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Airbus A340

Outlook

- Airbus announced termination of the A340 program in late 2011
- Airbus delivered two A340-500s in December 2012 to AJW Capital Partners, but these were likely whitetail aircraft
- Production of the A340-300 and A330-600 models ended in 2008 and 2010, respectively

Orientation

Description. Long-range, four-engine widebody commercial transport aircraft.

Sponsors. The governments of France, Great Britain, Germany, and Spain.

Status. Out of production.

Total Produced. Airbus delivered 377 A340s through 2012, including 246 A340-200/300s, 34 A340-500s, and 97 A340-600s.

Application. Intercontinental-range passenger transport.

Price Range. A340-500, \$261.8 million.



Airbus A340-600

Source: Airbus

Airbus A340

Contractors

Prime

Airbus France	http://www.airbus.com , Site de Saint Martin du Touch, 316 Route de Bayonne, Toulouse, 31060 France, Tel: + 33 5 61 93 55 55, Prime (Flight Control Primary Computer; Final Assembly)
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Subcontractor

Acc La Jonchere	http://www.acc.fr , 5 Rue des Ateliers, BP 203, Compiègne Cedex, 60202 France, Tel: + 33 33 0 3 44386666, Fax: + 33 33 0 3 44386667, Email: acc@acc.fr (Nacelle Duct Assembly from Rohr Europe)
Acc La Jonchere	http://www.acc.fr , 5 Rue des Ateliers, BP 203, Compiègne Cedex, 60202 France, Tel: + 33 33 0 3 44386666, Fax: + 33 33 0 3 44386667, Email: acc@acc.fr
Aerolia	http://www.aerolia.com , Boulevard des Apprentis, BP 50301, Saint Nazaire, 44605 France, Tel: + 33 2 28 54 80 00, Fax: + 33 2 28 54 81 31 (Forward Fuselage, Lower Half)
Aeronca Inc, A Magellan Aerospace Company	http://www.magellan.aero , 2320 Wedekind Dr, Middletown, OH 45042 United States, Tel: + 1 (513) 422-2751, Fax: + 1 (513) 422-0812 (Nacelle Centerbody; Nacelle Forward Nozzle Assembly; Nacelle Liner)
Airbus Deutschland GmbH	http://www.airbus.com , Kreetlag 10, PO Box 950109, Hamburg, 21129 Germany, Tel: + 49 40 743 70, Fax: + 49 40 7434422 (Fuselage Section; Rear Upper Portion of Fuselage Center Section; Tail; Vertical Stabilizer; Wing Less Wing Box & Wing Assembly; Interior)
Airbus France, Nantes Bouguenais	http://www.airbus.com , Route de l'Aviation, BP 81925, Nantes, 44019 France, Tel: + 33 2 51 19 70 00, Fax: + 33 2 51 19 71 00 (Aft Center Lower Fuselage Section; Wing Carry-Through Structure; Center Fuel Tank)
Aircelle	http://www.aircelle.com , Route du Pont 8, BP 91, Gonfreville-l'Orcher, 76700 France, Tel: + 33 2 35 55 47 00, Fax: + 33 2 35 53 05 21, Email: aircelle.csc@snecma.fr (Nacelle Lower Door)
Alcoa Fastening Systems, Aerospace Products	http://www.alcoa.com , 900 Watson Center Rd, Carson Operations, Carson, CA 90745 United States, Tel: + 1 (213) 830-8200 (Huck-Clinch Blind Rivet)
Alenia Aermacchi	http://www.aleniaaermacchi.it , Via Ing. Paolo Foresio, Venegono Superiore, 21040 Italy, Tel: + 39 0331 813111, Fax: + 39 0331 827595, Email: communication@alenia.it (Tail Cone)
Becker Flugfunkwerk GmbH, Becker Avionics Systems	http://www.becker-avionics.de , Bldg B108, Baden Airpark, PO Box 1980, Rheinmuenster, 77836 Germany, Tel: + 49 49 7229 305294, Fax: + 49 49 7229 305241, Email: info@becker-avionics.de (Audio Intercom System - Standard)
Bombardier Aerospace	http://www.bombardier.com , 400 Côte-Vertu Rd W, Dorval, H4S 1Y9 Quebec, Canada, Tel: + 1 (514) 855-5000, Fax: + 1 (514) 855-7401 (Aft Pressure Bulkhead; Floor & Lateral Shell Beam; Floor & Lateral Shell Frame; Keel Beam; Nose Bottom Fuselage; Nose Landing Gear Door; Pressurized Lateral Floor)
CFM International Inc	http://www.cfm56.com , 111 Merchant St, PO Box 15514, Mail Drop Y11, Cincinnati, OH 45215 United States, Tel: + 1 (513) 552-3272, Fax: + 1 (513) 552-3329, Email: geae.csc@ae.ge.com (CFM56-5C1/C2/C4)
Cerberus Guinard	BP 20, ZI 617, Rue Fourny, Buc Cedex, F-78531 France, Tel: + 33 01 308 46652, Fax: + 33 01 395 61364 (Smoke Detection System)
Chemetall GmbH	Trakehnerstr 3, Frankfurt, D-60487 Germany, Tel: + 49 69 7165 0, Fax: + 49 69 7165 2936, Email: peter.haenel@chemetall.com (Sealants)
Corse Composites Aeronautiques	ZI du Vazzio, Ajaccio, F-20090 France, Tel: + 33 95 29 04 00, Fax: + 33 95 29 04 33 (Fuselage, Wing, Internal Fitting Components)
Diehl BGT Defence GmbH & Co KG, Plant Überlingen	http://www.diehl.com/en/diehl-defence.html , Alte Nussdorfer Strasse 13, Überlingen, 88662 Germany, Tel: + 49 75 51 8901, Fax: + 49 75 51 89 2822, Email: gerhard.dussler@bgt.de (APU Engine Controls)

