



EUROCOPTER
EC635

Technical
Data

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635 06.101.01 E

EC135
(Civil Version)



EC135

EC635
(Military version)



Utility/armed version
EC635

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Manufacturer's notes – Attention!

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This document cannot thus be taken as an offer or serve as an appendix to a contract without a prior check as to its validity and prior written agreement of Eurocopter.

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

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1 Foreword

The EC635 as a derivation from 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 as single pilot IFR (optional). The helicopter combines Eurocopter's latest technologies, like advanced cockpit design, modern avionics. The Fenestron® anti-torque-system and the bearingless main rotor system give the helicopter an outstanding maneuverability. Due to its extreme simplicity, the rotor system contributes to highest safety aspects and, at the same time, reduces scheduled maintenance to a minimum. Optimized main rotor blades with advanced tip geometry in combination with a Fenestron® with unequal blade spacing make the EC635 the quietest helicopter in its class, bringing it 7 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. In addition to these aspects mentioned above, the rotor system together with high TBO gearbox and airframe components grant for low maintenance costs, and on the other hand high in-service-time of the helicopter due to low scheduled maintenance required.

Depending on the operator's preferences, the EC635 can be equipped with either Arrius 2B2 or Pratt & Whitney PW206B2 power plants. Both engine types feature full authority digital engine control (FADEC) with manual engine backup as well as automatic start-up and shut-down. The powerful and reliable engines in combination with the optimized lifting system of the EC635 provide outstanding performance and vital power reserves even in one-engine-inoperative scenarios. Twin-engine reliability is complemented by a fully separated fuel system, a tandem hydraulic system, dual electrical system and redundant lubrication for the main transmission. Further positive safety aspects of the EC635 are design elements like energy absorbing fuselage and seats, as well as crash resistant fuel cells.

A wide range of existing optional supplemented by specialized military equipment is available for the EC635, as for example different types of armament and military COM/NAV (IFF, HF, etc.). Together with its most versatile cabin layout, the EC635 is ready to be adapted for a wide range of missions, like utility transport, reconnaissance, armed combat support, CASEVAC, Advanced Tactical Training, to name a few.

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Compared to other helicopters in its class, the EC635 offers a significantly larger cabin, featuring:

- excellent outside vision for pilot/s, crew or 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



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The EC635 is available with a conventional cockpit layout and a glass cockpit layout, which are both NVG friendly. 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. Additionally, Eurocopter's unique first limit indicator (FLI) 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.

Apart from the a.m. configuration and upon customer request, Eurocopter can provide any specific mission suite adapted to the today's KPPs for 'NET Ready Interoperability/Network Centric Operations' including the relevant communication systems for Army, Air Force, Navy and Joint Operations.



Typical example for a conventional cockpit layout (NVG friendly) .



Typical example of a glass cockpit layout (NVG friendly)

Latest news / highlights:

New version EC635 P2i or T2i with:

- Increased maximum take off weight: **MTOW: 2.910 kg**
- Increased useful load: **1.443 kg**
- Increased MCP TOP: **2 x 78 %**
- Improved high and hot performances: **Service ceiling at 2835 kg, 12,000 ft (+2,000 ft)**
HOGE, ISA+20°C at 2835 kg, 5,700 ft (+2,400 ft)

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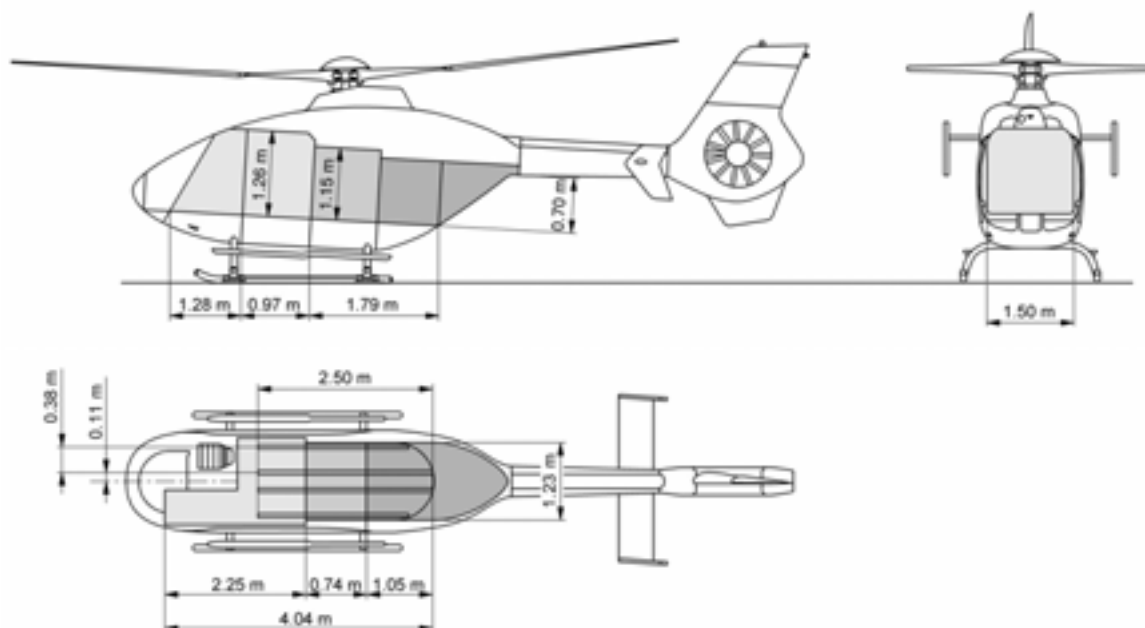
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2.2 Internal dimensions



	Floor area		Volume	
	m ²	ft ²	m ³	ft ³
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)

Troop transport	<ul style="list-style-type: none"> ■ 1 or 2 pilots + 7 or 6 troops ("6 Troop Transport" version) ■ 1 or 2 pilots + 6 or 5 passengers ("5 Troop Transport" version)
Medical evacuation	<ul style="list-style-type: none"> ■ 1 pilot + 1 litter + up to 5 seats for doctor and attendants ■ 1 pilot + 2 litters + up to 4 seats for doctor and attendant ■ 2 pilots + 1 litter + up to 4 seats for doctor and attendants ■ 2 pilots + 2 litters + up to 3 seats for doctor and attendant
Cargo transport	<ul style="list-style-type: none"> ■ 1 pilot + 4.9 m³ (173.04 ft³) in cabin and cargo compartment
Armed Mission	<ul style="list-style-type: none"> ■ 1 pilot + 1 officer in command + 1 observer ■ Gun pods 12.7mm ■ or Rocket launchers 70mm ■ or Cannon pods 20mm ■ or mixed armament configurations

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2.4 Weight

Note : margin $\pm 1.5\%$

	kg	lb
■ Empty weight, wet (in standard aircraft configuration)	1,467	3,234
■ Useful load (for standard aircraft configuration)	1,443	3,181
■ Pilot	80	176
■ Payload and / or fuel	1,363	3,005
■ 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	1033.0	468.6	585.7	7.5	3.4
■ Supply tank	186.5	84.6	105.8	9.3	4.2
■ Total	1219.5	553.2	691.5	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
■ 30 sec OEI-power	1 x 526	1 x 715	1 x 705
■ 2.0 min OEI-power	1 x 513	1 x 698	1 x 687
■ Maximum Continuous OEI-Power	1 x 368	1 x 501	1 x 493
Twin engine operation			
■ Take-Off Power (TOP)	2 x 320	2 x 435	2 x 429
■ Maximum Continuous Power (MCP)	2 x 283	2 x 385	2 x 380

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3 Standard aircraft definition

GENERAL

- Energy absorbing fuselage
- Reinforcement of cabin structure for roof mounted equipment
- Common kit LH and RH
- Reinforcement of the LH and RH fuselage side structure with multi-purpose fittings on each side
- 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 STANDOX)

COCKPIT, CABIN AND CARGO COMPARTMENT

- One-level cabin and cargo compartment floor with integrated rails
- Checkered cover plates for cable tunnels, LH and RH, in the cabin/cargo compartment
- Glazed canopy
- Two hinged cockpit doors with sliding windows
- 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
- NVG friendly standard cockpit layout
- 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, NVG friendly

- 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 Δ 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 Δ N1 (for TM) as analogue display
 - Main transmission parameters (oil pressure, oil temp.)
 - Dual ammeter (generator)
 - Ammeter (battery)
 - Dual voltmeter
 - Outside Air Temperature (OAT)
 - 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)¹
 - 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

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 a self sealing fuel supply tank (split into two sections)
- Automatically controlled variable rotor speed system
- Fuel tank filler flap, lockable

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.

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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
 - Two high power busbars (200 A)
- Battery bus
- One utility receptacle in LH side of cargo compartment (28VDC, 15A)
- Lighting:
 - Anti-collision warning light (red flashing); NVG friendly
 - Three position lights (red, green, white), NVG friendly
 - Fixed, nose-mounted landing light (250 W)
 - Adjustable instrument lighting, NVG friendly
 - One utility light in the cockpit NVG friendly
 - 5 spot-lights in the cabin NVG friendly
 - One light in cargo compartment RH side

GROUND HANDLING KIT ²

- 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

- One Flight Manual ³
- One Pilots-Checklist, revision service for five years ²⁾
- One Logbook ²⁾ (only paper, CD ROM on demand)
- One Historical Record ²⁾ (only paper, CD ROM on demand)
- One CD-ROM²⁾³⁾ including AMM⁴⁾, SDS⁴⁾, WDM⁴⁾, IPC, MSM
- One additional Master Servicing Manual (MSM) ³⁾²⁾ on paper
- One Service Bulletin Catalogue (SB) ³⁾²⁾ per contract, on paper
- One List of Applicable Publications (LOAP) ³⁾²⁾, on paper
- One Avionics Manual (for avionics installed by Eurocopter)²⁾⁴⁾ (on paper)
- Engine Documentation ²⁾, furnished by supplier, including:
 - Maintenance Manual
 - Illustrated Parts Catalogue (IPC)
 - Service Bulletins
- Weapon delivery manual ²⁾, furnished by supplier

² Weight not included in the standard helicopter empty weight

³ Revision service included as long as the aircraft is operational

⁴ Customized documentation

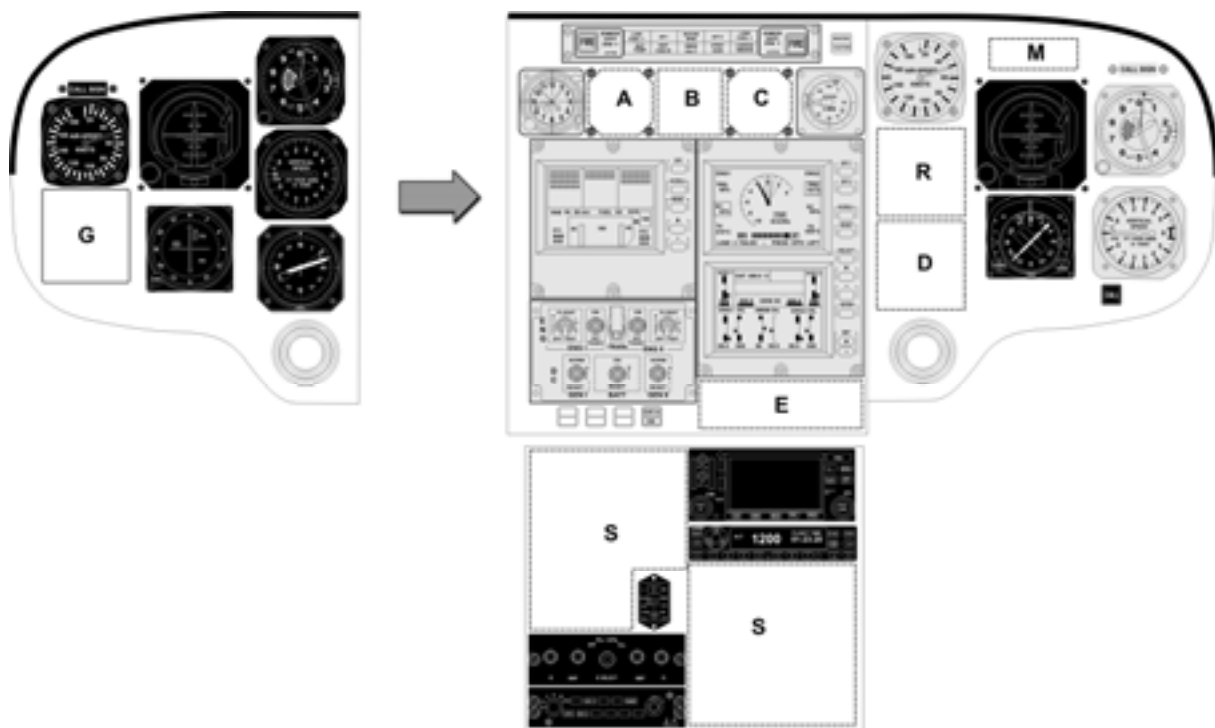
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4 Basic configuration choice

4.1 Conventional instrumentation (NVG friendly) Single pilot VFR day / night package

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 803 CY ⁵

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

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

⁵ US export authorization needed

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4.1.2 Content of Avionics Solution conventional VFR NVG friendly

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>
-	L2300-018-01	Avionics Solution conventional NVG friendly, consisting of
<i>Intercom System</i>		
08-16053-A	L2341-192-12	Audio / Comm. control system AS 3100-12/13 NVG (Becker), pilot, incl. Intercom Select Panel (ICS mode selector)
08-16053-A	L2341-293-01	Intercom amplifier IC 3100-4 (Becker)
<i>Transponder</i>		
08-22026-A	L2325-092-13	Transponder (Mode S) GTX 330 - NVG friendly (Garmin)
<i>Radio Switch</i>		
08-29003-A	L2480-090-01	Avionics / Radio master switches
<i>GPS/NAV/COM</i>		
08-43018-B	L3442-092-05	GPS / NAV / COM GNS 430 - NVG friendly (Garmin), pilot, for conventional cockpit
<i>Conventional instruments</i>		
08-51012-A	L3425-092-03	4" artificial horizon GH14-391 - NVG friendly (Honeywell), pilot ⁶
08-52013-A	L3421-092-05	Gyro magnetic heading system KCS 55 A (Honeywell), pilot incl. KG-102A, KMT-112, KA-51B with HSI KI-525A NVG friendly ⁶
<i>Miscellaneous</i>		
-	L0000-150-18	Avionics solution interconnection / wiring

