

QRA NEWSLETTER

QUANNAPOWITT RADIO ASSOCIATION

6 SAVIN STREET, BURLINGTON, MA 01803-2210

EMAIL: AA1M@ARRL.NET

CLUB CALL: W1EKT

ON THE WEB AT: WWW.W1EKT.ORG

JUNE 2018

VOLUME 57, ISSUE 10

QRA WAS FOUNDED ON NOVEMBER 18, 1948

IN WAKEFIELD, MASSACHUSETTS

1948-2018, OUR 70th YEAR

CLUB OFFICERS

President – Don Melanson, KA1MAP

Vice President – Mike Rioux, W1USN

Secretary – Bob Reiser, AA1M

Treasurer – Jeff Hollis, W1CKH

Club Webmaster – Brian Gudzevich, WO1VES

Club Call Trustee – Brian Gudzevich, WO1VES

QRA Equipment Manager – Dave Libby, N1SJB

Nominating Committee- Barbara Day, KA1EDV

QRA 2-Meter Net- Brian Gudzevich, WO1VES

Education Committee- Jim Fisk, W1HL

Tom Cefalo Jr.- W1EX

Tim McNulty, K1TIM

Field Day Committee- Walter Callahan, KC1ENI

Jim Powers, KC1ENJ

BOARD OF DIRECTORS

Bill Watt, W1HN 2016-2018

Rob Woltag, W1AFP 2016-2018

Fred DeVries, AC1BN 2016-2018

John Carrick, KB1YEF 2017-2019

Tim McNulty, K1TIM 2017-2019

Brian Gudzevich, WO1VES 2017-2019

Membership committee - **VACANCY**

Archives Trustee – Bob Reiser, AA1M

Christmas Committee - Jim Fisk, W1HL

Speaker Committee - Mike Rioux, W1USN

John Carrick, KB1YEF

Banquet Committee- John Carrick, KB1YEF

Barbara Day, KA1EDV

Jim Fisk, W1HL

IS IT TIME TO PAY

YOUR DUES ?

STILL ONLY \$15.00

SOON TO BE RAISED TO \$20.00

Dues can be paid to the club treasurer at the next meeting or sent to him at:

QRA c/o Jeff Hollis, W1CKH, 46 Bond St., Reading, MA 01867-2432

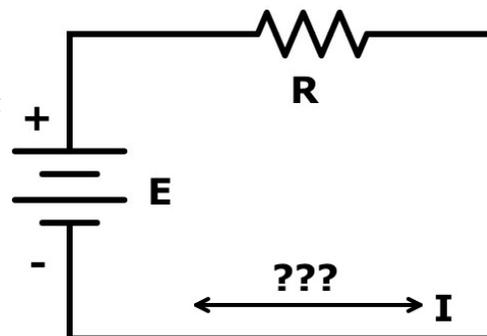
QRA MEMBERSHIP MEETING

The QRA holds its membership meetings at the Reading, MA Senior Citizen Center at 49 Pleasant Street in the old fire house. All are invited and holding an Amateur Radio license is not required. Meetings begin around 7:00 pm on the third Thursday of each month, September through June. We have very interesting speakers. Come join us and bring a friend with you.

COME JOIN THE QRA 2-METER NET ON TUESDAY EVENINGS WA1RHN/R AT 7:30 PM ON 147.075 FM/FUSIO * PL Tone 151.4 Echolink: WO1VES-R (813502)

WHICH WAY DOES CURRENT REALLY FLOW? By Dan Romanchik, KB6NU

I was recently taken to task by one of my blog readers regarding my description of current flow in my *No Nonsense Technician Class License Study Guide*. He wrote: You casually say that current flows from Positive to Negative (with cool accompanying directional arrows), without any accompanying qualifying statement. Over the years I have looked at ALL the views on the subject. Positive to Negative is NOT what I was taught 48 years ago, and I have never seen a good reason to change my view. In a subsequent email, he pointed me to a Nuts 'n Volts article, "[Which Way Does Current Really Flow?](#)" and asked my opinion. In the article, the author, who is a ham by the way, does a good job of explaining the various types of current flow.



I agree that in electronic circuits electrons flow from negative to positive, but it really doesn't matter. I agree with one of the article's commenters who says,

This is a silly argument. It's like comparing apples and oranges and challenging people to take sides.

Electron flow is not current flow. Electron flow is easy to understand, an actual physical property, and a real help in understanding vacuum tube operation. But it falls apart when one needs to understand complex electronic systems.

[Conventional] current flow is a mathematical abstraction. It is defined as a net flow of positive charge, irrespective of the polarity of the physical charge carriers — whether electrons, holes, positive or negative ions, or whatever.

When looking at any circuit containing a resistance with a voltage across it, conventional current through that resistor says that the voltage drop occurs as the current through it meets resistance. On the other hand, in negative (electron) flow, a voltage INCREASE will correspond to the 'current' flow through it, clearly violating physical laws. Conventional current flow is consistent with the laws of physics and those of other engineering disciplines.

You are correct that engineers, professors and scientists use conventional current flow. That is not because they are too obtuse to understand electron flow; I assure you they fully understand it. It is because in their world they have to solve more general problems involving complex math and science, and, again, conventional current flow is consistent with physical laws.

It is unfortunate that electron flow and current flow are so often confused. They both have their place.

After reading that article, I thought I'd see what the ARRL Handbook has to say about current. In the 1963 edition, they don't mention electron flow at all. They have one diagram showing the direction of current flow in both series and parallel circuits, but the voltage source has no polarity. It's simply labelled "Source of E.M.F." Diagrams giving practical examples of series and parallel circuits do include a battery, and if the reader were to mash up the two diagrams, they would conclude that current flows from the positive terminal to the negative terminal.

