



**EUROCOPTER**  
**EC135**

Technical  
Data



*helicopters you can count on*

135 07.101.01 E

**EC135**  
(Civil Version)



**EC135**

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**EC635**  
(Military version)



Utility/armed version  
**EC635**

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## **Manufacturer's notes – Attention!**

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*The operational or certification regulations, as defined by the local authorities, can make compulsory the installation of some of the equipment or recommended solutions, listed in this document. This list does not claim to cover the whole of the worldwide operational requirements nor the equipment not specifically related to the helicopter (for example: life jacket) or necessary for particular missions (for example: supplemental oxygen). The operator is responsible for ascertaining with his local authorities that the planned configuration of the helicopter complies with regulatory requirements for the area(s) of operations and the type(s) of mission(s) considered.*

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## 1 Foreword



The EC135 is a light twin-engine, multi-purpose helicopter of the 2-3 ton class with up to 8 seats for pilot/s and passengers. Underlining its multi-role capabilities, it can even be operated single pilot IFR as an option. The helicopter combines Eurocopter's latest Technologies, like advanced cockpit design, modern avionics, fenestron anti-torque-device and all-composite bearingless main rotor system, giving the helicopter an outstanding maneuverability. Optimized main rotor blades with advanced tip geometry in combination with a fenestron with unequal blade spacing make the EC135 the quietest helicopter in its class, bringing it 6.5 dBA below the ultra-stringent ICAO limit. The built-in anti resonance isolation system (ARIS) filters rotor-induced vibrations and thus enhances flying comfort to a maximum. As a result, the vertical vibration level is far below 0.1g at hover with no increase with speed.

Due to its extreme simplicity, the rotor system contributes to highest safety standards and, at the same time, reduces maintenance to a minimum. The first scheduled maintenance is the intermediate inspection after 400 Flh. In addition, the rotor system together with high TBO gearbox and airframe components grant for high in-service-time of the helicopter.

Depending on the operator's preferences, the EC135 can be equipped with either Arrius 2B2 or Pratt & Whitney PW206B2 power plants - both are FADEC controlled. These powerful and reliable engines in combination with the lifting system provide outstanding performance and vital power reserves even in OEI scenarios.

For training purpose an OEI training mode is implemented to perform a realistic OEI training. This training mode is based on a twin engine training concept featuring a so called TRAINING and a TRAINING IDLE engine.

Twin-engine reliability is complemented by a tandem hydraulic and dual electrical system as well as a redundant lubrication and cooling system for the main transmission.

Further safety aspects of the EC135 are design elements like energy absorbing fuselage and seats, as well as the crash resistant fuel cells.

A wide range of quick interchangeable optional equipment is available for the EC135, e.g. emergency floats, hoist, SX16 search light, single or dual cargo hook and many more. Together with its most versatile cabin layout the EC135 is ready to operate in different missions, like police / surveillance, passenger / VIP transport, EMS, public service, to highlight on a few.

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Compared to other helicopters in its class, the EC135 offers a large cabin, featuring:

- Excellent outside visibility for pilots and passengers
- Roomy cabin which accommodates long or bulky freight
- Unrivalled side loading (no door posts) and rear loading capability
- Unobstructed and flat floor all over the cabin area with integrated airline style rails



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Alternatively to a conventional cockpit, the EC135 is available with “glass cockpit”, which comprises primary flight displays (PFD) and NAV displays (ND). All LCD screens are well arranged on the instrument panel, easy to read even if viewed from an angle and feature perfect readability in any light conditions. The unique color coding, warning and information concept helps the pilot/s to collect all relevant parameters while suppressing presentation of non-relevant information.

Common to the conventional and the glass cockpit is the Central Panel Display System (CPDS). Included in this CPDS there is Eurocopter’s unique first limit indicator (FLI) which dramatically simplifies engine and torque monitoring. Being relieved from the instrument scan without missing vital information, the pilot/s can dedicate more of his/their attention to the mission.

**Conventional Instrumentation  
(analog instruments)**



<b>VFR- Single Pilot or Dual Pilot</b>	Packages based on Avionics Solution 1
<b>IFR- Dual Pilot</b>	Packages based on Avionics Solution 3 or 4
<b>IFR- Single Pilot</b>	not available

**Glass Cockpit Instrumentation  
(MEGHAS / FCDS)**



<b>VFR- Single Pilot or Dual Pilot</b>	covered by SP or DP-IFR solutions
<b>IFR- Dual Pilot or Single/Dual Pilot</b>	Packages based on Avionics Solution 7, 8 or 11
<b>IFR- Single Pilot</b>	Packages based on Avionics Solution 9, 10 or 12

**Latest news / highlights:**

- Light twin HUMS
- External hoist capability LH and RH
- EUROCOPTER owned simulators for training

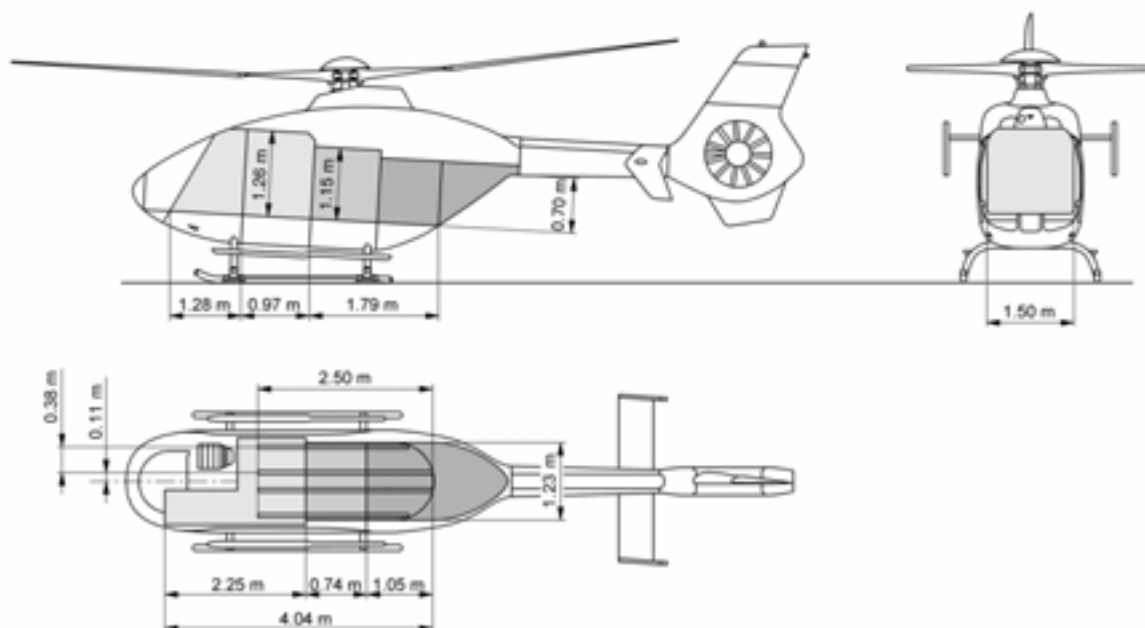
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## 2.2 Interior dimensions



	Floor area		Volume	
	m <sup>2</sup>	ft <sup>2</sup>	m <sup>3</sup>	ft <sup>3</sup>
Cabin & baggage compartment	4.35	46.83	4.90	173.04
Cockpit (pilot side)	1.15	12.38	1.00	35.31
Total (undivided)	5.50	59.21	5.90	208.35

## 2.3 Possible cabin arrangement (seats & equipment as option)

<b>Passenger transport</b>	<ul style="list-style-type: none"> <li>■ 1 or 2 pilots + 7 or 6 passengers ("6 Passenger Transport" version)</li> <li>■ 1 or 2 pilots + 6 or 5 passengers ("5 Passenger Transport" version)</li> <li>■ 1 or 2 pilots + 6 or 5 passengers ("5 Corporate Passenger Transport" version)</li> <li>■ 1 or 2 pilots + 5 or 4 passengers ("4 VIP Passenger Transport" version)</li> </ul>
<b>Casualty evacuation</b>	<ul style="list-style-type: none"> <li>■ 1 pilot + 1 litter + up to 5 seats for doctor and attendants</li> <li>■ 1 pilot + 2 litters + up to 4 seats for doctor and attendant</li> <li>■ 2 pilots + 1 litter + up to 4 seats for doctor and attendants</li> <li>■ 2 pilots + 2 litters + up to 3 seats for doctor and attendant</li> </ul>
<b>Freight transport</b>	<ul style="list-style-type: none"> <li>■ 1 pilot + 4.9 m<sup>3</sup> (173.04 ft<sup>3</sup>) in cabin and cargo compartment</li> </ul>

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## 2.4 Weight

Note : margin  $\pm 1.5\%$

	kg	lb
■ Empty weight, wet (in standard aircraft configuration)	1,455	3,208
■ Useful load (for standard aircraft configuration)	1,455	3,208
■ Pilot	80	176
■ Payload and / or fuel	1,375	3,031
■ Maximum take-off weight	2,910	6,415

## 2.5 Fuel Capacities

Note: Tolerance of fuel figures:  $\pm 2\%$   
 Fuel density used is 0.8 kg/liter.

	Usable Fuel			Unusable Fuel	
	lb	kg	l	lb	kg
■ Main Tank	1038.6	471.1	588.9	7.5	3.4
■ Supply Tank	196.8	89.3	111.6	9.3	4.2
■ Total	1235.4	560.4	700.5	16.8	7.6

## 2.6 Engines

**2 Pratt & Whitney turbine engines – PW206B2**

OR

**2 Turbomeca turbine engines - ARRIUS 2B2**

### Engine ratings

Thermodynamic limits per engine at SL, ISA

	kW	ch	shp
PW206B2			
■ One Engine Inoperative (OEI), 30 sec power	609	828	816
■ One Engine Inoperative (OEI), 2.0 min power	580	789	777
■ One Engine Inoperative (OEI), MCP	528	718	708
■ Take-Off Power (TOP)	498	677	667
■ Maximum Continuous Power (MCP)	457	621	612

ARRIUS 2B2

■ One Engine Inoperative (OEI), 30 sec power	609	828	816
■ One Engine Inoperative (OEI), 2.0 min power	580	789	777
■ One Engine Inoperative (OEI), MCP	528	718	708
■ Take-Off Power (TOP)	473	643	634
■ Maximum Continuous Power (MCP)	442	601	592

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## 2.7 Main transmission ratings

Single engine operation		kW	ch	shp
■	<b>30 sec OEI-power</b>	<b>1 x 526</b>	<b>1 x 715</b>	<b>1 x 705</b>
■	<b>2.0 min OEI-power</b>	<b>1 x 513</b>	<b>1 x 698</b>	<b>1 x 687</b>
■	<b>Maximum continuous OEI-power</b>	<b>1 x 368</b>	<b>1 x 501</b>	<b>1 x 493</b>
Twin engine operation				
■	<b>Take-Off Power (TOP)</b>	<b>2 x 320</b>	<b>2 x 435</b>	<b>2 x 429</b>
■	<b>Maximum Continuous Power (MCP)</b>	<b>2 x 283</b>	<b>2 x 385</b>	<b>2 x 380</b>

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### 3 Standard aircraft definition

#### GENERAL

- Energy absorbing fuselage
- Tail boom with fixed horizontal stabilizer and two end-plates
- Vertical fin with faired-in fenestron
- Upper deck with fittings for main gearbox, engines, hydraulic and cooling system
- Cowlings for main transmission and engines
- Skid-type landing gear with skid protectors, capable of taking ground-handling wheels
- Long boarding steps, LH and RH
- Maintenance built-in steps and grips
- Exterior painting (single color)

#### COCKPIT, CABIN AND CARGO COMPARTMENT

- One-level cabin and cargo compartment floor with integrated rails
- Glazed canopy
- Two hinged cockpit doors with sliding window
- Map case in pilot's door
- Two wide passenger sliding doors
- Two rear hinged clam-shell doors
- Longitudinally adjustable energy absorbing pilot and copilot seats with head rest and 4-point safety belts with automatic locking system
- Cabin boarding grips (LH and RH)
- Interior paneling with integrated basic sound insulation
- Flight controls (pilot side)
- Engine controls with manual engine back-up system at pilot's collective pitch lever
- Instrument panel with extension on pilot's side and glare shield
- Ram-air and electrical ventilating system for cockpit and cabin
- Headset holder in the cockpit
- Headset holder in the cabin
- Portable fire extinguisher
- Stowage net for first aid kit at the LH rear clam-shell door
- Flash light (torch)
- 4 Mobile tie-down rings

#### BASIC INSTRUMENTATION

- Central Panel Display System (CPDS), consisting of:
  - Caution Advisory Display (CAD) with indication of:
    - Caution and advisory information
    - Fuel quantity indication
  - Vehicle and Engine Management Display (VEMD) with indication of:
    - Torque
    - Engine parameters (N1-RPM (for P&W) or  $\Delta$ N1-RPM (for TM), oil pressure, oil temperature, Turbine Outlet Temperature (TOT), engine/FADEC rep EEC failure and parameter code messages, self diagnoses)
    - FLI (First Limit Indicator) for TQ, TOT, N1 (for P&W) or  $\Delta$ N1 (for TM) as analogue display
    - Main transmission parameters (oil pressure, oil temp.)
    - Dual ammeter (generator)
    - Ammeter (battery)
    - Dual voltmeter
    - Outside Air Temperature (OAT)
    - Automatic in flight power check
    - Parameters of optional equipment (e.g. internal long range fuel tank)
- Engine cycle counter (on flight report page)
- Clock (2")
- Magnetic compass
- Triple (rotor and engines) RPM-indicator (2")
- Standard instruments: (single pilot) <sup>1)</sup>
  - Encoding altimeter (3")
  - Airspeed indicator (3")
  - Vertical speed indicator (3")
- Warning unit:
  - Engine fire warning with fuel emergency shut-off
  - Warning lights
  - Aural warning
- Main switch panel:
  - DC power control
  - Digital engine control (FADEC)
- Pitot / static system with electrical heated pitot tube, pilot side
- Static pressure crossover system
- Air Data Computer

1) If glass cockpit instrumentation is chosen as optional equipment, these standard instruments are deleted and an altimeter (2") and an airspeed indicator (2") as back-up instruments are added.

#### POWER PLANT

- Two Pratt & Whitney PW206B2 turbine engines or Two Turbomeca ARRIUS 2B2 turbine engines
- These 2 engines are equipped with:
  - fire detectors
  - electronic engine control (FADEC-BOX)
  - chip detectors with quick-disconnect plugs
  - overspeed protection system
- twin-engine OEI-training mode
- Oil cooling and lubricating system with thermostatic valve
- Crash resistant fuel system with a flexible bladder-type fuel main tank and supply tank (split into two sections)
- Automatically controlled variable rotor speed system
- Fuel tank filler flap, lockable

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## **TRANSMISSION SYSTEM**

- Flat-shaped main gearbox with two stages
- Chip detector system with quick-disconnect plug (main gearbox)
- Redundant oil cooling and lubrication system
- Main gearbox attachment with Anti-Resonance Isolation System (ARIS)
- Free wheel assemblies in the engine input drives
- Tail rotor drive shaft
- Tail rotor gearbox with splash lubrication and oil level sight gauge
- Chip detector system with quick-disconnect plug (tail rotor gearbox)

## **ROTOR AND FLIGHT CONTROLS**

- Bearingless Main Rotor system (BMR), consisting of:
  - Rotor head/mast in one piece
  - Four fiber-reinforced composite main rotor blades with anti-erosion strips, control cuff, elastomeric lead-lag dampers and special blade tip painting
- Main rotor control system with dual hydraulic boost system
- Electrical trim system (cyclic)
- Basic provisions for an easy integration of a track and balance system
- Fenestron-type tail rotor with ten metal blades (asymmetric blade spacing) and stator
- Tail rotor gearbox cover
- Tail rotor control system with flexball cable and single hydraulic booster
- Yaw-SAS (Stability Augmentation System)
- Mast moment system

## **ELECTRICAL INSTALLATION**

- Power generation system:
  - Two starter/generators (2 x 160 A, 28 VDC)
  - Nickel-Cadmium battery, (24 V, 17 Ah)
  - External power connector (STANAG 3302)
- Power distribution system:
  - Two primary busbars
  - Two shedding busbars
  - Two essential busbars
  - Two high load busbars (80 A) - for optional equipment only
  - Two high power busbars (200 A)
- Battery bus
- One utility receptacle in LH side of cargo compartment (28VDC, 10A)
- Lighting:
  - Anti-collision warning light (red flashing)
  - Fixed, nose-mounted landing light (250 W)
  - Three position lights (red, green, white)
  - Adjustable instrument lighting
  - One utility light in the cockpit
  - 5 spot-lights in the cabin
  - One light in cargo compartment RH side

## **GROUND HANDLING KIT <sup>1</sup>**

- Two ground-handling wheels
- Basic aircraft covers (short time)
- Main rotor blade tie-down lash bags
- Oil drain hoses
- Fuel tank drain device
- Keys for cockpit doors, cabin doors, baggage compartment doors and tank flap (one-key system)
- Battery key
- Lifting points

## **DOCUMENTATION (in English)**

- One Flight Manual <sup>2</sup>
- One Pilots-Checklist, revision service for five years <sup>1</sup>
- One Logbook <sup>1</sup> (only paper, CD ROM on demand)
- One Historical Record <sup>2</sup> (only paper, CD ROM on demand)
- One CD-ROM <sup>1)2)</sup> including AMM<sup>3)</sup>, SDS<sup>3)</sup>, WDM<sup>3)</sup>, IPC, MSM
- One additional Master Servicing Manual (MSM) <sup>1)2)</sup> on paper
- One Service Bulletin Catalogue (SB) <sup>1)2)</sup> per contract, on paper
- One List of Applicable Publications (LOAP) <sup>1)2)</sup>, on paper
- One Avionics Manual (for avionics installed by Eurocopter)<sup>1)3)</sup> (on paper)
- Engine Documentation <sup>1)</sup>, furnished by supplier, including:
  - Maintenance Manual
  - Illustrated Parts Catalogue (IPC)
  - Service Bulletins
- Weapon delivery manual <sup>1)</sup>, furnished by supplier

<sup>1</sup> Weight not included in the standard helicopter empty weight

<sup>2</sup> Revision service included as long as the aircraft is operational

<sup>3</sup> Customized documentation

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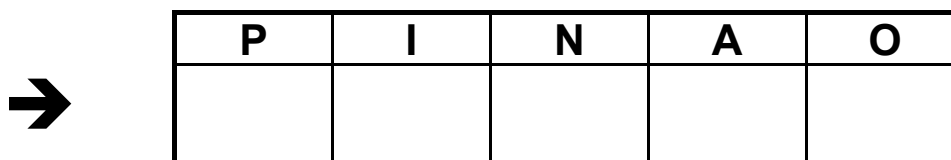
## 4 Basic configuration choice

### Selection of a PINAO package

Please select your PINAO code according to your operational needs by using the following table:

Pilot	P	Single	Dual	Single/Dual
		1	2	3
VFR/IFR	I	VFR	IFR	
		0	1	
Day/night	N	day	night	
		0	1	
Cat. A	A	no	yes	
		0	1	
JAR-OPS 3 equipment *	O	no	yes	
		0	1	


\* This offered equipment package is derived from JAR-OPS 3 Amendment 3. It does not cover oxygen equipment and equipment required for over water operations. As the national operating rule may differ from the JAR-OPS 3 Amendment 3, the operator has to contact its national authority to assure that the planned equipment configuration is acceptable for the intended kind of operation.



Use this code to find your required "PINAO" packages on the following pages.

- As a general guidance, use the diagram on the next page
- One PINAO code may lead to different PINAO packages

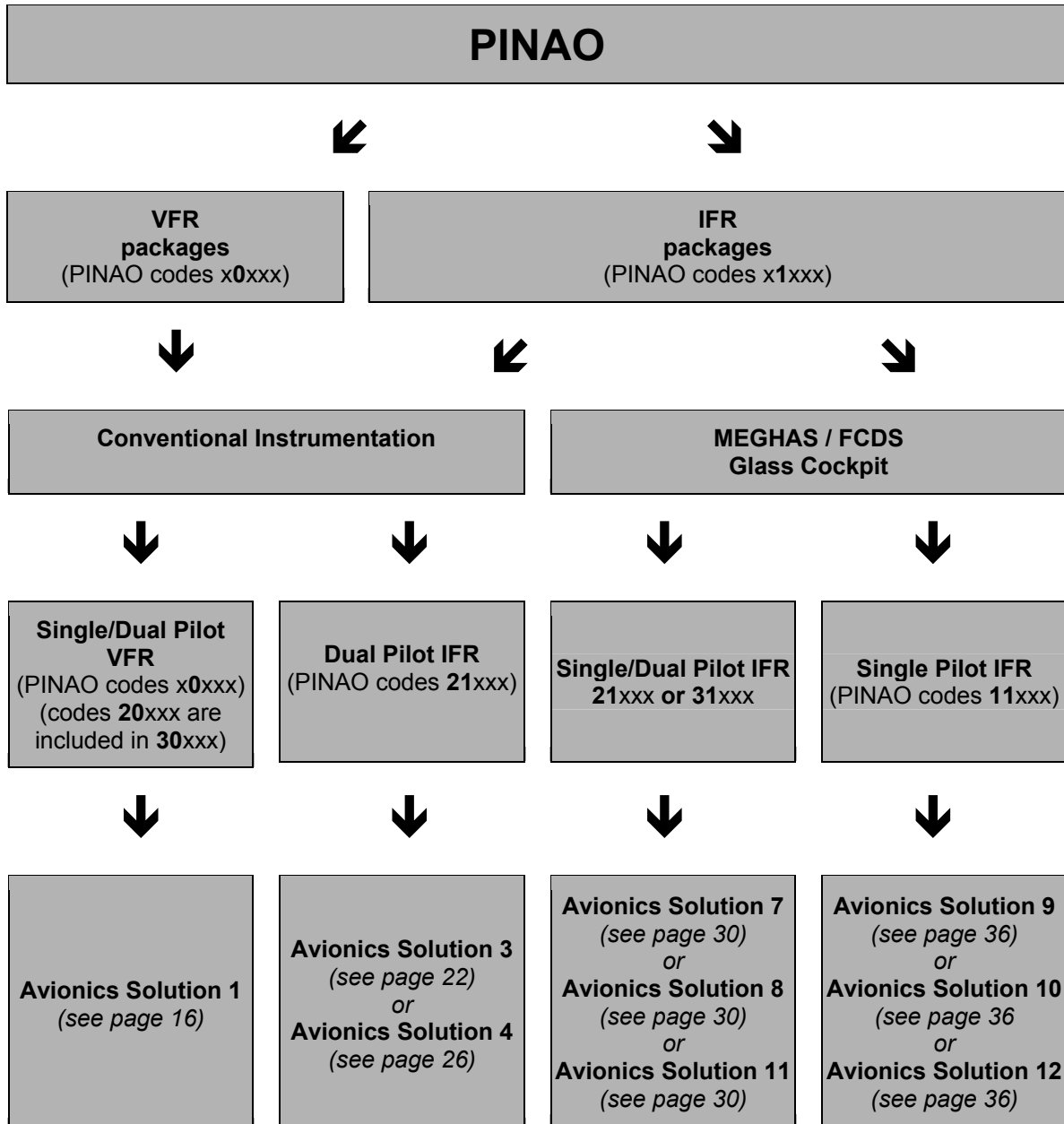
#### IMPORTANT NOTES:

- Avionics solutions 2, 5 and 6 are no more available.
- For IFR, there is no difference between "day" and "night". Therefore only IFR "night" PINAO packages are listed.
- All possible PINAO codes are listed in the following pages.
- Weight margin in this chapter:  $\pm 3\%$
- For all intercom systems, the following impedances are standard: LOW IMPEDANCE →  
Microphone:  $5\ \Omega$  (dynamic) / Headset:  $8\ \Omega$  (military - Eurocopter typical)
- Symbol  shown beside an item denoted some constraints (see table on page 70)

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**Use this diagram to find the appropriate Avionics Solution based on your individual PINAO selection.**

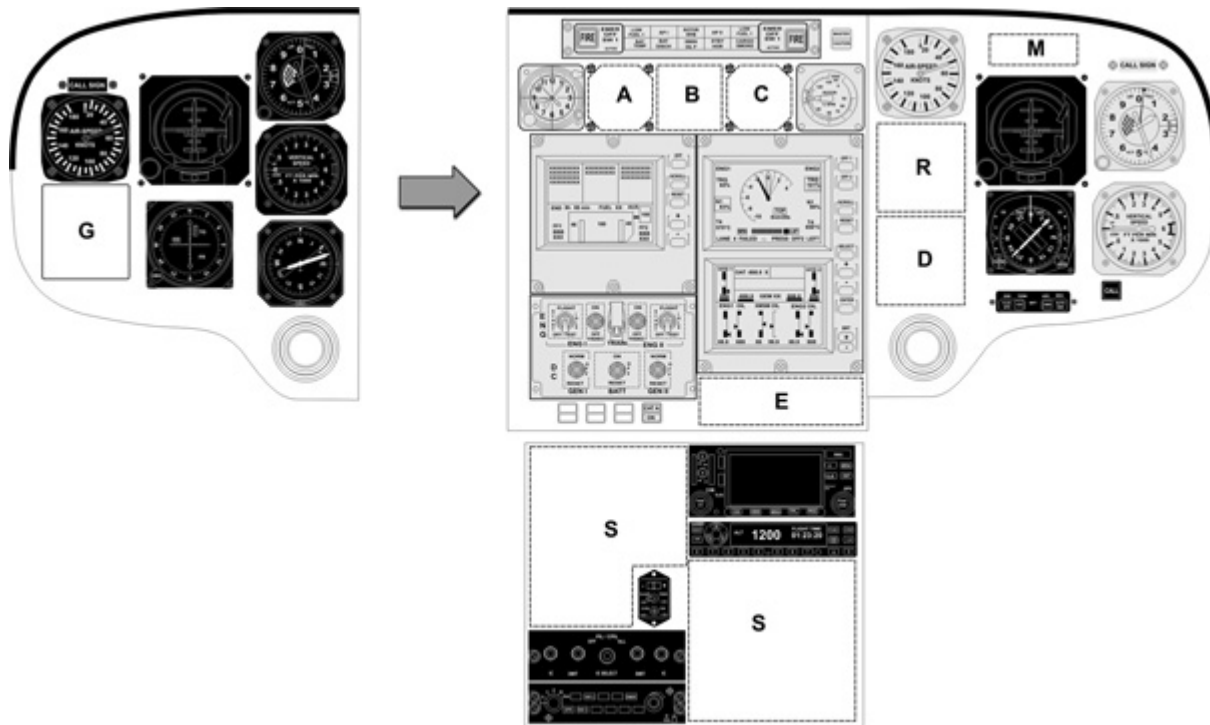


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## 4.1 VFR packages (based on Avionics Solution 1)

### 4.1.1 Instrument panel overview



#### Additional space:

- A - for 2" back-up airspeed indicator (used in MEGHAS/FCDS "Glass cockpit" solutions)
- B - for 2" standby horizon AI 804 DC
- C - for 2" back-up altimeter (used in MEGHAS/FCDS "Glass cockpit" solutions)
- D - e.g. for 3" RMI
- E - e.g. for DME or ELT remote control
- G - e.g. for 2nd gyro 205 1BL (Goodrich)
- M - e.g. for marker lights
- R - e.g. for 3" radar altimeter indicator (KNI 416)
- S - e.g. for 2nd GPS/COM/NAV GNS430 or other equipment

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#### 4.1.2 Content of Avionics Solution 1 (basic for all VFR PINAO packages)

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>
	<b>L2300-001-04</b>	<b>Avionics Solution 1, consisting of:</b>
<i>Intercom System</i>		
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22026-B	L2325-092-12	Transponder (Mode S) GTX 330 (Garmin)
<i>Radio Switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>GPS/NAV/COM</i>		
08-43018-B	L3442-092-00	GPS / NAV / COM GNS 430, pilot (Garmin) with I-panel annunciation/switch unit MD 41 (MidContinent)
<i>Conventional instruments</i>		
08-51012-A	L3425-092-02	4" Artificial horizon GH14-391, pilot (Honeywell)
08-52013-A	L3421-092-02	Gyro Magnetic Heading System KCS 55 A (Honeywell) incl. KG-102A, KMT-112, KA-51B with HSI KI-525A, pilot
<i>Miscellaneous</i>		
-	L0000-150-01	Avionics Solution 1 interconnection / wiring

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### 4.1.3 Minimum required equipment

Minimum required equipment for Avionics Solution 1 – Single pilot						PINAO						
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		10000	10001 <sup>4</sup>	10010	10011 <sup>4</sup>	10100	10110	10111 <sup>4</sup>	
			kg	lb								
05-03007-C	L2562-001-00	First aid kit <sup>5</sup>	1.3	2.9		X		X			X	
05-22008-C	L2621-001-00	Engine fire extinguishing system	3.6	7.9			X	X		X	X	
05-33001-B	L3113-001-00	Slant panel	0.8	1.8	X	X	X	X	X	X	X	
05-33002-B	L3113-004-00	Center console	2.3	5.1	X	X	X	X	X	X	X	
05-41004-C	L2104-100-00	Bleed air heating system <sup>6</sup>	6.6	14.6	X	X	X	X	X	X	X	
05-44002-B	L2122-001-00	Ventilation extruder without copilot I-panel extension	0.3	0.7	X	X	X	X	X	X	X	
05-61010-B	L2433-003-00	Battery, type (Saft) ULM, 27 Ah, 24 V instead of standard battery	8.2	18.1		X	X	X		X	X	
05-62010-C	L2420-002-00	AC System (350VA)	3.2	7.1	X	X	X	X	X	X	X	
05-63003-B	L2432-001-00	Starter/generators (2 x 200 A, 28 VDC), instead of standard generators	3.6	7.9	X	X	X	X	X	X	X	
06-45023-B	L3343-003-00	Landing & search light, 450 W	3.4	7.5					X	X	X	
06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4		X		X			X	
-	L2300-001-04	<b>Avionics Solution 1</b>	39.7	87.5	X	X	X	X	X	X	X	
08-21014-C	L3441-090-04	Radar altimeter KRA 405B (Honeywell)	4.8	10.6			X	X		X	X	
08-21014-C	L3441-092-03	Radar altimeter indicator KNI 416 (Honeywell)	1.2	2.6			X	X		X	X	
08-51013-B	L3425-806-51	2" std-by horizon AI 804 DC (Goodrich) with emergency battery	6.6	14.6			X	X		X	X	

<sup>4</sup> for VFR flights on routes not navigated by reference to visual landmarks, a 2<sup>nd</sup> GPS/NAV/COM GNS430 (see possible add-ons) is required.

