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# Manufacturer's notes – Attention!

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

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

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# 1 Foreword



The EC145 is a twin-engine, multi-purpose helicopter of the 3-4 ton class with up to 12 seats for pilot/s and passengers. It combines Eurocopter's latest developments, like advanced cockpit design, avionics and sophisticated electrical system with the rugged and proven design elements of the BK117, as for example the rotor system. The EC145's hingeless rotor system with its monolithic titanium hub ('System Bölkow') is proven all over the world. Furthermore, the rotor blades have been improved with respect to higher performance and lower noise and vibrations levels. The use of the variable rotorspeed and torque matching system (VARTOMS), known from the predecessor model BK117 C-1 has been extended. Besides ameliorating flying comfort, this makes the EC145 the quietest helicopter in its class bringing it to 6.7 dBA below ICAO limits.

In addition to environmental and economical aspects, the rotor system together with high TBO gearbox and airframe components grant for low maintenance costs, and on the other hand high inservice-time of the helicopter due to low scheduled maintenance required.

The EC145 is equipped with two powerful and reliable Turbomeca Arriel 1E2 engines which, in combination with its lifting system, 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 EC145 are design elements like energy absorbing fuselage and seats, as well as crash resistant fuel cells. The EC145 allows Cat. A operation up to the level of performance class 1 and performance class 2 according to JAR OPS 3 amendment 3.

A wide range of optional equipment, like emergency floats, rescue hoist, SX16 search light, load hook, plus many more is available for the EC145 and can be fitted simultaneously in most cases. Together with its most versatile cabin layout (utility, comfort, corporate, ...), the EC145 is ready to take up all sorts of missions, for example survey, transport, EMS, public service, to name a few.





Compared to other helicopters in its class, the EC145 offers a significantly larger cabin, featuring:

- excellent outside vision for pilot/s, crew or passengers
- roomy cabin with no partitions or protrusions, no center post, no door post
- unrivalled side loading (no door posts) and rear loading capability
- flat floor all over the cabin area.







The EC145 offers a choice of modern state-of-the-art glass cockpit solutions comprising of primary flight displays (PFD) and NAV displays (ND) as well as a central panel display system (CPDS). 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. An NVG layout is available as an option. 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 extensive instrument scan without missing vital information, pilots can dedicate more of their attention to the mission.



# Latest news / highlights:

- High-density seating configuration for up to 10 passengers in the cabin
- Search light SX5 will be available in the next months
- Maintenance reduction package available (no 50 h inspection if fuzz burners for tail rotor and intermediate gearbox are installed)
- New Corporate Passenger Transport package is available





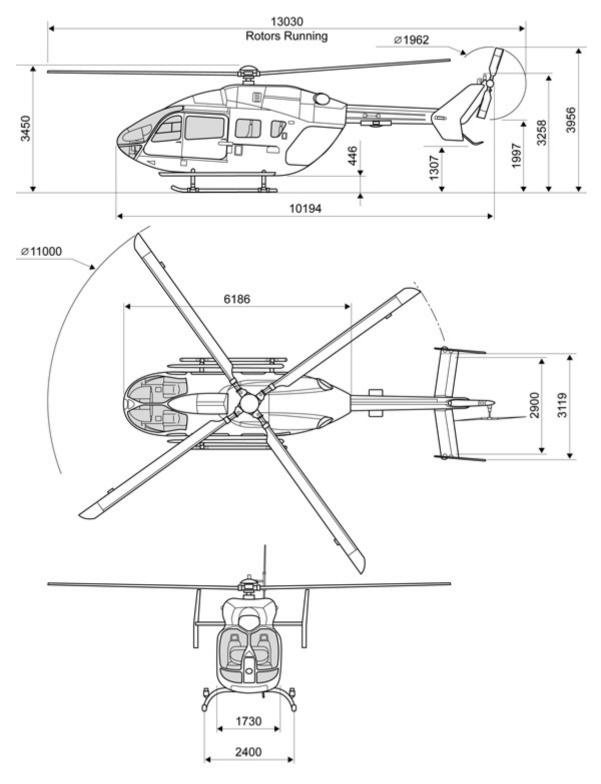
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# 2 General characteristics

# 2.1 External dimensions





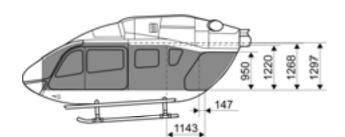


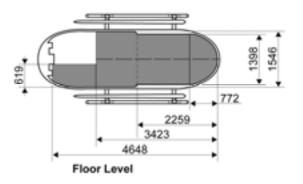
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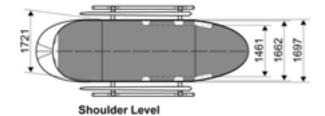
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# 2.2 Internal dimensions







	Floor	· area	Vol	ume
Cabin & baggage compartment (Baggage compartment with 8 seats installed)	4.72 m <sup>2</sup> 0.84 m <sup>2</sup>	50.77 ft <sup>2</sup> 9.07 ft <sup>2</sup>	6.04 m <sup>3</sup> 1.32 m <sup>3</sup>	213.15 ft <sup>3</sup> 46.72 ft <sup>3</sup>
Copilot	0.72 m <sup>2</sup>	7.73 ft <sup>2</sup>	0.80 m <sup>3</sup>	28.25 ft <sup>3</sup>
Pilot (not shaded)	1.09 m <sup>2</sup>	11.80 ft <sup>2</sup>	1.24 m <sup>3</sup>	43.76 ft <sup>3</sup>
Total (undivided)	5.43 m <sup>2</sup>	58.50 ft <sup>2</sup>	6.84 m <sup>3</sup>	241.40 ft <sup>3</sup>
Total (incl. pilot station)	6.52 m <sup>2</sup>	70.30 ft <sup>2</sup>	8.08 m <sup>3</sup>	285.16 ft <sup>3</sup>

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

Passenger transport	1 or 2 pilots + up to 8 passengers in club seating configuration (energy absorbing individual seats) + 1.32 m <sup>3</sup> baggage / freight
High-density seating	1 or 2 pilots + up to 10 passengers in high-density seating configuration (energy absorbing individual troop seats)
EMS / Casualty evacuation	1 or 2 pilots + up to 2 stretcher patients + up to 3 HEMS crew

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# 2.4 Weight

Note : margin $\pm$ 1.5 %	kg	lb
<ul> <li>Empty weight, wet (in standard aircraft configuration)</li> </ul>	1,792	3,951
<ul> <li>Useful load (for standard aircraft configuration)</li> </ul>	1,793	3,953
Pilot	80	176
Payload and / or fuel	1,713	3,777
<ul> <li>Maximum take-off weight</li> </ul>	3,585	7,903
Maximum take-off weight with external load	3,585	7,903
<ul> <li>Sling load (single hook)</li> </ul>	1,500	3,307

# 2.5 Fuel Capacities

Note: Tolerance of fuel figures: $\pm$ 2%	Usable Fuel		Unusable Fuel		
Fuel density used is 0.8 kg / liter.	lb	kg	I	lb	kg
Main Tank	1307.8	593.2	741.5	7.3	3.3
<ul> <li>Supply Tank (left)</li> </ul>	104.1	47.2	59.0	6.6	3.0
Supply Tank (right)	118.2	53.6	67.0	6.6	3.0
Total	1530.0	694.0	867.5	20.5	9.3

# 2.6 Engines: 2 TURBOMECA turbine engines - ARRIEL 1E2

### **Engine ratings**

Thermodynamic limits per engine at SL, ISA	kW	ch	shp
<ul> <li>One Engine Inoperative (OEI), 2.5 min power</li> </ul>	574	780	770
<ul> <li>One Engine Inoperative (OEI), MCP</li> </ul>	550	748	738
<ul> <li>Take-Off Power (TOP)</li> </ul>	550	748	738
<ul> <li>Maximum Continuous Power (MCP)</li> </ul>	516	701	692

# 2.7 Main transmission

# Main transmission ratings

kW	ch	shp
1 x 551	1 x 750	1 x 739
1 x 404	1 x 550	1 x 542
2 x 388	2 x 528	2 x 520
	1 x 551	1 x 551 1 x 750

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#### Standard aircraft definition 3

### **GENERAL**

- Energy absorbing fuselage
- Tail boom with fixed horizontal stabilizer and two endplates
- Upper deck with fittings for main gearbox, engines, hydraulic and cooling system
- Cowlings for main transmission and engines
- Skid-type landing gear with skid protectors, capable of taking ground-handling wheels Long boarding steps, LH and RH
- Cold weather kit
- Built-in maintenance steps and grips
- Exterior painting (single color)

# COCKPIT, CABIN AND CARGO COMPARTMENT

- One-level cabin and cargo compartment floor with integrated rails
- Glazed canopy
- Two hinged cockpit doors with sliding window
- Map case in pilot's door
- Two wide passenger sliding doors
- Two rear hinged clam-shell doors
- Longitudinally adjustable energy absorbing pilot and copilot seats with head rest and 4-point safety belts with automatic locking system
- Cabin boarding grips (LH and RH)
- Interior panelling with integrated basic sound insulation
- Flight controls (pilot side)
- Engine twist grip controls at pilot's collective pitch lever

### **BASIC INSTRUMENTATION**

#### **Central Panel**

- Central Panel Display system (CPDS) consisting of two LCD displays
  - Caution Advisory Display (CAD) with digital indication of: Caution and advisory information
    - Fuel quantity indication
  - Vehicle and Engine Management Display (VEMD) with digital indication of:
    - Engine parameters (engine oil pressure, engine oil temperature)
    - FLI (First Limit Indicator) for TQ, TOT, ∆N1 as analogue display
    - Main gear box parameters (oil pressure,
    - oil temperature)
    - Dual amperemeter for generator; amperemeter for battery
    - Dual voltmeter
    - Outside air temperature (OAT)
  - Mast moment indication
- Back-up conventional instruments (2")
- Clock
- Stand-by-horizon
- Triple (rotor and engines) RPM-indicator

- Instrument panel with extension on pilot's side and glare shield
- Ram-air for cockpit
- Electrical ventilating system for cockpit
- Headset holder in the cockpit, rotatable
- Portable fire extinguisher
- Stowage net for first aid kit at the LH rear clam-shell door
- First aid kit
- Flash light (torch)
- 4 mobile tie-down rings
- Slant panel Center console
- Windscreen wiper for pilot and copilot
- Door open warning
- Warning unit:
  - Engine fire warning with fuel emergency shut-off
  - Warning lights
  - Aural warning (for each warning, rotor RPM, fire warning)
  - Fire extinguishing system warning
- Main switch panel:
  - DC power control
  - VARTOMS control
  - Start switches
- Magnetic compass (mounted on the lateral nose spare of the cockpit)

#### Air Data

- Dual pitot static system (electrically heated pitot tube and static port)
- 2 ADC MÉGHAS sensors

#### Standard Instruments (single pilot) 1)

- Air speed indicator (3")
- Vertical speed indicator (3")
- Encoding altimeter (3")
- Artificial horizon (4")
- Gyro magnetic heading with horizontal situation ind. (3")

<sup>1)</sup> If glass cockpit instrumentation is chosen as optional equipment, these standard instruments are deleted (function included in MEGHAS) and an altimeter (2") and an airspeed indicator (2") as back-up instruments are added.

