice, the better you will become at that skill.

The normal approach to learning to use Ohm's law is to start one of the simplest circuits we can make and using it to find out what's happening inside that circuit.



Looking at a circuit with just a 12 volt battery and a 50 ohm resistor we can analyze the circuit. We are given that the voltage (E) is 12 volts and the resistance is 50 ohms, so we can calculate the current that flows in this circuit by solving for ***I***. On our transposing circle we cover the "I" and see that current is voltage (E) divided by the resistance (R). 12 divided by 50 = 0.24 amperes, or 240 milliamps.

We then explore more circuit behavior by adding a second resistor in series with the first one. Below we've added a 25 ohms resistor in series with the 50 ohms resistor we started with. Since the electrons in a series circuit (or in a series

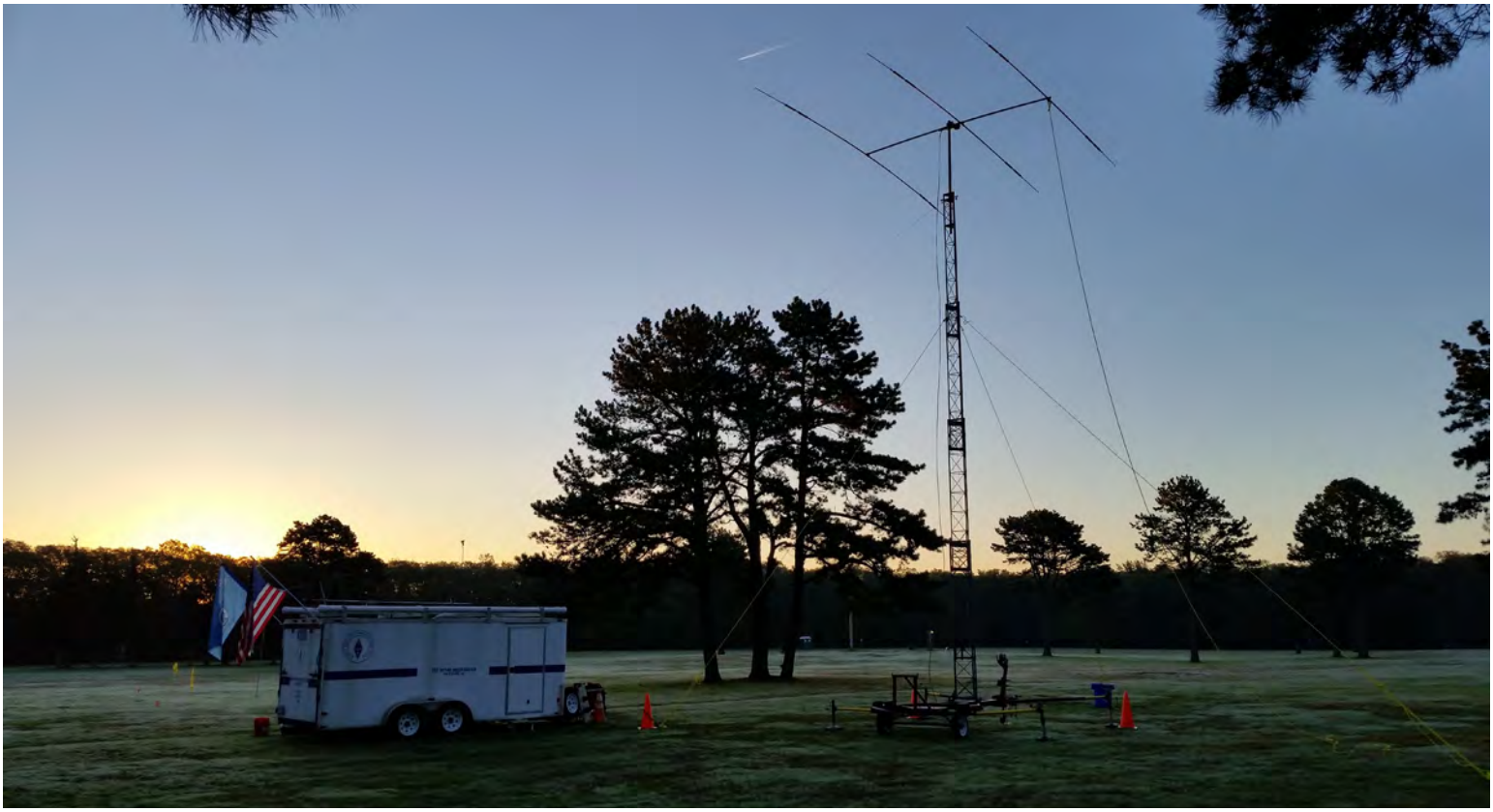


leg of a circuit) have to go through all of the components, the total resistance is the sum of the resistors. 50 + 25 = 75 ohms. Now the total circuit current is decreased to I = 12 volts divided by 75 ohms equals 0.16 amps, or 160 milliamps. Each resistor has the same current flowing through it but now there is a division of voltage between them. The individual voltages across the resistors will add up to the total applied voltage so this circuit is known as a voltage divider. The voltage across each resistor is calculated using Ohm's Law. Since E = I times R we can use the total circuit current for "I" and the individual resistor values for "R." For the 25 ohm resistor, E = 0.16 times 25 = 4 volts, and for the 50 ohm resistor E = 0.16

Continued on page 7...

Tanner Park Buddy Walk, October 8th, 2016

Dawn at the Cathedral Pines Jamboree on the Air (JOTA) event



In the Classroom... cont'd from page 5

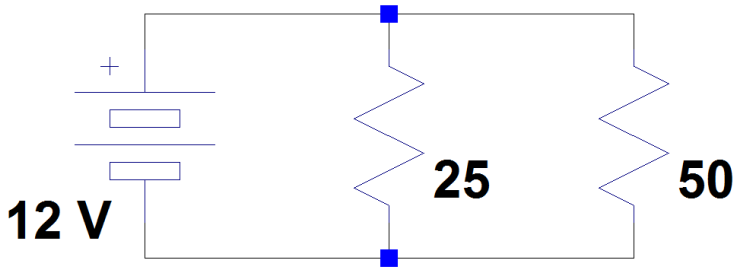
times 50 = 8 volts. You can see that 8 volts plus 4 volts is equal to our 12 volt source.

Other examples in the Technician book supply other parameters in order to demonstrate the ways to use Ohm's Law to find resistance when current and voltage are known, or voltage when current and voltage are the supplied quantities.

You can experiment with these permutations using the previous circuit in which all the quantities are known. Practice finding resistance and voltage. Do it over and over until you can do it in your sleep. This is the only way you will come to get a gut understanding of what's going on and how voltage, current and resistance are interrelated.

