

# ARCHIVED REPORT

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## Adam Aircraft A700

### Outlook

- Adam Aircraft filed for bankruptcy in February 2008 before aircraft achieved certification
- AAI Acquisition, Inc, a new company created by former executives at Adam Aircraft and Russian investors, acquired company assets and sought to complete certification
- Turmoil in Russian credit market and marketwide decline in bizjet market have hurt efforts to restart production

### Orientation

**Description.** Twin-engine, six- to eight-seat entry-level jet.

**Sponsor.** Adam Aircraft Industries, Englewood, CO, USA.

**Status.** Early production and testing at the time of bankruptcy.

**Total Produced.** Four prototypes.

**Application.** Very Light Jet (VLJ) intended for air taxi, personal jet, corporate/executive transport.

**Price Range.** Estimated \$2.5 million in 2009 U.S. dollars.

## Adam Aircraft A700



Adam A700

Source: Adam Aircraft

## Contractors

## Prime

<b>Adam Aircraft Industries</b>	<a href="http://www.adamaircraft.com">http://www.adamaircraft.com</a> , 12876 E Jamison Circle, Englewood, CO 80112 United States, Tel: + 1 (866) 232-6247, Fax: + 1 (303) 406-5950, Email: <a href="mailto:john.hamilton@adamaircraft.com">john.hamilton@adamaircraft.com</a> , Prime
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## Subcontractor

<b>Avidyne Corp</b>	<a href="http://www.avidyne.com">http://www.avidyne.com</a> , 55 Old Bedford Rd, Lincoln, MA 01773 United States, Tel: + 1 (781) 402-7585, Fax: + 1 (781) 402-7599, Email: <a href="mailto:info@avidyne.com">info@avidyne.com</a> (FlightMax Entegra Integrated Flight Deck)
<b>Castle Precision Overhaul</b>	15148 Bledsoe St, Sylmar, CA 91342 United States, Tel: + 1 (818) 362-5665, Fax: + 1 (818) 367-1604 (Landing Gear)
<b>Meggitt Avionics/S-TEC</b>	<a href="http://www.s-tec.com">http://www.s-tec.com</a> , One S-TEC Way, Municipal Airport, Mineral Wells, TX 76067-9236 United States, Tel: + 1 (940) 325-9406, Fax: + 1 (940) 325-3904, Email: <a href="mailto:sales@s-tec.com">sales@s-tec.com</a> (Navigation & Communication Equipment)
<b>Williams International</b>	<a href="http://www.williams-int.com">http://www.williams-int.com</a> , 2280 E W Maple Rd, PO Box 200, Walled Lake, MI 48390 United States, Tel: + 1 (248) 624-5200, Fax: + 1 (248) 669-0040 (FJ33-4 Turbofan Engine)

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## Adam Aircraft A700

## Technical Data

**Design Features.** All-composite, twin-boom design with aft fuselage-mounted engines, two-spar wing with integral fuel tanks.

	<u>Metric</u>	<u>U.S.</u>
<b>Dimensions</b>		
Length	12.38 m	40.75 ft
Height	2.89 m	9.5 ft
Wingspan	13.41 m	44 ft
<b>Weight</b>		
Max payload	329 kg	725 lb
Max gross weight	3,167 kg	7,000 lb
<b>Performance</b>		
Max cruise speed	630 kmph	340 kt
Ceiling	12,500 m	41,000 ft
Range, IFR, 45 min res	2,037 km	1,200 nm
Range, VFR, 45 min res	2,592 km	1,400 nm

**Propulsion**

(2) Williams International FJ33-4 turbofans, 5.34 kN (1,200 lbst) each.

## Adam Aircraft A700

## Program Review

**Background.** Adam Aircraft of Englewood, Colorado, announced the all-composite, twin-engine, Williams FJ33-powered A700 in October 2002. The aircraft incorporates the twin-boom tail and airfoil of the company's piston-powered, "push-pull" A500, designed by Burt Rutan, but its fuselage has been stretched by about 30 inches to accommodate a lavatory and four passengers in a cabin just under 16 feet in length. Duncan Aviation is assisting with the interior design. Design specifications include a 41,000-foot ceiling and a max cruise speed of 340 knots.

The first A700, a proof-of-concept company demonstrator, made its first flight in July 2003 at Adam Aircraft's Centennial Airport headquarters. This testbed aircraft later underwent extensive modifications. Changes incorporated into the design, following 350 flight-test hours, included the addition of a belly fuel pod, a new throttle pedestal, a rudder and aileron trim system, an autopilot, pressurization, and updated Williams FJ33-4 engines with Full Authority Digital Engine Control (FADEC). The A700's Williams FJ33 engine was certificated in September 2004.