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# **POWER PLANT**

- Two TURBOMECA ARRIEL 1E2 turbine engines, complete with starting, fuel supply and control systems
- Crash resistant fuel system
- Two independent oil cooling and lubrication systems of the engines

# TRANSMISSION SYSTEM

- Main transmission including an independent redundant lubrication system and monitoring sensors
- Rotor brake system

# ROTOR AND FLIGHT CONTROLS

- Hingeless main rotor (System Bölkow) with 4 glass and carbon fiber reinforced blades with erosion protection strip
- Semi-rigid tail rotor with 2 twisted glass fiber reinforced blades of new technology with erosion protection strip
- Basic provisions for an easy integration of a balancing system

# **ELECTRICAL INSTALLATION**

- Power generation system:
  - Two starter/generators (2 x 200 A, 28 VDC)
  - Nickel-Cadmium battery, (24 V, 27 Ah)
  - External power connector (STANAG 3302)
- Power distribution system:
  - Two primary busbars
  - Two essential busbars
  - Two shedding busbars
  - Two non-essential busbars (50 A) for optional equipment only
  - Batterv bus
  - One utility receptacle in cargo compartment (28VDC, 15A)

- Fire detection and extinguishing system
- VARTOMS (VAriable Rotor speed and TOrque Matching System)

Technical Data

- Overspeed control
- Cycle counter
- Tail rotor transmission system with splash lubrication, magnetic plug and oil level sight gauge
- Dual hydraulic boost system for cyclic and collective blade control of the main rotor
- Single hydraulic boost system for yaw control
- Stability augmentation system (SAS) for tail rotor
- Main and tail rotors tip painting (yellow)
- Lighting:
  - Anti-collision warning light (red flashing)
  - Fixed landing light (250 W)
  - Three position lights (red, green, white)
  - Adjustable instrument lighting
  - One utility light in the cockpit
  - Lights in the cabin and cargo compartment
  - Boarding illumination
  - **Emergency lights**
  - Radio:

Battery key

Lifting points

Fuel drain device

Two radio master switch

Compass compensation key

GROUND HANDLING KIT Weight not included in the standard helicopter empty weight

- Two ground-handling wheels
- Basic aircraft covers (short time)
- Oil drain hoses
- Keys for cockpit doors, cabin doors, baggage compartment doors and tank flap (one-key system)

# DOCUMENTATION

STANDARD DOCUMENTATION: Flight Manual<sup>2)</sup>

- Pilots-Checklist<sup>2)</sup>
- Logbook
- Historical Record
- CD-ROM including AMM, SDS, MSM, WDM, IPC <sup>1) 2) 3)</sup>
- Master Servicing Manual (MSM)
- Service Bulletin Catalogue (SB) 1) 2)
- List of Applicable Publications (LOAP) 1) 2)
- Avionics Manual (for avionics installed by Eurocopter) <sup>1) 3)</sup> .
- 1) weight not included in the standard helicopter empty weight
- 2) documents revision service is available
- 3) customized documentation

STANDARD DOCUMENTATION (contd.): • Engine Documentation <sup>1) 2)</sup> including:

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

OPTIONAL DOCUMENTATION (hard copy format):

- Aircraft Maintenance Manual (AMM)<sup>1)2)</sup>
- System Description Section (SDS)<sup>1/2</sup> Wiring Diagram Manual (WMD)<sup>1/2/3)</sup>
- Illustrated Parts Catalogue (IPC) <sup>1) 2)</sup>

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# 4 Basic configuration choice

# Selection of a PINAO package

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

Pilot	Р	Single	Dual	Single/Dual
FIIOL	F	1	2	3
VFR/IFR		VFR	IFR	
	I	0	1	
Day/night	N	day	night	]
Day/ilight	IN	0	1	
Cat. A	•	no	yes	]
Gal. A	A	0	1	
JAR-OPS 3	0	no	yes	]
equipment *	0	0	1	

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

7	

Р	I	Ν	Α	0

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

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

### **IMPORTANT NOTES:**

- For IFR, there is no difference between "day" and "night". Therefore only IFR "night" PINAO packages are listed.
- All possible PINAO codes are listed in the following pages.
- For all intercom systems, the following impedances are standard: LOW IMPEDANCE → Microphone: 5 Ω (dynamic) / Headset: 8 Ω (military - EUROCOPTER typical)

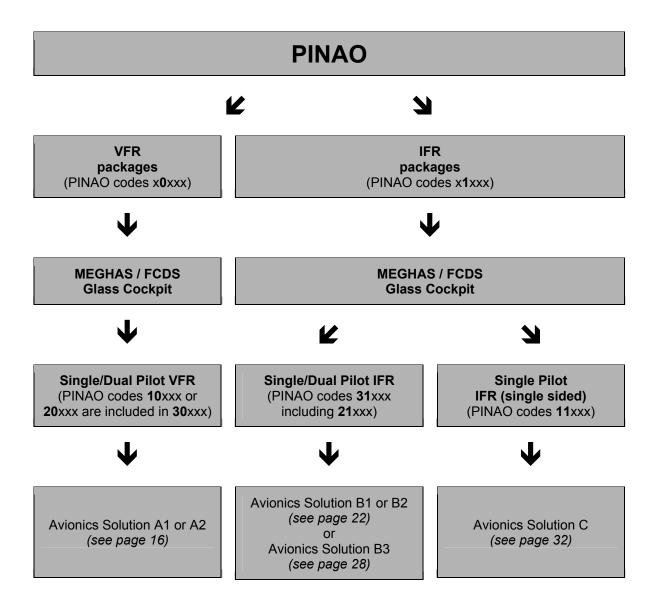
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# Use this diagram to find the appropriate Avionics Solution based on your individual PINAO selection.



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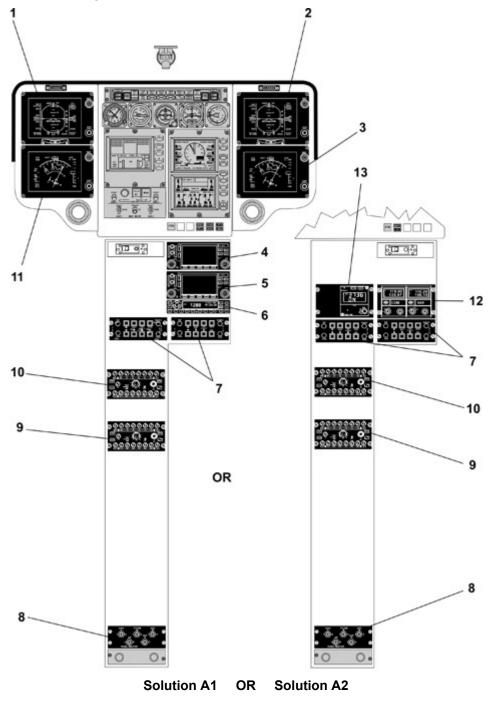
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# 4.1 VFR packages, based on Avionics Solutions A1 and A2

#### 4.1.1 Instrument panel overviews



- SMD 45 (copilot) PFD: Primary Flight Display 1
- SMD 45 (pilot) ND: Navigation Display 3
- GPS / NAV / COM (copilot) GNS 430 GARMIN 5
- 7 ICP's: MEGHAS Instrument Control Panels
- Audio / Comm. control unit ACU6100 (copilot) 9
- 11 SMD 45 (copilot) ND: Navigation Display
- 13 Transponder control unit

- SMD 45 (pilot) PFD: Primary Flight Display GPS / NAV / COM (pilot) GNS 430 (GARMIN) 2
- 4
- Transponder GTX 330 (GARMIN) 6
- 8 RCU: MEGHAS Reconfiguration Control Unit
- 10 Audio / Comm. control unit ACU 6100 (pilot)
- 12 NAV / COM system control units

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# 4.1.2 Contents of Avionics Solution A1

Document reference	Commercial reference	Title						
-	B2300-004-00	Avionics Solution A1, consisting of:						
Intercom System								
08-16054-D	B2341-190-01	Audio/Comm. control system (pilot and copilot) 2x ACU 6100 and Remote Electronic Unit REU 6100 (BECKER)						
08-16054-D	B2341-293-01	IC amplifier IC 3100-4-01 (BECKER)						
Transponder								
08-22031-B	B2325-092-00	Transponder (Mode S) GTX 330 (GARMIN)						
GPS/NAV/CC	рМ							
08-43026-B	B3442-092-00	GPS / NAV / COM system GNS 430, pilot (interfaced with MEGHAS / FCDS)						
08-43026-B	B3442-091-00	GPS / NAV / COM system GNS 430, copilot / 2 <sup>nd</sup> system (VOR/ILS interfaced to MEGHAS / FCDS, GPS stand alone)						
Display syster	m							
08-65005-B	B3161-090-09	MEGHAS - Flight Control Display System (FCDS) Dual (4xSMD45)						
Miscellaneous	S							
08-99000-A	B0000-150-04	Avionics Solution A1 interconnection / wiring						
-	B2577-001-00	Battery relocation to the rear						

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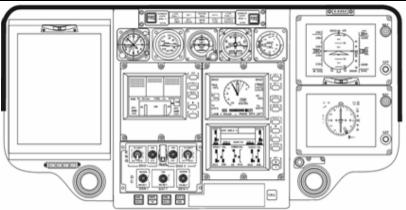




#### 4.1.3 **Contents of Avionics Solution A2**

Document reference	Commercial reference	Title
-	B2300-001-00	Avionics Solution A2, consisting of:
VHF/AM CON		
08-11026-A	B2313-092-01 B2313-092-34	VHF-AM / COM system, pilot VCS-40A (CHELTON/WULFSBERG) Control unit CD-402B, pilot for VCS-40A (CHELTON/WULFSBERG)
Intercom Syst	em	
08-16054-D	B2341-190-01	Audio/Comm. control system (pilot and copilot) 2x ACU 6100 and Remote Electronic Unit REU 6100 (BECKER)
08-16054-D	B2341-293-01	IC amplifier IC 3100-4-01 (BECKER)
Transponder		
08-22014-A	B2325-092-06 B2325-092-36	Transponder (Mode S) MST 67A (HONEYWELL) Transponder control unit PS 578A (HONEYWELL)
VOR/ILS/MKF	R receivers	
08-26012-A	B3432-092-01	VOR/ILS/MKR Navigation system, pilot VNS-41A (CHELTON / WULFSBERG)
	B3432-092-34	Control unit CD 412 B, pilot for VNS-41A (CHELTON / WULFSBERG)
Display syster	n	
08-65005-B	B3161-090-09	MEGHAS - Flight Control Display System (FCDS) Dual (4xSMD45)
Miscellaneous		
08-99000-A	B0000-150-01	Avionics Solution A2 interconnection / wiring
-	B2577-001-00	Battery relocation to the rear

- ON REQUEST: NVG friendly version of Avionics Solutions A1 and A2
  - Exchange of 2x SMD45 on copilot side to one SMD68







# 4.1.4 Minimum required equipment for Avionics Solutions A1 and A2

Minimum required equipment for Avionics Solutions A1 and A2					F	PINAC		
Document reference	Commercial reference			Weight (margin ± 3 %) kg Ib		30010	30100	30110
05-37018-A	B6701-001-00	Copilot flight controls	6.5	14.3	Х	X	X	X
05-38011-A	B3111-001-03	7" copilot instrument panel with glare shield	1.7	3.7	Х	X	X	X
05-41005-A	B2104-100-00	Bleed air heating system <sup>1</sup>	14.2	31.3	Х	Χ	Χ	X
05-43008-A	B2576-003-00	Ventilation for avionics compartment	0.7	1.5	Х	X	X	X
05-61005-A	B2433-002-00	Battery, type Saft, ULM, 40 Ah instead of standard battery 27 Ah	3.4	7.0	x	x	х	X
05-68002-A	B3343-003-00	Additional electrical unit for Landing & search light, 400 / 200 W, SX16 or mirrors	1.5	3.1			х	X
06-45026-A	B3343-006-00	Landing & search light, 400 / 200 W	4.5	9.9			X	X
08-00011-A	B2300-004-00	Avionics Solution A1	75.7	166.9				
		or			X	X	X	X
08-00008-A	B2300-001-00	Avionics Solution A2	80.7	177.9				
08-21016-A	B3441-090-04	Radar altimeter KRA 405B (HONEYWELL)	3.0	6.6		X	X	X
08-53003-A	B2212-300-00	MEGHAS sensor kit	20.8	45.9	X	X	X	X

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 $<sup>^{\</sup>rm 1}$  Only required for operation below 10° OAT

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# 4.1.5 **Possible add-ons for Avionics Solution A1 and A2**

Possible add-ons for Avionics Solutions A1 and A2					F		C	
Document reference	Commercial reference		Weight (margin ± 3 %) kg Ib		30000	30010	30100	30110
06-67045-A	B2563-801-06	ELT C406-N HM (ARTEX) incl. NAV. Option (if Avionics Solution A2 is selected, a GPS system is required)	3.9	8.6		x	x	x
08-21016-A	B3441-090-04	Radar altimeter KRA 405B (HONEYWELL)	3.0	6.6	Х			
08-24016-B	B3452-002-00 B3452-092-34	ADF system DFS-43A (CHELTON/WULFSB.) ADF control unit CD-432B (CHELTON / WULFSBERG)	7.3 1.5	16.1 3.3	x	x	Х	x
08-43012-A	B3442-092-13	GPS NAV system 2101 I/O Approach plus NVG (FREE FLIGHT) <sup>2</sup>	3.8	8.4	x	x	x	x
08-72002-B	B2212-001-00	Automatic Flight Control System - AFCS (Radar altimeter required)	31.4	69.2	x	x	х	x
08-81025-A	B3132-001-10 B3132-001-20	<i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), fixed provisions <i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), detachable parts, ground station not included	8.8 7.2	19.4 15.9	x	x	x	x

# 4.1.6 Further avionics add-ons see chapter 6 page 45

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<sup>&</sup>lt;sup>2</sup> Only possible for Avionics Solution A2

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<sup>145.06.101.02</sup> E 20





