

## Contents

<b>1 - Foreword</b> .....	<b>3</b>
<b>2 - General characteristics</b> .....	<b>4</b>
<b>3 - Standard Aircraft Definition</b> .....	<b>9</b>
<b>4- Optional equipment</b> .....	<b>11</b>
<b>5 - Incompatibilities between some items of optional equipment</b> .....	<b>16</b>
<b>6 - Main performance</b> .....	<b>19</b>

### 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.*

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

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555 SN 05.101.01 E

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## 1 - Foreword



*The FENNEC AS 555 SN is derived from the civilian ECUREUIL AS 355 N version. This twin engine Naval version of the FENNEC family is powered with 2 TURBOMECA ARRIUS 1A engines of 520 shp (388 kW) each. It benefits from the FADEC system (Full Authority Digital Engine Control) which makes piloting easier and safer. Fitted with a 360 ° radar, emergency floatation gear and hoist, the AS 555 SN is more particularly intended for maritime surveillance, Search and Rescue (SAR), Over The Horizon Targeting (OTHT) missions. Equipped with unguided weapons (20 mm cannon, rocket launchers, machine gun), the AS 555 SN can perform sea support missions. The extensive use of composite materials immune to corrosion makes for easy maintenance and reduced costs. Capable of operating from low-tonnage vessels, the FENNEC AS 555 SN proves to be a pragmatic and efficient mean of setting a simple and reliable weapon system, by day and night and in all weather conditions, against sophisticated, yet vulnerable threats.*

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## 2- General Characteristics

### Lay-Out

- **Passenger-transport**
  - 1 pilot + 5 passengers in standard version
- **Casualty-evacuation**
  - 1 pilot + 1 stretcher patient + 2 doctors
- **Cargo carrying**
  - 1 pilot + 3 m<sup>3</sup> (105.9 ft<sup>3</sup>) load in cabin

### Weights

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

	kg	lb
■ <b>Empty weight, standard aircraft (including engine oil and unusable fuel)</b>	1,590	3,505
■ <b>Useful load</b>	1,010	2,227
■ <b>Maximum all-up weight</b>	2,600	5,732
■ <b>Maximum cargo-swing load</b>	1,134	2,500
■ <b>Maximum all-up weight in external load configuration</b>	2,600	5,732

### Power plant

2 TURBOMECA ARRIUS 1A turbine engines

### Engine ratings

Thermodynamic Power, in standard atmosphere, at sea level :

	kW	ch	shp
■ <b>Maximum emergency power (OEI 2½min.)</b>	388	528	520
■ <b>Intermediate emergency power (OEI 30 min.)</b>	358	487	480
■ <b>Take-off power</b>	340	462	456
■ <b>Maximum continuous power</b>	296	402	397

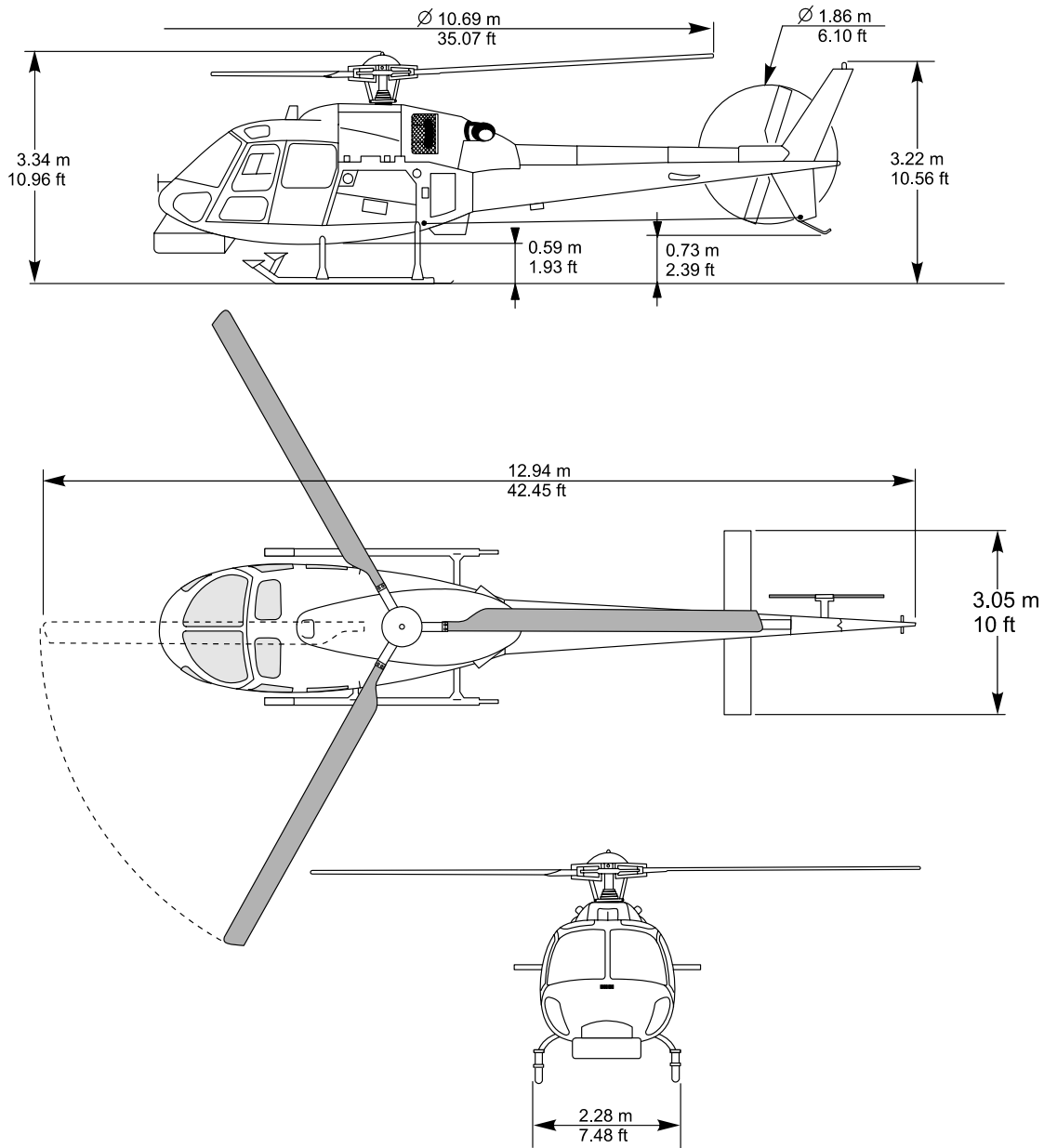
### Usable Fuel capacities

	litres	US gal.	kg	lb
■ <b>Standard fuel tanks</b>	730	193	577	1,272
■ <b>Auxiliary fuel tank (option)</b>	475	125	375	827

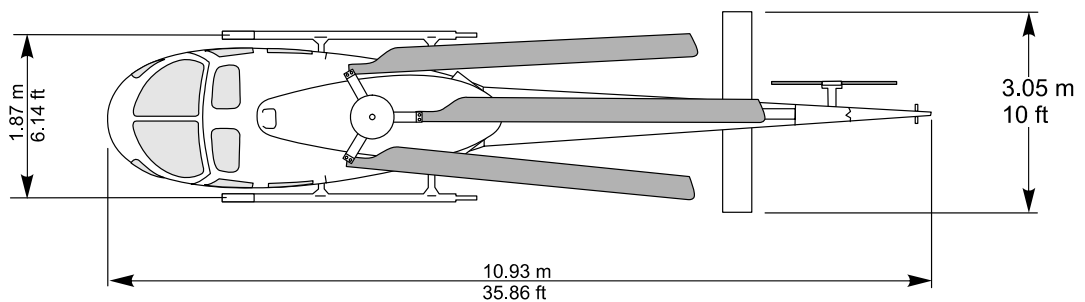
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## Main dimensions



## Dimensions with blades folded



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## Configurations



**Standard lay-out**

**Internal cargo  
load transport  
lay-out**

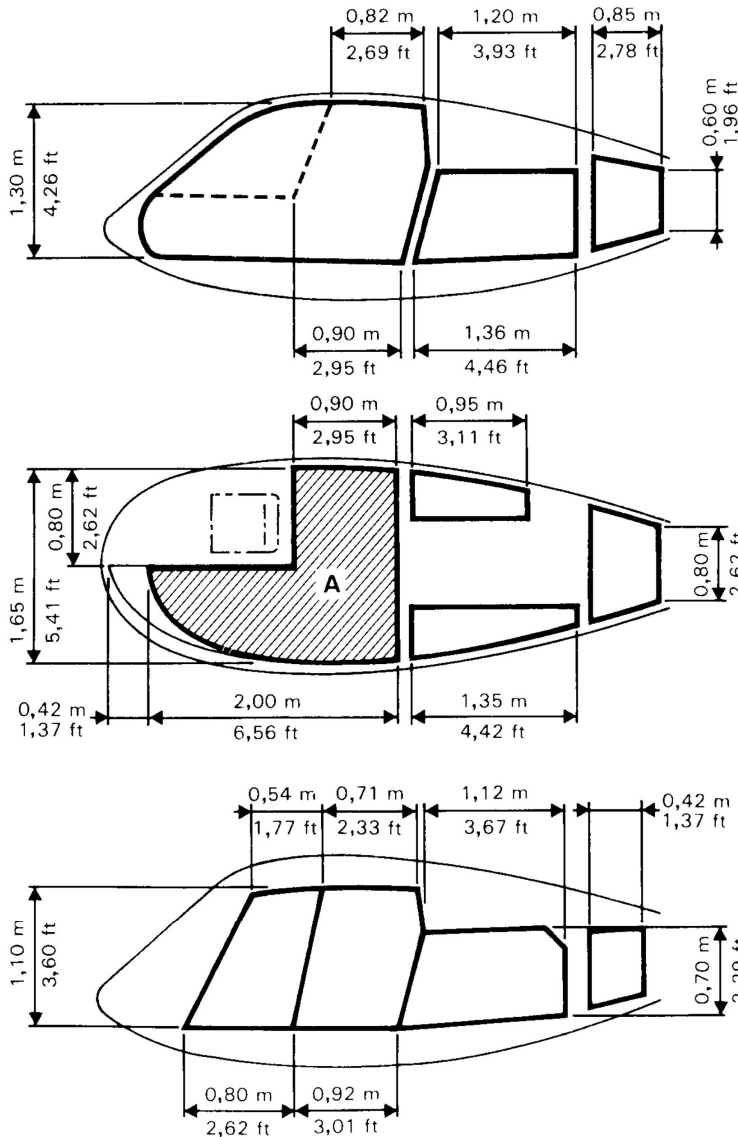


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## Dimensions of compartments and accesses

### Cabin main dimensions



<b>CABIN</b>	
Surface	2.60 m <sup>2</sup>
<b>A</b>	27.98 ft <sup>2</sup>
Volume	3.00 m <sup>3</sup>
	105.94 ft <sup>3</sup>

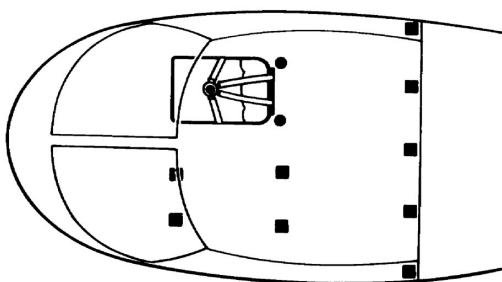
<b>LH HOLD</b>	
Surface	0.43 m <sup>2</sup>
	4.62 ft <sup>2</sup>
Volume	0.235 m <sup>3</sup>
	8.29 ft <sup>3</sup>

