

BISHOP AMATEUR RADIO CLUB MEETING MINUTES for June 14, 2016. p. 1 of 2.

Meeting called to order by President, John (AD6NR) shortly after 7pm.

Attendance: David Doerr now with call KM6CVR, and Tom Turner now with call KM6CVQ, along with 15 other attendees.

Minutes: Approved as posted by Jon (NW6C) on BARC/N6OV web site, although another R should have been added to Dave's last name.

Treasurer's Report: Terry (K6UN) had printed copies. Income of \$25, expenses of \$43.33, leaving a combined total of \$1,798.60 in account.

Main Topic, Cactus Intertie: John, Kurt (W6PH), and Jeff (AA7GK) explained and updated the Club on this radio system. A meeting had been held Monday (the day before the Club meeting) between Mel Sandburg (the president of the Cactus system) and most of the BARC officers and directors. At that meeting Mel explained why this system was needed in the Eastern Sierra, what resources that they could provide, and what would be needed by them. The main objective - emergency communications using linked repeaters in the Amateur 440 MHz band that do not depend on the internet, allowing communications far beyond local public agency radio systems. One map was circulated of this system in Southern California, showing a communications void along the Eastern Sierra. Another map showed the extent of the system, going from California through Texas. System members are the control operators, allowing linking and access as required in an emergency. Because of the complex nature of the controls and the responsibility needed for proper operation, new members must have a positive recommendation by an existing member, and there is a \$140 per year membership fee. John has been a member for many years, although not active since moving to the Valley. Cactus would need one 7 foot tall rack space for their equipment, and because of the expenses involved, expect at least a 5 year facility use agreement. They would be willing to help with the electric bill, and also be willing to provide some facility upgrades that would benefit them and BARC. A motion was made by Kurt to move forward with an agreement. Motion passed with no objections. Without the Cactus group and its influence, chances are the the Air Force would have shut down Amateur operation in the 440 band in California.

Good Old Days at the Laws Railroad Museum: Jim (K6JNX) wanted the Club to think about setting up an Amateur Radio station during this event. In the past, members Grant (W6NTK- sk) and Kevin (W6KN) manned telegraph stations on opposite sides of the tracks, allowing them to send and receive actual messages from visitors. They actually used period equipment, keys and sounders (or clicker-clackers) with landline Morse code. Amateur radio would not truly be a "period" item, but should be interesting. Keith (W6KRF) said that the ShackTeau would be available.

Mono County Radio Rodeo: Paul set up an Amateur Radio station for this training exercise. Band conditions were bad, but he was able to make some out of the area contacts. Of main concern here was to test the interoperability of communications between public response agencies. Lots of problems were identified, both in the equipment and nomenclature. Having radio equipment with the correct sub-audible tones was a major deficiency. A nationwide system for keeping these parameters standard and current is needed. Jeff gave a recent real example of a ground operator not being able to contact a rescue helicopter overhead because the sub-tone information was not up to date. Amateur radio operators have an advantage in the range of equipment, band, and modes, that they can provide that are not available to normal public agency operators. Amateurs in our area need to make the responding

agencies aware of these capabilities and provide a means of utilizing them. Jeff illustrated part of the gap in understanding with the view that the responders were more like the athletic “jocks”, who did not relate well to communications “nerds”.

Amateur Radio Field Day: June 24 – 26 at the Tri-County Fairgrounds, Bishop. Setup is to begin at 11 am Friday, including a formal operator training class. Communications begin at 11 am Saturday, and finish at 11 am Sunday. Paul reported that set up is looking good. There was some discussion on the who and how of an antenna tower. We are looking at having two main transmitters on the air, plus a GOTO (Get On The Air) station for new Technicians. Terry is putting effort into securing the available bonus points. There didn't seem to be any record of authorizing Club funds to provide food. A motion was made and passed to make up to \$250 available for food purchases.

Intermission and 50/50 raffle: Keith was the big winner.

Silver Peak State Construction Project: Terry hasn't heard anything new. He vowed to get in touch with the representatives.

BARC's R8 Antenna: This seemed like an excellent addition to the ShackTeau when purchased, but between the difficulty in deployment and operation, it has been of little use. A proposal was made to turn it over to the club member who offered the largest donation for the Club. Phil (K0RVD) was the “winner” at \$150. Phil paid the Treasurer, with the provision that the Club would maintain possession of the antenna until Field Day was over.

June Lake Triathlon: John was looking for at least one more radio operator, as the promoter was hoping to have radio coverage at an additional location. It looked like he was going to succeed.

Mazourka Peak: A site inspection is scheduled for tomorrow. John thanked members for doing a lot of work in preparing the site. Major improvements have been made in cleaning up the building interior, including a major improvement in what was a bird's nest of wire. Outside, broken solar panels and broken antennas were removed, and other site litter was hauled off.

John then stated the need for an isolator (also known as an inter-modulation prevention panel or circulator) and dummy load for the 146.76 repeater. Jeff explained why these are needed, particularly on any of the newer frequency agile equipment. Spurious signals can be generated when signals from other site transmitters come down another transmitter antenna and enter that transmitters output. Early transmitters had tuned circuits built into their output circuitry that would attenuate everything but the frequency in use. Newer transmitters are designed to allow a wide range of output frequencies. A duplexer used with repeaters has highly tuned notches for separating its transmitter from receiver signals, but this is not really made to reject frequencies outside the notches. An isolator directs any signal coming down the transmitter output (going the wrong way!) to a dummy load, while directing the transmitter's signal to the antenna. External filters can be designed to accomplish similar results, but they are much more expensive than an isolator. Transmitter inter-modulation protection is required at Forest Service sites. Cost for a new isolator is about \$350. Kurt proposed having the Club put up half the isolator cost, then have W6PH (Kurt) pick up the other half of the cost. This motion was quickly passed. Thank you Kurt!

2m SSB: Gordon (KD6TLE) made an appeal to increase use of this mode. There is a net on 144.2 MHz. USB.

Meeting Adjourned at 8:35 pm. Jon Patzer, Secretary, BARC.