



SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1955

A NON-PROFIT AMATEUR TECHNICAL ORGANIZATION DEDICATED
TO THE ADVANCEMENT OF COMMUNICATIONS ABOVE 1000 MC.

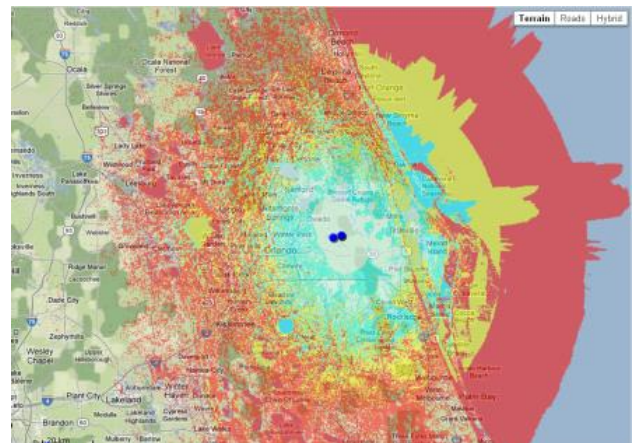
SBMS Newsletter

Before the Meeting: Sizzler's (yet again)

Tech Talk for the Meeting of August 2nd . . .

Mel Swanberg is going to lead a discussion on contest plans and places. He will have a laptop with propagation software to help with individual plans. To see how your potential site might work he will enter your lat/long into his program and get a map like this.

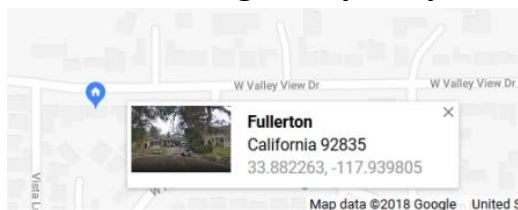
You may want to bring an alternate site to compare them.



He will also have a few boxes of goodies and some test gear to give away. Freebies!

Your Lat/Long

The connection to the web is not for-sure there at the meeting, so before you come, use Google Maps to place your cursor where you will be. Click it and at



the bottom will appear something like this: Click on the decimal geo-location (in light gray font) and a window will pop up to display that location in degrees minutes seconds.

Write those numbers down in the form: 33°53'03.8"N 117°56'19.9"W

Activities of the July SBMS Meeting

(... which would be of interest to the General Ham Radio Community)

Jason Sogolow W6IEE Presiding

Guests

Oliver Barrett KB6BA from Sunnyvale, CA

ATV check-ins

Roland KC6JPG stated that BATC has changed server so online participants are lost tonight.

**See Roland Hoffman's note (8 pages down)
for an update on the ATN Mobile Unit and
its connection to the internet.**

Old Business

Robert Carter KM6RXN, Mel Swanberg WA6JBC, and Pat Coker N6RMJ discussed the Internet in the hosting American Legion Hall. Points:

- ATN has acquired an old ABC News Van with a 35-foot mast as was detailed by Roland KC6JPG last month. This will get the TV signal over the palm tree and into Santiago P5 suggesting that we don't need internet here beyond what could be done with hot spots on people's phones.
- This is the "Microwave Society" not the "Internet Society." Dave Laag W6DL moved that we "Forget the Internet." The motion, seconded by Pat N6RMJ passed on a voice vote.

New Business

Treasurer Dick Bremer WB6DNX reported that we had paid \$200 for club event liability insurance with the ARRL this month as detailed in this month's report. Bank balance on July 5, 2018 was \$7730.59.

What Our Members Are Working On (Activity Reports)

Courtney Duncan N5BF (Eagle Rock)

Won ARI (Italian radio organization) EME Trophy 2017, 1st place 1296 A Mix. Trophy (pictured here) was received from Europe by registered mail. Courtney's mother had passed away and that had consumed most of June. Currently working on moving into a new Windows 10 computer.



Pat Coker N6RMJ (Lake Los Angeles)

is working on his 10 GHz home system and has had it down off the tower and back up again. He is now calibrating the elevation rotor which was not indicating before but is now. He runs an SDR on the system and will see any signals that are present. Pat will be gone the rest of the month to Alaska on a cruise, with no radio.

Oliver Barrett KB6BA (Sunnyvale)

has completed his 10 GHz radio, a job that took all spring. He is now working on a weak signal test source. Brought his rig on his current visit to southern California and was on the home-to-home event last night.

