ATR 42-500
A New Standard of Excellence

An Alenia Aeronautica and EADS joint venture

ATR

The Latest Generation ATR 42-500 offers a combination of exceptional overall performance and comfort unmatched in its class, while keeping the competitive economics which are the trademark of ATR aircraft.

Outstanding Features

The ATR 42-500 is the latest evolution of the successful ATR 42 family.

It benefits from the experience of about 700 ATR aircraft flying worldwide with an average dispatch reliability in excess of 99.6%.

Excellent passenger comfort

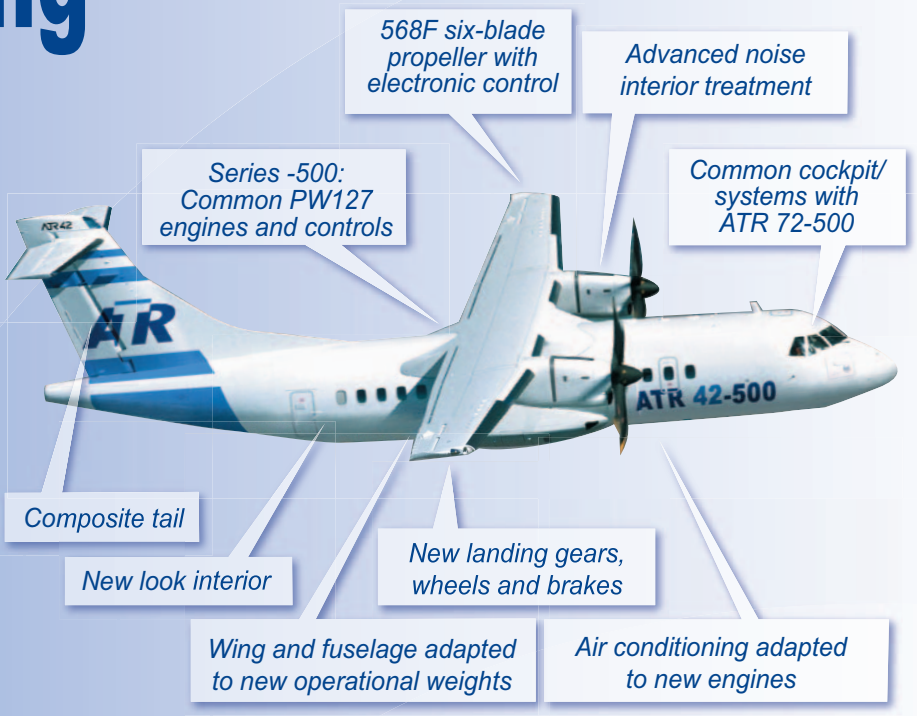
Comfort levels are equivalent to those of jet aircraft, and a high capacity air conditioning system is fitted.

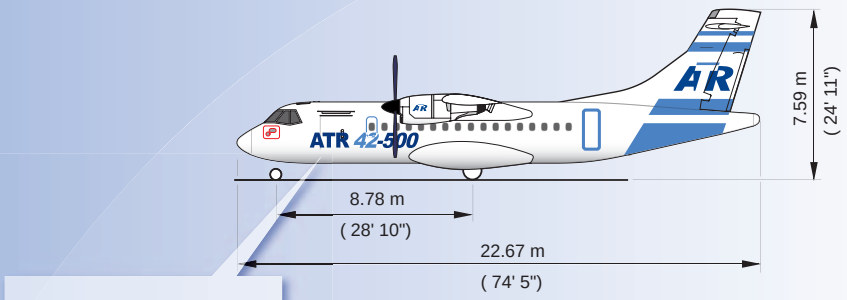
Outstanding performance

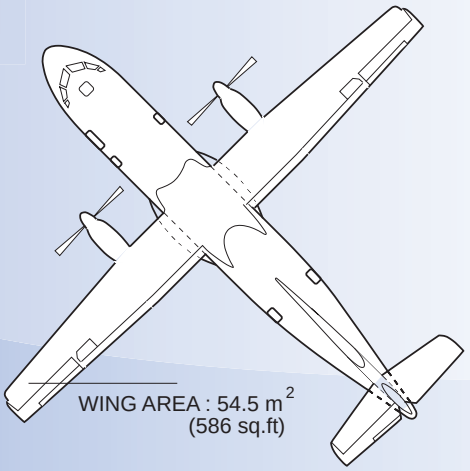
The ATR 42-500 offers excellent performance in terms of cruise speed, hot and high take-off capability, short field requirement.

