



THE COASTSIDE COMMUNICATOR

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WWW.COASTSIDEARC.ORG

PRESIDENT'S COLUMN

Greetings,

It's November, and time for our annual Dinner Meeting. There will be no meeting on November 13th, at the Fire Station. Instead, we will have the Dinner Meeting on November 16th, at the Sharp Park Golf Course Restaurant. Contact Frank, N6FG, at n6fg@arrrl.net to make your reservations or for additional information.

The November Meeting is also our election Meeting. We do have a full slate of Officers nominated for 2020, but no contested positions. So, election will be by affirmation at the Meeting. The nominees are:

President: Dave Lawrence, KF6TWW
Vice Pres.: Paul Atkins, A16BB
Secretary: Tom Oliver, KJ6OGL
Treasurer: Frank Erbacher, N6FG

Attendance at the October Meeting was light, only 8 members showed up for the meeting. I assume that the low turnout was due to the pending Public Safety Power Shutoff (PSPS).

A motion was made to make a donation to help the C.A.R.L.A. Repeater System replace equipment lost in the recent wildfires. The motion was tabled to the November Meeting, so that more members could comment and vote on the motion.

I hope to see you at the meeting on November 16th.

73,
Walt, KG6EDY
Club President



OCTOBER MINUTES

CALL TO ORDER

The October 9, 2019 meeting was called to order at 7:30pm by: President Walt Long-KG6EDY, at the Linda Mar Fire House in Pacifica. Self-introductions by members in attendance.

TREASURER'S REPORT

FUNDS
"We still have money"

MEMBERSHIP

62 Members, 70% ARRL

BILLS NEEDING APPROVAL

None

CORRESPONDENCE

None

COMMITTEE REPORTS

CURRENT REPEATER

1. Update on status of WA6TOW repeater from Dave Rinck-K6DMR: Nothing new
2. APRS – It's working as reported by Mike, WB6JKV
3. Emergency Services – No Report

Replacement Repeater

1. Update on Repeater Replacement Committee progress from Roy Brixen-KE6MNJ: No Report
2. Potential motion for funds
3. Election Dinner – November 16th at Sharp Park Golf Club

Field Day - June 27-28, 2020

Newsletter - Published

Website – Up & running

EMERGENCY SERVICES

No Report

UNFINISHED BUSINESS

Donation of Funds:

The Club received a request to make a donation to C.A.R.L.A. (California Amateur Radio Linking Association) to help replace equipment lost in the recent fires in Northern California. Mike Herbert, WB6JKV, moved to donate \$1,000 to C.A.R.L.A. Ted Niemira, K6TET, seconded the motion. Due to the low attendance at the meeting, the motion was tabled to the November Meeting, so that more Club members could comment and vote on the motion.

NEW BUSINESS

Cal Fire Email

An email from Cal Fire to repeater operators was recently sent to Club members. The message said in part:

"I do understand and appreciate all of the service you have provided in the past. However, with constantly changing technological advances, there is no longer the same benefit to State as previously provided.

Therefore, the Department no longer financially supports HAM operators radios or tenancy."

This item was briefly discussed, but no action was taken.

ADJOURNMENT

Motion made by Gary Barnes-KI6HIG and seconded by Dave Rinck-K6DMR to adjourn the meeting at: 7:51p.m. Meeting adjourned

PRESENT AT THE MEETING

The following Life Member has become a Silent Key Roger Spindler-WA6AFT

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: Dave Lawrence KF6TWW, Ralph Kugler KC6YDH, David Rinck K6DMR, Paul Atkins AI6BB, Ted Niemira K6TET, Mike Herbert WB6JKV.

Submitted by: Walt Long, KG6EDY, Club President

NEWS***ARRL UPDATE*****New Antenna Concept Uses Saltwater and Plastic Instead of Metal Conductor**

A new antenna that uses saltwater and plastic instead of metal could make it easier to build VHF and UHF networks, an IEEE Spectrum article asserts.

