

CONTENTS

1 – FOREWORD	3
2 - GENERAL CHARACTERISTICS	5
3 - EC635 - STANDARD AIRCRAFT CONFIGURATION	13
4 - OPTIONAL EQUIPMENT	19
5 - COMMUNICATION / NAVIGATION EQUIPMENT.....	25
5.1 Conventional Instrumentation	25
5.2 Glass Cockpit Instrumentation.....	27
5.3 Antenna Layouts.....	30
5.4 Installation Data Sheet for Tactical Radios.....	31
6 – ARMAMENT.....	33
7 - MAIN PERFORMANCE	37

Intentionally left blank

*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.*

1- FOREWORD

PURPOSE OF DOCUMENT

This document gives a technical overview of the EC635 standard sales configuration and its possible additional equipment. For any more in-depth technical information, please refer to the EC635 Type Specification (635.03.102.01 E).

PRIORITY

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.

IMPORTANT NOTES

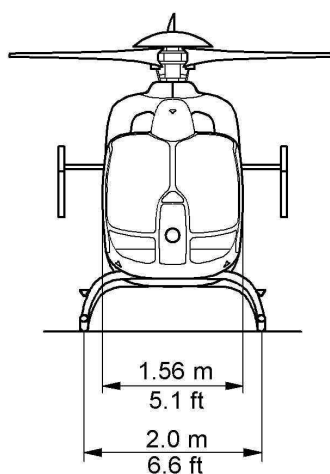
- EUROCOPTER's policy is one of on-going product enhancement which means that alterations in definition, weights, dimensions or performance may be made at any time without notice being included in those documents that have already been issued.
- The data set forth in this document are general in nature and for information purposes only. For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.
- Operational national requirements need to be respected.

*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.*

Intentionally left blank

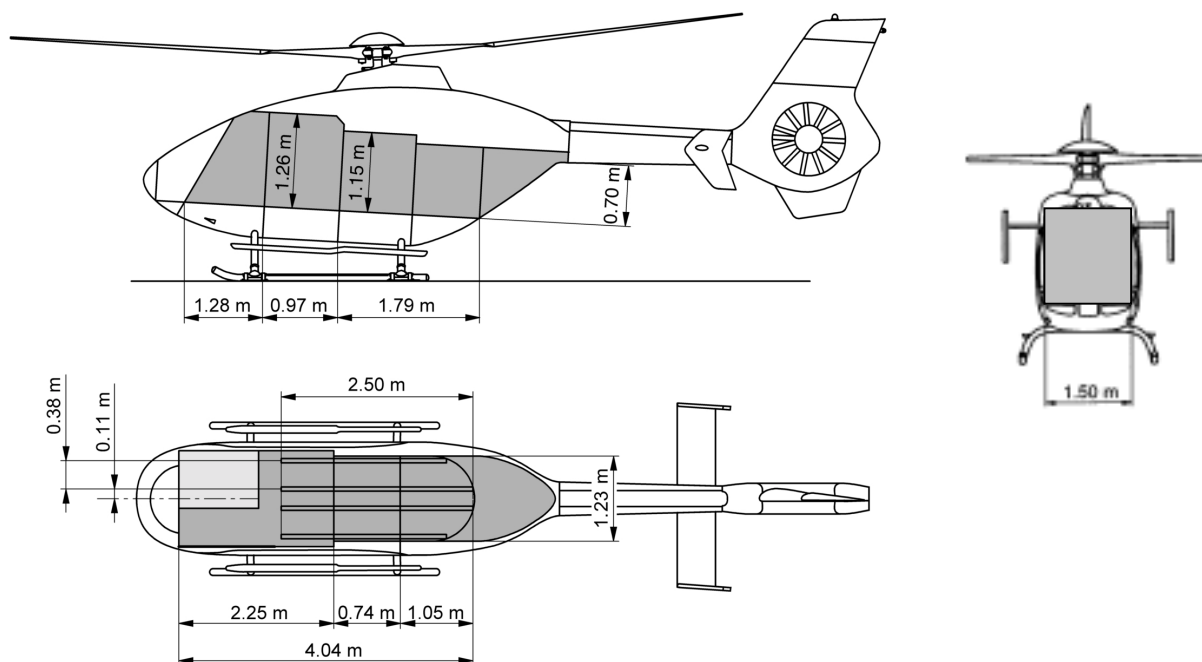
*The data set forth in this document are general in nature and for information purposes only.
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.*

External Dimensions



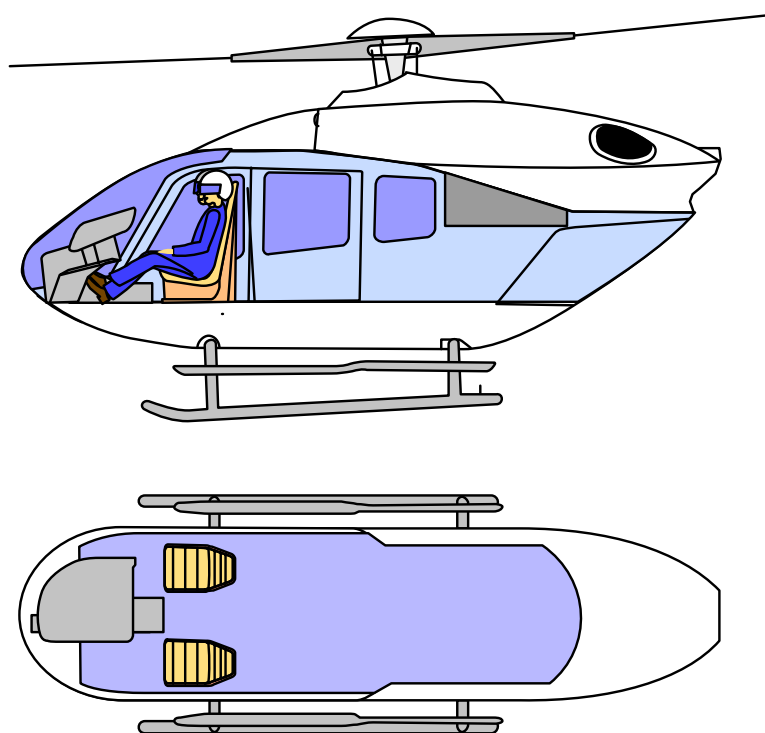
635.03.101.01 E

Internal Dimensions



Floor area		
Cabin & baggage compartment	4.35 m ²	46.83 ft ²
Cockpit (pilot side)	1.15 m ²	12.38 ft ²
Total (undivided)	5.50 m²	59.21 ft²

Volume		
Cabin & baggage compartment	4.90 m ³	173.04 ft ³
Cockpit (pilot side)	1.00 m ³	35.31 ft ³
Total (undivided)	5.90 m³	208.35 ft³



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.

Layout (Alternatives)

- Troop transport:
 - 1 pilot + 6 or 7 troops
 - 2 pilots + 5 or 6 troops
- Medical evacuation:
 - 2 pilots + 1 litter + 4 seats (doctor, attendants or seated patients) (2nd litter in stowed position possible)
 - or 2 pilots + 2 litters + 3 seats
- Armed Mission
 - 1 pilot + 1 officer in command + 1 observer
 - Gun pods 12,7mm
 - or Rocket launchers 70mm
 - or Cannon pods 20mm
 - or mixed armament configurations (refer to page 34)

Weights

	kg	lb.
• Empty weight, wet (in standard aircraft configuration)	1,485	3,274
• Useful load (for standard aircraft configuration)	1,350	2,976
- Pilot	80	176
- Payload and/or fuel	1,270	2,800
• Maximum take-off weight	2,835	6,250
• Maximum take-off weight with external load (on cargo hook system)	2,900	6,400

Engines

- 2 Pratt & Whitney turbine engines: new PW206B2 with 30 sec-rating
- or
- 2 Turbomeca turbine engines: new ARRIUS 2B2 with 30 sec-rating

Engine ratings (thermodynamic limits per engine at SL, I SA):

PW206B2	kW	ch	shp
• 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)	463	630	621
• Maximum Continuous Power (MCP)	419	570	562

ARRIUS 2B2	kW	ch	shp
• 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)	452	615	606
• Maximum Continuous Power (MCP)	426	579	571

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.

Main Transmission

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 353	1 x 480	1 x 473
Twin engine operation			
• Take-Off Power (TOP)	2 x 308	2 x 419	2 x 413
• Maximum Continuous Power (MCP)	2 x 283	2 x 385	2 x 380

Fuel Capacities

	Usable Fuel			Unusable Fuel		Total	
	(lb)	(kg)	(l)	(lb.)	(kg)	(lb.)	(kg)
Main Tank	1033.0	468.6	585.7	7.5	3.4	1040.5	472.0
Supply Tank	186.5	84.6	105.8	9.3	4.2	195.8	88.8
Total	1219.5	553.2	691.5	16.8	7.6	1236.3	560.8

Note:

Supply tank is self sealing type

Tolerance of fuel figures: $\pm 1\%$

Fuel density used is 0.8 kg/litre.

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.

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 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. 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 optionals supplemented by specialised military equipment is available for the EC635, as for example different types of armament and military COM/NAV (IFF, HF, etc.) linked via MIL BUS 1553. Together with its most versatile cabin layout, the EC635 is ready to be adapted for a wide range of missions, like utility transport, armed combat support, medical evacuation, to name a few. 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

*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.*



EC635 with rocket launcher and 12,7mm gun pod



Cargo compartment of the EC635

*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.*

The EC635 is available with a conventional cockpit layout and a glass cockpit layout, which are both NVG compatible. 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.



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



Typical example of a Glass Cockpit layout (NVG compatible)

*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.*

Intentionally left blank

*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.*

3- EC 635 - STANDARD AIRCRAFT CONFIGURATION

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 long skids and skid protectors, capable of taking ground-handling wheels
Reinforced rear landing gear cross tube
Settling protectors (anti-sink pads), fixed provisions
Long boarding steps, LH and RH
Maintenance built-in steps and grips
Multi-function handle, LH and RH, at main gearbox cowling
Exterior painting (single colour)

Cockpit, Cabin and Cargo Compartment

One-level cabin and cargo compartment floor with integrated rails
Checked cover plates for cable tunnels, LH and RH, in the cabin/cargo compartment
Glazed canopy
Two hinged cockpit doors (with sliding window and map case in pilot and copilot door)
Two wide passenger sliding doors
Sliding door fastener LH and RH, max. position
Two rear hinged clam-shell doors
Longitudinally and height adjustable energy absorbing pilot seat with adjustable headrest and lumbar support and 5-point safety harness with automatic and manual locking
Longitudinally adjustable energy absorbing copilot seat with head rest and 4-point safety belts with automatic locking system
Multifunction handles on cockpit roof frame, LH and RH
Cabin boarding grips (LH and RH)
NVG compatible standard cockpit layout (NVG compatible colour)
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
Map cases on instrument panel glare shield

*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.*

Slant panel
Center console
Ram-air and electrical ventilating system for cockpit and cabin
Headset holder in the cockpit, rotatable
Headset holder in the cabin
Portable fire extinguisher
Stowage net for first aid kit at the LH rear clam-shell door
Flash light (torch)
Mobile tie-down rings (4ea)

Basic Instrumentation, NVG compatible

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, 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 temperature)
 - * Dual ammeter (generator)
 - * Ammeter (battery)
 - * Dual voltmeter
 - * Outside Air Temperature (OAT)
 - * Engine cycle counter (on flight report page)
 - * Mast moment indication
 - * Parameters of optional equipment

Instruments consisting of:

- Clock (2")
- Magnetic compass
- Triple (rotor and engines) RPM-indicator (2")

Warning unit consisting of:

- Engine fire warning with fuel emergency shut-off
- Warning lights
- Aural warning (for each warning, rotor RPM, fire warning)

Main switch panel consisting of:

- DC power control
- Digital engine control (FADEC)

Pitot/static system with electrical heated pitot tube, pilot side

Static pressure crossover system.

Standard Flight Instruments, NVG compatible

- Encoding altimeter (3")
- Airspeed indicator (3")
- Vertical speed indicator (3")

For optional Avionics mission packages
with

Conventional Instrumentation

or

- Encoding altimeter (2")
- Airspeed indicator (2")

For optional Avionics mission packages
with

Glass Cockpit Instrumentation

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.

Power Plant

Two PRATT & WHITNEY PW206B2 turbine engines
or
Two TURBOMECA ARRIUS 2B2 turbine engines with

- fire detectors
- electronic engine control (FADEC-BOX)
- chip detectors with quick-disconnect plug
- overspeed system twin engine OEI training mode

Oil cooling and lubricating system with thermostatic valve
Crash resistant fuel system with a flexible bladder-type main fuel tank and self-sealing fuel supply tank (split into two sections)
Automatically controlled variable rotor speed system
Fuel tank filler flap, lockable

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
Mast moment system
Rotor brake system with control lever
Electrical trim system (cyclic)
Basic provisions for an easy integration of a track and balance system
Fenestron-type tail rotor with ten metal blades with (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)

Electrical Installation

Power generation system:

- Two starter/generators (2 x 200 A, 28 VDC)
- Nickel-Cadmium battery, (24 V, 25 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
- Avionics master switches in the cockpit

Data bus system:

- MILBUS1553 depending of system architecture

Lighting:

- Fixed, nose-mounted landing light (250 W)
- Lights in the cabin and cargo compartment

NVG compatible cockpit lighting with

- Adjustable instrument lighting
- One utility light in the cockpit

NVG "friendly" external lighting comprising

- Anti-collision warning light (red flashing)
- Three position lights (red, green, white)

Ground Handling Kit *

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

* not included in the standard helicopter empty weight

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.

