

Presidents Corner

Those of us of a certain age well remember the contributions to the technical literature by Larson E. Rapp W1OU. He was a frequent contributor to QST from the forties through the sixties. Most of his articles appeared in the April Issues. I only wish I had his flair for the radical approach to engineering. Unfortunately my April essay will not be an homage to his work.

The passing of April the first does mark the date that your membership dues are officially past due. On the first I sent out 42 emails reminding you to renew your membership. Ten of these notices will go out via snail mail because I don't have email addresses. After this delivery of this QSA-5 I will begin migrating our email list for QSA-5 to a new email system and those of you who have not yet renewed will be dropped from the list. We will also be changing the website password. One more incentive to renew is that our tool lending library is only available to current members. As part of that process we will be issuing membership cards. These will be sent by snail mail in May.

Since I will be working my way through the membership roll it is probably a good time to remind you to check your information in our database. You can view your basic information on the website at <http://w6sg.net/site/members/roster-entry/>. If you info shows up in black type your membership is current, if it shows up in grey green type you are not current. If you want to make any changes to your info email me at membership@w6sg.net. I apologize for the screed but with any luck you won't hear me hectoring about membership again until December and I will return to the airy persiflage you are accustomed to in this space.

73 DE WA6UDS

ARRL News

What's Happening In Radio

ARRL News

North Bay 2-Meter Critical Mass

Kit Project

Treasurers Report

Minutes

From the Editor

Ed Essick, K6ELE

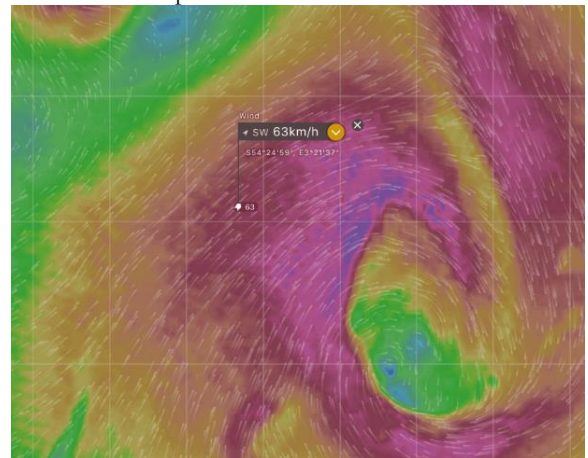
Bouvet Island Expedition

As we all enjoy the spring weather here in California this week, the intrepid explorers and hams on the Atlantic Tuna M/V aborted their trip to Bouvet Island on 3/27 due to a fierce storm that hit the ship and damaged it. The vessel took large 30 foot waves over the superstructure and it took out one of the ships radars and all of its marine antennas.



Winds were up to 90+ MPH in the area at the time. The Windy forecast was for winds to continue gusting to 80+MPH on 3/28. The area known as the "Roaring 50's" often experiences severe weather.

The last report on 3/28 was the team was on the way back to Cape Town Africa and expected to return in about 5 days. On 3/30 they encountered another storm and had to change course to avoid the worst of it. Here is what it looked like on 3/27 on the Windy weather report. The X is the ships location.



This is the second attempt by a group of hams in the past 8 months to try and land on Bouvet Island to setup radios to provide all of the rest of us with a rare contact.

What's Happening in Radio

Missouri QSO Party, 1400Z, Apr 6 to 0400Z, Apr 7 and 1400Z-2000Z, Apr 7
Florida State Parks on the Air, 1400Z-2200Z, Apr 6 and 1400Z-2200Z, Apr 7
SP DX Contest, 1500Z, Apr 6 to 1500Z, Apr 7
144 MHz Spring Sprint, 1900 local - 2300 local, Apr 8
FT8 DX Contest 1200Z, Apr 13 to 1200Z, Apr 14
New Mexico QSO Party, 1400Z, Apr 13 to 0200Z, Apr 14
North Dakota QSO Party, 1800Z, Apr 13 to 1800Z, Apr 14
ARRL Rookie Roundup, SSB 1800Z-2359Z, Apr 14
Michigan QSO Party, 1600Z, Apr 20 to 0400Z, Apr 21

April 5th Meeting Presentation

Building an RF Detector

Steve Smith will discuss the next construction kit that club members can build. Previously Steve created the antenna analyzer kit that 10 club members assembled at the Sunday morning clubhouse meetings. See the detailed description in this issue.

