



The Short Circuit

FEB & MAR 2018

since 1927

Volume 91, Issue 2 & 3

Note from the Editor: To accommodate our change in meeting date, the newsletter will be published in the week PRIOR to the coming month and be dated as the coming month. This month's Edition is for both February and March. Next month edition will be dated "April, 2018".

The March meeting of the United Radio Amateur Club will be held SATURDAY, March 3rd in conjunction with the First Saturday Breakfast, at the Think Café (302 W 5th Street) in San Pedro.

Program:



Walt Ordway, will present a short intro to a Ham Radio Cruise. So far he has been on six cruises and is in a perfect position to answer any and all of your questions. He will present many photos taken during the cruise. These photos will be the ham operators at the two operating stations, and some are photos taken at each port (Key West, Freeport Bahamas, Nassau Bahamas). Think of it as a story about the cruise (on the ship and at three ports).

Our speaker is Walt Ordway (K1DFO). Walt was raised in Manchester New Hampshire where he got his K1DFO call in February 1957. He got his BSEE at Northeastern University and his MSEE at Penn State. He worked for the Hughes Aircraft Company from 1967 to 1997. He retired as a VP of Engineering of DirecTV.

In March of 2002, the seven major Hollywood studios (Disney, Fox, MGM, Paramount, Sony, Universal, and Warner Brothers) created a company called Digital Cinema Initiatives, LLC (DCI). Walt was the Chief Technology Officer of DCI.

Club members should remember him as instructor of many Ham radio classes for the PV ARC, and as organizer of Ham radio support of the "Conquer the Bridge" Race.

Program “Coming Attractions”: Following the April 7th Meeting, we have arranged a tour of the tunnels under the Marine Exchange and a visit to the Vessel Traffic Center. Mark your calendars!

February First Saturday Breakfast



The first of our joint URAC Breakfast/membership meetings saw 26 members and guests. After a round of introductions, the group had this to say:

Doug, W6HB worked Uri from the Czech Republic from his mobile unit in the parking lot. In his experience, the bands are OK.

Ivan, KB6ATT has not had similar success with the bands. Although he usually can get the Maritime Mobile net on 14.300, he was only able to hear net control: somebody in CT.

Ingo, KK6EWB, passed, although his xyl

Mary, said hello and nice to see everyone. Turns out they spent 8 months on the road last year...

Neal, N6NW, passed, but

Larry, KK6TXN got an off center fed dipole up from “My-Antennas.

Bob, AA6ZZ, (a previous member) is currently off the air because he had to have a new roof.

Stuart, WX6ST went mobile in his 1999 Suburban, 7 months ago with and FT 857D, has never used it all that much except for now...has heard lots lately

Don, NA6Z, updated us on his tale of woe with his credit card use by another party and his battles with Amazon that resulted. This topic usually provokes a heated discussion on the subject and did so again today.

Scotty K6ZNL said that we still have openings that are not covered at the K6AA station on Wednesday and Sunday mornings, and Saturday afternoons. Most other time periods have only one operator so let her know when you would like to operate. If you have not been cleared by the museum yet, see Doug, W6HB to get the paperwork started.

George, WA6YBR is enjoying his time operating the station, has done CW, now trying out SSB. Recently went on a trip to the Midwest and is now exploring FT-8.

Dennis, KG6IUS, another former member, just retired last year and has a house on the big island of Hawaii. Recently put on a new roof and had to deal with rats.

Sam, K1SL, is working support for the Baker to Vegas (B2V) race again this year, worked stage 4 last year. This year the race is March 17.

John, WA6SDK, worked Japan from the station last week.

Treva, N6HMS is having hard drive problems and has been without a computer now for 4-5 days (yikes, ed.) She introduced her grandson William (no call yet)

Gary, N6HMR talked about computer cleaning programs... ‘Perifirm’ (?)

Janet (no call yet), Homer’s daughter described on of their recent drives to the top of Pizcah Mt and Rainbow Basin.

Homer, K6HKT, says the area has very pretty lava flows.

Steve, K6NT has a new wireless weather station that he put up last week but hasn’t yet connected to the internet. He says it measures “Everything”.

