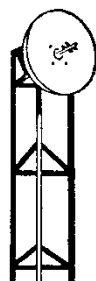


V



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 September 1st Meeting . . .

Will be on the results of the 10 GHz and Above Contest.

**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 of the August SBMS Meeting

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

Presiding: Rein Smit W6SZ

(17 in attendance... 17 last month)

Guests Or Members Not Seen In a Long Time

- Carl Munn, son and guest of Ed Munn W6OYJ, here on summer vacation.
- John Duncan, KG6HCO son and guest of N5BF, just moved back into the area.

ATN Check-ins

None.

Internet Check-ins

9 guests and 7 callsigns, including Brian AF6NA, and Dave WA6CGR who were monitoring from the meeting.

New Business

- Larry Johnston K6HLH moved that we go to a more informal meeting format and not have motions with seconds, just voice votes. Pat Coker N6RMJ seconded. The motion passed. This was intended to remove any remaining semblance of Robert's Rules of Order from SBMS meetings. Interestingly enough, no motion was made, and of course it wasn't voted on and of course didn't pass. Oh well.
- Rein asked if the meeting minutes could be put online, seconded by Mel Swanberg WA6JBD. Courtney Duncan N5BF stated that they were already published in the newsletter monthly (by Walter Clark) which was archived on the SBMS website but they were not maintained online separately from that. Oh well on that one too apparently.

Old Business

- Larry K6HLH asked about the status of the 2304 beacon project?
- Mel WA6JBD stated that he had been very busy lately and that not much new progress had been made.

Announced

Phyllis Kolbly has passed away. The obituary from Barstow, California was circulated. Phyllis was XYL of Dick Kolbly K6HIJ who had been active in SBMS for many years and became SK in 2010. Also, Phyllis had been involved in Microwave

Update organization and support during years when the conference was hosted by SBMS. She would for example be the receptionist at the conferences. Phyllis and Dick's son is also a ham and was seen from time to time at SBMS meetings.

Discussion at the August Meeting about the... August September 2016 10 GHz and Up Contest

The remainder of the meeting was devoted to a group discussion of strategies and approaches to the upcoming August weekend (20-21) of the 10 GHz and Up Contest. Members reported on their own plans, gave anecdotes from past runs as examples and advised each other on locations, approaches, and goals. In addition, there had been recent interactions, facilitated by Brian Thorson AF6NA, with members of other regional organizations such as the 50 MHz and Up club in the Bay Area and the San Diego Microwave Group, concerning regional strategy.

Last year's top scores had been AA6IW with 66k and KD6W with 64k. The bottom top score (10th) was N5BF at 40k. Mel recounted partnering with Bill Burns in 1997 in a well planned and sophisticated rover effort that had resulted in 98k points.

Other points included the opinion that more organization was not needed as much as more people just coming out for the contest. In the past many had come out to work Mexico when it was available. It was also noted that people often deviate from their published plans. Mel WA6JBD will maintain and distribute a list of operator plans this year as before.

Dinner Before the August 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 3:30.

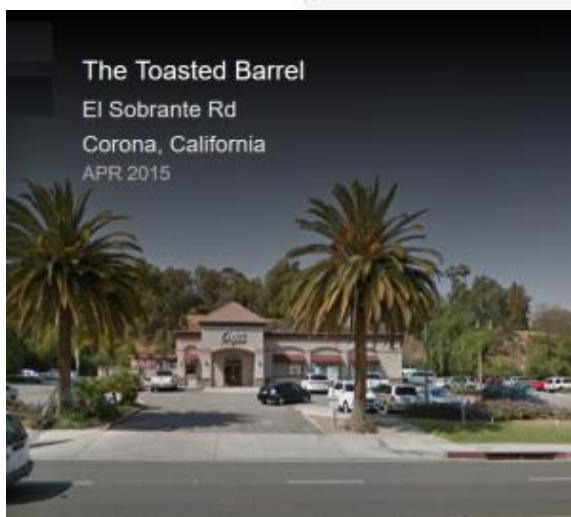


For September it is again Costañeda's about 100 yards down the hill from Sizzler's.

