Technician Training

H135 Avionics Training Course

15 Days / 3 Weeks
Classroom 90 Hours
Practical 0 Hours

Approved By: Ross McMichael_____ Date: __01_/__06_/___2020__

Instructor_____Date ___/___/_____

Rev. 2.3

AIRBUS

The course will include instruction on the aircraft's systems, components, and troubleshooting. Classroom instruction and/or shop demonstrations will be accomplished on avionic/electrical systems pertaining to VHF communication, ADF navigation, VOR navigation, transponder, DME, GPS navigation, radar altimeter, DC power generation and distribution, AC power, pitot-static, warning unit, engine indicating, main gearbox indicating, fuel distribution, integrated modular avionics (IMA/Helionix) and the autopilot system. Functionality of the integrated modular avionics and autopilot systems will be explored utilizing the classroom simulation system trainer HATS (Helionix Avionics Training Simulator)..

OBJECTIVES:

The student will demonstrate an understanding of the fundamental operations and skills necessary to maintain the aircraft in an airworthy condition. The student will be able to perform, in accordance with the appropriate publications, all field maintenance operations necessary to maintain the helicopter up to, but not including, major overhaul or major repair of the aircraft or its components..

PREREQUISITES:

- Certification as an avionics technician with one year practical experience as a rated aircraft technician
- Two Years Minimum Experience as an Active Helicopter Maintenance Technician
- Five years general experience as a commercial or military aircraft technician

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 following items shall serve as the training points for a typical H135 / EC135 CPDS maintenance training course focusing on field maintenance tasks as defined above. The course content shall be revised as necessary to reflect basic production helicopter configuration revision as subsequent aircraft are manufactured.

Introduction Classroom 1.0 Hours

SCOPE: Block of instruction shall include student orientation to the training facility, training materials, safety, policies, procedures, and any additional information relevant for the course.

First Contact Classroom 1.0 Hours

SCOPE: This block of instruction will expose the development and general description of the H135. Subject matter of the maintenance concept and helicopter documentation will be discussed.

Integrated Modular Avionics Classroom 15.0 Hours

SCOPE: This block of instruction will include explanatory interaction and operation pertaining to the EC135 airframe relating to system frequencies, avionics main components, cooling system, power supply, signal definitions, VHF Com, ELT, ADF, VOR NAV, ILS principles, marker beacon, transponder, distance measuring equipment, global positioning system, radar altimeter, STBY horizon, pitot/static backup instrumentation.

Lifting Classroom 1.0 Hours

SCOPE: Block of instruction shall include the description, operation, maintenance, and inspection of the main gearbox, rotor brake, free- wheel clutch attachments of the main transmission to the airframe, main rotor system, main rotor blades, and track & balance of the main rotor system.

Tail Unit Classroom 1.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the tail boom & fenestron assembly, horizontal & vertical stabilizers, tail rotor drive shaft, hangar bearings, tail rotor gearbox, and the tail rotor fenestron assembly.

Flight Control Classroom 2.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the main system, cyclic and collective controls, mixing lever assembly, swashplate, tail rotor systems, and flight control trim system.

Hydraulics Classroom 1.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the main and tail rotor hydraulic system, indicating and testing system, pressure supply system, and hydraulic actuators.

Fuel Classroom 2.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the fuel storage system, fuel distribution system, equipment plates & sensors, fuel pump supply and monitoring system, fuel supply and feed lines, and emergency fuel shut-off valves.

Fire Protection Classroom 1.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the fire warning system, fire extinguishing system, and the fire monitoring & testing system.

Ice and Rain Classroom 1.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the windshield wiper system and the pitot-static heating system.

Lights Classroom 1.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the position lights, anti-collision light, landing light, instrument lighting, passenger & cargo compartment lighting, and emergency exit lighting system.

Avionics General Classroom 3.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of airframe mounted antennas, the avionic power supply system, instrument cooling and the pitot static system.

Communication Classroom 4.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the audio system and the VHF communication system.

Navigation Classroom 8.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the emergency locator transmitter, automatic direction finder, VHF navigation systems, marker beacon, distance measuring system, transponder, global positioning system, radar altimeter and the integrated electronic standby instrument.

Indicating and Recording Classroom 6.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the Cockpit Voice Flight Data Recorder System and the Vision 1000 Cockpit Camera. Addition discussion will focus on maintenance software to include Aeronautical Data Services, the AH Data Loader and the Maintenance Ground Station.

Autopilot Classroom 21.0 Hours

SCOPE: Block of instruction shall include the identification and description of the AFCS overview, AFCS component layout, AFCS sensors, cockpit crew interface, actuators, display systems, AFCS monitoring, AFCS modes & functions, GPS-based modes, and AFCS system status page..

Electrical Classroom 13.0 Hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the electrical system, DC power system, battery system, emergency power supply system, bonding system, external power supply system, AC power system, electrical power distribution system, and operation modes of the DC power system.

Lights Classroom 6.0 Hours

SCOPE: Students will be given two separate 50 question multiple choice closed book exams. The first exam will be performed mid-week of the second week of the course. The second exam will be performed at the conclusion of the course. Exam scores will be averaged to identify an overall course score. An overall course average of 75% or better is required to receive a certificate of completion. A course critique will be conducted upon completion of the second exam.