Military helicopter training and simulation
Solutions for collective combat training and tactical multi-role missions
Team ready for mission success

Military helicopters play a vital role in sea, land and air operations. Airmobile assets, particularly helicopters, have proven their importance in supporting national security and military operations. Offering agility, rapid deployment and better landing availability, helicopters support missions in conventional conflicts and play an increasingly important role in tackling non-conventional threats.

Each conflict represents a new challenge and requires different approaches. Moreover, avionic systems are becoming increasingly sophisticated and digitalised, while missions are becoming more complex.

At Thales, we are developing technologies that help you prepare your teams for every mission, no matter how complex and demanding the operation is. Our flexible devices have a common backbone which allows full reconfiguration and are multi-platform. For example, a single Helicopter Mission Trainer can be reconfigured for different aircraft typologies.
Create your ideal solution

As a leading systems integrator, Thales can easily help you to build your ideal simulation ecosystem. Our wide-ranging portfolio means we can provide you with everything from individual simulation building blocks up to complete systems.

We can process data ourselves from real aircraft, equipment, weapons systems and sensors, or use data packages from our customers to create realistic cues. An efficient balance between live and synthetic modelling technologies means we can model your mission realistically.

Training capabilities
Full spectrum training capabilities from flight to operational readiness.

- **Initial training**
- **Military mission flight training**
- **Multi-crew training**
- **Multi-aircrafts tactical training**

Our product portfolio covers different levels of fidelity.

- **Helicopter Mission Trainer**
- **Procedure & Mission Trainer**
- **Fixed based FTD Flight Training Device**
- **Motion based FFS Full Flight Simulator (level B/D)**

Tactical, collective and rear-crew training can be applied across our entire portfolio range.

Our training devices can be networked to any other HLA compliant simulators.

Selected military platforms

- **EC635**
- **Tiger**
- **Lynx**
- **Super Puma**
- **Panther**
- **EC725**

- **Mi-35**
- **Gazelle**
- **Fennec**
- **NH90**
- **Cougar**
- **Mi-17**
Training tailored to your needs

Thales offers a complete range of military helicopter training solutions. These range from specific training systems for a single pilot, to turnkey training services for mission rehearsal and complex joint operations.

All flight conditions pilot training

Rapidly acquire and upgrade your helicopter flight skills, from ab initio to complex tactical and combat flight training.

- Flight and cockpit procedures training
- Tactical navigation training
- Tactical communications
- NVG
- Formation flight
- Nap-of-the-earth flying
- Deck landing (ships)

Weapons systems and sensors

Learn how to assess and respond to potential threats and coordinate with the players’ battlefield.

- Tactical sensors: usage and controls (radar, FLIR)
- Helmet-mounted sight and display
- Missiles, guns, rockets
- Electronic warfare systems (command and control)
- Self-protection (warning systems, lasers)
- Reconnaissance, target acquisition and tracking
You can build any force package thanks to our ability to connect simulators in a network.

Mission and tactical environment

Prepare for any mission, anywhere in the world, with programmable mission scenarios and immersive visual effects.

- Combat SAR
- Tactical transport
- Commando insertion and extraction
- Attack and support
- Anti-submarine warfare operations

Crew collective training

Practice crew to multi-crew coordination and prepare to work together in joint operations, no matter how large or complex.

- Rear crew coordination in tactical operations including door gunner/hoist and sonar
- Multi-crew cooperation and multi-platform coordination
- Training for large-scale joint operations (air, maritime, UAS)
Training services backed by our global organisation

Helisim (Marseille, France)

Helisim contributes to 50% of military pilot training in France.

- Four FFS Level D
- Interchangeable cabins
- EASA and FAA certified
- Instructors, maintenance staff and administration
- Military platforms available: Super Puma, Cougar, AS365 N2 and NH90

HATS (Nowra, Australia)

The HATS programme is training future generations of Australian navy and army helicopter pilots.

- Three EC135 T2+ FFS with double certification (FTD3 and FFS B)
- Training development and instruction services
- VR marshalling, rear crew, part task and desktop trainers
- Facility IT support services

Highlights:
- Remote assistance 24/7
- 98% availability rate
- 4,080 operating hours per year

HFTS (Munich, Germany)

Since 2004, HFTS has provided NH90 dedicated collective training.

- Three simulator centres with four NH90 FFMS
- Upgrades and through-life support
- Services provided with a high degree of reliability and availability

Highlights:
- 217,000 training hours to be performed over 15 years in Germany

Tiger training programme

Thales and Rheinmetall Electronics have delivered Full Flight Mission Simulators (FFMS) and Cockpit Procedure Trainers (CPT) for the Tiger helicopter to support the training of French and German crews.

German-French pilot academy:
- 12 simulators (six CPT and six FFMS)
- Yearly training capacity greater than 12,440 hours
- Upgrades of the simulators in 2018
- Four persons for delivering assistance on site

In Australia, the same types of simulators were delivered and certified:
- Two FFMS (Level D) and two CPT in Oakey
- Two CPT in Darwin
Innovation that adds value

Computer Generated Forces (CGF)
Thales’ CGF is a powerful mission and scenarios editor. The behaviour of friend and foe virtual forces can be configured and managed in a tactical environment. The entities operate in complete synergy and in real time as a unified combat unit composed of soldiers and vehicles. This is a fully-immersive experience thanks to the high-fidelity virtual operational environment.

HuMans - transforming the way pilots are trained
Benefiting from the latest advances in pilot’s mental workload studies and non-invasive monitoring devices, Thales has developed a new tool: HuMans. This is a disruptive eyetracking solution for pilot performance monitoring and assessment, integrated into the Reality H™ Full Flight Simulator. It will enable training centres to comply with Evidence Based Training (EBT) requirements and opens the way to defining a new training curriculum.

Experience our high-fidelity terrain
Thales provides high-fidelity and precision terrain databases based on your operational needs and requirements. Our solution, Thales View, is fully immersive, with visual effects including lighting, wind, air and ground. We are able to rapidly generate any terrain, anywhere in the world, to help you prepare real missions in advance.

NUADA – networked training and simulation
NUADA is a platform developed by Thales to enable teams to work seamlessly together in a collaborative environment, no matter where they are located. They can schedule, create and track an event programme more effectively, using fewer resources and reducing the cost of training. Networking makes it possible to create collective environments in which dispersed military units can train and prepare for missions together.

Through-life support and upgrades
Operate 24/7 with our spares, repairs and expert on-site assistance to ensure that your training systems are available at all times.