



Smoke Signals

Newsletter of Fullerton Radio Club

October 2019

October Club Presentation

The presentation at the October Fullerton Radio Club meeting will be another DVD, as described below.

"Big. Fast. Deadly. Titan II." This documentary describes the Titan II intercontinental ballistic missile and its underground launch complex. There is a tour of one complex in Arizona now a museum and a focus on the electronic controls and communications capability therein. One interesting aspect described is a completely underground antenna system. Above ground security and intruder detection and how these systems reacted to desert wildlife are described. This Titan II museum is active today and available for visitors to tour.

October 2019 FRC MEETING

Wednesday, October 16, 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

November Board Meeting

Open to all Club members

Black Bear Restaurant

(1011 N. Harbor Boulevard, Fullerton
First Wednesday of each month.

Next Board Meeting

Wednesday, November 6, 2019

QSO and dinner; 6:30 PM

Meeting: 7:30 PM

The newsletter is a bit sparse this month – again! If it weren't for Walter's well appreciated TAG report we'd have nothing. Who do you suppose can help alleviate this problem? Any names come to mind? How about someone from the 33 members, or perhaps a non-member who is still interested in participation! Submissions can be made for any month. The newsletter editor's email address is on page two.

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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.

Every club meeting!

Web site: www.FullertonRadioClub.org

The October 2019 FRC Board meeting was called to order at 7:30pm by President Larry McDavid W6FUB. Others present: Treasurer Gene Thorpe; KB6CMO; Secretary Linda Endsley KJ6IHB; Board Members, Walter Clark, Robert Gimbel KG6WTQ; Member: Cheryl Thorpe KE6TZU

Minutes were approved with the change of Checking \$3,929.42; Savings \$2,608.10.

Treasurer's report: Checking - \$3,929.42; Savings - \$2,608.14.
There was a deposit of \$65 on 10/2 to checking.

New Business:

Received 1 renewal, 3 Lifetime members

Have 33 paid members.

Will research video projectors to purchase for the club using part of the donation from Kohlenberger donation.

Wed, Dec 18, 6:30 pm, Christmas dinner will be at the Black Bear Diner.

The October general meeting will be a DVD.

Next board meeting: 6 NOV 2019

Adjourned at 8:13 pm

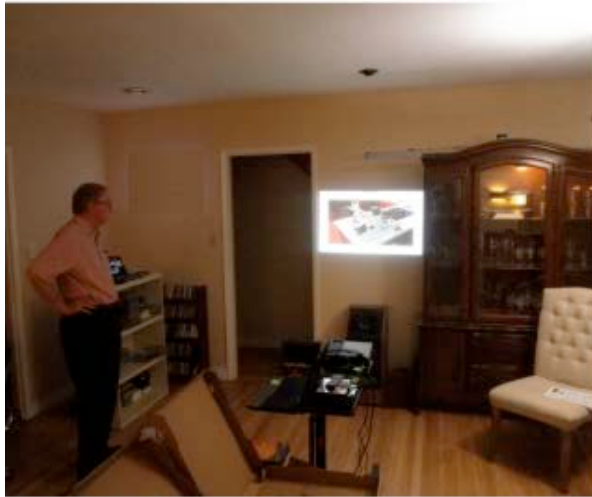
Submitted by Linda Endsley KJ6IHB

Activity Reports of the Fullerton Radio Club (Technical Advisory Group) for October 2019

Larry McDavid gave us a brief Power Point presentation on a microscope he owns. This was done with his own projector as a demonstration for how we should set things up at the meeting. The general meeting of the Fullerton Radio Club this coming Wednesday will show another video with the improved sound system Larry will loan us. (By way of Gene.) His projector is exactly the same as the clubs. It's the sound system that the club needs to upgrade.

He led a discussion on what to do with the \$1000 Bill Kohlenberger gave us. A new projector which has a good sound system was the central focus on that discussion. Since we are the advisory group, we also came to a consensus as to which video it is going to be this Wednesday. We selected a video tour of a Titan Missile Silo from the point of view of a ham radio person. (There's lots of discussion on the communications that linked the silos to Wyoming.

The picture on the left is Larry's laptop and video projector with nice sound system. On the right is Walter's set up with his projector. This is what was used at the last FRC meeting where the loudness wasn't found to be enough for a large room.

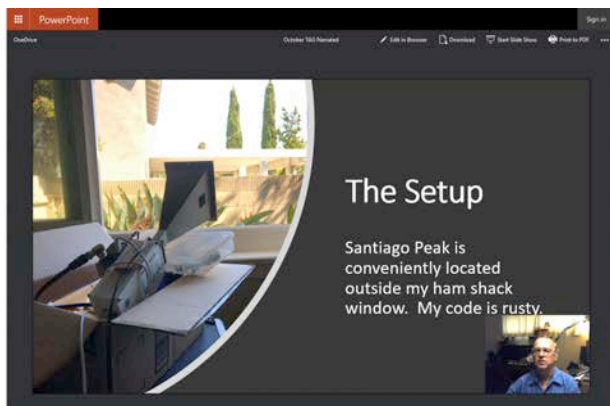
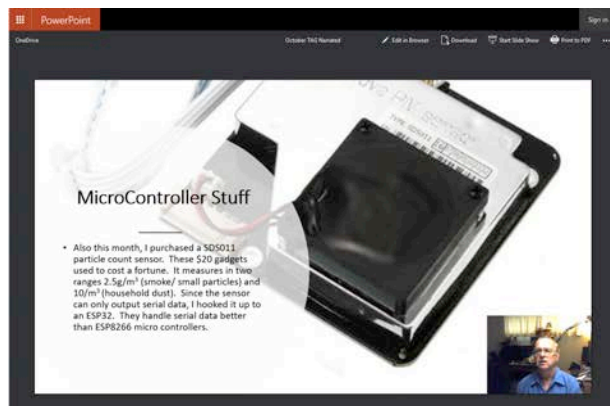


Dick Palmer's activity worth noting was to help put up a multiband antenna for his son in La Mirada. The 40 meter antenna was the only one without gain. Just for fun, they tuned that one up and lo and behold, there waiting for them was a CQ. So right away, they made contact. It was somebody from Antioch and of course the discussion was about the pending power outage.

Walter Clark's set up was used to show a Power Point presentation he created to teach how to insert audio and video into your slide show. He also talked about his work with R/C chuck gliders. Rather than show you his airplane, here's a link to some guys that really know how to do it. They stay up for a long time which is boring, so they only show just toss. Except the last one where the pilot does some aerobatics.
<https://onedrive.live.com/view.aspx?resid=F1B60A320CA8CA65!139521&ithint=file%2cpptx&authkey=!AN7saKDOV2JvLow>

Bill Webb is taking a 3D-printing class at a College near where he lives so was unable to make it in person. But in keeping with the night's theme of video presentations, he created a slide show for us that was accessed by way of Microsoft's OneDrive. He had three things to share with us:

- His visit to Westech
- His purchase of a particle detector
- Observing a microwave beacon



Here's the link to the cloud where he put his presentation. For most of you, this will be your first use of "The" Cloud. Notice that you don't need a password or even have downloaded OneDrive to see it. There's many levels of security in your use of the cloud. This is obviously the lowest security and it will disappear in about a month.

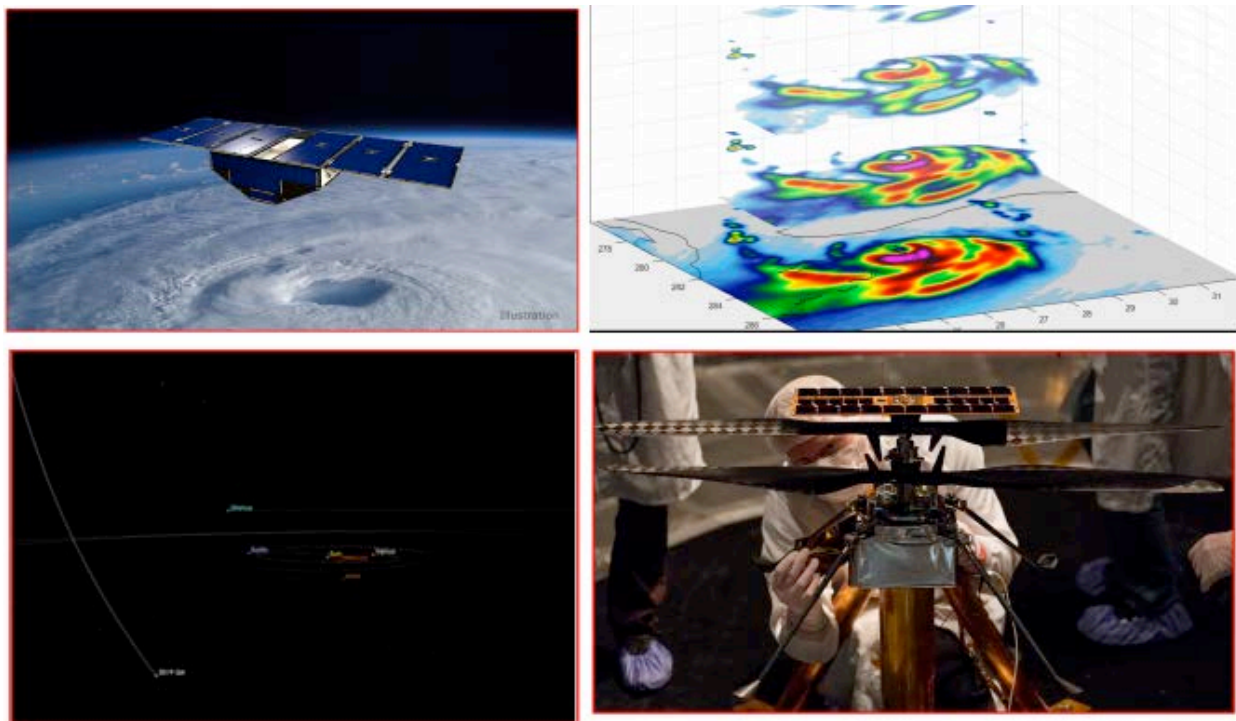
<https://onedrive.live.com/view.aspx?resid=F1B60A320CA8CA65!139521&ithint=file%2cpptx&authkey=!AN7saKDOV2JvLow> The audio is Bill speaking the words on the screen and then talking a bit more about the subject.