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Draegerwerk AG	http://www.draeger.com , Moisinger Allee 53-55, Lubeck, 23542 Germany, Tel: + 49 (0)451-882-0, Fax: + 49 (0)451-882-2080 (Emergency Oxygen System)
EADS Deutschland GmbH, Division HQ	http://www.eads.com , Willy-Messerschmitt-Strasse, Ottobrunn, 85521 Germany, Tel: + 49 89 607 0, Fax: + 49 89 607 26481 (Vacuum Lavatory)
EADS Sogerma Rochefort	http://www.sogerma.eads.net , Zone Industrielle de l'Arsenal, BP 60109, Rochefort, 17303 France, Tel: + 33 5 46 82 82 82, Fax: + 33 5 46 82 83 76 (Upper Shell Structure - Section 15)
ELDEC	http://www.cranaeae.com , 16700 13th Ave W, PO Box 97027, Lynwood, WA 98046-9727 United States, Tel: + 1 (425) 743-1313, Fax: + 1 (425) 743-8234, Email: info@cranaeaerospace.com (Landing Gear & Gear Door Proximity Sensor)
ELDEC France	http://www.cranaeae.com , 18 Rue du 35eme Regiment d'Aviation, Activillage Hall 30, Bron, 69500 France, Tel: + 33 78 261010, Fax: + 33 72 377230 (Proximity Switch)
Eaton Aerospace - Hydraulic Systems Division	http://www.aerospace.eaton.com , 5353 Highland Dr, Jackson, MS 39206-3449 United States, Tel: + 1 (601) 981-2811, Fax: + 1 (601) 987-5255 (Landing Gear Hydraulic Motor; Auxiliary Electric Motor Driven Pump; AC Driven Hydraulic Pump; Engine Hydraulic Pump)
GE Aviation Systems, Aerostructures	http://www.geaviation.com/systems/ , Kings Ave, Hamble-le-Rice, SO31 4NF Hampshire, United Kingdom, Tel: + 44 2380 453371, Fax: + 44 2380 744042 (Wing Leading Edge; Chemically Milled Components - Unspecified)
GKN Aerospace - Filton, Europe & Special Products	http://www.gknaerospace.com , PO Box 500, Golf Course Ln, Filton, BS34 9AU United Kingdom, Tel: + 44 117 317 5000, Fax: + 44 117 317 5001 (Wing; Wingbox)
General Ecology Inc	151 Sheree Blvd, Exton, PA 19341 United States, Tel: + 1 (610) 363-7900, Fax: + 1 (610) 363-0412, Email: info@generalecology.com (Versa Pure Drinking Water System)
Hartwell Corp	900 S Richfield Rd, Placentia, CA 92870 United States, Tel: + 1 (714) 993-4200, Fax: + 1 (714) 777-4419, Email: info@hartwellcorp.com (Structural Components, Latches, Rods, and Integrated Systems)
Hispano-Suiza	http://www.hispano-suiza-sa.com , 18, Blvd Louis-Seguain, Colombes, 92707 France, Tel: + 33 1 41 30 50 10, Fax: + 33 1 41 30 54 12 (Accessory Drive Gearbox; Thrust Reverser with Rohr)
Honeywell Aerospace, Air Transport & Regional	http://www.honeywell.com , 21111 N 19th Ave, Phoenix, AZ 85027 United States, Tel: + 1 (602) 436-2311 (Advanced Flight Management System)
Honeywell Aerospace, Aircraft Landing Systems	http://www.honeywell.com/sites/aero/Landing-Systems.htm , 3520 Westmoor St, South Bend, IN 46628 United States, Tel: + 1 (219) 231-2000, Fax: + 1 (219) 231-2020, Email: alscommunications@honeywell.com (Aluminum Alloy Wheels - Option; Carbon Brakes - Option)
Honeywell Aerospace, Engine Control Systems	http://www.honeywell.com , 2525 W 190th St, Torrance, CA 90504-6099 United States, Tel: + 1 (310) 527-2200 (Aileron Elevator & Rudder Actuator; Flight Control Actuator Package)
Honeywell Aerospace, Defense & Space	http://www.honeywell.com/sites/aero , 15001 NE 36th St, PO Box 97001, Redmond, WA 98073 United States, Tel: + 1 (425) 885-3711, Fax: + 1 (425) 885-2061 (ACMS Digital Memory Unit)
Honsel/VVG France (Fonderie Lorraine SAS)	http://www.honsel.com , 20 rue du Lhotaud, Frasné, 25560 France, Tel: + 33 3 81 49 89 46, Fax: + 33 3 81 49 89 47, Email: contact@honsel.fr (Cast Aluminum Door Hinge)
Icore International Ltd	http://www.icoregroup.com , Leigh Rd, Slough, SL1 4BB United Kingdom, Tel: + 44 1753 574134, Fax: + 44 1753 823674, Email: information@icore.zodiac.com (Electrical Wired Harness Components; Conduits; Backshells)
Korean Air Aerospace Division	http://www.kal-asd.co.kr , 41-3 Seosomun-Dong, Chung-Gu, Seoul, Korea, South, Tel: + 82 2751 7311, Fax: + 82 2751 7347 (Forward Upper Center Fuselage; Latecoere Components)
Labinal	http://www.labinal.com , 36, rue Raymond Grimaud, Blagnac, 31700 France, Tel: + 33 5 34 60 00 00, Fax: + 33 5 34 60 01 99 (Wiring & Cable Assembly)
Latecoere	http://www.latecoere.fr , 135, Rue de Periole, BP 5211, Toulouse Cedex 5, 31079 France, Tel: + 33 5 6158 7700, Fax: + 33 5 6126 2841 (Upper Section - T-15; High Temp Composite Upper Thrust Reverser Door; Electronic Cabinet)

