

## Cathay September 2016

[www.cathayradio.org](http://www.cathayradio.org)

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**Mission:** The Cathay Amateur Radio Club is basically an active social club of Ham Radio Operators and their spouses. We support local community requests for HAM emergency communications. Several of us are trained in CPR/ First Aid and are involved with community disaster preparedness.

**Monday Night Net Time:** 9 PM Local Time/PST, Frequencies: 146.67MHz -600KHz PL85.4 and 442.70 +5MHz PL 173.8. The repeaters are linked only during the CARC Monday night net.

Update: Link to repeater 442.70 is currently not active until further notice.

The CARC Monday night net is the best way to find out the latest club news.

All check-ins are welcome.

**Message from the President: George Chong, W6BUR**

Hello CARC Members and Friends;

**Ham Tech Session 2016 Intro**

Edison Fong (*WB6IQN*) is providing a HAM Tech Session on Performance of Aftermarket HT Antennas.

The Tech Session will be conducted from 12 noon – 4 pm, Saturday Sept 10, 2016 at the following location:

Home of Ed Fong  
1163 Quince Ave.  
Sunnyvale, CA

I have previously attended a similar talk at Edison home a few years ago and found it to be an eye opening talk and demonstration.

I highly recommend that CARC members should attend this HAM Tech Session.

Additional details in this newsletter.

**Pacificon 2016 – ARRL Pacific Division Annual Conference Intro**

Yes, it is that time of the year, The Mount Diablo Amateur Radio Club (MDARC) is hosting the 2016 Pacificon Event.

On Friday – Sunday October 14-16, 2016 the Pacificon event will be held at the following location:

San Ramon Marriott  
2600 Bishop Drive  
San Ramon CA 94583

For more information see the Public Announcement Section.

**CARC Final Wrap-up News**

I wish to thank our CARC members that set aside their valuable time to participate in our Monday night's nets.

Chat sub s'em to all you CARC members! - George W6BUR.

## Public Service Announcements

### HAM CRAM / HAM Licensing

For upcoming HAM Licensing locations please refer to:

<http://www.arrl.org/find-an-amateur-radio-license-exam-session>

### Auxiliary Communications Service (ACS)

The Auxiliary Communications Service (ACS) was organized by the San Francisco Office of Emergency Services (OES) following the 1989 Loma Prieta Earthquake to support the communications needs of the City and County of San Francisco when responding to emergencies and special events.

The Auxiliary Communications Service holds General Meetings on the third Tuesday of each month at the San Francisco Emergency Operations Center, 1011 Turk Street (between Gough Street and Laguna Street), from 1900 hours to 2100 hours local time. All interested persons are welcome to attend.

The ACS Net begins at 1930 hours (7:30 p.m.) local time each Thursday evening, on the WA6GG repeater at 442.050 MHz, positive offset, tone 127.3 Hz. The purpose of this net is to practice Net Control skills, practice checking in with deployment status in a formal net, and to share information regarding upcoming ACS events. Guests are welcome to check in. ACS Members should perform Net Control duty on a regular basis. On the second Thursday of each month, the net will be conducted on the output frequency of the WA6GG repeater, 442.050 MHz no offset, tone 127.3 Hz, simplex.

For more information, please attend an ACS meeting or check in on a net, or call 415-558-2717.

Upcoming meetings: Tuesday 7pm, Sept 20, 2016  
Tuesday 7pm, Oct 18, 2016  
Tuesday 7pm, Nov 15, 2016

### Gilbert Gin (KJ6HKD)

Free Disaster Preparedness Classes In Oakland:

<http://www.oaklandnet.com/fire/core/index2.html>

CORE is a free training program for individuals, neighborhood groups and community-based organizations in Oakland. The underlying premise is that a major disaster will overwhelm first responders, leaving many citizens on their own for the first 72 hours or longer after the emergency.

If you have questions about the recertification process, you may contact the CORE Coordinator at 510-238-6351 or [core@oaklandnet.com](mailto:core@oaklandnet.com).

