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Aircraft Industries L 610 - Archived 8/2007

Outlook

- LET factory is under new ownership
- New owners have decided not to continue work on L 610
- The program may be sold to other parties



Orientation

Description. Pressurized, short-range, 40-passenger, twin-turboprop commercial transport.

Sponsor. The L 610 is sponsored by Aircraft Industries a.s.

Status. The L 610 program has been shelved by Aircraft Industries. Negotiations are ongoing regarding selling the program to interested parties.

Total Produced. Seven flyable development aircraft have been produced, including five with M 602 engines

and two with CT7-9D engines. One aircraft has also been built for use in static testing.

Application. Short-range scheduled and charter passenger transportation on stage lengths of approximately 220-350 nautical miles. Additional potential applications include small package and light freight hauling, medical evacuation, and military transport.

Price Range. L 610G, \$8.0-\$13.0 million in 2002 U.S. dollars.

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L 610G Source: Czech Republic Air Force

Contractors

Prime

Aircraft Industries a.s.	http://www.let.cz, Na Zahonech 1177, Kunovice, 686 04 Czech Republic,
	Tel: + 420 572 818111, Fax: + 420 572 816112, Prime

Subcontractor

GE - Aviation	http://www.geae.com, 1000 Western Ave, Lynn, MA 01910-0001 United States, Tel: + 1 (617) 594-0100, Fax: + 1 (617) 594-4729 (CT7-9D Turboprop Engine)
Hamilton Sundstrand	http://www.hamiltonsundstrand.com, One Hamilton Rd, Windsor Locks, CT 06096-1010 United States, Tel: + 1 (860) 654-6000, Fax: + 1 (860) 654-2621, Email: hs.general@hsd.utc.com (Environmental Control System; HS-14RF-23 Propeller System)
Honeywell Lighting & Electronics	http://www.honeywellaes.com/lighting/index.jsp, 550 Route 55, PO Box 247, Urbana, OH 43078 United States, Tel: + 1 (937) 484-2000, Fax: + 1 (937) 484-2008 (Lighting)
Nord-Micro AG & Co OHG	Victor-Slotosch-Strasse 20, Frankfurt/Main, 60388 Germany, Tel: + 49 6109 303 0, Fax: + 49 6109 303 233, Email: mail@nord-micro.de (Cabin Pressure Control System)
Rockwell Collins Inc	http://www.rockwellcollins.com, 400 Collins Rd NE, Cedar Rapids, IA 52498-0001 United States, Tel: + 1 (319) 295-1000, Fax: + 1 (319) 295-5429, Email: collins@rockwellcollins.com (Pro Line II Avionics System)

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CT 06470, USA; rich.pettibone@forecast1.com

Technical Data

(L 610G)

Design Features. Cantilever high-wing monoplane with T-tail unit. The engines are mounted in nacelles under the wing. The aircraft fuselage has a cylindrical section between the flight deck and the tail. Hydraulically retractable, tricycle-type landing gear are used with single-wheeled units.

	<u>Metric</u>	<u>U.S.</u>
Dimensions		
Wingspan	25.60 m	84.0 ft
Wing area	56.0 sq m	602.8 sq ft
Length	21.72 m	71.26 ft
Fuselage maximum diameter	2.70 m	8.86 ft
Fuselage length	20.53 m	67.37 ft
Overall height	8.19 m	26.87 ft
Cabin length	11.10 m	36.42 ft
Cabin maximum width	2.54 m	8.33 ft
Cabin maximum height	1.85 m	6.08 ft
Cabin volume	44.7 cu m	1,578 cu ft
Weight		
Operational empty weight	9,860 kg	21,738 lb
Maximum TO weight	15,100 kg	33,290 lb
Maximum landing weight	14,800 kg	32,628 lb
Maximum payload	4,536 kg	10,000 lb
Performance		
Maximum cruise speed at 20,000 ft	450 km/h	243 kt
Range, at 14,000 ft, ISA, with 45-min		
reserves and 100-nm diversion	2,420 km	1,305 nm

Propulsion

L 610G

(2) General Electric CT7-9D axial-centrifugal-flow turboprop engines, each rated 1,305 kW (1,750 shp), and each driving a Hamilton Sundstrand HS-14RF-23 propeller system.

Seating

Forty passengers, single aisle, four abreast at 30-inch pitch.

Variants/Upgrades

<u>L 610M</u>. Initial version, equipped with Soviet and Czechoslovak avionics and Motorlet Walter M 602 three-spool turboprop engines. Six prototype/development aircraft were built, including one used for static testing. First flight occurred in December 1988.

In 1997, LET froze work on the L 610M to focus on the L 610G program.

<u>L 610G</u>. Although renamed the Ayres 7000 in 1999, this version reverted to its original L 610G designation after Ayres Corp lost control of LET. It is similar to the L 610M, but with Rockwell Collins Pro Line II avionics, a Hamilton Sundstrand environmental control system, and twin GE CT7-9D turboprop engines driving Hamilton Sundstrand propellers. First flight was



L 610M (2) Motorlet M 602 three-spool, centrifugal-flow turboprop engines, each rated 1,358 kW (1,822 shp), and each driving an Avia V-518 five-blade, fully feathering, reversible pitch propeller.

Aircraft Industries L 610

originally scheduled for 1991. GE delivered the first two flight test engines in March 1991.

Roll-out of the initial L 610G prototype occurred in the fall of 1992. First flight took place in December 1992. Two L 610G prototypes have been built. Construction

Program Review

completed.

L 410 derivative.

Background. LET a.s. began development of a 40passenger regional turboprop called the L 610 in 1985. In 1989, the Soviet airline Aeroflot had a requirement for 600 L 610s. In the wake of the dissolution of the Soviet Union, this large potential order evaporated, leaving LET scrambling to find alternative customers.

