



Welcome to SFARC, Auburn, CA

Sierra Signals



P.O. Box 6421 Auburn, CA 95604

March 2018

<http://w6ek.org> info@w6ek.org

At The Key of SFARC:

PRESIDENT

Orion Endres, AI6JB
ojendres@outlook.com

VICE PRESIDENT

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Bruce Anderson, K6BAA
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sharron@suddenlinkmail.com

DIRECTORS

Greg Dolkas, KO6TH
Mark Graybill, W8BIT
Brian Gohl, AI6US

FIELD DAY CHAIRMAN

Vacant

REPORTERS

Satellites: Greg, KO6TH
Sunshine: Richard, WA6RWS

YAHOO! GROUP

Dennis Gregory, WU6X

REPEATERS

145.430 (-0.6 MHz/PL 162.2)
440.575 (+5.0 MHz/PL 162.2)
223.860 (-1.6 MHz/PL 110.9)

CLUB NET

Thursdays, 7:30PM, W6EK/R
145.430

CLUB MEETINGS

Second Friday of the month,
7:30PM at the Auburn City Hall,
1215 Lincoln Way, Auburn CA

CLUB BREAKFAST

Last Sat of the month at Mel's Diner
1730 Grass Valley Hwy, Auburn 7:30AM

NET CONTROL OPS

Dave Jenkins, WB6RBE
Casey McPartland, W7IB
Bob Brodovsky, K6UDA
Al Martin, NI2U

NEWSLETTER EDITOR

Barbara Anderson, W6EVA
anderson51@wavecable.com

WEBMASTER:

Herb-KM6JBI

VOLUNTEER EXAMINER

Al Martin, NI2U

Calendar of Events

March 9th:
Club Meeting

March 17th:
St. Patrick's Day

March 17th:
Hamfest

March 31st:
Club Breakfast

Inside this issue

- *President's Message*
- *Which way does current really flow?*
- *ARDF Championships set for June*
- *Board & General Minutes*



4th Annual Hamfest 2018

Loomis Historic Train Depot
5775 Horseshoe Bar Road,
Loomis, California

St. Patrick's Day, March 17,
7:00 AM - Noon

Rain or Shine!

We encourage members to receive Sierra Signals via email to save the Club the cost of reproduction and mailing

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President's Message

By Orion Endres – AI6JB, President

Hello All!

Placer County STEM Expo!

The ARRL Sacramento Valley Section is coordinating an interactive booth at this year's Placer County STEM Expo. The event is this Saturday, March 3rd, from 9 AM to 4 PM at William Jessup University in Rocklin. Dr. Carol Milazzo, KP4MD/W6, ARRL Section Manager, members of the Western Placer ARC and Sierra Foothills ARC, and other Hams from the Section will operate two stations to demonstrate the capabilities of amateur Radio. Visitors can try their hand in 2m Repeater, APRS, WinLink Packet, and 20m and 40m SSB and Digital.

You don't have to go to participate! We will be operating under the Special Event Callsign N6E, "November 6 Expo". Look for us on either of the W6EK and K6PAC repeaters. Watch for us around 14.245 and 7.245 on SSB or the standard PSK31 frequencies.

Sierra Foothills ARC NEEDS YOU!

We are in the critical need for a few folks to step forward and take on some key positions in the club. This is an excellent opportunity to stretch your wings and take your hobby to new heights.

Refreshments Chair. We need a refreshments chair for our monthly meetings. The job entails bringing coffee, water, soda, and treats to our monthly meetings. That's it!!

Drawing Chair. The Drawing Chair sells drawing tickets and holds the drawing at the end of the meeting and stores the drawing equipment. Andrew, KC6O, will help in buying door prizes. Again, all we need is someone show up at the General Meetings, sell tickets, and hold the drawing.

Field Day Chair. The Field Day chair holds the planning meetings and serves as the overall coordinator. The rest of us do the work. And when I say the rest of us, I mean Brian, AI6US. He has volunteered to be your assistant chair. The ideal chair would be someone who has attended a few of our Field Days. But don't let that stop you; there will be plenty of folks around to help you.

If you are interested in any one of these fabulous opportunities, please let me know ... soon!! Thanks.

Hamfest 2018 ... T-minus 16 days!!

Hamfest 2018 is just on the horizon, Saturday, March 17th, St. Patrick's Day this year and things are shaping up beautifully! We will give all the details at our next General Meeting on March 9th.

Batteries + Bulbs.

Ryan Tollefson
District Manager

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Independently owned and operated franchise.

It is time for a full-court press to talk up Hamfest! Get on area repeaters and ask folks if they are planning to come to Hamfest. Check into weekly nets and make QSTs announcing the Hamfest. Download flyers from our website and post them in public places. Let's get the whole world wondering what is so special this St. Paddy's day in Loomis!!

Get out there, make those QSOs, and have fun!!

