



EUROCOPTER
EC130 B4

Technical
Data

Contents

1 - Foreword	3
2 - General characteristics	4
3 - Standard Aircraft Definition	11
4 - Optional equipment	13
5 - Incompatibility between of optional equipment	19
6 - Main performance	21
7 - Customer Service Overview	41

Manufacturers notice

Attention !

Eurocopter's policy is one of on-going product enhancement which means that alterations in definition, pictures, weights, dimensions or performance may be made at any time without notice being included in those documents that have already been issued.

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 and 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.

*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.*

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



The light single-engine EC130B4 is the last member of the successful ECUREUIL family.

The ultra-quiet EC130B4 integrates the latest technological advances of EUROCOPTER's new generation helicopters : a new 7/8 seats enlarged cabin with enhanced comfort, a new tailboom with quiet Fenestron shrouded tail rotor, a dual channel FADEC unit plus a third independent and automatic channel for engine control, an automatic variable rotor speed control for noise reduction, a dual hydraulic system. The main rotor head, main gearbox and engine (except FADEC) are those of the AS350B3, ensuring the EC130B4 an high level of performance.

It is fully equipped with VFR day-time radio navigation (standard "ready to fly" package) associated with an integrated instrument panel (double color screen VEMD, GPS with color map display) and has the capability of night-time VFR flight.

Component community with EUROCOPTER light helicopters' range results in a helicopter respectful of the environment, easy and affordable to maintain, offering the same world-beating performance parameters, as the AS350B3.

The EC130B4 plays in the passengers transport register and answers to the public transport, corporate and tourism market segments thanks to its enlarged cabin, its modern technology, its comfort, and its "ready-to-fly" concept. It is used as well, as a "light truck" for utility, EMS and parapublic missions thanks to its low external noise signature, large cabin volume and high performance level, and is considered by some military forces as replacement of former Alouette III.

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.

2- General Characteristics

Lay-Out

- **Passenger-transport**
 - 1 pilot + 6 passengers in standard version ¹
 - 1 pilot + 7 passengers in "medium density" version
- **Casualty-evacuation**
 - 1 pilot + 1 or 2 stretcher patients + 2 medical attendants
 - 2 pilots + 1 stretcher patient + 2 medical attendants
- **Cargo carrying**
 - 1 pilot + 3.7 m³ (130.7 ft³) load in cabin
- **Equipment**
 Complete 7 seats interior + trims + carpets included in standard
 Ready to operate radio package included in standard :
 - 2 VHF
 - 2 VOR / LOC / GLIDE
 - 1 GPS
 - 1 ELT
 - 1 XPD mode A + C
 - 1 ICS capable of 8 outlets
 - 1 ADI
 - 1 HSI

Weights

Note : Empty weight accuracy : within $\pm 2\%$

	kg	lb
■ Empty weight, standard aircraft (including engine oil and unusable fuel)	1,379	3,040
■ Useful load	1,048	2,311
■ Maximum all-up weight	2,427	5,351
■ Maximum cargo-swing load	1,160	2,557
■ Maximum all-up weight in external load configuration	2,800	6,172

¹ If required by the local airworthiness authorities, the capacity can be limited to 1 pilot + 5 passengers.

*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

1 TURBOMECA ARRIEL 2B1 turbine engine

Engine ratings

Thermodynamic Power, in standard atmosphere, at sea level :

	kW	ch	shp
■ Take-off power	632	860	847
■ Maximum continuous power	543	739	728

Usable Fuel capacities

	litres	US gal.	kg	lb
■ Standard fuel tank	540	143	426	939

External noise

In accordance with ICAO annex 16, chapter 8

■ Average value	86,8	EPNdB	(- 7.0 dB / average ICAO limit)
■ Overflight	84,3	EPNdB	(- 8.5 dB / ICAO limit) (- 0.5 dB / GCNP ¹ noise rule 6 PAX) (- 1.2 dB / GCNP noise rule 7 PAX)

Internal noise

The noise in the cabin is also improved in order to increase pilot and passengers comfort. Measures have been realised on a standard aircraft and give the following mean levels :

- 81.3 dB SIL4 ² in hover inside ground effect
- 86.1 dB SIL4 in cruise flight at 120 kts

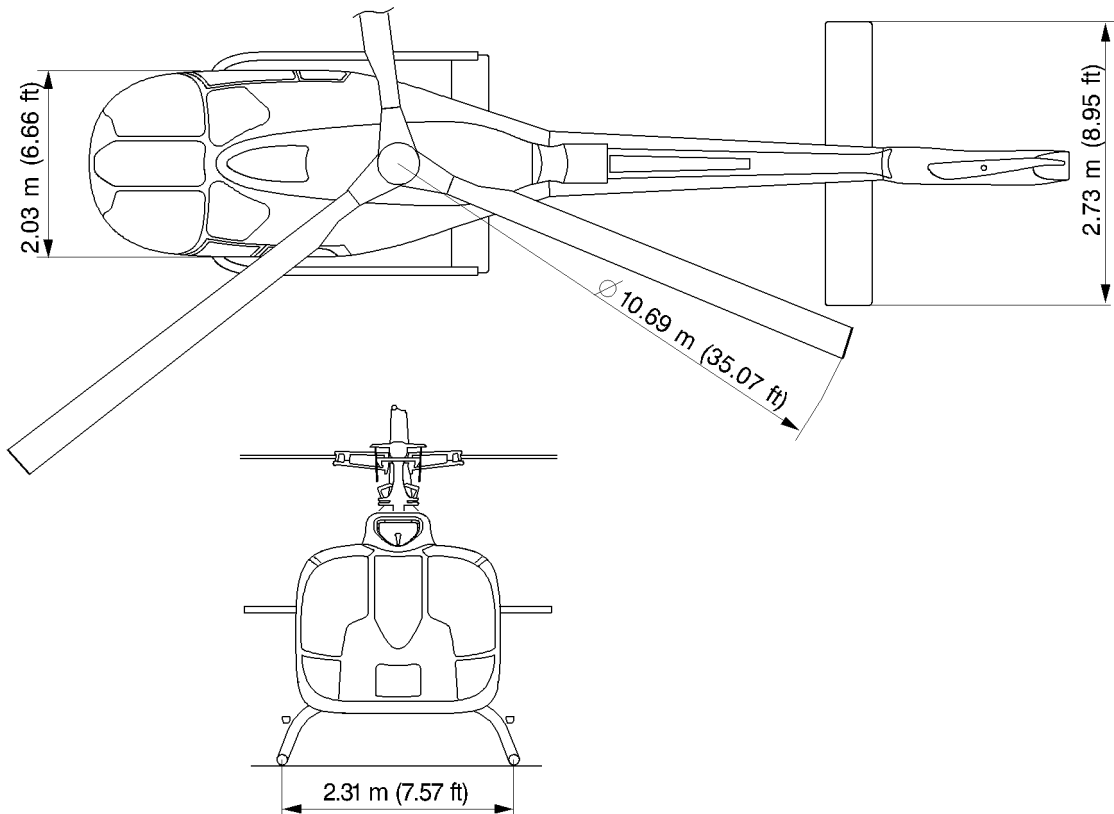
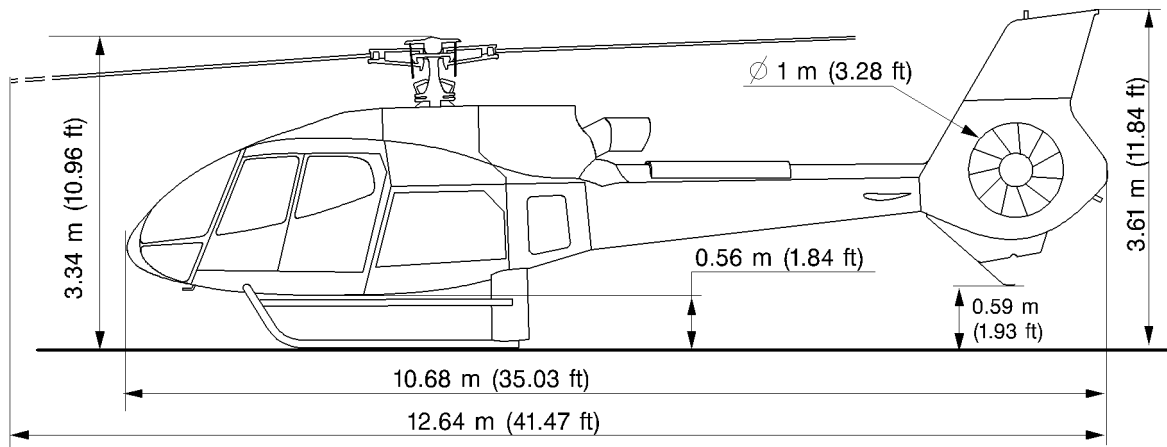
1 GCNP = Grand Canyon National Park.

2 The method of sound level measurement used is Speech Interference Level (dB SIL4). This is the arithmetic average of 4 octave (0.5, 1.0, 2.0 and 4.0 kHz) levels specified in dBlin (linear decibels). This particular set of octaves corresponds to the human voice frequency range and thus allows to evaluate the interference with passenger communication.

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.

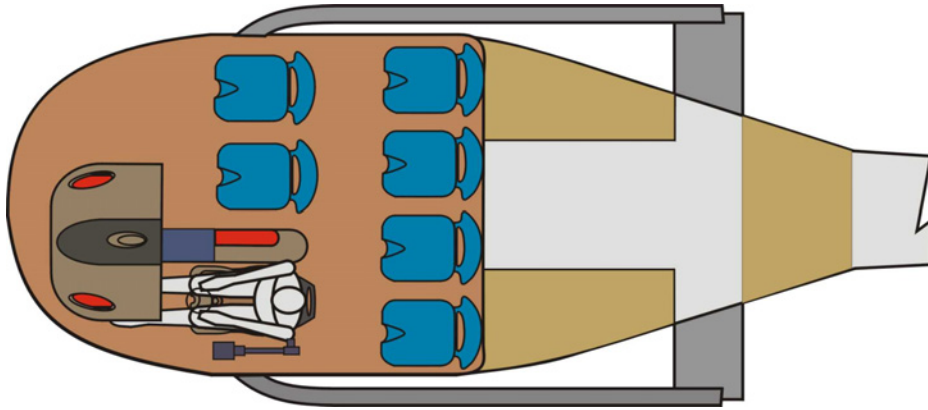
Main dimensions



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

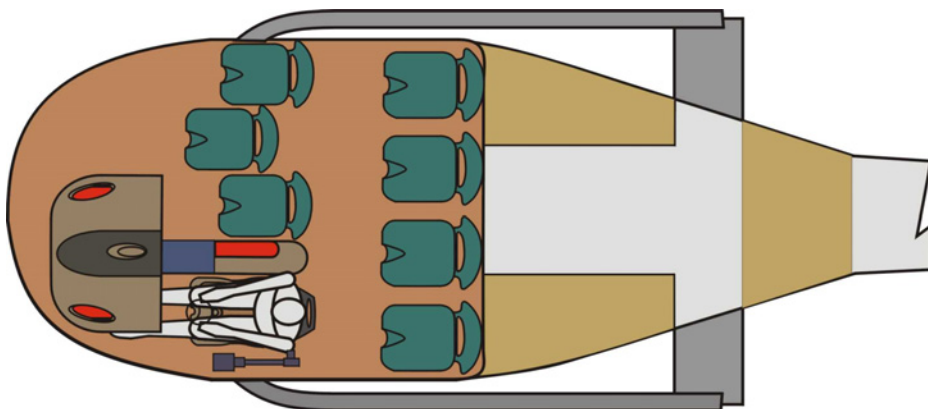
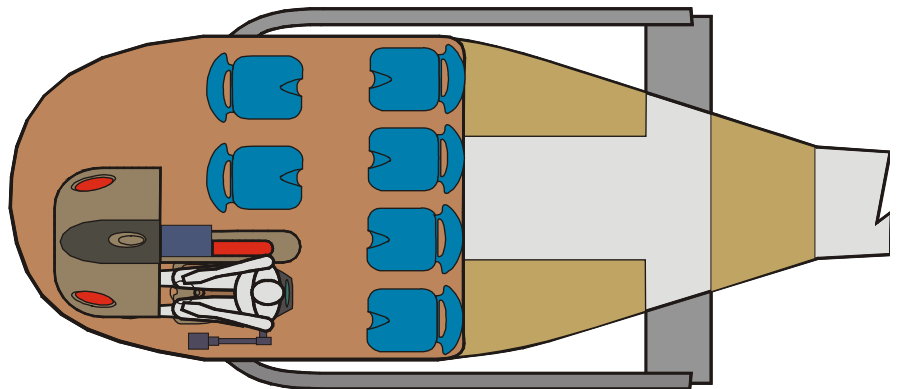
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

