



# THE COMPASS

Official Newsletter of the Great South Bay Amateur Radio Club

December 2016

Volume 44

Issue #12

## Upcoming Club Events

**Next General Meeting:**

**Thurs. Dec. 29th,  
8 PM at the EOC**

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

**General License Class currently running.**

### **In Memory of Terry, K2TRC**

A group of her friends has purchased a bench with her name to be dedicated on Sat., May 20, 2017. This will be 4 days after the first anniversary of her death. A group of friends is meeting on the dock at Kismet, F.I. at noon and will walk to the tennis courts where the bench is installed and do a balloon launch. They will then head over to The Kismet Inn, 1 Oak St., to raise a glass or two in her memory. Her friends are extending an invitation to join them on that day. All are welcome! Mark your calendar.

**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](http://www.facebook.com/gsbarc)

## 2016 Hope for the Warriors Run



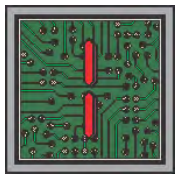
### **Inside this issue of The Compass...**

- **Election night at GSBARC: Results**
- **Series/Parallel Resistance**
- **KB6NU's Guest Column**
- **Inside the Squirrel Cage (a column)**
- **Hope for the Warriors Run Pictures**
- **Report from "Air One"**

### **Upcoming Special Events**

**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



hope you all had a great Thanksgiving. It was strange for me being home for the morning, running around for last-minute things. For the last 12 years, I was working the Macy's Thanksgiving parade but since I now work for a different company, I actually got to spend more time with the family. A big thank-you to all who helped out with the Hope for the Warriors run in November. The race director and the town supervisor thanked us all for a great job well done. As we move into the winter months I hope everyone has got their antennas in shape for the cold weather days ahead. Speaking of winter things to do, don't forget about Ham Radio University January 8th -- visit [www.hamradiouniversity.org](http://www.hamradiouniversity.org) for all the details.

Another great thing to come to is our Winter Night Out. Once again we will be having our fun night out at La Famiglia in Babylon Village. I hope to see a large turnout like last year. It was a great time. It's on January 14th 2017 and the cost is \$60.00 per person. Please email me at [w2hcb@arrl.net](mailto:w2hcb@arrl.net) so I can get a head count by January 12th at the latest.

To all ARES members: Please take note starting in January, the ARES Net will have 3 parts. Starting at 8:15, we will begin with check-in on the W2GSB repeater and then we will then do a simplex check-in. Finally, we will pass a message using FLDIGI and FLMESSAGE. Go to <https://sourceforge.net/projects/fldigi/files/> then click on FLDIG AND THEN FLMSG.

What do you need to be ready? There are few ways: If you own a Signalink, you are halfway there -- or you can build an interface for a few bucks cheaper. There are lots of devices to try. I personally have found the Signalink to work for me with no issues at all. The reason for the

changes in the net are to keep us ready for whatever situations may arise.

The EOC station will be set up as well as the club's communications trailer. There are a lot cool features in the above programs. You will be amazed at what it can do. Thank you to Keith AC1MI for working on the Go Kit boxes. We now have 4 Go Kit boxes set up. Keith spent many hours working on the kits and did a great job.

By now you all have heard that Jerry Schatz W2MFW became a Silent Key. He was a past member of GSBARC. His show business name was Jerry Tucker when he acted in the movies as a child. He appeared in the "Our Gang" comedies, the "Little Rascals" and 80 or so feature films.

Richard L. Rosner N2STU also became a Silent Key last month. Rich was at many of our kit-building sessions on Saturday mornings.

Amateur Radio Newslines are going strong!! We now run it twice a week. You can hear it on 147.535 110.9 PL on Sunday Nights and again on the W2GSB 2 meter repeater on Monday nights. Use open squelch as it is sent out with a 136.5 PL. I run it on Sundays and Bob K2TV runs it on Monday nights

New York State RACES members: Please try your best to check in with the state net on Sunday mornings. It's 3.993.50 LSB. It is a good way to stay proficient in emergency communication and traffic handling. The net starts at 9 a.m. -- after that they go digital on 3.583.50 and transmit the drill message in two modes.