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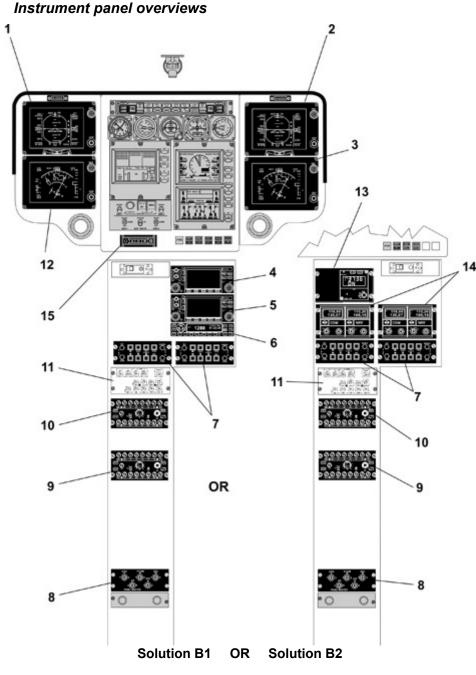
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4.2.1



# 4.2 Dual pilot or Single/Dual Pilot IFR, based on Avionics Sol. B1 and B2



- 1 SMD 45 (copilot) PFD: Primary Flight Display
- 3 SMD 45 (pilot) ND: Navigation Display
- 5 GPS / NAV / COM (copilot) GNS 430 GARMIN
- 7 ICP's: MEGHAS Instrument Control Panels
- 9 Audio / Comm. control unit ACU6100 (copilot)
- 11 Autopilot control unit
- 13 Transponder control unit
- 15 Marker beacon receiver / lights

- 2 SMD 45 (pilot) PFD: Primary Flight Display
- 4 GPS / NAV / COM (pilot) GNS 430 (GARMIN)
- 6 Transponder GTX 330 (GARMIN)
- 8 RCU: MEGHAS Reconfiguration Control Unit
- 10 Audio / Comm. control unit ACU 6100 (pilot)
- 12 SMD 45 (copilot) ND: Navigation Display
- 14 NAV / COM system control units

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#### 4.2.2 **Contents of Avionics Solution B1**

Document reference	Commercial reference	Title
-	B2300-005-00	Avionics Solution B1, consisting of
Intercom Syst	em	
08-16054-D	B2341-190-01	Audio/Comm. control system (pilot and copilot) 2x ACU 6100 and Remote Electronic Unit REU 6100 (BECKER)
08-16054-D	B2341-293-01	IC amplifier IC 3100-4-01 (BECKER)
Transponder		
08-22031-B	B2325-092-00	Transponder (Mode S) GTX 330 (GARMIN)
DME		
08-25016-A	B3455-002-00	Distance Measuring Equipment DMS-44A (CHELTON / WULFSBERG)
VOR/ILS/MKF	R receivers	
08-26027-B	B3431-090-01	Marker Beacon receiver / lights KR 21 (HONEYWELL)
GPS/NAV/CC	)M	
08-43026-B	B3442-092-00	GPS / NAV / COM system GNS 430, pilot (interfaced with MEGHAS / FCDS)
08-43026-B	B3442-091-00	GPS / NAV / COM system GNS 430, copilot / 2 <sup>nd</sup> system (VOR/ILS interfaced to MEGHAS / FCDS, GPS stand alone)
Display syster	m	
08-65005-B	B3161-090-09	MEGHAS - Flight Control Display System (FCDS) Dual (4xSMD45)
Miscellaneous	5	·
08-99000-A	B0000-150-05	Avionics Solution B1 interconnection / wiring
-	B2577-001-00	Battery relocation to the rear

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. 23



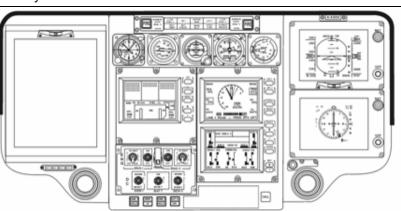


# 4.2.3 Contents of Avionics Solution B2

Document reference	Commercial reference	Title
-	B2300-002-00	Avionics Solution B2, consisting of:
VHF/AM COM		
08-11026-A	B2313-092-01 B2313-092-34	VHF-AM / COM system, pilot VCS-40A (CHELTON/WULFSBERG) Control unit CD-402B, pilot for VCS-40A (CHELTON/WULFSBERG)
08-11026-A	B2313-091-01 B2313-091-34	VHF-AM / COM system,copilot VCS-40A CHELTON/WULFSBERG Control unit CD-402B,copilot for VCS-40A CHELTON/WULFSBERG
Intercom System		
08-16054-D	B2341-190-01	Audio/Comm. control system (pilot and copilot) 2x ACU 6100 and Remote Electronic Unit REU 6100 (BECKER)
08-16054-D	B2341-293-01	IC amplifier IC 3100-4-01 (BECKER)
Transponder		
08-22014-A	B2325-092-06 B2325-092-36	Transponder (Mode S) MST 67A (HONEYWELL) Transponder control unit PS 578A (HONEYWELL)
DME		
08-25016-A	B3455-002-00	Distance Measuring Equipment DMS-44A (CHELTON / WULFSB.)
VOR/ILS/MKR re	ceivers	
08-26012-A	B3432-092-01	VOR/ILS/MKR Navigation system, pilot VNS-41A (CHELTON / WULFSBERG)
	B3432-092-34	Control unit CD 412 B, pilot for VNS-41A (CHELTON / WULFSB.)
08-26012-A	B3432-091-01	VOR/ILS/MKR Navigation system, copilot VNS-41A (CHELTON / WULFSBERG)
	B3432-091-34	Control unit CD 412 B, copilot for VNS-41A (CHELTON / WULFSB.)
Display system		
08-65005-B	B3161-090-09	MEGHAS - Flight Control Display System (FCDS) Dual (4xSMD45)
Miscellaneous		
08-99000-A	B0000-150-02	Avionics Solution B2 interconnection / wiring
-	B2577-001-00	Battery relocation to the rear

ON REQUEST:

- NVG friendly version of Avionics Solutions B1 and B2
- Exchange of 2x SMD45 on copilot side to one SMD68







# 4.2.4 Minimum required equipment for Avionics Solutions B1 and B2

Minimum required equipment for Avionics Solutions B1 and B2						PINA	
Document reference	Commercial reference	Title		ight n ± 3 %) Ib	31100	31110	31111
06-65005-A	B2625-003-00	2nd portable fire extinguisher	2.6	5.7			х
05-37018-A	B6701-001-00	Copilot flight controls	6.5	14.3	х	х	x
05-38011-A	B3111-001-03	7" copilot instrument panel with glare shield	1.7	3.7	х	х	х
05-39009-A	B2514-003-01	Map case in copilot door	0.5	1.1	х	х	х
05-39011-A	B3113-004-20	Illuminated chart holder, pilot side	1.1	2.4			х
05-41005-A	B2104-100-00	Bleed air heating system	14.2	31.3	х	х	x
05-43008-A	B2576-003-00	Ventilation for avionics compartment	0.7	1.6	х	х	х
05-61005-A	B2433-002-00	Battery, type Saft, ULM, 40 Ah instead of standard battery 27 Ah	3.4	7.5	x	x	x
05-68002-A	B3343-003-00	Additional electrical unit for Landing & search light, 400 / 200 W, SX16 or mirrors	1.5	3.3	x	x	x
06-45026-A	B3343-006-00	Landing & search light, 400 / 200 W	4.5	9.9	х	х	х
06-67045-A	B2563-801-06	ELT C406-N HM (ARTEX) incl. NAV. option (if Avionics Solution B2 is selected, a GPS system is required)	3.9	8.6			x
08-00012-A	B2300-005-00	Avionics Solution B1	83.3	183.6			
		or			х	х	x
08-00009-A	B2300-002-00	Avionics Solution B2	96.5	212.7			
08-21016-A	B3441-090-04	Radar altimeter KRA 405B (HONEYWELL)	3.0	6.6	х	х	x
08-53003-A	B2212-300-00	MEGHAS sensor kit	20.8	45.9	х	х	х
08-72002-B	B2212-001-00	Automatic Flight Control System - AFCS	31.4	69.2	х	х	х
08-81025-A	B3132-001-10 B3132-001-20	M'ARMS® Cockpit Voice and Flight Data Recorder (CVFDR), fixed provisions M'ARMS® Cockpit Voice and Flight Data	8.8 7.2	19.4 15.9			x
		Recorder (CVFDR), detachable parts, ground station not included					

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# 4.2.5 **Possible add-ons for Avionics Solution B1 and B2**

Possible add-ons for Avionics Solutions B1 and B2					P	INA	0
Document reference	Commercial reference	Title	<b>Weight</b> (margin ± 3 %		31100 31110	31110	31111
Telefence	reierence	The	kg	lb			
06-67045-A	B2563-801-06	ELT C406-N HM (ARTEX) incl. NAV. Option (if Avionics Solution B2 is selected, a GPS system is required)	3.9	8.6	x	x	
08-24016-A	B3452-002-00 B3452-092-34	ADF system DFS-43A (CHELTON/WULFSB.) ADF control unit CD-432B (CHELTON / WULFSBERG)	7.3 1.5	16.1 3.3	x	x	x
08-43012-A	B3442-092-13	GPS NAV system 2101 I/O Approach plus – NVG (FREE FLIGHT) <sup>3</sup>	3.8	8.4	x	x	x
08-81025-A	B3132-001-10 B3132-001-20	<i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), fixed provisions <i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), detachable parts, ground station not included	8.8 7.2	19.4 15.9	x	x	

4.2.6 Further avionics add-ons see chapter 6 page 41

<sup>&</sup>lt;sup>3</sup> Only possible for Avionics Solution B2

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For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents. 145.06.101.02 E 26





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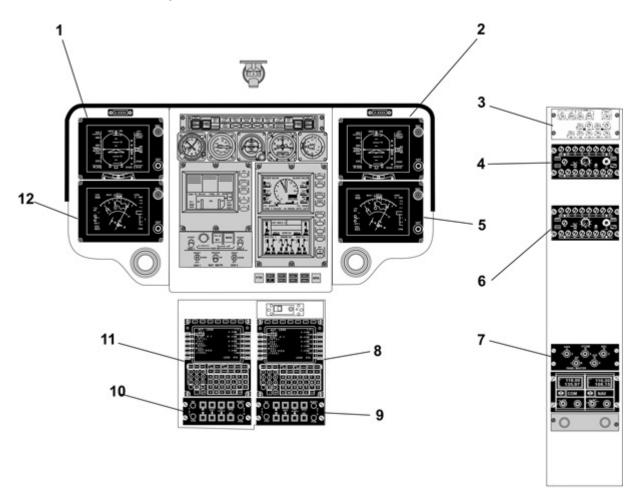
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#### Dual pilot or Single/Dual Pilot IFR with Dual FMS/NMS (Av. Sol. B3) 4.3

#### 4.3.1 Instrument panel overview



- SMD 45 (copilot) PFD: Primary Flight Display 1
- 2
- SMD 45 (pilot) PFD: Primary Flight Display Autopilot (AFCS) control unit (minimum required equipment) 3
- Audio / Comm. control unit ACU 6100 (pilot) 4
- 5 SMD 45 (pilot) ND: Navigation Display
- 6 Audio / Comm. control unit ACU 6100 (copilot)
- 7 RCU : MEGHAS Reconfiguration Control Unit
- 8 Navigation Management System CMA-9000 (pilot)
- 9/10 ICP's: MEGHAS Instrument Control Panels
- 11 Navigation Management System CMA-9000 (copilot)
- SMD 45 (copilot) ND: Navigation Display 12

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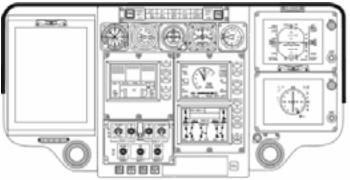
# 4.3.2 Contents of Avionics Solution B3

