HELICOPTERS

H145M

Technical Data

2019

AIRBUS

2.5 External Dimensions

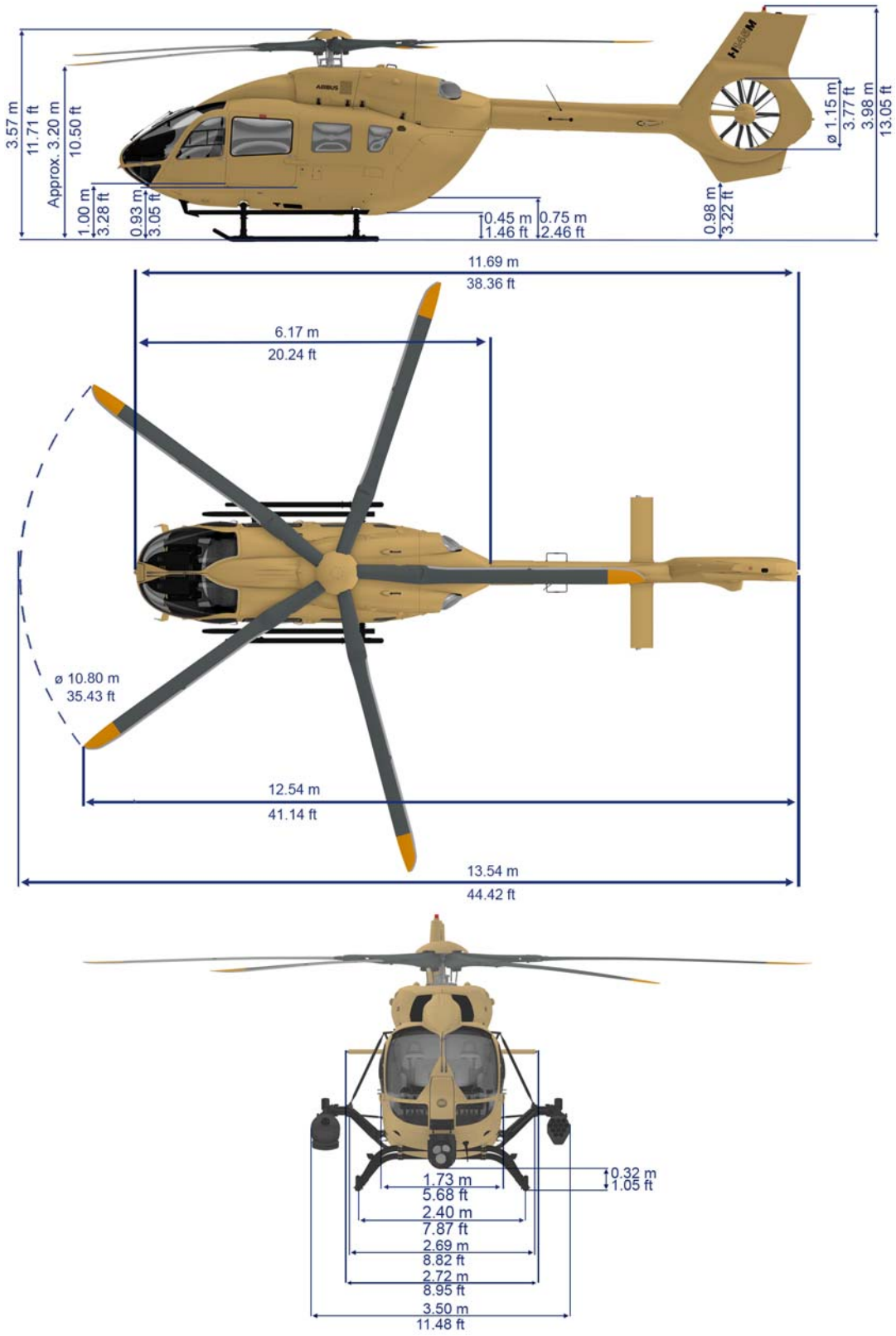

Figure 2.1: External dimensions (with HForce optional weapon system on the lower picture)

3 Baseline Aircraft Definition

GENERAL

- Energy absorbing fuselage
- Tail boom with fixed horizontal stabilizer and vertical fin with faired-in Fenestron®
- Upper deck with fittings for main gearbox, engines, hydraulic and cooling system
- Cowlings for main transmission and engines
- Multi-purpose pylon, LH and RH, fixed provisions
- Improved engine cowling heat protection
- 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
- Two hinged cockpit doors with sliding window
- Map case in pilot´s door
- Two wide passenger sliding doors with window of push-out type
- 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 & cockpit boarding grips (LH and RH)
- Flight controls (pilot side)
- Single pilot instrument panel with glare shield
- Interior paneling
- Ram-air and electrical ventilating system for cockpit and cabin
- Bleed air heating system
- Ventilation for avionics deck[a]
- Helmet holder in the cockpit, rotatable
- Portable fire extinguisher
- Stowage net for first aid kit at the LH rear clam-shell door
- 2 flashlights (torches)
- Slant console
- Center console
- Windscreen wiper for pilot and copilot
- Door open warning

a. If required by final configuration.

