



# Smoke Signals

## Newsletter of Fullerton Radio Club

### February 2019

#### February Club Meeting

FRC will hold its regular general meeting on Wednesday, February 20 at 7:00 pm in the Fullerton Chapman Activity Center at 2515 San Carlos Drive. The presentation this month will be by each attending member bringing something for **show-and-tell**. Please bring something interesting or unusual, not necessarily about ham radio, to the meeting and discuss it while showing it around to our members. This was once a regular part of every meeting and proved interesting and beneficial to members. I was a victim of the recent rains and I'll bring some pictures and hardware to show the effect on my telephone hardware and Internet service! Partly as a result of the rains I now have a new Internet Service Provider and very much faster Internet access. So, grab something to bring and plan a brief discussion about it. It will be fun for all!

Larry McDavid W6FUB

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#### February 2019 MEETING

Wednesday, February 20, 2019

Chapman Activity Center

2515 San Carlos Drive, Fullerton

(Second street east of State College Boulevard  
off Commonwealth)

Meeting time – 7:00 PM

Visitors are always welcome

**Dinner before the Meeting:**

Black Bear Diner

5:00 PM

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#### March Board Meeting

**Open to all Club members**

Marie Callender's Restaurant

126 Yorba Linda Blvd., Placentia

First Wednesday of each month.

**Next Board Meeting**

**Wednesday, March 6, 2019**

QSO and dinner; 6:30 PM

**Meeting: 7:30 PM**

**Fullerton Radio Club**  
**P.O. Box 545, Fullerton, CA 92836-0545**

**President**

Larry McDavid, W6FUB  
Phone: (714) 630-5672  
Email: lmc david@lmceng.com

**Vice President**

TBD  
(This could be YOU)

**Secretary**

Linda Endsley, KJ6IHB  
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**Treasurer, Public Service, Membership**

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**T-Hunt**

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**Show –and–Tell**

Bring 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](http://www.FullertonRadioClub.org)**

The February 2019 FRC Board Meeting was called to order at 7:34 pm by President Larry McDavid W6FUB. Others present: Treasurer Gene Thorpe KB6CMO; Secretary Linda Endsley KJ6IHB. Directors; Richard Belansky KG6UDD; Walter Clark. Members: Joe Moell K0OV; April Moell WA6OPS; and Tom Gaccione WB2LRH, Visitors: Scott Orr W6MKO, Michael Berchtold K6MKL

December and January minutes were approved with correction of January speaker will be Tom Gaccione WB2LRH, the topic will be power.

Treasurer's report: Checking \$3,084.46 savings \$2,607.82

Old Business:

Discussed food for Antennas in the Park

Discussed items for Field Day

New Business:

Fees for 2019 safety box were paid.

19 renewals 3 life members

February general meeting will be a Show and Tell

Discussed food for Antennas in the Park

Discussed items for Field Day

Discussed WARA joining us for Antennas in the Park

April 27 – Donate Life Run – Need more helpers

May 4 – Antennas in the Park

June 22/23 – Field Day

Next board meeting: 6 MAR 2019

Adjourned at 8:16 pm

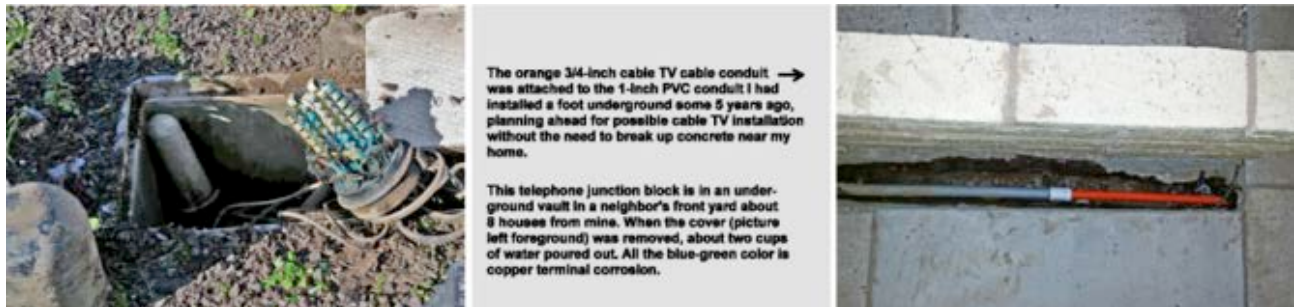
Submitted by Linda Endsley KJ6IHB

## Activity Reports of the Fullerton Radio Club (Technical Advisory Group) for 13 February 2019

The meeting place for most of the TAG meetings is Walter's living room. He's had the room painted and the floor refinished. The room seems larger because not all the furniture was put back. He asked for advice from the group on a new flat screen TV and rear speakers installation. The advice included things I never considered like "not" using a Bluetooth link. But instead running line level shielded two conductor cable to an amplifier in the back. The group was adamant and of a single mind that the minimum size TV should be 55". That's bigger than what I had in mind but I will consider both recommendations.