<b>RH HOLD</b>	
Surface	0.35 m <sup>2</sup>
	3.76 ft <sup>2</sup>
Volume	0.200 m <sup>3</sup>
	7.06 ft <sup>3</sup>

<b>REAR HOLD</b>	
Surface	0.55 m <sup>2</sup>
	5.92 ft <sup>2</sup>
Volume	0.496 m <sup>3</sup>
	17.50 ft <sup>3</sup>

<b>TOTAL HOLDS</b>	
Surface	1.33 m <sup>2</sup>
	14.3 ft <sup>2</sup>
Volume	0.931 m <sup>3</sup>
	32.85 ft <sup>3</sup>

### Cabin floor



- Pilot's safety belt attachment and freight-tie-down rings
- Passenger safety belt or freight tie-down rings

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## Other characteristics

### TURBOMECA ARRIUS 1A turbine engines



- 520 shp (388 kW) maximum contingency power
- Optimized engine ratings according to outside operations conditions thanks to electronic governing system (FADEC)
- Modular design
- Fully proven and reliable

### Panoramic search and surveillance radar

The standard FENNEC AS 555 SN is provided with fixed parts and can be equipped with the removable parts for the

- TELEPHONICS RDR 1500 B search radar, providing full 360° scanning



### Armament (on option)



Several configurations are possible :

- 20 mm cannon
- 1 or 2 rocket launchers

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## 3- AS 555 SN - Standard Aircraft Definition

### GENERAL

- Fuselage comprising the cabin, a rear storage compartment with floor, tie-down net, access door, and two side compartments each with a hinged door and a fairing letting the weapon beams through when fitted
- Tail boom with stabilizer, anti-torque rotor and fin
- Raised skid landing gear capable of taking handling wheels
- Fixed parts for electrical hoist, blade folding system and emergency floatation gear
- Lifting points
- Mooring kit and marine gripping system
- Fixed parts for TELEPHONICS RDR 1500 panoramic radar including a chin mounted radome
- External paint : per customer paint scheme
- Internal paint : black
- Anti-corrosion protection
- Common wiring for cannon/rockets armaments
- Fixed parts for the clear sight (wiring)
- Structural reinforcements (in the side compartments) for the axial armaments

### CABIN

- Cabin floor in light-alloy sheet-metal with tie-down rings, including fixed parts of lower casualty carrying installation as well as the axial cannon and side-firing machine gun reinforcements.
- 2 pilot and copilot high-back seats, adjustable in reach, removable, complete with cushions, safety belts and dual-strap shoulder harnesses
- 2 two-place rear bench-seats, foldable separately, complete with safety belts and cushions
- 2 pilot and copilot jettisonable doors each fitted with a sliding window
- 1 rear LH sliding door
- 1 rear RH sliding door capable of accommodating the cannon beam
- Main frame reinforcement for clear sight
- 2 tinted upper panes
- 1 double-wall ceiling housing the ventilation and air conditioning ducts
- 2 windshield wipers and 1 windshield washer
- Demisting system for pilot and copilot front panes
- 1 fire-extinguisher
- 1 Flight Manual.

### INSTRUMENTS

- 2 airspeed indicators
- 2 altimeters
- 2 rate-of-climb indicators
- 1 Thales H 140 attitude indicator
- 2 Thales H 221 copilot + stand-by attitude indicator
- 1 Astronautics 4" horizontal situation indicator
- 1 Sfim CG 130 gyro-compass
- 1 3-axis Sfim 85 T31 autopilot with vertical gyro reference GV 76 and failure passivation unit
- 1 torquemeter (2 needles)
- 1 triple tachometer (N rotor - free turbines 1 & 2)
- 1 engine outlet temperature dual indicator
- 2 engine oil temperature indicators
- 2 engine oil pressure indicators
- 2 alpha-numerical Ng indicators
- 1 ΔNg indicator
- 2 fuel contents gauges
- 2 fuel pressure indicators
- 1 ammeter
- 1 voltmeter
- 1 clock
- 1 warning panel
- 1 OAT indicator on canopy
- 1 magnetic compass
- 2 heated pitot heads.

### POWER PLANT

- 2 TURBOMECA ARRIUS 1A turbine engines, each developing 388 kW (528 ch – 520 shp) max. emergency power (one engine inoperative), complete with starting, fuel supply, fuel reheating, digital engine control (DEC) with manual back-up governing, overspeed protection, in-flight restart systems and fitted with 2 chip detectors and engines flushing device
- 2 fuel systems including 2 independent tanks of 730 litres (193 US gal.) total capacity
- 2 engine lubrication and oil cooling systems
- 4 fire detection systems
- 1 2 cylinder selective engine fire extinguishing system
- 2 air-intake protective grids
- 2 torque-measurement pick-ups

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## TRANSMISSION SYSTEM

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- 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 combination box
- 1 main gearbox oil cooling system
- 2 engine to main gearbox coupling shafts
- 1 rotor brake
- 1 main rotor r.p.m. sensor and high and low r.p.m. warning device
- 1 tail drive carried by six ball bearings
- 1 tail gearbox with oil sight gauge, chip detector and port for endoscopic inspection.

## ROTORS AND FLYING CONTROLS

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- 1 main rotor with 3 composite-material blades around a Starflex head fitted with spherical thrust bearings
- 1 anti-torque rotor with 2 composite-material blades
- 2 hydraulic generation systems
- 3 dual-body main rotor hydraulic servo units
- 1 tail rotor hydraulic servo-unit and a load compensator
- Flying controls.
- 1 hydraulic ground power receptacle

## ELECTRICAL INSTALLATION

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- 2 4.5 kW, 28 V DC starter-generators supplying 2 independent bus bars
- 1 15 amp.hr cadmium-nickel battery
- 1 double AC electrical generation
- 1 ground power receptacle
- 3 position lights (fix-flashing/normal-dimmed)
- 1 flashing anti-collision light
- 1 LH landing light adjustable in elevation and bearing
- 1 Fixed parking light
- 2 cabin dome lights
- Instrument-panel, ceiling-panel and console lighting.
- 1 28 V DC cabin power outlet

## AIRBORNE KIT (\*)

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- 2 pitot head covers
- 2 static vent blanks
- 1 radiator air-intake cover
- 2 engine air-intake covers
- 2 tail-pipe covers
- 2 twin-wheel units c/w hydraulic jacking system
- 1 lifting ring
- 2 upper mooring rings
- 3 main-blade socks
- 1 tail rotor locking device
- 1 document holder
- 1 airborne kit stowage bag.

(\*) (weight not included in standard aircraft empty weight)

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## 4- 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
<a href="#">05-25004-A</a>	<b>05-25004-00-CI</b>	Sand-prevention filters, dynamic type (sand and snow prevention)	<b>26.4</b>	<b>58.2</b>
<a href="#">05-25006-A</a>	<b>05-25006-00-CI</b>	Re-inforced sand-erosion protection strip on main rotor blades	<b>0.2</b>	<b>0.4</b>
<a href="#">05-25007-A</a>	<b>05-25007-00-CI</b>	Re-inforced sand-erosion protection strip on tail rotor blades	<b>0.1</b>	<b>0.2</b>
<a href="#">05-37009-A</a>	<b>05-37009-00-CI</b>	Dual controls	<b>4.7</b>	<b>10.4</b>
<a href="#">05-41003-A</a>	<b>05-41003-00-CI</b>	Cabin heating installation	<b>2.1</b>	<b>4.6</b>
<a href="#">05-61007-A</a>	<b>05-61007-00-CI</b>	2nd battery kit <b>1</b>	<b>17.5</b>	<b>38.6</b>
<a href="#">05-82017-A</a>	<b>05-82017-00-CI</b>	Fuel tanks self-sealing protection	<b>21.0</b>	<b>46.3</b>
<a href="#">05-84002-A</a>	<b>05-84002-00-FP</b>	Ferrying tank - Fixed Parts	<b>0.3</b>	<b>0.7</b>
	<b>05-84002-00-RP</b>	Ferrying tank - Removable Parts	<b>27.6</b>	<b>60.8</b>
<a href="#">05-85003-A</a>	<b>05-85003-00-CI</b>	Remaining fuel flowmeter	<b>2.0</b>	<b>4.4</b>
<a href="#">05-92002-A</a>	<b>05-92002-00-FP</b>	Folding of main rotor blades - Fixed Parts <b>2</b>	<b>Standard</b>	
	<b>05-92002-00-RP</b>	Folding of main rotor blades - Removable Parts <b>3</b>	<b>Not applicable</b>	

**1** Recommended for start-up in cold weather.

**2** For rough weather conditions. Ground tooling 32.2 kg - 71 lb.

**3** The removable parts are delivered as Ground Support Equipment – Tool weight = 32.2 kg – 71 lb.

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### Specific mission equipment

Document reference	Commercial reference	Name	kg	lb
06-11012-A	06-11012-00-CI	Settling protectors	4.1	9.0
06-11017-A	06-11017-00-CI	Skid wearing plates	1.3	2.9
06-12014-A	06-12014-03-CI	High skid landing gear with 2 short footsteps	5.3	11.7
06-12015-A	06-12015-03-CI	High skid landing gear with 2 long footsteps	6.3	13.9
06-21005-A	06-21005-00-FP	AIR EQUIPEMENT electrical hoist (136 kg - 300 lb, 40 m - 131 ft) cable - Fixed Parts	2.6	5.7
	06-21005-00-RP	AIR EQUIPEMENT electrical hoist (136 kg - 300 lb, 40 m - 131 ft) - Removable Parts	37.5	82.7
06-21007-A	06-21007-00-FP	BREEZE electrical hoist (204 kg – 450 lb, 50 m – 164 ft cable) – Fixed Parts	Standard	
	06-21007-00-RP	BREEZE electrical hoist (204 kg – 450 lb, 50 m – 164 ft cable) – Removable Parts	50.7	111.8
06-21018-A	06-21018-00-CI	Support for Breeze electrical hoist <sup>1</sup>	5.4	11.9
06-24001-A	06-24001-00-CI	Rappelling installation (without rope)	3.2	7.1
06-25002-A	06-25002-00-CI	Drip tub (sea rescue)	-0.8	-1.8
06-27007-A	06-27007-00-FP	Cargo swing with dynamometer (1,134 kg - 2,500 lb) – Fixed Parts	4.5	9.9
	06-27007-00-RP	Cargo swing with dynamometer (1,134 kg - 2,500 lb) - Removable Parts	13.2	29.1
06-61019-A	06-61019-00-FP	Emergency floatation gear - Fixed Parts	Standard	
	06-61019-00-RP	Emergency floatation gear - Removable Parts	67.6	149.0
06-74004-A	06-74004-00-CI	Adaptation for night-time missions with NVG	On request	

### Interior cabin layout

Document reference	Commercial reference	Name	kg	lb
07-15010-A	07-15010-00-CI	Energy-absorbing front seats	3.0	6.6
07-15010-A	07-15010-01-CI	Lengthened rails for energy-absorbing front seats	2.0	4.4
07-25001-A	07-25001-00-CI	3 places instead of 4 places transformation kit <sup>2</sup>	4.4	9.7
07-50006-A	07-50006-00-CI	Sliding window, on rear LH sliding door	1.1	2.4
07-50007-A	07-50007-00-CI	Sliding window, on rear RH sliding door	1.1	2.4
07-71002-A	07-71002-00-FP	Lower casualty-carrying installation - Lower installation with stretcher - Fixed Parts	Standard	
	07-71002-00-RP	Lower casualty-carrying installation - Lower installation with stretcher - Removable Parts	-4.5	-9.9

<sup>1</sup> Requires the selection of the optional item 06-21006-00-FP "BREEZE electrical hoist - Fixed Parts".

