



SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1955

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

San Bernardino Microwave Society Newsletter

Tech Talk for the May 5th Meeting

Our May meeting speaker . . .

**Come and join SBMS at the Meeting at the American Legion Hall,
Corona: 11th and Main (See map below.)**

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>

Activities at the April 2016 Meeting of the SBMS

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

Presiding: Chris Shoaff AF6NA

(19 in attendance... 18 last month)

- **Guests Or Members Not Seen In a Long Time**

Rob Pereira KK6IOZ - San Diego. Tonight's speaker. Got interested in EME as a result of Brian's talk seven months ago. Licensed since 2013. Member of W6QAR - Qualcomm Amateur Radio Club

- Vic Marquez KK6WKL. Running Springs. Retired Fire Fighter. New Ham, Amateur Extra Class. Guest of Gary W6KVC.
- Amit Sarkar, Fullerton. (call not yet assigned)

Internet Checkins

N8KY, KC0ITF, KB6CJZ

Gary W6KVC reports: - No ATV tonight because it was supposed to be raining so he didn't load the van.

Old Business

- **Dues**

- Jeff KN6VR asked if the Treasurer knew at this point who was up to date on their dues. (Marty N6VI provided the current list by e-mail the following day.)
- As dues were due this evening, Dick WB6DNX passed around the dues sign in sheet: Name / Callsign / \$15.00 for the year.

- **Nominations / Elections.**

- Volunteers were solicited for any club officer positions. There were none.
- Nominations were solicited for any club officer positions. There were none.
- Larry K6HLH moved that nominations be closed. The motion passed.
- Election results: Only one person running for an office, Rein Smit W6SZ for President, and he was uncontested.
- Rein was acclaimed as the new President.
- Brian Thorson AF6NA Vice President, willing to continue;
- Courtney Duncan N5BF Recording Secretary, willing to continue;
- Dick Bremer WB6DNX Treasurer, willing to continue;

- Walter Clark Newsletter Editor, willing to continue;
- Jeff Fort KN6VR Corresponding Secretary, willing to continue; and
- Ed Munn W6OYJ Trustee of W6IFE who will be replaced by Dave Laag W6DL Rein
- **Beacon Report:**
 - Mel WA6JBD reported that Doug K6JEY had purchased an up-converter-only transverter and a two meter all mode radio as exciter.

New Business

- Mel WA6JBD introduced a discussion about how to pay club dues and other club incomes via PayPal. Brian AF6NA and Dick WB6DNX will work on this. If the “Send money to friends or family” option is used there will be no usage fees. Details will be announced in the Newsletter when available.
- Jim KK6MXP suggested that someone take down the MUD 2015 Registration web page as it is getting spammed. Rein W6SZ would do this. Also Brian AF6NA would help update the website with the new officers and new representation of e-mail addresses to avoid spam to officers.
- Chris N9RIN announced that the 2 GHz And Up Contest had been moved up to the April 30 - May 1, 2016 weekend to avoid Mother’s Day on May 8, 2016. Mel WA6JBD offered that Cactus would be configured to support contest participants. Mel also announced that the Southern to Northern California links in Cactus had been restored as of last weekend.
- It was announced that Doug Millar’s OVRO group had moved the date of their outing to June 11, 2016. See the reflector for details.

Before the Upcoming Meeting . . .

For those that are kind of tired of Sizzler, you can join the North Orange County car pool gang at Costañeda’s about 100 yards down the hill on El Sobrante from Sizzler’s. (That’s the street on the east side of Sizzler.)

Google Map this:
1340 El Sobrante Corona

This is what it looks like at 6:00 on Wednesdays. We get the whole place to ourselves. They are so happy for customers, they are fine with us rearranging the furniture to put us all on the same table.



The food and service is a cross between a sit down restaurant and a fast food . . . like Chipotle’s.

Upcoming Events

- May 7 Microwave Sprint CSVHF Microwave
 Spring Sprint (902 & Up)
- May 20 – 22 Maker Faire – San Mateo
- June 2 SBMS Meeting
- June 11 – 12 ARRL June VHF Contest (includes all
 microwave bands; coordination now permitted)
- June 25 - 26 ARRL Field Day

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:

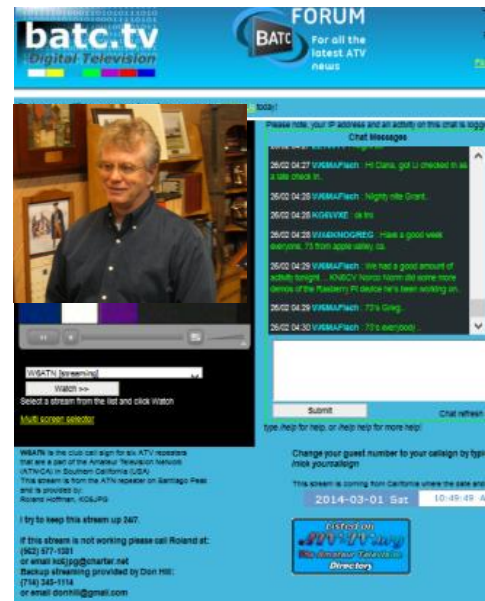
<http://atn-tv.org/live>

What you will see is this →

It's a British website (that's the B in batc.tv) You do not need to log in to be able to watch the video and participate in the chate. On the right choose "Repeaters" and then on the left, you have to pick a stream. The stream to choose is: **W6ATN**. This should be easy to memorize: W6 for California, then ATN as in Amateur Television Network.

W6ATN is the club call sign for eight ATV repeaters that are a part of the Amateur Television Network in Southern California. (ATN-CA)

Gary Heston's mobile studio beams its signal to the ATN repeater on Santiago Peak maintained by Mike Collis WA6SVT. From there Roland Hoffman, KC6JPG puts it on the internet by way of BATC.TV described above.



When Roland Hoffman is substituting for Gary Heston at the SBMS meeting, 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).

What Our Members Are Working On

(Remember you can watch these reports live on <http://atn-tv.org/live>)

- **Courtney Duncan N5BF (La Canada)**
has the tower and the hole in the ground for the base. Concrete in the hole planned for this weekend. AlfaSpid is on the way. In discussions with M².
- **Larry K6HLH (Lake Los Angeles)**
Going to Super VHF conference with Wayne N6NB next weekend. They think they're the only two from Southern California. Cancelled DirectTV. Now has a Roku box that gives thousands of channels free.
- **Rein Smit W6SZ (Alta Loma)**
Has been noticing a number of airplane traces on waterfall displays.
- **Chris Shoaff N9RIN (San Clemente)**
Has been going through all the stuff buried under house stuff that is now dumped in his lab: radios, guns, all buried somewhere. Has been looking at microwave devices offered by Qorvo (used to be Triquint) with interesting X-Band devices. Samples are around \$700 each, run at 50-60 Watt levels, and are heat sunk with copper slugs.
- **Walter Clark (Fullerton)**
Has been a member of this club for six years and this is the first time he has nothing to report! The slump occurred because he moved the electronics shop out of garage into the house. He now has a nice workshop but hasn't done anything with it yet.
- **Dave Laag W6DL (Marino Valley)**
Working with a standard LNB which is set up for demonstration here in the corner (see photo). Nothing more is needed if you have a radio that will tune the IF. Inside the LNBs, they are intended for the satellite bands. Hams are closest to the lowest downlink band 10.95-11.70. They are designed for higher frequency, 50-60 dB gain above the ham band, falls off pretty fast into the ham band. 20-40 dB down from optimal. Has tweaked the filter (as discussed at last month's meeting) to get better ham band performance. Can buy these LNBs in groups of ten on E-Bay. Search for "10-GHz" to narrow the search (and not get everything that has "10" or "GHz" in it).



- **Bremer WB6DNX (Brea)**

Showed his SBMS "transition badge" (A Dymo type that SBMS had used in a badge transition period in the past) and passed it around (see photo).



- **Ed Munn W6OYJ (San Diego)**

Offered corrections to last month's biographical narrative about Tommy Thompson W6IFE. The valley he grew up in was Central Valley of Ca. 50 miles from Fresno. Got ham license there in high school just before Pearl Harbor. The Navy discovered that he was a sharp radio operator and put him in with a group working on RADAR (Radio Detection And Ranging) that was masquerading as part of the weather bureau. After the war ended the effort continued and Tommy went to college and got his degree. Congress moved RADAR to a Navy location, not hidden anymore. The entire group of 600 people moved from the Washington DC area to here, Norco, California, where a Navy hospital was still in operation and had external group of 24 buildings that were used as labs. At that time the Navy asked Thompson to come back into the effort as a civilian. This is why SBMS was formed in this area.

- **Mel Swanberg WA6JBD (Upland)**

Has been pretty busy - Cactus annual meeting was last month. Had a Network Analyzer problem about six months ago. Found a place to get it properly repaired economically. (Ed in the High Desert (Apple Valley - Victorville area), brokered by a personal friend. Ed also sells refurbished test equipment on E-Bay.) The Network Analyzer is now back on the bench working 100%. Added a GPIB to USB adapter without problems. Now able to get hard copy prints out of it. Passed around phase noise plots of sources he has. (See picture.)

