

Erickson Air-Crane Inc
Form 10-K
March 08, 2013

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended December 31, 2012

Or

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

**For the Transition Period From to
Commission File Number 001-35482**

ERICKSON AIR-CRANE INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

93-1307561
(I.R.S. Employer
Identification No.)

**5550 SW Macadam Avenue, Suite 200,
Portland, Oregon**
(Address of principal executive offices)

97239
(Zip Code)

(503) 505-5800
(Registrant's telephone number, including area code)

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N/A

(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

(Do not check if a
smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of common equity held by non-affiliates of the Registrant as of June 30, 2012 was approximately \$26,839,664.

On March 1, 2013, 9,726,785 shares of common stock, par value \$0.0001, were outstanding.

Portions of the Registrant's Proxy Statement to be filed in connection with the 2013 Annual Meeting of Shareholders are incorporated by reference in Part III.

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PART I.

ITEM 1. BUSINESS

This annual report on Form 10-K (including, but not limited to, the following section regarding our Business) contains forward-looking statements regarding our business, financial condition, results of operations and prospects. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements, but are not the exclusive means of identifying forward-looking statements in this annual report on Form 10-K. Additionally, statements concerning future matters such as the development of new products, enhancements or technologies, sales levels, expense levels and other statements regarding matters that are not historical are forward-looking statements.

Although forward-looking statements in this annual report on Form 10-K reflect our good faith judgment, such statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties and actual results and outcomes may differ materially from the results and outcomes discussed in or anticipated by the forward-looking statements. Factors that could cause or contribute to such differences in results and outcomes include without limitation those discussed under the heading "Risk Factors" below, as well as those discussed elsewhere in this annual report on Form 10-K. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this annual report on Form 10-K. We undertake no obligation to revise or update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this annual report on Form 10-K. Readers are urged to carefully review and consider the various disclosures made in this annual report on Form 10-K, which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations and prospects.

Overview

We specialize in the operation and remanufacture of the Erickson S-64 Airplane ("Airplane"), a versatile and powerful heavy-lift helicopter. The Airplane has a lift capacity of up to 25,000 pounds and is the only commercial aircraft built specifically as a flying crane without a fuselage for internal loads. The Airplane is also the only commercial heavy-lift helicopter with a rear load-facing cockpit, combining an unobstructed view and complete aircraft control for precision lift and load placement capabilities.

We own and operate a fleet of 18 Airplanes, which we use to support a wide variety of government and commercial customers worldwide across a broad range of aerial services, including firefighting, timber harvesting, infrastructure construction, and crewing. We refer to this segment of our business as Aerial Services. We also provide aftermarket support and maintenance, repair, and overhaul services for the Airplane and other aircraft and remanufacture Airplanes and related components for sale to government and commercial customers. We refer to this segment of our business as Aircraft Manufacturing and Maintenance, Repair, and Overhaul ("Manufacturing / MRO"). As part of our Manufacturing / MRO segment, we also offer cost per hour ("CPH") contracts pursuant to which we provide components and expendable supplies for a customer's aircraft at a fixed cost per flight hour. We believe CPH contracts help our customers better predict and manage their maintenance costs. In 2012, our Aerial Services and Manufacturing / MRO segments generated revenues of \$161.4 million and \$19.4 million, respectively; in 2011, our Aerial Services and Manufacturing / MRO segments generated revenues of \$138.6 million and \$14.1 million, respectively; in 2010, our Aerial Services and Manufacturing / MRO segments generated revenues of \$105.7 million and \$12.5 million, respectively. In 2012, 2011, and 2010, we had operating income of \$33.4 million, \$16.6 million, and \$1.7 million, respectively. In 2012, we had net income attributable to Erickson Air-Crane of \$15.2 million; in 2011,

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we had net income attributable to Erickson Air-Crane of \$15.9 million; in 2010, we had net loss attributable to Erickson Air-Crane of \$8.1 million.