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Liebherr-Aerospace Lindenberg GmbH	http://www.liebherr.com , Pfaenderstr. 50-52, Lindenberg/Allgäu, D-88161 Germany, Tel: + 49 8381 46 0, Fax: + 49 8381 46 4377 (Air Brake Actuator; Slat Actuator System; Flap & Slat Power Control Unit; Secondary Flight Control; Environmental Control System)
Liebherr-Aerospace Toulouse SAS	http://www.liebherr.com , 408, Avenue des Etats-Unis, BP 2010, Toulouse, 31016 France, Tel: + 33 561 352828, Fax: + 33 561 352800 (Engine Bleed Air Control System)
M.C. Gill Corp	http://www.mcgillcorp.com , 4056 Easy St, El Monte, CA 91731 United States, Tel: + 1 (626) 443-4022, Fax: + 1 (626) 350-5880, Email: info@mcgillcorp.com (Bulk Cargo Flooring)
Mannesmann Rexroth GmbH	Jahnstr 3 5, PO Box 340, Lohr Am Main, 8770 Germany, Tel: + 49 092 52182461, Fax: + 49 092 52182157 (Air Brake Actuator; Spoiler Actuator)
Mecanique Generale de Precision	B.P. 9 - Route D'Ennordres, Aubigny sur Nere, 18700 France, Tel: + 33 48 58 06 61, Fax: + 33 48 58 20 84 (Pylon & Wing Fastener)
Meggitt Aircraft Braking Systems	http://www.meggitt-mabs.com , 1204 Massillon Rd, Akron, OH 44306-4186 United States, Tel: + 1 (330) 796-4400, Fax: + 1 (330) 796-9805 (Wheels & Brakes)
Messier-Bugatti-Dowty	http://www.safranmbd.com , 574 Monarch Ave, Ajax, L1S 2G8 Ontario, Canada, Tel: + 1 (905) 683-3100, Fax: + 1 (905) 686-2914 (Centerline Landing Gear)
Messier-Bugatti-Dowty	http://www.safranmbd.com , Zone Aéronautique Louis Breguet, Velizy-Villacoublay, 78140 France, Tel: + 33 1 4629 8100, Fax: + 33 1 4629 8700 (Nose Landing Gear; Steering & Brake Control; Landing Gear Computer; Valve)
Michelin Air X Dept	Place des Carmes Decheaux, Clermont-Ferrand Cedex, France (Air-X Radial Tire)
Michelin Aircraft Tyre Dept, Europe, CIS, Middle East and Africa	http://www.airmichelin.com , 23 Place des Carmes Dechaux, Clermont-Ferrand, 63040 Cedex 1, France, Tel: + 33 0 4 73 32 76 36, Fax: + 33 0 4 73 32 76 44 (Radial Tire)
Moog Aircraft Controls, Actuation and Landing Gear	http://www.moog.com , Wobaston Rd, Wolverhampton, WV9 5EW United Kingdom, Tel: + 44 1902 397700, Fax: + 44 1902 394394 (Hydraulic Flap System)