⁶ US export authorization needed

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4.1.3 Minimum required equipment

Minimum required equipment for Avionics Solution conventional, single pilot				
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
05-33001-A	L3113-001-00	Slant panel	0.8	1.8
05-33002-A	L3113-004-00	Center console	2.3	5.1
05-41004-B	L2104-100-00	Bleed air heating system	6.6	14.6
05-44002-A	L2122-001-00	Ventilation extruder without copilot I-panel extension	0.3	0.7
05-61010-A	L2433-003-00	Battery, type "Saft", ULM, 27 Ah, 24 V instead of standard battery	8.2	18.1
05-62010-B	L2420-002-00	AC system (350 VA)	3.2	7.1
05-63003-A	L2432-001-00	Starter / generators (2 x 200 A, 28 VDC) instead of standard generators	3.6	7.9
06-45024-A	L3343-006-00	Landing & search light, 400/200 W NVG (only for VFR Night)	6.3	13.9
-	L2300-018-01	Avionics Solution conventional NVG friendly	39.5	87.1

For a dual pilot solution, the following items have to be added:

Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
05-37016-A	L6701-001-00	Copilot flight controls	6.0	13.2
05-38010-A	L3111-001-00	10" copilot instrument panel with glare shield	2.8	6.2
05-39006-A	L2514-003-01	Map case in copilot door	0.5	1.1
08-16053-A	L2341-191-12	Audio / Comm. control system AS 3100-12/13 NVG (Becker), copilot	2.0	4.4
08-51012-A	L3425-091-03	4" artificial horizon GH14-391 - NVG friendly (Honeywell), copilot ⁷	2.5	5.5
08-60003-A	L3412-090-00	Copilot 3" instruments (airspeed indicator, altimeter, vertical speed indicator (United Instruments) NVG friendly illumination	2.3	5.1
08-61010-A	L3166-091-05	RMI KI 229 - NVG friendly (Honeywell), copilot ⁷	2.4	5.3
08-61011-A	L3167-091-05	CDI KI 204 - NVG friendly (Honeywell), copilot ⁷	1.3	2.9

Note: the minimum requirement equipment for Cat A certification or JAR OPS are not included.

⁷ US export authorization needed

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4.1.4 Possible add-ons

Possible add-ons for Avionics solution conventional NVG friendly				
Document reference	Commercial reference	Title	Weight (margin \pm 3 %)	
05-38010-A	L3111-001-00	10" Copilot instrument panel with glare shield, only for single pilot	2.8	6.2
06-67044-A	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4
08-16053-A	L2341-193-08	Audio / Comm. control system AS 3100-12/13 NVG (Becker), PAX, in cabin ceiling (LH installation)	2.7	6.0
08-21014-A	L3441-090-04	Radar altimeter KRA 405B (Honeywell)	5.6	12.3
	L3441-092-04	Radar altimeter indicator KNI 416 - NVG friendly (Honeywell)	1.2	2.6
08-43018-A	L3442-091-05	GPS / NAV / COM GNS 430-NVG friendly (Garmin), copilot, for conventional cockpit	9.5	20.9
08-51013-A	L3425-802-51	2" std-by horizon AI 803 CY (Goodrich), incl. back-up battery ⁸	6.6	14.6
08-71002-A	L2217-001-10	VFR SAS (VFR pitch/roll Stability Augmentation System)	8.5	18.7

4.1.5 Further avionics add-ons, see chapter 6 page 35

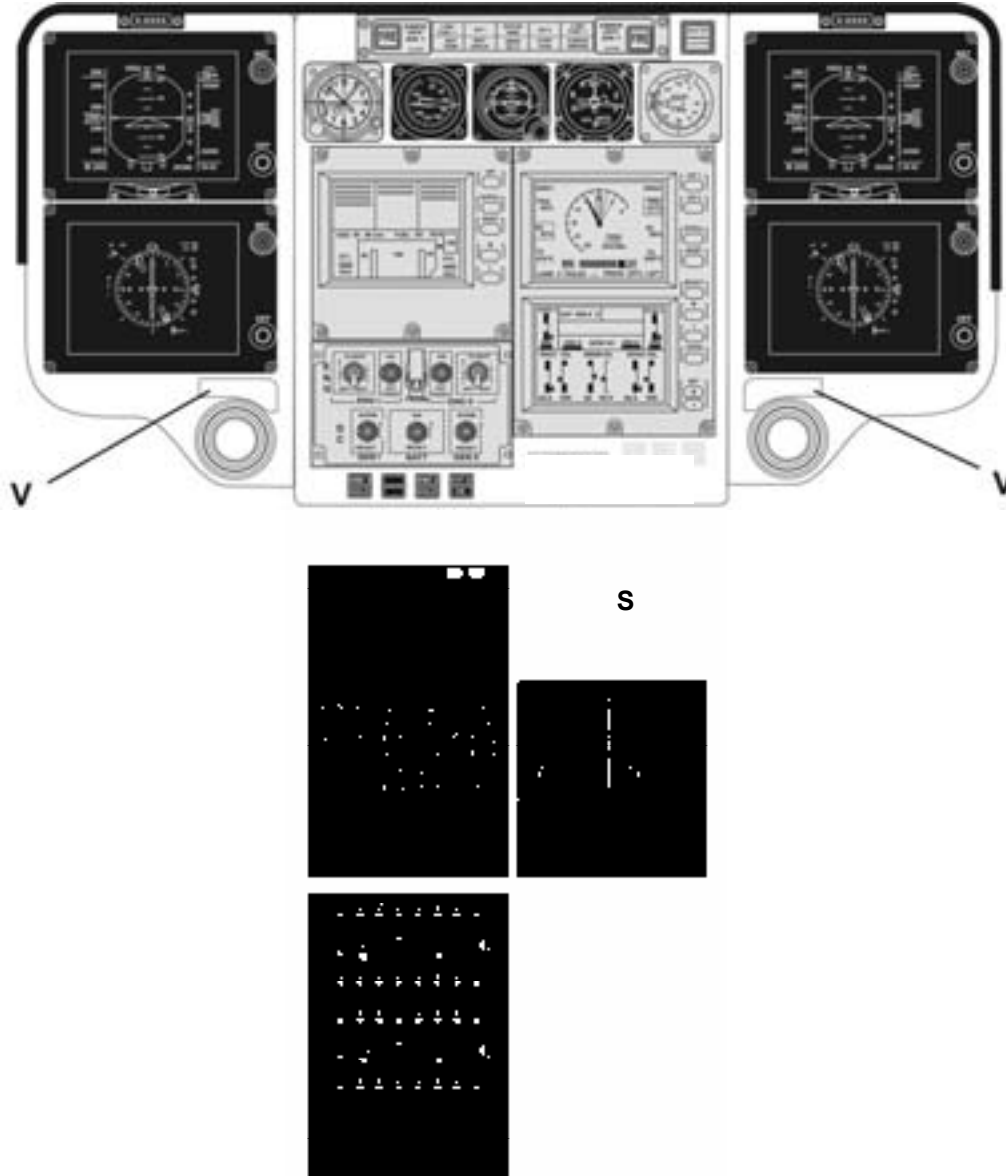
⁸ US export authorization needed

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4.2 Glass cockpit Instrumentation (NVG friendly) Dual pilot IFR package

4.2.1 Instrument panel overview



Additional space:

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

S – Additional space for other equipment

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4.2.2 Content of avionics solution glass cockpit, NVG friendly

Document reference	Commercial reference	Title
	L2300-018-02	Avionics Solution glass cockpit, NVG friendly consisting of
<i>VHF AM</i>		
08-11022-A	L2313-092-07	VHF AM/COM system VCS-40 A (Chelton/Wulfsberg), pilot
08-11022-A	L2313-092-15	(Back-up) Control unit CD 402 B NVG friendly (Chelton/Wulfsberg), pilot
08-11022-A	L2313-091-08	VHF AM/COM system VCS-40 A (Chelton/Wulfsberg), copilot
<i>Intercom System</i>		
08-16061-A	L2341-190-40	Digital Audio Control System - DACS (NAT), incl. Audio Management Unit AMU50, Audio Control Panels ACP53 - pilot and copilot
<i>Transponder</i>		
08-22027-A	L2325-092-06	Transponder (Mode S) MST 67A (Honeywell)
<i>DME</i>		
08-25511-A	L3455-090-06	DME FLITELINE CDM-451 (Chelton/Wulfsberg)
<i>VOR/ILS/MKR receivers</i>		
08-26024-A	L3432-092-07	VOR/ILS/MKR navigation system VNS-41 A (Chelton/Wulfsberg), pilot
08-26024-A	L3432-092-13	(Back-up) Control unit CD 412 B NVG friendly (Chelton/Wulfsberg), pilot
08-26024-A	L3432-091-06	VOR/ILS/MKR navigation system VNS-41 A (Chelton/Wulfsberg), copilot
<i>Radio switch</i>		
08-29003-A	L2480-090-01	Avionics / Radio master switches
<i>FMS</i>		
08-44035-A	L3442-022-00	Flight-, Navigation Management System CMA-9000 (CMC Electronics)
08-44035-A	L3442-023-00	GPS sensor CMA-3024 (CMC ELECTRONICS), for CMA-9000
<i>Conventional instruments</i>		
08-51013-A	L3425-802-51	2" Stand-by horizon AI 803 CY incl. battery (Goodrich) ⁹
<i>Display system</i>		
08-65003-A	L3161-090-09	MEGHAS - Flight Control Display System (FCDS) - Dual (4xSMD45)
<i>Miscellaneous</i>		
-	L0000-150-18	Avionics solution interconnection / wiring

Note: the VHF-AM COM (VCS-40A), VHF NAV (VNS-41A), ATC transponder (MST-67A) and the GPS sensor (CMA-3024) are controlled via CMA-9000

⁹ US Export authorization needed

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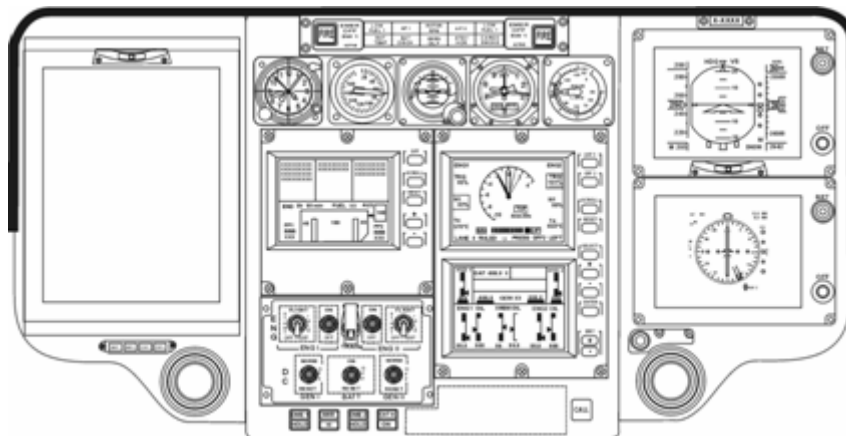
4.2.3 Minimum required equipment

Minimum required equipment for avionics solution glass cockpit NVG friendly				
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
05-33001-A	L3113-001-00	Slant panel	0.8	1.8
05-33002-A	L3113-004-00	Center console	2.3	5.1
05-34002-A	L2576-001-00	Avionics compartment	4.2	9.3
05-37016-A	L6701-001-00	Copilot flight controls	6.0	13.2
05-38010-A	L3111-001-04	7" copilot instrument panel with glare shield	2.7	6.0
05-39006-A	L2514-003-01	Map case in copilot door	0.5	1.1
05-39007-A	L3111-001-10	Map case on instrument panel glare shield	0.6	1.3
05-41004-B	L2104-100-00	Bleed air heating system	6.6	14.6
05-61010-A	L2433-006-00	Battery, type "Saft", ULM, 40 Ah, 24 V instead of standard battery	16.8	37.0
05-62010-B	L2420-005-00	AC System (50 VA) ¹⁰	1.9	4.2
05-63003-A	L2432-001-00	Starter / generators (2 x 200 A, 28 VDC) instead of standard generators	3.6	7.9
06-12008-B	L3217-001-00	Reinforced rear landing gear cross tube (standard landing gear only)	1.1	2.4
06-45023-A	L3343-006-00	Landing & search light, 200/400 W, NVG friendly	6.3	13.9
	L2300-018-02	Avionics Solution glass cockpit, NVG friendly	96.0	211.6
08-53002-B	L2212-400-00	MEGHAS sensor kit	17.8	39.3
08-54001-A	L3411-001-00	Copilot pitot static system	1.4	3.1
08-71002-B	L2217-001-50	IFR pitch/roll SAS	12.2	26.9

Note: the minimum requirement equipment for Cat A certification or JAR OPS are not included.