Now, going around the room . . .

**Larry McDavid** told about his adventures with water in the phone company junction box. He was pleased with the work of the crew that came out to fix it. He has become accustomed to the speed of the phone company internet and was pleased with the low noise of the new connection. But he opted to subscribe to Spectrum to give him a more up to date video streaming connection. This new service he measured to be over 100 megabits per second. He brought in examples of the quad shielded cable and the new kind of conduit they used.





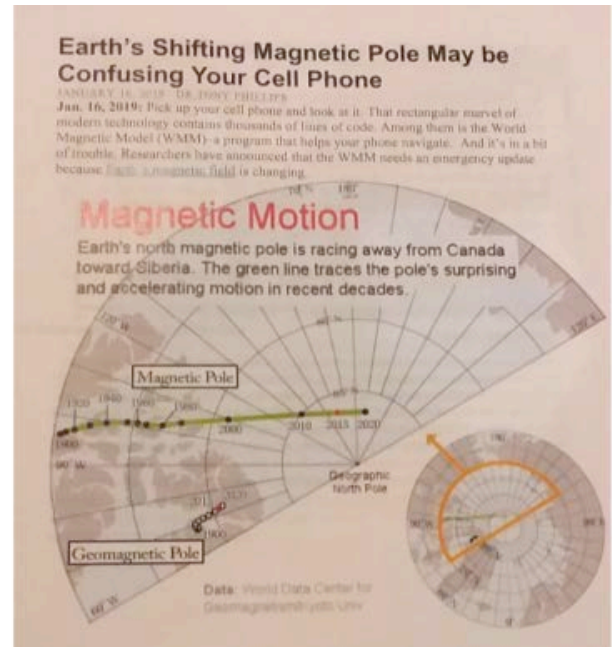
Larry is holding a Ring brand of wireless camera/intercom that he will be mounting near his front door. There was a lot of discussion about how this and other things like it interface with a cellphone, computer or anything with a WiFi capability. We were all surprised by the large size and yet short time between changes of the battery. He said there's access to the battery by a connector and he will sometime later put a power supply to that point.

He brought in two tools which were passed around as a kind of puzzle. What were they for? Someone who will remain nameless insisted it was a "roach clip". Walter recognized it instead as a heatsink to keep critical components from getting hot while they were being soldered. The other one was a total mystery. It turned out to be a wire-lead burnisher which NASA developed to make soldering wire more reliable. The designed it to be hand made, but this one Larry purchased on line.

**Dave Reinhard** spoke about his recent good experience with Spectrum. This led to a discussion on just what is allowed with 100 megabits per second. The consensus seems to be it is way more than needed to show 4K video and probably two such streams which is quite likely these days with more than one TV per household.

Dave led a discussion on the New Horizon's spacecraft as it flew by Ultima Thule. <https://www.nasa.gov/feature/new-horizons-evocative-farewell-glance-at-ultima-thule>

This Kuiper Belt object nicknamed Ultima Thule (officially named 2014 MU69) is the furthest from the sun object ever photographed by any spacecraft and it was very tricky to capture because the flyby was so fast.



Dave also told us about the latest theories concerning the coming flipping of the earth's magnetic field.

**Bill Webb** is quite the fan of stereo vision and even has a flat screen TV that with special glasses shows 3D images. Or rather had one. He found it over heating and eventually giving up the ghost. Alas for Bill, they don't make that kind of monitor anymore. What was special about it was the ability to show two different images alternating 60 times a second. He bought a new large screen TV but hopes to also find a used set on Craig's List which is able to show 3D.

Bill brought a 1959 model Stereo Realist camera and a Raspberry Pi based stereo video camera (go to <http://stereopi.com/>) that is being offered in a crowd sourcing product. The unit has the ability to bring the cameras close enough to each other to do 3D microscopy, or 3D macroscopy anyway. Much older than the Stereo Realist is an antique stereopticon he also brought. Walter had to show off his ability to see the stereo plates without the viewer. That's Dave Reinhardt there with Bill.