ARRL News

Whither Digital Radio Mondiale?

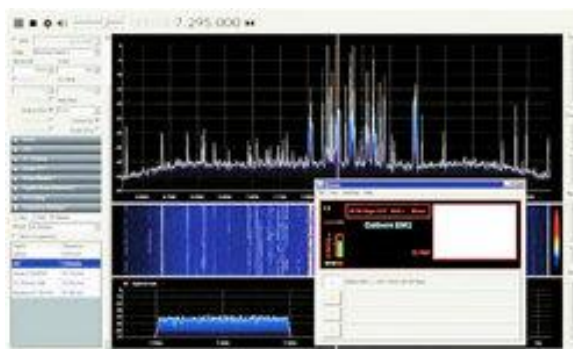
In a recent issue of *QST*, Steve Ford, WB8IMY, took a look at the forgotten Digital Radio Mondiale (DRM) system. Digital broadcasting was supposed to be the life preserver for international shortwave broadcasters facing the reality of rising costs and shrinking audiences. In 1998, broadcasters, equipment manufacturers, regulators, and others formed the DRM consortium to create a specification for digital shortwave broadcasting that might stem the growing shift to internet broadcasting and revive listener interest.

DRM promised an FM-quality signal that also could convey text information such as program titles and news headlines.

DRM signals heard on a conventional AM receiver sound like wide-band noise. The DRM signal carries three separate channels -- a primary audio channel, and two subsidiary channels, one for essential decoding data and a third service description channel.

Unfortunately, DRM failed to halt the decline of shortwave broadcasting; it was too little, too late. In addition, consumer electronics manufacturers lacked enthusiasm for the new format, so an audience for DRM never coalesced.

Some international HF broadcasters still use DRM on a regular basis. The list includes the BBC, Radio France International, and All India Radio. Decoding a DRM signal is far easier today than it was a decade or so ago, and the rise of software-defined radio (SDR) has provided new avenues for DRM listening. Many SDRs specifically include DRM as a reception mode. Radio amateurs early on experimented on HF using DRM-derived software called *WinDRM*. Much has changed over the intervening years, and today the HF digital voice application of choice is *FreeDV*. If you hear buzzing signals at 14.236 MHz, chances are it's a *FreeDV* QSO.



Reprinted with permission ARRL Letter 3/28/19

North Bay 2-Meter Critical Mass Meeting

Dear (in no order) Doug, Becky, Jerry, Chris, Chris, Milt, Brian, Brian, Dale, Rich, Mark, Charlie, James, Ann, Lori, Don, and Billy--

Thanks to all of you for making today an enjoyable, busy and information-rich radio-outing!

Practicing passing traffic in a "virtual" public service event was certainly a stretch for those of us at net control--a special shout-out to Brian and Dale. And the imagination you exercised in the field was spot-on--the whole range of "yes, we have no bananas" to several emergencies, with traffic backed up waiting to receive a response. Just like real life. And just as hectic. We'll do that again.

Milt and Mark, show-and-tell always brings lessons, even for experienced hams--thanks for bring your gear.

Next month, the third Sunday falls on Easter Sunday--that's a no-go, eh?
Please pass the word!

Your energy was contagious--I look forward to the next time I can join you.

