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# QSA-5

## The Marin Amateur Radio Society Monthly Newsletter

Founded 1933

January 2018

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### Presidents Corner

As I write this it is January 15, 2018 a scant four days after the last Marin Amateur Radio Society board meeting. At that meeting I was honored to be once again chosen as your club president. I would like to start by thanking Tom Soskin W6MTS my predecessor in the job. Tom did an excellent job as president and we all owe him a debt of gratitude. I would not have taken the post without his blessing. Tom will remain on the board so we will not lose his wisdom, enthusiasm and generosity for Amateur Radio and our club.

There are a few changes in club governance that I should remind us of in beginning of this New Year. The first, many of you have already noticed and that is that individual membership dues went up to \$30 per year and family membership dues went up to \$35 per year. The last time we raised the dues was 2007. Our bylaws were updated and now your membership dues become past due on 1 April 2018. You can check to see if you are current with your dues be going to the membership roster at <http://w6sg.net/site/members/roster-entry/>. If your name shows up in black type your dues are current. If your name shows up in a light grey green you are not current. You can renew your membership at <http://w6sg.net/site/members/renew-2/>. If you have already paid but the roster does not show you have please contact me at [membership@w6sg.net](mailto:membership@w6sg.net) and let me know how and when you paid. On or about 1 April 2018 we will send out a Past Due reminder as well.

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What's Happening in Radio

ARRL News

Guest Speaker

On The Air

Membership Meeting Minutes

Board Minutes

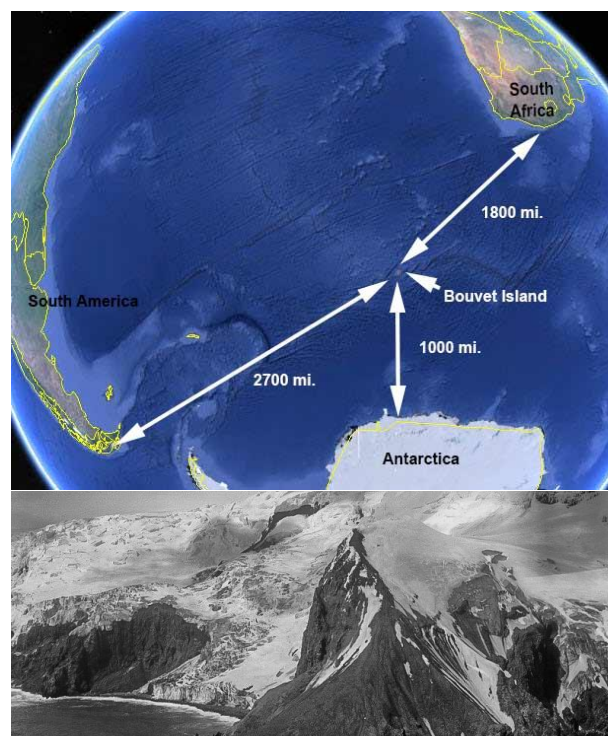
### From the Editor

Ed Essick, K6ELE

This month and into February a once in a lifetime event, for most of us, is occurring in ham radio. A DXpedition should have landed on Bouvet Island in the South Atlantic Ocean by the time you read this. Bouvet is one of most remote places on the earth.

This what the Bouvet DXpedition says about the island, "Bouvet is 97% ice covered, and with surrounding rocks and small islands, has an area of 19 square miles, with 18.4 miles of coastline. Its location, ice, rock cliffs, high seas, harsh climate and surrounding pack ice and icebergs isolate it from human presence." Twenty hams will activate Bouvet for 10-12 days, depending on weather conditions. As I write this the forecast for the island is 0 to -1F, so this will be a challenging operation from one of the remotest places on earth.

We hams like to pursue or hobby in a number of ways, certainly going to a remote location such as Buovet is the extreme. What are the ways you plan to enjoy our hobby of ham radio this year? We have the public service season starting soon. The Sunday radio repair group is meeting each week along with a number of interested club members. A club construction project is being considered to build an antenna analyzer. So whatever your interest is, I think you will find that our club has something to offer in your enjoyment of our hobby.



Another change is that the board has gotten smaller. The two Trustees are no longer board members by virtue of being Trustee. Mitch Martin WU1Q is the trustee of W6SG and a board member. Doug Slusher KF6AKU is the trustee of K6GWE but is no longer a board member. The board has also been reduced from 9 to 8 members and next year it will drop to 7 where it will remain until an amendment to the bylaws changes it.

