



Welcome to SFARC, Auburn, CA

Sierra Signals



P.O. Box 6421 Auburn, CA 95604

December 2017

<http://w6ek.org>

info@w6ek.org

At The Key of SFARC:

PRESIDENT

Orion Endres, AI6JB
ojendres@outlook.com

VICE PRESIDENT

Michael Perry, KK6GLP
mrpry2@gmail.com

SECRETARY

Bruce Anderson, K6BAA
anderson51@wavecable.com

TREASURER

Sharron Griffith, KK6RGV
sharron@suddenlinkmail.com

DIRECTORS

Greg Dolkas, KO6TH
Bob Brodovsky, K6UDA
Andrew Silvester, KC6O

FIELD DAY CHAIRMAN

Al Martin, NI2U

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

December 9th:
Club Christmas Party

December 25th:
Christmas

December 30th:
Club Breakfast

Inside this issue:

- *President's Message*
- *Welcome Alexander Justus Richardson*
- *Two New Amateur Bands Open for Communications*
- *FT-8: I'm Not Really Feeling The Magic*
- *Board & General Meeting Minutes*

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

Welcome A Board

November is election time at SFARC. While not nearly as lively as the 2016 Presidential election, you elected incumbents Mike, KK6GLP, as Vice President, Bruce, K6BAA, as Secretary, and Sharron, KK6RGV, as Treasurer. Greg, KO6TH, remains on the Board as the 2017 Two Term Board Director.

We have two new faces on the Board - Please welcome Brian, AI6US, and Mark, W8BIT, as Board Members for 2018. Brian, AI6US, will be the 2018 Two Term Board Member. Congratulations to everyone!! I look forward to working with you all in 2018.

You All Are Cordially Invited to Christmas Party 2017

All Members, and a plus one, are cordially invited to the 2017 Annual Christmas Potluck Party, Saturday, December 9th starting at 6:00 PM in the Veterans Hall, 100 East Street, Auburn, CA. This year, the party is hosted by Sharron, KK6RGV, and it is shaping up to be quite a bash. Turkey, ham, beverages, condiments, and plastic and paper ware will be provided by the Club. Please email Sharron that you are coming and let her know what side dish or desert you plan on bringing.

The **Food Drive Drawing** is back by popular demand. It is important that our Club offer assistance to those in our community that might need a little help to make the holiday season special. To that end, for each non-perishable food item you bring to the party, you will get one drawing ticket for prizes. The more you bring, the better your chances are. All items collected will be delivered to the **Auburn Interfaith Food Closet** <http://www.auburnfoodcloset.org/home.html>, so be sure to make a trip to the grocery store or raid your pantry before you come!! You'll be putting a smile on someone's face.

Barbara, W6EVA, is scouring the landscape for fabulous Lady's prizes. No purchase necessary, all ladies in attendance will receive a drawing ticket.

Be sure to bring plenty of cash to get in on the \$300 Gift Certificate and the four \$50 Gift Certificate prizes.

Hamfest 2018

Hamfest is scheduled for Saturday, March 17th, 2018, at the Historic Train Depot in Loomis, CA. Last month's planning meeting was lively and we have a bunch of fresh ideas to make our Hamfest the best in the region. Fresh exciting ideas like adding instructional presentations are high on the list as new additions. You will need to come to planning meetings to be in the "know". ;-)

Our first planning meeting is scheduled for Wednesday December 13th at 7:00 pm at the Denny's restaurant in Newcastle. Anyone who wants to get involved or who just wants to be in the "know" is

highly encouraged and welcome to come. Drop me an email if you would like to be included in committee emails.

Dues are Due

As 2017 winds down, it is time to start looking to the future and 2018, ... that is, it's time to pay your dues. Yes, dues are due. Please download a Membership Application from our website and submit the application and dues payment of \$22 to Sharron. Remember, if you pay two or more years now, the annual price is only \$20 per year. So, to repurpose a popular phrase "Pay Early and Pay Often."

Happy Holidays!

I wish everyone a safe and Happy Holiday and all the best for 2018!

Hope to hear you on the air!

73

Orion, AI6JB

President

AI6JB@ARRL.net



Alexander Justus Richardson was born to Tyghe and Shannon on November 10th, 2017, at 12 noon. He measured 18 3/4 inches and weighed 6 pounds 4 ounces.

The three of us are getting used to this new chapter and his first chapter in life. We are all looking forward to many exciting new adventures.

I am sure there are now several pools open as to whether Alex will be an Extra class licensee before his father; for information on Alex's licensing status please contact AL NI2U.

