

Dallas Cowboys owner Jerry Jones recently acquired an H145 to fly over Dallas-Fort Worth-area traffic. (Airbus photo)



# The Evolution of Airbus Helicopters, Inc.

What was once a small subsidiary of LTV Corp. has become an integral part of the dominant seller of civil helicopters.

By Robert W. Moorman

**A**irbus Helicopters, Inc. is much like the dedicated theatre actor, who gives all to his art regardless of whether the house is full or not. In this instance, the less-than-full house is the metaphor for poor sales of civil rotorcraft presently. Yet, even in a down market, this Grand Prairie, Texas-based unit of the Airbus Group continues to evolve.

“The expanded role and footprint of AHI is an outstanding example of the global strategy pursued in recent years by its parent,” said Ray Jaworowski, senior aerospace analyst with Forecast International. This strategy, said Jaworowski, provides Airbus Helicopters with a presence in regional markets that can include anything from sales and marketing up to local manufacturing of components and entire helicopters. Equally important, this local presence enables the company to locate service and support centers near their customers.

While civil helicopter growth in the short-term is projected for outside of North America, over 25% of the world’s active single and twin-turbine civil helicopter fleet is based in the US, according to aerospace analyst Brian Foley, referring to figures compiled by data provider AMSTAT. “As such, the US is a very large market and having a local presence there is a strategic must for foreign manufacturers,” said Foley.

## Responding to Customers’ Needs

Chris Emerson, Airbus Helicopters, Inc. president and head of the North American region, who has held his post for two years, explained the challenges facing the company. “When I arrived in 2015, the downturn was there already. The question became: How can we capture business in a down market with five OEMs in the marketplace?” Emerson said.

One goal of Emerson’s was to determine “the differentiators” between Airbus and its competitors. “And the first thing to pop up was support,” he said. “In order for us to be successful in a tough market, we needed to be able to better respond to customers’ needs.”

The company streamlined operations over the last 18 months and restructured its management team. On-time parts deliveries improved from 83% to 98% as the company increased spare parts inventories from \$86M to \$150M, according to Anthony Baker, vice president of customer support. The parts are housed at the Dallas/Fort Worth Logistics Center at Dallas/Fort Worth International Airport. In large part, the improvement in parts delivery is due to the sizeable investment in spares inventory by Airbus Helicopters and Airbus Helicopters, Inc.

---

**“In order for us to be successful in a tough market, we needed to be able to better respond to customers’ needs.”**

---



**Airbus H125 (previously the Eurocopter AS350B3e) AStars and H130 (EC130) Ecostars sit in assembly at the Grand Prairie plant in 2014. (AHS photo)**

As part of its efficiency drive, the company moved its light gearbox work to Airbus Helicopters Canada Ltd. in Fort Erie, Ontario, and the twin gearbox work to Grand Prairie. In addition, the company created a network of well-stocked premium service centers to improve the level of support the company provides to Airbus helicopter operators.

“This network of high-quality regional centers can respond swiftly and provide commonly needed spare parts, repairs, and service capabilities now available only from Texas,” said Baker. Service centers chosen to participate in the Premium Service Center program receive “financial incentives to increase spares stocks.” The centers are measured and rewarded according to their ability to meet agreed-upon commitments. Managers and employees receive additional training in Airbus Helicopters support and services offerings.

A key development in the American subsidiary’s overall support is that it is authorized by Airbus Helicopters, under its European Aviation Safety Agency (EASA) certification, to perform airframe and structure repairs on the entire Airbus Helicopters product line in the US. This is an opportunity to increase business and revenues.

Airbus Helicopters, Inc. is one of four Federal Aviation Administration (FAA)-authorized organization designation authorization (ODA) companies in the US allowed to issue supplemental type certificates (STCs) for Part 27 and Part 29 rotorcraft on behalf of FAA.

Having the STC authority allows the Grand Prairie-based company to perform “more autonomous designs in the US,” said Michael Gardiner, senior director, head of engineering.

Having the FAA and EASA authorizations to develop STCs and to repair all of Airbus’ French and German designed models has bolstered Airbus Helicopters, Inc.’s support capabilities significantly. In effect, “the company has become an OEM within an OEM,” said Emerson.

### **Innovating**

Gardiner listed several ambitious projects on which the Texas subsidiary and its parent are working. One is a health and usage monitoring system (HUMS) for the light-single and twin-engine Airbus helicopters. The HUMS system is expected to be FAA certified on the EC145 model by end of 2017. Certification on other Airbus models will follow.

