Report to Stakeholders

August 1996

While a dummy awaits the next ride, a technician makes an adjustment to a rocket sled at the north base sled track in the early 1950s. Photo by Jake Superata from the AFFTC History Office Collection.

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North Base is Remote — Depending on Your Perspective

North base, renowned for its remoteness, proved to be the perfect location for the research and testing of many Air Force projects.

That's why it's so ironic that north base is closer to the base boundary and a neighboring civilian community, North Edwards, than any other active base area.

North Edwards Laboratory

Ruby Messersmith, North Edwards representative of the Restoration Advisory Board, feels this proximity could present the greatest potential hazard of contamination to an off-base population.

"We have people closer than anyone else in the other communities," said Messersmith. "I've been here since 1952 and I'll be here until I die. I'm also concerned about what's going down the hill from Phillips Laboratory to Desert Lake and Boron."

The people working in the Installation Restoration Program (IRP) are concerned also.

"We'll do all in our power to protect the health of not only our employees at north base, but also the people of our neighboring communities, including North Edwards, Aerial Acres, Desert Lake, Boron and California City," said Keith Dyas, Air Force project manager of operable unit 10, which comprises the north base area outside of the NASA/JPL boundaries.

"Many of the off-base residents in these areas depend solely on groundwater for all of their water needs," he continued. "Therefore, we take the responsibility of protecting this precious water source very seriously."

As early as September, those involved with the IRP will conduct initial screening tests that will help address the concerns brought forth by Messersmith at the June 27 working meeting of the RAB.

As a result of Messersmith's comments, Mary Spencer, AF project manager for operable unit 5 (the NASA/JPL complex), has opted to take soil gas and soil boring samples Continued on page 5

North Base is the closest active area to a civilian population center.
along the Edwards-North Edwards boundary, in addition to those targeting the area currently occupied by north base employees. The first 10 samplings, scheduled for September, will be in the occupied north base area, with the second 10 scheduled for February 1997.

"Because of scheduling and budget limitations, we are scheduled to sample 10 at a time," said Spencer.

If data collected and analyzed from these sources indicates there is risk to humans or the ecology either on or off base, then IRP personnel will proceed to the next step, whether that is further investigation, actual cleanup or long-term monitoring.

"We need proper justification when requesting funds from Air Force Materiel Command," said Spencer.

Spencer feels that if contaminants are found at north base, they may include the solvents PCE (perchloroethylene) and TCE (trichloroethylene), rocket and diesel fuel, liquid propellant, nitric acid and others. "Any place the Air Force did testing here, they may have used unusual chemicals," said Dyas.

However, much has already been done in the north base area in order to comply with guidelines set forth by the Federal Facility Agreement. Thirty-six underground storage tanks have been removed in that area, a few showing evidence of leakage. "We've already determined a cleanup method for these," said Donald Cowan, project manager of the underground storage tank investigation program.

There are just four tanks remaining in the ground at north base. "These are tanks from yesteryear," he said, adding that the removal of the last, scheduled for the first part of September, will be cause for great celebration because it is the final remaining underground storage tank on Edwards Air Force Base.

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Aviation History Made at North Base Complex

"If it can go wrong, it will go wrong."

That's Murphy's Law. And it originated at north base.

Actually, it was a paraphrase of something said by Capt. Ed Murphy, who worked for a time with the famous Dr. John Stapp, "the fastest man alive," at the north base sled track.

Dr. Stapp, a colonel in the Air Force, was in charge of the Rocket Sled Test Track to determine the effects of g-force and deceleration on humans. In the years following World War II, he personally subjected himself to sled runs that took him to the brink of the sound barrier. (After the north base track was dismantled, he later surpassed the speed of sound at the Holloman AFB track in New Mexico.)

One day, after an instrumentation failure on the sled, Capt. Murphy was overheard on the phone berating a technician for an error that had resulted in an inoperational accelerometer: "If you can do anything wrong, it will turn out wrong!"

Little did he know his words, said in the heat of the moment, were the beginning of a cultural phenomenon.

The concept inherent in Capt. Murphy's exclamation struck Dr. Stapp as a truism. Several weeks later, when asked at a press conference how so few injuries had resulted from the intense effects of g-force and crash simulations, he said, "We're great believers in Murphy's Law — if it can happen, it will happen."

So legend has it.

Even after the first "Murphy's Law" book was authored by Allen Black, Capt. Murphy never realized he was the Murphy until a former north base buddy clued him in.

That's just one chapter of north base's diverse history.