73's,
Tyghe Shannon and Alexander



Two New Amateur Bands Open for Communications

Submitted by Mark, W8BIT

The new 2200m and 630m bands are now available to amateurs for operation. As secondary users of these bands, there are restrictions, but a process for approval for operation is in place now, so these bands are out of regulatory limbo!

Operation on these bands is only allowed with fixed stations, no mobile or portable operations. Prior to operation, amateurs must submit their location to the UTC for review. If the UTC does not deny the amateur's application within 30 days, the amateur is free to operate.

Application is easy, through a page on the UTC website (below.) Amateurs may apply to operate on either band or both--the consensus at this point is that it is best to apply for each band separately, as applying for both together may result in a blanket denial, when applying separately may result in one of the two bands being approved even if the other is denied. There is also an appeal process in the event that a denial appears to be an instance where operations should have been approved.

The UTC will be checking the geolocation of the station as given in the application against known locations of power lines using PLC (Power Line Control) signaling in these bands' frequencies. If the given antenna location is over 1 mile from all power lines using PLC signals (usually only major trunk lines), then operation will normally be approved.

In some cases, it appears denials have been given when the actual distance is over 1 mile, which may be from errors in the estimation of distance from the power lines. In these cases, some amateurs have been successful in either appealing on the basis of measurements from satellite mapping tools, or by reapplying with a more accurate antenna location or adjusted antenna location.

THE BANDS

The 2200m band goes from 135.7kHz to 137.8kHz. Maximum power output is 1W EIRP. The entire band is open to General, Advanced, and Amateur Extra licensees.

Note that it is Effective Isotropic Radiated Power, not power from the back of your transmitter, as we're used to using otherwise. Since antennas in this band are likely to be very inefficient, you will be putting far more power into the feedline and antenna than this to get any power out. The same is true of the 630m band.

The 630m band goes from 472 to 479kHz. Maximum EIRP is 5W, unless you're within 496 miles of Russia (in Alaska). This band is also open to General, Advanced, and Amateur Extra licensees.

The ARRL's amateur band reference sheet on their website at <http://arrrl.org/> has been updated to show these bands, and provide the URL for the UTC page to apply for operation on these bands.

The UTC application website address is:

<https://utc.org/plc-database-amateur-notification-process/>

My personal recommendation is to apply for these bands even if you presently have no plans to operate on them. Our access to bands as amateurs is in many cases determined by the apparent interest and use

of them that we make. Also, events may occur where another amateur who does operate on these bands needs another location for temporary or emergency operation on these bands, and if your site is already approved, then there will be no delay in opening up your QTH for someone else, or for having a visitor use these bands from your station. The application is a simple web form, and results will be received in email.

Also, having more locations "mapped out" in the database will assist other amateurs who want to operate in these bands near you, by letting us know what possible interferences there are in our area, and where they are located.

THE PROCESS

You will need to submit your name, call sign, email address, phone number, and the latitude and longitude of the proposed antenna location. The form requires latitude and longitude in degrees/minutes/seconds. If you have GPS/decimal coordinates, you can convert them at this FCC website <https://www.fcc.gov/media/radio/dms-decimal>

Then you select the band(s) you are applying for. I applied with one band selected, submitted, then used the back button to go back to the form (with all the info in place), then selected the other band and resubmitted.

The whole process took about 5 minutes, including picking a location for my antenna (one corner of my house) on the map at this site <http://www.mapcoordinates.net/en>

If I get a denial back, then I plan to reapply by putting my antenna location at one corner of my property or another depending on where the interference they identify is located (and assuming they don't tell me I'm only a few hundred feet from their power lines.)

The screenshot shows the Utilities Technology Council (UTC) website with the "PLC Database Amateur Notification Process" form. The form includes fields for First Name, Last Name, Date, Latitude (Degrees, Minutes, Seconds), Longitude (Degrees, Minutes, Seconds), Call sign, Email Address, Phone Number, and Frequency range. It also features a reCAPTCHA security check and a "Submit" button. The UTC logo and navigation menu are visible at the top.

Side note:

The UTC web page appears to be a bit flaky. I have loaded it twice without getting the web form, just a page title and all their site navigation boilerplate.

You should see fields where you can enter your information (image left). If you don't, either reload the page, or go back to your original link (like the one at the ARRL site) and follow it again.