There are a number of new initiatives we are working on this year including hands on construction projects and presentations. The first project likely to appear is building an antenna analyzer. We are still working out the details and more information will be forthcoming. We are looking at having a few of these projects each year. In 2018 we will also be installing a Fusion Digital/Analog repeater up on Mt Tam. There have been some exploratory discussions of linking our Fusion system with the San Francisco Radio Club Fusion system at least as a trial. We are also looking at partnering with the Maker Community in Marin around electronic construction and radio.

I am looking forward to an exciting year for all of us. Happy New Year

73 DE WA6U

## Guest Speakers 2018

### Jamie Taylor 2/2 Digital Modes and Software Defined Radios

Digital modes such as WSPR allow machine to machine communication over thousands of kilometers using extremely little power (often a watt or less.) Though these signals are frequently buried in the noise floor, digital signal processing allows them to be perfectly decoded.

Software Defined Radios such as HackRF and open source tools like GNU Radio and IPython allow Amateurs to build customized transmitters and receivers, allowing them to experiment and explore these highly efficient protocols.

This talk will demonstrate how these tools can be used to learn more about Amateur modulation techniques, and why the class of protocols which includes WSPR, in particular, is so robust.

## On the Air

### Contest Calendar

Vermont QSO Party, CQ WW RTTY WPX Contest 0000Z, Feb 10 to 2359Z, Feb 110000Z, Feb 3 to 2400Z, Feb 4  
Mexico RTTY International Contest, 1200Z, 2/3 to 2359Z, 2/4  
ARRL School Club Roundup, 1300Z, Feb 12 to 2359Z, Feb 16  
ARRL Inter. DX Contest, CW, 0000Z, Feb 17 to 2400Z, Feb 18  
North American QSO Party, RTTY 1800Z, Feb 24 to 0559Z, Feb 25  
North Carolina QSO Party 1500Z, Feb 25 to 0059Z, Feb 26

## What's Happening in Radio

The ARRL Board of Directors approved a motion to amend the DXCC Rules this month to add the Republic of Kosovo (Z6) to the DXCC List of current entities, increasing the total number of current DXCC entities to 340.

Z60A now is active on several bands with multiple guest operators, marking the 10th anniversary of Kosovo's independence in February 2008.



## Club Group Will Operate W1AW for Winter Field Day

Maxim Memorial Station W1AW will host a group that will take part in Winter Field Day later this month. Sponsored by the Winter Field Day Association (WFDA), Winter Field Day will take place over the January 27-28 weekend, and it can be an opportune time to prep for ARRL Field Day in June.

One of two helicopters that will ferry hams and all their gear to Bouvet Island from the mother ship.

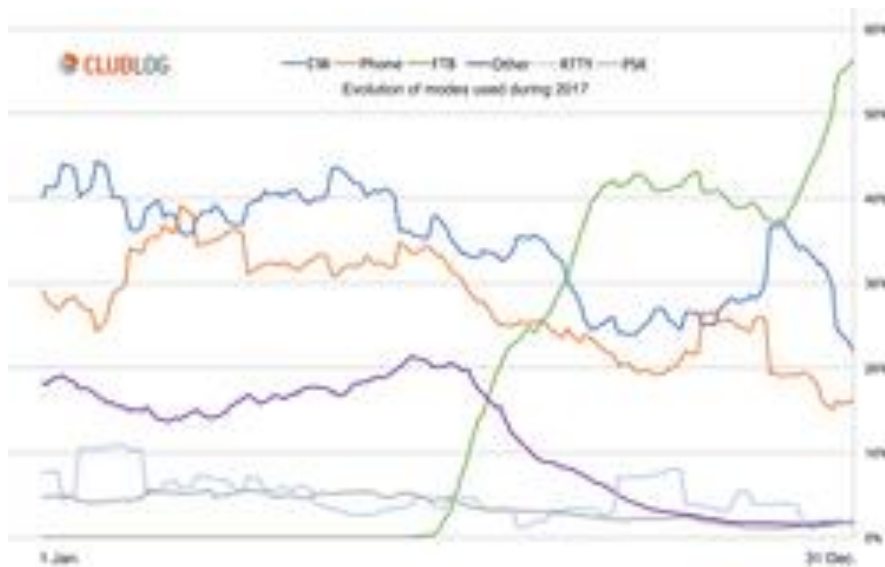


## Mode Usage Evaluation: 2017 was "the Year When Digital Modes Changed Forever"

Club Log author and UK radio amateur Michael Wells, G7VJR, has reported that data compiled from 8,000 Club Log users indicates the proportion of FT8 usage relative to other modes has risen dramatically since FT8's introduction last year. Every few years, Wells has posted charts depicting mode usage on the amateur bands, based on log data uploaded to Club Log. Graphs he posted last week show the proportion of contacts on each mode for the last 20 years and then for the last 12 months.