ON REQUEST:

- Exchange of 2x SMD45 on copilot side to one SMD68



¹⁰ Alternatively the AC system L2420-002-00 (05-62010-B) (350VA; 3.2kg) can be selected

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

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4.2.4 Possible add-ons

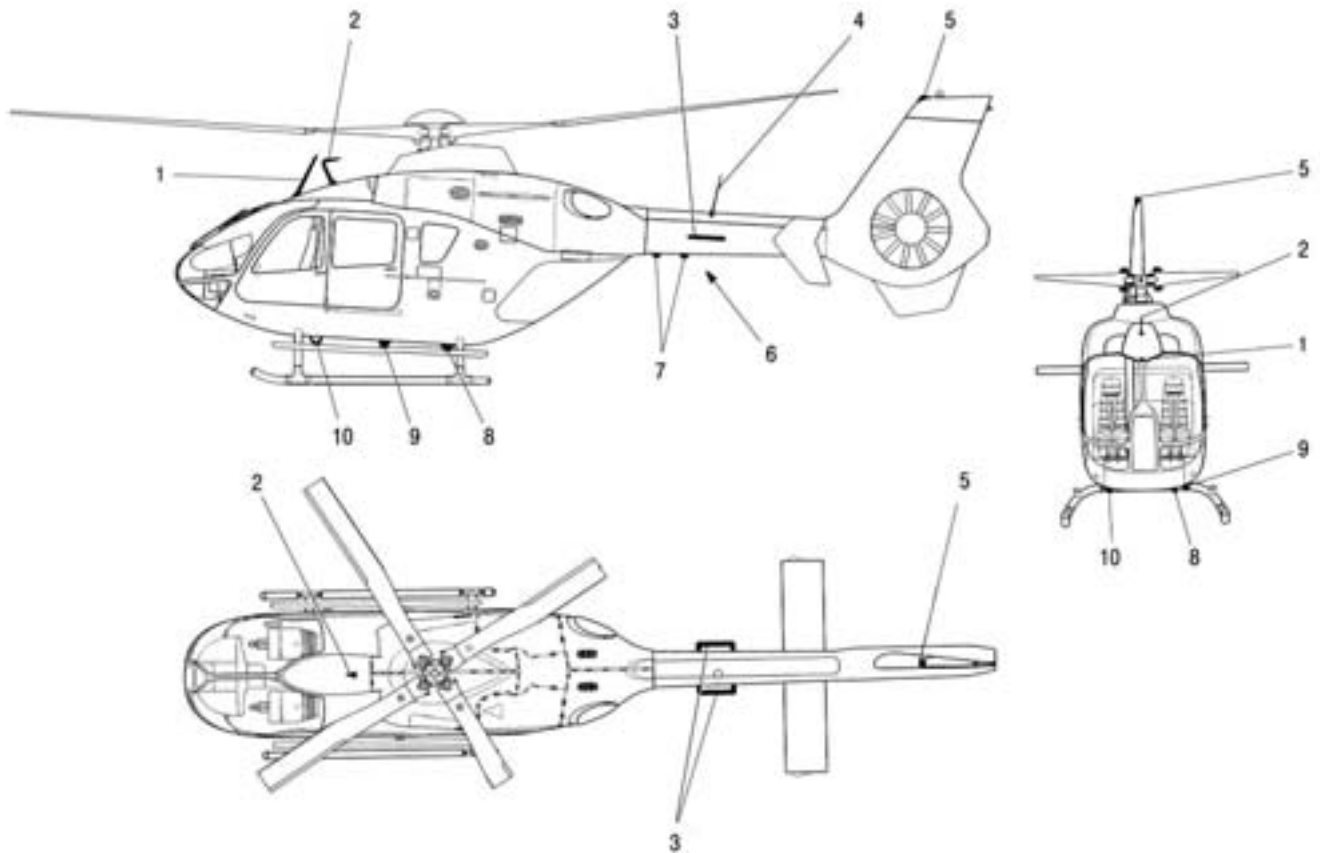
Possible add-ons for Avionics Solution Glass cockpit NVG friendly				
Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
06-67044-A	L2563-801-06	ELT C406-N HM (Artex) incl. NAV. opt.	3.8	8.4
08-16061-A	L2341-193-40	Digital Audio/Comm. control and intercom system DACS (NAT), Audio Control Panel ACP53 - PAX	2.0	4.4
08-21014-A	L3441-090-04	Radar Altimeter KRA 405B (Honeywell)	5.6	12.3
08-24015-A	L3452-092-17	ADF system DFS-43A (Chelton/Wulfsberg), controlled via CMA-9000	9.6	21.2
08-72001-A	L2212-001-00	Digital Automatic Flight Control System - DAFCS instead of IFR pitch/roll SAS, (radar altimeter required)	27.0	59.6
08-81018-A	L2321-007-00	M'ARMS Cockpit Voice and Flight Data Recorder (CVFDR), ground station not included (DAFCS required) (in combination with UMS: 18.3 kg / 40.3 lb)	17.3	38.1
08-83007-A	L3171-001-00	M'ARMS Usage Monitoring System (UMS), ground station not included (DAFCS required)	7.2	15.9

4.2.5 Further avionics add-ons, see chapter 6 page 35

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 Typical 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 Mission arrangement

5.1 Troop transport

5.1.1 Six (6) Troop transport

This installation is characterized by:

Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
07-27001-A	L2522-001-00	Three (3) forward passenger seats, facing backwards	37.4	82.5
07-27004-A	L2522-004-10	Utility seats for 3 rear passengers, fixed provisions	1.2	2.6
07-27004-A	L2522-004-20	Utility seats for 3 rear passengers, detachable parts	33.2	73.2



3 rear passenger seats



3 forward passenger seats

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5.1.2 Five (5) Troop transport

This installation is characterized by:

Weight
(margin $\pm 3\%$)

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>kg</i>	<i>lb</i>
07-27001-A	L2522-001-00	Three (3) forward passenger seats, facing backwards	37.4	81.6
07-27001-A	L2522-002-00	Two (2) rear passenger seats, facing forwards	22.2	49.0
07-60015-A	L2514-014-00	Variable tie-down web for luggage securing	4.2	9.3



2 rear passenger seats

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 Military equipment:

5.2.1 Rocket launcher 70mm (2.75") on each side



Content:

Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
		12 - tube rocket launcher FZ-Herstal FZ321 mod1, cal. 70 mm, capacity 12 rockets (twice, one on each side)	358 ¹¹	790 ⁵⁾

Minimum required equipment

Document reference	Commercial reference	Title	kg	lb
07-15016-A	L2512-003-10	Height adjustable pilot seat (instead of standard pilot seat)	3.7	8.1
11-90008-A	L8580-010-12	Multi-Purpose Armament System (MPAS), basic electrical part	12.0	26.5
11-90004-A	L8580-200-00	Reflex Sight T100 incl. control panel and sight support	5.1	11.2
11-90005-A	L8580-600-00	Gun & Rocket Control Panel GRMU	3.0	6.6
11-90007-A	L8580-100-00	Master Armament Panel MAP	0.75	1.7
11-90008-A	L8580-400-00	Automatic/Manual Range Select Panel AMR	0.5	1.1
11-00009-A	L8513-001-20	Multi-purpose pylon, RH and LH, detachable parts incl. aerodynamic fairings	25.4	56.0
11-00010-A	L8580-200-00	Light Suspensions 325mm with release unit, LH and RH including cabling, detachable parts	35.8	78.9

¹¹ Weight of ammunition is included

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.

5.2.2 20 mm cannon pod on each side



Content:

Weight
(margin $\pm 3\%$)

Document reference	Commercial reference	Title	kg	lb
		Cannon pod GIAT NC621 cal. 20 mm, capacity 180 rounds (twice, one on each side)	360 ¹²	794 ⁵⁾

Minimum required equipment

Document reference	Commercial reference	Title	kg	lb
07-15016-A	L2512-003-10	Height adjustable pilot seat (instead of standard pilot seat)	3.7	8.1
11-90004-A	L8580-200-00	Reflex Sight T100 incl. control panel and sight support	5.1	11.2
11-90008-A	L8580-010-12	Multi-Purpose Armament System (MPAS), basic electrical part	12.0	26.5
11-90005-A	L8580-600-00	Gun & Rocket Control Panel GRMU	3.0	6.6
11-90007-A	L8580-100-00	Master Armament Panel MAP	0.75	1.7
11-90008-A	L8580-400-00	Automatic/Manual Range Select Panel AMR	0.5	1.1
11-00009-A	L8513-001-20	Multi-purpose pylon, RH and LH, detachable parts incl. aerodynamic fairings	25.4	56.0
11-00010-A	L8580-200-00	Light Suspensions 325mm with release unit, LH and RH including cabling, detachable parts	35.8	78.9

¹² Weight of ammunition is included

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 12.7 mm gun pod on each side

Content:

Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
		Machine gun pod FN-Herstal HMP400 cal. 12.7 mm, capacity 400 rounds (twice, one on each side)	276 ¹³	608 ⁷⁾

Minimum required equipment

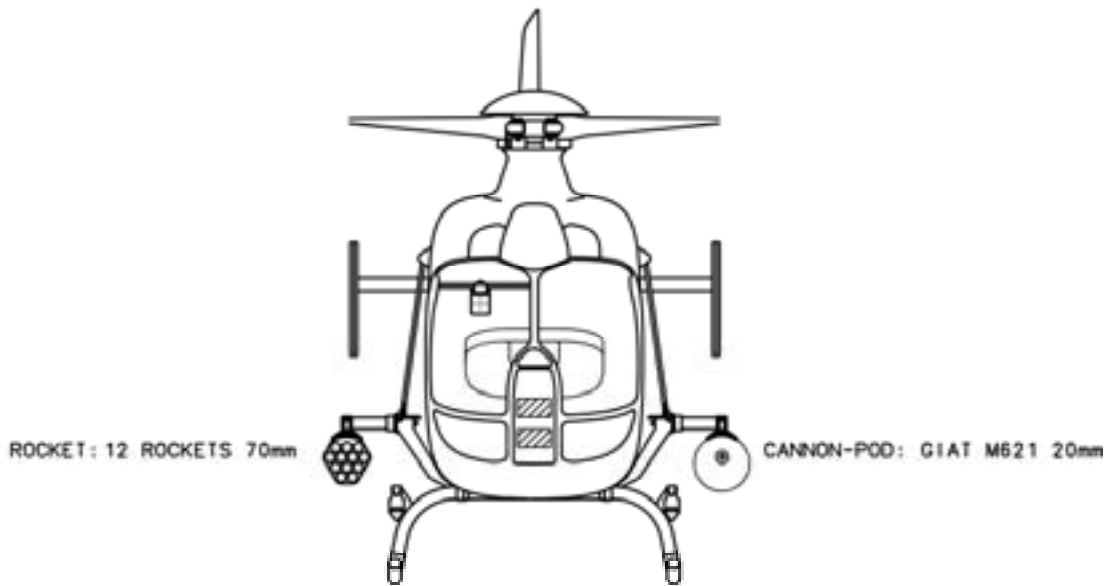
Document reference	Commercial reference	Title	kg	lb
07-15016-A	L2512-003-10	Height adjustable pilot seat (instead of standard pilot seat)	3.7	8.1
11-90004-A	L8580-200-00	Reflex Sight T100 incl. control panel and sight support	5.1	11.2
11-90008-A	L8580-010-12	Multi-Purpose Armament System (MPAS), basic electrical part	12.0	26.5
11-90005-A	L8580-600-00	Gun & Rocket Control Panel GRMU	3.0	6.6
11-90007-A	L8580-100-00	Master Armament Panel MAP	0.75	1.7
11-90008-A	L8580-400-00	Automatic/Manual Range Select Panel AMR	0.5	1.1
11-90006-A	L8580-500-00	Command and Control Panel PC17	0.4	0.9
11-00009-A	L8513-001-20	Multi-purpose pylon, RH and LH, detachable parts incl. aerodynamic fairings	25.4	56.0
11-00010-A	L8580-200-00	Light Suspensions 325mm with release unit, LH and RH including cabling, detachable parts	35.8	78.9

¹³ Weight of ammunition is included

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 Rocket launcher 70mm (2.75") & 20 mm cannon pod



Content:

Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
		Cannon pod GIAT NC621 cal. 20 mm, capacity 180 rounds	180 ¹⁴	397 ⁸⁾
		12 - tube rocket launcher FZ-Herstal FZ321 mod1, cal. 70 mm, capacity 12 rockets	179 ⁸⁾	395 ⁸⁾

Minimum required equipment

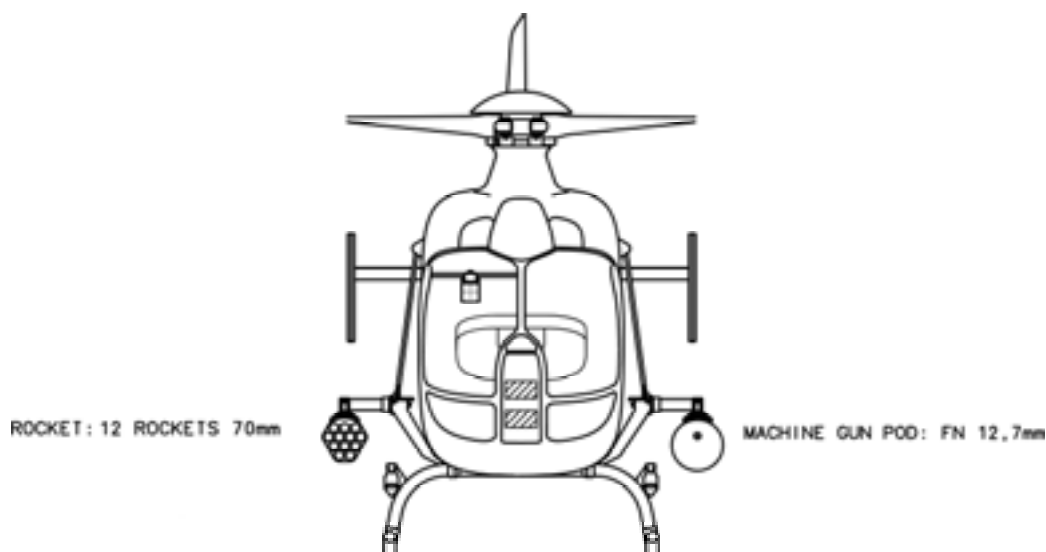
Document reference	Commercial reference	Title	kg	lb
07-15016-A	L2512-003-10	Height adjustable pilot seat (instead of standard pilot seat)	3.7	8.1
11-90004-A	L8580-200-00	Reflex Sight T100 incl. control panel and sight support	5.1	11.2
11-90008-A	L8580-010-12	Multi-Purpose Armament System (MPAS), basic electrical part	12.0	26.5
11-90005-A	L8580-600-00	Gun & Rocket Control Panel GRMU	3.0	6.6
11-90007-A	L8580-100-00	Master Armament Panel MAP	0.75	1.7
11-90008-A	L8580-400-00	Automatic/Manual Range Select Panel AMR	0.5	1.1
11-00009-A	L8513-001-20	Multi-purpose pylon, RH and LH, detachable parts incl. aerodynamic fairings	25.4	56.0
11-00010-A	L8580-200-00	Light Suspensions 325mm with release unit, LH and RH including cabling	35.8	78.9

¹⁴ Weight of ammunition is included

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.