Google Map this:
1340 El Sobrante, Corona

(Sobrante is the street between Sizzler and the freeway.)

Costañeda's is right next door to a restaurant where Coco's used to be. It is called **The Toasted Barrel** and we've been waiting for it to open for months. Any day now; they say.



Upcoming Events

- September 1: SBMS Meeting
- Sept 10-12: ARRL VHF Contest
- Sept 17-18: ARRL 10 GHz & Up Contest 2nd Weekend
- Sept 24-25: ARRL EME Contest – 2 GHz and up
- Sept 24-25: ARI EME Contest – Autumn Section
(144 MHz through 10 GHz)
- October 22-23: ARRL EME Contest –
50 MHz through 1296 MHz part 1
- Nov 19-20: ARRL EME Contest
50 MHz through 1296 MHz part 2

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>

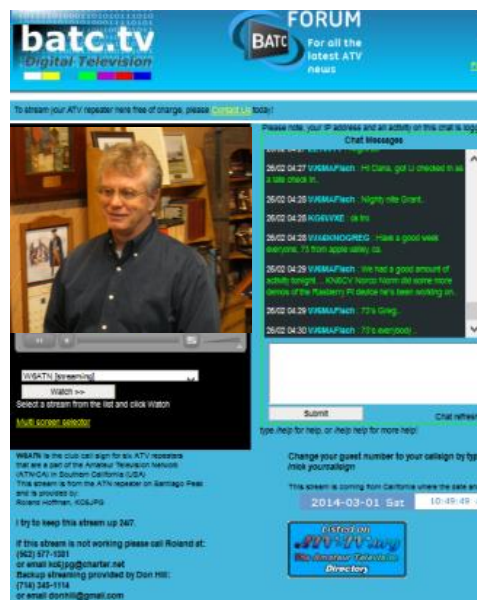
What you will see is this →

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>)

KK6MXP Jim

is still shopping for 10 GHz components, waiting for the Euro to go down against the dollar to lower DB6NT prices. Is also researching sequencers.

KN6VR Jeff

said his VHF tower is now horizontal. Alas. Working to swap dishes for the contest.

Bill N6WL

has arranged to use the SBMS loaner rig to activate Baker, CA for the contest.

N6TEB Glenn

is working on things in his truck, motion sensors, a stand for mounting the rig for roving. Wondered if there was any point in doing WSJT mode on 10 GHz. Pat N6RMJ replied that there was; that some contacts were made each contest on WSJT modes.

WA6JBD Mel

talked to a guy in the UK about calibration kits for his Vector Network Analyzer last month. Ordered a custom one (to 13 GHz) that shipped yesterday. It comes with NIST traceable data for the calling frequencies 10.368 GHz down to 50 MHz. Not operating in August due to his son's wedding August 20 but plans to be at Potosi in September.

N6RMJ Pat

is working on 10 GHz equipment. His original Lazarus DB6NT rig is working at 45-70 mW and receives. Plans in August to start in northern California and work back this direction.

W6HLH Larry

said his tower is still down and has made a boom for his dish. He may continue work on this next week if it's not too hot, or use welding gloves to handle things. He will operate from home in August if he's back on in time.

W6SZ Rein

said his rig blew over at the tuneup damaging potentiometers on his 870. Yaesu had replacements and he is working to install them. He has been active with Brian AF6NA and Dan Slater AG6HF doing some focus measurements.

WB6DNX Dick

is waiting for the city of Brea to get him into the pump room to work on a repeater up there. Will be at Chino Hills in August if his 10 GHz radio is working.

N5BF Courtney

has half the mesh on the 1296 EME dish. Coordinating the fall EME season with his daughter Katherine's (KG6HUI) Wedding in September. Worked over the 10 GHz rig, fixed everything, tested, same performance as before. Beacons: Santiago good. Frazier heard. PV off frequency. Brought it to the tuneup. Plans to rove with KG6HCO up 33 and down 99 on the August weekend.

