Big Change at Big Orange
Erickson Inc. diversifies
An Erickson S-64 Aircrane drops retardant during firefighting operations. Recent changes at the company have diversified its fleet and operations, so the company is no longer as reliant on the variable firefighting season. The company has also unveiled a new logo, seen here on the aircraft’s tail boom. *Kari Greer Photo*
Following two major acquisitions in 2013, a new Erickson was born. Vertical visited the manufacturer’s Oregon facilities to find out what the future holds for this most diverse of companies.

By Oliver Johnson
“It’s an iconic aircraft; it doesn’t sound like anything else when it flies in and out, it doesn’t look like anything else, and it can do some things that most other aircraft can’t do,” said Andy Mills, Erickson’s VP of commercial operations. “Everybody gets really attached to them. Every one of these aircraft has get a name on the nose — and there’s a reason for that. It’s personal to everybody.” Bill Campbell Photo
There’s something about those big orange helicopters. Something that fascinates even those that have no connection to — or usually any interest in — the rotary-wing world. It could be the role they so often play in fighting large wildfires; a role that the Erickson S-64 Air Crane alone seems to embody within the public consciousness, despite the variety of aircraft types employed to tackle such blazes. Perhaps it’s because of the eye-catching Herculean projects it takes on — such as a recent lift of the 90-foot by 90-foot America’s Cup-winning sailboat USA 17 to a new home outside software giant Oracle’s headquarters. Or maybe it’s just the sheer scale and appearance of the aircraft itself — everything about it is enormous, and with splayed legs and a fuselage that seemingly disappears behind the cockpit, at best it could be described as awkward-looking. Whatever the reason, the celebrity appeal of Erickson Inc.’s Aircranes seems to draw anyone with access to a camera to not just take photographs of the aircraft, but, whenever possible, with the aircraft.

This effect doesn’t appear to diminish with familiarity. Entering Erickson’s manufacturing facility in Central Point in southern Oregon, it’s hard not to notice the wall of merchandise at your side. Erickson-branded baseball caps, t-shirts, coffee mugs — and even tiny baby onesies — are available for proud employees who wish to fly the company colors.

But while the iconic aircraft will forever be the company’s flagship, times are changing at Erickson. Following two major acquisitions in 2013 (of McMinnville, Ore.-based Evergreen Helicopters, and Brazilian oil-and-gas transport provider Air Amazonia), Erickson went from about 700 employees and a fleet of 20 Aircranes, to 1,150 employees and a mixed fleet of 86 rotary-wing and fixed-wing aircraft in the space of a few months. At Heli-Expo 2014, the company announced a rebranding to reflect these changes — Erickson Air-Crane Inc. became Erickson Inc., and the orange Aircrane silhouette disappeared from the company logo. (However, the aircraft still has a place on the new logo — its distinctive six-bladed main rotor is incorporated into an orange “O” within the company’s name.)

Today, Erickson is many things: holder of the type certificate for the S-64, it’s an original equipment manufacturer (OEM); a maintenance, repair and overhaul (MRO) station; a school; and an operator of a truly mixed fleet (including light, medium and heavy helicopters) across a range of industries around the world. Because of this, it has pretty much a full house of Federal Aviation Administration operating certificates — under parts 21, 29, 33, 91, 133, 135, 137, 141, and 145 of the Federal Aviation Regulations.

However, in terms of operations, the company had changed little since its founding under Jack Erickson in 1971 until a private equity group purchased the company in 2007. Current president and chief executive officer Udo Rieder was appointed the following year, ushering in an era of change for the company that is affectionately known among its employees as “Big Orange.”

“For investors, it’s all about buying a company, investing as required in it, but then expecting growth,” said Rieder. “You definitely go from maybe a mode of, ‘Staying the same year over year is fine,’ to a mode of, ‘It’s all about growth — [so] how do we get in new markets?’ And we’re still doing that today.”

Rieder, an engineer by background, joined Erickson from Bombardier, following several years working in the commercial airline business. It wasn’t his first involvement in the rotorcraft business, however — early in his career he worked at Bell Helicopter, during which time he worked as a flight test engineer on the Bell-Boeing V-22 Osprey program. In a statement announcing Rieder’s appointment in 2008, executive director (and former Erickson CEO) Ralph Torney said Rieder had been selected “based on his track record in leading and growing complex organizations.” And with the Evergreen and Air Amazonia acquisitions, Erickson was about get a whole lot bigger, and a whole lot more complex.