Moog Inc	http://www.moog.com , Jamison Rd, East Aurora, NY 14052 United States, Tel: + 1 (716) 652-2000, Fax: + 1 (716) 687-4457 (Aileron Actuator)
Nord-Micro AG & Co OHG	http://www.nord-micro.de , Victor-Slotsch-Strasse 20, Frankfurt/Main, 60388 Germany, Tel: + 49 6109 303 0, Fax: + 49 6109 303 233, Email: mail@nord-micro.de (Bleed Valve; Cabin Pressure Control System; Landing Field Elevation Selector; Negative Relief & Safety Valve)
Oregon Metallurgical	530 34th Ave SW, Albany, OR 97321-0177 United States (Titanium Mill Products for Pylon Assembly)
PPG Industries Inc	http://corporateportal.ppg.com/ppg , 1 PPG Plz, Pittsburgh, PA 15272-0001 United States, Tel: + 1 (412) 434-3131 (Cabin Windows - Alternate Original Equipment; Windshield)
Parker Aerospace Hydraulic Systems Division	http://www.parker.com , 2220 Palmer Ave, Kalamazoo, MI 49001-4165 United States, Tel: + 1 (269) 384-3400, Fax: + 1 (269) 384-3862 (Thrust Reverser Actuator System)
Parker Aerospace Stratoflex Products Division	http://www.parker.com , 700 4th St, Mansfield, TX 76063 United States, Email: spdmarketing@parker.com (Hydraulic Hose)
Pechiney Rhenalu	6, Place de l'Iris, Paris La Defense 2, Courbevoie, 92400 France, Tel: + 33 46 91 40 00, Fax: + 33 46 91 40 67 (Aluminum Plate, Sheet, Extrusion)
Permal Gloucester Ltd	125 Bristol Rd, Gloucester, GL1 5TT United Kingdom, Tel: + 44 1452 5282, Fax: + 44 1452 5074 (Permaglass WFT/3 Fire Resistant Cargo Lining)
Rogerson Aircraft Corp (Rogerson Aircraft Controls)	http://www.rogerson.com , 2201 Alton Pkwy, Irvine, CA 92606 United States, Tel: + 1 (949) 660-0666, Fax: + 1 (949) 660-7965 (Vacuum Lavatory)
SKF Aerospace France	http://www.skf.com/aerospace , 1, avenue Marc Seguin, Saint Vallier, 26 241 France, Tel: + 33 4 75 03 40 40, Fax: + 33 4 75 03 40 00 (Angular Control Electro-Mechanical Actuator; Bearings for Flap Extension Mechanism; Carbon Fiber Strut; Central Wing Box Carbon-Fiber Rod; Rudder Trim; Side-Stick Transducer Unit; Speed Brake Control Unit; Throttle Control System)
Saft	http://www.saftbatteries.com , 12, rue Sadi Carrot, Bagnolet, 93170 France, Tel: + 33 1 49 93 1918, Fax: + 33 1 49 93 1950 (Battery)

