



SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1955

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

March 2015 Newsletter on the Activities of the San Bernardino Microwave Society

Walter Clark, Editor

Tech Talk for the March 5th Meeting

“Use ‘Em or Lose ‘Em - Risks and Opportunities on our Microwave Bands”

- Current status of regulatory proposals that could affect Amateur microwave allocations
- Using contests to promote the higher bands to new participants
- Welcoming applications other than weak-signal and ATV

Marty Woll, N6VI, will address the San Bernardino Microwave Society (SBMS) at our March 5th meeting. He has been a winner of several ARRL radio contests, Marty placed 4th in the U.S. for QSOs completed (178), and was the 5th highest scorer (with 41,332 points) in the 2014 10 GHz and Up Contest, 10 GHz category. Marty is Vice Director of the American Radio Relay League (ARRL) Southwestern Division and, as such, he speaks to many radio clubs every year. Marty will bring some important news about FCC and regulatory matters as they apply to the U.S. Amateur Microwave bands.



SBMS is fortunate to have such a close connection to the ARRL and national wireless governance with Marty as an active member. Be sure to bring your notepad and come to hear his excellent talk. Or you can join SBMS by ATV or online.

If you can't make it: watch online: http://www.batc.tv/ch_live.php?ch=2&id=139

Activities at the February Meeting of the SBMS

(that would be of interest to the general ham radio community)

Presiding: President Chris Shoaff (N9RIN)
(15 in attendance... 14 last month)

Guests Or Members Not Seen In a Long Time
no one (first time in many years)

Old Business

Old business was dominated by a discussion and round table concerning Microwave Update (MUD) 2015 preparations

- Mud 2015 coming together as off 2/28/2015 web page is up and working and as always under construction and improvements:
<http://www.ham-radio.com/sbms/mud2015/>
- Information concerning the July tune-up party? Ed Munn, W6OYJ, will bring information from the San Diego group next meeting.
- Any new information about using the TinyChat application for remote meeting attendance? Doug, K6JEY, could only get it working on his cellphone today, but not computers.

New Business

- Club dues will be due at the April meeting. \$15 / year.
- Club officer elections will be held at the April meeting. Nominations will be open at the March (next) meeting.

Courtney Duncan (N5BF), Recording Secretary

What Our Members Are Working On

Dick Bremer WB6DNX (Brea)

brought a new product from PowerWerx: the TR-590 HT radio. He talked about the radio and passed around the data sheet. It does 144/440 MHz true dual band, amateur and commercial bands. Will also operate Part 90.

Courtney Duncan N5BF (Eagle Rock)

made one 1296 contact in the ARRL January VHF contest and made numerous contacts using JT-65A on HF, mostly 80/40/10 meters, using the same rig and digital hookup as is used as IF for the 1296 EME station.

Larry Johnston K6HLH (Lake Los Angeles)

Went to QuartzFest and heard WB6NOA's microwave talk. Checked into the 1296 net Friday night from Quartzite via the internet to broadcast/receive from his home in Lake Los Angeles. Ralph thought he was in Quartzite - kept pointing east and asking for grid square!

Pat Coker N6RMJ (Lake Los Angeles)

One of his towers failed from rust. Was taken down in three pieces so no one can ever use it again. This meant taking down his 1296 antenna, quad of 55 loop Yagis. The square is 27 inch spacing and includes H-Frame and power divider. He has worked the big EME guys on it. Plans to go back up to 100 feet with a new M-Squared 23CM49 for terrestrial only. He went from 54 foot to 72 foot tower.

Doug Millar K6JEY (Long Beach)

November and December EME weekends went very well, especially December. W6SZ, N6MN, KK6MXP, N5BF and KJ6HZ participated.

- He talked to a friend about dish feed and will have a brand new feed support that is perfectly aligned with the dish shortly. Did loss calculations to determine the impact of moving the amplifier under the dish. About the same effect as just switching to 7/8 inch hardline — 25 watts of loss either way.
- He needs to clean out water lines and replace the tubes in the amplifier which should net a 50 watt improvement.
- Ed Murashie, WX6DX, came over to do noise figure measurements on his new preamps.

Rein Smit W6SZ (Alta Loma)

worked with N6NB on a JT4G QSO. Went well. Will try it in the contest later this year. Commented on the December EME weekend at K6JEY. Jim Blum KK6MXP was there. His dish pointing method, using two ropes, was great! He kept his eye on the moon the whole time. This was largely responsible for the good, loud signal receiving, up to S7 in some cases with noise at S2, typical.

