



SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1955

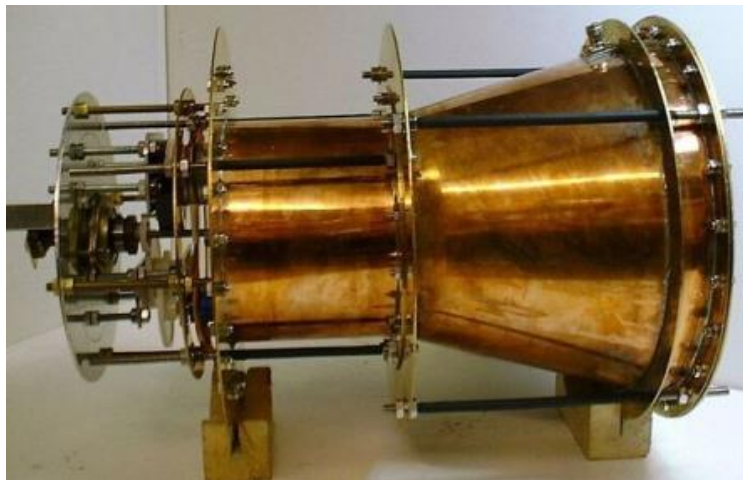
A NON-PROFIT AMATEUR TECHNICAL ORGANIZATION DEDICATED
TO THE ADVANCEMENT OF COMMUNICATIONS ABOVE 1000 MC.

San Bernardino Microwave Society Newsletter

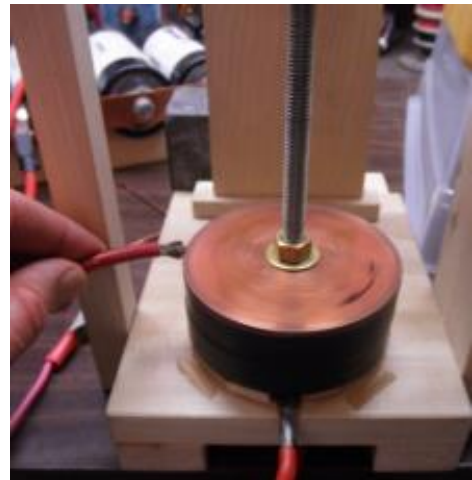
Tech Talk for the December 1st Meeting . . .

Walter Clark (Fullerton) will talk on . . .

**Microwave Interplanetary Space Drive and Other
Pseudo Science.... Explained Away**



**The EM Drive
action without reaction**



**and the Homopolar Motor
torque without counter torque**

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

Or watch it on <http://atn-tv.org/live>

Activities of the November SBMS Meeting

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

Presiding: Rein Smit W6SZ (14 in attendance... 17 last month)

Guests or Members Not Seen in a Long Time

Mark Fisher W6MAF He is in the Amateur Television Network and has been Net control for ATN. He is also a member of SBMS



ATN Check-ins

Chatroom Check

AK4ZZ, K4QF, KC0ITF N8KH NZ6Y WA6SVT, 4 guests, W6QIW. More than 10 signed in.

Old Business

- Progress on the 2.4 GHz beacon project. Mel WA6JBD moved it from one side of the bench to the other.
- Dave Laag: transfer of the W6IFE trusteeship to W6DL. Everything that can be done on the SBMS side is complete including forms and signatures from Ed Munn W6OYJ, Dave Laag W6DL, and Rein Smit W6SZ. Dave is still working on getting transferred out of another trusteeship as an individual can be only one trustee under FCC rules.
- Dave mentioned during the talk about the Kolbly Loaner 10 GHz rig (that N6WL had used on Turquoise this year) that the radio should have a plaque in honor of Kolbly on it and engrave the names of the users / borrowers. Brian said there had been an Old Business item in the past to do this and he hadn't finished but that he would.
- Dick Kolbly had a transmitter on the air in 1969 received in Corona. Did not have a receiver so it was not 2-way, but the path was established.

New Business

- Rein W6SZ reported on the past evening's home-to-home QSO party with 4-5 participants: Mel WA6JBD, John Oppen KJ6HZ, Frank AG6QV, and Rein W6SZ participated. His plan is to be there at 8:00 p.m. and start officially at 9:00. The intent is to learn home to home capabilities and how to run them. Rein looks north, Mel uses an omni. Elevation is important in Rein's situation. Mel thought he heard John but then

had battery problems and had to take his equipment off the roof. There has been no input on the reflector or otherwise about changing the time or date of this activity.