Rein Smit W6SZ (Alta Loma)

has been working with Michele Thompson W5NYV in San Diego on WebSDR for 10 GHz. If you go to the project website you can see the spectrum and select receiver settings. <http://www.websdr.org/> There is a transmitting site and a user site that can see the San Diego beacon and also the Frazier beacon. Rein has a goal to see his own signal on the internet site. Software is very nice, has a 3D spectrum, and runs on an Android smart phone. Pat N6RMJ pointed out that the WebSDR could be used to look at your signal and peak on it at his QTH also.

Mel Swanberg WA6JBD (Upland)

is reporting for June and July. He is continuing to work on his new X-Band radio and is making good progress. Most of his time has been spent putting up steerable antennas: 1296, 2304, 3456, 10.386, just a few feet off the ground and he is now running the coaxes plus some WR-90 waveguide. Mel is also working on the isolation for a 10 GHz repeater with a 600 KHz split. Has his network analyzer here tonight for anything that people want to sweep.

Jeff Fort KN6VR (Phelan)

has been working on 1296 ghosts. A preamp on his tower at about the 30-foot level that has worked for years developed a huge noise level. The mount holding the tower up was rusted and frozen, so he bought a new winch and will swap the cable. Suspects that a bad cable may be the problem with the preamplifier.

Bill Locke N6WL (Baker CA)

has mainly been active on VHF and UHF.

Robert Carter KM6RXN (Riverside)

upgraded go General this month and is now working towards his Amateur Extra exam so that he can become a Volunteer Examiner. Did some tower scatter operation with AF6NA. Since the beacons were down, Brian set up his system and pointed at a tower on Santiago and used the bounce to work Robert in his living room.

Eric Fort AF6EP (Phelan)

has been working with the RTL SDR module that he picked up in the last month.

Christopher Williams W6NOB (Los Angeles)

just wired up a new X-Band radio at the CGR labs, that works great. Tried home-to-home last night but was not successful. Will continue to work on it over the next few days.

Dave Laag W6DL (Marino Valley)

continues on last month's saga of the preamp that is oscillating. Added an isolator. Swept it and found that it is right in the middle of the ham band but it has no markings on it as to how to hook it up. Determined that the signal goes in the direction of the printing. Now the preamp is stable and doesn't oscillate anymore.

Worked everyone who was on the air home to home last night.

July 12 is the night-of-nights event with historic transmissions on 426 KHz and listening on 500 KHz.

There are a couple of stations that still have licenses for this historic service and they still call in on CW and do commemorative message handling. The Coast Guard has been showing up over the last few years. They still have a functional transmitter despite equipment retirements.

Check the websites:

- <http://www.arrl.org/news/historic-maritime-shore-stations-take-to-the-air-on-july-12-for-night-of-nights-xviii>
- https://www.youtube.com/watch?v=GIL_R1N4ri4

Dick Bremer WB6DNX (Brea)

is working on an SDR and downconverter so he can see signals on a PC.

George Kashmar KM6UKI (Irvine)

is trying to be a microwave circuit experimenter and is currently working on analysis. Has also taken his Technician license exam.

Events of Interest to the Microwave Ham Community

August 4 – 5	ARRL 222 MHz & Up Contest – Theme is: distance
August 18 – 19	ARRL 10 GHz & Up Contest – 1 st weekend
September 6	SBMS Meeting
September 8 microwave bands!	ARRL VHF (& Up) Contest – get on the
September 15	ARRL 10 GHz & Up Contest – 2 nd weekend
September 29, 30	ARRL EME Contest – 2.3 GHz & Up http://www.arrl.org/eme-contest
October 4	SBMS Meeting
October 12 – 13	Microwave Update 2018 – Fairborn, OH Holiday Inn
October ? - ? weekend	ARRL EME Contest – 1.3 GHz & Down – 1 st
November 1	SBMS Meeting
November ? - ? weekend	ARRL EME Contest – 1.3 GHz & Down – 2 nd

If you have other events or more information on the ones listed -- information that would help people decide whether to go or not-- please send it to the editor at the email address below.

Some of the Activity at the Recent Tune-Up



Gordo and Doug's telescope mount



Jim Blum's new 10 Gig rig



Robert Carter, Dick Bremer and Gordo



Rein-W6SZ and Frank-WB6CWN



Bill Locke in the middle Jeff Fort on the far right

At the meeting Thursday Brian Thorson will release the complete results of the tune-up. (K6JEY and WB6CWN will be reviewing the test results before official release.)