<sup>2</sup> Including mainly 4 arm-rests and a fifth harness.

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### Operational protection

Document reference	Commercial reference	Name	kg	lb
10-41004-A	10-41004-00-CI	Radar warning receiver EWR 99 - Fruit	On request	
10-51002-A	10-51002-00-CI	ALKAN ELIPS self protection decoying system	On request	

### Military installation

Document reference	Commercial reference	Name	kg	lb
11-00001-A	11-00001-00-CI	Mixed installation : axial cannon (RH side) / rocket-launcher (LH side) M 621 20 mm axial cannon + 68 mm rockets (12 rockets) M 621 20 mm axial cannon + 2.75" rockets (7 rockets)	On request	
11-00002-A	11-00002-00-CI	Mixed installation : pod-mounted cannon (RH side) / rocket-launcher (LH side) M 621 20 mm pod-mounted cannon + 68 mm rockets (12 rockets) M 621 20 mm pod-mounted cannon + 2.75" rockets (7 rockets)	On request	
11-10001-A	11-10001-00-CI	7.62 mm Side-firing machine gun in the cabin on the LH side	On request	
11-20001-A	11-20001-00-CI	M 621 20 mm axial cannon installation	On request	
11-25001-A	11-25001-00-CI	12.7 mm pod mounted Heavy Machine Gun	On request	
11-25002-A	11-25002-00-CI	20 mm gun pod-mounted cannon (RH side)	On request	
11-40001-A	11-40001-00-CI	Rocket-launcher installation : 2x12 rockets 68 mm 2x7 rockets 2.75"	On request	
11-90001-B	11-90001-01-FP	Clear aiming sight - Fixed Parts	On request	
	11-90001-01-RP	Clear aiming sight – Removable Parts	On request	

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## Avionics

### Recommended equipments

Document reference	Commercial reference	Name	kg	lb
08-51007-A	08-51007-00-CI	Thales H 140 - Gyro-horizon		Standard
08-51009-A	08-51009-00-CI	Thales H221 - Stand-by gyro-horizon		Standard
08-51014-A	08-51014-00-CI	Thales H221 - Copilot gyro-horizon		Standard
08-52003-A	08-52003-00-CI	SFIM CG 130 - Gyro-compass		Standard
08-61002-A	08-61002-00-CI	HSI Astronautics - Horizontal Situation Indicator		Standard
08-19007-A	08-19007-00-CI	Collins ETC40XXF - Radio Management System	11.5	25.3
08-14001-A	08-14001-00-CI	Collins ARC 210 - V/UHF AM/FM tactical and FM maritime <b>1</b>	12.2	26.9
08-12034-A	08-12034-00-CI	Collins VHF 422 B - VHF/AM <b>1</b>	4.1	9.0
08-23002-A	08-23002-00-CI	Raytheon APX 100 – IFF <b>1 - 2</b>	7.0	15.4
08-26004-A	08-26004-00-CI	Collins VIR 32 - VOR/ILS/MKR <b>1</b>	6.0	13.2
08-25006-A	08-25006-00-CI	Collins DME 42 – DME <b>1 - 3</b>	4.5	9.9
08-43009-A	08-43009-00-CI	Freeflight 2101 I/O Approach+ - GPS <b>4</b>	3.1	6.8
08-57002-A	08-57002-00-CI	Shadin 8800 T - Altitude Encoder	1.0	2.2
08-21008-A	08-21008-00-CI	Thales AHV 16 - Radio altimeter	5.0	11.0
06-67016-A	06-67016-00-CI	Kannad 121 AF-H - Emergency Locator Transmitter <b>5</b>	1.5	3.3
08-16010-A	08-16010-00-CI	Team TB 31 (2 control boxes) - ICS <b>6</b>	5.6	12.3
08-17014-A	08-17014-00-CI	Team BA1920 - Passenger Interphone	1.9	4.1

- 1** Equipment Controlled by the ETC 40XXF option.
- 2** This equipment can be submitted to export licence. Time of equipment availability to be checked.
- 3** The DME indicator must be switched off during night-time missions with NVG.
- 4** Delivered with EUROPE map. Subscription to be made by the customer.
- 5** 2 frequencies : 121.5 MHz, 243 MHz. Compliant with ED 62 and TSO C91A.
- 6** I.C.S. compatible with any type of headsets.

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### Additional equipment that can be added depending on operational needs

Document reference	Commercial reference	Name	kg	lb
06-67011-A	06-67011-00-CI	Kannad 406 AF-H - Emergency Locator Transmitter <b>1 - 2</b>	1.5	3.3
08-10006-A	08-10006-00-CI	Collins HF 9X00 - HF/SSB <b>3</b>	15.7	34.6
08-13005-A	08-13005-00-CI	Chelton 805-1 - UHF/AM <b>4</b>	7.2	15.9
08-16016-A	08-16016-00-CI	Team TB 31 (3rd control box in cabin) – ICS <b>5</b>	1.1	2.4
08-18013-A	08-18013-00-CI	Silec 4449-1 - Headset <b>6</b>	0.5	1.1
08-18025-A	08-18025-00-CI	Elno FPH600 - Helmet	1.0	2.2
08-23020-A	08-23020-00-CI	Thales TSC 2050 - IFF <b>3 - 7</b>	7.5	16.5
08-24001-A	08-24001-00-CI	Collins ADF 60 - ADF <b>3</b>	5.9	13.0
08-25506-A	08-25506-00-CI	Collins ARN 153 - TACAN <b>3</b>	20.8	45.9
08-27014-A	08-27014-00-CI	Chelton System 7 - HOMER UHF wide band	2.9	6.4
08-27016-A	08-27016-00-CI	Chelton System 7 - HOMER SAR	4.5	9.9
08-31017-A	08-31017-00-FP	Telephonics RDR 1500 B - Search radar - Fixed Parts	<b>Standard</b>	
	08-31017-00-RP	Telephonics RDR 1500 B - Search radar - Removable Parts	35.0	77.2
08-52008-A	08-52008-00-CI	SFIM CG 512 - Gyro-compass <b>8</b>	4.0	8.8
08-61003-A	08-61003-00-CI	Collins RMI36 - Radio Magnetic Indicator	1.5	3.3
08-91005-A	08-91005-00-CI	Hourmeter	0.3	0.7
12-50001-A	12-50001-00-CI	OTHT Modem <b>9</b>	<b>On request</b>	

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** 3 frequencies : 121.5 MHz, 243 MHz, 406 MHz. Compliant with ED 62 and TSO C91A.
- 2** The Programming Data Sheet must be filled and communicated by the customer two months at the latest before the helicopter's delivery.
- 3** Equipment Controlled by the ETC 40XXF option.
- 4** Replaced by Chelton 805-2 for use with OTHT modem.
- 5** The third TB 31 control box is installed instead of the BA 1920 passenger interphone.
- 6** Low level / High impedance headset.
- 7** The reference of this equipment varies depending on customer's country and his approval to have access to mode 4.
- 8** Instead of standard gyro-compass SFIM CG130. Recommended for OTHT mission.
- 9** Make and model to be defined according to firing ship weapon system.

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## 5- Incompatibilities between some items 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		
		■	▲	●
<b>General equipment</b>				
05-37009-00-CI	Dual controls		07-71002-00-RP	
05-84002-00-RP	Ferrying tank		06-25002-00-CI 07-25001-00-CI 07-71002-00-RP 11-00001-00-CI 11-10001-00-CI	06-21005-00-RP 06-21007-00-RP 06-27007-00-RP
<b>Specific mission equipment</b>				
06-21005-00-FP	AIR EQUIPEMENT electrical hoist (136 kg - 300 lb, 40 m - 131 ft) – Fixed parts	06-21007-00-FP		
06-21005-00-RP	AIR EQUIPEMENT electrical hoist (136 kg - 300 lb, 40 m - 131 ft cable) - Removable parts			05-84002-00-RP 06-24001-00-CI 06-27007-00-RP 06-61019-00-RP ✓ 07-25001-00-CI 07-71002-00-RP 11-00001-00-CI 11-00002-00-CI 11-10001-00-CI 11-25001-00-CI 11-25002-00-CI 11-40001-00-CI

**1** Hoisting remains possible when the floats are folded.

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Reference Optional	Installation	Nature of the incompatibility		
		■	▲	●
<b>Specific mission equipment (continued)</b>				
06-21007-00-FP	BREEZE electrical hoist (204 kg – 450 lb, 50 m – 164 ft cable) – Fixed Parts	06-21005-00-FP		
06-21007-00-RP	BREEZE electrical hoist (204 kg – 450 lb, 50 m – 164 ft cable) – Removable Parts			05-84002-00-RP 06-24001-00-CI 06-27007-00-RP 06-61019-00-RP <sup>1</sup> 07-25001-00-CI 07-71002-00-RP 11-00001-00-CI 11-00002-00-CI 11-10001-00-CI 11-25001-00-CI 11-25002-00-CI 11-40001-00-CI
06-24001-00-CI	Rappelling installation (without rope)			06-21005-00-RP 06-21007-00-RP 06-27007-00-RP 06-61019-00-RP
06-25002-00-CI	Drip tub (sea rescue)		05-84002-00-RP 07-25001-00-CI 11-00001-00-CI 11-10001-00-CI	
06-27007-00-RP	Cargo swing with dynamometer (1,134 kg - 2,500 lb) - Removable parts			05-84002-00-RP 06-21005-00-RP 06-21007-00-RP 06-24001-00-CI 11-00001-00-CI 11-00002-00-CI 11-10001-00-CI 11-25001-00-CI 11-25002-00-CI 11-40001-00-CI
06-61019-00-RP	Emergency floatation gear			06-21005-00-RP <sup>1</sup> 06-21007-00-RP 06-24001-00-CI 11-00001-00-CI 11-00002-00-CI 11-25001-00-CI 11-25002-00-CI 11-40001-00-CI
06-74004-00-CI	Adaptation for night time missions with NVG	Being studied	Being studied	Being studied

<sup>1</sup> Hoisting remains possible when the floats are folded.

