H135 Helionix® / EC135 P3/T3 Transition Training Course

13 Days / 2.5 Weeks
Ground School 53 Hours (9 Days)
Sim 0 Hours
Flight 7.5 Hours per Student
SCOPE:

This course will provide a complete Initial Pilot Ground School on the H135 Helionix® Helicopter. Classroom instruction, the Pilot Training Manual, and various handouts, will provide complete information for a thorough understanding of the aircraft and its engine and related systems, with emphasis on Flight Manual usage including Normal and Emergency Procedures for the various aircraft systems and the aircraft’s Limitations. Practical exercises will be conducted covering the Flight Manual information on Limitations, Performance Data, and Weight & Balance. Successful completion will be based upon two examinations: A Limitations Quiz & the Final Exam covering overall course content.

OBJECTIVE:

To instill the fundamental knowledge required to conduct safe ground and pre-flight operations of the H135 Helionix® Helicopter. Upon successful completion of this course and the H135 Helionix® Transition Ground School final exam, the student should be able to conduct operations, within the limits of Aircraft Ground School, safely and efficiently.

COURSE PREREQUISITES:

Acceptance into this course is based upon these requirements:

- A current FAA issued Helicopter Pilot Certificate
- Valid Medical Certificate

In special circumstances any of the above requirements may be waived with the approval of Airbus Helicopters, Inc.’s Chief Flight Instructor.

NOTICES:

Airbus Helicopters, Inc. reserves the right to notify customer of the occurrence of any force majeure condition that, in its sole discretion, is the cause of excusable delay. In the event of a force majeure condition, the services and/or classes will be extended or, if required, rescheduled for the first available opening. Airbus Helicopters, Inc. will not be liable for any costs, claims, or damages to customer or its employees arising from delays or interruptions caused by any force majeure condition.

The stated duration of the course is based on two student pilots per course. Additional student pilots may change the duration of the flight portion of the course. Airbus Helicopters Inc. instructor pilots fly a maximum of 4.5 hours per day.
Ground School

Day 1

Introduction and General Overview

SCOPE: This block of instruction will cover registration and orientation to the course, an explanation of the course outline, Airbus Helicopters Inc. Training School Operations and a general overview of the helicopter. The general overview will include the main characteristics, description, main dimensions, airframe reference points, the engine, the main components and systems, the cockpit layout of the helicopter, malfunctions, and the helicopter operating publications.

Day 2

Lifting System

SCOPE: This block of instruction will cover the functions of the main rotor drive system, the main gearbox and its components and lubrication system to include the indicating system, air circulation, main gear box caution / warning lights, the rotor brake components and operation. The main rotor, the main rotor blades, the main rotor control assembly, the rotor speed monitoring and indicating system, the aural warnings and the main rotor and main transmission limitations.

Fuselage

SCOPE: This block of instruction will cover the basic structure of the helicopter including the main cabin, the floor structure, aft structure, doors, windows, cowlings, and firewalls.

Day 3

Tail Unit

SCOPE: This block of instruction will cover the tail boom, tail rotor drive system, the tail rotor drive shaft, the tail gearbox, the Fenestron, and tail rotor control failure.

Day 4

Flight Control

SCOPE: This block of instruction will cover the cyclic and collective controls and the tail rotor flight controls, to include the hydraulic system and SAS systems and associated normal and emergencies procedures.
Day 4 Continued

Landing Gear

SCOPE: This block of instruction will cover the landing gear components and their functions, the mounting and characteristics of the cross tubes and skids.

Day 5

Power Plant

SCOPE: This block of instruction will cover the aircraft fuel system components and operation, the TURBOMECA Arrius 2b or Pratt & Whitney PW206B power plant, engine mounting, engine operation, fuel filters, and the fuel injection system, the EECU, the emergency fuel shut-off, the engine monitoring system, the engine lubrication system and oil cooling, the lubrication indicating system, and the engine compartment fire detection system. This section will include an instructor led practical exercise in basic AEO/OEI emergencies utilizing the Helionix Advanced Training System.

Day 6

Electrical System

SCOPE: This block of instruction will cover the direct current power sources, power system components and their functions, layout of the power system components, power distribution, external power units, and the systems associated malfunctions and failures as well as caution / warning lights.

Day 7

HELIONIX

SCOPE: This block of instruction will cover introduction and overview of the Flight Control Display System, First Limitation Indications for AEO and OEI, and VMS Parameters to include description of all components (AMCs, MFDs, etc.), normal pilot operations, emergencies, and pilot trouble shooting. This section will include an instructor led practical exercise in startup/shutdown procedures utilizing the Helionix Advanced Training System.
Day 8

AFCS

SCOPE: This block of instruction will consist of an Automatic Flight Control System overview, to include description of all components (AMCs, APCP, etc.), normal pilot operations, emergencies, and pilot troubleshooting. This section will include an instructor led practical exercise in Autopilot functionality, operation (IFR/VFR), and emergency procedures utilizing the Helionix Advanced Training System.

Day 9

Flight Manual

SCOPE: This block of instruction will cover the flight manual in depth including normal, emergencies, performance planning, weight and balance, and optional equipment.

Final Exam and Course Critique

SCOPE: This block of instruction will include administering an open-book, multiple-choice Final Exam, with emphasis on use of the flight manual to obtain information, knowledge of basic aircraft systems, and the practical use of charts associated with the flight manual. A maximum time limit of four hours is permitted for administering the Final Exam. A critique will be conducted to discuss the exam questions, to answer any student questions, and to evaluate the course as well as the course presentation.
Flight Training 7.5 hours

Day 10-15

Flight 1 1.5 hours

Normal Procedures IAW grade sheet
Modes of stabilization
Optional Maneuvers IAW grade sheet

Flight 2 1.5 hours

Optional Maneuvers IAW grade sheet
OEI Operations

Flight 3 1.5 hours

FADEC Fail / FADEC Emergencies
Tail Rotor Malfunctions
Autorotation

Flight 4 1.5 hours

IFR flight, IIMC Procedures, LNAV, LPV, ILS

Flight 5 1.5 hours

Review and Practice previous maneuvers
Engine Ventilation, EPC, Quick Start, etc.