<sup>5</sup> First aid kit complies with german regulation rules 1. DV LuftBO paragraph 5(2). Type of operation, procedures or regulations may require a different/specific first aid kit.

<sup>6</sup> For helicopters dedicated for EMS select "Bleed air heating system: EMS version L2104-003-00" (05-41004-A) (7.0 kg / 15.4 lb.)

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.



Minimum required equipment for Avionics Solution 1- Single/Dual pilot					PINAO						
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		3000	3001 <sup>4</sup>	3010	3011 <sup>4</sup>	30100	30110	30111 <sup>4</sup>
			kg	lb							
05-03007-C	L2562-001-00	First aid kit <sup>5</sup>	1.3	2.9	X		X				X
05-22008-C	L2621-001-00	Engine fire extinguishing system	3.6	7.9			X	X		X	X
05-33001-B	L3113-001-00	Slant panel	0.8	1.8	X	X	X	X	X	X	X
05-33002-B	L3113-004-00	Center console	2.3	5.1	X	X	X	X	X	X	X
05-37016-C	L6701-001-00	Copilot flight controls	6.0	13.2	X	X	X	X	X	X	X
05-38010-B	L3111-001-00	10" copilot instrument panel with glare shield	2.8	6.2	X	X	X	X	X	X	X
05-41004-C	L2104-100-00	Bleed air heating system <sup>6</sup>	6.6	14.6	X	X	X	X	X	X	X
05-61010-B	L2433-003-00	Battery, type (Saft) ULM, 27 Ah, 24 V instead of standard battery	8.2	18.1	X	X	X	X	X	X	X
05-62010-C	L2420-003-00	Dual AC System (2 x 350VA)	6.6	14.6	X	X	X	X	X	X	X
05-63003-B	L2432-001-00	Starter/generators (2 x 200 A, 28 VDC), instead of standard generators	3.6	7.9	X	X	X	X	X	X	X
06-45023-B	L3343-003-00	Landing & search light, 450 W	3.4	7.5					X	X	X
06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4		X		X			X
-	L2300-001-04	<b>Avionics Solution 1</b>	39.7	87.5	X	X	X	X	X	X	X
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)	2.0	4.4	X	X	X	X	X	X	X
08-21014-C	L3441-090-04	Radar Altimeter KRA 405B (Honeywell)	4.8	10.6			X	X		X	X
08-21014-C	L3441-092-03	Radar altimeter indicator KNI 416 (Honeywell)	1.2	2.6			X	X		X	X
08-51012-A	L3425-091-02	4" artificial horizon GH14-391, copilot (Honeywell)	2.5	5.5	X	X	X	X	X	X	X
08-51013-B	L3425-806-51	2" std-by horizon AI 804 DC (Goodrich) with emergency battery	6.6	14.6			X	X		X	X
08-52010-A	L3421-091-02	2nd directional Gyro (3" unslaved indicator) 205 1BL on copilot side (Goodrich)	1.5	3.3				X			X
08-54001-C	L3411-001-00	Copilot pitot static system	1.4	3.1	X	X	X	X	X	X	X
08-60003-A	L3412-002-00	Copilot 3" instruments (airspeed indicator, altimeter, vertical speed indicator (United Instruments))	1.7	3.8		X	X	X	X	X	X
08-61010-B	L3166-091-04	RMI KI 229, copilot (Honeywell)	2.3	5.1	X	X	X	X	X	X	X
08-61011-A	L3167-091-02	CDI KI 204, copilot (Honeywell)	1.2	2.6	X	X	X	X	X	X	X

<sup>4</sup> for VFR flights on routes not navigated by reference to visual landmarks, a 2<sup>nd</sup> GPS/NAV/COM GNS430 (see possible add-ons) is required.


<sup>5</sup> First aid kit complies with german regulation rules 1. DV LuftBO paragraph 5(2). Type of operation, procedures or regulations may require a different/specific first aid kit.

<sup>6</sup> For helicopters dedicated for EMS select "Bleed air heating system: EMS version L2104-003-00" (05-41004-A) (7.0 kg / 15.4 lb.)

The data set forth in this document are general in nature and for information purposes only.


For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**4.1.4 Possible add-ons**

Possible add-ons for Avionics Solution 1 – Single Pilot			PINAO								
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		10000	10001	10010	10011	10100	10110	10111
			kg	lb							
06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4	X		X		X	X	
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)	2.0	4.4	X	X	X	X	X	X	X
08-21014-C	L3441-090-04 L3441-092-03	Radar altimeter KRA 405B (Honeywell) Radar altimeter indicator KNI 416 (Honeywell)	4.8 1.2	10.6 2.6	X	X			X		
08-25014-A	L3455-092-03 L3169-092-02	DME KN 63 DME indicator KDI 572 (Honeywell)	2.3 0.8	5.1 1.8	X	X	X	X	X	X	X
08-26010-B	L3431-092-02	Marker Beacon receiver / lights KR 21 (Honeywell)	1.2	2.6	X	X	X	X	X	X	X
 08-35007-B	L3442-881-00-	Traffic Advisory System TAS 9900BX interface with GNS430	9.5	20.9	X	X	X	X	X	X	X
08-51013-B	L3425-806-51	2" std-by horizon AI 804 DC (Goodrich) incl. back-up battery	6.6	14.6	X	X			X		
08-71002-C	L2217-001-10	VFR SAS (VFR pitch/roll Stability Augmentation System)	8.5	18.8	X	X	X	X	X	X	X

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Possible add-ons for Avionics Solutions 1 – Dual pilot Single - Dual pilot					PINAO						
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		3000	3001	30010	30011	30100	30110	30111
			kg	lb							
06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4	X		X		X	X	
08-21014-C	L3441-090-04	Radar altimeter KRA 405B (Honeywell)	4.8	10.6	X	X			X		
	L3441-092-03	Radar altimeter indicator KNI 416 (Honeywell)	1.2	2.6							
08-25014-A	L3455-092-03	DME KN 63	2.3	5.1	X	X	X	X	X	X	X
	L3169-092-02	DME indicator KDI 572 (Honeywell)	0.8	1.8							
08-26010-B	L3431-092-02	Marker Beacon receiver / lights KR 21 (Honeywell)	1.2	2.6	X	X	X	X	X	X	X
 08-35007-B	L3442-881-00-	Traffic Advisory System TAS 9900BX interface with GNS430	9.5	20.9	X	X	X	X	X	X	X
08-43018-B	L3442-091-00	GPS/NAV/COM GNS 430, copilot (Garmin) with I-panel annunciation/switch unit MD 41 (MidContinent)	9.5	20.9							
	L3167-091-01	CDI KI206 instead of CDI KI 204 (Honeywell)	1.3	2.9	X	X	X	X	X	X	X
08-51013-B	L3425-806-51	2" std-by horizon AI 804 DC (Goodrich) included back-up battery	6.6	14.6	X	X			X		
08-71002-B	L2217-001-10	VFR SAS (VFR pitch/roll Stability Augmentation System)	8.5	18.8	X	X	X	X	X	X	X

#### 4.1.5 On request items

- Multifunction display KMD 850 (Honeywell) for weather radar or digital map
- Color weather radar RDR2000 (Honeywell) on KMD850 display
- Moving Map EURONAV IV - RN6 (Euro Avionics)

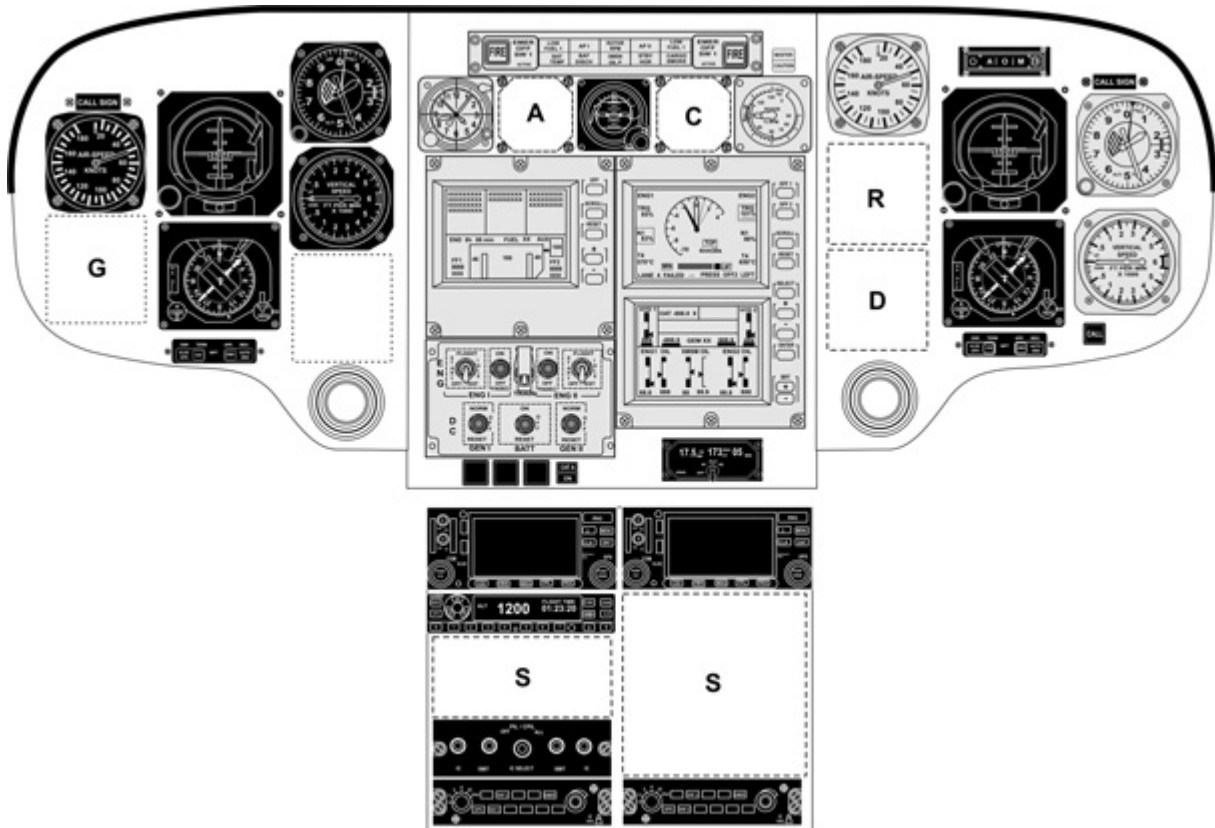
#### 4.1.6 Further avionics add-ons see chapter 6 page 66

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## 4.2 Dual pilot IFR packages, conventional instrumentation, basic (based on Avionics Solution 3)

### 4.2.1 Instrument panel overview



#### Additional space:

A - for 2" back-up airspeed indicator (used in MEGHAS/FCDS "Glass cockpit" solutions)

C - for 2" back-up altimeter (used in MEGHAS/FCDS "Glass cockpit" solutions)

D - e.g. for 3" RMI or 3" CDI

G - e.g. for 2nd gyro 205 1BL (Goodrich)

R - e.g. for 3" radar altimeter indicator (KNI 416)

S - e.g. for tactical or other optional equipment

*The data set forth in this document are general in nature and for information purposes only.*

*For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.*

#### 4.2.2 Contents of Avionics Solution 3

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>
	<b>L2300-003-04</b>	<b>Avionics Solution 3, consisting of:</b>
<i>Intercom System</i>		
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22026-B	L2325-092-12	Transponder (Mode S) GTX 330 (Garmin)
<i>DME</i>		
08-25014-A	L3169-092-02	DME indicator KDI 572 (Honeywell)
08-25014-A	L3455-092-03	Distance measuring equipment KN 63 (Honeywell)
<i>VOR / ILS / MKR receivers</i>		
08-26010-B	L3431-092-02	Marker beacon receiver / lights KR 21(Honeywell)
<i>Radio Switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>GPS/NAV/COM</i>		
08-43018-B	L3442-091-00	GPS / NAV / COM GNS 430, copilot (Garmin) with I-panel annunciation/switch unit MD 41 (MidContinent)
08-43018-B	L3442-092-00	GPS / NAV / COM GNS 430, pilot (Garmin) with I-panel annunciation/switch unit MD 41 (MidContinent)
<i>Conventional instruments</i>		
08-51012-A	L3425-091-02	4" Artificial horizon GH14-391, copilot (Honeywell)
08-51012-A	L3425-092-02	4" Artificial horizon GH14-391, pilot (Honeywell)
08-51013-B	L3425-806-51	2" Stand-by horizon AI 804 DC incl. battery (Goodrich)
08-52014-A	L3421-092-01	Gyro Magnetic Heading System C14D (Honeywell)
08-60003-A	L3412-002-00	Copilot 3" instruments (airspeed indicator, altimeter, vertical speed indicator (United Instruments)
08-61012-A	L3165-091-01	Horizontal Situation Indicator - KPI 552, copilot (Honeywell)
08-61012-A	L3165-092-01	Horizontal Situation Indicator - KPI 552, pilot (Honeywell)
<i>Miscellaneous</i>		
-	L0000-150-03	Avionics Solution 3 interconnection / wiring

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.



**4.2.3 Minimum required equipment**

Minimum required equipment for Avionics Solution 3					PINAO		
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		2110	2110	2111
			kg	lb			
05-03007-C	L2562-001-00	First aid kit <sup>5</sup>	1.3	2.9			X
05-22008-C	L2621-001-00	Engine fire extinguishing system	3.6	7.9		X	X
05-33001-B	L3113-001-00	Slant panel	0.8	1.8	X	X	X
05-33002-B	L3113-004-00	Center console	2.3	5.1	X	X	X
05-37016-C	L6701-001-00	Copilot flight controls	6.0	13.2	X	X	X
05-38010-B	L3111-001-00	10" copilot instrument panel with glare shield	2.8	6.2	X	X	X
05-39006-B	L2514-003-01	Map case in copilot door	0.5	1.1	X	X	X
05-39007-B	L3111-001-10	Map case on instrument panel glare shield	0.6	1.3	X	X	X
05-39008-B	L3113-004-10	Illuminated chart holder for pilot side	0.9	2.0			X
05-41004-C	L2104-100-00	Bleed air heating system <sup>6</sup>	6.6	14.6	X	X	X
05-61010-B	L2433-006-00	Battery, type "Saft", ULM, 40 Ah, 24 V instead of standard battery	16.8	37.0	X	X	X
05-62010-C	L2420-003-00	Dual AC System (2 x 350VA)	6.6	14.6	X	X	X
05-63003-B	L2432-001-00	Starter/generators (2 x 200 A, 28 VDC), instead of standard one	3.6	7.9	X	X	X
06-45023-B	L3343-003-00	Landing & search light, 450 W	3.4	7.5	X	X	X
06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4			X
-	L2300-003-04	<b>Avionics Solution 3</b>	78.1	172.2	X	X	X
08-21014-C	L3441-090-04	Radar altimeter KRA 405B (Honeywell)	4.8	10.6		X	X
08-21014-C	L3441-092-03	Radar altimeter indicator KNI 416 (Honeywell)	1.2	2.6		X	X
08-52010-A	L3421-091-02	2nd directional Gyro (3" unslaved indicator) 205 1BL (Goodrich) on copilot side	1.5	3.3	X	X	X
08-54001-C	L3411-001-00	Copilot pitot static system	1.4	3.1	X	X	X
08-71002-C	L2217-001-50	IFR pitch/roll SAS	12.2	26.9	X	X	X


<sup>5</sup> First aid kit complies with german regulation rules 1. DV LuftBO paragraph 5(2). Type of operation, procedures or regulations may require a different/specific first aid kit.

<sup>6</sup> For helicopters dedicated for EMS select "Bleed air heating system: EMS version L2104-003-00" (05-41004-A) (7.0 kg / 15.4 lb.)

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

#### 4.2.4 Possible add-ons

Possible add-ons for Avionics Solution 3						PINAO		
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		21100	21110	21111	
			kg	lb				
06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4	X	X		
08-21014-C	L3441-090-04 L3441-092-03	Radar altimeter KRA 405B (Honeywell) Radar altimeter indicator KNI 416 (Honeywell)	4.8 1.2	10.6 2.6	X			
08-24015-B	L3452-092-17 L3452-092-08	ADF system DFS-43A (Chelton / Wulfsberg) ADF control unit CD-432B (Chelton / Wulfsberg)	9.6 1.2	21.2 2.6	X	X	X	
 08-35007-B	L3442-881-00-	Traffic Advisory System TAS 9900BX interface with GNS430	9.5	20.9	X	X	X	

#### 4.2.5 On request items

- Multifunction display KMD 850 (Honeywell) for weather radar or digital map
- Color weather radar RDR2000 (Honeywell) on KMD850 display
- Moving Map EURONAV IV - RN6 (Euro Avionics)

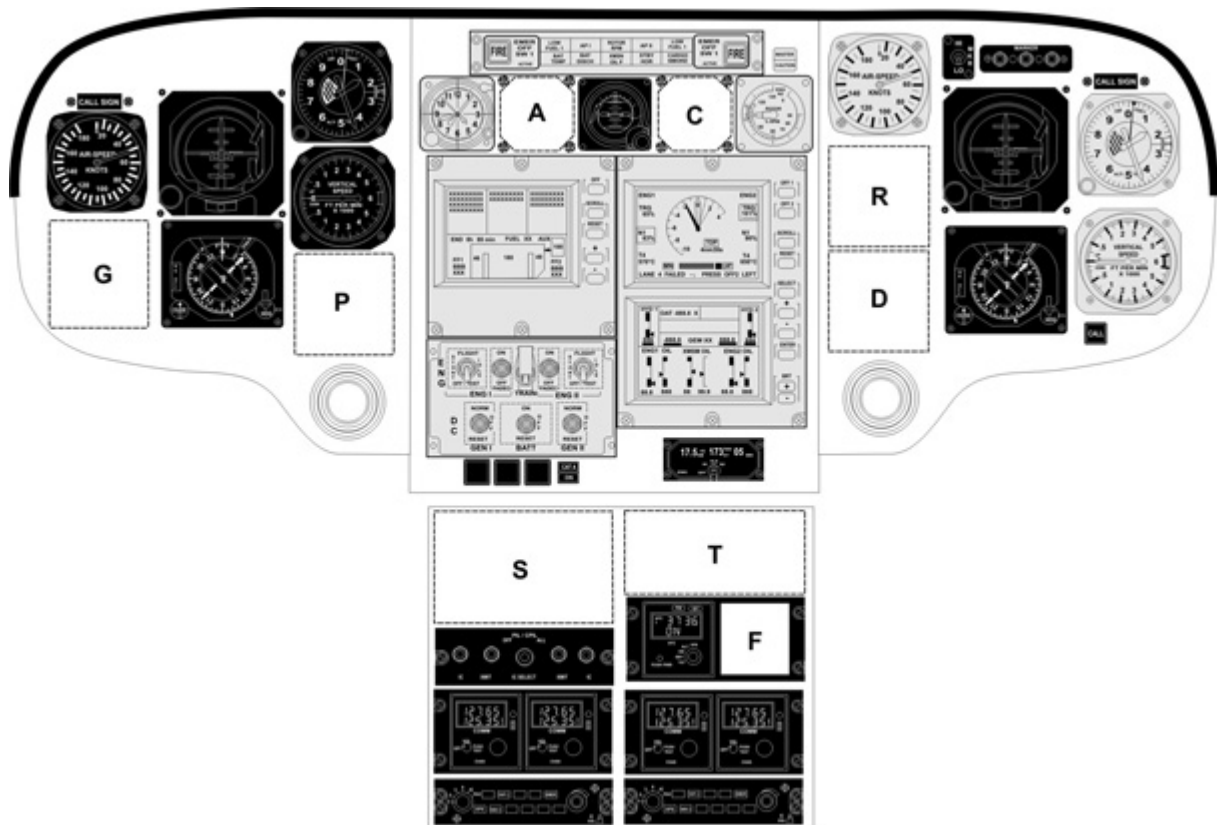
#### 4.2.6 Further avionics add-ons see chapter 6 page 66

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## 4.3 Dual pilot IFR packages, conventional instrumentation, enhanced (based on Avionics Solution 4)

### 4.3.1 Instrument panel overview



#### Additional space:

A - for 2" back-up airspeed indicator (used in MEGHAS/FCDS "Glass cockpit" solutions)

C - for 2" back-up altimeter (used in MEGHAS/FCDS "Glass cockpit" solutions)

D - e.g. for 3" RMI or 3" CDI

F - e.g. for ADF control unit (CD-432B)

G - e.g. for 2nd gyro 205 1BL (Goodrich)

P - e.g. for 3" CDI or 3" RMI

R - e.g. for 3" radar altimeter indicator (KNI 416)

S / T - e.g. for GPS receiver or other optional equipment

*The data set forth in this document are general in nature and for information purposes only.*

*For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.*


### 4.3.2 Contents of Avionics Solution 4

Document reference	Commercial reference	Title
	<b>L2300-004-04</b>	<b>Avionics Solution 4, consisting of:</b>
<i>VHF AM</i>		
08-11023-B	L2313-091-03	VHF AM/COM. system, copilot KTR 908/KFS 598 A (Honeywell)
08-11023-B	L2313-092-03	VHF AM/COM system, pilot KTR 908 / KFS 598A (Honeywell)
<i>Intercom System</i>		
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22027-B	L2325-092-06	Transponder (Mode S) MST 67A (Honeywell)
08-22027-B	L2325-092-15	Transponder control unit PS 578A (Honeywell)
<i>DME</i>		
08-25014-A	L3169-092-02	DME indicator KDI 572 (Honeywell)
08-25025-A	L3455-092-01	Distance measuring equipment KDM 706 A (Honeywell)
<i>VOR / ILS /MKR receivers</i>		
08-26025-B	L3432-091-03	VOR/ILS/MKR Navigation system, copilot KNR 634 A / KFS 564 A (Honeywell)
08-26025-B	L3432-092-03	VOR/ILS/MKR Navigation system, pilot KNR 634 A / KFS 564 A (Honeywell)
08-26028-A	L3431-092-01	Marker beacon lights KA 35 A (Honeywell)
<i>Radio Switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>Conventional instruments</i>		
08-51012-A	L3425-091-02	4" Artificial horizon GH14-391, copilot (Honeywell)
08-51012-A	L3425-092-02	4" artificial horizon GH14-391, pilot (Honeywell)
08-51013-B	L3425-806-51	2" Stand-by horizon AI 804 DC incl. battery (Goodrich)
08-52014-A	L3421-092-01	Gyro Magnetic Heading System C14D (Honeywell)
08-60003-A	L3412-002-00	Copilot 3" instruments (airspeed indicator, altimeter, vertical speed indicator (United Instruments)
08-61012-A	L3165-091-01	Horizontal Situation Indicator - KPI 552, copilot (Honeywell)
08-61012-A	L3165-092-01	Horizontal Situation Indicator - KPI 552, pilot (Honeywell)
<i>Miscellaneous</i>		
-	L0000-150-04	Avionics Solution 4 interconnection / wiring

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**4.3.3 Minimum required equipment**

Minimum required equipment for Avionics Solution 4						PINAO		
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		21100	21110	21111	
			kg	lb				
05-03007-C	L2562-001-00	First aid kit <sup>5</sup>	1.3	2.9			X	
05-22008-C	L2621-001-00	Engine fire extinguishing system	3.6	7.9		X	X	
05-33001-B	L3113-001-00	Slant panel	0.8	1.8	X	X	X	
05-33002-B	L3113-004-00	Center console	2.3	5.1	X	X	X	
05-34002-B	L2576-001-00	Avionics compartment	4.2	9.3	X	X	X	
05-37016-C	L6701-001-00	Copilot flight controls	6.0	13.2	X	X	X	
05-38010-B	L3111-001-00	10" copilot instrument panel with glare shield	2.8	6.2	X	X	X	
05-39006-B	L2514-003-01	Map case in copilot door	0.5	1.1	X	X	X	
05-39007-B	L3111-001-10	Map case on instrument panel glare shield	0.6	1.3	X	X	X	
05-39008-B	L3113-004-10	Illuminated chart holder for pilot side	0.9	2.0			X	
05-41004-C	L2104-100-00	Bleed air heating system <sup>6</sup>	6.6	14.6	X	X	X	
05-61010-B	L2433-006-00	Battery, type "Saff", ULM, 40 Ah, 24 V instead of standard battery	16.8	37.0	X	X	X	
05-62010-C	L2420-003-00	Dual AC System (2 x 350VA)	6.6	14.6	X	X	X	
05-63003-B	L2432-001-00	Starter/generators (2 x 200 A, 28 VDC), instead of standard one	3.6	7.9	X	X	X	
06-45023-B	L3343-003-00	Landing & search light, 450 W	3.4	7.5	X	X	X	
 06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4			X	
-	L2300-004-04	<b>Avionics Solution 4</b>	78.3	172.6	X	X	X	
08-21014-C	L3441-090-04	Radar altimeter KRA 405B (Honeywell)	4.8	10.6		X	X	
08-21014-C	L3441-092-03	Radar altimeter indicator KNI 416 (Honeywell)	1.2	2.6		X	X	
08-52010-A	L3421-091-02	2nd directional Gyro (3" unslaved indicator) 205 1BL (Goodrich) on copilot side	1.5	3.3	X	X	X	
08-54001-C	L3411-001-00	Copilot pitot static system	1.4	3.1	X	X	X	
08-71002-C	L2217-001-50	IFR pitch/roll SAS	12.2	26.9	X	X	X	

<sup>5</sup> First aid kit complies with german regulation rules 1. DV LuftBO paragraph 5(2). Type of operation, procedures or regulations may require a different/specific first aid kit.



<sup>6</sup> For helicopters dedicated for EMS select "Bleed air heating system: EMS version L2104-003-00" (05-41004-A) (7.0 kg / 15.4 lb.)

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.