KG6HCO John

plans to be shotgun for Courtney N5BF in August.

W6OYJ Ed

has a couple of surgeries planned right near both contest weekends. Still hopes to work from Soledad in September (lives 2 miles away). San Diego group met a week ago. Seven will be out for August weekend. Will report to the reflector.

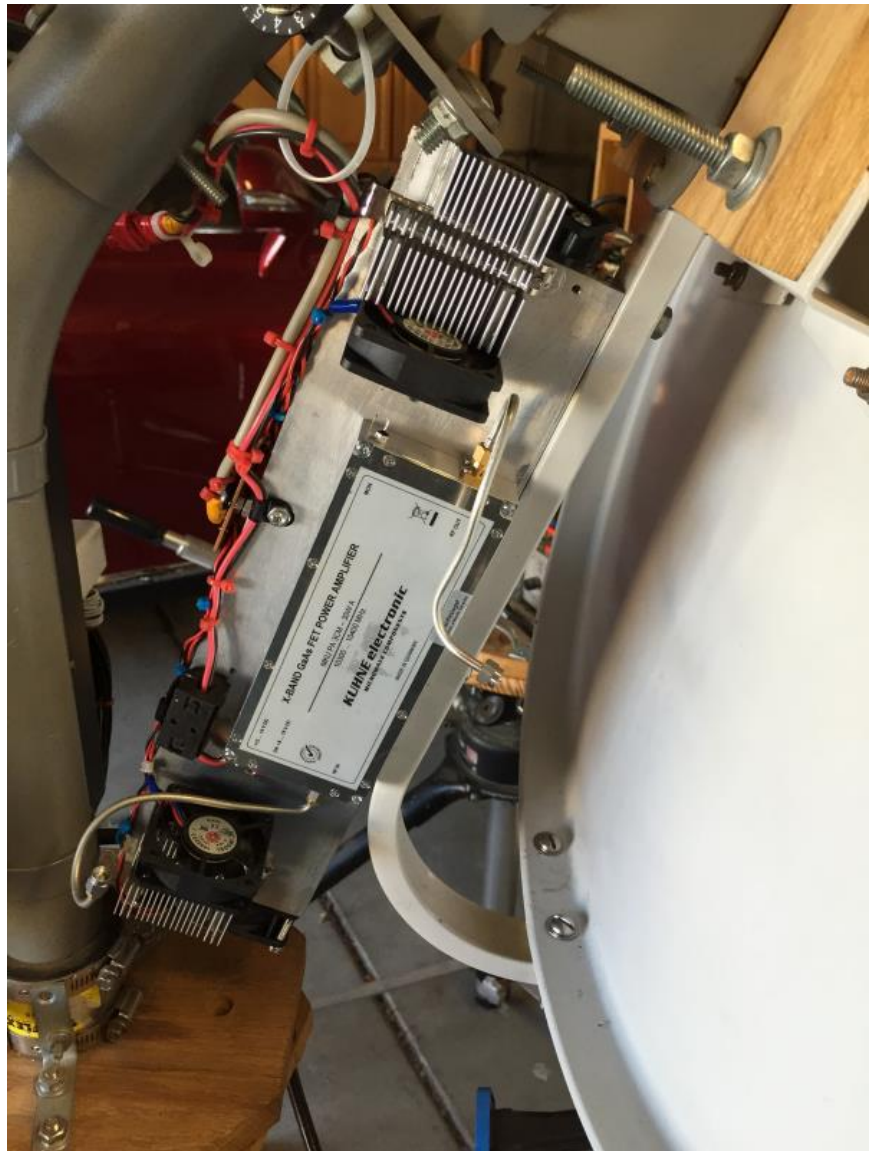
Walter Clark

didn't have anything microwave to report, but was just then on the phone with someone who reported that Roland Hoffman's (KC6JPG) audio setup was never better. (This is with the fixed mics instead of handing them around.) And he reported that the picture quality was excellent too.