5.2.5 Rocket launchers 70mm and 12.7 mm gun pod



Content:

Document reference	Commercial reference	Title	Weight (margin $\pm 3\%$)	
			kg	lb
		Machine gun pod FN-Herstal HMP400 cal. 12.7 mm, capacity 400 rounds	138 ¹⁵	304 ⁹⁾
		12 - tube rocket launcher FZ-Herstal FZ321 mod1, cal. 70 mm, capacity 12 rockets	179 ⁹⁾	395 ⁹⁾

Minimum required equipment

Document reference	Commercial reference	Title	kg	lb
07-15016-A	L2512-003-10	Height adjustable pilot seat (instead of standard pilot seat)	3.7	8.1
11-90004	L8580-200-00	Reflex Sight T100 incl. control panel and sight support	5.1	11.2
11-90008	L8580-010-12	Multi-Purpose Armament System (MPAS), basic electrical part	12.0	26.5
11-90005	L8580-600-00	Gun & Rocket Control Panel GRMU	3.0	6.6
11-90007	L8580-100-00	Master Armament Panel MAP	0.75	1.7
11-90008	L8580-400-00	Automatic/Manual Range Select Panel AMR	0.5	1.1
11-90006	L8580-500-00	Command and Control Panel PC17	0.4	0.9
11-00009	L8513-001-20	Multi-purpose pylon, RH and LH, detachable parts incl. aerodynamic fairings	25.4	56.0
11-0010	L8580-200-00	Light Suspensions 325mm with release unit, LH and RH including cabling, detachable parts	35.8	78.9

Further available military equipment on request:

- Door Gunner Post cal. 7.62 mm
- Defense Aids Suite (DAS):
 - Missile Launch Detector MILDS
 - Electro Chaff-Flare dispenser system (C/F-D)

¹⁵ Weight of ammunition is included

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6 Optional equipment

Due to the multi-role capabilities and the high complexity of the EC635, each configuration has to be checked through EUROCOPTER offer department in order to define the incompatibilities between the different options.

6.1 Further available equipment

General Equipment

Weight
(margin $\pm 3\%$)

Document reference	Commercial reference	Title	kg	lb
05-02016-A	L1111-002-00	Two-color external painting instead of single color painting	1.5	3.3
05-02016-A	L1111-004-00	Multicolor external painting instead of single color painting	2.0	4.4
05-12001-A	L5232-001-00	Multifunction handle on the main gear box cowling (LH and RH)	0.6	1.3
05-12002-A	L2551-003-00	Additional 4 tie-down fittings for airline attachment rails	0.6	1.3
05-21015-A	L8541-001-10	Wire strike protection system, fixed provisions	3.3	7.3
05-21015-A	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
05-22013-B	L7100-001-00	Automatic in flight power check	0.0	0.0
05-22007-A	L7924-001-00	Fuzz burners for engines	1.2	2.6
05-22008-A	L2621-001-00	Engine fire extinguishing system	3.6	7.9
05-23006-A	L7165-002-00	Engine compressor washing device	3.2	7.1
05-24017-A	L6211-014-00	Sand erosion protection kit for rotor blades	0.9	2.0
05-25016-A	L7161-001-10	Sand filter system, fixed provisions	10.1	22.3
05-25016-A	L7161-001-20	Sand filter system, detachable parts	26.2	57.8
05-26012-A	L1241-001-00	Anti-corrosion protection for high corrosive environment	2.0	4.4
05-31025-A	L5211-002-00	Sliding window in sliding doors	0.9	2.0
05-31026-B	L2514-002-00	Tinted sun shades for cockpit windshield roof section	1.9	4.2
05-31026-B	L5621-001-00	Tinted window for cockpit doors	0.0	0.0
05-31026-B	L5632-001-00	Tinted windows for passenger cabin (incl. sliding window for sliding doors)	0.9	2.0
05-31027-A	L5633-001-10	Window in clam-shell door, LH	0.6	1.3
05-31027-A	L5633-001-20	Window in clam-shell door, RH	0.6	1.3
05-31028-A	L2524-030-10	IFR – training screen, fixed provisions	0.1	0.2
05-31028-A	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-A	L3042-001-00	Windshield wiper system	4.9	10.8
05-34003-A	L2576-002-00	Dampers for avionics compartment (avionics compartment required)	1.6	3.5

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

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>kg</i>	<i>lb</i>
05-37016-A	L6701-001-00	Copilot flight controls	6.0	13.2
05-37017-A	L6721-001-00	Covers for copilot flight controls ¹⁶	-2.5	-5.5
05-39006-A	L2514-003-01	Map case in copilot door	0.5	1.1
05-39007-A	L3111-001-10	Map cases on instrument panel glare shield	0.6	1.3
05-39008-A	L3113-004-10	Illuminated chart holder for pilot side	0.9	2.0
05-39008-A	L3113-004-20	Illuminated chart holder for copilot side	0.9	2.0
05-42019-A	L2105-001-00	Air conditioning system	58.7	129.4
05-42020-A	L2105-001-10	Air conditioning system for tropical environment	61.9	136.5
05-61010-A	L2433-003-00	Battery, type "Saft", ULM, 27 Ah, 24 V instead of standard battery	8.2	18.1
05-61010-A	L2433-006-00	Battery, type "Saft", ULM, 40 Ah, 24 V instead of standard battery	16.8	37.0
05-71001-A	L6351-001-00	Rotor brake system	6.3	13.9
05-81032-A	L2818-100-10	Internal long range fuel tank system, fixed provisions	3.8	8.4
05-81032-A	L2818-100-20	Internal long range fuel tank system, detachable parts	35.2	77.6
05-85008-A	L2843-001-00	Fuel management system (Fuel flow meters)	1.0	2.2
05-92009-A	L6611-001-10	Main rotor blade folding: basic kit	1.3	2.9
05-92009-A	L6611-001-20	Main rotor blade folding: fixed provisions for ground handling kit (basic kit required)	0.7	1.5
05-92009-A	L6611-001-30	Main rotor blade folding: ground handling kit	GSE	GSE
05-93007-A	L8544-002-00	Lashing points (wind speeds up to 100 kts) (weight GSE: 24.9 kg)	0.7	1.5
05-93008-A	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-A	L1321-001-00	Tie-down and covering kit (long-term outside helicopter parking)	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	L6201-001-00	VMS II (Track & Balance system)	2.7	6.0

Specific Mission Equipment
Weight
 (margin \pm 3 %)

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

¹⁶ 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-A	L8512-001-10	External hoist, fixed provisions ¹⁷	8.6	19.0
06-21017-A	L8512-001-20	External hoist 50m, detachable parts, ¹⁷ (incl. 1 week winch operator training)	58.8	129.6
06-21017-A	L8512-001-21	External hoist 90m, detachable parts, ¹⁷ (incl. 1 week winch operator training)	62.7	138.2
06-24009-A	L8534-002-22	External rope-down device for 2 persons, detachable parts RH ¹⁸		
06-24009-A	L8534-002-21	External rope-down device for 2 persons, detachable parts LH ¹⁸	13.3	29.3
06-24012-A	L8534-001-10	Internal rope-down device for 4 persons, fixed provisions (for std. landing gear only)	6.0	13.2
06-24012-A	L8534-001-20	Internal rope-down device for 4 persons, detachable parts (for std. landing gear only)	8.7	19.2
06-26011-A	L8511-002-10	Cargo hook mirrors, fixed provisions	0.8	1.8
06-26011-A	L8511-002-20	Cargo hook mirrors, detachable parts	3.9	8.6
06-27019-A	L8511-001-10	Cargo hook system, fixed provisions	3.2	7.1
06-27019-A	L8511-001-30	Cargo hook system, detachable parts (cargo hook mirrors required)	16.5	36.4
06-27022-A	L8511-005-10	Double cargo hook system, fixed provisions	4.3	9.5
06-27022-A	L8511-005-20	Double cargo hook system, detachable parts	22.1	48.7
06-45024-A	L3343-006-00	Landing & search light, 400/200 W, NVG friendly	6.3	13.9
06-46001-A	L3344-001-00	Strobe lights, white	1.4	3.1
06-61015-A	L3215-001-10	Emergency floats, fixed provisions (standard landing gear only)	7.8	17.2
06-61015-A	L3215-001-21	Emergency floats, detachable parts (standard landing gear only)	64.6	142.4
06-65002-A	L2566-001-00	Emergency hammer	0.2	0.4
06-65004-A	L2625-003-00	2nd portable fire extinguisher	2.8	6.2
06-66009-A	L3322-001-00	Boarding step illumination	0.2	0.4
06-66017-A	L3353-010-00	HEEL System (Helicopter Emergency Egress Lighting) (Emergency lights required)	5.6	12.3
06-67037-A	L2563-005-00	Underwater Locator Beacon, ELP-362D	0.5	1.1
06-67047-A	L2563-812-00	Automatic Deployable ELT	9.1	20.1
06-69005-A	L2341-006-61	Voice alert generator 611-014 (NAT)	0.5	1.1
06-78009-A	L3347-006-00	Formation lights NVG friendly	5.3	11.7
06-78006-A	L3347-005-00	IR flasher	2.0	4.4
06-81009-A	L8503-001-10	Fire extinguishing bucket attachment (Bambi Bucket), fixed provisions (cargo hook or double cargo hook system required)	0.9	2.0

¹⁷ Communication via copilot audio / comm. control unit

¹⁸ Operation cannot be civil certified, L8514-002-00 'Multipurpose attachment hard points (3ea) required

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.

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-A	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-A	L2524-021-00	Separation curtain for cabin / cargo compartment incl. smoke detector in cargo compartment (avionics compartment required)	2.3	5.1
07-30015-A	L2524-001-00	Separation wall for cabin / cargo compartment incl. smoke detector in cargo compartment (avionics compartment required)	3.9	8.6
07-30018-A	L5213-003-00	Curtains for cabin windows (grey)	1.5	3.3
07-40005-A	L2513-200-00	Washable floor covering for cockpit	4.1	9.1
07-40005-A	L2513-210-00	Washable floor covering for cargo compartment	3.0	6.4
07-40005-A	L2513-220-00	Washable floor covering for cockpit, cabin and cargo compartment	11.8	26.0
07-50025-A	L5211-004-10	Securing device for complete opening of copilot door (copilot pitot / static system required)	0.8	1.8
07-50026-A	L5231-001-00	One-hand latching system for clam-shell doors	1.0	2.2
07-50027-A	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
07-50034-A	L5212-001-00	Jettisonable cockpit doors	1.2	2.6
07-50035-A	L8504-813-00	Spoiler position for cockpit doors	1.9	4.2
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

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

6.2 Avionics

			Weight	
			<i>(margin ± 3 %)</i>	
08-15028-A	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
08-17032-A	L2331-003-00	Cabin loudspeaker	2.5	5.5
08-18018-A	L2315-001-10	Headset H 10-76 (DAVID CLARK), Low Impedance Spiral Wire	0.5	1.1
08-18018-A	L2315-001-14	Headset H10-76 ANR/ENC (DAVID CLARK), Low Impedance Spiral Wire	0.9	2.0
08-35007-A	L2327-001-01	Traffic Advisory System TAS 9900BX with 3" indicator (RYAN)	11.0	24.3
08-53004-A	L3424-000-00	AHRS Free Steering Mode	0.4	0.9
08-83021-A	L3172-001-00	STEADYCONTROL[®] (Track, Balance and Vibration recording system)	tbd	tbd
	On request	DF equipment		
	On request	IFF transponder		
	On request	HF system		
	On request	Moving Map system		
	On request	Weather Radar		
	On request	Tactical radio		
	On request	Further Audio / Comm. Control solutions		

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

Operational Protection

Weight
(margin $\pm 3\%$)

<i>Document reference</i>	<i>Commercial reference</i>	<i>Title</i>	<i>kg</i>	<i>lb</i>
10-20009-A	L8551-001-10	Light armor protection kit, cockpit and cabin, fixed provisions (type AoA)	1.0	2.2

The detachable parts are available on request or directly by manufacturer for cockpit only or cabin only or cabin rear bulkhead only.

The armor seat plating, complete installation, is also available on request.

EMS Equipment / CASEVAC

On request EMS cabin arrangement

6.3 Observation mission

Different equipment can be offered on request:



- SMD68 on copilots' side (6" x 8" display)
- FLIR (Ultraforce II) with Operator Console and Digital Video Downlink
- SX16 with IFCO, Laserpointer and slaving unit
- Loudspeaker System
- (SAR-) 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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For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

7 Main performance

The following performance values and figures refer to an EC635, 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

Gross Weight		kg	2,400	2,630	2,720	2,835	2,910
		lb	5,290	5,800	6,000	6,250	6,415
■ Maximum speed (V_{NE})	km/h		278	278	278	259	259
	kts		150	150	150	140	140
■ Maximum cruising speed (V_H)	km/h		261	260	257	256	254
	kts		141	140	139	138	137
■ Fuel consumption at fast cruise speed	kg/h		234.5	234.5	234.5	234.5	234.5
	lb/h		517	517	517	517	517
■ Economical cruising speed	km/h		224	224	226	228	230
	kts		121	121	122	123	124
■ Fuel consumption at economical cruising speed	kg/h		193.5	198	200.5	204.5	208.5
	lb/h		427	436.5	442	451	460
■ Fuel consumption at 65 KIAS	kg/h		149.5	156	158.5	162	164.5
	lb/h		330	344	349.5	357	363
■ Rate of climb, TOP, SL, ISA	m/s		10.9	9.4	8.9	8.1	7.6
	ft/min		2,150	1,850	1,750	1,600	1,500
■ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA	m		4,570 ¹⁾	4,450	4,140	3,655 ²⁾	3,045 ³⁾
	ft		15,000 ¹⁾	14,600	13,600	12,000 ²⁾	10,000 ³⁾
■ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA + 20°C	m		3,880	3,415	3,095	2,695	2,435
	ft		12,750	11,200	10,150	8,850	8,000
■ Hover ceiling OGE, TOP, ISA	m		4,500	3,670	3,430	2,685	2,010
	ft		14,750	12,050	11,050	8,800	6,600
■ Hover ceiling OGE, TOP, ISA + 20°C	m		3,460	2,595	2,210	1,785	1,480
	ft		11,350	8,500	7,250	5,850	4,850
■ Service ceiling, MCP, (climb reserve 200 ft/min), ISA	m		6,095	5,410	5,155	3,655 ²⁾	3,045 ³⁾
	ft		20,000	17,750	16,900	12,000 ²⁾	10,000 ³⁾
■ Maximum range (without fuel reserve at economical cruise speed)							
■ standard fuel tank configuration (553 kg)	km		650	640	635	630	625
	nm		351	346	343	340	338
■ long range fuel tank configuration (723 kg)	km		860	845	835	830	825
	nm		464	456	451	448	445
■ Maximum endurance (without fuel reserve at 65 KIAS)							
■ standard fuel tank configuration (553 kg)	h:min		3:52	3:43	3:40	3:36	3:33
	h:min		5:07	4:57	4:52	4:46	4:42