Parallel circuits seem to throw people for a loop. The idea that voltage is constant across the branches can confuse people. One analogy to help you get a better understanding of this is to picture a heating system with 2 branches. The boiler supplies a certain amount of pressure. That pressure is the analog to voltage. The applied pressure (voltage) pushes the water (electrons) against the total back pressure (resistance). The amount of water (electron) flow in each branch will depend on the individual restriction to flow (resistance) in that branch. So the flow (current) in each branch is dependant on the overall pressure but the individual branch resistance. If the 2 branches have equal back pressure (resistance) then the flow in each branch will be equal. If the resistance in each branch is different, the current flow will be different in the individual branches. The branch with the lower resistance will have more current flow than the one with greater resistance. This is why the total resistance the boiler sees is less than the smallest resistance. Let's look at a simple example:

Below is our 12 volt battery, this time with 2 resistors in parallel. We again have a 25 and 50 ohm resistor, but now because the current divides between the branches the overall resistance is going to be less than 25 ohms. If you were looking at a multiple choice question asking for the total resistance to be calculated, you could right away eliminate any answers that were 25 ohms or greater.



This time let's analyze the circuit by finding the individual branch currents, adding the currents together to find total current, and then using Ohm's Law we will calculate total circuit equivalent resistance.

The first branch is our 25 ohm resistor. I = E / R so 12 volts divided by 25 ohms 0.48 amps (480 mA). The second branch is a 50 ohm resistor, so 12 V divided by 50 ohms is 0.24 A or 240 mA. 240 mA plus 480 mA gives us a total circuit current of 0.72 A or 720 mA. We can now use this value to find total circuit resistance. R = E / I so 12 volts divided by 0.72 A gives us about 16.7 ohms for total resistance. We can confirm this using one of the parallel resistor equations, which for just 2 resistors is R1 times R2 divided by R1 plus R2. R1 times R2 is 25 x 50 = 1250 which we divide by 25 plus 50 which is 75. 1250 / 75 is 16.7 ohms! See how easy that was?