The L 610 is a pressurized, air-conditioned stablemate of the L 410, a commuter in the 15-20 seat class. The L 610 was designed to meet an Aeroflot requirement for a 40-seat commuter transport.

<u>Aircraft Design</u>. LET designed the L 610 for economical operation in extreme climates from short unprepared grass, sand, or gravel strips. Designed to meet Soviet ENLG-S requirements, the L 610 airframe was intended to have a 20,000-hour service life with 30,000 cycles. The wing is a single-piece unit using single-slotted Fowler flaps with up to 38 degrees of deflection, spoilers, ailerons, and de-icing using leading-edge pneumatic boots.

Discussions with BAE. OMNIPOL, which handled export sales of some Czech aerospace products, held discussions with British Aerospace in 1988 concerning marketing the L 610 in the West. The new commuter would have fit well in BAE's then-current product line of commuter aircraft between the Jetstream 31/41 and the larger 64-passenger Jetstream 61/ATP. However, nothing came of these discussions.

<u>GE Awarded Contract for CT7 Powerplant</u>. In January 1991, GE Aircraft Engines was awarded a contract to supply its CT7-9D turboprop engine for installation aboard the L 610. GE delivered the first two CT7s to LET in March of that year. In May 1991, Hamilton Standard (now called Hamilton Sundstrand) signed a contract with OMNIPOL and LET to provide its R79 environmental control system and its 14F propeller system for the L 610.

In June 1991, the German firm Nord-Micro signed a contract with LET to supply a cabin pressure control system for the L 610. That same month, Rockwell Collins was selected to provide Pro Line II avionics for the aircraft. Collins delivered a complete shipset of the Pro Line II avionics to LET in May 1992. The Pro

Line II system includes the five-tube EFIS-86 electronic flight instrumentation system, the WXR-350 weather radar, the APS-65 autopilot, the AHS-85 attitude/ heading reference system, and comm/nav/pulse.

of a third aircraft was started but has not been

L 650. Possible 25-30 passenger aircraft that LET had

considered to fill the gap between the L 410 and the

L 610. It could be an all-new aircraft or an L 610 or

Other suppliers for the L 610G include: Goodrich (deicing systems, windshields, and intakes), Honeywell (lighting), Mikrotechna (some cockpit instruments), Moravan (wheels and brakes), Technometra (landing gear), Teleflex (control cables), and Testori (interior).

Potential Fairchild/LET Joint Venture Dropped

Discussions ended in early 1995 between LET and the U.S. company Fairchild Aircraft Inc regarding formation of a joint venture. The two companies had been engaged in periodic discussions since 1993. In June of that year, Fairchild announced that it planned to purchase a majority share in LET. However, the deal was never finalized, and the companies eventually abandoned the idea because the privatization and restructuring process of LET was taking too long.

If Fairchild had completed the acquisition of LET, the U.S. company would have added the L 610 (and the L 410) to its aircraft product line. The two aircraft would have continued to be built at LET's Kunovice plant.

<u>Ayres Acquisition</u>. In August 1998, the U.S. company Ayres Corp purchased a 93.6 percent stake in LET. Ayres purchased shares belonging to Aero Holding and the bank Konsolidacni Banka. The remaining shares remained in the hands of small shareholders, who owned less than one percent each.

However, in October 2000, a Czech court declared LET bankrupt after hearing petitions from creditors and from a labor union representing unpaid employees. The court removed LET from the control of Ayres and appointed a trustee to oversee the company's assets.

Ayres had changed the name of the L 610G to the Ayres 7000 in 1999. After the company lost control of LET, the aircraft's designation reverted to L 610G.

Aircraft Industries L 610

LET Acquired by Moravan Aeroplanes

Moravan Acquisition. In July 2001, LET was acquired by the Czech company Moravan Aeroplanes Inc, which renamed it LZ Aeronautical Industries Inc. The deal did not include the L 610 program. In early 2002, though, LZ purchased the program.

Timetable

In March 2004, LZ formally entered bankruptcy. As LZ was no longer under the control of Moravan Aeroplanes, a court-appointed administrator began overseeing LZ's assets. In July 2005, all LZ assets were acquired by Aircraft Industries a.s., a subsidiary of the Czech company PAMCO INT. a.s.

<u>Month</u>	Year	Major Development
	1985	Development of L 610 begun
Dec	1988	First prototype makes initial flight
Jan	1991	GE awarded engine contract
Мау	1991	Hamilton Standard signs ECS and propeller agreement
Jun	1991	Collins Pro Line II avionics selected for L 610
Fall	1992	Roll-out of L 610G
Dec	1992	First flight of L 610G

Forecast Rationale

New Ownership

In July 2005, a newly formed company called Aircraft Industries a.s. acquired all of the assets of LZ Aeronautical Industries, including the LZ factory in Kunovice. LZ had entered bankruptcy in March 2004, and a court-appointed administrator had been overseeing the company's assets.

In the meantime, the L 610G program was in a state of uncertainty. Hoping to secure \$40 million to complete certification of the L 610G, LZ had begun negotiations with potential investors in 2002. At the time, three possible cargo versions of the L 610G were being studied by LZ. One was a freighter version of the standard 40-passenger aircraft, with capacity for four LD3 freight containers. Another was a stretched

Ten-Year Outlook

No forecast.

version capable of accommodating five LD3s. A third had a rear loading ramp and capacity for six to eight containers. In 2003, LZ reported interest from an unnamed South Korean customer for 20 L 610Gs.

Work Ceased on L 610 Program

However, soon after assuming ownership of the LZ assets, Aircraft Industries decided not to continue work on the L 610 program. The company is currently negotiating with unidentified parties that are interested in buying the program.

Pending further developments, no forecast is issued for the L 610.

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