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Sierracin Corp	http://www.sierracin.com , 12780 San Fernando Rd, Sylmar, CA 91342-3796 United States, Tel: + 1 (818) 362-6711, Fax: + 1 (818) 362-0603 (Passenger Window)
Sitec Aerospace GmbH	Schopfgraben 1, PO Box 4, Miesbach, 8120 Germany (Fuel & Water Valve)
Snecma	http://www.snecma.com , 10, allée du Brévent, CE1420 Courcouronnes, Evry, 91019 France, Tel: + 33 1 69 87 09 00, Fax: + 33 1 69 87 09 02 (CFM56-5 - 50% Partner with GE)
Societe Anonyme Belge de Constructions Aeronautiques (SABCA)	http://www.sabca.be , Chaussée de Haecht, 1470, Haachtsesteenweg, Brussels, 1130 Belgium, Tel: + 32 2 729 5511, Fax: + 32 2 705 1570, Email: info@sabca.be (Tail Cone)
Sumitomo Precision Products Co Ltd	http://www.spp.co.jp , 1-10, Fuso-cho, Amagasaki, Hyogo, 660-0891 Japan, Tel: + 81 6 6489 5936, Fax: + 81 6 6489 5889 (Main Landing Gear Retract Actuator; Structural Components)
Technofan	http://www.technofan.com , 10 place Marcel Dassault, ZAC du Grand-Noble - BP 30053, Blagnac, 31702 France, Tel: + 33 61 30 92 00, Fax: + 33 61 30 02 04 (Ventilation System)
Thales Aerospace	http://www.thalesgroup.com/aerospace , 45, rue de Villiers, Neuilly-sur-Seine, 92526 France, Tel: + 33 1 57 77 80 00, Fax: + 33 1 57 77 87 70 (Flight Management & Guidance and Safe Computer; Secondary Flight Control Computer; Smoke Detection Controller; Warning & Maintenance Computer)
Triumph Aerostructures, Vought Aircraft Division	http://www.triumphgroup.com/companies/triumph-aerostructures-vought-aircraft-division , 1431 Vultee Blvd, Nashville, TN 37217 United States, Tel: + 1 (615) 361-2000 (Wing Top Skin Stringer Assembly; Outboard Wing Lead Edge; Flap Track Fairing; Outboard Wing Flap; Spoiler)
UTC Aerospace Systems, Aerostructures	http://utcaerospacesystems.com , 850 Lagoon Dr, Chula Vista, CA 91912-0878 United States, Tel: + 1 (619) 691-4111, Fax: + 1 (619) 691-3030 (Nacelle for CFM56-5C2)
UTC Aerospace Systems, Propeller Systems, Ratier-Figeac (formerly Hamilton Sundstrand)	http://www.ratier-figeac.com , Avenue Ratier, BP 2, Figeac, 46101 France, Tel: + 33 565 50 50 50 (Passenger Door Damper & Actuator System; Horizontal Stabilizer Actuators for Lucas; Spoiler Servo Actuator; Steering Control Side Stick; Pedestal Assembly)
UTC Aerospace Systems, Sensors & Integrated Systems	http://utcaerospacesystems.com , 100 Pantone Rd, Vergennes, VT 05491 United States, Tel: + 1 (802) 877-2911, Fax: + 1 (802) 877-4111 (Fuel Utilization & Management System)
UTC Aerospace Systems, Sensors & Integrated Systems	http://utcaerospacesystems.com , 14300 Judicial Rd, Burnsville, MN 55306-4898 United States, Tel: + 1 (952) 892-4000, Fax: + 1 (952) 892-4800 (Ice Detection System)
UTC Aerospace Systems, Wheels & Brakes (formerly Goodrich)	http://utcaerospacesystems.com , 22, Chemin de la Crabe, Toulouse, 31300 France, Tel: + 33 561 305757 (Nacelle & Thrust Reverser System)
Whittaker Corp	1955 N Surveyor Ave, Simi Valley, CA 93063-3386 United States, Tel: + 1 (805) 526-5700, Fax: + 1 (805) 526-4369 (Fire Detection System)
Wyman-Gordon Co	http://www.wyman-gordon.com , 244 Worcester St, Box 8001, North Grafton, MA 01536-8001 United States, Tel: + 1 (508) 839-4441, Fax: + 1 (508) 839-7500 (Titanium Wing Structural Forgings)
Zahnradfabrik Friedrichshafen AG	http://www.zf.com , Graf von Soden Platz 1, Friedrichshafen, 88046 Germany, Tel: + 49 07541 77 0, Fax: + 49 07541 77 908000, Email: postoffice@zf.com (Flap Rotary-Drive Actuator)

