

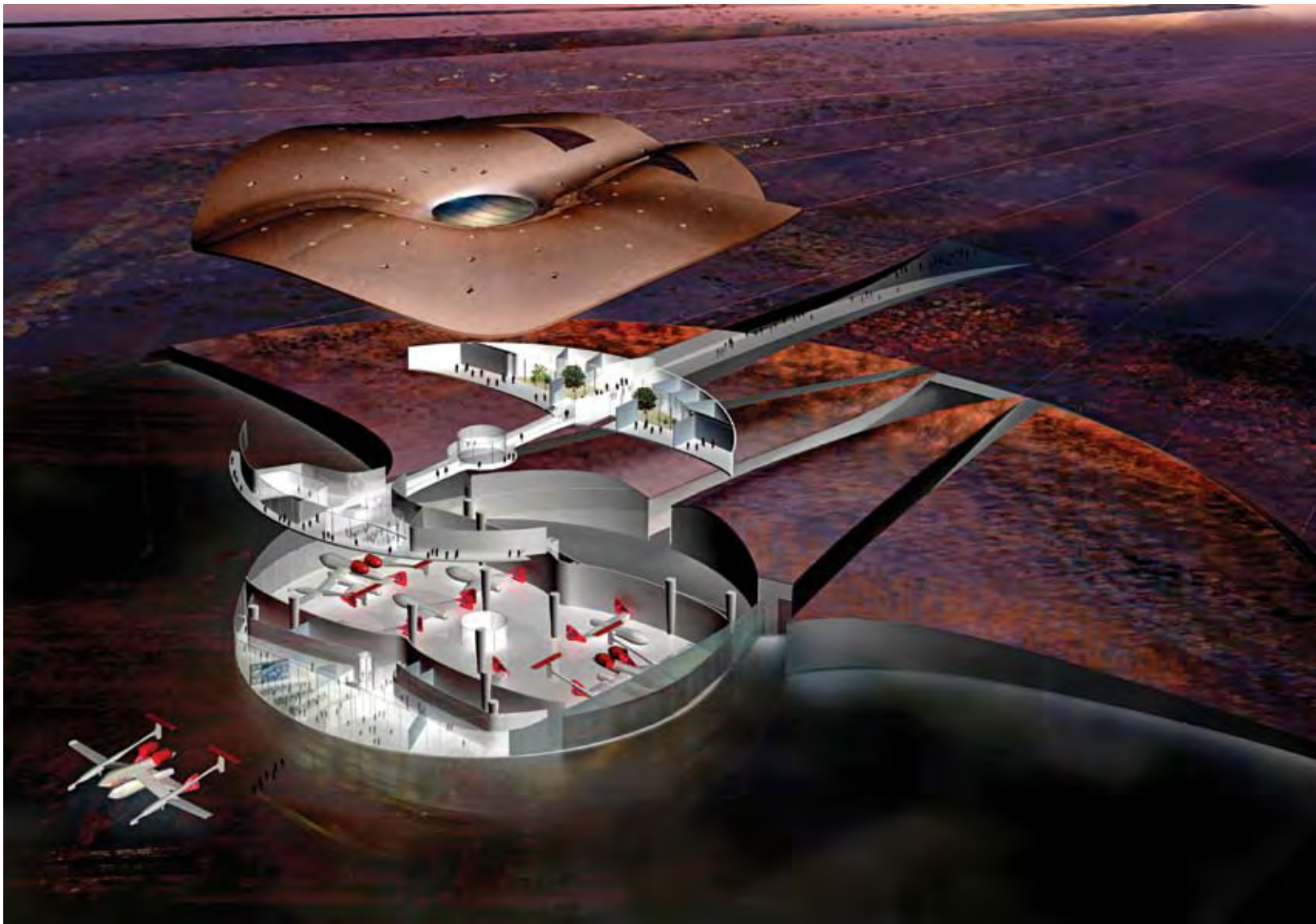
SPACEPORT AMERICA

Now home to scrub brush, Yucca plants, cactus and cows, a sleek new spaceport will soon rise in the New Mexico hinterlands.