The company is working on adapting its Helionix integrated avionics system on other Airbus platforms. Helionix was introduced in 2013 on the H175 and has since been certified for the H145 and H135; all three models are expected to receive certification with a newer version of the Helionix avionics suite this summer. Enhancements to Helionix include a synthetic vision system and helicopter terrain awareness and warning system (HTAWS).



**This is an aerial view of the Airbus Helicopters, Inc. plant in Grand Prairie, Texas. (The adjacent facilities just off to the right make up the Safran Helicopter Engines USA plant.) (Airbus photo)**

Helionix comes with four electronic displays designed to improve pilots’ situational awareness. The system provides a four-axis autopilot to reduce workload and a safety-enhancing traffic advisory system (TAS) by assisting pilots in detecting and avoiding other aircraft.

Additional projects in Texas include: lithium-ion battery technology for Airbus rotorcraft, improvements on the avionics tactile devices, threat protection from electromagnetic interference (EMI) or ballistics, and improvement of technology for component services.



To accomplish these and other goals, the US company is further developing its relationship with academia, said Gardiner. The company is working on new technologies with the University of Ohio at Dayton, Pennsylvania State University, Georgia Institute of Technology (Georgia Tech), Mississippi State University in Starkville, and the University of Texas in Austin and Arlington.

Other potential opportunities for Airbus, said Emerson, include extending the operating life of the Airbus/Eurocopter EC120 with a major overhaul and refurbishment program for civil buyers, as well as looking at converting UH-72A helicopters into drones. The first Lakotas delivered to the Army are now a decade old, and at the 12-year mark, they will require a major inspection and overhaul. At some point, the Army will have to consider how much the aircraft costs to repair and upgrade versus buying new aircraft. If the Army starts divesting its older Lakotas, Airbus wants to be ready. Emerson said he's brought in additional UAS engineering expertise and is setting up a teaming agreement with an as-yet-unnamed supplier as an initial step for the drone project.

### Market Conditions

Over the last decade, growth — even in down years — was ensured by increased sales of new helicopters to support emergency medical services (EMS), tourism, law enforcement and the offshore oil and gas industry. Now, all of these market segments are flat or down, particularly the offshore market, whose fortunes have tumbled as of late.

Changes to the rotorcraft sales market in recent years are prompting AHI to innovate. “The [near-term] future for us is the replacement market. Growth will occur outside of North America mainly,” said Emerson. “And 2017 will look a lot like 2016.”

Emerson shared his views on the near-term future of the civil helicopter business. Air tour and EMS segments are no longer growth markets for new rotorcraft, he said.

Reduced sales in the EMS sector can be attributed in part to continued consolidation in the sector. And yet there is good news in this area on which to report. STAT MedEvac ordered three H135s to replace older aircraft in its fleet, with delivery scheduled for the fourth quarter of 2017. STAT is the first EMS operator in North America to operate the H135 equipped with the Helionix avionics system.

Airborne law enforcement has become a replacement market lately, said Emerson. The Los Angeles Police Department, California Highway Patrol and LA County Sheriff departments are examples of law enforcement groups across the US that are replacing their fleets of older helicopters.

The US Government allocated additional funding for more helicopters for US Customs and Border Protection (CBP), the largest US federal law enforcement agency. So additional sales of Airbus Helicopters to CBP is anticipated, said the Airbus executive.

The VIP market remains small, but there is a “growing awareness” among corporate executives and VIP customers on the value of a VIP-configured or utility rotorcraft transport, said Emerson. Of the 20 new Airbus helicopter customers, 90% were for VIP rotorcraft. One high profile customer is Texas neighbor Jerry Jones, owner of the Dallas Cowboys, who bought a six-seat, single-engine H145 as a timesaving aerial commuter.



4. Airbus conducted a US tour of the then-new AS332C1e (now H215) low cost Super Puma in 2014. Grand Prairie was responsible for supporting the launch. (AHS photo)



The Army bought the EC145 as the UH-72 Lakota, which is built in Columbus, Mississippi. (Note the contrast to the Dallas Cowboy's newer H145, which has the Fenestron tail rotor.) This aircraft, seen in Grand Prairie in 2014, was a company demonstrator. (AHS photo)

The buyer likes the H145 apparently. “The acquisition of our Airbus helicopter has been a dramatic addition to our organization in terms of production and efficiency and time management,” said Jones. “The Dallas-Fort Worth area continues to grow at a very rapid pace, and we have business interests and meetings to attend all over the metropolitan area. What was once a 45-minute drive in traffic from our world headquarters to our stadium has been reduced to a 15-minute trip, and that makes all the difference in the world.”

As for the military market, Emerson is candid. “The military side has been propping us up during this downturn,” he said. “Our military equation is to sell the best of what worked commercially to the military,” he added.

