



Smoke Signals

Newsletter of Fullerton Radio Club

May 2014

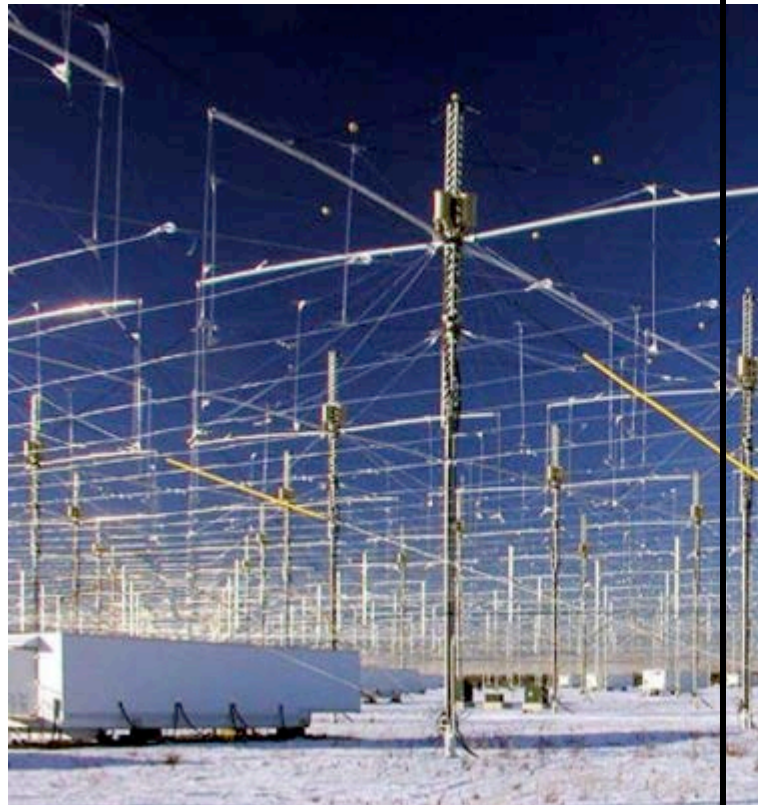
President's Message

Depending on which week it is, Spring feels like Summer one week and Winter the next. Right now, the month of May feels like the middle of Summer. May is also the time of year for our annual Antennas in the Park or ANTS. ANTS will held this Saturday (May 17) on the north side of the lake in Tri-City Park and can be easily found by looking for the FRC banner. This event provides an opportunity for our club to “showcase” amateur radio to the public (at least those curious enough to stop by) and bring our radios out into the “air” and get them “on the air”. This year the Catalina radio club will not be joining us so it is BYOL (Bring Your Own Lunch). One tradition you can always count on is the T-hunt hosted by Joe and April. I am sure this year Joe will be extra clever in challenging all “would-be T-hunters” and the cake provided by April has never disappointed anyone. So bring your walking shoes, plenty of drinks, a good hat, your radios and setup up your “antenna farm” for a day at the park.

Speaking of major antenna farms, HAARP may be getting a new lease on life. The High Frequency Active Auroral Program (HAARP) has been the subject of possible budget “cuts” for over a year (the facility’s current “owner” had no plans to keep it running), however, recent updates indicate that a business case is being proposed by several groups to maintain the yearly operating cost (approximately \$5 million).

Despite the various conspiracy theories of mind control and rumors of weather control, HAARP is not trying to vaporize the ionosphere, however, its purpose is to heat specific areas of the ionosphere by directing (i.e. beam steering) high-energy radio waves and detecting the non-linear response of the plasma state of the ionosphere. The HAARP facility, located in Gakona, Alaska, uses an array of 180 crossed-dipole antennas to transmit in the HF band from 2.8 to 10 MHz with an effective radiated power (ERP) of 3600 megawatts (transmitter power multiplied by antenna gain). Unlike the ultimate DX station, HAARP does not seek skip conditions by bouncing signals at an angle from the ionosphere, but directs all its energy straight up into the ionosphere. One of the original studies (by the Office of Naval Research) using HAARP was to investigate the possibility of very low frequency (VLF) communications with deep-sea submarines. While the Air Force has more recently been interested in using HAARP to study high-energy electrons trapped in the radiation belts to understand the impact of these energetic particles on communication satellites, the real benefit of HAARP is to basic science and our understanding of the fundamental properties of the

ionosphere. The ionosphere, key to HF propagation, is essentially in a plasma state (an ionized “gas” where ions and electrons are separated from each other) and interacts with high power radio waves by creating turbulence (e.g. chaotic fluid dynamics) in the plasma (a good reference is “*Introduction to Plasma Physics*” by Francis Chen). So HAARP is really an “ionospheric heater” that enables a diverse number of stimulus-response measurements (transmit a high power signal at something and then measure the response) by using the ionosphere as a “plasma-physics laboratory”. These measurements (e.g. using incoherent scatter radar) of the ionosphere complement observations of naturally occurring phenomena such as the aurora borealis. The more we can understand how the ionosphere responds, the better the models will be. This not only improves our understanding of plasma physics, but benefits our knowledge of radio communication effects as well.



The High Frequency Active Auroral Research Program in Alaska

Well that is all for now. I know my “publisher” is wondering if I will ever submit my copy.

Rich KG6UDD

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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

May Board Meeting Minutes

May 7, 2014 Board Meeting Minutes

The May 2014 Board meeting was called to order at 7:30 PM by Vice President, Richard Belansky KG6UDD. Other members present were: Treasurer Gene Thorpe KB6CMO, Secretary Linda Endsley KJ6IHB, Directors Larry McDavid W6FUB, Paul Broden K6MHD, OCCARO representative Robert Gimbel KG6WTQ, and member Cheryl Thorpe KE6TZU.

Minutes from the April Board meeting were reviewed and approved.

Treasurer's Report: Checking Account, \$2633.85. Savings Account, \$3,073.04.

Old Business:

Airport Day will be held on May 10th. There will be no hams as we were not invited to participate. It was decided by airport personnel that hams were not needed.

Antennas in the Park on May 17th. There will be no picnic provided this year.

Need to gather info for yearly forms and instructions for completion.

New Business:

Joe Moell will be the meeting speaker for the May 21 general meeting. The topic will be directional finders/apps.

The next Board meeting will be Wednesday, June 4.

The meeting was closed at 7:53 PM

Submitted by Linda Endsley, KJ6IHB

Last Minute Reminder

Saturday, May 17, 2014 – Antennas In The Park, with T-Hunt. Tri-City Park; Placentia. Starting time somewhere around 8 – 9 AM, with T-Hunt at 11 AM

May Meeting Information

The May Club Meeting Presentation Information is located on page 3.

Meeting: May21, 2014. 7:00 PM
Chapman Activity Center
2515 San Carlos Dr., Fullerton

May Club Meeting

As you noticed, we had a last minute change of plans for the April meeting, and April Moell WA6OPS stepped in with her presentation when husband Joe KOOV needed to postpone his presentation – – – soooo, lets try it again.

May Club Meeting Presentation

REPEATER REVELATIONS

Are you planning to be a communicator for the DonateLIFE Run on April 26? Ever wonder what it takes to get a frequency pair and put up a repeater? What is that weird noise you heard on your favorite repeater? Do you know the difference between CTCSS and PL? Have you been upset about the "kerchunking" on the repeater you wanted to use? Want to learn about problem solving with your HT so you can get into that repeater to communicate with a friend? How is that the Red Cross uses the CLARA repeater and HDSCS uses the Raytheon repeater? All that and more will be revealed at the next meeting. Come and hear Tom Gaccione, WB2LRH explain the nuances, frustrations, and rewards of repeater ownership, maintenance, and operation. After an introductory section on repeaters and public service by April Moell, WA6OPS, Tom will take us through some basics of repeaters along with important practical information that will help you not just communicate with friends on local repeaters, but help you troubleshoot with your radios when out helping at the DonateLIFE Run, the tennis tournament, and/or assisting an emergency group.

Joe Moell
KOOV

FRC Mobile Transmitter Hunt

April 19, 2014

It was another trip to Chino Hills for hunters on the April 19 FRC transmitter hunt. Dave Balgie N6MJN was sitting in his vehicle in a mini-mall south of Pine Avenue and west of the 71 freeway. These 71 freeway hunts are always tricky because the signal tends to get to the starting point via a bounce from Mt. Baldy down the 57 freeway. That's probably why everyone drove more

than 25 miles to get there.

<u>Team Calls</u>	<u>Odo Miles</u>
N6AIN/WA6PYE	26.5
AB6PA/N6BOX	29.1
N6ZHZ/KK6JDC	29.3
WA6CYY	30.7

The next hunt will be Saturday, May 17 at 8:00 PM from the top of Acacia Avenue in Fullerton. The transmitter will be continuous on 146.565 MHz.

73,
Joe Moell KOOV

DonateLIFE Thanks

Thank you for all of your Help during this past Saturday 26 April 2014's DonateLIFE Run/Walk event. We could not have pulled it off without all of your Help. Thank you for volunteering for being a small part in this event. Again Thanks for your help.

Gene & Cheryl Thorpe and from Craig & Kathleen Hostert, Event Leaders

Classified Ad

FLEX 3000 EXCELLENT CONDITION

Very minor scratches on the top, front panel good as new. Photos available. No dents or other mechanical or electronic defects. Built in auto tuner. Runs cool! Non-smoker. Original boxes & manual. EXTRAS: Yaesu MH31 mike with up down buttons, two power cords, 2 Granite firewire cables (6 to 6 pin and 4 to 6 pin) and PCMCIA Express Card. \$1350 by check or money order and free FEDEX shipping. Also for sale: Lenovo X61s notebook (1.8G Intel Core Duo with 4G RAM and 96.5G of hard drive free space) along with the firewire cable and PCMCIA card used to control the Flex and PSDR as your dedicated Flex computer for an extra \$175 if interested. Free shipping in US by FEDEX.

Jim Carmody NN5O
carmodyjim@yahoo.com

The Mojave Death Race

The Mojave Death Race is happening on May 31 and June 1 and Ham Radio Operators are needed to support the race.

Coastal Amateur Radio Amateur Radio Emergency Services (CARES) has been coordinating the health and

welfare communications for the Death Race ever since it started. We appreciate the support that some of the your members have provided in past years.

Dick Bruno N6ISY
Communications Coordinator
Mojave Death Race 2014



The Mojave Death Race returned with a vengeance in 2013 and is bigger and better in 2014.

The Mojave Death race is a 250+ mile Run, Mountain Bike, & Road Bike relay race across the Mojave Desert. Teams of 12, 8, or 6 will traverse 250+ miles and climb over 16,000 feet of inhospitable desert by foot, mountain bike and road bike. The race starts in Nipton California and runs through the Mojave National Preserve to the National Trails Highway (RT 66) and back to Nipton. Dates for the 2014 race are May 31 and June 1.



HAM OPERATORS NEEDED



Are you up to the challenge?
***To volunteer go to www.mojavedeathrace.com,
click on the volunteer tab then scroll down to
[Ham Radio Volunteer info](#)***

Call Dick Bruno at 714 315-1637 for additional info