



Pilot Training

EC130 Differences Training Course

Ground School	6 Hours (2 Days)
Sim	0 Hours
Flight	0 Hours

**SCOPE:**

This course will provide a complete Differences Pilot Ground School on the EC130 B4 helicopter. Classroom instruction, combined with handouts, will provide complete information for a thorough understanding of the aircraft's differences as well as its specific limitations and emergency procedures.

OBJECTIVE:

To teach the student the fundamental knowledge of the aircraft's differences necessary to conduct safe and efficient ground and pre-flight operations in the EC130 B4 helicopter. Upon successful completion of this course, as evidenced by passing the Limitations Quiz and the EC130 B4 Differences Pilot Ground School final exam, the student should be able to conduct operations, within the limits of Aircraft Ground Instruction, 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

6 hours

General Overview and Limitations

0.3 hours

SCOPE: This block of instruction will cover registration and orientation to the course, an explanation of the course outline, Airbus Training School Operations, and a general overview of the helicopter and general flight manual limitations. The overview will include the main characteristics, performance data, general aircraft differences, engine differences, VEMD, the collective pitch lever, and major structural differences. A Review Questions segment will be conducted on the material presented. A Limitations Review will be administered and corrected and retained by the student.

Structure

0.4 hours

SCOPE: This block of instruction will cover the differences in structure to include the four main structural areas, the enlarged cabin area, the tailboom, fenestron, and horizontal stabilizer, the windows and doors, the Door Caution light, and the mustache landing gear with its aft fairings. A Review Questions segment will be conducted on the material presented.

Main Rotor Drive System and Main Rotor

0.4 hours

SCOPE: This block of instruction will cover the differences of the main gearbox lubrication system, the main gearbox system components, the rotor brake, and the new overhead controls and switches. It will also cover the differences in the main rotor system, the NR monitoring system, and the associated emergency procedures. A Review Questions segment will be conducted on the material presented.

Tail Rotor Drive System And Tail Rotor

0.4 hours

SCOPE: This block of instruction will cover the differences in the tail rotor drive system and the tail rotor, including the drive shaft differences as well as the major fenestron differences, the tail rotor potentiometer, and the associated emergency procedures. A review questions segment will be conducted on the material presented.



Electrical Power

0.3 hours

SCOPE: This block of instruction will cover the differences in the electrical power system, including the components and their functions, component layout, the Direct Battery switch, the electrical system limitations, and the associated emergency procedures. A Review Questions segment will be conducted on the material presented.

Flight Controls

0.4 hours

SCOPE: This block of instruction will cover the differences in the flight controls to include the twist grip throttle, the Limit switches, and the full-length flexball cable. The associated emergency procedures are covered as well. A Review Questions segment will be conducted on the material presented.

Hydraulic System

0.4 hours

SCOPE: This block of instruction will cover the differences in the hydraulic system to include the dual hydraulic package, both hydraulic pumps and their associated drive mechanism. Additionally covered are the differences in the servo controls to include the dual bodied tandem mounted servos and the lack of accumulators or a tail rotor servo. Also covered are all of the associated emergency procedures. A Review Questions segment will be conducted on the material presented.

Fuel System

0.3 Hours

SCOPE: This block of instruction will cover the differences in the fuel system to include the fuel tank vent, the starting pump, the overhead fuel valve shut-off handle, the fuel filter, the fuel system controls and monitoring, and the associated emergency procedures. A Review Questions segment will be conducted on the material presented.

VEMD And Flight Instruments

0.4 Hours

SCOPE: This block of instruction will cover the Vehicle and Engine Multifunction Display and the Flight Instruments. The associated emergency procedures are covered as well. A Review Questions segment will be conducted on the material presented.



Engine

0.5 Hours

SCOPE: This block of instruction will cover the Arriel engine, the oil system operation, the various monitoring and indication systems, engine limitations, engine controls and the location of starting components, the FADEC, the EBCAU, the engine fire detection system, and the associated emergency procedures. A Review Questions segment will be conducted on the material presented.

Flight Manual – Sections 5 & 6 - Performance Charts and Weight & Balance

0.4 hours

SCOPE: This block of instruction will cover various Performance Charts and the Weight and Balance Charts, as well as their usage and their application.

Flight Manual – Section 2 & 3 - Starting & Checks and Crew Resource Management

0.5 hours

SCOPE: This block of instruction will review the emergency procedures and caution / warning panel lights, as well as their meaning, and the proper corrective actions to be taken by the pilot.

Flight Manual – Section 4 - Starting & Checks

0.3 hours

SCOPE: This block of instruction will cover the starting sequence, what to look for, what checks are to be performed, how to accomplish these checks, and the 'whys' behind these checks. Grand Prairie Municipal Airport information is available, if appropriate.

Final Exam and Course Critique

1.0 hours

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 and knowledge of basic aircraft systems, and the practical use of charts associated with the flight manual. A maximum time limit of 45 minutes is permitted for administering the Final Exam. The scored Final Exam is retained by the Instructor and placed in the student's permanent file. 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.