Pilot Training

AS350 B2 VEMD Transition Training Course

5 Days / 1 Week

Ground School	**18 Hours (3 Days)**
Sim	**1 Hour per Student**
Flight	**3 Hours per Student**

Rev. 5.1

AIRBUS

SCOPE:

This course will provide a complete Initial Pilot Ground School on the AS350B2 VEMD 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 AS350B2 VEMD Helicopter. Upon successful completion of this course and the AS350B2 VEMD 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 18 hours

Day 1

Registration and Orientation 0.2 Hours

SCOPE: This block of instruction will cover registration and the course outline, Airbus Helicopters, Inc. Training School Operations, and an orientation of the facility

Intro & General Overview 1.1 Hours

SCOPE: This block of instruction will cover a general overview of the helicopter. This general overview will include the main characteristics, operating publications, description, main dimensions, airframe reference points, special configurations, and the cockpit layout of the helicopter.

Flight Manual 0.9 Hours

SCOPE: This block of instruction will cover an introduction to the Rotorcraft Flight Manual. Flight Manual sections and flight manual revision will be discussed. T.I.P.I. and any applicable ADs will also be introduced. A review questions segment will be conducted on the material presented.

Aircraft Limitations 1.0 Hours

SCOPE: This block of instruction will cover aircraft and flight limitations. A review questions segment will be conducted on the material presented.

System Operation Indication / VEMD 1.2 Hours

SCOPE: This block of instruction will cover system operation indications, including the Caution Warning Panel and VEMD. The VEMD will be covered in detail, including configuration and maintenance functions. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Structure 0.4 Hours

SCOPE: This block of instruction will cover the basic structure of the helicopter including body structure, rear structure, canopy, bottom structure and cabin floor, tail boom, tail unit, doors, cowlings, fairings, and bulkheads. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Day 1 continued

Landing Gear 0.2 Hours

SCOPE: This block of instruction will cover the skid type landing gear and ground resonance. A review questions segment will be conducted on the material presented.

Cockpit and VEMD Familiarization 1.0 Hours

SCOPE: This block of instruction will be conducted using the Aircraft. The student will be introduced to the cockpit layout and shown the functions of the VEMD.

Day 2

Main Rotor Drive System 0.8 Hours

NOTE: A Limitations Quiz will be administered before the next block of instruction. The Instructor will retain the scored Limitations Quiz, which will be placed in the student's permanent file.

SCOPE: This block of instruction will cover the functions of the main rotor drive system, the main gearbox attachment and suspension, the engine to main gearbox coupling, the main gearbox components and lubrication system, main gearbox oil cooling, and the rotor brake components and operation. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Main Rotor 0.7 Hours

SCOPE: This block of instruction will cover the main rotor, the main rotor mast, the main rotor hub, the main rotor blades, the rotor speed monitoring system, and the vibration absorbers. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Tail Rotor Drive System 0.4 Hours

SCOPE: This block of instruction will cover the main gearbox to tail rotor drive system and the tail rotor drive shafts and components. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Day 2 continued

Tail Rotor 0.6 Hours

SCOPE: This block of instruction will cover the tail rotor, the design principles, the functional and schematic description, characteristics, the tail rotor gearbox monitoring system, and the tail rotor components. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Rotor Controls 0.4 Hours

SCOPE: This block of instruction will cover the operating principles of the flight controls, the main rotor controls, their operation and their components; and the tail rotor controls, their operation and their components. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Servo Actuators and Hydraulic System 1.5 Hours

SCOPE: This block of instruction will cover the servo actuators, the yaw load compensator, an overview of the principles of the hydraulic system, components and their location, system functions, and the hydraulic system operation. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Electrical Power System 0.8 Hours

SCOPE: This block of instruction will cover the direct current power sources, power system components and their functions, layout of the power system components, direct battery power, and power distribution to consumer circuits. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Fuel System 0.8 Hours

SCOPE: This block of instruction will cover the fuel system components and their functions; fuel system operation, controls, and monitoring; and the location and characteristics of the fuel system components. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Day 3

Engine Installation and Oil System 1.0 Hours

SCOPE: This block of instruction will cover the Arriel engine, engine mounting, and the engine oil cooling system and oil monitoring system to include system components and their location, system operation, and their main features. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Engine Fuel Control & Starting 0.8 Hours

SCOPE: This block of instruction will cover the engine controls, the operation principle of the engine controls, and the engine control linkage components and their location. Also covered will be the governing system as well as manual fuel control and the engine start and shut down procedure. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Engine Power Monitoring 0.4 Hours

SCOPE: This block of instruction will cover engine power monitoring of the gas generator, the power turbine inlet temperature, and torque, including the location of the indicators. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Engine Fire Detection and Engine Failures 0.6 Hours

SCOPE: This block of instruction will cover the engine fire detection system and indicators. Also covered will be autorotation and engine relight procedures. Engine failures will be discussed and a review questions segment will be conducted on the material presented.

Heating and Ventilation 0.3 Hours

SCOPE: This block of instruction will cover the seating and cabin equipment, the heating and demisting system, and the cabin ventilation system. A Review Questions segment will be conducted on the material presented.

Day 3 continued

Interior and Exterior Lighting 0.3 Hours

SCOPE: This block of instruction will cover the interior lighting systems to include the dome light units, instrument panel and console lighting, the principle of the instrument panel light generator and the layout of the instrument panel lighting. Exterior lighting subjects covered are the anti-collision and position lights, as well as the landing and searchlights. Relevant emergency procedures will be discussed and a review questions segment will be conducted on the material presented.

Pitot Static System and Instruments 0.3 Hours

SCOPE: This block of instruction will consist of a description of the pitot static system, the principle of operation, and the system components, as well as the pitot head characteristics and its heating system, and the location of the pitot static system controls and instruments. A Review Questions segment will be conducted on the material presented.

Performance and Weight & Balance 0.8 Hours

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

Pre-Flight / P-Inspection 1.5 Hours

SCOPE: This block of instruction will cover a thorough preflight / P-inspection, conducted on the aircraft and referring to FM sections 4 and APP 8.2.

Final Exam 2.0 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, knowledge of basic aircraft systems, and the practical use of charts associated with the flight manual. A maximum time limit of two hours is permitted for administering the Final Exam. The scored Final Exam is retained by the Instructor and placed in the student's permanent file.

Flight Training — 4 Hours

Day 4 & 5

Flight 1 — 1.5 Hours

- Cruise flight maneuvers
- Hovering flight
- Take off and approaches including running landings
- Hydraulic system failures

Flight 2 — 1.5 Hours

- Tail rotor loss of control
- Autorotations

Simulator Flight — 1.0 Hours

- Start malfunctions
- Caution/warning lights
- System malfunctions
- Tail rotor loss of control
- Tail rotor loss of thrust