ATR 42-500
A New Standard of Excellence

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.
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

<table>
<thead>
<tr>
<th></th>
<th>46 pax at 30” pitch</th>
<th>48 pax at 30” pitch</th>
<th>50 pax at 30” pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.8 m³</td>
<td>169.5 cu.ft</td>
<td>4.8 m³</td>
</tr>
<tr>
<td>Baggage compartment</td>
<td>10.8</td>
<td>381.5</td>
<td>9.6</td>
</tr>
<tr>
<td>Baggage per pax</td>
<td>0.235</td>
<td>8.29</td>
<td>0.2</td>
</tr>
<tr>
<td>Total baggage incl. overhead bins and stowages</td>
<td>13.35</td>
<td>471.5</td>
<td>12.25</td>
</tr>
<tr>
<td>Total baggage per pax</td>
<td>0.29</td>
<td>10.25</td>
<td>0.255</td>
</tr>
</tbody>
</table>

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

Payload/Range

<table>
<thead>
<tr>
<th>PAYLOAD (KG)</th>
<th>RANGE (NM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1,000</td>
<td>500</td>
</tr>
<tr>
<td>2,000</td>
<td>1,000</td>
</tr>
<tr>
<td>3,000</td>
<td>1,500</td>
</tr>
<tr>
<td>4,000</td>
<td>2,000</td>
</tr>
<tr>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td>6,000</td>
<td></td>
</tr>
</tbody>
</table>

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 diversion

Performance

<table>
<thead>
<tr>
<th>Take-Off Field Length</th>
<th>1,165 m</th>
<th>3,822 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISA, SL, MTOW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3,000ft, ISA +10°C, TOW for 300Nm, 48 pax at 95 kg/209 lb</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Landing Field Length (FAR rules)</th>
<th>1,126 m</th>
<th>3,694 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>- SL,MLW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SL, 48 pax at 95 kg/209 lb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max Cruise Speed (97% MTOW, 17,000ft)</td>
<td>300 kt</td>
<td></td>
</tr>
</tbody>
</table>

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.
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.

---

**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

---

**Direct Operating Costs**

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

---

**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)

---

**Turboprops are unrivalled on short-haul sectors.**