Document reference	Commercial reference	Title
-	B2300-006-00	Avionics Solution B3, consisting of:
VHF/AM COM		
08-11026-A	B2313-092-01 B2313-092-34	VHF-AM / COM system, pilot VCS-40A (CHELTON/WULFSBERG) Control unit CD-402B, pilot for VCS-40A (CHELTON/WULFSBERG)
08-11026-A	B2313-091-01	VHF-AM / COM system, copilot VCS-40A CHELTON/WULFSBERG
Intercom System		
08-16054-D	B2341-190-01	Audio/Comm. control system (pilot and copilot) 2x ACU 6100 and Remote Electronic Unit REU 6100 (BECKER)
08-16054-D	B2341-293-01	IC amplifier IC 3100-4-01 (BECKER)
Transponder		
08-22014-A	B2325-092-06	Transponder (Mode S) MST 67A (HONEYWELL)
DME		
08-25016-A	B3455-002-00	Distance Measuring Equipment DMS-44A (CHELTON / WULFSB.)
VOR/ILS/MKR re	eceivers	
08-26012-A	B3432-092-01	VOR/ILS/MKR Navigation system, pilot VNS-41A (CHELTON / WULFSBERG)
	B3432-092-34	Control unit CD 412 B, pilot for VNS-41A (CHELTON / WULFSB.)
08-26012-A	B3432-091-01	VOR/ILS/MKR Navigation system, copilot VNS-41A (CHELTON / WULFSBERG)
FMS		
08-44026-A	B2312-026-40	Flight-/ Navigation- / Radio management system (CMA 9000) - <sup>4</sup> Dual (CMC ELECTRONICS)
	B3442-004-04	GPS sensor module CMA-3024 for CMA-9000 (CMC ELECTRONICS)
Display system		
08-65005-B	B3161-090-09	MEGHAS - Flight Control Display System (FCDS) Dual (4xSMD45)
Miscellaneous		
08-99000-A	B0000-150-06	Avionics Solution B3 interconnection / wiring
-	B2577-001-00	Battery relocation to the rear

# ON REQUEST:

- NVG friendly version of Avionics Solution B3

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



 $^{\rm 4}$  VHF-AM COM, VHF-NAV and ATC transponder are controlled via CMA-9000

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For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents. 145.06.101.02 E 29





#### Minimum required equipment for Avionics Solution B3 4.3.3

Minimum required equipment for Avionics Solutions B3						PINA		
Document	Commercial		<b>Weight</b> (margin ± 3 %)			31110	1111	
reference	reference	Title	kg	lb	e	ო	e	
06-65005-A	B2625-003-00	2nd portable fire extinguisher	2.6	5.7			Χ	
05-37018-A	B6701-001-00	Copilot flight controls	6.5	14.3	Х	Χ	Χ	
05-38011-A	B3111-001-03	7" copilot instrument panel with glare shield	1.7	3.7	Х	Χ	Χ	
05-39009-A	B2514-003-01	Map case in copilot door	0.5	1.1	Х	X	X	
05-39011-A	B3113-004-20	Illuminated chart holder, pilot side	1.1	2.4			Χ	
05-41005-A	B2104-100-00	Bleed air heating system	14.2	31.3	Х	Х	Х	
05-43008-A	B2576-003-00	Ventilation for avionics compartment	0.7	1.6	Х	Х	Χ	
05-61005-A	B2433-002-00	Battery, type Saft, ULM, 40 Ah instead of standard battery 27 Ah	3.4	7.5	x	x	x	
05-68002-A	B3343-003-00	Additional electrical unit for Landing & Search light, 400 / 200 W, SX16 or mirrors	1.5	3.3	x	x	x	
06-45026-A	B3343-006-00	Landing & Search light, 400 / 200 W	4.5	9.9	X	Х	Х	
06-67045-A	B2563-801-06	ELT C406-N HM (ARTEX) incl. NAV. option	3.9	8.6			Х	
08-00013-A	B2300-006-00	Avionics Solution B3	112.0	246.9	X	Х	X	
08-21016-A	B3441-090-04	Radar altimeter KRA 405B (HONEYWELL)	3.0	6.6	X	Х	X	
08-53003-A	B2212-300-00	MEGHAS sensor kit	20.8	45.9	Х	Х	Х	
08-72002-B	B2212-001-00	Automatic Flight Control System - AFCS	31.4	69.2	X	X	Χ	
08-81025-A	B3132-001-10 B3132-001-20	<i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), fixed provisions <i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), detachable parts, ground station not included	8.8 7.2	19.4 15.9			x	

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# 4.3.4 Possible add-ons for Avionics Solution B3

Possible add-ons for Avionics Solutions B3					Р	INA	0
Document reference	Commercial reference	Title		ight ±3%) Ib	31100	31110	31111
06-67045-A	B2563-801-06	ELT C406-N HM (ARTEX) incl. NAV. Option	3.9	8.6	Χ	Х	
08-24016-A	B3452-002-00	ADF system DFS-43A (CHELTON / WULFSBERG) controlled via CMA-9000	7.3	16.1	x	x	x
08-81025-A	B3132-001-10 B3132-001-20	<i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), fixed provisions <i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), detachable parts, ground station not included	8.8 7.2	19.4 15.9	x	x	

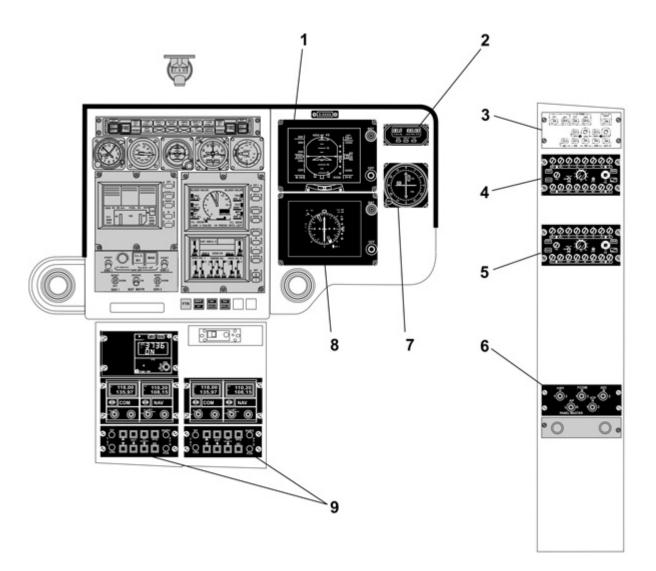
# 4.3.5 Further avionics add-ons see chapter 6 page 45





# 4.4 Single Pilot IFR, based on Avionics Solution C

#### 4.4.1 Instrument panel overview



- SMD 45 (pilot) PFD: Primary Flight Display 1
- 2 Back-up DME indicator SD 442 B
- 3 Autopilot control unit (minimum required equipment)
- Audio / Comm. control unit ACU 6100 (1<sup>st</sup> system)
   Audio / Comm. control unit ACU 6100 (2<sup>nd</sup> system)
- 6 RCU: MEGHAS Reconfiguration Control Unit
- 7 Back-up indicator (CDI) KI 204
- SMD 45 (pilot) ND: Navigation Display 8
- ICP's: MEGHAS Instrument Control Panels 9

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

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





### 4.4.2 Contents of Avionics Solution C

Document reference	Commercial reference	Title	
-	B2300-003-00	Avionics Solution C, consisting of:	
VHF/AM COM			
08-11026-A	B2313-092-01 B2313-092-34	VHF-AM / COM system, pilot VCS-40A (CHELTON/WULFSBERG Control unit CD-402B, pilot for VCS-40A (CHELTON/WULFSBERG	
08-11026-A	B2313-091-01 B2313-091-34	VHF-AM / COM system, copilot VCS-40A CHELTON/WULFSBERG Control unit CD-402B,copilot for VCS-40A CHELTON/WULFSBERG	
Intercom System			
08-16054-D	B2341-190-01	Audio/Comm. control system (pilot and copilot) 2x ACU 6100 and Remote Electronic Unit REU 6100 (BECKER)	
08-16054-D	B2341-293-01	IC amplifier IC 3100-4-01 (BECKER)	
Transponder			
08-22014-A	B2325-092-06 B2325-092-36	Transponder (Mode S) MST 67A (HONEYWELL) Transponder control unit PS 578A (HONEYWELL)	
DME			
08-25016-A	B3455-002-00	Distance Measuring Equipment DMS-44A (CHELTON / WULFSB.)	
VOR/ILS/MKR re	ceivers		
08-26012-A	B3432-092-01 B3432-092-34	VOR/ILS/MKR Navigation system, pilot VNS-41A (CHELTON / WULFSBERG) Control unit CD 412 B, pilot for VNS-41A (CHELTON / WULFSB.)	
08-26012-A	B3432-091-01 B3432-091-34	VOR/ILS/MKR Navigation system, copilot VNS-41A (CHELTON / WULFSBERG) Control unit CD 412 B, copilot for VNS-41A (CHELTON / WULFSB.)	
08-26012-A	B0000-200-12	Back-up CDI KI 204 (HONEYWELL) and Back-up DME indicator SD 442 B (CHELTON / WULFSBERG)	
Display system			
08-65005-B	B3161-092-02	MEGHAS - Flight Control Display System (FCDS) Single (2xSMD45)	
Miscellaneous			
08-99000-A	B0000-150-03	Avionics Solution C interconnection / wiring	
-	B2577-001-00	Battery relocation to the rear	

### ON REQUEST:

- NVG friendly version of Avionics Solution C

- SP IFR with Single sided GARMIN GNS430 version

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

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





#### 4.4.3 Minimum required equipment for Avionics Solution C

Minimum required equipment for Avionics Solutions C					PINAO		
Document	Commercial		<b>Weight</b> (margin ± 3 %)		11100	11110	1111
reference	reference	Title	kg	lb	11	1	1
06-65005-A	B2625-003-00	2nd portable fire extinguisher	2.6	5.7			X
05-39011-A	B3113-004-20	Illuminated chart holder, pilot side	1.1	2.4			Х
05-41005-A	B2104-100-00	Bleed air heating system	14.2	31.3	Х	Х	Х
05-43008-A	B2576-003-00	Ventilation for avionics compartment	0.7	1.6	Х	Х	Х
05-61005-A	B2433-002-00	Battery, type Saft, ULM, 40 Ah instead of standard battery 27 Ah	3.4	7.5	X	x	x
05-68002-A	B3343-003-00	Additional electrical unit for Landing & Search light, 400 / 200 W, SX16 or mirrors	1.5	3.3	X	x	x
06-45026-A	B3343-006-00	Landing & Search light, 400 / 200 W	4.5	9.9	Χ	Х	Х
06-67045-A	B2563-801-06	ELT C406-N HM (ARTEX) incl. NAV. option (GPS system required)	3.9	8.6			x
08-00010-A	B2300-003-00	Avionics Solution C	93.2	205.5	Х	Х	X
08-21016-A	B3441-090-04	Radar altimeter KRA 405B (HONEYWELL)	3.0	6.6	Х	Х	X
08-53003-A	B2212-300-00	MEGHAS sensor kit	20.8	45.9	Χ	Х	Х
08-72002-B	B2212-001-00	Automatic Flight Control System - AFCS	31.4	69.2	Χ	Х	Χ
08-81025-A	B3132-001-10 B3132-001-20	<i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), fixed provisions <i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), detachable parts, ground	8.8 7.2	19.4 15.9			x
		station not included					

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For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents. 34

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# 4.4.4 Possible add-ons for Avionics Solution C

Possible add-ons for Avionics Solutions C				PINAO			
Document reference	Commercial reference	Title	Wel (margin	ight ±3%) Ib	11100	11110	1111
06-67045-A	B2563-801-06	ELT C406-N HM (ARTEX) incl. NAV. Option (GPS system required)	<b>xy</b> 3.9	-	x	x	
08-24016-A	B3452-002-00 B3452-092-34	ADF system DFS-43A (CHELTON / WULFSBERG) ADF control unit CD-432B (CHELTON / WULFSBERG)	7.3 1.5	16.1 3.3	x	x	x
08-43012-A	B3442-092-13	GPS NAV system 2101 I/O Approach plus – NVG (FREE FLIGHT)	3.8	8.4	x	x	x
08-81025-A	B3132-001-10 B3132-001-20	<i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), fixed provisions <i>M'ARMS</i> ® Cockpit Voice and Flight Data Recorder (CVFDR), detachable parts, ground station not included	8.8 7.2		X	x	

### 4.4.5 Further avionics add-ons see chapter 6 page 45





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# 5 Cabin arrangement

### 5.1 Passenger transport

### 5.1.1 Eight (8) corporate passenger cabin configuration



Weight (margin ± 3 %)

Document reference	Commercial reference	Title	kg	lb
06-65005-A	B2625-003-00	2nd portable fire extinguisher (cabin floor mounted)	2.6	5.7
07-27003-A	B2523-002-00	Club seating (8 pax), energy absorbing individual seats	90.4	199.3
07-81021-A	B2512-100-00	Modification of pilot and copilot seat with leather, restraint system in matching color	0.0	0.0
07-81021-A	B2523-100-00	Modification of passenger seats (8 club seats) with leather, restraint system in matching color	0.0	0.0
07-83008-A	B2525-001-00	Carpet for cockpit, cabin and cargo compartment	14.5	31.9

### 5.1.2 Variations of the corporate passenger cabin configuration

In order to adapt to individual needs, above corporate package can be modified on customer's request. Possible variations would include cabinets, leather covered interior and swiveling seats.