Now out of beta testing, FT8 -- included in *WSJT-X* version 1.8.0-rc3 -- continues to capture the imagination of the Amateur Radio community, luring away many of those who had been using the popular JT65 "weak-signal" mode. FT8 is included in *WSJT-X* version 1.8.0-rc3, with several refinements from the original beta release. Among FT8's biggest advantages is a shorter transmit-receive cycle, with contacts four times faster than with JT65 or JT9; an entire FT8 contact can take place in about a minute. Many DXpeditions now routinely include FT8 operation.

Wells reported that 8,000 Club Log users uploaded FT8 contacts last year, logging 46,000 discrete call signs in that mode. "For reference, in 2017 the total number of QSOs uploaded to Club Log (all modes) was 32 million," Wells said. "Of that total, the number of QSOs made with FT8 was 4.8 million." That works out to 15% of all contacts posted to Club Log, which may or may not be representative of Amateur Radio activity at large.



Club Log graph showing modes used by radio amateurs in 2017, and the emergence of FT8 (green trace). Lines on the graph are based on 28-day moving averages. Data were smoothed to reduce the prominence of peaks related to mode-specific contests.

Wells' graph for 2017 shows a dramatic increase in mid-2017 in the percentage of FT8 contact relative to other modes, by year's end overtaking CW and SSB usage, already trending downward except for a significant bump in CW usage toward the end of the year. RTTY and PSK31 usage remained comparatively stable over the course of 2017. The usage of "other" undefined modes declined dramatically after the introduction of FT8. Wells explained that the graph does not show absolute levels of activity, just relative levels of activity.

Wells pointed out that the data is smoothed, and the values are for a 28-day moving average. "Therefore, a weekend of only CW and no FT8 has little effect -- the trend is gradually adjusted by ongoing activity, and not by shocks."

Last fall, Taylor expressed some surprise about the "rapid uptake" in the use of FT8 on HF, calling FT8 and the other *WSJT-X* offerings "special-purpose modes" designed for making reliable, error-free contacts using very weak signals. Taylor pointed out that the level of information exchanged in most FT8 -- and other similar digital modes -- isn't much more than the bare minimum for a valid contact.

*Reprinted with permission ARRL Letter 1/25/18*

## General Meeting Minutes

### Meeting January 5, 2018

7:31 PM President Tom Soskin gavels the meeting to order. President Soskin introduces the written agenda. Introductions are conducted around the room. There is a large turnout for the meeting.

7:37 PM President's note to kids about ham radio.

7:38 PM Adoption of the agenda and President Soskin asks for corrections. There is a motion, second, and vote to adopt the agenda.

7:39 PM President Soskin recaps the December Party and refers to the minutes. Shall the minutes be adopted? The minutes are adopted as published in QSA-5.

7:39 PM President's minute where he introduces his writing in QSA-5. President Soskin encourages all members and guests to check their fire alarms and radio batteries. He speaks about the new members. He asks about any new members he may have missed.

7:41 PM Secretary's minute. Marin Cyclists sent \$4K check. The members are reminded of the excellent public service that MARS provides. President's Soskin recounts the public service of many members.

7:42 PM The Treasurer's Report is printed on the back of the agenda. Please review it if you wish.

7:43 PM Membership. The club is large and healthy per President Soskin.

7:44 PM Education. Vice-President Kris Backenstose announcers a training program in March 2018 that is not open to the public.

7:45 PM Club Station and Facilities. Trustee Doug Slusher has made contact with a Contractor. The Contractor has come and looked at the roof for repair. An estimate is closer now! Wednesday a crew came out to place temporary seals and to inspect the drains for a quick fix with the roof leakage problems. It has taken 6 months to get to this point. There is a problem on Mt. Tam with the repeater on frequency: 146.700 MHz. The antenna may be broken. Doug Slusher and Michael Fischer went up to the repeater. A visual inspection was negative. Doug will go up again with test equipment. Are there any tower climbers? The property belongs to American Tower and a certified climber is required.

7:49 PM Public Service. March 29, 2018 is the luncheon.

