The EC155 B1

thinking without limits
Dauphin Family: Worldwide Distribution

North America
- AS365/565: 52 AC 13,200 FH
- AS366: 95 AC 51,700 FH
- EC155: 8 AC 1,300 FH

Europe
- AS365/565: 175 AC 54,500 FH
- EC155: 66 AC 23,400 FH

Asia
- AS365/565: 237 AC 61,800 FH
- EC155: 47 AC 18,500 FH

Central America
- AS365/565: 3 AC 300 FH

Africa
- AS365/565: 73 AC 27,200 FH
- EC155: 6 AC 4,700 FH

South America
- AS365/565: 73 AC 15,800 FH
- EC155: 14 AC 5,100 FH

Oceania
- AS365/565: 18 AC 4,400 FH
- AS366: 3 AC 1,200 FH
EC155 B1: Market Overview

Total fleet of EC155 B1: In service: 142

- **Oil & Gas**: 34% (42)
- **Business Aviation**: 21% (26)
- **Public Services**:
  - Law enforcement: 11% (14)
  - Rescue: 7% (9)
  - Homeland Security: 26% (32)
- **Commercial**: 26% (32)
- **Others**:
  - EMS: 21% (26)
  - Military: 11% (14)

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EBRPP: Eric TRESANIN / Dauphin Seminar Singapore Nov. 2012 / v.0 / 05/12/2012 / © Eurocopter rights reserved
EC155 B1: A Multi-mission Tool

A solution for each mission!
EC155 B1: Law Enforcement

- Rappelling Kit
- NVG cockpit
- Weather radar
- Electrical Hailer
- EOS
- Search Light
EC155 B1: EMS Installation

www.med.umich.edu/survival_flight/
EC155 B1: EMS Installation

Survival Flight
The Best Care in the Air Just Got Better!

New Helicopters mark New Era for Survival Flight
Slide Show about our new Helicopters
Fact sheet about Emergency Care and Survival Flight
EC155 B1: Focus on VIP Lay-Outs

thinking without limits
EC155 B1: VIP Cabin Lay-Outs
EC155 B1: 8 Seats Lay-Out
Nota: The 2 front seats can either face the flight or face backward
EC155 B1: 7 Seats VIP Lay-Out
EC155 B1: 7 Seats VIP Lay-Out
EC155 B1: 10 Seats VIP Lay-Out

On request only
EC155 B1: VIP Equipment

- Specific sound proofing
- Indirect and adjustable lighting and Air conditioning
- Cockpit/cabin partition and curtain
- Comfortable seats & armchairs
- Storage compartments and galley
- Cool box
- SATCOM (optional)
- Jack for audio system
- Power sources lap-top 12V/10 Amp
Various materials and colours to define a customized and unique ambiance
EC155 B1: « The » VIP Helicopter

Excellent visibility from cabin & cockpit

Same level of comfort like in a Business Jet
EC155 B1: Quick Tour

- ARRIEL 2C2 engines with FADEC
- 25 mn MGB dry run capability
- Spheriflex main rotor head
- 5 composite main rotor blades
- Glass cockpit
- 4-axis autopilot
- FENESTRON® tail rotor
- Large cargo hold
- Versatile cabin
EC155 B1: Engines

Modular Arriel 2C2 engines controlled by FADEC

- Automatic start-up & shut-down sequences
- Acceleration & deceleration control of engines
  ➔ To prevent surge & flame out
- Inflight automatic restart

<table>
<thead>
<tr>
<th></th>
<th>kW</th>
<th>ch</th>
<th>shp</th>
</tr>
</thead>
<tbody>
<tr>
<td>O.E.I. 30 seconds rating</td>
<td>785</td>
<td>1,066</td>
<td>1,053</td>
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<tr>
<td>O.E.I. 2 minutes rating</td>
<td>713</td>
<td>968</td>
<td>956</td>
</tr>
<tr>
<td>Continuous O.E.I. rating</td>
<td>685</td>
<td>930</td>
<td>919</td>
</tr>
<tr>
<td>Take-Off Power</td>
<td>703</td>
<td>955</td>
<td>943</td>
</tr>
<tr>
<td>Maximum Continuous Power</td>
<td>635</td>
<td>862</td>
<td>852</td>
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</tbody>
</table>
### General Characteristics

**Performances**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum all-up weight</td>
<td>4,920 kg</td>
<td>10,847 lb</td>
</tr>
<tr>
<td>Maximum load on cargo sling</td>
<td>1,600 kg</td>
<td>3,527 lb</td>
</tr>
<tr>
<td>Empty weight, baseline aircraft definition</td>
<td>2,619 kg</td>
<td>5,774 lb</td>
</tr>
<tr>
<td>Fast cruise speed (0ft)</td>
<td>265 km/h</td>
<td>143 kts</td>
</tr>
<tr>
<td>Fast cruise speed (6000ft)</td>
<td>278 km/h</td>
<td>150 kts</td>
</tr>
<tr>
<td>Seating capacity</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

**Fuel**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard fuel capacity</td>
<td>993 kg</td>
<td>2,189 lb</td>
</tr>
<tr>
<td>Max range with standard fuel tanks, SL, ISA</td>
<td>784 km</td>
<td>423 nm</td>
</tr>
</tbody>
</table>

