

The Barcroft High Altitude Star Party is held at the University of California's Barcroft High Altitude Research Station (<https://goo.gl/maps/z7AfDdP8ryN2>), located about 4 miles south of White Mountain, in the White Mountain Range which runs roughly 60 miles north-northwest to south-southeast on the east side of the Owens Valley in California. The remoteness of the location, plus an altitude of 12,450' above sea level, affords visiting amateur astronomers truly world-class viewing conditions that are yet relatively affordable and easy to access.

Reservations open after the January club newsletter announces the event each new year and must be approved and obtained no later than 2 weeks before the event. A maximum of 25 people can be there at any given time. The person making reservations must be a current member of either the Eastbay Astronomical Society or the Tri-Valley Stargazers who may bring guests who must also be paid for. Children under 18 years of age must have a liability release waiver signed by their parent or legal guardian. **The rate is \$90 per person per night. FIRST contact Don Saito at [donsaito@yahoo.com](mailto:donsaito@yahoo.com) to find out what time slots are still available for reservation.** Once you determine which days you'd like to attend, go to <http://eastbayastro.org/events/> and scroll down to the Barcroft section of the page, fill-out the application fields, and use the PayPal link to pay for your reservation. Or, you can snailmail your check or money order to the club Treasurer at:

Treasurer  
Eastbay Astronomical Society  
PO Box 18635  
Oakland, CA 94619-0635

It is only when payment has been received, that the dates you've requested will be confirmed and valid.

**BARCROFT AMENITIES:** Delicious hot meals, hot drinks and snacks, satellite TV, a book and video library, microwave oven, a radiotelephone, hot showers, bathrooms, and tools in case of an equipment emergency. The staff is extremely helpful. Guests are expected to help out with some light cleanup chores.

**ACCLIMATIZE:** Before arriving at Barcroft, it's a *very* good idea to gradually acclimate oneself to high altitude in order to try avoiding the effects of hypoxia (medical condition of a human body given too little oxygen). One way to help do this is to spend time at somewhat higher altitudes for a day or two before making it all the way up to Barcroft. You should try to stay at least one night either at a motel in Mammoth Lakes at 8,000 feet, or at the Grandview Campgrounds in the White Mountains (past Shulman Grove Visitor Center on the way to Barcroft) at 8,600 feet. Or, if you can manage it, the Bridalveil Creek Group Camp about 7 miles shy of Glacier Point in Yosemite at 6,980 feet. On the weekends during summer, there are public star parties hosted by several different California astronomy clubs at Glacier Point. Attempting to stay at the Bridalveil Creek Campground is a bit tricky, though, as it's a first-come-first-served car camp, and is often full. You can better your odds of getting a campsite if you get there on Friday or Saturday mornings – that's when some campers leave in order to avoid weekend crowds. If all this talk about hypoxia and acclimatizing is a bit scary, you may want to consider bringing a bottle w/regulator of your own oxygen. Please note that oxygen concentrators don't work very good at high altitudes.

- Bridalveil Creek Camp (Yosemite) <https://goo.gl/maps/AhrjjQgNFdQ2>
- Mammoth Lakes (ski area) <https://goo.gl/maps/kpQ4mxoDUZ92>
- Grandview Camp <https://goo.gl/maps/TyLwumGqcF92>
- The Bridalveil and Grandview car campgrounds have no running water, but do have pit toilets and tables; Bridalveil has anti-bear lockers, as well. Yes, there ARE bears in Yosemite!

**VEHICLE ADVICE:** Ensure your vehicle is in good working order, with fluids and air filter checked. It's also a good idea to let a little air out of your vehicle's tires by the time you get to Shulman Grove Visitor Center (about 17 miles south of Barcroft), to avoid over-inflation at the higher altitude. Of course, after leaving Barcroft, be sure to re-inflate your tires. Have a functional spare tire, and it's best not to speed around once you hit the dirt road. It takes about 55 minutes to reach the station from Schulman Grove if you only go 10 – 15mph. If your vehicle doesn't have automatic fuel injection, you might want to learn how to adjust your carburetor for operating at a higher elevation. Most modern vehicles have fuel injection and should be fine. If your vehicle is low to the ground, you may want to contact the

WMRC (White Mountain Research Station) at [wmrcinfo@ucla.edu](mailto:wmrcinfo@ucla.edu) (760) 873-4344 to check the road condition up to Barcroft. It sometimes becomes rutted and impassable to some street vehicles.

