

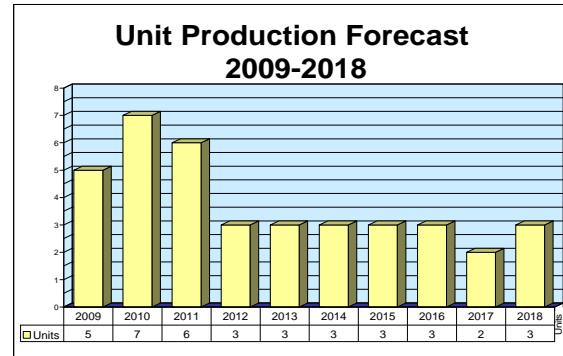
# ARCHIVED REPORT

For data and forecasts on current programs please visit  
[www.forecastinternational.com](http://www.forecastinternational.com) or call +1 203.426.0800

## ATR-42 MP/-72 ASW

### Outlook

- Fills market niche for low-cost alternative to purpose-built maritime patrol aircraft
- Major customers include Italian government and Turkish Navy
- Bombardier's decision to end production of smaller Q Series aircraft will benefit maritime patrol version of ATR-42



### Orientation

**Description.** Pressurized twin-turboprop-powered, regional/commuter transport aircraft.

**Sponsor.** Sponsored jointly by the governments of France and Italy.

**Status.** ATR-42 and ATR-72 in production.

**Total Produced.** Through 2008, eight ATR-42s had been produced and delivered for special missions.

**Application.** Troop/cargo transport, maritime patrol, surveillance, medical evacuation, search and rescue, vessel identification, ASW.

**Price Range.** ATR-42-500, \$14.9 million; ATR-72-500, \$18.5 million. Both in 2008 dollars.



ATR-42 and ATR-72

Source: EADS

## ATR-42 MP/-72 ASW

## Contractors

## Prime

<b>Avions De Transport Régional (ATR)</b>	<a href="http://www.atraircraft.com">http://www.atraircraft.com</a> , 1, allée Pierre Nadot, Blagnac, 31712 France, Tel: + 33 5 62 21 62 21, Fax: + 33 5 62 21 62 11, Prime
---	---

## Subcontractor

<b>Aerolia</b>	<a href="http://www.aerolia.com">http://www.aerolia.com</a> , Boulevard des Apprentis, BP 50301, Saint Nazaire, 44605 France, Tel: + 33 2 28 54 80 00, Fax: + 33 2 28 54 81 31 (Nacelle; Wing; Fore & Aft Wing Fairing; Engine Pylon)
<b>Alenia Aeronautica</b>	<a href="http://www.alenia-aeronautica.it">http://www.alenia-aeronautica.it</a> , 45, Via Campania, Rome, 00187 Italy, Tel: + 39 06 420881, Fax: + 39 06 42824528, Email: communication@alenia-aeronautica.it (Vertical Stabilizer; Center Fuselage; Aft Fuselage; Radome; Tail Cone)
<b>Eltronica SpA</b>	Via Tiburtina Km 13,700, Loc Settecimini, Rome, I-00131 Italy, Tel: + 39 6 415 41, Fax: + 39 6 419 28 69 (THETIS ECM System)
<b>Galileo Avionica SpA</b>	<a href="http://www.selex-sas.com">http://www.selex-sas.com</a> , Via Albert Einstein, 35, Campi Bisenzio, 50013 Italy, Tel: + 39 055 89501, Fax: + 39 055 8950600, Email: galileoavionica@galileoavionica.it (Integrated Radar Beacon, Processor, Correlator)
<b>Meggitt Aircraft Braking Systems</b>	<a href="http://www.meggitt-mabs.com">http://www.meggitt-mabs.com</a> , 1204 Massillon Rd, Akron, OH 44306-4186 United States, Tel: + 1 (330) 796-4400, Fax: + 1 (330) 796-9805 (Main Wheel & Brakes; Brakes)
<b>Messier-Dowty International</b>	<a href="http://www.messier-dowty.com">http://www.messier-dowty.com</a> , Zone Aéronautique Louis Breguet, BP 10, Velizy-Villacoublay, 78140 France, Tel: + 33 1 46 29 18 00, Fax: + 33 1 46 29 18 03 (Landing Gear)
<b>Rockwell Collins Inc</b>	<a href="http://www.rockwellcollins.com">http://www.rockwellcollins.com</a> , 400 Collins Rd NE, Cedar Rapids, IA 52498-0001 United States, Tel: + 1 (319) 295-1000, Fax: + 1 (319) 295-5429 (Pro Line II ARINC 429 Communication & Navigation System)
<b>Xi'an Aircraft Industry (Group) Co Ltd</b>	<a href="http://www.xac.com.cn">http://www.xac.com.cn</a> , PO Box 140-88, Xi'an, 710089 Shaanxi, China, Tel: + 86 29 684 5052, Fax: + 86 29 862 02263, Email: qhb@xac.com.cn (Door; Center Wing Box)

Comprehensive information on Contractors can be found in Forecast International's "International Contractors" series. For a detailed description, go to [www.forecastinternational.com](http://www.forecastinternational.com) (see Products & Samples/Governments & Industries) or call + 1 (203) 426-0800.

Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; [rich.pettibone@forecast1.com](mailto:rich.pettibone@forecast1.com)

## Technical Data

## (ATR-42/72)

**Design Features.** High-wing design with conventional T-tail section and retractable tricycle landing gear. Built of combination light alloy and composite materials. ATR-42's wing structure is 15

percent carbon fiber; ATR-72 wing structure is 30 percent composite materials, primarily carbon fiber.

Mission systems and sensors provided by the Finmeccanica group.

<b>Dimensions</b>	<b>Metric</b>	<b>U.S.</b>
Wingspan(a)	27.05 m	88.75 ft
Length overall	26.3/26.94 m	86.25/88.4 ft
Height overall(a)	7.586 m	24.896 ft
Wing area, gross	54.5/61.0 sq m	586.6/656.67 sq ft

ATR-42 MP/-72 ASW

	<u>Metric</u>	<u>U.S.</u>
<b>Weight</b>		
Operating, empty	10,285/12,200 kg	22,674/26,896 lb
Max T-O	16,700/21,500 kg	36,817/47,400 lb
Max ZFW	14,500/18,805 kg	31,967/41,557 lb
Max payload	4,915/7,500 kg	10,836/16,535 lb
<b>Capacities</b>		
Max fuel load	5,600 liters	1,480 gal
Baggage volume	10.0 cu m	353.1 cu ft
<b>Performance</b>		
T-O	1,080 m	3,543 ft
Max cruise speed	510/526 kmph	275/284 kt
Range, max cruise, reserves	1,946/2,666 km	1,050/1,440 nm

**Propulsion**

ATR-42-500 (2) PW127E turboprop engines rated 1,790 kW (2,400 shp) each OEI.  
 ATR-72-500 (2) PW127F turboprop engines rated 2,051 kW (2,750 shp) each at takeoff.

**Armament**

ATR-72: 2 Exocet anti-ship missiles; 4 A-2445 torpedoes; 2 Mk 11 depth charges.

(a) Balanced field takeoff length.

## Variants/Upgrades

**ATR-42-500.** Launched in 1993, certificated in 1995. Improved hot/high performance, higher cruise speeds, and updated cabin interior. At max payload, it can fly up to 1,010 nautical miles. Surveyor maritime patrol variant features structural modifications that include fuselage-mounted search radar and forward-looking infrared (FLIR) turret, side-mounted search light and machine gun pod, tail-mounted electronic support measure (ESM) antennas, additional storage, and bubble window observation stations. In addition, the Galileo Avionics Advanced Tactical Observation and Surveillance (ATOS) system is used as a mission planning and control platform.

**ATR-42-600.** Launched in October 2007. Essentially resulted from upgrades to existing -500 model. Received the same upgrades as made to the ATR 72-600 described below. Scheduled for delivery in 2010.

**ATR-72-500.** Introduced in 1997 with improved hot/high performance, higher weights, and increased

cabin comfort. Retains engine, props, and multifunction computer from ATR-42 for commonality purposes. Subsequently redesignated -500. Military variant optimized for ASW operations. Includes the same onboard equipment as ATR-42; augmented with ASW-specific components that include magnetic anomaly detector (MAD), rotary sonobuoy launcher, Mk 11 depth charges, A-2445 torpedoes, and Exocet anti-ship missiles.

**ATR-72-600.** Launched in October 2007. Essentially an upgraded -500 model with more powerful engines, new avionics, and other improvements. It will use the new PR127M engine to boost payload and performance. Thales will supply a new avionics suite that includes a glass panel. The cabin will include light emitting diode (LED) lighting and individual in-flight entertainment systems built by France's Vision Systems. Scheduled for delivery in 2010.

## Program Review

**Background.** The ATR-42/72 designs evolved from separate studies undertaken by Aerospaziale and Aeritalia during the late 1970s. In 1980, the two

manufacturers decided to pursue a joint project, and signed an agreement to that effect.

## ATR-42 MP/-72 ASW

The ATR-42 first flew in 1984 and entered service in 1985. The ATR-72 completed its initial flight in 1988 and entered service in 1993.

### *Guardia di Finanza Launch Customer*

The Italian government became the launch customer for ATR's attempt to enter the military market. The Guardia di Finanza (Revenue Guard Corps) took delivery of its first ATR-42 MP Surveyor in December 1999. The second and third aircraft were delivered in 2002 and 2005, respectively. These aircraft have been

tasked with maritime patrol and ship identification and tracking missions.