Documentation

Flight Manual ♣ ♥

Pilots-Checklist ♣

Logbook

Battery Manual *

Maintenance Manual consisting of:

- System Description Section (SDS) ♣ * °
- Master Servicing Manual (MSM) ♣ *
- Aircraft Maintenance Manual (AMM) ♣ * °

Wiring Diagram Manual (WMD) ♣ * °

Illustrated Parts Catalogue (IPC) incl. type relevant Ground Support Equipment ♣ *

List Of Applicable Publications (LOAP) ♣ *

Service Bulletins (SB) ♣ *

Service Information (SI) ♣ *

Engine Documentation * including:

- Maintenance Manual
- Illustrated Parts Catalogue (IPC)
- Service Bulletins

Avionics Manual (if avionics equipment is installed by Eurocopter) * °

Weapon Delivery Manual (if armament is installed)

♥ The EC 635 Flight Manual consists of a basic EC135 Flight Manual and EC635 specific flight manual appendices (FMA 11-XX)

* not included in the standard helicopter empty weight

♣ documents revision service is available

° customised documentation

Intentionally left blank

*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- OPTIONAL EQUIPMENT

General Equipment			Weight	
Document reference	Commercial reference	Name	kg	lb.
05-02016	L1111-004-00	Multicolour external painting instead of single colour painting	≈ 5.0	≈ 11.0
05-02017	L1111-005-00	Special detail paintings (markings, letters, logos)	on request	
05-02018	L1111-006-00	Matching painting of externally installed optional equipment	on request	
05-02019	L1111-002-00	Two-colour external painting instead of single colour painting	≈ 1.5	≈ 3.3
05-03007	L2562-001-00	First aid kit	1.3	2.9
05-12002	L2551-003-00	Additional 4 tie-down fittings for airline attachment rails	0.6	1.3
05-12003	L8514-001-00	Multipurpose attachment hardpoints integrated in the cabin	1.3	2.9
05-21015	L8541-001-10	Wire strike protection system, fixed provisions	3.3	7.3
	L8541-001-20	Wire strike protection system, detachable parts	8.2	18.1
05-22007	L7924-001-00	Fuzz burners for engines	1.0	2.2
05-22008	L2621-001-00	Engine fire extinguishing system	3.8	8.4
05-23006	L7165-002-00	Engine compressor washing device	1.8	4.0
05-25016	L7161-001-00	Sand filter system	37.1	81.8
05-27003	L2625-003-00	2nd portable fire extinguisher	2.3	5.1
05-31025	L5211-002-00	Sliding windows in sliding doors	0.2	0.4
05-31026	L2514-002-00	Tinted sun shades for cockpit windshield roof section	1.9	4.2
05-31026	L5621-001-10	Tinted window for pilot door	0.0	0.0
05-31026	L5621-001-20	Tinted window for copilot door	0.0	0.0
05-31026	L5632-001-30	Tinted windows for passenger cabin LH	0.0	0.0
05-31026	L5632-001-40	Tinted windows for passenger cabin RH	0.0	0.0
05-31027	L5633-001-10	Window in clam-shell door, LH	0.6	1.3
05-31027	L5633-001-20	Window in clam-shell door, RH	0.6	1.3
05-31028	L2524-030-10	IFR – training screen, fixed provisions	0.1	0.2
	L2524-030-20	IFR – training screen, detachable parts	1.2	2.6
05-32007	L3042-001-00	Windshield wiper system	4.9	10.8
05-32008	L3043-001-00	Windshield wiper system with windscreen washing device	8.8	19.4
05-34002	L2576-001-00	Avionics compartment	6.2	13.7
05-34002	L2576-002-00	Dampers for avionics compartment	1.5	3.3
05-36007	L8532-002-30	Multifunction step LH for standard landing gear (instead of std. boarding step)	+ 4.7	+ 10.4
05-36007	L8532-002-40	Multifunction step RH for standard landing gear (instead of std. boarding step)	+ 4.4	+ 9.7
05-37016	L6701-001-00	Copilot flight controls	7.1	15.7
05-37017	L6721-001-00	Covers for copilot flight controls	0.5	1.1
05-38010	L3111-001-00	10" copilot instrument panel with glare shield	2.7	5.9
05-38010	L3111-001-03	7" copilot instrument panel with glare shield	2.5	5.5
05-39008	L3113-004-10	Illuminated chart holder for pilot side	0.9	2.0
05-39008	L3113-004-20	Illuminated chart holder for copilot side	0.9	2.0

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.

General Equipment (contd.)

Document reference	Commercial reference	Name	Weight	
			kg	lb.
05-41004	L2104-100-00	Bleed air heating system	6.2	13.7
05-42019	L2105-001-00	Air conditioning system	58.8	129.6
05-42020	L2105-001-10	Air conditioning system for tropical environment	61.6	135.8
05-44002	L2122-001-00	Ventilation extruder without copilot I-panel extension	1.5	3.3
05-61004	L2433-002-00	Battery, type "Saft", 26 Ah, 24V instead of std. 25Ah battery	- 0.5	- 1.1
05-61004	L2433-005-00	Battery, type "Varta", 40 Ah, 24V instead of std. 25Ah battery	+ 11.4	+ 25.1
05-62010	L2420-002-00	AC (Alternating Current) system	3.2	7.1
05-62010	L2420-003-00	Dual AC (Alternating Current) system	4.3	9.5
05-81032	L2818-100-10	Internal long range fuel tank system, fixed provisions	3.2	7.1
	L2818-100-20	Internal long range fuel tank system, detachable parts	35.2	77.6
05-92009	L6611-001-10	Main rotor blade folding: basic kit	1.3	2.9
05-92009	L6611-001-20	Main rotor blade folding: fixed provisions for ground handling kit	0.7	1.5
05-92009	L6611-001-30	Main rotor blade folding: ground handling kit	GSE	GSE
05-93008	L8544-001-00	Lashing points (wind speeds up to 40 kts)	3.8	8.4
05-95001	L1321-001-00	Tie-down and covering kit (long-term outside helicopter parking)	GSE	GSE

Specific Mission Equipment

06-11021	L3274-001-20	Settling protectors, detachable parts ¹⁾	10.2	22.5
06-11021	L3274-003-10	Settling protectors, fixed provisions (for emergency floats)	0.2	0.4
	L3274-003-20	Settling protectors, detachable parts (for emergency floats)	7.5	16.5
06-11022	L3272-001-10	Snow skids, fixed provisions	0.1	0.2
	L3272-001-20	Snow skids, detachable parts	19.4	42.8
06-12009	L3216-001-10	High landing gear instead of standard landing gear	+ 34.8	+ 76.7
06-21017	L8512-001-10	External hoist ²⁾ , fixed provisions	9.6	21.2
	L8512-001-20	External hoist ²⁾ , detachable parts, (incl. 1 week winch operator training)	62.8	138.5
06-24010	L8534-001-10	Fixed rope salvage device, fixed provisions ³⁾	5.7	12.6
	L8534-001-20	Fixed rope salvage device, detachable parts ³⁾	12.6	27.9
06-26011	L8511-002-10	Cargo hook mirrors, fixed provisions	0.7	1.5
	L8511-002-20	Cargo hook mirrors, detachable parts	4.2	9.3
06-27019	L8511-001-10	Cargo hook system, fixed provisions	2.9	6.4
	L8511-001-30	Cargo hook system, detachable parts	16.2	35.7
06-27020	L8511-005-10	Double cargo hook system, fixed provisions	6.1	13.4
	L8511-005-20	Double cargo hook system, detachable parts	22.1	48.7
06-31012	L8531-001-00	External loudspeaker system with siren	11.0	24.3

¹⁾ fixed provisions are covered by standard helicopter configuration

²⁾ communication via **copilot** Audio/COM Control unit

³⁾ operation cannot be civil certified.

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.

Specific Mission Equipment (contd.)

Weight

Document reference	Commercial reference	Name	kg	lb.
06-45020	L3346-300-10	Search light SX16, LH multi function step mounted, fixed provisions	3.8	8.4
	L3346-300-20	Search light SX16, LH multi function step mounted, detachable parts, (without vendor parts)	10.1	22.3
06-45020	L3346-500-20	Search light SX16, with infrared filter, vendor parts (for multi function step mounted version, laser pointer required)	27.6	60.8
06-45020	L3348-001-00	Laser pointer for SX16 (for multi function step mounted version only)	1.1	2.4
06-45021	L3346-100-10	Search light SX16, front installation, fixed provisions	7.9	17.4
	L3346-100-20	Search light SX16, front installation, detachable parts (without vendor parts)	4.8	10.6
06-45020	L3346-500-10	Search light SX16, vendor parts (for front installation version only)	20.4	45.0
06-45024	L3343-006-00	Landing & search light, 400/200 W, NVG compatible	4.3	9.5
06-46001	L3344-001-00	Strobe lights (white flash lights)	1.4	3.1
06-61015	L3215-001-10	Emergency floats, fixed provisions	8.1	17.9
	L3215-001-21	Emergency floats, detachable parts	68.0	150.0
06-65002	L2566-001-00	Emergency hammer	0.2	0.4
06-74013	L3347-004-00	Cabin lighting, NVG compatible	0.5	1.1
06-74017	L3111-002-21	NVG painting for cabin and cargo compartment	0.2	0.4
06-74018	L5213-003-00	Curtains for cabin windows (grey), NVG	1.5	3.3
06-78006	L3347-005-00	IR-Flasher	1.1	2.4
06-81009	L8503-001-10	Fire extinguishing bucket attachment (Bambi Bucket), fixed provisions (cargo hook system required)	0.7	1.5

Interior Layout

07-10012	L2512-006-00	Winch operator seat, turnable in flight instead of standard copilot seat (not usable for piloting)	+ 14.5	+ 31.9
07-10015	L2512-003-20	Height adjustable copilot seat instead of standard copilot seat	+ 3.9	+ 8.6
07-20008	L2512-002-02	Reversed copilot seat installation kit (position change on ground)	0.9	2.0
07-25028	L2522-004-10	Utility seats for 3 rear passengers, model Eurocopter, fixed provisions	1.2	2.6
	L2522-004-20	Utility seats for 3 rear passengers, model Eurocopter, detachable parts	30.9	68.1
07-25028	L2522-008-00	Utility seats for 3 rear passengers, model aerolite	36.0	79.4
07-25032	L2522-001-00	Three passenger seats with 3-point safety belts (facing aft)	37.4	82.8
07-25033	L2522-002-00	One (1) rear passenger seat with 3-point safety belt	11.1	24.5
07-30012	L2581-001-00	Enhanced sound proofing kit	9.8	21.6
07-30013	L2524-003-00	Cockpit / cabin separation curtain, NVG version	4.0	8.8
07-30015	L2524-001-00	Cabin / cargo compartment separation wall incl. smoke detector (avionics compartment required)	2.8	6.2
07-30015	L2524-021-00	Cabin / cargo compartment separation curtain incl. smoke detector (avionics compartment required)	2.3	5.1
07-40005	L2513-200-00	Washable floor covering for cockpit	4.1	9.1
07-40005	L2513-220-00	Washable floor covering for cockpit, cabin and cargo compartment	11.8	26.0
07-40008	L2513-004-40	Quick detachable VIP carpet for passenger cabin	3.0	6.6
07-50025	L5211-004-10	Securing device for complete opening of copilot door	0.8	1.8

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 (contd.)

Document reference	Commercial reference	Name	Weight	
			kg	lb.
07-50026	L5231-001-00	One-hand latching system for clam-shell doors	1.5	3.3
07-50027	L5231-002-00	Extended opening fasteners for clam-shell doors	0.2	0.4
07-60009	L2515-003-10	Stowage unit behind pilots' seats, fixed provisions	0.1	0.2
	L2515-003-21	Stowage unit behind pilot's seat, detachable parts	2.6	5.7
	L2515-003-22	Stowage unit behind copilot's seat, detachable parts	4.6	10.1
07-73002	L8521-434-10	Two attachment rails in sliding door post LH	0.6	1.3
07-73003	L8521-432-10	Two airline-style attachment rails (LH cabin ceiling)	1.0	2.2
07-73004	L8522-370-00	Stowage box (capacity: ca. 30 litres)	9.7	21.4
07-74011	L8522-350-00	Installation device for one stretcher type Bucher-Leichtbau (16-g) in full length only	5.0	11.0
	L8522-320-00	Folding stretcher type Bucher-Leichtbau (16 G)	12.1	26.7
07-74012	L8521-301-20	Installation device for one stretcher type Ferno / aerolite-type (model 12-2/16G modified) in full or half length	7.0	15.4
	L8521-301-00	Ferno / aerolite-type stretcher, foldable to half length, model 12-2/16G modified	14.0	30.9

Avionics

08-53002	L2212-300-00	MEGHAS sensor kit, consisting of: <ul style="list-style-type: none"> AHRS (1st and 2nd system) Air Data System (1st and 2nd system) "Pelican" rack 	22.1	48.7
08-54001	L3411-001-00	Copilot pitot static system (electrically heated)	1.3	2.9
08-70021	L2217-001-10	VFR SAS (VFR pitch/roll Stability Augmentation System)	8.5	18.7
08-70021	L2217-001-50	IFR SAS (IFR pitch/roll Stability Augmentation System)	12.2	26.9
08-70022	L2212-001-00	Digital Automatic Flight Control System (DAFCS)	30.0	66.2
08-81018	L2321-007-00	M'ARMS TM Cockpit Voice and Flight Data Recorder (CVFDR) (JAR-OPS 3 compliant; country specific regulations must be considered)	17.3	38.1
08-83007	L2321-009-00	M'ARMS TM Cockpit Voice and Flight Data Recorder (CVFDR) and Usage Monitoring System (UMS), ground station not included (JAR-OPS 3 compliant; country specific regulations must be considered)	18.3	40.4
08-83007	L3171-001-00	M'ARMS TM Usage Monitoring System (UMS), JAR-OPS 3 compliant, (ground station not included)	5.3	11.7
08-84001	L6201-001-30	Accelerometers (for track and balancing system)	0.0	0.0
08-84002	L6201-002-10	Optical tracker (Chadwick Helmuth), fixed provisions	0.1	0.2
	L6201-002-20	Optical tracker (Chadwick Helmuth), detachable parts	0.6	1.3

Operational Protection

10-20009	L8551-001-10	Light armour protection kit, cockpit and cabin, fixed provisions	1.0	2.2
	L8551-001-20	Light armour protection kit, cockpit and cabin, detachable parts	127.0	280.0

Broadcast, Thermal Imaging and TV Surveillance Equipment

"Ultraforce II" (FLIR System) on request

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.

General remarks about NVG

If NVG flights are requested, three important factors must be considered:

- The switching-off of non-NVG compatible lights and instrumentation (crash risks).
- The non-compliance with local civil regulations (NVG flights may be forbidden).
- The different level of vision provided by NVG compatible lighting.

Checklist for building up a NVG compatible configuration

The following points **must** be checked and fulfilled:

- ✓ The customer must be advised about NVG compatibility status of its BFE (Buyer Furnished Equipment)
- ✓ If the **NVG compatible cabin lighting** (option L3347-004-00) is not installed the NVG compatible cockpit/cabin separation curtain (option L2524-003-00) is required. Otherwise, the customer must be advised that all cabin lighting must be switched off during NVG flights.
- ✓ If the customer lands in NVG mode, the NVG compatible **landing & searchlight, 400/200 W** (option L3343-006-00) is required.
- ✓ If the customer needs a NVG compatible **SX16 searchlight**, the SX16, MFS-mounted with infrared filter (option L3346-500-20) is required.