**BEFORE YOU START:** Often, one or more of the traditional roads up to Barcroft is washed out due to weather or forest fires. For that reason, it would be a good idea to call CalTrans at 800-427-7623 to confirm the roads are open. Even better, check their web site at <https://roads.dot.ca.gov/?roadnumber=120>

**DIRECTIONS:** To get there from the Bay Area, take Interstate Hwy 580 east to Interstate Hwy 205. Continue east on I-205 past I-5 to CA State Route 120. Continue east on SR-120 to SR-99. Take SR-99 north one mile to the SR-120 exit, then take SR-120 east towards Yosemite. Take SR-120 over the Sierra Mountains / Tioga Pass to U.S. Route 395 in the Owens Valley, just south of Lee Vining. If the SR-120-Tioga Pass Route is closed, take the Sonora Pass Route to the north via CA State Route 108 to U.S. Rt. 395. Take U.S. Rt. 395 south (a very beautiful drive along the dramatic eastern front of the Sierra Nevada) past the town of Bishop to the smaller town of Big Pine. **MAKE SURE YOU REFUEL THERE!** From Big Pine, take SR-168 east on up into the hills. Just before you get to Westgard Pass, 12.9 miles out of Big Pine, make a left and go north on a paved road that goes a few miles to Grandview Campground, and continues on a few more miles to the Shulman Grove Visitor Center; past this, the road turns to a well-graded dirt road that goes roughly 30 miles north along the spine of the White Mtns to the Barcroft Station. When you get close, you'll come to a gate with a couple of signs saying "Barcroft Facility," etc.; once through, be sure to close and secure it again before continuing on. If it is locked, the combo is **4344**.



**FACILITIES:** The Barcroft High Altitude Research Station has two dormitories (male/female) with bunk beds, but no sheets or blankets (so, bring your own sleeping bag), a full kitchen, dining area, recreation room with a library of books, TV, videos and a pool table. It also has a workshop with tools. Guests are expected to help with cleaning the kitchen each day.

**THINGS TO SEE:** If you start off early in the day from Mammoth or Grandview, you might want to stop off at Sierra View (past Grandview but before Shulman), with a spectacular view of the Owens Valley and the east side of the Sierra Nevada Mtn Range. About fifteen minutes further up the road, you'll come to the Shulman Grove Visitor Center (<https://goo.gl/maps/nmWKUzwCq9o>), where you can spend a good part of the day exploring the Bristlecone pine forest; at over four-thousand years, they are the oldest known living organisms on the planet.

**THE GOOD NEWS:** With a Bortle Rating of 1, seeing can be outstanding (sub-arcsecond), if the weather cooperates, as there simply isn't much air up there. Solar viewing should be excellent, too. It is an especially good spot for astrophotography as that's not oxygen dependent. White Mountain was the second choice for the twin Keck Telescopes. You'll never forget your view of the Milky Way from Barcroft.

**THE WEATHER** is unusually variable in the White Mountains due to its location. Don't be surprised if there are severe thunderstorms and even snow during the late afternoon, though it often clears out in the early evening even after such weather. The White Mountains are one of the coldest places in the continental U.S.

**OXYGEN:** It is hard to function in the thin air at altitude. A good source of information on hypoxia is "Mountain Sickness: Prevention, Recognition and Treatment" by Peter Hackett (available for ~\$6.00 -used- at Amazon.com) [https://www.amazon.com/dp/0930410106/ref=cm\\_sw\\_em\\_r\\_mt\\_dp\\_U\\_oUtzCb1BNXRP0](https://www.amazon.com/dp/0930410106/ref=cm_sw_em_r_mt_dp_U_oUtzCb1BNXRP0). One just doesn't think as clearly at 12,000 feet. Visual astronomers should remember that the human cornea requires oxygen to function. It will take about two nights for your eyeballs to fully get up to speed. Also, low blood oxygen levels can make you feel the cold more, SO DRESS WARMLY! Bring several sets of long underwear (three sets of long johns work well). Night temps can reach down into the teens, and with a bit of wind plus the lack of oxygen, it can make doing even simple things very difficult. There are a few survival suits available, if necessary.

When you first get to Barcroft, TAKE IT EASY! Please go slow for the first day and night. There is an oxygen dosimeter in the station. Upon arrival, everyone should measure their pulse and oxygen saturation levels and write them in the log on the table in the dining room. You'll be amazed at the numbers you get. You might also want to compare them with the numbers you'll get just before you leave. Oxygen saturation at sea level is usually 95% to 99%. Don't be alarmed if you get 80% or if your pulse is higher than normal for you. If you brought oxygen with you, watch what happens to the numbers after you take a whiff of it.

Studies have shown that vitamin E alleviates the effects of hypoxia and sunflower seeds are one of the best natural sources of E. There is also a prescription drug called Diamox (acetazolamide) that can help some people who have problems at altitude. Unless you are a severe case, you are probably better off without it. Sleep the first night may be a little difficult for some people due to the altitude, especially if you don't acclimate, first. IT HELPS A GREAT DEAL TO BE WARM, SO BE SURE TO BRING A GOOD SLEEPING BAG a fleece sleeping bag liner might also be a good idea.