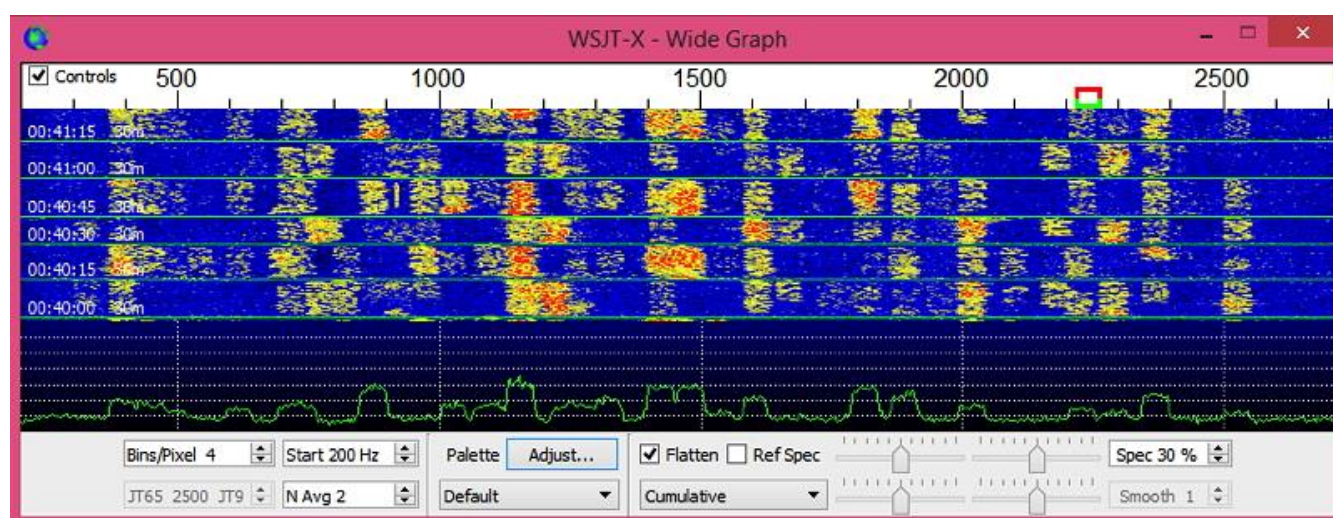
73 de W8BIT

FT-8: I'm Not Really Feeling The Magic

Submitted by Dan Romanchik, KB6NU

Partly out of curiosity and partly because my friend Jeff, KE9V, shamed me into it, I setup my Signalink interface, downloaded WSJT-X from <https://physics.princeton.edu/pulsar/k1jt/wsjsx.html>, and started operating FT-8, the latest “shiny object” (as the ARRL dubbed it) from the K1JT team. As you probably know, this mode has really caught on with the digital crowd, and the waterfall is chock full of FT-8 signals. Part of the reason for this is that it has some of the characteristics of JT-65, but is not as excruciatingly slow.

A waterfall display generated by WSJT-X at 7:30 pm, 11/23/17:



Over the past couple of days, I've made 32 QSOs, including a couple of DX contacts. It's been fun to try something new, but to be honest, I'm not really feeling the magic.