Intentionally left blank

*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- COMMUNICATION / NAVIGATION EQUIPMENT

5.1 CONVENTIONAL INSTRUMENTATION (NVG compatible)

DUAL PILOT IFR PACKAGE (not civil certifiable)

Weight

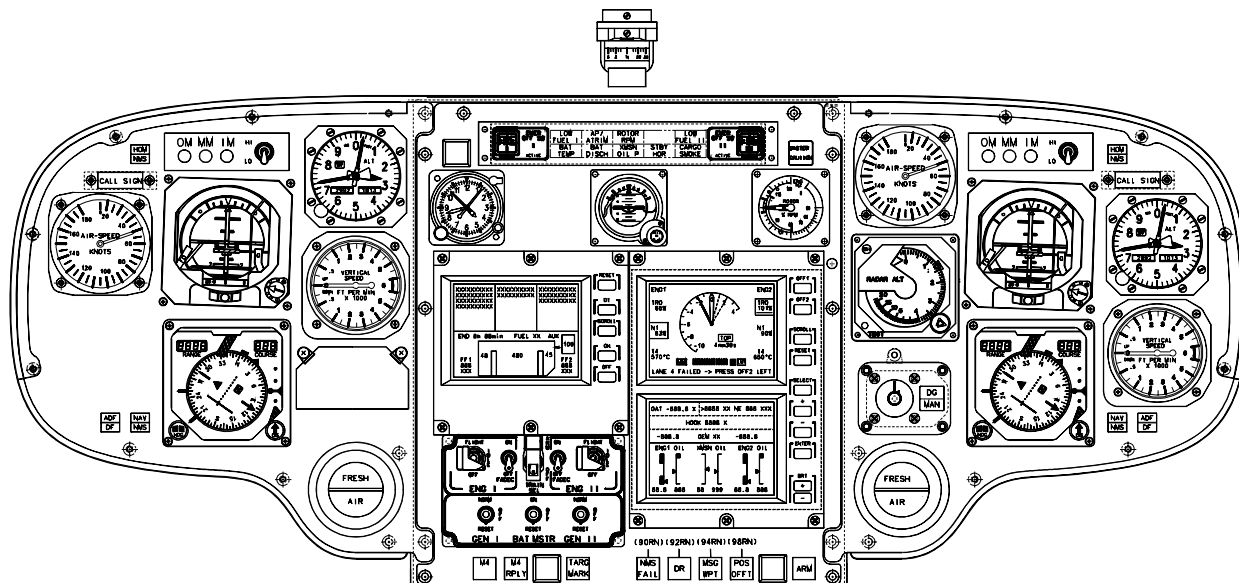
		kg	lb.
4" Artificial Horizon (pilot)	GH 14-594 (HONEYWELL)	2.8	6.2
4" Artificial Horizon (copilot)	GH 14-594 (HONEYWELL)	2.8	6.2
Horizontal Situation indicator (pilot)	29850-54	3.8	8.4
Horizontal Situation indicator (copilot)	29850-54	3.8	8.4
2" Standby Horizon	AI 803 CY (GOODRICH) incl. Back-up battery	6.6	14.6
Directional Gyro System 1	C 14D (HONEYWELL)	6.1	13.4
Directional Gyro System 2	C 14D (HONEYWELL)	5.6	12.3
AMS Avionics Management System	AMS 2000 (THALES) with P(Y) Code GPS ¹⁾	7.4	16.3
Air Data Computer	ADU 3000	1.1	2.4
Audio/COM Control system, 2 units (pilot and copilot) incl. IC Mode Selector + Intercom Amplifier	N 335-xxx (NAT), AA31-xxx AA38-xxx (NAT)	9.1	20,1
VHF/UHF AM-FM Transceiver 1 ³⁾	ARC 210 ²⁾ (ROCKWELL COLLINS)	7.5	16,5
VHF/UHF AM-FM Transceiver 2 ³⁾	ARC 210 ²⁾ (ROCKWELL COLLINS) incl. Back-up control unit	9.8	21,6
HF Transceiver ³⁾	ARC 217 ²⁾ (ROCKWELL COLLINS)	20.7	45.6
IFF Transponder ³⁾	APX 100 (RAYTHEON) with upgrade possibility with Mode 4 COMSEC Crypto Kit ⁴⁾	7.8	17.2
Automatic Direction Finder ³⁾	DFS 43A (CHELTON)	6.5	14.3
Distance Measuring Equipment ³⁾	DMS 44A (CHELTON)	4.1	9.0
VOR/ILS Navigation System 1 ³⁾	VNS 41A (CHELTON)	4.0	8.8
VOR/ILS Navigation System 2 ³⁾	VNS 41A incl. Back-up control unit (CHELTON)	6.7	14.8
RMI	KI 229 (HONEYWELL)	2.2	4.8
Radar Altimeter (incl. antenna) with indicator	KRA 405B/ KNI 416 (HONEYWELL)	4.2	9.3
3" Encoding barometric altimeter (copilot) ⁵⁾	3 H 65.32.20F. 28.4. BP (THOMMEN)	1.1	2.4
3" Vertical speed indicator (copilot) ⁵⁾	4 A 16.32.60F. 28.4. CE (THOMMEN)	0.7	1.5
3" Airspeed indicator (copilot) ⁵⁾	5 A 16.32.18K. 28.4. DT (THOMMEN)	0.8	1.8

Σ= 123 271

- 1) Utilisation possibility of P(Y) Code GPS is subject to authorisation by the US government
- 2) Equipment cannot be civil certified; US-Export Authorisation needed
- 3) Controlled via AMS 2000 (RACAL)
- 4) Upgrade possibility with Mode 4 is subject to authorisation by the US government
- 5) pilot indicator is included in standard aircraft

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-panel overview for DP/IFR Conventional Instrumentation (NVG compatible)



Additional Equipment for CONVENTIONAL INSTRUMENTATION (NVG compatible)

Weight

kg lb.

Homing Module and indicator for ARC 210 ^{**) (ROCKWELL COLLINS)}	On request	+ 8.1	+ 17.9
Direction Finder capability for ARC 210 ^{**) (ROCKWELL COLLINS)}	On request	+ 4.3	+ 9.5
ELT C406-2 HM (ARTEX) 3 frequencies (incl. antenna)	On request	3.9	8.6

****) Equipment cannot be civil certified; US Export Authorisation required**

Minimum required equipment for CONVENTIONAL CONFIGURATION

Weight

Commercial
reference

kg lb.

L6701-001-00	Copilot flight controls	7.1	15.7
L3111-001-00	10" copilot instrument panel with glare shield	2.7	5.9
L2576-001-00	Avionics compartment *)	6.2	13.7
L3411-001-00	Copilot pitot static system (electrically heated)	1.3	2.9
L2104-100-00	Bleed air heating system	6.2	13.7
L3343-006-00	Landing & search light, 200/400 W, NVG compatible	4.3	9.5
L3042-001-00	Windshield wiper system	4.9	10.8
L2433-005-00	Battery, type "Varta", 40 Ah, 24V instead of std. 25Ah battery	+ 11.4	+ 25.1
L2420-003-00	Dual AC (Alternating Current) system	4.3	9.5
L2217-001-50	IFR SAS (IFR pitch/roll Stability Augmentation System)	12.2	26.9

*) Ventilation for avionics compartment is recommended for hot countries/areas in combination with air conditioning system

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 GLASS COCKPIT INSTRUMENTATION (NVG compatible)

DUAL PILOT IFR PACKAGE (not civil certifiable)

Weight

kg lb.

Flight Control Display Module 1 ***)	FCDM (THALES)	23.8	52.5
Flight Control Display Module 2 ***)	FCDM (THALES)		
Flight Control Display System – FCDS ***)	2x SMD 45 (PFD, ND) - MEGHAS (THALES) 2x ICP (Instrument Control Panel) / 1x RCU (Reconfiguration Control Unit)		
Flight Control Display System – FCDS 2 nd system ***)	2x SMD 45 H (PFD, ND) - MEGHAS (THALES)		
2" Standby Horizon	AI 803 CY incl. back-up battery (GOODRICH)	6.6	14.6
Audio/COM Control system, 2 units (pilot and copilot) incl. IC Mode Selector + Intercom Amplifier	N 335-xxx (NAT), AA31-xxx AA38-xxx (NAT)	9.1	20.1
NMS/FMS Navigation Management System	CMA-3000 (CANADIAN MARCONI)	9.3	20.5
VHF AM/Comm System 1 **)	VCS 40A (CHELTON)	4.9	10.8
VHF AM/Comm System 2 **)	VCS 40A incl. Back-up control unit CD 402B - NVG modified (CHELTON)	6.0	13.2
Automatic Direction Finder **)	DFS 43A (CHELTON)	6.5	14.3
Distance Measuring Equipment **)	DMS 44A (CHELTON)	4.1	9.0
VOR/ILS Navigation System 1 **)	VNS 41A (CHELTON)	4.0	8.8
VOR/ILS Navigation System 2 **)	VNS 41A incl. Back-up control unit CD 412B - NVG modified (CHELTON)	6.7	14.8
GPS System	CMA-3012 (C/A Code*) (CANADIAN MARCONI)	incl. in CMA-3000	
Transponder Mode-S **)	MST 67A (HONEYWELL)	4.2	9.3
Radar Altimeter	KRA 405B (HONEYWELL)	3.0	6.6

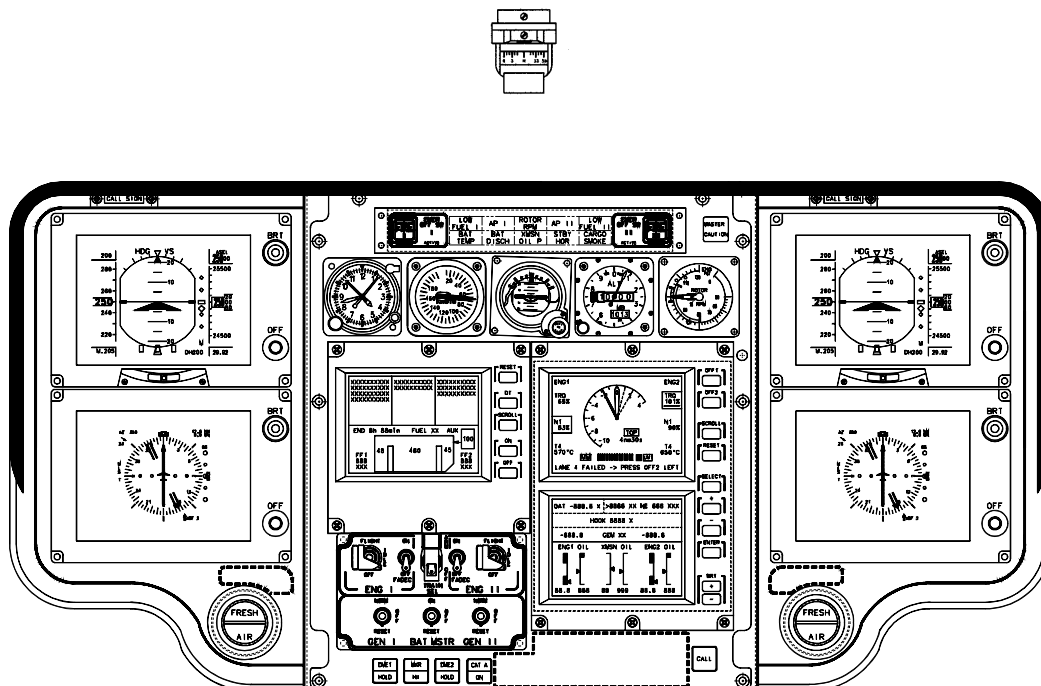
Σ= 88.2 194.4

*) Utilisation possibility of P(Y) Code GPS is subject to authorisation by the US government

**) Controlled via CMA 3000 (CANADIAN MARCONI)

***) MEGHAS Sensor Kit (L2212-300-00) required

I-panel overview for DP/IFR Glass Cockpit Instrumentation (NVG)



Additional Equipment for GLASS COCKPIT INSTRUMENTATION (NVG compatible)

Weight
kg lb.

Exchange of 2 SMD 45 screens to one SMD 68 on copilot side (THALES)	On request	+ 2.2	+ 4.8
Audio/COM Control system, (3 rd station) N335-xxx (NAT) in passenger cabin	On request	3.5	7.7
GPS System TASMAN TA 12 P(Y) Code ^{1) 4)} (TRIMBLE) instead of CMA-3012 (CANADIAN MARCONI)	On request	3.0	6.6
Weather Radar RDR 2000 ²⁾ (HONEYWELL) + radar radome	On request	10.0	22.0
Video Radar Unit (VRU) for weather indication on SMD45/SMD68 (THALES)	On request	4.8	10.6
HF Radio ARC 217 (ROCKWELL COLLINS) ^{3) 4)}	On request	18.0	39.7
IFF Transponder APX 100 (RAYTHEON) instead of MST 67 (Honeywell) ^{3) 4)}	On request	7.8	17.2
VHF/UHF AM/FM Transceiver ARC 210 (ROCKWELL COLLINS) ^{3) 4)}	On request	10.0	22.0

- 1) Utilisation possibility of P(Y) Code GPS is subject to authorisation by the US government
- 2) VRU (Video Radar Unit) required
- 3) Controlled via ETC 4000 (Rockwell Collins); ETC 4000 required
- 4) Equipment cannot be civil certified; US-Export Authorisation needed

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.

Additional Equipment (contd.)

Weight

kg lb.

Radio Management System ETC 4000 (ROCKWELL COLLINS) ⁴⁾	On request	8.6	18.9
ELT C406-2 HM (ARTEX) 3 frequencies (incl. antenna)	On request	3.9	8.6

- 1) Utilisation possibility of P(Y) Code GPS is subject to authorisation by the US government
- 2) VRU (Video Radar Unit) required
- 3) Controlled via ETC 4000 (Rockwell Collins); ETC 4000 required
- 4) Equipment cannot be civil certified; Export Authorisation needed

Minimum required equipment for GLASS COCKPIT CONFIGURATION

Weight

Commercial
reference

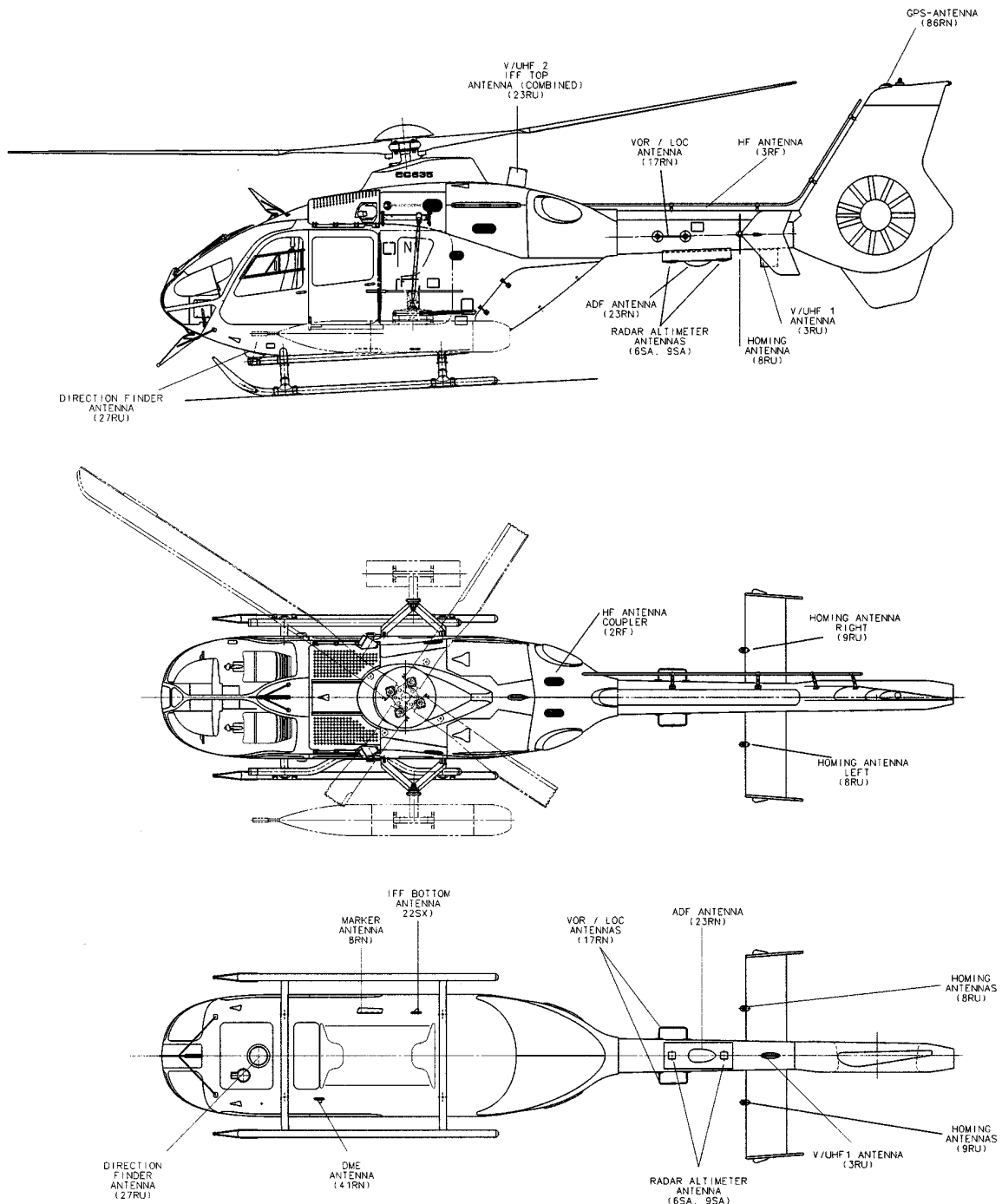
kg lb.