Bill W6AJ has relatives coming to visit and thus has to clean the house. So far, he has spent 6 days on it and has 8 days to go before they get here (good luck)

David, W6KL says nothing new from Burbank

Norman, KG6FSA, is doing well on his therapy regimen and feeling better,

Martin, N6UB and xyl Mary, heard N7ZW talking to others in Port Townsend. Suggested a novel method to communicate digitally: buy a \$3 cell phone but don’t activate it with a plan, then use it with an a

Special Event Stations: March 2018

- **03/10/2018 | USS Midway Museum Ship Special Event: Launching of USS Midway Mar 10, 1700Z-2300Z, NI6IW**, San Diego, CA. USS Midway (CV-41) Museum Ship. 14.320 7.250; 14.070 (PSK31); D-STAR on REF001C. QSL. USS Midway (CV-41) COMEDTRA, 910 N Harbor Drive, San Diego, CA 92101.
- **03/17/2018 | Cherry Blossom Festival Mar 17, 1400Z-2000Z, W4BKM**, Macon, GA. Macon Amateur Radio Club. 14.240 7.225 145.37. Certificate. Macon Amateur Radio Club, P.O. Box 4862, Macon, GA 31208. www.w4bkm.org
- **03/24/2018 | Battle of Horseshoe Bend Mar 24, 1500Z-2300Z, N4H**, Alexander City, AL. Lake Martin Amateur Radio Club. 14.200 7.250. Certificate & QSL. Michael Courtney, 96 Alabama Drive, Alexander City, AL 35010. Battle of Horseshoe Bend Special Event, N4H. celebrates the 203rd anniversary of the historical battle between Andrew Jackson's forces and the Creek Indian nation on the Tallapoosa River. SSB operations on 20 and 40 meters is planned on March 24, 2018 from 9:00 to 4:00 CST (1500Z to 2300Z). QSL cards/ certificates will be available by SASE to 96 Alabama Drive, Alexander City, Alabama 35010. KK4AUP@arrl.net
- **03/27/2018 | The Buckingham Army Airfield Mar 27-Mar 29, 1400Z-2100Z, W4LX**, Fort Myers, FL. Fort Myers Amateur Radio Club. 14.240 21.240 2m FM 40m. Certificate & QSL. W4LX, PO Box 061183, Fort Myers, FL 33906. 9AM to 4PM local time. www.fmarc.net

DX OPERATIONS FOR MARCH 2018

per NG3K

Guadeloupe, FG: Is now operating thru 2/15/2018. QSL via F6ITD.
 St Kitts & Nevis, V47JA: Is now operating thru 3/16/2018. QSL via W5JON.
 Rotuma, 3D2EU: Is now operating thru 3/16/2018. QSL via PA3EWP.
 French Polynesia, FO: Is now operating thru 3/13/2018. QSL via OE3GEA.
 Temotu, H40YM: Is now operating thru 3/13/2018. QSL via EA5GL.
 Trinidad & Tobago, 9Y4: Is now operating thru 3/12/2018. QSL via UA4CC.
 Hawaii, KH6: Is now operating thru 3/8/2018. QSL via AA4NC.
 Cayman Is, ZF2AE: Is now operating thru 3/10/2018. QSL via AA5UK.
 Revilla Gigedo, 4B4B: Is now operating thru 3/15/2018. QSL via XE1B.
 Equatorial Guinea, 3C3W: Is now operating thru 3/28/2018. QSL via YL2GM.
 Annobon Is, 3C0W: Is now operating thru 3/28/2018. QSL via YL2GM.
 Zimbabwe, Z2LA: Is now operating thru 3/11/2018. QSL via M0OXO.
 Easter Is, XR0YD: Is now operating thru 3/15/2018. QSL via DL7VEE.
 Guadeloupe, FG: Is now operating thru 3/20/2018. QSL via OE6MBG.
 Reunion, FR: Is now operating thru 3/31/2018. QSL via F1FJR.
 Bahamas, C6A: Is now operating thru 3/13/2018. QSL via NF3R.
 Spratly, Is, 9M0W: Is now operating thru 3/13/2018. QSL via YT1AD.
 Curacao, PJ2: Is now operating thru 3/15/2018. QSL via DL1RNT.