Orion Endres, AI6JB

President

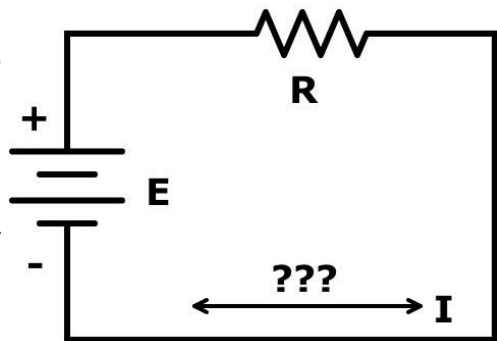


Which way does current really flow?

Submitted 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.



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USA ARDF Championships Set for June 13-17 in California

The 18th [USA Championships of Amateur Radio Direction Finding \(ARDF\)](#) will take place June 13-17, 2018, near Truckee, California, some 30 miles southwest of Reno, Nevada. The competition sites are at about 6,300 feet elevation near Donner Summit.

An optional training day will be held on Wednesday, June 13. Thursday will be devoted to foxoring, a combination of radio direction finding and classic orienteering. Friday morning will be the sprint event, followed by a model event for equipment testing and a competitor briefing.



Classic 2-meter and 80-meter competitions will take place Saturday and Sunday, respectively. There will be an awards banquet on Saturday evening for presentation of medals for foxoring, sprint, and 2-meter classic events. Awards for the 80-meter classic will be presented Sunday afternoon following the competition.

These sites have not been used for any ARDF competitions in the past. Course designer is Bob Cooley, KF6VSE, and Meet Director is Jay Hennigan, WB6RDV. Both have been medalists in past USA ARDF Championships.

The [Event Information Page](#) includes technical details, lodging information, site embargoes, tourism, weather and much more. Information about the sport of ARDF, including equipment and techniques. Registration will open soon. More details as they become available will be posted on the [Homing In](#) website of ARRL ARDF Coordinator Joe Moell, K0OV.



BOARD OF DIRECTORS MEETING MINUTES February 9, 2018

The SFARC Board meeting for February commenced at 1800 hours at the Sizzler restaurant in Auburn.

Roll Call: All officers and Directors were present. Guests included Richard-WA6RWS, Dennis-WU6X, Andrew-KC6O, Al-NI2U, Bob-K6UDA and Birton-N6UG.

REPORTS and DISCUSSIONS

President's Report: Orion-AI6JB submitted the agenda and asked for officer, board and committee chair reports. Orion asked each of the board members to submit their duties in a report.

VP Report: Mike-KK6GLP reviewed this evening's presentation.

Secretary's Report: Bruce-K6BAA advised the club equipment inventory is getting updated with more items reported by club members.

Treasurer's Report: Sharron-KK6RGV distributed copies of the updated the budget to board members. Greg-KO6TH made a motion to review the budget, Sharron seconded and after adjustments suggested by Mike-KK6GLP, the budget was unanimously approved. Sharron and Richard will complete a financial review.

Directors:

Brian-AI6US advised he is making changes to the club donation card he submitted last month.

OTHER DISCUSSIONS

Yahoo: Dennis-WU6X advised he is in the process of migrating the club's Yahoo site to groups.io, advised the new site has better support.

Membership: unchanged at 124. Board members are still telephoning members who need to renew. Brian-AI6US suggested adding an annual "Fox Hunt" club event to increase interest and involvement from members.

Events: Mike-KK6GLP advised the MS Walk is scheduled in Folsom April 15, the Enduro will be combined May 5-6 and the Tour de Cure has been cancelled this year. Tevis Cup to be placed on club calendar. Bob-K6UDA suggested the previously proposed "Official" club camp out should be "unofficial" and kept informal to promote participation. Orion suggested combining the camp out with the club picnic. Brian-AI6US will research the proposal and look at a location for both that is easily accessible for members who want to camp and those who want a one day only picnic visit.

Repeater: Richard-WA6RWS advised the repeaters are up and running. Advised the repeater lease at the school site is expiring soon. Bruce-K6BAA will look into contacting the school board for renewal. Richard advised the club's banner on the web site is not seen/down loading. Orion advised if your computers ad blocker is on, it might block the banner.

Contests: Dennis-WU6X of upcoming contests, March 3rd CQ SSB and March 17th CQ CW.

Drawing/Refreshments: Volunteers needed for both, contact Orion. Andrew-KC6O advised he will assist the drawing chair once a volunteer fills the position.

Hamfest: Orion-AI6JB advised \$660 has been raised for the Honda generator grand prize, \$360 from members and \$300 from the Hamfest budget. Advised internet traffic is increasing everyday regarding the event. Orion has a sign up list for members who want stalls at the event to sell items.

Field Day: Al-NI2U advised a Field Day Chairman is needed as he cannot chair this year. Brian-AI6US said he would assist anyone who volunteers for the Field Day Chair.

Meeting adjourned at 1901. Submitted by *Bruce Anderson, SFARC Secretary*



GENERAL MEETING MINUTES

February 9, 2018



The SFARC General meeting for February commenced at 1930 hours at the Auburn City Hall Rose Room, President Orion-AI6JB presiding. All Officers and Directors were present. Orion led approximately 43 members and guests in a Pledge of Allegiance to the flag. An introduction of Officers, members and guests followed.

