



Smoke Signals

Newsletter of Fullerton Radio Club

February 2017

President's Column

Since I have been entrusted with my new role in the FRC, I find myself thinking about why clubs exist, and what makes a club great.

Just like [the 1973 movie] Soylent Green, a club is made of people - the most important resource of any club. Historically, clubs have been a way for like-minded people to find each other in order to share their interests. Most hobbies are specialized enough that you aren't likely to share them with your neighbors. My wife and I are the only hams in our neighborhood, and statistically, you are likely to be in the same situation. Even with the number of hams in the US at an all-time high, only one in four-hundred people in the US population is a ham. That's a pretty obscure hobby. It's not likely that you'll find many hams at your neighborhood block party.

The more obscure your hobby, the more challenging it is to meet people who share your interest. So somebody starts a club. Traditionally, clubs have involved people meeting in person, at a physical location (the clubhouse?). Then, along came the Internet.

A huge challenge to the viability of clubs in general, and our club specifically, is that people from far across the globe can now use the Internet to find each other and interact. If you want to know about a new piece of gear, you're more likely to go to eham.com than to wait for the next FRC meeting to ask around. No matter how obscure your hobby, you will find a forum, Facebook, Yahoo, or Google Group, or a website dedicated to that obscure interest. This is a wonderful thing, but it does make traditional clubs, like ours, a little less necessary. Maybe. Or perhaps it only changes what a face-to-face club must offer its members in order to remain relevant.

Yesterday, I discovered that CQ magazine has a list of amateur radio clubs (to see it yourself, Google "CQ magazine club list"). I spent a few hours visiting ham radio club websites and reading their club newsletters. Many of the links pointed to expired domains. Over half of the working links pointed to websites that looked like electronic ghost towns - last updated many months (or often, years) ago. On the other hand, I found quite a sizable minority of clubs that still seem to be thriving, with good memberships and lots of activities. I wonder what makes these clubs different?

This month's homework assignment. (I keep reminding you I was a teacher.)

I would like to leave you with a couple of questions to ponder.

- Try to think of one or two aspects of a club that cannot be better done online, but rather are best done in person?

- If you were a first-time visitor to the FRC website, looking for a club to join, where would we fall on the 'ghost town' to 'thriving club' continuum?

Your homework is due on Wednesday, February 15 at 7 P.M. I hope to see you then. (Walter has promised big sparks!)

Bob AD6QF

February Meeting Presentation

This month's speaker will be Erik Wehn, with a presentation that will bring out lots of sparks. Eric will be discussing his Tesla coil, resonant transformer operational theory, Tesla's Magnifying Transmitter, and the story of Jeffrey Messer who ran Teslacoil.net, and from whom Eric obtained the coil.



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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

February 2017 Board Meeting Minutes

The February 2017 FRC Board meeting was called to order by Bob Houghton AD6QF at 7:30pm. Present: Vice President Walter Clark, Treasurer Gene Thorpe KB6CMO and Secretary: Linda Endsley KJ6IHB. Directors: Larry McDavid W6FUB, Paul Broden K6MHD, Robert Gimbel KG6WTQ and Richard Belansky KG6UDD, Member: Cheryl Thorpe KE6TZU and visitor: Irene Broden.

Treasurer's report: Savings - \$2,606.86; Checking- \$3,936.01

Minutes from the January Board Meeting were read and approved.

Old Business:

The Donate Life Run will be on April 29 at Cal State Fullerton, 6:30am to about 11am

A date needs to be selected for a trip to Goldstone. Need activities for the club (Ionosphere, trip, gravitational waves) . Heathkit has a clock kit.

New Business:

Three renewal memberships were received during the month.

Walter Clark met with Brody and he will cover the Meetup charges – we can choose between two selections; up to 50 members or unlimited members. Larry suggested that we try Meetup for a few months.

The Fullerton Radio Club web site needs to be updated. There are pictures from years ago. Bob said that he would be willing to update the web site. Walter will get hold of David (David has been adding newsletters to our web site.)

February general meeting speaker will talk about bio and demo of the Tesla coil.

Antennas in the Park event date is May 13.

Next board meeting: 1 MAR 2017

Adjourned at 8:19 pm

Submitted by Linda Endsley KJ6IHB

TAG MEETING NOTES

What is the “TAG” meeting?