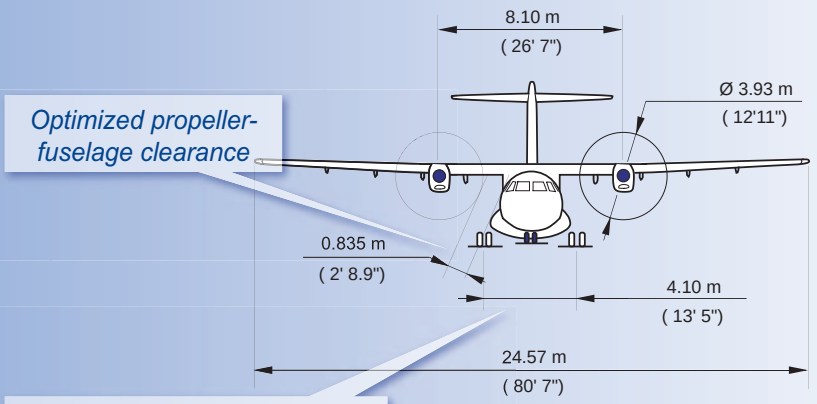
Low cost of operation

The ATR 42-500 takes advantage of a proven design and a high degree of commonality with other models to minimize training and maintenance costs and provide superlative economics for improved profitability.







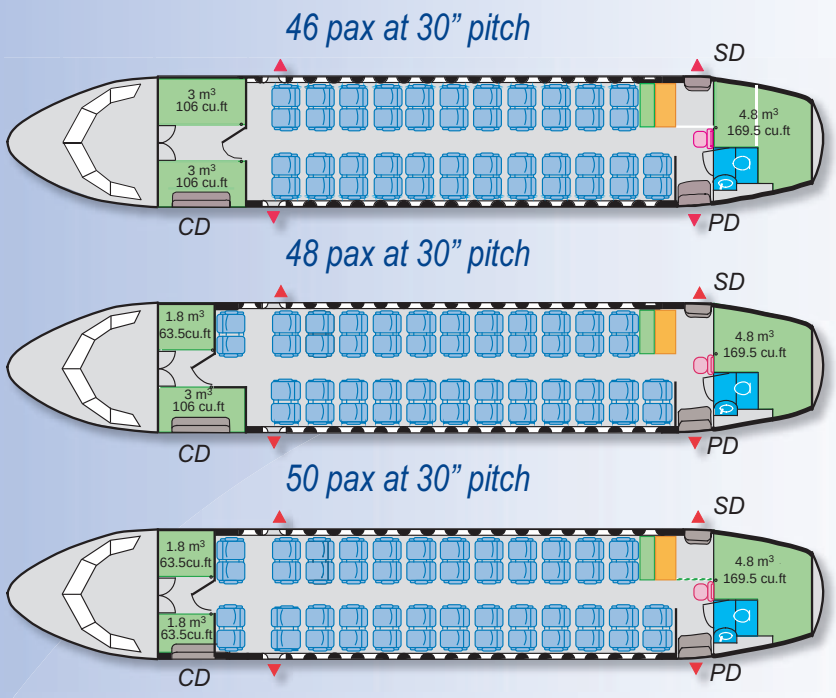


Flexibility
to Match Customer Needs

The ATR 42-500 cabin layout provides the passengers with an environment equivalent to that of jet airliners.