#### 4.3.4 Possible add-ons

Possible add-ons for Avionics Solution 4						PINAO		
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		21100	21110	21111	
			kg	lb				
 06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4	X	X		
08-21014-C	L3441-090-04 L3441-092-03	Radar altimeter KRA 405B (Honeywell) Radar altimeter indicator KNI 416 (Honeywell)	4.8 1.2	10.6 2.6	X			
08-24015-B	L3452-092-17 L3452-092-08	ADF system DFS-43A (Chelton / Wulfsberg) ADF control unit CD-432B (Chelton / Wulfsberg)	9.6 1.2	21.2 2.6	X	X	X	
 08-35007-B	L2327-001-11	Traffic Advisory System TAS 9900BX with 3" indicator (Ryan)	11.0	24.3	X	X	X	
08-43017-B	L3442-092-12	GPS Nav. system 2101 I/O Approach Plus (Free Flight)	6.0	13.2	X	X	X	
08-63009-A	L3442-092-80	GPS indication on HSI (KPI 552)	2.9	6.4	X	X	X	

#### 4.3.5 On request items

- Multifunction display KMD 850 (Honeywell) for weather radar or digital map
- Color weather radar RDR2000 (Honeywell) on KMD850 display
- Moving Map EURONAV IV - RN6 (Euro Avionics)

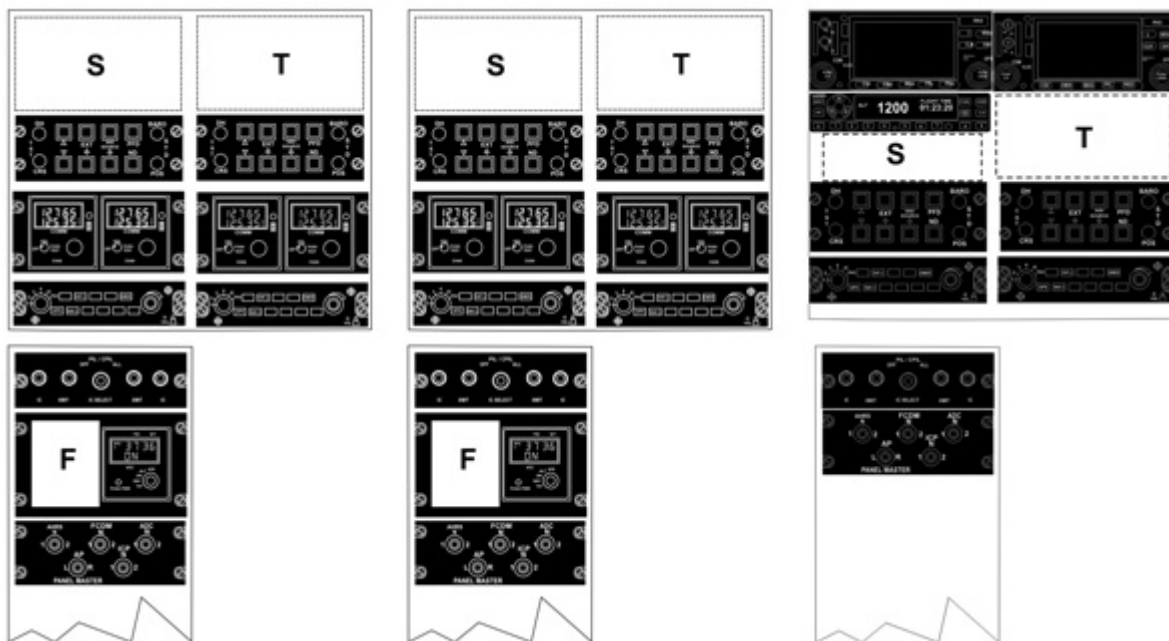
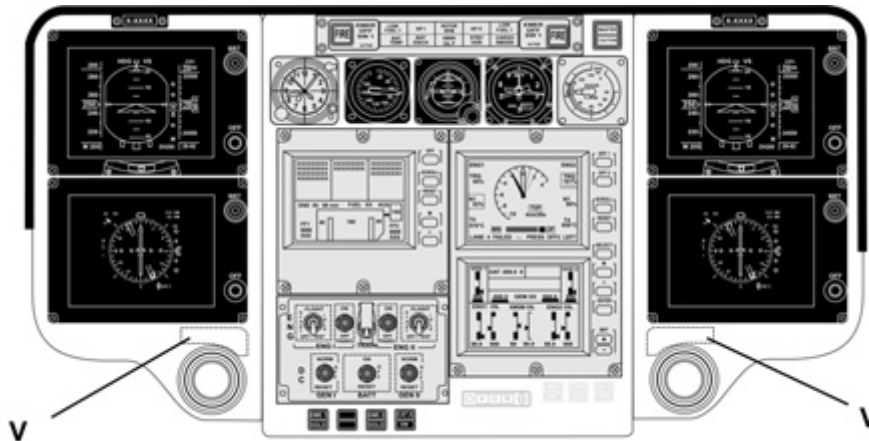
#### 4.3.6 Further avionics add-ons see chapter 6 page 66

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## 4.4 Dual Pilot or Single/Dual Pilot IFR Glass Cockpit, based on Avionics Solution 7, 8 or 11

### 4.4.1 Instrument panel overview



**Avionics Solution 7**

**Avionics Solution 8**

**Avionics Solution 11**

Additional space:

F - e.g. for ADF control unit (CD-432B)

M - Marker beacon lights for Avionics Solution 11

S - e.g. or other optional equipment

T - e.g. for autopilot (DAFCS) control unit or other optional equipment

U - for GPS annunciation / switch unit

V - for Video Radar Unit (brightness control for external video source e.g. moving map, FLIR, weather radar)

*The data set forth in this document are general in nature and for information purposes only.*

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#### 4.4.2 Contents of Avionics Solutions 7, 8 and 11

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>
	<b>L2300-007-04</b>	<b>Avionics Solution 7, consisting of</b>
<i>VHF AM</i>		
08-11023-B	L2313-091-03	VHF AM/ COM. system, copilot KTR 908 / KFS 598 A (Honeywell)
08-11023-B	L2313-092-03	VHF AM/COM system, pilot KTR 908 / KFS 598A (Honeywell)
<i>Intercom System</i>		
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22027-B	L2325-092-06	Transponder (Mode S) MST 67A (Honeywell)
08-22027-B	L2325-092-15	Transponder control unit PS 578A (Honeywell)
<i>DME</i>		
08-25022-B	L3455-090-02	Distance measuring equipment DMS-44A (Chelton / Wulfsberg)
<i>VOR/ILS/MKR receivers</i>		
08-26025-B	L3432-091-03	VOR/ILS/MKR Navigation system, copilot KNR 634 A / KFS 564 A (Honeywell)
08-26025-B	L3432-092-03	VOR/ILS/MKR Navigation system, pilot KNR 634 A / KFS 564 A (Honeywell)
<i>Radio switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>Conventional instruments</i>		
08-51013-B	L3425-806-51	2" Stand-by horizon AI 804 DC incl. battery (Goodrich)
<i>Display system</i>		
08-65003-B	L3161-090-09	MEGHAS - Flight Control Display System (FCDS) - Dual (4xSMD45)
<i>Miscellaneous</i>		
-	L0000-150-07	Avionics Solution 7 interconnection / wiring

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>
	<b>L2300-008-04</b>	<b>Avionics Solution 8, consisting of</b>
<i>VHF AM</i>		
08-11022-B	L2313-091-08	VHF AM/COM system, copilot VCS-40 A (Chelton / Wulfsberg)
08-11022-B	L2313-091-13	Control unit CD 402 B, copilot (Chelton / Wulfsberg)
08-11022-B	L2313-092-07	VHF AM/COM system, pilot VCS-40 A (Chelton / Wulfsberg)
08-11022-B	L2313-092-13	Control unit CD 402 B, pilot (Chelton / Wulfsberg)
<i>Intercom System</i>		
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22027-B	L2325-092-06	Transponder (Mode S) MST 67A (Honeywell)
08-22027-B	L2325-092-15	Transponder control unit PS 578A (Honeywell)
<i>DME</i>		
08-25022-B	L3455-090-02	Distance measuring equipment DMS-44A (Chelton / Wulfsberg)
<i>VOR/ILS/MKR receivers</i>		
08-26024-B	L3432-091-06	VOR/ILS/MKR Navigation system, copilot VNS-41 A (Chelton / Wulfsberg)
08-26024-B	L3432-091-09	Control unit CD 412 B, copilot (Chelton / Wulfsberg)
08-26024-B	L3432-092-07	VOR/ILS/MKR Navigation system, pilot VNS-41 A (Chelton / Wulfsberg)
08-26024-B	L3432-092-12	Control unit CD 412 B, pilot (Chelton / Wulfsberg)
<i>Radio switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>Conventional instruments</i>		
08-51013-B	L3425-806-51	2" Stand-by horizon AI 804 DC incl. battery (Goodrich)
<i>Display system</i>		
08-65003-B	L3161-090-09	MEGHAS - Flight Control Display System (FCDS) - Dual (4xSMD45)
<i>Miscellaneous</i>		
-	L0000-150-08	Avionics Solution 8 interconnection / wiring

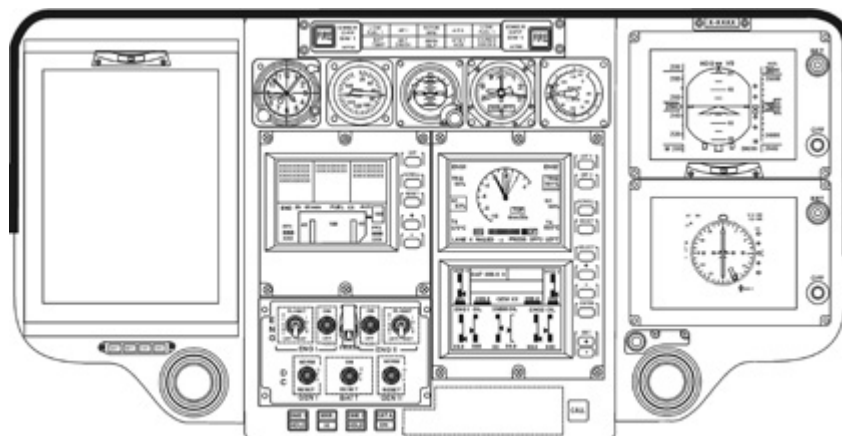
The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Document reference	Commercial reference	Title
	<b>L2300-011-02</b>	<b>Avionics Solution 11, consisting of:</b>
<i>Intercom System</i>		
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22026-B	L2325-092-12	Transponder (Mode S) GTX330 (Garmin)
<i>DME</i>		
08-25022-B	L3455-090-02	Distance measuring equipment DMS-44A (Chelton / Wulfsberg)
<i>VOR/ILS/MKR receivers</i>		
08-26010-B	L3431-092-02	Marker beacon receiver/lights KR 21 (Honeywell)
<i>Radio switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>GPS/NAV/COM</i>		
08-43018-B	L3442-091-07	GPS / NAV / COM GNS 430, copilot (Garmin) interfaced with FCDS (GPS stand-alone)
08-43018-B	L3442-092-07	GPS / NAV / COM GNS 430, pilot (Garmin) interfaced with FCDS
<i>Conventional instruments</i>		
08-51013-B	L3425-806-51	2" Stand-by horizon AI 804 DC incl. battery (Goodrich)
<i>Display system</i>		
08-65003-B	L3161-090-09	MEGHAS - Flight Control Display System (FCDS) - Dual (4xSMD45)
<i>Miscellaneous</i>		
-	L0000-150-11	Avionics Solution 11 interconnection / wiring

**ON REQUEST:**



- NVG friendly version of Avionics Solutions 7, 8 and 11
- Exchange of 2x SMD45 on copilot side to one SMD68



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**4.4.3 Minimum required equipment**

Minimum required equipment for Avionics Solution 7, 8 and 11						PINAO				
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		21100	21110	21111	31100	31110	31111
			kg	lb						
05-03007-C	L2562-001-00	First aid kit <sup>5</sup>	1.3	2.9			X			X
05-22008-C	L2621-001-00	Engine fire extinguishing system	3.6	7.9	X	X		X		X
05-33001-B	L3113-001-00	Slant panel	0.8	1.8	X	X	X	X	X	X
05-33002-B	L3113-004-00	Center console	2.3	5.1	X	X	X	X	X	X
05-34002-B	L2576-001-00	Avionics compartment	4.2	9.3	X	X	X	X	X	X
05-37016-C	L6701-001-00	Copilot flight controls	6.0	13.2	X	X	X	X	X	X
05-38010-B	L3111-001-04	7" copilot instrument panel with glare shield	2.7	6.0	X	X	X	X	X	X
05-39006-B	L2514-003-01	Map case in copilot door	0.5	1.1	X	X	X	X	X	X
05-39007-B	L3111-001-10	Map case on instrument panel glare shield	0.6	1.3	X	X	X	X	X	X
05-39008-B	L3113-004-10	Illuminated chart holder for pilot side	0.9	2.0			X			X
05-41004-C	L2104-100-00	Bleed air heating system <sup>6</sup>	6.6	14.6	X	X	X	X	X	X
05-61010-B	L2433-006-00	Battery, type (Saft) ULM, 40 Ah, 24 V instead of standard battery	16.8	37.0	X	X	X	X	X	X
05-62010-C	L2420-005-00	AC System (50VA) <sup>7</sup>	1.9	4.2	X	X	X	X	X	X
05-63003-B	L2432-001-00	Starter/generators (2 x 200 A, 28 VDC), instead of standard one	3.6	7.9	X	X	X	X	X	X
 06-12008-C	L3217-001-00	Reinforced rear landing gear cross tube	1.1	2.4	X	X	X	X	X	X
06-45023-B	L3343-003-00	Landing & search light, 450 W	3.4	7.5	X	X	X	X	X	X
 06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4			X			X
-	L2300-007-04	Avionics Solution 7	80.6	177.7						
	L2300-008-04	Avionics Solution 8	84.2	185.6	X	X	X	X	X	X
	L2300-011-02	Avionics Solution 11	77.8	171.5						
08-21014-C	L3441-090-04	Radar Altimeter KRA 405B (Honeywell)	4.8	10.6		X	X	X	X	X
08-53002-B	L2212-400-00	MEGHAS sensor kit	17.8	39.3	X	X	X	X	X	X
08-54001-C	L3411-001-00	Copilot pitot static system	1.4	3.1	X	X	X	X	X	X
08-71002-C	L2217-001-50	IFR pitch/roll SAS	12.2	26.9	X	X	X			
08-72001-B	L2212-001-00	Digital Automatic Flight Contr. Syst. - DAFCS	27.0	59.6				X	X	X

<sup>5</sup> First aid kit complies with german regulation rules 1. DV LuftBO paragraph 5(2). Type of operation, procedures or regulations may require a different/specific first aid kit.

<sup>6</sup> For helicopters dedicated for EMS select "Bleed air heating system: EMS version L2104-003-00" (05-41004-A) (7.0 kg / 15.4 lb.)








<sup>7</sup> Alternatively the AC system L2420-002-00 (05-62010-B) (350VA; 3.2kg) can be selected

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**4.4.4 Possible add-ons**

Possible add-ons for Avionics Solution 7, 8 and 11							PINAO				
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		2110	2110	2111	3110	3110	3111	
			kg	lb							
 06-67044-B	<b>L2563-801-06</b>	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4	X	X		X	X		
08-21014-C	<b>L3441-090-04</b>	Radar altimeter KRA 405B (Honeywell)	4.8	10.6	X						
08-24015-B	<b>L3452-092-17</b> <b>L3452-092-08</b>	ADF system DFS-43A (Chelton / Wulfsberg) ADF control unit CD-432B (Chelton / Wulfsberg)	9.6 1.2	21.2 2.6	X	X	X	X	X	X	
 08-31019-B	<b>L3443-090-02</b> <b>L2571-001-00</b>	Color weather radar RDR2000 (Honeywell) Radar radome (for RDR2000)	6.6 3.9	14.6 8.6	X	X	X	X	X	X	
 08-31034-B	<b>L3443-004-00</b> <b>L2571-002-00</b>	Search and rescue weather radar RDR1600 (Telephonics) Radar radome (for RDR1600)	16.8 6.6	37.0 14.6		X	X	X	X	X	
 08-35007-B	<b>L2327-001-11</b>	Traffic Advisory System TAS 9900BX with 3" indicator (Ryan) (only possible for Avionics Solutions 7, 8)	11.0	24.3		X	X	X	X	X	
 08-35007-B	<b>L3442-881-00</b>	Traffic Advisory System TAS 9900BX interface with GNS430 (Garmin) (only possible for Avionics Solution 11)	9.5	20.9		X	X	X	X	X	
08-43017-B	<b>L3442-092-12</b>	GPS Nav. system 2101 I/O Approach Plus (Free Flight) (only possible for Avionics Solutions 7 and 8)	6.0	13.2		X	X	X	X	X	
 08-46020-B	<b>L3168-092-04</b>	Digital moving Map EURONAV IV - RN6 (Euro Avionics), basic version without options (Enhanced options and maps on request) <sup>8</sup>	8.0	17.6		X	X	X	X	X	
08-65004-B	<b>L3443-010-00</b>	Video Radar Unit (VRU)	5.6	12.3	X	X	X	X	X	X	
 08-72001-B	<b>L2212-001-00</b>	Digital Automatic Flight Control System - DAFCS	31.0	68.3			instead of IFR pitch/roll SAS				
08-81018-C	<b>L2321-007-00</b>	M'ARMS <sup>®</sup> Cockpit Voice and Flight Data Recorder (CVFDR), ground station not included (in combination with UMS: 18.3 kg / 40.3 lb)	17.3	38.1			DAFCS required	X	X	X	
08-83007-C	<b>L3171-001-00</b>	M'ARMS <sup>®</sup> Usage Monitoring System (UMS), ground station not included	7.2	15.9			DAFCS required	X	X	X	

**4.4.5 Further avionics add-ons see chapter 6 page 66**

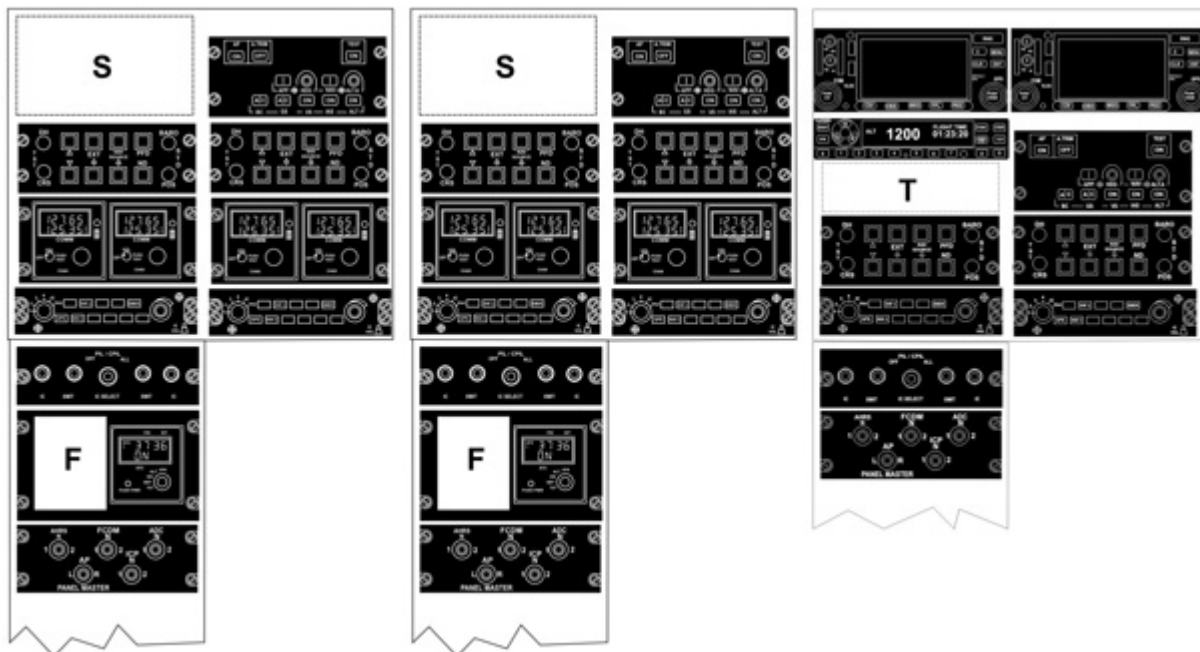
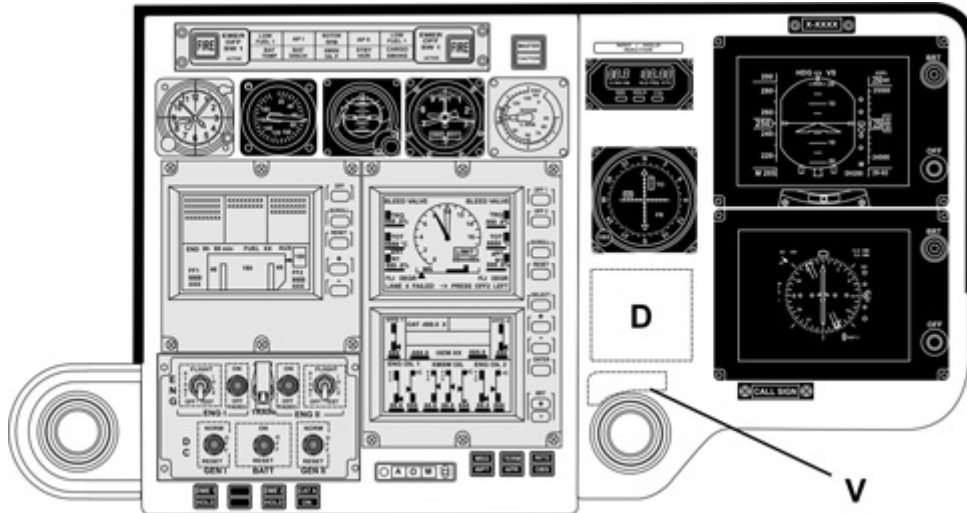
<sup>8</sup> Tactical mission equipment cannot be certified by German Civil Aviation Authorities. Eurocopter will ensure that the equipment is compatible with the basic helicopter and will assist the customer in obtaining certification or acceptance approval in his country.

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## 4.5 Single Pilot IFR Glass Cockpit, based on Avionics Solution 9, 10 or 12

### 4.5.1 Instrument panel overview



**Avionics Solution 9**

**Avionics Solution 10**

**Avionics Solution 12**

Additional space:

- D - e.g. for radar altimeter indicator, stormscope
- F - e.g. for ADF control unit (CD-432B)
- M - Marker beacon lights for Avionics Solution 12
- S / T - e.g. for GPS or other optional equipment
- U - for GPS annunciation / switch unit
- V - for Video Radar Unit (brightness control for external video source e.g. moving map, FLIR, weather radar)

*The data set forth in this document are general in nature and for information purposes only.*

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**4.5.2 Contents of Avionics Solution 9, 10 and 12**

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>
	<b>L2300-009-04</b>	<b>Avionics Solution 9, consisting of:</b>
<i>Radio Com</i>		
08-11023-B	L2313-091-03	VHF AM/ COM. system, copilot KTR 908 / KFS 598 A (Honeywell)
08-11023-B	L2313-092-03	VHF AM/COM system, pilot KTR 908 / KFS 598A (Honeywell)
<i>Intercom System</i>		
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22027-B	L2325-092-06	Transponder (Mode S) MST 67A (Honeywell)
08-22027-B	L2325-092-15	Transponder control unit PS 578A (Honeywell)
<i>DME</i>		
08-25022-B	L3455-090-02	Distance measuring equipment DMS-44A (Chelton / Wulfsberg)
<i>VOR/ILS/MKR receivers</i>		
08-26025-B	L3432-091-03	VOR/ILS/MKR Navigation system, copilot KNR 634 A / KFS 564 A (Honeywell)
08-26025-B	L3432-092-03	VOR/ILS/MKR Navigation system, pilot KNR 634 A / KFS 564 A (Honeywell)
<i>Radio switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>Conventional instruments</i>		
08-51013-B	L3425-806-51	2" Stand-by horizon AI 804 DC incl. battery (Goodrich)
<i>Display system</i>		
08-61011-A	L0000-200-12	Back-up indicator CDI KI 204 (Honeywell), Back-up indicator SD 442 B (Chelton / Wulfsberg)
08-65003-B	L3161-092-03	MEGHAS - Flight Control Display System (FCDS) - Single (2xSMD45)
<i>Miscellaneous</i>		
-	L0000-150-09	Avionics Solution 9 interconnection / wiring

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>
	<b>L2300-010-04</b>	<b>Avionics Solution 10, consisting of:</b>
<i>Radio Com</i>		
08-11022-B	L2313-091-08	VHF AM/COM system, copilot VCS-40 A (Chelton / Wulfsberg)
08-11022-B	L2313-091-13	Control unit CD 402 B, copilot (Chelton / Wulfsberg)
08-11022-B	L2313-092-07	VHF AM/COM system, pilot VCS-40 A (Chelton / Wulfsberg)
08-11022-B	L2313-092-13	Control unit CD 402 B, pilot (Chelton / Wulfsberg)
<i>Intercom System</i>		
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22027-B	L2325-092-06	Transponder (Mode S) MST 67A (Honeywell)
08-22027-B	L2325-092-15	Transponder control unit PS 578A (Honeywell)
<i>DME</i>		
08-25022-B	L3455-090-02	Distance measuring equipment DMS-44A (Chelton / Wulfsberg)
<i>VOR/ILS/MKR receivers</i>		
08-26024-B	L3432-091-06	VOR/ILS/MKR Navigation system, copilot VNS-41 A (Chelton / Wulfsberg)
08-26024-B	L3432-091-09	Control unit CD 412 B, copilot (Chelton / Wulfsberg)
08-26024-B	L3432-092-07	VOR/ILS/MKR Navigation system, pilot VNS-41 A (Chelton / Wulfsberg)
08-26024-B	L3432-092-12	Control unit CD 412 B, pilot (Chelton / Wulfsberg)
<i>Radio switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>Conventional instruments</i>		
08-51013-A	L3425-806-51	2" Stand-by horizon AI 804 DC incl. battery (Goodrich)
<i>Display system</i>		
08-61011-A	L0000-200-12	Back-up indicator CDI KI 204 (Honeywell), Back-up indicator SD 442 B (Chelton / Wulfsberg)
08-65003-B	L3161-092-03	MEGHAS - Flight Control Display System (FCDS) - Single (2xSMD45)
<i>Miscellaneous</i>		
-	L0000-150-10	Avionics Solution 10 interconnection / wiring

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

<i>Document reference</i>	<b>Commercial reference</b>	<i>Title</i>
	<b>L2300-012-02</b>	<b>Avionics Solution 12, consisting of:</b>
<i>Intercom System</i>		
08-16053-B	L2341-191-01	Audio/Comm. control system (2nd station - copilot) AS 3100-12 (Becker)
08-16053-B	L2341-192-01	Audio/Comm. control system (pilot) AS 3100-12 (Becker) incl. Intercom Select Panel (ICS mode selector)
08-16053-B	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22026-B	L2325-092-12	Transponder (Mode S) GTX330 (Garmin)
<i>DME</i>		
08-25022-B	L3455-090-02	Distance measuring equipment DMS-44A (Chelton / Wulfsberg)
<i>VOR/ILS/MKR receivers</i>		
08-26010-B	L3431-092-02	Marker beacon receiver/lights KR 21(Honeywell)
<i>Radio switch</i>		
08-29003-B	L2480-090-01	Avionics/Radio master switches (Special Eurocopter)
<i>GPS/NAV/COM</i>		
08-43018-B	L3442-091-07	GPS / NAV / COM GNS 430, copilot (Garmin) interfaced with FCDS (GPS stand-alone)
08-43018-B	L3442-092-07	GPS / NAV / COM GNS 430, pilot (Garmin) interfaced with FCDS
<i>Conventional instruments</i>		
08-51013-B	L3425-806-51	2" Stand-by horizon AI 804 DC incl. battery (Goodrich)
<i>Display system</i>		
08-61011-A	L0000-200-12	Back-up indicator CDI KI 204 (Honeywell), Back-up indicator SD 442 B (Chelton / Wulfsberg)
08-65003-B	L3161-092-03	MEGHAS - Flight Control Display System (FCDS) - Single (2xSMD45)
<i>Miscellaneous</i>		
-	L0000-150-12	Avionics Solution 12 interconnection / wiring




**ON REQUEST:**

- NVG friendly version of Avionics Solutions 9, 10 and 12

*The data set forth in this document are general in nature and for information purposes only.*

*For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.*

**4.5.3 Minimum required equipment**

Minimum required equipment for Avionics Solution 9, 10 and 12						PINA0		
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		11100	11110	11111	
			kg	lb				
05-03007-C	L2562-001-00	First aid kit <sup>5</sup>	1.3	2.9			X	
05-22008-C	L2621-001-00	Engine fire extinguishing system	3.6	7.9		X	X	
05-33001-B	L3113-001-00	Slant panel	0.8	1.8	X	X	X	
05-33002-B	L3113-004-00	Center console	2.3	5.1	X	X	X	
05-34002-B	L2576-001-00	Avionics compartment	4.2	9.3	X	X	X	
05-39007-B	L3111-001-10	Map case on instrument panel glare shield	0.6	1.3	X	X	X	
05-39008-B	L3113-004-10	Illuminated chart holder for pilot side	0.9	2.0			X	
05-41004-C	L2104-100-00	Bleed air heating system <sup>6</sup>	6.6	14.6	X	X	X	
05-44002-B	L2122-001-00	Ventilation extruder w/o copilot I-panel extension	0.3	0.7	X	X	X	
05-61010-B	L2433-006-00	Battery, type "Saft", ULM, 40 Ah, 24 V instead of standard battery	16.8	37.0	X	X	X	
05-62010-C	L2420-005-00	AC System (50VA) <sup>7</sup>	1.9	4.2	X	X	X	
05-63003-B	L2432-001-00	Starter/generators (2 x 200 A, 28 VDC), instead of standard generators	3.6	7.9	X	X	X	
 06-12008-C	L3217-001-00	Reinforced rear landing gear cross tube	1.1	2.4	X	X	X	
06-45023-B	L3343-003-00	Landing & search light, 450 W	3.4	7.5	X	X	X	
 06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. Opt	3.8	8.4			X	
	L2300-009-04	<b>Avionics Solution 9</b>	78.0	172.0				
		or						
	L2300-010-04	<b>Avionics Solution 10</b>	81.6	180.0	X	X	X	
		or						
	L2300-012-02	<b>Avionics Solution 12</b>	75.2	165.8				
08-21014-C	L3441-090-04	Radar altimeter KRA 405B (Honeywell)	4.8	10.6	X	X	X	
08-53002-B	L2212-400-00	MEGHAS sensor kit	17.8	39.3	X	X	X	
08-54001-C	L3411-001-00	Copilot pitot static system	1.4	3.1	X	X	X	
08-72001-B	L2212-001-00	Digital Automatic Flight Control System - DAFCS	27.0	59.6	X	X	X	

<sup>5</sup> First aid kit complies with german regulation rules 1. DV LuftBO paragraph 5(2). Type of operation, procedures or regulations may require a different/specific first aid kit.

<sup>6</sup> For helicopters dedicated for EMS select "Bleed air heating system: EMS version L2104-003-00" (05-41004-A) (7.0 kg / 15.4 lb.)