This group began a few years ago as our Technical Advisory Group. Meetings are every month on the second Wednesday. Here’s their recent statement of objectives.

Our Lofty Purpose . . .

- **Talk About Science and Technology**
- **Support the Fullerton Radio Club in technical matters.**

That means like becoming speakers for the regular club meetings.

And submit pictures of your projects to the club Newsletter, which . . . just in case you have something ready to go right now, send to newsletter editor,

[<pbroden@sbcglobal.net>](mailto:pbroden@sbcglobal.net) (All he needs is a picture, brief description and a caption <-- how hard can that be?)

Here are notes from the most recent meeting.

Report on the Activities of the February 8 TAG Meeting

Starting with Manny Walker (with expressing hands) and going around the room.

He told us about his experience working on the 30 foot diameter Castaic Power Plant water tunnel. He is a mechanical engineer and his job at Edison involves gas turbine generators.

Bob Houghton, our president has purchased an external sound card for his computer which should make digital modes like PSK much more successful. During his vacation in Arizona he had many presidential thoughts. Among them:

- Meetings where the subject is hands-on hardware
- Tours of things of interest to radio and electronics enthusiasts like Goldstone.
- Spruce up the website (he was able to meet with David Curlee about Dave’s idea to move to a different host software.) He researched other ARRL club websites for ideas.

Tom Curlee has been doing interesting things at work but at home, he . . .

- Fell into a pleasurable thread of super-cheap oscilloscope kits. He was very impressed. Perhaps one of these would be appropriate for a hands on project for the FRC main meeting.
- Reported to us about a FLIR that can be part of your cell phone for only \$215.
- He found himself playing with CAD programs like “Inventor” “Fusion 3D” and Kaicad from CERN laboratories.

For some reason Max found Tom Curlee irresistible. Here Tom is looking at a GPS clock that Larry McDavid brought in to talk about.

Tom Fiske is getting his life back together having lost his wife and best friend. Although hamming is an important part of his life, his writing is what occupies most of his life. He started a biography of psycho analyst [Karl Menninger](#) which he is losing interest in. He recently purchased an Icom 7600 and is studying the digital modes like PSK31.

Dan Slater, famous for his bistatic radar work, found a fascinating target to follow on January 1st in Pasadena using Mt Wilson transmitters as his source. Having worked on the B2 myself, I can assure him that while flying over friendly territory, they turn on a transponder that works at every radar frequency there is so it can be seen, and seen very vividly. So he hasn’t found a weakness in our offensive arsenal, but that he was able to do it at all is nonetheless an impressive feat and one we all very much admire.

Tom Gaccione brought in some pictures of Elon Musk’s Hyperloop demonstration in Hawthorne. Tom was there and saw many entrants into the contest for the capsules that shot down the mile long 6’ diameter pipe. Of the 30 Universities, Delft University (Holland) won.

Tom led an interesting discussion on the FAA changing of landing patterns. It was pretty much the consensus of the group that the changes were not for quiet (much to Tom’s disappointment) but to efficiency.



Walter Clark showed his Kirchoff's Paradox, an electrical puzzle he made as a kid. The paradox can be appreciated by looking at this picture and seeing that there's something wrong: He also talked about his latest experiments with getting flying wings to stall safely.



Dick Bremer told us about Brea's Centennial celebration on Birch Street on the 18th. It should be a big deal. He said CERT will be there and was asked to describe what CERT does. He and Walter described the difference between Brea and Fullerton's CERT personalities, if you would. In Brea the CERT emphasis is protecting yourself and your neighbors, where in Fullerton, the emphasis is more on support of the professionals.

Rich Belansky told us that his work schedule is "occupying" a lot of his time right now. His current

interest is exploring the Raspberry Pi as a "learning platform" and for science applications (taking measurements and using the bundled software Mathematica). He mentioned a subject (RF over optical fiber) that he may be able to pull together for a brief introduction talk (possibly for March).



Larry McDavid is very much into tools and spent a great deal of time (well received by the way) on Posidriv and Combo Drive screw drivers. More appropriate to the interests of TAG is his work with precise frequency standards.