The standard cabin layout is 48 seats at 30 inch pitch. The dimensions of the front cargo compartment can be adapted to accommodate 50-seat and 46-seat configurations at 30 inch pitch.

Making the Best Use of Available Space



Attendant seat | Galley | Toilet | Baggage | Emergency exit

PD: Pax door - CD: Cargo door - SD: Service door

Volumes	46 seats		48 seats		50 seats	
	m^3	cu.ft	m^3	cu.ft	m^3	cu.ft
Baggage compartment	10.8	381.5	9.6	339	8.4	296.5
Baggage per pax	0.235	8.29	0.2	7.06	0.168	5.93
Total baggage *incl. overhead bins and stowages*	13.35	471.5	12.25	432.5	11.1	392
Total baggage per pax	0.29	10.25	0.255	9.01	0.222	7.84

Main ATR 42-500 Operators


Airlinair

Regional airlines worldwide are taking advantage of the ATR 42-500 operation, thanks to its excellent performance, exceptionally low operational costs, optimum passenger comfort and outstanding reliability.

Short and narrow runways, hot and high airports, demanding airfields are the daily environment for ATR 42-500 worldwide.

From Latin America to Asia-Pacific region, everywhere in Europe and in tough African climates, ATR 42-500 provides unrivalled reliability, generating revenues and profitability for regional airlines.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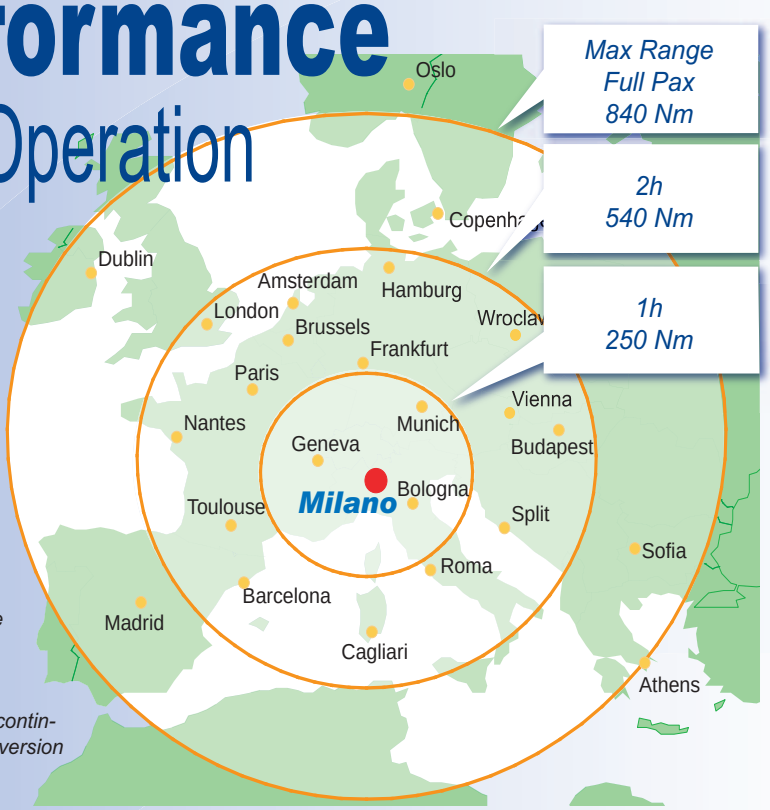
Avions de Transport Régional - 1, allée Pierre Nadot - 31712 Blagnac Cedex - France - Phone +33 (0)5 62 21 62 21
http://www.atraircraft.com

Excellent Performance

Tailored to Regional Operation

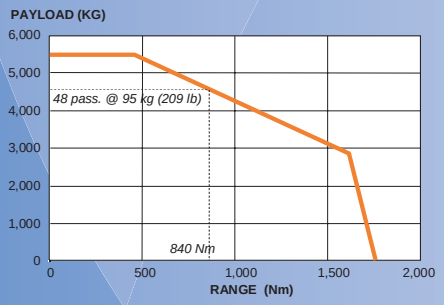
Thanks to the Pratt and Whitney Canada PW127E engines, the ATR 42-500 offers an excellent level of performance:

- A cruise speed of 300 kt;
- A fast climb from 1,500 ft to 17,000 ft in less than 10 min;
- Outstanding take-off and single engine performance maintained even in hot and high conditions.