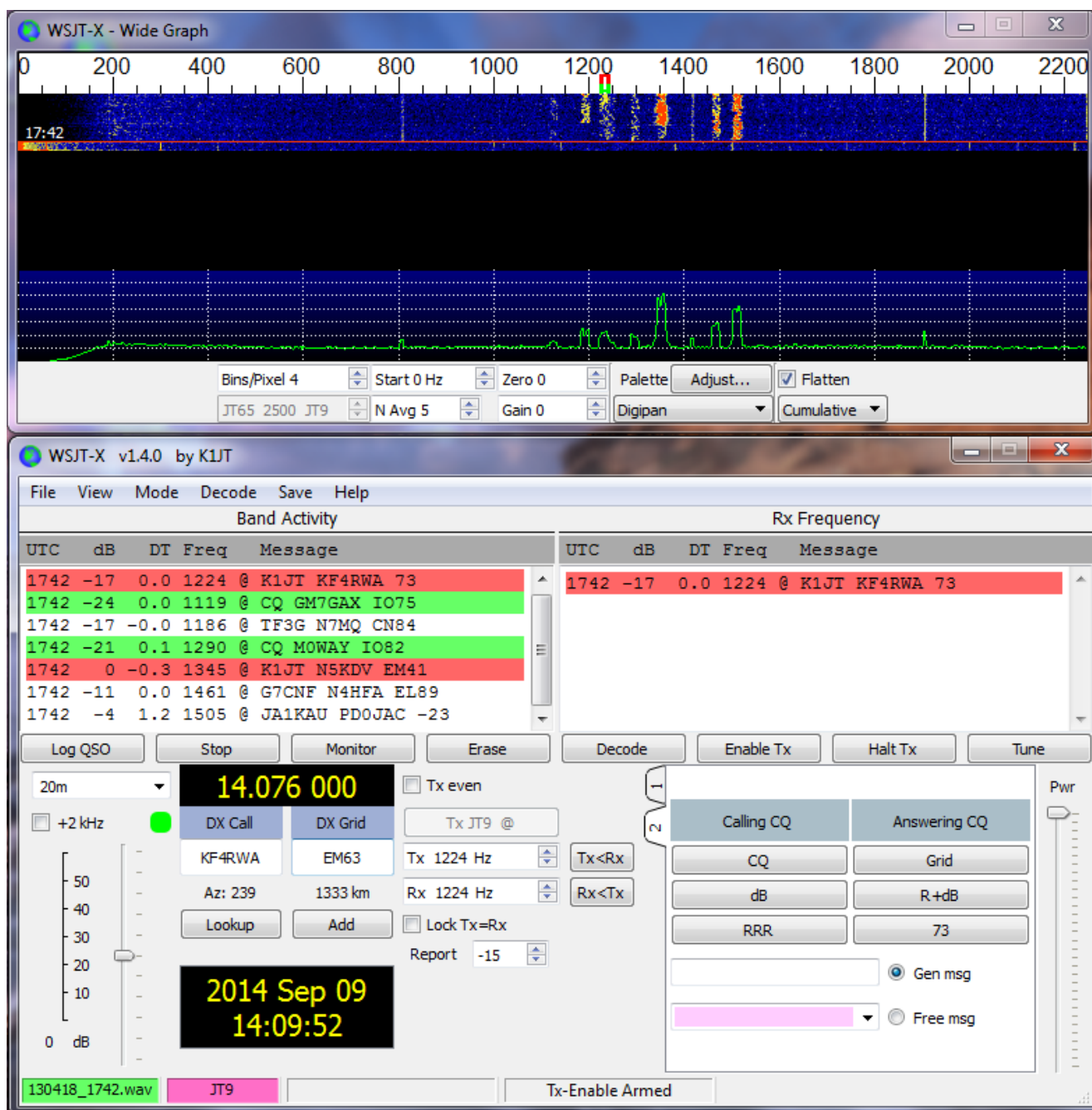
Part of it is that I don't feel like I'm really doing anything. I downloaded the software, plugged in my digital interface, fooled around with the settings a bit, and then, the computer started making contacts. I have to click a few on-screen controls to make contacts, but even that's a step that could be easily programmed in by the WSJT-X developers. (In fact, I wonder why they haven't done that already!)

Take a look at the screenshot on the following page to see how a typical contact happens. When a CQ appears in the “Band Activity” window, you double click on it. When you do this, the software begins listening for signals on that frequency. In this case, I double-clicked on the CQ by WA9THI. When I double-clicked on the CQ, the program began decoding signals on that frequency and display the transmissions in the “Rx Frequency” window.

Then, I clicked on “Enable TX” and the program began the contact sequence, sending “WA9THI KB6NU EN82.” EN82 is my grid designator. This is shown as the first yellow line in the Rx Frequency window. The transmissions that I sent are highlighted in yellow. The transmissions sent by WA9THI are highlighted in red.

WSJT-X screenshot

The sequence of transmissions in the Rx Frequency window comprises a contact:



The sequence of transmissions shown there comprise a complete contact, and that whole process takes less than two minutes. And, once WA9THI received my first transmission, the sequence is all automatic. You just sit there and watch the two computers talk to one another.

While I can certainly appreciate the thought and the work that went into the design of the protocol and programming to implement it, sitting and watching the computers talk to one another just doesn't excite me. On the other hand, if you're one of those guys who wants to make contacts, but doesn't really want to talk to anyone, than this is the mode for you!