Chosen for its remoteness and originally separated from the main part of Edwards by the Atchison, Topeka and Santa Fe Railroad line, the north base location served as the backdrop for a myriad of Air Force programs and flight tests. During its heyday in the 1940s-50s, north base became known as the country's preeminent flight test facility.

So important is its contribution to aviation history that north base has been deemed potentially eligible for inclusion on the National Register of Historical Places, as part of the JPL Edwards Facility Historic District.

The Muroc Flight Test Base, now known as north base, was brought into existence in 1942.

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"We'll do all in our power to protect the health of not only our employees at north base, but also the people of our neighboring communities..."
— Keith Dyas
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"We expect no contaminants from those four tanks," said Cowan, explaining that, once those tanks have been removed, soil samples are taken at 2 feet and 6 feet "to confirm or deny any contamination."

In addition to these removals, some preliminary soil gas studies are being completed at one of the 32 areas of concern at the NASA/JPL complex (operable unit 5). So far, no contamination has been found according to Spencer. However, if studies on the other sites indicate otherwise, money will then be sought for cleanup.

Although cleanup of the JPL portion of operable unit 5 is funded directly by NASA, the Edwards AFB IRP personnel oversee all the work and monitoring done at the sites. Peter Robles is the NASA project manager for the area. "NASA complies with everything the base has to comply with," said Spencer. "They brief the same regulators; they use the same regulations and rules."

Rules, regulations and close coordination with north base tenants must be strictly adhered to by IRP personnel throughout the field activities data analysis and cleanup process.

"Additionally, tenants at north base must be well-informed about IRP activity to reduce disruption to the workplace," said Spencer. Meetings with tenants are coordinated through the Air Force Flight Test Center Plans and Programs Office.

"Some tenant activities are very sensitive to dust," said Dyas. "We have to take these concerns into consideration."

Historic buildings and desert tortoises are unable to complain, yet great care must be taken for them, too.

Because some parts of the north base area have been deemed potentially eligible for the National Register of Historic Places, IRP has had to adhere to guidelines established by the federal and state government to protect these cultural resources. The general area around some of the hangars are among the historically important sites at north base, although there are more than 52 potentially-eligible buildings.

The desert tortoise, a federally threatened species, and its habitat must also be protected, as well as other natural resources.

"It's an area where desert tortoise may be found," said Dyas. "There are also some Native American sites. We're going to clean up the soil and water without impacting the cultural and natural resources."

Story by Karla Tipton, Computer Sciences Corporation

Aviation History, from page 5

under the auspices of the U.S. Army Air Corps, Materal Command, Wright Field, in Dayton, Ohio. It was sometimes called the "Wright Field of the west."

It was originally built to house and test fly a top secret aircraft — America's first jet, the Bell XP-59A Airacomet.

By 1941, both Germany and Britain had already developed a jet engine. With the onset of World War II, the United States was bent on catching up.

For a long time, the Army considered the Mojave Desert unlivable. Temporary construction was typical of the war period and buildings at Muroc Flight Test Base were constructed to last only five to seven years. The new Muroc Flight Test Base was never meant to be a permanent facility.

That's why it's remarkable that one of the two original structures at north base — the Unicon Portable Hangar (Building 4305) — is still standing and is currently being used.

The hangar was shipped to Muroc in pieces from Ogden, Utah. When the hangar arrived it had already been around the country several times and pieces of it were missing. This hangar is where work on the XP-59 engine was done.

The other building constructed at that time served as quarters for the 65 military and contractor personnel originally working on the XP-59A project. It was notoriously known as the "Desert Rat Hotel."

As the success of the XP-59A became known, the Muroc Flight Test Base grew into a permanent flight testing facility. New planes continued to be tested there. North base was the site of many "firsts" — the first American turbo jet bomber (the Douglas XB-43) and the first American rocket-powered flying wings (the Northrop MX-324/334 and the Northrop XP-79B or "Flying Rant").

To meet the demand of a larger population at north base, additional buildings were constructed, including two hangars and a warehouse (buildings 4401, 4402 and 4318 erected in the mid-1940s and still standing) as well as barracks, a mess hall and maintenance shops. The control tower, a firehouse and a swimming pool, among many other structures, were added in later years.

In the 1950s, after main base was built and the USAF Test Pilot School established, growth at north base slowed.

The CIA flew U-2 and U-2R reconnaissance flights from there during the 1960s and 1970s. Since then, activity at north base has waned. Many of the early non-flightline structures at north base have been demolished or burned in fire practice.

However, from the 1980s through the present, north base hangars have been the home of special projects.

Story by Karla Tipton, Computer Sciences Corporation