I would like to congratulate Kevin Morgan AB2ZI on becoming our Secretary and Mike Sartoretti KC2SYF for being elected to a two-year director position. I would also like to thank you for the honor of being our club's president again. I am happy to say Bob Myers K2TV is still Vice President . Rob Reinhart W2YW is still Treasurer, Bill Fastenau WB2QGZ was also elected to a two-year director spot. Thank you to Art WA2KXE for being our secretary for the last two years. The board and I will once again do everything we can to make sure GSBARC is run smoothly and gets a lot of things done. If you have any suggestions please email us at [info@gsbarc.org](mailto:info@gsbarc.org). On behalf of the W2HCB Family we wish everyone and their families a very Merry Christmas or Happy Hanukkah or whatever else I may have missed. Please take the time to celebrate this great time of the year with your family and friends.

I hope to see you at the General membership meeting on December 29th

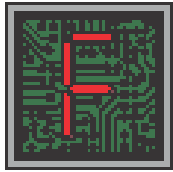
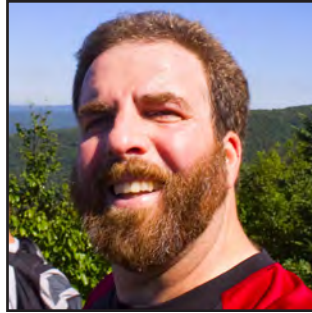
*73. John Melfi, W2HCB* 



# In the Classroom with AB2ZI

## Things Every Ham Should Know: Series/Parallel Resistors

By Kevin, AB2ZI



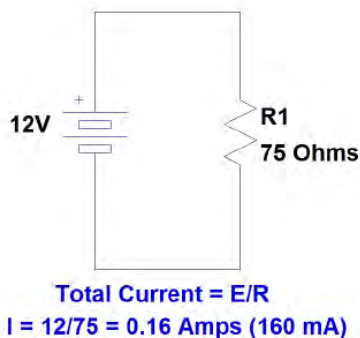
acts to be committed to memory:

- Ohm's law:  $E = I \times R$ ,  $R = E/I$  and  $I = E/R$
- Resistors in series add (total resistance =  $R1 + R2 + R3... etc.$ )

- The current through all components wired in series, or in a series branch of a circuit, is the same through all of those components (think cheap Christmas lights where a single bad bulb causes the entire string to go dark).
- Voltage in a series circuit, or branch of a circuit containing series connected components, will divide among the components.
- Series Circuit = Same Current, Divided Voltage
- Parallel Circuit = Same Voltage, Divided Current.

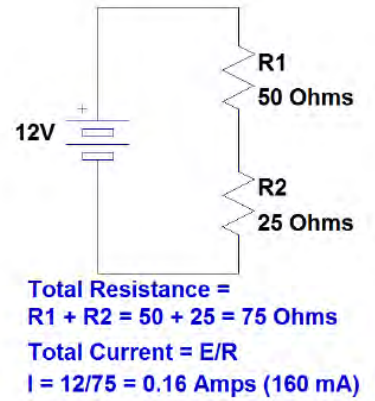
When solving circuit problems involving a series circuit use Ohm's law to solve for the missing quantity. E.g., in the following circuit there is only a single source of voltage and a single resistor. We are therefore given the E and R of the formula and need to find the total current. We use  $I = E/R$  and find that total current is 0.16 A or 160 mA.

Once we have the total current in the series circuit we use that total current figure to find the voltage drops across the individual components. In the case of this first circuit there being only a single resistor we can be confident that the voltage drop across that resistor will be 12V. We can confirm this by using  $E = I \times R$ , or  $0.16 \text{ A} \times 75 \text{ Ohm's} = 12\text{V}$ .



Now let's keep total resistance the same, but use 2 resistors to attain that 75 Ohm's.