## Free Disaster Preparedness Classes In San Francisco – NERT Taught by San Francisco Fire Department (SFFD)

Upcoming events see: <http://sf-fire.org/calendar-special-events>

### Sept 2016

- 1 Ask an Elmer - informal mentoring and show & tell 6:00pm-8:00pm SFFD DOT\*
- 8-12 Urban Shield can always use victims visit their website to volunteer:  
<http://www.urbanshield.org/>
- 10 Ham radio operators join 2m critical mass practice  
10am-12noon Spreckels Lake, Golden Gate Park (no RSVP needed)
- 14 PG&E for NERT responders 6pm-9pm SFFD DOT\*
- 17 NERT Neighborhood Command Post (NCP) Operations I  
9am-4pm SFFD DOT\*
- 21 Disaster Mental Health 6pm-9:30pm SFFD DOT\*
- 24 NCP II (NCPI is a pre-prerequisite) 9am-4pm SFFD DOT\*
- 27 NERT ICS Forms class 6pm-9pm SFFD DOT\*

### Oct 2016

- 7-9 Fleet Week Humanitarian Village; NERT Outreach/Education booth.  
9:00a-3:00pm, Friday – Saturday Marina Green near Scott St.
- 15 Save the Date! NERT drill 8am – 5pm Saturday
- 26 NERT Quarterly Meeting 6:30pm-8:30pm Wednesday SFFD DOT\*

### Nov 2016

17<sup>th</sup> NERT/MRC Support citywide Public Health/Hospital exercise.  
Thursday, November 17, 2016 from 8:00 AM to 5:00 PM (PST)

SFFD NERT/MRC will be supporting this major hospital exercise.

You are needed to:

1. Be a general surge volunteer victim at one of 7 hospitals - 15 people are needed at each hospital location.

2. Be a specialized surge victim receiving technical decon at 1 of 4 hospitals - 6-10 people needed at each
3. Be an exercise evaluator paired with a DPH staff person - 10 people needed

A 1-3 hour training is required prior to November 17.

Details will be provided once they are confirmed.

RSVP to [sffdnext@sfgov.org](mailto:sffdnext@sfgov.org) or call 415-970-2024 to register.

Visit [www.sfgov.org/sffdnext](http://www.sfgov.org/sffdnext) to learn more about the training, other locations, and register on line. Upcoming Special NERT Events.

### **San Francisco Police Department: Auxiliary Law Enforcement Response Team (ALERT)**

The Auxiliary Law Enforcement Response Team (ALERT) is a citizen disaster preparedness program designed. The ALERT program is for volunteers 16 years of age or older, who live, work, or attend high school in San Francisco.

Graduates of the San Francisco Police Activities League (P.A.L) Law Enforcement Cadet Academy are also eligible to join.

ALERT volunteers will first complete the Fire Department's Neighborhood Emergency Response Team (NERT) ([www.sfgov.org/sfnert](http://www.sfgov.org/sfnert)) training and then graduate into an 8 hour Police Department course specifically designed for ALERT team members.

ALERT members will work closely with full-time and/or Reserve Police Officers in the event they are deployed after a disaster. The Basic ALERT volunteer will have no law enforcement powers other than those available to all citizens.

#### **SFPD ALERT Training**

The next ALERT training classes have been scheduled for Saturday October 1, 2016. The class will be held at the San Francisco Police Academy, in the parking lot bungalow, from 8am-5pm (one hour lunch break).

**IMPORTANT-** All participants must complete the background interview process in order to be eligible to attend the ALERT training class.

Eligible ALERT participants may register for a training class by contacting the ALERT Program Coordinator, Mark Hernandez, at [sfpdalert@sfgov.org](mailto:sfpdalert@sfgov.org), or by telephone at 415-401-4615.

## **SFPD ALERT Practice/Training Drill**

All active/trained ALERT members are asked to join us for our next training drill, scheduled for Saturday November 5, 2016 7PM - 11PM. Details will be emailed to active ALERT members, prior to the date of the exercise. Participation is not required, but strongly encouraged.