Assumptions:
OEW 11,250 kg
Configuration
48 pax@95 kg
Milan temperature
ISA+35°C
Max cruise speed
Reserves:
30' holding + 5% contingency + 87 Nm diversion

Payload/Range



MTOW 18,600 kg (41,005 lb)
OEW: 11,250 kg (24,802 kg)
ISA conditions; high cruise speed
Reserves: 45 min continued cruise & 87 Nm alternate

Performance		
Take-Off Field Length		
■ ISA, SL, MTOW	1,165 m	3,822 ft
■ 3,000ft, ISA +10°C, TOW for 300Nm, 48 pax at 95 kg/209 lb	1,163 m	3,816 ft
■ **Landing Field Length** (FAR rules)		
- SL,MLW	1,126 m	3,694 ft
- SL, 48 pax at 95 kg/209 lb	1,040 m	3,412 ft
■ **Max Cruise Speed** (97% MTOW, 17,000ft)	300 kt	

Block Fuel & Block Time

on typical sectors

■ **200 Nm Sector**	536 kg (1,241lb)
	51.9 min
■ **300 Nm Sector**	797 kg (1,757lb)
	72.6 min

The most efficient compromise between low fuel consumption and speed

Weights	kg	lb
■ MTOW	18,600	41,005
■ MLW	18,300	40,344
■ MZFW	16,700*	36,817
■ OEW	11,250	24,802
■ Max. payload	5,450*	12,015
■ Max. fuel load	4,500	9,920

** Optional MZFW: 17,000 kg (37,478 lb)*
Associated payload: 5,750 kg (12,676 lb)

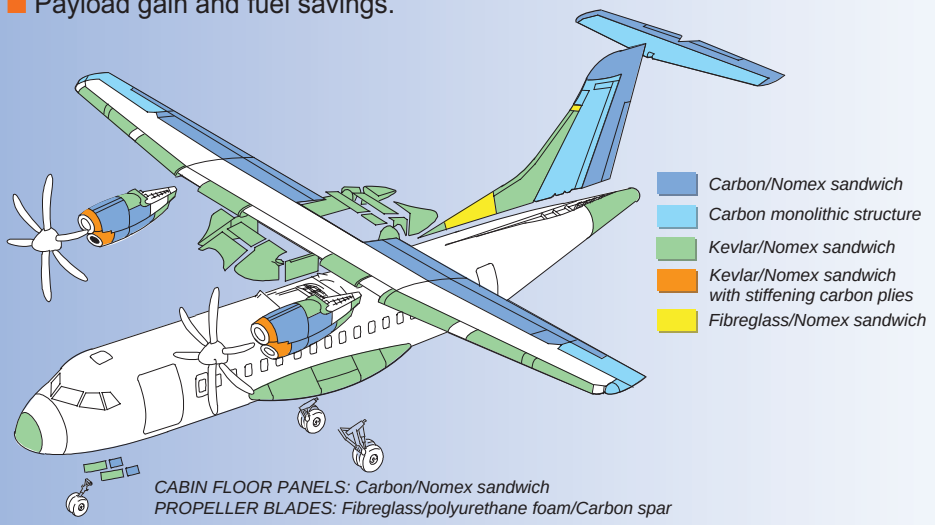
Structural Efficiency

ATR 42 secondary structure is extensively made of composite material, which is not subject to corrosion.
The in-service advantages of composites are numerous:

- Immunity to corrosion and fatigue
- Reduction of inspection
- Payload gain and fuel savings.