Here's his preliminary results:

We had a successful Microwave Tune Up on 10 GHz with 10 X-band radios tested and two 24 GHz systems.

Frank-WB6CWN showed up with his 10G radio, and Doug-K6JEY brought his Telescope controller 10G rig / EME system.

Gordo-WB6NOA showed up with his rig as usual, and Robert-KM6RXN operated the Kolbly loaner system.

What was different this year is that 3 operators wanted to test their MDS performance using SDRs. I said that this is a new development and that the signal must be clearly visible above the noise, not just a guess that something might be "buried" in the grass.

The best performers were Rein-W6SZ with and MDS score of -110, Doug-K6JEY with -109, and Frank-WB6CWN with a score of -106.

The best audio-to-ear score was Jeff-K6NVR with an MDS of -102. Next was Doug-K6JEY with -101.

Microwave Beacons for Southern California

Los Angeles

San Antonio Heights 2304.320 MHz W6IFE/B 27dBm

Transmitting grid for Johnstone PK

DM14ed -117 39 06.0 34 09 14.0 6436'

Frazier Mtn. 10368.310MHz N6CA/B 1.3W

DM04ms -118.96948 34.7751 8027'

Santiago Peak 10368.330MHz AF6HP 2W

DM13fr -117.53401 33.71098 5681'

Palos Verdes 10368.300MHz N6CA/B 1.6W Out of Service

DM03ts -118.37642 33.76761 1200'

Phoenix

White Tanks 10368.375MHz W7ATN/B 2W

1296.270MHz W7ATN/B 10W

DM33rn -112.56000 33.56861 3992'

San Diego

Mt. San Miguel 10368.360MHz K6QPV/B 1W

5760.300MHz K6QPV/B 2W

3456.300MHz K6QPV/B 10W

1296.300MHz K6QPV/B 12W

DM12mq -116.93516 32.69793 2500'

(All beacons are horizontally polarized.)

To update this list, contact Mel Swanberg (email: wa6jbd (at-symbol) Verizon dot net)

Home to Home This Wednesday Evening

Rein Smit, W6SZ (Alta Loma), Past President SBMS

is encouraging all Southern California microwave hams to try contacting each other from their QTH the night before the SBMS meeting.

**The intent is to learn home
to home capabilities and to
discover tricks to use them.**

The Wednesday before the meeting: 10,368.100 MHz, CW or SSB.



WA6JDB, N6RMJ and W6SZ will be looking/listening for your signals. We have been using the LARA Santiago repeater for liaison. Since that doesn't cover the high desert, we will use the LARA/Cactus repeater located on Heaps Peak, so the desert dwellers can check in.

We'll be listening to cactus starting at around 20:00 PDT and going until the last person gives up.

The frequency is 448.86- PL 100.0 It will be configured in a standalone mode so it doesn't bother anyone.

Mel - WA6JB

"Provided a time sufficiently before or after the QSO party's time, W6SZ can position his radio before his home and can then utilize Keller Pk as a bouncing point for working points to the north.

Rein W6SZ

Gary Heston's ATV Mobile Studio W6KVC

Not only can you watch our meetings live (well delayed by 240 milliseconds). You can chat with other viewers about what you are watching (or anything else).

This is how to watch SBMS meetings from home:

<https://batc.org.uk/live/w6atn>
SBMS meet

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A Word from Roland Hoffman on Our TV Connection to the World

The British Amateur Television Club has completely changed their streaming system. Our new streaming address is:

<https://batc.org.uk/live/w6atn>

Roland will be at Mike Collis' QTH during the month of August to finish the installation and equipment placement on our new "ATN Mobile Unit". Unfortunately, it will not be finished for the August SBMS meeting. We should have the van finished before September's meeting.

Roland Hoffman
Digital Systems Director / Net Control
Operations
Amateur Television Network

- Gary transmits analog first.
- Snow Peak is the first digital station.
- There is a 2-3 second delay to digital users.
- There are also nodes on Mt. Potosi and Mt. Lemmon.
- Note: some meetings are recorded for archive.