Brian Thorson AF6NA

has mounted his Kuhne DB6NT amplifier

Meeting Notes
Courtney Duncan
N5BF



The August Otay Mountain Group Report

by Dan K6NKC

This was a joint SDMG and SBMS effort. There was Jerry K6DYD, Dave WB6TFC, Brian AF6NA, and myself. Collectively we had 14.5 feet of dish, and 80 watts at 10GHz.

We were on the hunt for DX. Otay is uniquely situated geographically. The mountain is 3500' ASL and is very close to the Mexico border. Looking at a map, if you extend a line from Otay to Frazier, it roughly follows Interstate 5 into the San Joaquin Valley. That put the SJV rovers, and the Bay Area hilltops in our sights!



We peaked our rigs on the Frazier beacon, initially, then tried to detect the SJV rovers as they worked Frazier. We heard them frequently on band peaks, but lost them several times in the noise as well.

Callsigns started making their way into our logs as the higher powered rovers, N6RMJ, N5BF, and KG6HCO, headed south from Los Banos. With their larger 30" dishes fueled by their 7 and 10 watt amps, we were able to work them in CM96 southward. As always, worked Kevin AD7OI, Robin WA6CDR, and Dave WA6CGR with ease. Thanks for the Q's guys!

Sunday was a half day for most of the Otay group. We worked N6RMJ and N5BF at every stop. KE6HPZ, N6TEB, and K6WCI made an appearance at DM05ra. Mid-afternoon, Jim N9JIM was worked via SSB in CM96wg. Jim was worked 3 more times into the evening.

Working Vaca had been a goal of mine ever since watching Kerry N6IZW complete a Mt. Soledad to Mt. Vaca 10GHz QSO over 15 years ago. All weekend we listened for the Mt. Vaca beacon at 10368.325, but no joy. From Otay, its heading is the same as Frazier. Last September, the Vaca beacon was in to Otay much of the contest weekend, albeit faintly. Not bad for $\frac{3}{4}$ W into an 11dBi slotted waveguide omni.

Around 7pm, N6RMJ contacted K6ML on Vaca, via CACTUS. As Mike K6ML sent carrier to Pat, I found his signal! It was S2 at that time. Mike was running a 24" dish with 10W on 10GHz.

After he finished his QSO with N6RMJ, sent carrier back and forth while we peaked our dishes. As we did, signals dropped into the noise. I locked my tripod down. Over the next hour we tried several times.



Conditions finally improved and I asked, via liaison, for Mike to call me on 10GHz. His signal was s2 – s3 and was experiencing the benefit of a band peak. Unfortunately he was sending CW. I excitedly got on CACTUS and shouted, “Your call, send me your call!” To which his reply was, “ I am. Are you receiving my CW?” My response, remember the band peak was fading, “ Uh, we don’t do that (CW) here!”

It took a minute, or two, maybe three, but we copied each other’s info on SSB. K6ML and the Mt.Vaca 800km QSO was in the bag, Mike announced on CACTUS that 800km was his personal best on 10GHz. Happy to oblige, and SSB to boot!

Hope to work y’all during the September weekend of the 10GHz and Up contest!

73,
Dan K6NKC

September 2016 10 GHz and Up Contest Final Configuration

Mel Swanberg

Call	Name	Notes, location, frequencies
WA6JBD	Mel	Potosi, 10G 4' dish.
WB6NOA	Gordo	Signal Peak, both days.
AD7OI	Kevin	DM14OQ (Ord Mtn) Sat. AM, then to Frazier (DM04MS) if room there for Sat. PM. Several stops on Sunday on way home. With new op Mrs. AD7OI (new call pending)
N6WL	Bill	Turquoise Mtn. (115 east of Baker) Sat only.
N5BF	Courtney	Frazier in some form, probably both days. 10 GHz, 10 W, 30 inch
N6RMJ	PAT	Probably the high desert. Maybe a little of LA, still TBD by activity in So. Cal. 10GHZ 7W 30" dish
K6ML	Mike	Frazier both days & nights, 24" 12W 10G / 3W 24G
N6NU	Andreas	Frazier both days & nights, 30" 10W 10G / 500mW 24G
AD6FP	Gary	Bald - CM88WS, both days, 10 & 24 GHz

Notes:

Please format submissions as in the examples here.