<sup>7</sup> Alternatively the AC system L2420-002-00 (05-62010-B) (350VA; 3.2kg) can be selected

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**4.5.4 Possible add-ons**

Possible add-ons for Avionics Solutions 9, 10 and 12					PINA0		
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )		11110	11110	11111
			kg	lb			
06-67044-B	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4	X	X	
08-24015-B	L3452-092-17 L3452-092-08	ADF system DFS-43A (Chelton / Wulfsberg) ADF control unit CD-432B (Chelton / Wulfsberg)	9.6 1.2	21.2 2.6	X	X	X
 08-31019-B	L3443-090-02 L2571-001-00	Color weather radar RDR2000 (Honeywell) Radar radome (for RDR2000)	6.6 3.9	14.6 8.6	X	X	X
 08-31034-B	L3443-004-00 L2571-002-00	Search and rescue weather radar RDR1600 (Telephonics) Radar radome (for RDR1600)	16.8 6.6	37.0 14.6	X	X	X
 08-35007-B	L2327-001-11	Traffic Advisory System TAS 9900BX with 3" indicator (Ryan) (only possible for Avionics Solutions 9, 10)	11.0	24.3	X	X	X
 08-35007-B	L3442-881-00	Traffic Advisory System TAS 9900BX interface with GARMIN GNS430 (only possible for Avionics Solution 12)	9.5	20.9	X	X	X
08-43017-B	L3442-092-12	GPS Nav. system 2101 I/O Approach Plus (Free Flight, only possible for Avionics Solutions 9, 10)	6.0	13.2	X	X	X
 08-46020-B	L3168-092-04	Digital moving Map EURONAV IV - RN6 (Euro Avionics) basic version without options (Enhanced options and maps on request) <sup>8</sup>	8.0	17.6	X	X	X
08-65004-B	L3443-010-00	Video Radar Unit (VRU)	5.6	12.3	X	X	X
08-81018-C	L2321-007-00	M'ARMS <sup>®</sup> Cockpit Voice and Flight Data Recorder (CVFDR), ground station not included (in combination with UMS: 18.3 kg / 40.3 lb)	17.3	38.1	X	X	X
08-83007-C	L3171-001-00	M'ARMS M'ARMS <sup>®</sup> Usage Monitoring System (UMS), ground station not included	7.2	15.9	X	X	X

**4.5.5 Further avionics add-ons see chapter 6 page 66**

<sup>8</sup> Tactical mission equipment cannot be certified by German Civil Aviation Authorities. Eurocopter will ensure that the equipment is compatible with the basic helicopter and will assist the customer in obtaining certification or acceptance approval in his country.

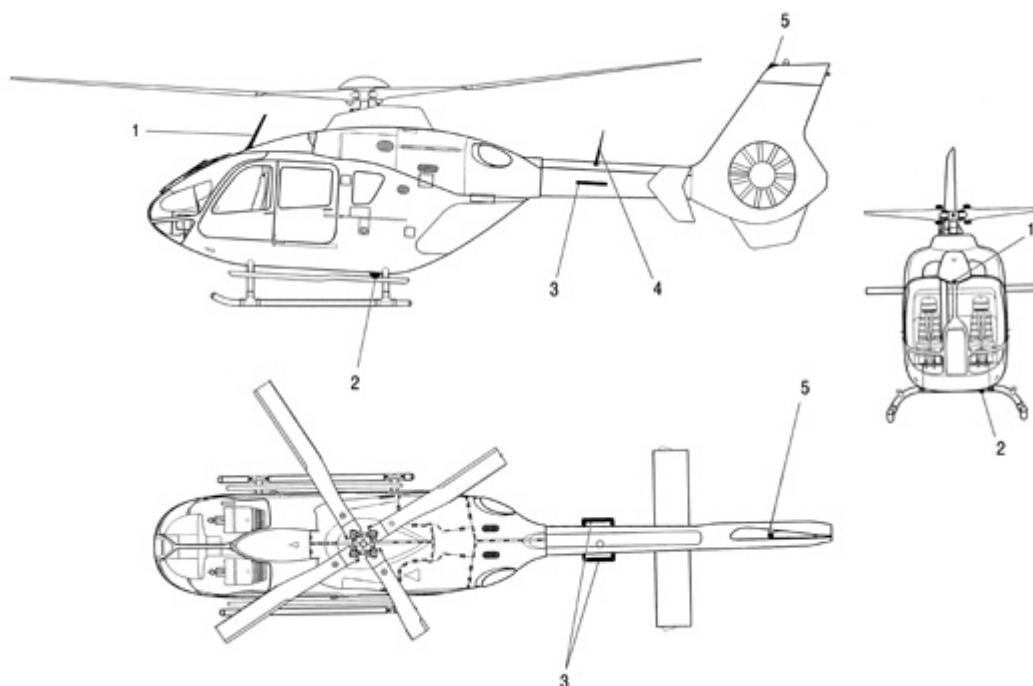
The data set forth in this document are general in nature and for information purposes only.

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## 4.6 Antenna layouts

### 4.6.1 Typical VFR antenna layout

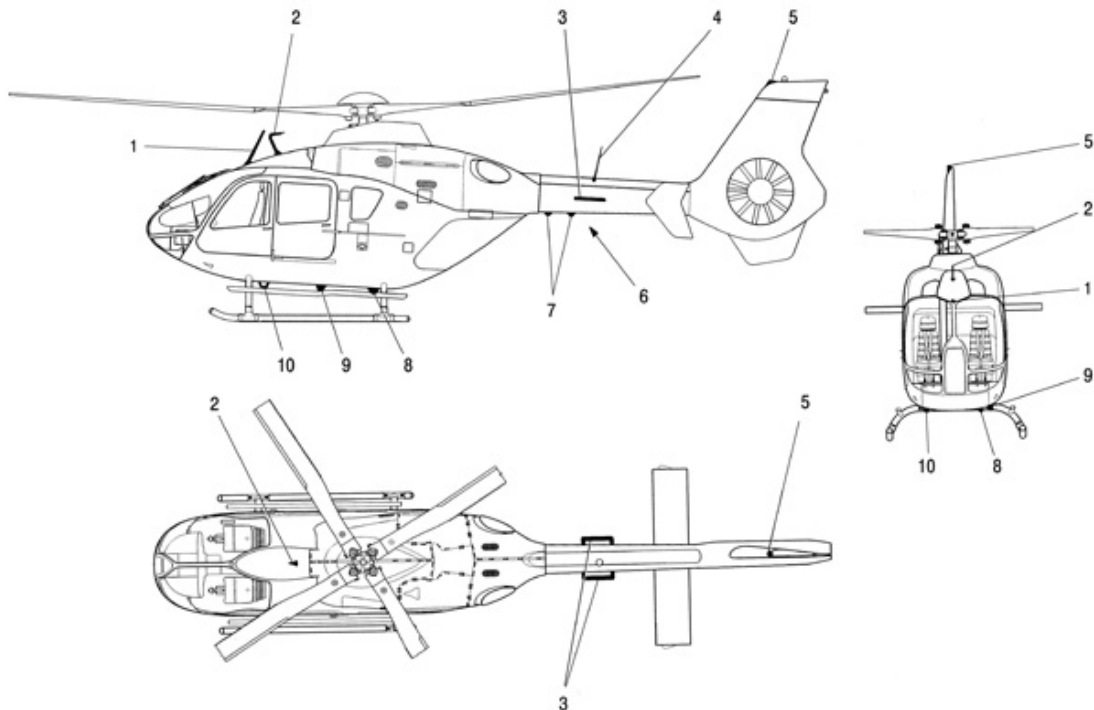


- 1 – ELT antenna
- 2 – ATC antenna
- 3 – VOR antennas
- 4 – VHF 1 antenna
- 5 – GPS antenna

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#### 4.6.2 Typical IFR antenna layout



- |                  |                                 |
|------------------|---------------------------------|
| 1 – ELT antenna  | (6 – ADF antenna (if required)) |
| 2 – VHF2 antenna | 7 – Radar altimeter antenna     |
| 3 – VOR antennas | 8 – ATC antenna                 |
| 4 – VHF1 antenna | 9 – Marker antenna              |
| 5 – GPS antenna  | 10 – DME antenna                |

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## 5 Cabin arrangement

### 5.1 Passenger transport

#### 5.1.1 Five (5) Passenger configuration



Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )	
			kg	lb
-	L2521-001-00	Five seat passenger/ transport configuration consisting of:	65.4	144.2
		3 forward passenger seats, facing backwards		
		2 rear passenger seats, facing forwards		
		1 Covers for sliding door fairing LH/RH		
		1 Map case in sliding doors LH/RH		
		1 Variable tie-down net		
		2 Retractable coat hooks in rear cabin		

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**5.1.2 Six (6) Passenger configuration (high density seats) ⚠**

This installation is characterized by:

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>Weight (margin ± 3 %)</i>	
			<i>kg</i>	<i>lb</i>
07-27001-B	L2522-001-00	Three (3) forward passenger seats, facing backwards	37.4	82.5
<b>In combination with either</b>				
07-27004-B	L2522-004-10	Utility seats for 3 rear passengers, model Eurocopter, fixed provisions	1.2	2.6
07-27004-B	L2522-004-20	Utility seats for 3 rear passengers, model Eurocopter, detachable parts	33.2	73.2
<b>or</b>				
07-27005-A	L2522-008-00	Utility seats for 3 rear passengers, model aerolite	37.0	81.6



Model Eurocopter



model Aerolite

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**5.1.3 Corporate / VIP passenger transport** ⚠️

**5.1.3.1 Five (5) corporate passenger transport**



Document reference	Commercial reference	Title	Weight (margin ± 3 %)	
			kg	lb
-	<b>L2521-002-00</b>	Five seat Corporate/VIP configuration consisting of:	<b>115.7</b>	<b>255.0</b>
		1 VIP-pilot seat (instead of std. pilot seat)		
		1 VIP-copilot seat (instead of std. copilot seat)		
		4 VIP passenger seats (2 front and 2 rear)		
		1 VIP passenger seat (front, middle)		
		1 Rear cabinet with armrest (wood – Bucher Leichtbau)		
		1 VIP carpet for cockpit, cabin and cargo compartment		
		1 Armrest in rear window niche LH / RH		
		1 Special painted interior		
		1 Covers for sliding door fairing LH/RH		
		1 Map case in sliding doors LH/RH		
		1 Variable tie-down net		
		2 Retractable coat hooks in rear cabin		
		1 Cabin / cargo compartment separation wall		
		1 Enhanced sound proofing kit		

The data set forth in this document are general in nature and for information purposes only.

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**5.1.3.2 Four (4) VIP passenger transport**



Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
-	<b>L2521-003-00</b>	Four seat Corporate/VIP configuration consisting of:	<b>128.9</b>	<b>284.1</b>
		1 VIP-pilot seat (instead of std. pilot seat)		
		1 VIP-copilot seat (instead of std. copilot seat)		
		4 VIP passenger seats (2 front and 2 rear)		
		1 Front cabinet, flat		
		1 Rear cabinet with armrest (wood – Bucher Leichtbau)		
		1 VIP carpet for cockpit, cabin and cargo compartment		
		1 Armrest in rear window niche LH / RH		
		1 Leather covered interior		
		1 Covers for sliding door fairing LH/RH		
		1 Map case in sliding doors LH/RH		
		1 Variable tie-down net		
		2 Retractable coat hooks in rear cabin		
		1 Cabin / cargo compartment separation wall		
		1 Enhanced sound proofing kit		

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**5.1.3.3 Customer specific Corporate / VIP solutions**

Customer specific solutions can be defined by using the following table.

- Note: Only one item per line can be selected.

COCKPIT	VIP pilot seat 07-81015-A L2525-101-11 (1.1 kg / 2.4 lb.)	VIP pilot seat height adjustable 07-81015-A L2525-101-71 (4.8 kg / 10.6 lb.)	
	VIP copilot seat 07-81015-A L2525-101-21 (1.1 kg / 2.4 lb.)	VIP copilot seat height adjustable 07-81015-A L2525-101-76 (4.8 kg / 10.6 lb.)	
PASSENGER CABIN	4 VIP passenger seats 07-81013-A L2525-102-00 (56.1 kg / 123.7 lb.)		
	1 VIP passenger seat (front, middle) 07-81013-A L2525-202-20 (14.2 kg / 31.3 lb.)	Front cabinet, flat 07-85002-A L2526-212-601 (14.5 kg / 32.0 lb.)	Front cabinet, middle 07-85002-A L2526-112-63 (22.5 kg / 49.6 lb.)
		Table for front cabinet 07-85002-A L2526-112-61 (3.0 kg / 6.6 lb.)	
		Cooling box for front cabinet 07-85002-A L2526-112-62 (2.5 kg / 5.5 lb.)	
	Rear cabinet with Armrest (wood – Bucher) * 07-85003-A L2526-112-710 (10.0 kg / 22.2 lb.)	Rear cabinet, flat 07-85004-A L2526-312-701 (8.6 kg / 19.0 lb.)	Rear cabinet, high 07-85004-A L2526-112-75 (14.0 kg / 30.9 lb.)
	Armrests in rear window niche, LH/RH 07-82010-A L2525-102-62 (0.8 kg / 1.8 lb.)		

\* 2 other versions are also available:

L2526-114-710 Rear cabinet with Armrest (VIP Style – Aerolite) described in 07-85009-A

L2526-113-710 Rear cabinet with Armrest (Laminate – AAT) described in 07-85008-A

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GENERAL	Special painted interior 07-86001-A L2525-100-35 (0.1 kg / 0.2 lb.)	Leather covered interior 07-86002-A L2525-112-35 (13.0 kg / 28.7 lb.)
	VIP carpet for cockpit, cabin and cargo compartment 07-83003-A L2525-104-00 (16.6 kg / 36.6 lb.)	
	Retractable coat hooks (2ea) in rear cabin 07-90006-A L2514-011-00 (0.1 kg / 0.2 lb.)	
	Map case in sliding doors LH/RH 07-60014-A L2514-013-00 (1.4 kg / 3.0 lb.)	
	Variable tie-down net 07-60015-B L2514-014-00 (4.2 kg / 9.3 lb.)	
	Covers for sliding door fairing LH/RH 07-50036-A L2514-012-00 (0.1 kg / 0.2 lb.)	
	Control covers painted in harmony with carpet 07-90008-A L2525-101-65 (-2.3 kg / -5.1 lb.)	
GROUND SUPPORT EQUIPMENT	Fabric protection cover for 1 VIP pilot seat 07-90007-A L2525-111-50 (GSE)	
	Fabric protection cover for 1 VIP pax seat 07-90007-A L2525-112-91 (GSE)	
	Plastic protection cover for cockpit carpet 07-90007-A L2525-111-60 (GSE)	
	Plastic protection cover for cabin carpet 07-90007-A L2525-112-92 (GSE)	
HIGHLY RECOMMENDED ITEMS	Air conditioning system 05-42019-B L2105-001-00 (54.7 kg / 120.6 lb.)	Air conditioning system for tropical environment + Special ducting for front pax. seats 05-42020-B L2105-001-10 + L2525-112-46 (57.9 kg / 127.6 lb.)

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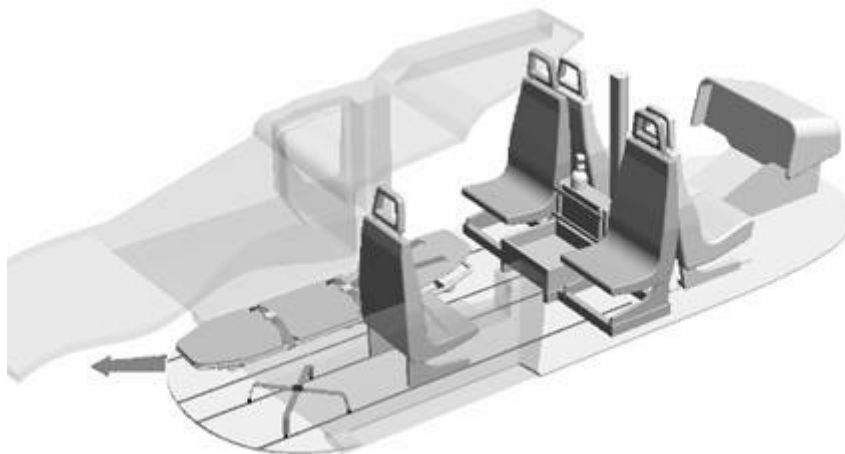
## 5.2 EMS equipment

### 5.2.1 Single stretchers

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>Weight</i> <i>(margin ± 3 %)</i>	
			<i>kg</i>	<i>lb</i>
07-74011-A	<b>L8522-320-00</b>	Folding stretcher (16 G) - Bucher-Leichtbau (STC)	<b>12.0</b>	<b>26.5</b>
07-74011-A	<b>L8522-350-00</b>	Installation device for one stretcher (16 G) in full length only - Bucher-Leichtbau (STC)	<b>4.5</b>	<b>9.9</b>
07-74032-B	<b>AL2013-009-10</b>	Stretcher LH - Cirrus 1000 (three-piece), fixed provisions – Aerolite (STC)	<b>0.5</b>	<b>1.1</b>
07-74032-B	<b>AL2013-009-20</b>	Stretcher LH - Cirrus 1000 (three-piece), detachable parts – Aerolite (STC)	<b>14.5</b>	<b>32.0</b>

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**5.2.2 Packages from Aerolite** 
**5.2.2.1 "Quick change EMS kit" – Aerolite (STC)**

**5.2.2.1.1 Content:**

Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-70028-A	AL2035-001	Quick change EMS kit – Aerolite (STC) consisting of:	33.5	73.9
		1 Life support module oxygen		
		1 Stretcher LH - Cirrus 2000 (foldable), detachable parts		
		1 Stretcher LH - Cirrus 2000 (foldable), fixed provisions		
		1 Tie down web		

**5.2.2.1.2 Minimum required equipment:**

Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-27001-B	L2522-001-00	Three (3) forward passenger seats, facing backwards	37.4	82.5
		Middle seat (11 kg / 24.3 lb.) has to be removed.		

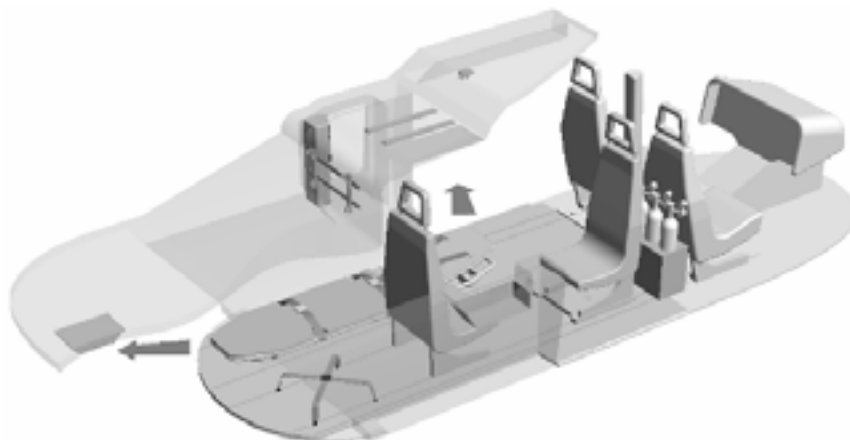
**5.2.2.1.3 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**
**5.2.2.1.4 Optional equipment:**

Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-27008-A	L2522-160-00	One (1) rear RH passenger seat in FWD	11.1	24.4
	OR			
07-27001-B	L2522-002-00	Two (2) rear passenger seats, facing forwards	22.2	49.0

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**5.2.2.2 “Rescue EMS kit” – Aerolite (STC)**



**5.2.2.2.1 Content:**

Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-70029-A	AL2035-002	Rescue EMS Kit – Aerolite (STC) consisting of:	100.0	220.5
		1 Ceiling rails LH		
		1 DC power and lighting System		
		1 Integral floor, detachable parts		
		1 Integral Floor, fixed provisions		
		1 Life support panel LH		
		1 Med oxygen system 3x3 Lt., detachable parts		
		1 Med oxygen system 3x3 Lt., fixed provisions		
		1 Med rack rear LH, detachable parts		
		1 Med rack rear LH - fixed provisions		
		1 Med suction system, detachable parts		
		1 Med suction system, fixed provisions		
		1 Pax seat cover - fixed provisions		
		1 Pax seat cover, detachable parts		
		1 Stationary seat FWD RH, detachable parts		
		1 Stationary seat FWD RH, fixed provisions		
		1 Stretcher LH - Cirrus 2000, detachable parts		
		1 Stretcher LH - Cirrus 2000, fixed provisions		
		1 Tie down web		

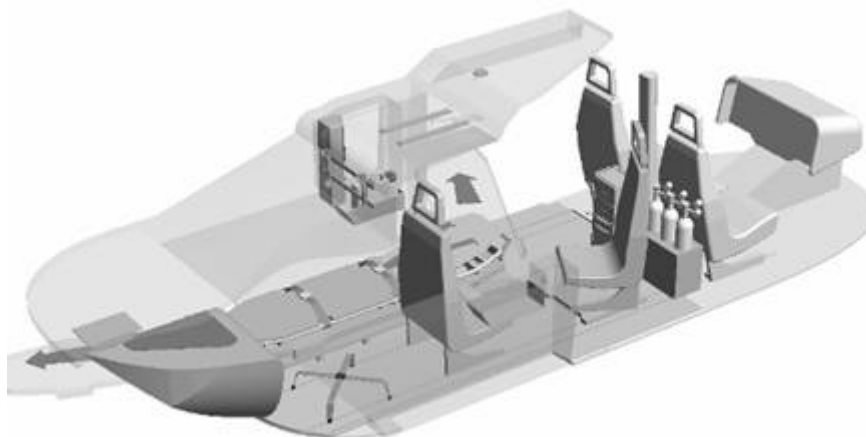
**5.2.2.2.2 Minimum required equipment:**

Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-27008-A	L2522-160-00	One (1) rear RH passenger seat in FWD	11.1	24.4
07-77001-A	L8521-001-00	EMS main switch in overhead console for Aerolite installation	0.2	0.4

**5.2.2.2.3 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

*The data set forth in this document are general in nature and for information purposes only.*

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**5.2.2.3 “Intensive Care EMS kit” – Aerolite (STC)**

**5.2.2.3.1 Content:**

Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-70030-A	AL2035-003	Intensive Care EMS Kit – Aerolite (STC) consisting of:	151.5	334.0
		1 Ceiling rails LH		
		1 DC power and lighting System		
		1 Integral floor, detachable parts		
		1 Integral Floor, fixed provisions		
		1 IV Hook LH		
		1 Life support panel LH		
		1 Med oxygen system 3x3 Lt., detachable parts		
		1 Med oxygen system 3x3 Lt., fixed provisions		
		1 Med rack rear LH, detachable parts		
		1 Med rack rear LH - fixed provisions		
		1 Med suction system, detachable parts		
		1 Med suction system, fixed provisions		
		1 Medium height med cabinet, detachable parts		
		1 Medium height med cabinet, fixed provisions		
		1 Pax seat cover - fixed provisions		
		1 Pax seat cover, detachable parts		
		1 Rear door stowage RH		
		1 Slide & swivel seat FWD RH, detachable parts		
		1 Slide & swivel seat FWD RH, fixed provisions		
		1 Stretcher LH - Cirrus 2000 with stretcher platform, detachable parts		
		1 Stretcher LH - Cirrus 2000 with stretcher platform, fix provisions		
		1 Tie down web		
		1 Window stowage shell RH		

**5.2.2.3.2 Minimum required equipment:**

Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-27008-A	L2522-160-00	One (1) rear RH passenger seat in FWD	11.1	24.4
07-77001-A	L8521-001-00	EMS main switch in overhead console for Aerolite installation	0.2	0.4

**5.2.2.3.3 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

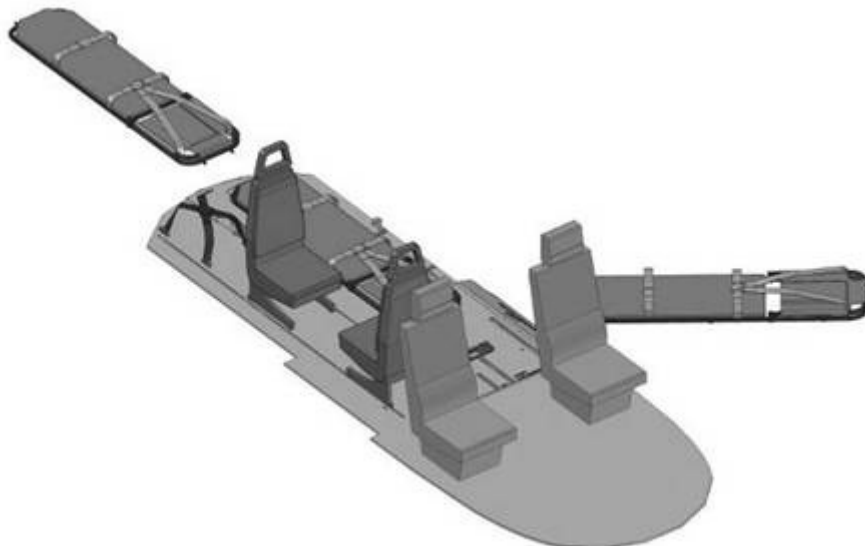
The data set forth in this document are general in nature and for information purposes only.