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Reference Optional	Installation	Nature of the incompatibility		
		■	▲	●
<b>Interior layout</b>				
07-15010-00-CI	Energy absorbing front seats	Being studied	Being studied	Being studied
07-25001-00-CI	3 places instead of 4 places transformation kit		05-84002-00-RP 06-25002-00-CI 07-71002-00-RP 11-10001-00-CI	06-21005-00-RP 06-21007-00-RP
07-71002-00-RP	Lower casualty-carrying installation with stretcher - Removable parts		05-37009-00-CI 05-84002-00-RP 07-25001-00-CI 11-10001-00-CI	06-21005-00-RP 06-21007-00-RP
<b>Operational protection</b>				
10-41004-00-CI	Radar warning receiver EWR 99 FRUIT	Being studied	Being studied	Being studied
10-51002-00-CI	ALKAN ELIPS self-protection decoying system	Being studied	Being studied	Being studied
<b>Military installations</b>				
11-00001-00-CI	Mixed installation : axial cannon (RH side) / rocket-launcher (LH side)		05-84002-00-RP 06-25002-00-CI	06-21005-00-RP 06-21007-00-RP 06-27007-00-RP 06-61019-00-RP 11-10001-00-CI
11-00002-00-CI	Mixed installation : pod-mounted cannon (RH side) / rocket-launcher (LH side)			06-21005-00-RP 06-21007-00-RP 06-27007-00-RP 06-61019-00-RP 11-10001-00-CI
11-10001-00-CI	7,62 mm side-firing machine gun in the cabin, on the left side		05-84002-00-RP 06-25002-00-CI 07-25001-00-CI 07-71002-00-RP	06-21005-00-RP 06-21007-00-RP 06-27007-00-RP 11-00001-00-CI 11-00002-00-CI 11-25001-00-CI 11-25002-00-CI 11-40001-00-CI
11-25001-00-CI	12,7 mm pod-mounted Heavy Machine Gun			06-21005-00-RP 06-21007-00-RP 06-27007-00-RP 06-61019-00-RP 11-10001-00-CI
11-25002-00-CI	20 mm pod-mounted cannon (right side)			06-21005-00-RP 06-21007-00-RP 06-27007-00-RP 06-61019-00-RP 11-10001-00-CI
11-40001-00-CI	Rocket-launcher installation			06-21005-00-RP 06-21007-00-RP 06-27007-00-RP 06-61019-00-RP 11-10001-00-CI

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## 6- Main performance

The following performance values and figures refer to an **AS 555 SN**, equipped with a **new engines**. Unless otherwise specified, the values and figures refer to an **helicopter in OTHT configuration** at **Sea Level (SL)**, in **International Standard Atmosphere (ISA)** and **zero wind** condition.

The Maximum Take-off Weight of the Fennec AS 555 SN is 2,600 kg – 5,732 lb, except for deck landing where MTOW has been demonstrated only up to 2,540 kg – 5,600 lb.

The OTHT configuration is as follows :

- Standard definition
- Removable parts of Floatation gear
- Detection :
  - Search radar Telephonics 1500B - Removable parts
- Navigation :
  - Self contained navigation system with GPS
- Radio navigation
  - Radio altimeter AHV 16 with IND 821 indicator
  - VOR Collins VIR 32
  - DME Collins DME 42
  - ADF Collins ADF 60
  - IFF TSC2050 with altitude encoder Shadin 8800T
- Radio communication
  - UHF/AM Chelton 805-2
  - HF Collins HF 9100
  - V-UHF/AM/FM Collins ARC 210
  - ICS Team TB 31 ( 2 control boxes)
  - Passenger interphone Team BA1920

The SAR configuration corresponds to the OTHT configuration + Removable parts of AIR EQUIPMENT electrical hoist.

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## Main performance in cruise at maximum weight

Performance on 2 engines		CONFIGURATIONS	
		OTHT	SAR
■ Maximum speed, VNE	km/hr	278	278
	kts	150	150
■ Fast cruise speed (at MCP)			
	● ISA	km/hr 114	202 109
● ISA + 20°C	km/hr 114	202 109	
■ Recommended cruise speed			
	● ISA	km/hr 111	196 106
● ISA + 20°C	km/hr 111	196 106	
■ Fuel consumption at fast cruise speed			
	● ISA	kg/hr lb/h	189 417
● ISA + 20°C	kg/hr lb/h	192 423	
■ Fuel consumption at recommended cruise speed			
	● ISA	kg/hr lb/h	183 403
● ISA + 20°C	kg/hr lb/h	188 414	
■ Fuel consumption at 55 kts			
	● ISA	kg/hr lb/h	132 291
● ISA + 20°C	kg/hr lb/h	138 304	

## Performance on 1 engine

### SL, ISA condition

Gross Weight	kg	1,800	2,000	2,200	2,400	2,540	2,600
	lb	3,968	4,409	4,850	5,291	5,600	5,732
■ Rate of climb at intermediate contingency power	m/sec	6.4	5.5	4.5	3.45	2.7	2.4
	ft/min	1,255	1,080	880	680	530	470
■ Service ceiling (1 m/sec., 200 ft/min.) at MCP	m	4,780	3,845	2,975	2,160	1,610	1,400
	ft	15,680	12,610	9,760	7,080	5,290	4,600

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## Configuration Effect on performance

Configurations		OTHT	SAR <sup>1</sup>
Fast cruise speed	km/hr kts	Reference	- 6 - 3
Recommended cruise speed	km/hr kts	Reference	- 6 - 3
Rate-of-climb 1 engine, Vi = 55 kts	m/sec ft/min	Reference	- 0.1 - 20
Hourly fuel consumption at fast cruise speed	kg/hr lb/h	Reference	0
Hourly fuel consumption at recommended cruise speed	kg/hr lb/h	Reference	0

## Operating limitations

The helicopter is cleared to be operated within the following altitude and temperature limitations (according to Flight Manual). For complementary information, refer to Flight Manual.

- Maximum altitude : 6,096 m - 20,000 ft (PA)
- Maximum temperature ISA + 35°C limited to + 50°C
- Minimum temperature - 40°C

## Abbreviations

AEO :	All Engines Operative	PA :	Pressure Altitude
IGE :	In Ground Effect	SL :	Sea Level
ISA :	International Standard Atmosphere	TAS :	True Air Speed
MCP :	Maximum Continuous Power	TOP :	Take-Off Power
OEI :	One Engine Inoperative	VNE :	Never Exceed Speed
OGE :	Out of Ground Effect	Vz :	Rate-of-climb

### Units

nm :	nautical miles	hr:min :	hours:minutes
kts:	knots	kg :	kilogramms
ft/min :	feet per minute	lb :	pounds
m/sec :	meters per second	km :	kilometers
° C :	degrees Celsius		

<sup>1</sup> Performance variation is given with hoist jib folded.

*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.*

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555 SN 05.101.01 E

22

## Performance charts

The performance charts presented hereafter apply to an aircraft as per the standard definition or in OTHT configuration as per page 19.

- Take-off weight in hover IGE, AEO (height 6 ft, Maximum TOP, no wind) Page 24
- Take-off weight in hover OGE, AEO (Maximum TOP, no wind) Page 25
- Take-off weight in hover IGE, OEI (Maximum contingency power, no wind) Page 26
- Take-off weight in hover OGE, OEI (Maximum contingency power, no wind) Page 27
- Fast cruise speed (ISA) - OTHT configuration Page 28
- Fast cruise speed (ISA+ 20°C) - OTHT configuration Page 29
- Recommended cruise speed (ISA) - OTHT configuration Page 30
- Recommended cruise speed (ISA + 20°C) - OTHT configuration Page 31
- Rate of climb in oblique flight (OEI, ISA, Intermediate contingency power) - OTHT configuration Page 32
- Rate of climb in oblique flight (OEI, ISA +20°C, Intermediate contingency power) - OTHT configuration Page 33
- Hourly fuel consumption at fast cruise speed (ISA, ISA + 20°C) - OTHT configuration Page 34
- Hourly fuel consumption at recommended cruise speed (ISA, ISA + 20°C) - OTHT configuration Page 35
- Performance in hover OGE on 1 engine Influence of the head wind Page 36

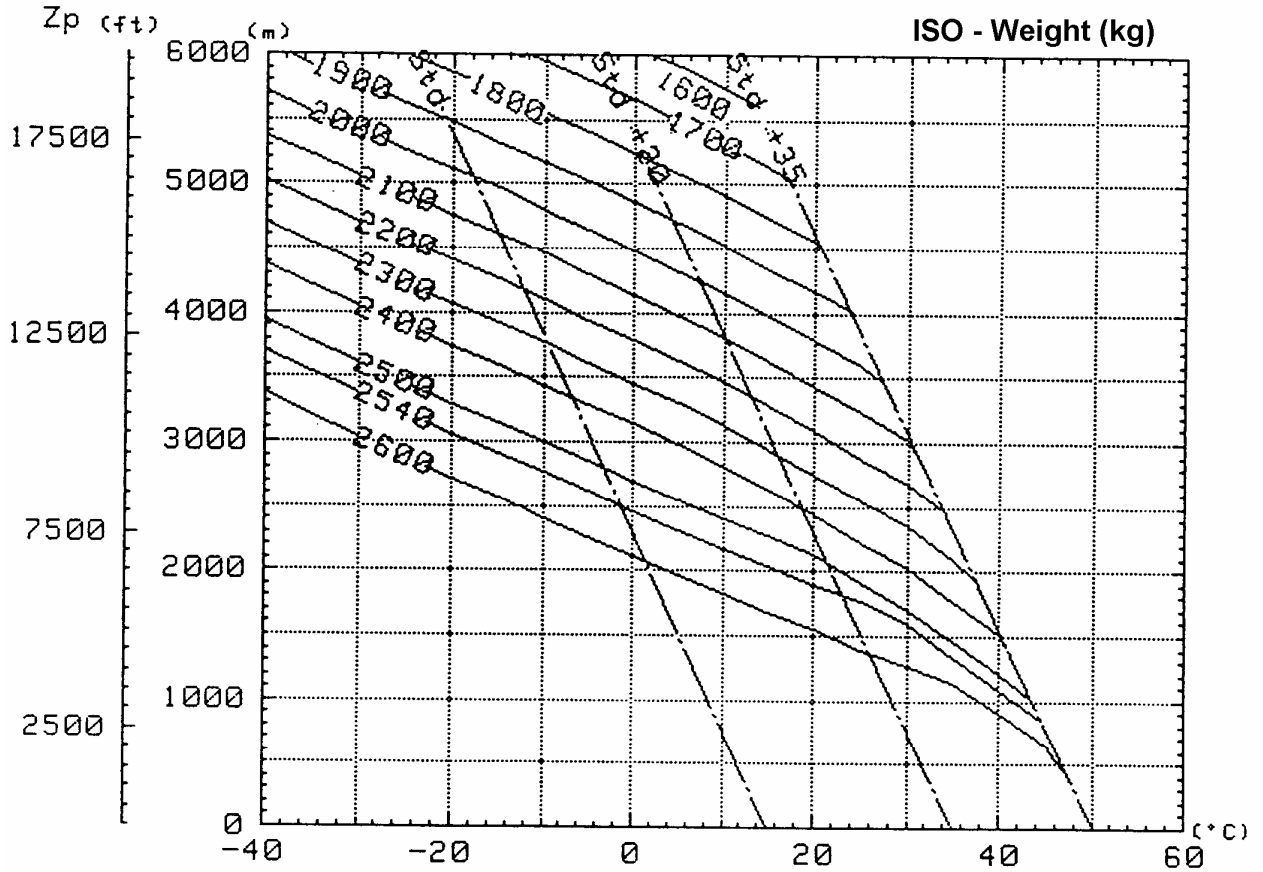
*The data set forth in this document are general in nature and for information purposes only.*

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**TAKE-OFF WEIGHTS IN HOVER IGE**

on two engines at maximum TOP

(Height 6 ft)



T

Note : Approved performance (as long as the engines meet 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.