With Evergreen, Erickson acquired a fleet of aircraft performing a variety of utility operations around the world, including disaster relief, search-and-rescue (SAR), and military logistics — many of which were on contracts with the U.S. Department of Defense (DoD).

Air Amazonia provided access to the similarly lucrative oil-and-gas market, as well as a firmer foothold in South America.
With the acquisitions, we’ve expanded into — number one: carrying people; number two: many different geographies; and then number three: a different gauge or scope of equipment,” said Rieder. This diversification not only provides access to new markets, he added, but provides a degree of protection from the volatility of others. Prior to the acquisitions, for example, 55 percent of the company’s business came from firefighting — a hugely unpredictable and variable source of work. Now, that figure is closer to 25 percent. “This year we had a really light firefighting year,” said Rieder. “If that would have happened three or four years ago — that’s a heavy burden for any one year.”

Commercial Aircrane work (including firefighting, logging, and construction) now combines to provide 38 percent of Erickson’s business, with its government services operations (inherited from Evergreen) providing 40 percent. Oil-and-gas work is currently at 15 percent, and the remainder comes from the company’s manufacturing and MRO work.

To better focus Erickson’s operations going forward, the company underwent a vertical realignment in January 2015, with vice presidents appointed to manage its key business segments: Andy Mills as VP of commercial services, Chris Bassett as VP of government services, Santiago Crespo as VP of oil and gas services, and Kerry Jarandson as VP of MRO and manufacturing.

In connection with its business segment realignment, the company announced a layoff of approximately 150 employees, primarily in Oregon, in early February 2015. “We value our team members deeply, and have been fortunate to build an organization that has demonstrated exceptional quality and commitment,” said Rieder. “This restructuring will create efficiency, reduce our costs, simplify lines of reporting and responsibility, and enhance accountability. We believe we will be better able to address the challenges we have seen in our end markets.”

TRADITIONAL MARKETS

As Erickson has evolved, so has its footprint spread across the state of Oregon. The entire company was based at the facility it owns in Central Point until the head office was moved to Portland in 2009. The acquisition of Evergreen provided a base in McMinnville (now home to Erickson’s government services division), while the company’s commercial aviation division moved to a new base at Rogue Valley International – Medford Airport (about five minutes’ drive from the Central Point facility) in February 2014.

Firefighting still makes up the bulk of Erickson’s heavy-lift operations, and it currently has six Aircranes in Australia — all of which are on five-year contracts — to cover the Southern Hemisphere wildfire season. In the Northern Hemisphere summer, it has eight S-64s on firefighting contracts with the U.S. Forest Service, and three in Greece. “It’s not a bad model for the firefighting aircraft,” said Andy Mills, Erickson’s VP of commercial operations. “We rotate the aircraft back and forth from Northern to Southern Hemisphere.”

The aircraft are usually transported to and from Australia by ship — a journey of about 30 days from dock to dock — but have also been flown in an Antonov An-124 if there’s an urgent need. “The upside to that is it only takes three days and they’re there; the downside is it’s hideously expensive,” said Mills. He added that the runway at Medford had to be lengthened and strengthened just to accommodate the giant airplane.

The Aircrane’s 2,650-gallon (10,000-liter) water tank system was designed in-house by Erickson’s engineering team, and provides pilots with the ability to drop loads in any of eight different coverage levels — from a fine spray to a “salvo drop” so powerful it can crush a car (and they have a test video to prove it).
“That tank system can drop with such an incredibly dense uniform pattern that there’s just almost nothing that can match it,” said Mills. “It’s the reason why we feel like we have a competitive advantage.”

Erickson’s engineers also designed a ram hydrofoil sea snorkel that allows the aircraft to refill its tank in under 40 seconds while flying at a forward airspeed of 50 to 60 knots — solving the corrosion problems caused by the salt spray kicked up by the aircraft’s rotors during hover refills over saltwater.

In terms of other commercial aviation work, Rieder said the Aircrane was getting close to some ground crane pricing, and hoped to raise awareness of the cost and time benefits of the aircraft among construction companies currently using ground cranes.

For Mills, power line construction is the most promising sector for growth in construction work. “We’re setting 15,000-pound side arms on control towers in bolt patterns that only have two inches of leeway,” he said. “There’s really nobody else that does that. That’s what separates us. That’s the value proposition to the customer.”

The typical crew configuration for construction work is three pilots — with the third pilot in the rear-facing seat within the bubble at the back of the cabin. In those instances, the two front seat pilots fly the load to the target, and then the back seat pilot takes the controls, with about 30 percent authority over the aircraft’s movements.

