The Coastside Communicator

Vol. 51, No. 3 March 2019

www.coastsidearc.org

President's Column

Greetings,
It's March, and time for our Pizza Meeting. It's at the Linda Mar Round Table. Please try to arrive early, 7ish, to order your food before I start the Meeting.

I plan to keep the agenda light, so we can get on to the important stuff like talking radio and socializing. Items tabled at the January and February meetings can wait until April. If there is something that needs urgent attention, we will address it.

I attended the Half Moon Bay ARC meeting, that was addressed by Jim Tiemstra (K6JAT), the ARRL Pacific Division Director. I will cover some of what was covered at the meeting.

As for our weekly Wednesday night Net, we will continue the having a rotation or taking turns running the Net. There will be a sign-up sheet at the meetings, and you can email me if you can't make the meeting and want to run the Net.

I hope to see you at the meeting on March 13th.

73,
Walt, KG6EDY
Club President

February Minutes

It was a dark and stormy night where only 5 Club members braved the elements to make it to the Meeting. Since general members outnumbered the Club Officers, we were able to go forward with the Meeting.

Call to Order
The February 13, 2019 meeting was called to order at 7:33 pm by President Walt Long, KG6EDY, at the Linda Mar Fire Station in Pacifica.

Self-introductions by members in attendance followed

A motion was made by Ralph, KC6DYH, and seconded by Frank, N6FG, to approve the January Minutes as amended. The motion passed. The amendment was to remove the December 2018 Minutes that followed the January 2019 Minutes published in the Coastside Communicator. Dave's, K6DMR, computer blamed for the redundant publication of the December Minutes.

Treasurer's Report

The Club Treasurer provided the following fund balances as of February 13, 2019:

General Fund	$4,283.14
Repeater Fund	$638.82
APRS/Digipeater Fund	$1,230.84
EOC/Public Service	$13,530.11
Total	$19,682.91

MEMBERSHIP
Membership renewals to date: 36.

BILLS NEEDING APROVALS
None

Correspondence

None

COMMITTEE REPORTS
None

UNFINISHED BUSINESS

Calendar Updates:
County Simplex Drill on March 23rd: 2-meter FM, 2-meter USB, 20-meter USB. (Off grid power preferred.)

The Relay, May 4th to 5th (Foot race from Wine Country to Santa Cruz)

Green Dawn/Silver Dragon (Info pending)

NEW BUSINESS.
An observation was made about the amounts in the Club accounts, and how that it appears to exceed what is needed for our current operations. There was a suggestion about donating to a local group and/or upgrading the rental truck used for Field Day. This item was tabled for a future meeting when more Club members are present.

ADJOURNMENT
Frank, N6FG, moved to adjourn the meeting. Dave, KF6TWW, seconded the motion. The motion passed. The Meeting was adjourned at 7:59 pm.

Submitted by Walt Long, KG6EDY.

PRESENT AT THE MEETING
The following Life Member has become a Silent Key:
Roger Spindler-WA6AFT

Officers: President: Walt Long-KG6EDY,
Treasurer: Frank Erbacher-N6FG

Members:, Steve Paganelli-K6YUA, , Ralph Kugler-KC6YDHVisitors: Dave Lawrence-KFTWW
Submitted by: Walt Long, KG6EDY.

◄► NEWS

ARRL UPDATE
Demand is High as New ARRL Introduction to Emergency Communications Courses Open

The ARRL Lifelong Learning Department has launched a revised and updated *Introduction to Emergency Communications* (EC-001) course, and demand to sign up is prompting the recruitment of additional course mentors to expand the schedule. Registration just opened for the first of four EC-001 online sessions, which will run from Monday, April 1, until Friday, May 31.

"The demand for this course has exceeded our projections, and the four sessions scheduled for 2019 are already filling quickly," ARRL Lifelong Learning Manager Kris Bickell, K1BIC, said. "This course is designed to be interactive with mentors guiding each session, so we're seeking additional mentors and will schedule more course sessions as quickly as possible. Thanks for your patience as we expand capacity for this updated version of EC-001." Bickell is developing a notification list to alert those who didn't get into the first round of courses when a new round of sessions becomes available.