We own the Type and Production Certificates for the Aircrane, granting us exclusive design, manufacturing and related rights for the aircraft and original equipment manufacturer ("OEM") components. We invest in new technologies and proprietary solutions with a goal of increasing our market share and entering new markets. We have remanufactured 35 Aircranes for our own fleet and for our customers in several countries worldwide. To date, we have sold and delivered nine Aircranes. We are headquartered at 5550 SW Macadam Avenue, Suite 200, Portland, Oregon 97239 and our phone number is (503) 505-5800. We have production, maintenance, and logistics facilities in Central Point, Oregon. Our website address is www.ericksonaircrane.com. The information on, or accessible through, our website is not a part of this annual report on Form 10-K or any other report we file or furnish with the SEC.

Recent Developments

On March 6, 2013, we entered into a binding term sheet (the "HRT Agreement") with Air Amazonia Serviços Aéreos Ltda. ("Air Amazonia") and HRT Participações em Petróleo S.A. ("HRT"). Pursuant to the HRT Agreement, we have agreed to work in good faith towards establishing and executing definitive agreements and related documentation that would cause us to acquire (1) certain aircraft and other assets currently owned by entities controlled by HRT and (2) all of Air Amazonia's capital stock, for aggregate consideration up to \$75.0 million.

On March 6, 2013, we received a binding commitment letter from a bank syndicate led by Wells Fargo Capital Finance, LLC regarding funding of an agreement which consists of up to \$165.0 million in senior secured credit facilities. The commitment expires on April 15, 2013. For more information, see Note 7 to the accompanying audited financial statements.

Operating Segments

Aerial Services

We provide heavy-lift aerial helicopter solutions to domestic and international customers. Our Aircrane was designed as a versatile, airborne heavy-lift platform with capabilities that support a wide variety of missions and end-markets. The Aircrane is capable of providing heavy-lift solutions to a wide variety of industries, including firefighting, timber harvesting, infrastructure construction, oil and gas and energy related construction, disaster recovery, and emergency response. We own, operate, and maintain a fleet of 18 Aircranes, making us the world's largest Aircrane operator. We typically lease our aircraft to customers for specific missions, with customers generally paying for the aircraft, maintenance, and crewing services, and in some cases fuel expense. In addition, we currently provide crewing for four of the nine aircraft we have sold.

Our air crews consist of two or three pilots per aircraft who are capable of flying daily missions of up to 10 hours. Aircrane missions are highly specialized and require pilots, mechanics, technicians, and support crews with extensive experience in helicopter operations and in specific mission training. To support our commitment to safety and quality service, we recruit pilots with exceptional long-term in-flight helicopter experience and require that new hires spend significant time as co-pilots before graduating to full pilots, regardless of previous experience in other aircraft. We believe that our attractiveness to customers depends not only on the capabilities of our aircraft but also on the high level of training and abilities of our air crews and support personnel, as well as our safety policies and procedures.

Aerial services accounted for 89% of our consolidated revenues in 2012 (51% firefighting, 20% timber harvesting, 17% construction, and 12% crewing), 91% in 2011 (53% firefighting, 23% timber

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harvesting, 10% construction, and 14% crewing), and 89% in 2010 (52% firefighting, 28% timber harvesting, 5% construction, and 15% crewing). Our aerial services are seasonal, but our global operations help us mitigate the effects of seasonality; for example, the firefighting seasons in the U.S. and Europe typically run from May to October and in Australia the season typically runs from October to February.

Periodically, Aircranes are removed from service and undergo heavy maintenance activities, including inspections and repairs of the airframe and related parts as required. The actual time between heavy maintenance depends on many factors, including hours of operation, calendar time and kind of use. We perform the heavy maintenance procedures at our Central Point facilities. Heavy maintenance requires several months to complete during which time the Aircrane is not available to provide Aerial Services. We attempt to schedule heavy maintenance so that no more than one Aircrane is out of service undergoing heavy maintenance at any time.

Firefighting. Our Aircrane with an attached 2,650 gallon fire tank is a versatile, powerful, and cost-competitive aerial firefighter. The Aircrane has provided firefighting services globally, including services in the U.S., Canada, Italy, Greece, and Australia. Our firefighting customers include federal, state, local, and international government and commercial agencies. Under our typical firefighting contracts, aircraft are deployed to locations prone to seasonal fires and remain on standby throughout the fire season. For these contracts, which we refer to as exclusive-use contracts, we typically charge on a per-day basis for availability and on a per-hour basis for actual aircraft use. In some circumstances, we only charge for actual aircraft use; these contracts, which we refer to as call-when-needed contracts, have considerably higher daily and/or hourly rates than our exclusive-use contracts. Because fire seasons differ in the Northern and Southern Hemispheres, we are able to capitalize on the year-round demand for firefighting services by moving aircraft from one location to another.

