



**SAN BERNARDINO MICROWAVE SOCIETY, Incorporated**

FOUNDED IN 1955

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

## **SBMS (W6IFE) Newsletter For December 2013**

### **Activities of the San Bernardino Microwave Society**

#### **Tech Talk for the December 5<sup>th</sup> Meeting**



Bill McNally N6M and Doug Millar K6JEY will be doing a short presentation on their efforts on 79 and 122 GHz.

In addition Barry Malowanchuk VE4MA is in town and will be with us to talk about his efforts on 79 GHz. He is an experienced microwaver and does millimeter wave EME.

# Important Points of the October Business Meeting

## Guests Or Members Not Seen In a Long Time

- Joe Storniolo  
was a guest of Chris Shoaff.

## Old Business

- Dennis Kidder said that Wayne has booked us a 20 foot wide booth that will host his exhibit, and those of Walter's. There will also be representatives from Palomar ham club and maybe one other.
- Doug reports that Bill McNally K6NN has some pals in Kwajalein and is assisting them to set up a 2 meter "reverse" beacon.
- Doug also reports there will be another OVRO visit early December
- Mel handed Walter a 24 GHz manifold of some sort (from Jason) to give to Dan Welch to use for making more 24GHz omni antennas.
- Brian is working on Kolbly's radio. It has plenty of sensitivity but needs more RF output.
- Chris will donate to the Kolbly Radio Project a 1 watt PA.

The Kolbly radio will be a club loaner and what makes it interesting is that it was never finished (needed a final power amplifier) yet Dick was one of the most active microwavers and finished many other microwave band radios.

## New Business

- Christmas party will be at Dennis's again (date uncertain)
  - Chris polled the members and declared that the January meeting will be the normal first Thursday.
  - Chris thanked Larry Johnston for entering into digital format the bylaws of the SBMS.
-

## **Night Before the Meeting... Home-To-Home QSO Contacts on 10 GHz (for 10/6/2013)**

QSO'S:

KC6QHP - W6SZ SSB

KC6QHP - N5RF SSB

N5RF - W6SZ partial one way CW, 20 - 25 dB

above noise, no confirm Signal rapport for W6SZ,

no keyer connected at W6SZ.

## **A Bit of SBMS History**

**Ed Munn sent us this picture (May 1960) of Gary Hoffsommer and his daughter Missy on the roof of Gary's house in Corona. Gary was WA6OCC then. He later returned to Kansas and became W0TI.**



**Missy now known as Michelle, became a ham also, AA0OF and is very widely known for her efforts to promote ham radio in her school classes, including contacts with the MIR Space Station and The STS-79 NASA Space Shuttle. They are pictured next to Gary's 3.3 GHz dish antenna with a beer-can polaplexer and a reflex klystron LO.**

# What Our Members Are Working On

- **Dennis Kidder W6DQ (Inyokern)**  
is working on a book and has an actual contract with upfront money which he will spend on guess what.... more ham gear.
- **Walter Clark (Fullerton)**  
gave a talk on Visualizing the Structure of Radio Waves to the Pasadena Ham Radio Club.
- **Doug Millar K6JEY (Long Beach)**  
bought a new 1.2GHz transverter made by Maki Denki. The crystal is a bit off frequency but the rig works fine.
  - He thanked Rein, John, Frank, Bill and others for helping out with the EME weekend. See article below on this month's sidewalk EME.
  - His 1.2GHz power meter talk was given at the MUD conference.



- **Wayne Overbeck N6NB (Tustin)**

is building yet another tower for his tower trailer; this one for a 10 GHz dish.

- **Bill McNally N6MN (Seal Beach)**

is involved with a reverse beacon in the middle of the Pacific. (See article below.) (Wayne Overbeck pointed out that tropo beyond Hawaii is a very worthy challenge.)

- **Jason Sogolow W6IEE →**  
used his two 4' dishes, some rope, a strobe light, some red plastic, and a pasta strainer to make a giant UFO Halloween decoration for his yard on Halloween!

- **Courtney Duncan N5BF**  
worked a few guys on 10 GHz

portable with the AF6NA (Brian's) barstool loaner rig. The rig has now been returned, so N5BF (Courtney) will be QRT on X-Band for a while.

- He participated in the ARRL CW Sweepstakes on HF last weekend, racking up about 47,000 points.