The new EC-001 course has been beta-tested by course mentors and transferred into a new online learning platform. With the closing last year of the Connecticut Distance Learning Consortium (CTDLC), EC-001 lost its virtual home and was taken offline. At that point, the ARRL Emergency Preparedness and Lifelong Learning teams started exploring short- and long-term alternatives to offer the course. After careful evaluation and review, a decision was made to move the course to a more modern learning management system called Canvas, which will be used while the new Lifelong Learning Initiative program is under development. EC-001 will eventually become a part of a comprehensive online learning environment.

"We're very excited to be able to offer *Introduction to Emergency Communications* EC-001 once again," Bickell said. "The Emergency Preparedness staff here has been incredibly helpful as we've worked together to get the course back up and running. Input from previous EC-001 mentors has been an invaluable part of the testing phase. The timing is right to put the course back online."

EC-001 is designed to provide basic knowledge and tools for emergency communications volunteers. With the online format, students can access the course at anytime from anywhere during the 9-week period and may work at their own pace and on their own schedule. As in the past, students will be able to register and take the course entirely online. The Canvas platform is also mobile-responsive, meaning that students can view the course materials, interact with fellow students, and complete assignments from any mobile device.

Individual EC-001 sessions will serve up to 30 students, supported by an experienced mentor. Courses are free of charge. To be eligible, students must meet certain prerequisites, listed on the registration page. The registration page includes the entire 2019 schedule of EC-001 sessions.

New ARRL Podcast Geared Toward Newcomers to Amateur Radio Debuts Today

A new ARRL podcast aimed newcomers to Amateur Radio will launch on Thursday, March 7. Called, "So Now What?," e podcast will alternate new-episode weeks with the "ARRL The Doctor is In" podcast. "So Now What?" will focus on answering questions and providing support and encouragement for new licensees to get the most out of the hobby. Co-hosting "So Now What?" will be ARRL Communications Content Producer Michelle Patnode, W3MVP, and W1AW Station Manager Joe Carcia, NJ1Q. The podcast will explore questions that newer hams may have and the issues that keep newcomers from remaining active. "No other podcast is really aimed at this segment of the Amateur Radio community... that is being underserved, that is not getting the answers to the many questions they have," said ARRL Communications Manager David Isgur, N1RSN, who will serve as the podcast's executive producer.
"So Now What?" will be sponsored by LDG Electronics. Topics to be discussed in the first several episodes include getting started, operating modes available to Technician licensees, VEC and licensing issues, sunspots and propagation, mobile operating, contesting, Amateur Radio in pop culture, and perceptions of Technician license holders. As with "ARRL The Doctor is In," listeners will be able to find "So Now What?" on Apple iTunes, Blubrry, or Stitcher (free registration required, or browse the site as a guest) and through the free Stitcher app for iOS, Kindle, or Android devices...or wherever you get your podcasts. Episodes will also be archived on the ARRL website.

GPS Network May Experience Errors in "Week Number" Rollback

The GPS network will encounter a small millennium bug of its own in April when the network's "week number" rolls back to zero. This known issue especially could affect those who use GPS to obtain accurate Coordinated Universal Time (i.e., UTC). In the GPS network, the number of the current week is encoded into the message the GPS receives using a 10-bit field. This allows for weeks ranging from zero to 1023. The current period began on August 1, 1999. On April 6, 2019, the week number rolls over to zero and starts counting back up to 1023.

This should not affect later-model GPS receivers that conform to IS-GPS-200 and provide UTC, but testing carried out by the US Department for Homeland Security (DHS) raised the possibility that some units may misinterpret the rollover, shifting the date back to January 6, 1980, or possibly to another incorrect date. An affected GPS not only may report the incorrect date, but time accuracy that is critical to precise location data could be compromised. A nanosecond error in GPS time can equate to 1 foot of position (ranging) error, according to DHS-published guidelines that explain the issue and suggest how to address it.

Technical Paper Raises Visibility of Wireless Power Transmission Interference Potential

A technical paper drafted by International Amateur Radio Union Region 1 (IARU-R1) President Don Beattie, G3BJ, is the latest official step to increase the visibility of wireless power transmission (WPT) systems' interference threat to Amateur Radio. Submitted to the IARU-R1 Interim Meeting, set for April 27 – 28 in Vienna, the paper will update relevant committees on the topic. Beattie's paper offers an impact analysis of WPT-electric vehicle (WPT-EV) systems on Amateur Radio communications, with a primary focus on WPT systems operating in the 79 – 90 kHz range.