As usual, this list is a work in progress. I will provide frequent updates as information is provided to me.

Cactus liaison information is available by request. Send requests for information or updates to

wa6jbd@verizon.net

Remember to bring your CW keyer!

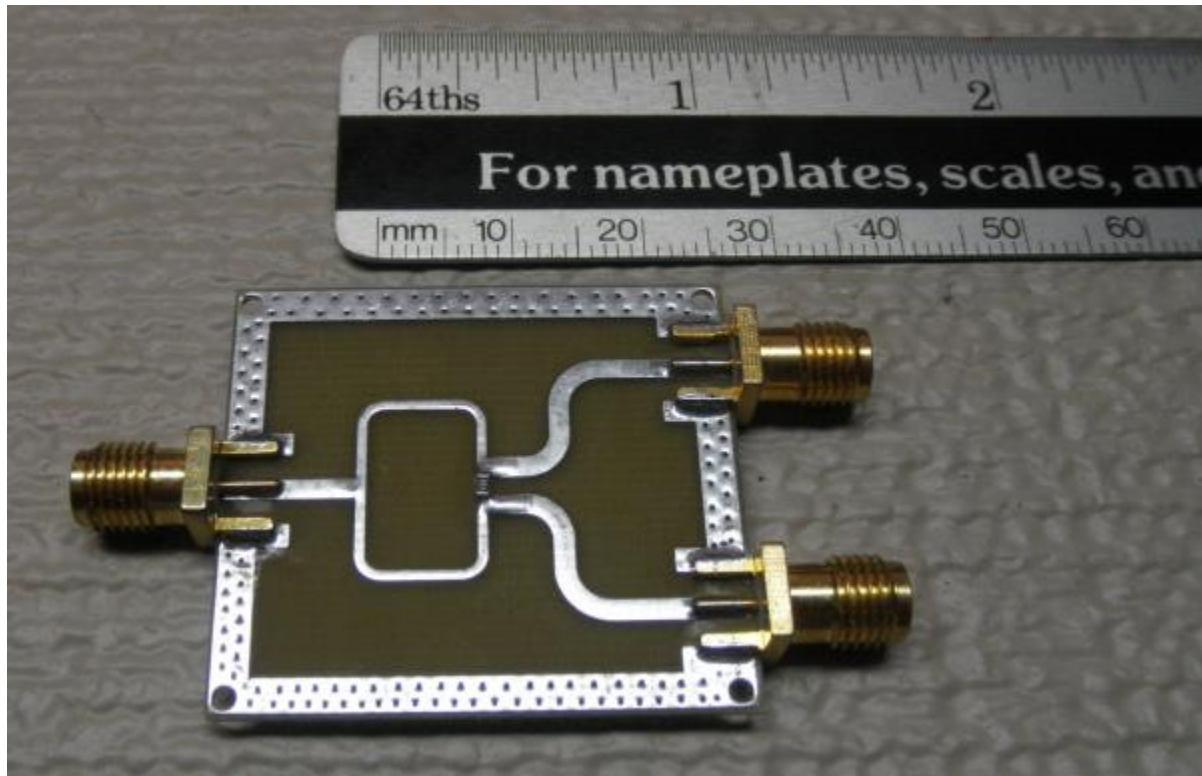
Beacons:

Mt. Leeson	KF6KVG	10367.990MHz, 24191.975MHz, 47087.99, 79920MHz,
Mt Allison	AD6FP	10369.192MHz, 24192.01MHz, CM97bl
Mt Vaca	W6ASL	10368.325MHz, CM88wj
Mt Frazier	N6CA/B	10368.3101MHz DM04MS
Palos Verdes	N6CA/B	10368.300MHz, DM03TS . <--- Off the air!
Santiago Peak	AF6HP	10368.330MHz, DM13FR
San Diego	K6QPVB	10.368360GHz, DM12MQ
Bear Mtn	W6BY/B	24191.990MHz, IDs as DM07ic, actually in DM06ir
White Tanks	W7ATN	10368.370MHz, DM33RN

California and Arizona Microwavers Note....