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

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

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 2 engines (AEO) Turbomeca Arrius 2B2

Gross Weight		kg	2,400	2,630	2,720	2,835	2,910
		lb	5,290	5,800	6,000	6,250	6,415
■ Maximum speed (V _{NE})	km/h		278	278	278	259	259
	kts		150	150	150	140	140
■ Maximum cruising speed (V _H)	km/h		261	260	257	256	254
	kts		141	140	139	138	137
■ Fuel consumption at fast cruise speed	kg/h		234.5	234.5	234.5	234.5	234.5
	lb/h		517	517	517	517	517
■ Economical cruising speed	km/h		237	237	237	239	240
	kts		128	128	128	129	130
■ Fuel consumption at economical cruising speed	kg/h		209	213	215	219	221
	lb/h		461	470	474	483	487
■ Fuel consumption at 65 KIAS	kg/h		159.0	165	167.5	170.5	173
	lb/h		350.5	364	369	376	381
■ Rate of climb, TOP, SL, ISA	m/s		10.9	9.4	8.9	8.1	7.6
	ft/min		2,150	1,850	1,750	1,600	1,500
■ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA	m		4,570 ¹⁾	4,570 ¹⁾	4,325	3,655 ²⁾	3,045 ³⁾
	ft		15,000 ¹⁾	15,000 ¹⁾	14,200	12,000 ²⁾	10,000 ³⁾
■ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA + 20°C	m		3,880	3,430	3,080	2,670	2,395
	ft		12,750	11,250	10,100	8,750	7,850
■ Hover ceiling OGE, TOP, ISA	m		4,570 ¹⁾	3,690	3,430	2,685	2,010
	ft		15,000 ¹⁾	12,100	11,050	8,800	6,600
■ Hover ceiling OGE, TOP, ISA + 20°C	m		3,470	2,545	2,175	1,740	1,450
	ft		11,400	8,350	7,150	5,700	4,750
■ Service ceiling, MCP, (climb reserve 200 ft/min), ISA	m		6,095	5,410	5,155	3,655 ²⁾	3,045 ³⁾
	ft		20,000	17,750	16,900	12,000 ²⁾	10,000 ³⁾
■ Maximum range (without fuel reserve at economical cruise speed)							
■ standard fuel tank configuration (553 kg)	km		635	625	620	615	610
	nm		343	338	335	332	329
■ long range fuel tank configuration (723 kg)	km		835	825	815	810	805
	nm		451	445	440	437	434
■ Maximum endurance (without fuel reserve at 65 KIAS)							
■ standard fuel tank configuration (553 kg)	h:min		3:37	3:30	3:27	3:24	3:21
	h:min		4:47	4:38	4:34	4:30	4:27

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) Turbomeca Arrius 2B2

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

OPERATING LIMITATIONS (valid for both versions, EC635 P2i and EC635 T2i)

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

Gross Weight		2,720 kg	2,835 kg	2,910 kg
		6,000 lb.	6,250 lb.	6,415 lb.
■ 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

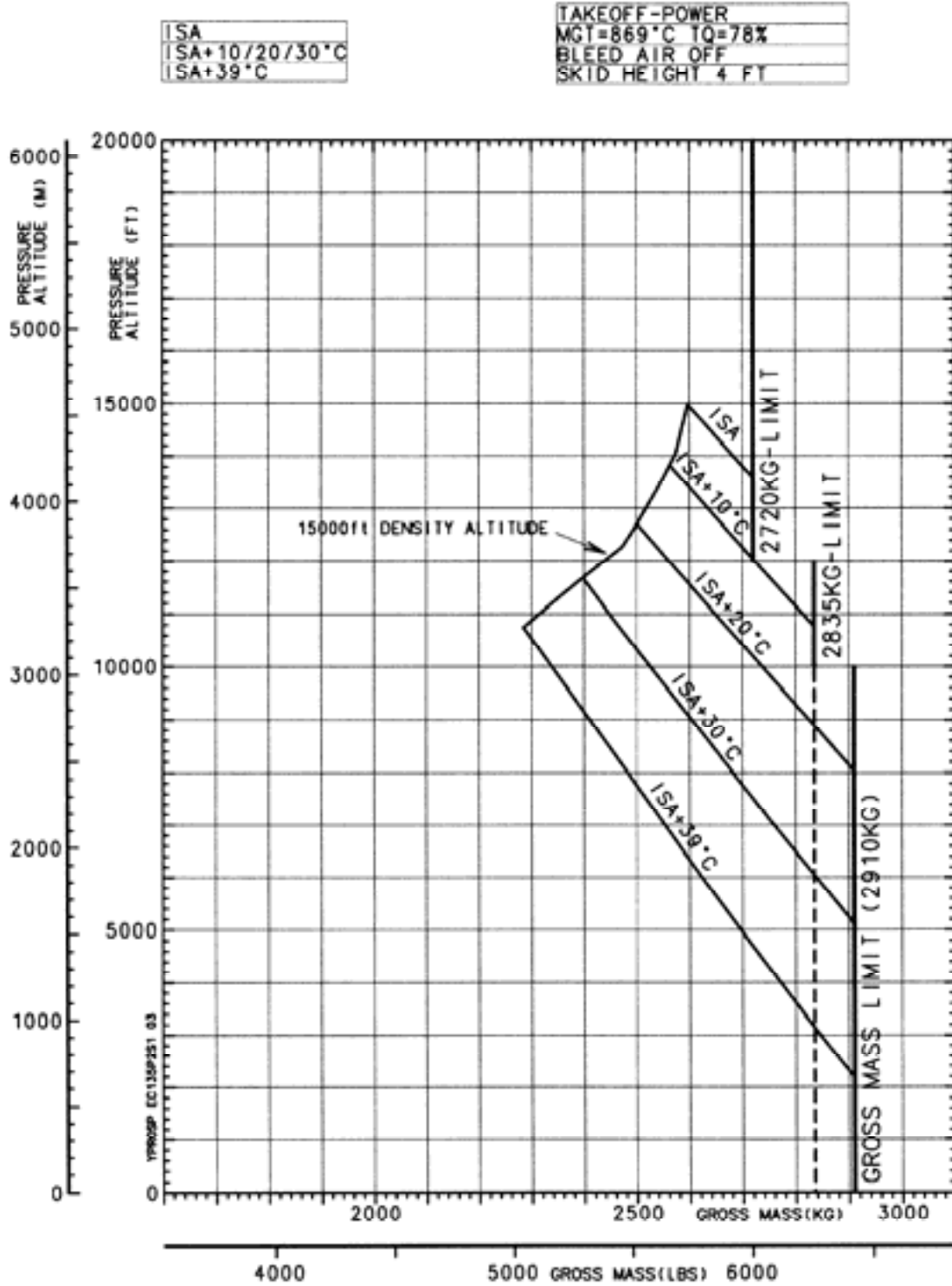
AGL	Above Ground Level	OGE	Out Of Ground Effect
DA	Density Altitude	PA	Pressure Altitude
IGE	In Ground Effect	SL	Sea Level
ISA	International Standard Atmosphere	TOP	Take-Off Power
MCP	Maximum Continuous Power	VNE	Never-Exceed Speed
OEI	One Engine Inoperative	VTOL	Vertical Take-Off and Landing

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 PW206B2 engines



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

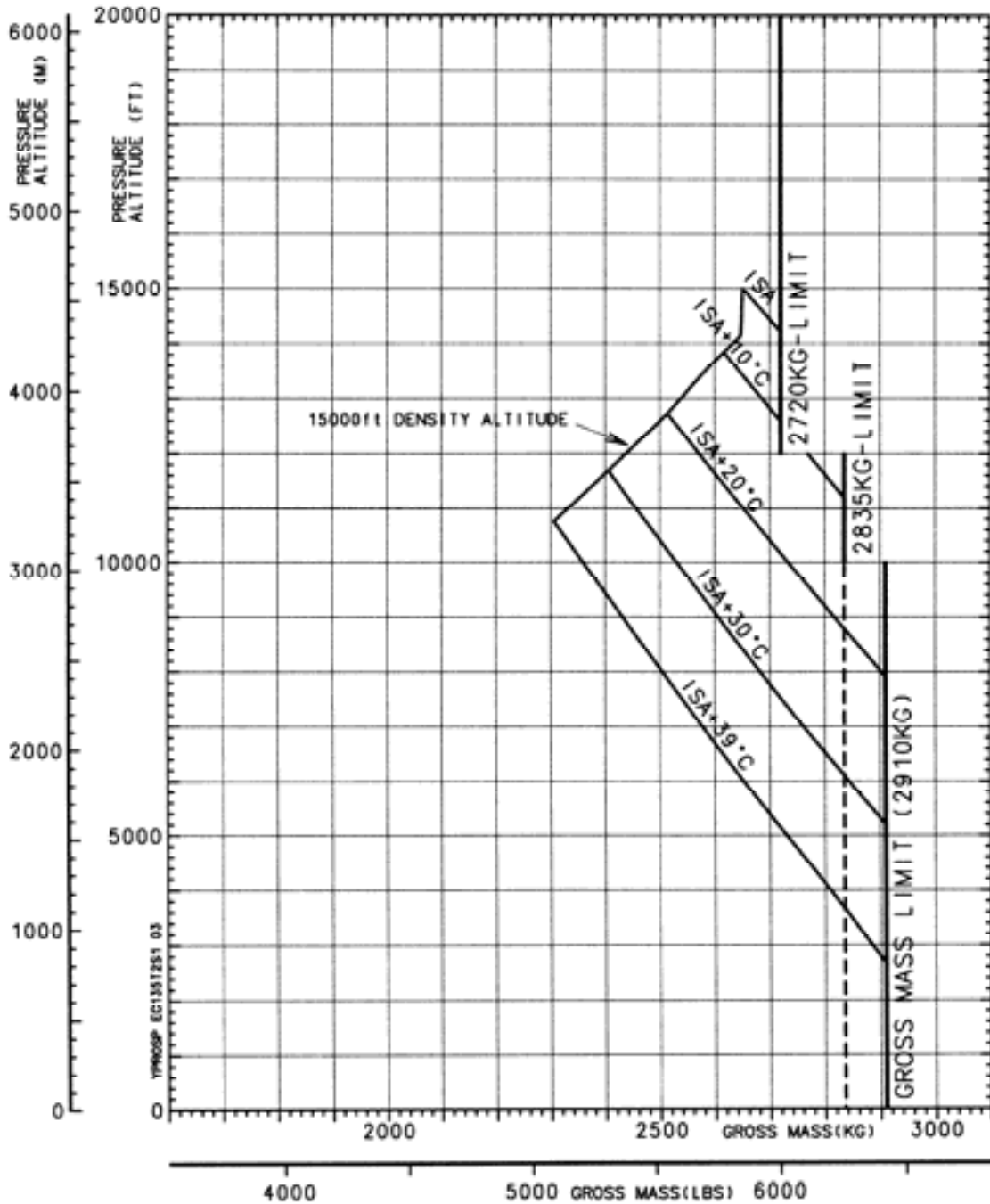
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

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

with two ARRIUS 2B2 engines

ISA
ISA+10/20/30°C
ISA+39°C

TAKEOFF-POWER
ΔN1= 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.

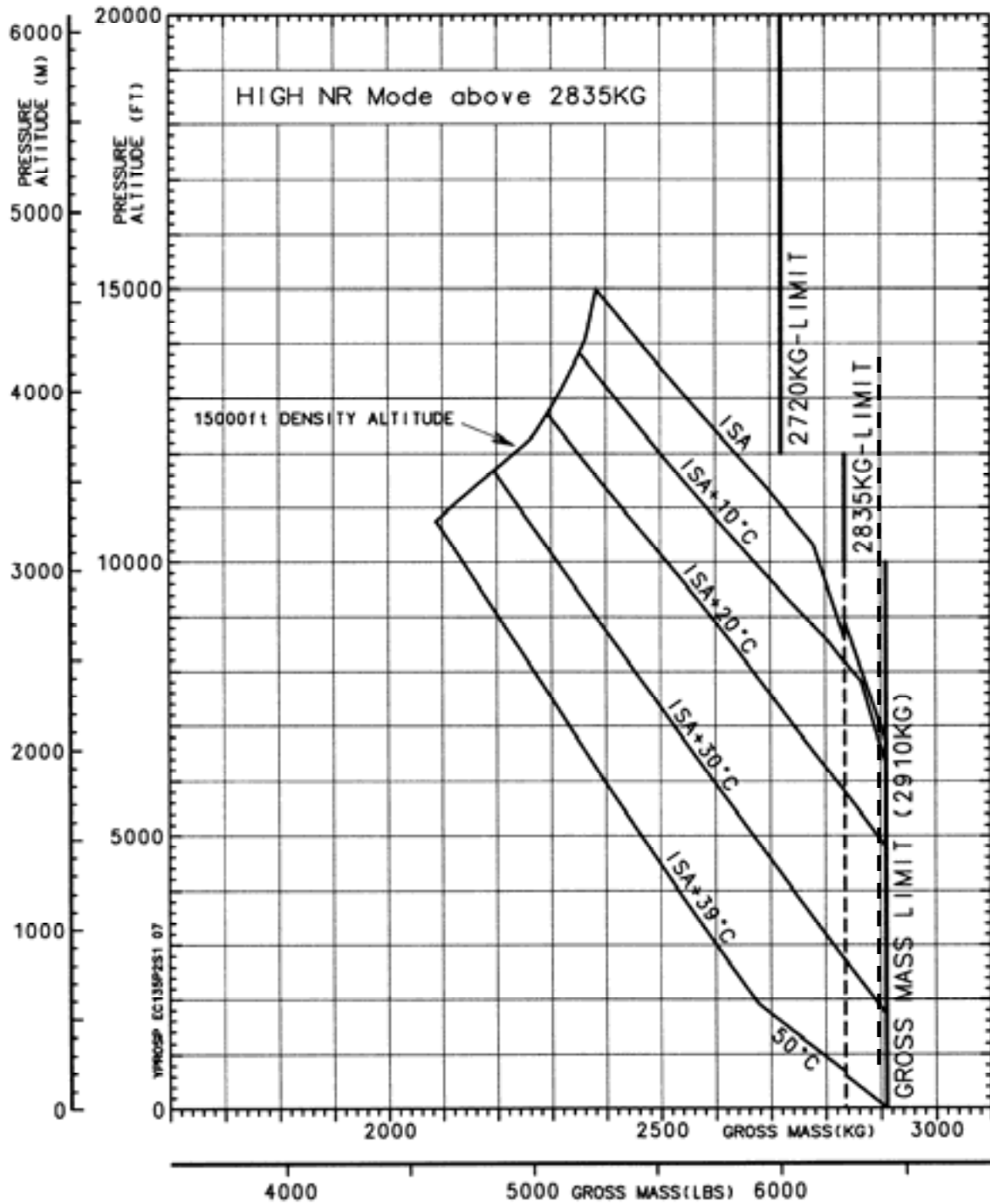
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