- Part of that interest is his collection of clocks. He brought in a recent favorite in the form of a kit based on GPS rather than WWV broadcast. (see the picture with Tom and the Max the cat above.)
- He told us about TINDIE dot com, a source of kits made by experimenters.
- He encouraged TAG members to go to the ongoing trade show at the Anaheim Convention Center and even offered a free pass.
- He passed around the antenna that he will mount on his roof to be a source for his various GPS projects.

Bill Webb is new to the group. He is recently retired but even before then he was very much involved with amateur science in many forms. He is into astronomy (a key holder for Ford Observatory), big rockets, and computers; imbedded, desktop and portable.

- He is very much involved with ham radio in the form of digital modes but has sold off about a thousand dollars worth of his older radios on eBay. That led to a discussion about selling on eBay.

- He told us about his experience with Raspberry Pi using it with an on-line weather station and a media center which responds to verbal commands.
- He is learning Python in order to customize what Alexa says on Amazon Echo.
- Pictured is his APRS project where he used a Raspberry Pi as a data logger and preprocessor to the Terminal Node Controller.

Dave Rugh was at the meeting remotely; In an email letter he told us about his recent experience with NiceRF. There has been for many years BlueTooth and WiFi modules for the amateur microcontroller types. In the commercial world I've heard of these things –because they are so cheap--being used, buried within a circuit, where they are used just once to set the parameters from the outside instead of hard wiring a connector for it. This NiceRF thing, with that really good video might be the easiest one yet. Not sure. The hard part is soldering up that adapter. XBee has the problem too, but Sparkfun made that ever so much easier. Do you know about Sparkfun? They make "breakout" boards that not only convert to .1" spacing headers but also sometimes have things like built-in FTDI to allow connection to a PC for programming. They may within weeks make such a thing for the NiceRF.

Classified Ads

If you have some “ham stuff” and want to sell it we will offer a space in Smoke Signals for advertisement. Keep it to items related to our hobby, list contact name and phone, and \$\$\$\$. Ads are subject to review and approval before publication.

International DX Convention 2017 Visalia, California, USA

Dear DXer,

I would like to extend a personal invitation to you and Members of your Club to attend the International DX Convention 2017 in Visalia, California on April 21-22-23, 2017.

IDXC 2017 will be our 68th annual International DX Convention. DXers from around the world will gather once again to meet their fellow DXers, attend interesting and informative programs, see the latest in new products from the top vendors – and have a chance to win some great raffle prizes! This year Friday, April 21, 2017 will be a full day of training, presentations and vendor exhibits.

Full details of IDXC 2017 are at this website: <http://www.dxconvention.com/>

You can download the IDXC 2017 PR Kit here: <http://www.dxconvention.com/files/idxc2017-prkit.zip>

The IDXC 2017 PR Kit contains:

- An IDXC 2017 Flyer that you can include in your Club newsletter and post at your DX gathering place.
- A short IDXC 2017 PPT slide show you can use for your Club meeting
- An IDXC 2017 color advertisement that you can include in your Club newsletter
- A Visalia Vacation Options brochure - Visalia is just a few hours from world-class California vacation destinations, and we encourage all our DXing friends to combine their visit to IDXC with a vacation.

Thank you, and I hope to see you and many of your Club members at our International DX Convention next April!

73 and good DX de Mike, K6MKF
IDXC 2017 Committee

FRC Transmitter Hunt 1/21/2016

Mobile transmitter hunters continue to gather at the top of Acacia Avenue on the third Saturday of each month for a mobile transmitter hunt. The signal is continuous on 146.565 MHz, so it's friendly to beginners. On January 21, Glenn Tobey AB6PA put a five-watt transmitter in the shopping center parking lot just south of Peyton Drive

next to the 71 freeway in Chino Hills. His antenna was pointed to Mt. Baldy, so that's where the signal seemed to come from. Snow-covered mountains are great signal reflectors!

Team Calls	Odo Miles
N6AIN/WA6PYE	18.9
N6ZHZ/KK6JDC	21.7
WB6JPI	29.7
WA6CYY	29.8

Next hunt will be February 18. Will you be there?

73,
Joe Moell K0OV

Hamming While Driving?

Amateurs in California and in several Arizona communities are facing recently enacted or impending bans on handheld electronic devices while driving. Here's what we currently know about these laws.