L6701-001-00	Copilot flight controls	7.1	15.7
L3111-001-03	7" copilot instrument panel with glare shield	2.5	5.5
L2576-001-00	Avionics compartment *)	6.2	13.7
L3411-001-00	Copilot pitot static system (electrically heated)	1.3	2.9
L2104-100-00	Bleed air heating system	6.2	13.7
L3343-006-00	Landing & search light, 200/400 W, NVG compatible	4.3	9.5
L3042-001-00	Windshield wiper system	4.9	10.8
L2433-005-00	Battery, type "Varta", 40 Ah, 24V instead of std. 25Ah battery	+ 11.4	+ 25.1
L2420-002-00	AC System	3.2	7,1
L2212-300-00	MEGHAS sensor kit	22.1	48.7
L2217-001-50	IFR SAS (IFR pitch/roll Stability Augmentation System)	12.2	26.9

- *) Ventilation for avionics compartment is recommended for hot countries/areas in combination with air conditioning system

5.3 Antenna layouts

Typical IFR antenna layout



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.

5.4 INSTALLATION DATA SHEET FOR TACTICAL RADIOS: (BFE, fixed or space provisions)

INSTALLATION DATA SHEET FOR TACTICAL RADIOS

Please fill in the technical information for the required tactical radio system (as far as you know)

TYPE / TITLE	_____
MANUFACTURER	_____
AIRBORNE SYSTEM? Yes/No:	_____
TSO, JTSO?	_____
FAA-TAG?, JAA-TAG?, C of C?	_____
INSTALLATION MANUAL / INSTALLATION DATA available ? • (el. and mech.)	_____
EQUIPMENT FEATURES: • stand alone transceiver or • transceiver and remote control unit ? • DZUS – fastener ? • weights	_____ _____ _____
OPERATING VOLTAGE • 28V DC • 12V DC (via converter)	_____ V (DC)
MAX. OPERATING CURRENT • I_{\max} in A	_____ A
TRANSMIT POWER	_____ W (TX)
FREQUENCY RANGE	_____ - _____ MHz
PTT - Active State / Ground	_____ V / _____ V

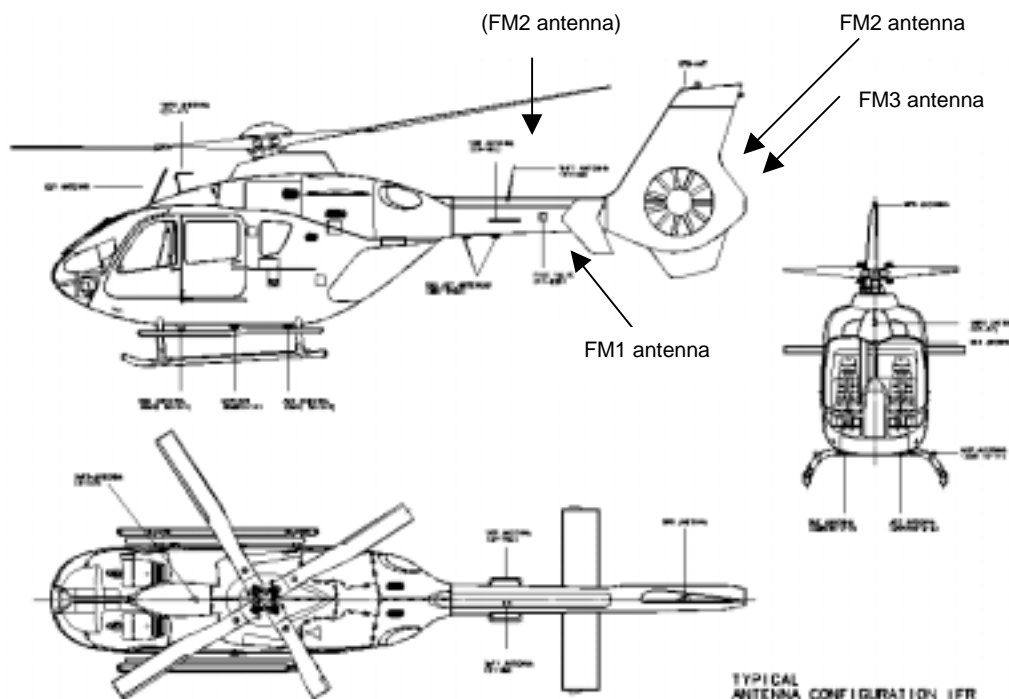
The data set forth in this document are general in nature and for information purposes only.
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

NVG CAPABILITY? Yes/No	_____
MICROPHONE CAPABILITY ? <ul style="list-style-type: none"> • dynamic • standard carbon 	_____
DIMMING CAPABILITY <ul style="list-style-type: none"> • AC-Dimm-Bus? Yes/No 	0 – 5 V DC 5 – 28 V DC _____ V

Notes:

- The tactical radios are usually installed:
 - in (or beside) the centre console (if a one block system/stand alone transceiver unit is used)
 - on the avionics compartment (transceiver) and in (or beside) the center console (control unit) (if a two block system is used)
- Eurocopter cannot guarantee EMI free and NVG compatible use of BFE equipment.

Typical tactical radio antenna installations (example)



*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- ARMAMENT

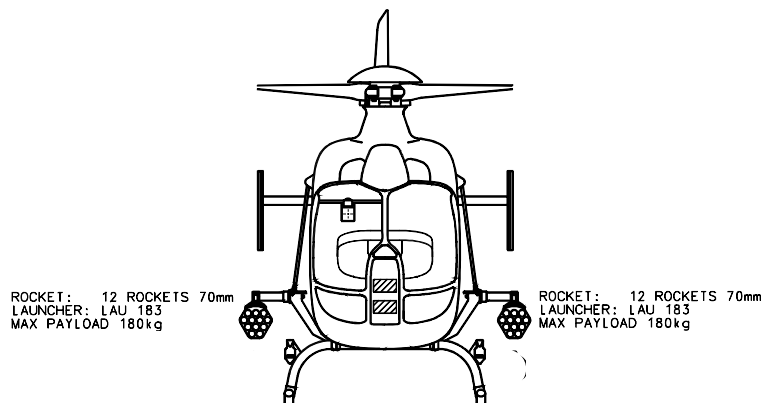
The EC 635 helicopter is qualified for operation with the Multipurpose Armament System.
The Multipurpose Armament System (MPAS) consists of:

			Weight	
Fixed parts installed in the H/C			kg	lb.
11-00008	L8580-010-12	Multi-Purpose Armament System (MPAS), basic electrical part	12.0	26.5
Equipment installed in the H/C, NVG compatible				
11-90004	L8580-200-00	Reflex Sight T100 incl. control panel and sight support	5.1	11.2
11-90005	L8580-600-00	Gun&Rocket Control Panel GRMU	3.0	6.6
11-90006	L8580-500-00	Command and Control Panel PC17	0.4	0.9
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
Detachable parts				
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	35.8	78.9
Armament Subsystems				
		Cannon pod GIAT NC621 cal. 20 mm, capacity 180 rounds	180*	397*
		Machine gun pod FN-Herstal HMP400 cal. 12.7 mm, capacity 400 rounds	138*	304*
		12 - tube rocket launcher FZ-Herstal FZ321 mod1, cal. 70 mm, capacity 12 rockets	179*	395*

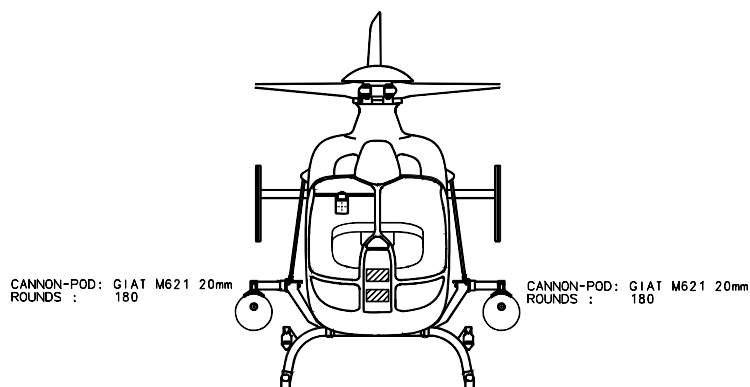
* Weight of ammunition is included

Possible armament configurations:

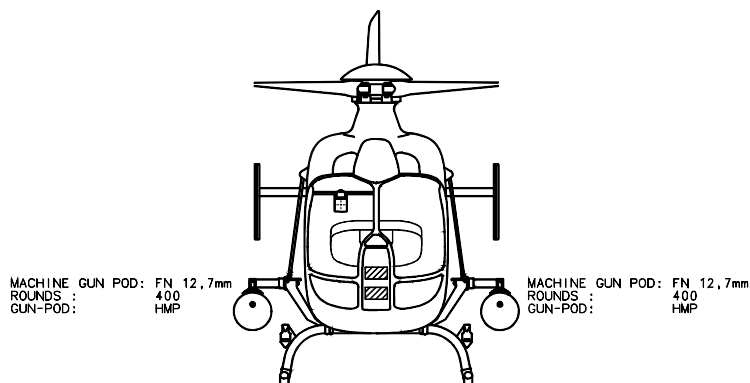
Configuration 1: Rocket launcher 70mm on each side of the helicopter



Configuration 2: 20 mm cannon pod on each side of the helicopter



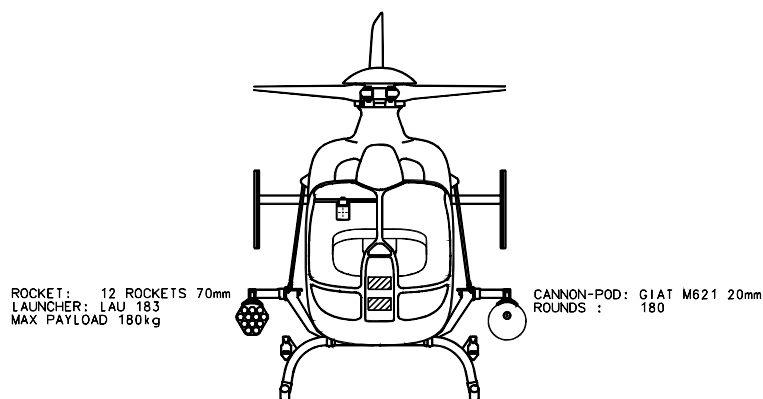
Configuration 3: 12,7 mm gun pod on each side of the helicopter



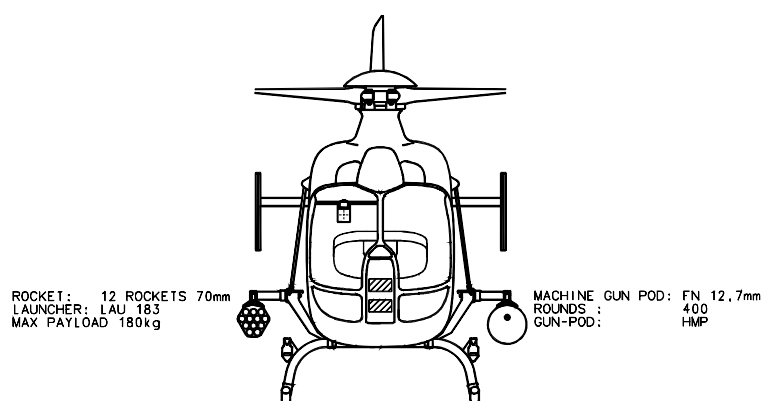
The data set forth in this document are general in nature and for information purposes only.

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

Configuration 4: Rocket launcher 70mm and 20 mm cannon pod



Configuration 5: Rocket launchers 70mm and 12,7 mm gun pod



*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.*

Intentionally left blank

*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.*

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** (without armament etc.) at Sea Level (SL), in International Standard Atmosphere (ISA) and zero wind condition.

PERFORMANCE ON 2 ENGINES Pratt & Whitney PW206B2

Gross Weight	kg	2,200	2,400	2,630	2,720	2,835
	lb	4,850	5,290	5,800	6,000	6,250
▪ Maximum speed VNE	km/h kts	287 155	278 150	278 150	278 150	259 140
▪ Maximum cruising speed	km/h kts	262 141	261 141	259 140	257 139	256 138
▪ Fuel consumption at fast cruise speed	kg/h lb/h	232.5 512.5	232.5 512.5	232.5 512.5	232.5 512.5	232.5 512.5
▪ Economical cruising speed	km/h kts	220 119	224 121	226 122	228 123	229 124
▪ Fuel consumption at economical cruising speed	kg/h lb/h	187.5 413.5	193 425.5	198 436.5	201 443	205 452
▪ Fuel consumption at 65 KIAS	kg/h lb/h	143.5 316.5	148.5 327.5	155 342	157.5 347.2	161 355
▪ Rate of climb, TOP	m/s ft/min	11.7 2300	10.4 2050	8.9 1750	8.4 1,650	7.6 1,500
▪ Hover ceiling IGE (4 ft AGL), TOP, no wind or headwind, ISA	m ft	4,570 ¹⁾ 15,000 ¹⁾	4,570 ¹⁾ 15,000 ¹⁾	4,450 14,600	4,140 13,600	3,045 ²⁾ 10,000 ²⁾
▪ Hover ceiling IGE (4 ft AGL), TOP, no wind, ISA + 20°C	m ft	3,880 ¹⁾ 12,750 ¹⁾	3,880 ¹⁾ 12,750 ¹⁾	3,230 10,600	2,830 9,300	2,315 7,600
▪ Hover ceiling OGE, TOP, ISA	m ft	4,570 ¹⁾ 15,000 ¹⁾	4,420 14,500	3,580 11,750	3,260 10,700	2,190 7,200
▪ Hover ceiling OGE, TOP, ISA + 20°C	m ft	3,880 ¹⁾ 12,750 ¹⁾	3,155 10,350	2,075 6,800	1,640 5,400	1,100 3,600
▪ Service ceiling, MCP, (climb reserve 200 ft/min), ISA	m ft	6,095 20,000	6,095 20,000	5,455 17,900	5,180 17,000	3,045 ²⁾ 10,000 ²⁾
▪ Maximum range (without fuel reserve at economical cruise speed)						
• standard tank configuration (553 kg)	km nm	660 356	655 354	645 348	640 346	635 343
• long rang tank configuration (723 kg)	km nm	---- ----	860 464	850 459	845 456	840 454
▪ Maximum endurance (without fuel reserve at 65 KIAS)						
• standard tank configuration (553 kg)	h:min h:min	4:02 ---	3:54 5:10	3:45 4:59	3:42 4:54	3:37 4:48

