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## LIFESTYLE | TRAVEL

## Got \$1,350? Spend a Night in a Space Observatory. Here's What It's Like.

An Arizona observatory takes stargazing to the next level by welcoming overnight visitors—dinner, lodging and personal astronomer included. (Just don't say 'twinkle.')

By Bob Davis Follow

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CHECK IN TO OUTER SPACE Arizona's Kitt Peak National Observatory is a rare astronomy center that lets star seekers spend the night. PHOTO: KPNO/NOIRLAB/NSF/AURA/T. SLOVINSKY

FROM THE TOP of <u>Kitt Peak National Observatory</u>, just 50 miles from downtown Tucson, the autumn night sky blazed; the Milky Way was so dense with stars it looked like a luminescent cloud. Jupiter shone like a beacon—so bright I wondered how I'd never noticed it before. And that was before we were directed to the telescopes.

After lifetimes in cities where urban lights blot out the night sky, my wife, Deb, and I have sought out <u>stargazing opportunities</u>. Count us among the many who have popularized so-called dark-sky tourism, in which star seekers travel to find better viewing conditions.

On an astronomer friend's urging, we set our sights on the ultimate stellar experience: a night at an astronomy center, guided by a telescope pro, with access to professional equipment. For that, we booked a night at Kitt Peak, among the nation's premier optical observatories and a rare one that's open to the public overnight. Kitt Peak's overnight program, launched around 1998, allows for a maximum of four guests, so we brought two friends along. The package included dinner, at the campus cafeteria, and lodging, in a dormitory that resembled a 1950s roadside motel. Total price: \$1,350.



Despite being only around 50 miles from the urban hub of Tucson, Kitt Peak Observatory enjoys ideal stargazing conditions. PHOTO: KPNO/NOIRLAB/IAU/SKAO/NSF/AURA/R. SPARKS

After we arrived midafternoon, our host, Mike Murray, gave us a tour of the campus with its massive domed observatories. At sunset, the sky turned peach over the mountainside and, facing clear skies and a moonless night, we began a night of stargazing.

A retired rocket engineer and astronomy buff, Murray tended to steer conversations toward the scientific not the poetic. He explained, in painstaking detail, how telescopes worked, along with the particulars of star clusters. Before we arrived, he'd sent us a 40-page menu of sorts, with pictures of the galaxies—enormous spheres, spirals and clusters—we could potentially see. But once we were there, dwarfed by the heavens, we let him take the wheel and choose his favorite highlights.

Although astronomers complain about the background light from Tucson and Phoenix, they still consider Kitt Peak a top research site because of its good "seeing." In scientific terms, this means the air circulates over the 6,900-foot-high campus gently enough to minimize atmospheric distortions. Local astronomers brag that

stars don't twinkle over Kitt Peak—undesirable "twinkling," you see, signals a turbulent atmosphere.

We started at a building the size of a small ranch house whose flat roof retracted, leaving us fully open to the sky. Peering through a telescope with a 16-inch-diameter mirror—small by Kitt Peak's standards—I spied a cluster of stars so brilliant that it looked like an enormous LED light had taken root in the middle of the galaxy. I was looking at M13, Murray explained, a galaxy discovered in 1714 by Edmund Halley, the astronomer with the famous namesake comet. Next up: M31, another web of stars. It lacked M13's luminance but seemed to contain many more thousands of suns.

I asked Murray if we could take a closer look at <u>Jupiter</u> which had so wowed my naked eye. Through the telescope, I saw brown bands cutting across the planet, enormous gaseous winds that whip through the Jovian atmosphere.

Red lighting at Kitt Peak Observatory allows visitors to navigate around the observatory without drowning out the stars above. PHOTO: KPNO/NOIRLAB/NSF/AURA/B. TAFRESHI

Though we had plenty more we wanted to see and Murray made it clear he'd happily stay up with us all night, problems soon arose. Without warning, the telescope stopped moving. Murray fiddled with the computer program and tried shaking the counterweights to restart it. No dice. Nearly alone on the mountaintop, with no onhand telescope technician to save us, we admitted defeat.

We moved over to a domed telescope with a larger, 20-inch-diameter mirror that could see even fainter objects. We spotted Pluto and, a crowd favorite, Saturn, which appeared as a white sphere encircled by white rings. "It looks like a kid's sticker," said Lucy Hornby, one of our friends. "So darn cute," said Deb. I could imagine Superman flying around what I saw.

Every time the dome moved, it sounded like roller coaster cars making a sharp turn. After a while though, this telescope stopped functioning, too. Murray once again tried various computer tricks. None worked.

Kitt Peak says the malfunctions are partly due to the observatory ramping up its visitor services so quickly after its pandemic shutdown and says it offers dissatisfied customers refunds. The observatory sent me a refund of \$1,000, which I hadn't asked for, and which I returned, explaining I had no complaints.

We had seen galaxies and planets up close. The universe's colossal scale had reliably awed us. Our tour had started at 3 p.m. and by the time the second telescope puttered out, it was past midnight. We were done for the night anyway.

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