BY JAMES OBERG







New Mexico has always seemed an unearthly place with its overarching sky that seems close enough to touch—or pass right through. Mystical Pueblo legends add to the notion that here is a place where earth and sky overlap.

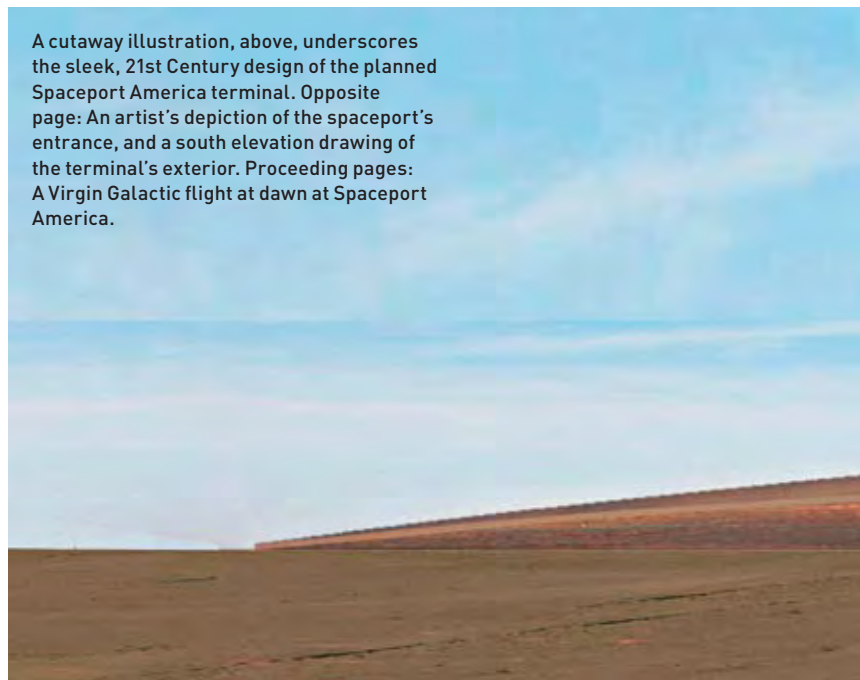
Now a new space commercial enterprise—Spaceport America—is choosing New Mexico as a base of operations, for very down-to-earth reasons. Still, the aura of other-worldliness remains all around, as I found out on a recent visit to the future site of this spaceport.

Fifty years ago, a sleepy retirement community named Agua Caliente (Hot Springs) made its play for national notoriety by accepting a challenge from a network television quiz show, “Truth or Consequences.” The local residents renamed their town after the show, and it has been known as “T or C” ever since.

But the terrain didn’t change, except for the growing Elephant Butte reservoir north of town, where more and more retirees came to settle. The Rio Grande valley looked much the same, with its eastern and western boundaries marked by craggy mountains that really do look—as the Indian art portrays—purple and mauve and lavender in the evening dusty air.

As guest of Mike Holston, a development contractor for the spaceport, my

A cutaway illustration, above, underscores the sleek, 21st Century design of the planned Spaceport America terminal. Opposite page: An artist’s depiction of the spaceport’s entrance, and a south elevation drawing of the terminal’s exterior. Proceeding pages: A Virgin Galactic flight at dawn at Spaceport America.





ILLUSTRATIONS: NEW MEXICO SPACEPORT AUTHORITY

wife and I got a private tour of the site. My cousin Pat and his wife, who lived at Elephant Butte and knew the people who owned the land leased to the project, came along as well.