7:50 PM VE. The next session will be on March 18<sup>th</sup> at Alto.

7:51 PM Old Business. None.

7:52 PM New Business. Talk about an antenna analyzer. Trustee Doug Slusher recaps discussion of members who would like to build the Arduino-based unit using the ARRL plans. Member Steve Smith. It would be a difficult build requiring medium to high

7:55 PM Good of the order? None.

7:55 PM Richard Dillman presents his collection of spy radios and his use of the radios. It is a fascinating presentation.

## Marin Amateur Radio Society Board Meeting January 11, 2018

- 7:32 PM President Tom Soskin gavels the meeting to order.
- 7:32 PM President Soskin asks the board members present if any corrections are required for the written agenda. Board Member Marc Bruvry would like to discuss agenda item number 1. President Soskin requests that the group wait and discuss that issue in the order as presented on the agenda. Marc agrees to that.
- 7:33 PM There is a motion, second, and vote to approve the meeting agenda.
- 7:34 PM President Soskin poses the question of whether there should be a general discussion about issues tonight or should there be rather, and 'Executive Session' for elections of the position holders (positions within the board. Board Member Curtis Ardourel asks, "Do we need a special session?" and the consensus is no.
- 7:35 PM There are no objections to an open MARS board meeting.
- 7:36 PM There is a vote for secretary. MARS Board Member David Chaney is selected.
- 7:37 PM There is a vote for treasurer. MARS Board Member Ed Essick is selected.
- 7:38 PM Current Vice-President Kris Backenstose is selected for Vice-President.
- 7:40 PM There are nominations for the MARS Board President. Current President Tom Soskin chooses not to run and nominates Board Member Curtis Ardourel.
- 7:42 PM Curtis Ardourel is selected from among the MARS Board Members to be the new club president.
- 7:43 PM Secretary's report. Secretary David Chaney refers to the upcoming discussion about an upcoming proposal for a club electronics project.
- 7:43 PM There is no treasurer's report.
- 7:44 PM Membership report. President Ardourel states that there are 130 members, and among those 74 men and women who have already updated their membership by paying dues. Curtis will send by email a 2nd round of membership renewals this upcoming weekend.
- 7:45 PM President Ardourel notes that he has written the software change on the W6SG.net website to change the membership renewal page default for donations up from \$10.00 to \$20.00. Interestingly, with this, donations have increased.
- 7:45 PM There is no education committee update.
- 7:46 PM Member and Trustee Doug Slusher speaks about the Club Station and facilities. A plumber came and fixed a seal in the Alto clubhouse bathroom this Monday. He talks about the general upkeep of the building and the advice he has received from experts about the roof repair.
- 7:47 PM Doug has investigated Comcast cable for the Alto clubhouse. A faster connection with phone service is available. Disconnecting phone service at 2 repeater sites will make the cable upgrade a 'wash.' Temporary repairs on the apartment deck above at the Alto clubhouse are holding well in the recent rain.
- 7:49 PM Doug is working to find a Bird Wattmeter among his test equipment to troubleshoot the problems with the radio repeater on Mt. Tam. The repeater is President is not receiving input properly and the malfunction may be with the antenna. President Ardourel offers his wattmeter for the project. Doug has looked at the radio site and reports that there is no apparent damage, so system and parts testing will be needed. He plans to return to the site with Steve and Mitch. A certified tower climber will be needed. The club will add a satellite link to the repeater system.
- 7:52 PM President Ardourel has had discussions with club member Antonius' wife (they are co-workers) about the linking of the MARS and San Francisco amateur radio club's FUSION systems for greater coverage. Doug says that the shuffling of components in the existing racks at the repeater sites will take a lot of time but is workable. MARS and SF clubs have flirted and talked about collective efforts in the past but nothing has come of it.
- 7:55 PM Vice-President Kris Backenstose has arrived and speaks to education (see 7:45 PM above). He is in communication with the U.S. Army Reserve in Marin County for a VE session. Member and Volunteer Examiner Randy Jenkins is available to arrange any good date for the Army reservists to test for their ham licenses. There is discussion about various date.