Our 2,650 gallon fire tank features electronically controlled tank doors that allow for eight different coverage levels. The tank provides the Aircrane with a comparable delivery capacity of fixed-wing tanker planes and the increased maneuvering capabilities of a helicopter. Fixed-wing alternatives must land to reload or skim-load from large bodies of water. Our Aircrane reloads while in flight in 45 seconds or less from almost any available open water source deeper than 18 inches, including rivers, lakes, oceans, and cisterns. As a result, if there is an available water source nearby, the Aircrane can reload and return to its target significantly faster than fixed-wing alternatives, resulting in a substantially larger total drop capacity and a more cost-effective solution for fighting most fires.

Our proprietary accessories, including our water cannon, sea and pond snorkels, and hydromulch loading manifold, have helped us remain a leader in the firefighting market. As we look to increase our market share within the international firefighting market we will continue to pursue new product innovations.

Timber Harvesting. We have flown the Aircrane in high-performance, low-impact timber operations since 1971 in a number of regions, including the U.S., Canada, and the tropical forests in Malaysia. Our customers request our harvesting solutions primarily for high-value timber, such as tropical hardwoods and for remote area harvesting in locations that would otherwise require road construction or prohibit ground-based harvesting.

Aerial timber harvesting with the Aircrane is a cost-competitive, sustainable, and environmentally friendly method of harvesting high-value and difficult to access timber. Timber is vertically lifted and transported with our proprietary hydraulic grapple, minimizing the need for road development and large support crews on the ground. We believe one Aircrane can harvest and transport the same amount of timber in a day as approximately 50 ground tractors. The environmental benefits of this sustainable forest practice include far less damage to adjacent stands of trees, soil, and riparian areas.

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Infrastructure Construction. The Aircrane's rear load-facing pilot seat, combined with the skill and experience of our pilots, makes the aircraft particularly well-suited for infrastructure projects that require extreme precision in load delivery, such as electricity transmission and broadcasting towers, oil and gas pipelines, wind turbines, mining conveying systems, industrial equipment, emergency shelters, and ski-lift equipment. The Aircrane can be configured to transport heavy machinery and equipment such as heating, ventilating, and air conditioning HVAC units, automotive equipment, and other large cargo items.

We have developed a number of innovative mission-specific tools and accessories that further enhance our capabilities and increase our versatility, including our anti-rotation device and hoist, hydraulic grapple, and material transport bucket.

Crewing. For customers who purchase an Aircrane but lack qualified operating personnel, we offer pilots and field maintenance crews on an annual or multi-year contract basis. Because we are currently the largest employer of trained and qualified Aircrane pilots, crew chiefs, field mechanics, and other support personnel worldwide, we are often a critical solution for effective crewing of our sold aircraft. We provide crewing services for four of the nine aircraft we have sold since 2002. We provide crewing services on a multi-year basis to the Italian Forest Service in respect of four Aircranes we previously sold to the Italian Forest Service. We also provide maintenance and CPH for parts to this customer. Our contracts to provide services to the Italian Forest Service expire in June 2013. We are currently in discussions with the Italian Forest Service regarding contract extensions or renewal opportunities. However, we may not be successful in extending or renewing these agreements.

Aircraft Manufacturing and Maintenance, Repair, and Overhaul ("Manufacturing / MRO")

Through our Manufacturing / MRO segment, we manufacture new components on a contract basis, provide customers with Federal Aviation Administration ("FAA"), European Aviation Safety Agency ("EASA"), and Agência Nacional de Aviação Civil ("ANAC") certified MRO services in our AS9100-certified facility, and remanufacture Aircranes from existing airframes. The MRO process includes the disassembly, cleaning, inspection, repair, and reassembly of airframes, engines, components, and accessories, as well as the testing of complete engines and components. We perform major maintenance, repair, and overhaul on our own Aircranes, and we continue to provide parts and major maintenance and overhaul services to each aircraft we have sold. We also offer CPH contracts in which we provide all parts and service for a customer's aircraft at a fixed hourly rate, increasing our customers' ability to predict and manage their maintenance costs. Our Manufacturing / MRO segment accounted for 10.7%, 9.3% and 10.6% of our 2012, 2011, and 2010 consolidated revenue, respectively.