The more you understand what's happening in these circuits and how Ohm's Law is used to analyze them, the better equipped you'll be in your analysis and troubleshooting of your (or your friends') equipment.

73 and see you in class.

YAHOO!

GSBARC has a New Yahoo Group and the old one has been deleted

If you are a member in good standing and want to join the club's new Yahoo group, go to:

https://groups.yahoo.com/neo/groups/gsb-arc/info

and click on "Join Group" Be sure to add a note when filling out your information with your call sign so we know who you are!

Club Apparel

Want a shirt, jacket, hat, sweatshirt or t-shirt with a Great South Bay club logo? We now use *Mr. Shirt*, located at 80 East Montauk Hwy in Lindenhurst (www.mrshirt.com). Now you can get color matched backgrounds on your logo too. Check them out...

ARES/RACES Information

Div. 1—Town of Babylon ARES/RACES
Net: 146.685/R, Mondays 8:15 PM
EC/RO: John Melfi, W2HCB, (631) 669-6321
Div. 2—Town of Huntington ARES/RACES
Net: 147.210 MHz +600/ PL 136.5, Mondays 7:00 PM
EC/RO Steven W. Hines, N2PQJ, (###) ###-####
Div. 3—Town of Islip ARES/RACES
EC/RO: John J Blowsky, KB2SCS, 631-467-2410
Div. 4—Town of Smithtown ARES/RACES
Net: 145.430 MHz, PL136.5, Mondays 7:30 PM
EC/RO: Joe Albertus , KB2JOE, 631-664-6709
Div. 5—Town of Brookhaven ARES/RACES
EC/RO: Ted Debowy, AC2IR, 631-751-6576
Div. 6—Riverhead ARES/RACES
EC/RO: < Unknown — no longer in state. >
Div. 7—Southampton ARES/RACES
EC/RO: Dennis O'Rourke, KB2ZWW, 631-728-5424
Div. 8—Southold ARES/RACES
EC: Don Fisher, N2QHV, 631-765-2757
RO: Charles Burnham, K2GLP, 516-779-4983
Div. 9—East Hampton ARES/RACES
EC/RO: Nat Raynor, N2NEI, 631-324-3738
Div. 10—Shelter Island ARES/RACES
EC/RO: Neal Raymond, N2QZA, 631-749-9330

Suffolk County ARES/RACES Net:

Mondays 2100 Local - 145.330/R (136. 5PL)
Alternate Frequency - 145.370 (136.5 PL)

New York State RACES Net (HF)

Sundays 0900 Local, 3993.5 KHz LSB

2016 VE Session Dates

- November 26th
- December 17th

2017 VE Session Dates

- January 28th
- February 25th
- March 25th

All sessions are at the Town of Babylon EOC at 10 a.m., located in the basement in the rear of town hall. Please bring photo ID, a copy and your original amateur radio license (if you have one), and any CSCE's you may have. Non programmable calculators are allowed. The exam fee is $15 payable by cash or a check made out to "ARRL VEC".

Visit FCC Universal Licensing System site to register for an FRN number to use on the paperwork.

GSBARC Free License Class Schedule:

General: Nov. 22nd thru Jan. 31, 2017

Amateur Extra: Feb. 7th thru May 23rd.

Note: All Classes Tuesday evenings from 7 to 9:30 PM. Class text book is the current ARRL License Manual for that level. For more info email Kevin, AB2ZI at kmorgan6@optonline.net

Club Name Badges

Club name badges are available from ***The Sign Man (www.thesignman.com)*** of Baton Rouge, LA.

The badges which are 1-3/4 in. x 3 in. If you visit The Sign Man's webpage you can order the badges by using a drop down selection on the orders page and clicking on "Great South Bay ARC - NY"

2017 Annual GSBARC Field Day Raffle is here!

Prizes for 2017 are:

1st Prize:
ICOM ID-5100 VHF/UHF Transceiver

2nd Prize:
UHF Digital Voice Access Point (DVAP)

3rd Prize:
BTECH/Baofeng UV5X3 Tri-Band HT

Tickets are $5 each or a book of 5 for $20

Winner Need Not be Present to Win.