SUPER PUMA
(Civil Version)

H215 short airframe

H215

H225

COUGAR
(Military Version)

H215M

H225M
### Baseline Aircraft Definition

#### GENERAL
- Crashworthy design fuselage including cockpit and cabin
- Polyurethane white paint and Dinol AV30 reinforced anti-corrosive treatment
- Monocoque tail boom with prop for tail rotor protection and stabilizer
- Front part of the tail boom arranged as a storage compartment
- Fuselage upper part used as transmission deck
- Fuselage lower part fitted with the floatation gear and the crashworthy installation (tanks, seats)
- Engine cowlings serving as a work platform when in the open position
- 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
- Built-in attachment points for lateral external loads
- Structural and electrical capabilities for axial armament
- Fixed parts for armour plating of cockpit doors
- Fixed parts for cable cutter
- Fixed parts for 3 tons cargo sling
- Interior paint: night blue; exterior, per customer paint scheme (glossy or dull polyurethane finish)

#### COCKPIT
- 2 pilot and copilot seats adjustable in height and fore-and-aft, complete with safety belts and extensible shoulder harnesses
- 1 third crew man jump-seat with a 3-point extensible safety harness
- Dual flight control
- Steady 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
- 3 NVG power plugs
- 1 Flight Manual
- 1 hand fire extinguisher
- De-iced pilot and copilot windshield panes with wiper
- De-iced cockpit center pane with wiper
- 1 front actuator
- 2 windshield panel demisting diffusers
- Manual cock for selective pane demisting
- 2 adjustable heating and ventilation outlets on the ceiling
- 2 diffusers at floor level
- 2 jettisonable doors with door-stops
- Access to cabin with screen off curtain

#### INSTRUMENTS
- 4 multifunction 6" x 8" landscape LCD displays
- 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
- 2 stop watches
- 2 triple tachometers
- 1 warning panel
- 1 fuel circuit control and monitoring panel
- 1 AC/DC control box
- 2 iapps Helitab IOS
- 1 engine starting panel
- 1 landing gear position control and monitoring panel
- 3 heated pilots and 3 static lanes
- 1 ventilation/heating system control panel
- Instruments units available in English units (Altimeter in feet and Airspeed indicator in kts)
- 1 digital intercommunication system – 2 control boxes
- 1 radio management system, with 2 CDU
- 1 VOR/ILS/ADF/MKR receiver
- 1 VOR/ILS/MKR receiver
- 1 DME receiver (twin channel)
- 1 Emergency Locator Transmitter
- 1 radio altimeter

#### CABIN
- Reinforced floor with crashworthy fixations fitted with 15 cargo tie-down rings, capable of accommodating various types of seat available on option
- 2 sliding double doors and front sliding windows
- 6 jettisonable windows (including 4 in the sliding doors)
- 1 removable rear panel with jettisonable window
- 1 hand fire extinguisher
- Sound proofing upholstery (dark padded cloth)
- Heating and ventilation (6 top outlets and 4 bottom diffusers)
- Structural provisions for casualty installation
- Fittings for 3 wall-mounted troop bench-seats
- Floor hatch for cargo sling pole
- Stowage space for airborne kit
### POWER PLANT
- 2 Turbomeca Makila 1A1, 1,400Kw (1,877 shp) turbine engines in two separate groups with own starting, feeding, lubricating, cooling and governing systems
- 1 fuel system of 1,984 liters (524 US gal.) usable capacity comprising 6 crashworthy fuel tanks, housed in the fuselage bottom structure, two of which with self-sealing 12.7mm projectile protection, arranged in 2 groups, 4 booster pumps, 1 transfer pump and a low/high fuel level warning system. The pipes are of the crashworthy types.
- Provisions for ferrying, central auxiliary and external tanks
- 2 engine bay fire-detection systems
- 1 two-cylinder selective fire-extinguishing system
- 2 engine 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
- N.G. limiter for training
- Fixed parts for infra-red suppressors

### TRANSMISSION SYSTEM
- 1 main gearbox on flexible mountings with chip detector with fuse burner, oil sight gauge, oil temperature and pressure sensors and torquemeter pick-ups
- 1 intermediate gearbox with magnetic plug, oil sight gauge and temperature sensor
- 1 tail gearbox with magnetic plug, oil sight gauge and temperature sensor
- 1 main gearbox oil cooling system
- 1 rotor brake
- 2 MGB bay fire detection circuits

### ROTOR AND FLYING CONTROLS
- 1 main rotor with 4 composite-material blades equipped with gust and droop stops
- 1 anti-torque rotor with 5 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 pitch control channel) with a single chamber per body
- 1 dual/ duplex digital autopilot associated with 2 flight data computers and back-up capabilities

### ELECTRICAL INSTALLATION
- 2 alternators (20/30 kVA, 115/200 V, 400 Hz)
- 1 cadmium-nickel battery (43 amp.-hr)
- 2 transformer-rectifiers (150 amp.)
- 1 stand-by battery
- 1 NVG compatible cockpit lighting system including:
  - green pedestal and overhead panel lighting
  - integrated instrument panel lighting
  - bi-mode general lighting by dome light
  - 1 white extension lamp
  - 2 white map spot lights
- 1 cabin lighting system (4 dome lights)
- 6 receptacles for ancillaries (28 V, 15 amp.)
- 1 receptacle for ancillaries (28 V, 25 amp.)
- 2 external power receptacles (AC and DC)
- 1 landing light (600-W)
- 3 position lights
- 1 anti-collision light
- 2 formation lights

### HYDRAULIC GENERATION
- 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 electro-pump 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 electro-pump for complete lowering of the landing gear

### AIRBORNE KIT
- 6 static vent blanks
- 2 pilot 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
- Tail rotor blade lock
- Fuel bleed line
- 1 slowing bag for the airborne kit

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1 Weight not included in baseline aircraft empty weight.