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**5.2.3 Packages from Air Ambulance Technology (AAT) **

**5.2.3.1 "EMS / Law enforcement kit" – AAT (STC)**



**5.2.3.1.1 Content:**

Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-70021-A	135-25-20-5000-515	EMS / Law enforcement kit – AAT (STC) consisting of: 1 Belt system, Emergency Belts, Storage Case 1 Medical floor LH with locker system 1 Rescue stretcher	31.9	70.0

**5.2.3.1.2 Minimum required equipment:**

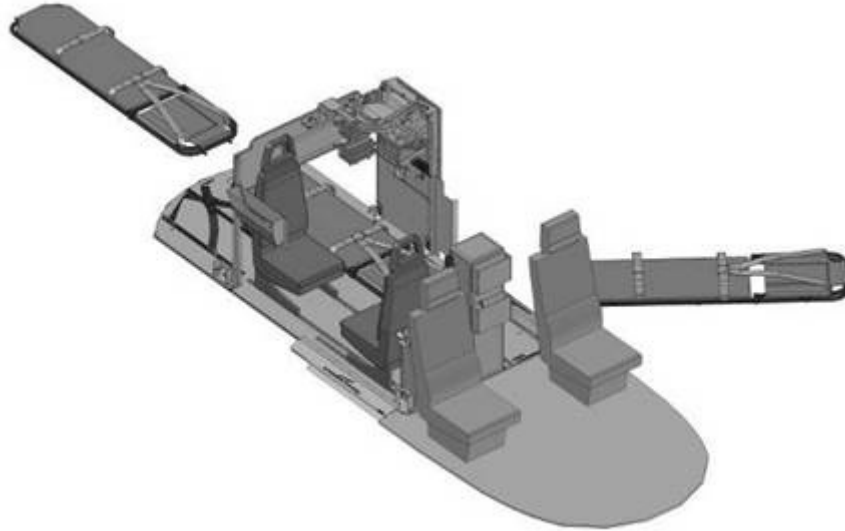
Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-27001-B	L2522-002-00	Two (2) rear passenger seats, facing forward	22.2	49.0

**5.2.3.1.3 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**5.2.3.2 “EMS Standard kit” – AAT (STC)**



**5.2.3.2.1 Content:**

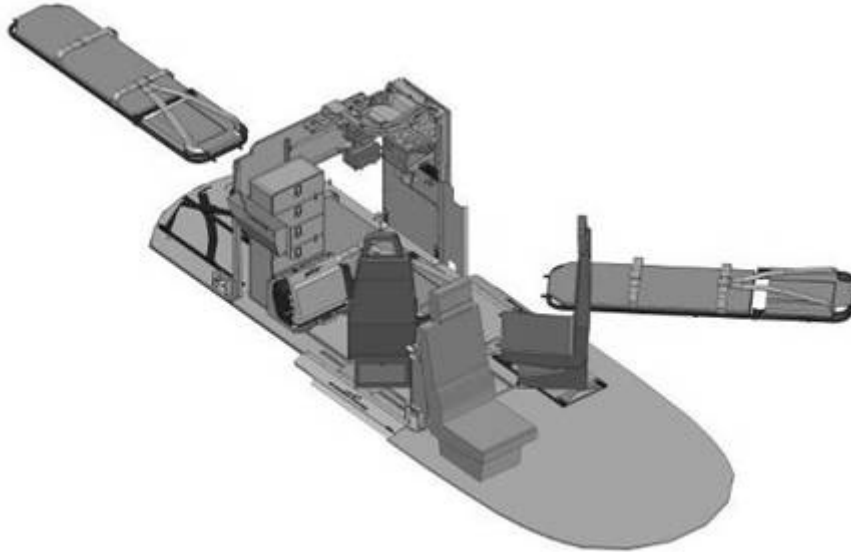
Document reference	Commercial reference	Title	Weight (margin ± 3 %)	
			kg	lb
07-70022-A	135-25-20-5000-605	EMS Standard Kit – AAT (STC) consisting of:	126.4	278.0
		1 Belt system, Emergency Belts, Storage Case		
		1 Medical cabinet		
		2 Medical crew seat adjustable		
		1 Medical equipment carrier		
		1 Medical floor with locker system		
		1 Oxygen air station incl. 4x oxygen bottles		
		1 Rescue stretcher		

**5.2.3.2.2 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

*The data set forth in this document are general in nature and for information purposes only.*

*For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.*

**5.2.3.3 “EMS Advanced kit” – AAT (STC)**



**5.2.3.3.1 Content:**

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>Weight</i> (margin ± 3 %)	
			<i>kg</i>	<i>lb</i>
07-70023-A	135-25-20-5000-603	EMS Advanced Kit – AAT (STC) consisting of:	142.1	313.0
		1 Adapter floor		
		1 Belt system, Emergency Belts, Storage Case		
		1 Medical cabinet - AFT		
		2 Medical crew seat swiveling		
		1 Medical equipment carrier		
		1 Medical floor with locker system		
		1 Oxygen air station incl. 4x oxygen bottles		
		1 Rescue stretcher		

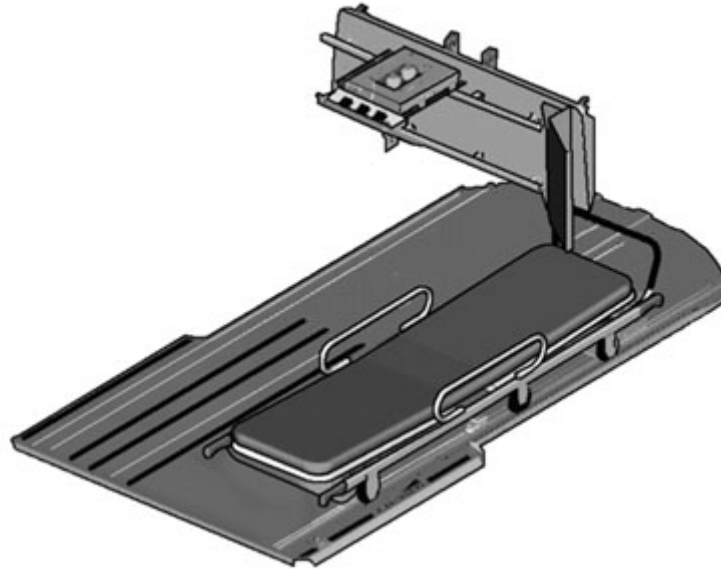
**5.2.3.3.2 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

*The data set forth in this document are general in nature and for information purposes only.*

*For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.*

**5.2.4 Packages from Bucher Leichtbau** 

**5.2.4.1 EMS basic kit, rear loading – Bucher Leichtbau (STC)**



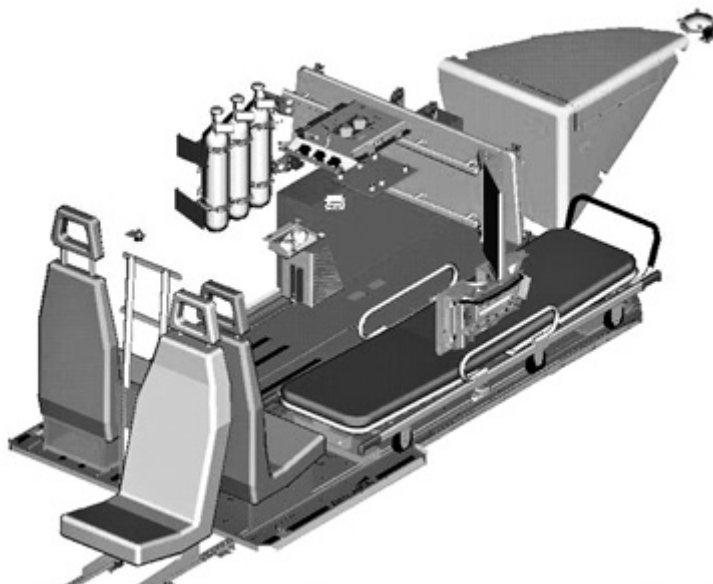
**5.2.4.1.1 Content:**

Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )	
			kg	lb
07-70025-A	ARA-EC135-AC65-B	EMS basic kit, rear loading – Bucher Leichtbau (STC) consisting of:	102.0	224.9
		1 409 Wheel stretcher		
		1 Centre light		
		1 Electrical supply system		
		1 Integral floor		
		1 Medical wall		
		1 Stretcher loading platform and retainer AFT		
		1 Stretcher retainer FWD		
		2 Tie down (LH & RH)		

**5.2.4.1.2 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**5.2.4.2 EMS high sophisticated kit, rear loading – Bucher Leichtbau (STC)**

**5.2.4.2.1 Content:**

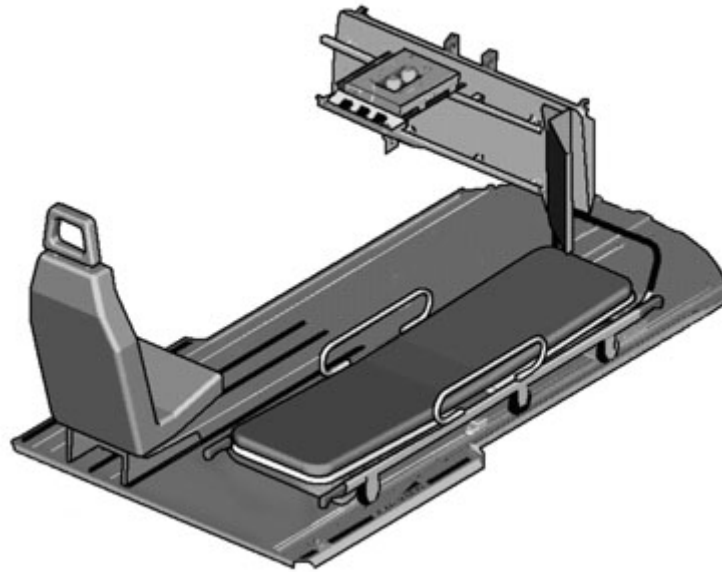
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$ )	
			kg	lb
07-70024-A	ARA-EC135-AC65-HS	EMS high sophisticated kit, rear loading – Bucher Leichtbau (STC) consisting of: 1 12 V outlet FWD 1 12-2 foldable stretcher 16g 1 12-2 Stowage provision 1 409 Wheel stretcher 1 Attachment plate AFT RH Zarges box 1 Center cabinet 1 Centre light 1 Electrical charger & battery 1 Electrical supply system 1 EMS GPU-connector 1 Infusion hook 1 Integral floor 1 Light AFT 1 Light FWD 1 Medical attendant seat type A 2 Medical attendant seat type B (swiveling) 1 Medical wall 1 Modification kit front rail 409 stretcher 1 Oxygen bottle rack 3 Oxygen supply hose 1 Rear door stowage unit 1 Reversible copilot seat (modification) 1 Roof rail 1 Stretcher loading platform and retainer AFT 1 Stretcher retainer AFT 2 Stretcher retainer FWD 1 Suction unit in side cabinet LH 1 Tie down LH 1 Tie down RH	tbd	tbd

**5.2.4.2.2 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**5.2.4.3 EMS basic kit, side and rear loading – Bucher Leichtbau (STC)**



**5.2.4.3.1 Content:**

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>Weight</i> (margin $\pm 3\%$ )	
			<i>kg</i>	<i>lb</i>
07-70027-A	ARA-EC135-AC61-B	EMS basic kit, side and rear loading – Bucher Leichtbau (STC) consisting of: 1 Centre light 1 Electrical supply system 1 Integral floor 1 Medical wall 1 Reversible copilot seat (modification) 1 Side- and rear-load stretcher	101.2	223.1

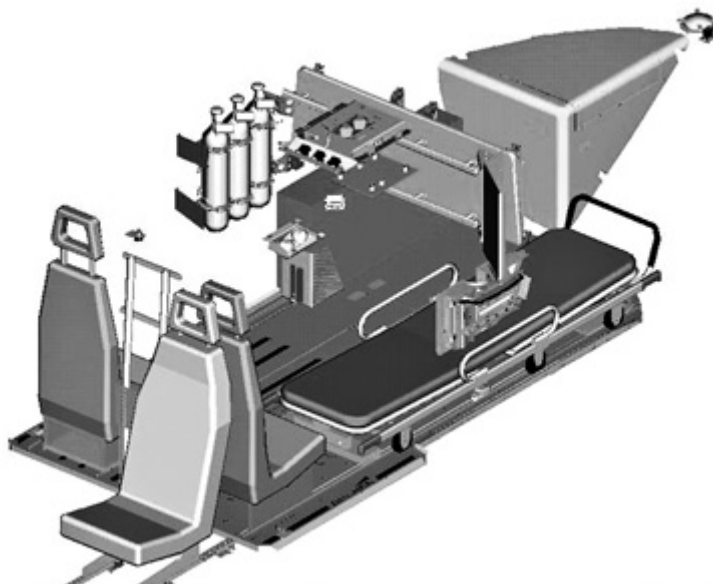
**5.2.4.3.2 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

*The data set forth in this document are general in nature and for information purposes only.*

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**5.2.4.4 EMS high sophisticated kit, side and rear loading – Bucher Leichtbau (STC)**



**5.2.4.4.1 Content:**



Document reference	Commercial reference	Title	Weight (margin $\pm$ 3 %)	
			kg	lb
07-70026-A	ARA-EC135-AC61-HS	EMS high sophisticated kit, side and rear loading – Bucher Leichtbau (STC) consisting of: 1 12 V outlet FWD 1 12-2 foldable stretcher 16g 1 12-2 Stowage provision 1 Attachment plate AFT RH Zarges box 1 Center cabinet 1 Centre light 1 Electrical charger & battery 1 Electrical supply system 1 EMS GPU-connector 1 Infusion hook 1 Integral floor 1 Light AFT 1 Light FWD 1 Medical attendant seat type A 1 Medical attendant seat type B (swiveling) 1 Medical wall 1 Oxygen bottle rack 3 Oxygen supply hose 1 Rear door stowage unit 1 Reversible copilot seat (modification) 1 Roof rail 1 Side- and rear-load stretcher 1 Side cabinet RH 1 Stretcher retainer AFT 1 Stretcher retainer FWD 1 Suction unit in side cabinet LH 1 Tie down LH 1 Tie down RH	189.0	416.7

**5.2.4.4.2 Recommended optional equipment for EMS packages see chapter 5.2.4 page 61**

*The data set forth in this document are general in nature and for information purposes only.*

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**5.2.5 Recommended optional equipment for EMS packages:**

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>Weight</i> (margin $\pm 3\%$ )	
			<i>kg</i>	<i>lb</i>
05-31027-B	<b>L5633-001-10</b>	Window in clam-shell door, LH	<b>0.6</b>	<b>1.3</b>
07-50026-A	<b>L5231-001-00</b>	One-hand latching system for clam-shell doors	<b>1.0</b>	<b>2.2</b>
07-50027-A	<b>L5231-002-00</b>	Extended opening fasteners for clam-shell doors	<b>0.3</b>	<b>0.9</b>
 07-50025-A	<b>L5211-004-10</b>	Securing device for complete opening of copilot door	<b>0.8</b>	<b>1.8</b>
07-50030-A	<b>L8534-005-10</b>	Abrasion protection at sliding door, LH	<b>0.1</b>	<b>0.2</b>
 07-50030-A	<b>L8534-005-20</b>	Abrasion protection at sliding door, RH	<b>0.1</b>	<b>0.2</b>

*The data set forth in this document are general in nature and for information purposes only.*











*For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.*

## 6 Optional equipment

### 6.1 Further available equipment

#### General Equipment

Weight  
(margin  $\pm 3\%$ )










Document reference	Commercial reference	Title	kg	lb
 05-02016-B	L1111-002-00	Two-color exterior painting instead of single color painting	1.5	3.3
 05-02016-B	L1111-004-00	Multicolor exterior painting instead of single color painting	2.0	4.4
 05-03007-C	L2562-001-00	First aid kit <sup>5</sup>	1.3	2.9
 05-03008-B	L2562-001-10	First aid kit for DGAC certification	2.8	6.2
05-12001-B	L5232-001-00	Multifunction handle on the main gear box cowling (LH and RH)	0.6	1.3
05-12002-B	L2551-003-00	Additional 4 tie-down fittings for airline attachment rails	0.6	1.3
05-21015-B	L8541-001-10	Wire strike protection system, fixed provisions	3.3	7.3
 05-21015-B	L8541-001-20	Wire strike protection system, detachable parts	8.2	18.1
05-22014-A	L5371-001-00	Engine outlet heat protection	1.2	2.7
05-22007-B	L7924-001-00	Fuzz burners for engines	1.2	2.6
05-22008-C	L2621-001-00	Engine fire extinguishing system	3.6	7.9
05-23006-B	L7165-002-00	Engine compressor wash kit	3.2	7.1
05-24017-B	L6211-014-00	Sand erosion protection kit for rotor blades	0.9	2.0
 05-25016-C	L7161-001-10	Sand filter system, fixed provisions	10.1	22.3
05-25016-C	L7161-001-20	Sand filter system, detachable parts	26.2	57.8
05-26012-B	L1241-001-00	Anti-corrosion protection	2.0	4.4
 05-31025-B	L5211-002-00	Sliding window in sliding doors	0.9	2.0
05-31026-C	L2514-002-00	Tinted sun shades for cockpit windshield roof section	1.9	4.2
05-31026-C	L5621-001-00	Tinted window for cockpit doors	0.0	0.0
 05-31026-C	L5632-001-00	Tinted windows for passenger cabin	0.9	2.0
05-31027-B	L5633-001-10	Window in clam-shell door, LH	0.6	1.3
 05-31027-B	L5633-001-20	Window in clam-shell door, RH	0.6	1.3
05-31028-C	L2524-030-10	IFR – training screen, fixed provisions	0.1	0.2
05-31028-C	L2524-030-20	IFR – training screen, detachable parts	1.6	3.5
05-31045-A	L5211-001-11	Lockable sliding window in copilots' door	0.2	0.4
05-31045-A	L5211-001-12	Lockable sliding window in pilots' door	0.2	0.4
05-32007-B	L3042-001-00	Windshield wiper system	4.9	10.8
 05-34003-B	L2576-002-00	Dampers for avionics compartment	1.6	3.5
05-37016-C	L6701-001-00	Copilot flight controls	6.0	13.2

<sup>5</sup> First aid kit complies with german regulation rules 1. DV LuftBO paragraph 5(2). Type of operation, procedures or regulations may require a different/specific first aid kit.





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**General Equipment (contd.)**
**Weight**  
 (margin  $\pm 3\%$ )

Document reference	Commercial reference	Title	kg	lb
 05-37017-B	L6721-001-00	Covers for copilot flight controls <sup>8</sup>	-2.5	-5.5
05-39006-B	L2514-003-01	Map case in copilot door	0.5	1.1
05-39007-B	L3111-001-10	Map cases on instrument panel glare shield	0.6	1.3
05-39008-B	L3113-004-10	Illuminated chart holder for pilot side	0.9	2.0
 05-39008-B	L3113-004-20	Illuminated chart holder for copilot side	0.9	2.0
 05-42019-B	L2105-001-00	Air conditioning system	54.7	120.6
 05-42020-B	L2105-001-10	Air conditioning system for tropical environment	57.9	127.6
 05-61010-B	L2433-003-00	Battery, type "Saft", ULM, 27 Ah, 24 V instead of standard battery	8.2	18.1
 05-61010-B	L2433-006-00	Battery, type "Saft", ULM, 40 Ah, 24 V instead of standard battery	16.8	37.0
05-71001-C	L6351-001-00	Rotor brake system	5.3	11.7
 05-81032-C	L2818-100-10	Internal long range fuel tank system, fixed provisions	3.8	8.4
 05-81032-C	L2818-100-20	Internal long range fuel tank system, detachable parts	35.2	77.6
05-81033-B	L2812-001-00	Self sealing fuel supply tanks	4.5	9.9
05-85008-C	L2843-001-00	Fuel management system (Fuel flow meters)	1.0	2.2
05-92009-B	L6611-001-10	Main rotor blade folding: basic kit	1.3	2.9
 05-92009-B	L6611-001-20	Main rotor blade folding: fixed provisions for ground handling kit	0.7	1.5
05-92009-B	L6611-001-30	Main rotor blade folding: ground handling kit	GSE	GSE
05-93007-B	L8544-002-00	Lashing points (wind speeds up to 100 kts) (weight GSE: 24.9 kg)	0.7	1.5
05-93008-B	L8544-001-00	Lashing points (wind speeds up to 40 kts)	2.4	5.3
05-93011-A	L8544-003-10	Additional lashing points for ship landing, fixed provisions	0.5	1.1
05-93011-A	L8544-003-20	Additional lashing points for ship landing, detachable parts	0.4	0.9
05-95001-C	L1321-001-00	Cover kit for helicopter	GSE	GSE
05-97001-B	L6201-001-30	Accelerometers (for Track & Balance system)	0.0	0.0
05-97002-B	L6201-002-10	Optical tracker, fixed provisions	0.1	0.2
05-97002-B	L6201-002-20	Optical tracker, detachable parts	0.7	1.5
05-97004-A	L6201-004-00	VMS II (Track & Balance system)	4.2	9.3

















**Specific Mission Equipment**
**Weight**  
 (margin  $\pm 3\%$ )

Document reference	Commercial reference	Title	kg	lb
06-11021-B	L3274-001-10	Settling protectors, fixed provisions	1.9	4.2
 06-11021-B	L3274-001-20	Settling protectors, detachable parts	7.6	16.8
06-11022-C	L3272-001-10	Snow skids, fixed provisions	0.9	2.0
 06-11022-C	L3272-001-20	Snow skids, detachable parts	20.8	45.9
 06-12007-B	L3273-001-00	Lengthened skids (standard landing gear only)	8.3	18.3
 06-12009-B	L3216-001-10	High landing gear (instead of standard landing gear)	26.0	57.3

<sup>8</sup> Stick, Pitch and Pedals have to be removed - thus negative delta weight

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**Specific Mission Equipment (contd.)**
**Weight**  
 (margin  $\pm 3\%$ )















Document reference	Commercial reference	Title	kg	lb
 06-21017-C	<b>L8512-001-10</b>	External hoist LH, fixed provisions <sup>9</sup>	<b>8.6</b>	<b>19.0</b>
 06-21017-C	<b>L8512-001-12</b>	External hoist RH, fixed provisions <sup>9</sup>	<b>8.6</b>	<b>19.0</b>
 06-21017-C	<b>L8512-001-20</b>	External hoist 50m, detachable parts, <sup>9</sup> (incl. 1 week winch operator training)	<b>58.8</b>	<b>129.6</b>
 06-21017-C	<b>L8512-001-21</b>	External hoist 90m, detachable parts, <sup>9</sup> (incl. 1 week winch operator training)	<b>62.7</b>	<b>138.2</b>
 06-26011-B	<b>L8511-002-10</b>	Cargo hook mirrors RH, fixed provisions	<b>0.8</b>	<b>1.8</b>
 06-26011-B	<b>L8511-002-20</b>	Cargo hook mirrors RH, detachable parts	<b>3.9</b>	<b>8.6</b>
 06-26018-A	<b>L8511-006-10</b>	Cargo hook mirrors RH & LH, fixed provisions	<b>1.7</b>	<b>3.8</b>
 06-26018-A	<b>L8511-006-20</b>	Cargo hook mirrors RH & LH, detachable parts	<b>8.0</b>	<b>17.6</b>
 06-27019-C	<b>L8511-001-10</b>	Cargo hook system, fixed provisions	<b>3.2</b>	<b>7.1</b>
06-27019-C	<b>L8511-001-30</b>	Cargo hook system, detachable parts	<b>16.5</b>	<b>36.4</b>
 06-27022-A	<b>L8511-005-10</b>	Double cargo hook system, fixed provisions	<b>4.3</b>	<b>9.5</b>
 06-27022-A	<b>L8511-005-20</b>	Double cargo hook system, detachable parts	<b>22.1</b>	<b>48.7</b>
06-45023-B	<b>L3343-003-00</b>	Landing & search light, 450 W	<b>3.4</b>	<b>7.5</b>
06-46001-B	<b>L3344-001-00</b>	Strobe lights, white	<b>1.4</b>	<b>3.1</b>
 06-61015-B	<b>L3215-001-10</b>	Emergency floats, fixed provisions	<b>7.8</b>	<b>17.2</b>
 06-61015-B	<b>L3215-001-21</b>	Emergency floats, detachable parts	<b>64.6</b>	<b>142.4</b>
06-65002-A	<b>L2566-001-00</b>	Emergency hammer	<b>0.2</b>	<b>0.4</b>
06-65004-A	<b>L2625-003-00</b>	2nd portable fire extinguisher	<b>2.8</b>	<b>6.2</b>
06-66008-B	<b>L3353-005-00</b>	Emergency lights (boarding step illumination and illuminated exit signs)	<b>2.7</b>	<b>6.0</b>
06-66009-A	<b>L3322-001-00</b>	Boarding step illumination	<b>0.2</b>	<b>0.4</b>
 06-66010-A	<b>L3353-006-20</b>	Illuminated signs "NO SMOKING/FASTEN SEAT BELT"	<b>0.3</b>	<b>0.7</b>
 06-66017-B	<b>L3353-010-00</b>	HEEL System (Helicopter Emergency Egress Lighting)	<b>5.6</b>	<b>12.3</b>
06-67037-A	<b>L2563-005-00</b>	Underwater Locator Beacon, ELP-362D	<b>0.5</b>	<b>1.1</b>
06-67047-A	<b>L2563-812-00</b>	Automatic Deployable ELT	<b>9.1</b>	<b>20.1</b>
06-69005-B	<b>L2341-006-61</b>	Voice alert generator 611-014 (NAT)	<b>0.5</b>	<b>1.1</b>
 06-81009-A	<b>L8503-001-10</b>	Fire extinguishing bucket attachment (Bambi Bucket), fixed provisions	<b>0.9</b>	<b>2.0</b>

<sup>9</sup> Communication via copilot audio / comm. control unit

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**Interior Layout**
**Weight**  
 (margin  $\pm 3\%$ )

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>kg</i>	<i>lb</i>
07-15016-B	L2512-003-10	Height adjustable pilot seat (instead of standard pilot seat)	3.7	8.1
07-15016-B	L2512-003-20	Height adjustable copilot seat (instead of standard copilot seat)	3.7	8.1
07-30012-A	L2581-001-00	Enhanced sound proofing kit	6.0	13.2
 07-30013-A	L2524-002-00	Separation curtain for cockpit / cabin	2.0	4.4
 07-30014-B	L2524-021-00	Separation curtain for cabin / cargo compartment	2.3	5.1
 07-30015-B	L2524-001-00	Separation wall for cabin / cargo compartment	3.9	8.6
07-30018-A	L5213-003-00	Curtains for cabin windows (grey)	1.5	3.3
 07-40005-B	L2513-200-00	Washable floor covering for cockpit	4.1	9.1
 07-40005-B	L2513-210-00	Washable floor covering for cargo compartment	3.0	6.4
 07-40005-B	L2513-220-00	Washable floor covering for cockpit, cabin and cargo compartment	11.8	26.0
 07-40006-A	L2513-300-00	Carpet for cockpit and cabin	7.0	15.4
 07-40006-A	L2513-310-00	Carpet for cockpit, cabin and cargo compartment	11.0	24.3
07-40017-A	L8552-001-00	Sealed cabin floor	1.0	2.2
 07-50025-A	L5211-004-10	Securing device for complete opening of copilot door	0.8	1.8
07-50026-B	L5231-001-00	One-hand latching system for clam-shell doors	1.0	2.2
07-50027-B	L5231-002-00	Extended opening fasteners for clam-shell doors	0.3	0.9
 07-50028-A	L5213-001-11	Sliding door fastener, intermediate and max. position, LH	1.0	2.2
 07-50028-A	L5213-001-12	Sliding door fastener, max. position, LH	0.4	0.9
 07-50028-A	L5213-001-21	Sliding door fastener, intermediate and max. position, RH	1.1	2.4
 07-50028-A	L5213-001-22	Sliding door fastener, max. position, RH	0.4	0.9
07-50030-A	L8534-005-10	Abrasion protection at sliding door, LH	0.1	0.2
 07-50030-A	L8534-005-20	Abrasion protection at sliding door, RH	0.1	0.2
07-50034-B	L5212-001-00	Jettisonable cockpit doors	1.2	2.6
07-50039-A	L5211-010-00	Pre catch system for pilots' doors	0.2	0.4
07-50039-A	L5211-011-00	Pre catch system for sliding doors	0.2	0.4
07-83006-A	L2513-004-40	Quick detachable VIP carpet for passenger cabin	3.0	6.6

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## 6.2 Avionics

			<b>Weight</b>	
			<i>(margin ± 3 %)</i>	
08-15028-B	L2319-002-41	Fixed provisions for GSM phone (antenna, 28VDC, interfacing to ICS)	2.3	5.1
08-15507-B	L2315-092-00	IRIDIUM satellite phone AEROPHONE (Aerodata)	4.6	10.1
08-16053-B	L2341-193-01	Audio/Comm. control system (3rd station - PAX) AS 3100-12 (Becker) in cabin ceiling (LH)	2.7	6.0
	08-17032-A	L2331-003-00 Cabin loudspeaker	2.5	5.5
08-18018-B	L2315-001-10	Headset H 10-76 (David Clark), Low Impedance Spiral Wire	0.5	1.1
08-18018-B	L2315-001-14	Headset H10-76 ANR/ENC (David Clark), Low Impedance Spiral Wire	0.9	2.0
08-53004-B	L3424-000-00	AHRS Free Steering Mode	0.4	0.9

### **NVG Equipment**

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Different solutions can be offered on request

Some avionics solutions can be NVG modified  
 NVG compatible cabin and cargo compartment lighting  
 NVG friendly external lighting kit, comprising position and anti-collision lights  
 Landing & search light 400/200 W, NVG compatible

### **Tactical radios**

---

Fixed provisions can be offered on request

### **Broadcast, Thermal Imaging and Video Surveillance Equipment**

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Different FLIR systems and operator consoles on request

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## 6.3 Police

Different equipment can be offered on request:



- SP / DP IFR with FMS / NMS
- SMD68 on copilots' side (6" x 8" display)
- NVG compatible cockpit
- NVG friendly external lighting
- FLIR with Operator Console and Digital Video Downlink
- SX16 with IFCO, Laserpointer and slaving unit
- Loudspeaker System
- Weather radar
- Tactical radios
- Spoiler position for cockpit doors
- Rappelling devices for 2+2 persons
- IRIDIUM satellite phone
- Tactical direction finder, etc.



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## 6.4 Offshore

Different equipment can be offered on request:



- Automatic Deployable ELT
- Emergency floats
- Radar altimeter with voice warning
- Cockpit door jettison
- Emergency EXIT lighting
- AHRS Free Steering Mode
- HEELS (Helicopter Emergency Egress Lighting Syst.)
- Underwater Locator Beacon
- Search and weather radar
- Traffic Advisory System TAS 9900BX
- Cabin loudspeaker / Passenger address system
- Light twin HUMS
- Dynamic Monitoring System (DMS)
- Corrosion prevention treatment for offshore operation
- Rear window with push-out (escape window)
- Life rafts



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## 7 Table of constraints

Each item or list of items shown beside the symbol  are concerned by this chapter, please read it exactly in order to find all constraints.

