



Technician Training

H135 / EC135 CPDS Avionics Training Course

15 Days / 3 Weeks

Classroom 90 Hours

Practical 0 Hours

Approved By: Ross McMachael _____ 01/06/2020

Instructor _____

Rev. 2.1

AIRBUS



This course is comprised of a theoretical presentation and practical exercises necessary to adequately review the basic aircraft systems and perform certain maintenance tasks described in Airbus maintenance documentation. Following the successful completion of this course, the technician should be able to perform Organizational and Intermediate level maintenance tasks and procedures necessary to maintain the helicopter. This course does not include Depot level maintenance tasks and procedures as described below.

ORGANIZATIONAL LEVEL:

Complete maintenance checks and servicing, inspection for condition, and exchange of line replaceable units according to applicable documentation.

INTERMEDIATE LEVEL:

Repair on or off of the helicopter and extended periodical inspections according to applicable maintenance documentation. A maintenance facility, qualified personnel, test equipment, and special tools are required to perform these tasks.

DEPOT LEVEL:

Major repair or overhaul at the manufacturer or at an authorized service station according to special documentation. Tools / test equipment and specialized personnel trained in Depot level maintenance tasks.

PREREQUISITES:

- Currently Certified as an Airframe Maintenance Technician
- Two Years Minimum Experience as an Active Helicopter Maintenance Technician
- In special cases these prerequisites can be waived by the Training Manager

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 3.0 Hours

SCOPE: This block of instruction will include student registration, orientation to the course and training center policies, history of American Eurocopter, course content and a general overview of the aircraft.

Electrical Systems

Classroom 26.0 Hours

SCOPE: This block of instruction will provides identification, location and general maintenance for the airframe electrical components to include DC power generation, battery system, bonding system, external power, DC power distribution, AC power system, lighting system, Cockpit Display System (CDS), pitot-static system, switch unit, warning unit, fire warning, fire extinguishing, Central Panel Display System (CPDS), engine indicating system, main gearbox indication, fuel distribution system, hydraulic systems and the trim system.

Avionics

Classroom 17.0 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.

Flight Control Display System (FCDS)

Classroom 13.0 Hours

SCOPE: This block of instruction will include explanatory interaction and operation of a dual system, four screen architecture (pilot and copilot) encompassing the instrument control panel, PELICAN rack, SMD45/68 displays, reconfiguration unit, Attitude and Heading Reference System (AHRS), air data computers (ADC) and FCDS maintenance/data transfer procedures.



Auto Flight Control System (AFCS)

Classroom 26.0 Hours

SCOPE: This block of instruction will include description of system components to include the digital autopilot computer (APM), mode selector (APMS), cyclic and collective controls, AHRS, stability augmentation components (SAS), fiber optic gyros and actuators. Operation of the autopilot will be explored with regards to basic attitude hold function and the expanded navigation mode parameters utilizing a computer generated simulator of the FCDS/AFCS systems. Instruction of a simplified and detailed schematic block diagram of the autopilot will conclude with an overview of the Digital Test System (DTS).

Exam and Critique

Classroom 5.0 Hours

SCOPE: This block of instruction will include administering the final airframe exam, critique of the exam and course critique. The exam will be a comprehensive closed book multiple choice type exam and include questions on information presented in each of the blocks of instruction presented during the course of instruction. A critique will be conducted to discuss the exam and answer any student questions.