¹⁾ 15,000 ft density altitude certification limit

²⁾ 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 Pratt & Whitney PW206B2

Gross Weight	kg lb	2,200 4,850	2,400 5,290	2,630 5,800	2,720 6,000	2,835 6,250
▪ Service ceiling with 100 ft/min climb reserve, MCP OEI-power, ISA	m ft	4,890 16,050	4,265 14,000	3,550 11,650	3,275 10,750	2,925 9,600
▪ Service ceiling with 100 ft/min climb reserve, MCP OEI-power, ISA + 20°C	m ft	4,210 13,800	3,505 11,500	2,695 8,850	2,375 7,800	1,965 6,450
▪ Rate of climb, MCP OEI-power, SL	m/s ft/min	4.0 785	3.0 585	1.9 380	1.5 300	1.1 215
▪ Max. temperature for CAT A, take-off from clear heliport at SL	°C	+ 50	+ 50	+ 50	+ 50	+ 46
▪ Max. gross weight hover IGE (4ft AGL), SL, ISA, no wind, 2 min OEI power	kg lb			2,835 6,250		
▪ Max. gross weight hover IGE (4ft AGL), SL, ISA + 20°C, no wind, 2 min OEI power	kg lb			2,655 5,853		
▪ Max. gross weight hover OGE, SL, ISA, no wind, 30 sec OEI power	kg lb			2,665 5,875		
▪ Max. gross weight hover OGE, SL, ISA + 20°C, no wind, 30 sec OEI power	kg lb			2,565 5,655		
▪ Max. gross weight CAT A, VTOL, SL, ISA / ISA + 20°C	kg lb			2,835 6,250		

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 Turbomeca Arrius 2B2

Gross Weight	kg	2,200	2,400	2,630	2,720	2,835
	lb	4,850	5,290	5,800	6,000	6,250
▪ Maximum speed VNE	km/h kts	287 155	278 150	278 150	278 150	259 140
▪ Maximum cruising speed	km/h kts	262 141	261 141	259 140	257 139	256 138
▪ Fuel consumption at fast cruise speed	kg/h lb/h	237 522	237 522	237 522	237 522	237 522
▪ Economical cruising speed	km/h kts	231 125	233 126	235 127	237 128	239 129
▪ Fuel consumption at economical cruising speed	kg/h lb/h	204 450	208.5 460.0	213 470	215.5 475.0	219 483
▪ Fuel consumption at 65 KIAS	kg/h lb/h	155.5 343.0	160 353	166 366	168.5 371.5	171.5 378.0
▪ Rate of climb, TOP	m/s ft/min	11.7 2,300	10.4 2,050	8.9 1,650	8.4 1,650	7.6 1,500
▪ Hover ceiling IGE(4 ft AGL), TOP, no wind or headwind, ISA	m ft	4,570 ¹⁾ 15,000 ¹⁾	4,570 ¹⁾ 15,000 ¹⁾	4,320 14,150	4,040 13,250	3,045 ²⁾ 10,000 ²⁾
▪ Hover ceiling IGE (4 ft AGL), TOP, no wind, ISA + 20°C	m ft	3,880 ¹⁾ 12,750 ¹⁾	3,880 ¹⁾ 12,750 ¹⁾	3,100 10,150	2,740 9,000	2,255 7,400
▪ Hover ceiling OGE, TOP, ISA	m ft	4,570 ¹⁾ 15,000 ¹⁾	4,290 14,050	3,480 11,400	3,100 10,200	2,190 7,200
▪ Hover ceiling OGE, TOP, ISA + 20°C	m ft	3,880 ¹⁾ 12,750 ¹⁾	3,050 10,000	1,955 6,400	1,525 5,000	1,005 3,300
▪ Service ceiling, MCP, (climb reserve 200 ft/min), ISA	m ft	6,095 20,000	6,095 20,000	5,480 18,000	5,225 17,150	3,045 ²⁾ 10,000 ²⁾
▪ Maximum range (without fuel reserve at economical cruise speed)						
• standard tank configuration (553 kg)	km nm	635 343	630 340	620 335	615 332	610 332
• long rang tank configuration (723 kg)	km nm	---	825 445	815 440	810 437	805 435
▪ Maximum endurance (without fuel reserve at 65 KIAS)						
• standard tank configuration (553 kg)	h:min	3:41	3:35	3:28	3:25	3:22
• long rang tank configuration (723 kg)	h:min	---	4:45	4:36	4:33	4:28

¹⁾ 15,000 ft density altitude certification limit

²⁾ 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 Turbomeca Arrius 2B2

Gross Weight	kg lb	2,200 4,850	2,400 5,290	2,630 5,800	2,720 6,000	2,835 6,250
▪ Service ceiling with 100 ft/min climb reserve, MCP OEI-power, ISA	m ft	5,150 16,900	4,510 14,800	3,790 12,450	3,520 11,500	3,045 10,000 ²⁾
▪ Service ceiling with 100 ft/min climb reserve, MCP OEI-power, ISA + 20°C	m ft	4,510 14,800	3,730 12,250	2,830 9,300	2,500 8,200	2,070 6,800
▪ Rate of climb, MCP OEI-power, SL	m/s ft/min	4.0 785	3.0 585	1.9 380	1.5 300	1.1 215
▪ Max. temperature for CAT A take-off from clear heliport at SL	°C	+ 50	+ 50	+ 50	+ 50	+ 47
▪ Max. gross weight hover IGE (4ft AGL), SL, ISA, no wind, 2-min-OEI power	kg lb			2,835 6,250		
▪ Max. gross weight hover IGE (4ft AGL), SL, ISA + 20°C, no wind, 2-min-OEI power	kg lb			2,690 5,930		
▪ Max. gross weight hover OGE, SL, ISA, no wind, 30-sec-OEI power	kg lb			2,665 5,875		
▪ Max. gross weight hover OGE, SL, ISA + 20°C, no wind, 30-sec-OEI power	kg lb			2,615 5,765		
▪ Max. gross weight CAT A, VTOL, SL, ISA / ISA + 20°C	kg lb			2,835 6,250		

²⁾ 10,000 ft pressure altitude certification limit

OPERATING LIMITATIONS

(valid for both versions, EC135 P2 and EC135 T2)

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

Gross Weight	2,720 kg 6,000 lb	2,835 kg 6,250 lb
▪ Maximum operating altitude	6,095 m PA 20,000 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	3,045 m PA 10,000 ft PA
▪ Minimum temperature	- 35°C (- 31°F)	
▪ Maximum temperature	ISA + 39°C (max. + 50°C / + 122°F)	

ABBREVIATIONS

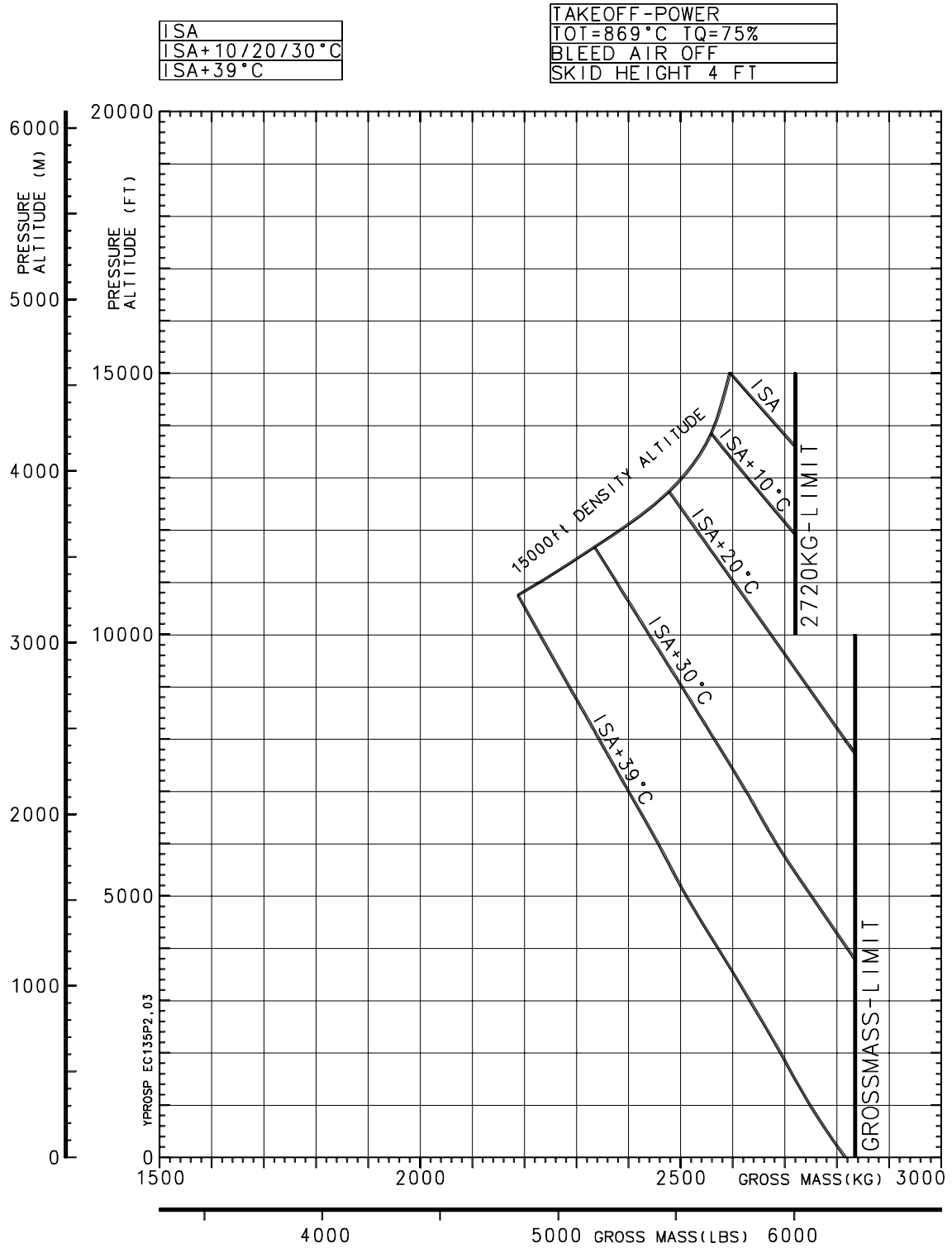
AGL : Above Ground Level	OGE : Out Of Ground Effect
DA : Density Altitude	PA : Pressure Altitude
IGE : In Ground Effect	SL : Sea Level
ISA : International Standard Atmosphere	TOP : Take-Off Power
MCP : Maximum Continuous Power	VNE : Never-Exceed Speed
OEI : One Engine Inoperative	VTOL : Vertical Take-Off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