For more information on the San Francisco Police Department ALERT Program, email us at [sfpdalert@sfgov.org](mailto:sfpdalert@sfgov.org), or call Sergeant Mark Hernandez (SFPD, Ret.), SFPD ALERT Program Coordinator, at (415) 401-4615.

For additional information on the web please refer to:

<http://sf-police.org/index.aspx?page=4019>

## **Pacificon 2016**

<http://www.pacificon.org/>



**PACIFICON** is the annual ARRL Pacific Division convention, held each year in October. It is THE premier amateur radio conference in the western U.S.

### **PACIFICON 2016**

**San Ramon Marriott  
2600 Bishop Drive  
San Ramon CA 94583**

**Friday through Sunday  
Oct. 14-16, 2016**

***Looking Into The Future of Amateur Radio***

**On-Line Registration Deadline is Monday, Oct. 3!!**  
**Don't Miss It!**

**Pacificon** gives you three great days of activities for one low cost: A full slate of outstanding Forum presentations about a wide range of amateur radio topics; a large Vendor Expo filled with exciting products and exhibits; an outdoor Swap Meet; QRP activities; Youth Activities; electronics kit building and soldering classes; a One Day

License Prep Class to prepare you to pass the amateur radio Technician license examination and get your first amateur radio license; a Special Events Station where you can operate and contact other hams worldwide, even if you don't have a General or Extra Class license; a wonderful Banquet; our annual Wouff Hong Initiation ceremony; a chance to hear about and discuss important national amateur radio issues with top ARRL leaders, a chance to win radios and other great prizes throughout the convention, and perhaps the best part - *a chance to interact and share information with lots of other amateur radio enthusiasts to further (or begin) your own knowledge and to advance the hobby.*

### **Pacificon 2016 Attendee Information**

**Welcome to PACIFICON 2016! PACIFICON is the premier amateur radio event in the Western United States. This is a forum-driven event with a variety of topics of interest to just about every ham!**

**The deadline for on-line Registration is Monday, Oct. 3.  
After that date, registration is at the door only.**

**[Click Here to Register!](#)**

#### **Pricing:**

- General Admission - Early Bird (until Oct. 3)                      \$25.00
- General Admission - At the Door    \$30.00
- College Student (w/ Valid Student ID, Max age 25)              \$5.00
- Youth (Age 17 & under)    Free
- Antenna Seminar (Oct. 14)    \$20.00    (See our [Antenna Seminar](#) page.)
- USB Thumb Drive for The Friday Antenna Seminar              \$10.00    (See our [Antenna Seminar](#) page.)  
(Included with the Antenna Seminar registration.)
- Breakfast with Gordon West (Oct. 15)                      \$21.00    (See our [Breakfast with Gordo](#) page.)
- Banquet - (Oct. 15)    (See our [Banquet](#) page.)
  - Rib-Eye Steak    \$55.00    (See our [Banquet](#) page.)
  - Chicken    \$55.00    (See our [Banquet](#) page.)
  - Salmon    \$55.00    (See our [Banquet](#) page.)
  - Vegetarian    \$55.00    (See our [Banquet](#) page.)
- Wouff Hong (Oct 15)    Free    (See our [Wouff Hong](#) page.)
- License Testing Fee (FCC mandated)                      \$15.00    (See our [License Testing](#) and [One-Day Class](#) pages.)

## **Location:**

Registration will be located in the Mt. Diablo Room which is to the left in the hotel front entrance lobby area. The Registration Desk can assist attendees who are walk-in's, have questions about the event or business related to their registration. You may also purchase special event items at the Registration Desk.

Will-Call for those attendees that pre-registered on-line/phone will also be located in the hotel front lobby, next to the Mt. Diablo Room door.

## **Hours:**

Registration and Will-Call Desk hours for PACIFICON 2016:

FRIDAY - October 14th:	7:00am - 3:00pm & 5:00pm to 7:00pm
SATURDAY - October 15th:	6:00am - 4:00pm
SUNDAY - October 16th:	7:00am - 11:00am

Contact our Registration Chair, Debbie Deeble at [registration@pacificon.org](mailto:registration@pacificon.org) or 925/778-8977 if you have any questions regarding registering for the event.