In California, Assembly Bill 1785 took effect on January 1 of this year. Now included in Section 23123.5 of the Vehicle Code, this law provides that "a person shall not drive a motor vehicle while holding and operating a handheld wireless telephone or an electronic wireless communications device unless the wireless telephone or electronic wireless communications device is specifically designed and configured to allow voice-operated and hands-free operation, and it is used in that manner while driving . . .

For the purposes of this section, "electronic wireless communications device" includes, but is not limited to, a broadband personal communication device, a specialized mobile radio device, a handheld device or laptop computer with mobile data access, a pager, or a two-way messaging device."

Whether intentionally or unintentionally vague, interpretations of this language have ranged from applying to all mobile communications (a traffic court commissioner speaking to a radio club) to excluding mobile radios (a CHP spokesperson in Orange County). One of our ARRL Volunteer Counsel attorneys spoke with a staff member of the Assembly Transportation Committee, which introduced the bill. The staffer told him that the law was intended to apply to smart phones and similar broadband

devices, not to Amateur Radio or other radio communication services. Another Volunteer Counsel attorney is attempting to get a clarifying statement to that effect entered into the official record.

Meanwhile, CHP in Sacramento has provided guidance to the Los Angeles County Sheriff's office that wired microphones permissible but handheld radios are not. Until the law is amended or clarified, it might be prudent for California Hams to avoid wielding a handheld while driving.

In December, the Town of Oro Valley (in Pima County), Arizona adopted a "hands-free" ordinance that states, "No person shall, except as otherwise provided in this ordinance, use a mobile telephone or portable electronic device while operating a motor vehicle upon a street or highway, unless that device is specifically designed or configured to allow hands-free listening and talking and used in that manner while operating a motor vehicle." The ordinance defines "hands free" as the "use of a mobile telephone or portable electronic device without the use of either hand by employing an internal feature of, or an attachment to, the device." Like the new California law, this one was ostensibly targeting smart phones and the like, but its lack of clear definitions or specific exclusions has Amateurs concerned. The town has provided for a warning-only period of a few months during which mobile radio operators can make their case if stopped. (Source: Oro Valley Web site)

A similar bill was passed earlier in 2016 in the City of San Luis (in Yuma County) but has not led to

any enforcement cases to date.

On January 10, the Tucson City Council approved in concept a law similar to Oro Valley's, and the final language is expected any time now. The stated purpose was to enable better enforcement of the city's four-year-old ban on texting while driving, and it appears that the implementation will be as a secondary offense, one for which you can be cited only if you are already being stopped for another offense such as speeding. (Source: Tucson News Now.)

Tucson Amateurs are contacting their council members to request inclusion of appropriate exemption or exclusion language.

It is worth noting that an overly broad mobile-communications ordinance enacted in Coconino County, Arizona in 2014 was amended after pressure from both Amateurs and commercial trucking interests, according to Section Manager Robert Spencer KE8DM.

In Dave Sumner's editorial devoted to this subject in February 2012 QST, he noted that: "Safety must be our number one concern. Guiding a motor vehicle is an awesome responsibility. Radio amateurs have been operating mobile for decades without being perceived as a threat to public safety, but if there is ever any doubt in your mind about your ability to discharge that responsibility you should either pull off the road (if it is safe to do so) or turn off the radio." I encourage you to read the full editorial.

ARRL Southwestern Division
Director: Richard J Norton, N6AA
n6aa@arrl.org

COMMUNITY SERVICE

Amateur Radio Operators are needed: To Help with the Donate Life Run/Walk Family Festival on Saturday April 29, 2017 from 0700 - 1100 hrs. or so. **Put it on your calendar.** Send Your Name, Call Sign, E-Mail Address, & Phone Number to: Gene Thorpe KB6CMO@ARRL.NET. This will be our 15th year of participation! **YOU ARE NEEDED.**

Monthly FRC meetings are held at:

Chapman Activity Center

2515 San Carlos Dr.

Fullerton, CA

February's meeting will be:

**Wednesday,
February 15, 2017**

Dinner before the meeting at 5:00 PM

(new time) at:

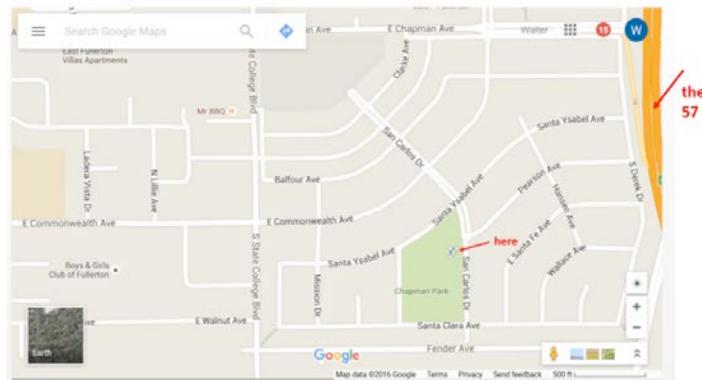
Sizzler

1401 N. Harbor Blvd.

Fullerton

Meeting time: 7:00 PM

Visitors are welcome



Meeting Location Map

FRC Board Meeting

Open to all Club members

Marie Callender's Restaurant

126 Yorba Linda Blvd., Placentia
First Wednesday of each month.

Next Board Meeting

March 1, 2017

QSO and dinner; 7:00 PM

Meeting: 7:30 PM

Antennas In The Park

Its time for us to plan the next club outing; *Antennas In The Park*. Last year we got a late start, but it still came off well. As always, the key feature will be the popular Joe Moell K0OV on-foot T-Hunt, but let's not limit other activities! Last year we had one portable HF station, several pieces of equipment on display, and a drone demonstration. What can we/you think of for this year's event? How about additional portable HF/VHF/UHF or even microwave stations? Or perhaps a demonstration or two – or more – from the TAG group projects? What else? It's up to your imagination!

We'll have the usual BBQ – club funded, but donations accepted. And something **NEW**: the event will be at the Izaak Walton Cabin at Hillcrest Park (with restroom). Details to come, but reserve the date: **Saturday, May 13, 2017.**



Chapman Activity Center

January Meeting Presentation Summary

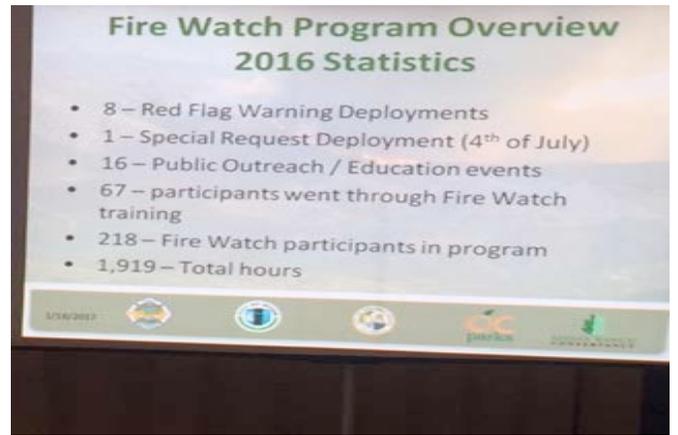
For those of you that missed last month's meeting (and that was quite a number of you!) we had a presentation by Tony Pointer on **Orange County Fire Watch program and how they use Ham Radio Operators to assist with Red Flag Deployment operations.** You missed a good presentation. Attached are a few photos from the meeting.



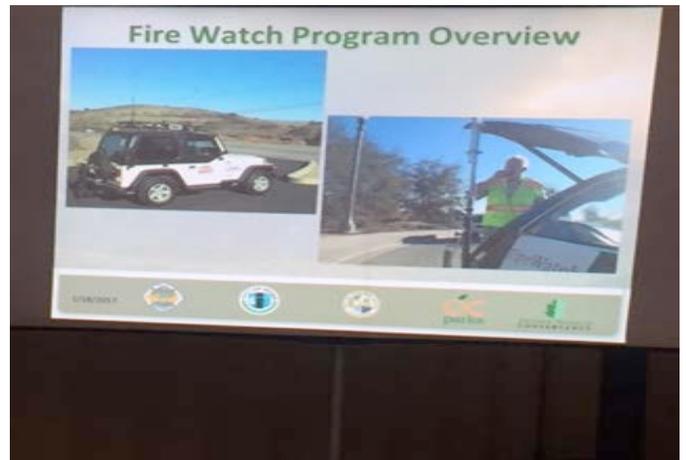
Tony Pointer



Fire Watch posters and club members



Fire Watch Statistics



Use of Hams within the Fire Watch Program

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.