### 7.1 General Checklist for Incompatibilities

- Detachable parts require the related fixed provisions.’
- All recommended configurations in Chapter 5 exclude each other. Mixed Configurations are possible but have to be individually checked.
- Quick detachable VIP carpet for passenger cabin can only be combined with 5 Passenger Transport layout and washable floor covering.
- Only one option (out of several possibilities listed in chapter 7) can be selected for each following specific category
  - external painting
  - first aid kit
  - air conditioning system
  - battery
  - external hoist
  - cargo hook system
  - sliding door fastener (for each side of the helicopter)
  - separation between cabin and cargo compartment
  - floor covering
  - weather radar
  - moving map
- External Hoist has priority over (NSU – respective systems will be deactivated):
  - air conditioning systems
  - sandfilter

Commercial reference	Title	MSG	Commercial reference	Title
L8541-001-20	Wire Strike Protection System, (WSPS) detachable parts	The protective capability is significantly degraded in combination with	L8511-002-20	Cargo hook mirrors, detachable parts
			L2571-001-00	Radar radome
			L3216-001-10	High landing gear
				FLIR / SX16 installation

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## 7.2 Legend and constraints chart

- XCL** Impossibility of simultaneous fitment of the fixed parts of 2 items of equipment
- NSF** Total or partial incompatibility of simultaneous fitment of the removable parts of two items of equipment
- REQ** Requires the fitting of

Commercial Reference	Installation	Nature of the Constraint	Commercial Reference	Installation
-	Recommended EMS configurations	NSF	L2818-100-20	Internal long range fuel tank system, detachable parts
---	Recommended EMS configurations	NSF	L2105-001-10	Air conditioning system for tropical environment
---	Recommended EMS configurations	XCL	L2331-003-00	Cabin loudspeaker
---	Pure single pilot cockpits (w/o copilot extension)	XCL	L3113-004-20	Illuminated chart holder for copilot side
L2105-001-10	Air conditioning system for tropical environment	NSF	---	Recommended EMS configurations
L2212-001-00	DAFCS	REQ	L3441-090-04	Radar altimeter KRA 405B
L2327-001-01	Traffic Advisory Sys. TAS 9900BX	XCL	L7161-001-10	Sand filter system, fixed provisions
L2513-310-00	Carpet for cockpit, cabin and cargo compartment floor	XCL	L2818-100-20	Internal long range fuel tank system, detachable parts
L2514-011-00	Retractable coat hooks	REQ	L2576-001-00	Avionics compartment
L2522-0??-?0	Utility seats for 3 rear passengers,	XCL	L2524-0??-00	Separation item for cabin / cargo compartment
L2524-001-00	Pax / cargo separation wall	REQ	L2576-001-00	Avionics compartment
L2524-002-00	Separation curtain for cockpit / cabin	REQ	L2625-003-00	2nd portable fire extinguisher
L2524-002-00	Separation curtain for cockpit / cabin	REQ	L3353-006-20	Illuminated signs
L2524-0??-00	Separation item for cabin / cargo compartment	REQ	L2576-001-00	Avionics compartment
L2525-101-65	Control covers painted	REQ	L6701-001-00	Copilot flight controls
L2525-104-00	VIP carpet for cockpit, cabin & cargo	XCL	L2818-100-00	Internal long range fuel tank system
L2526-112-63	Front cabinet, middle	REQ	L2625-003-00	2nd portable fire extinguisher
L2563-801-06	ELT C406-N HM (Artex) w. NAV opt	REQ		A GPS receiver
L2576-002-00	Dampers for avionics compartment	REQ	L2576-001-00	Avionics compartment
L2818-100-20	Internal long range fuel tank system, detachable parts	NSF	-	Recommended EMS configurations
L3168-092-04	Moving map EURONAV IV	REQ		A GPS receiver
L3168-092-04	Moving map EURONAV IV	REQ	L3443-010-00	VRU
L3215-001-11	Emergency floats, fixed provisions	XCL	L3216-001-10	High landing gear
L3215-001-21	Emergency floats, detachable parts	XCL	L3273-001-00	Lengthened skids
L3215-001-21	Emergency floats, detachable parts	NSF	L8511-005-20	Double cargo hook system, det. parts
L3216-001-10	High landing gear	XCL	L3217-001-00	Reinforced. rear landing gear cross tube
L3272-001-20	Snow skids, detachable parts	NSF	L3274-001-20	Settling protectors, detachable parts

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Commercial Reference	Installation	Nature of the Constraint	Commercial Reference	Installation
L3274-001-20	Settling protectors, detachable parts	NSF	L3272-001-20	Snow skids, detachable parts
L3353-006-20	Illuminated signs	XCL	---	Recommended EMS configurations
L3353-010-00	HEEL System	REQ	L3353-005-00	Emergency lights
L3353-010-00	HEEL System	XCL	L2514-013-00	Map case in sliding doors
L3443-004-00	Weather radar RDR 1600	REQ	L3443-010-00	VRU
L3443-090-02	Weather radar RDR 2000	REQ	L3443-010-00	VRU
L5211-002-00	Sliding window in sliding doors	XCL	L5632-001-00	Tinted windows for passenger cabin
L5211-004-10	Securing device for complete opening of copilot door	REQ	L3411-001-00	Copilot pitot static system
L5213-001-12	Sliding door fastener, max. pos. LH	XCL	L8512-001-1?	External hoist, fixed provisions
L5633-001-20	Window in clam-shell door, RH	XCL	---	Recommended EMS configurations
L6611-001-20	Main rotor blade folding: fixed provisions for ground handling kit	REQ	L6611-001-10	Main rotor blade folding: basic kit
L8503-001-10	Fire extinguish. bucket attachment	REQ	L8511-00?- ??	A single or double cargo hook system
L8511-005-20	Double cargo hook system, det. parts	NSF	L3215-001-21	Emergency floats, detachable parts
L8511-006-10	Cargo hook mirrors RH & LH, fixed provisions	XCL	L8511-002-10	Cargo hook mirrors RH, fixed provisions
L8511-00x-10	Cargo hook mirrors, fixed provisions	XCL	L3443-004-00	Weather radar RDR 1600
L8511-006-20	Cargo hook mirrors RH & LH, detachable parts	XCL	L8511-002-20	Cargo hook mirrors RH, detachable parts
L8534-005-20	Abrasion protection at sliding door, RH	XCL	ARA-EC135-AC61-B	EMS basic kit, side and rear loading – Bucher Leichtbau (STC)
L8534-005-20	Abrasion protection at sliding door, RH	XCL	ARA-EC135-AC61-HS	EMS high sophisticated kit, side and rear loading – Bucher Leichtbau (STC)

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## 8 Main performance

The following performance values and figures refer to an EC135, equipped with average production engines.

Unless otherwise specified, the values and figures refer to a clean helicopter at Sea Level (SL), in International Standard Atmosphere (ISA) and zero wind condition.

### Performance on 2 engines (AEO) Pratt & Whitney PW206B2

<b>Gross Weight</b>	<b>kg</b>	<b>2,400</b>	<b>2,630</b>	<b>2,720</b>	<b>2,835</b>	<b>2,910</b>	
	<b>lb</b>	<b>5,290</b>	<b>5,800</b>	<b>6,000</b>	<b>6,250</b>	<b>6,415</b>	
■ Maximum speed ( $V_{NE}$ )	<b>km/h</b>	278	278	278	259	259	
	<b>kts</b>	150	150	150	140	140	
■ Maximum cruising speed ( $V_H$ )	<b>km/h</b>	261	260	257	256	254	
	<b>kts</b>	141	140	139	138	137	
■ Fuel consumption at fast cruise speed	<b>kg/h</b>	234.5	234.5	234.5	234.5	234.5	
	<b>lb/h</b>	517	517	517	517	517	
■ Economical cruising speed	<b>km/h</b>	224	224	226	228	230	
	<b>kts</b>	121	121	122	123	124	
■ Fuel consumption at economical cruising speed	<b>kg/h</b>	193.5	198	200.5	204.5	208.5	
	<b>lb/h</b>	427	436.5	442	451	460	
■ Fuel consumption at 65 KIAS	<b>kg/h</b>	149.5	156	158.5	162	164.5	
	<b>lb/h</b>	330	344	349.5	357	363	
■ Rate of climb, TOP, SL, ISA	<b>m/s</b>	10.9	9.4	8.9	8.1	7.6	
	<b>ft/min</b>	2,150	1,850	1,750	1,600	1,500	
■ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA	<b>m</b>	4,570 <sup>1)</sup>	4,450	4,140	3,655 <sup>2)</sup>	3,045 <sup>3)</sup>	
	<b>ft</b>	15,000 <sup>1)</sup>	14,600	13,600	12,000 <sup>2)</sup>	10,000 <sup>3)</sup>	
■ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA + 20°C	<b>m</b>	3,880	3,415	3,095	2,695	2,435	
	<b>ft</b>	12,750	11,200	10,150	8,850	8,000	
■ Hover ceiling OGE, TOP, ISA	<b>m</b>	4,500	3,670	3,430	2,685	2,010	
	<b>ft</b>	14,750	12,050	11,050	8,800	6,600	
■ Hover ceiling OGE, TOP, ISA + 20°C	<b>m</b>	3,460	2,595	2,210	1,785	1,480	
	<b>ft</b>	11,350	8,500	7,250	5,850	4,850	
■ Service ceiling, MCP, (climb reserve 200 ft/min), ISA	<b>m</b>	6,095	5,410	5,155	3,655 <sup>2)</sup>	3,045 <sup>3)</sup>	
	<b>ft</b>	20,000	17,750	16,900	12,000 <sup>2)</sup>	10,000 <sup>3)</sup>	
■ Maximum range (without fuel reserve at economical cruise speed)							
	■ standard fuel tank configuration (560 kg)	<b>km</b>	665	650	645	640	635
		<b>nm</b>	358	351	348	345	342
■ long range fuel tank configuration (730 kg)	<b>km</b>	875	860	850	840	835	
	<b>nm</b>	472	464	459	454	451	
■ Maximum endurance (without fuel reserve at 65 KIAS)							
	■ standard fuel tank configuration (560 kg)	<b>h:min</b>	3:55	3:46	3:43	3:38	3:35
■ long range fuel tank configuration (730 kg)	<b>h:min</b>	5:10	4:59	4:55	4:49	4:45	

1) 15,000 ft density altitude certification limit

2) 12,000 ft pressure altitude certification limit

3) 10,000 ft pressure altitude certification limit

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Performance on 1 engine (OEI) Pratt & Whitney PW206B2

<b>Gross Weight</b>		<b>kg</b>	<b>2,400</b>	<b>2,630</b>	<b>2,720</b>	<b>2,835</b>	<b>2,910</b>
		<b>lb</b>	<b>5,290</b>	<b>5,800</b>	<b>6,000</b>	<b>6,250</b>	<b>6,415</b>
■ Service ceiling with 100 ft/min climb reserve, MCP OEI-power, ISA	<b>m</b>		4,265	3,550	3,275	2,925	2,715
	<b>ft</b>		14,000	11,650	10,750	9,600	8,900
■ Service ceiling with 100 ft/min climb reserve, MCP OEI-power, ISA + 20°C	<b>m</b>		3,505	2,695	2,375	1,965	1,710
	<b>ft</b>		11,500	8,850	7,800	6,450	5,600
■ Rate of climb, MCP OEI-power, SL	<b>m/s</b>		3.4	2.3	1.9	1.4	1.1
	<b>ft/min</b>		665	450	375	275	215
■ Max. temperature for CAT A, take-off from clear heliport at SL	<b>°C</b>		+ 50	+ 50	+ 50	+ 46	+ 43
■ Max. gross weight hover IGE (4ft AGL), SL, ISA, no wind, 2 min OEI power	<b>kg</b>				2,870		
	<b>lb</b>				6,325		
■ Max. gross weight hover IGE (4ft AGL), SL, ISA + 20°C, no wind, 2 min OEI power	<b>kg</b>				2,675		
	<b>lb</b>				5,885		
■ Max. gross weight hover OGE, SL, ISA, no wind, 30 sec OEI power	<b>kg</b>				2,665		
	<b>lb</b>				5,875		
■ Max. gross weight hover OGE, SL, ISA + 20°C, no wind, 30 sec OEI power	<b>kg</b>				2,585		
	<b>lb</b>				5,687		
■ Max. gross weight CAT A, VTOL, SL, ISA	<b>kg</b>				2,910		
	<b>lb</b>				6,415		
■ Max. gross weight CAT A, VTOL, SL, ISA + 20°C	<b>kg</b>				2,845		
	<b>lb</b>				6,270		

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## Performance on 2 engines (AEO) Turbomeca Arrius 2B2

<b>Gross Weight</b>		<b>kg</b>	<b>2,400</b>	<b>2,630</b>	<b>2,720</b>	<b>2,835</b>	<b>2,910</b>
		<b>lb</b>	<b>5,290</b>	<b>5,800</b>	<b>6,000</b>	<b>6,250</b>	<b>6,415</b>
■ Maximum speed ( $V_{NE}$ )	<b>km/h</b>		278	278	278	259	259
	<b>kts</b>		150	150	150	140	140
■ Maximum cruising speed ( $V_H$ )	<b>km/h</b>		261	260	257	256	254
	<b>kts</b>		141	140	139	138	137
■ Fuel consumption at fast cruise speed	<b>kg/h</b>		234.5	234.5	234.5	234.5	234.5
	<b>lb/h</b>		517	517	517	517	517
■ Economical cruising speed	<b>km/h</b>		237	237	237	239	240
	<b>kts</b>		128	128	128	129	130
■ Fuel consumption at economical cruising speed	<b>kg/h</b>		209	213	215	219	221
	<b>lb/h</b>		461	470	474	483	487
■ Fuel consumption at 65 KIAS	<b>kg/h</b>		159.0	165	167.5	170.5	173
	<b>lb/h</b>		350.5	364	369	376	381
■ Rate of climb, TOP, SL, ISA	<b>m/s</b>		10.9	9.4	8.9	8.1	7.6
	<b>ft/min</b>		2,150	1,850	1,750	1,600	1,500
■ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA	<b>m</b>		4,570 <sup>1)</sup>	4,570 <sup>1)</sup>	4,325	3,655 <sup>2)</sup>	3,045 <sup>3)</sup>
	<b>ft</b>		15,000 <sup>1)</sup>	15,000 <sup>1)</sup>	14,200	12,000 <sup>2)</sup>	10,000 <sup>3)</sup>
■ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA + 20°C	<b>m</b>		3,880	3,430	3,080	2,670	2,395
	<b>ft</b>		12,750	11,250	10,100	8,750	7,850
■ Hover ceiling OGE, TOP, ISA	<b>m</b>		4,570 <sup>1)</sup>	3,690	3,430	2,685	2,010
	<b>ft</b>		15,000 <sup>1)</sup>	12,100	11,050	8,800	6,600
■ Hover ceiling OGE, TOP, ISA + 20°C	<b>m</b>		3,470	2,545	2,175	1,740	1,450
	<b>ft</b>		11,400	8,350	7,150	5,700	4,750
■ Service ceiling, MCP, (climb reserve 200 ft/min), ISA	<b>m</b>		6,095	5,410	5,155	3,655 <sup>2)</sup>	3,045 <sup>3)</sup>
	<b>ft</b>		20,000	17,750	16,900	12,000 <sup>2)</sup>	10,000 <sup>3)</sup>
■ Maximum range (without fuel reserve at economical cruise speed)							
■ standard fuel tank configuration (560 kg)	<b>km</b>		645	635	630	625	620
	<b>nm</b>		348	343	340	337	334
■ long range fuel tank configuration (730 kg)	<b>km</b>		845	835	825	820	815
	<b>nm</b>		456	451	446	443	440
■ Maximum endurance (without fuel reserve at 65 KIAS)							
■ standard fuel tank configuration (560 kg)	<b>h:min</b>		3:39	3:32	3:29	3:26	3:23
	<b>h:min</b>		4:49	4:40	4:36	4:32	4:28

1) 15,000 ft density altitude certification limit

2) 12,000 ft pressure altitude certification limit

3) 10,000 ft pressure altitude certification limit

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For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Performance on 1 engine (OEI) Turbomeca Arrius 2B2

<b>Gross Weight</b>		<b>kg</b>	<b>2,400</b>	<b>2,630</b>	<b>2,720</b>	<b>2,835</b>	<b>2,910</b>
		<b>lb</b>	<b>5,290</b>	<b>5,800</b>	<b>6,000</b>	<b>6,250</b>	<b>6,415</b>
■ Service ceiling with 100 ft/min climb reserve, MCP OEI-power, ISA	<b>m</b>		4,510	3,790	3,520	3,185	2,955
	<b>ft</b>		14,800	12,450	11,550	10,450	9,700
■ Service ceiling with 100 ft/min climb reserve, MCP OEI-power, ISA + 20°C	<b>m</b>		3,730	2,830	2,500	2,070	1,795
	<b>ft</b>		12,250	9,300	8,200	6,800	5,900
■ Rate of climb, MCP OEI-power, SL	<b>m/s</b>		3.4	2.3	1.9	1.4	1.1
	<b>ft/min</b>		665	450	375	275	215
■ Max. temperature for CAT A, take-off from clear heliport at SL	<b>°C</b>		+ 50	+ 50	+ 50	+ 47	+ 43.5
■ Max. gross weight hover IGE (4ft AGL), SL, ISA, no wind, 2 min OEI power	<b>kg</b>				2,870		
	<b>lb</b>				6,325		
■ Max. gross weight hover IGE (4ft AGL), SL, ISA + 20°C, no wind, 2 min OEI power	<b>kg</b>				2,690		
	<b>lb</b>				5,930		
■ Max. gross weight hover OGE, SL, ISA, no wind, 30 sec OEI power	<b>kg</b>				2,665		
	<b>lb</b>				5,875		
■ Max. gross weight hover OGE, SL, ISA + 20°C, no wind, 30 sec OEI power	<b>kg</b>				2,615		
	<b>lb</b>				5,765		
■ Max. gross weight CAT A, VTOL, SL, ISA	<b>kg</b>				2,910		
	<b>lb</b>				6,415		
■ Max. gross weight CAT A, VTOL, SL, ISA + 20°C	<b>kg</b>				2,860		
	<b>lb</b>				6,305		

## OPERATING LIMITATIONS (valid for both versions, EC135 P2i and EC135 T2i)

The helicopter can be operated within the following altitude and temperature limitations (according to the Flight Manual):

<b>Gross Weight</b>		<b>2,720 kg</b>	<b>2,835 kg</b>	<b>2,910 kg</b>
		<b>6,000 lb.</b>	<b>6,250 lb.</b>	<b>6,415 lb.</b>
■ Maximum operating altitude		6,095 m PA 20,000 ft PA	3,655 m PA 12,000 ft PA	3,045 m PA 10,000 ft PA
■ Maximum operating altitude for hover in ground effect, takeoff and landing		4,570 m DA 15,000 ft DA	3,655 m PA 12,000 ft PA	3,045 m PA 10,000 ft PA
■ Minimum temperature		-35°C (-31°F)		
■ Maximum temperature		ISA + 39°C (max. + 50°C / + 122°F)		

### Abbreviations

AGL	Above Ground Level	OGE	Out Of Ground Effect
DA	Density Altitude	PA	Pressure Altitude
IGE	In Ground Effect	SL	Sea Level
ISA	International Standard Atmosphere	TOP	Take-Off Power
MCP	Maximum Continuous Power	VNE	Never-Exceed Speed
OEI	One Engine Inoperative	VTOL	Vertical Take-Off and Landing

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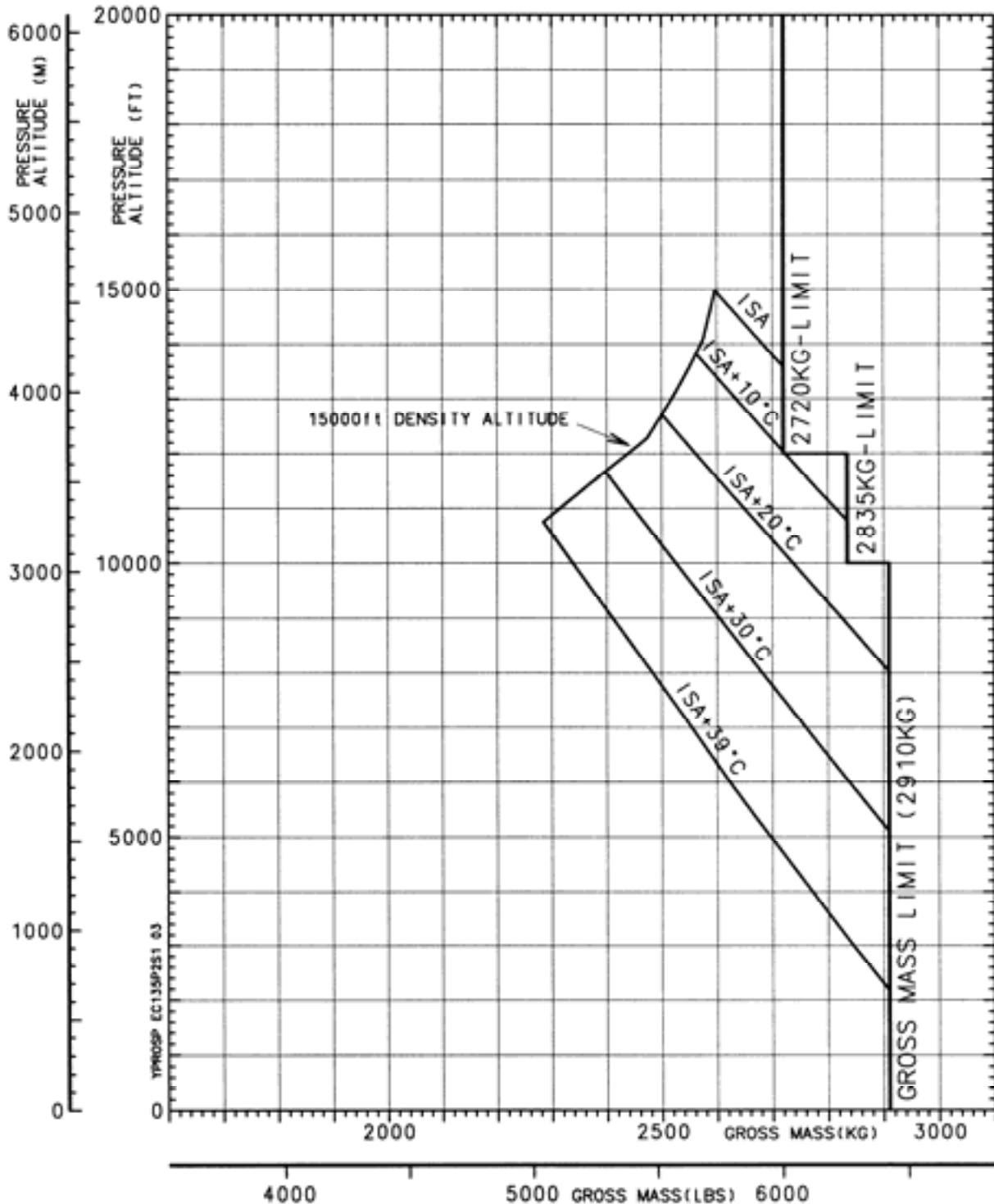
*For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.*

## Hover In Ground Effect (HIGE, TOP, no wind)

with two PW206B2 engines

ISA
ISA+10/20/30°C
ISA+39°C

TAKEOFF-POWER
MGT=869°C IQ=78%
BLEED AIR OFF
SKID HEIGHT 4 FT



The data set forth in this document are general in nature and for information purposes only.

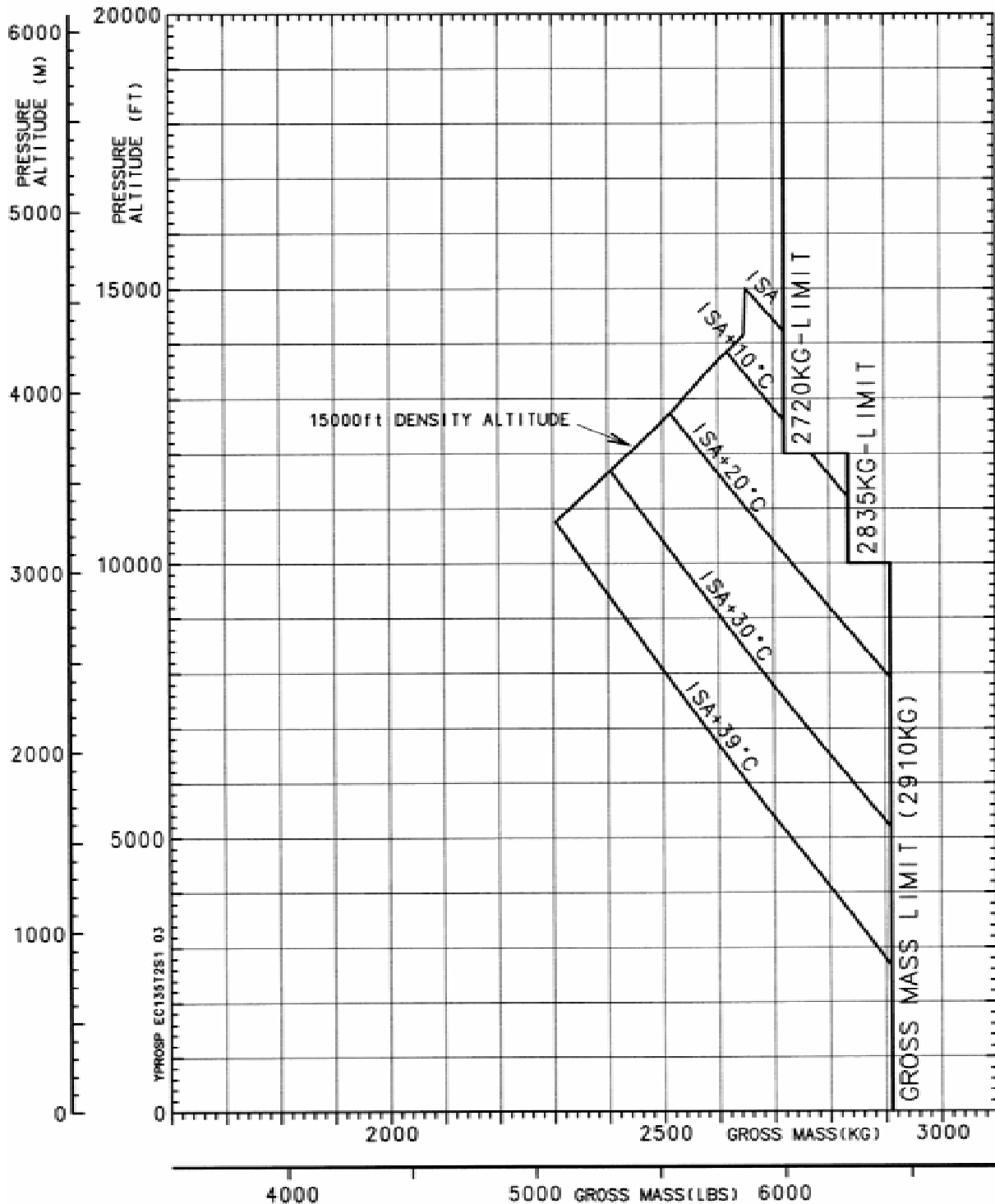
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Hover In Ground Effect (HIGE, TOP, no wind)

with two ARRIUS 2B2 engines

ISA
ISA+10/20/30°C
ISA+39°C

TAKEOFF-POWER
$\Delta N1 = 0.0\%$ IQ=78%
BLEED AIR OFF
SKID HEIGHT 4 FT



The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

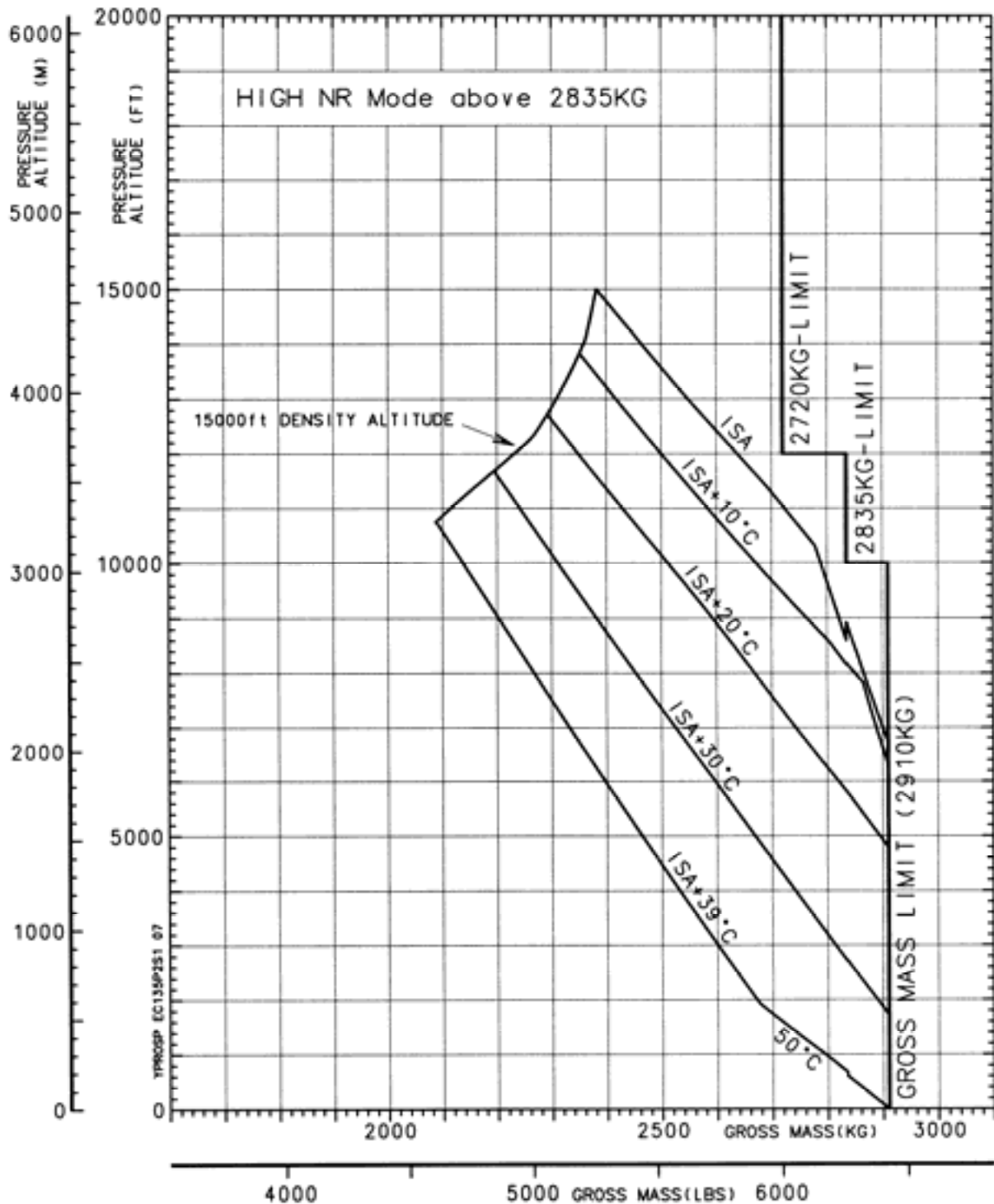


## Hover Out Of Ground Effect (HOGE, TOP)

with two PW206B2 engines

ISA
ISA+10/20/30°C
ISA+39°C

TAKEOFF - POWER
MGT=869°C IQ=78%
BLEED AIR OFF



The data set forth in this document are general in nature and for information purposes only.