- Kris says that the tentative dates now for the reservists to have a class either at the Alto clubhouse or at their armory is April 7, and 8, 2018. Randy Jenkins refers to the MARS by-laws and concludes that the MARS Board can give permission to use the clubhouse for the training.
- 8:00 PM Board Member Tom Soskin asks about the makeup and designation of the reservists. Nobody knows the answer to that.
- 8:03 PM Public Service is discussed. Randy Jenkins states that Michael Fischer is planning the thank you (for 2017 service) and training for 2018 luncheon on March 24, 2018. Club Member Milt Hyams requests an updated list of all of the public service events to come in 2018.
- 8:05 PM Treasure Ed Essick asks, "Who is the Webmaster for W6SG.net (the MARS club website). President Ardourel responds, "I am."
- 8:07 PM Club Member Randy Jenkins manages the events calendar for the [W6SG.net](http://W6SG.net) website.
- 8:08 PM VE. Volunteer Examiner Randy Jenkins says that the next text VE session at the Alto clubhouse is on March 18, 2018.
- 8:09 PM Old Business #1. Club Member Milt Hyams speaks about a financial audit of the MARS club's finances. A club member has requested one. Milt suggests that an audit by an impartial CPA is a good idea for 2 reasons. First, the club is discussing changing the accounting system to Quick Books which is an accepted accounting system. A change from the manual accounting provided formerly by past Treasurer Dave Hodgson (for more than 8 years) to the computerized system warrants an audit. Second, an audit will give the new treasurer confidence in the MARS club finances. Milt suggests that utilizing Trustee Doug Slusher's brother, who is a retired CPA, to set up the new Quick Books program is acceptable and does not present a conflict of interest. A separate and impartial CPA should be paid however to do any audit.
- 8:14 PM Milt continues to address the MARS club's finances with regard to the rental of the building upstairs to a tenant. The tenant is charge approximately \$2,300.00 dollars a month rent. He states that the MARS Board has absolute discretion on how much to charge the tenant and may include considerations of the length that the tenant has been there and the care to the unit. The tenant is consider to be an excellent renter. Milt states that absent any conflict of interest that the power of the Board to decide on how much to charge the tenant is again, absolute.
- 8:19 PM Former President Tom Soskin offers to write a response to the MARS club member who has requested an audit. This response will be reviewed by the Board and included the scope and explanation of any audit to be performed.
- 8:24 PM President Ardourel creates a 'finance committee' consisting of himself, Ed Essick, Doug Slusher, and Dave Hodgson
- 8:28 PM There is a motion, second, and vote to create the finance committee to create a plan to examine and audit the finances of the MARS club.
- 8:29 PM Club Member Milt Hyams states that as the MARS club is a 501(c)3 entity it is OK for Trustee Slusher's brother to volunteer time to set up the new Quick Books accounting program. He could not participate, however, in the audit. He volunteers to help the finance committee to get "a clean set of numbers." There should be a "first-tier" and a "second-tier" response by the committee to the club which would include all members.
- 8:32 PM President Ardourel will not appoint a chairperson to the finance committee at this time. There is a motion, second, and vote on adding Member Milt Hyams to the committee.
- 8:33 PM Old Business #2.. There are questions about payments to John Boyd to complete the painting and improvements to the communication van. Doug Slusher will talk to him.
- 8:35 PM Old Business #3. Trustee Doug Slusher says that the final payment to the Caterer for the Christmas party has been made. He will pay Randy Jenkins