We approached from the north (there's also a route from Las Cruces, to the south). After the last gas station, the road led us past an ominous sign, "End County Maintenance." The pavement gave way to washboard-rippled gravel as we crossed the wide flood plain between the mountain ridges in the distance. Yucca, cactus, and other dry-climate plants sprouted vigorously along both sides of the road as we paralleled a rail line. Grass grew in clumps, providing sustenance for the cattle that roamed behind the barbed wire fences. Even the telephone poles abandoned us on this route.

Miles passed, with the road occasionally dipping into dry arroyos (no bridges). We passed a side road marked by a row of 20 mailboxes, with no houses in sight. One sign advertised the "Cutter Cattle Company," and we laughed to see a sign for "Abbey Road."

Someday, we knew, this route would be busy with tourists, and maybe refreshment stands and port-a-potties here and there. They would come because of the spaceport, but not to see it or its facilities. No, you had to realize the clientele of the spaceport would often be rich space tourists, riding their rockets just past the edge of space for their own personal motives. But this would motivate other people, regular folks who were fans of the Hollywood and sports figures among them, who would come to watch their idols flaming through the sky. They would come.

When that happens, the risk will be to the space travelers, not the flocking fans. But surely they will share the thrill of the history of the place that I knew about from a lifelong familiarity with—and affection for—this state. It



was with good reason that this stretch of desert has been known for more than three centuries as the "Jornada del Muerto," the "Journey of the Dead Man."

Beginning in the late 1600s, the Spanish colonial authorities established "royal roads" across their New World empire. The "Camino Real de Tierra Adentro" (The Royal Road of the Interior) ran 1,500 miles from Mexico City to the Taos Pueblo in what is now northern New Mexico. Although it generally followed the Rio Grande north from El Paso, the river tended to meander, and one particular overland shortcut saved several weeks of walking.

This route through semi-desert was usually made possible for travelers and their animals by a string of lakes, and short side trips to springs—many still visible. In 1668, a Sonora trader named Bernardo Gruber was arrested by



Above: Sir Richard Branson joins a group of Las Cruces fifth graders for the launch of SpaceShipOne model rockets at the site of the spaceport. Below: An aerial view of Spaceport America. Opposite page, clockwise from upper left: Cows roam the site; a launch preparation hangar—on wheels; a restricted area warning; plants at what will become the spaceport's landing zone; a high-tech connection line snakes through the rural landscape; and Jones and Oberg and Mike Holston examine a map of the planned SpaceShipTwo runway site.



PHOTOS: NEW MEXICO SPACEPORT AUTHORITY AND JAMES OBERG

the Inquisition in a small village near modern day Albuquerque. He escaped and fled south. But through sickness or inadequate preparation, he died while crossing the short cut. Where he was buried was called the "Paraje Aleman" (the German's place), and most historians speculate that the entire trail ever after came to be named in memory of him.

Some short stretches of the original ruts of the trail are visible near the road to the launch site. They are a reminder that the region, while not a favored place for human habitation, was a zone of transit from one location to another. And it always had been dangerous, both from natural causes and from human enemies.

There was only one visual clue, along that trail, that we weren't moving through 1668, or even 668, or anytime at all. Modern times had left their mark on the sky, in the form of the long white streaks that marked the passage of transcontinental jetliners. From the vantage point of riders in that sky, I figured the land around us looked, from their windows, similar to what they would imagine would be an overhead view of the Moon, or Mars.

Along the drive we were on, the low horizons allowed long-range viewing, both real and (as so often in these deserts) imaginary. To the northeast, before one summer dawn in 1945, the world's first nuclear explosion flared at the site now called Trinity, casting sharp shadows across the ground. To the east, in the years that followed, rockets roared higher and higher into and above the skies. To the north and to the southeast, say some, other (possibly non-human) space vehicles traversed the skies of Socorro and Roswell and vicinity. To the southeast, the Space Shuttle Columbia once made a contingency landing. Across vast stretches of nearby desert, metal dishes have replaced Anasazi shamans as listeners for messages from above. So reality has been a driver of high-reaching imagination here for a long, long time.