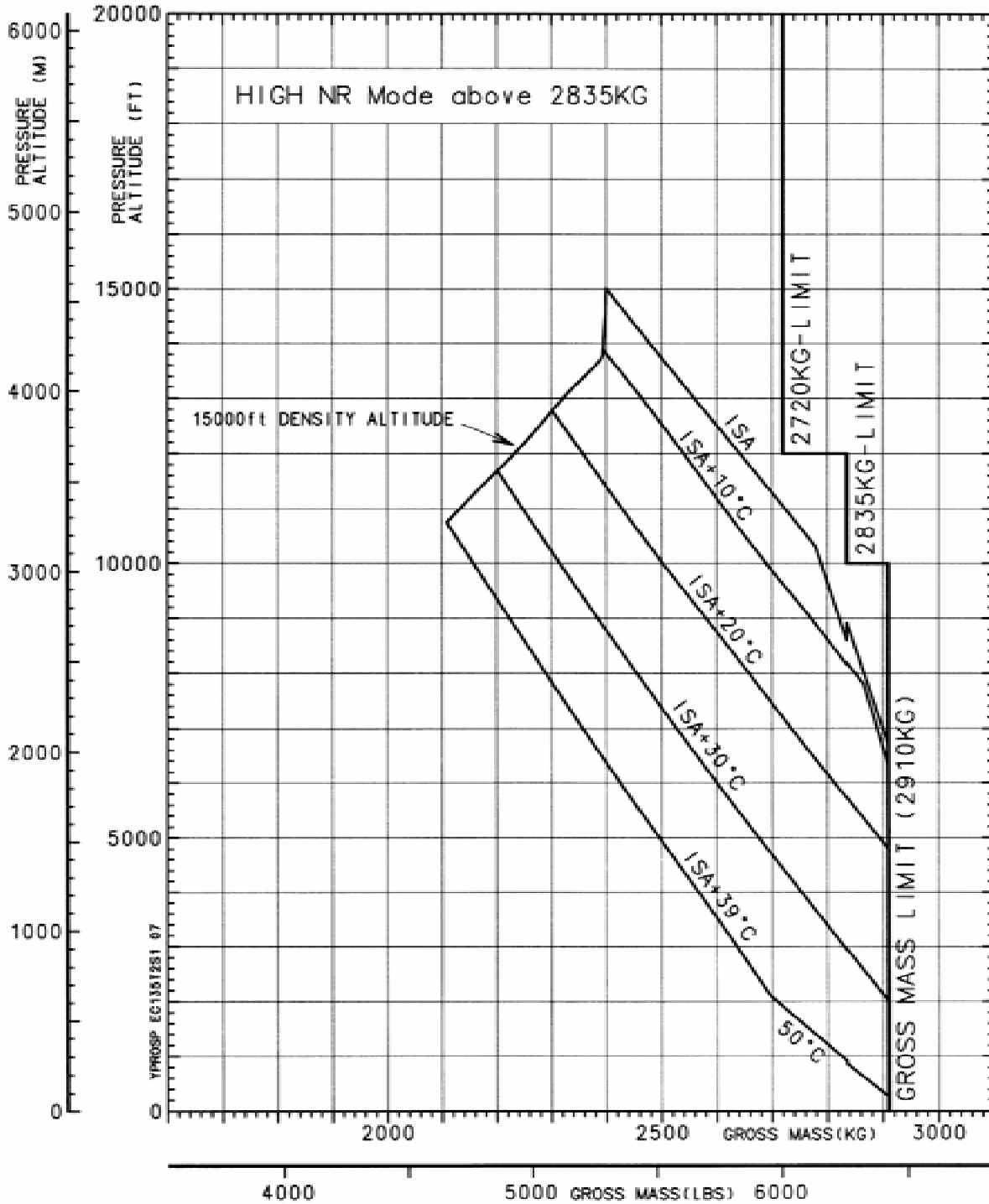
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Hover Out Of Ground Effect (HOGE, TOP)

with two ARRIUS 2B2 engines

ISA
ISA+10/20/30°C
ISA+39°C

TAKEOFF-POWER
ΔN1= 0.0% TQ=78%
BLEED AIR OFF



The data set forth in this document are general in nature and for information purposes only.

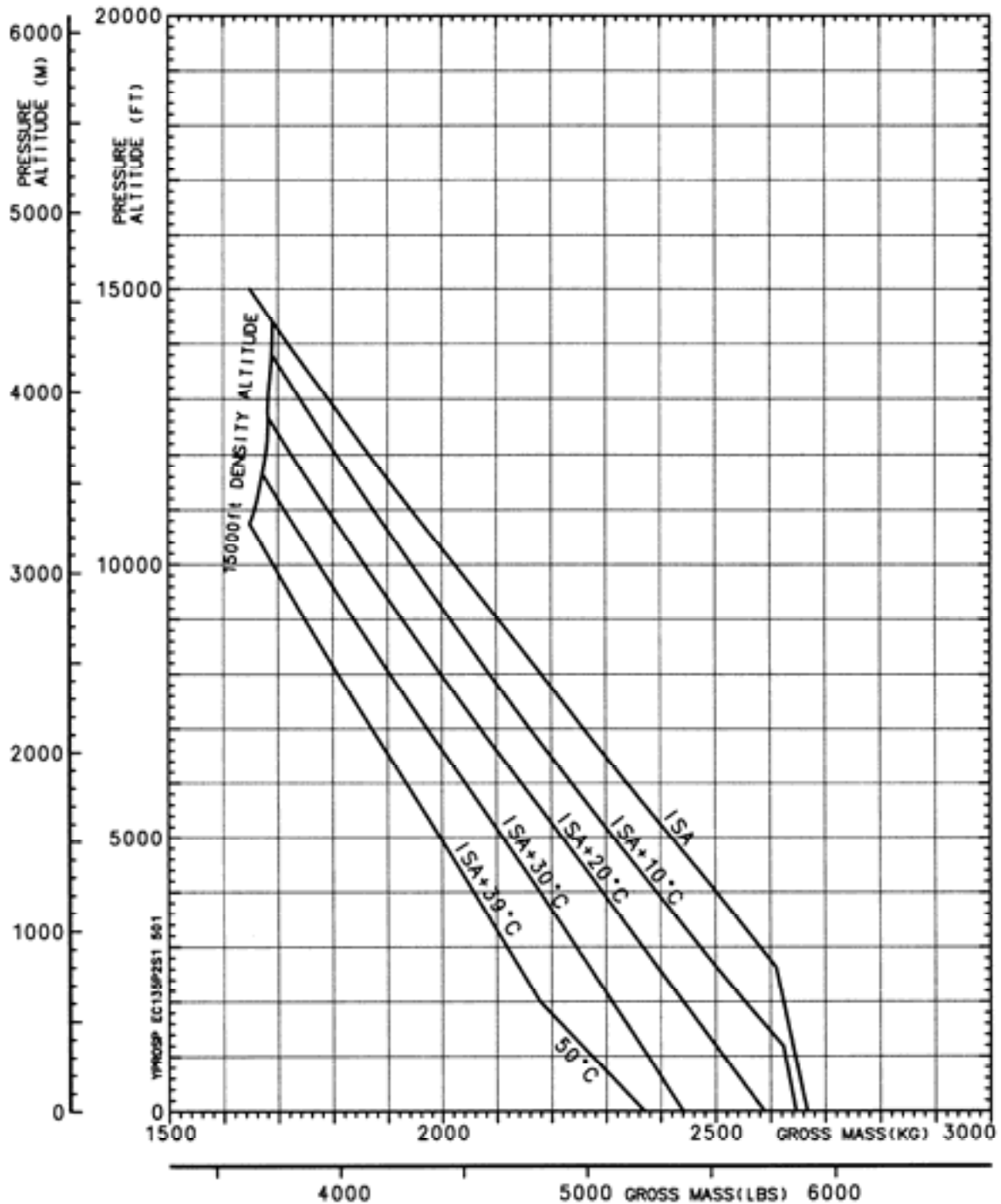
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Hover Out Of Ground Effect (HOGE, 30 sec OEI-power)

with one PW206B2 engine

ISA
ISA+10/20/30°C
ISA+39°C

OEI 30 SEC-POWER
MGT=990°C IQ=128%
BLEED AIR OFF



The data set forth in this document are general in nature and for information purposes only.

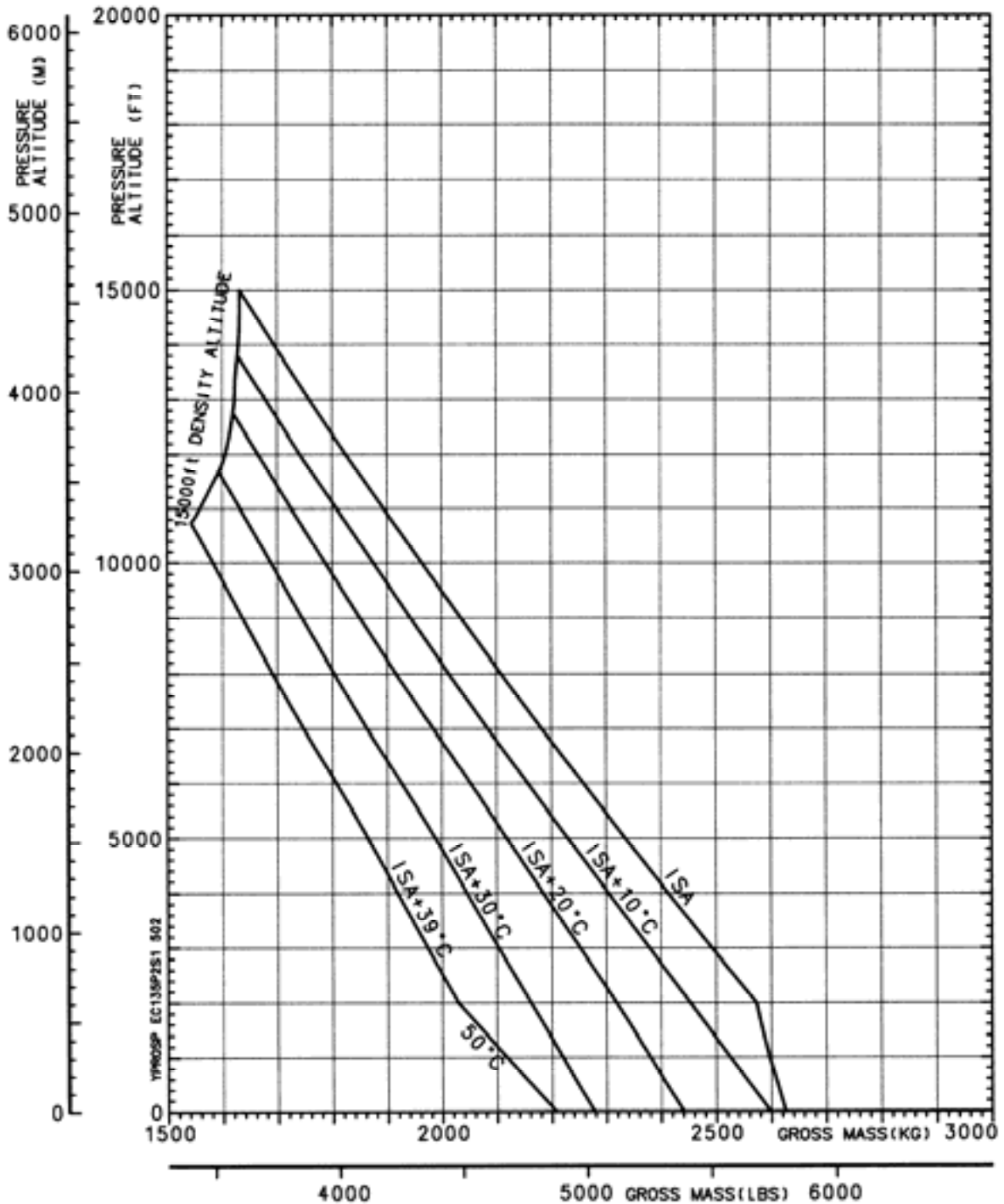
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Hover Out Of Ground Effect (HOGE, 2.0 min OEI-power)

with one PW206B2 engine

ISA
ISA+10/20/30°C
ISA+39°C

OEI 2.0 MIN-POWER
MGT=950°C IQ=125%
BLEED AIR OFF



The data set forth in this document are general in nature and for information purposes only.

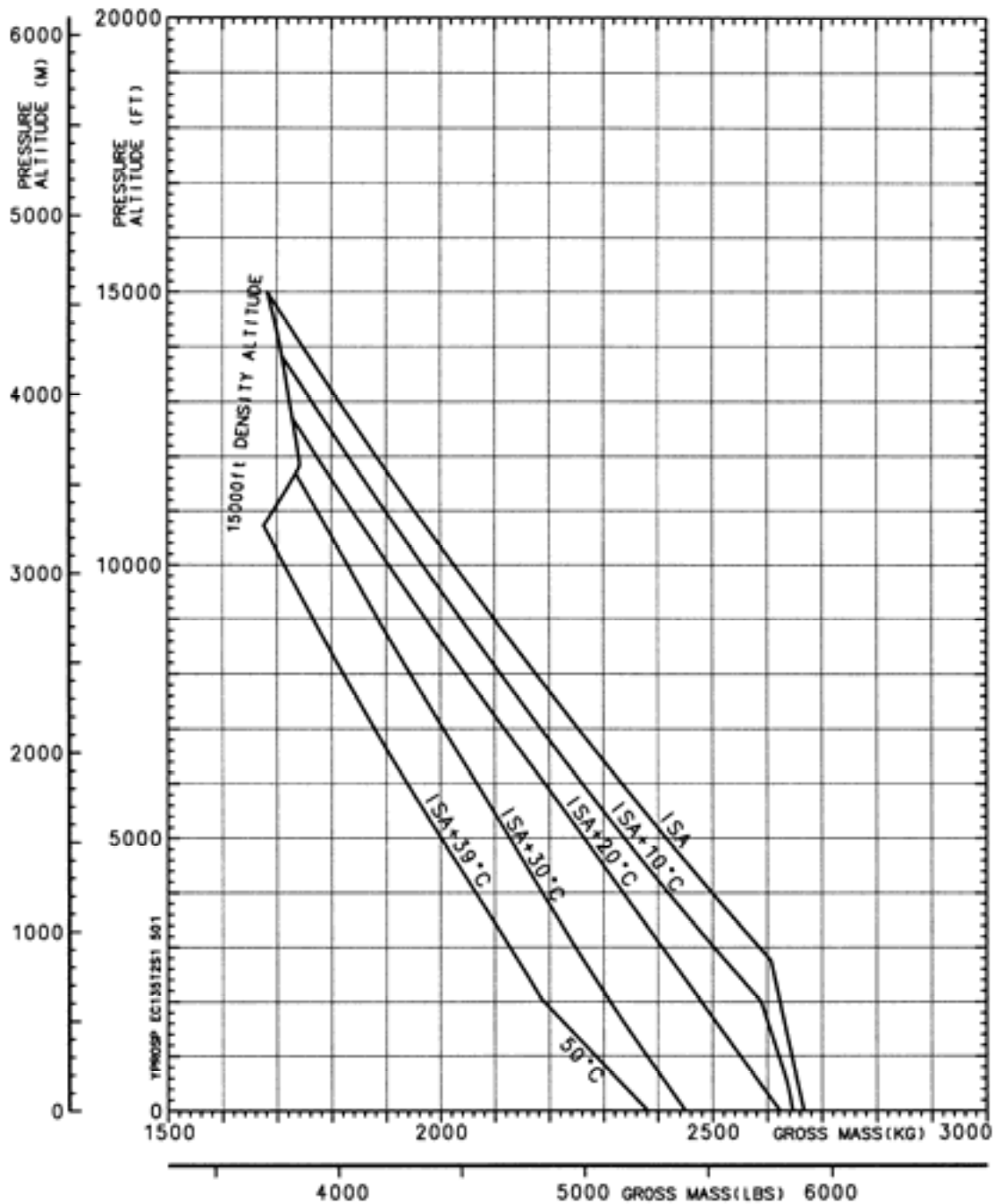
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Hover Out Of Ground Effect (HOGE, 30 sec OEI-power)

with one ARRIUS 2B2 engine

ISA
ISA+10/20/30°C
ISA+39°C

OEI 30 SEC-POWER
$\Delta N1 = +4.8\%$ $TQ = 128\%$
BLEED AIR OFF



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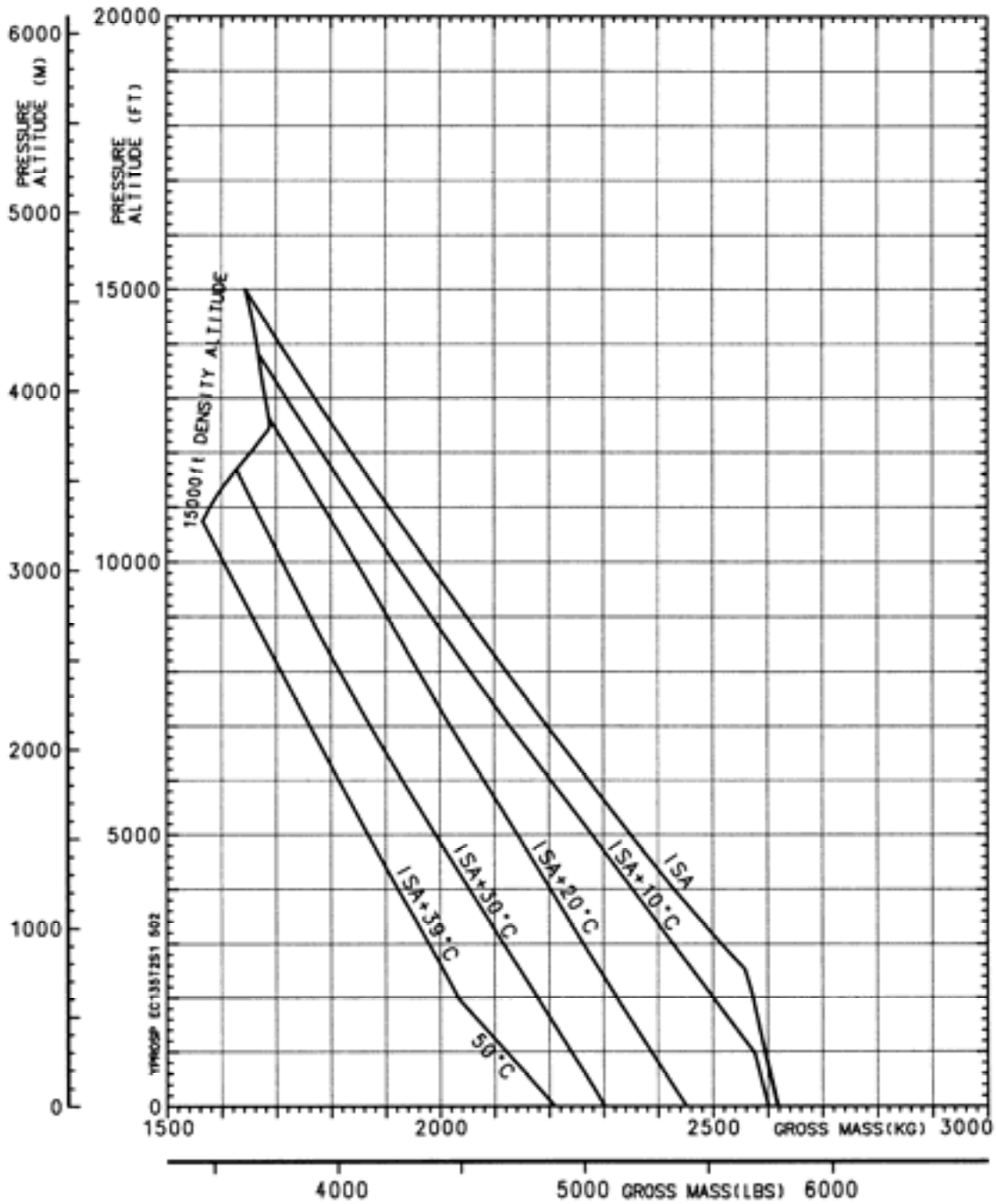
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Hover Out Of Ground Effect (HOGE, 2.0 min OEI-power)

with one ARRIUS 2B2 engine

ISA
ISA+10/20/30°C
ISA+39°C

OEI 2.0 MIN-POWER
ΔN1=+3.5% TQ=125%
BLEED AIR OFF



The data set forth in this document are general in nature and for information purposes only.

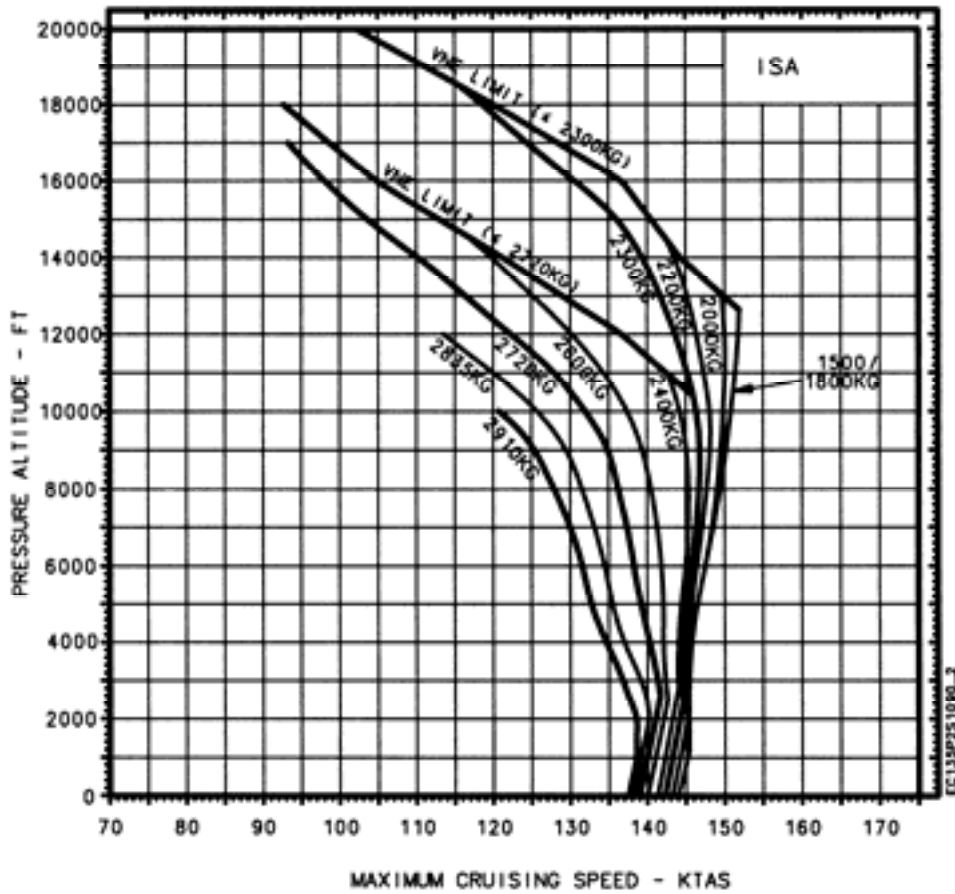
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.



## Maximum Cruising Speed

with two PW206B2 engines

EC135 P2+  
MAX. CRUISING SPEED  
2 X PRATT & WHITNEY PW206B2  
MCP POWER MGT = 835 °C  
TRANSMISSION LIMIT 69 % TORQUE  
BLEED AIR OFF



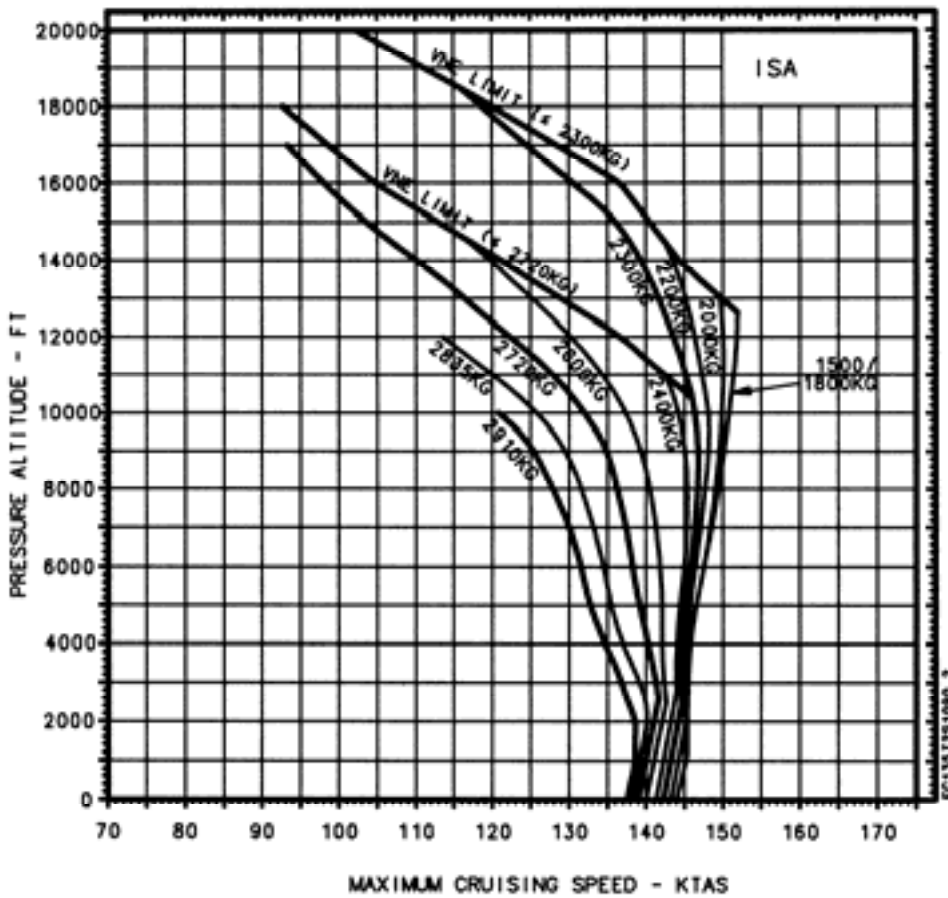
The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Maximum Cruising Speed

with two ARRIUS 2B2 engines

EC135 T2+  
MAX. CRUISING SPEED  
2 X TURBOMECA ARRIUS 2B2  
MCP POWER  $\Delta N1 = -1.0\%$   
TRANSMISSION LIMIT 69 % TORQUE  
BLEED AIR OFF



The data set forth in this document are general in nature and for information purposes only.

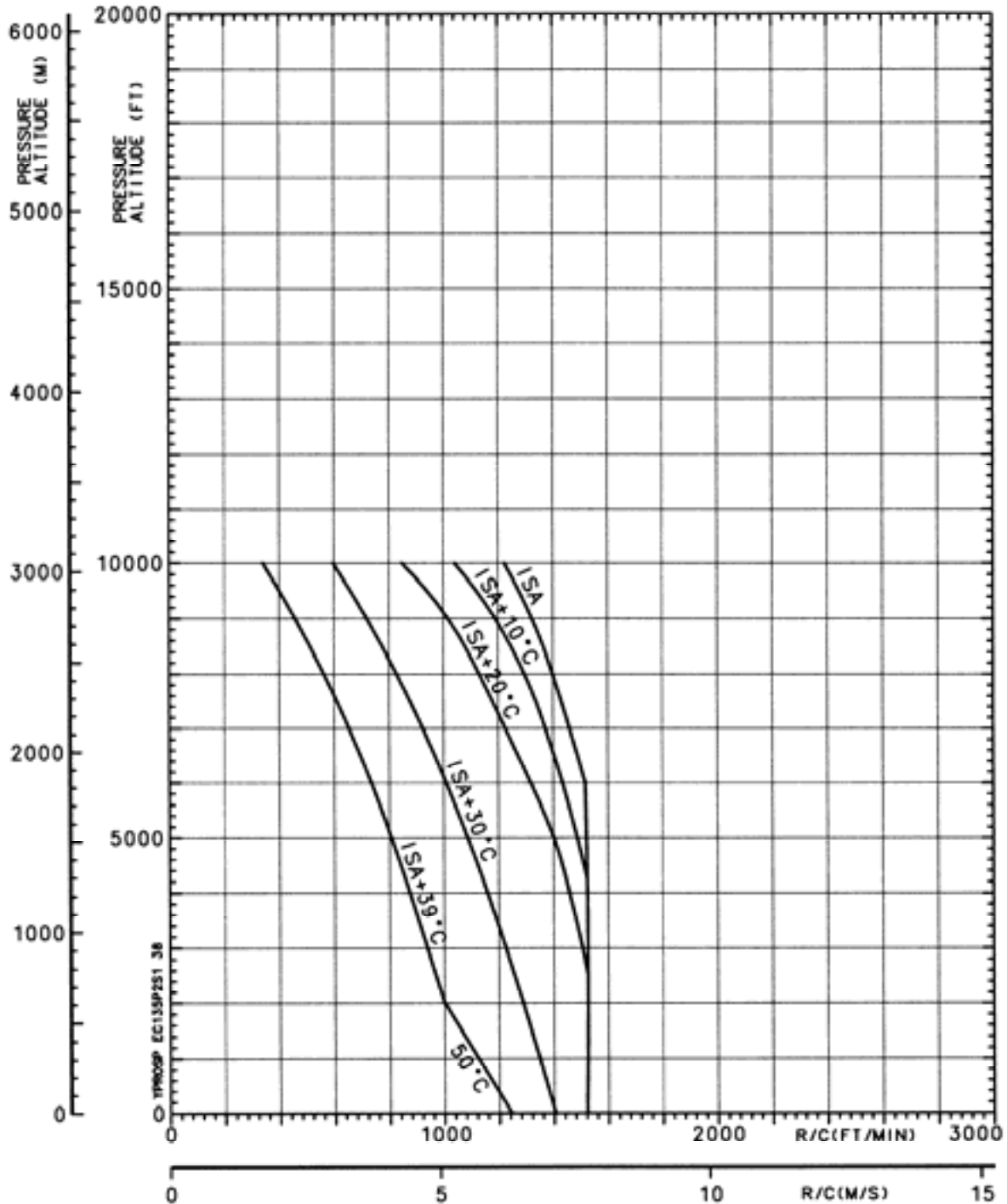
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Maximum Rate Of Climb, TOP

with two PW206B2 engines,

ISA
ISA+10/20/30°C
ISA+39°C

AEO TOP-POWER VY=65KT
MGT=869°C IQ=78%
BLEED AIR OFF
GROSS MASS 2910KG



The data set forth in this document are general in nature and for information purposes only.