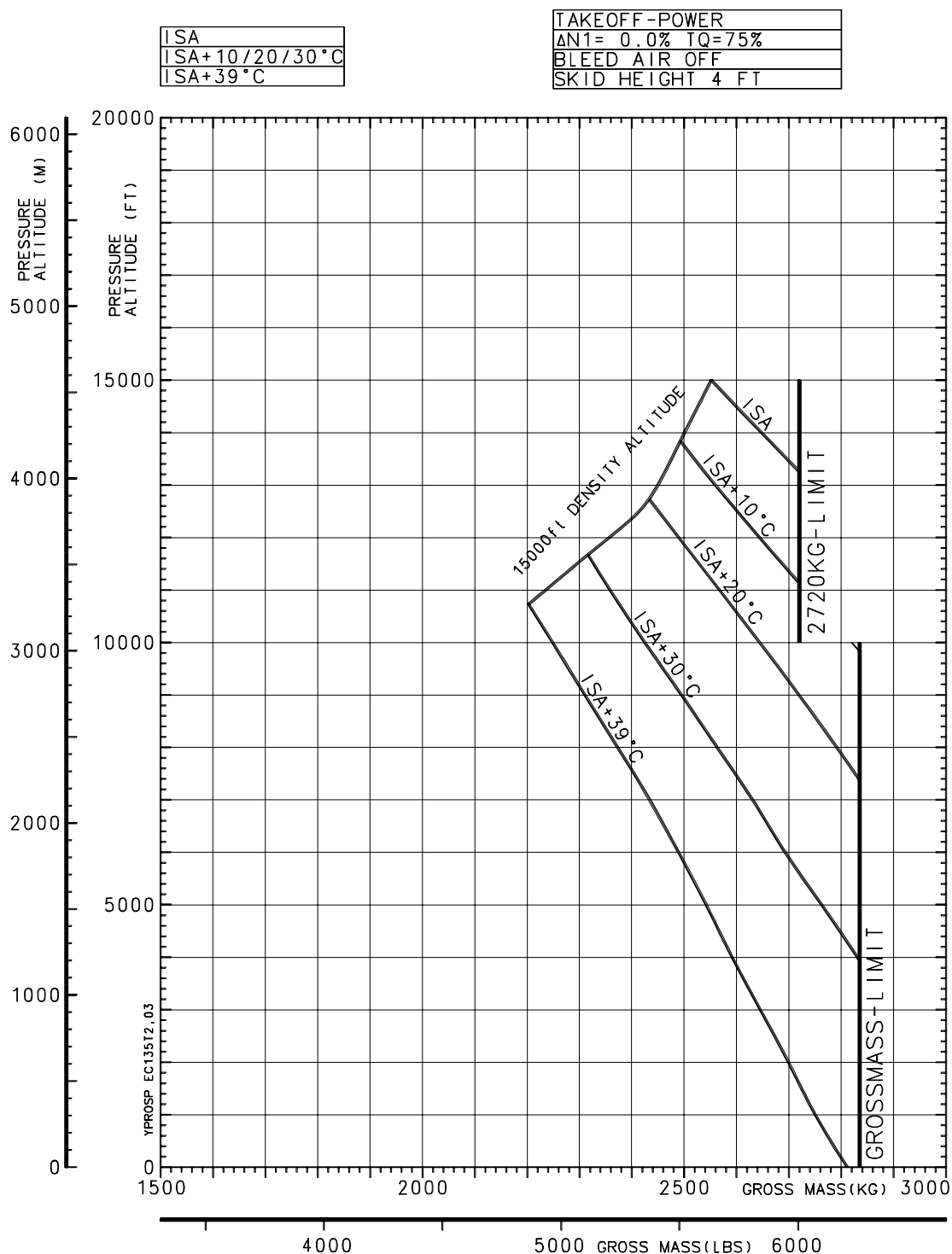
with two PW206B2 engines



*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

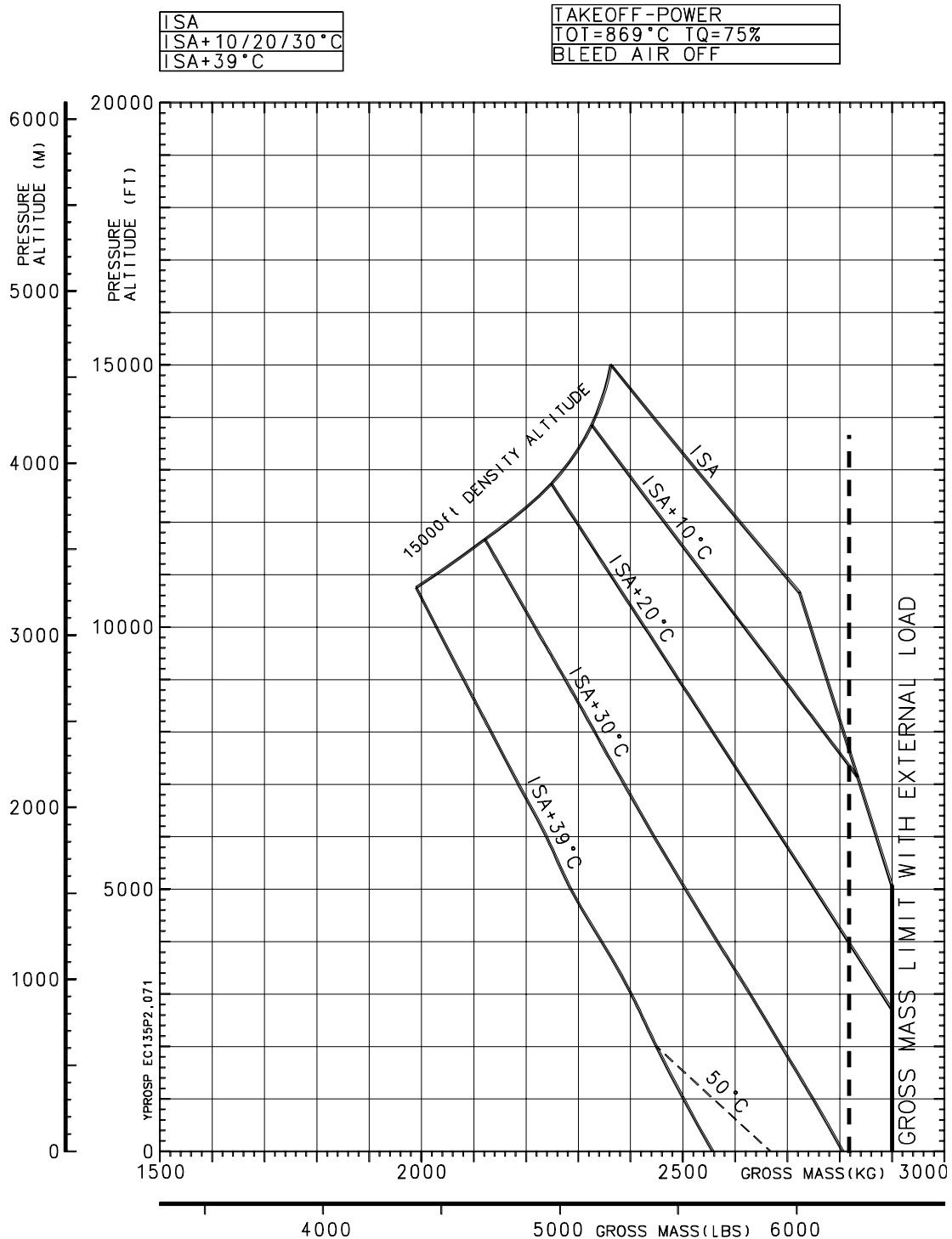


The data set forth in this document are general in nature and for information purposes only.

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)

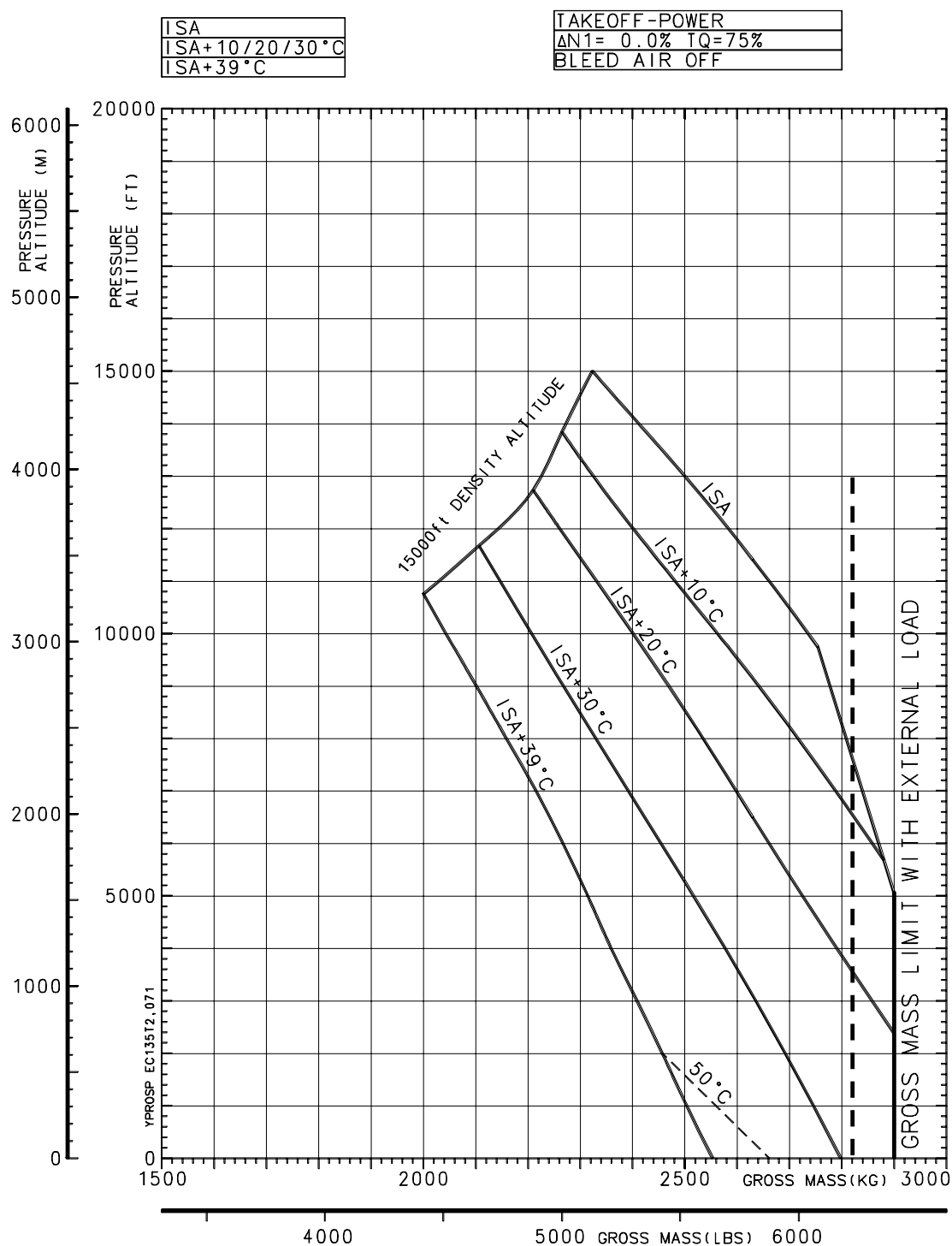
with two PW206B2 engines



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

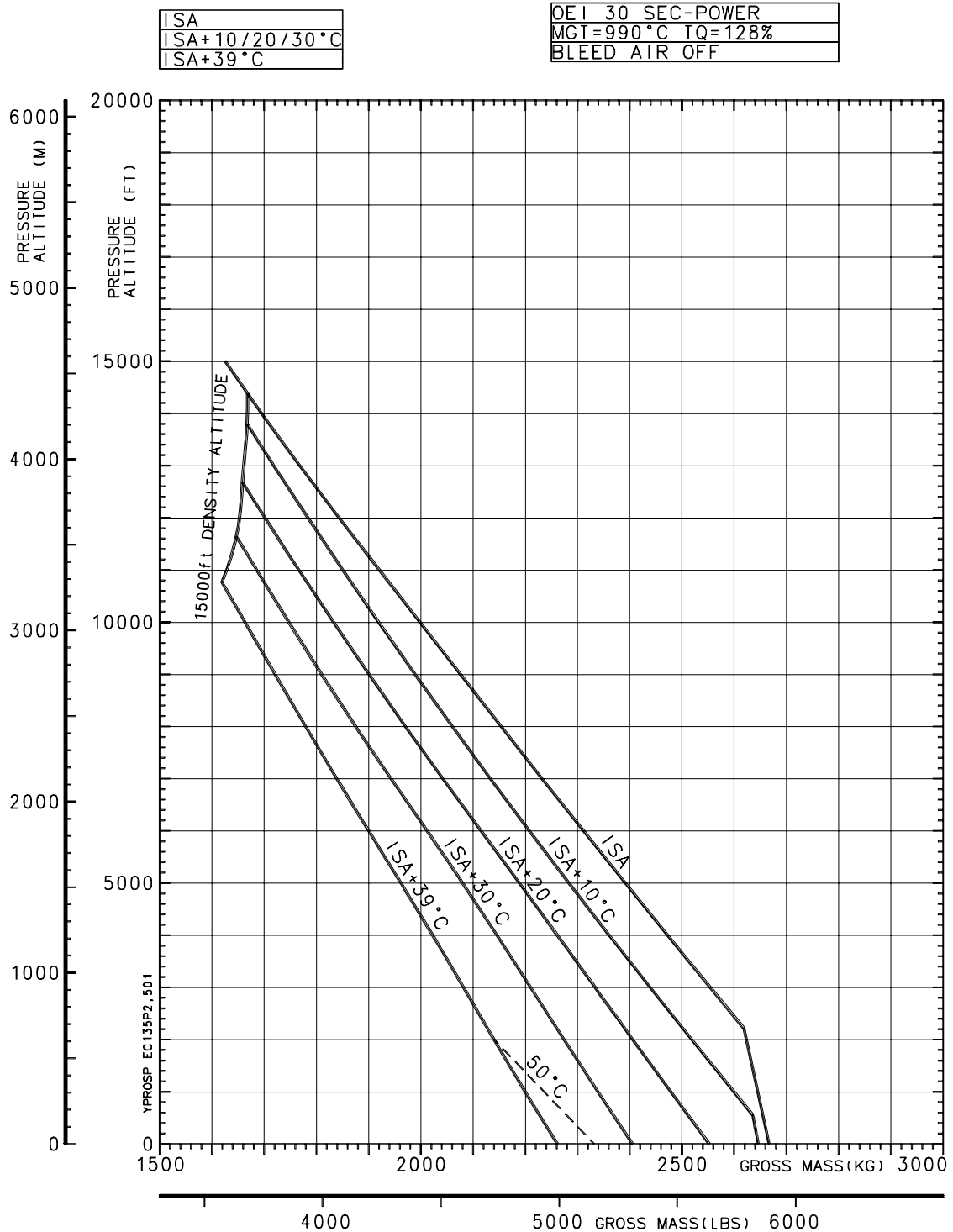


The data set forth in this document are general in nature and for information purposes only.

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)