Configurations



Standard lay-out

**Standard lay-out
"face to face"**



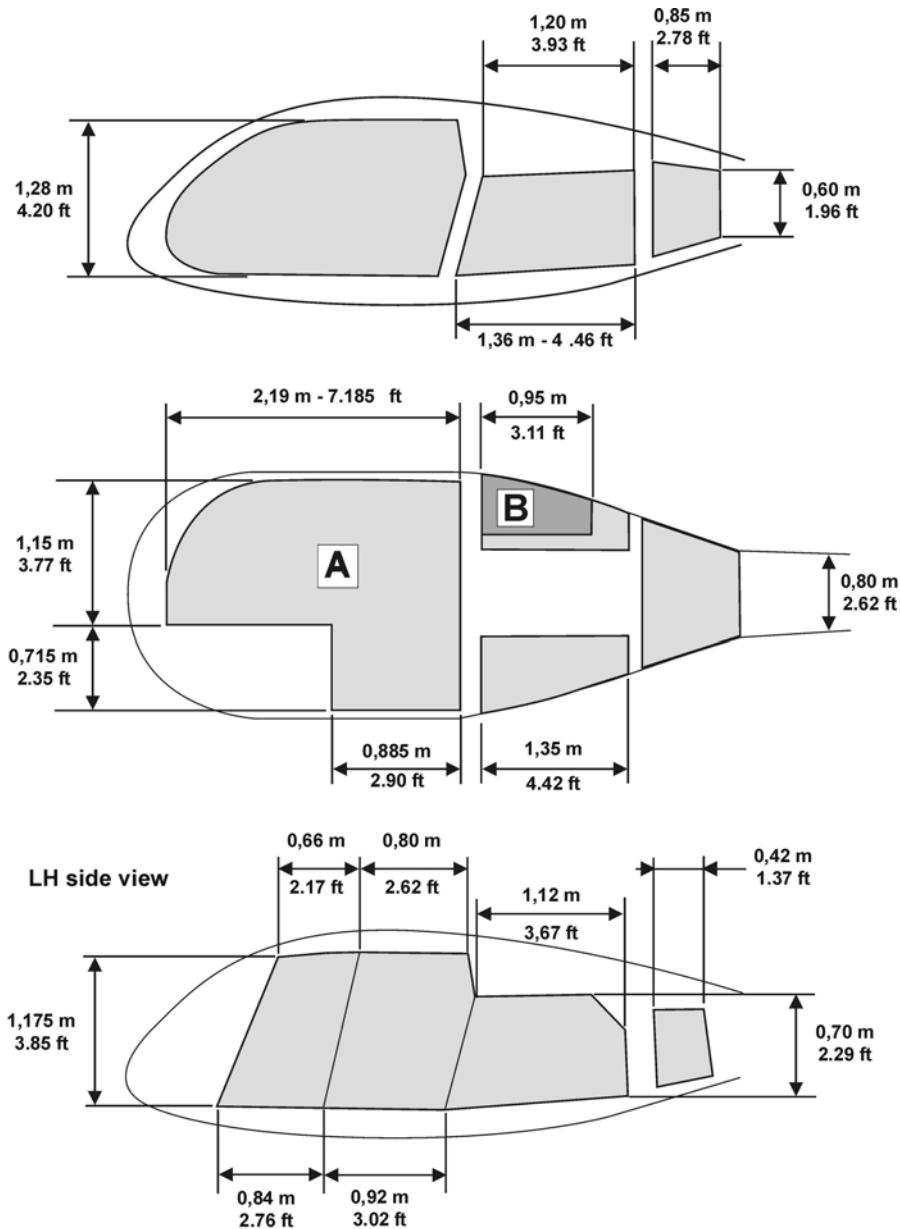
**Medium density
lay-out**

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.

Dimensions of compartments and accesses

Cabin main dimensions



CABIN	
Surface	3,00 m ²
A	32.3 ft ²
Volume	3.7 m ³
	130.7 ft ³

LH HOLD	
Surface	0.52 m ²
	5.60 ft ²
Volume	0.285 m ³
	10.06 ft ³

RH HOLD	
Surface	0.43 m ²
B	4.63 ft ²
Volume	0.245 m ³
	8.65 ft ³

REAR HOLD	
Surface	0.55 m ²
	5.92 ft ²
Volume	0.565 m ³
	19.95 ft ³

TOTAL HOLDS	
Surface	1.50 m ²
	16.15 ft ²
Volume	1.095 m ³
	38.66 ft ³

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.

Other characteristics

TURBOMECA ARRIEL 2B1 turbine engine



- 847 shp (632 kW) take-off power
- Triple engine control : one dual channel FADEC (Full Authority Digital Engine Control) unit plus a third independent and automatic back up channel
- Optimized engine ratings according to outside operations conditions thanks to electronic governing system (FADEC)
- Optimized engine monitoring through the VEMD
- Automatic starting sequence

VEMD (Vehicle and Engine Multifunction Display)

- Full colour LCD display
- Fully duplex equipment
- Self monitoring at one glance
- First Limitation Indication (FLI) with aural warning
- Mission parameters calculation
- Engine cycle counting
- Engine health monitoring



Noise reduction



The outstanding noise reduction is given by :

- Automatic variable rotor speed control
- quiet FENESTRON shrouded tail rotor

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.

A wide and comfortable cabin

The EC 130 B4 offers an enlarged cabin floor, allowing comfortable accommodation for the pilot and 6 passengers on individual energy-absorbing seats. The rear seats are slightly elevated to offer a better visibility to the passengers.



The EC 130 B4 offers also interior arrangements including fans, lighting and carpets



Enlarged cargo holds

On the left side



*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- EC130B4 ECUREUIL - Standard Aircraft Definition

The helicopter in the definition, presented hereafter, is approved to operate by day and night in VFR conditions by the following airworthiness authorities : DGAC, LBA, ENAC, CAA, FAA, TC. This list is not restrictive and the status of approval by other airworthiness authorities must be checked.

GENERAL

- Fuselage comprising the cabin and 3 luggage holds, with floor, tie-down nets and access doors
- Tail boom with stabilizer, Fenestron type anti torque rotor, and tail skid
- Tubular skid landing gear, with replaceable skid shoes, with long footsteps, profiler on rear tube, capable of floats and handling wheels
- Lifting points
- Upper mooring fixtures
- External paint : fuselage according to standard paint schemes. Unless modified by optional item, the main rotor head and tail rotor covers are painted in grey, the skid landing gear in dark grey and the Fenestron duct in light grey.
- Internal paint : light grey

CABIN

- Cabin floor in light-alloy sheet-metal with hard points
- 2 pilot and copilot high-back energy-absorbing seats, adjustable in reach, removable, complete with cushions, safety belts and dual-strap shoulder harnesses
- 1 passenger high-back energy-absorbing seat (front right), removable, complete with cushions, safety belt and dual shoulder strap harness
- 4 passenger high-back energy-absorbing seats (rear row), removable, complete with cushions, safety belts and dual shoulder strap harnesses) fitted on a removable frame bolted on the cabin floor
- 1 set of controls for pilot in command on left side
- 1 twist grip on pilot side (for engine reduction in case of tail rotor failure and autorotation training)
- 2 tinted upper panes
- 1 roof panel, housing cabin lighting, 7 air ventilation outlets, and controls (ventilation controls, rotor brake and fuel cut-off)
- Capabilities for mandatory optional item : air conditioning or ventilation systems
- 1 heating circuit (outlets in cabin floor)
- 1 demisting circuit
- Doors trim panels
- Floor carpet
- Rear bulkhead and lateral rear trims
- Interior harmony according to definition in force

DOORS

- Cabin
 - 1 right large hinged / jettisonable door,
 - 1 left sliding door,
 - 1 left small hinged / jettisonable door,
- Locks on every access to cabin and luggage compartments
- Lock on fuel cap
- Luggage
 - 2 lateral luggage holds door, horizontal hinge and 2 gas struts)
 - 1 rear luggage door (vertical forward hinge)

WINDOWS

- Tinted windows (but windscreen)
- 1 sliding door window on pilot side

POWER PLANT

- 1 Turboméca ARRIEL 2B1 632 kW (850 ch - 847 shp) turbine engine complete with starting, fuel supply and dual channel digital engine control system (FADEC), and fitted with a magnetic plug and chip detector
- 1 fuel system including 1 tank of 540 liters (143 US gal.) total capacity
- 1 back-up fuel control box that automatically controls the engine in case of a total failure of the 2 digital channels of the FADEC
- 1 engine lubrication and oil cooling system
- 1 fire detection system
- 1 air-intake screen
- 1 torque-measurement pick-up
- Capabilities for sand filter

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.

TRANSMISSION SYSTEM

- 1 main gearbox, anti-vibration mounted, with oil sight gauge, chip detector, oil temperature and pressure switches, port for endoscope and self sealing valve for oil sampling and draining
- 1 main gearbox oil cooling system
- 1 engine to main gearbox coupling shaft
- 1 rotor brake
- 1 main rotor r.p.m sensor and high and low r.p.m warning device
- 1 tail drive carried by five anti-friction bearings
- 1 tail gearbox with oil sight gauge, electric chip detector and port for endoscopic inspection

ROTORS AND FLYING CONTROLS

- 1 main rotor with 3 composite-material blades around a Starflex head fitted with spherical thrust bearings
- 1 Fenestron rotor
- 3 main rotor hydraulic servo units (duplex servos)
- 2 independent hydraulic generations

ELECTRICAL INSTALLATION

- 1 4.5 kW, 28 Volt DC starter-generator
- 1 15 amp. Hr cadmium-nickel battery
- 1 ground power receptacle
- 3 position lights
- 1 flashing anti-collision light
- 2 fixed landing lights
- 2 cabin light sets, each with 2 reading lights for 2 rear passengers and 1 dome light
- 1 instrumentation lighting system (with integrated emergency lighting)
- 1 control panel with circuit-breakers panel
- 1 reading map light on upper canopy strut for pilot
- 1 28 V DC cabin power outlet

INSTRUMENTS

- 1 airspeed indicator with heated pitot head
- 1 altimeter
- 1 rate-of-climb indicator
- 1 LCD dual RPM tachometer (rotor tachometer and Nf tachometer)
- 1 clock
- 1 warning panel
- 1 magnetic compass
- 1 overlay on the left side of the instrument panel for instruments lighting and additional warnings
- Capabilities for VEMD data download (including maintenance plug)
- 1 LCD dual screen Vehicle and Engine Multifunction display (VEMD) providing the following information :
 - First limitation indicator FLI, torquemeter, exhaust gas temperature, gas generator tachometer
 - Engine oil temperature, pressure,
 - Fuel quantity and fuelflow and estimated remaining time to fly
 - Ammeter and voltmeter
 - Outside air temperature
 - Enhanced usage monitoring functions, IGE / OGE performance calculations, engine cycles counting, engine power check, overlimits display
 - VEMD and peripheral maintenance information

AVIONICS

- 1 avionics master switch
- 1 gyro-horizon
- 1 gyro-compass with
- 1 horizontal Situation Indicator
- 1 turn and bank indicator
- 1 VHF/VOR/LOC/GS
- 1 VHF/VOR/LOC/GS/GPS
- 1 transponder (mode A+C)
- 1 altitude encoder
- 1 emergency Locator Transmitter (2 frequencies)
- 1 ICS + passenger interphone

AIRBORNE KIT (*)

- 1 pitot head cover
- 2 static port stoppers
- 1 engine air-intake blanking cover
- 1 tail-pipe plug
- 2 ground handling bogies c/w hydraulic jacking system
- 1 lifting ring
- 2 upper mooring rings
- 3 main-blade socks
- 1 document holder
- 1 airborne kit stowage bag
- Manuals (CD ROM)

(*) (weight not included in standard aircraft 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.*

4- Optional equipment

4-1 Mission package

Eurocopter proposes one mission package, specially designed for passenger transport, offering an high level of finishing.

This package must be regarded as a whole and its contents cannot be modified nor sold separately.

All the optional items listed in chapter 4-2 can be installed as equipment complementary to this package, in coherence with the table of incompatibility presented in chapter 5.

<i>Document reference</i>	Commercial reference	Name	
<i>00-50015-A</i>	00-50015-00-CI	Stylence ® package	102 kg - 225 lb
		Extra charge for customized external paint – level 2 ¹	
		Sun protected upper windows	
		Air conditioning system with reinforced front air distribution	
		Layout Stylence ®, including mainly	
		<ul style="list-style-type: none"> ■ Light grey internal paint ■ Front seats upholstered in leather, with casing made of carbon fiber and leather storage pouch ■ Rear seats upholstered in leather with fairing of the lower part ■ Integrated door case covered with light grey leather ■ Cabin carpet with additional foam ■ Carpet edge protection ■ Upholstery panels on the front structure ■ New demisting ramp ■ Console upholstery ■ Lateral upholstery panels on the ceiling ■ Rear partition covered with light grey leather ■ New rear bulkhead ledge ■ Carpet baggage bay floor covering ■ Protection covers for seats ■ Protection cover for carpet 	
		<i>The STYLENCE ® layout is available in 6 colour schemes :</i>	
		<input type="checkbox"/> <i>Brick</i>	<input type="checkbox"/> <i>Aubergine</i>
		<input type="checkbox"/> <i>Graphite</i>	<input type="checkbox"/> <i>Chocolate</i>
		<input type="checkbox"/> <i>Camel</i>	<input type="checkbox"/> <i>Marine</i>

EC 130 B4 Stylence ® configuration empty weight :

1,481 kg - 3,265 lb

The aircraft equipped empty weight is correct to $\pm 2\%$. According to aircraft equipment, ballast may be required to accommodate various mission configurations.

1 *Sophisticated paint scheme with finishing of superior quality, possibility of varnished finishing.*

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

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

4-2 List of optional equipment

Note : value of the weight breakdown is given for information and shall not be considered as contractual.