Michelle Hamson says, "Being able to focus the energy of a radio signal toward a given receiver means you can increase the range and efficiency of transmissions," in her article, "New Antenna Uses Saltwater and Plastic to Steer Radio Beams." According to the article, beam-steering or beamforming on a large scale is one of the key underlying mechanisms behind the rollout of 5G networks. The configuration of the saltwater antenna allows 360° beam-steering and works for frequencies between 334 and 488 MHz.

In a recent publication in IEEE Antennas and Wireless Propagation Letters, Lei Xing and her colleagues at the College of Electronic and Information Engineering at Nanjing University of Aeronautics and Astronautics in China have proposed a new saltwater-based antenna that achieves 12 directional beam-steering states, and one omnidirectional state.

"The proposed design consists of a circular ground plane, with 13 transparent acrylic tubes that can be filled with (or emptied of) salt water on demand. One tube is located in the center to act as a driven monopole. Surrounding it are 12 parasitic monopoles," the article explains. "The 12 remaining monopoles, when filled with water, work together to act as reflectors and give the broadcasted signal direction."

"The attractive feature of using water monopoles is that both the water height and activating status can be dynamically tuned through microfluidic techniques, which has a higher degree of design flexibility than metal antennas," explains Xing.

One limitation of salt water-based antennas, she notes, is that that the permittivity of salt water -- i.e, how it interacts with electrical fields -- is sensitive to temperature variations.

FCC Turns Down Petition to Amend Amateur Radio Identification Rules

The FCC has denied a Petition for Rule Making (PRM) to amend Part 97 station identification rules to better accommodate and simplify station identification during emergency nets, drills, or activations. ARRL member Robert A. Dukish, KK8DX, of Canfield, Ohio, had sought a change to Section 97.119(a) of the rules to allow a single point of transmission for station ID on those occasions. He proposed permitting a net control station or other designated participant to announce the call signs of every station taking part in the net or exercise, when tactical call signs often are in use, at 10-minute intervals, using automatic CW identification.

In turning down Dukish's petition, Scot Stone, the Deputy Chief of the Wireless Telecommunications Bureau's Mobility Division, said commenters overwhelmingly opposed the proposal.

"They argue that the current rule strikes the appropriate balance between the need to identify the source of transmissions and ease of communication," Stone wrote. "Commenters state that, in their years of experience with amateur emergency communications, the station identification requirement has not proven to be a burden or obstacle, and that the current procedure actually contributes to efficient operations by providing a clear indication that a communication has ended and the channel is available."

aid some commenters asserted that Dukish's proposed procedure would be unworkable and cause confusion, while others characterized his proposal as a solution in search of a problem.

"The purpose of the station identification requirement is to make the source of transmissions clearly known to those receiving those transmissions," Stone wrote. "Separating the call sign from each transmission would defeat this purpose." Moreover, he said there's no evidence that the current station ID requirements have hindered amateur radio emergency communications.



AMATEUR RADIO HISTORY

THE WAYBACK MACHINE

BY BILL CONTINELLI - W2XOY

For the FCC, 1978 started off, not with a bang, but rather a ban. On January 1, 1978, the FCC banned the sale of older 23 channel CB sets which did not meet the tougher Type-Acceptance specifications of the new 40 channel units. Anticipating this deadline, manufacturers had been dumping the older radios at fire sale prices. In particular, the crystal controlled 3 and 6 channel CB rigs were being sold--new--for as little as \$10. This was a bonanza for hams looking for an inexpensive alternative to 2 meter FM. With 10 meter crystals installed, a CB radio could be realigned for 28 Mhz operation in less than 20 minutes. Hundreds of amateurs, myself included, snapped up these unwanted CB sets and converted them to 10 meters. Throughout 1978, 73 magazine ran a series on various 11 meter radios, and how to get them tuned up on

Unfortunately, hams never set up a standardized 10 meter band plan. As a result, each area had their own local calling channels, and the concept fizzled out after a few years.