To get to the future spaceport, more mundane procedures yanked our attention back to Earth. There were cattle gates to open and close, with Mike Holston stopping, getting out, opening the gate, getting back in, driving through far enough for me to drive through and park behind him, get out, close the gate, and return to my car to resume the travel. But finally we were rewarded by the sight of a stenciled white sign on a post, with a big red arrow, pointing to SPACEPORT. The perceptual disconnect was mentally jarring. Other signs on the fences, proclaiming WARNING – RESTRICTED AREA, seemed equally out of place.

Holston stopped along a stretch of road and got out of his car, unfolding a map across the hood. We gathered around in the empty countryside along the empty road, and he waved his arm north and south, crossways to the road. "Here's where the main runway will run," he announced. It wouldn't need much leveling, that was for sure.

Another few miles, and the existing facilities came into view. Here was where they had actually already launched some small rockets for commercial customers.

Two small trailers served as the launch control center, with a gravel road and alongside it a bundle of cables pointing to a small, distant structure. A big white sign proclaimed "UP Aerospace – the world leader in affordable space access." Standing alone was a pole-mounted sign designating this the "Cain site" (named after a local rancher).

On the other side of the parking lot was a lone blue port-a-potty. Maybe they bring in more for actual mission operations. And on the other side of the facility, in a large exotic prey hunting preserve that stretches far to the east, we could see a livestock feeder about a hundred yards off – not for the

common local cows, but for a herd of oryx that had been introduced some years earlier. We didn't see any oryx, which are good at desert hiding.

Farther down the road we came to the "Ben and Jane Site." It contained a larger, mostly un-windowed beige building that had one curious feature: it was on wheels. Protruding from the south side was a long white stinger, a rail for mounting the rocket to be launched. The stinger was also emblazoned with the logo of "UP Aerospace, Inc."

Although we were not allowed inside—proprietary technology was the reasonable constraint—we could see through the hole around the stinger that it was one big workshop. Doors around the stinger would open, allowing the arriving rocket to be placed inside the building. Once the building was sealed up, the rocket could be unwrapped and mounted on the horizontal launch rail for more testing and for payload integration.

Launching the bird is simplicity itself. The building itself rolls off, away from the rail-mounted rocket, and the rocket is then elevated to point in the direction desired. The launch crew then moves down the road to the control trailers.

My host, Mike Holston, discussed launch operations with me while we stood at the launch pad. It truly looked as if we were in the middle of nowhere, but as frequently was the case with spaceflight, true distance—and true proximity—could be deceptive, and this turned out to be true here as well.

Just over the low mountain range to the east lay Holloman Air Force Base and the White Sands Test Range. Putting the Spaceport here wasn't merely a matter of moving into a nice neighborhood—it also provided access to existing space tracking and communications infrastructure owned by the government. Holston explained that this equipment, and the trained personnel to operate it, could be leased for short periods of time, to support launches, and this relieved the spaceport of the expense of acquiring and maintaining its own tracking infrastructure and staff. They had worked out agreements for future episodic utilization of the government's facilities, with appropriate pricing.

They were still working out the interfaces, he added, illustrating it with a space news story I hadn't heard. It dealt with a "lost rocket" that had never really been lost.

The first launch from this pad was on April 28, 2007, carrying a "Celestis" payload with cremated remains of 200 people, including James Doohan (Scotty of Star Trek) and astronaut Gordon Cooper. The flight was purely up-down, reaching 70 miles altitude to qualify (briefly) as being officially in space.

The launch occurred on time, and within minutes, tracking data from the government pinpointed the landing spot. It was at some distance from the aim point, and a recovery team headed in that direction—but found nothing. More searching followed around the calculated landing area, without result. The payload was finally located within yards of the aim point all along. The tracking advisory had been off.

Those kinds of troubling snafus are genuine indicators that REAL spaceflight is starting up here. There will be more and more launches, and more highs as well as difficulties to overcome and accidents to get past, in the years to come. I hope to visit again to watch the progress. ✦