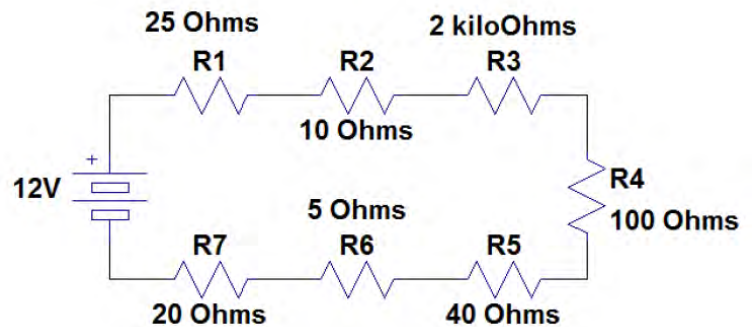
This second circuit is equivalent to the first one, we still have 75 Ohm's of total resistance which gives us 0.16 A of current, however, now that we are using 2 resistors to divide the voltage we need to calculate the voltage drops across each of those resistors (using  $E = I \times R$ ):



Voltage across  $R1 = 0.16 \text{ A} \times 50 \text{ Ohm's} = 8 \text{ Volts}$ , and, Voltage across  $R2 = 0.16 \text{ A} \times 25 \text{ Ohm's} = 4 \text{ Volts}$ .

We could further divide the voltage any way we wanted by using more resistors of different values. We could use ten 7.5 Ohm resistors in series to give us the 75 Ohm's. Each resistor would still have 0.16 Amps flowing through it, so the voltage across each of the 10 resistors would be  $0.16 \text{ A} \times 7.5 \text{ Ohm's} = 1.2 \text{ Volts}$  across each resistor. You can see that the 1.2 volts multiplied by 10 (how many there are) gives us 1.2 Volts across each of the 10 resistors.

Practice your skills on this next circuit which contains 7 resistors.



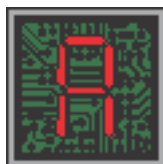
Find the circuit's total resistance first. Next find the total circuit current and finally, the voltage drop across each of the 7 resistors. The solution to this problem is at the end of this article.

Now let's take a look at resistors in parallel. In parallel circuits or branches of a circuit, the voltage across each of the parallel branches is the same and it is the current which divides. Let's take a look at why this is.

*Continued on page 4*

# Is there a market for a \$400 “prepper” radio?

By Dan Romanchik, KB6NU



couple of days ago, a reader wrote:

“I would like to know if it would be feasible to build a radio with the following features:

- \* SSB operation (only SSB is required, CW would be an additional benefit)
- \* 20 – 50W of power
- \* Portable-friendly (lightweight, capable of operating at lower voltages from small portable batteries)
- \* Low receiver current drain
- \* Coverage of 40m and 80m bands. Very limited coverage is acceptable. Even channelized coverage of a few select frequencies would be acceptable.
- \* S-meter



“It strikes me that there is a large market for ham radio products for “preppers,” and there has been a lot of interest in the Baofeng line of radios from that market. I think there would be a LOT of interest in a radio that could go far beyond line-of-sight and contact friends or family hundreds of miles away. Preppers would have little interest in contacts more than a state or two away, and no interest

at all in novel operating modes. I wonder if a radio that trims away excess features (all-mode operation, wide frequency coverage, high power output, sophisticated audio filtering) could be produced for a lot less cost than currently available HF rigs. If so, and it was paired with a decent NVIS dipole and some General-class study materials and sold as a package deal, it could be a huge hit – Something you could tuck in a bug-out-bag, set up in the field, and use to make contacts in a reasonably local area, or set up in your backyard at home and use minimal power to operate.

“Is there a reason why I don’t see radios like this on the market, some kind of technological limitation that would make this sort of thing impractical? If something like this was built, what kind of cost and performance would you expect? I’m certainly not expecting any kind of detailed analysis, but even just a speculation about if such a project could be feasible would be appreciated.”

I replied:

“I think one of the reasons you don’t see radios with the feature set you describe is that more full-featured radios are already pretty inexpensive. The Yaesu FT-450D, for example, costs less than \$800 and offers 100W output. The FT-817ND, which is designed for portable operation, costs less than \$700. Is that too much for preppers?