"IARU engaged with discussions in CEPT [the European Conference of Postal and Telecommunications Administrations] and ITU [the International Telecommunications Union] on WPT in 2017," Beattie's 20-page discussion notes.

Beattie's paper warns of "a widespread and serious impact on radio communications operating in the vicinity" of WPT systems if spurious emissions measured at a distance of 10 meters are at current CEPT Recommendation 74-01E and ITU Radiocommunication Sector Recommendation SM.329-12 limits, "given the planned density of WPT-Electric Vehicle Systems." Both the CEPT and ITU recommendations address "unwanted emissions in the spurious domain."

An IARU study of WPT-EV and its potential impact on radiocommunications services already has been submitted to the relevant ITU and CEPT study committees. "In CEPT, the IARU input has been carried forward in the recently published ECC Report 289," Beattie said in his paper. Broadcasters, land mobile services, and others have also expressed concern about spurious WPT-EV emissions. "Report 289 sets out the protection requirements for these radio services, but it stops short of proposing any regulatory action," Beattie's paper points out. "This, therefore, is the next challenge — to seek to bridge the divide between WPT manufacturers and the radiocommunications services."

Beattie's paper said further work remains regarding generic WPT systems such as cell phone charging, power tools, and household appliances. "As a part of this, manufacturers have offered projections on the installed density of these devices, which allows modeling of the minimum interference field strength to be expected in an urban/suburban environment populated with WPT devices at the projected density," Beattie noted in his paper. "This then allows IARU to make further input modeling these emissions."

IARU provided the same input to ITU, but, Beattie's paper says, ITU plans to include it in a separate report for discussion at a later meeting.

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Amateur Radio History

The Wayback Machine

by Bill Continelli - W2XOY

What was the post-war world of amateur radio like? Let's take a look at our hobby as it existed in the late 1940's.

In November 1945, amateurs were allowed back on the air on the 10 meter, 5 meter, and the new 2 meter band. The 5 meter band from 56-60 mc was temporary--by March 1946 we were moved in the great post war frequency shuffle to our new 6 meter home from 50-54 mc. As for the new 2 meter band, it replaced our old 2 1/2 meter allocation which ran from 112-116 mc. Throughout 1946, the military gradually vacated the 80, 75, 40, and 20 meter bands, turning them back over to amateur operations. We lost a few frequencies--the 160 meter band was staying in the hands of the military for LORAN Radionavigation, and we lost the top 300 kc of 10 meters, from 29.7 to 30 mc. To compensate us for this loss, the FCC, in 1946, gave hams an allocation at 27 mc to be shared on a secondary basis with industrial, scientific and medical devices. Dubbed the "11 meter band", it was unique as the only HF allocation where A0 and A2 emissions were allowed.

The amateur population was pushing 60,000, and the FCC was running out of "W" callsigns in the 9 call areas. So, the FCC created the 10th call district in 1946, and redrew the district boundaries. The license structure was the same as before the war. Class A hams had all amateur privlidges, including exclusive use of the 75 and 20 meter phone bands. Class B had all cw privlidges, and phone operation on 10 meters and above. Note that at the time, 40 meters was cw only, and 15 meters didn't exist yet. Class C had the same frequencies as Class B, but it was a mail order license for those in remote areas. The only change the FCC made to the license structure in the 1940's was to allow applicants to copy the code either by printing, or by longhand. Prior to the war, the code test had to be copied in longhand only.

Most hams used cw or AM phone, but there were 2 new modes on the horizon. Narrow band fm enjoyed a brief surge in popularity. QST had several articles on VHF and even HF fm operation. Phase modulation, a variation on fm, made its first appearance in 1947. But the big news was something called "SSSC", or Single Sideband Surpressed Carrier". SSB, as it would eventually be called, appeared on the ham bands late in 1947. Throughout 1948, QST was full of articles on this new mode. And, how do you get your fm or SSB signal to the antenna?? Try an item developed during the war--coaxial cable. And, with coax, came a new concern over reflected power. Thus, the first SWR meters were described in QST.

So, what rig do you want to use on the air? How about war surplus? Starting in late 1946, the pages of QST and CQ were filled with ads for military surplus equipment. Numerous articles showed how to modify these rigs for amateur use. The most popular war surplus receiver was the BC-342, which was built like a battleship, and tuned from 1.5 to 18 mc. I operated one in my Novice days.

