



HELICOPTERS
Training Services

H 120

Course Syllabus

Initial Type Rating

Pilot Training

AIRBUS

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General Information

➤ Course Objective

The Initial Type Rating course provides knowledge and proficiency to operate H120 with a high level of safety and great efficiency, in accordance with EU 1178/2011 requirements.

➤ Pre-requisites

A. Language

The following language requirements are applicable in order to follow a course in English:

- ICAO English level 4 (Operational Level) is the minimum required proficiency level
OR
- IELTS, International English Testing System, level 5 recommended,
OR
- TOEIC, Test of English for International Communication, score of 605-780 recommended.

An Aeronautical English test is available for all trainees, free of charge, on the AHTS Learner Portal.

In case English skills of the trainee are not in accordance with here above paragraph, the training shall be performed with the presence of an interpreter and the cost of the interpreter shall be met by the customer. Course duration may increase with an extra time of 20-30%.

B. Medical aptitude

Applicants to a type rating shall comply with course pre-entry requirements imposed by the Authorities. Consequently, they must provide a current valid medical certificate corresponding to the privileges of the license (class 1 or class 2 – (EU) 1178/2011 regulation).

C. Checks

The eligibility conditions are checked by the instructor in charge of the first course during the trainee's registration, based on the information provided by the customer to the contract management/AHTS-Sales department prior to the arrival of the candidates.

The requirements are confirmed by the instructor for each trainee (dates of licenses, etc.) on the first day of the first course.

General Information

D. Technical Knowledge

In order to undertake the training the candidate must satisfy the following conditions:

- Hold a Pilot's license issued by a relevant aviation authority;
AND
- Be able to prove a minimum recent experience of 5 flight hours as a helicopter Pilot in Command (PIC) within the last 12 months;
AND
- Depending on the qualification of the trainee, and based on the EU 1178/2011 regulation, the following requirements are to be met:

From SEP: Turbine pre-entry course (performed during the type rating theoretical knowledge part of the course)

Registration Information

MANDATORY

- Passport / ID card (EU citizens only)
- Registration form (with personal e-mail address)
- Medical certificate
- Pilot license with type rating
- Last page of pilot logbook

Copy to send by mail: support.registration.ahts@airbus.com
contact.ahts@airbus.com

In order to ease the administrative process, all documents shall be filled in and sent back to AHTS at the latest 45 days prior to the training session, to allow time for processing and eventually consideration by the relevant authorities or governments.

Originals are to be presented the first day of the training course.

Duration

Total duration: 9 days

Location

At AHTS site, Marignane, France OR at Customer's premises

Training

7 Theoretical Program (23 hours)

Theoretical courses for initial and additional type rating training are the same except that for the Initial type rating, the applicant should have attended the relevant pre-entry turbine engine course. Consequently, the entire duration of all initial type rating courses shall take into account the duration of the pre-entry course at least.

1. OVERVIEW OF THE AIRCRAFT, STRUCTURE, TRANSMISSIONS, ROTORS AND EQUIPMENT, NORMAL AND ABNORMAL OPERATION OF THE SYSTEMS

DIMENSIONS

ENGINE

- Engine type
- Lubrication system
- Fuel system
- Ignition device
- Starting circuit
- Fire detection and protection system
- Generators, alternators and drives systems
- Power indicator
- Engine controls
- Utilization of the engine during the starting phases, malfunctions

TRANSMISSION

- Lubrication
- Generator and generator drives system
- Freewheels
- Hydraulic pump drive
- Indications and warnings

Training

➤ Theoretical Program

TYPE OF ROTORS

- indications and warnings

FUEL SYSTEM

- Location of fuel tanks, pumps, lines, valves and gages
- Filtering, draining, venting.
- Fuel system indicators and monitoring components, quantity and flow rate indications
- Fuel distribution in the different tanks, fuel supply, and fuel drainage

AIR CONDITIONING SYSTEM

- Components and protection devices
- Indicator/ Indicating system in the cockpit; interpretation according to operational conditions
- Normal operation during start-up, cruise flight, approach and landing; conditioned air flow and temperature control

ICE PROTECTION – WINDSHIELD WIPER

- Components of the ice protection system, including engine protections
- Operation of the ice protection system during take-off, cruise flight and descent
- Controls and indications during windshield wiper operation

HYDRAULIC SYSTEM

- Hydraulic system components, tank pressurizing components, aircraft components
- Controls, monitoring units and indicators in the cockpit, function

LANDING GEAR

- Main components

FLIGHT CONTROLS

- Stabilization system
- Control and indicators of the system, including warnings

Training

↗ Theoretical Program

ELECTRICAL POWER

- Number, power, voltage, frequency, and, if applicable, phase and location of the main power systems (AC/DC)
- Location of cockpit controls and indicators
- Main and emergency power supplies to flight instruments
- Location of circuit breakers for vital circuits
- Operation of the aircraft power systems and power supply checking procedures

FLIGHT INSTRUMENTS, COMMUNICATION, RADAR AND NAVIGATION SYSTEMS, AUTOPILOT

- Antennas
- Cockpit controls and instruments of the system
 - Flight instruments (ASI, pitot system, compass system, flight director)
 - Flight management system
 - Transponder
 - Communication and navigation systems (HF, VHF, ADF, VOR/DME)
 - Area navigation system (GPS)
 - Stabilization system