This position requires a different type of training, and of Erickson’s entire pilot corps of about 100 pilots, only six are back-seat qualified. “It’s a very specialized type of flying, and they’re already very experienced front seat pilots,” said Mills.

When considering new hires for the Aircrane, Erickson is generally looking for experienced, qualified, and confident pilots, according to Brian Clegg, Erickson’s VP of safety and operational compliance. Captains typically have a minimum of 3,000 hours, and co-pilots 1,500 hours — though applicants typically apply with many more. The company’s pilots average 9,000 hours.

“For potential crane pilots, you’re looking for pilots with a utility background, preferably some long line experience, either in [Sikorsky] S-61s, or Bell 212s — so you don’t have to teach them how to long line, you just have to teach them how to fly the crane,” said Clegg. “Attracting people isn’t a problem. We’ve got a really good pipeline of candidates.”
A Refined Service

Erickson has produced 33 S-64 Aircranes since it purchased the type certificate for the aircraft from Sikorsky in 1992, selling nine of those to other operators. The aircraft are converted from CH-54 airframes, and the company is currently producing them at the rate of one per year.

“We take the old military airframe, strip it down and rebuild it,” Kerry Jarandson, the company’s VP of MRO and manufacturing, told Vertical. That said, the company has already reached the point where it’s more cost effective to build the tail boom from new — one of three sections into which the aircraft is divided during manufacture. “We’re really approaching that same point on both the cockpit and center, too,” he said.

Two types of Aircrane are produced by Erickson — the S-64E and the S-64F. The primary difference between the two is the lift capacity; the S-64E can lift 20,000 pounds (9,000 kilograms), compared to the S-64F’s 25,000 pounds (11,340 kilograms), and the aircraft also have slightly different blades and landing gear.

Interestingly, while Erickson inherited the plans for the F-model’s design with the purchase of the type certificate, Sikorsky had never actually built one. Accordingly, Erickson’s manufacturing team had to work out how to do so — and this is just one of many engineering challenges the company has taken on with the production of the Aircrane. For example, when Erickson began producing the aircraft’s main rotor blades, they found that Sikorsky didn’t have the tooling to produce the blades any more — or even the design for the tooling.

“All we had was sort of a drawing that showed the finished product,” said Jarandson, “so we had to reverse engineer it, design all the tooling, and then produce the tooling to be able to get the blades into production.”

The aircraft’s design has been the subject of constant improvements over the years, from the installation of a glass cockpit, to an improved autopilot, new GPS units, and improved dynamic balancing on components that reduced vibration levels by half.

In 2013, Erickson also acquired the type certificate for the 4,800-shaft-horsepower JFTD12 engine from Pratt & Whitney — the final piece of the Aircrane production puzzle.

“We’re going to be able to manufacture any part in this engine,” said Kevin Haataja, Erickson’s quality manager and chief inspector. “It’s a lot to learn for us, but it’s exciting — and we know the engine very well from our operating experience. When the cranes were operating with the military, they would have maybe 2,000 to 4,000 hours total time on them. We have Aircranes right now that have over 35,000 flight hours on them. So obviously we’ve learned a lot in that time.”

Jarandson said the company was looking to take further advantage of its engineering expertise with legacy aircraft by increasing the amount of work it does with third party MRO customers — and other OEMs. His team recently rebuilt an Aérospatiale AS330J Puma inherited during the Evergreen acquisition from the ground up, and has begun a project to produce tail pylons for the CH-53E for Sikorsky.

For the S-64, the next major development will be the production of a composite main rotor — a program being undertaken in partnership with another Aircrane operator. The blades promise improved payload, lower fuel requirements, and lower production and maintenance costs. As Vertical went to press, the test blades were being built, with flight testing and then full production scheduled for later this year.

Rieder said the dynamic of being both an operator and an OEM/MRO — and therefore supporting your competition’s fleet — is managed by having a clear division between the aviation and OEM/MRO groups.

“The customers trust us,” he said. “On the aviation side, we compete hard and we’re out to win — but on the MRO side, our guys support everyone equally and evenly.”
Erickson’s newly-formed government services division is headed by Chris Bassett, who joined the company shortly after it acquired Evergreen. The division continues the relationship with the U.S. DoD first established by Evergreen in 1960, with operations in Afghanistan, Alaska, Hawaii, the Philippines, and three countries in Africa. Specializing in operations in remote, austere and hostile locations, the division offers a range of services including external load operations; rescue hoists; passenger, cargo, and combination loads; low-cost/low-altitude fixed-wing bundle drops; and medevacs.