Warm regards,

Michael K6MLF



RF detector project

Steve Smith

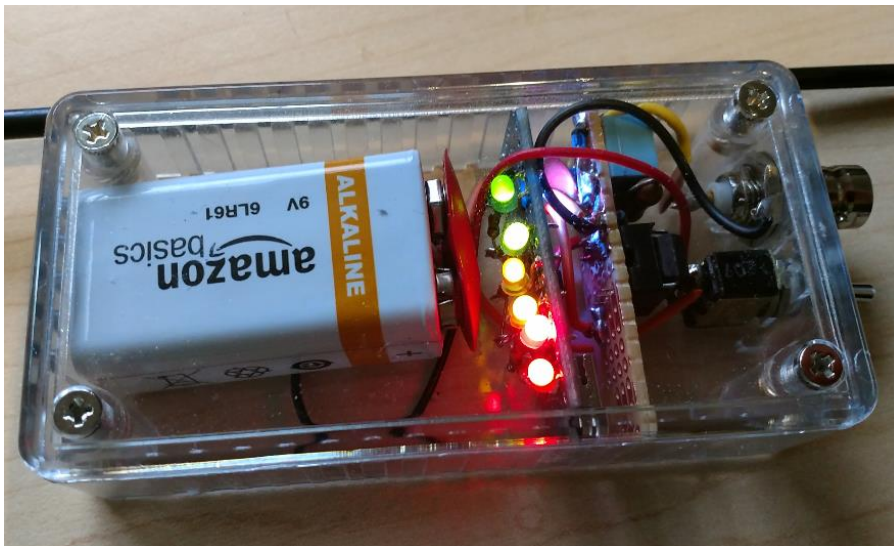
In keeping with our objective of stocking every ham's shack with marginally useful tools, our next club project will be an RF detector. You will be able to impress your spouse and neighbors by transmitting on your HT near this little gadget and watching the LEDs glow. Tell them that it's a radiation detector and watch them run until you remember to tell them that it detects the radio wave type of radiation.

This project is much simpler than the Antenna Analyzer that we built last year and well suited for new hams. There are fewer solder joints and you should walk away with only first degree burns. It is a reverse adaption of the March 2019 "Arduino-Powered RF Detector" article in QST. The author adapted an RF detector designed by Glen Popiel, KW5GE to a wearable (backpack) field strength meter. We are going back more or less to his original design.

At its core, an RF detector monitors the output of an RF system (i.e. the signal captured on an antenna) to develop a dc output voltage proportional to the power at that point. Old school detectors would use the dc voltage to move the needle on a sensitive meter. This project 1. captures a signal on the antenna, 2. turns it into a DC voltage, 3. amplifies the DC voltage using an Op Amp, 4. feeds the amplified voltage into an Arduino microcontroller, 5. lights up from 0 to 10 LEDs depending on how high the voltage is. I know, how exciting can you get?

We will be explaining all of this in more detail at the April 5 meeting, including an introduction to Arduinos. Seriously, we will be making it so simple that even an engineer could understand it.

Having something like this around in the shack can help track down a communication failure. The perennial question is "is it the transmitter or the receiver?" An RF detector can make quick work of answering this. You could also answer the question, does my HT work better with one antenna or the other? The photo below shows the prototype. The kits will use a 10 segment LED bar graph instead of the individual LEDs shown here.



Treasurer's Report

Marin Amateur Radio Club

BALANCE SHEET SUMMARY

As of April 3, 2019

	TOTAL
ASSETS	
Current Assets	
Bank Accounts	87,820.67
Other Current Assets	1,004.45
Total Current Assets	\$88,825.12
Fixed Assets	58,983.00
TOTAL ASSETS	\$147,808.12
LIABILITIES AND EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	626.98
Total Current Liabilities	\$626.98
Total Liabilities	\$626.98
Equity	147,181.14
TOTAL LIABILITIES AND EQUITY	\$147,808.12

Marin Amateur Radio Club

PROFIT AND LOSS

January 1 - April 3, 2019

	TOTAL
Income	
Donations	730.55
Dues	6,484.92
Rent	7,350.00
Total Income	\$14,565.47
GROSS PROFIT	\$14,565.47
Expenses	
Advertising/Promotional	494.20
Awards	881.86
Car & Truck	309.00
DSL	160.47
Food	605.23
Garbage	769.76
Insurance	2,940.76
Legal & Professional Services	445.00
Taxes & Licenses	25.00
Telephone	765.51
Uncategorized Expense	114.75
Utilities	399.14
Water	74.43
Total Expenses	\$7,985.11
NET OPERATING INCOME	\$6,580.36
NET INCOME	\$6,580.36

MINUTES

GENERAL MEMBERSHIP MEETING

February 1, 2019

Held at: Clubhouse, 27 Shell Ave., Mill Valley, CA

1. Call to Order:

The meeting was called to order at 7:33 pm by Curtis Ardourel.