INSTRUMENTS

- Flight Display Subsystem (FDS) composed of 2 smart multifunction displays (6 x 8 inch) providing the following functions:
  - Flight Navigation Display (FND) format (incl. PFD, FLI, Master list, NAV, RPM, mast moment & fuel indication)
  - Vehicle Monitoring System (VMS) format (incl. engine, gearbox, hydraulic, fuel, electrical system, RPM and clock indication)
- Vehicle Management System (VMS) including:
  - 2 duplex Aircraft Management Computer (AMC)
- Reference sensors:
  - 3 Attitude and Heading Reference Systems (AHRS)
  - 2 Air Data sensors (electrically heated pitot tube and static port)
  - 2 Three Axis Magnetometers (TAM)
- Stand-by instruments:
  - Integrated Electronic Standby Instrument (IESI)
  - Stand-by compass
- Usage Monitoring System (UMS)
- „One hundred feet“ alert
- Directional Gyro Free Steering Mode
- Warning unit:
  - Engine fire warning with fuel emergency shut-off
  - Warning lights
  - Fire extinguishing system warning
- Cockpit Control Panel (CCP) for FDS
- Wireless Airborne Communication Server (WACS)
- Engine switch panel:
  - Digital engine control (FADEC)
- Radar altimeter

POWER PLANT

- Two Safran Helicopter Engines ARRIEL 2E turbine engines with electronic engine control (double channel FADEC)
- Crash resistant fuel system with a flexible bladder-type fuel main tank and supply tank (split into two sections)
- Two independent oil cooling and lubrication systems of the engines
- Fire detection and extinguishing system
- Chip detectors with quick-disconnect plugs
- Twin-engine OEI-training mode
- Automatically controlled variable rotor speed system
- Cycle counter
- Drain system
- Fire walls

TRANSMISSION SYSTEM

- Main transmission including an independent redundant lubrication system and monitoring sensors
- Chip detector system with quick-disconnect plug (main transmission)
- Free wheel assemblies in the engine input drives
- Rotor brake system
- Tail rotor transmission system with splash lubrication and oil level sight gauge
- Chip detector system with quick-disconnect plug (tail rotor gearbox)

ROTOR AND FLIGHT CONTROLS

- Bearingless Main Rotor system (BMR), consisting of:
  - Rotor head / mast in one piece
  - Five glass and carbon fiber reinforced blades with erosion protection strip, control cuff, detachable outer blade, elastomeric lead-lag dampers
- Fenestron®-type tail rotor with ten composite blades (asymmetric blade spacing) and stator
- Tail rotor gearbox cover
- Basic provisions for an easy integration of a track and balance system
- Dual hydraulic boost system for cyclic and collective blade control of the main rotor
- Tail rotor control system with flexball cable and dual hydraulic booster
- Main rotor blade tip painting (yellow)
- Vector Mast Moment System (VMMS)
- Dual Duplex 4-axis Digital Automatic Flight Control System including upper modes

ELECTRICAL INSTALLATION

- Power generation system:
  - Two starter/generators (2 x 200 A, 28 VDC)
  - Nickel-Cadmium battery, (24 VDC, 40 Ah)
  - External power connector (STANAG 3302)
- Power distribution system:
  - Two main busbars
  - Two essential busbars
  - Two shedding busbars
  - Two non-essential busbars (80 A) for optional equipment only
  - Battery bus
  - One utility receptacle in cargo compartment (28 VDC, 20 A)
- DC power control
- Two avionic master switches
- Lighting:
  - Dual color anti-collision warning light (red flashing) with integrated white strobe light (400 Cd), LED
  - Fixed landing light, LED
  - Three position lights (red, green, white), LED
  - Adjustable instrument lighting
  - One utility light in the cockpit, LED
  - Lights in the cabin and cargo compartment
  - Boarding illumination
  - Emergency lights

GROUND HANDLING KIT[a]

- Two ground-handling wheels
- Basic aircraft covers (short term incl. Main Rotor Blade tie down)
- Oil drain hoses
- Keys for cockpit, cabin, clam-shell doors and tank flap (one-key system)
- Battery key
- Lifting points
- Compass compensation key
- Fuel drain device
- Maintenance Ground Station (MGS) software
- Airbus Helicopters Data Loader (AHDL)
- Flight Data Continuous Recorder (FDCR) converter
- Operational software for AMC and MFD
- Primary Configuration File (PCF)

a. Weight not included in the standard helicopter empty weight.

DOCUMENTATION (in English)

- One Flight Manual[a] [b] (on paper)
- One Pilots Checklist[c] (on paper)
- Master Minimum Equipment List (MMEL)[a] online via Keycopter® portal
- One Logbook (on paper, CD-ROM on demand)
- One Historical Record (on paper, CD-ROM on demand)
- Technical Documentation[ad] incl. AMM, SDS, WDM, IPC, MSM, CECG, SRM online via Keycopter portal
- Service Bulletin Catalogue (SB) online via T.I.P.I.
- List of Applicable Publications (LOAP)[a] online via Keycopter portal
- One Avionics Manual[e] (for avionics installed by Airbus) (on CD-ROM)
- OCMM[c] (Online Component Maintenance Manuals) for vendor manuals online via Keycopter portal
- Engine Documentation[c] (online via TOOLS portal), furnished by supplier, including:
  - Maintenance Manual
  - Illustrated Parts Catalogue (IPC)

a. Revision service included as long as the aircraft is operational.
b. One Flight Manual included in the standard helicopter empty weight.
c. Revision service for 3 years.
d. Customized AMM, SDS, WDM and IPC versions available on request.
e. Customized documentation.

AIRBUS

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Photos: AIRBUS HELICOPTERS
Cover photo: © Airbus Helicopters/Anthony Pecchi
Printed by SPI (France)

145M D-3m 19.101.01E