REPORTS:

President's Report: Orion briefly discussed the agenda and reviewed this evening's board meeting. He advised

members of the budget approval with some modifications and is available for review from Sharron-KK6RGV. Orion also encouraged members to see Sharron and renew their membership dues.

Vice President's Report: Mike-KK6GLP reviewed upcoming presentations and events.

Secretary's Report: Bruce-K6BAA requested input for the club newsletter; advised a welcome letter was available for new members and guests, and a reminder to the membership to sign the attendance sheet.

Treasurer's Report: Sharron-KK6RGV reported on the club's finances.

Repeater Report: Richard-WA6RWS reviewed the repeaters status. Birton-N6UG reminded members if they want to access Echo Link, they need to submit their call sign to be placed on an authorized list.

VE's Report: Al-NI2U advised there were four candidates resulting in two new generals.

Activities: Mike-KK6GLP advised the MS Walk is scheduled in Folsom April 15, the Enduro will be combined May 5-6 and the Tour de Cure has been cancelled this year.

Satellite Report: Greg-KO6TH briefed members on current satellite activity to include the new D-Star satellite. ISS Packet is not working at this time.

IT Summit: Birton-N6UG is working on a review of club IT for the summit.

D-Star/DMR: Bob-K6UDA reviewing the options for the club's repeaters.

Refreshments/Drawing Aaron-KG6TVT reviewed items planned for the drawing and reminded everyone a new drawing chair is needed. A new refreshment chair is also needed. Contact Orion.

Hamfest: Orion-AI6JB advised the membership of the preparations for the rain or shine March 17th event. This year's grand prize is a Honda-2000 generator, \$ 1200 retail value. Orion asked for volunteers for the event, pop ups, table and reminded members can get a stall for \$ 5. Three items or less can go to the club table.

Field Day: Chairman is needed to oversee the organization and planning. Brian-AI6US will assist the new chairman.

Yahoo: Dennis-WU6X advised he is in the process of migrating the club's Yahoo site to **groups.io**, advised the new site has better support.

Contests: Dennis-WU6X of upcoming contests, March 3rd CQ SSB and March 17th CQ CW.

Events: Dr. Carol Milazzo-KP4MD, ARRL Section Manager, presented our President Orio-AI6JB as the new Section Youth Coordinator. She also briefed members and encouraged them to volunteer at the Placer County Stem Expo at William Jessup University in Rocklin on Saturday March 3rd. Carol also briefed members of upcoming section activities which are described on the ARRL Section web site.

Tech-Ten: Dennis-WU6X gave an informative presentation on transmission path charting using Google Earth and SAR Topo.

Presentation: Bob-K6UDA presented a well-received, informative and entertaining video on D-Star/ DMR.

General Announcements: The Club Net meets every Thursday at 7:30pm; Board and General Meetings occur on the 2nd Friday, Board meeting is held at **Sizzler Restaurant** in Auburn, and General meetings at 7:30pm at **Auburn City Hall**. The Club breakfast is held on the last Saturday at **Mel's Diner** in Auburn; an Elmer Net is held the first and third Wednesday night at 7:30pm on the 2m repeater. See **www.w6ek.org** for more information.

The meeting adjourned at 2140. Submitted by Bruce-K6BAA, Club Secretary

SIERRA FOOTHILLS AMATEUR RADIO CLUB

P.O. Box 6421, Auburn, CA 95604

2018 MEMBERSHIP APPLICATION

Name: _____ Call: _____ Class: _____ e-mail: _____

Address: _____ City: _____ State: _____ Zip: _____

Associate Name: _____ Call: _____ Class: _____ email: _____

Phone: _____ Cellphone: _____ Application is New / Renewal (circle one)

ARRL member? Yes / No (circle one)

DUES / DONATIONS:

Membership: yearly * \$22.00 or 20.00 X how many years _____ = \$ _____ *** see below Multi-year Discount

Associate: yearly \$7.00

Auto Patch Donation: \$ _____

Misc. Donation: \$ _____

Repeater Donation: \$ _____

Newsletter Booster: \$ _____

Christmas Donation: \$ _____

Name Badge \$10 or \$15 (circle one) ** see below for type of badge requested Name on Badge _____

TOTAL: \$ _____ Please add \$1 if paying via PayPal

* Prorated dues for NEW Members / Associates Only

July	\$ 20 /6	October	\$ 14/3 + following year
August	\$ 18/5	November	\$ 12/2+ following year
September	\$ 16/4	December	\$ 10/1 + following year

** Clip Badge = \$10; Magnetic Badge = \$15

*** Multi-year DISCOUNT membership \$20 per year for 2 or more years (New or renewal)

OFFICE USE ONLY:

Date: _____ Treasurer: _____ Secretary: _____ Roster: _____

Payment: _____ Check Number: _____ Cash: _____ PayPal: _____