As the owner of the S-64 Type and Production Certificates, we have the exclusive authority and ability to remanufacture an Aircrane. We have remanufactured a total of 35 Aircranes for our own use and for sale to customers, and have sold one for domestic construction operations and eight for international firefighting operations. The sale of an Aircrane to an existing or potential Aerial Services customer may reduce future Aerial Services revenue opportunities with such customers or other third parties. In years when aircraft sales occur, they typically account for more than 10% of our consolidated revenues. We also build and remanufacture Aircranes for our own use as dictated by customer demand and currently own, operate, and maintain 18 Aircranes. All of our aircraft are remanufactured at our facility in Central Point, Oregon, enabling us to remanufacture an Aircrane to new specifications in approximately six to 14 months depending on specifications and lead times.

We have extensive capabilities in new parts production of airframes, aircraft systems, and avionics components for a wide variety of rotary aircraft. Our highly skilled mechanics and technicians regularly manufacture airframe subassemblies and other sheet metal parts and have machining capabilities that include computer numerical control milling, grinding, and lathing. Our manufacturing operations can fabricate hard-to-locate parts, or even reverse engineer and reproduce parts that may no longer be

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available from traditional sources. We manufacture aluminum main and tail rotor blades and have partnered with original equipment manufacturers to design and manufacture composite main rotor blades that we believe will significantly improve the performance of our Aircranes.

While we provide MRO services for our own Aircranes, we also continue to provide parts and major maintenance and overhaul services for every Aircrane we have sold. We perform similar operations on engines and other components for owners of other aircraft platforms. Our FAA-certificated repair station offers a full array of services from small repairs to extensive heavy airframe maintenance. Beyond the usual capabilities of a repair station, we have a team of engineers and resident Designated Engineering Representatives ("DER") to assist in repair salvages and modifications, as well as to address any engineering issues that arise during the maintenance process.

Competitive Strengths

We believe we have certain competitive advantages in the heavy-lift helicopter market, including:

Versatile Heavy-Lift Helicopter Solutions. The versatility and high payload capacity of the Aircrane, its proprietary mission-specific accessories, and the skill of our pilots and crews make the Aircrane an attractive solution for a wide variety of aerial services. We believe our fleet of 18 owned and operating Aircranes is the largest commercial fleet of helicopters in the world capable of carrying loads of up to 25,000 pounds and that our role as the remanufacturer of the Aircrane, combined with our scale, service readiness, and comprehensive global support network, provides us with a leadership position in the heavy-lift helicopter industry.

Vertically Integrated Business Model. We offer a full spectrum of heavy-lift helicopter solutions, including the design, engineering, development, manufacturing, and testing of the Aircrane, as well as Aerial Services and MRO services. We believe our integrated business model reduces our costs, diversifies our revenue stream, and results in better products and services through close collaboration between our product engineers and our operations personnel.

Established International Presence. During our history, we have operated in 25 countries across five continents. Global operations allow us to maximize the use of our fleet for seasonal aerial services and position us to capitalize on opportunities in a broad range of geographies. We currently maintain a year-round presence in Canada, Italy, Malaysia, and Peru, and a seasonal presence in Australia and Greece.

Proprietary Technologies and Continuous Innovation. We have made numerous design improvements to the Aircrane and have developed a variety of innovative accessories for our Aerial Services, including a 2,650 gallon firefighting tank and snorkel refill system, a "heli-harvester" for aerial timber harvesting, and an anti-rotation device and hoist that facilitates precision heavy load placement. We continuously explore ways to deliver innovative solutions to our customers and to potential customers in new markets.

Valuable Long-Term Customer Relationships and Contracts. We believe that our established relationships with customers, some of whom have been customers for more than 20 years, allow us to effectively compete for and win new projects and contract renewals. Our long-term relationships help provide us with visibility with respect to our revenue, aircraft utilization, and scheduled usage patterns.

