TRAINING AND SIMULATION

CIVIL HELICOPTER TRAINING & SIMULATION SOLUTIONS

From ab initio training and recurrent training up to complex mission exercises
Working with you to develop future solutions

At Thales, we’re committed to delivering high-performance simulation devices and training solutions, now and into the future.

Here’s how we can help you:

**Helicopter OEMs**
From initial pilot training to recurrent training, we provide solutions for both new and existing helicopter models. As your co-development partner, we deliver fully-certified simulators that ensure the best performance and safety for your pilots.

**Helicopter operators**
Keeping pilots’ skills fresh with recurrent training and type rating conversions is vital. There’s also a need to improve safety with operational and mission training. Our diverse portfolio of solutions, including qualified full flight simulators and training centres, offers high levels of realism and flexibility.

**Flight training centres**
From ab initio training to complex mission training for pilots looking to satisfy current regulations and fine-tune their skills. Our offer includes desktop training tools up to qualified full flight simulators that can replicate any aircraft, any environment and any mission. Our services offer includes training with a complete educational programme provided by qualified instructors.
We support your mission success

Thales offers a complete set of advanced training tools, devices and services to help you fulfil your mission objectives. All our training devices are designed to enable instructors to focus on their training goals while crews are immersed in a high-fidelity virtual operational environment. Our training solutions are designed to evolve in line with your changing business needs.

Your safety is our priority
Simulation and training tools are at the heart of helicopter safety – and with about one in five helicopter accidents occurring during training flights, the case for simulation is clear. As well as reducing risk, simulation tools boost fleet availability by saving flight hours in the air.

At your service
Continuous availability is critical. That’s why our simulators are backed up with fully managed services, spares and repairs, so you can operate 24/7 with confidence. We can also provide a complete range of training services for you, including training hours, courseware and instruction.

Featuring all types of mission:
- Offshore oil & gas operations
- Medical emergency
- Search & rescue
- Fire operations
- Civil security
- Aerial works
Training tailored to your needs

Thales offers a complete range of training solutions from desktop to high-fidelity devices to meet every training need:

- Initial, conversion and recurrent training
- Train individual skills and multi-crew member coordination, including rear crew members

**BOOST YOUR TRAINING PROFICIENCY**

**Flight & multi crew coordination**

- Motion based FFS: Full Flight Simulator (level D)
- Motion based FFS: Full Flight Simulator (level B)
- Fixed based FTD: Flight Training Device
- PMT: Procedure & Mission Trainer
- VR Flight Trainer

**Flight & mission training**

**Recurrent training**

**Conversion & type rating**

**Initial training**

**Rear crew trainer**
Available with all our devices:
- Winch operator trainer
- Search and rescue operator trainer

**Networking capability**
All our training devices can be coupled together to enable multi-crew training

**Available platforms as of today**

REALITY H™ IN FOCUS

Highest level of qualification (Level D)

Designed in collaboration with customers, Thales’ Reality H™ Full Flight Simulator offers:

- Outstanding realism with unique 6-axis motion and vibration cueing
- Wide field of view and a high-resolution virtual environment including changing weather, sea and light conditions
- Customised scenarios and simulated malfunctions, enabling pilots to cope with the most complex situations
- User-friendly instructor operating station that presents data in an efficient format, maximising the instructor’s ability to monitor and assess trainee performance
- Rehearse any mission including search and rescue, offshore oil & gas and energy, EMS, public services and aerial works
Innovation that adds value

Building on more than 80 years of leadership, we strive to bring you innovation that delivers true operational value.

Electric motion for higher reliability - Hexaline™
Our unique 6-axis motion cues system for the Reality H™ simulator - Hexaline™ - handles low and high payloads with high-power motion control, provides unrivalled smoothness of motion and ensures total safety. Hexaline™ offers enhanced realism and superior performance to traditional ball screw jacks, as well as reducing total operating costs, delivering outstanding reliability, lowering power consumption and providing full digital control.

Data collection capability
Thales is a pioneer in data collection from real aircraft and equipment. We can build simulators using either data packages provided by the OEM, or data we process ourselves subsequent to a flight-test campaign. Thales provides striking simulation for any helicopter and gets it Level D certified.

Co-development
Manufacturers need to get new helicopters onto the market with minimal delay. But there’s often a big gap between the launch of a platform and its first training simulator. To address this challenge, we co-develop simulators with the OEM so training devices are available on the market simultaneously with the machine.

Enhanced modelling - ThalesView
Effective training depends on immersing the pilot in an authentic simulated environment. We achieve this using high-density terrain databases with appropriate natural physics-based lighting effects to provide correct speed and altitude cues.

Human Performance Monitoring
Training efficiency is improved by allowing an instructor to monitor and evaluate the cognitive state of a trainee. The system uses non-intrusive sensors to collect contextualised physiological data. The data is analysed and an assessment presented to the instructor, enabling a training session tailored to the trainee’s capability with an objective debriefing session and enhanced pedagogical capabilities.

Distance learning
Trainees may be located in multiple geographical locations, potentially across different countries which causes inevitable cost issues. Thales’ solution, which builds on the principles of Service Oriented Architectures and Thales’ proprietary smooth streaming and low latency 60-fps 3D-rendering technology, makes it possible to train remotely, far beyond existing CBT devices. Thales’ Modelling & Simulation as a Service solution will shape the next generation of training and significantly improve safety and operational effectiveness.
Our training centres

Our fully-equipped training centres provide you with everything you need, from training instruction to mission rehearsal support. Training hours are offered for a large number of helicopter platforms. Our extended training services and the optimal location of our training centres across Europe, Asia Pacific and America ensure that training is delivered efficiently.

**Helisim**
**Marseille, France**
Helisim is the world’s first dedicated helicopter training centre and offers state-of-the-art simulation and training services for Airbus Helicopters’ global customers. The simulators have Level D qualification, under EASA regulations, and train 3,000 pilots a year. Since it opened in 2000, the centre has logged more than 135,000 flight hours. Helisim is a consortium of Thales, Airbus Helicopters and DCI.

**Thales LifeFlight Simulation Centre**
**Brisbane, Australia**
With its high-performance Reality H™ full flight simulator, Thales LifeFlight Simulation Centre provides ultra-realistic and cost-effective mission training for AW139 aircrews. The simulator is designed to meet the needs of helicopter operators in oil & gas, search and rescue, and emergency services. The centre is a partnership between Thales and LifeFlight, a world leader in aeromedical care.

**Helisim USA**
**Grand Prairie, Texas (coming soon)**
The Helisim success story continues at the Airbus Helicopters site in Dallas, with the extension of the first helicopter training centre bringing us a step closer to our customers.