Here are a few more notes about FT-8 operation:

- Not surprisingly, synchronizing your computer with the other stations computer is very important. To do that, you need to get your computer to use the network time protocol (NTP). I failed to do this when I first installed WSJT-X, and while my waterfall was full of FT-8 signals, WSJT-X just wouldn't decode them.
 - I got my PC laptop to talk ntp by installing Meinberg NTP software (<http://www.ntp.org/ntpfaq/NTP-s-def.htm>). Once I did that, WSJT-X magically started decoding transmissions.
 - Most of the cool guys seem to be using Meinberg NTP, but there are other options. One of the guys in our club is using a program called Dimension 4, for example.
 - Apparently, you don't have to limit your power output as you would with PSK-31. At first, I set my output power to 10 W. I had a bit of success at 10 W, but I expected more. When I asked on Twitter how much power other guys were using, most of them said that they were using more than that.
 - For the last couple of sessions, I've been setting my output power to 25 W, and I've been having more success. I've now worked several Europeans on 30m.
 - Even at 25 W, my signal reports are more often than not, not as good as the signal reports I'm handing out. I haven't figured this one out yet. This doesn't happen to me when I'm operating CW, so I don't think it's my antenna.
 - When I'm operating, I write down the calls of stations I've contacted. The reason for this is that while WSJT-X does have a logging function, it doesn't have a log window, so unless you have a great memory, you could end up working guys two or three times a session. That's probably not a big deal since contacts are so quick, but I'd rather avoid doing that if I can.
 - WSJT-X works "split." While most contacts take place on the same frequency, a station can call you anywhere in the passband of your receiver and WSJT-X will decoded the signal and begin a contact. This threw me the first time or two that this happened, and I tried to change my transmit frequency to match the other station's. In doing so, I messed up the sequence. I now just let the contact proceed normally, and it works out great.
 - When I work the other digital modes, I set my IC-746PRO to the USB-D mode. In this mode, the receive passband is narrower than for working phone. When operating FT-8, however, you don't want to limit that passband. Signals will appear across the entire 2.6 kHz of the USB signal, and if you narrow the passband, you won't be able to work those stations.
 - WSJT-X checks the validity of call signs. This afternoon, there was a guy who had typed in his call as "WAMAD" and was calling CQ. WSJT-X wouldn't let me answer that CQ.
 - Operating this mode opens up the possibility of working more stations whose callsigns spell words and adding those QSL cards to my collection. I have, for example, already worked K1GUY, N4HER, and N5SLY. I'm guessing that these guys don't operate CW.
- All told, I've found this to be an interesting foray into a new digital mode. While I'm not feeling the magic that some others seem to be feeling when operating FT-8, it certainly will be a change of pace to operate this mode from time to time. Give it a shot and tell me what you think.

Dan, KB6NU, is the author of the "No Nonsense" amateur radio license study guides and blogs about amateur radio at KB6NU.Com. When he's not working FT-8, he teaches ham radio classes and operates CW on the HF bands. You can email him at cwgeek@kb6nu.com.



BOARD OF DIRECTORS MEETING MINUTES

November 10, 2017

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

Roll Call: All officers and Directors were present. Guests present included: Al-NI2U, Dennis-WU6X, Herb-KM6JBI and Richard-WA6RWS.

REPORTS and DISCUSSIONS

Presidents Report: Orion-AI6JB submitted the agenda and asked for officer, board and committee chair reports.

Vice President's Report: Mike-KK6GLP discussed presentations for 2018.

Secretary's Report: Bruce-K6BAA had nothing to report.

Treasurer's Report: Sharron-KK6RGV submitted to the board the club budget for 2018. Advised the repeater 2017 fund is undergoing reconciliation. Sharron also advised she needs the "Go Daddy" account information to administer funding.

Directors:

Bob-K6UDA began a spirited discussion regarding a repeater addition of D Star. Suggesting the new technology could encourage new ham participation in the club. Greg-KO6TH asked if D Star could be used with the current analog pair, Richard said it could. Richard suggested polling club member's interest in upgrading the repeater. Dennis-WU6X suggested a Yahoo Group survey. Orion advised the matter will be addressed at the next board meeting in January.

Andrew-KC6O advised he has the ballots for tonight's election.

Repeaters: Richard-WA6RWS advised the repeater needs the coax to the antenna replaced, particularly the 440 side.

Memberships: Currently at 121.

Website: Herb-KM6JBI reviewed website issues which led into a new member retention discussion whereupon Orion suggested to Bob-K6UDA, that he become the membership chair.

VE: Al-NI2U advised there were 9 candidates, 13 elements given, resulting in 5 technicians, 2 generals and 1 extra.

Christmas Party: December 9th at the Auburn VFW Hall. Sharron-KK6RGV reviewed current status of the preparations.

Hamfest: Orion-AI6JB advised the next planning meeting will be on December 13th at the Newcastle Denny's.

JOTA: Very successful with 127 participants and 122 contacts.