### **Courtney cont.**

- At the meeting he brought up a point about the Mimosa Proposal to take much of the 10 GHz ham band away. That it may not be so bad in that they seem to be very respectful of hams and that they might be good neighbors, as opposed to other possible users. Someone else brought up the point that surplus gear from that commercial band might expand the interest in microwave ham radio. (For more on the Mimosa proposal: <http://apps.fcc.gov/ecfs/document/view?id=7022310834>)
- **Brian Thorson AF6NA (Corona)**  
gave a talk: *"Entering the Exciting World of Amateur 10 GHz"* to the JPL ARC in Pasadena on October 25th, representing SBMS where he demonstrated his first 10 GHz rig.
- **Jerry Mulchin N7EME (Coto de Caza)**  
is working on the beacon support electronics while waiting for the PCBs he designed to be manufactured.
- **Frank Kromann AG6QV (Trabuco Canyon)**
  - is studying HTML programming to get Google Earth into his website.
  - In August his horn broke and since, got a new one.
  - He got new transistors for his 40 watt on 10 GHz.
  - He'd like to find a nearby mountain to improve his Night Before the Meeting... Home2Home.  
Apparently where he lives in Trabuco Canyon is a canyon.
- **Rein Smit K6SZ (Alto Loma)**
  - was out with Brian AF6NA doing testing.
  - He was active on the Night Before Home2Home event.
  - He talked to Tony Long KC6QHP about points to be awarded for the Night Before the meeting... Home-To-Home events. This may increase interest.
  - At the meeting he began a discussion on problems he's encountered (distributing the newsletter) on the SBMS Reflector. Apparently it goes down from time.  
Readers, having problems receiving the newsletter should contact him direct per email. [rein0zn@ix.netcom.com](mailto:rein0zn@ix.netcom.com)
- **Pat Coker N6RMJ (Lake Los Angeles)**
  - is moving his 1296 to a bigger tower, some 70 feet high.
  - He borrowed the HF part from Larry and will talk to John Oppen about a power supply for his hf amp.

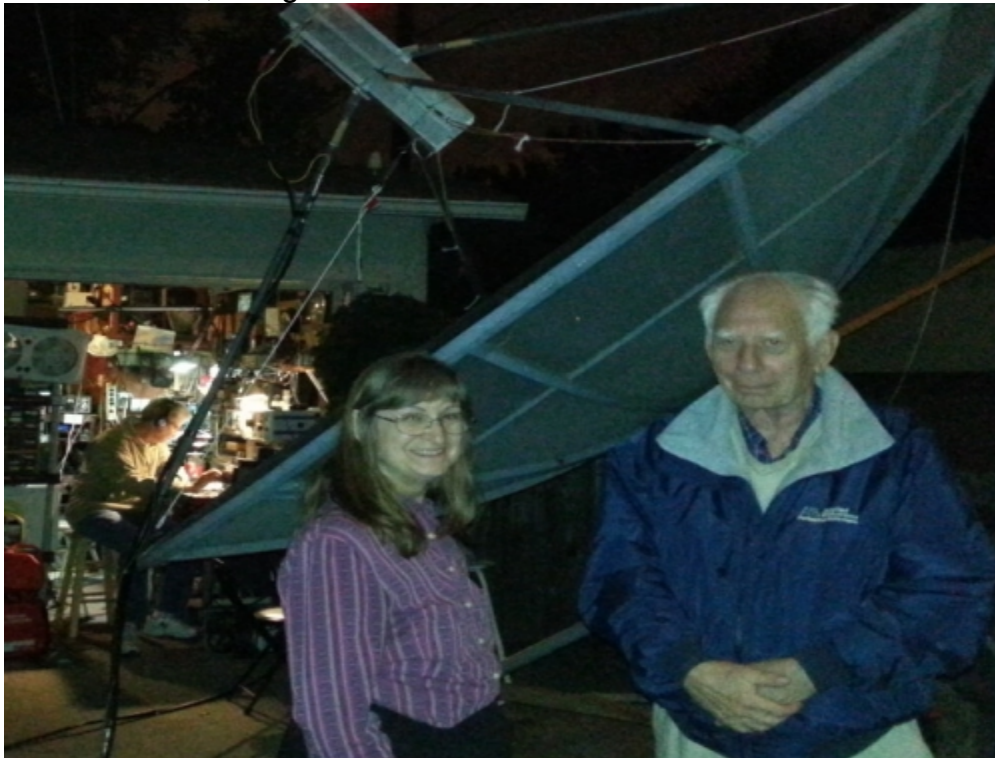


## Sidewalk EME at Doug's

Here's Doug at the controls of his mighty TS790 and GS15b amp



Helen KI6LQV, Doug's wife and Rein in front of the dish...



**Here's Doug's report on the November part of the ARRL EME contest on 1.2GHz.**

We were "on" for both nights and had about a dozen people here helping and learning about EME. My thanks to W6SZ, KJ6HZ, K6PF, and N6EV as operators. We worked 1NDP 589, SV1BTR 589, IZ1BPN 559, and OE5JFL 569. Signals were better the second night due to some rig adjustments. We were running about 275 watts and a .2db NF into a 10foot dish. The second night we replaced the TX cable and readjusted the feed. On RX signals were much better. We had most stations 15db out of the noise. It was great to have so many people over helping. Rein used his computer on my FunCubeDongle for band monitoring and it worked very well off a splitter from the preamp. In fact it was amazing. I strongly suggest it. Sensitivity was excellent and there was a direct frequency readout. We could also see the entire EME band. We are going to enter a couple of the contests this spring and will put out an invitation for participants.  
Doug K6JEY

A close up of the business end of the communications link with the moon



## Kwajalein Atoll Reverse Beacon Project



Verdes.

Bill McNally, N6MN, has contacted a friend on Kwajalein Atoll who is willing to assist in setting up a 144 MHz reverse beacon to explore VHF propagation with the objective of extending the current distance records on VHF and higher bands.

The ham shack on Kwajalein now has antenna masts, power, internet connection and a climate controlled building. Kwajalein is located at 8deg 44min N lat & 167deg 44min E long and is 4137km (2570sm) from Hawaii and 7989km (4964sm) from Palos

---

## Members and Guests Watching on line by way of Gary Heston's ATV Mobile Studio

Don Hill KE6BXT reported to us his work on mesh nodes.

This is of current interest to the members because the commercial hardware at 2.4 GHz can be converted to ham bands. Don reported that the holes in the mesh network he is involved with are so large that there is no traffic. They desperately need more nodes.

Rein reported some bad audio from the guys on ATV and Don discussed the problems during the meeting.

Here are the call signs that were in the BATC Chat room

K4QF  
KE6BXT  
KE6ZC  
N8DEZ  
W6QIW  
WA6EJO



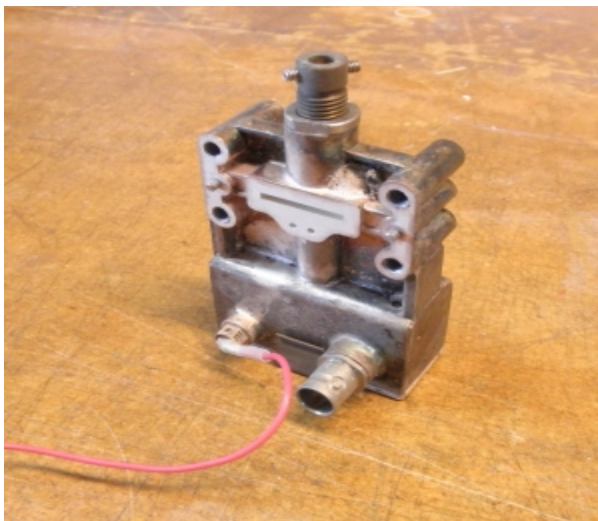
## Upcoming SBMS Meeting Tech Talks

- **Jan.** Dennis Kidder: History of Receivers part 2
- **Feb.** Marty Woll: Contesting techniques.

For information on other events... see "Activities" in the SBMS website, which, you should have memorized by now

- Google then SBMS
- click on our website
- then Ctrl-F Activities

### Microwave Mystery Device of the Month



## Needs, Wants and For Sale

**For Sale:** 30w 1296 MHz PA kit \$50 + \$5 for US shipping Chris Shoaff, N9RIN  
cshoaff@yahoo.com

**For Sale:** 10 GHz slotted waveguide antennas \$55 kit, \$80 assembled plus  
shipping Dan W6DFW [W6DFW@apex-scientific.com](mailto:W6DFW@apex-scientific.com)

**Need-** HP 8694 8-12 GHz sweeper plug-in for 8690 main frame Chuck WA6EXV  
760-382-0709

---

## Member Ads

### Kits Made by member KL7UW (Sixty North Electronics)

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)!**

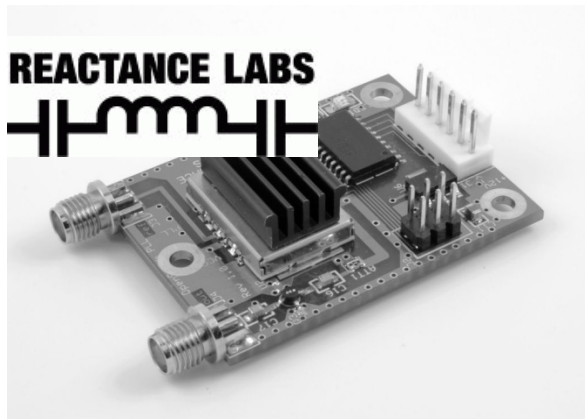
Shipping for a transverter is typically that of medium-size flat-rate Priority Mail anywhere in the USA.

Contact him at [kl7uw@acsalaska.net](mailto:kl7uw@acsalaska.net)

See examples of his work at <http://www.kl7uw.com/kits.htm>



## Member Ads Cont.



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>

## 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](mailto:bburns@mediacombb.net)

- 24 hour clock 12 inches diameter \$10
- 8 watt 5 GHz TWTs with power supply \$50 each
- Majestic tripods with Az/el head \$50 each
- 75 ft extension cord 3/#12 wire free
- 50 ft extension cord 3/#14 wire free.
- HP 410B multimeter with RF probe and manual free.
- Copper wire enamel coated #14 many feet coils \$10 each.
- Bencher BY-1 Iambic paddle key new in box was \$135 now \$90
- Logikey K-3 Keyer was \$100 now \$50
- 1 reel of 3 twisted #12 copper coated steel cable about 500 feet free
- 7 inch Reflecting telescope with tripod was \$100 now \$80

## 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](mailto:walterClark@roadrunner.com)

**Website: Rein Smit:** [rein0zn@ix.netcom.com](mailto: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.

## **Contact San Bernardino Microwave Society (SBMS)**

### **President Chris Shoaff, N9RIN**

2911 Calle Heraldo San Clemente CA 92673 phone: 949-388-3121

email: [cshoaff@yahoo.com](mailto:cshoaff@yahoo.com)

### **Vice President: Chuck Swedblom, WA6EXV**

PO BOX 605 Ridgecrest, CA 93555 phone:

email: [chuckswed@juno.com](mailto:chuckswed@juno.com)

### **Recording Sec Walter Clark**

824 Valley View Fullerton CA 92835 phone: 714-882-9647

email: [walterclark@roadrunner.com](mailto:walterclark@roadrunner.com)

### **Corresponding Sec Jeff Fort, KN6VR**

10245 White Road Phelan CA 92371 phone: 909-994-2232

email: [jnjfort@Verizon.net](mailto:jnjfort@Verizon.net)

### **Treasurer Dick Bremer, WB6DNX**

1664 Holly St. Brea CA 92821-5948 phone: 714-529-2800

email: [rabremer@sbcglobal.net](mailto:rabremer@sbcglobal.net)

### **Newsletter Editor Walter Clark**

824 Valley View Fullerton CA 92835 phone: 714-882-9647

email: [walterclark@roadrunner.com](mailto:walterclark@roadrunner.com)

### **ARRL Interface Frank Kelly, WB6CWN**

PO Box 1246, Thousand Oaks, CA 91358 phone: 805 558-6199 [mailto:wb6cwn@gmail](mailto:wb6cwn@gmail.com)

### **W6IFE License Trustee Ed Munn, W6OYJ (call sign for club beacons)**

6255 Radcliffe Dr. San Diego, CA 92122 phone: 858-453-4563

email: [remunn@earthlink.net](mailto:remunn@earthlink.net)

### **Lab manager Dave Glawson, WA6CGR**

1644 N. Wilmington Blvd Wilmington, CA 90744 310-977-0916

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

### **SBMS Website Editor Rein Smit W6SZ**

8333 Pumalo Alta Loma, CA 91701

email: [rein0zn@ix.netcom.com](mailto:rein0zn@ix.netcom.com)

### **Webmaster Dave Glawson, WA6CGR**

1644 N. Wilmington Blvd Wilmington, CA 90744 310-977-0916

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