**Engines**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x Turbomeca Arriel 2C2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OEI 30s rating</td>
<td>785 kW</td>
<td>1,053 shp</td>
</tr>
<tr>
<td>Take-off power</td>
<td>703 kW</td>
<td>943 shp</td>
</tr>
</tbody>
</table>

The following performance values and figures refer to an EC155 B1 at MTOW, equipped with new engine.
EC155 B1: Easy Access to the Cabin

- Sliding doors with standard footsteps
- Hinged doors for VIP configuration with retractable footsteps
- Large windows for better visibility & evacuation in case of ditching

1,34 m
1,48 m
Larger Cabin and Cargo Compartment

EC 155 B1

Cabin volume: 6.7 m³ (235 cu.ft)
Hold volume: 2.5 m³ (88 cu.ft)

From AS 365 to EC 155
Large Luggage Compartment

- Easy access from both sides
- Roomy
- Capable of additional fuel tanks (180 liters - 142kg)
EC155 B1 Main Rotor Head

- 5 blades
- Damage Flaw Tolerant
- High performance
- Simple design
- Very low vibration level
- Very low noise signature
- Simple maintenance
The faster you fly the smoother the EC155 B1 is
Safety on ground

Safety in flight

Very low external sound level

Efficient

Proven (30 years experience)

High damage tolerance

Easy maintenance
EC155 B1: Glass Cockpit

Mission Display

VEMD + CAD

ND + PFD
Primary Flight Display

Pilot's primary source of flight information
Intuitive presentation of all parameters

- Flight information provided:
  - Attitude
  - Flight director data
  - Radio & baro altitude
  - Decision height (DH)
  - Airspeed & Vertical speed
  - Navigation source

- Mix of Primary & Navigation data are recovered in case of failure of one display
EC155 B1: Navigation Display (ND)

- Gives information about the position of the aircraft

- HSI (Horizontal Situation Instrument) mode: 360° compass rose, course pointer & lateral deviation, bearings pointers, AFCS heading selection, wind, track

- Sector display: compass rose, map range, AFCS heading selection, wind, track

- Hover mode: 360° compass rose, map range, wind, radio height scale
First Limit Indicator indicates the “global power” available
- Monitors all vital engine limitation parameters
- Computes and displays vehicle and engines parameters
- Audio signal on exceedance
- Center screen that can be monitored from both sides

Very low pilot’s workload
Caution Advisory Display

Amber warnings & advisories about all systems:

- Electrical
- Hydraulic
- MGB & TGB
- Autopilot

Fuel management:

- Quantity
- Flow
- Pressure
EC155 B1: 4-Axis Auto Pilot

- Designed by Eurocopter®
- Especially dedicated to helicopters
- Reduces pilot’s workload drastically
- Enhances safety by protecting the full flight envelop
- Already installed on EC145 T2, AS365 N3+, EC155 B1, EC175 and EC225
- Proven, Efficient, Reliable

Same concept than EC225
EC155 B1: 4-Axis Auto Pilot

- Prevents flying at low speed & over VNE
- Maintains speed between 60kts & VNE in “3-axis mode”
- Automatic activation of the 4th axis mode at 60kts
- Prevents vortex: Vertical Speed limited to 300ft/min at low speed & in hover

Airspeed protection

- Power maintained below Max. Continuous Power in 4-axis « cruise mode » operation.
- Fully manages engine rating in OEI flight
- Protects engine & main gear box by limiting power to maximum take-off power below 40kts and maximum continuous power above 40kts

Power protection

- Altitude maintained upon reaching MCP in « 4-axis cruise mode » operation
- Automatic level off at 80 ft with any vertical mode selected
- Protects altitude as primary condition, not speed like common autopilots

Altitude protection

A full flight envelope protection
EC155 B1: A Multi-mission Tool

Because it offers:

- **Experience** on all markets segments
- **High level of safety**: 4-axis autopilot, Fenestron®, high main rotor clearance
- **High speed**
- **Versatility**: flat floor cabin
- **Great visibility** for crew and passengers
- **Very low vibration level**: it flies like a “Business Jet”!!
- **Very low external sound level**
- **Wide range of optional equipment** for all missions
- Unrivalled 4-axis autopilot
- **Full training capabilities**

A solution for all your missions!
EC155 B1: New Assembly line

More efficiency
EC155 B1: Training

- Training academy in Marignane for Pilots and Engineers
- Level D simulator in Helisim
- Advanced Mission training: SAR, NVG, deck landings
- Recurrent Training: IFR, emergency procedures
## EC155 B1: DMC & DOC

### Competitive Maintenance & Operating Costs

<table>
<thead>
<tr>
<th>DMC / DOC</th>
<th>Competitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conklin Fall 2012 (October) (US $ / FH)</td>
<td>EC155 B1</td>
</tr>
<tr>
<td>725,4 / 1627,5</td>
<td>837,3 / 1775,0</td>
</tr>
</tbody>
</table>

Labor Cost based on an hourly labor rate of 95 USD/FH - Fuel Cost based on fuel price of 6,84 USD per gallon

DMC & DOC not available for AW169, Hindustan HAL
Eurocopter: The Largest Helicopter Range

Thank you for your attention