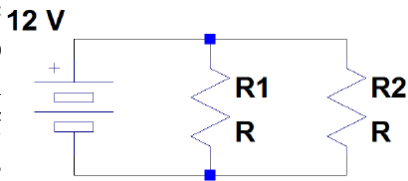
“While it might seem like you could sell a radio with fewer features for less, I think that you hit the law of diminishing returns. At some point, removing features, doesn’t reduce the cost all that much. For example, removing the CW capabilities from a transceiver capable of SSB operation really doesn’t save that much because in a way CW operation is really just a subset of SSB operation. You’ll save the cost of a key jack, but how much is that? Maybe a buck or two. Having said that, it could be that the big amateur radio manufacturers are overlooking an opportunity here.”

We swapped a couple more e-mails about this. He noted, “Most preppers would probably rather buy a high-end AR-15 or several months worth of storage food for \$800 than a radio.” I suggested, “If there was a catastrophic event, and you really needed to communicate, wouldn’t it seem silly to have not spent the extra \$400 on a really decent radio?”

What do you think? Is my analysis a little too simplistic perhaps? Are amateur radio manufacturers ignoring a potential market? ☺

**Dan, KB6NU, is the author of the “No Nonsense” amateur radio license study guides, and blogs about amateur radio at [KB6NU.Com](http://KB6NU.Com). You can contact him by e-mailing [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).**

Here we have a basic parallel circuit made up of a 12 volt battery and 2 resistors. The top of this battery is at 12 volts positive. The top of both



The bottom of the battery, and also both resistors, are at the ground side which is our zero volt reference. Therefore both resistors have 12 volts across them. Current flowing from the battery will branch off at the point where R1 is connected and some will go through R1, while the rest will take the other path through R2. In analyzing what is happening in a parallel circuit like this we can find the total circuit resistance in 2 ways. The first method is to calculate the currents through the resistors using Ohm's law ( $I = E/R$ ), adding the currents together gives us the total current in the circuit which allows us to calculate total circuit resistance, again, using Ohm's law ( $R = E/I$ ).

Let's substitute some values for R1 and R2 above and do the math. We'll make R1 = 100 Ohm's and R2 = 50. The current through R1, using  $I = E/R$  is  $12/100 = 0.12$  amperes. R2's current would be  $12/50 = 0.24$  amps. Notice that the smaller resistor has twice as much current flowing through it. We add the currents to find total circuit current equal to 0.36 amps. Therefore using Ohm's law total circuit resistance is  $R = E/I$ , or  $12/0.36 = 33.33$  Ohm's.

The second way to calculate total circuit resistance here is to use one of the parallel resistance formulas. The main one being the "reciprocal of reciprocals" formula:

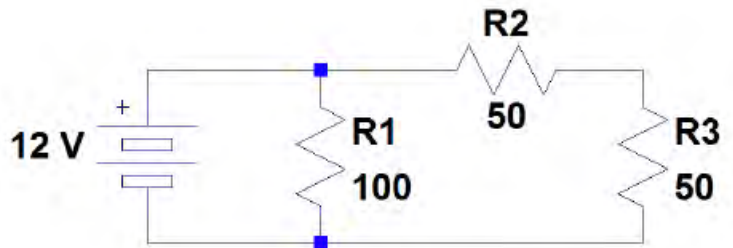
$$R = \frac{1}{\frac{1}{R1} + \frac{1}{R2} + \frac{1}{R3} \dots}$$

For problems with only 2 resistors there is a second formula we can use which is simply the product divided by the sum of the 2 resistors.  $(R1 \times R2)/(R1+R2)$ . We'll use the 2nd method here since we have only 2 resistors.  $R1 \times R2 = 100 \times 50 = 5,000$  and we divide that by the sum,  $100 + 50 = 150$ . So,  $5,000/150 = 33.33$  Ohm's. Having calculated total resistance we find total current,  $I = E/R$ ,  $12/33.33 = 0.36$  amps (you should also recognize this as being 360 milliamps).

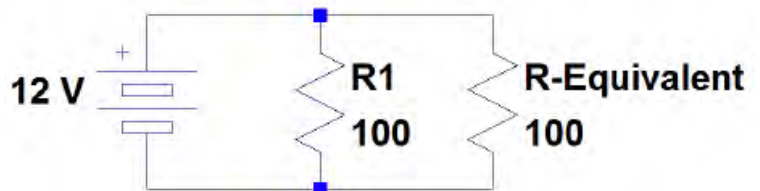
So what about circuits that contain both series *and* parallel parts? To analyze them we take a methodological approach and combine the various branches into "equivalent"

resistances. We do this from the far end of the circuit (the furthest point from the input, which in our example will be a battery supplying voltage and current) and work back to the source or input. Once we have combined all the branches we will have found the total circuit resistance and be able to calculate total circuit current. From there we work backwards, uncombining each of equivalent branches and using Ohm's law to find the various currents and voltage drops until we know all there is to know about that circuit.