A second prototype was produced in November 2005 and successfully completed its initial flight in February 2006. This second A700 has been the primary flight test vehicle used for FAA Type Certification. A third pre-certification flight-test aircraft was completed in early 2007.

### ***Backlog Growth Despite Delay***

Adam Aircraft initially intended for the A700 to enter service by 2004, but delays arising from the A500 certification program backed up the company's product development line, delaying development and the service-entry date of the A700.

Despite the delays, the A700 began garnering orders while still undergoing early flight tests. In May 2004, Adam Aircraft announced that it had received a 75-aircraft order from Pogo, a startup air taxi outfit formed by Donald Burr (founder of People Express) and Robert Crandall (former American Airlines chief executive).

In 2006, Adam Aircraft entered into a strategic partnership with ST Aerospace, a subsidiary of Singapore Technologies Engineering Ltd. The partnership was in line with Adam Aerospace's objective to

lower ownership and operating costs in addition to expanding aviation support. Under the partnership, ST Aerospace is providing engineering, logistics (including components), maintenance, repair, and overhaul support for the A700 and A500. The partnership will also provide ST Aerospace with the option, exercisable within seven years, to invest up to \$50 million in the company.

During 2007, the company brought in John Wolf, a former executive vice president at McDonnell Douglas, to serve as chairman and chief executive officer of the company in place of Rick Adam, founder of the company.

The company was having trouble moving from development to production. Building the company's piston-powered A500, which suffered from a lack of orders, drained resources from efforts to certificate the A700 and move it into full production.

The company announced it had completed a second round of funding in August 2006. Led by venture capital firms DCM, Mesirow Financial, W Capital Partners, Shaw Laminar Portfolios LLC, and Acadia Woods Partners, as well as a number of European investors, the capitalization effort netted \$93 million. The capital was to be used to accelerate certification of the A700 and increase production of the A500.

Still, this capital was not enough to save the company. Funding continued to be an issue, and on February 15, 2008, Adam Aircraft filed bankruptcy under Chapter 7 in a federal court in Colorado. The move toward Chapter 7 was significant since, unlike a filing under Chapter 11, it required liquidation of the assets of the company.

The assets of the company were acquired in bankruptcy by AAI Acquisition, Inc, a new entity formed by senior managers at Adam and Industrial Investors, a Russian private equity investment firm.

AAI injected new capital into the A700 program and spent the remainder of 2008 working toward certification of the aircraft. All operations will be conducted in the company's Denver facility. The Adam Aircraft facilities in Pueblo, Colorado, and Ogden, Utah, were not part of the bankruptcy sale.

## Timetable

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<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Oct	2002	A700 announced
Jul	2003	Prototype first flight
Late	2007	Planned certification
Feb	2008	Adam Aircraft files for bankruptcy

## Forecast Rationale

Adam Aircraft went bankrupt in February 2008 before it could certificate the A700. The intellectual property of the company and its production facility in Denver were subsequently bought in March 2008 by AAI Acquisition, Inc, a new entity created by former senior managers at Adam, and Industrial Investors, a Russian private equity investment firm.

The A700 had racked up a strong order book and generated considerable enthusiasm among VLJ customers. Through 2006, the A700 had garnered 341 orders, including 276 for fleet operations, nearly all of which came from just three customers: Stratford, Connecticut-based Magnum Jet (110 aircraft), Monte Carlo-based NexusJets (96), and China's Hainan Zhong Hong Tai General Aviation Airlines (50). Another 65 were on order by owner/operators.

AAI's plan was to acquire the program for a fire sale price and then inject an estimated \$200 million in new capital to finish certification of the aircraft and acquire a

production certificate from the FAA. By October 2008, the new owners were saying publicly that certification of the A700 would be achieved by the third quarter of 2010.

But in just a few short months, the economy changed drastically. By February 2009, the company's Russian investors were looking to sell their stake in AAI. The world was in the midst of a financial crisis, and a global economic slowdown, along with a major downturn in the bizjet market, was on the way. The Russian financial sector had been particularly hard hit in the financial crisis. Capital was rapidly drying up to fund new aircraft programs.

AAI began to downsize in November 2008, and the A700 program appears to have slowed to a crawl, if not stalled outright. We are not expecting production of the A700 at this time, but will continue to monitor the program.

## Ten-Year Outlook

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No production forecast.

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