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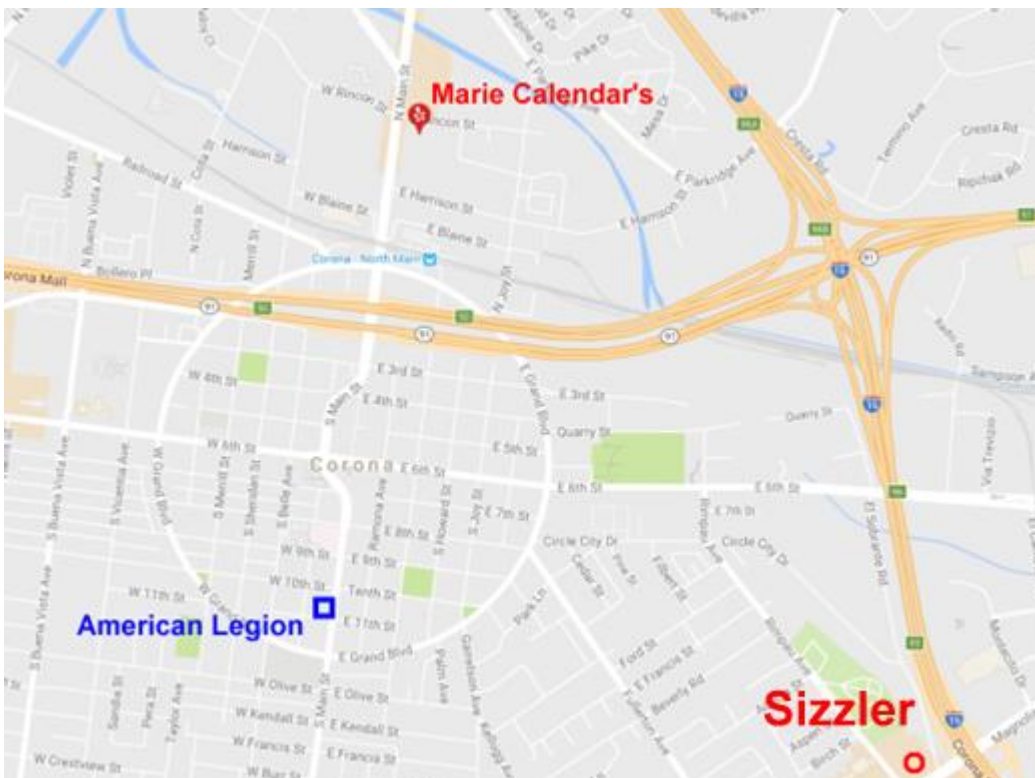
When Roland Hoffman is substituting for Gary Heston, he streams to the internet directly by way of a mobile hotspot to a cell phone tower, thereby eliminating two lower bandwidth RF paths (SBMS to Santiago and Santiago to Roland's QTH).

July Meeting Tech Talk:

Mel has brought his network analyzer to sweep the microwave devices members brought. Also, there was a large pile of Heliac and other transmission lines out front surplussed recently from commercial sites and other microwave equipment was available for the taking.

Dinner before each meeting **Sizzler**:

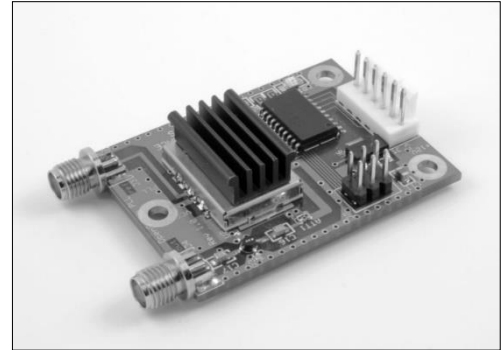
“Dinner-Before” is like a people capacitor in that it is a gathering place for those who are trying to beat the traffic and have a variety of distances to come from. Some arrive as early as 4:00. Magnolia exit then two right turns. (I’m Sooo tired of that place. ed)
Apparently, most guys don’t like beautiful waitresses and fine dining. Marie Calendar’s is out for now. Dang.



Needs, Wants and For Sale

Introducing the **OpenSynth** line of frequency synthesizer kits. Available in standard frequencies of 2556, 2952, 2160, 1152, 3312, 3006 MHz, also available from 400 MHz to 3500 MHz.