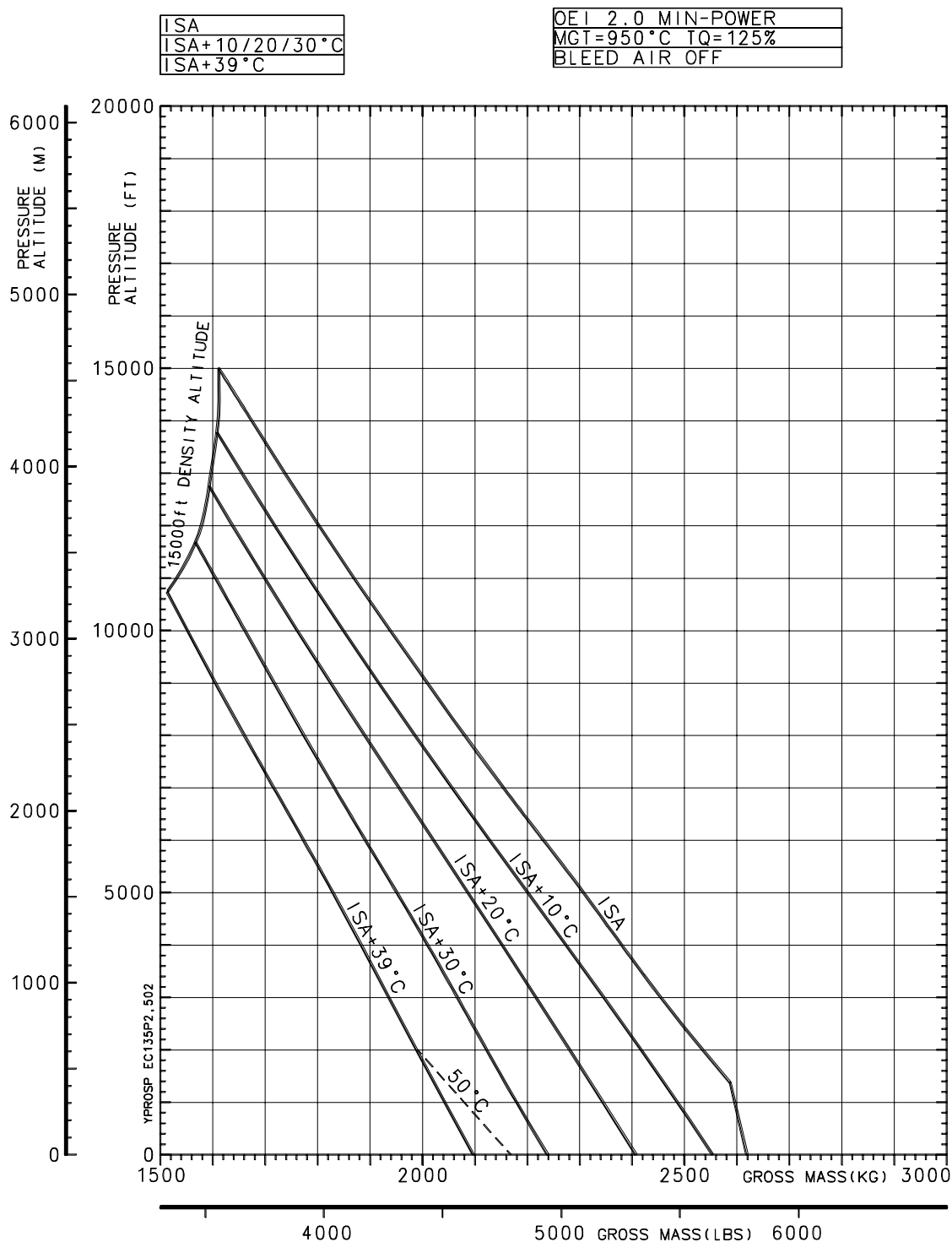
with one PW206B2 engine



*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

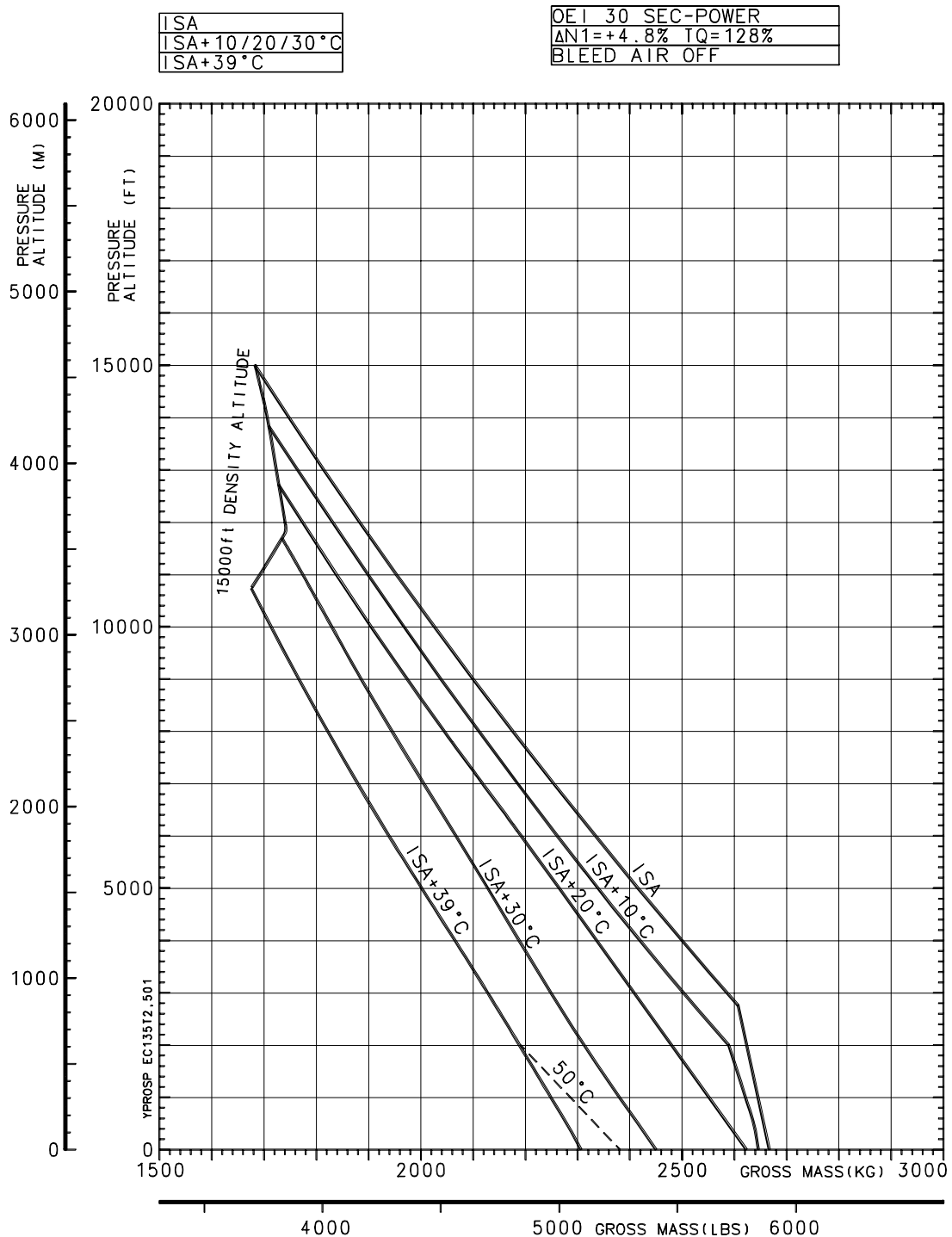


The data set forth in this document are general in nature and for information purposes only.

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)

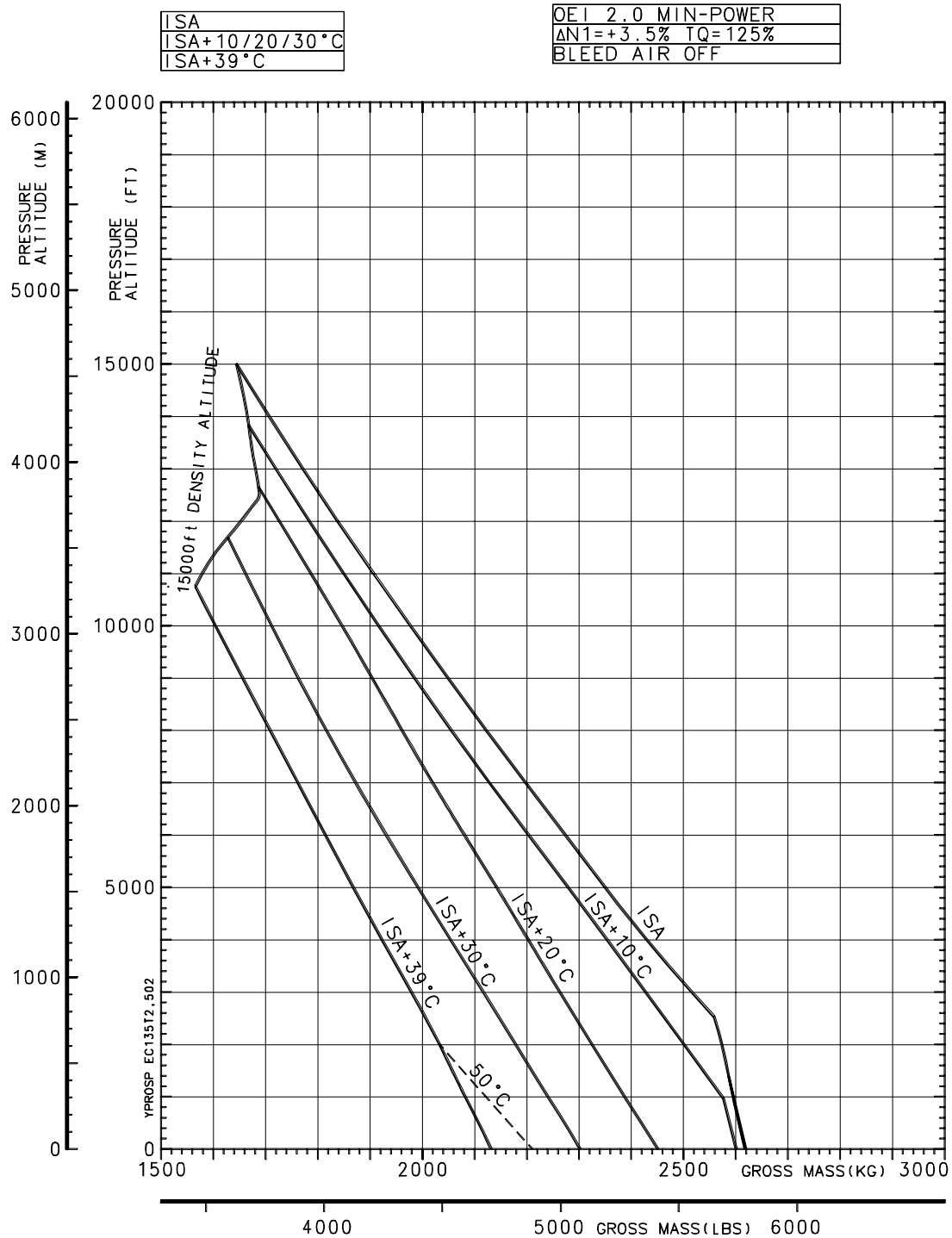
with one ARRIUS 2B2 engine



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



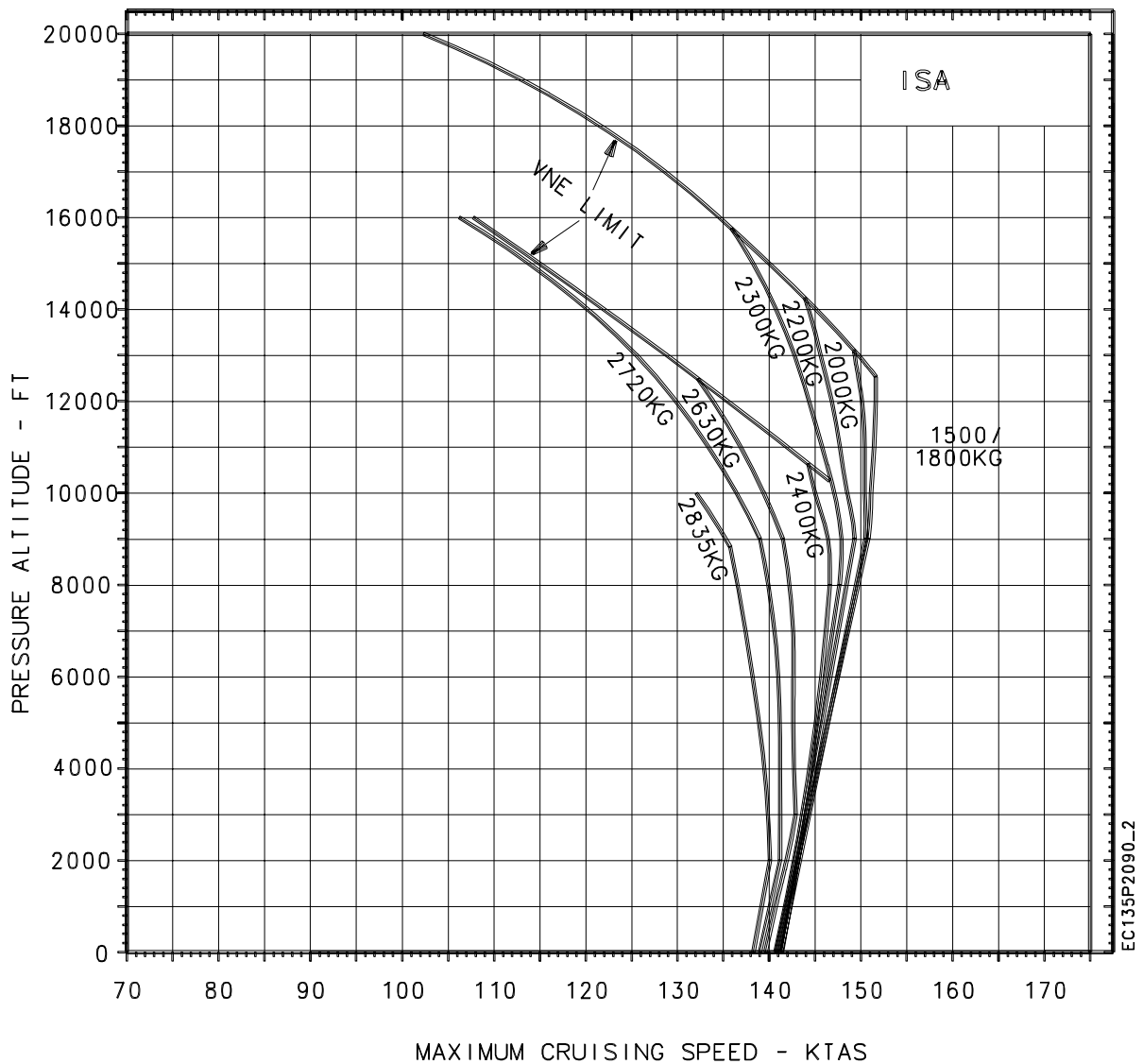
The data set forth in this document are general in nature and for information purposes only.

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

MCP POWER TOT= 835°C
TRANSMISSION LIMIT 69 % TORQUE
BLEED AIR OFF

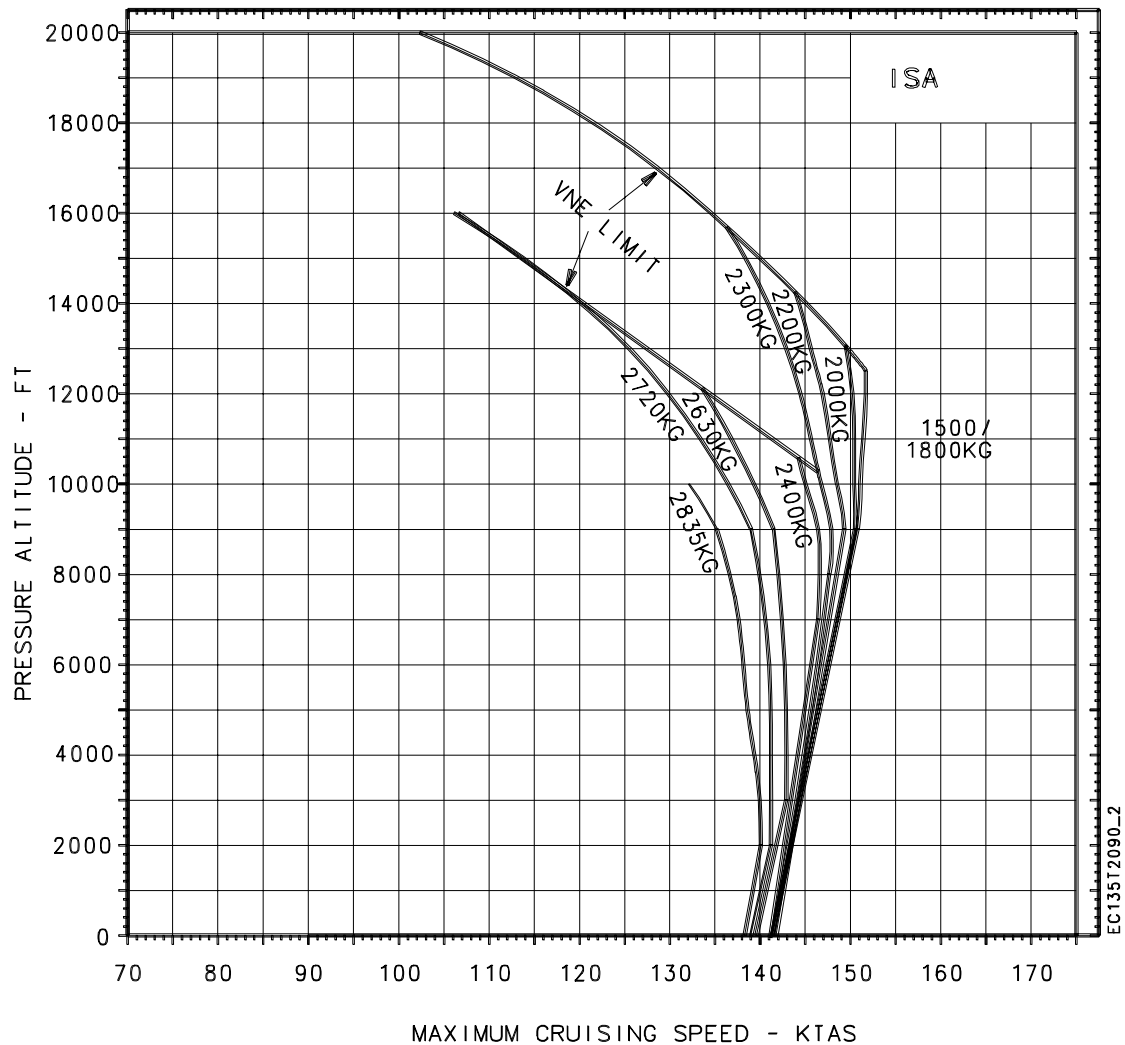


The data set forth in this document are general in nature and for information purposes only.
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Maximum Cruising Speed