Not including the commercial furnishing weight, the corresponding result for the ATR 42-500 can be summarized as follows:

- Composite / total structure: **14%**
- Weight saving 200 kg, equivalent to **2 pax.**



CABIN FLOOR PANELS: Carbon/Nomex sandwich
PROPELLER BLADES: Fibreglass/polyurethane foam/Carbon spar

Unbeatable Economics

Economy is a major advantage of ATR -500 series aircraft, thanks to:

Low maintenance costs
Through simple, mature systems and design-to-maintain philosophy

Commonality benefits for airlines operating a mixed ATR fleet

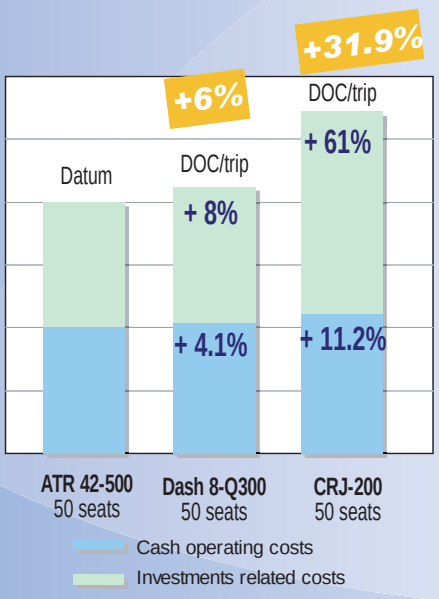
Excellent reliability resulting from more than 13 million hours of in service experience worldwide

Low direct operating costs
The ATR 42-500 has the lowest seat-mile costs in its market segment.

Direct Operating Costs

ATR 42-500 less expensive to operate when compared to turboprop and jet competitors on typical regional sectors.

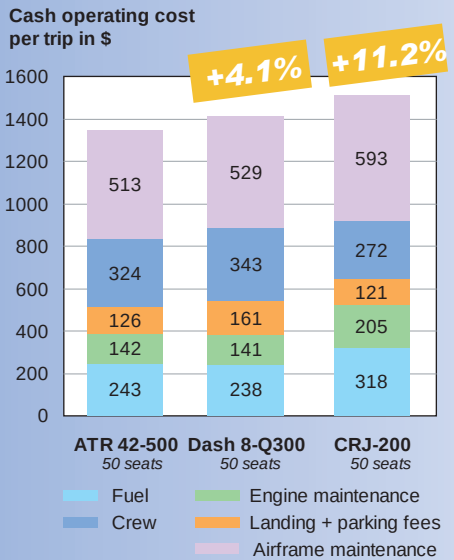
Turboprops are unrivalled on short-haul sectors.



Cash Operating Costs

On 300 Nm sector, the ATR 42-500 features : less fuel consumption, lower engine maintenance costs and significantly lower airport charges, even when compared to 50-seater jet.
That more than offsets the marginal speed effect of RJet on typical regional sectors.
ATR 42-500 main advantages on Dash 8-Q300:

- Higher cruise speed
- Lower time related costs
- Lower airport charges
- Better airframe maintenance costs



Economic Assumptions for Operating Costs

2005 Economic Conditions, European Environment

- **Stage length**: 300 Nm
- **Fuel price**: 0.9$/US gal
- **Aircraft prices**: As manufacturer list price
- **Spares**: 10% aircraft price
- **Depreciation**: 12 years with 20% residual value
- **Interest**: 85% investment - 5% interest rate - 10 year period
- **Insurance**: 1% of aircraft price/year
- **Block time & fuel**: Minimum time schedule (time allowance: 7.3 min taxi)
- **Annual utilisation**: AEA formula
- **Crew cost**: Cockpit: statistical - Cabin: 35$/BH/FA
- **Maintenance**
  - ATR family: as estimated by ATR
  - Competitors: estimated by ATR, based on manufacturers data
- **Maintenance labour rate**
  - In house: 25$/MH
  - Contracted: 63$/MH
- **Landing fees**: Type Eurocontrol
- **Ground handling**: Not considered
- **Provision for IOC**: 100% cash DOC (fuel cost + crew cost + maintenance + fees)