New Business

Orion advised the board of an IT Summit to be held January 20th, 2018. Orion also wanted a list of all club activities and to have the list posted on the calendar. Herb will work on this. Additionally, Orion needs volunteers to call members who need to renew and pay dues. Herb advised he will look into putting a member renewal link on the website.

The meeting adjourned at 1850. Submitted by Bruce-K6BAA, Club Secretary.

GENERAL MEETING MINUTES **November 10, 2017**



The SFARC General meeting for November commenced at 1930 hours at the Auburn City Hall Rose Room, President Orion-AI6JB presiding. All Officers and Directors were present. Orion led approximately 36 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. Last month's minutes as published in the newsletter, were approved. Additionally, Orion discussed the board meeting, D Star and Bob-K6UDA's membership promotion proposals.

Vice President's Report: Mike-KK6GLP discussed presentations for 2018.

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 reviewed the clubs November 2017 finances to members and advised she had club patches for sale.

Club Election: Andrew-KC6O began the election process for the club officers. AI-NI2U took a head count of attending members and advised there was a required quorum. No nominations were received for president, vice-president, secretary and treasurer. Bob-K6UDA nominated Herb-KM6JBI for director, Mark-W8BIT seconded. Andrew and AI administered the election which resulted in the following officers:

President: Orion-AI6JB (Incumbent)

Vice President: Mike-KK6GLP (Incumbent)

Secretary: Bruce-K6BAA (Incumbent)

Treasurer: Sharron-KK6RGV (Incumbent)

Director: Greg-KO6TH (Hold over position)

Director: Brian-AI6US (Elected two years)

Director: Mark-W8BIT (Elected one year)

Repeater Report: Birton-N6UG advised a 440 preamp was replaced

VE's Report: AI-NI2U reported there were 9 candidates, 13 elements given, resulting in 5 technicians, 2 generals and 1 extra.

Satellite Report: Greg-KO6TH briefed members on the “D Star 1” and its’ capabilities.

Website: Herb-KM6JBI reviewed the website, asked members to contribute photos for posting.

Refreshments/Drawing: Aaron-KG6TVT reviewed items planned for the drawing. Richard-WA6RWS, filling in for vacationing George-KG6LSB, reported on refreshments for the break.

Richard briefed members on a recall for the Keddie Brand fire extinguisher. Richard also had a “spiral” 40 meter antenna for sale as donated to the club.

Christmas Party: December 9th at the Auburn VFW. Sharron-KK6RGV updated members on the preparations and had signups.

Hamfest: Orion-AI6JB advised the next planning meeting will take place at the Newcastle Denny’s December 19th.

Yahoo: Dennis-WU6X advised the membership on the Yahoo group status.

Contests: Dennis-WU6X advised members of the ARRL November SSB Sweepstakes and referred members to check the Yahoo Group for contest operating procedures. Bob-K6UDA said 15 and 20 meters have been good.

Social Media: Mark-W8BIT reviewed the media groups. Carl-WF6J suggested putting a Twitter feed on the club web page.

Presentation: Orion-AI6JB gave an interesting presentation on digital mode communications with a live on the air demonstration.

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



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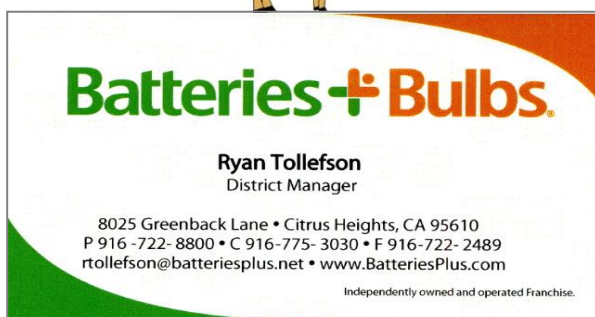
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SIERRA FOOTHILLS AMATEUR RADIO CLUB

P.O. Box 6421, Auburn, CA 95604

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2017 MEMBERSHIP APPLICATION

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

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

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

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

Dues / Donations:

Membership: yearly*	\$22.00or 20x	Name Badge:	\$ 10.00/15.00	Yes (special name)	_____
Associate: yearly*	\$ 7.00	Repeater Donation:	\$ _____		
Auto Patch Donation:	\$ _____	Newsletter Booster:	\$ _____		
Misc. Donation:	\$ _____	Christmas Donation:	\$ _____	ARRL member? (Yes/No/Life)	_____

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

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

OFFICE USE ONLY:**DO NOT WRITE BELOW THIS LINE**

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

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