with two ARRIUS 2B2 engines

MCP POWER $\Delta N1 = -1.0\%$
TRANSMISSION LIMIT 69 % TORQUE
BLEED AIR OFF



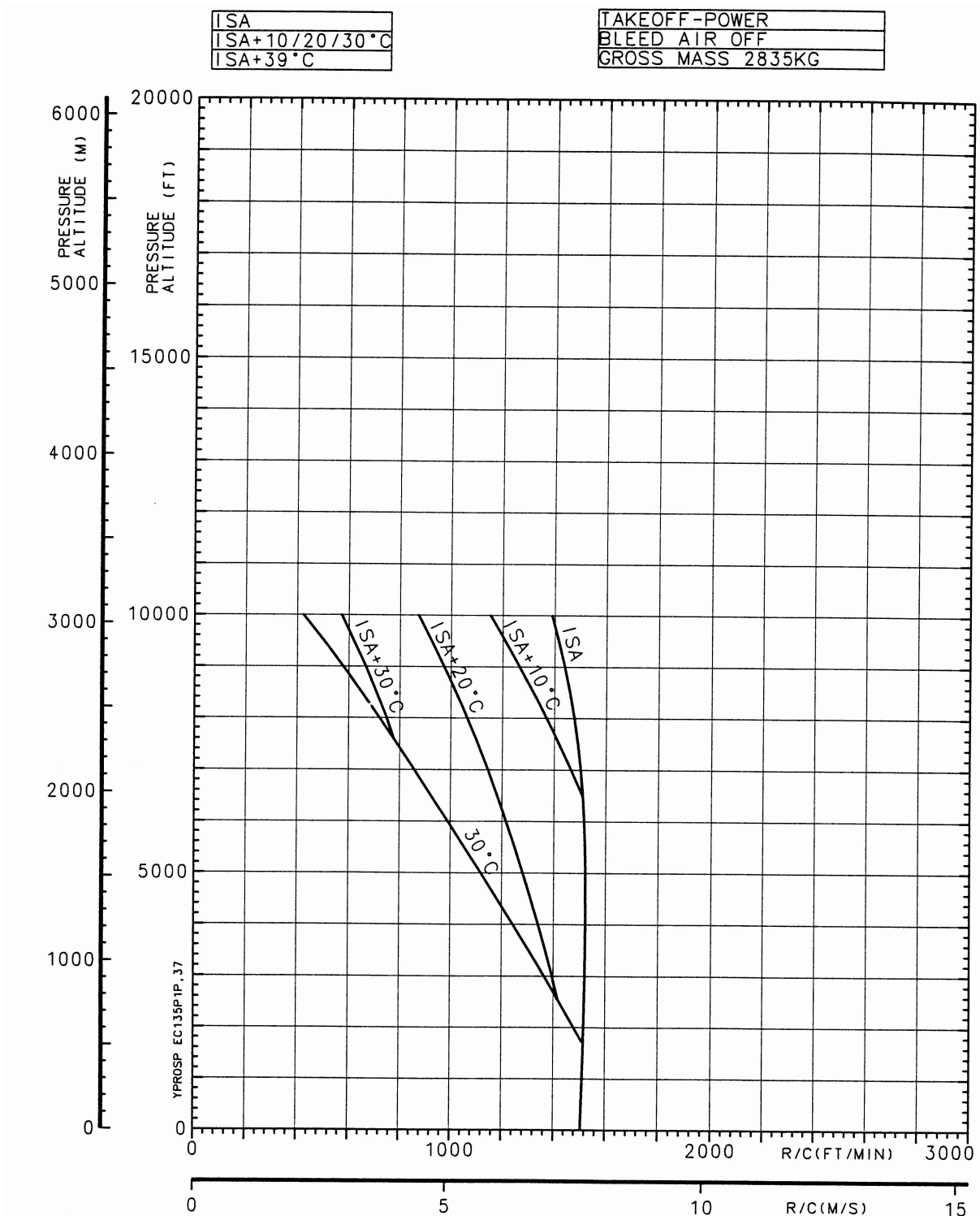
EC135T2090_2

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

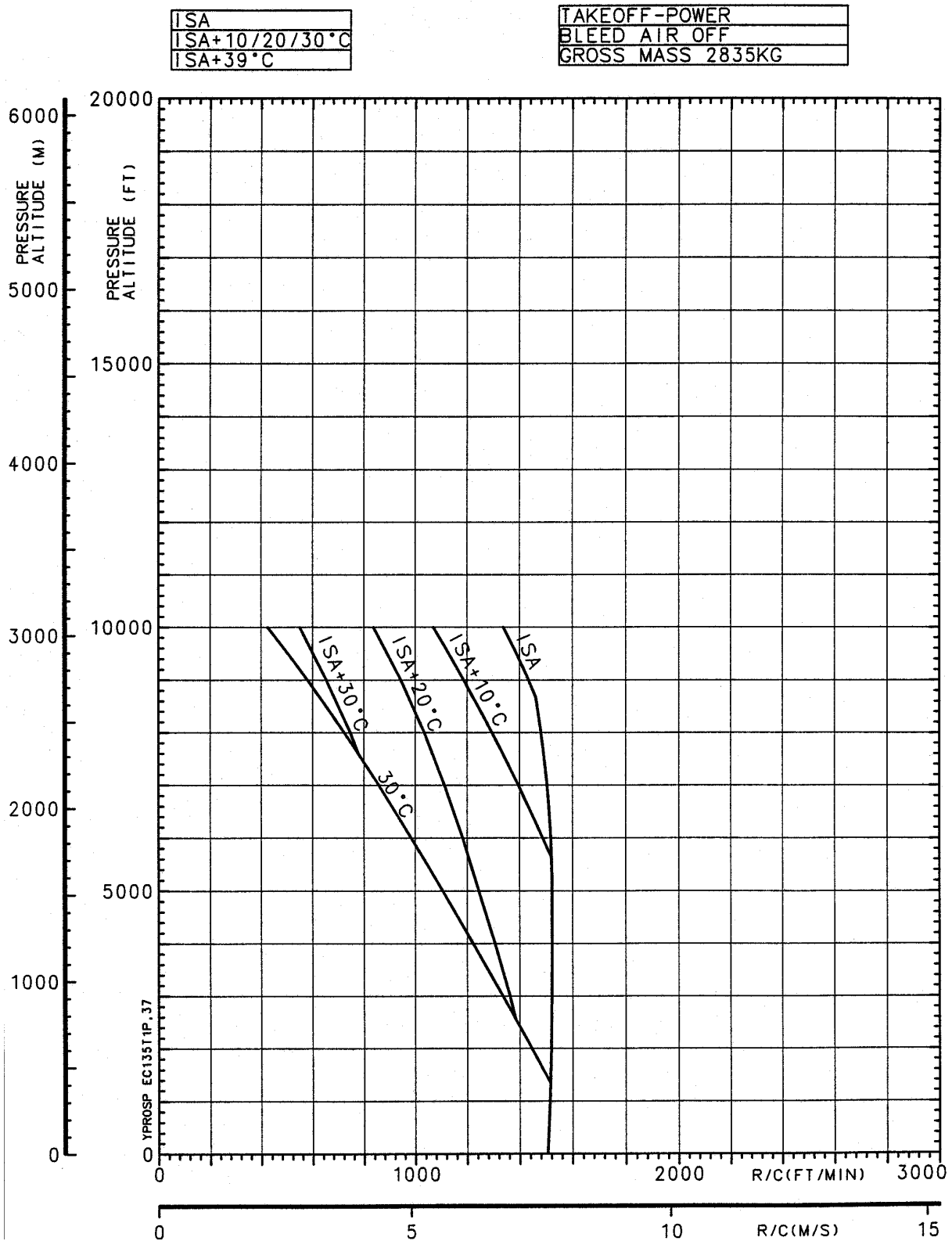
with two PW206B2 engines, MTOW: 2835 kg



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, MTOW: 2835 kg



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

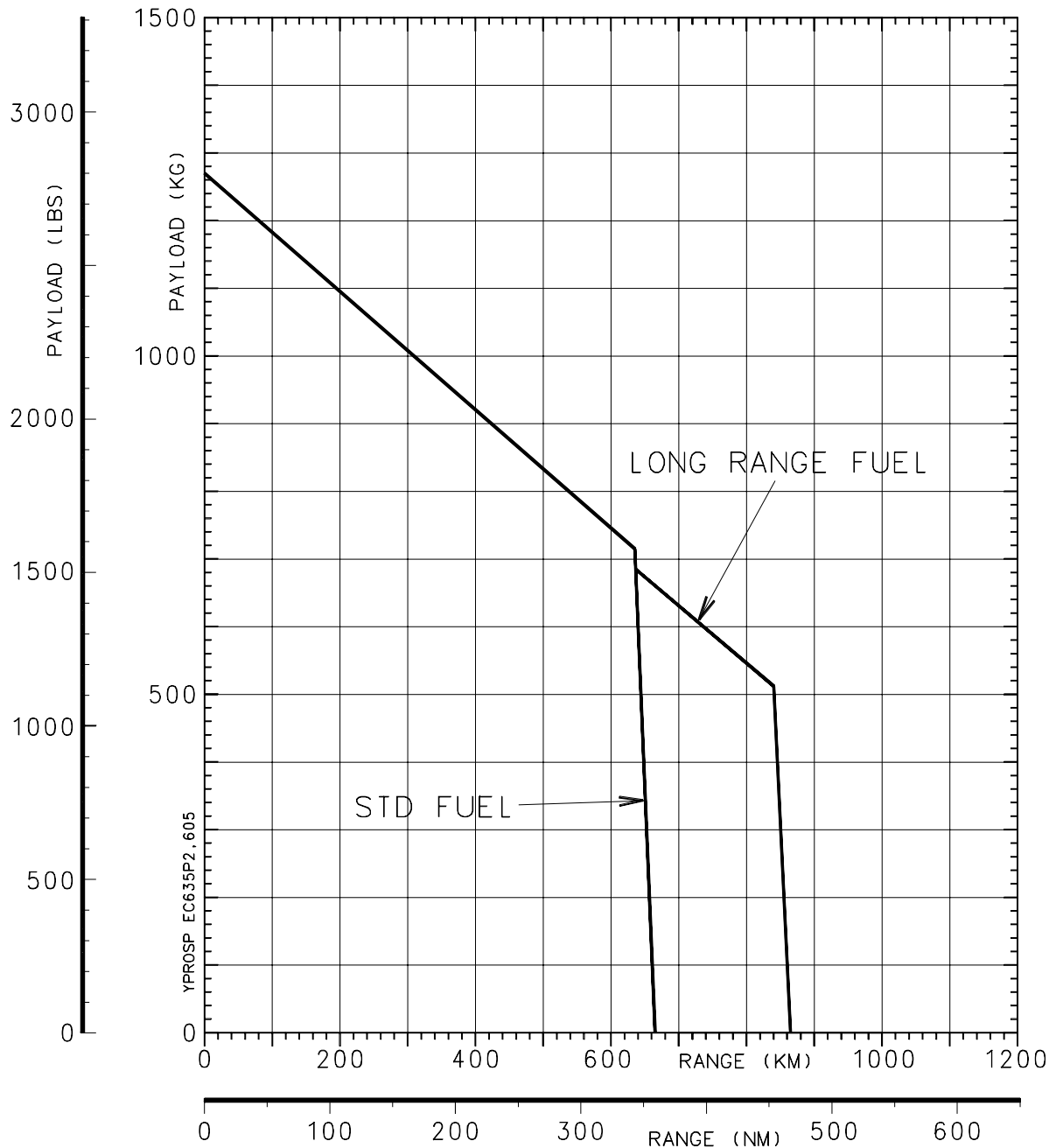
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Payload/Range

with two PW206B2 engines

MTOW 2835KG
NO RESERVE
SL / ISA

EMPTY WEIGHT 1485KG/1519KG
USABLE STD FUEL 553KG
LONG RANGE FUEL TANK 170KG
PILOT 80KG



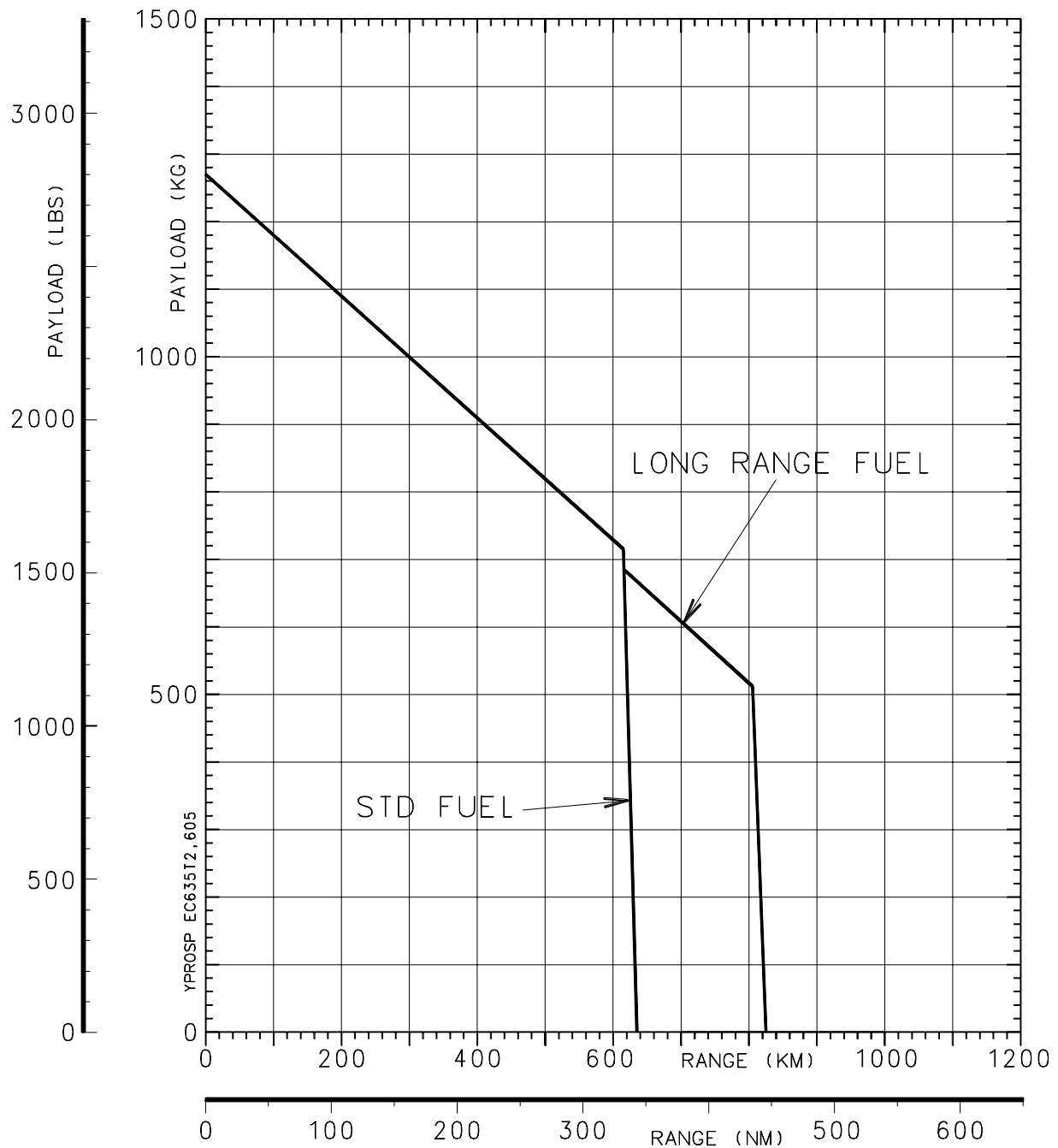
The data set forth in this document are general in nature and for information purposes only.
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Payload/Range

with two ARRIUS 2B2 engines

MTOW 2835KG
NO RESERVE
SL / ISA

EMPTY WEIGHT 1485KG/1519KG
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.