- **Jim Blum KK6MXP (Ontario)**

is collecting parts for his microwave radio. Now handles Cactus merchandise. Other Cactus work: Just about to get going on a pile of T-1500s. Will sit down with Robin WA6CDR to reassemble them and get them working. The Chino Hills 3rd Saturday swap meet has moved to a church on Carmel Blvd. in Claremont. SBMS should consider sponsoring a booth. Jim will put information about this on the reflector.

- **Amit Sarkar, Fullerton**

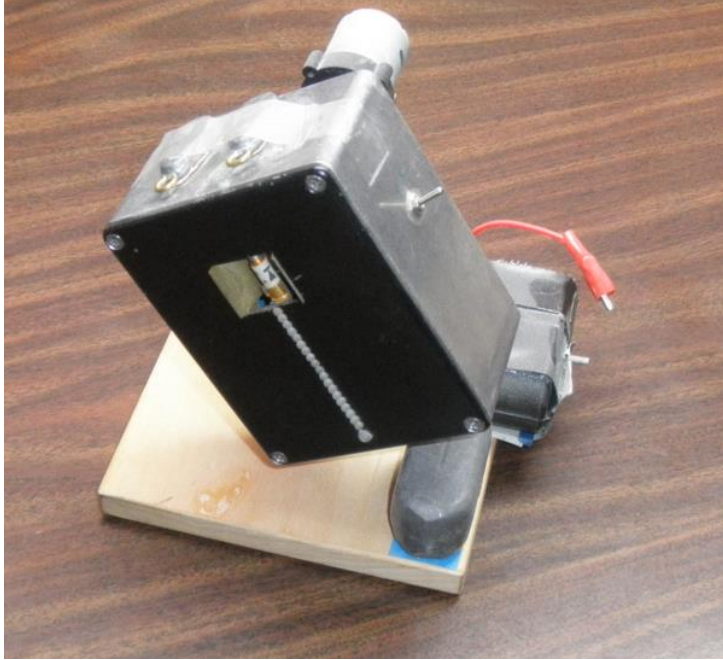
first time to SBMS, is an RF - analog engineer. Passed ham license test last week, waiting for call sign from FCC. Plans to upgrade to Extra this Saturday. Microwave experience - designing LNAs, oscillators, on-chip circuits. Looking forward to getting experience with board level integration and working with components from scratch as a ham.

- **Wayne N6NB** - Has been working to save the August UHF contest that an ARRL committee cancelled about a month ago. Has gotten the leaders from the PacRats,

Northern Lights, Pacific NW Soc., the QST VHF World Above 50 MHz Column, Mount Airy, PA, etc. together in a coalition. They will jointly sponsor the 39th annual UHF contest, this year independently from the ARRL, scheduled, as usual, for the first weekend in August: August 6-7, 2016 1800Z Saturday to 1800Z Sunday. Same rules as always. There will be plaques and gavels for top clubs, Will see what ARRL itself will do for next year. The ARRL plans a new contest in the spring, likely the same weekend as our SBMS 2 GHz and up contest, with new rules such as distance scoring and higher band multipliers.

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| Courtney Duncan (N5BF), Recording Secretary |
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Microwave Mystery Gismo of the Month



Hint:

The string of LEDs is a bargraph display of field strength. And the axis of rotation is about the LSB.

If you can identify why, or would like to discuss this, use the SBMS Reflector by sending an e-mail letter to . . .

SBMS@lists.altadena.net

If you don't have an account sign up at this website: sbms@ham-radio.com

Tech Talk Last Month

Thursday SBMS will be introduced to an aggressive new 10 GHz EME project that is coming together nicely in San Diego.

Robson (Rob) Pereira, KK6IOZ is an electrical engineer at Qualcomm and has been active recently with the San Diego Microwave Group. He is assembling a 10-foot parabolic antenna on the roof of Qualcomm. His system design and plans will be presented at the meeting.



Needs, Wants and For Sale (Updated 1 May 2016)

For Sale from Bill Burns: Bill will only rarely comes to the meetings, so if you want any of this, please contact him by phone or email.

phone: 760-375-8566 email: bburns@symbolmediacombb.net

His address is: 247 Rebel Road Ridgecrest CA 93555

- Andrews Microwave dish 8 ft solid aluminum **free**
- Long lengths of heavy tower guywire with insulators **free**
- Lengths of aluminum tubing, ½ inch to 3 inch diameters **free**
- Earth screws for anchors of guy wires **free**
- 1296 antenna 8 bays of 3 element Yagis \$5
- Radio Shack PRO 651 handheld digital trunking Police scanner and manual (paid \$400) and USB cable (paid \$35) all for **\$150**. Still new. Receives local weather channel just fine. Will receive all 3 modes of trunk radio signals as well as normal analog stations. AA battery holder and rechargeable battery holder. Receives 25-174 MHz, 216-512 MHz, 764-960 MHz (cell blocked), 1240-1300 MHz.