Dinner Before the Up Coming Meeting . . .

“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.

We are back at Sizzler for December.

Events of Interest to the Microwave Ham Community

- | | |
|-----------|--|
| December | There will NOT be a Claremont ham swap meet in December |
| Jan 1 | Microwavers can practice their CW skills on HF frequencies during Straight Key Night, January 1 from 0000 UTC through 2359 UTC |
| Jan 21-23 | January HF contest, ARRL sponsored VHF Contest 50 MHz and up. |

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).



Tonight (the November meeting) Roland Hoffman was broadcasting but not as described above. He was running DVGT digital for the first time.

Excellent pictures. The T in the DVGT acronym means "terrestrial" format that is better with multi path performance.

- He 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: the meeting (November) is being recorded for archive.

What Our Members Are Working On

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

Frank Kromann AG6QV (Trabuco Canyon)

is working on a 1296 dipole, now needs more elements to make a Yagi.

- He took his 10 GHz rig up to a park in Mission Viejo for the American Radio Relay League National Parks on the Air (ARRL NPOA) activity. Called on his cell and arranged for carrier off PV, then dropped and had a nice 15 minute QSO with N6TEB without having to tune.
- He was disappointed that he didn't get any contacts last night from "only" his balcony, which sees only Santiago. Hard to peak without the beacon.
- He is working on a new rig. Has the mixers and LO in. Next is the LNA, a circuit board to be built, followed by the power supply then power amplifier.

Bill Locke N6WL (Baker)

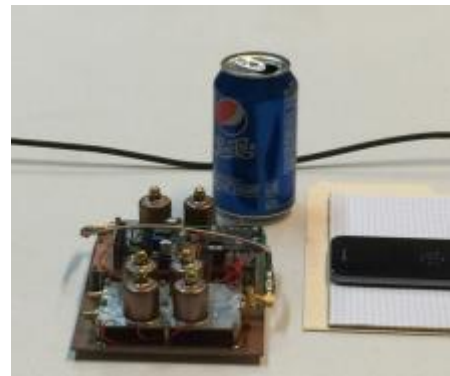
didn't hear anybody on home2home last night. At 900 feet in Baker he didn't expect to. Thought about calling Rein but didn't. Rein's idea is that we spend time looking for paths, then use waterfall and software to complete QSOs. Or just find carriers and confirm them. Rein has a friend in France who reports that they have an activity night of this type every month.

Jeff Fort KN6VR (Phelan)

got on a little in the 10 GHz contest. Worked Potosi and a few guys in the desert.

Larry Johnston K6HLH (Lake Los Angeles)

showed his 5760 transverter with pipe cap filters which is in progress. See photo.



Mel Swanberg WA6JBD (Upland)

said a 6 foot antenna became available and he contacted the appropriate liaison to get into the site. Chuck N6EQ and Rein W6SZ helped with the move. It is a temperature controlled dish complete with heater and fan. Took 10 lbs. of acorns out of it, separated the feed from the shroud and now it is in his back yard. Maybe will try to get it to Potosi next year. Mel also showed his 10 GHz dual feed horn that is fed with a Y and 18 dB return loss.



See photo (with Mark Fisher). John Miles KE5FX has a software package GPIB tools for using the GPIB bus on test gear. An update did not have the fix Mel needed. VNA utility can save calibration states for loading later. Cather, the utility crashed Mel's home network and computer, requiring a computer reset. John helped him debug it over e-mail. The upgrade doesn't fix the plotter anomaly either.

Dave Laag W6DL (Marino Valley)

has some old thermistors for a 430 power meter so he bought a 430 power meter to see if any of them work.

Jim Blum KK6MXP (Ontario)

complemented Walter on the good newsletter - all about microwave including a piece on radio astronomy. Mel still threatening to help him put a 10 GHz radio together.

Pat Coker N6RMJ (Lake Los Angeles)

had lots of fun in 10 GHz contest, posting a higher score than last year. Showed his home station under construction. See photos. (with Bill Locke N6WL (Baker CA) When complete it will put out 7-8 watts from the 75 foot level on the tower, quirk no elevation control. He got this amp from Hartwig.



