

Observing Southern Skies, A trip to San Pedro De Atacama, Chile

By Milt Roney

Highlights:

- My wife and I visited SPACE: San Pedro de Atacama Celestial Explorations in Chile from the evening of November 6 through the morning of November 10, 2007. The skies were dark, dry and clear. We saw a lot of new stuff, and the accommodations were great; we want to go back again.
- In the DC area, you can theoretically see astronomical objects down to a declination of -51, but due to ground haze and obstructions, its hard to see below a declination of -40. There are 37 Caldwell objects below this level in addition to the large and small Magellanic clouds, which are worth the trip by themselves.
- As a reminder that the earth is an astronomical object, a magnitude 7.7 earthquake hit Chile near our observing site four minutes after our return flight touched down in Washington. A magnitude 4.5 aftershock hit San Pedro, but apparently no one was hurt and the facility was undamaged. A volcano which was not steaming when we were there, now has a plume of steam coming out of it.

Where we went:

Details of where we went are all available at <http://spaceobs.com/> . To get there, we flew to Santiago, Chile and took a connecting flight back to the northern town of Calama. We bought some supplies at a large shopping mall there, and then drove 60 miles through spectacular desert to San Pedro De Atacama. San Pedro is a tourist center, with lots of hotels and restaurants.

The SPACE facility is about 5 Km. south of the town. It is operated by Alain Maury, a French astronomer who has discovered three comets and is hungry for more, and his wife Alejandra Miqueles. They have been conducting space tours for some time, but just acquired the Atacama Lodge and are converting it into an astronomy facility. While we were there, two Canadians were installing a 20 inch reflector and a lot of other equipment.

We picked this spot because it has reliably clear skies and someone who was willing to rent us a telescope. At an altitude of about 7,600 feet, and with no large cities nearby, the sky was about as clear as it gets. Several observatories are located in the mountains nearby.

Having found this place on the internet, with no personal references, we were concerned about the accommodations. We were delighted to find that the “cabana’s” were designer suites with separate shower and whirlpool bath, a separate bedroom with a view of the volcano, and a kitchenette with a table big enough for star charts. I noticed that the roof

was made of straw, held up by 2x6s; the significance of the light roof wasn't clear until after the earthquake.

What we saw:

The first things we saw were the Magellanic Clouds. They're not hard to find – Lisa, my wife, walked out the door and said “What's that?” A huge globular cluster, 47 Tucanae, is visible to the naked eye just west of the Small Magellanic Cloud (SMC). I spent a fun evening armed with binoculars, star charts and a comfortable chair, just getting oriented and looking at the binocular highlights.

Our telescope was a 45cm (17.5 in.) homemade dobsonian reflector (build like a tank) with a right angle finder and nagler eyepieces for 100x and 200x. Alain provided a green laser pointer, which was helpful in pointing the dob. Afternoon winds create a lot of dust in San Pedro and this telescope lives outside. Still, I was able to see objects down to a visual magnitude of over 13.



The tourist highlights we saw were:

- Eta Carinae, NGC 3372, which is brighter, and four times larger than Orion's sword.
- The Tarantula Nebula, NGC 2070, which really does look like a huge bug.
- 47 Tucanae, NGC 104, a huge globular cluster.
- NGC 55, a spectacular edge on galaxy that you can see on the horizon here, but at the zenith there.

We missed Omega Centauri, another highlight, because it didn't rise until 5AM, and we never made it past 4.

You could spend an evening just wandering through the Large Magellanic Cloud with a low power eyepiece and no star chart.

In addition we saw galaxy clusters in the constellations Pavo (NGC 6872), Grus (NGC 7232), and Phoenix (NGC 87), and wandered through swarms of galaxies in Fornax (NGC 1379). You can see Fornax from here, but it is just above the horizon and hard to see. (I listed one galaxy in each group – find one and you'll see the others.)

I wasn't doing photography, but you can see all these objects at <http://www.seds.org/~spider/ngc/ngc.html> .

In case of homesickness, it's still possible to see the Andromeda Nebula, Orion, and other old friends. We took a look at Comet Holmes and it was spectacular in the big dob.

What it cost:

Airfare is the giant killer. A round trip to Calama from DC costs from \$1400 to \$1500 per person. The flight to Santiago is overnight, then there is a long layover before the flight to Calama. A Chilean visa (based on reciprocity with the U.S.) costs \$100.

We rented a four wheel drive car in Calama, at a rate of about \$500 per week. We could have survived with a smaller car, but roads in San Pedro are not paved, and we appreciated the high ground clearance.

The cabana at Atacama Lodge rents for 50,000 pesos, or about \$100 per night. The telescope we used rents for \$45,000 pesos per night or about \$90.

Other telescopes are available for rent, or you could bring your own. The two Canadians we met brought two large truckloads of stuff. There's no end to what you can do if money is no object.

Other

If you're traveling so far, it's logical to do some other things while you're there. We visited several interesting sights in and around San Pedro. We took a four day private jeep tour in Bolivia for \$660. While the lodging was sometimes really primitive, the sights were spectacular and we thoroughly enjoyed it. We also spent some time in Santiago and took a day trip to Valparaiso. You could also visit Easter Island or Patagonia. There's a lot more to see if you have the time and money.

I'd be more than happy to answer questions or assist in planning if a group of people want to go. mjroney@starpower.net.