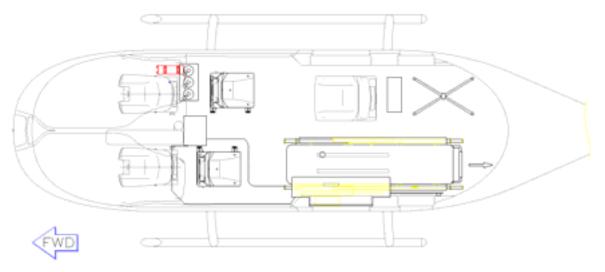
The data set forth in this document are general in nature and for information purposes only.





# 5.2 EMS equipment

### 5.2.1 Basic EMS kit - Aerolite (STC)



#### 5.2.1.1 Content

Weight

(margin ± 3	%)
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Document reference	Commercial reference	Title	kg	lb
07-70010-A	AG-X982-4c	<ul> <li>Basic EMS kit - Aerolite (STC) consisting of:</li> <li>Cabin Floor Lining Kit</li> <li>Stationary Med Seat RH</li> <li>Stationary Med Seat LH</li> <li>Primary Stretcher Kit</li> <li>Center Stowage Cabinet</li> <li>Med Supply Unit</li> <li>Med Oxygen System 3x3L</li> <li>Med Vacuum System (ATMOPORT N)</li> <li>IV Hook</li> <li>Strap Down Web</li> <li>Medical Retainer Set</li> <li>Cover for 1 (one) passenger seat</li> </ul>	140.5	309.1

#### 5.2.1.2 Minimum requirement equipment

Weight

(margin  $\pm 3\%$ )

Document reference	Commercial reference	Title	kg	lb
05-67015-A	B8522-001-00	Additional electrical interface for mission equipment	0.8	1.6
05-68001-A	B3113-011-00	Additional circuit breaker panel	5.2	11.5
07-27003-A	B2523-002-22	1 passenger club seat, middle row, RH	11.7	25.7
07-75020-A	B2514-300-00	Airline style attachment rails (LH and RH cabin ceiling)	3.4	7.5
07-90016-A	B2524-008-11	Multi-purpose fittings in cabin, LH	3.0	6.6
07-90016-A	B2524-008-12	Multi-purpose fittings in cabin, RH	3.0	6.6

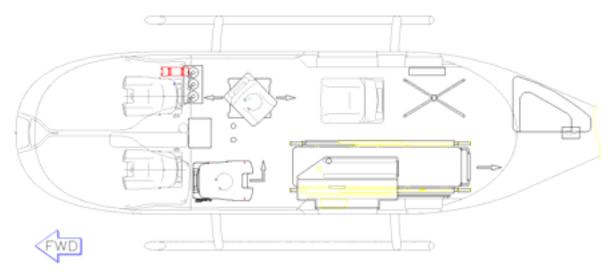
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#### Mid range EMS kit - Aerolite (STC) 5.2.2



5.2.2.1 Content

Weight

(margin  $\pm$  3 %)

Document reference	Commercial reference	Title	kg	lb
07-70011-A	AG-X982-5c	Mid range EMS kit - Aerolite (STC) consisting of: Cabin Floor Lining Kit Slide&Swivel Med Seat RH Slide&Swivel Med Seat LH Primary Stretcher Kit Secondary Stretcher Kit Center Stowage Cabinet Rear Door Stowage Box Med Supply Unit Overhead Compartment Med Oxygen System 3x3L Lighting System Med Vacuum System (ATMOPORT N) IV Hook Strap Down Web Medical Retainer Set Cover for 1 (one) passenger Seat	182.0	400.4

#### 5.2.2.2 Minimum requirement equipment

Weight

(*margin* ± 3 %)

Document reference	Commercial reference	Title	kg	lb
05-67015-A	B8522-001-00	Additional electrical interface for mission equipment	0.8	1.6
05-68001-A	B3113-011-00	Additional circuit breaker panel	5.2	11.5
07-27003-A	B2523-002-22	1 passenger club seat, middle row, RH	11.7	25.7
07-75020-A	B2514-300-00	Airline style attachment rails (LH and RH cabin ceiling)	3.4	7.5
07-90016-A	B2524-008-11	Multi-purpose fittings in cabin, LH	3.0	6.6
07-90016-A	B2524-008-12	Multi-purpose fittings in cabin, RH	3.0	6.6
	The data set fo	rth 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. 39

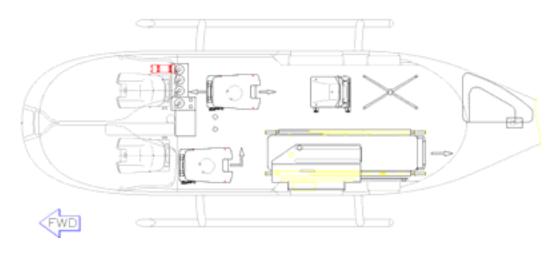
145.06.101.02 E

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### 5.2.3 High sophisticated EMS kit - Aerolite (STC)



Weight

(margin ± 3 %)

Document reference	Commercial reference	Title	kg	lb
07-70014-A	AG-X982-6c	<ul> <li>High sophisticated EMS kit - Aerolite (STC) consisting of:</li> <li>Integral Floor Kit</li> <li>Slide&amp;Swivel Med Comfort Seat RH</li> <li>Slide&amp;Swivel Med Comfort Seat LH</li> <li>Intensive Care Stretcher</li> <li>Center Stowage Cabinet</li> <li>Rear Door Stowage Box</li> <li>Med Supply Unit</li> <li>Overhead Compartment</li> <li>Med Oxygen System 3x3L</li> <li>Med Air System 1x3L</li> <li>Lighting Battery Kit</li> <li>Med Vacuum System (ATMOPORT N)</li> <li>IV Hook</li> <li>Strap Down Web</li> <li>Medical Retainer Set</li> <li>Cover for 1 (one) passenger Seat</li> </ul>	222.6	489.7

#### 5.2.3.2 Minimum requirement equipment

. .

Weight

(margin  $\pm$  3 %)

Document reference	Commercial reference	Title	kg	lb
05-67015-A	B8522-001-00	Additional electrical interface for mission equipment	0.8	1.6
05-68001-A	B3113-011-00	Additional circuit breaker panel	5.2	11.5
07-27003-A	B2523-002-22	1 passenger club seat, middle row, RH	11.7	25.7
07-75020-A	B2514-300-00	Airline style attachment rails (LH and RH cabin ceiling)	3.4	7.5
07-90016-A	B2524-008-11	Multi-purpose fittings in cabin, LH	3.0	6.6
07-90016-A	B2524-008-12	Multi-purpose fittings in cabin, RH	3.0	6.6

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# 6 Optional equipment

## 6.1 Shopping list

#### General Equipment

# Weight

(margin ± 3 %)

Document reference	Commercial reference	Title	kg	lb
05-02020-A	B1111-002-00	Two-color external painting instead of single color painting	2.0	4.4
05-02020-A	B1111-003-00	Multicolor external painting instead of single color painting	3.0	6.6
05-02029-A	B1112-001-00	High visibility paint scheme for main rotor blades (3 concentric rings on top of blades)	0.0	0.0
05-21016-A	B8541-001-10	Wire strike protection system, fixed provisions	3.8	8.4
05-21016-A	B8541-001-20	Wire strike protection system, detachable parts	7.9	17.4
05-22004-A	B7924-001-00	Fuzz burner for engines	1.1	2.4
05-22005-A	B7924-002-00	Fuzz burner for tail rotor and intermediate gearbox (chip detectors included)	1.1	2.4
05-22006-A	B7924-003-00	Chip detectors tail rotor and intermediate gearbox	0.9	2.0
05-22015-A	B6343-001-00	Fuzz burner for main transmission	1.1	2.4
05-22016-A	B7922-001-00	Scavenge oil filter	1.8	4.0
05-23007-A	B7165-002-00	Engine compressor washing device	1.7	3.7
05-25017-A	B7161-001-10	Sand filter system, fixed provisions	5.2	11.5
05-25017-A	B7161-001-20	Sand filter system, detachable parts	32.7	72.1
05-31029-A	B2514-002-00	Tinted sun shades for cockpit windshield roof section	2.1	4.6
05-31030-A	B2524-030-10	IFR - training screen, fixed provisions	0.1	0.2
05-31030-A	B2524-030-20	IFR - training screen, detachable parts	2.1	4.6
05-31032-A	B5213-001-11	Sliding door fastener, intermediate and max. position, LH (required for flight with open doors)	0.4	0.9
05-31032-A	B5213-001-21	Sliding door fastener, intermediate and max. position, RH (required for flight with open doors)	0.4	0.9
05-31034-A	B5633-001-10	Window in clam-shell door, LH	0.3	0.7
05-31034-A	B5633-001-20	Window in clam-shell door, RH	0.3	0.7
05-31046-A	B5632-002-00	Push-out cabin windows	3.0	6.6
05-36008-A	B8532-002-30	Multifunction step LH for standard landing gear (instead of standard boarding step)	3.4	7.5
05-36008-A	B8532-002-40	Multifunction step RH for standard landing gear (instead of standard boarding step)	3.4	7.5
05-37018-A	B6701-001-00	Copilot flight controls	6.5	14.3
05-37019-A	B6721-001-00	Pedal cover for copilot flight controls	0.3	0.7
05-39009-A	B2514-003-01	Map case in copilot door	0.5	1.1

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



General Equipment (contd.)



Weight (margin ± 3 %)

Document reference	Commercial reference	Title	kg	lb
05-39010-A	B3111-001-10	Map case on instrument panel glare shield	0.6	1.3
05-39011-A	B3113-004-10	Illuminated chart holder, copilot side	1.1	2.4
05-39011-A	B3113-004-20	Illuminated chart holder, pilot side	1.1	2.4
05-41005-A	B2104-100-00	Bleed air heating system	14.2	31.3
05-42022-A	B2105-001-00	Air conditioning/cooling system – Metro (STC)	51.2	112.9
05-61005-A	B2433-002-00	Battery, type "Saft", ULM, 40 Ah, 24 V instead of standard battery	3.4	7.5
05-61005-A	B2433-003-00	Battery, type "Saft", ULM, 44 Ah, 24 V instead of standard battery	6.9	15.2
05-68001-A	B3113-011-00	Additional circuit breaker panel	5.2	11.5
05-68002-A	B3343-003-00	Additional electrical unit for Landing & search light, 400 / 200 W, SX16 or mirrors	1.5	3.3
05-81034-A	B2818-100-10	Internal long range fuel tank system, fixed provisions	2.3	5.1
05-81034-A	B2818-100-20	Internal long range fuel tank system, detachable parts	38.0	83.8
05-85007-A	B7321-001-00	Fuel management system (Fuel flow meters)	1.0	2.2
05-92015-A	B6611-001-10	Main rotor blade folding, basic kit	0.3	0.7
05-92015-A	B6611-001-20	Main rotor blade folding, fixed provisions for ground handling kit	0.5	1.1
05-92015-A	B6611-001-30	Main rotor blade folding, ground handling kit	15.0	33.1
05-93009-A	B8544-001-10	Lashing points (wind speeds up to 60 kts)	1.3	2.8
05-93010-A	B8544-002-00	Lashing points (wind speeds up to 100 kts), incl. 0.9 kg of GSE	4.4	9.7

#### Specific Mission Equipment

### Weight

(margin  $\pm$  3 %)

Document reference	Commercial reference	Title	kg	lb
06-11023-A	B3272-001-20	Snow skids	22.8	50.3
06-11024-A	B3274-001-10	Settling protectors, fixed provisions	0.1	0.2
06-11024-A	B3274-001-20	Settling protectors, detachable parts	8.1	17.9
06-21019-A	B8512-001-10	External hoist, LH, fixed provisions (in combination with emergency floats 12.4 kg / 27.3 lb, if fixed prov. on both LH and RH side, weight has to be checked)	9.8	21.6
06-21019-A	B8512-001-11	External hoist, RH, fixed provisions (in combination with emergency floats 12.8 kg / 28.2 lb, if fixed prov. on both LH and RH side, weight has to be checked)	10.5	23.2
06-21019-A	B8512-001-20	External hoist (without hook), detachable parts (incl. 1 week winch operator training)	65.2	143.7
06-21019-A	B8512-001-21	External hoist hook	3.6	7.9

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





### Specific Mission Equipment (contd.)

Weight (margin ± 3 %)