- ⤴ Low phase noise, Buffered output
- ⤴ Ultra low noise voltage regulators
- ⤴ Open Source code and design, made to be modified
- ⤴ 2" x 1.5", 12V @ 140 mA typical



Available at <http://reactancelabs.com>



If you are a member you can have a picture ad here yourself.
For the time being this service is free.
eMail the editor at: WalterClark at roadrunner.com

About SBMS

The San Bernardino Microwave Society is a technical amateur radio club affiliated with the ARRL having a membership of over 90 amateurs. The focus of the club is microwave activities in the Southern California. ***Our sister club is San Diego Microwave Group (SDMG).***

Official Address

San Bernardino Microwave Society

417 South Associated Road #146

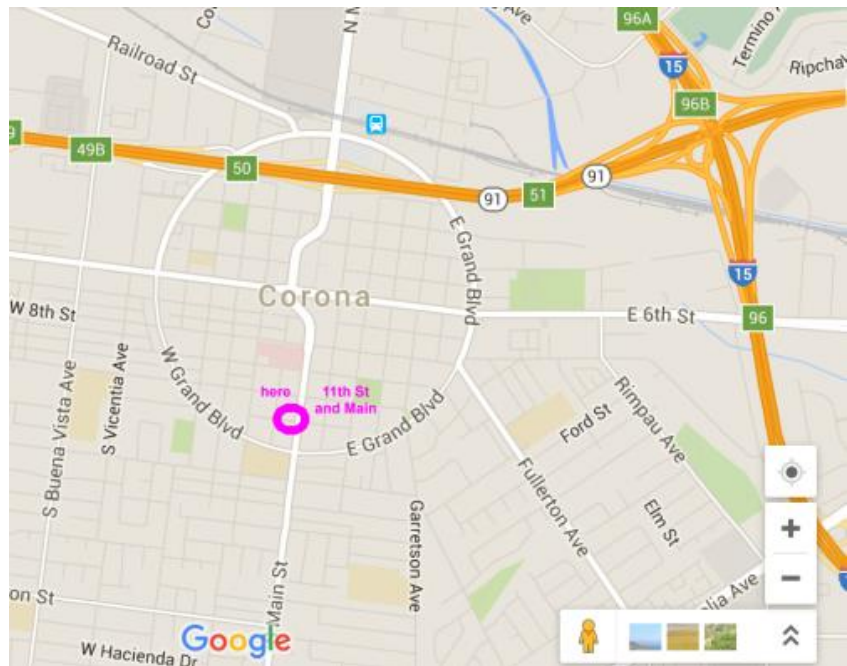
SBMS dues are \$15 per year, which includes a badge and that's about it. The dues are more in the way of a donation to pay for outreach things such as video portals, a bank account, and rent for the building. When to pay is not a matter of remembering. The Corresponding Secretary will contact you by email and will then hound you like your own personal PBS telethon. Dues can be handed to the treasurer at the meeting, or mailed to the address of the treasurer listed in the banner below.

**Meetings are first
Thursday of the
month, 7:00 PM**

**Google Map: Keywords:
American Legion Hall,
Corona**

For carpooling from North
Orange County call Dick
Bremer at: 714-529-2800

If you can't make it:
watch online through Gary Heston's mobile video facility W6KVC by way of the
internet out of England: <http://atn-tv.org/live> (More details on that above.)



Services Sponsored by SBMS

The Reflector (Group Email) The most active method of information exchange is our group email called the SBMS Reflector. You don't need to be an SBMS member to participate. To subscribe fill out the form at the website: <http://lists.altadena.net/mailman/listinfo/sbms> After that, Send your email message to: sbms at-symbol ham-radio.com. (If you are getting email on the SBMS Reflector now, and you want to write your own message, pull up a recently received message, click on "Reply to List." Don't forget to change the subject line and delete all previous text as appropriate.)

Responsible person for this: Dave Glawson WA6CGR wa6cgr at-symbol ham-radio.com

Website: Rein Smit W6SZ: rein0zn at-symbol ix.netcom.com

The URL is: <http://www.ham-radio.com/sbms/> But you don't have to memorize that or write it down, just enter SBMS into any internet search engine.

The newsletter is distributed by way of a reminder on the reflector to visit a particular URL within the SBMS

Website: www.ham-radio.com/sbms

- The purpose of the SBMS Newsletter is to keep hams everywhere in the world informed on current activities of the "active" members of the San Bernardino Microwave Society. Active Members include those who:
 - come to the meetings and share their progress
 - use ATV to report in and describe their projects
 - send by email words and pictures of progress to: walterclark at-symbol roadrunner.com
- Time sensitive questions, reports or just plain bragging is for the SBMS Reflector. Send your email message to: sbms at-symbol ham-radio.com. To sign up go to:

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