2. Introductions:

There were a total of 18 members and guests present. Board members and officers present: Curtis Ardourel WA6UDS, President, Mitch Martin WU1Q, Vice President, Kris Backenstose N5HIT, Milt Hyams KM6ASI, Tom Soskin W6MTS and Trustee Doug Slusher KF6AKU.

A new member, Michael Reichling, KA6TYW, was introduced.

3. Board Actions:

Election of Officers: Treasurer: Ed Essick Mitch Martin was elected Vice President, beating incumbent Kris Backenstose by one vote and Curtis Ardourel was reelected President. There were no nominees for Secretary so the election of a Secretary was tabled until the next meeting. It was reported that Milt Hyams intends to run for the office.

The Board voted to establish a "lending library" for equipment with the requirements that It be secured in a locked cabinet; only members can borrow from it; only a small group will have access, initially board members and the equipment must be signed out by both the issuing officer and the member with a specific return date; and training specific to the equipment borrowed will be required before it can be signed out. To that end the Board approved purchase of electrical noise detection equipment for placement in the Club "lending library". There was a request from the floor to expand the "library" to include other test equipment. Curtis advised that such purchase requests should be emailed to him. It was added that some of the equipment training will be during the presentation portion of the General Meetings in the near future. There was also a request to include training on construction projects that can include equipment to be added to the "library."

4. Adopt Agenda:

The agenda was adopted as presented.

5. Approve Minutes:

There were no minutes from either the Christmas Party meeting or the January 4, 2019 meeting although it was reported that former Secretary David Chaney has prepared transcript version minutes of those meetings and are currently out for review by the Board. They will be published when received and reviewed.

6. Fun with Ham Radio:

A member reported on his move from San Francisco to Marin which permitted installation of much more effective 20m and 40m antennas with great results. He also reported on San Francisco' Winter Field Day, a batteries only 20m and 40m event, which was held at Fort Funston with the participation of the Cal Poly San Luis Obispo Amateur Radio Club. A number of good contacts were achieved.

There was a report about a U-Tube video with an interesting debate between an engineer and a physicist concerning the result of an induction circuit experiment. The issue was how circuit with an inductor and a resistor in series can give two different voltages with an induced current depending which side is tested. The engineer's position was that induction coil in the circuit acted as the secondary in a transformer and the physics professor said it shouldn't happen.

7. Secretary's Report—External Communications:

None.

8. Treasurer's Report:

None.

9. Committee and other Reports:

Membership :

Curtis reported that as of the morning of February 1, 77 members are current for 2019, 60% of 2018 membership. Dues will be past due after 3/31/19. Past due notices will be sent immediately thereafter to those members on roster from last year that have not paid.

Public Service:

Larry Bradley reported that the Public Service Awards Lunch scheduled at the Clubhouse for Saturday 3/2/19 at 11 AM. The list of public service events for 2019 is out on the website and now is the time to sign up. He also reported that Michael Fischer will present the final list of Public Service events for the club for 2019 to the Board of Directors at its next meeting for formal approval.

Facilities:

Doug reported that the leak in the roof in rear of the Clubhouse has returned and the search for a contractor to do the work goes on. Also the gate to the back yard needs to be repaired. We are looking into installing a digital repeater and satellite receiver at the old fire station on Spencer Avenue in Sausalito. The clubhouse internet service has been upgraded.

Education:

Doug reported that there will be change in VE leadership for the club as Randy Jenkins is cutting back on his activities. Grant Pritchard has volunteered to assume management of the VE program for the Club and will get dates for testing for the year. The Club will be conducting new training class for the Technician Class license starting next Thursday, February 7, at the clubhouse.

