





'Can do' crew

Whether supporting defense programs or making jetliner parts, Boeing teams in Utah have a long tradition of service

By Kathrine Beck and photos by Bob Ferguson

Boeing's relationship with Utah began simply, with a plane stop.

In July 1927, when a Boeing Air Transport touched down in Salt Lake City, the state was one of the many stops along an air route between Chicago and San Francisco. But in the eight decades since, Utah has become much more to Boeing than a stopover on the way to someplace else. Today, facilities in the Beehive State provide specialized parts for Commercial Airplanes and important services for the company's defense operations.

Boeing teams in Salt Lake City design and build the forward instrument panels

for all models of Boeing commercial airplanes. Overhead instrument panels and aisle stands-the console between pilot and co-pilot-for the 747, 777 and 787 all come from Salt Lake City.

And taking on varied work whenever a need arises around Boeing has both brought work to the state and earned Boeing employees there a nickname, the "can-do crew."

"We're really flexible," said Bryan McCleary, senior engineer at the Boeing site in Salt Lake City, where 455 employees work. "We're always ready to take on new work and reinvent the facility."

The 18-acre (7-hectare) Salt Lake City site is a center of excellence for complex machined Commercial Airplanes parts. Since 1987, employees there have

built all kinds of parts and assemblies, including the entire MD-80 fuselage. Recently, they completed a package for the 747-8 trailing edge and now they're at work on instrumentation for the 747-8 and 787-9.

"We're very big on Lean+ manufacturing, and when we change the shop around, we do it in a way to accommodate the best Lean processes," McCleary said. One area where the can-do spirit is especially important is Spares Fabrication, which makes parts for out-of-production airplanes. Mechanic Mike Espinosa described the work as being "different all the time. Lots of times we don't have tooling or shop aids for the parts, which

is most of the fun." Salt Lake City also is the only



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PHOTOS: (Clockwise, from far left) Bryan Woodward, Fabrication specialist, applies paint to a 787 console; Lynda Sutton, Fabrication specialist, attaches electrical jumpers on a 777 console; Fabrication specialists Phu Thai (left) and Mike Stice verify a part that came from a four-post press; Jesse Rocha assembles a 777 main instrument panel. All are at the Boeing Fabrication Salt Lake City facility.





Boeing site in the United States that sends no waste to a landfill.

"Everything that comes out of here that isn't an airplane part either gets turned into energy or is recycled," said Todd Silva, the site's Environment, Health and Safety manager. Cardboard, plastic and other items are sorted and sold to recyclers, generating revenue for Boeing. Food waste and garbage is trucked to a nearby facility, where it is burned to produce energy.

Leave Salt Lake City, head north 40 miles (65 kilometers) and you'll find another 370 Boeing employees at the Ogden site. They report to Strategic Missile Systems, part of Defense, Space & Security. Boeing has been supporting missile programs there since September

1960, when ground was broken on the U.S. Air Force Plant 77 for Boeing-built Minuteman Intercontinental Ballistic Missiles (ICBMs). The first one rolled off the line on April 12, 1962.

Today, Boeing provides sustaining engineering, modifications and upgrades for the ICBM fleet. Rick Schankel, Ogden site executive and ICBM program director, said the system is continuously upgraded to improve safety, security and capability, as well as to receive technical updates.

"I like this project because we're able to utilize new technology," said Lance Garner, project engineer for the **ICBM Security Modernization Remote** Visual Assessment Program. "We're continually upgrading because it's a reliable weapons system.

The Air Force has announced the ICBM system will be in place until at least 2030.

"Keeping this system operating is a huge responsibility," said Bill Burtts, deployment lead for replacing the environmental control system for the Minuteman III program. "We are trying to seamlessly work with the Air Force as we upgrade a missile system that no one wants to use, but it has to be on alert 24/7. This system is a critical part of the U.S. nuclear defense triad and we don't forget that."

The Ogden site population includes employees located in and around Hill Air Force Base and its annex, Little Mountain, as well as employees who support the ICBM program at remote missile silo locations.

Forty Boeing employees operate and

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maintain the Air Force-owned Little Mountain Test Facility. The site contains linear accelerators, shock and vibration equipment and a one-of-a-kind triaxial shaker and centrifuge. The bulk of the testing there supports the ICBM program, but the facility also provides an opportunity for Boeing-under an agreement with the Air Force-to generate additional revenue for the company by performing testing for other customers.

It turns out that a lab built to test the effects of a nuclear explosion also is a great place to test truck parts that need to withstand a lot of shaking.

Boeing employees support another Ogden-area Air Force facility, the Strategic Missile Integration Center. Boeing provides engineering support to the Air Force

personnel who test all ICBM modifications before they are deployed. Ogden Boeing employees also support the Ground-based Midcourse Defense system, as well as the A-10 Thunderbolt II, F-22, C-17 and C-130 aircraft.

injury or illness, a Boeing record that dates back to 2001.



Despite hazards such as ordnance, radiation sources, mobile cranes and high-voltage work, the Ogden site has racked up more than 4.5 million work hours without a day lost due to job-related

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PHOTOS: (Clockwise, from top left)

The view of Little Mountain Test Facilities from Promontory Point, at the northern tip of the Great Salt Lake; Ken Vordos, product acceptance specialist, completes a final inspection on a 787 main instrument panel; VaLynn Preece, Materials manager, displays a Lichtenberg figure, created by electrical discharges occurring between an electrode and an insulator (acrylic here), which form patterns resembling frozen lightening (application of electrical energy is a focus at the site); Gene Knot (left), Electromagnetic Effects lab technician, and John Law, Electromagnetic Effects physicist, simulate effects of electromagnetic interference environments on associated Air Force Weapon Systems support equipment; a test fixture is lowered for Shock and Vibration experts (clockwise. from top left) Chuck Simpson, Aaron Evans and Jerry Harper to assess the impact of simultaneous pitch, yaw and roll effects.