Member Ads

Sixty North Electronics

Effective Immediately Ed Cole - KL7UW will no longer be able to offer to build Down East Microwave kits due to DEMI management entering into an agreement with a subcontractor to build all their transverters which precludes selling to any other reseller.

I have begun a new line of 2m 80w Linear Amplifiers which can be seen on my website:

<http://www.kl7uw.com/kits.htm>

I have also taken on PayPal Sales of the popular "WA2ODO" preamps built by Pete Manfre. This covers 50-MHz thru 2.3 GHz. If not wanting to use PayPal contact "Pete Manfre" [pmanfre at-symbol gmail.com](mailto:pmanfre@acsalaska.net), directly.

http://www.kl7uw.com/WA2ODO_PayPal_Sales.htm

I will also make many of the kits offered by Jim Klitzing - W6PQL:

http://www.w6pql.com/parts_i_can_provide.htm

Contact me for a quote.

All my work is covered with a 90-day warrantee on workmanship.

e-mail him at <kl7uw at-symbol acsalaska.net>

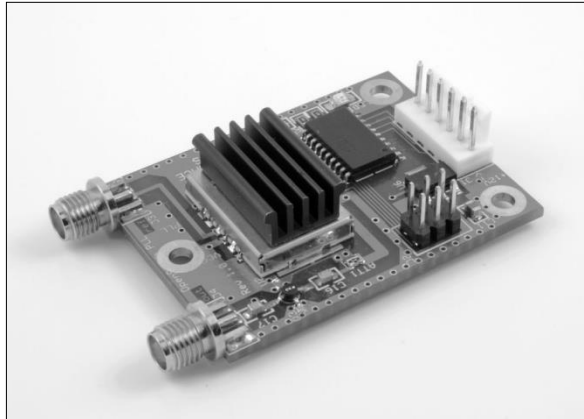
For examples of his work click on... <http://www.kl7uw.com/kits.htm>



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).***

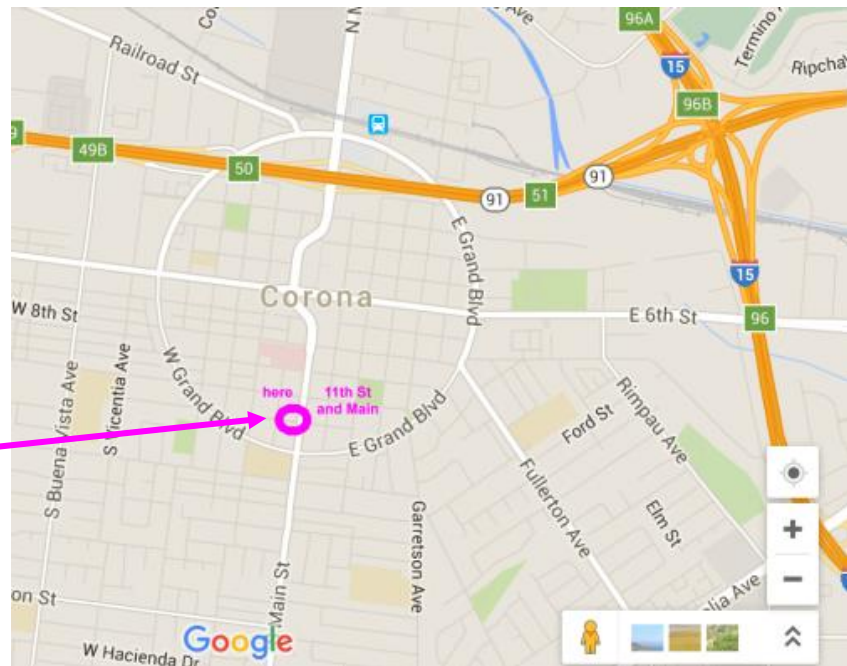
Official Address

San Bernardino Microwave Society
417 South Associated Road #146
Brea, CA 92821

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.

Map →

**Meetings are first
Thursday of the
month, 7:00 PM at
the American
Legion Hall,
Corona.**



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

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@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.

Newsletter: Walter Clark: walterClark at-symbol roadrunner.com

The newsletter is distributed by way of 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

Contact San Bernardino Microwave Society (SBMS)

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email: [wa6cgr at-symbol ham-radio.com](mailto:wa6cgr@symbol.ham-radio.com)

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