EC145 T2 - The newest Eurocopter solution for today's most demanding operations
A versatile multi-role helicopter, with designed-in mission capability and flexibility

The EC145 T2 is the newest 4-ton-class lightweight twin-engine helicopter in Eurocopter’s product range. This is a “hot-and-high” evolution of the company’s multi-purpose EC145/BK117 family, and retains excellent performance levels throughout the flight envelope – even in extreme conditions. With a large roomy cabin, the EC145 T2 can accommodate up to 12 seats for passengers and one/two pilots.

To date, more than 800 EC145/BK117 helicopters have been delivered worldwide, logging an accumulated total of more than three million flight hours.

2 Powerful Arriel 2E Engines, with FADEC (Dual-Channel Full Authority Digital Engine Control) and engine data recorder

Safe & Silent Fenestron® Tail Rotor

Upgraded main gear box

High-set tail boom produced with lightweight composite materials

4-axis autopilot

State-of- the-art avionics suite: Helionix®, a family concept for Eurocopter’s modern product line

Certification planned in 2013
The EC145 T2 provides a multitude of possibilities when it comes to deployment capability due to its power, advanced mission equipment, small footprint and large cabin size.

From entry-in-service, this helicopter is qualified for single pilot/dual pilot operation, VFR-capable day and night, IFR, night vision goggle compatibility, and excellent CAT A performance levels.

Based on a platform that is recognized as a reference worldwide, the EC145 T2 is perfectly suited for:

- Emergency medical services (EMS) missions
- Law enforcement/parapublic duties

A further choice of aircraft configurations allows unique adaptability in a wide range of dedicated applications in:

- Business and commercial aviation
- Aerial work (windmill maintenance, firefighting...)

With its comprehensive state-of-the-art options, incomparable performance levels and complementary equipment for “quick role change,” the EC145 T2 is easily reconfigurable for such secondary missions as:

- Search and rescue
- Offshore/oil and gas passenger transport

One platform: a full range of missions
A helicopter that accomplishes the job, no matter what the mission

EMS
Suitable for primary/secondary missions

Quick, easy and safe loading/unloading of patients
• High-set main rotor and Fenestron® shrouded tail rotor allows operations even with the engines running
• Sliding side doors
• Two large rear clamshell doors

Spacious, unobstructed cabin
• Extensive space, providing full body access and greater comfort for the medical crew
• 1 or 2 stretcher capability with full/partial suite of medical equipment

Extremely low sound levels
• Can operate in and around hospitals and urban areas with little disturbance

Law enforcement/parapublic
Versatile and “quick role change” capability

Police configuration
The night vision goggle-compatible arrangement is equipped with:
• A powerful searchlight
• An external hoist
• Capability for external roping, with two persons simultaneously on each side

Additional equipment and packages
• Electro-optical system fitted with searchlight-slaving mode
• Digital video recorder
• Video downlink
• Operator workstation in the cabin

Business and commercial aviation
Maximum comfort and optimum working conditions

• Easy cabin access
• Spacious and stylish interior with outstanding external visibility
• A wide variety of seating arrangements
• Substantial room for baggage

New “Stylence” interior design
• Highly effective soundproofing
• Automatically-controlled air-conditioning system
• Further reductions in vibration levels
Offshore Oil & gas passenger transport

• Certified FAR29 for increased safety
• Long-range capability
• Reduced operational costs
• Capacity to transport up to 10 passengers
• Compact size, enabling landing in confined areas

Full provisions offered as required by EASA OPS
• Color weather radar system
• Emergency flotation system
• External life raft
• Helicopter emergency egress lighting (HEEL)
• Automatic deployable emergency locator transmitter

Search and rescue Suitable for both onshore and offshore missions

• Long-range capability
• Large cabin size
• New glass cockpit with innovative human-machine interface to reduce crew workload
• SAR-dedicated equipment
  - High-definition forward-looking infrared sensor
  - Search radar
  - Digital moving map
  - Left- or right-hand hoist installation capability
Unrivalled performance

Newly-designed engines

• The EC145 T2 is equipped with two modern and powerful Turbomeca Arriel 2E engines, each controlled by a fully redundant dual channel Full Authority Digital Engine Control (FADEC). They provide outstanding performance in all engine operative (AEO) operations, along with vital power reserves in one engine inoperative (OEI) scenarios. Includes an OEI training mode.

• In compliance with EASA-OPS regulations, the EC145 T2 allows CAT A operations up to Class 1 performance levels at full maximum take-off weight (Sea level, ISA + 20°C conditions).

A state-of-the-art 4-axis autopilot

The EC145 T2 fully benefits from Eurocopter’s unique experience in autopilot systems, and is equipped with the most advanced dual-duplex, 4-axis Automatic Flight Control System (AFCS) specifically designed for helicopters. It offers unparalleled pilot assistance with automatic modes integrated in the AFCS:

• High flight stability and precision from 0 kts up to VNE (Velocity Never Exceed)
• Eurocopter’s unique flight envelope and over-limit protection
• Automated takeoff and fully-coupled approaches (ILS or LPV) down to hover
• Automatic management of engine failure during cruise, take-off and hover

Upgraded main gear box

The EC145 T2’s main gear box has been enhanced to handle higher loads, and is certified for a 30-minute dry-run capability.
A new level of safety

The EC145 T2 is certified according to the latest FAR Part 29 airworthiness standards, setting the bar even higher when it comes to in-flight and on-ground safety features.