Ed Murashie WX6DX

his house is now on the historic registry and he is now a commissioner for the City of Santa Ana.

- He has started working on his six foot dish for polar and geosynchronous satellite monitoring. It uses a Telco pole mount - intended for pan/tilt of cameras up to 100 lbs. It runs on 110 V, and will easily swing a six foot dish.
- He built up a G4DDK preamp. The kit was well documented and took 2-1/2 hours. Measured 34 dB gain @ 0.24 dB NF at K6JEY.

Gary Heston W6KVC (Running Springs)

attended QuartFest, and said it was a lot of fun. There is a piece about it on Ham-Nation. There was one 10 GHz demo and some resulting interest and inquiries.

Bill McNally N6MN (Seal Beach)

After consulting with Ed Murashie, WX6DX, Bill intends to buy two of the TelCo pan/tilt boxes. They will run on 115 VDC or 24 VAC. He plans to pick one for the mount and use the other for spare parts. Already has a nice controller for this.

Mel Swanberg WA6JBD (Upland)

bought some NEC units about 10 years ago and showed them around at SBMS. He then acquired about 40 of them. They had built in 10 MHz reference oscillators. These were good local oscillators and could be modified from 1.5 GHz to 2.35 GHz or so. They feature 5 MHz or 1 MHz steps.

Marty Woll N6VI (Chatsworth)

On returning from the ARRL Board meeting Marty did roving on the January VHF contest weekend. Starting point was Madera. He discovered a 2 GHz switching problem in the field: a bad SMA relay. Two control wires had broken pins off at the sockets. He discovered those in the process of installing a new Transo 8 watt amplifier. Everything worked except for the push to talk. He had to hold a wire to a piece of metal in order to do PTT. Worked 10 grids on 11 bands. Worked N6NB, who operated fixed in Madera, several times.

Jim Blum KK6MXP Corona

worked on his IF radio and interfaces and was with Rein Smit doing some EME.

Ed Munn W6OYJ (San Diego) Reporting on the Activities of the San Diego Group (They normally meet 3rd Monday at Karry Banke's house.)

Ed made two contacts on 1296 during the ARRL contest. One was from 15-20 blocks away, and the other to the roof of the Qualcomm Company to the north. He operated a transverter on his balcony which is a long way by coax from the garage. Also reported activity from the San Diego microwave group.

Brian Thorson on Working with Marty Woll

Marty Woll, N6VI brought his 12-inch reflector and extensive contest experience to the ARRL 10 GHz and Up Contest last year. He placed 4th in the U.S. in QSOs (178) and logged the 5th highest score (41332 points) in the 10 GHz only category. It has been a pleasure working Marty in the past few years. Anyone who has completed with him already knows, he wastes no words and completes contact efficiently. If USB is too weak, Marty quickly switches over to the most well-established of digital modes, namely "CW" and makes the contact. With his roof-mounted 10368 system, he just shifts into PARK and starts calling the target station. He usually finishes his first QSO before my "Rubi" has locked. With his roof-mounted 10368 mobile station, Marty may be one of the fastest 10 GHz QSO completers in the West. My personal congratulations to Marty, as he may have become the fastest X-band QSO completer in the West.



Marty has also served the So. Cal. Amateur Radio community for several years as the ARRL Southwest Division vice Chair. As such, he speaks to many radio clubs every year and is an excellent presenter. SBMS is fortunate to have such a close connection with ARRL leadership and national wireless governance with Marty as an active SBMS member.

Upcoming Events (Identified by Marty Woll N6VI)

- May 2-3: SBMS 2 GHz & Up Contest
- May 16-17: Maker Faire, San Mateo CA
- June 13-14: ARRL June VHF Contest –all microwave bands
- June 27 – 28: ARRL Field Day (Demonstrate microwaves to the visiting public)
- Aug. 1-2: ARRL UHF Contest – includes all microwave bands
- August 15-16: ARRL 10 GHz & Up Contest – 1st weekend
- Sept. 11-13: ARRL Southwestern Division Convention, Torrance CA (can you offer a microwave program?)
- Sept. 5 - 6: ARRL EME Contest – 2.3 GHz & Up
- Sept. 12-13: ARRL September VHF Contest – includes all microwave bands
- September 19-20: ARRL 10 GHz & Up Contest – 2nd weekend
- Oct. 31 - Nov. 1: ARRL EME Contest – 2.3 GHz & Up
- Nov. 28 - 29: ARRL EME Contest – 50 through 1296 MHz – 1st weekend



This is all that's in the MUD website as of 29 February. More to come...

