

## BASELINE AIRCRAFT DEFINITION

### GENERAL

- Energy absorbing design fuselage including cockpit and cabin
- Composite material intermediate structure
- Polyurethane white paint and Dinol AV30 re-inforced anti-corrosion treatment
- Monocoque tail boom with tail rotor protection and stabilizer
- Front part of the tail boom arranged as a luggage compartment
- Fuselage upper part used as transmission deck
- Multipurpose sponsons with energy absorbing self-sealing fuel tanks
- Fuselage lower part fittable with floatation gear
- Engine cowlings serving as a work platform when in the open position
- Provisions for external pod fuel tanks
- High energy absorption, retractable, tricycle landing gear with trailing-arm main landing gear and castering nose wheel unit
- Footsteps for climbing to the transmission deck, the cockpit and the cabin
- Built-in jacking and towing points
- Provisions for attaching gripping points
- Interior paint : light beige
- Exterior paint: the fuselage is painted following customer paint scheme (gloss or dull polyurethane finish) ; the landing gears are grey and unless otherwise specified, the optional equipments keep their original colors
- Active Vibration Control System

### COCKPIT

- 2 pilot and copilot seats adjustable in height and fore-and-aft, complete with safety belts and extensible shoulder harnesses
- 3 sun visors
- Dual flight control
- Steadying rods at pilot station
- Engine controls
- Master cut-off switches
- Rotor brake control
- Landing gear control
- Differential wheel brakes at pilot and copilot stations
- 2 map cases on pilot and copilot doors
- 1 Flight Manual
- 1 ash-tray
- 1 hand fire extinguisher
- De-iced pilot and copilot windshield panes with wiper
- 2 hot air diffusers
- 3 windshield pane demisting ramps
- 4 adjustable ventilation outlets
- Windshield washer
- 2 jettisonable doors with door-stops
- Enlarged footsteps cockpit
- Cockpit grey tinted upper panes
- Access to cabin with partitioning curtain

### INSTRUMENTS

- 4 multifunction 6" x 8" landscape LCD displays
- 2 display and autopilot control panels
- 1 Integrated Standby Instrument System (ISIS) for airspeed, altimeter and gyro-horizon back-up display
- 1 redundant Vehicle Monitoring System (VMS) with one redundant Aircraft Management Computer (AMC) and two 4" x 5" LCD displays
- 1 stop watch
- 2 triple tachometers
- 1 warning panel
- 1 fuel circuit control and monitoring panel with 2 fuel content displays
- 1 AC/DC control box
- 1 engine starting panel
- 1 landing gear position control and monitoring panel
- 2 heated pitot heads and 6 static vents
- 1 ventilation/heating system control panel
- Instruments units available in English units (Altimeter in feet and Airspeed indicator in kts); other units on request

### CABIN

- Cabin floor for crashworthy seats fitted with 15 cargo tie-down rings, capable of accommodating various types of seat and cabin additional fuel tanks available on option
- 2 jettisonable sliding plug doors
- 12 jettisonable windows (including 4 on the sliding doors)
- Enlarged cabin grey tinted windows
- 1 rear step door
- 1 hand fire-extinguisher
- Soundproofing upholstery (light beige padded cloth)
- Heating and ventilation (upper outlets adjustable for direction and flow, plus bottom adjustable for flow)

### POWER PLANT

- 2 Turbomeca Makila 2A1 1776 kW (2382 shp) maximum emergency power blade shedding turbines engines in two separate groups with own starting, feeding, lubricating, and cooling systems
- 2 redundant full digital FADEC including a O.E.I. training mode
- 1 fuel system of 2,549 litres (673 US gal.) usable capacity comprising 8 energy absorbing tanks, arranged in 2 groups, 4 booster pumps, 1 transfer pump and a low/high fuel warning system.
- Provisions for ferrying tanks
- 2 engine bay fire-detection systems
- 1 two-cylinder selective fire-extinguishing system
- 2 chip detectors
- Engine air intakes protected against icing by grids and heating mats on the air intakes stub frames
- 1 engine flushing device without removal of cowlings
- 1 cycle counting system

## TRANSMISSION SYSTEM

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- 1 main gearbox (MGB) on flexible mountings with 3 chip detectors one of which with fuzzi burner, oil sight gauge, oil temperature and pressure sensors and torquemeter pick-ups, 2 lubrication pumps and independent circuits
- 1 intermediate gearbox with magnetic plug, oil sight gauge and temperature sensor
- 1 tail gearbox (TGB) with magnetic plug, oil sight gauge and temperature sensor
- 1 MGB oil cooling system
- 1 MGB oil emergency cooling system
- 1 MGB total loss of oil spray device
- 1 rotor brake
- 2 MGB bay fire detection circuits
- 1 MGB max oil temperature warning
- 1 MGB min oil pressure warning
- 1 TGB max oil temperature warning

## ROTOR AND FLYING CONTROLS

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- 1 articulated main rotor with 5 composite-material blades equipped with gust and droop stops
- 1 anti-torque rotor with 4 composite-material blades
- 1 flying control system, fitted with 4 dual-body servo-units (3 on the cyclic and collective pitch channels and 1 on the anti-torque rotor pitch control channel) with 2 chambers per body
- Capability for main rotor blade folding system
- 1 dual/duplex digital autopilot associated with 2 flight data computers and back-up capabilities
- 1 Thales AHV 16 radio altimeter displayed on multifunction LCDs

## ELECTRICAL INSTALLATION

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- Two 30/40 kVA, 115/200 V, 400 Hz alternators
- One 43 amp.-hr cadmium-nickel battery
- 2 transformer-rectifiers
- One 4 amp.-hr stand-by battery
- One 26 V, 400Hz transformer
- 1 cockpit lighting system including :
  - green pedestal instrument and overhead panel integrated lighting
  - white general lighting
  - 1 white extension light
  - 2 white map lights
  - 1 storm light
- 1 cabin lighting system made up of two-lighting strips, plus signs : "Emergency Exit", "No smoking" and "Fasten Seat Belts"
- 6 receptacles for ancillaries (28 V, 15 amp.)
- 1 receptacle for ancillaries (28 V, 25 amp.)
- 2 external power receptacles (AC and DC)
- 2 600 W landing light
- 3 position lights LED
- 1 anti-collision light LED

## HYDRAULIC GENERATION

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- 2 independent hydraulic systems :
  - the LH system feeds one of the servo-unit bodies, the autopilot, the landing gear control, the rotor brake and wheel brakes
  - the RH system feeds the other body of the servo-units
- Hydraulic ground couplings
- 1 DC auxiliary electropump on stand-by for the LH system and for supplying sufficient hydraulic pressure for movement of the controls on the ground before starting in high winds
- 1 stand-by electropump for complete lowering of the landing gear
- Provisions for hydro-electric group installation

## AIRBORNE KIT (\*)

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- 6 static vent blanks
- 2 pitot head covers
- 1 engine air-intake grid protection cover
- 2 engine tail-pipe blanks
- 4 mooring rings
- 2 rough-weather mooring fittings (included on the aircraft)
- 1 access ladder
- 1 data case
- 3 jacking ball-joints
- Main blade tie-down
- Fuel bleed line
- 1 stowing bag for the airborne kit

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