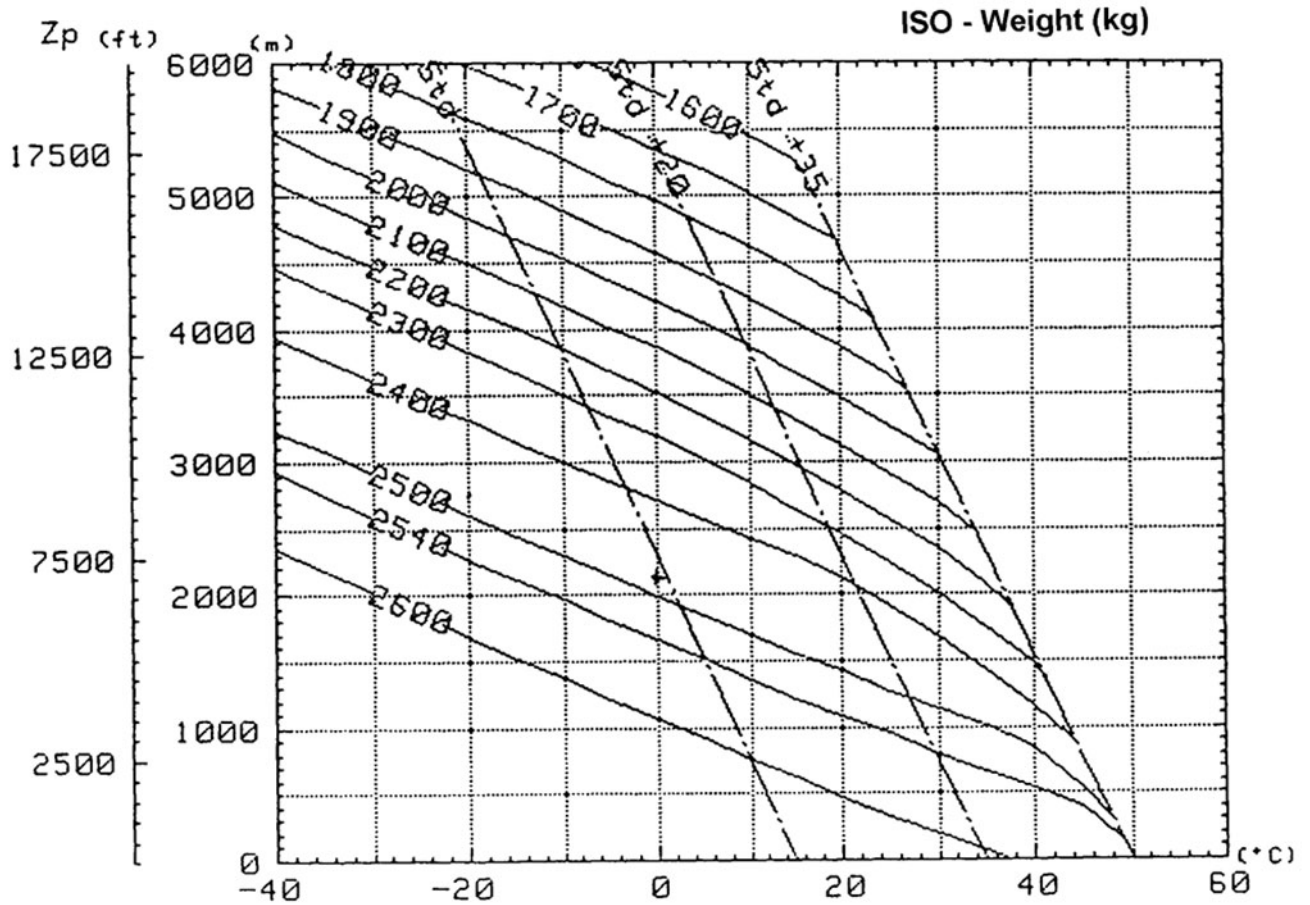
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.



**TAKE-OFF WEIGHTS IN HOVER OGE**

on two engines

at maximum TOP



Note : Approved performance (as long as the engines meet 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.

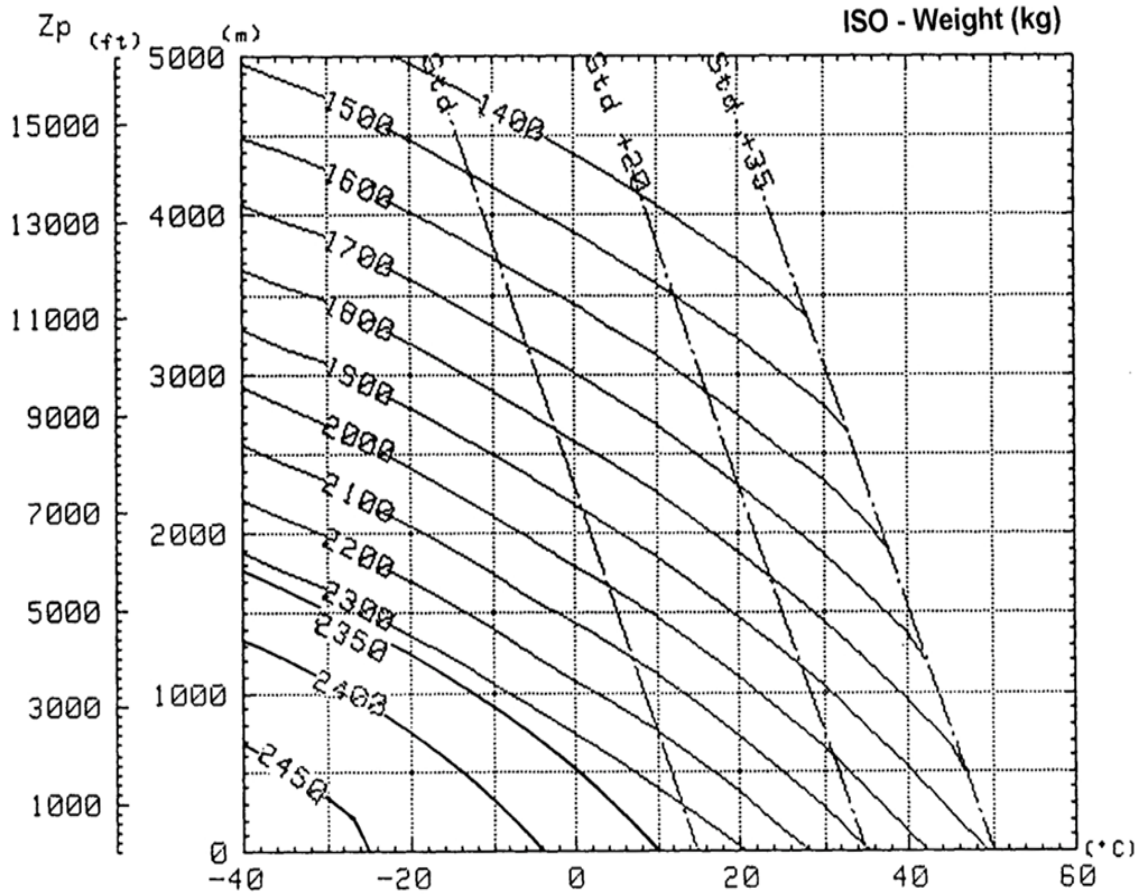
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**TAKE-OFF WEIGHTS IN HOVER IGE**

on 1 engine

at maximum contingency power

(O.E.I. 2½ min)



T

Note : Approved performance (as long as the engines meet 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.

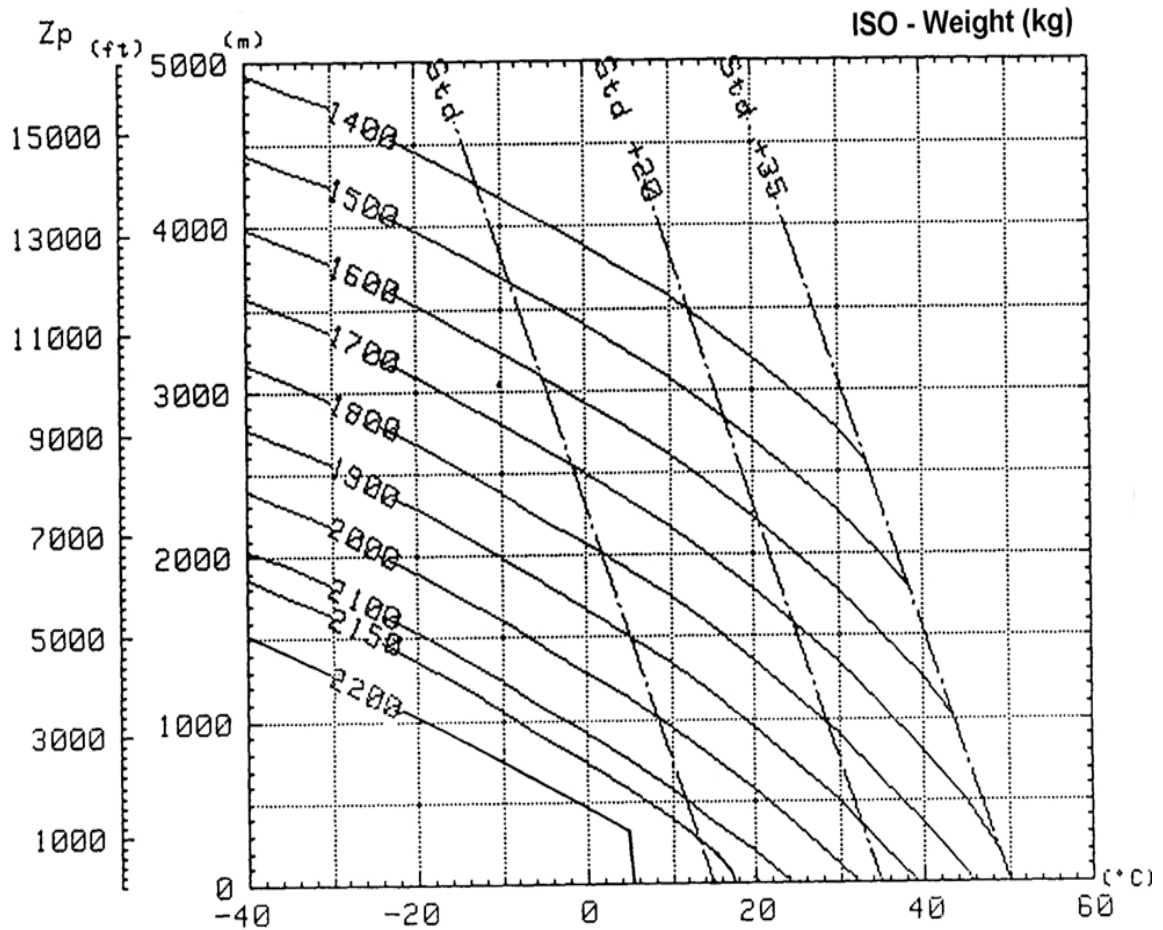
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**TAKE-OFF WEIGHTS IN HOVER OGE**

on 1 engine

at maximum contingency power

(O.E.I. 2½ min)