Maybe you want a new rig. Try the Hallicrafters Model S-40, the Hammarlund HQ-129X (which was another receiver I owned), the National NC-46, or the Collins 75A. But, the "Packard" of the post war radios had to be the Hallicrafters SX-42 receiver. This "radio man's radio" had every possible feature, tuned from 540 kc to 110 mc, and cost $250 in 1946 dollars. That's about $1700 today.

Perhaps you would like to build your own rig. GE, Sylvania and RCA had pages of ads showing off their new miniature and sub-miniature tubes. The "sub-minis" were only 1 1/2 inches tall and 3/8 of an inch wide. For those who think the 2 meter HT was an invention of the 70's, it may surprise you to learn that they existed in 1947, using those tiny tubes.

But be careful when you get on the air. A new term is finding its way into the amateur world--TVI. In 1947, the FCC eliminated TV Channel 1 to reduce 6 meter interference, but amateurs had to learn to shield their equipment. With the help of good engineering practices, the TVI monster was kept at bay--sort of.

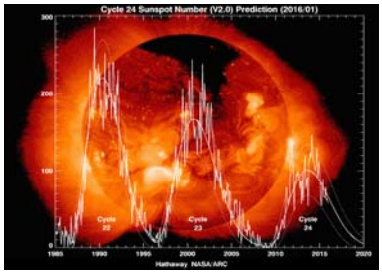
The Atlantic City Conference was held in 1947. Hams gained a 15 meter band, which was finally allocated to us in 1952.

Amateurs proved their worth as two disasters, one natural and one man made, struck Texas in April 1947. Tornados sliced through the State, killing 150. And, in Texas City, an explosion on board a freighter set off a chain reaction that killed 600, wounded 2000, and destroyed two square miles of the city. Dozens of portable and mobile stations rushed to the scene and provided necessary communications on 75 and 10 meters.

Also on a somber note, Kenneth B. Warner, W1EH, the Secretary and General Manager of the ARRL since 1919, died in 1948.

By the way, do you need a job? Are you bored with your life? Do you crave adventure? Then Hallicrafters has a job for you!! In the fall of 1947, they are sponsoring a 6 month expedition to the Dark Continent--Africa--the Belgian Congo to be exact. They need an experiences Class A amateur to operate the radio equipment. If you feel you are qualified, send them your application by July 1, 1947. Finally, what's an "amplifying crystal"? You don't know?? Well, maybe you know it better by its other name--the transistor. This new device was first described in the October 1948 issue of QST. No one at that time realized the full potential of this little component, or knew how it would revolutionize the world of communications.

In our next installment, we will take a look at the 1950's--1958 to be exact.



Tad Cook, K7RA, Seattle, reports: After no sunspots in February, sunspot group 2734 appeared on March 5. The new sunspot numbers are 14 and 17. I believe this was the longest consecutive period (33 days) with no sunspots on this declining side of Cycle 24. The polarity of the new sunspot group identifies it as being from Cycle 24, not Cycle 25.

Frank Donovan, W3LPL, shared a report from the Royal Observatory in Belgium indicating brief sunspot appearances on February 13 and 21, but numbers from NOAA do not show these.

Average daily sunspot numbers this past week increased from 0 to 4.4, compared to the previous 7 days. Average daily solar flux was unchanged at 70.6

Average daily planetary A index rose from 4.9 to 12.6, and average mid-latitude A index increased from 3.9 to 9.7, both higher due to the effects of a solar wind stream on February 28 and March 1.

Predicted solar flux is 73 on March 7 - 9; 72 on March 10 - 13; 71 on March 14, and 70 on March 15 - April 20.

Predicted planetary A index is 10, 12, 10 and 8 on March 7 - 10; 5 on March 11 - 19; 10 on March 20; 5 on March 21 - 25; 12, 30, 28, 14, 8, and 10 on March 26 - 31; 8, 5, 10, 15, 12, 12, and 8 on April 1 - 7, and 5 on April 8 - 20.

Sunspot numbers for February 28 - March 6 were 0, 0, 0, 0, 0, 14, and 17, with a mean of 4.4. The 10.7-centimeter flux was 70.1, 69.9, 69.4, 69.5, 70.9, 72, and 72.5, with a mean of 70.6. Estimated planetary A indices were 26, 24, 12, 6, 7, 5, and 8, with a mean of 12.6. Estimated mid-latitude A indices were 17, 18, 9, 6, 7, 4, and 7, with a mean of 9.7.