The most recent edition of the Handbook that I have is the 2005 edition (it might be time to get another copy!). It says, Electrons move from the negative to the positive side of the voltage, or EMF, source. Conventional current has the opposite direction, from positive to negative. This comes from an arbitrary decision made by Benjamin Franklin in the 18th century. The conventional current direction is important in establishing the proper polarity sign for many electronics calculations. Conventional current is used in much of the technical literature. The arrows in schematic symbols point in the direction of conventional current, for example. Having said all that, I really don't see that there's much of a controversy here. I did learn to think of current as conventional current in college, although it was mentioned that electrons actually flow in the opposite direction. Using the concept of conventional current has never seemed to hold me back. I've been able to design circuits and repair electronic equipment thinking that current flows from positive to negative.

Although it's a departure from my "no nonsense" style, I am thinking of including a sidebar, similar to the paragraph above from the 2005 Handbook explaining the two ways of looking at current flow. What do you think?

When he's not trying to figure out which way current flows, Dan blogs about amateur radio at KB6NU.Com, teaches ham radio classes, and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him at cwgeek@kb6nu.com.

THE

781-368-3413

Shameless Wolf

Web, <http://www.shamelesswolf.com>

Email: brian@shamelesswolf.com

Your Local Technology Specialist

Brian and the Shameless Wolf know technology. He can help you with your Computers, Networking, Printers, Home Theater, and even gadgets. Whether you're having problems with a virus, need a new hard drive, or just need to figure out which connector to plug your new DVD player into. The Shameless Wolf is here for you. So give the Wolf a call today for quick, affordable, and reliable technology services.

QRA members get 25% off labor when you mention
this ad, compliments of Brian, WO1VES

QRA MAY 2018 MEMBERSHIP MEETING MINUTES

This months meeting was called to order at 7:10 pm by club president Don Melanson, KA1MAP. Don asked all to give a moment of silence Gene Hastings, W1VRK who became a Silent Key in April.

Club treasurer Jeff Hollis, W1CKH noted the club has a treasury balance of \$600.00 and he and the officers and BOD will be having a hard look at the expenditures of the club.

Election of club officers and BOD followed with the current officers all deciding to remain in office for another year. Member Bill Watt, W1HN will be staying on for another 2 years as a BOB member.

President Don will be submitting an application to hold club field day 2019 in Wakefield, MA. This year we will again holding field day at Overlook Park in Burlington. This is where we held it the last 2 years.

Don is hoping to start plans for the clubs 70th birthday celebration to be held at the Noveber 15, 2018 monthly meeting.

A motion was made to charge a fee of \$10.00 per person for the annual banquet if paid before June 15. Price will be \$15.00 at the door. It was suggested attendees bring along a gift priced below \$10.00 to the banquet for a lottery drawing if they wish.

Ron Draper, WA1QZK will be looking into a few locations in the Stoneham area for the 147.075 repeater. Ron and Don will start asking about the HOME DEPOT/Jordan's Furniture building adjacent to Rte. 128.

QRA call sign badges are available from Mike Rioux, W1USN.

Meeting adjourned at 8:06 pm. (Submitted by Bob Reiser, AA1M)

- ATLAS AERIAL IMAGING -

Residential & Commercial Real Estate Imaging - Bridge Inspections - Precision Measuring

Pre-Construction & Final Construction Inspections - Wind Turbine Inspections - Flare Stack Inspections

Construction Site Progress Inspections & Surveying - Marketing & Promotional Videos & Images - Cell Tower Inspections

107 Licensed, Insured & Registered

Owned and operated by Paul Allain, N1YPW

atlasaerialimaging@gmail.com **617-548 4948**

QRA IS ON THE WEB AT: WWW.W1EKT.ORG

And <http://www.facebook.com/QRAWolfPack/>

KDA Custom Embroidery is owned by QRA member Paul Anderson, KA1GIJ and his wife Kathleen. For over 20 years, Paul and Kathleen have been providing customized embroidery and screen-printing from their shop on Pearl Street in Reading. Names, monograms, call signs, logos and designs (stock or customized) can be stitched on hats, shirts, sweatshirts, polo-shirts and more. Purchase garments from them or provide your own.

Visit: www.kdaembroidery.com, email to kdace@aol.com or call Kathleen at (781) 942-0421.

QRA ON FACEBOOK

Join us on our combined Facebook page at <https://www.facebook.com/QRAWolfPack/> and keep up to date with information about QRA and the Wolf Pack Repeater System. Both are being run by Brian Gudzevich, WO1VES.

NEXT QRA MEMBERSHIP MEETING IS THURSDAY

JUNE 21, 2018

AND WILL BEGIN AT

*** * * 7:00 PM * * ***

THIS MONTHS MEETING WILL BE OUR ANNUAL BANQUET WITH CHINESE FOOD FROM A LOCAL RESTAURANT SERVED BY MEMBER JOHN CARRICK, KB1YEF

AND WILL INCLUDE INSTALLATION OF QRA CLUB OFFICERS AND BOD

**QUANNAPOWITT RADIO ASSOCIATION
6 SAVIN STREET
BURLINGTON, MA. 01803-2210**

**EMAIL: AA1M@ARRL.NET
CLUB CALL - W1EKT**

FIRST CLASS MAIL TO:

**QRA WEBSITE:
WWW.W1EKT.ORG
<http://www.facebook.com/QRAWolfPack/>**