He will be able to work people from home. Found another website for microwave stuff that people don't know about which is always

adding new stuff: pe1rki.com with 10 GHz, 2.4 GHz equipment, 475 Euro amplifiers, etc.

**Courtney Duncan N5BF (Eagle Rock)**

- passed around a piece of cut mesh from his 3 meter dish project to explain why his legs were cut up after building it for several days.
- 1296 EME statistics:
 - 38 QSOs with 28 unique callsigns.
 - 24 on JT65C (including one on JT65C2),
 - 8 on CW, none on SSB.
 - 12 DXCC entities,
 - 7 U.S. states and 1 Canadian province.
 - DX: Russia European and Asian, Germany, Denmark, England, Italy, Estonia, Check, Netherlands, Switzerland.
 - DX: States: NJ, MN, AB, TX, FL, CA, PA, IL.
 - Among the close miss heartbreakers are K4EME and LA4 (Norway).
 - This evening the moon is at the bottom of it's mostly declination, unusable from N5BF for a few days despite having some tree work done on the property.
 - Participated in the first contest weekend October 22 and 23, working all night both nights, split sleeping Friday and Saturday evening and Saturday and Sunday morning. Made 22 QSOs with a 17 multiplier for a first weekend score of 37,400 and a 1.5 QSO per hour rate. This community still uses paper QSL cards. Having some made to reply to many receipts from Europe etc.

- Have received much help online from the EME Reflector and the HB9Q logger on subjects including: how to make CW QSOs, feed chokes, how to count “initials”, QRM on 1296.000, and how to make sun noise measurements (receiving excellent advice, a published paper and an online calculation tool from Bob W7PUA, creator of the DSP-10),

Brian Thorson AF6NA (Corona)

His only microwave activity was to turn on the 10 GHz rig after the contest and see if he could hear the Santiago beacon. He lives 17 miles as crow flies from peak where it appears just above the horizon as viewed from his driveway. To do this, he had to turn the beacon on.

If you need the beacon on (or off), call or text Brian and he can do it. It's programmed into his radio. Mel stated that AF6HP is the trustee; it's his call sign and his building, and he recommended that Brian just turn it on. Brian had observed that with inclement weather it seems to go off. Dave said that the problem is that when the power goes off, Edison brings it back up but the beacon itself doesn't come back up. Brian noted that sometimes the beacon recovers but at low power levels, like the final power amplifier wasn't coming back up.

Brian announced that Rein is posting a new page on the website with the results of the tuneup, last year's and this year's, and PDF copies of the last 15 years from when Kerry N6IZW and Ed W6OYJ used to come up.

Rein Smit W6SZ (Alta Loma)

assisted Mel on the Crestline trip to pick up his antenna. (See above on the Santiago Beacon discussion.)

Roland Hoffman KC6JPG (Rancho Cucamonga)

read a comment from the chatroom: Mike WA6SVT: The ATV network now has MESH receivers everywhere but Oat Mountain, which will be done this weekend (November). Mike and his wife KJ6GFI worked the contest from Oat and were very successful.

Here's Mel's new dish. Kind of sad...

The hole is where the heater used to be.



Home to Home This Wednesday Evening; (don't forget)

Rein Smit, W6SZ (Alta Loma), 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.

Wednesday Nov 30, 21:00 PST, 10,368.100 MHz, CW or SSB.

WA6JDB and W6SZ will be looking/listening for your signals.

Microwave Mystery Gizmo of the Month



Hint: the wavelength is .8 cm

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

[SBMS at-symbol lists.altadena.net](mailto:sbms at-symbol lists.altadena.net)

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

sbms at-symbol ham-radio.com

November Tech Talk

“The Next SBMS Decade” Brian Thorson - AF6NA

Two Months Ago Tech Talk

Wayne Overbeck N6NB (Tustin)

Hawaii to California: World DX records on 2.3, 3.4 ... and now 902 MHz.



He talked about the trans-Pacific tropospheric duct and the two most recent openings in June and July of 2016. The June opening led to a new world distance record on 902 MHz, breaking a 25-year-old record. He also told us about the 2.3 and 3.4 GHz DX records set last year, with video clips from both years.