Belize, V31GX: Is now operating thru 3/16/2018. QSL via G4SGX.
Benin, TY7C: Will be operating from 3/7 thru 3/18/2018. QSL via F5NQL.
Curacao, PJ2: Will be operating from 3/7 thru 3/21/2018. QSL via PB1HF.
Antigua & Barbuda, VP9: Will be operating from 3/8 thru 3/11/2018. QSL via N6RM.
Bermuda, VP9: Will be operating from 3/8 thru 2/12/2018. QSL via KG6CIH.
Palau, T88XH: Will be operating from 3/8 thru 3/14/2018. QSL via JA0EKI.
Bahamas, C6AKT: Will be operating from 3/8 thru 3/17/2018. QSL via M1KTA.
Madeira, CT9: Will be operating from 3/8 thru 4/5/2018. QSL via DL3KWF.
Macao, XDX9B: Will be operating from 3/9 thru 3/17/2018. QSL via PP1CZ.
Congo, TN5R: Will be operating from 3/9 thru 3/19/2018, QSL via EA5RM.
Mauritius, 3B8XF: Will be operating from 3/10 thru 3/11/2018. QSL via G3TXF.
French Polynesia, TX5X: Will be operating from 3/10 thru 3/17/2018. QSL via W0ZRJ.
Solomon Is, H44YM: Will be operating from 3/13 thru 3/17/2018. QSL via EA5GL.
Philippines, DU1: Will be operating from 3/13 thru 3/18/2018. QSL via SP5APW.
St Lucia, J68SL: Will be operating from 3/13 thru 3/22/2018. QSL via WF2S.
Curacao, PJ2: Will be operating from 3/13 thru 3/28/2018. QSL via DL9NBJ.
Curacao, PJ2: Will be operating from 3/14 thru 3/27/2018. QSL via DK5ON
Cameroon, TJ: Will be operating from 3/15 thru 3/31/2018. QSL via I2YSB.
Jersey, MJ6Z: Will be operating from m3/16 thru 2/18/2018. QSL via M0CFW.
Anguilla, VP2EGO: Will be operating from 3/17 thru 3/24/2018. QSL via WB2REM.
Galapagos, HC8: Will be operating from 3/19 thru 3/26/2018. QSL via 4Z1JJ.
Barbados, 8P6DR: Will be operating from 3/20 thru 4/29/2018. QSL via G3RWL.
Malawi, 7Q7EI: Will be operating from 3/21 thru 4/3/2018. QSL via M0OXO.
Burina Faso, XT2MAX: Wi;; be operating from 3/23 thru 4/2/2018. QSL via DK1MAX.
Mauritius, 3B8MM: Will be operating from 3/27 thru 4/11/2018. QSL via DL6UAA.

Which way does current really flow?

By Dan Romanchik, KB6NU

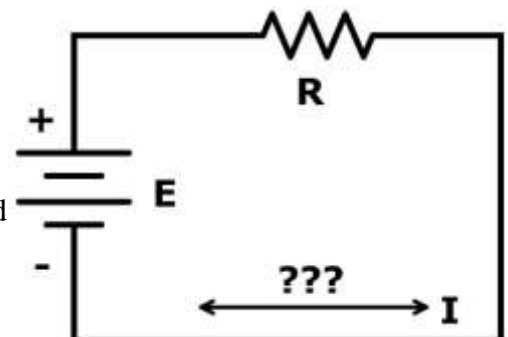
I was recently taken to task by one of my blog readers regarding my description of current flow in my *No Nonsense Technician Class License Study Guide*. He wrote:

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 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.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 URAC 2M simplex roundtable, 145.510 MHz, 8 pm	2 Groundhog Day	3 URAC First Saturday Breakfast AND club meeting, Think Café 8 am, San Pedro
4 Super Bowl 	5	6	7	8 URAC 2M simplex roundtable, 145.510 MHz, 8 pm	9	10
11	12	13	14 Valentine's Day	15 URAC 2M simplex roundtable, 145.510 MHz, 8 pm	16 Chinese New Year	17
18	19 Presidents Day	20	21	22 URAC 2M simplex roundtable, 145.510 MHz, 8 pm	23	24
25	26	27	28			

~ March 2018 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 URAC 2M simplex roundtable, 145.510 MHz, 8 pm	2	3 URAC First Saturday Breakfast AND club meeting, Think Café 8 am, San Pedro
4	5	6	7	8 International Women's Day URAC 2M simplex roundtable, 145.510 MHz, 8 pm	9	10
11 Daylight Saving Time Begins	12	13	14	15 URAC 2M simplex roundtable, 145.510 MHz, 8 pm	16	17 Saint Patrick's Day 
18	19	20 Spring Begins	21	22 URAC 2M simplex roundtable, 145.510 MHz, 8 pm	23	24
25	26	27	28	29 URAC 2M simplex roundtable, 145.510 MHz, 8 pm	30 Good Friday	31

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***** IMPORTANT NOTES *****

K6AA Station We can still use more operators for our K6AA station. See Doug, W6HB, and or Scotty, K6ZNL, for training and checkout.

Check out the special events page on k6aa.org for the latest from arrl and e-ham net.

Additional Calendar Notes**Club Roundtable**

Held weekly on
Thursdays at 8pm
145.510 Simplex

Club Meeting

Held monthly on the 1st Saturday of
the month in conjunction with our ...

No Host Breakfast

Held monthly on the 1st Saturday of
the month at 8:00am. Location:
Think Café on 5th Street in San Pedro

“VE/CE Session for Amateur and Commercial Licenses

Monthly on 1st Saturday **by appointment**. Go to <http://k6aa.org/licensing-exams/>

If no one schedules an exam, there won't necessarily be an exam team or exam material available.



The Museum is at the Foot of 6th Street.