The people who usually get high altitude sickness are those who try to "tough it out". The symptoms are very hard to notice until you get pulmonary and/or cerebral edema SO WATCH IT. The first symptom is euphoria. Headaches and/or fatigue follow in a few hours. A whiff of oxygen will help almost immediately. Aspirin will help you sleep and help with the headache, so bring your own, as Barcroft staff won't have any for you. Another symptom that occurs later is irritability, which will be a problem since we will probably have about a dozen some people up there in close quarters. Try to be patient with your fellow astronomers, no matter how stupid they may seem to be at the time, because chances are that you are being equally stupid. Keep a watch on your colleagues. If someone seems to be having problems or is behaving erratically or irrationally, let the staff know. If you are told to take it easy, please cooperate.

**WATER:** Another thing to watch for is dehydration. You don't perspire at altitude --- you vaporize, so you won't notice how fast you're losing water especially as your thought processes will be somewhat muddled. So make sure you drink more fluids than you normally would, except for caffeinated or alcoholic drinks. Caffeine is a diuretic, so you could become even *more* dehydrated. Alcohol impairs judgment (as if your judgment needs to be even more impaired at 12,000 feet!) and the decreased functioning of the retina (and other deleterious effects) are heightened by the altitude.



**ULTRAVIOLET RADIATION:** Another often over-looked high-altitude problem is sunburn. You think you tan fast at 7,000 feet? Wait till you try 12,000 feet! Remember, there is a lot less protective atmosphere between you and that star up there, so make sure you bring a hat and sunscreen!

**HANTA VIRUS AND PLAGUE:** Finally, if you haven't already been scared off, try to stay away from rodents and rodent excrement! Both the Hanta Virus and Bubonic Plague still happen in the mountainous regions of the Western States. It's rare, but notify staff if you see rodents in the building or notice their droppings. In an emergency, feel free to call the White Mountain Research Station office in Bishop at 760-873-4344. Make sure you take these numbers with you, just in case. The number up at Barcroft, if the phone is working, is at 760-937-5202. Cell phones can work if you climb a short road up past the station to where you can view the Owens Valley.

If you have any more questions, please contact Don Saito [donsaito@yahoo.com](mailto:donsaito@yahoo.com).

**MISCELLANEOUS:** For those of you who are interested, just off U.S. Rt. 395, north of Mono Lake, is the Bodie State Historic Park. Bodie was a legendary (or perhaps infamous is a better word) mining town that was famous for its bars, brothels, and murder rate, (at one point it had the highest per-capita murder rate in the world). People used to say, "Goodbye God, I'm going to Bodie!" It's now a ghost town. Just thought I'd mention it. For more info on things to see and do in the area, visit <https://www.bishopvisitor.com/>. Restaurants, shopping, hot springs, hiking and more.



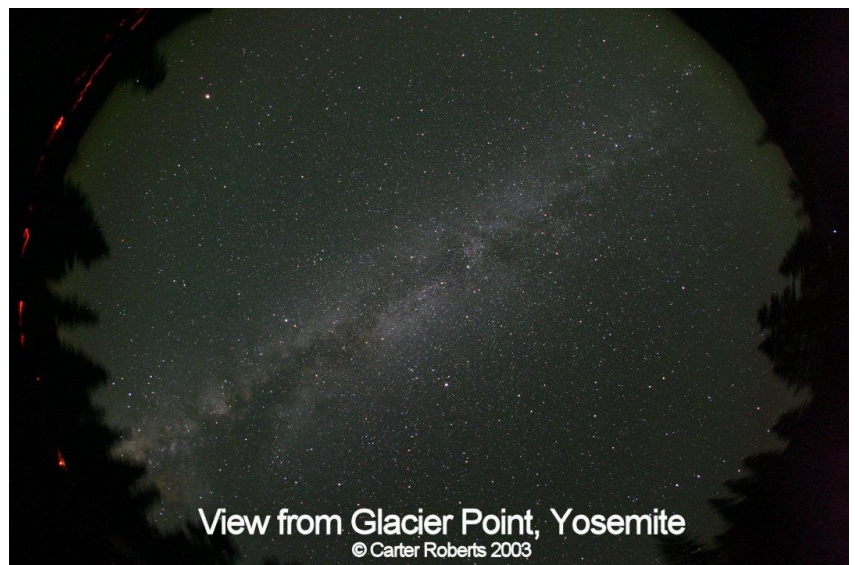
"Astro Wizard" Dave Rodrigues  
at Barcroft



Mt. Barcroft center-left  
Barcroft Station, center  
Telescope set-up area, foreground  
*Copyright © Carter Roberts 2004  
All rights reserved*



View of White Mtn from road  
past and above Barcroft Station



View from Glacier Point, Yosemite  
*© Carter Roberts 2003*