T

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

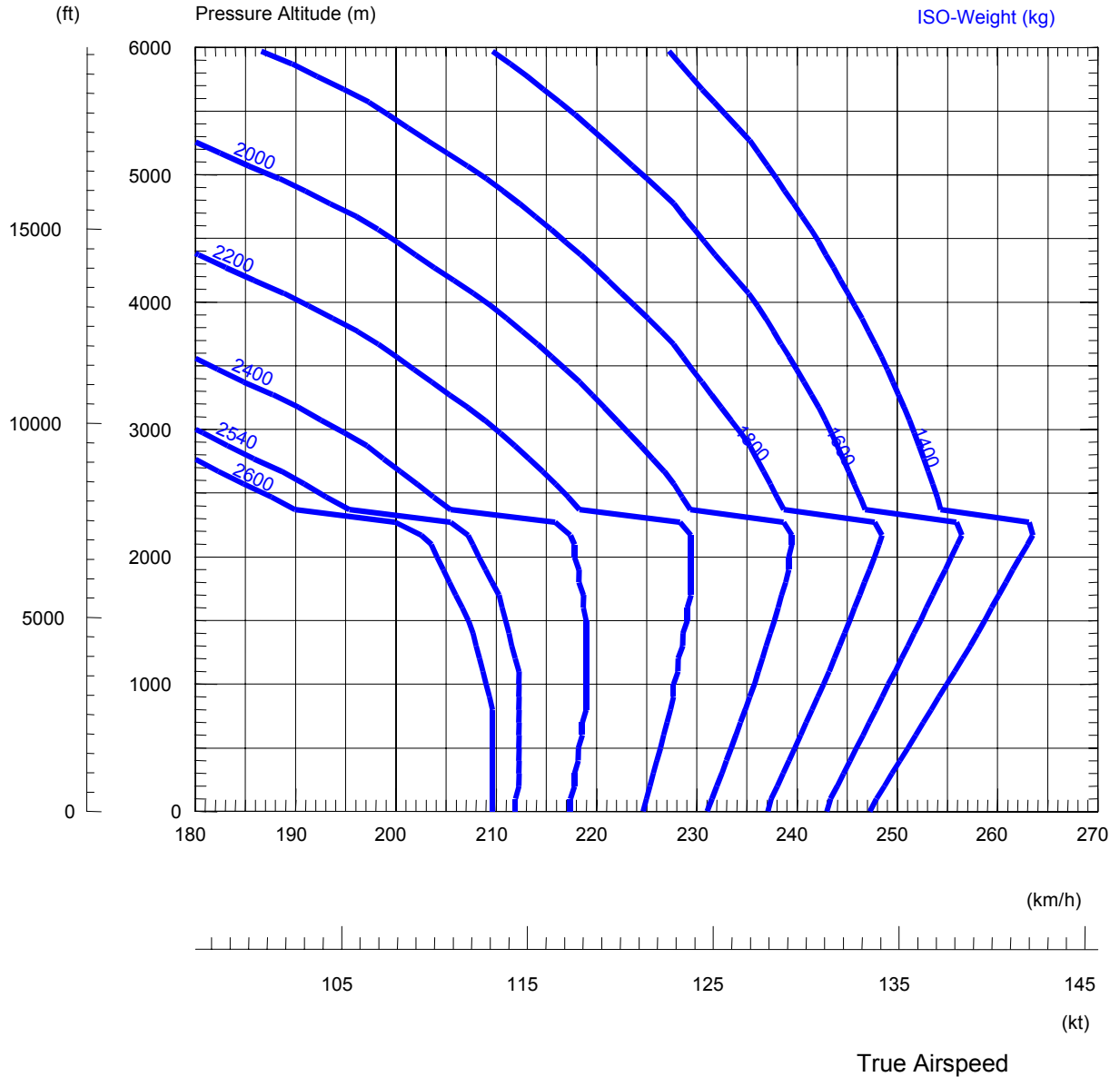
The data set forth in this document are general in nature and for information purposes only.

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**FAST CRUISE SPEED**

ISA

OTHT configuration



Note : Typical performance with aircraft in OTHT configuration.

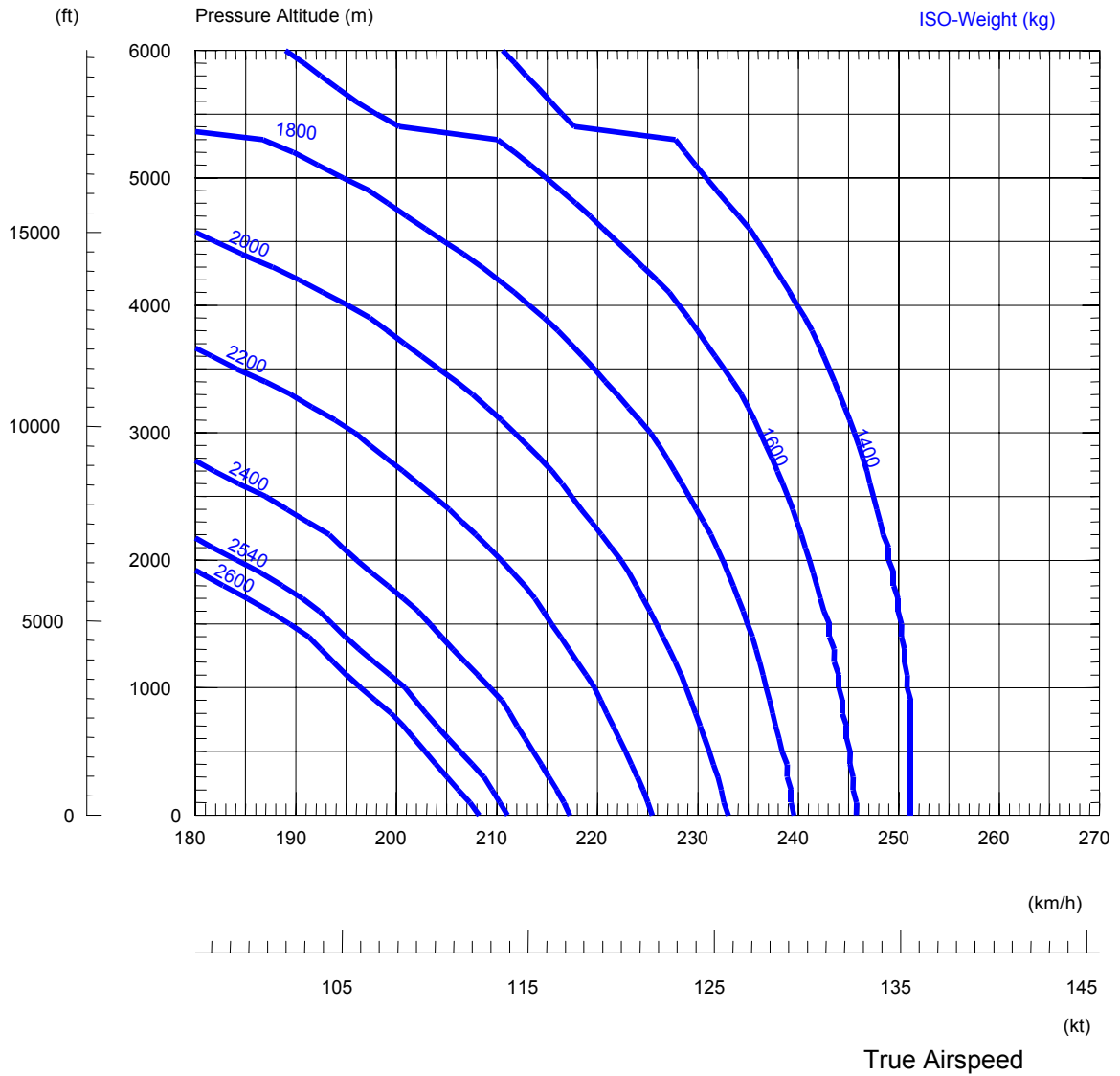
The data set forth in this document are general in nature and for information purposes only.

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**FAST CRUISE SPEED**

ISA + 20°C

OTHT configuration



*Note : Typical performance with aircraft in OTHT configuration.*

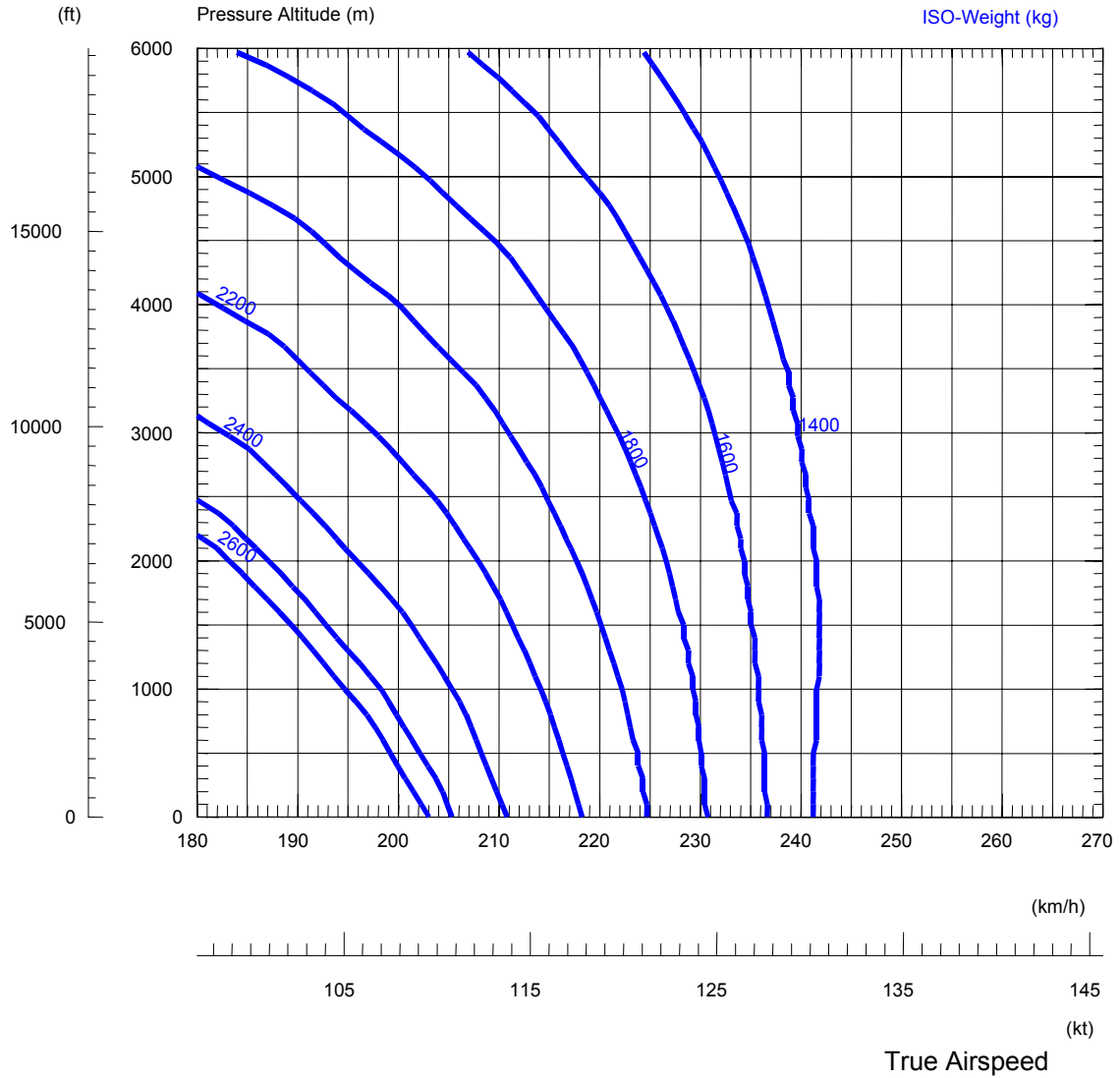
*The data set forth in this document are general in nature and for information purposes only.*

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**RECOMMENDED CRUISE SPEED**

**ISA**

**OTHT configuration**



Note : Typical performance with aircraft in OTHT configuration.

