Happy August Everyone! The FRC Board hopes everyone is staying safe!

While the virus has hampered club get togethers, remember, we still have a two meter net on Wednesday nights as well as a Zoom meeting. We'd love to see and hear from you! If you are interested, VP Bob Houghton AD6QF can get you the details.

As many radio events have been cancelled due to the pandemic, online events have become more popular. Over the weekend of August 8 and 9, I logged on to the "QSO Today" Virtual Ham Expo. The site was set up like a conference; the virtual interface even resembled a conference hall with vendors, exhibits, and presentations! There were several tracks of speakers, and all the talks were very interesting! And, it was all free; all you had to do was register with an email address.

Apparently, it was a huge success; the group putting it together got very positive feedback. They have already made arrangements for one next March 13 and 14; keep an eye out for more information.

We're always looking for speakers to talk about things they are interested in, and it doesn't have to be amateur radio. Please let us know if there's anything you'd like
to talk about. We'd like to see you at the Zoom meeting or on the two meter net!

PLEASE remember to renew your membership for 2020. Your $20 goes towards the costs the club incurs each year: Postal Service charges, Club Insurance, gifts for the holiday dinner, and government fees that are required to keep the club incorporated. Send your check to Gene Thorpe at the club PO Box or follow this link https://fullertonradioclub.org/application-renewal-form/. Thank you!

73,

Tom, WB2LRH

August FRC Meeting

The August Club meeting will again be presented by video teleconference using Zoom. Members will receive Zoom connection information by our Groups.io.

We have no scheduled presenter for August. So, if YOU have a topic that can be presented, no matter how short, we'd welcome your participation. Come join the Zoom discussion.

Meeting date: August 19 2020;
On ZOOM!
8:00 PM

[NOTE: Time change]
The next Club Board meeting will be on September 9 and will be conducted using Zoom video conferencing platform.

5:40 PM

Members are welcome.

Show –and–Tell
Bringing something of interest to the meeting to show and share your story.
Something old, new, or just of interest to hams.

Web site: www.FullertonRadioClub.org

August Board Meeting Minutes

The August 2020 FRC Board meeting was called to order at 5:40 pm by President Tom Gaccione WB2LRH via Zoom (Coronavirus). Others present: Vice President Bob Houghton AD6QF; Treasurer Gene Thorpe; KB6CMO; Secretary Linda Endsley KJ6IHB, Paul Broden K6MHD; Larry McDavid W6FUL.

Minutes were approved.

Treasurer’s report:
Checking - $3,920.42; $Savings - $2,608.56

Old Business:
ANTS in the Park BBQ? - Rescheduled
One member was added. Total 31 members, 3 life members.
As of 7/2020 FRC is still not a tax exempt. May take up to 4 months to process.

New Business:
Discussed topics for general meetings.
Bob received reminder card from Secretary of State to file an SI-100 by end of October.

Next board meeting: 9 September 2020

Adjourned: 6:30 PM

Submitted by Linda Endsley KJ6IHB
This TAG meeting featured a Power Point presentation from yours truly Walter Clark on GPS for glide angle measurements of R/C gliders. Here’s some slides from that talk...
Bill Webb was next with a report on how to break your wrist. Oh, and how the doctor repaired it . . . This was followed by the projects that he will engage in when recovered. We saw his cast/bandage. No way can he hold a soldering iron with that.

Both devices are about ten dollars each!! The camera has a computer, WiFi, microSD recorder and storage for dozens of HD imagery.

Dick Palmer’s latest QRP project was quite interesting in that the circuit board had an error in it, and the designer/maker of the board made another mistake in the process of fixing it. In both cases Dick spotted the mistakes and in the second one, fixed it himself. That must be very satisfying to find an error the designer himself was not up to.

There was also some discussion (with Bob mostly) on the Elecraft K2 in how many features they were able to put in on such a small unit. Bob Houghton attended Ham Expo and related to us some of what went on there.

Dennis Kidder was without Lisa this meeting. He played with WSPRnet this past month. The neat thing about this is the computer does all the work. The output is in the form of a display that shows what band (the color of the line) and where the link took place. This is done, mind you, with a hundred milliwatts kind of signal. The screen capture here is of six contacts his computer gathered for him.
The Hawaii contact was made with the lowest frequency; 17 meters. The highest frequency Dennis was using was 50 MHz.

Dennis and some of his SBMS buddies were experimenting with 122 GHz microwave. The units Dennis put together allowed experimenting with Lisa (as a ham, not just an assistant) working the other unit. We are talking waveguides here on the order of a tenth of an inch across.

**Dave Reinhard** offered Dennis some waveguide (normal, not this mm wave stuff). Dave found it left over from a demolition job he was on in San Diego.

Dennis sells a book on Amazon and has put together a slide show on the subject: *Arduino Projects for Amateur Radio*... He gives that presentation at various ham clubs and of course doing it over Zoom rather convenient for him now that he moved to radio-noise free Inyokern. And so we will get him as our Zoom speaker in September.

**Larry McDavid** shared with us something of a find; a 5V battery pack with charge protection. The 5 V market is quite large. It is for charging cell phones when not in your car or at home. You wouldn’t think there would be much of a market but it is huge which why what Larry found was so cheap: $17 for 17 Ahrs. It’s called Power Bank from RavPower.