General equipment

Document reference	Commercial reference	Name	kg	lb
05-02007-A	05-02007-00-CI	Extra charge for customized external paint - level 1 1 - 2	5.0	11.0
05-02008-A	05-02008-00-CI	Extra charge for customized external paint - level 2 2 - 3	5.0	11.0
05-02009-A	05-02009-00-CI	Extra charge for highly customized external paint 2 - 4	On request	
05-02010-A	05-02010-00-CI	Extra charge for varnished external paint	On request	
05-03003-A	05-03003-00-CI	First aid kit 5	1.7	3.7
05-23005-A	05-23005-00-CI	Engine wash	0.8	1.8
05-24005-A	05-24005-00-CI	High visibility blades paint scheme	0.1	0.2
05-25002-A	05-25002-01-CI	Sand prevention filter 6	7.6	16.8
05-27001-A	05-27001-00-CI	Cabin fire-extinguisher 7	1.7	3.7
05-31002-A	05-31002-00-CI	Sliding window on RH front door	0.1	0.2
05-31033-A	05-31033-00-CI	Sun protected upper windows	2.0	4.4
05-37015-A	05-37015-00-CI	Dual controls	2.6	5.7
05-37020-A	05-37020-00-CI	Full option pilot cyclic control stick	1.0	2.2
05-37021-A	05-37021-00-CI	Full option copilot cyclic control stick	1.0	2.2
05-42006-A	05-42006-01-CI	Air conditioning system 8	36.0	79.4
05-42025-A	05-42025-01-CI	Air conditioning system with reinforced front air distribution 8	40.0	88.2
05-44004-A	05-44004-00-CI	Cabin ventilation system 9	6.5	14.3
05-61008-A	05-61008-00-CI	2nd battery kit	On request	
05-63002-A	05-63002-00-CI	200 Amp. direct current generation	1.5	3.3
05-92016-A	05-92016-00-CI	Folding of main rotor blades 10	On request	

- 1** Paint scheme comprising a basic shade and 2 or 3 additional shades, with straight separation lines, apart from standard paint schemes.
- 2** The paint scheme must be approved at the latest 3 months before the delivery of the helicopter.
- 3** Paint scheme comprising a basic shade and up to 3 additional shades, with separation lines not straight or tangled up, with graduated shades or complicated emblem or logo to be hand-painted.
- 4** Sophisticated paint scheme with numerous shades, complex graduated shades, or complicated emblem or logo.
- 5** Recommended for public transport mission. Its content is the buyer's responsibility as it may vary according to geographical region or applicable regulations.
- 6** Capabilities included in standard aircraft.
- 7** If type is accepted by local regulations.
- 8** Incompatible with the optional items 05-44004-00-CI "Cabin ventilation system" and the other type of Air conditioning system.
- 9** Incompatible with all types of Air conditioning system. Mandatory if no air conditioning is fitted.
- 10** Availability : to be checked.

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

Document reference	Commercial reference	Name	kg	lb
06-11006-A	06-11006-00-CI	Heavy duty skid shoes	1.7	3.7
06-11007-A	06-11007-00-CI	Skis 1	On request	
06-26002-A	06-26002-00-CI	External electric mirror	2.4	5.3
06-27002-A	06-27002-00-CI	Cargo sling 750 kg - 1,654 lb	4.6	10.1
06-27003-A	06-27003-00-FP	Cargo swing 1,160 kg – 2,557 lb - Fixed Parts	5.2	11.5
	06-27003-00-RP	Cargo swing 1,160 kg – 2,557 lb - Removable Parts 2	10.5	23.1
06-27016-A	06-27016-00-FP	Cargo swing 1,350 kg – 2,976 lb - Fixed Parts 1	On request	
	06-27016-00-RP	Cargo swing 1,350 kg – 2,976 lb - Removable Parts 1	On request	
06-42017-A	06-42017-00-CI	Landing light adjustable in site and azimuth	2.9	6.4
06-61006-A	06-61006-00-FP	Emergency floatation gear - Fixed Parts 3	4.0	8.8
	06-61006-00-RP	Emergency floatation gear - Removable Parts	58.0	127.9
06-74007-A	06-74007-00-CI	Adaptation for night time mission with NVG 1	On request	

Interior cabin layout

07-24005-A	07-24005-00-CI	8 Energy-absorbing seats layout 4 - 5	23.8	52.5
07-40012-A	07-40012-00-CI	Velvet carpeting	On request	
07-40013-A	07-40013-00-CI	Carpet edge protection	0.6	1.3

1 Availability : to be checked.

2 With Onboard Systems TALON hook.

3 When the removable parts are not fitted on the aircraft, part of the fixed parts representing 2 kg - 4.4 lb can be easily dismantled (less than one working day).

4 When the aircraft is delivered with 8 seats, the rails for installing 7 seats are provided as loose equipment.

5 According to the aircraft configuration, ballast may be required to accommodate both pilot alone and one pilot + 7 passengers. The weight figure includes a ballast's average value of 4.8 kg - 10.6 lb (maximum value 12.8 kg - 28.2 lb).

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

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

Avionics

VFR day and night Package included in standard definition

Thales H 321 EHM - Gyro-horizon **1**
 Honeywell KCS 55 A - Gyro Compass with
 Honeywell KI 525 A - Horizontal Situation Indicator **2**
 UI 9560 - Turn and Bank indicator
 Honeywell KX165A - VHF/VOR/LOC/GS
 Garmin GNS 430 - VHF/VOR/LOC/GS/GPS **3**
 Garmin GTX 327 - Transponder (mode A+C)
 Shadin 8800 T - Altitude Encoder
 Kannad 121 AF-H - Emergency Locator Transmitter **4**
 Garmin GMA 340 - ICS **5- 6**

The standard aircraft definition includes an avionics package as defined hereabove. Brands and models are given for information exclusively. EUROCOPTER reserves the rights to modify any brand or model constantly according to its policy in force.

Equipment that can replace a standard equipment

Document reference	Commercial reference	Name	kg	lb
06-67031-A	06-67031-01-CI	KANNAD 406 AF-H - Emergency Locator Transmitter 7- 8 instead of KANNAD 121 AF-H - Emergency Locator Transmitter	0.1	0.2
08-22019-A	08-22019-01-CI	Garmin GTX 330 - Transponder (mode S) 8 - 9 instead of Garmin GTX 327 - Transponder (mode A+C)	0.6	1.3
08-51019-A	08-51019-01-CI	Thales H 321 EHM - Stand-by gyro-horizon 10- 11 instead of UI 9560 - Turn and Bank indicator	3.0	6.6

- 1** With slip indicator included when the Turn and Bank indicator is replaced by the stand-by gyro-horizon.
- 2** With a selector switch for NAV1/NAV2 selection.
- 3** Delivered with EUROPE map. Subscription to be made by the customer.
- 4** 2 frequencies : 121.5 MHz, 243 MHz. Compliant with ED 62 and TSO C91A.
- 5** Includes the passenger interphone function.
- 6** I.C.S. compatible only with High level / High impedance headsets.
The headsets of the passengers should be of the same mark and the same model.
- 7** 3 frequencies : 121.5 MHz, 243 MHz, 406 MHz. Compliant with ED 62 and TSO C91A.
The Programming Data Sheet must be filled and communicated by the customer two months at the latest before the helicopter's delivery.
- 8** May be a mandatory equipment, required by local airworthiness authorities.
- 9** The mode S identification must be communicated by the customer two months at the latest before the delivery.
- 10** Optional item required when the Thales AHV 16 - Radio altimeter is installed.
- 11** Fitted with independent battery.

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 that can be added depending on operational needs or the requirements of the authorities in certain countries if not included in the standard package

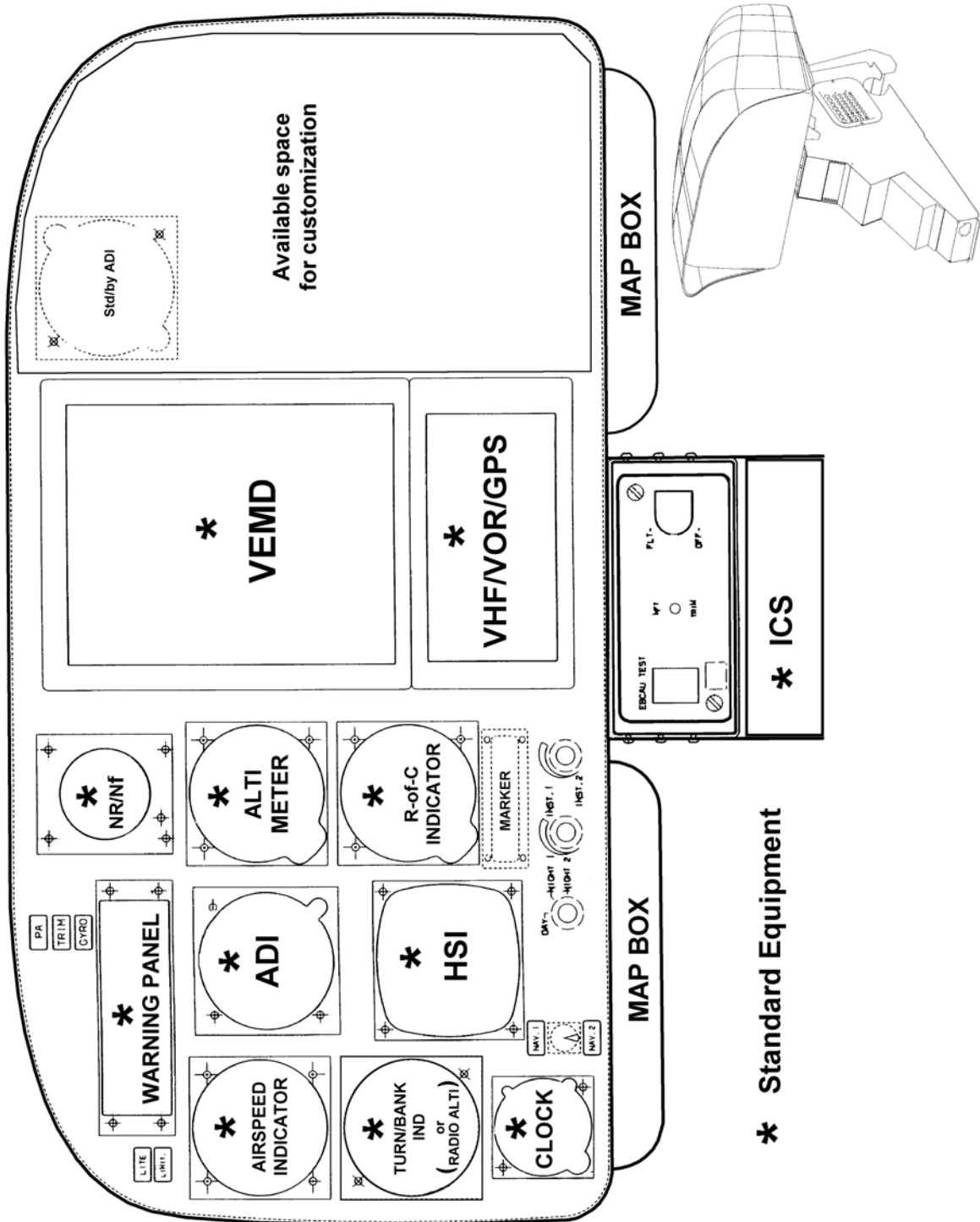
<i>Document reference</i>	<i>Commercial reference</i>	<i>Name</i>	<i>kg</i>	<i>lb</i>
08-10018-A	08-10018-01-CI	HF/SSB 1		On request
08-18011-A	08-18011-00-CI	David Clark - H 10-36 - Headset 2	0.5	1.1
08-18024-A	08-18024-00-CI	Electrical extension	0.2	0.4
08-18025-A	08-18025-00-CI	Eino FPH 600 - Helmet	1.0	2.2
08-21008-A	08-21008-00-CI	Thales AHV 16 - Radio altimeter 3	5.0	11.0
08-24011-A	08-24011-02-CI	Honeywell KR 87 - ADF 4		On request
08-25001-A	08-25001-00-CI	Honeywell KN 62A - DME		On request
08-51015-A	08-51015-01-CI	Thales H 321 EHM - Stand-by gyro-horizon 5- 6	3.8	8.4
08-61004-A	08-61004-01-CI	Honeywell KI 229 - Radio Magnetic Indicator		On request
08-83017-A	08-83017-00-CI	VEMD data download kit 7- 8		Not applicable

The radio/com/nav. equipment weight figures included in this chapter are average values. As the installation of those equipment may vary from one a/c to another, the weight of a complete configuration with multiple items may not be the simple sum of all individual weights.

- 1** *Model to be defined.*
- 2** *High level / High impedance headset.*
- 3** *Requires the selection of Thales H 321 EHM - Stand by gyro-horizon instead of UI 9560 - Turn Bank Indicator.*
- 4** *Requires the selection of Honeywell KI 229 - Radio Magnetic Indicator.*
- 5** *Fitted with independent battery.*
- 6** *In addition to the standard Turn and bank indicator.*
- 7** *Allows compliance to JAR OPS 3 Amendment 3 requirement, as defined in Appendix 1 to JAR OPS 3.517 (a) and (b)(5)(i).*
- 8** *Delivered in addition to the airborne kit, the kit includes two softwares and a connection wire.*

*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.*

STANDARD INSTRUMENT PANEL LAY-OUT



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- Incompatibility between of optional equipment

- Impossibility of simultaneous fitment of the fixed parts of 2 items of equipment
- ▲ Total or partial incompatibility of simultaneous fitment of the removal parts of two items of equipment
- Possibility of simultaneous fitment on the same aircraft, but impossible to use simultaneously

Note: This table indicates the compatibility restrictions existing between the installations. The consultation of EUROCOPTER is necessary for the definitive Equipment Compatibility clearance of a configuration.