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 TQ=78%
BLEED AIR OFF



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

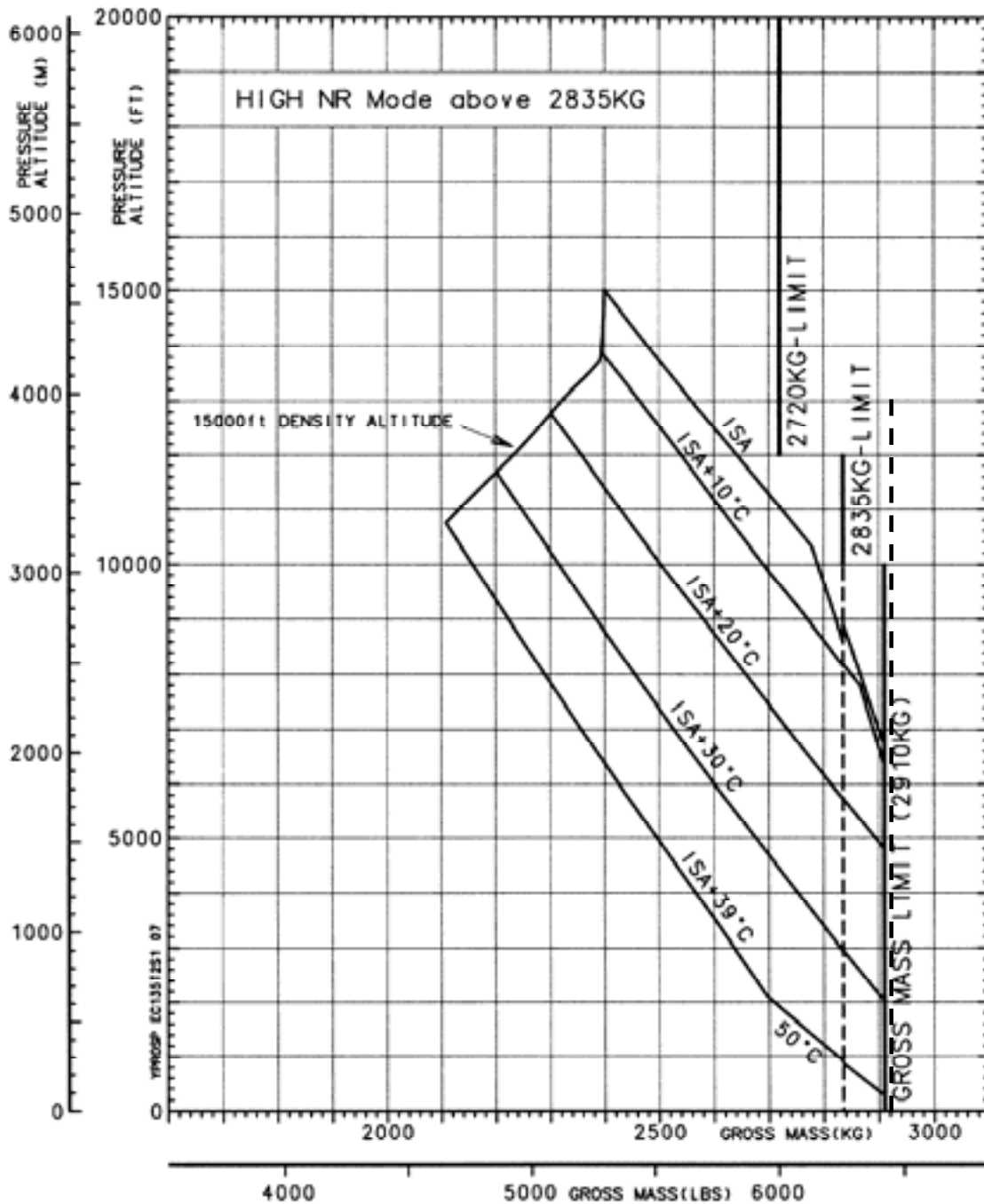
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Hover Out Of Ground Effect (HOGE, TOP)

with two ARRIUS 2B2 engines

ISA
ISA+10/20/30°C
ISA+39°C

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



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

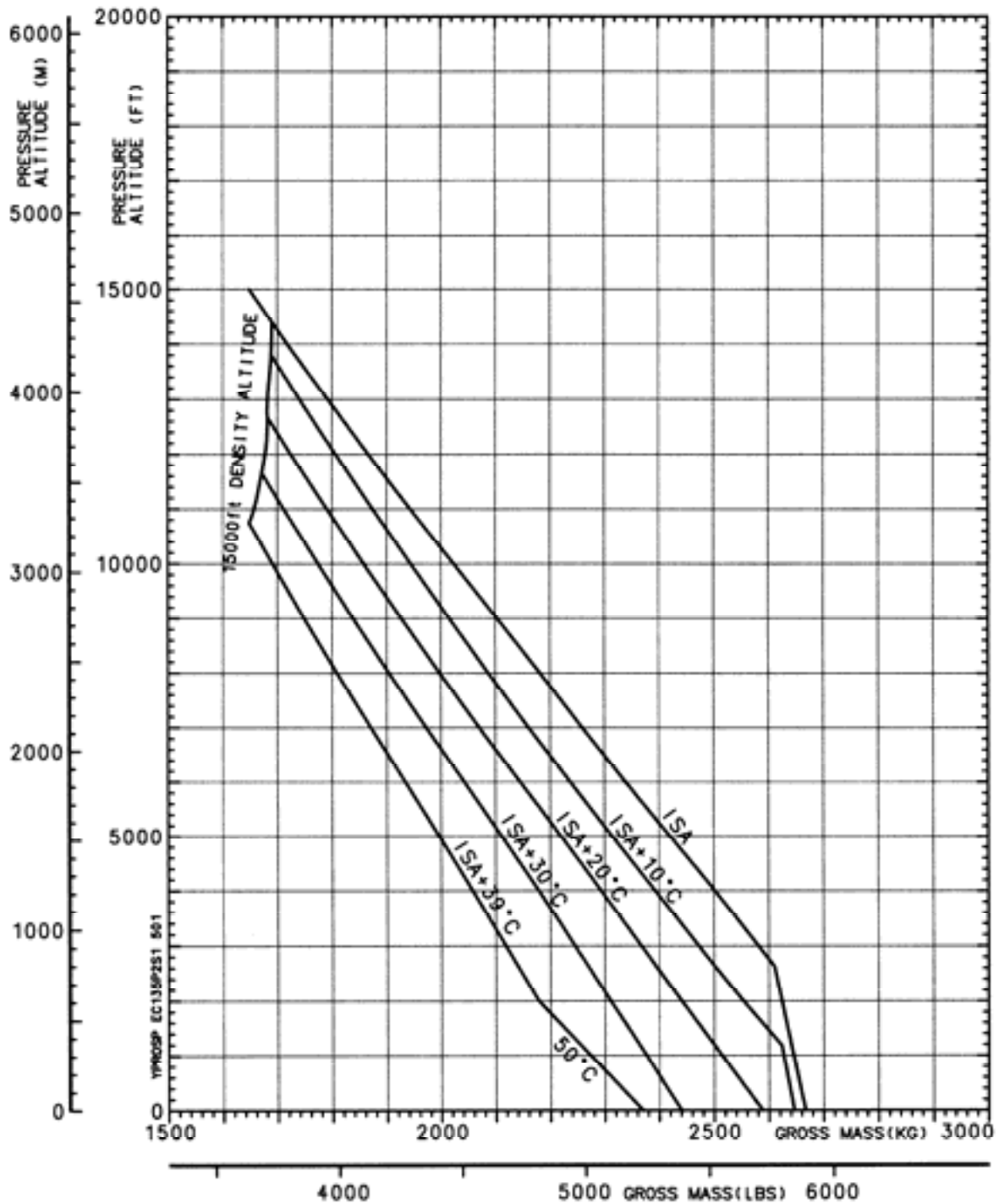
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

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

with one PW206B2 engine

ISA
ISA+10/20/30°C
ISA+39°C

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



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

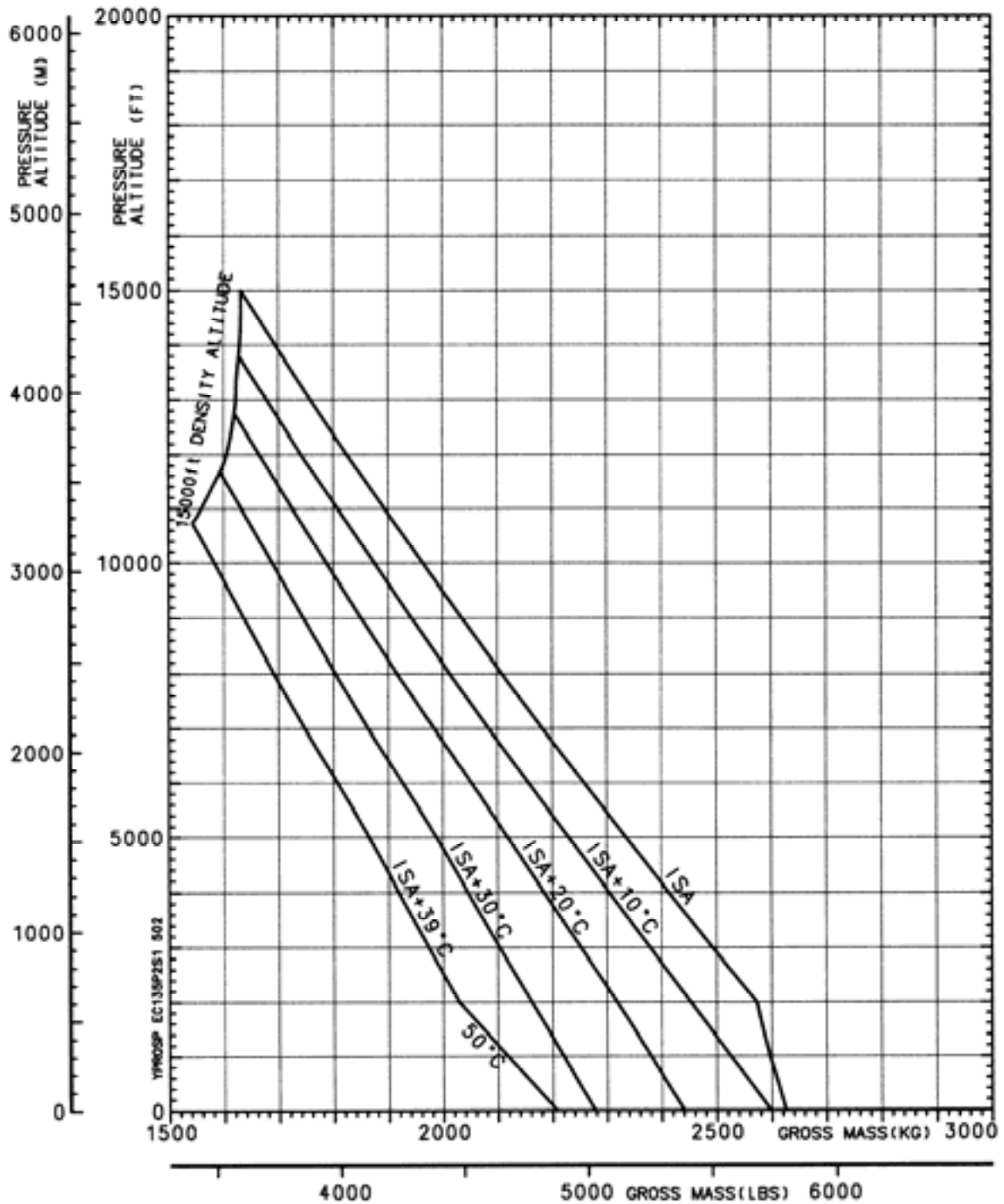
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