While the Lakota delivery program is winding down, there is ancillary business on which to capitalize. As of February 2017, the company delivered 36 UH-72A Lakotas to the US Army and secured a new five-year, \$1B contract from the Army to provide logistics support for Lakotas based in and outside of the US.

Despite a dramatic drop in total industry orders, Airbus Helicopters, Inc. and Airbus Helicopters Canada delivered a combined 60 new helicopters to the civil and parapublic markets in 2016, 50% of the total deliveries in North America.

## Airbus Helicopters, Inc. Milestones

**1960-1970s** – Airbus Helicopters, Inc. traced its history to the late 1960s as a subsidiary of the now-defunct LTV Corp. Vought Helicopter Inc., an LTV subsidiary, built a facility to market Aerospatiale helicopters in North America. Six years later, Aerospatiale bought out Vought and began marketing helicopters on its own. A new facility was built in Grand Prairie, Texas.

**1992** – The helicopter divisions of Aerospatiale and DASA (officially Deutsche Aerospace AG, later Daimler-Benz Aerospace AG) merged to form Eurocopter. Aerospatiale Helicopter Corp. (AHC) became American Eurocopter.

**2004** – American Eurocopter opened its facility in Columbus, Mississippi. Two years later, the site became the manufacturing plant for the US Army's UH-72A Lakota helicopter.

**2014** – On Jan. 2, 2014, the company was renamed Airbus Helicopters, Inc.



**The H125 AStar, now primarily built at the Airbus Helicopters, Inc. plant in Mississippi, is a strong seller in the airborne law enforcement market. (Airbus photo)**

New aircraft orders in 2016 included 33 H125 AStars built at the company's Columbus, Mississippi, plant. The H145 is growing in popularity in North America following seven orders placed in 2016. Airbus also booked orders for five earlier models in the H145 family, plus nine H130s and seven H135s.

The Texas Airbus's growing role in the overall company is demonstrated by the regionalization of its global networks.

Airbus Helicopters, the Marignane, France-based subsidiary of Airbus, in recent years invested heavily in technology, spares inventories and other steps to bolster its customer support.

The business structure is worth noting. Airbus Helicopters, Inc. is owned and governed by Airbus Group, Inc. (previously known as EADS North America), which owns the American helicopter business and all other US subsidiaries. Emerson reports directly to Barry Eccleston, President and CEO of Airbus Americas, Inc.

Emerson leads the three-pronged North American sector, which includes the Grand Prairie headquarters facility near Dallas. This facility provides sales, marketing, completions, customer support, training, and maintenance, repair and overhaul (MRO) work on Airbus rotorcraft mainly.

The Columbus, Mississippi facility, which opened in 2004 to perform light assembly and customization of AS350s and EC120s, as well as component manufacturing, was expanded in the 2006–2007 timeframe to include assembly and production for the twin-engine UH-72A for the US Army. At present, all US Army-bound Lakotas are built in Columbus. Fifteen-percent of the work on the Lakota is allocated to small businesses, as required by the US government, and over half of the Columbus facility's workers are veterans.

The Army has placed orders for 412 utility Lakotas. It has funding for 16 more for training purposes at Fort Rucker, but that order has not been placed pending resolution of Leonardo's lawsuit against the Army for not opening the bid to competition.

The recently approved fiscal 2017 defense budget provided funding and authorized acquisition of 28 additional Lakotas for various missions other than training. There are no options as such, "but we continue to have discussions with the Army about the possibility of additional Lakota orders," stated the company. "It is the Army's duty to identify its mission requirements and the types of aircraft best suited to fulfill those mission requirements. We stand ready to work with the Army to meet their requirements."

In 2014, Airbus Helicopters designated the Columbus plant the final assembly and test site for the H125, formerly the AS350. The reason was two-fold: to offset the winding down of the Lakota production, and to help boost completion-related revenue and sales of new Airbus helicopters to US government and law enforcement agencies.

The Columbus plant served as a model for the now-operating Airbus A320 commercial airliner final assembly plant in Mobile, Alabama, according to Forecast International.

The Fort Erie, Ontario, facility manufactures the cowlings for several Airbus helicopters. Non-aerospace work is done there as well.

Airbus Helicopters, Inc.'s duties and sphere of influence within Airbus has expanded significantly since beginning operations in 1969. As the market improves, the importance of this Airbus division throughout the Americas is expected to grow.

### About the Author

Robert W. Moorman is a freelance writer specializing in various facets of the fixed-wing and rotary-wing air transportation business. With 30 years of experience, his writing clients include several of the leading aviation magazines targeting the civil and military markets. He can be reached at [rwmassoc@verizon.net](mailto:rwmassoc@verizon.net).