A comprehensive K7RA Solar Update is posted Fridays on the ARRL website. For more information concerning radio propagation, visit the ARRL Technical Information Service, read "What the Numbers Mean...," and check out K9LA's Propagation Page.

A propagation bulletin archive is available. Monthly charts offer propagation projections between the US and a dozen DX locations. Share your reports and observations.

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COMING EVENTS

Pacifica CERT (Community Emergency Response Team)
For training and information
https://pacificacacert.samariteam.com/RequestInfo.aspx
email: mailto:cert@pacificapolice.org

QCWA NorCal Chapter 11 - Lunch at Harry's Hofbrau
3rd Wednesday of every month
1909 El Camino Real Redwood City, CA.
No host. 11:00AM to 1:00PM (approx).

ASVRO Silicon Valley Electronics Flea Market
2nd Saturday of each month from March through October.
Web Page: http://www.electronicsfleamarket.com/
Talk-In: W6ASH 145.27- (100Hz PL)
N6NFI 145.23- (100Hz PL)

LICENSE EXAMS

Bay Area Educational Amateur Radio Society
Offering a one day study session for Technician or General theory, followed by testing. Fee: $35.00

When: Sat April 20th
Where: Redwood City CA
Former Credit Union Building 555 Marshall St.
Redwood City, CA 94063
Registration required, class size is limited.

Web Page: http://www.baears.com/ for info and registration.
Questions: Ross Peterson (650) 349-5349 or wb6zbu@arrl.net

Silicon Valley Volunteer Examiner Group
First and third Saturdays of each month, 8AM-11:00AM.
Saratoga Fire Station 14380 Saratoga Ave, Saratoga, CA
Fee: $15
Walk-ins only, No pre-registration

- Web Page: http://www.svve.org

Sunnyvale VEC Exam Sessions
Fee: $15 Cash
Cut-off-time, 30 min. after starting time.
Exam: changes, directions, call (408) 255-9000 24/hr
Sat Apr 13th Sunnyvale, CA 10:30 AM
Sat Apr 20th Redwood City, CA 10:30 AM
Web Page: http://www.amateur-radio.org

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Online Practice Exams

Within the practice tests, online study resources, (Wikipedia, NASA, ARRL, etc.), are provided for many of the questions. The list of resources available for each question is constantly growing because users can add their own favorite links to the study materials. Users can also track their test scores over time and see which sub-elements are giving them the most trouble.
Practice Tests http://copaseticflow.blogspot.com/

CARC MEETING/EVENT SCHEDULE

Jan 9th	2019 Agenda Planning, LM Fire Station
Feb 13th	Agenda Final, Repeater Controller LM Fire
Mar 10th	Daylight Savings Time Begins
Mar 13th	LM Round Table Pizza 1400hrs
Apr 11th	LM Fire Station
Apr 28th	Dream Machines, El Granada
May 8th	Field Day Planning Mtg, LM Fire Station
Jun 8th	Devils Slide Ride, PARCA Bike Event
Jun 10th	Field Day Planning Mtg, LM Fire Station
Jun 22-23	CARC Field Day, Sweeney Ridge
Jul 11th	Field Day Wrap-Up Mtg, LM Fire Station
Aug 13th	LM Fire Station
Sept 11th	LM Fire Station
Sept 28-29	Pacific Coast Fog Fest, Pacifica
Oct 9th	2020 Officer Nomination , LM Fire Station
Nov ?	Election Dinner, Nick's, Rockaway Beach
Dec 11th	Holiday Potluck Dinner Meeting, LM Fire

*? to be determined # updated ---- canceled * tentative date*

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www.smcready.org
cert@pacificapolice.org

In Memoriam

Roger G. Spindler-WA6AFT/SK

THE COASTSIDE COASTSIDE AMATEUR RADIO CLUB

The Coastside Amateur Radio Club (CARC) is affiliated with ARRL, and meets the second Wednesday of each month at 19:30 hrs. in the Linda Mar Fire Station Community Room, on Linda Mar Blvd. in Pacifica. Visitors are welcome.