Email to Mel Swanberg at wa6jbd@verizon.net to be included in the list. This list will be updated on the SBMS Reflector. If you're not signed up on the Reflector, you can request that it be emailed to you directly by notifying Mel at the above email address.

Microwave Mystery Gizmo of the Month



This is too easy, so instead of a hint . . .

**You get extra credit for calculating the frequency. Show your work.
(Camera angle is 45 degrees.)**

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

SBMS at-symbol lists.altadena.net

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

sbms at-symbol ham-radio.com

Last Month's Tech Talk



Only bigger, and explained →

It was the results of the tuneup and planning for the 10 GHz and Above contest.

It looked something like this:

10 GHz Result

[illegible]

FPLS = Free Space Path Loss
 ISM® = Institute of Electrical and Electronic Engineers, Standards for growth studies
 Mount ISM® = Building & Space Loss = 15 dB Free Loss - Antenna Gain (dBi) (Range Gain)
 Ant Gain Calc = 10 + 10 log (P) + 10 log (R Squared) + 10 log (4 pi) (1000000 Squared)
 ISM® Signals Generated @ 144 MHz with 100 W / 100W Signal Generator
 ISM® Power = 10 dB Gain Output - Ant. Gain - PWR Loss
 Spectrum Losses = Free Space Losses / Radiation Loss = 200 dB, Cable Loss
 F. Path Loss = 27.5 dB / 10 dBi Gain in 100W OFC (Free Mhz)
 100 W, Cable Loss = 27.5 dB / 2.5 dB / 144 MHz
 Open W, 100 W Gain returned to the 10 dB

24 GHz Results

BANKS BIRP: MSN TYP: Up										Sat JULY 01/98		Sheet 1	
34 040		Banks - 325 FL		Banks Lenses - 21.0 08		BIRP Flange - 0 08		0 08					
		TYP: 34.0 08		BIRP Imp Comp - 30.0 08									
BIRP TEST													
Reference	Unit	Unit	Unit	Unit	Unit	Unit	Unit	MSR TEST					
Refers to	Size	Size	Size	Output	Input	Output	Input	MSR	MSR	MSR	MSR		
Calculus	Unit	%	Unit	Unit	Unit	Unit	Unit	Conditions	Unit	Unit	Unit		
BANKS	BANKS	BANKS	BANKS	BANKS	BANKS	BANKS	BANKS		BANKS	BANKS	BANKS		
WINDUP	34.0	0.05	0.1	20.0	11	27.7	10	-0.8	IMPROVEMENT	71	70		
RELAY	34.0	0.05	0.1	27.0	12	30.0	10	-0.8	IMPROVEMENT	71	70		
									IMPROVEMENT	71	70		

[illegible]

Needs, Wants and For Sale

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 (as of Sept 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@symbolgmail.com, directly. 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

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>

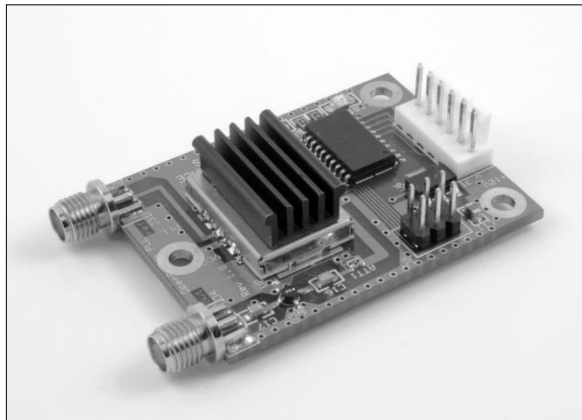
For examples of his work click on... <http://www.kl7uw.com/kits.htm>