10. Old business:

None.

11. New business:

None.

12. Good of the order:

None.

13. Presentation:

None.

Adjournment: It was moved, seconded and approved that the meeting be adjourned at 8:40 pm.

Respectfully submitted by

Milton Hyams, Acting Secretary, on February 2, 2019.

MINUTES

GENERAL MEMBERSHIP MEETING

March 1, 2019

Held at: Clubhouse, 27 Shell Ave., Mill Valley, CA

14. Call to Order:

The meeting was called to order at 7:31 pm by Curtis Ardourel.

15. Introductions:

There were a total of 24 members and guests present. Board members and officers present: Curtis Ardourel WA6UDS, President, Mitch Martin WU1Q, Vice President, Milt Hyams KM6ASI, Secretary, Tom Soskin W6MTS and Trustee Doug Slusher KF6AKU.

New members will be introduced at the next meeting as new applications had not been reviewed for this meeting.

16. Board Actions:

Election of Officers: The election of Secretary, having been tabled since the last Board meeting, was held at the February 7th Meeting. After a difficult campaign, in which Milt Hyams ran for elections as Secretary on the platform to “write all wrongs” against absolutely no one but himself, was elected unanimously.

The 2019 Public Service Calendar, as proposed by the Public Service Co-Chairs, was approved for the coming public service year. It will be distributed at the March 2nd Public Service Luncheon to be held at the Clubhouse.

Grant Pritchard (KK6JJ) agreed to serve as VE Coordinator for the Club and was so appointed.

The Dummy Load/Watt Meter project described in the November 2019 issue of QST was approved as the next Club construction project.

17. Adopt Agenda:

The agenda was adopted as presented.

18. Approve Minutes:

It was M/S/A that the minutes from the February 1, 2019 General Membership Meeting be approved.

19. Fun with Ham Radio:

Andrew reported that he bought a new TV antenna and preamp for use with his TV and installed them. He was impressed with the quality of reception.

Jerry (WA6BXV) participated in the administration of the FCC license exam at UC Berkley. It is become a requirement for students who are candidates for an Electrical Engineering degree. A total of 88 took the exam and all passed.

Grant took a tour of the Sutro Tower transmitting facility with the Cal Poly Amateur Radio Club, of which he is an alumnus. He reported it to be a fascinating place with an 800 foot antenna tower mounted on a five story building.

20. Secretary's Report—External Communications:

Our new insurance policy for the Club was received from Nationwide. The County Elections Commissioner has advised us that they will not need our facility for the June election.

21. Treasurer's Report:

The latest Treasurer's Report is an attachment to the latest QSA-5.

22. Committee and other Reports:

Membership :

Curtis reported that as of the morning of March 1, 85 members are current for 2019, 71% of 2018 membership. Dues will be past due after 3/31/19. Past due notices will be sent immediately thereafter to those members on roster from last year that have not paid.

Public Service:

The membership was reminded that the Public Service Awards Lunch is scheduled at the Clubhouse for Saturday 3/2/19 at 11 AM.

Facilities:

Doug reported that the Clubhouse roof held up well through the storms during the past month. He also reported that Tom Soskin has done a yeoman's job in cleaning and reorganizing the Clubhouse. The surplus equipment on display on the tables in the Clubhouse will be offered at in silent auction in the very near future.

Education:

The Club is conducting new training class for the Technician Class license on Thursdays at the clubhouse. The License Exam will be held on April 11.

23. Old business:

None.

24. New business:

Curtis reported that an antenna analyzer and a digital volt meter that were bought for the club have disappeared. He requesting that they be returned ASAP, no questions asked. It has pointed out a need to increase security on the building and the Club's gear. Mitch reported that the Board is considering getting membership cards for the members that can also be used as receipts for equipment that is borrowed.

25. Good of the order:

The Club needs presenters for training at General Membership Meetings. It was suggested that an advanced class on the use of antenna analyzers would be a good start. Mitch thought that Steve Fischer (K6ETA) would be a good candidate and would contact him.