Let's look at a simple example: Here we see a 100 Ohm resistor in parallel with our 12 volt battery. The top of R1 is at 12 volts and the bottom is our zero, or ground, reference. Current is also flowing to the other branch containing R2 and R3. One side of R2 is connected to 12 volts but to



continue to ground the current must continue on through R3 to reach the other side of the battery. So we can see that R2 and R3 are in series with each other, but the pair of resistors, R2 and R3, are in parallel with R1. R2 and R3 will have the same current flowing through them and so will divide the 12 volts they are in parallel with between them. Because the 2 resistors are of equal value we can expect them to split that 12 volts evenly at 6 volts each. But let's look at how the resistance of the circuit can be calculated. Starting in the far branch we have R2 and R3 in series so their resistances add together to give us an equivalent 100 Ohm's which we can draw like this:



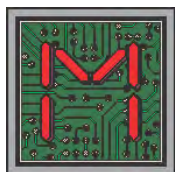
We next combine R1 and the equivalent 100 Ohm's in the outer branch using the product divided by the sum, so,  $100 \times 100$  divided by  $100 + 100 = 10,000 / 200 = 50$  Ohm's. So we can redraw the circuit once again as a voltage and an equivalent resistance:

*Continued on page 7...*



## Reporting from “Air One”

By Gabriel “Gabby” Sartoretti, KC2WUP



My experience going up in a helicopter for the first time was surreal. It was all I expected and more. What made it even cooler was the fact it was the *News12* chopper.

I was pretty nervous at first, mainly because I'm not a regular speaker over the radio. But as we slowly lifted off the ground and into the air all those nerves were wiped away. It took no more than 5 minutes to get over the Hope for the Warriors race and we patiently waited for the race to begin.

I communicated back to net control when the 5k and 10k began, and also communicated any questions the pilot had.

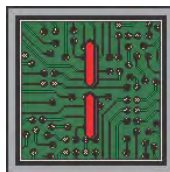
We stayed up until the race was nearly finished. It was such an amazing experience that I will always remember.

Thank you so much *News12* and GSBARC. 🇺🇸



## Inside the Squirrel Cage

by Caryn, KD2GUT



It's not that I don't believe in Santa: I do! How could I not, with so many Santa Nets criss-crossing the states and the globe and the start of OF9X, the big annual Santa-chasing Special Event Station that tracks his travels beginning near the Arctic Circle in Finland.

I was born in December so if there's anyone who's not encouraging the humbug spirit, it's me. It's just that this year I'd like to be listening on the bands for someone a little less jolly, a holiday figure who's a not-quite-Santa but close to him nonetheless: That would be Krampus. Do you know Krampus? He's Santa Claus' demonic assistant, his holiday henchman – one of many evil sidekicks, actually, but Krampus is the baddest of the bad and he's been a big star, albeit a dark one, in European folklore forever. With his hooves and his horns and his long nasty tongue all helping articulate his snarky disposition, perhaps you've heard him on a certain frequency on 20 meters. Maybe he jammed your signal. Or maybe you've inadvertently worked him and he gave you a 5 and 9. (One caveat: Don't expect that QSL card anytime soon. Krampus isn't known for his social courtesies.)

Just as Krampus' folkloric role is to terrify children into being good, Krampus may well become amateur radio's alternative to the FCC's monitors at holiday time. This powerful figure could drain the RF swamp of hams behaving badly and drag them off to the fiery Great Beyond crammed inside his own unique version of a “GO” box.

So enjoy your Santa Nets and your on-the-air holiday cheer – but do consider the Krampus alternative. If we swap

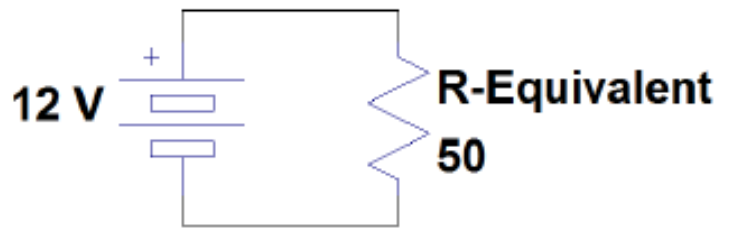


his trademark fistful of whips and switches -- or even the imposing cane he uses for beating the naughty -- and outfit him with a Rettysnitch and a Wouff-Hong, we can just turn him loose. You better watch out, you better not try -- or even THINK of tuning up on a rare DX's calling frequency. Krampus is coming to town -- and he'll be listening to your next ragchew. ☺



*Jerry Schatz, W2MFW became a silent key (SK) on Wednesday, November 30th at the age of 91.*

*Jerry was a child actor who starred in the "Our Gang" series as the spoiled rich kid. ☺*



Total circuit current is  $I = E/R = 12/50 = 0.24$  amps. Keeping in mind that our current is dividing between the branches we now can calculate the current by uncombining a step at a time. Our last step had us at R1 and an equivalent resistance in parallel. The current through R1 is found with  $I = E/R$ . E is 12 volts as we observed earlier, so  $12/100 = 0.12$  amperes. The equivalent branch is also 100 Ohm's and so also has 0.12 amps flowing through it. When we un-combine the 2 resistors in the outer branch we are left with our series circuit made up of two 50 Ohm resistors which we have just shown to have 0.12 amps flowing through them. The voltage drop across these resistors is  $E \times I$ , and doing the math we see 6 volts across each of them. More complicated looking combinations of resistors are simplified similarly.

(Answer to the series problem: Total resistance = 2,200 Ohm's. Total Current = 5.45 mA. Voltage across resistors: R1 = 0.14, R2 = 0.054, R3 = 10.9, R4 = 0.54, R5 = 0.22, R6 = 0.027 and R7 = 0.11)

