

BISHOP AMATEUR RADIO CLUB meeting minutes, September 10, 2013.

Club shirts handed out to purchasers by Kurt (W6PH) beginning prior to 6:30 PM.

Meeting called to order by President John (AD6NR) at 7:06 PM. Agenda sheets for the night's meeting were handed out, and an announcement about the availability of BARC shirts.

Self introductions yielded 18 members, plus Bill from Wilkerson, and Knute (who was interested in two way radios for his military vehicle restorations).

Other announcements:

Saturday September 21 is scheduled BARC breakfast get together at 9 AM followed by transmitter hunt beginning at 10 AM.

The Sunday morning net starts about 8 AM, around 3.985 MHz.

Treasurer's report given by Bob (N7RAP):

SCE power bill had not arrived by the time of the meeting.

Addition of \$85 income resulted in Checking balance of \$1,361.66. Capital fund balance of \$1,665.28 after \$11 from 50/50 drawing and a \$6 donation by Randy (N6BXP). \$1,011.38 in savings.

Kurt made motion to combine bank accounts. Our treasurer was directed many years ago to distinguish between regular dues donations and funds dedicated to site improvements. That adds to the treasurer's work load and can be confusing to club members. Motion was approved by voice vote with no nays.

No 50/50 raffle tonight, tickets left at home.

Greg (KJ6KO) gave a recap of .94 site troubleshooting earlier that day:

23dB noise floor at the site – noise that could not be tuned out by a duplexer. Don Nelson (radio tech for the commercial building) joined our crew in the noise tracking, allowing access to the nearby commercial building. Another radio tech working in the DWP building allowed Greg to snoop for noise there. Don shut off equipment in the commercial building until everything had been cycled. It made no significant difference in the site noise! Using a directional antenna, Greg noted that the interference was radiating from all of the buildings. Inside the DWP building showed the strongest noise level, about 80dB above noise floor. The noise was radiating from the buildings (including the shack with the electric meters), not the antennas. Eventually homing in on power feeds to the buildings, noise was much stronger at the transformer substation near the base of the peak. It increased further as they moved east along the power lines toward White Mountain Road. If the change in interference levels could be monitored during a power outage, a lot more information could be obtained.

As for the .94 repeater, a narrow band pass filter (such as the DCI brand product) should help. One problem is a signal mix that is sending part of the .94 transmitted signal back into the .34 receiver. This mix is probably from an out of band signal (outside the notch reject region of a duplexer). That mix would be stopped by a proper band pass filter by preventing the out of band signal from entering and modulating our .94 transmitter output.

The power lines need to be checked for noise generation with the proper equipment. Kurt (W6PH) has donated suitable equipment to BARC. SCE has a crew with radio frequency interference testing capabilities, probably based in Los Angeles. John is going to review a recent e-mail he was sent by SCE to see if it might have information related to the interference problem. It would really help to have the problem location identified (pole number?). Installing a bandpass filter on the .94 repeater

should be a high priority, as well as a proper circulator. These items are standard equipment for most radio site installations.

Jon (NW6C) was selected to contact SCE regarding the interference, preferably by tomorrow. John and Terry (AG6RU) agreed to use the power line tracking equipment to check out the Silver Peak lines by this coming Saturday.  
New duplexer purchase?

John on actions needed for .94 improvement:

\$290 is the price he was quoted for a DCI brand band pass filter. This filter should be a higher purchase priority than the duplexer. The duplexer in service now is being provided by John and checks out as more than adequate for its service on the .94 repeater.

Next priority should be the purchase of an circulator or isolator. These are essentially different terms describing the same device, one with integral line matching load terminators, the other with them added externally. A good isolator is offered by JAG for \$299.

A third item needed for reliability is a backup power supply. This should be added before the site gets snowed in for the winter. \$175 will buy a rugged low noise 30A switcher. Bob (W7WOW) suggested Alinco for the "birdie" mover adjustment as described in a recent QST test. Greg strongly recommended Astron as the standard for low RF noise and proven radio site reliability.

Earl (KJ6AIK) made a motion to have BARC purchase all three items. Motion amended to approve use of "duplexer fund" money for those purchases.

Motion seconded and passed with no dissenting votes.

8:07 PM, program put on by Kurt and Hank (W6SX) regarding the upcoming California QSO Party: "Party" date is October 5 & 6, 9 AM Saturday to 3 PM Sunday local time. The number one rule of this type of contest is to have fun. What is of particular interest to operators here is that everyone will be trying to contact California stations, both within and outside of California! This is the largest and best of the State QSO parties. It is not an ARRL sponsored contest, and is actually sponsored by a local California club. The current sponsor is the "Northern California Contest Club". There are lots of awards available, including the "New Contester" award. Single operators are allowed to work for 24 of the 30 hours. Multi-operator entrants can operate the station for the entire 30 hours.

This is a great time to find an open spot on one of the bands and call CQ. You most likely will have a pile up of stations competing for your reports.

Kurt and Hank had the audience practice some of the operating procedures that would be helpful during the "party".

remark: The above is just a brief summary of the program. More information is available at [www.cqp.org](http://www.cqp.org) Also, Hank has set up BARC as a YAHOO! news group.

Program concluded and meeting ended at 9:24 PM.

Jon, NW6C, secretary BARC.