Experienced and Growth-Oriented Management Team. Within the last five years, we have added the five members of our senior management team, including our Chief Executive Officer, our Chief Financial Officer, our Vice President and Chief Marketing Officer, Vice President of Aerial Services, and our Vice President, General Counsel, and Corporate Secretary. Our senior management team has an average of more than 20 years of experience in the aviation industry and rotorcraft sector. This

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professional aerospace team provides us with deep domain knowledge, extensive operational and manufacturing expertise, and strong customer and business relationships.

The Commercial Heavy-lift Helicopter Industry

The heavy-lift helicopter is a highly specialized aircraft which typically has an external load capacity greater than 10,000 pounds. This large external load capacity, combined with the helicopter's maneuverability, provides a solution in situations where ground-based or fixed-wing lifting solutions are not optimal. Heavy-lift helicopters are essential in numerous commercial applications, including firefighting, timber harvesting, infrastructure construction, and emergency response.

The heavy-lift helicopter industry extends beyond the services and operations of the aircraft, and encompasses all manufacturing, after-market services, and crew training required to properly equip the aircraft to support the demands of government agencies and commercial customers.

Commercial Heavy-Lift Helicopter Alternatives

The following table presents the most widely used commercial heavy-lift helicopters.

	S-64E/S-64F	CH-54A/ CH-54B⁽⁹⁾	S-61A/ S-61V⁽⁶⁾	Columbia 234 UT, 234 Combi / 234 Chinook⁽¹⁾	Columbia 107⁽¹⁾	KA-32⁽²⁾	MIL 26⁽⁷⁾
Manufacturer	Erickson	Sikorsky	Sikorsky	Boeing	Boeing	Kamov	MIL
Original Production	1962	1962	1959	1962	1964	1982	1977
Country of Origin	U.S.	U.S.	U.S.	U.S.	U.S.	Russia	Russia
Payload Capacity (lbs)	20,000/25,000	20,000/25,000	10,000/11,000	26,000/20,000	10,000	11,000	44,000
Range (nautical miles)	250/240	250/240	350/440	240/540	180	605	265
Speed (knots)	115/104	115/104	120/130	120	120	166	159
Primary Civilian Activities	Firefighting Timber Harvesting Construction	Firefighting Timber Harvesting Construction	Firefighting Timber Harvesting Construction Passenger Transport	Firefighting Timber Harvesting Construction Passenger Transport	Firefighting Timber Harvesting Construction Passenger Transport	Firefighting Timber Harvesting Construction Passenger Transport	Firefighting Construction Passenger Transport
Operating Restrictions							
Geographic	None	Country Specific	None	None	None	U.S. and Country Specific	U.S. and Country Specific
Category ⁽³⁾	Standard	Restricted	Depends on Configuration	Standard	Standard	Restricted	Restricted
Approximate Number in Operation	29 ⁽⁸⁾	12 ⁽⁸⁾	Unknown	6 ⁽⁴⁾⁽⁵⁾	12 ⁽⁴⁾	Unknown	Unknown

Note: External party data are based on internal estimates. All performance data are based on operations at sea level.

Sources:

- (1) Columbia Helicopters, www.colheli.com.
- (2) Kamov Helicopters, www.kamov.net.
- (3) Category restrictions include not being authorized to fly over populated areas, carry passengers, or operate in multiple countries.
- (4) PRWeb, www.prweb.com
- (5)

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Huffington Post, www.huffingtonpost.com

- (6) Siller Helicopters, www.sillerhelicopters.com
- (7) MIL Moscow helicopter plant, www.mi-helicopter.ru
- (8) See "Current S-64 and CH 54 Operations" below.
- (9) CH-54 aircraft have a similar frame and similar capabilities to the S-64, but, because they are military aircraft, they are limited in the U.S. in their allowed applications due to certification restrictions. Data was obtained from comparable S-64 aircraft within our fleet.

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Current S-64 and CH-54 Operators

The following table presents the current S-64 and CH-54 operators and the number of aircraft in operation.

	Standard	Restrictions for Use in U.S. ⁽¹⁾	
	S-64E/S-64F	CH-54A/CH-54B	Total
Erickson Air-Crane	18		18
Corpo Forestale (Italy)	4		4
Korea Forest Service	4		4
Siller Brothers	2	1	3
Helicopter Transport Services	1	11	12
Approximate Number in Operation	29	12	41

Note: External party data are based on internal estimates

- (1) CH-54 aircraft have a similar frame and similar capabilities to the S-64, but, because they are military aircraft, they are limited in the U.S. in their allowed applications due to certification restrictions.