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Airbus A340

Technical Data

(A340-500/600)

Design Features. Low-swept-wing design shares multifunction displays, integrated avionics, new fuselage cross-section of A300/A310 and high degree of structural materials and production processes, the commonality with A330, including fuselage and wing. Airbus-patented tail-plane trim tank, and an advanced Features advanced fly-by-wire flight controls, quick-change passenger cabin.

	<u>Metric</u>	<u>U.S.</u>
Dimensions		
Length	67.9/74.96 m	222.7/247.1 ft
Height	17.1 m	56.1 ft
Wingspan	63.4 m	208.15 ft
Weight		
Operating empty weight	170,900/177,700 kg	376,800/392,000 lb
Max TOW	372,000/368,000 kg	820,100/811,300 lb
Performance		
Range, -500, max passengers	16,100 km	8,670 nm
Range, -600, max passengers	14,360 km	7,750 nm
Cruise speed	Mach 0.83	Mach 0.83

Propulsion

A340-500	(4)	Rolls-Royce Trent 500 fans, 235 kN (53,000 lbst) each.
A340-600	(4)	Rolls-Royce Trent 500 fans, 249 kN (56,000 lbst) each.

Seating

-500	313 in three classes.
-600	380 in three classes.

Variants/Upgrades

A340-200. Initial variant, typically seats 262 pax in a three-class layout. Fuselage is 6 feet shorter than -300, but other technical features are the same. Underfloor cargo hold for 26 LD3 containers or nine standard 88-inch x 125-inch freight pallets.

A340-300. Typically seats 295 in three-class layout, max range 7,200 nautical miles (13,350 km). Longer (+4.26 m) fuselage. Underfloor cargo hold for 32 LD3 containers or 11 pallets.

A340-300X. Heavier -300, entered service in 1996. Max TOW increased to 271 tons for more fuel. New landing gear for weight increase; main wingbox is strengthened.