Reference Optional	Installation	Nature of the incompatibility		
		■	▲	●
General package				
00-50015-00-CI	Stylence® package	1 05-02007-00-CI 05-03003-00-CI 05-42006-01-CI 05-42025-01-CI 05-44004-00-CI 07-40012-00-CI 07-40013-00-CI		
General equipment				
05-02007-00-CI	Extra charge for customized external paint – level 1	00-50015-00-CI		
05-03003-00-CI	First aid kit	00-50015-00-CI		
05-37015-00-CI	Dual controls			07-24005-00-CI
05-42006-01-CI	Air conditioning system	00-50015-00-CI 05-42025-01-CI 05-44004-00-CI		
05-42025-01-CI	Air conditioning system with reinforced front air distribution	00-50015-00-CI 05-42006-01-CI 05-44004-00-CI		
05-44004-00-CI	Cabin ventilation system	00-50015-00-CI 05-42006-01-CI 05-42025-01-CI		
Interior layout				
07-24005-00-CI	8 energy-absorbing seats layout	1		05-37015-00-CI
07-40012-00-CI	Velvet carpeting	00-50015-00-CI		
07-40013-00-CI	Carpet edge protection	00-50015-00-CI		

1 Although technically feasible, the optional item 8 energy-absorbing seats layout is not recommended with the Stylence® package.

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.

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.*

6- Main performance

The following performance values and figures refer to an **EC 130 B4**, equipped with a **new engine**. 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.

Note : The following data are extracted from the approved flight manual which is the reference for performance computation.

Performance

Gross Weight	kg	1,800	2,000	2,200	2,300	2,400	2,427	
	lb	3,968	4,409	4,850	5,071	5,291	5,351	
■ Maximum Speed, VNE	km/hr	287	287	287	287	287	287	
	kts	155	155	155	155	155	155	
■ Fast cruise speed (at MCP)	km/hr	250	248	244	242	240	240	
	kts	135	134	132	131	130	130	
■ Recommended cruise speed	km/hr	222	222	222	222	222	222	
	kts	120	120	120	120	120	120	
■ Fuel consumption at fast cruise speed	kg/hr	175	175	175	175	175	175	
	lb/h	386	386	386	386	386	386	
■ Fuel consumption at recommended cruise speed	kg/hr	149	151.5	154	155.5	157	157.5	
	lb/h	328	334	340	343	346	347	
■ Rate-of-climb	m/sec	11.6	10.9	10.1	9.6	9.1	9.0	
	ft/min	2,290	2,155	1,995	1,905	1,805	1,770	
■ Hover ceiling IGE at Take-off power	● ISA	m	5,865	4,920	4,035	3,615	3,210	3,100
		ft	19,255	16,140	13,240	11,865	10,530	10,165
● ISA + 20°C	m	5,145	4,175	3,275	2,840	2,420	2,305	
	ft	16,880	13,710	10,750	9,320	7,940	7,575	
■ Hover ceiling OGE at Take-off power	● ISA	m	5,360	4,400	3,505	3,075	2,650	2,535
		ft	17,590	14,435	11,505	10,090	8,695	8,325
● ISA + 20°C	m	4,610	3,630	2,705	2,260	1,830	1,715	
	ft	15,130	11,915	8,875	7,415	6,000	5,630	
■ Service ceiling (0.5 m/sec., 100 ft/min.)	● ISA	m	>7,010	6,505	5,665	5,265	4,870	4,770
		ft	>23,000	21,345	18,585	17,275	15,980	15,655
● ISA + 20°C	m	6,645	5,675	4,755	4,300	3,855	3,735	
	ft	21,805	18,625	15,605	14,120	12,655	12,260	
■ Range (without reserve, at recommended cruise speed)	km	644	635	625	620	615	610	
	nm	347	343	337	334	332	329	
■ Endurance (without reserve)	hr : min	04:07	04:01	03:54	03:51	03:48	03:47	

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 charts

The performance charts presented hereafter apply to an aircraft as per the standard definition.

- Take-off weight in hover IGE,
(height 5 ft, Maximum TOP, no wind) Page 24
- Take-off weight in hover OGE,
(Maximum TOP, no wind) Page 25
- Fast cruise speed
(ISA) Page 26
- Fast cruise speed
(ISA + 20°C) Page 27
- Fast cruise speed
(ISA + 35°C) Page 28
- Recommended cruise speed
(ISA) Page 29
- Recommended cruise speed
(ISA + 20°C) Page 30
- Recommended cruise speed
(ISA + 35°C) Page 31
- Rate of climb in oblique flight
(ISA) Page 32
- Rate of climb in oblique flight
(ISA + 20°C) Page 33
- Rate of climb in oblique flight
(ISA + 35°C) Page 34
- Hourly fuel consumption at fast cruise speed
(ISA, ISA + 20°C, ISA + 35°C) Page 35
- Hourly fuel consumption at recommended cruise speed
(ISA) Page 36
- Hourly fuel consumption at recommended cruise speed
(ISA + 20°C) Page 37
- Hourly fuel consumption at recommended cruise speed
(ISA + 35°C) Page 38
- Payload / Range
(ISA, recommended cruise speed, without reserve) Page 39
- Payload / Range
(ISA + 35°C, recommended cruise speed, without reserve) Page 40

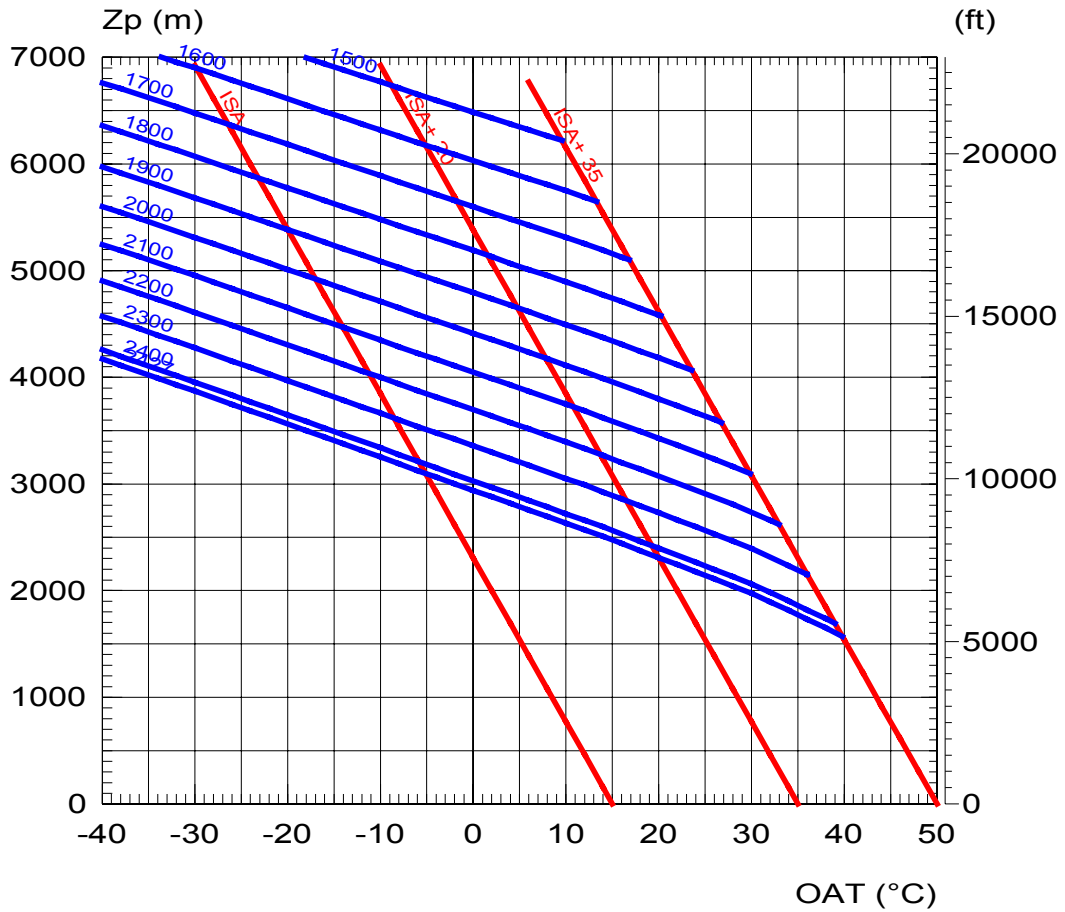
The data set forth in this document are general in nature and for information purposes only.

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

HOVER CEILING I.G.E.

at maximum TOP

(Height 5 ft)



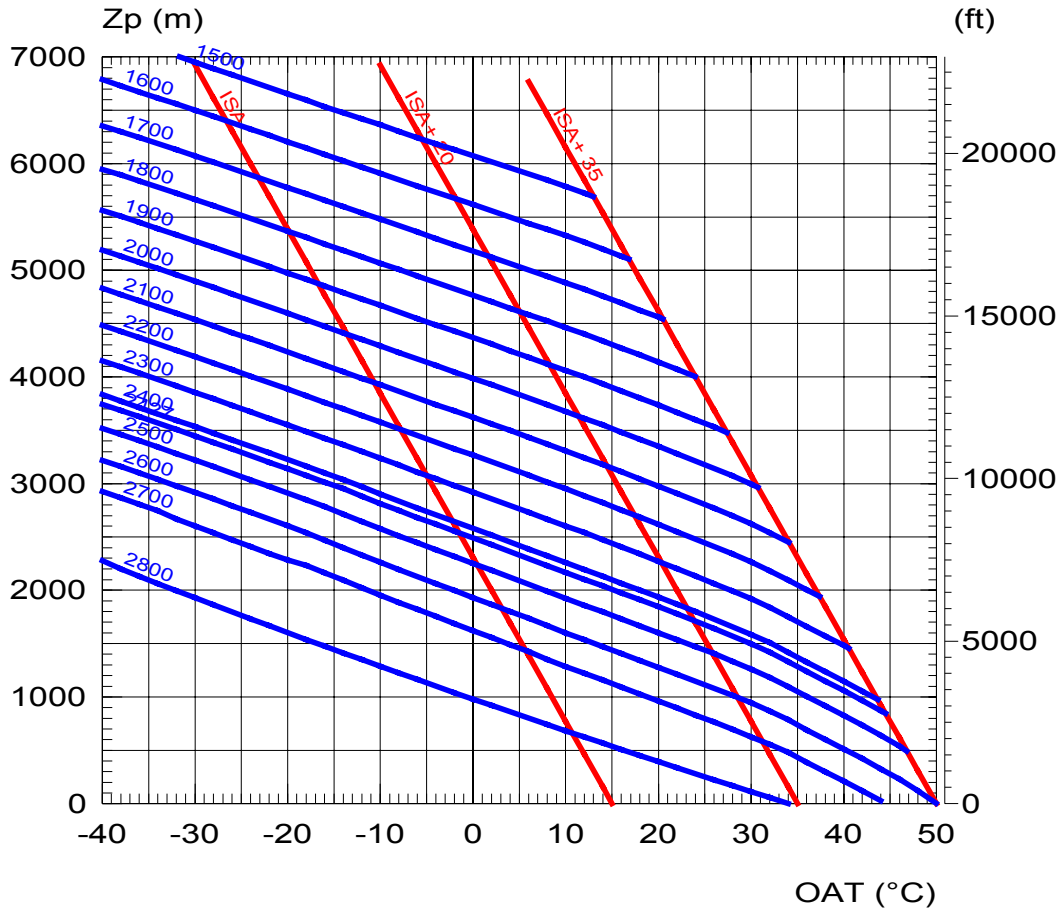
Note : Approved performance (as long as the engine meets the power check criteria), as defined in the Flight Manual.

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 CEILING O.G.E.

at maximum TOP



Note : ISO weight curves from 2,427 to 2,800 kg are curves with external load.