**Dick Palmer** is off to Yuma for the South Western Division Ham Convention. He brings along some O-scopes he's restored. He says he doesn't make enough to profit from the trip, but he says it adds a lot to the fun of going. The conference takes place next to a Marine Air Base which presents impromptu air shows throughout the day. One interesting feature of this particular ham fest is that it's in the hot/dry comfortable part of the country and the Snow Birds who happen also to be hams take advantage of the almost free hook-ups for their RVs. He said last year the parking lot was full of them.



Dick also talked about his latest QRP project which is a UK Crowd Sourced HF all-band transceiver with built-in test equipment. \$155. It's called the Ultra QSX. <https://qrp-labs.com/qsx.html>

**Bob Houghton** said his wife is buying a Tesla Model 3 and tasked Bob to install the Edison Substation to power it. We are talking 50 amps at 240 volts. The increasing in voltage (375) and conversion to DC is done in the

car. Bob also updated us on the recent plane crash in Yorba Linda. He saw the column of densely black smoke.

**Tom Gaccione** presented a puzzle for us in the invitation to the TAG meeting. It's the picture on the far right above. Simply what is it. Larry got it right. Or close anyway. It has something to do with protecting the metal jacket of an underground powerline or gas line. It was terminal on a sidewalk which allows a testing person to measure the current between the sacrificial metal and the metal jacket. If there's a current then corrosion is happening. Something like that.

Tom brought us up to date on the mars explorer, Opportunity. It's finally done. That began a discussion led by Bob Houghton on an AMSAT that was declared to be dead shortly after it got into space. Tom also led a discussion on earthquakes and oil wells. The birth of the Periodic Table of the Elements is celebrated this week. He introduced a scary discussion about power company aggregators. This is some sort of financial instrument that seems to resemble a Wall Street "futures" investment. I believe it's function is to smooth out the price of energy. He told us of an opportunity to go a lecture on CubeSats; May 8<sup>th</sup> as part of the Von Karman Lectures. (The von Kármán Auditorium at JPL) [https://www.jpl.nasa.gov/events/lectures\\_archive.php?year=2019&month=5](https://www.jpl.nasa.gov/events/lectures_archive.php?year=2019&month=5)  
Our own Dan Slater is working on a CubeSat of his own.



**Walter Clark**, our host and the guy writing these words, got philosophical in talking about inventions or products that are hard to keep running in contrast to the ones that work no matter what. The example he used is this item from a museum gift shop. The darn thing quits a lot. It just stops. Usually cleaning the ways, and the spindle takes care of it. The battery can't be too fresh nor can it sag any.

In software engineering there's a term; "robust." Usually a program isn't robust in that an unusual combination of inputs results in it crashing or giving the wrong answer. We were always teasing each other about the need to "robustify your program." Libertarians usually have an interest in economics and in economics the term "antifragility" has in the last few years become popular. Antifragility is beyond resilience or robustness. The resilient resists shocks and stays the same; the antifragility gets better."

**Joe Moell** expanded on the discussion of earth's magnetic field shifting started by Dave Reinhardt above. Joe told us a personal story in his youth about a kind of crazy minister who promoted magnetic field flipping as a harbinger of changes of Biblical proportion.

He's still working on his ARDF unit. Joe told a rather touching story about his neighbor; the neighbor's fiber optic cable and Joe's 80 meter long wire



antenna. The cable stretched over time and drooped over Joe's antenna. The installer was lazy and took a shortcut to the neighbor's house which put it over Joe's backyard where the antenna was. Joe was more concerned about his neighbors signal than Joe's reception. (It was probably without shielding and it was at right angles anyway.)

Joe ended the TAG meeting with a letter written to him about direction finding from a prisoner in the Texas Huntsville Prison. Joe got a lot of teasing about being a pen pal for a prisoner.

Have you noticed a problem with Smoke Signals recently? I have! Typically, there is very little article content to to the newsletter except for the well done TAG report submitted by Walter Clark. Thanks Walter. Remember, this YOUR club newsletter, and we count on all members for input. Wouldn't you like to participate with an article for Smoke Signals? Something you've done in a radio project, or maybe a vacation with portable radio station setup. Anything that will be of interest. Doesn't have to be lengthy. Photos always add to the interest.

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### 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.**