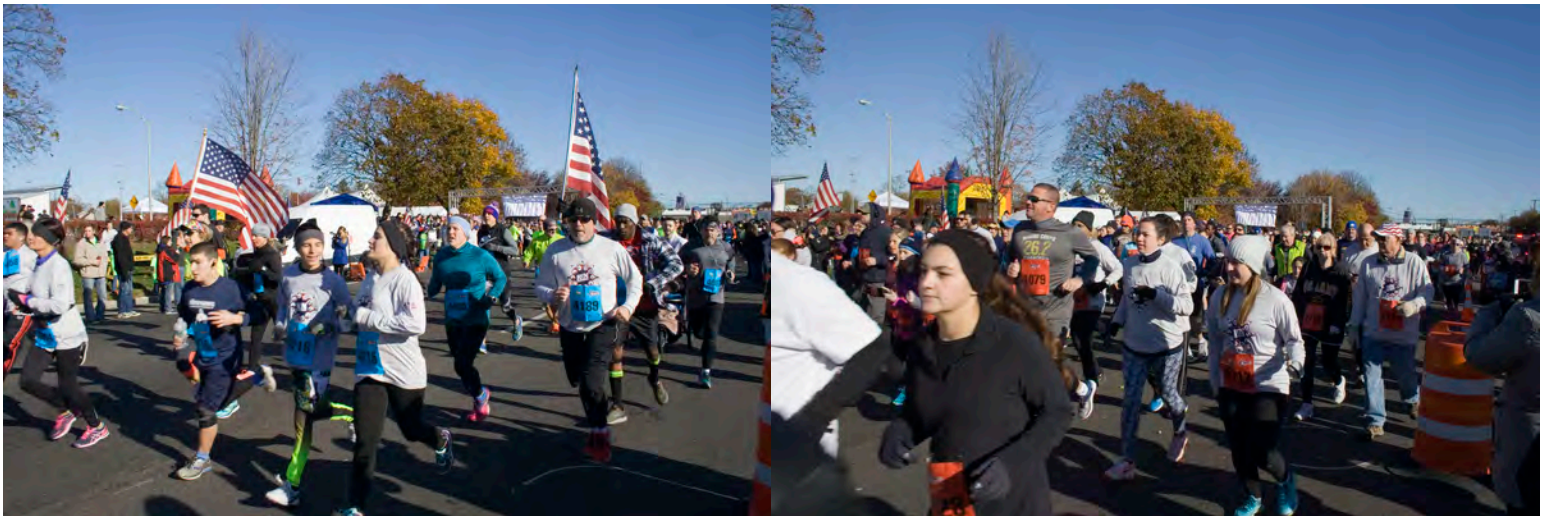
73 and see you in class. ☺

## Club Election Results 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



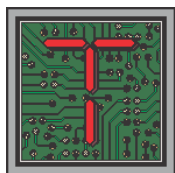
# *2016 Hope for the Warriors Run*





# Signalink USB Sound Card & RJ-45 A/B Switch

By John Smale, K2IZ



The world of emergency communications has come a long way since I was first licensed back in 1971. Back then, we had preprinted paper message forms. A message was received and it was written down on the form. You followed the same procedure when transmitting messages. Today by installing FLDIGI and FLMSG on a laptop computer, you can do that and more. One of the most common radio interfaces for connecting a laptop to a radio is the Signalink Integrated USB Sound Card made by Tigertronics. The connection between the computer and Signalink is a USB A-to-B type cable. The Signalink has an RJ-45 connector on one end and a variety of connectors on the other end, depending on the manufacturer of the radio. In this case the cable (Tigertronics SL-CAB6PM) has an RJ-45 on one end and a 6-pin mini-DIN connector on the other that connects to the data ports on both the Kenwood TS-480 and the TM-V71.

Quite recently there has been increased emergency message traffic on VHF using FLDIGI and FLMSG. Some stations report they use the mic and earphones between an HT and a laptop to transmit and receive messages in the field. One problem with that is OLIVIA type transmissions can take several minutes of holding equipment together and it can get quite tiring.

After doing some online checking, I discovered that the TS-480 and TM-V71 both use the same type of interface cable, RJ-45 to 6-pin mini-DIN. I wanted to be able to use HF and VHF communications for PSK, MARS and FLMSG on the Town of Babylon Emergency net. Unfortunately the TS-480 only covers the 160-6 meter bands and nothing in the VHF bands. I also didn't want to buy another Signalink and associated hardware. The Signalink requires specific

interface boards for the internal wiring. They used to supply jumper wires but the solid state board for the specific radio is an improvement.

Doing another online search, I discovered that they make an RJ-45 A/B switch. One lead feeds in and the A/B switch changes the leads between two different units.

I ordered a switch from Amazon.com.



I also ordered an additional interface cable (Tigertronics SL-CAB6PM) as well as a plug-and-play module (SL-MOD6PM) to replace the jumper wires that originally came with my Signalink. The only additional part required was an RJ-45 5-foot jumper cable.

When the parts arrived, it was a simple task to hook everything together: one interface cable between the TS-480 and one port in the A/B box (in my case it was port A) and the other interface cable between the TM-V71 and the other port (B in my installation). Then, using the jumper, I hooked up the A/B switch from the I/O port to the input of the Signalink Radio input jack.

On-the-air testing with W2HCB and K2TV proved that this setup works! I like it because it eliminates reaching behind equipment and unplugging and plugging in the RJ-45 cable. Through firsthand experience I have discovered that this leads to the locking tab on the RJ-45 plug to eventually break off. The plug will still sit in the jack but without the locking tab, it causes a loose connection, causing other problems.

Please note that when you first buy the Signalink there are additional steps needed to do with the radio and the sound card settings on the computer. As is always the case: RTFM! Ⓜ

# 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](http://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 (136.5 PL)  
Alternate Frequency - 145.370 (136.5 PL)

## New York State

### RACES Net (HF)

Sundays 0900 Local, 3993.5 KHz LSB

## 2016 VE

### Session Dates

- December 17th

## 2017 VE

### Session Dates

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

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](http://www.fcc.gov) 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](mailto:Kevin, AB2ZI at kmorgan6@optonline.net)

## Club Name Badges

Club name badges are available from The Sign Man ([www.thesignman.com](http://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"



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## 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.