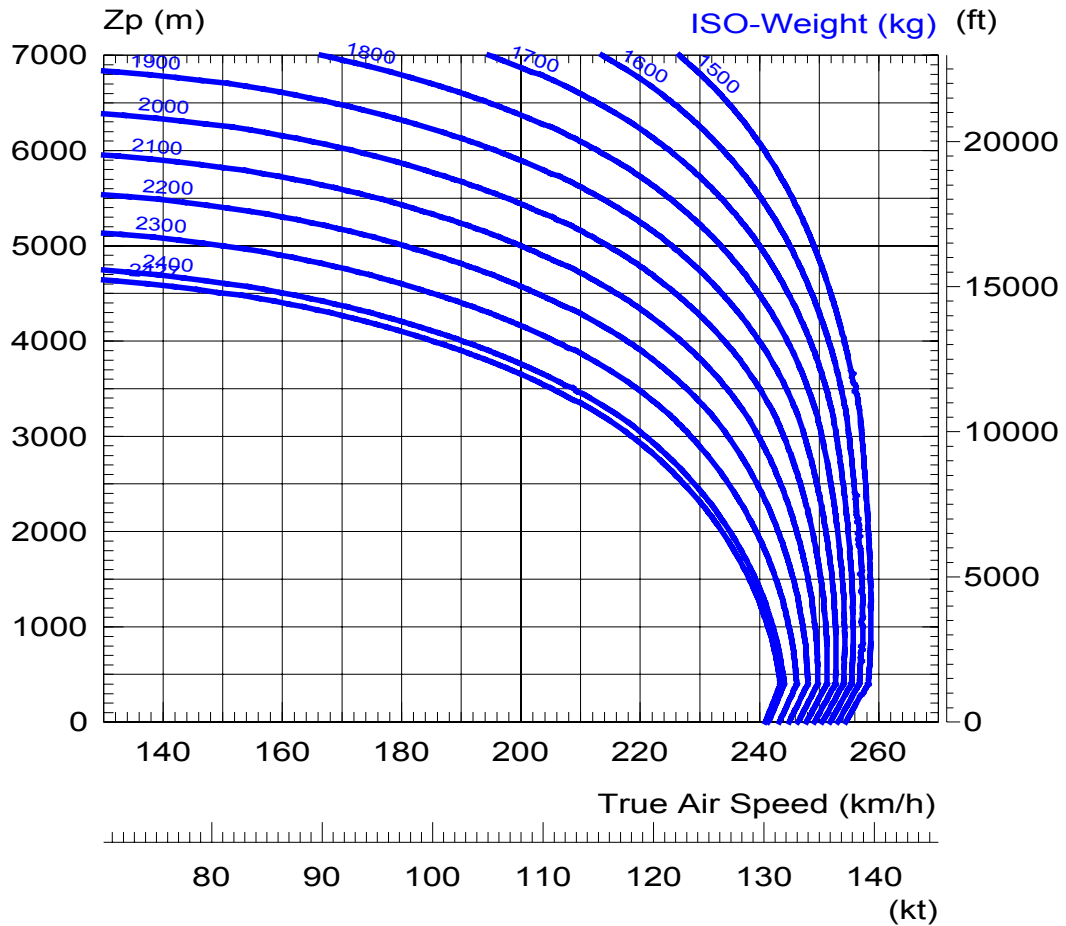
Note : Approved performance (as long as the engine meets the power check criteria), as defined in the Flight Manual.

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.

FAST CRUISE SPEED

ISA

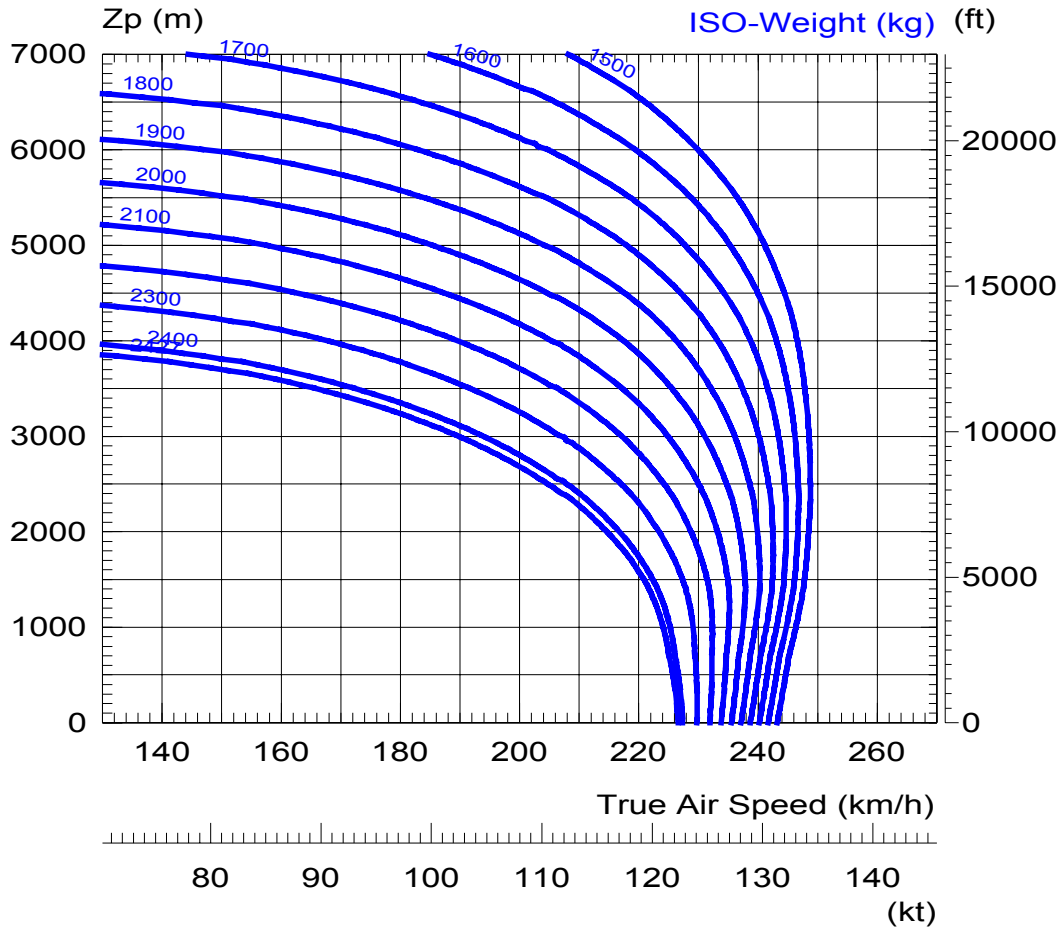


Note : Typical performance with clean standard aircraft.

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.

FAST CRUISE SPEED

ISA+20°C



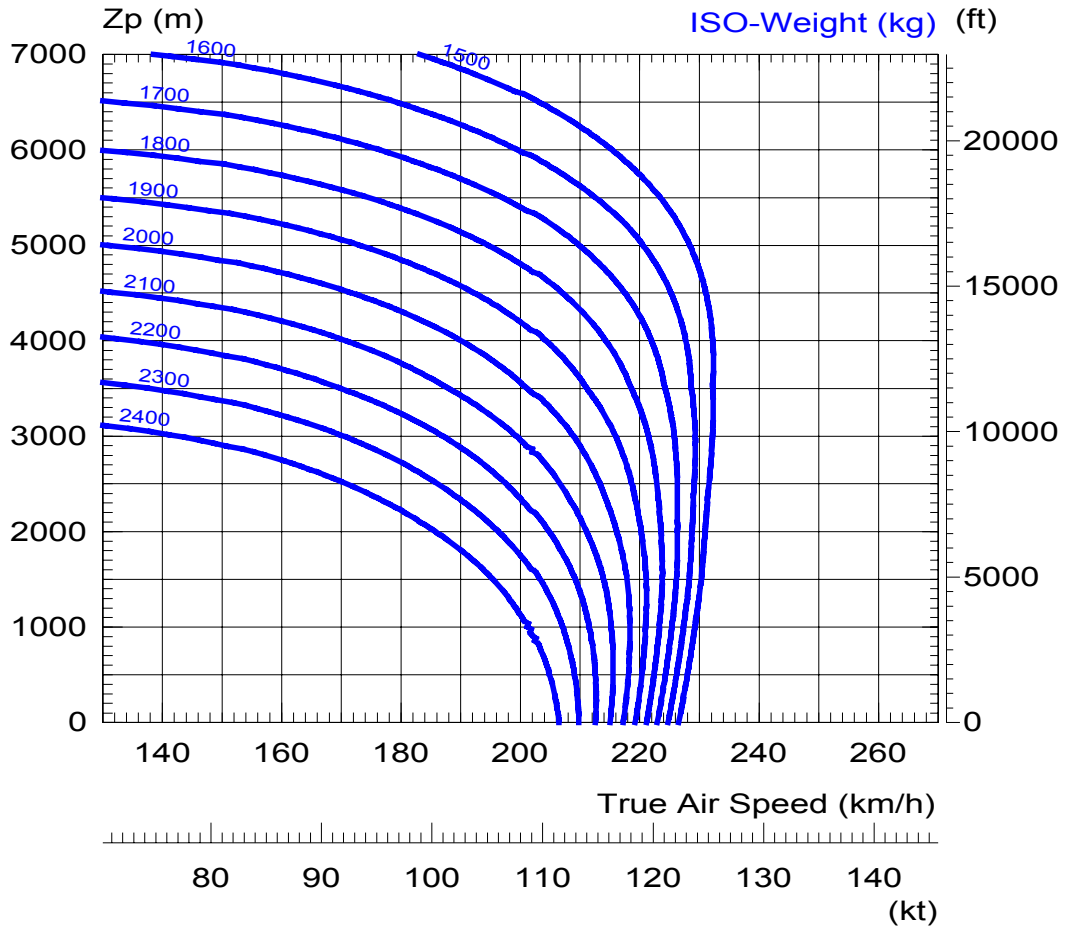
Note : Typical performance with clean standard aircraft.

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.

FAST CRUISE SPEED

ISA+35°C

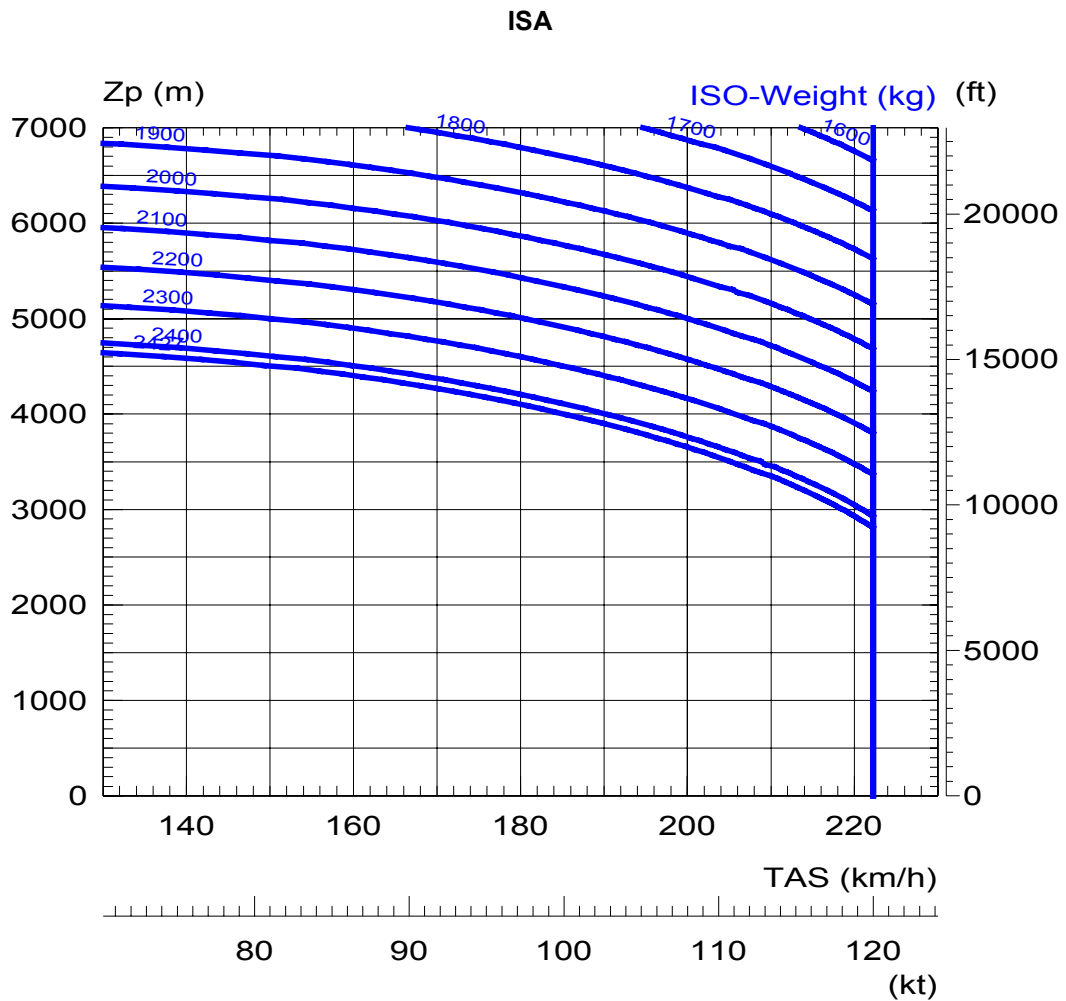


Note : Typical performance with clean standard aircraft.

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.