Needs, Wants and For Sale (updated 27 Nov)

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*
- Steel TV masts . . . *free*
- Lengths of aluminum tubing, ½ inch to 3 inch diameters, 1/16th wall . . . *free*
- Stainless steel powder cans 15 inches in diameter by 23 inches high with lids . . . *free*
- Rocket boxes 11 inches by 11 inches by 28 inches . . . *free*
- Power pole 14.5 ft tall by 1 ft diameter . . . *free*
- Many round meters, ma, volt, frequency, misc. . . . *free*
- 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.
- Mobile HF antenna elements (poles \$20 and resonators \$20) for mounting on a spring on your bumper (if you happen to have a bumper on you late model car).

Member Ads

Sixty North Electronics (as of October 1)

Ed Cole has begun a new line of 2m 80w Linear Amplifiers which can be seen on my website:

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

Ed can no longer order kits from Down East Microwave which are to be resold as assembled units. However if you have purchased a kit and decide not to build it yourself, he can assemble that kit and for no shipping charge, send the working radio back to you. You will have to pay DEMI for shipping and of course pay for shipping the kit to Ed. For details and assembly rates contact Ed at the email address below.

Ed can now do 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@symbolgmail.com), directly. [http://www.kl7uw.com/WA2ODO PayPal Sales.htm](http://www.kl7uw.com/WA2ODO_PayPal_Sales.htm)
He will also make many of the kits offered by Jim Klitzing - W6PQL: [http://www.w6pql.com/parts i can provide.htm](http://www.w6pql.com/parts_i_can_provide.htm)

Contact Ed for a quote.

All of Ed's work is covered with a 90-day warrantee on workmanship.
Ed Cole <kl7uw at-symbol acsalaska.net>

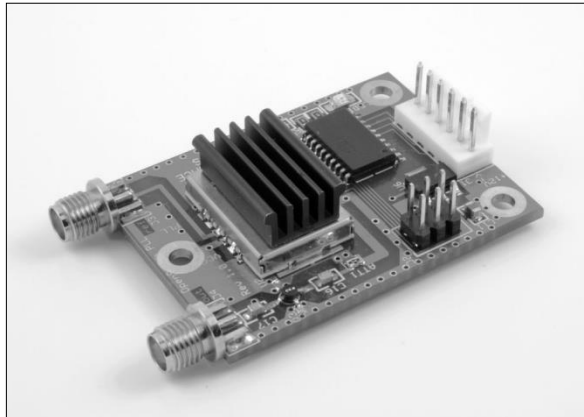
For examples of his work click on... <http://www.kl7uw.com/kits.htm>



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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 the editor at: [WalterClark at roadrunner.com](mailto: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).***

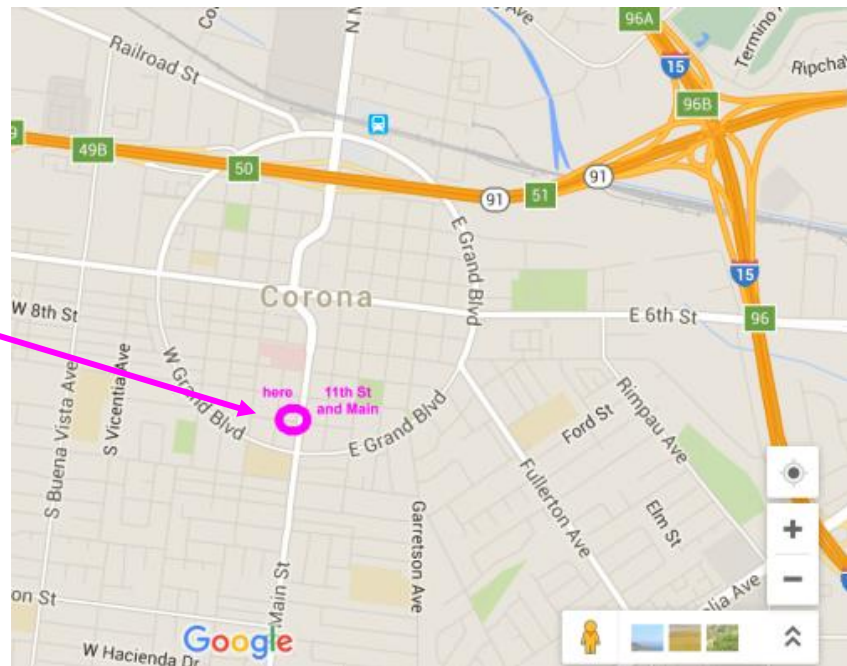
Official Address

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.

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

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



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 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.

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

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The Talk Thursday