Document reference	Commercial reference	Title		lb
06-21020-A	B8512-002-11	External hoist observation light, LH, fixed provisions	0.7	1.5
06-21020-A	B8512-002-12	External hoist observation light, RH, fixed provisions	0.7	1.5
06-21020-A	B8512-002-20	External hoist observation light, detachable parts	0.8	1.7
06-21026-A	B8512-001-22	External hoist hook damper floating device	0.4	0.9
06-24011-A	B8534-003-11	Rope-down device for 2 persons, LH, fixed provisions (in combination with emergency floats 4.9 kg / 10.8 lb)	2.2	4.8
06-24011-A	B8534-003-12	Rope-down device for 2 persons, RH, fixed provisions (in combination with emergency floats 4.9 kg / 10.8 lb)	2.2	4.8
06-24011-A	B8534-003-21	Rope-down device for 2 persons, LH, detachable parts (operation cannot be civil certified)	15.2	33.5
06-24011-A	B8534-003-22	Rope-down device for 2 persons, RH, detachable parts (operation cannot be civil certified)	15.2	33.5
06-26012-A	B8511-002-10	Cargo hook mirrors, fixed provisions (additional electrical unit required)	0.5	1.1
06-26012-A	B8511-002-20	Cargo hook mirrors, detachable parts	3,8	8,4
06-26012-A	B8511-002-21	Cover for cargo hook mirrors (required for operation at night with search or landing lights in use)	0.4	0.9
06-27028-A	B8511-005-10	Cargo hook system (sling type), fixed provisions	9.3	20.5
06-27028-A	B8511-005-20	20 Cargo hook system (sling type), detachable parts		19.6
06-27029-A	B8511-003-10	03-10 Cargo hook weighing system (sling type), fixed provisions		0.9
06-27029-A	B8511-003-20	Cargo hook weighing system (sling type), detachable parts	1.8	4.0
06-27030-A	B8511-008-10	Double cargo hook (fixed beam), fixed provisions (additional circuit breaker panel required)	6.9	15.2
06-27030-A	B8511-008-20	Double cargo hook system (fixed beam), detachable parts	21.4	47.2
06-27031-A	B8511-091-10	Double cargo hook weighing system, fixed provisions	0.4	0.9
06-27031-A	B8511-091-20	Double cargo hook weighing system, detachable parts	1.8	4.0
06-31014-A	B8531-001-00	External loudspeaker system with siren	10.1	22.3
06-40001-A	B3349-001-00	Tail flood lights for tail rotor and clam-shell doors (additional circuit breaker panel required)	1.3	2.9
06-41015-A	B3342-001-00	LED Anti-Collision Light (ACL) instead of standard version	0.0	0.0
06-42018-A	B3343-001-50	Additional landing light, cross tube mounted LH, 250 W (additional circuit breaker panel required)	1.2	2.6
06-45026-A	B3343-006-00	Landing & search light 400/200 W, NVG compatible (additional electrical unit required)	4.5	9.9
06-45027-A	B3346-004-10	Search light SX16, LH multi function step mounted, fixed provisions (additional electrical unit required)	5.3	11.7
06-45027-A	B3346-004-20	Search light SX16, LH multi function step mounted, detachable parts (w/o vendor parts)	10.2	22.5
06-45027-A	B3346-500-20	Search light SX16, with infrared filter, vendor parts	29.8	65.7

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Specific Mission Equipment (contd.)



# Weight

(margin ± 3 %)

				,
Document reference	Commercial reference	Title	kg	lb
06-46004-A	B3344-001-10	Strobe lights, white	2.0	4.4
06-61017-A	B3215-001-10	Emergency floats, fixed provisions	1.8	4.0
06-61017-A	B3215-001-20	Emergency floats, detachable parts	64.3	141.8
06-65003-A	B2566-001-00	Emergency hammer	0.2	0.5
06-65005-A	B2625-003-00	2nd portable fire extinguisher (cabin floor mounted)	2.6	5.7
06-66002-A	B3353-015-00	Helicopter Emergency Egress Lighting (HEEL)	4.4	9.7
06-66011-A	B3353-006-00	Illuminated signs "NO SMOKING/FASTEN SEAT BELT"	0.2	0.4
06-67048-A	B2563-031-00	Underwater Locator Beacon (ULB)		0.7
06-67049-A	B2563-812-00	Automatic Deployable ELT (ADELT)	9.0	19.8
06-69006-A	B2341-006-61	Voice alert generator (611-014)	0.5	1.1
06-71007-A	B2524-003-10	Separation curtain for cockpit / cabin (NVG compatible), fixed provisions	0.1	0.2
06-71007-A	B2524-003-20	Separation curtain for cockpit / cabin (NVG compatible), detachable parts	1.1	2.4
06-81010-A	B8503-001-10	Fire extinguishing bucket attachment (Bambi Bucket), fixed prov. (cargo hook system and add. circuit breaker panel required)	0.8	1.8

#### Interior Layout

### Weight

(margin ± 3 %)

Document reference	Commercial reference	Title		lb
07-00017-A	B2581-002-20	Comfort improvement kit	23.9	52.7
07-15014-A	B2512-003-10	Height adjustable pilot seat instead of standard pilot seat	3.7	8.2
07-15014-A	B2512-003-20	Height adjustable copilot seat instead of standard copilot seat	3.7	8.2
07-27003-A	B2523-002-00	Club seating, 8 pax configuration - other seating arrangements on request (depending on the number of pax seats installed, a second portable fire extinguisher in the cabin may be required)	90.4	199.3
07-27009-A	B2522-009-20	High-density seating, 9 pax configuration - SIMULA (STC)	111.3	245.4
07-27009-A	B2522-010-20	High-density seating, 10 pax configuration - SIMULA (STC) Other seating arrangement on request (depending on the number of pax seats installed, a second portable fire extinguisher in the cabin may be required)	122.0	269.0
07-30019-B	B2581-001-00	Basic soundproofing kit	6.0	13.2
07-30019-B	B2581-003-00	Enhanced soundproofing kit	tbd	tbd
07-40010-A	B2513-220-00	Washable floor covering for cockpit, cabin and cargo compartment	14.1	31.1

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Interior Layout (contd.)



### Weight

(margin  $\pm$  3 %)

Document reference	Commercial reference	Title	kg	lb
07-50032-A	B5212-001-30	Jettisonable sliding doors	0.0	0.0
07-50033-A	B5212-001-00	Jettisonable cockpit doors	0.6	1.3
07-50037-A	B5205-008-00	Spoiler position for cockpit doors	1.0	2.2
07-60019-A	B2552-001-00	Cargo tie-down net for cabin	4.2	9.3
07-75020-A	B2514-300-00	Airline-style attachment rails (LH and RH cabin ceiling)	3.4	7.5
07-90016-A	B2524-008-11	Multi-purpose fittings in cabin, LH	4.0	8.8
07-90016-A	B2524-008-12	Multi-purpose fittings in cabin, RH	4.0	8.8

# 6.2 Shopping list avionics

#### Weight **Avionics** (margin $\pm 3$ %) Document Commercial reference reference Title kg lb 08-12028-A B4321-092-01 Tactical radio NPX 138N (NAT) 5 2.3 5.1 08-15031-A B2319-001-10 Fixed provisions for GSM phone 2.4 5.3 (antenna, 28VDC, interfacing to ICS for panel mount radio) 08-15511-A B2315-092-00 IRIDIUM satellite phone AEROPHONE (AERODATA) 4.0 8.8 08-16054-D B2341-193-01 Audio/Comm. control system (PAX/3rd station) ACU 6100 2.0 4.4 (BECKER) standard version (installed in RH passenger cabin ceiling) 08-16054-D B2341-845-00 Audio/Comm. control system (PAX/3rd station) ACU 6100 1.4 3.1 (BECKER) EMS version (delivered as loose item, incl. connector interface in LH passenger cabin ceiling) 08-17041-A B2331-001-00 Cabin loudspeaker 2.3 5.1 (enhanced soundproofing kit required) 08-17043-A B2332-001-00 Passenger address system (DP4100 BECKER) 3.5 1.6 (cabin loudspeaker with enhanced soundproofing kit required) 08-18023-A B2315-001-10 Headset H 10-76 (David Clark), low impedance, spiral wire 0.5 1.1 08-18023-A B2315-001-14 Headset H 10-76 ANR/ENC (David Clark), low impedance, 0.9 2.0 spiral wire

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<sup>&</sup>lt;sup>5</sup> Tactical mission equipment can not be certified by German Civil Aviation Authorities. Eurocopter will ensure that the equipment is compatible with the basic helicopter and will assist the customer in obtaining certification or acceptance approval in his country.

<sup>&</sup>lt;sup>6</sup> Only available for EMS packages Aerolite Middle range and high sophisticated

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#### Avionics (contd.)

Weight (margin ± 3 %)

Document reference	Commercial reference	Title		lb
	B3443-004-10 B3443-004-20 B2571-001-00 B2420-004-00	earch And Rescue weather radar RDR1600 (Telephonics), f.p. earch And Rescue weather radar RDR1600 (Telephonics), d.p. Radar radome for RDR 1600 AC system		3.8 31.3 10.4 3.3
		(Video Radar Unit (VRU) required $\rightarrow$ see below)		
08-35020-A	B2327-001-01	Traffic Advisory System TAS 9900BX with 3" indicator (RYAN)	11.0	24.3
08-46013-A	B3168-090-01	Digital moving Map DKG 3 (DORNIER), basic version <sup>7</sup> (GPS required) enhanced options and maps on request	2.9	6.4
08-46021-B	B3168-092-04	Digital moving Map EURONAV IV - RN6 (EURO AVIONICS) interfaced with FCDS / MEGHAS, basic version $^{7}$ (VRU and GPS required $\rightarrow$ see below) enhanced options and maps on request	6.6	14.6
08-53005-A	B3424-000-00	AHRS Free Steering Mode	0.5	1.1
08-65006-A	B3443-010-00	Video Radar Unit (VRU) for weather radar or digital moving map indication on FCDS	4.9	10.8
08-83008-A	B3171-001-10	M'ARMS® Usage Monitoring System (UMS), incl. SSQAR option, fixed provisions	4.5	9.9
	B3171-001-20	M'ARMS® Usage Monitoring System (UMS), incl. SSQAR option, detachable parts ground station not included AFCS required (in combination with CVFDR: 1.7 kg / 3.8 lb)	3.1	6.8

### **Tactical radios**

Fixed provisions can be offered on request

#### **NVG Equipment**

Different solutions can be offered on request:

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

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

"Ultraforce II" (FLIR Systems) on request

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<sup>&</sup>lt;sup>7</sup> Tactical mission equipment can not be certified by German Civil Aviation Authorities. Eurocopter will ensure that the equipment is compatible with the basic helicopter and will assist the customer in obtaining certification or acceptance approval in his country.

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For performance data and operating limitations, reference must be made to the approved flight manual and all appropriate documents. 46





## 6.3 Offshore

Various equipment can be offered on request:



- Automatic Deployable ELTEmergency floats
- Life raft installation
- Jettisonable cockpit door
- AHRS Free Steering Mode
- Helicopter Emergency Egress Lighting (HEEL) •
- Underwater Locator Beacon ٠
- Search and weather radar •
- Traffic Advisory System TAS 9900BX
- Cabin loudspeaker / Passenger address system
- Corrosion prevention treatment for offshore operation •
- Push-out cabin windows









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#### 7 Table of constraints

#### **General Checklist for Incompatibilities:** 7.1

- Detachable parts require the related fixed provisions
- Only one to be selected:
  - External painting -
  - Battery \_
  - Cargo hook system \_

All recommended configurations in Chapter 4 exclude each other. Mixed Configurations are possible but have to be individually checked.

■ For B2327-001-01 Traffic Advisory System TAS 9900BX, the incompatibilities have to be checked.