A340-8000. One built. Range, 8,000 nautical miles; 260 seats. It was delivered in 1998 to the Sultan of Brunei's Royal Flight but never entered service. It was parked at Lufthansa Technik in Hamburg until it was acquired in 2007 by Saudi Arabian VIP.

A340-500. Lower capacity (313 seats), longer range, 8,670-nautical-mile (16,100-km) version shares max commonality with -600 model. Launched with the -600 in 1997.

A340-600. Stretched by 20 frames, a re-engined version of basic -300 that offers 380 seats (85 more than the -300 model) and range of 7,750 nautical miles (14,360 km).

A340M. Proposed militarized variant of A340-300 to carry 300 troops, 20 tons of cargo. A tanker version with 125 tons of fuel off-load capability was planned but none have been built.

A340 Light. Proposed version of A340-300, certificated for a 235-ton (238,760-kg) max TOW, rather than the 257-ton (261,112-kg) MTOW of standard A340-300. Only physical change would be derated CFMI engines that burn less fuel.

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A340-600 HGW. Launched in mid-2003, the -600 High Gross Weight (HGW) model boasts a 17,600-pound increase in max gross weight.

A340-500 Higher Weight Version. Certification of the new variant of the ultra-long-range A340-500 had

been expected in early 2007, but no public announcement regarding the new version was made during the year.

Program Review

Background. The four-engine, long-range A340, launched with the A330 in June 1987, was specifically designed to replace long-range, low-capacity Douglas DC-8s and some intercontinental-range L-1011s and DC-10s on long/thin routes where passenger densities do not justify use of the Boeing 747. It is also a good entry-level aircraft for airlines getting into the markets previously served only by the 747.

The 239-passenger A340-200 offers a range of 7,000+ nautical miles, while the stretched (by 14 ft) -300 carries 295 passengers over 7,200 nautical miles.

Airbus subsequently introduced the extended-range A340-500 and the stretched, higher capacity A340-600 variants (see **Variants/Upgrades**, above, for details).

Benefits of Commonality. The A330 and A340 share a high degree of commonality. They have the same cockpit, fuselage, and wing (fewer engine installation differences and some structural mods). They also have

commonality among their landing gear (auxiliary centerline gear on A340), tail section, and hydraulic, electrical, and pneumatic systems (again, fewer engine installation differences). The A340-200 airframe is eight frames shorter than that of the A330-300 and A340-300.

HGW Version Certified

Launched in 2003 by Qatar Airways and Emirates, the A340-600 HGW first flew in 2005 and received certification in mid-2006.

The consortium has also considered the creation of an A340-600 "Enhanced" model that would use advanced technology from the A350 program, but the company has shown little enthusiasm for the investment in resources that would be required at a time when it is focusing on the A380 and A350 airliners and the A400M military transport.

Funding

Sponsoring governments provided 100 percent of A340 development funding to Airbus. Total estimated cost to develop and certify the A330/340 combination is \$2.5 billion in 1987 dollars and \$5.35 billion in 1993 dollars.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Mid-	1987	A330/A340 launch announced
	1991	Certification of CFM56-5C1 engine
Oct	1991	Roll-out and first flight
Dec	1992	A340-200/300 receives JAA certification
Feb	1993	FAA certification and initial delivery to Lufthansa
	1995	Expected launch of stretch and heavy derivatives
Late	1997	Launch of A340-600/500
Mid-	2002	European, FAA certification of A340-600
Dec	2002	European certification of A340-500
Mid-	2006	Certification of A340-600 HGW version