The CARC has been organized since 1959, serving Bay Area amateurs, and providing emergency communications services to the City of Pacifica. Membership dues are $20.00 per year for the administration of the Club and the publication of the Communicator.

CARC supports two repeaters, WA6TOW/R (VHF and UHF); a Packet Digipeater, WA6TOW-1; and an APRS Digipeater, WA6TOW-2. Users of the machines provide repeater support and maintenance strictly through donations.

VHF: 146.925 MHz –offset 600 KHz PL 114.8
UHF: 441.075 MHz +offset 5 MHz PL 114.8

PL Tone: 114.8 Hz is used on both repeaters, as needed, for noise suppression.

Packet Digipeater: 145.050 MHz, Packet Node: PAC
APRS Digipeater: 144.390 MHz.

CARC/Pacifica OES VHF Simplex: 146.535 MHz
PL Tone: 114.8 Hz is used, as needed, for noise suppression

VHF Net

The club sponsors a VHF net each Wednesday, with the exception of meeting nights, at 20:00 hrs. for membership check-ins, notices, and QST's. Note: The WA6TOW repeater on 441.075 MHz may be used as an alternate if the WA6TOW VHF repeater is down.

HF Net

The club sponsors a HF rag chew net on 3.852 MHz, or the first clear frequency up/dn, on Saturday at 09:00 hrs. with an alternate frequency of 7.228 MHz.

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The Coastside Communicator is a monthly publication of the CARC. All articles contained herein are the opinions of the authors and not necessarily those of the club members or editor.

CARC, P.O. Box 1106, Pacifica, CA 94044

60 Years of Service — 50 Years ARRL Affiliation

Coastside Nets

Monday

7:00 PM on WA6TOW
146.925 MHz, PL 114.8
Pacifica CERT Net

7:30 PM on WA6TOW
146.925 MHZ, PL 114.8
San Bruno ARC Net

Tuesday

7:30 PM on WA6TOW
146.925 MHZ, PL 114.8
Daly City ARES Net

8:00 PM on WA6TOW 146.925 MHZ, PL 114.8 and KC6ULT 146.865 MHz, PL 114.8 simultaneously, but not linked.
San Mateo County ACS Net

Wednesday

8:00 PM on WA6TOW
146.925 MHz, PL 114.8
Coastside Amateur Radio Club Wednesday Night Check-in.

Saturday

9:00 AM on 3.852 MHz, or the first clear frequency up/dn.
(alt freq of 7.228 MHz.)
Coastside Saturday Morning Group.

10:00 AM on WA6TOW
146.925 MHZ, PL 114.8
QCWA Ch. 11 NorCal. Net

Sunday

7:00-7:30 AM on WA6TOW
146.925 MHz, PL 114.8
Knights of the Megahertz Net

CLUB OFFICERS			
Office	**Name**	**Call**	**E-Mail Address**
President	Walt Long	KG6EDY	(650) 992-9491
V. President	Bill Lillie	N6BCT	(650) 726-3630
Secretary	Tom Oliver	KG6OGL	(650) 488-0704
Treasurer	Frank Erbacher	N6FG	(650) 355-4355
CLUB STAFF			
Control Operator	David Rinck	K6DMR	(650) 355-1778
Emergency Services	Frank Erbacher	N6FG	(650) 355-4355
Field Day	Frank Erbacher	N6FG	(650) 355-4355
Membership	Frank Erbacher	N6FG	(650) 355-4355
Newsletter Editor	David Rinck	K6DMR	(650) 355-1778
Newsletter Publisher	Frank Erbacher	N6FG	(650) 355-4355
Station Technician	Michael Herbert	WB6JKV	(650) 355-6541
Trustee of Club Call	David Rinck	K6DMR	(650) 355-1778
Website	Scott Mercer	KI6SEJ	-

MEETING NOTICE:

MARCH 13TH
PACIFICA
ROUNDTABLE PIZZA
7:00PM

MARCH MEETING

PIZZA NIGHT NO HOST
PLACE ORDER BEFORE MEETING

COASTSIDE COMMUNICATOR

DAVID RINCK, EDITOR
P.O. BOX 1106
PACIFICA, CA 94044

FIRST CLASS

TO:

60 Years of Service
COASTSIDE AMATEUR RADIO CLUB
WA6TOW
SINCE 1959
PACIFICA, CA