Commercial Heavy-Lift Helicopter Markets

While heavy-lift helicopters have been used in a number of commercial applications, we believe that the key markets include firefighting, timber harvesting, infrastructure construction, and emergency response.

Aerial Firefighting

Aerial firefighting can be one of the most efficient means of combating wildfires because of the speed, mobility, and large carrying capacity of certain aircraft. The types of aircraft used in aerial firefighting include heavy-lift rotary aircraft such as the Aircrane, as well as fixed-wing aircraft, including the Bombardier CL-215 and 415, the Lockheed Martin C-130, and the McDonnell Douglas DC-10.

Aerial firefighting has a long and established history. In recent years fires have become increasingly destructive around the world. For example, fires in 2007 in Greece, in 2009 in Australia, and in 2010 in Israel had unprecedented impacts on land and property. However, fires are inherently unpredictable and are impacted by a number of factors outside of our control, such as weather, population deconcentration, government policies and resources, and human factors. Population deconcentration reflects both regional shifts in population and the increasing attractiveness of owning property for both seasonal recreation and full-time residency in areas adjacent to public land. According to the U.S. Department of Agriculture, Forest Service, North Central Research Station's report on wildland urban interface (WUI), population deconcentration has increased the amount of WUI, which has greatly complicated the mission of fire management in protecting communities at risk from wildfires. WUI creates an environment in which fire can move rapidly and readily, and threaten numerous buildings, homes, and people.

We believe that fire seasons in some areas are growing more intense and lasting longer, a phenomenon which some climatologists ascribe to climate change. This is consistent with findings in the 2009 Quadrennial Fire Review ("QFR"), an integrated strategic assessment process conducted by the U.S. Fire Executive Council and other government agencies to evaluate the future environment of fire management, which reports climate change will continue to result in a greater probability of longer fire seasons in various regions in the U.S. Over the past five years, longer and drier summers in the U.S.

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have contributed to an increase in the number and severity of fires annually. The QFR suggests that fire mitigation efforts must address potentially 10-12 million annual wildfire acres in the U.S. alone in the coming decade, up from the previous 2005 estimate of 8-10 million annual wildfire acres.

We believe that if fire seasons in the U.S. and other parts of the world intensify and lengthen, government agencies may require more firefighting resources for longer periods of time, which we believe may benefit heavy-lift service providers. This increased demand for firefighting services may also ultimately drive some users to transition from leasing aircraft to owning them.

Timber Harvesting

Heavy-lift helicopters are used in timber harvesting to remove cut trees from forests, lifting them on cables attached to the aircraft. Due to helicopters' relatively high operational costs, companies use heavy-lift helicopters to harvest primarily high-value timber used in high-grade wood products such as furniture and flooring. Aerial timber harvesting is well suited for accessing high-grade timber where challenging terrain or environmental concerns limit the possibility of building access roads.

Tropical timber species in particular can carry premiums large enough to justify aerial timber harvesting when more common harvesting methods are not economically, environmentally, or politically acceptable. Tropical species are often found in dense forests which are difficult to access and where the cost of building roads can be prohibitive. In addition, local governments are increasingly facing environmental pressures and have begun limiting, and in some cases forbidding, the use of access roads in order to protect and preserve forest lands. We believe the tropical forests of Malaysia and Indonesia present significant near-term opportunities for aerial timber harvesting, and think there are additional opportunities in South America and Southeast Asia.

In addition to tropical forestlands, a number of countries have high-value timber in mountainous and difficult-to-reach locations, where aerial timber harvesting is a highly attractive alternative, including regions of North America, Europe, and South America. North America, in particular, remains an attractive market for aerial timber harvesting. The demand for sawlogs, or softwood that typically carries a significant premium over pulpwood logs, remains strong and is expected to grow. We believe demand for our timber harvesting services in North America is correlated to estimated home starts in the U.S.