These services are provided by a rotary-wing fleet that includes Bell 214STs, Bell 412EPs, SA 330J Pumas, and Eurocopter AS332 L1 Super Pumas; this is supplemented by a fixed-wing fleet of Beechcraft 1900D and Casa C-212 Aviocar aircraft.

“The purchase of Evergreen was very strategic because it gave Erickson the ability to offer air charter overnight,” said Bassett. As well as operating under part 135, the former-Evergreen aircraft are also certified by the Commercial Airlift Review Board. “That’s a layer of...
There are about 100 pilots in Erickson’s pilot corps, but only six are qualified to fly in the back seat for construction work. Bruce Foster Photo

BOTTOM: An S-61 lifts a load during support for oil-and-gas operations in South America. Erickson Photo
certification above and beyond what the FAA requires,” he said. “It requires a very high level of mandated safety.”

About 300 people work in the division, the majority of which have a military background. “They’re great people,” said Bassett. “They work in very tough conditions and they do it with pride and without complaint — and they’re very innovative.”

However, as contracts for operational support in Afghanistan come to an end, Erickson is exploring new opportunities for its specialized fleet.

“We’re going to look into [contracts with] the Department of Homeland Security and the Department of State,” said Bassett. “We’re going to look at more UN and NATO opportunities — broadening the spectrum of government aviation.”

Another major growth opportunity for Erickson is in the oil-and-gas sector — particularly in South America, due to its acquisition of Air Amazonia. Here, the company hopes to combine its heavy-lift utility experience with the passenger-carrying expertise developed by the former Evergreen to offer a unique “one-stop shop” multi-platform service to customers.

“The value proposition for us historically has been the AirCrane,” said Santiago Crespo, VP of oil and gas services. “We can lift heavy things, we can do it efficiently, and we can do it productively. With the acquisition of the other companies, not only can we provide customers with heavy lift, now we can provide them with passenger capabilities. So rather than dealing with two or three providers, they can go to Erickson for heavy-lift, medium-lift and light-lift support.”

Erickson already provides service across the spectrum of oil-and-gas activity — from seismic and exploration to the support of production and passenger transport. Crespo said that while this segment currently provided about 15 percent of the company’s revenues, he expected that to grow to 25 percent over the next couple of years, with opportunities to grow geographically beyond the current onshore operations in Alaska, Peru, Ecuador and Brazil. However, he said the next step would be developing a presence in the offshore oil-and-gas market, and then expanding into other services within its existing geographic markets.
“The Air Amazonia acquisition in terms of aircraft brought in some legacy aircraft that are still very capable for the onshore oil-and-gas support — S-61s, [Bell] 212s and [Airbus Helicopters] AStars — but more importantly it gave us access to the Brazilian market,” said Crespo. “We’re looking at the Brazilian market not only for the onshore and next the offshore oil-and-gas, but . . . we see opportunities in all our end markets in Brazil — even MRO opportunities, firefighting, logging, disaster support, and power line construction.”

The company announced its move into offshore operations in January 2015, with the signing of a two-year contract with HRT Participações em Petróleo, S.A. to provide transport to a rig 60 miles from Rio de Janeiro with two Sikorsky S-76C+ helicopters.

“The way we phase into these things is the near shore first — sub-100 miles out,” said Rieder. “[Companies like] Bristow, CHC and PHI are generally moving toward deepwater — and I think that will leave an opportunity in the near shore, and that’s where we’re well positioned to do some things.”

A NEW DAWN

With the company completing a period of transition unlike any in its 44-year history, there’s likely to be a few interesting topics of discussion for Rieder’s next lunch meeting with Jack Erickson. Although he no longer has investment in the company, Erickson likes to meet with Rieder once or twice a year to hear the latest goings-on at the company he founded. “He’s great, and he always tells me, ‘Udo, as long as my name’s on the tail, I’m always going to be interested,’ ” said Rieder.

From his own perspective, Rieder said there hadn’t been a dull moment in his six-and-a-half years at Erickson, adding that the key to the company’s success — and its future growth — is the dedication and quality of its employees.

“It’s easy to forget — we’ve been so focused on acquisitions and furthering our offering — that what makes all of this possible is our people,” he said. “We’re very fortunate. I kind of talk about us being at the top of the food chain; we get the best of the best — pilots, mechanics… everybody. That’s a good position to be in, because it’s the company with the best team that wins.”

New aircraft, new services, new industries and new locations; it’s an exciting period of change for Erickson. But one thing’s for certain: while the company may evolve, the Air Crane will continue to play a central role in its operations around the world — and it’s a weight of responsibility the heavy-lift icon is more than capable of bearing.