RECOMMENDED CRUISE SPEED

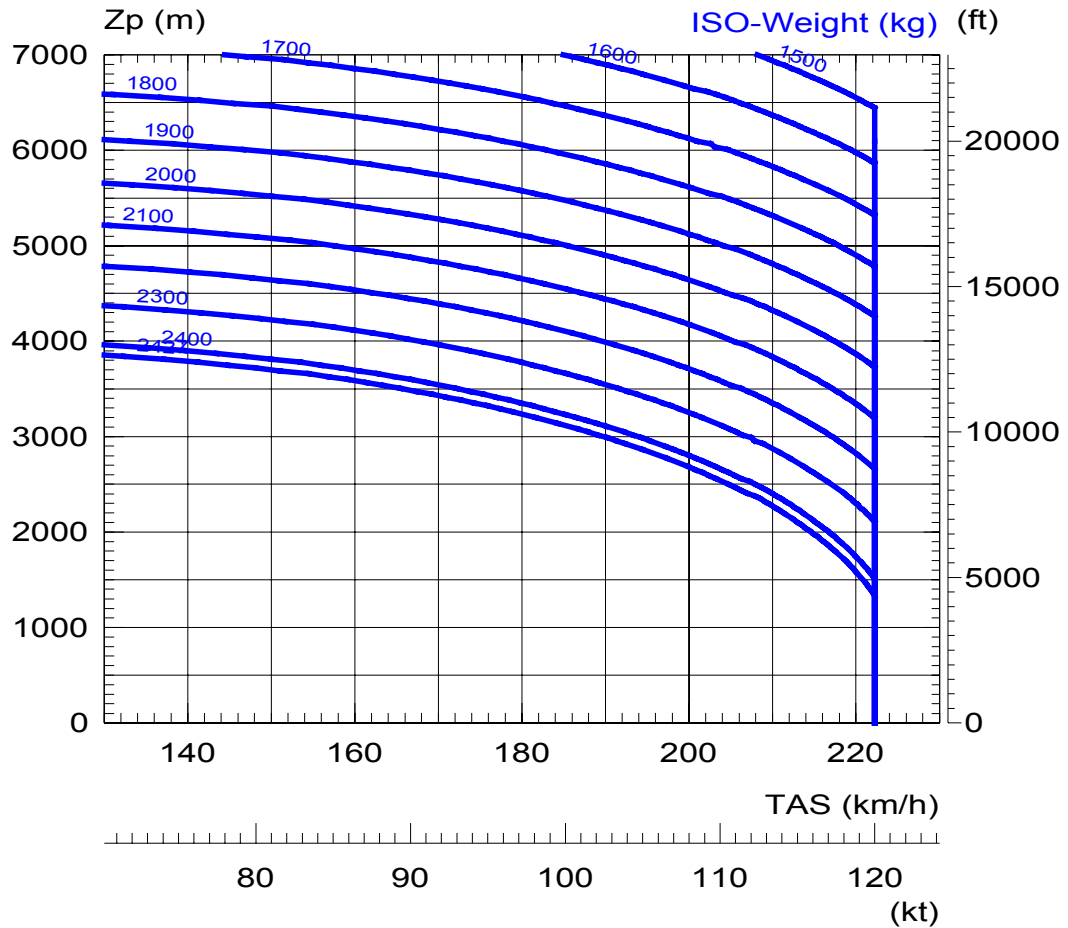


Note : Typical performance with clean standard aircraft.

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.

RECOMMENDED CRUISE SPEED

ISA+20°C

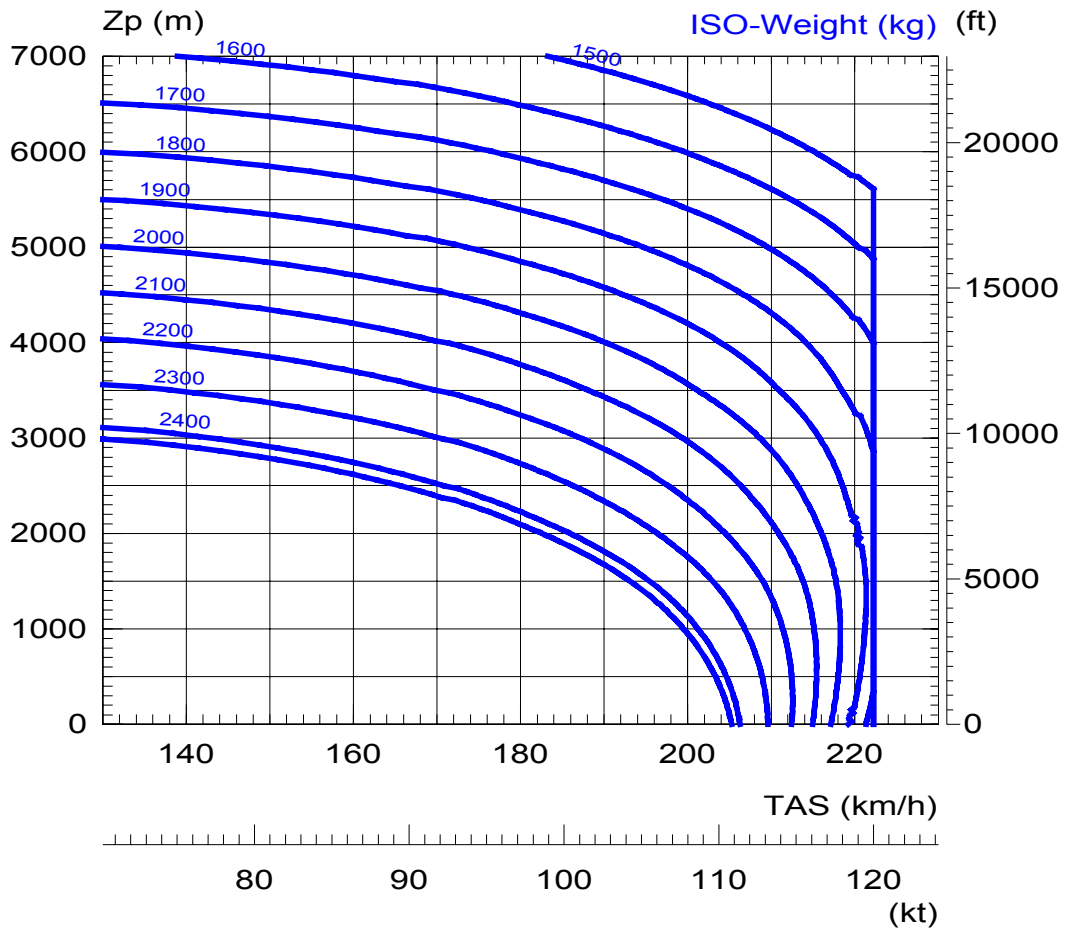


Note : Typical performance with clean standard aircraft.

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.

RECOMMENDED CRUISE SPEED

ISA+35°C

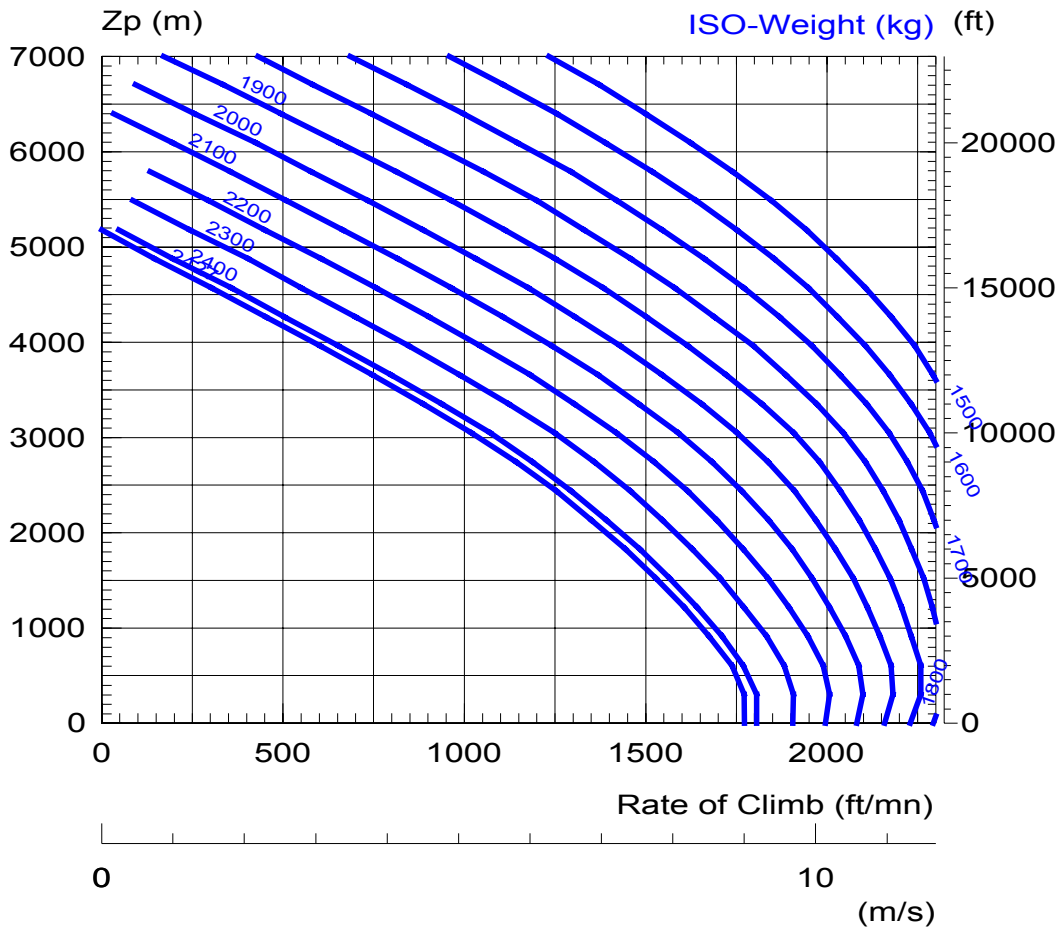


Note : Typical performance with clean standard aircraft.

*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.*

RATE OF CLIMB IN OBLIQUE FLIGHT

ISA



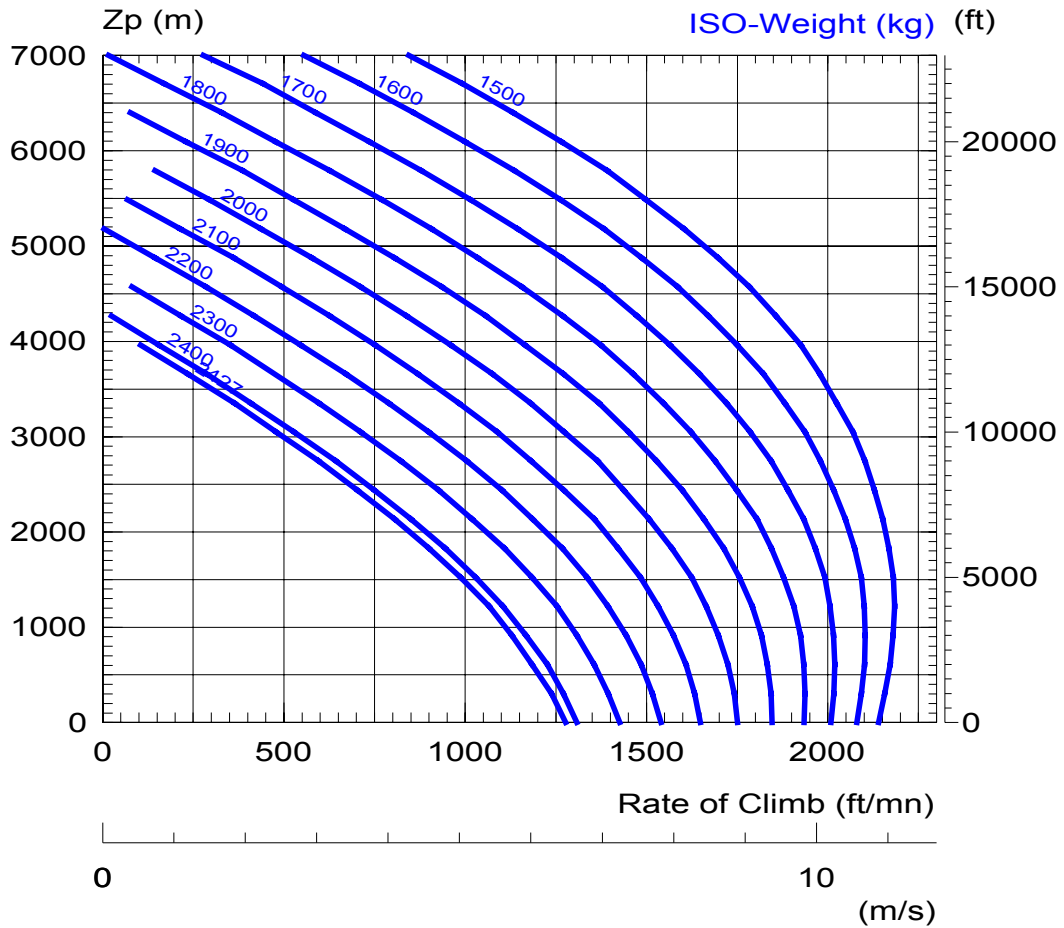
Note : Approved performance (as long as the engine meets the power check criteria), as defined in the Flight Manual.

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.