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).***

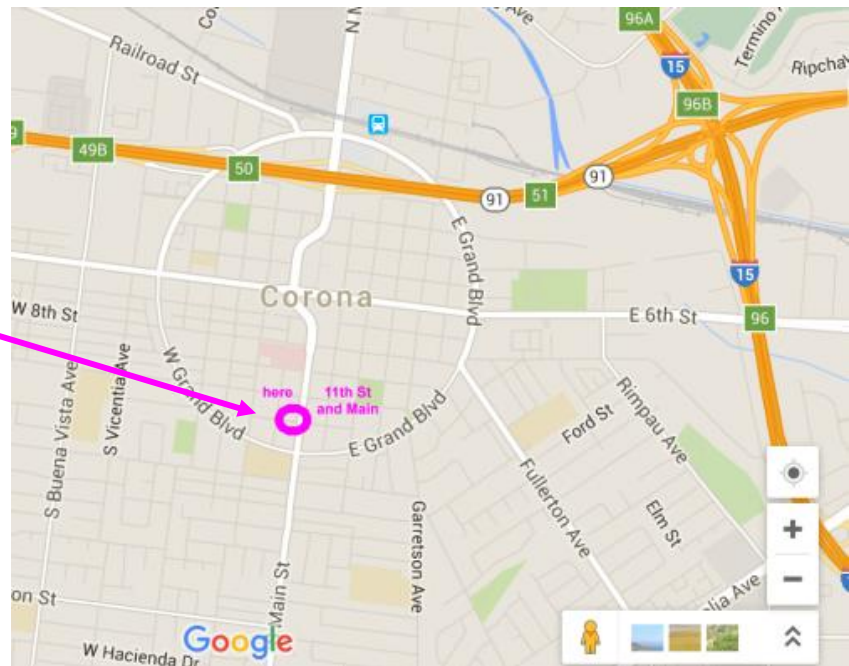
Official Address

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.

**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

Contact San Bernardino Microwave Society (SBMS)

President Rein W6SZ

8333 Pumalo Alta Loma, CA 91701

email: rein0zn at-symbol ix.netcom.com

Vice President: Brian Thorson AF6NA

7467 Country Fair Dr Corona, CA 92880 phone: 909-226-2015

email: brianaf6na at-symbol gmail.com

Recording Secretary Courtney Duncan N5BF

4402 Rockmere Way

La Canada, CA 91011 phone: 818.957.8455

email: courtney.duncan.n5bf at-symbol gmail.com

Corresponding Sec Jeff Fort, KN6VR

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

email: [jnfort at-symbol Verizon.net](mailto:jnfort@symbol.verizon.net)

Treasurer Dick Bremer, WB6DNX

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

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

Newsletter Editor Walter Clark

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

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

ARRL Interface Frank Kelly, WB6CWN

PO Box 1246, Thousand Oaks, CA 91358 phone: 805 558-6199

mailto:[wb6cwn at-symbol gmail](mailto:wb6cwn@symbol.gmail)

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

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

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

Lab manager Dave Glawson, WA6CGR

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

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

SBMS Website Editor Rein Smit W6SZ

8333 Pumalo Alta Loma, CA 91701

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

Webmaster Dave Glawson, WA6CGR

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

email: [wa6cgr at-symbol ham-radio.com](mailto:wa6cgr@symbol.ham-radio.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](mailto:walterclark@symbol.roadrunner.com)
- Time sensitive questions, reports or just plain bragging is for the SBMS Reflector. Send your email message to: [sbms at-symbol ham-radio.com](mailto:sbms@symbol.ham-radio.com). To sign up go to: <http://lists.altadena.net/mailman/listinfo/sbms>