COCKPIT, CABIN AND CARGO COMPARTMENT

- Operation of exterior lights, and cockpit, cabin and cargo compartment lights
- Operation of cabin doors and emergency exits

EMERGENCY EQUIPMENT

- Functioning and operating procedures for the following on board emergency equipment
 - Removable equipment (portable extinguishers, emergency transmitters)
 - Fixed equipment (emergency floatation gear)

Training

Theoretical Program

2. LIMITATIONS

- Limitations according to Flight manual
- Minimum equipment list

3. PERFORMANCE, FLIGHT PREPARATION AND CONTROLS

PERFORMANCE, COMPUTING PERFORMANCE RELATED TO SPEEDS, SLOPES, AND WEIGHTS IN ALL TAKEOFF, EN-ROUTE, APPROACH, AND LANDING CONDITIONS

- Take-off
 - Hover performance IGE and OGE
 - Profiles approved
 - Height/ Speed chart
 - Climb performance
- En-route
 - Correction of IAS
 - Optimum/Best-range cruising altitude
 - Maximum endurance
 - Maximum flight range
 - Climb performance in cruise flight
- Landing (Hover IGE and OGE)
- Knowledge and/or computing of: V_y , V_{NE} , etc.

FLIGHT PREPARATION, NORMAL AND ABNORMAL CONDITIONS

- Optimum/Maximum flight level
- Minimum required flight altitude
- Power settings according to flight path and under various circumstances

EFFECT OF OPTIONAL EQUIPMENT ITEMS ON PERFORMANCE

Training

↗ Theoretical Program

4. WEIGHT AND BALANCE SERVICING

WEIGHT AND BALANCE

- Weight and balance sheets according to the maximum take-off and landing weights
- CG limits
- Influence of fuel consumption on CG
- Attachment points, load tie-down, maximum ground load

LINE OPERATION

- Filling and draining points (fuel, oil, etc.)
- Servicing safety rules.

5. EMERGENCY PROCEDURES

Explain, analyse and summarize the Emergency procedures chapter, to use the helicopter in the conditions required for safe operations.

6. SPECIAL CONDITIONS REQUIRED FOR EXTENDING THE TYPE RATING TO COVER INSTRUMENT APPROACHES TO A DECISION HEIGHT OF LESS THAN 200 FT

7. SPECIAL CONDITIONS REQUIRED FOR HELICOPTERS EQUIPPED WITH ELECTRONIC FLIGHT INSTRUMENT SYSTEM (WHEN FITTED)

Training

↗ Theoretical Program

DISPLAY SYSTEM

- Flight control system
 - Attitude/Heading
 - Altitude/Height
 - Speed
 - Engine first limit indication
 - Different configurations of flight control screens.
- Selection of navigation sensors
 - HSI mode
 - Sector mode
- Navigation screen symbology (Miscellaneous data)
- Different navigation screen configurations
 - Selection of navigation sensors
 - Compass card mode
 - Sector mode
- Reconfiguration after failures
 - Navigation sensors
 - Attitude sensors
 - Various data sensors

Training

Practical program

Flight N°	H120 – Flight titles	Flight duration
1	Familiarization	01:15
2	Various landings	01:15
3	Systems & emergency procedures	01:15
4	Normal and emergency procedures	01:15
Total VFR Training		05:00
Skill Test		01:00
Total training and skill test		06:00

(Note: Course duration may increase with an extra time of 20-30% with an interpreter)

Training

➤ Practical program

FLIGHT N°1: Familiarization (1h15)

SUBJECT

- Displays - Flight controls -Helicopter responses
- Normal take-off and landing procedures
- VEMD environment
- Using of symbology
- Servo Transparency

MAIN POINTS

- Reminder of a single engine helicopter operation.
- Normal procedures.
- Display concept
- Air taxiing.

FLIGHT N°2: VARIOUS LANDINGS (1h15)

SUBJECT

- Various Landings.
- Familiarization with optional equipment
- Emergency Procedures
 - Engine failure (familiarization)
 - Simulated hydraulic system failure
 - Simulated electric generation failures

MAIN POINTS

- Reminder of a single engine helicopter operation.
- Choice of approach axes depending on obstacles and helicopter performance
- Height/ Velocity diagram during take-off and landing phases

Training

➤ Practical program

FLIGHT N°3: Systems and Emergency procedures (1h15)

SUBJECT

- Operating the VEMD:
 - Engine power check
 - Using the VEMD in degraded mode.
- Emergency Procedures

MAIN POINTS

- Attitude setting and holding (accuracy of maintaining the parameters)
- Engine failure; performance of the procedure
- Governing failure

FLIGHT N°4: Normal and Emergency procedures (1h15)

SUBJECT

- Performance class 3
- Operating the VEMD
- Emergency Procedures

MAIN POINTS

- Utilization of the helicopter
- Knowledge of the procedures
- Analysis and decision

Certificate

Evaluation

A *multiple choice question* type examination covering theoretical knowledge will be proposed to the student. The pass mark is at least 75% per week for the theoretical knowledge examination.

Certificate

After successful completion, the trainee will be awarded a PART FCL certificate of approved training for the type rating.

For more information on this course, please do not hesitate to contact us:

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We are looking forward to seeing you at Airbus Helicopters Training Services!

Thank you!



AIRBUS

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