Speaking of bans, the FCC, in 1978, adopted rules which prohibited the marketing of amplifiers capable of operation between 24 and 35 Mhz. They also imposed a Type Acceptance program on amplifiers operating below 144 Mhz. The ARRL had vigorously opposed these actions, to no avail. Catalogues, like the one from Lafayette Radio, were full of ads for amplifiers designed for operation between 15 and 6 meters. Although these were ostensibly amateur units, they were designed for a 5 watt AM input, and were styled to match the company's 11 meter radios. The FCC saw through the charade, and imposed their rather draconian measures in order to cut down on illegal high powered CB operations, particularly in the "10 1/2" meter band, between 27.4 and 28 Mhz.

On March 24, 1978, the FCC announced that "All prior call sign policies and procedures, written or unwritten, are canceled and hereby replaced". No longer would there be any specific call signs, or secondary station licenses. Instead, the FCC implemented the "4 group" callsign system, which continues to this day.

For years, Technicians had been denied access to the full 2 meter band. They obtained 145--147 Mhz in 1959, 147--148 Mhz in 1972, and 144.5--145 Mhz in 1977. At the beginning of 1978, Technicians were still banned

from the 144.0--144.5 Mhz segment. Ever since 1969, the ARRL had asked the FCC to give them the full 2 meter band. Finally, on May 15, 1978, the FCC said yes. In addition, they allowed Technicians (and Generals) back into the 6 meter segment from 50.0--50.1 Mhz, which had been taken away from them in 1968 as part of Incentive Licensing. At last, Technicians and Generals had full privileges above 50 Mhz. However, General Class hams still had one more fight. They were banned from using Slow Scan TV on 75 through 15 meters. That was a fight that would be won another day.

For those Technicians itching to utilize their full 2 meter privileges, manufacturers were introducing new, synthesized transceivers. Radios such as Clegg's FM-DX and FM-28, the Midland 13-510, the Pace Communicator II, the Genave GTX-800, the Heathkit HW 2036A, and the KDK FM-2015R liberated hams from the confining world of 12 channels, and opened up the entire 2 meter band to exploration, in 800 5 khz steps. Late in the year, Henry Radio introduced the Tempo S-1, a synthesized 2 meter, 1.5 watt HT. The average price of these units was about \$350, or \$1000 in today's inflation adjusted dollars. There was some good news for those amateurs who couldn't afford, or didn't need an expensive synthesized rig. The prices on discontinued crystal controlled 2 meter radios fell by 60% or more, as dealers made room for the new units. Unfortunately, crystal controlled rigs were the only items with falling prices. The U.S. was locked into double digit inflation, and the ARRL warned that the \$12 membership dues would probably have to be increased. Otherwise, the League was doing fine. Membership was 165,000--which was about half the number of the 330,000 hams. Incidentally, the ARRL's membership today is also 165,000, but there are 700,000 hams. League membership has dropped from 50% to 25%.

The big news towards the end of 1978 was NBVM--which stood for Narrow Band Voice Modulation. A description of this mode is quite technical, but in summary, on FM a frequency compandor compressed the signal bandwidth on transmit, and expanded the signal bandwidth on receive. For AM, an amplitude compandor compressed the signal amplitude on transmit, and expanded the signal amplitude on receive. The result was a significant reduction in transmitted bandwidth, less co-channel interference, and an improved signal to noise ratio. FCC tests showed that a signal 40 db stronger and only 2 khz away would not cause harmful interference to the received signal. Henry Radio came out with a NBVM system--the VBC Model 3000. It featured a 1300 hz bandwidth, which was 1/2 that of

sideband, 1/4 of AM, and 1/10 of FM. Despite the apparent advantages of NBVM, it never took off in the amateur community.