Growing environmental awareness is a factor driving the use of aerial timber harvesting solutions. Consumer demand for more socially responsible businesses helped third-party forest certification emerge in the 1990s as a tool for communicating the environmental and social performance of forest operations. As of January 2013, more than 170 million hectares of forest in 80 countries have received Forest Stewardship Council ("FSC") certification. Approximately 43 percent of these certifications are located in Europe, 41 percent in North America, seven percent in South America and Caribbean, five percent in Asia and Oceania, and four percent in Africa. Timber logged from certified forests is often more expensive and must be harvested in a sustainable manner, yielding growth opportunities for aerial timber harvesting as environmentally friendly forest resource management continues to grow in importance.

Infrastructure Construction

Heavy-lift helicopters are used in a variety of infrastructure construction projects, including oil and gas pipeline construction, transmission and utility grid construction, wind turbine construction, and offshore oil-development work. Additionally, heavy-lift helicopters are used in construction projects such as building construction, HVAC unit placement, ski lift construction, and mine conveyor belt construction. Aerial services are often the most efficient means to accomplish heavy-lift project goals.

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We believe growth prospects exist on a global basis, as infrastructure development opportunities arise in both developing and developed countries for power, oil and gas pipeline, and telecommunications construction. Throughout the world's developing economies, population growth, globalization, international trade, and reliance on technology have encouraged governments to accelerate various infrastructure development projects. We expect government agencies and private businesses to increase the number of power, oil and gas pipeline, and telecommunications construction projects in order to develop each of these sectors.

Building Construction and Specialized Heavy-Lift Projects

Heavy-lift helicopters have a diverse range of construction and specialized heavy-lift applications, including the lifting of HVAC systems to building rooftops, the placement of mining conveyor systems over challenging terrain, and the assembly of ski lifts. Heavy-lift helicopters have also been used for projects such as the development of a NASA platform for astronaut training, the transportation of the 15,000-pound "Statue of Freedom" from the U.S. Capitol for restoration, and the movement of snow to Cypress Mountain in British Columbia for the 2010 Winter Olympics. We believe additional opportunities exist in the construction of high-rise buildings (*e.g.*, lifting building materials and installing/removing construction cranes) and the construction of isolated structures such as bridges, tunnels, and ports. Heavy-lift helicopters are frequently used in building construction and specialized heavy-lift projects because they offer highly efficient and safe solutions and provide access to challenging terrain.

Energy Transmission and Distribution

Heavy-lift helicopters are also used to support electric transmission line construction, allowing utilities and construction services firms to install infrastructure in remote or hard-to-access locations where traditional access methods may be too costly or impossible. Additionally, heavy-lift helicopters allow utilities to construct large lines faster and with minimal environmental impact, an increasing concern for asset owners.

Significant infrastructure construction and other heavy-lift opportunities exist in mature economies as well. According to the American Society of Civil Engineers, the U.S. electric power grid and associated infrastructure is aging, overloaded, and in need of maintenance, upgrade, and expansion. The American Recovery and Reinvestment Act of 2009 ("ARRA") dedicated more than \$90.0 billion in government investment and tax incentives to lay the foundation for a clean energy economy, including grid modernization, renewable generation, and energy efficiency.

Alternative Energy

The global wind power market grew in 2011, bolstered by the approval of the second Kyoto Protocol and promises of strong policy support such as the U.S. Government's Production Tax Credit ("PTC"). The U.S and China accounted for 60.0% of the world's new wind turbine installation capacity in 2011 according to the Global Wind Energy Council. We believe heavy-lift helicopters have the ability to play an important role in the construction of wind turbines, particularly in the delivery and installation of turbine blades.

Oil and Gas Pipeline Development

We expect heavy-lift helicopters to play a significant role in the continued development of global oil and gas pipelines. Continued global demand for natural gas, crude oil, and petroleum products, coupled with production of gas and oil moving to more remote areas, drives the need for constant pipeline expansion. According to Pipeline and Gas Journal, January 2013 Volume 240 No. 1, an additional 117,000 kilometers of pipeline are expected to be developed by 2015, driven by significant

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increases in global consumption of natural gas and crude oil. We believe significant regional opportunities exist around the world for pipeline development, as new projects come on-line in the next few years.