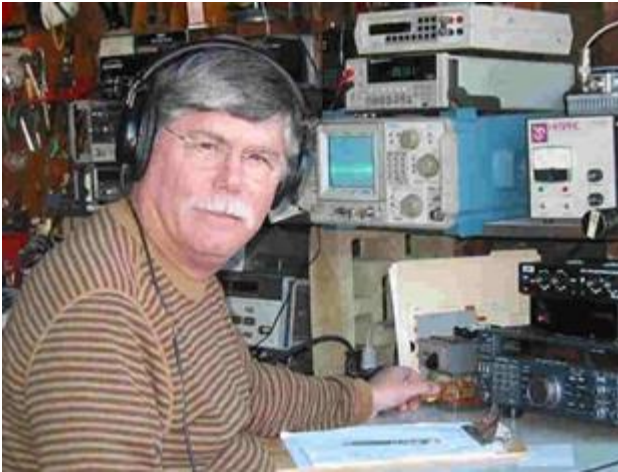
<http://www.microwaveupdate.org>

Anyone, (not just SBMS members) . . . if you know of any future 1 GHz and above amateur radio event, please send date and description to the editor:
walterclark@roadrunner.com

Last Month's Tech Talk:

"Extending Your Measurement System Frequency Range with Harmonic Mixers"

Working with my pile of miscellaneous mixers I found that many worked pretty well with my spectrum analyzer. The best way is to just try them out to see how well they do. You will probably have to have a Tektronix duplexer to do so.



Always buy a mixer subject to test or guaranteed. They are nearly impossible to fix.

In the talk I gave specific measurements and examples. Most mixers were able to work well far above their design frequency.

- The SBMS newsletter is to keep member informed on current activities of the "active" members; the members that come to the meetings or use ATV to report in.
- The website is for articles and all activities of the past.
- But questions or even bragging is for the SBMS Reflector. Send your email message to: sbms@ham-radio.com. More than 80 people will see your question or your bragging. (To sign up go to: <http://lists.altadena.net/mailman/listinfo/sbms>.)

Gary Heston's ATV Mobile Studio

Not only can you watch our meetings live (well delayed by 240 milliseconds) You chat to other viewers about what you are watching (or anything else.) Enter the chat room by clicking on the white space on the right of the website described below.

Just as a reminder, this is how you watch SBMS meetings from home:

http://www.batc.tv/ch_live.php?ch=2&id=139

Better yet memorize the following

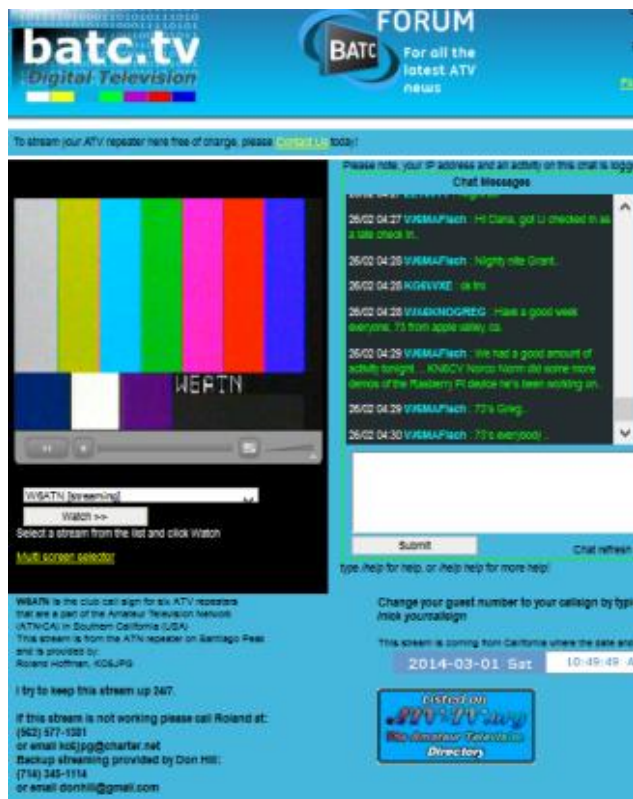
Keywords: BATC TV

and use Google

The TV part is easy to remember. Think of the BATC as batch without the h. It's a British website (that's the B) Once you are there, and logged in, on the right choose "Repeaters" and then on the left, you have to pick a stream. The stream to choose is: **W6ATN**.