- for the gift expenses. Doug will be at the Alto clubhouse on Sunday with the checkbook for those who need reimbursement.
- 8:37 PM A club project for the building of an Arduino chip-based antenna analyzer is presented by Secretary David Chaney on behalf of MARS club member Steve Smith. Steve built an analyzer with ARRL provided plans from Fall 2017. A number of Sunday morning regular Radio Repair members would like to build one two from available pre-etched PC boards and discrete computer chips and radio components. Lots of expert soldering would be required. Steve could provide instruction and quality control on a number of dates in March and April 2018 so that club members could build their own analyzers. Costs and logistics are discussed. President Ardourel instructs Secretary Chaney to return with a precise “price-point” or cost to each member to get a kit of components from Steve and a “infrastructure” cost to the club for soldering irons and de-soldering tools.
- 8:51 PM There is a motion, second, and vote for Secretary Chaney to continue with the planning and presentation of this project.
- 8:52 PM Member Milt Hyams discusses the creation of a MARS club revolving fund for building and educational projects such as this. Treasurer Ed Essick requests a soldering class to precede the actually building of the kits, for those who would like to attend. The soldering instruction would include surface mount soldering.
- 9:02 PM There is a motion, second, and a vote to continue with the discussion and planning of a revolving money fund to pay for club education projects. It will be discussed as old business at the next board meeting.
- 9:02 PM Board Member Tom Soskin adds that members could be asked to donate electronic parts. Member Milt Hyams suggests that regular members and attendees on Sunday mornings at the club be canvassed and asked to participate. The aforementioned antenna analyzer project and others may be pitched on the Sunday morning HF and 2-Meter nets as well as in QSA-5.
- 9:07 PM There is a motion, second, and vote to create an education committee under Vice-President and Education committee leader Kris Backenstose for the express creating and supporting group educational projects. Kris will return at the next Board meeting to present the members of said committee.
- 9:08 PM New Business #1. Reimbursement procedures is tabled.
- 9:09 PM New Business #2 and 3. President Curtis Ardourel explains the software glitch that resulted in Board Member’s names missing on the W6SG.net website on January 1, 2018. He fixed it. He talks also about changing the formatting of print on the website to show people who have paid dues in dark print and those who have not in light print. To contact Curtis one may always write to [membership@W6SG.net](mailto:membership@W6SG.net).
- 9:14 PM New Business #4. The moving of the MARS General Membership meeting to another night is tabled.
- 9:14 PM New Business #5. There is a discussion about the filming or video-taping of MARS meetings. The speakers are always interesting and the session could be made available to members on-line. Vice-President Backenstose tried to film the last speaker Mr. Richard Dilman and he spoke about his technical problems. Treasurer Ed Essick and Curtis Ardourel debate about whether or not filming would increase or decrease meeting attendance. Speakers would have to sign performance releases. There is a tangential discussion about the number members who attend meetings at other radio clubs such as MDARC. The discussion is tabled at 9:25 PM.
- 9:26 PM New Business #6. Board Member Tom Soskin suggests that Friday night General Membership meetings expand from speakers to practical ham radio instruction sessions. He suggests a session on the preparation of “Go-bags.” Trustee Doug Slusher recounts the class he taught on the use of Ohmmeters. Board Member Cal Anbar recounts the successful class taught on SDR dongles. Vice-President Kris Backenstose will compile a list of ‘hands-on’ training mini-classes and add them to the rotation of radio and science speakers.

9:30 PM The good of the order. Kris welcomes new president Curtis Ardourel and thanks the outgoing president Tom Soskin. There is a motion, second, and vote to adjourn.



**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** (aka bible class) 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 sign-up instructions. The W6SG emergency HF net check-in is at 9 am on 3.915 Mh.

<p><b>Marin Amateur Radio Society Officers and Board Members:</b></p> <p><b>President</b> Curtis Ardourel, W6UDS</p> <p><b>Vice President</b> Kris Backenstose, KK6AYC</p> <p><b>Secretary</b> David Chaney, AA6AE</p> <p><b>Treasurer:</b> Ed Essick, K6ELE 456-1715</p> <p><b>Board Members</b> Curtis Ardourel, W6UDS, 510-290-6069 Cal Anber N6TIA 209-275-5252 Kris Backenstose, KK6AYC Marc Bruvry KF6VNT 492-9292 David Chaney, AA6AE Ed Essick, K6ELE Mitch Martin WU1Q Tom Soskin, W6MTS</p> <p><b>Education Chair</b> Randy Jenkins Kris Backenstose Instruction Team Leader.</p> <p><b>VE Liaison</b> Randy Jenkins</p> <p><b>Building Co-Managers</b> Doug Slusher Dave Hodgson</p> <p><b>Trustee for W6SG</b> Mitch Martin WU1Q</p> <p><b>Trustee for K6GWE</b> Doug Slusher KF6AKU</p> <p><b>Sunday Emergency Nets</b> Mark Bruvry</p> <p><b>DX Representative of ARRL</b> Jerry Foster WA6BXV 892-3829</p>	<p><b>Public Service Event Coordinators</b> Randy Jenkins KA6BQF 510-526-4089 Rob Rowlands, NZ6J, Michael Fischer, K6MLF</p> <p><b>Membership</b> Curtis Ardourel, WA6UDS</p> <p><b>Editor of QSA-5</b> Ed Essick K6ELE 456-1715 e.essick@comcast.net</p> <p><b>ARRL San Francisco Section Manager</b> Bill Hillendahl KH6GJV@ARRL.ORG</p> <p><b>WEBMASTER</b> Curtis Ardourel, W6UDS</p> <p><b>HF Sunday Net Control</b> Mike Ransom, AI6II</p> <p><b>VHF Sunday Net Control</b> Steve Toquinto, KB6HOH</p>
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