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 TQ=125%
BLEED AIR OFF



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

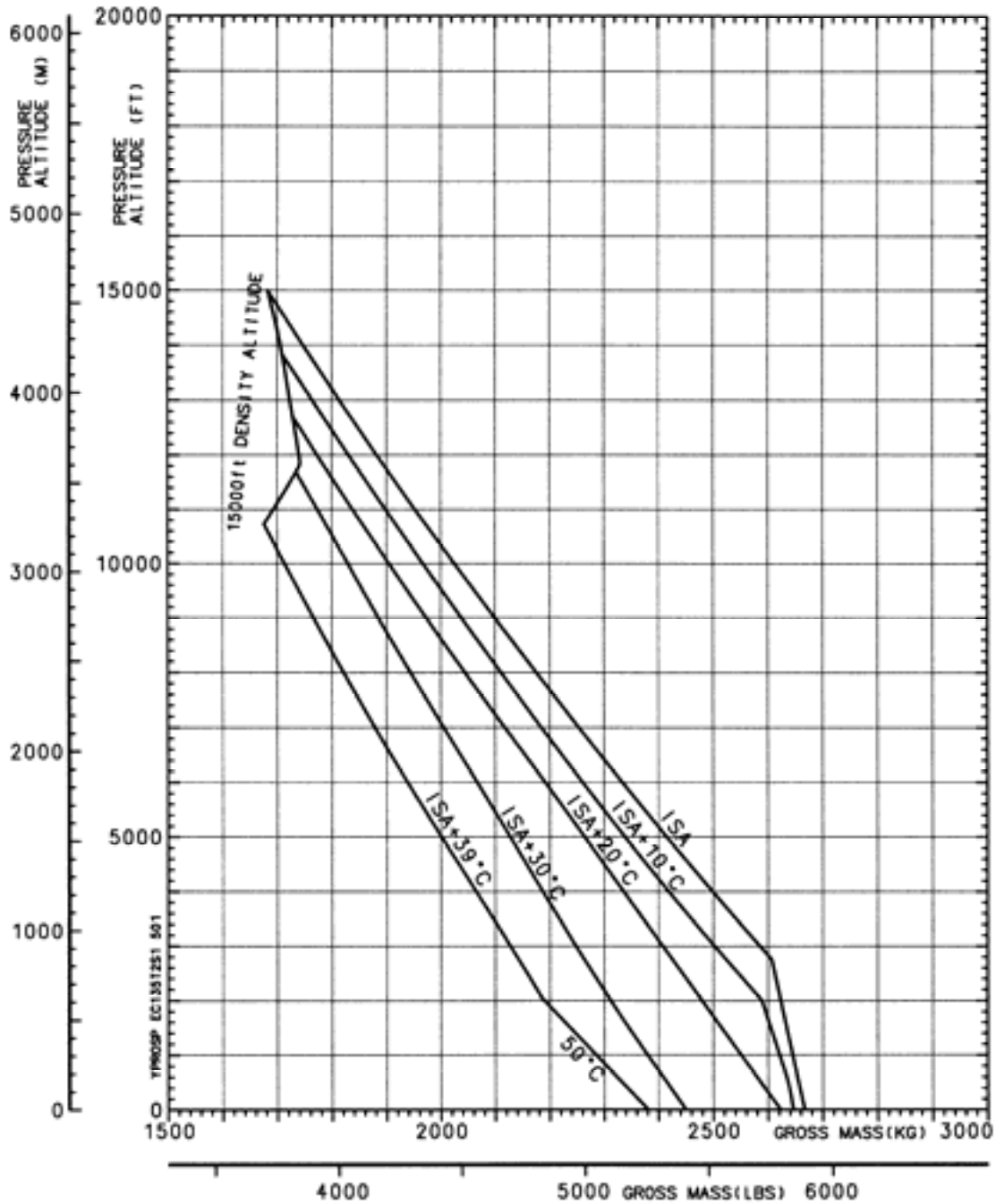
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

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
ΔN1=+4.8% IQ=128%
BLEED AIR OFF



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

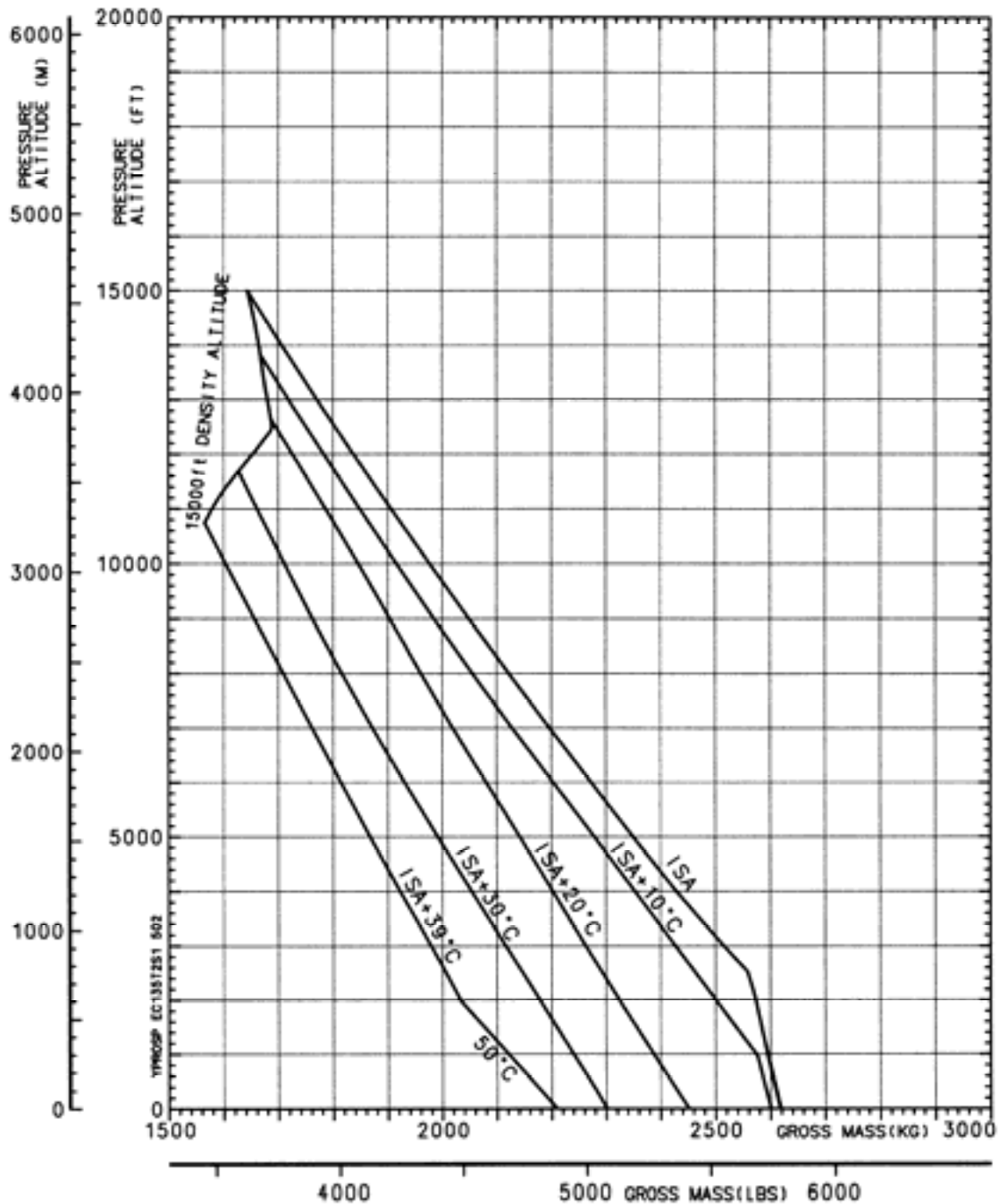
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

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

with one 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



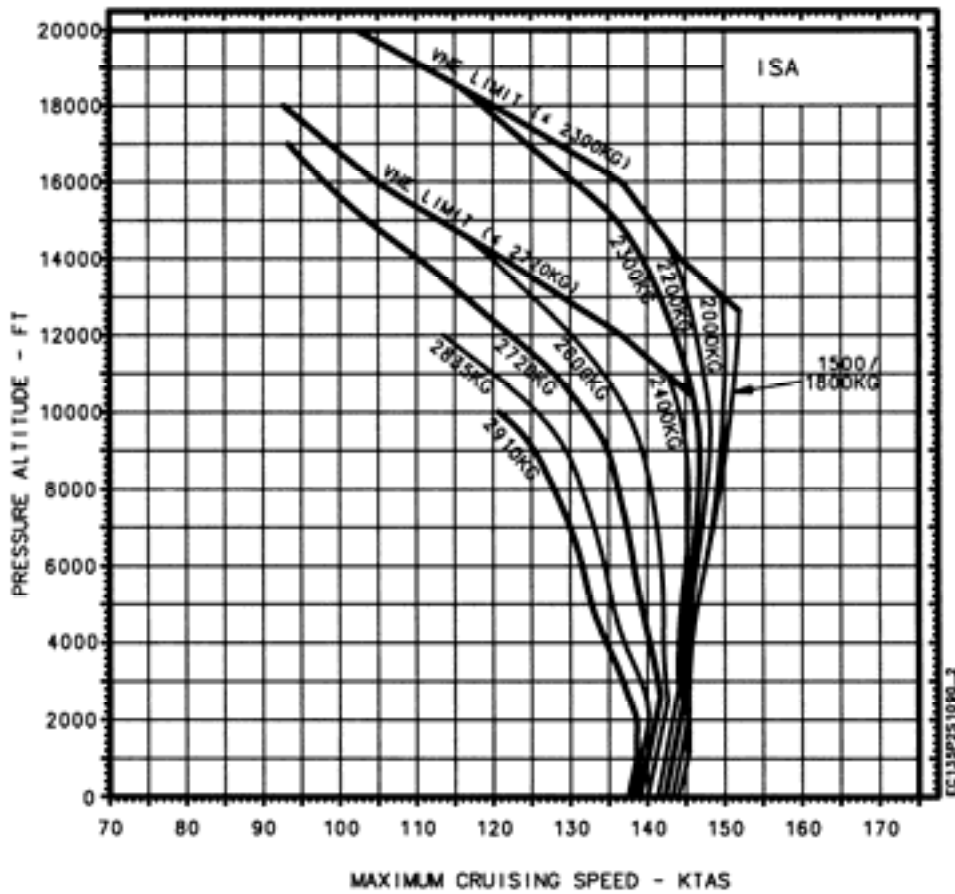
The data set forth in this document are general in nature and for information purposes only.

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



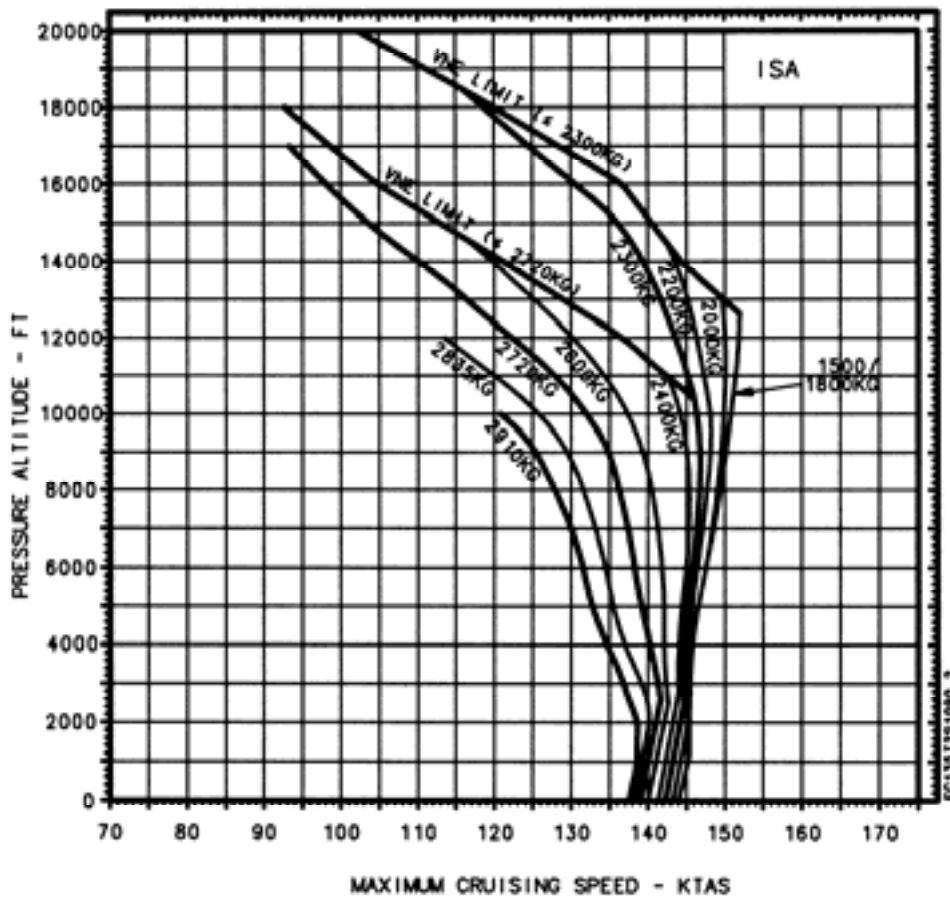
The data set forth in this document are general in nature and for information purposes only.

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.