After-Market Support

After-market support is an important element of the heavy-lift helicopter industry and includes Cost-Per-Hour ("CPH") agreements; maintenance, repair and overhaul ("MRO") services; specialized educational and training services; and the development of customized aircraft components and tools. CPH involves an original equipment manufacturer ("OEM") providing a full suite of parts and services (*e.g.*, replacement parts, spare parts replenishment, scheduled and unscheduled engine maintenance) to the aircraft it manufactures for a fixed CPH of utilization over a specified time period. The option provides a level of reliability and cost certainty for customers. It also allows OEMs to deepen their relationships with users, monitor the performance of their aircraft, and generate additional contracted revenue.

MRO business performance is directly correlated to the number of aircraft in service and the number of hours those aircraft are flown. In order to provide MRO services including major and minor maintenance, modifications, refurbishment, and repairs of aircraft airframes, engines and parts a provider must be licensed by the FAA in the U.S., EASA in Europe, and ANAC in Brazil. Crew training and education are additional after-market services for the heavy-lift helicopter industry. Typical training requires a combination of ground school and flight training, and in some cases, the use of flight simulators. Training may also include maintenance and type training, as well as annual FAA certification courses. Heavy-lift helicopter pilots are required to log a minimum number of flight hours each year and must keep current on all industry certifications.

Products and Services

Our Aircrane is a versatile and powerful precision heavy-lift helicopter with lift capacity of up to 25,000 pounds. The Aircrane is the only commercial aircraft built specifically as a flying crane, in contrast to those with fuselages built for internal loads. The Aircrane's unique design allows us to perform a wide variety of critical services, including firefighting, timber harvesting, and infrastructure construction. The Aircrane is the only helicopter in the world with a rear load-facing pilot station that provides an unobstructed view and complete control of the load being placed. We believe the aircraft's inherent versatility, large payload capacity, and precision placement capabilities provide us with competitive advantages and support our position as a leading provider of heavy-lift helicopter solutions worldwide.

The table below highlights the specifications of our two Aircrane models:

Specification	S-64E	S-64F
Power Plant	2 Pratt & Whitney JFTD12A-4A	2 Pratt & Whitney JFTD12A-5A
Shaft HP	4,500 per engine, 9,000 total	4,800 per engine, 9,600 total
Gross Weight (Max.)	42,000 pounds	47,000 pounds
Empty Weight	20,200 pounds average	20,400 pounds average
Payload Capacity	20,000 pounds	25,000 pounds
Max Cruise Speed	115 knots = 132 miles per hour	104 knots = 119 miles per hour

The Aircrane was originally manufactured by Sikorsky Aircraft Corporation. We purchased the S-64 Type Certificate from Sikorsky in 1992 and have since developed and certified numerous modifications and improvements to the original design, which have significantly enhanced the Aircrane's versatility and precision heavy-lift capabilities. In addition, we are committed to continuous innovation and the allocation of resources to the design, engineering, and development of new and

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improved Aircrane tools and accessories. Components such as the anti-rotation device and hoist, hydraulic grapple, and high-volume fire tank and snorkel enhance the Aircrane's ability to perform effectively and cost-efficiently. As we continue to enter new markets we will continue to design and develop products as needed.

Research and Development

Our research and development efforts have been critical to our success, and we dedicate significant resources to improving our aircraft's performance and developing new applications and products. We spent approximately \$4.7 million, \$4.8 million, and \$6.4 million on research and development in 2012, 2011, and 2010, respectively. We have recently completed several new product applications and aircraft accessories and have others under development, including our composite main rotor blades, with respect to which the detailed design is complete and manufacturing tooling is fabricated, and prototype blades have been fabricated.

We believe innovative new products and capabilities enhance the reliability and versatility of our aircraft in existing and new markets, enabling us to expand our markets, increase our customer base, and capture additional market share.

Backlog

Backlog represents the amount of revenue that we expect to derive from signed contracts, including oral contracts that have been subsequently memorialized in writing, or customer extension options. Our backlog consists of contracts with a duration of six months or more. For contracts that include both a daily and an hourly rate component, only the daily component of revenue is included in backlog and an estimate of the expected hourly revenue is not included. For contracts that include a guaranteed number of hours, the value of the guaranteed hours is included in backlog. For CPH contracts, which depend on hours flown by our customers, we calculate the contribution to backlog based on contracted minimum hours. When a binding aircraft sale contract has been signed with a customer, the purchase price of the aircraft not included in current revenues is included in backlog. When we sign a contract giving a potential purchaser an option to purchase an aircraft which only becomes bind