RATE OF CLIMB IN OBLIQUE FLIGHT

ISA + 20°C



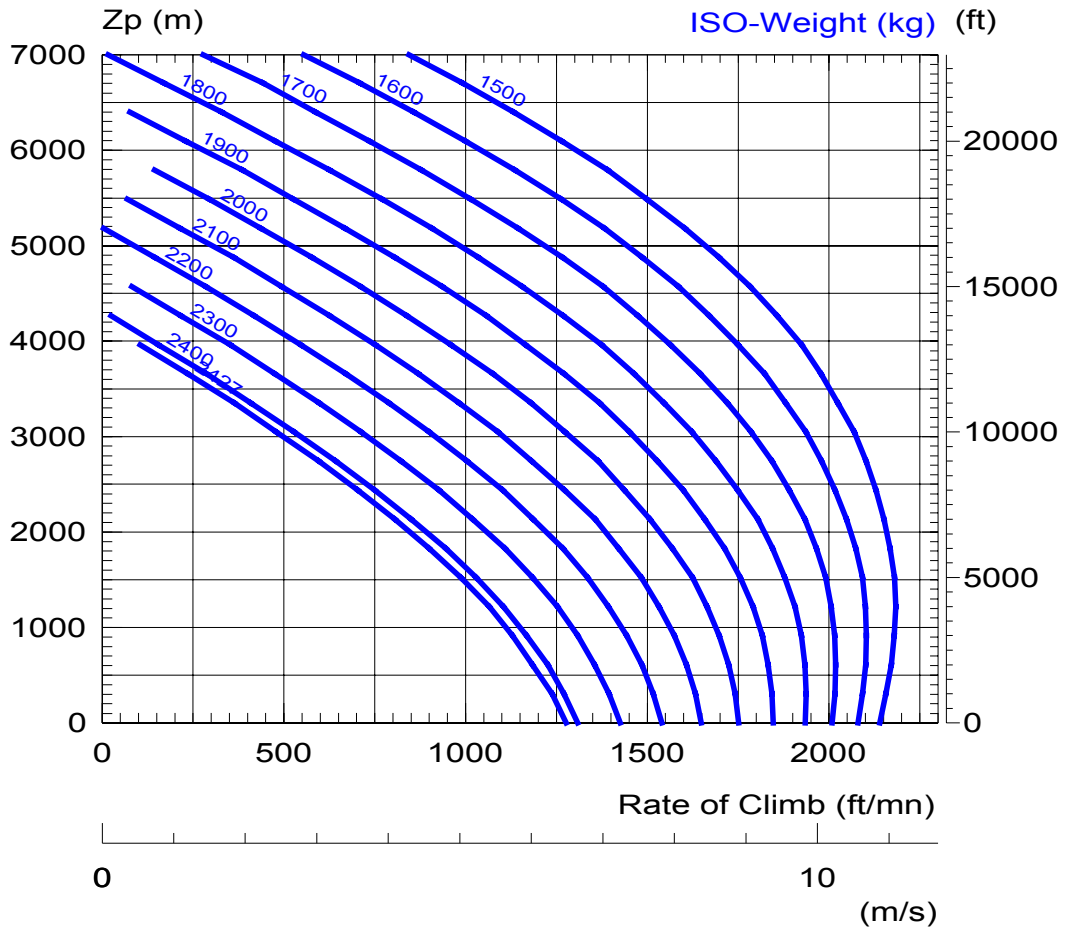
Note : Approved performance (as long as the engine meets the power check criteria), as defined in the Flight Manual.

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.

RATE OF CLIMB IN OBLIQUE FLIGHT

ISA + 35°C



Note : Approved performance (as long as the engine meets the power check criteria), as defined in the Flight Manual.

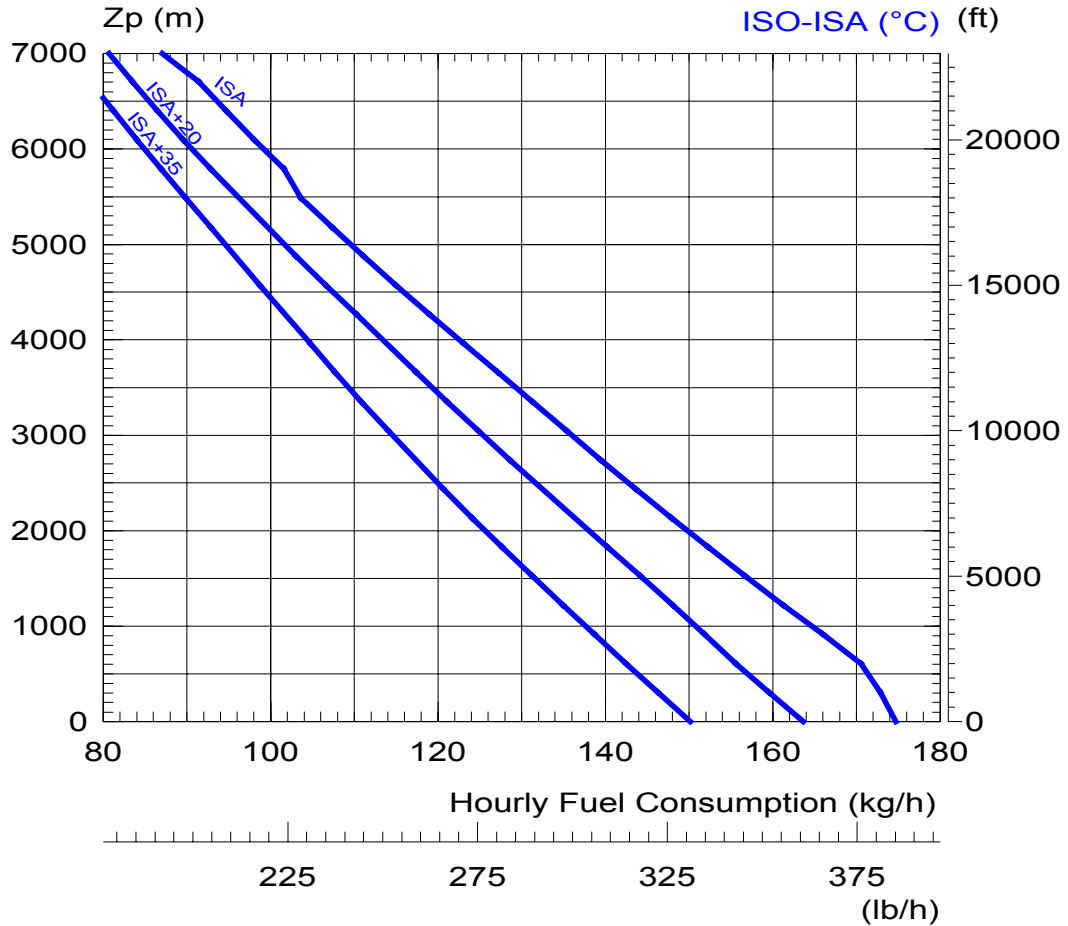
The data set forth in this document are general in nature and for information purposes only.

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

HOURLY FUEL CONSUMPTION

at fast cruise speed

ISA, ISA + 20°C, ISA + 35°C



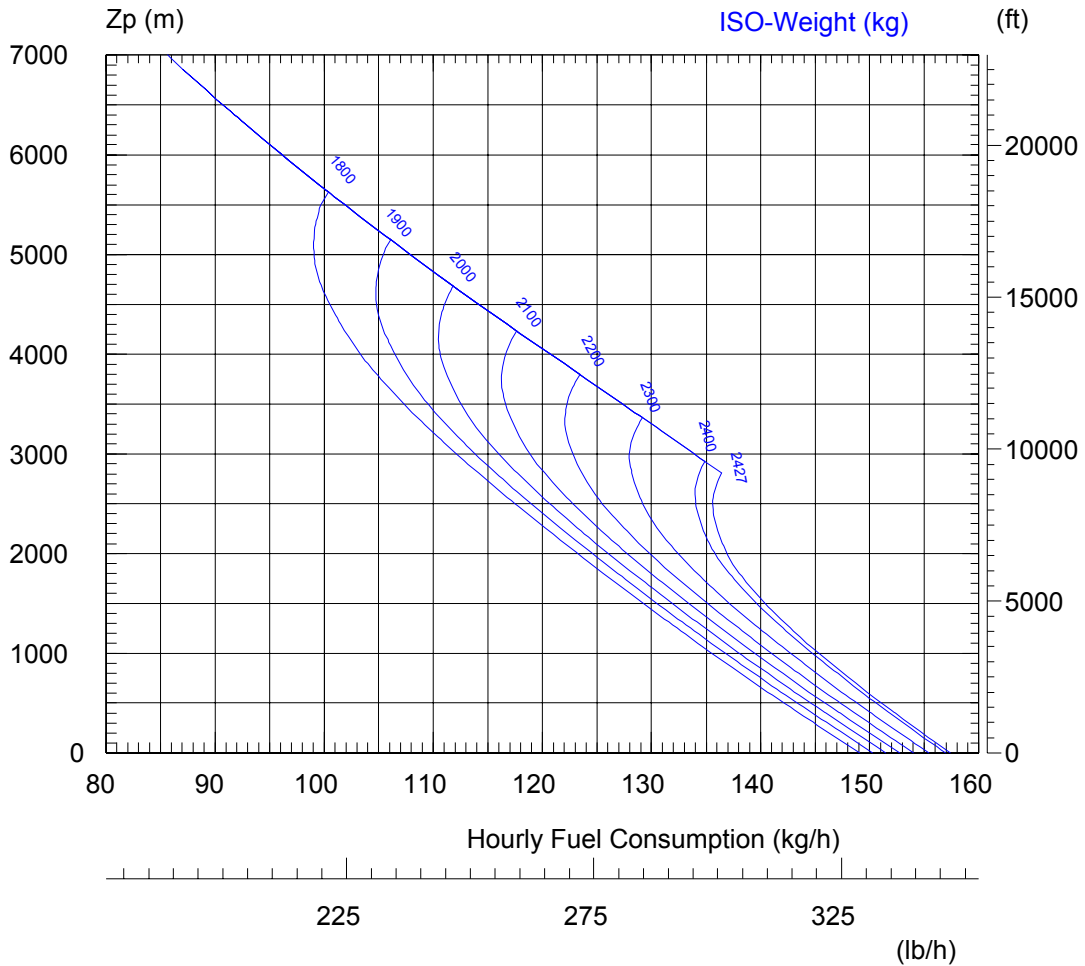
Note : Typical consumption with clean standard aircraft and new engine.

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.

HOURLY FUEL CONSUMPTION

at recommended cruise speed

ISA



Note : Typical consumption with clean standard aircraft and new engine.

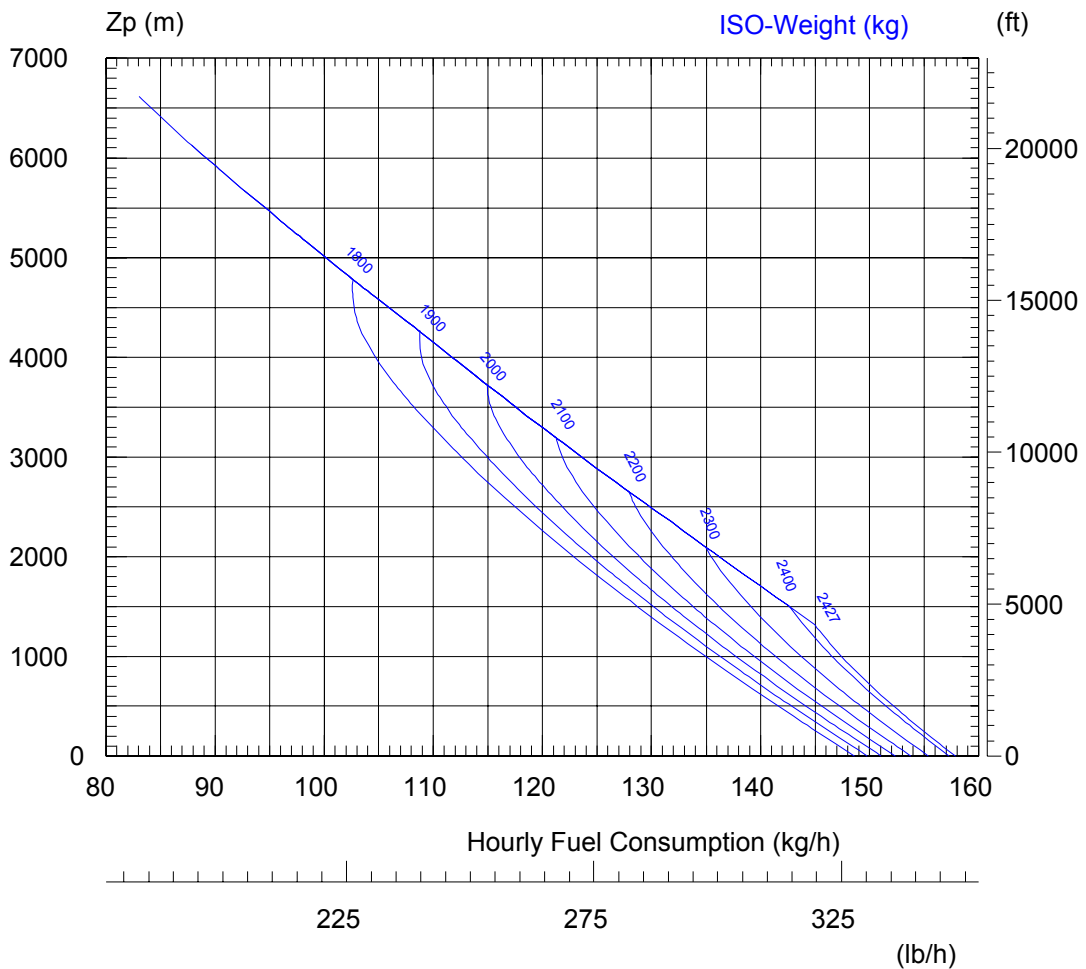
The data set forth in this document are general in nature and for information purposes only.