26. Adjournment:

It was moved, seconded and approved that the meeting be adjourned at 8:41 pm.

Presentation:

A presentation was made by member Bruce Hunter (KG6OJI), a former radio engineer at KSFO, who went to work for Voice of America. He gave an excellent presentation on Voice of America broadcasting and particularly their facility at Greenville, North Carolina.

Respectfully submitted by

Milton Hyams, , Secretary, on March 4, 2019.

MINUTES

BOARD OF DIRECTORS MEETING

March 14, 2019

Held at: Clubhouse (Radio Room), 27 Shell Ave., Mill Valley, CA

Board members present: Curtis Ardourel WA6UDS, President; Mitch Martin WU1Q, Vice President; Ed Essick K6ELE, Treasurer; Milt Hyams KM6ASI, Secretary; Marc Bruvry KF6VNT; Kris Backenstose N5HIT, was present, but was conducting Technical Class license training during the meeting and did not participate in any votes .

Absent: Tom Soskin W6MTS

Other attendees: Trustee Doug Slusher KF6AKU; member Kaled Anber, N6TIA.

27. Call to Order:

The meeting was called to order at 7:33 pm by Curtis Ardourel.

28. Adopt Agenda:

The agenda was adopted as modified.

29. Approve minutes:

Minutes of the 7 February board meeting were approved without objection.

30. Secretary's Report (External Communications):

Nothing to report.

31. Treasurer's Report:

Ed Essick presented the Profit and Loss Detail for FY 2018, a summary of which is attached to these minutes. There were no questions concerning the report.

Ed also reported that he has continued to look for appropriate investments for cash balance in the bank. The problem is that CDs for non-profits only pay .1% interest. He will continue to look for other investment opportunities and will report back.

It was proposed to create a budget item for meeting expenses for the year rather than approve expenditures piecemeal. It was M/S/A that \$3500 be appropriated for expenditures, including food and miscellaneous costs, for all regular meetings during the year with the exception of Christmas, the Annual Picnic, Public Service Luncheon and Field Day, each of which will be budgeted and approved separately. The Treasurer is authorized to directly reimburse for all appropriate expenditures for this purpose without further Board action.

32. Membership Chair Report:

Curtis reported that 83 members are current for 2019, 73% of 2018 membership. Dues will be past due after 3/31/19. Past due notices will be sent immediately thereafter to those members on roster from last year that have not paid and the QSA-5 mailing list will be changed accordingly effective April 2019.

33. Education Chair:

Kris Backenstose was presenting the Technician Class License class during the Board meeting. A discussion was held concerning holding a debrief/after action meeting of all instructors after the current Technician Class concludes, to identify best practices and possible areas for improvement to include instructor scheduling. This will be revisited at the next Board Meeting.

34. Facilities Chair:

Doug Slusher reported that due to security concerns, the door lock system will be converted to a key card system with distribution of cards made to only a limited number of people. He is also looking at security camera systems for the Clubhouse. He will bring a detailed proposal back to the Board.

ATT service to the clubhouse has been upgraded to fiber from copper with new VOIP and internet lines replacing the old hardwire lines. Also telephone lines to San Pedro Ridge and Mt. Tamalpais have been shut down because of lack of use. These changes will result in a savings of approximately \$200 per month.

Tom and Mitch, with help from Mitch's brother, will repair the fence in the front of the clubhouse and replace the front gate.

35. Old business:

a. Steve Smith submitted proposed budgets for two construction training projects: the Watt Meter/Dummy Load and the RF Detector/Field Strength Meter and has requested that they be funded. It was M/S/A that \$400 be approved and appropriated for the purchase of parts for 10 Watt Meter/Dummy Load kits; and another \$200 be approved and appropriated for the purchase of parts for 10 RF Detector/Field Strength Meter kits. Curtis advised that these training projects will be announced on the website and that registration and reimburse of parts cost will be on-line only through the club website.