Commercial reference	Title	MSG	Commercial reference	Title
	Wire Strike Protection	The protective capability is	B8511-002-20	Cargo hook mirrors, detachable parts
B8541-001-20	System, (WSPS) detachable parts	significantly degraded in combination with	B2571-001-00	Radar radome
			B2327-001-01	Traffic Advisory System TAS 9900BX

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# 7.2 Legend of the following chart

EXL Impossibility of simultaneous fitment of the fixed parts of 2 items of equipment

NSF Total or partial incompatibility of simultaneous fitment of the removal parts of two items of equipment

Document Reference	Commercial Reference	Installation	Nature of the Constraint		the		the		the		Commercial Reference	Installation	Document Reference
Reference	Reference		EXL	NSF	Reference		Reference						
-	-	Recommended EMS configurations	x		B3168-092-04	Digital moving Map EURONAV IV - RN6 (EURO AVIONICS) interfaced with FCDS / MEGHAS, basic version	08-46021-B						
05-42022-A	B2105-001-00	Air conditioning/cooling system – Metro (STC)	x		B2315-092-00	IRIDIUM satellite phone AEROPHONE (AERODATA)	08-15551-A						
05-42022-A	B2105-001-00	Air conditioning/cooling system – Metro (STC)	x		B2563-812-00	Automatic Deployable ELT (ADELT)	06-67049-A						
05-42022-A	B2105-001-00	Air conditioning/cooling system – Metro (STC)	x		B2300-006-00	Avionics Solution B3	-						
06-11023-A	B3272-001-20	Snow skids		X	B3274-001-20	Settling protectors, det. parts	06-11024-A						
06-11024-A	B3274-001-20	Settling protectors, det. parts		x	B3272-001-20	Snow skids	06-11023-A						
06-21019-A	B8512-001-1?	External hoist, fixed prov. (on respective side)	x		B8534-003-1?	Rope-down device for 2 persons, fixed prov. (on respective side)	06-24011-A						
06-21019-A	B8512-001-2?	External hoist, det. parts (on respective side)		x	B8534-003-2?	Rope-down device for 2 persons, det. parts (on respective side)	06-24011-A						
07-27003-A	B2523-002-00	Club seating, 8 pax configuration		x	B2522-009-20	High-density seating, 9 pax configuration	07-27009-A						
07-27003-A	B2523-002-00	Club seating, 8 pax configuration		x	B2522-010-20	High-density seating, 10 pax configuration	07-27009-A						
07-27009-A	B2522-009-20	High-density seating, 9 pax configuration		x	B2523-002-00	Club seating, 8 pax configuration	07-27003-A						
07-27009-A	B2522-010-20	High-density seating, 10 pax configuration		x	B2523-002-00	Club seating, 8 pax configuration	07-27003-A						
08-35020-A	B2327-001-01	Traffic Advisory System TAS 9900BX	x		B7161-001-10	Sand filter system, fixed provisions	05-25017-A						

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# 8 Main performance

The following performance values and figures refer to an EC145, equipped with average production engines.

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

# Performance on 2 engines (AEO)

8.1.1 Gross Weight	kg	2,400	2,700	3,000	3,300	3,585
	Ib	5,290	5,950	6,615	7,275	7,905
<ul> <li>Maximum speed (V<sub>NE</sub>)</li> </ul>	km/h	278	278	268	268	268
	kts	150	150	145	145	145
<ul> <li>Maximum cruising speed (V<sub>H</sub>)</li> </ul>	km/h	256	254	252	250	246
	kts	138	137	136	135	133
<ul> <li>Recommended cruising speed</li> </ul>	km/h	237	239	241	243	243
	kts	128	129	130	131	131
<ul> <li>Fuel consumption at recommended cruising</li></ul>	kg/h	234	238	244	251	254
speed	lb/h	516	525	538	554	560
<ul> <li>Maximum rate of climb, TOP</li> </ul>	m/s	14.9	13.0	11.2	9.3	8.1
	ft/min	2940	2560	2210	1840	1600
<ul> <li>Hover ceiling IGE (3 ft AGL), TOP</li> </ul>	m	5,485	5,485	4,695	3,840	2,925
	ft	18,000	18,000	15,400	12,600	9,600
<ul> <li>Hover ceiling OGE, TOP, ISA</li> </ul>	m	5,485	5,120	4,345	3,445	770
	ft	18,000	16,800	14,260	11,300	2,530
<ul> <li>Service ceiling, MCP,</li></ul>	m	5,485	5,485	5,485	5,485	5,240
(climb reserve 200 ft/min), ISA	ft	18,000	18,000	18,000	18,000	17,200
<ul> <li>Range (SL, ISA) with max. fuel capacity at recommended cruise speed (no reserve)</li> </ul>						
<ul><li>Std fuel tank configuration (694 kg)</li><li>Long range fuel tank inst. (869 kg)</li></ul>	km nm km nm	  	705 380 	700 377 875 472	685 370 865 467	680 370 855 461
<ul> <li>Endurance (SL, ISA) with maximum fuel capacity at 65 KIAS (no reserve)</li> </ul>						
<ul> <li>Std fuel tank configuration (694 kg)</li> <li>Long range fuel tank inst. (869 kg)</li> </ul>	h:min h:min		3:55 	3:50 4:50	3:40 4:40	3:35 4:30

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## Performance on 1 engine (OEI)

Gross Weight	kg Ib	2,400 5,290	2,700 5,950	3,000 6,615	3,300 7,275	3,585 7,905
<ul> <li>Single engine service ceiling, OEI, MCP, 100 ft/min climb reserve, ISA</li> </ul>	m ft	5,456 17,900	4,590 15,060	3,755 12,320	2,966 9,730	1,996 6,550
<ul> <li>Single engine service ceiling, OEI, MCP, 100 ft/min climb reserve, ISA + 20°C</li> </ul>	m ft	4,968 16,300	4,029 13,220	3,097 10,160	2,185 7,170	1,338 4,390
<ul> <li>Maximum rate of climb, OEI, MCP, SL, ISA</li> </ul>	m/s ft/min	5.7 1,120	4.4 860	3.2 630	2.1 420	1.2 230
<ul> <li>Max. temperature for CAT A, take-off from clear heliport at SL</li> </ul>	°C	+ 50	+ 50	+ 50	+ 49	+ 42
<ul> <li>Max. weight, HOGE, SL, ISA, (OEI 2.5 min-power)</li> </ul>	kg Ib			2,785 6,140		
<ul> <li>Max. weight, HOGE, SL, ISA + 20°C, (OEI 2.5 min-power)</li> </ul>	kg Ib			2,520 5,555		
<ul> <li>Max. weight, CAT A, VTOL, SL, ISA</li> </ul>	kg Ib			3,415 7,530		
<ul> <li>Max. weight, CAT A, VTOL, SL, ISA + 10°C</li> </ul>	kg Ib			3,320 7,320		

## **Operating Limitations**

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

<ul> <li>Maximum opera</li> </ul>	ting altitude	5,485 m PA 18,000 ft PA
<ul> <li>Maximum opera takeoff and land</li> </ul>	ting altitude for hover in ground effect, ing	5,485 m PA or DA 18,000 ft PA or DA whichever is less
<ul> <li>Minimum temper</li> </ul>	rature	- 45 °C
<ul> <li>Maximum tempe</li> </ul>	erature	ISA + 35 °C (max. + 50°C)

### Abbreviations

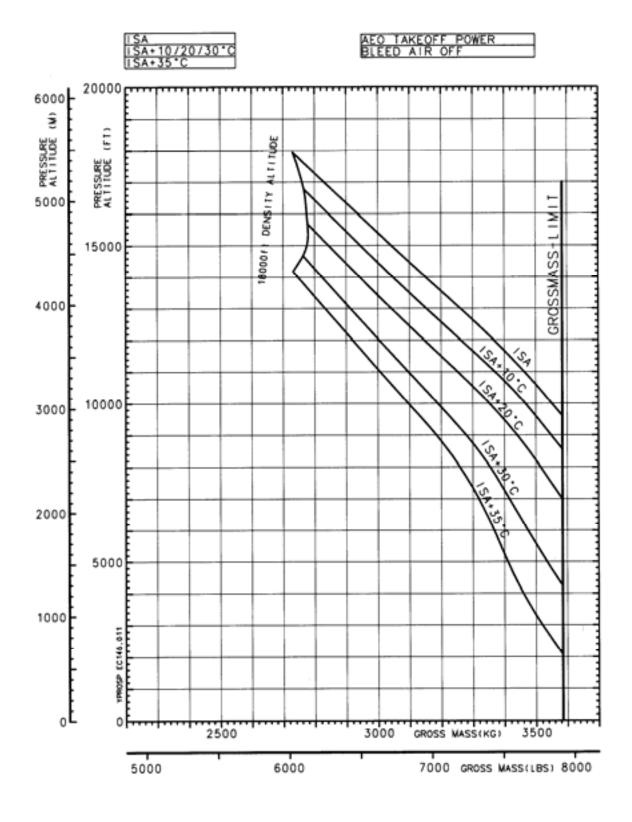
AGL	Above Ground Level	OGE	Out Of Ground Effect
DA	Density Altitude	PA	Pressure Altitude
IGE	In Ground Effect	SL	Sea Level
ISA	International Standard Atmosphere	TOP	Take-Off Power
MCP	Maximum Continuous Power	VNE	Never-Exceed Speed
OEI	One Engine Inoperative	VTOL	Vertical Take-Off and Landing

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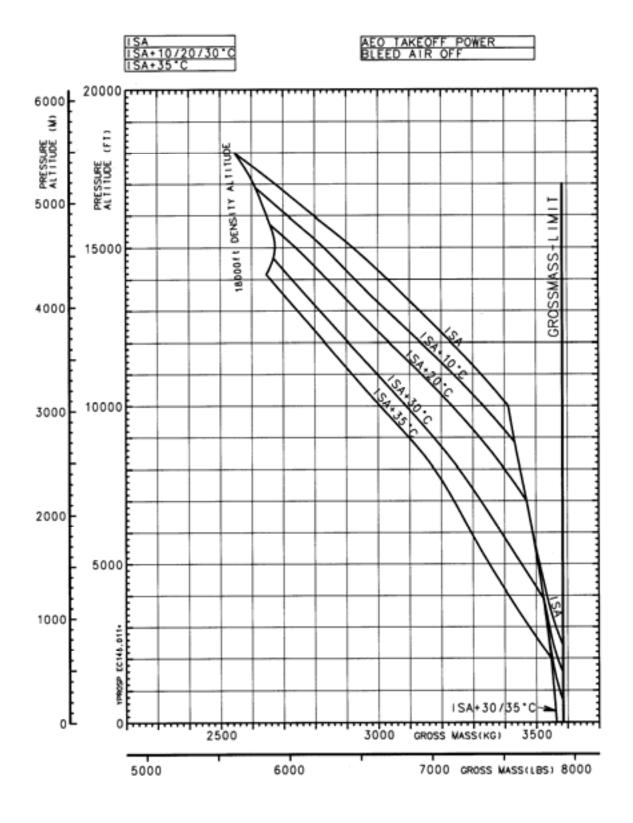
# Hover In Ground Effect (HIGE, TOP)







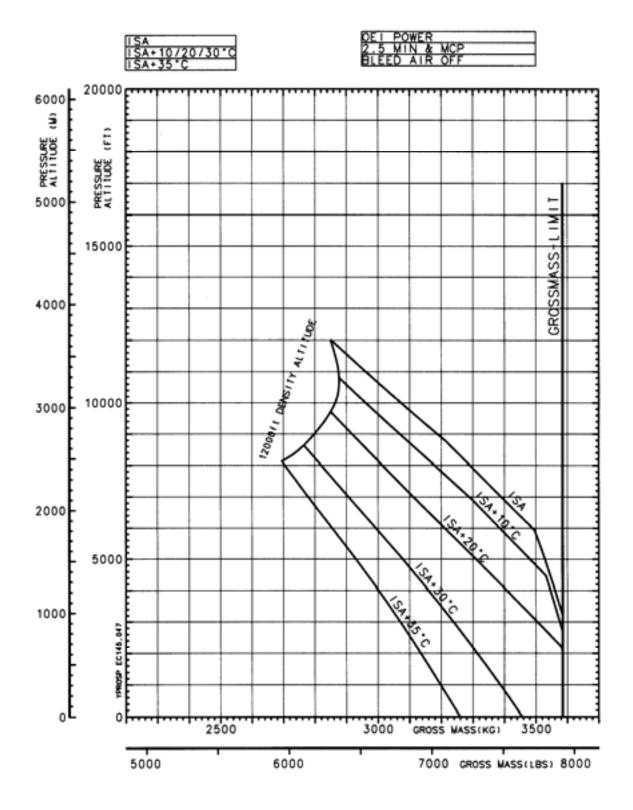
# Hover Out Of Ground Effect (HOGE, TOP)