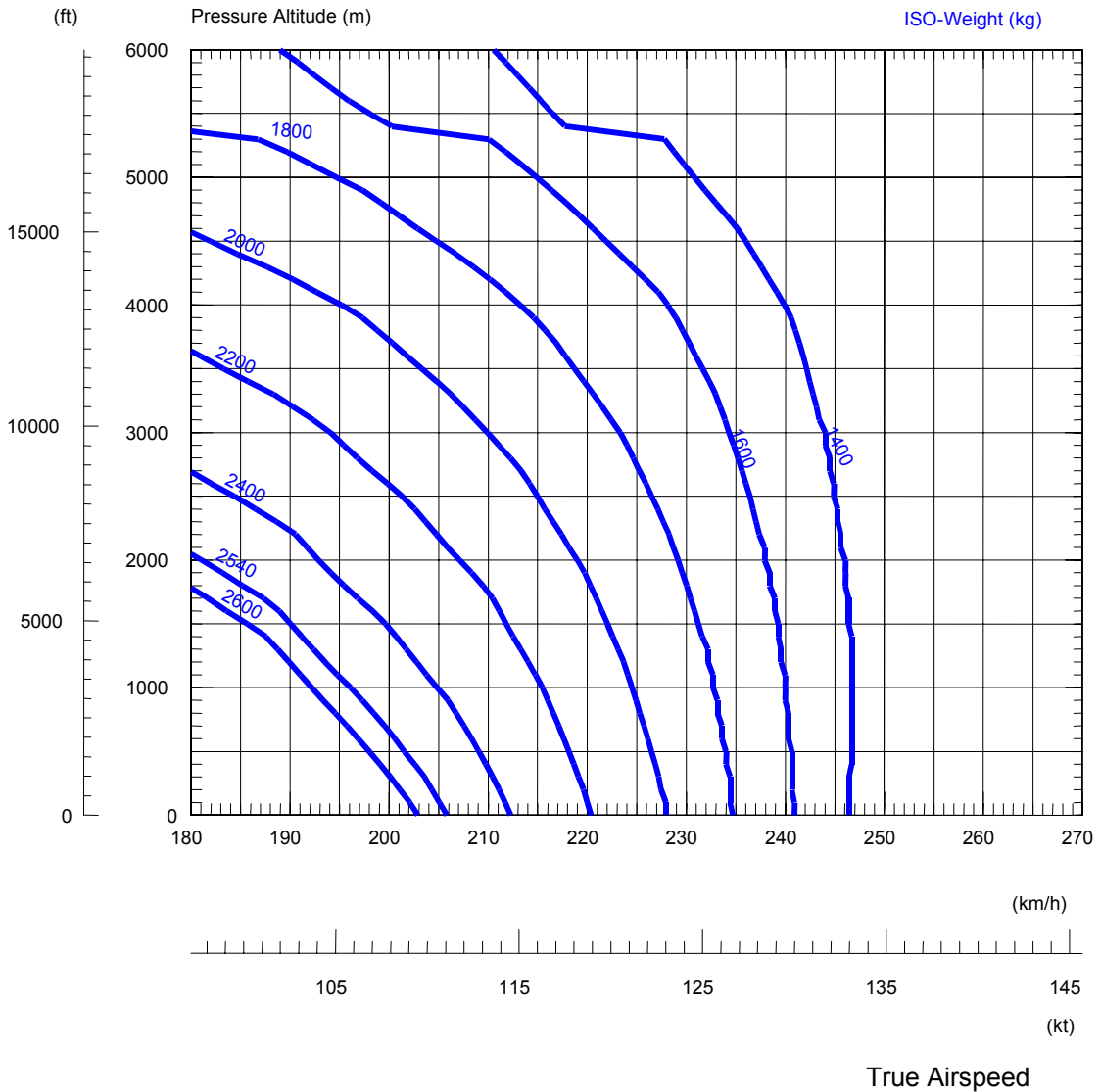
The data set forth in this document are general in nature and for information purposes only.

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

OTHT configuration



Note : Typical performance with aircraft in OTHT configuration.

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

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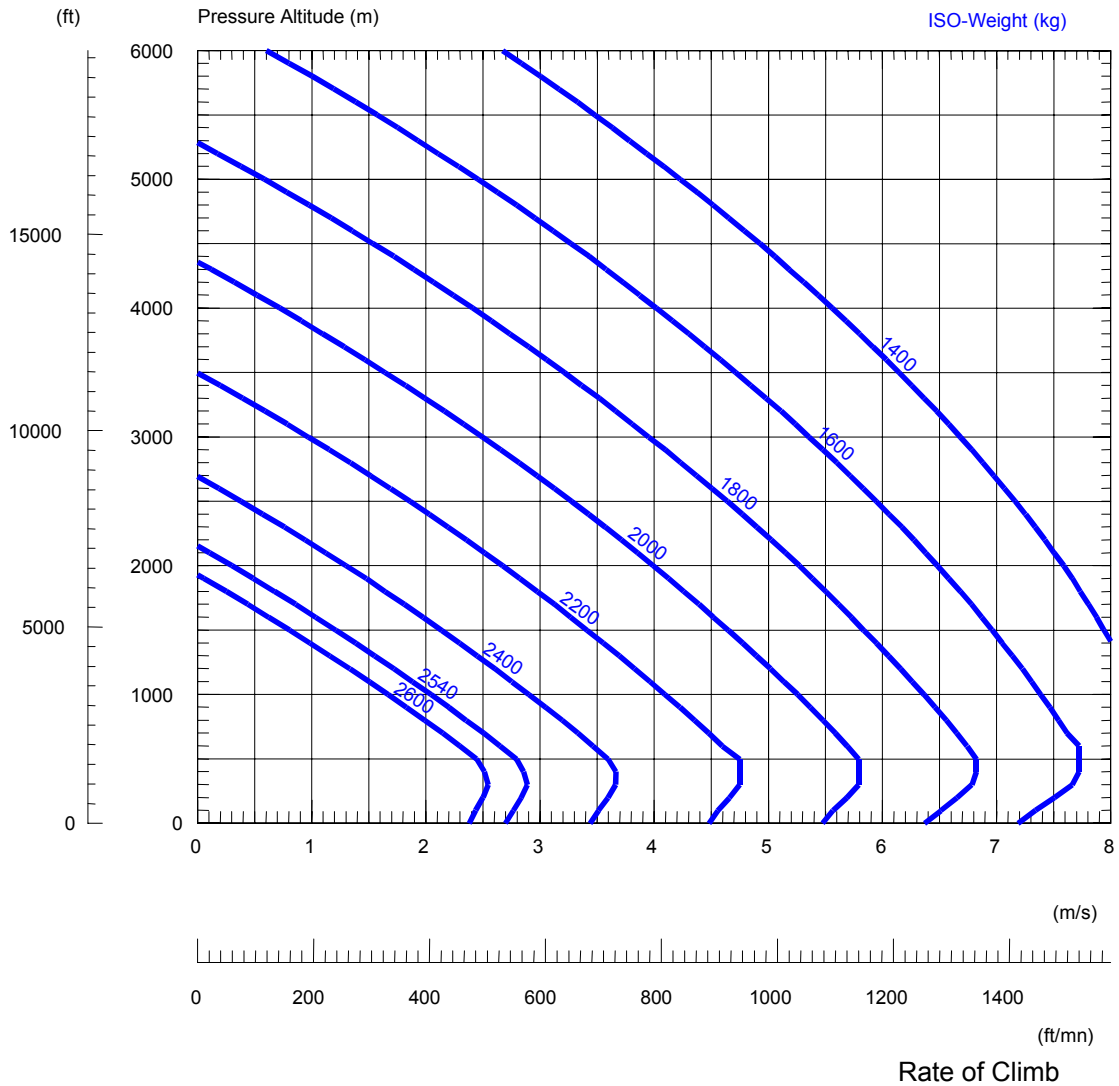
**RATE OF CLIMB IN OBLIQUE FLIGHT**

on 1 engine

at intermediate contingency power (O.E.I. 30 min)

ISA

OTHT configuration



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

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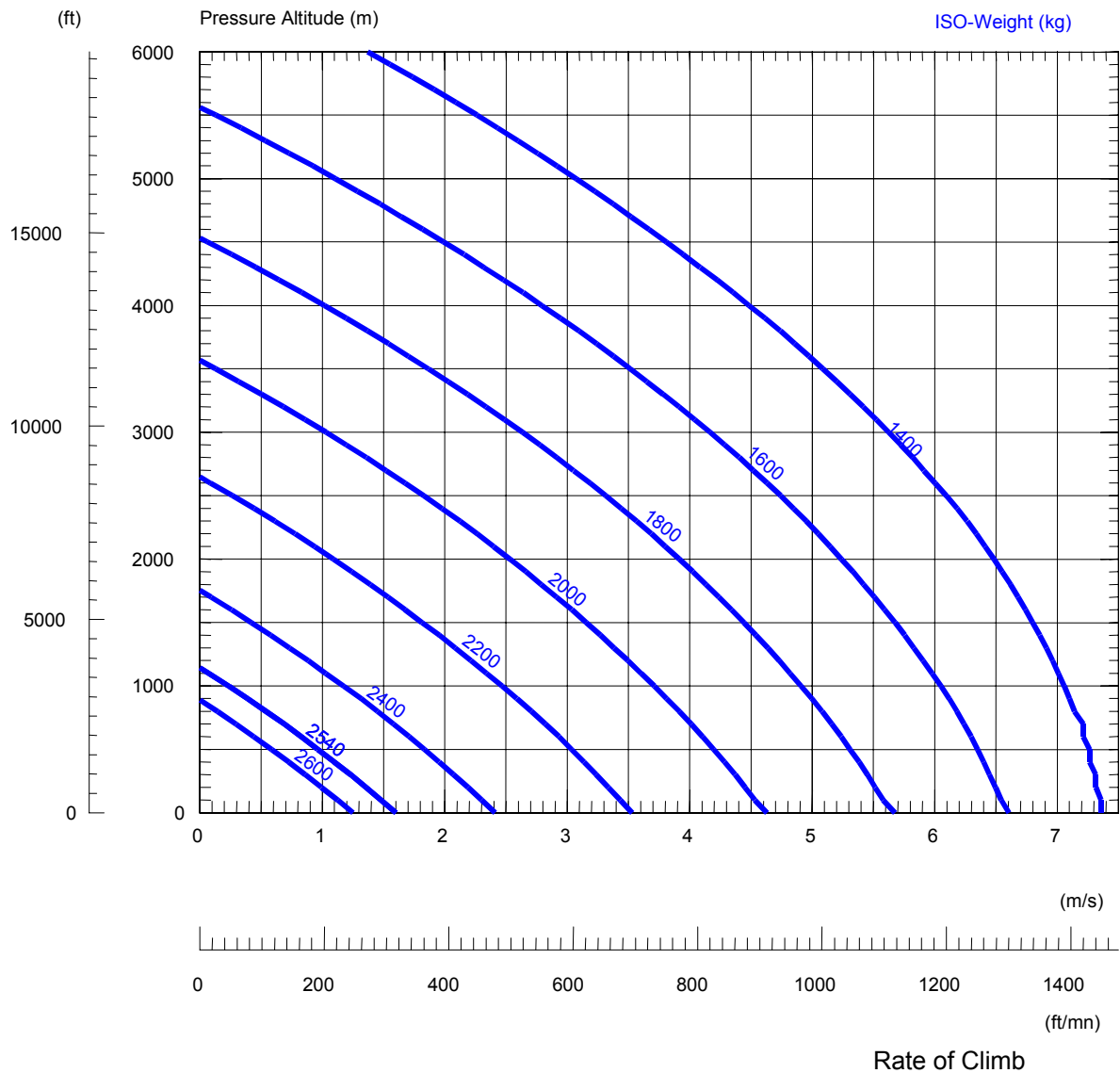
**RATE OF CLIMB IN OBLIQUE FLIGHT**

on 1 engine

at intermediate contingency power (O.E.I. 30 min)

ISA + 20°C

OTHT configuration



Note : Approved performance (as long as the engines meet 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.