**Joe Moell** asked if any of us had a crimping tool for crimp-style RF connectors that he has. He can’t buy finished cables because he has a tight fit hole to go through. None of us had such a tool, but that began interesting discussion mostly from Larry on crimping tools. In this case, what Joe was looking for is a slight variation on crimping in that it is also compressing.
We got to meet **Steve Witt K6ZX** this night. He was not recognized at first by Dennis Kidder, but he did recognize the name and the voice. Blame years gone by more than COVID. They worked together at Hughes many years ago. Dennis inspired Steve to become a ham, but that didn't actually happen until he retired. He's a relatively new ham. He lives in Brea which means he is for sure a new FRC member. He may even join the Fullerton Wednesday night 2 meter net. He's also an old R/C glider enthusiast and is looking forward in joining Walter flying R/C on Sundays.
In the past I have discussed Phillips and PoziDriv cross-head screws and screwdrivers. Phillips head screws and drivers are found almost exclusively in the US, while the superior PoziDriv screws and drivers are found almost everywhere else in the world. But, not necessarily in Japan!

If you have some Japanese camera or electronic (e.g. DVD player, etc.) equipment and see a (generally quite small) cross-head screw, it is likely to be neither Phillips nor PoziDriv. These screws are often known as "JIS" screws and really need the proper screwdriver to prevent damage to the screw. Larger JIS screws often have a single dot depressed in the screw head for identification (note that PoziDriv screw heads often have a "cross" lightly stamped across the head). JIS driver and head details are seen in the pictures.

In actuality, the JIS B4633 standard is now obsolete and it is difficult to find drivers that are certified to that standard. A new international standard, DIN 5260 or ISO B-763 has replaced the JIS standard and is claimed to fit the JIS screw heads. It does fit but is not exactly the same. Some vendors claim their drivers fit both JIS and Phillips screw heads; this fit is very poor at best! If you want to work on Japanese cameras, lenses or electronics, you need to find a good set of JIS drivers.

Amazon sells SunFlag Perfect Grip +1, +2 and +3 size drivers for larger JIS screws but most camera and electronics devices use smaller size screws. Amazon sells a Moody Tools 58-0405 JIS set in sizes 000, 00, 0 and 1; these fit the tiny screws found in cameras, lenses and many electronic devices. Both these sets are excellent and fit JIS screws well.

So, if you really find yourself working on gadgets that use cross-head screws, you need the proper drivers and that means you need Phillips, PoziDriv and JIS screwdrivers. Using the wrong driver will damage either the screw or the screwdriver. The "feel" of the fit of the driver into the screw head is noticeably different when you have the wrong driver. Yes, they are all cross-head screws but they are all really different! In short--get the correct tool for the job!

Larry W6FUB
SoCal Transmitter Hunts

COVID has affected many ham radio activities, including hidden transmitter hunting. The city of Fullerton cancelled all permits for activities in Hillcrest Park, so the annual FRC Antennas In The Park transmitter hunt in May could not be held. On-foot transmitter hunts have been cancelled all over the USA, including the USA ARDF Championships that were to be in Boston in June. Even the World ARDF Championships, which were to take place in Serbia in the first week of September, with USA radio-orienteers in attendance, have been postponed for one year.

On the other hand, mobile transmitter hunting is still taking place in many places, including Orange County. OC-RACES has suspended its monthly mobile hunts, but the monthly third-Saturday night hunts continue, starting from the top of Acacia Avenue in Fullerton at 8 PM. Boundaries range from the 605 freeway in the west to Pacific Coast Highway in the south, the 10 freeway in the north and Prado Dam in the east. Transmissions are supposed to be continuous on 146.565 MHz simplex.

Hider for the August 15 hunt was Richard Clark N6UZS, who put a two-watt transmitter in Citrus Ranch Park near Portola Parkway and Jamboree Road in north Tustin. He used a three-element beam to try to bounce the signal within the hills of Cowan Heights, but the hiders were not fooled.

Lowest start-to-finish mileage wins this hunt. Here are the results:

<table>
<thead>
<tr>
<th>Team Calls</th>
<th>Odo Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>N6AIN/WA6PYE</td>
<td>18.2</td>
</tr>
<tr>
<td>WA6CYY</td>
<td>22.8</td>
</tr>
<tr>
<td>N62HZ</td>
<td>23.8</td>
</tr>
</tbody>
</table>

Winners Deryl Crawford N6AIN and Steve Wallis WA6PYE will be hiders for the next hunt, scheduled for September 19. Hunting teams remain socially distant, of course, and masks are worn as appropriate. The traditional after-hunt gatherings at a nearby restaurant are suspended for now.

For more about hidden transmitter hunting around the USA in the age of COVID, see my article in the August 2020 issue of CQ Magazine, now online.

73,
Joe Moell K0OV

MEMBERSHIP RENEWAL / APPLICATION
Fullerton Radio Club
PO Box 545, Fullerton, CA 92836

(Please Print)
Name #1 ____________________________________ Call: _________________ Class: ______________
Name #2 ____________________________________ Call: _________________ Class: ______________
Address: ____________________________________ City: _________________ State/Zip: ____________
Phone #1: ____________________________________ Email #1: ________________________________
Phone #2: ____________________________________ Email #2: ________________________________
ARRL Member □ Yes □ No
Special Amateur Radio Interests: _____________________________________________________________

Dues are $20 per member, or $25 per family. Students (full time) $10
Bring your application and dues payment to the next meeting or mail to the above address.