Memorize W6ATN as ATN in California. W6ATN is the club call sign for six 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 which is provided by: Roland Hoffman, KC6JPG



Checking in Those Watching on Gary W6KVC's ATV.

- Don, KE6BXT, Mission Viejo.
- Reported from the chat room: AD0CX, K4QF, K6PFL, KE6BXT, KF6PGT, KJ6HZ, N8KH, N9RIN, W4ZST, W6IEE, W6QIW, W6TE, WA6EJO, WA6SVT, WA8RJF,
- KE6VXT, and ten registered as guests without callsigns.
- James, KB6CJZ - Orange, working on an upconverter.

Microwave Mystery Gizmo of the Month



If you would like to say a few words about this gizmo, use the SBMS Reflector by sending a letter to the following email address:

sbms@ham-radio.com

If you don't have an account, sign up at this website:

<https://lists.altadena.net/mailman/listinfo/sbms>

Or write to those who manage the list at: Sbms@lists.altadena.net

Needs, Wants and For Sale (Updated 28 February)

- **For Sale from Chris Shoaff:** N9RIN cshoaff@yahoo.com
 - 30w 1296 MHz PA kit \$50 + \$5 for US shipping
 - Only two kits left, contact Chris at: cshoaff@yahoo.com
- **For Sale from Bill Burns:** Bill will only rarely come to the meetings, so if you want any of this, please contact him by email at . . . bburns@mediacombb.net)
His address is: 247 Rebel Road Ridgecrest CA 93555 and phone: 760-375-8566
 - 8 watt 5 GHz TWT's with power supplies \$50 each
 - copper wire enamel coated #14 many feet coils \$10 each (coils are like a foot in diameter and maybe a dozen turns or so...30 or 40 ft long wire)
- **For Sale from Doug Millar (drzarkof56@yahoo.com):**
 - a Rohde and Schwarz 309 10-18GHz Signal Generator in perfect shape. It is digitally synthesized and has a pull out instruction card. It has internal modulation and will also sweep. Will accept \$900.
 - I also have an HP432 power meter, cable and head (478) in working order for \$100



Member Ads

Sixty North Electronics

Kits Made by member KL7UW

Let Ed Cole assemble your Down East Microwave kit. For kits in stock, he can deliver an assembled unit to your custom design preferences within 30-days of a paid order. **His prices are the same as you pay DEMI for an assembled transverter, but much quicker delivery time. And comes with 90-day written warrantee on labor (guaranteed to work)!**

Shipping for a transverter is typically that of medium-size flat-rate Priority Mail anywhere in the USA.

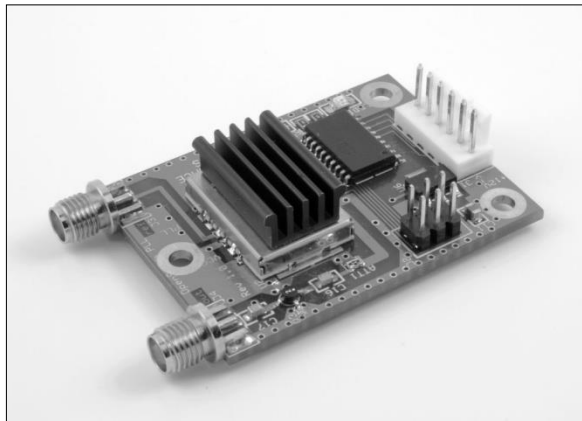
For examples of his work click on... <http://www.kl7uw.com/kits.htm>
Contact him at kl7uw@acsalaska.net



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If you are a member you can have a picture ad here yourself.
For the time being this service is free.
eMail editor at: WalterClark@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). At least one meeting a year are joint meetings.*** 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 at the American Legion Hall, Corona. For carpooling from North Orange County call Walter Clark @ 714 882-9647

The Reflector (SBMS 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> (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.)

The SBMS Website and Newsletter

The SBMS Reflector is ephemeral. There's no record kept. The Newsletter has a slightly longer life. It is sent to members and past issues are recorded in the website. It's URL is: <http://www.ham-radio.com/sbms/> You don't have to memorize that or write it down, just enter SBMS into any internet search engine.

Newsletter: Walter Clark: walterClark@roadrunner.com

Website: Rein Smit: rein0zn@ix.netcom.com

The newsletter is created about the middle of the month and broadcast as a link inside an eMail letter to the members. This is mailed to you on the weekend prior to each meeting. SBMS Newsletter and website material can be copied as long as SBMS is identified as source.

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