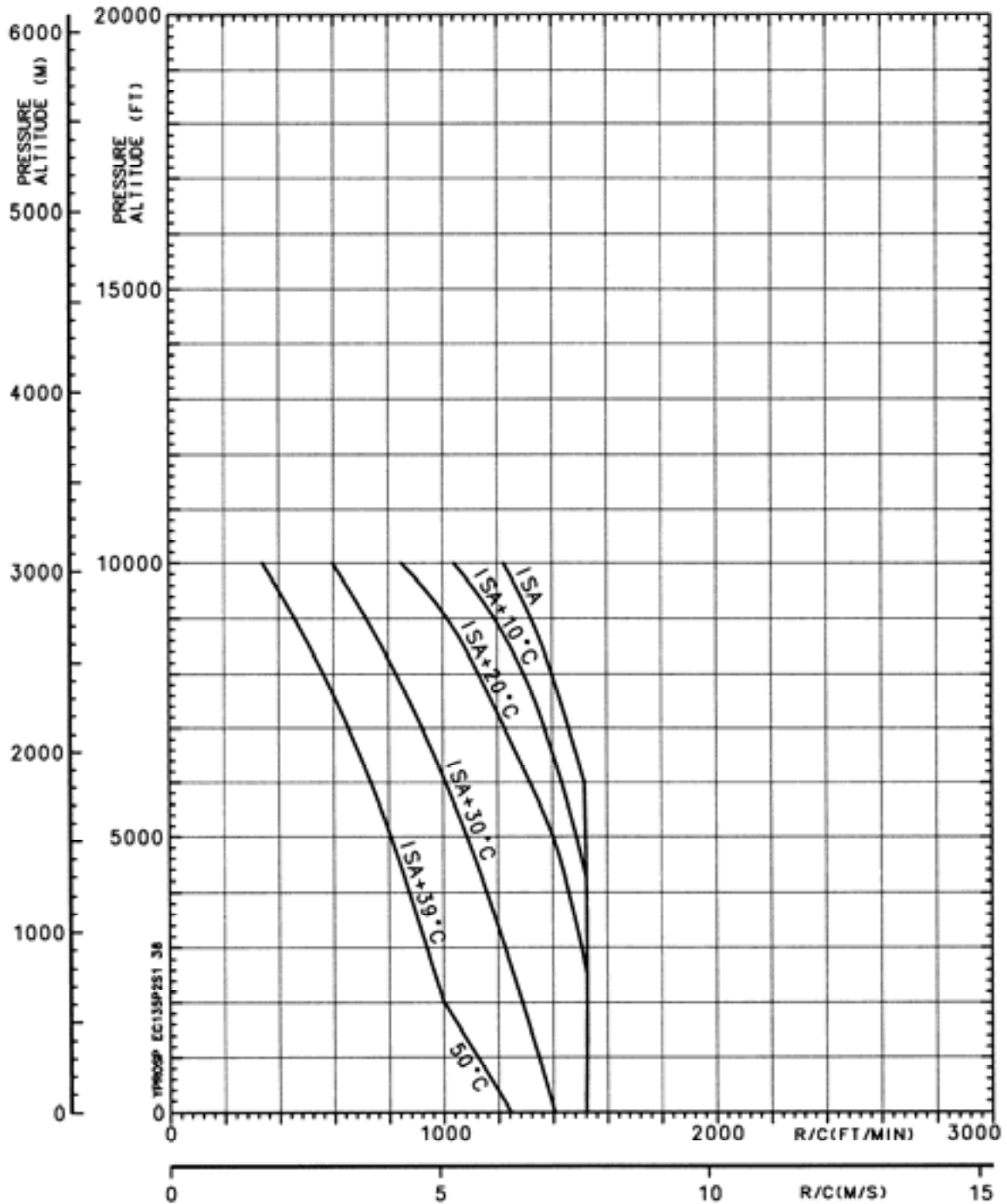
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

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.

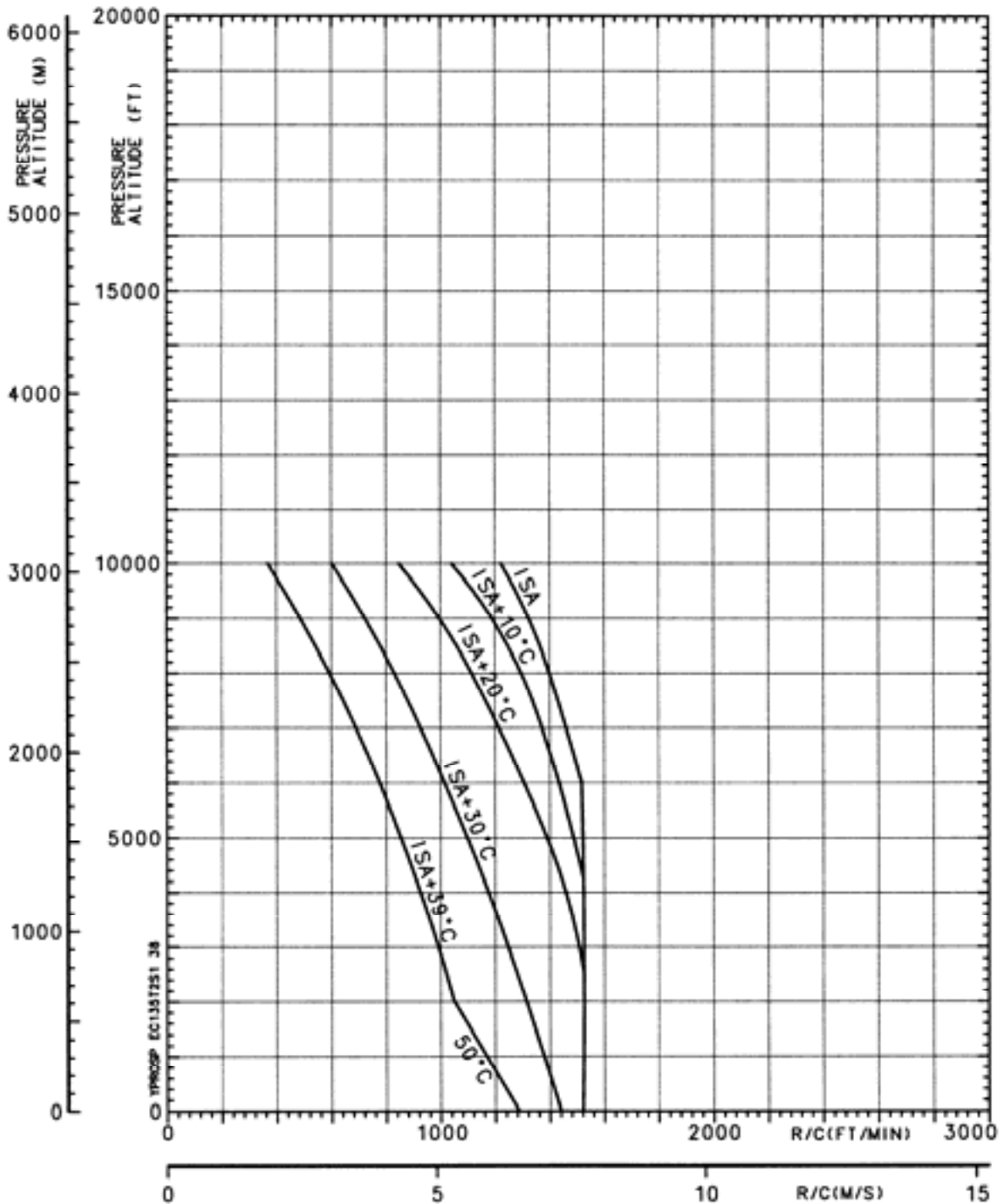
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Maximum Rate Of Climb, TOP

with two ARRIUS 2B2 engines,

ISA
ISA+10/20/30°C
ISA+39°C

AEO TOP-POWER VY=65KT
ΔN1= 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.

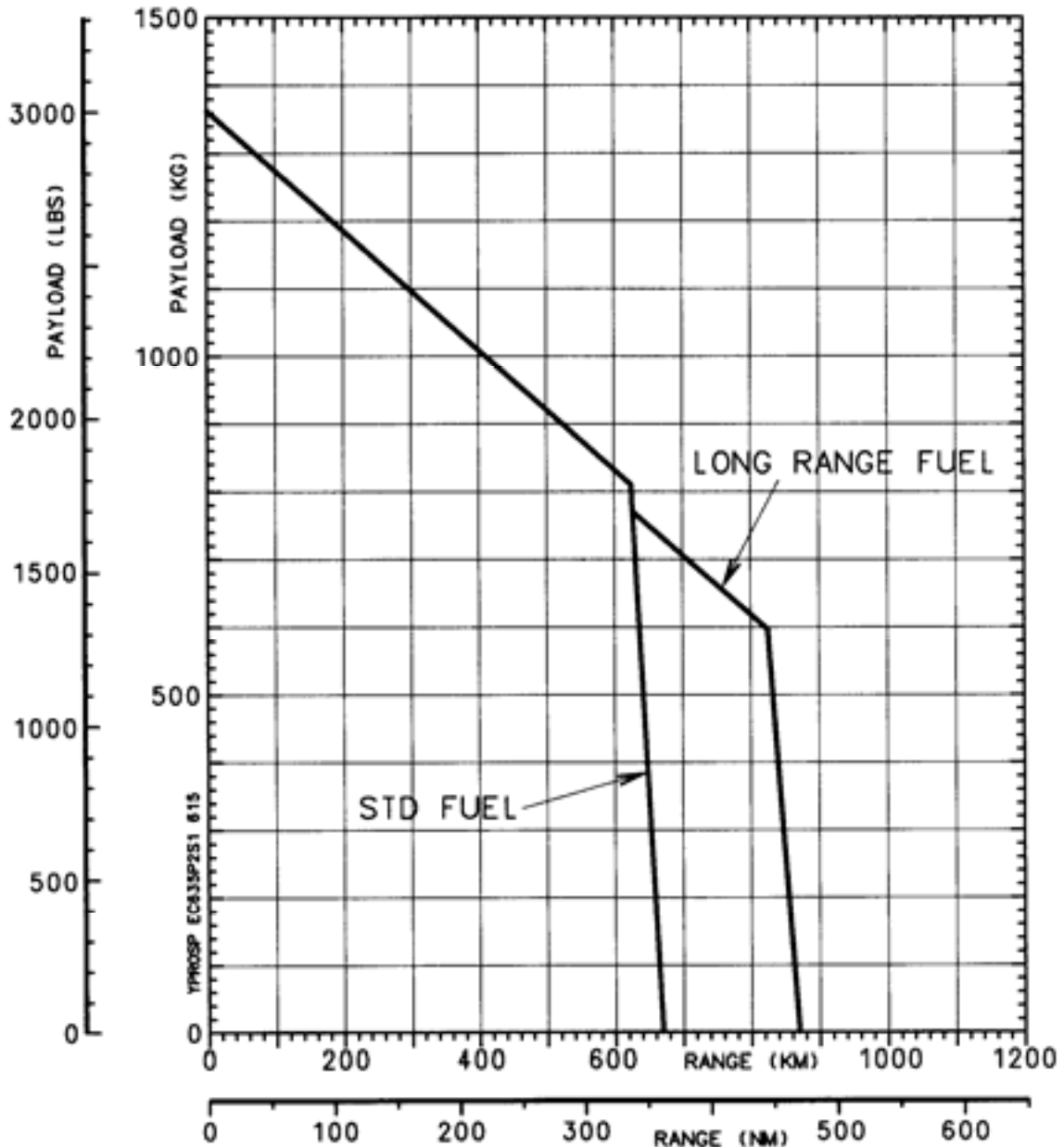
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Payload / Range

with two PW206B2 engines

TOW 2910KG
NO RESERVE
SL / ISA

EMPTY WEIGHT 1467KG/1510KG
USABLE STD FUEL 553KG
LONG RANGE FUEL TANK 170KG
PILOT 80KG



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

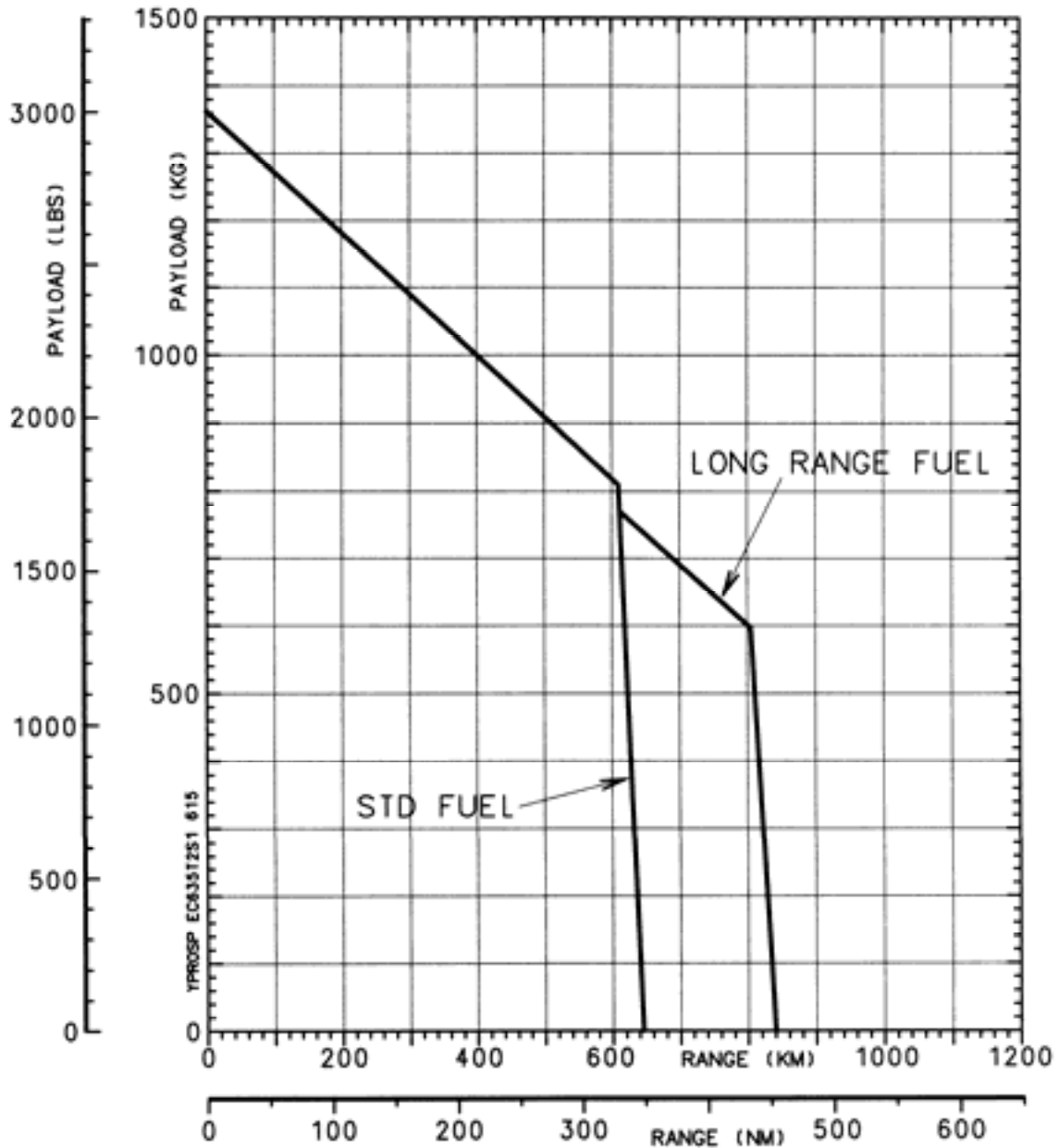
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Payload / Range

with two ARRIUS 2B2 engines

TOW 2910KG
NO RESERVE
SL / ISA

EMPTY WEIGHT 1467KG/1510KG
USABLE STD FUEL 553KG
LONG RANGE FUEL TANK 170KG
PILOT 80KG



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.