36. New business:

a. Michael Fischer reported that there was a budget overrun of about \$295 for the Public Service Luncheon. He has requested reimbursement. It was M/S/A that an additional \$300 be approved for paying any expenditure overruns for the Public Service Luncheon.

b. Steve Smith and Jan Leja will be the presenters at the April 5 General Membership meeting. They will make a presentation on the next approved construction project—an RF Detector/Field Strength Meter.

c. Curtis will design and print membership cards for distribution to all members who have renewed their membership and paid dues for the current year. This card will also serve as a receipt for any equipment borrowed from the Club's new lending library of equipment.

d. Ed Essick reported that a local ham has inquired about the availability for purchase of Johnson Viking transmitter equipment donated to MARS by Mike Ransom's (AA6II) estate. It was M/S/A that Ed Essick be authorized to negotiate and sell Mike's Viking equipment on behalf of the club.

37. Good of the order:

None.

38. Executive Session:

None.

39. Adjournment: Meeting adjourned at 9:10 pm

Respectfully submitted by

Milton Hyams

Secretary,

on March 15, 2019

Marin Amateur Radio Society W6SG.NET, membership@w6sg.net **General Membership Meeting** is held on the first Friday of each month at Alto District Clubhouse at 27 Shell Road in Mill Valley, starting at 7:30 PM. Come a little early for pizza or whatever. From highway 101, head west toward Mill Valley on E. Blithedale. Turn right at the first stop light. Stay right at next stop sign, then turn left at next corner, Shell Road. We are in a two story building, second from the corner on the left directly under the power lines.

Business/Board Meeting meets at the Alto District Clubhouse in Mill Valley on the second Thursday at 7:30 PM. Members are encouraged to attend.

Sunday morning informal meeting meets every Sunday morning at the Alto District Clubhouse in Mill Valley starting around 8am and runs to about 11am. Sometimes we even talk about radio.

The Sunday Emergency nets. The K6GWE emergency VHF net check-in is at 10:15 am on 147.700 (-pl 203.5). This is a directed net and the net control station may operate at the club house or at a member location. Members on the net check-in list that do not check in for three consecutive weeks are removed from the list until they reestablish check-in. Any member can sign up to act as the net control station. See the club website for signup instructions. The W6SG emergency HF net check-in is at 9 am on 3.915 Mh.

<p>Marin Amateur Radio Society Officers and Board Members:</p> <p>President Curtis Ardourel, WA6UDS</p> <p>Vice President Mitch Martin, WU1Q</p> <p>Secretary Milt Hyams, KM6ASI</p> <p>Treasurer: Ed Essick, K6ELE</p> <p>Board Members Curtis Ardourel, WA6UDS, 510-290-6069 Milt Hyams, KM6ASI, 415453-3867 Kris Backenstose, KK6AYC Marc Bruvry, KF6VNT 492-9292 Ed Essick, K6ELE, 415-456-1715 Mitch Martin, WU1Q Tom Soskin, W6MTS, 415-342-2372</p> <p>Other Positions:</p> <p>Education Chair Randy Jenkins Kris Backenstose Instruction Team Leader.</p> <p>VE Liaison Grant Pritchard</p> <p>Building Manager Doug Slusher</p> <p>Trustee for W6SG Mitch Martin, WU1Q</p> <p>Trustee for K6GWE Doug Slusher KF6AKU</p> <p>Sunday Emergency Nets Mark Bruvry</p> <p>DX Representative of ARRL Jerry Foster WA6BXV 892-3829</p>	<p>Public Service Event Coordinators Michael Fischer, K6MKLF Randy Jenkins KA6BQF 510-526-4089 Rob Rowlands, NZ6J, Michael Fischer, K6MLF</p> <p>Membership Curtis Ardourel, WA6UDS</p> <p>Editor of QSA5 Ed Essick, K6ELE e.essick@comcast.net</p> <p>ARRL San Francisco Section Manager Bill Hillendahl KH6GJV@ARRL.ORG</p> <p>WEBMASTER Curtis Ardourel, WA6UDS</p> <p>HF Sunday Net Control Mark Bruvry, KF6VNT</p> <p>VHF Sunday Net Control Steve Toquinto, KB6HOH</p>
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