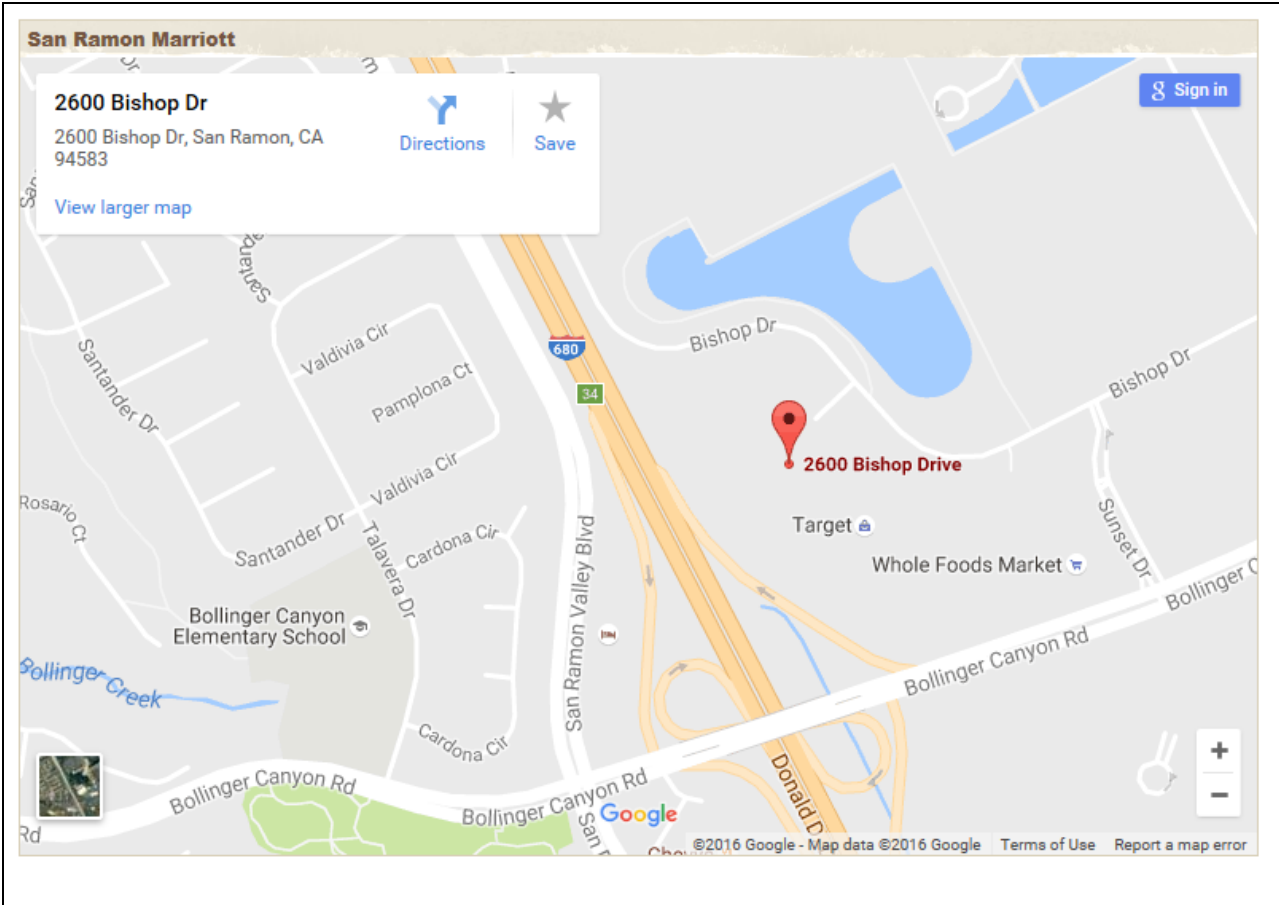
## **Directions from north- or south-bound I-680:**

- Exit I-680 at Bollinger Canyon Road.
- Turn east (right if north-bound; left if south-bound)
- Turn left at the first traffic light; Sunset Drive/Chevron Drive.
- Pass the shopping center entrance and turn left again at Bishop Drive.
- Continue around the right-hand curve to the hotel entrance, approximately 0.1 miles.

Note that parking in the hotel parking lot is limited. For information on additional parking, please see our [Parking](#) page.

Additional directions and information; including airports, bus & train stations, rental cars, etc.; is available on the hotel's [Maps and Transportation](#) page.





## **HAM Technical Session, Sept 2016**

**Subject** - Performance of Aftermarket HT Antennas

**Date** - 12 Noon to 4PM Saturday September 10, 2016

**Where** - 1163 Quince Ave, Sunnyvale, CA

**Lunch** – FREE - Pizza, Lasagna, salad, drinks, cake for desert

**Raffle Prize** - Btech 2501 +220 Triband 25 watt mobile radio - tickets \$5

Mark your calendars for September 10,2016, it is right after the DeAnza Swapmeet.

The last time we tested HT aftermarket antennas was 10 years ago. A lot has changed. Our September get together will not be a technical lecture but will have participation from the attendees.

This was big hit the last time we did this. We did a field test of various aftermarket handie talkie antennas. A lot of new radios and aftermarket antennas have entered the market in the last decade. What we found was that just because one rubber duck antenna works well on one brand of walkie talkie does not make it an overall all great antenna for all walkie talkies. This is because a walkie talkie relies on the chassis of the radio for ground. You can demonstrate this very easily. Just connect an aftermarket HT antenna directly to an antenna analyzer. The SWR is typically poor and the bandwidth is very broad. Why?

There is a simple explanation. Almost all of the aftermarket antennas rely on the chassis ground of the HT for resonance. The effectiveness of chassis ground of a small HT varies all over the map. So the ideal antenna if directly connected to an HT may not be 50 ohms. It is only 50 ohms if you have a resonant antenna. If an aftermarket antenna does not have radials then its impedance can be anything. This is why the single best improvement you can make is to have an 18 inch pigtail hanging off your HT. You can have one of these FREE if you attend the event. You will get an instant 3 dB improvement.

Come to the meeting and test out the 18inch pigtail for yourself through my Agilent 9591 spectrum analyzer. Seeing is believing. This technique is well known among hams but aftermarket HT antenna makers really don't want you to know about this secret. How would they then sell antennas? You don't even see this in the ARRL Handbook. After all, the ARRL needs advertisement support from radio and antenna manufacturers.

There are some really good aftermarket antennas out there and they use what is called a "sleeve dipole" configuration. I have not seen this configuration in VHF (a little too large) but I have seen it at UHF. You can easily tell by just directly measuring with a SWR analyzer. The sleeve dipole configuration will dip very nicely at resonance even without a pigtail or ground radials.

The best way to determine what antenna works best with your HT is to test it. At the September meeting I will have a variety of aftermarket antennas you can test with your HT. Please also bring your own aftermarket antenna in case I do not have your brand or model number.

We will be using an Agilent 8591 lab quality spectrum analyzer. Results will be recorded and I will publish them in a future newsletter. This will be fun.

Lunch will be served with Pizza, lasagna, salad and ice cream for desert. Feel free to bring a dish to share.

**Raffle Prize** - Btech 2501 +220 MHz triband 25 watt transceiver. This is the latest and greatest by Baofeng. Operates all three Amateur bands - 2 meters, 220 MHz and 70 cm band. 200 memories.

Some folks may think this is a repackaged Baofeng handie talkie with a power amplifier. Nope. I have one of these radios and although it does use the RDA1845 software defined radio chip as in the low price handie talkies, the Btech 2501 +220 has complete separate front ends for each band. I found it almost bullet proof even with an outdoor antenna. It also receives broadcast FM.



Below is the test equipment that will be used during the HAM Tech Session