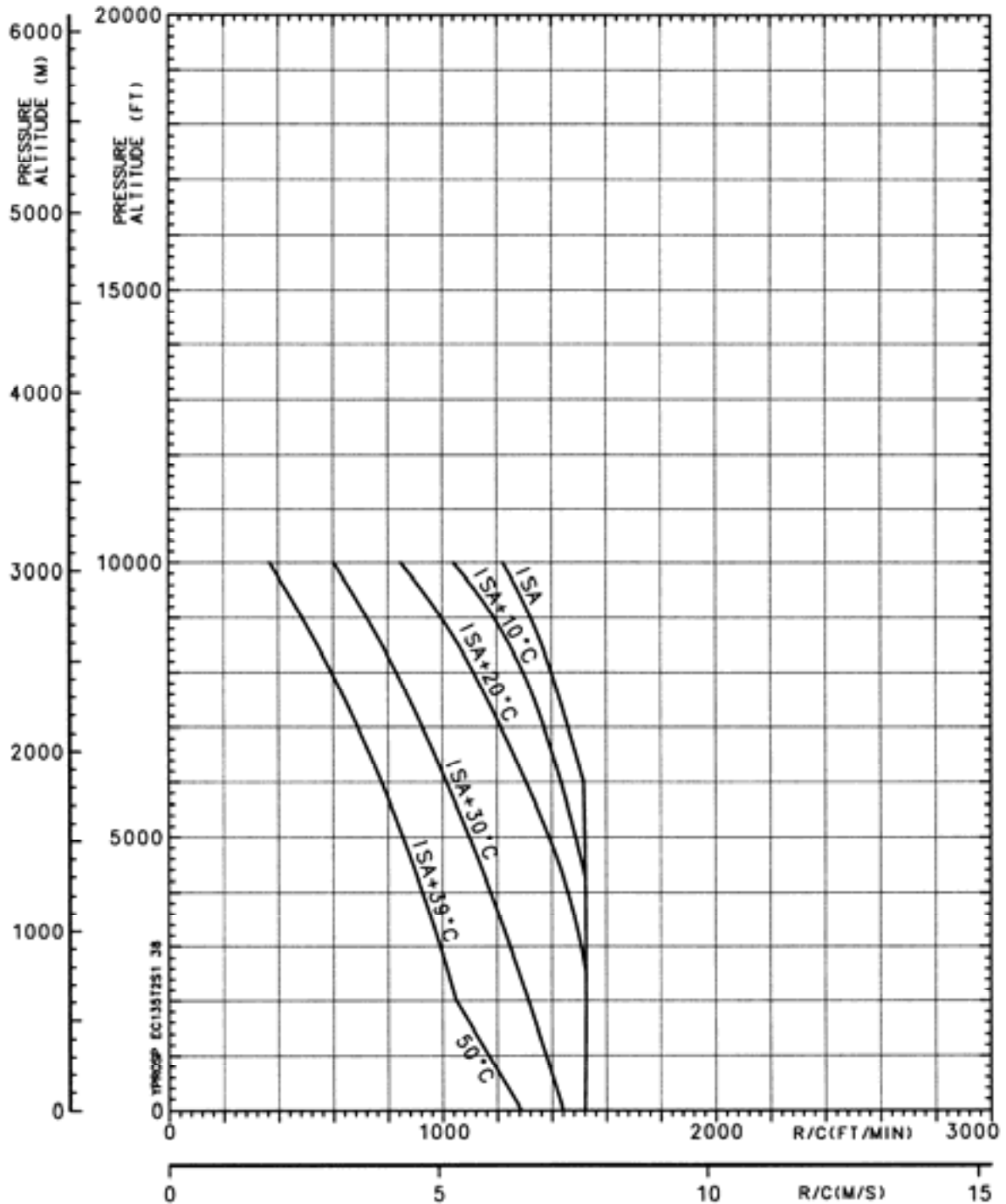
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Maximum Rate Of Climb, TOP

with two ARRIUS 2B2 engines,

ISA
ISA+10/20/30°C
ISA+39°C

AEO TOP-POWER VY=65KT
$\Delta N1 = 0.0\%$ $IQ=78\%$
BLEED AIR OFF
GROSS MASS 2910KG



The data set forth in this document are general in nature and for information purposes only.

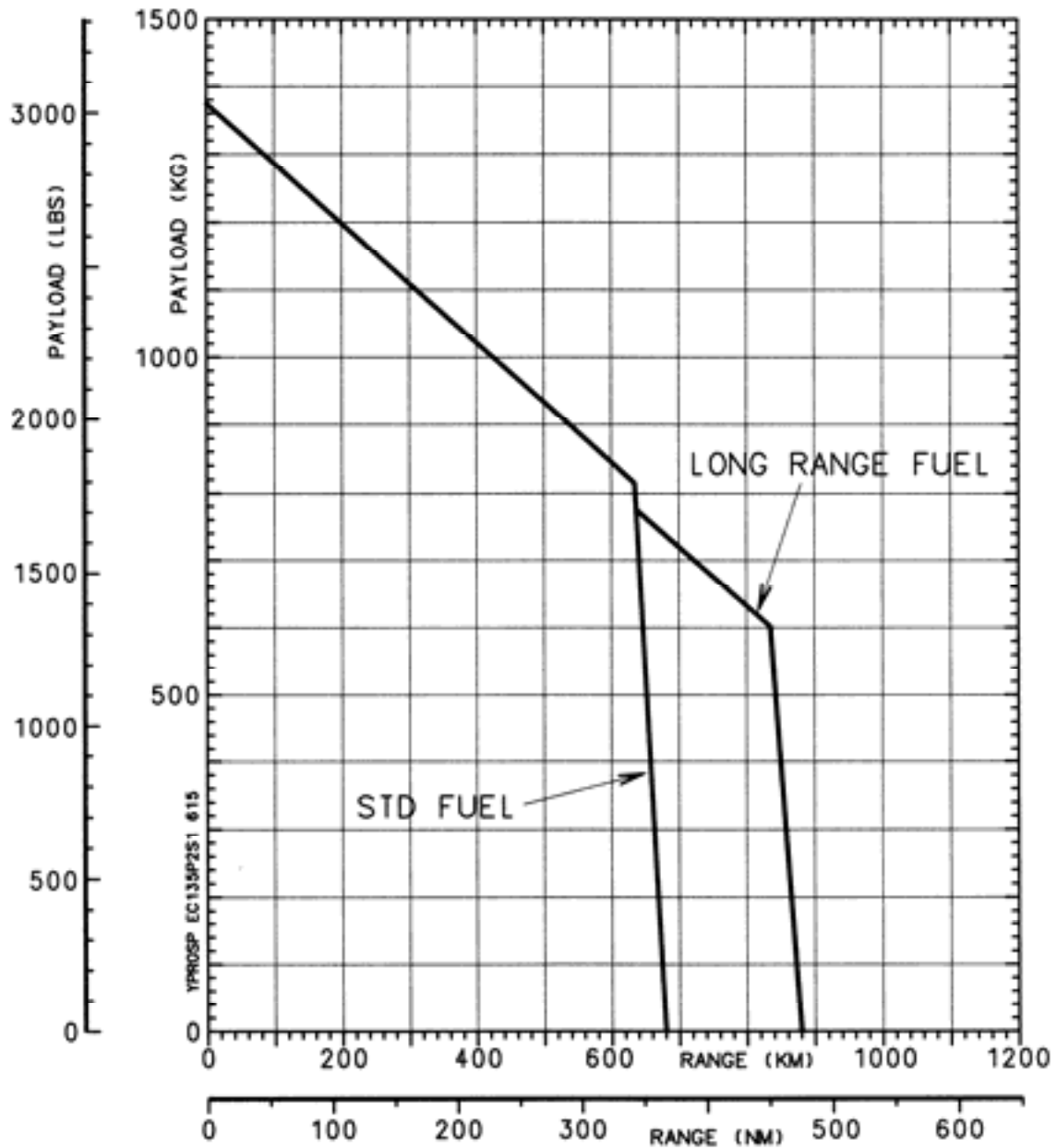
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Payload / Range

with two PW206B2 engines

TOW 2910KG
NO RESERVE
SL / ISA

EMPTY WEIGHT 1455KG/1498KG
USABLE STD FUEL 560KG
LONG RANGE FUEL TANK 170KG
PILOT 80KG



PAYLOAD RANGE DIAGRAM (STD FUEL 560KG)

The data set forth in this document are general in nature and for information purposes only.

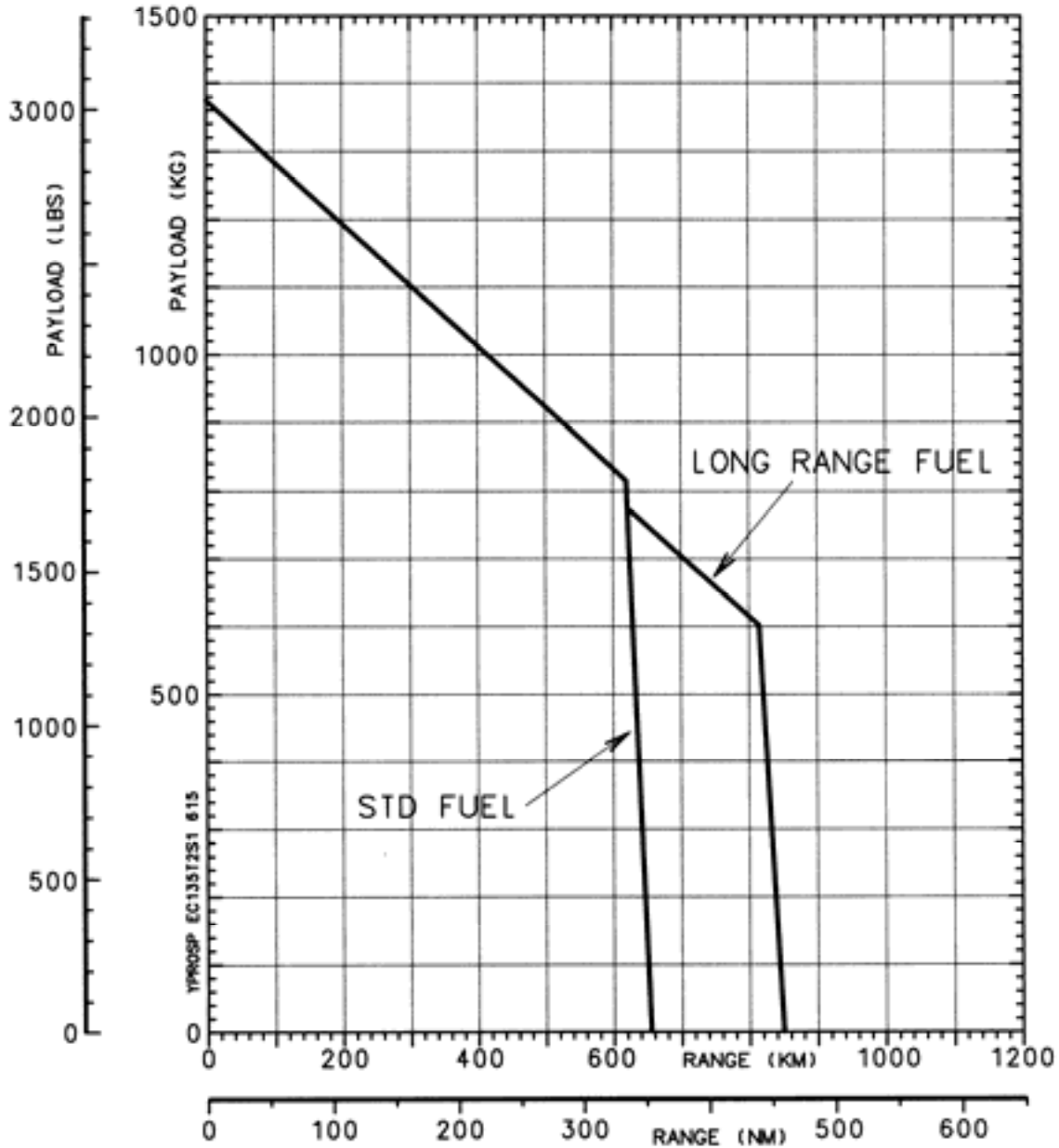
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

## Payload / Range

with two ARRIUS 2B2 engines

TOW 2910KG
NO RESERVE
SL / ISA

EMPTY WEIGHT 1455KG/1498KG
USABLE STD FUEL 560KG
LONG RANGE FUEL TANK 170KG
PILOT 80KG



PAYLOAD RANGE DIAGRAM (STD FUEL 560KG)

The data set forth in this document are general in nature and for information purposes only.

For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.



## 9 Support information

### 9.1 Assets

#### Proven reliability and availability based on experience

Eurocopter's helicopter production programs have developed a strong reputation world-wide for being fully committed to providing customers with operational, capable aircraft that achieve high availability combined with cost-effective support systems. To achieve this record of performance, Eurocopter has stressed the importance of working together with its customers to ensure constant feedback on their demonstrated in-service Reliability, Availability and Maintainability/Testability (RAM) data. The main objective is to reach the most optimized operational cost ensuring the highest flight safety.

Eurocopter has built and delivered EC135 helicopters for almost 10 years. More than 512 helicopters are in service world wide. The total flight hours accumulated at the end of the year 2006 are more than 820,000 Fh.

### 9.2 Inspection Program

#### Airframe Inspection Program

The Maintenance Program, as described in the Maintenance Manual, is to be considered as a basis for each customer individual program set up. The Maintenance Program specifies the intervals between maintenance operations that are recommended by Eurocopter, irrespective of whether they are mandatory or not.

The program can:

- either be used as is,
- or be adapted by each operator to suit his own specific organization, provided he complies with the maximum intervals.

In order to keep the corrective maintenance at a minimum, EUROCOPTER introduced a preventive maintenance Inspection Program to be performed either after a certain number of flight-hours or after a predetermined calendar time.

For the performance of the scheduled and unscheduled maintenance, Eurocopter has classified the maintenance tasks by the following three maintenance levels :

#### Organizational Level (O)

This level comprises of tasks such as the daily servicing, pre-flight checks, visual inspections for condition, replacement of modular components and simple repairs. This work can be performed by trained helicopter mechanics with standard tools only (no special tools necessary).

#### Intermediate Level (I)

This level comprises of tasks such as smaller repairs ON/OFF helicopter, periodical inspections and replacement of modular components as well as modifications. This work can be performed by trained and experienced mechanics and may require the usage of special tools and/or test equipment.

#### Depot Level (D)

This level comprises of tasks such as repairs OFF helicopter, overhaul of major components and heavy airframe repair. This work can be performed by OEM, authorized Repair Centers or Eurocopter and requires the usage of special overhaul and repair tools, as well as test benches (if required) according to repair manuals or instructions.

The maintenance tasks defined as O-and I-Level are described in the Aircraft Maintenance Manual (AMM) and can be conducted by operator's mechanics after successful completion of the relevant training courses.

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The following table provides an overview of all Scheduled Airframe Inspections. Scheduled inspections with shorter time intervals are fully incorporated into those with longer time intervals, this means, that for example the Periodical Inspection contains the 12-Month Inspection.

Scheduled Airframe Inspection	Maintenance Level	Estimated Mean Man Hours
Pre-flight Check	O - Level	0.5 hours
12-month inspection (max. exceedance by 3 months)	O - Level	25 hours
Intermediate inspection every 400 hours (max. exceedance by 40 hours)	O - Level	45 hours
Periodical inspection every 800 hours or 3 years (max. exceedance by 80 hours or 3 months)	I - Level	79 hours
Supplementary Inspections according to operating time (max. exceedance by 10%)	I - Level	n/a
Conditional Inspections after specific operational incidents (max. exceedance by 10%)	I - Level	n/a

Note :

All those "Estimated Mean Man Hours" mentioned here above refer only to the scheduled inspection in accordance with the Master Servicing Manual (MSM) for the standard helicopter without optional equipment. The announced Man Hours are without ground run and test flight, work preparation and documentation work as well as reworking and servicing.

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**Scheduled Engine Maintenance for PW206B2**

Periodic inspections

	Maintenance level	Estimated Mean Man Hour
12 months	O Level	1 hour
800 Hours	O Level	6 hours

**Scheduled Engine Maintenance for ARRIUS 2B2**

Periodic inspections

	Maintenance level	Estimated Mean Man Hour
400 Hours	Level 1	1,5 hours
800 Hours	Level 1	4,0 hours

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### 9.3 Main components

#### Time Between Overhaul (TBO) / Service Life Limit (SLL)

Main Components	TBO as per MSM Rev. 7	SLL as per MSM Rev. 7
Fuel system: Motor Pump Cartridge	5,000 Fh	
Ventilation / heating system: Blower drive motor (depending on carbon brushes wear)	800 Fh	
Starter/Generator 200 A	2,000 Fh	
Portable fire extinguisher	10 years TSN 10 years TSO	
Main rotor blade damper		8,000 Fh or 6 years
Main Transmission	4,000 Fh	
Tail Rotor Gearbox	3,600 Fh	
Tail rotor blade		9,700 Fh
Engine	3,500 Fh	

Note: list includes only components under 10,000 Fh. The figures can be changed.

#### Time Between Overhauls (TBO):

The component in question must be removed at each interval that corresponds to the value indicated, in order to undergo the operations in a specialized workshop that will enable it to be put back into service for the next interval

#### Service Life Limited (SLL):

The service life limit is an airworthiness limit. The component in question must be removed from service when it reaches the limit indicated.

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## 9.4 Eurocopter Maintenance Support Programs

Eurocopter has designed a comprehensive array of services which provide you with repair/overhaul services, availability and costs control.

Whether you fly a low or a high number of flight hours, are looking for immediate component availability, or wish budget control, we have the solution, through one of the services described hereafter.

From basic OEM repair and overhaul services up to comprehensive Parts-by-the-Hour (PBH) maintenance programs, Eurocopter has the answer for all your requirements.

The core of our service offer is to be flexible and modular. Thanks to this principle, Eurocopter is in a position to provide maintenance services tailored-made to various mission needs.

You will find detailed information for each maintenance services below, going from the basic support to the comprehensive PBH support package.

**Classical Support**  
**Standard exchange**  
**Repair with guaranteed TAT**  
**Guaranteed DMC**  
**Unscheduled Maintenance Insurance Plan**  
**Parts by the Hour service**

### 9.4.1 *Classical Support*

It consists in a comprehensive Initial Provisioning List including Spare Parts, Special Tools, Test Equipment, etc. to sustain aircraft operation.

The level of operational availability determines the quantity and, hence, investment required. It gives to the Customer the responsibility to procure the right mix and quantity of components and spare parts, to monitor their repair, and to manage obsolescence.

### 9.4.2 *Standard Exchange*

It consists in replacing a defective part with a serviceable and interchangeable part within 48 hours subject to availability. This service is available for equipment, blades, and dynamic components.

### 9.4.3 *Repair with Guaranteed TAT*

Eurocopter offers for some components a repair with commitment on guaranteed TAT: if the lead time is exceeded, Eurocopter provides with a standard exchange delivery at the same price accorded for the repair.

### 9.4.4 *Guaranteed DMC*

In addition to the classical repair and overhaul, this service offers you guaranteed repair and overhaul TATs, thus allowing you to best size your inventory. The payment per flight hour allows you to smooth out your expenses. It covers dynamic components, blades and basic equipment

### 9.4.5 *Unscheduled Maintenance Insurance Plan (UMIP)*

This service is ideal if you are looking to secure unscheduled maintenance costs, but you wish to take care by yourself of the scheduled events (overhaul, life limited part replacement).

It covers dynamic components, blades and basic equipment. It includes component unscheduled repairs and guaranteed parts replacement within 24H F.C.A through Standard Exchange based on a dedicated inventory.

Price charge is defined per flight hour.

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#### **9.4.6 Parts By the Hour (PBH)**

The Parts by the Hour (PBH) service is a comprehensive program which offers at the same time guaranteed maintenance costs, reduced inventory and minimized helicopter downtime. It is intended for Customers looking for total cost control and high level of aircraft readiness.

It covers dynamic components, blades and basic equipment. It includes unscheduled component repairs, component overhauls as well as Life Limited part replacement.

Part replacement is guaranteed within 24H F.C.A through standard exchange and thanks to a dedicated inventory.

Price charge is defined per flight hour.

### **9.5 Engine Maintenance program**

#### **9.5.1 Pratt&Whitney**

With over 4,500 P&WC engines on a “pay-by-the-hour” concept, the industry has demonstrated its confidence on the advantages that the Eagle Service Plan (ESP®) and P&WC’s Fleet Management Programs (FMP®) can provide.

##### **9.5.1.1 Eagle Service Plan®**

##### **9.5.1.2 Fleet Management Plan®**

##### **9.5.1.3 e-Business Customer Portal**

##### **9.5.1.4 PW206B2i Mean Time Between Overhaul (MTBO)**

The PW206B2 engine can be overhauled as two (2) individual modules:

- (a) Perform overhaul of the turbomachinery module every 3500 hours.
- (b) Perform overhaul of the reduction gearbox module every 3500 hours.

No Hot-section inspection (HSI) is scheduled and, if necessary, component replacement will be on an on-condition basis.

The maintenance plan for the PW200 engine incorporates the following features:

The minimisation of scheduled maintenance in accordance with MSG-III style analysis.

Helicopter Engine Condition and Trend Monitoring (HECTM®) used to determine the economical threshold to perform refurbishment.

Repair development will continue during service of the PW200 engine with the objective of expanding on repair schemes currently contained in both the Maintenance Manual and Overhaul Manual. This will keep engine maintenance costs, aircraft downtime, spare engine inventories and total operating costs to a minimum.

#### **Accessories Time Between Overhaul**

Engine accessories are monitored, as defined by the Illustrated Parts Catalog, with a removal threshold that is based on the operator’s experience, with the following exception: TBO recommendation for the Fuel Management Module (FMM) is engine TBO plus 500 hours.

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**Periodic Inspection – Tolerances**

Unless otherwise stated, the tolerance for periodic or scheduled inspections are as follows:

- Hourly Intervals tolerance: Ten percent (10%), or up to a maximum of 100 hours operating time, whichever is less.
- Calendar Intervals tolerance: Ten percent (10%), or up to a maximum of 30 days calendar time, whichever is less.

NOTE: The tolerance is established for maintenance scheduling convenience only and must be approved by the governing civil aviation authority. Subsequent intervals will be adjusted to re-establish the original schedule. When an inspection is done more than 10% early, subsequent inspections will be advanced as required so as to not exceed the maximum tolerance. Concurrence and final approval of the inspection interval tolerance by the governing civil aviation authority is the responsibility of the owner/operator.

**9.5.1.5            Service Life Limited (SLL) Components**

Three components on the PW206B2i are cycle limited:

Impeller: .....	15,000 Cycles
Compressor Turbine Disk:.....	10,000 Cycles
Power Turbine Disk: .....	15,000 Cycles

**The compressor Turbine Disk is commercially supported to 15.000 cycles.**

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## **9.5.2 Turbomeca**

Always looking to maximize your efficiency and reduce your costs, Turbomeca, the engine manufacturer has developed an improved service offering.

Whatever the mission, wherever it may be, for business or pleasure, Turbomeca offers a range of services tailored to your needs.

Turbomeca tailor-made services cover Standard Exchange, AOG and Warranty needs for total peace of mind in the air and on the ground.

Among the maintenance packages proposed, Turbomeca developed specific maintenance packages, the Support By the Hour ® coverages, as described hereafter.

**9.5.2.1 Standard Coverage : “Classic” SBH®**

**9.5.2.2 Customized Coverage : SBH® “Mission”**

**9.5.2.3 Turbomeca Internet Web Site - TOOLS**

### **9.5.2.4 Time Between Major Overhauls**

The initial TBO value of the ARRIUS 2B2 applicable to the engine / modules / accessories are :

Complete engine	3,500 hours
Module 01 (accessory & reduction gearbox)	3,500 hours
Module 02 (Gas generator)	3,500 hours
Fuel Control Unit	3,500 hours or 10 years*

\*: First occurs

### **9.5.2.5 Life-Limited Parts (LLP)**

Certain components of the engine, failure of which is classified as an Hazardous effect according to Engine Regulation, have service Life Limits expressed in cycles (reference flight cycle). They are known as critical Life-Limited Parts (LLP).

The limited service life to which this term refers is the number of cycles that a critical life-limited part can run before having to be withdrawn from service.

The Life-Limited Parts on the ARRIUS 2B2 are :

Centrifugal impeller	20,000 cycles
HP turbine disc	13,000 cycles
Power turbine disc	14,000 cycles

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## 9.6 Training

With more than 50 years of experience, the Eurocopter training centers provide the most comprehensive, coherent and highest standard helicopter training in the world for pilots and technicians, whether civilian or military.

Qualification training, allowing operators to comply with regulatory requirements, and services training, more mission oriented and tailored to the customers' operational needs, are addressed.

All training courses are established according to the relevant civil aviation authorities' requirements. The centers are approved by the relevant airworthiness authorities (EASA, FAA, DGAC, LBA, CAA...). We are certified ISO 9001: V2000 and regularly audited by independent organisms such as Véritas, AFAQ...

Eurocopter training centers provide a wide range of courses and services, from basic training up to preparation for the most sophisticated civil and military missions.

As part of the full range of services on offer, Eurocopter also plays an active role in helicopter pilot development through its Ab Initio programs.

Centers are equipped with multimedia classrooms. This includes computers overhead projectors and state-of-the-art means such as Computer Aided Instruction (CAI), Computer Based Training (CBT). Some centers also have self-learning laboratories.

Eurocopter has set up a network of 14 training centers. For detailed information refer to Eurocopter specific publication.

Starting early 2008 training can be performed on EUROCOPTER owned simulators FTD (Flight Training Devices) of highest level according to EASA and JAA standards – based in Europe and North America.

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## 9.7 Technical publications

Eurocopter provides all the technical publications necessary for safely operating and maintaining its aircraft cost effectively.

Eurocopter technical publications are available on an interactive electronic medium or in hard copies.

The INDOC CD-ROM includes the Aircraft Maintenance Manual (AMM), System Description Section (SDS), Master Servicing Manual (MSM), Illustrated Parts Catalogue (IPC) and the Wiring Diagram Manual (WDM).

The component maintenance manual (CMM) is available on CD-ROM or hard copy, depending on the Vendor.

Along with the INDOC CD-ROM, Eurocopter provides a hard copy of the Airworthiness Technical Publication (Flight Manual, Pilots Check List, Master Servicing Manual ...) as well as the Service Bulletin Catalogue.

The CD ROM is available in English or French; it includes the latest information and is updated every 6 - 9 months.

## 9.8 T.I.P.I. (Technical Information Publication on Internet)

### 9.8.1 Description

T.I.P.I. website is entirely dedicated to provide a real-time issuing service for the following publications:

- Service Bulletin, Service Letter, Service Information, Technical Information Letter
- List of Applicable Publications (LOAP)
- List of Master Minimum Equipment List (MMEL)

### 9.8.2 Main features

- Each time a publication is issued, the customer is automatically informed by an e-mail.
- The download of the publication in pdf format is possible either directly from the e-mail or after logging on the T.I.P.I. website.
- A keywords search tool is provided (aircraft family, type of publication, date of edition...).  
Address: [www.eurocopter.com/services/technical\\_publications/T.I.P.I.](http://www.eurocopter.com/services/technical_publications/T.I.P.I.)  
The publications are available in English, French or German depending on the case.
- A small summary, already included in the e-mail, helps the customer to understand quickly the subject.
- Small icons allow the customer to identify immediately the type of information received.

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