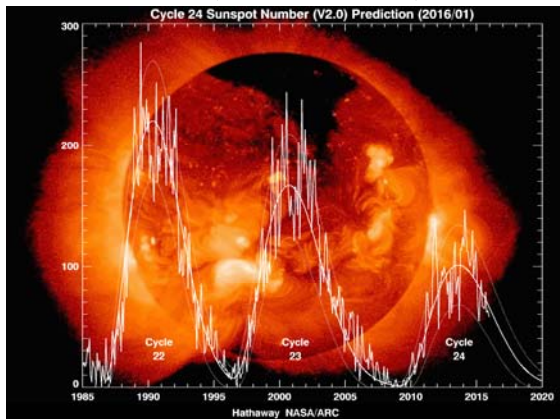
Perhaps NBVM failed because, at the end of 1978, hams were preoccupied with WARC-79. No, that's not an FM Translator callsign. It stood for the World Administrative Radio Conference which would take place in 1979. Amateurs were optimistic, yet concerned. In our next installment, we will look at WARC-79. So, until then, tune up your amplitude and frequency compandors, and explore that 2 meter band

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SOLAR UPDATE



Tad Cook, K7RA, Seattle, reports: Still no sunspots, but average daily solar flux rose this week from 65.3 to 68.5 -- yet there have been surprising reports of HF stations heard and worked over long distances.

On Friday and Saturday, a coronal hole let loose a solar wind stream, causing geomagnetic instability, and the average daily planetary A index rose from 4.7 to 16.4.

Predicted solar flux has increased recently, with values of 70 on October 31 - November 7; 66 on November 8-23; 70 on November 24 - December 6, and 69 on December 7-14.

Predicted planetary A index is 8 on October 31 - November 1; 5 on November 2-4; 8 and 10 on November 5-6; 5 on November 7-16; 15, 8, and 5 on November 17-19; 20 and 24 on November 20-21; 15 on November 22-23; 12 on November 24; 5 and 15 on November 25-26; 12 on November 27-28, and 5 on November 29 - December 14.

Sunspot numbers for October 24 - 30 were 0, 0, 0, 0, 0, 0, and 0, with a mean of 0. The 10.7-centimeter flux was 65, 68.6, 68.6, 68.8, 69.4, 69.2, and 69.7, with a mean of 68.5. Estimated planetary A indices were 18, 29, 25, 15, 11, 8, and 9, with a mean of 16.4. Middle latitude A index was 12, 29, 17, 11, 8, 8, and 6, with a mean of 13.

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.

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.electronicfleamarket.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

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 Nov 9th Sunnyvale, CA 10:30 AM
Web Page: <http://www.amateur-radio.org>

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 10th | Repeater Controller LM Fire |
| Apr 28th | Dream Machines, El Granada |
| May 8th | Field Day Planning Mtg, LM Fire Station |
| Jun 8th | Devils Slide Ride, PARCA Bike Event |
| Jun 12th | Field Day Planning Mtg, LM Fire Station |
| Jun 22-23 | CARC Field Day, Sweeney Ridge |
| Jul 10th | Field Day Wrap-Up Mtg, LM Fire Station |
| Aug 14th | 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 16th | Election Dinner, Sharp Park Golf Club |
| Dec 11th | Holiday Potluck Dinner Meeting, LM Fire |
| | |
| | |
| | |

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



www.smcready.org
cert@pacificapolice.org



In Memoriam



Roger G. Spindler-WA6AFT/SK



COASTSIDE AMATEUR RADIO CLUB

The Coastsides 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.



The Coastsides 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.

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

60 Years



of Service

50 Years



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



**MEETING
NOTICE:**

**2020
ELECTION DINNER NOVEMBER
16TH AT SHARP PARK GOLF
CLUB**

| 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 | Paul Atkins | A16BB | (415) 810-9152 |

COASTSIDE COMMUNICATOR

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

FIRST CLASS

TO:

