



**Still worth thinking about**, but now a month old... the idea of making microwave contacts from the house rather than roving. Pat Coker suggests the name "activity night" instead of net or round-table. One thing he would like emphasized is the need for a coordination / liaison freq, something in the 440 band either the WA6CGR 445.500 or Cactus 440 System. We are too spread out. Without that it will not work

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## **Tech Talk at the May Meeting**



Mel Swanberg WA6JBV gave a very interactive talk on ruggedizing your ham rigs. and interferometry.

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

- Charles Cooper N5RJK (from Sarasota FL, now in Cerritos) His occupation is consultant for FM and TV stations having to do with frequency management.

## **Members and Guests by Way of ATV at the May Meeting**

- Don Hill checked in and said that early in the meeting there were 8 watching with call signs and 4 without.
- Robbie checked in by way of audio.

## **Important Points of the May Business Meeting**

- Tune Up Party has all the permission slips and on schedule for 27 July, in Newport Beach
- Tom Board is helping a widow with a ham equipment estate sale.
- Progress on the 24 GHz Beacon (to be mounted on Johnstone Peak)

- Mel built the synthesizer and has a 1 watt amp he will donate.
- There needs to be more work done on the beacon and Chris will contact Dave Glawson about doing that.
- Mel also volunteered to be the installer at Johnstone Peak

- **The OVRO Beacon/EME Project**

**The important news is that we were kicked out of OVRO**

- **Doug** talked to Mark (our contact to OVRO) about our being kicked out. It has to do with a new administrator who wants no transmitting of any radiation there.

- **Plan B**

**Chuck** is offering the dish and mount that is at his house (used for testing his other equipment.) for club use. 10 foot, 30 watts of X-band. It might be appropriate to review the purpose of the original OVRO project.

- **EME with visiting operators**
- **Beacon to the world using the moon as the reflector**
- **EME remotely operated**

- **Plan C**

**Dennis** is developing a 10 G EME and is offering a similar sort of use. He has offered its use to the club.



- **John Oppen** offered his services for designing and building the remotely operated.

- **Doug** reminded us of the June 8th open house there for the Kilometer Array. He is also hosting a star party there that night.
- **2 Available Dishes; Ten Footers**
  - Rein and Jeff Forte drove out to photograph two dishes that were offered to SBMS. The two dishes were free for the taking.
  - Chuck pointed out the uselessness of the mounting structure.
  - Mel will contact Robin about contacting the owner to politely decline the offer.

## Members and Guests on the Aether

- Only Robbie was connected and that was audio only.
- Don Hill reports that there are 8 with call signs watching and 2 without.
- Later Don reported that he bought a \$300 pan and tilt for general use and has been helping the city of Mission Viejo with their 2.4 GHz communications link.

## What Our Members Are Working On

### Ed Munn W6OYJ

reminded us of the 2 GHz and up contest. Kerry N61ZW (San Diego) heard Tony's beacon in Redondo Beach. Craig is working on an N-Wave kit on 24 GHz (a couple of watts) And Ed himself is learning JT65.

### Wayne Overbeck, N6NB

is setting up six 10-band rover stations for the June VHF contest and offered to set up an additional station for someone who would be willing to participate in this



DXpedition. Marty Woll, N6VI, is organizing a large multioperator team for the contest on Frazier. Here's a photo of a group of rovers during a previous contest.



**Mary Woll N6VI**

reminded us of the microwave "sprint" on Saturday morning May 4. It's 902 MHz and up mini-contest, only a few hours in duration, and of the 2 GHz & Up contest taking place the same weekend. Both events use distance scoring based on six-character grid locators.

**Brian Thorsen AF6NA**

is still talking about what happened before his presentation to the Fullerton club last month. It was a spontaneous "from home" microwave event. This could be the start of a whole new aspect of the SBMS. Contacts from a ham rig that is in the house! What a concept. The following Wednesday he organized another from-home event where 9 people found each other.

Brian received in the mail an invitation to evaluate a signal generator. He is making sure it is working OK, then in a few years, he will pass it on to the club to be part of the lab or perhaps as a money raising raffle.

**Rein Smit W6SZ and Jeff Fort KN6VR**

did the field trip to the two offered antennas. They found each other at the Wednesday from home event and still raving about how much fun it was.

**Pat Coker N6RMJ**

has his 10 GHz omni on his 55' but only talked to his neighbor Larry.

**John Oppen**

doing welding on the mount for his 10' dish and was very inspired by the Wednesday from home event.

**Jason Sogolow W6IEE**

is reading up on PLLs and working on marrying LNBs and dongles. He was able to see the Santiago Beacon but not Tony's

**Doug Millar K6JEY**

showed us a new 9KHz to 1.5GHz spectrum analyzer made by Rigol. It is an excellent mostly digital analyzer. He's still working on the IF interface for his Elecraft KX3.

He has a DEM low power transverter to change 2meter signals to 10meter signals so that he can use a 10meter HF rig for an IF radio for his microwave transverters. He is installing a PLL board and TCXO to make sure the transverter

doesn't add to instability.

**Doug cont.**

Mel helped work on his broken Tek 494 analyzer. It was finally repaired and is working ok. The external display via laptop and its additional processing and image storing are a big part of the deal. The Rigol 815TG also has a tracking generator. First rate piece of gear. Frequency conversion via external osc/mixer extends the range.

**Bill Burns WA6QYR (Ridgecrest)**

had surgery and getting better all the time.

**Bill McNally**

His 1296 is working and with Dough went to Inyokern to pick up some S band waveguide. He saw a Tradex L band tracking station.

**Dan Welch W6DFW**

is still working AMSAT parts and found some more 10 GHz antennas to sell.

**Courtney Duncan N5BF (La Canada)**

he had a long (1/2 hr) QSO on 1296 with N8DEZ. "Rag Chewer's Club"



He was in San Louis Obispo talking to people at the CubeSat Workshop (10th Annual) in late April. Courtney reported later than many of the modern CubeSats (dozens) are coordinated into the amateur satellite 437 MHz band regardless of their level of amateur radio emphasis because it is easy to do. This issue is being worked by regulators. Other amateur frequencies including 2.4, 5.8, and 10.5 GHz are sometimes used for downlinks, offering ground reception opportunities.

This is not usually given as an "of by and for amateur radio" history like the AMSAT one. The dimensions on the CubeSat pictured here: 10x10x10 cm. A history of the whole CubeSat "movement" is at:

<https://directory.eoportal.org/web/eoportal/satellite-missions/c-missions/cubesat-concept>

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## SBMS Contest Coming UP

Please send your club log sheets for the SBMS 2 GHz and Up contest to Bill Burns WA6QYR [bburns@mediacombb.net](mailto:bburns@mediacombb.net).

You should be working on your rig for the Tune Up Party.

July 27<sup>th</sup> Fairview Park

2501 Placentia Ave, Costa Mesa, CA 92626.

(South of Adams, west of Harbor.)

For more on this event... see "Activities" in the SBMS website. You should have it memorized by now. . .

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

## Upcoming Meeting Tech Talks

**July 4 SBMS meeting**-Beginner microwave talk for other clubs. Dennis, W6DQ will show us how to do such a talk.

**August 1 SBMS meeting**- contest preparation

## Wants and Gots for sale.

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

**Want-** an X-band plug-in for HP8620 sweeper. Bill WA6QYR [bburns@mediacombb.net](mailto:bburns@mediacombb.net)

For Sale- Pre-estate sale- Ask Bill what you are looking for and he may have it for a good price.

Bill WA6QYR [bburns@mediacombb.net](mailto:bburns@mediacombb.net)

Bill is also offering for sale and in some cases given away:

Solar panels 12v 12 inches by 24 inches free.

40 meter vertical \$5

Butter-nut 4 band vertical \$20

Homemade 6 meter j-pole ½ inch copper pipe \$15

4 homemade 220 MHz 9 el beams- free

**More Items Available from Bill Burns**

Cushcraft 220 MHz 7 el beam \$20

2 Cushcraft two meter 11 el beams \$30

2 meter 13 el beam \$15

Many 920 MHz 9 el M Squared beams less feed \$5 each

Homemade 2 meter 5 el cross polarized satellite beam \$10

Cushcraft 440 MHz 9 el cross polarized satellite beam \$10

Az/el rotors for satellite beams with fiberglass boom \$20

TVRO dishes 10 ft, 6 ft and 5 ft free

2 motor home motorized Az/el 5 ft TVRO dishes \$10 each

Teco 108-156 MHz helical antenna 4ft long \$10

6ft 19 inch open rack \$5

6 ft 19 inch rack \$5

Andrew LDF-4-50 (1/2 inch 50 ohm) heliax coax cable in 50 to 70 foot lengths \$5 each

Guy wire 3 strand #12 copper plated steel by reel or by coil free

Commercial CB vertical 10 ft long Free

Misc steel plate, pipe and rod free

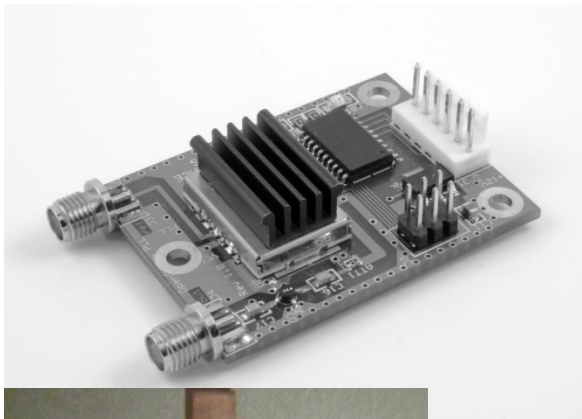
Bill WA6QYR 247 Rebel Road Ridgecrest 760-375-8566 [bburns@mediacombb.net](mailto:bburns@mediacombb.net)



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## Member Ads

**60 degrees North Electronics Company.** I am starting up a kit making service for assembling certain kits made by Down east Microwave. For those that do not want to make their own kits or maybe it's gotten too difficult, or just don't have the time or want assembled kit faster than DEMI can supply it. This one-man business so I will only be able to build a limited number per month. My price is the same as offered by DEMI assembled, plus shipping which should be medium-size flat-rate priority mail in the US. I am expecting to be able to deliver within 30 days of receipt of paid order. Contact Ed Cole: <http://www.k17uw.com/60NE.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>



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

Member Dan Welch is taking orders for the next batch which will be sometime around August; in time for MUD.

## Mystery Microwave Gismo of the Month



### **The prize?**

You get a momentary bit of respect from the other readers of the SBMS

Reflector who know your name. That may not seem like much, but what is a club for, but to allow us show off to each other how much we know.

## **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 car pooling 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.

## **About the San Bernardino Microwave Society (SBMS)**

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