The presentation mentioned above that Walter gave on his projector was how Bill created the above AV slide show. Walter's presentation includes loading the slide show into the cloud. That presentation is available here: <https://1drv.ms/p/s!AmPDct-g12VuiCWu1Ei33BzNCB3y?e=yQKqEs>

Dick Bremer brought one of his hygrometers. (Last month Larry showed his.) What made it interesting is that after whirling it about the two thermometers are slid next to each other in the manner of a slide rule to get the humidity value.



Tom Gassione obliged Walter to put the pictures about what he's going to talk about on slides to show on one or the other of the two video setups we had going. Two very small satellites were recently put up by NASA that were very appropriate for hurricane research. One used the carriers of the GPS satellites



as a kind of bistatic radar to catch the (Doppler, per chance) reflection off of the surface of the ocean. That image shows motion as brightness which can be assumed to be same as a wind velocity image. The other small satellite (seven of them actually) called CGNSS revealed wind velocity by way of IR images at various wavelengths corresponding to different altitudes.

The bottom left picture is of another hyperbolic orbit asteroid discovered recently; the second one in the history of astronomy to be observed. (The first one was 10 times longer than it was wide. Since no object in space has ever been seen with more than two to one aspect ratio, you'd think the UFO world would have gone ape-shit over this.) Hyperbolic orbit means these object came from beyond the Ort Cloud. That is material born of a different star system.

Bottom right (above) is a helicopter that is going to Mars. It will fly 30 feet per second and is 3 feet in diameter. It will communicate with the base station on Mars and from there to earth. The project engineer on the radio for the helicopter gave a talk at the San Bernardino Microwave Society.

Brooks Kachner is our resource on battery performance. He had a battery discharger that measured milliampere hours and was recording performances of various brands at various current loads. But he lost his data. He also lost enthusiasm because he was beginning to see that all brands seem to have about the same life time. He mentions a lithium based battery that he likes best of all. It has a a very long life compared to an alkaline but has the same 1.5 volts as a normal AA. Lithium is normally thought of as a 4 volt battery. Apparently Ultimate Lithiums are not LiPo's, but their cost is up there with LiPo's. Here's the website for it: <https://www.energizer.com/batteries/energizer-ultimate-lithium-batteries>

Brooks brought with him a very strange 2 meter antenna. It radiates like a vertical whip but is only a few inches high. He was tired of worrying about the antenna every time he parked it. It was clearly hard to machine and the materials were far more expensive than a whip, but even if it has no more gain than a whip, it sure looks cool. For more on this clever omni, the article appeared in the March 2018 issue of QST magazine, starting on page 34.



The picture on the right is of Larry's hand and a cube that is used by geologists and others who take pictures in the field and need a reference of size. This 1cm cube, since it is made by a guy who likes to machine (grind and polish perhaps) tungsten carbide, was made of that material with some rather first class coating and labelling. Notice the letter N. There's also E, W and S.

WHITE SPACE

HOW DO YOU SUPPOSE WE CAN
ELIMINATE THE WHITE SPACE?

Maybe articles from members? Or something with
extended detail from one of the TAG projects?