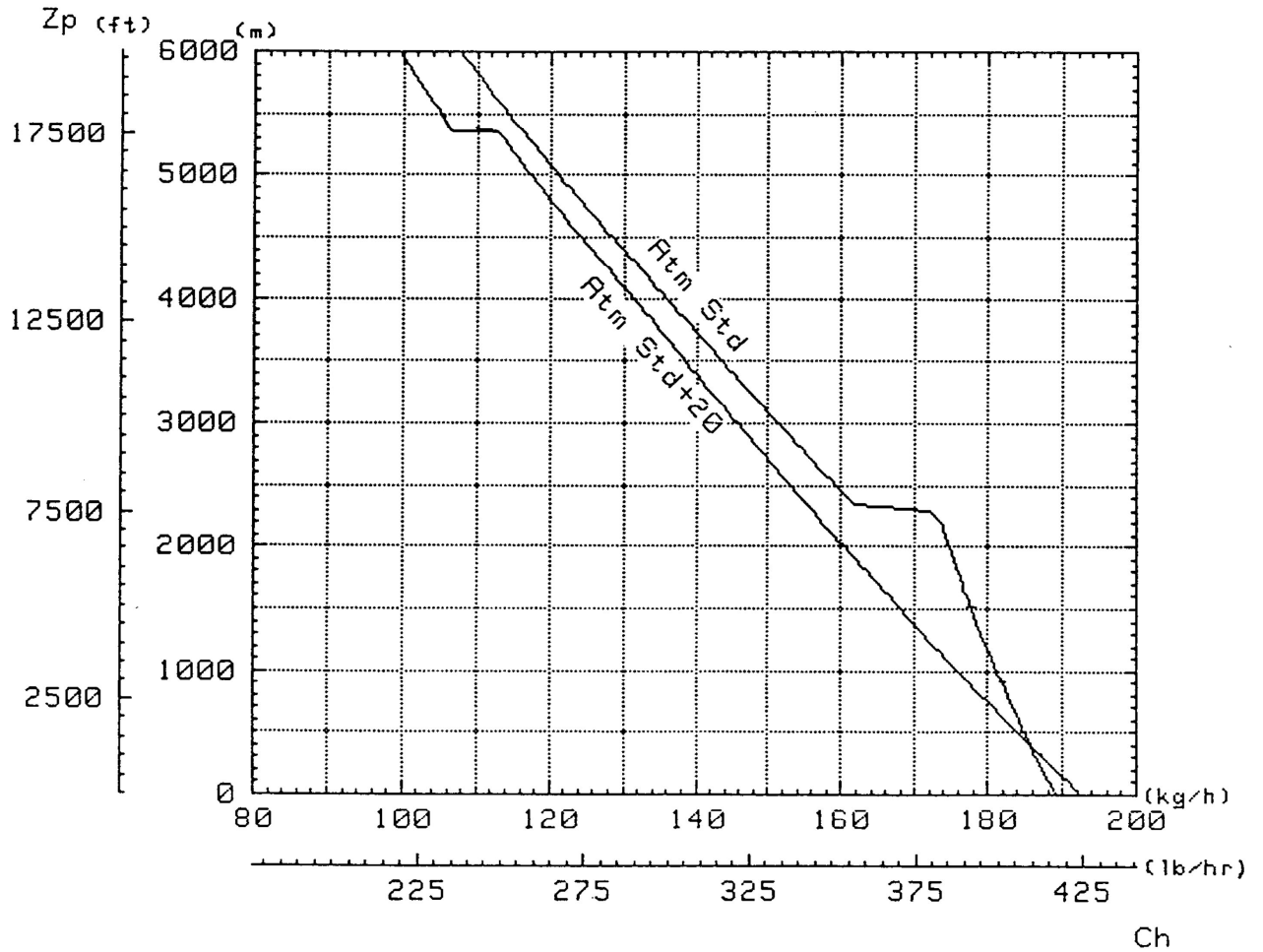
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**HOURLY FUEL CONSUMPTION**

at fast cruise speed

ISA, ISA + 20°C

OTHT configuration



Note : Typical consumption with aircraft in OTHT configuration and new engines.

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

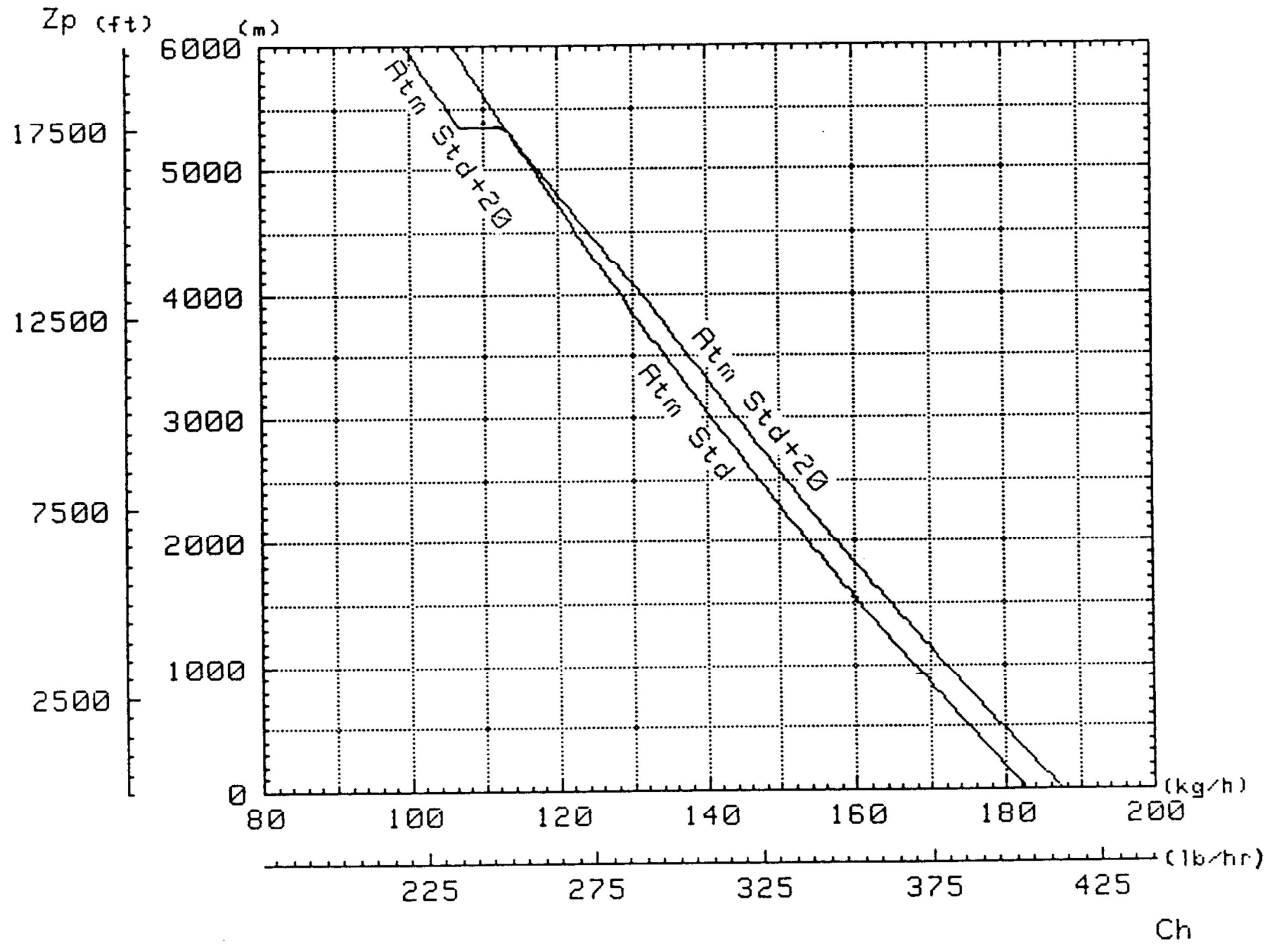
For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents.

**HOURLY FUEL CONSUMPTION**

at recommended cruise speed

ISA, ISA + 20°C

OTHT configuration



Note : Typical consumption with aircraft in OTHT configuration and new engines.

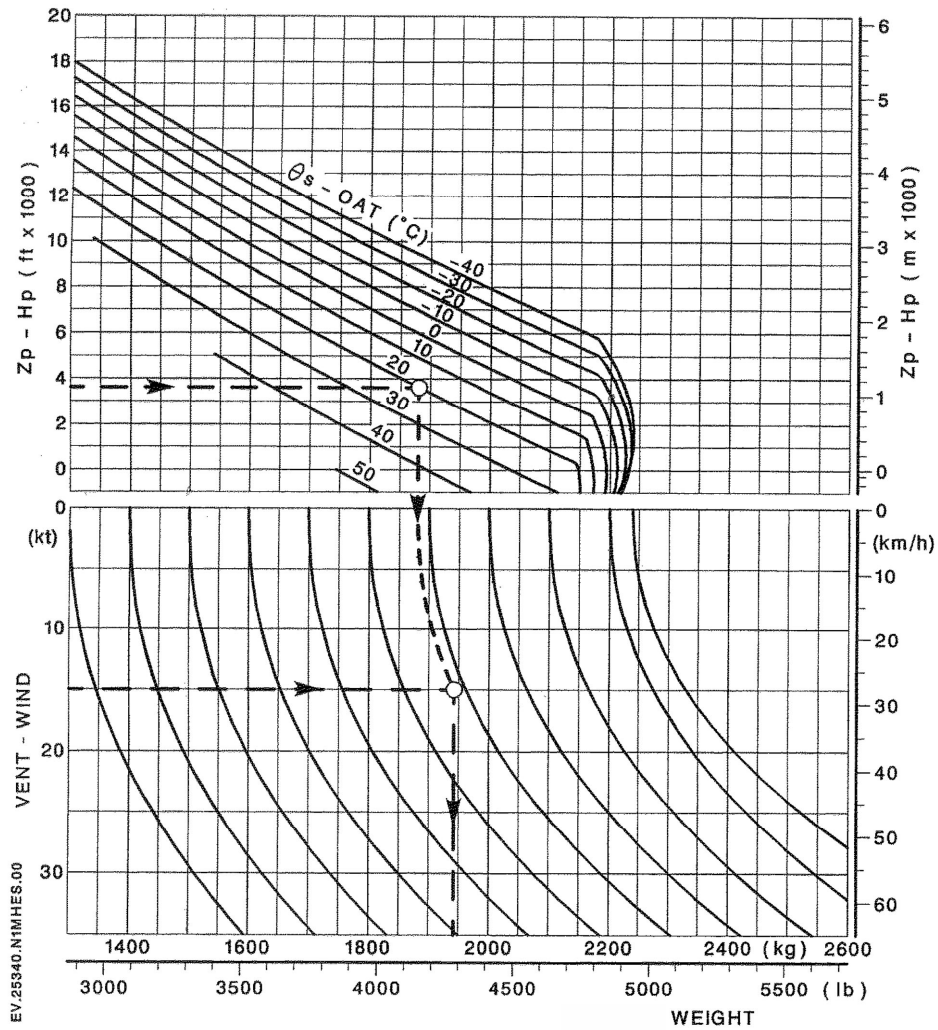
The data set forth in this document are general in nature and for information purposes only.

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

**PERFORMANCE IN HOVER OGE**

on 1 engine

Influence of the head wind



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