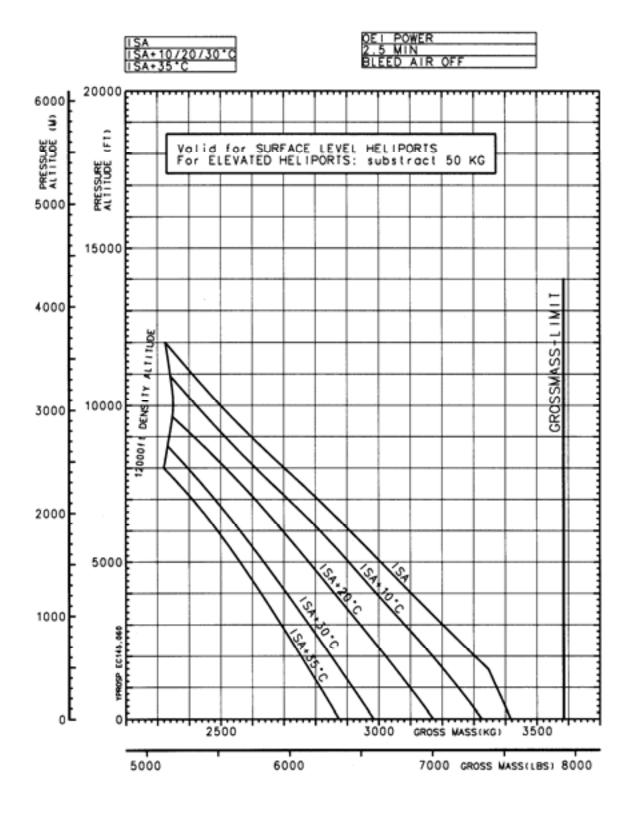








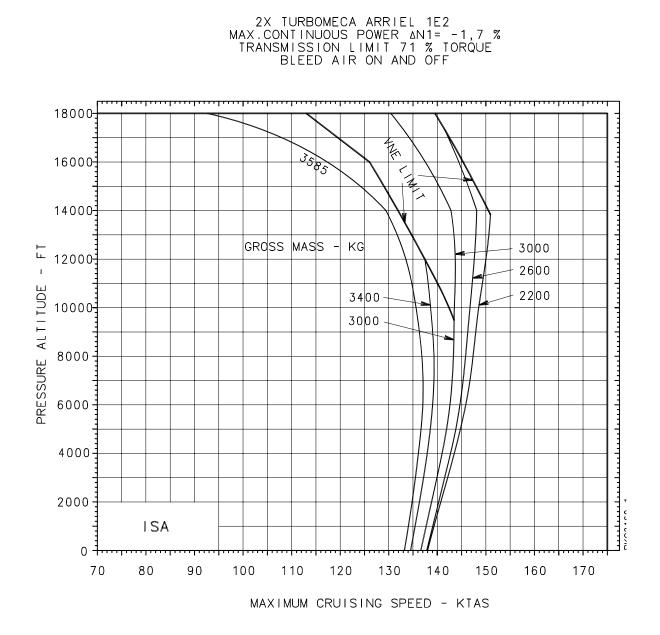
# Take-Off Weight, Cat. A, VTOL







# **Maximum Cruising Speed**

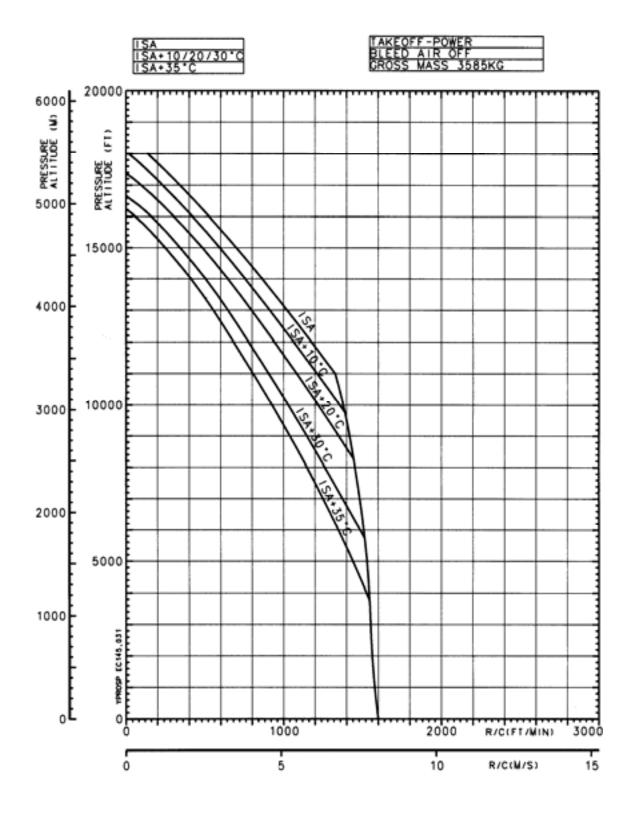


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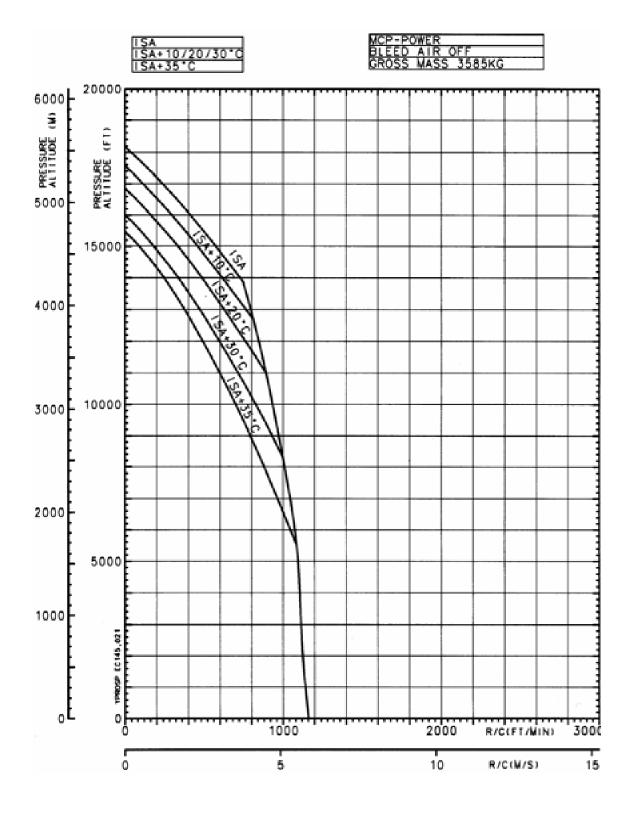
# Maximum Rate Of Climb, TOP, 3585 kg (MTOW)







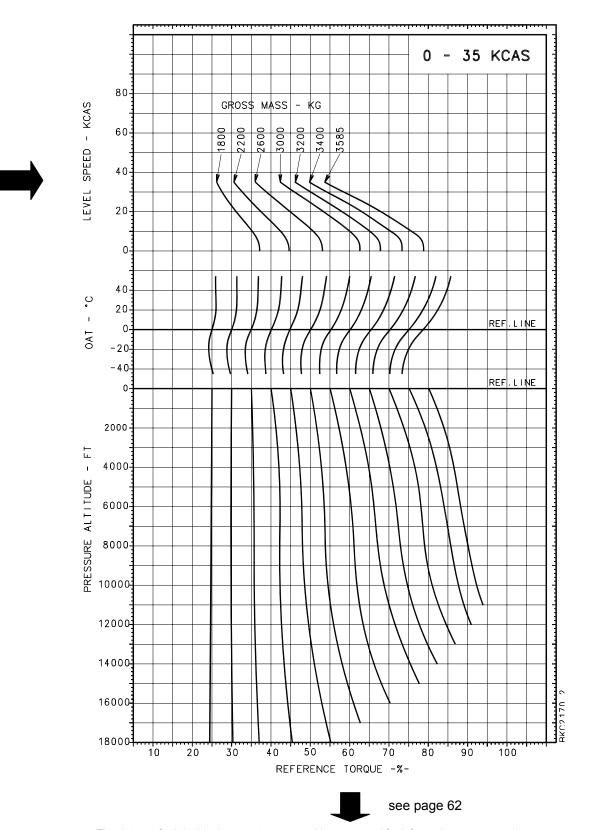
# Maximum Rate of Climb, MCP, 3585 kg (MTOW)







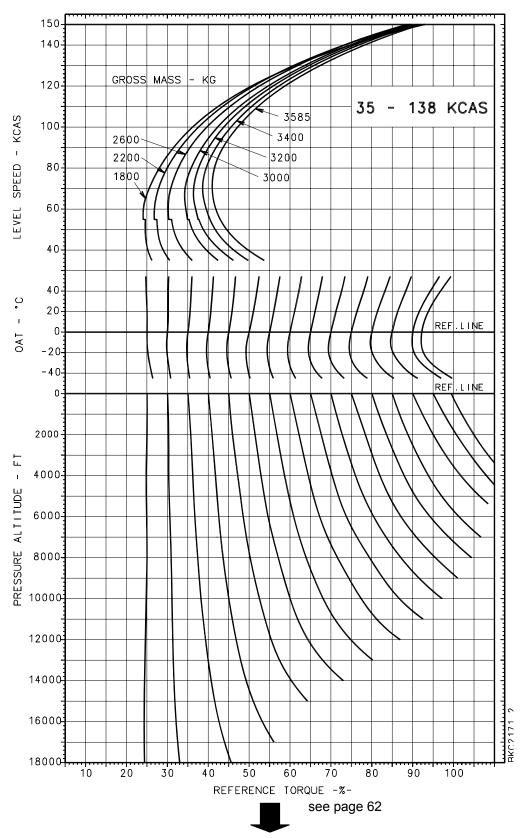








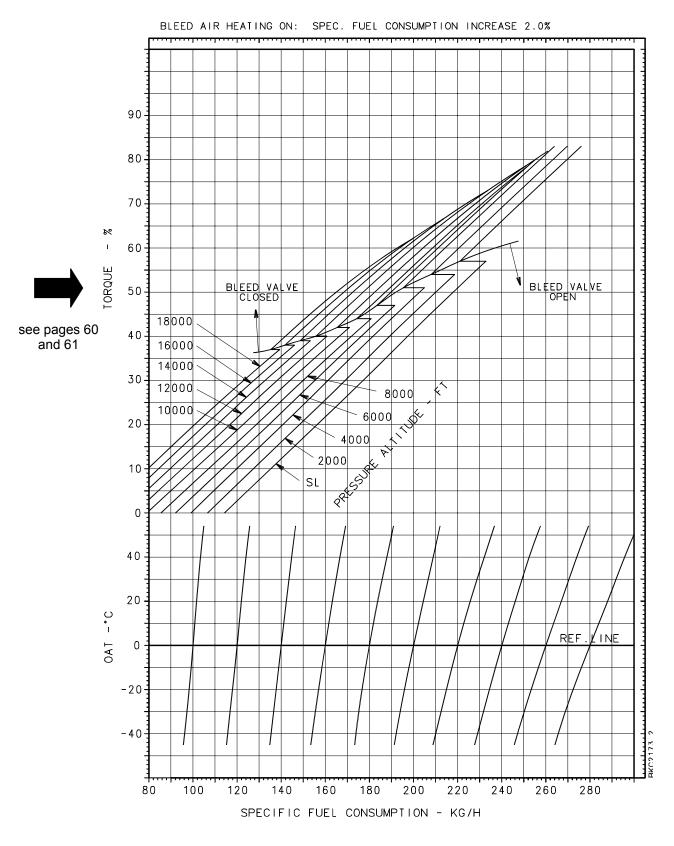
# Fuel consumption (AEO)







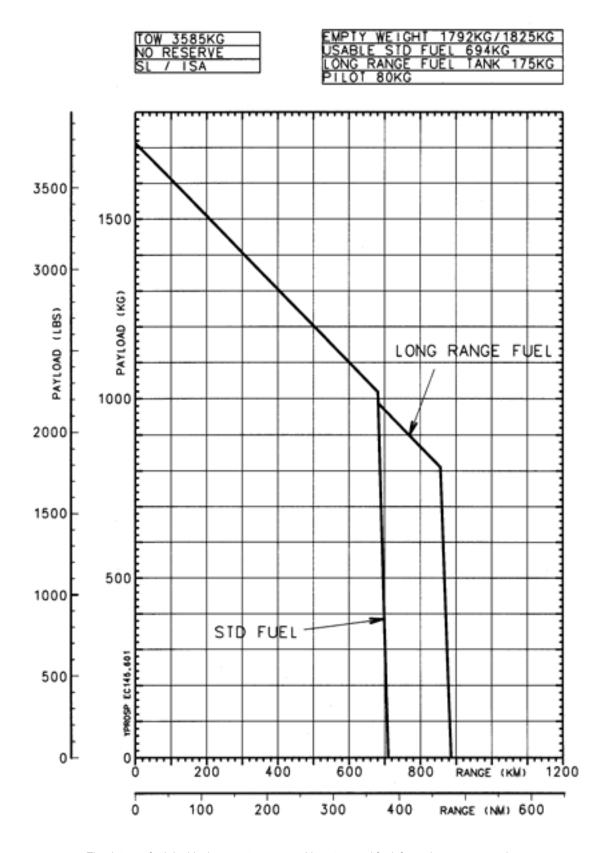
# **Fuel consumption (AEO)**















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