Airbus A340

Worldwide Distribution/Inventories

Operator	Designation	Quantity
Aerolíneas Argentinas	A340-200	3
Aerolíneas Argentinas	A340-300	3
Afriqiyah Airways	A340-200	1
Air Algerie SpA	A340-300X	1
Air China	A340-300X	6
Air France	A340-300	3
Air France	A340-300X	13
Air Mauritius Ltd	A340-300	3
Air Mauritius Ltd	A340-300X	3
Air Namibia (the National Airline of Namibia)	A340-300	2
Air Tahiti Nui	A340-300X	5
AirAsia X	A340-300X	2
Airbus Asset Management	A340-600	1
Arik Air Ltd	A340-500	1
Audeli SA	A340-300	2
Audeli SA	A340-300X	1
Cathay Pacific Airways	A340-300X	11
China Airlines Ltd	A340-300X	6
China Eastern Airlines Corp Ltd (CAAC)	A340-300X	5
China Eastern Airlines Corp Ltd (CAAC)	A340-600	5
EgyptAir	A340-200	2
Emirates	A340-300X	8
Emirates	A340-500	9
Etihad Airways	A340-500	4
Etihad Airways	A340-600	7
Finnair Oyj	A340-300	5
Finnair Oyj	A340-300X	2
Global Jet Luxembourg	A340-300X	1
Greece Government	A340-300	1
Greece Government	A340-300X	3
Gulf Air	A340-300X	4
Hainan Airlines	A340-600	2
Hi Fly SA (Air Luxor)	A340-300X	1
Hi Fly SA (Air Luxor)	A340-500	1
Iberia Líneas Aéreas de España SA	A340-300	4
Iberia Líneas Aéreas de España SA	A340-300X	12

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Operator	Designation	Quantity
Iberia Líneas Aéreas de España SA	A340-600	17
Iran Air	A340-200	1
Kuwait Airways Corp	A340-300	4
LAN Airlines SA	A340-300X	5
Lufthansa	A340-300	10
Lufthansa	A340-300X	17
Lufthansa	A340-600	23
Malaysia Airlines (MAS)	A340-300	1
Philippine Airlines Inc	A340-300X	4
Qatar Airways Co WLL	A340-300X	1
Qatar Airways Co WLL	A340-600	3
Royal Jordanian	A340-200	4
Safi Airways	A340-300	1
SAS - Scandinavian Airlines	A340-300X	6
Singapore Airlines Ltd	A340-500	5
South African Airlink (Pty) Ltd	A340-300X	1
South African Airways (Pty) Ltd	A340-200	6
South African Airways (Pty) Ltd	A340-300	3
South African Airways (Pty) Ltd	A340-300X	3
South African Airways (Pty) Ltd	A340-600	9
Srilankan Airlines	A340-300	2
Srilankan Airlines	A340-300X	2
Surinam Airways	A340-300	1
Swiss International Airlines Ltd	A340-300	3
Swiss International Airlines Ltd	A340-300X	10
TAM Linhas Aéreas SA	A340-500	2
TAP Portugal	A340-200	3
TAP Portugal	A340-300	1
Thai Airways International Public Co Ltd	A340-500	4
Thai Airways International Public Co Ltd	A340-600	6
THY Turkish Airlines	A340-300	3
THY Turkish Airlines	A340-300X	5
Virgin Atlantic	A340-300	3
Virgin Atlantic	A340-300X	3
Virgin Atlantic	A340-600	18

Market Intelligence Service Subscribers: The Airline Inventories, Orders and Options appendix provides instructions on how to access an online database of up-to-date listings. Use this database to obtain detailed, current information.

Airbus A340

Forecast Rationale

Airbus announced in late 2011 that it had terminated production of the A340. Two completed aircraft remained in inventory at the time. These aircraft were delivered to AJW Capital Partners in late 2012.

Production of the A340-600 had earlier ended in 2010 when Airbus delivered the final two of 16 aircraft ordered by Iberia. Production of the -300 model ended in 2008.

Production of the A340 occurs on the same production line as the A330. Airbus can produce even low numbers of aircraft relatively efficiently, provided it has the orders. The market has moved on, however.

At one time, the four-engine design attracted customers that needed the A340's large capacity and its ability to meet Extended-range Twin-engine Operational Performance Standards (ETOPS) requirements, but times have changed. Now the search for better operating efficiency is driving the market. Industry feedback indicates that the twin-engine 777 offers lower operating costs and better overall economics.

Airbus is not working on a new model to replace the A340 and is instead looking to larger variants of the all-new A350 XWB widebody to take market share away from the 777.

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