With an advanced glass cockpit and avionics suite, as well as a distinct combination of innovative and proven technologies, the EC145 T2 reduces pilot workload and provides the highest possible safety levels:

- Three fully-interchangeable (6 x 8-inch) multifunction displays, including autonomous computation for each screen
- One central Vehicle Monitoring System providing engine and vehicle data
- A color-coded warning and information concept
- A first limit indicator (FLI) to facilitate engine and torque monitoring
- One integrated electronic standby instrument (IESI)

360° safe approachability

- High-set main rotor (3.10 meters)
- High-set tail boom (1.90 meters)
- Fenestron® shrouded tail rotor with high damage tolerance

Enhanced situation awareness integrating

- Digital moving map
- Helicopter terrain awareness and warning system (H TAWS)
- Synthetic vision system and Electronic Flight Bag
- Traffic advisory system

Crashworthiness and survivability

- Energy-absorbing fuselage and seats
- Crash-resistant fuel cells
- Energy-absorbing skid landing gear
- Duplex hydraulic system
- Dual electric system
- Redundant lubrication for the main transmission
A “maintenance-friendly” helicopter designed to reduce operating costs

Building on Eurocopter’s extensive experience gained with the BK117/EC145 helicopter family, the EC145 T2’s maintenance procedures optimize the intervals between periodical inspections, providing for increased availability and reduced operating costs.

The optional helicopter usage monitoring system (HUMS) keeps track of the engine’s health in accordance with usage conditions, resulting in further availability and enhanced cost-effective maintenance.

Environmentally friendly

Equipped with the Fenestron® shrouded tail rotor – which significantly reduces noise levels – the EC145 T2 is the quietest helicopter in its class.
New standards of comfort

Designed for those who demand the best, the EC145 T2’s business aviation configuration unites superior taste and advanced technology for an unparalleled passenger experience.

Passengers board easily via large sliding doors. Once inside the sleek and stylish interior, they can make the most of the uninterrupted view offered.

The exceptionally roomy cabin allows for a variety of seating arrangements while leaving ample space for a substantial volume of luggage, to be easily loaded through the rear clamshell doors.
Characteristics
### Cabin & cargo compartment

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Floor area</td>
<td>50.77 ft²</td>
<td>4.72 m²</td>
</tr>
<tr>
<td>Volume</td>
<td>213.15 ft³</td>
<td>6.04 m³</td>
</tr>
</tbody>
</table>

### Engine: 2 Turbomeca ARRIEL 2E turboshaft

<table>
<thead>
<tr>
<th>Take-off power (TOP)</th>
<th>894 shp</th>
<th>907 ch</th>
<th>667 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum continuous power (MCP)</td>
<td>771 shp</td>
<td>782 ch</td>
<td>575 kW</td>
</tr>
<tr>
<td>One engine inoperative (OEI), 30 sec power</td>
<td>1,072 shp</td>
<td>1,088 ch</td>
<td>800 kW</td>
</tr>
<tr>
<td>One engine inoperative (OEI), 2 min power</td>
<td>1,038 shp</td>
<td>1,054 ch</td>
<td>775 kW</td>
</tr>
</tbody>
</table>

**Note:** Thermodynamic limits per engine at SL, ISA

### Weight

| Maximum take-off weight without/with external load | 8,047 lb | 3,650 kg |
| Empty weight, wet (baseline aircraft definition) | 4,231 lb | 1,919 kg |
| Useful load (baseline aircraft definition) * | 3,816 lb | 1,731 kg |
| Payload and/or fuel | 3,640 lb | 1,651 kg |
| Sling load (single hook) | 3,307 lb | 1,500 kg |

* Approximately 30 kg more useful load than a comparable EC145 configuration.

### Single-engine performance (OEI)

<table>
<thead>
<tr>
<th>Max. Gross Weight</th>
<th>HOGE (OEI 2 min-power), SL, ISA</th>
<th>6,755 lb</th>
<th>3,064 kg</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>HOGE (OEI 2 min-power), SL, ISA +20°C</td>
<td>6,601 lb</td>
<td>2,994 kg</td>
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<tr>
<td></td>
<td>CAT A, VTOL, SL, ISA</td>
<td>8,047 lb</td>
<td>3,650 kg</td>
</tr>
<tr>
<td></td>
<td>CAT A, VTOL, SL, ISA +20°C</td>
<td>8,047 lb</td>
<td>3,650 kg</td>
</tr>
</tbody>
</table>

### Two-engine performance (AEO)

<table>
<thead>
<tr>
<th>Max. Gross Weight</th>
<th>8,047 lb</th>
<th>3,650 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed VNE</td>
<td>145 kts</td>
<td>268 km/h</td>
</tr>
<tr>
<td>Maximum cruising speed VH</td>
<td>134 kts</td>
<td>248 km/h</td>
</tr>
<tr>
<td>Recommended cruising speed</td>
<td>134 kts</td>
<td>248 km/h</td>
</tr>
<tr>
<td>Hover ceiling IGE (TOP), (4 ft AGL), ISA</td>
<td>12,795 ft</td>
<td>3,900 m</td>
</tr>
<tr>
<td>Hover ceiling IGE (TOP), (4 ft AGL), ISA+20</td>
<td>10,000 ft</td>
<td>3,048 m</td>
</tr>
<tr>
<td>Hover ceiling OGE (TOP), ISA</td>
<td>9,843 ft</td>
<td>3,000 m</td>
</tr>
<tr>
<td>Hover ceiling OGE (TOP), ISA+20</td>
<td>8,000 ft</td>
<td>2,484 m</td>
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<tr>
<td>Range at recommended cruise speed (no reserve) with standard fuel tank</td>
<td>358 NM</td>
<td>663 km</td>
</tr>
<tr>
<td>Endurance at 70 KIAS (no reserve) with standard fuel tank</td>
<td>3h37min</td>
<td></td>
</tr>
</tbody>
</table>

The data provided is being validated. Final confirmation of the data after completion of the flight test program.
thinking without limits

For more information please contact sales-promotion@eurocopter.com