The Italian Capianeria di Porto (Coast Guard) bolstered the status of the ATR-42 in 2001 and 2003 when it took delivery of two aircraft. Like the Guardia di Finanza, the Capianeria di Porto operates the Surveyor primarily as a maritime patrol aircraft. The variants delivered to the Capianeria di Porto incorporate an upgraded sensor suite and computer-operated mission administration system.

## Contracts/Orders & Options

Operator	Designation	Quantity	Phase
Italy Government (for Guardia di Finanza and Coast Guard)	ATR-42	1	On Order
Libya Government	ATR-42MP	1	On Order
Nigeria Air Force	ATR-42MP	2	On Order
Thai Air Force	ATR-72-500	4	On Order
Turkey Navy	ATR-72-500	10	On Order

## Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Late	1978	Aeritalia begins studies of AIT 230
Early	1979	Aerospatiale initiates design work on AS35
Mid	1980	Joint ATR-42 effort announced
Nov	1981	Go-ahead decision announced
Aug	1984	ATR-42 first flight
Mid	1985	ATR-72 given formal go-ahead
Sep	1985	ATR-42 certification
Nov	1985	Initial production deliveries
Oct	1988	First flight of ATR-72
Oct	1988	TAT orders 20 firm and 10 option ATR-72s
Nov	1989	ATR-72 certification (FAA)
Aug	1990	AMR Eagle orders up to 100 ATR aircraft valued at \$1 billion
Early	1993	Deliveries of ATR-72-210 begin
Early	1997	ATR-72-500 certification

## Worldwide Distribution/Inventories

Operator	Designation	Quantity
Gabon Air Force	ATR-42	1
Gabon Government	ATR-42-300	1
Italy Government	ATR-42MP	6

**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.

## Forecast Rationale

The ATR-42/72 family of turboprops provide the basis for special mission variants via the installation of new sensors, weapons, and other mission-specific equipment in place of the civilian models' rows of passenger seats. Although the resulting aircraft lack the capabilities of a purpose-built military aircraft, which are more powerful and more capable of surviving in a high-level threat environment, these converted turboprop airliners are able to provide a limited level of capability to customers at a more affordable price. These aircraft fill a small market niche for militaries that need a small, twin-engine turboprop to handle missions for which larger, more powerful aircraft are either too much airplane or not cost-effective.

In July 2005, the Turkish government ordered 10 ATR-72s for \$220 million. The order is part of a plan to improve the service's ASW capabilities. As part of an offset agreement, ATR and Turkish Aerospace Industry will share production responsibilities. Deliveries of the first fully mission-ready aircraft will begin in 2010. The first ATR-72 left the production line for "green" aircraft and began conversion into the ASW configuration at Turkish Aerospace Industries in 2008.

Italy's Guardia di Finanza has ordered four ATR-42s for maritime surveillance, of which three have been delivered. The Italian Coast Guard has ordered a third

aircraft for delivery in 2010. The Nigerian Air Force ordered two ATR-42s in 2007, and the Libyan Air Force ordered one aircraft for maritime patrol duties in January 2008. Both Nigeria and Libya will get their aircraft in 2009. Finally, the Royal Thai Air Force ordered four ATR-72-500s during 2007. These aircraft will be used for VIP transport rather than as patrol aircraft. Malaysia may be in the market for 6-10 maritime patrol/ASW aircraft. And Greece is in the market to replace six Lockheed P-3B Orion maritime patrol aircraft with five new aircraft.

Alenia Aeronautic is looking to enter into an agreement with India's Tata Group to promote the company's C-27J transport and the ATR-42/72 special mission aircraft to fill Indian military requirements. The Indian Navy is considering replacing upwards of 30 Do 228 and 12 BN-2A/B/T Islander patrol aircraft.

Bombardier's recent decision to end production of its Q200 and Q300 models in favor of focusing on the larger Q400 model will benefit ATR in this market by removing the primary competitors to the ATR-42.

Our forecast projects delivery of 38 ATR-42/72 aircraft for the special mission market during the 2009-2018 forecast period.

## ATR-42 MP/-72 ASW

## Ten-Year Outlook

ESTIMATED CALENDAR YEAR UNIT PRODUCTION												
Designation or Program	High Confidence				Good Confidence			Speculative			Total	
	Thru 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		2018
<b>Avions De Transport Régional (ATR)</b>												
<b>ATR-42 -500 MP &lt;&gt; PW127</b>												
	10	2	2	0	0	0	0	0	0	0	0	4
<b>ATR-42 -600 MP &lt;&gt; PW127 M</b>												
	0	0	1	1	1	1	1	1	1	1	1	9
<b>ATR-72 -500 ASW &lt;&gt; PW127</b>												
	0	3	3	3	0	0	0	0	0	0	0	9
<b>ATR-72 -600 MP/ASW &lt;&gt; PW127 M</b>												
	0	0	1	2	2	2	2	2	2	1	2	16
<b>Subtotal</b>	10	5	7	6	3	3	3	3	3	2	3	38
<b>Total</b>	10	5	7	6	3	3	3	3	3	2	3	38