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

HOURLY FUEL CONSUMPTION

at recommended cruise speed

ISA + 20°C



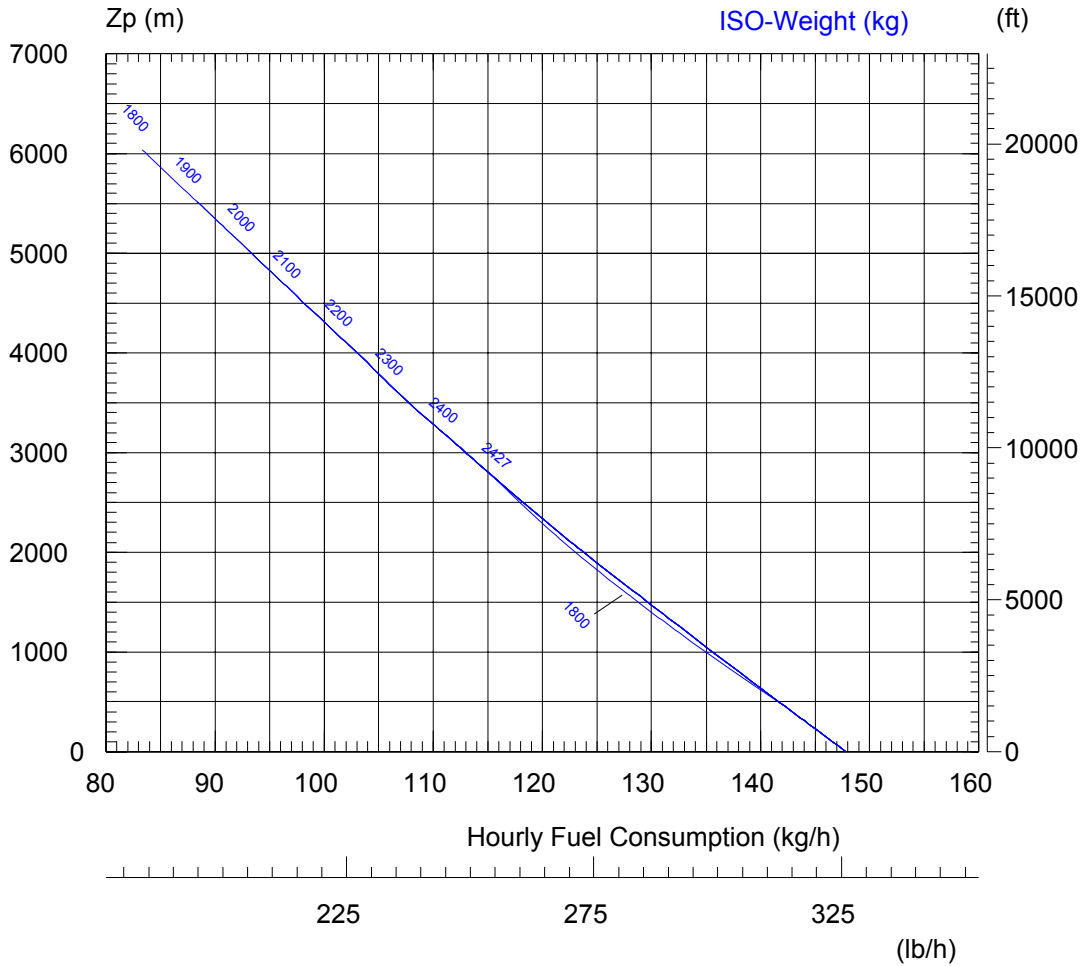
Note : Typical consumption with clean standard aircraft and new engine.

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.

HOURLY FUEL CONSUMPTION

at recommended cruise speed

ISA + 35°C



Note : Typical consumption with clean standard aircraft and new engine.

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

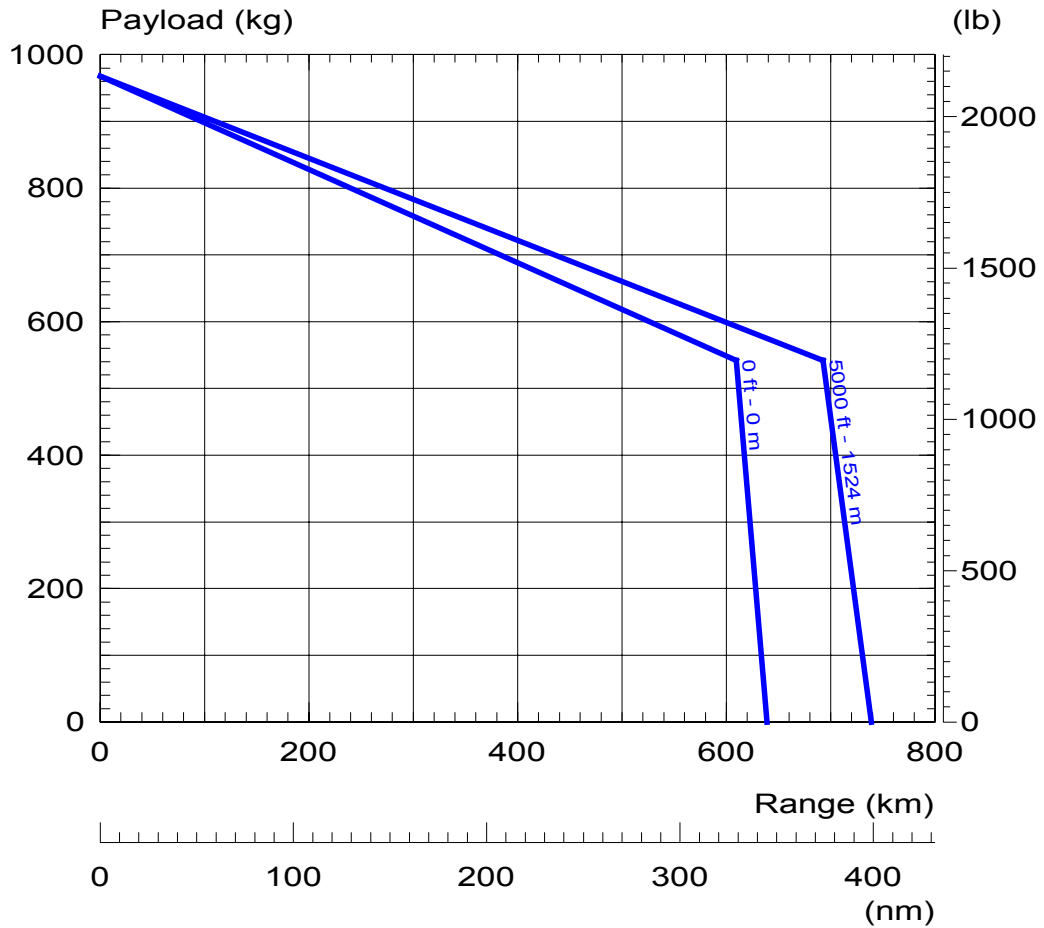
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

PAYLOAD RANGE

ISA

Recommended cruise speed

Empty weight equipped a/c + 1 pilot : 1,459 kg - 3,217 lb ¹



Note : Typical mission without reserve, with clean standard aircraft and new engine.

¹ Aircraft equipped and approved for VFR day and night operations (avionics included in empty weight).

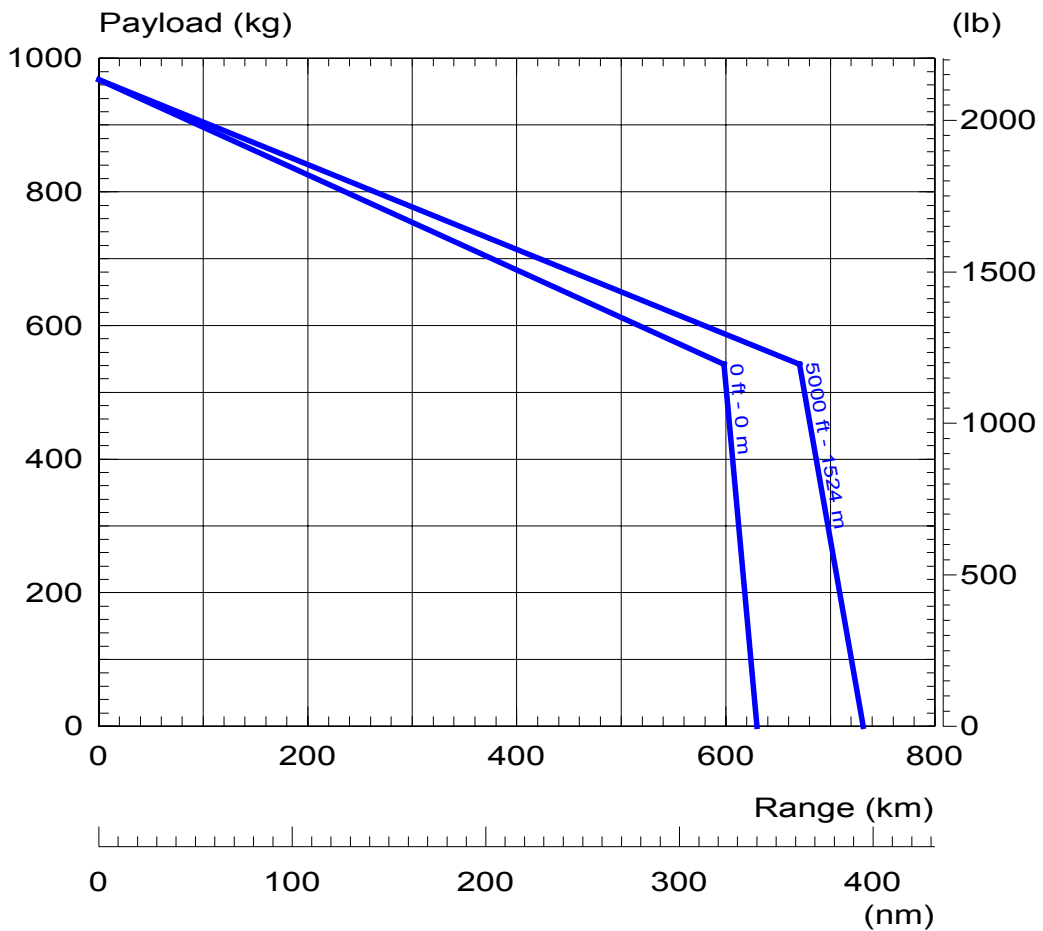
The data set forth in this document are general in nature and for information purposes only.
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

PAYLOAD RANGE

ISA + 35°C

Recommended cruise speed

Empty weight equipped a/c + 1 pilot : 1,459 kg - 3,217 lb ¹



¹ Aircraft equipped and approved for VFR day and night operations (avionics included in 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.

7- Customer Service Overview

Assets

- Possibility to perform maximum of maintenance tasks by operators through modular exchange,
- Low required manhours on the scheduled maintenance,
- Maintenance simple and easy to perform thanks to optimized accessibility to dynamic components and equipment,
- Among innovative equipment providing flight information, the "Vehicle and Engine Multifunction Display" (VEMD) also offers maintenance information (failure data recording and troubleshooting information). Usage data may be downloaded on a laptop for fleet data management, in compliance with some operational requirements,
- Limited number of tools,
- No test bench,
- Among technical publications, Master Servicing Manual has been written in such a manner that it can be directly used as a maintenance tasks repertory in the workshop.

Maintenance and maintainability data

"Scheduled" and "unscheduled" maintenance are considered in manhour figures given hereafter.

Scheduled maintenance

- Possibility to perform maintenance tasks according to each operator needs :
 - **blocked whole inspection** (helicopter unavailable during all the inspection duration),
- or
- **"splitted" inspection** (helicopter available for flight since the inspection is performed in several batches of maintenance operations, in respect with the limitations and periodicities defined in the Master Servicing Manual).

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.

Estimated Mean Man Hour per Flying Hour (mmh/fh)

(standard aircraft - 300 Flying hour/year - 2 flights per day)

0.7 MMH/FH ¹ (Scheduled + unscheduled + SB implementation)

Detail

- **Basic**

■ Daily checks	Pilot's task
■ 100 flight hrs periodicity tasks Including average "corrective" works	3.6 MMH ²
■ 500 flight hrs or 24 months periodicity tasks Including average "corrective" works	111 MMH

- **Unscheduled (reliability cause) 0.30 MMH/FH**

- **SB implementation 0.05 MMH/FH**

- **12 years inspections requiring 330 MMH**

1 MMH/FH : Mean Man Hour per Flight Hour.

2 MMH : Mean Man Hour.

*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.*

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

Major assemblies		TBO (h)	SLL (h)
Main Blade			20 000
Rear Blade			10 000
MGB	Epicyclic reduction gear box	3000*	
	Reduction gear tapered	3000*	
	Oil pump	3500	
Complete engine		3000	
TGB		3000	
Main servo-unit		3000*	

* Target values

Documentation

Eurocopter EC 130 B4 technical documentation, pleasant and easy to consult, is basically supplied:

- **On an Interactive Electronic Support (CD-ROM INDOC-EC130) provided free of charge, with twice a year update**, that includes the whole documentation : Operating (except Flight Manual), Maintenance, Identification and Specific documents.

The CD-ROM product presents great advantages such as :

- ◆ More efficiency in maintenance thanks to :
 - Direct and instantaneous access to manuals and data by "hypertext" navigation
 - Easy search by keywords and multiple criteria
 - Highly portable technical publications in an extremely compact format
- ◆ Quick updating without insertion mistake risk.

and

- **On paper**
 - Flight Manual
 - Other documents : Master Servicing Manual, Service Bulletins

Note : 1. As an option , the whole documentation is available on paper.

2. Turbomeca Arriel 2B1 engine documentation is available on paper and shall become also available on CD-ROM.

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.

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.*