CRAFT
HELI CRAFT
CUSTOMIZABLE SIMULATOR

Customizable, high-fidelity helicopter simulator designed to meet today's goals and tomorrow's needs.
Leveraging 35 years of market experience, HELI CRAFT is our adaptable helicopter simulator built to deliver the highest fidelity at the most competitive price. HELI CRAFT’s design is based on a robust, modular platform that is capable of evolving as your goals and requirements change. HELI CRAFT gives you the ability to shorten delivery timeframes, customize your system to target specific requirements, and lower the overall cost of your solutions.

The result of decades of experience in advanced software design, simulation, and human-machine interfaces for the top 100 aerospace and defense companies in the world, HELI CRAFT offers an out-of-the-box solution that not only greatly reduces integration time, but also provides substantial cost savings.

**APPLICATIONS**

The HELI CRAFT customizable helicopter simulator is designed to adapt and scale to not only meet your current requirements, but also evolve to fulfill future needs.

Built as an effective alternative to traditional ‘hard-coded’ or ‘black-box’ simulators, HELI CRAFT’s unparalleled flexibility means that it can easily be configured for pilot training, “test bench” research, or new product development and design. Customizable avionics, aerodynamics, weight and balance, hydraulics, engines, weather, and much more, make HELI CRAFT a truly adaptable solution.

As a training platform, the motion-enabled HELI CRAFT boasts exceptional fidelity in vehicle realism, flight controls and mission specifications. The 3D environment can be viewed using a full range of sensors such as EO, NVG, Infrared, Radar, LiDAR, and Leddar. From custom weather to varied forces and complex mission scenarios, both pilots and instructors can maximize their effectiveness and training objectives.

For “test bench” research and design projects, HELI CRAFT’s realistic environments and flight models are paramount. Our simulator gives you total control over all technical and tactical environments, and provides you with the freedom to customize a platform to achieve your goals.

Whether you are looking for fully immersive mission training, or a versatile and robust research or product development platform, Presagis HELI CRAFT is built to meet your requirements.

**BENEFITS**

**FAST INTEGRATION**

With much of the work and integration already done, you can start training, testing, or customizing almost immediately.

**LIMITLESS CONFIGURATIONS**

Avoid purchasing multiple platforms. HELI CRAFT can be configured to simulate any rotary-wing aircraft — real or imagined. In addition, HELI CRAFT can be used as a standalone system or networked for classrooms, team training or mission rehearsals.

**FLEXIBLE PLATFORM**

Take advantage of HELI CRAFT’s modular architecture to add or test your own systems or subsystems on a high-fidelity platform.

**LOW COST**

Aggressively priced, and paired with reduced development costs, HELI CRAFT not only suits restrictive budgets, but also allows organizations to accomplish more for less money.

**MAKE YOUR OWN CHANGES**

Includes temporary set of developer licenses so you can customize or extend HELI CRAFT long after it has been delivered.
COCKPIT

The HELI CRAFT Cockpit is designed to mimic any category of helicopter profiles and is made of high quality components to provide the best immersive flying experience. The HELI CRAFT cockpit can be customized by our technical professional service staff in order to meet your specific needs.

COCKPIT COMPONENTS

The cockpit includes high-quality cyclic, pedal, collective, throttle and toe brake with adjustable distance and pressure response. All components are of aeronautical grade including CWB certified welding to resist to years of operation and vibration.

The cyclic and collective offer a typical grip equipped with a high-quality Force Trim Release (FTR) for highly realistic handling. The collective also offers adjustable friction and pedals position and can be adjusted via an electrical switch. The controls are complemented by a high-quality seat and adjustable avionic instrument rack. Finally, HELI CRAFT is audio-ready for a pilot headset.
THE HELI CRAFT COCKPIT COMES EQUIPPED WITH

Flight Controls devices:
- Cyclic with customizable feel, common grip (trim switch, button, switches, FTR)
- Pedal with customizable feel and electrical positioning adjustments
- Collective with adjustable friction, common grip (buttons, switches)
- Throttle
- Toe brakes
- Supports general aviation & helicopters headsets

High quality seat
Avionic rack adjustable touch screen-monitor
High quality electrical components
Assembly and adjustment aeronautical quality
CWB certified welding

The Avionics Station provides high quality graphic visualization for the multi-touch screen of the avionics cockpit display.

THE STATION INCLUDES THE FOLLOWING COMPONENTS AND FUNCTIONALITY

- Avionics cockpit displays
- 2D/3D moving maps
- Audio communications
- Weather radar simulation

COCKPIT HARDWARE
- One high-end computer
- One 23” touch-screen
- One pilot headset
- Motion system
IMAGE GENERATION / OUT-THE-WINDOW

The cockpit is complemented by an elegant five-screen rack that also encases all simulator cables to simplify installation. The mounting rack offers many adjustments to optimize screen configuration and match your target helicopter layout.

The Image Generation Station provides high quality graphic visualization for high resolution terrain database environment including weather conditions, 3D clouds, special effects, 3D vehicles and human characters. Flying simulation can take place at any time of the day or night.

\THE IMAGE GENERATION STATION INCLUDES THE FOLLOWING FUNCTIONALITY

- Visual Field of View 110° x 60° for a truly immersive experience
- Left and right chin window displays
- Weather conditions (rain, snow, dust, etc.)
- Special effects (fire, dust, flare, explosion, etc.)
- 3D clouds and vehicles

\IMAGE GENERATION MOUNTING SCREEN RACK

- Three 55” 4K monitors
- Two 27” High Definition monitors
- Vertical and adjustments for optimized position and configuration

\IMAGE GENERATION HARDWARE

- Three high-end computers
- High-end graphics cards
CONTROL AND MANAGEMENT STATION / IOS

The Control and Management Station is comprised of two parts; launch and process control, and the Instructor Operator Station (IOS).

The Process Utility Manager orchestrates all system processes and constantly monitors the operation of all systems components.

The IOS is designed to assist the instructor in controlling the simulated training environment and monitoring all aspects of pilot/crew performance in the simulator. The instructor can control and supervise functions such as the observer point of view, the aircraft position and control systems, the meteorological and environmental conditions as well as all tactical and technical aspects of the scenario.

The sample 3D terrain databases features objects and points of interest that include roads, rivers, coastlines, buildings, oceans, vegetation, electrical network, airfields, ports and airports.

\ THE CONTROL AND MANAGEMENT STATION INCLUDES THE FOLLOWING FUNCTIONALITY

- 3D point of view of the helicopter ownership
- High accuracy helicopter flight model
- System Management tools
- Training management tools
- Audio communications
- Sample high-resolution 3D visual terrain database
- Content-rich training scenario
- 3D model library
- Sound generation

\ CONTROL AND MANAGEMENT STATION HARDWARE

- One high-end computer, keyboard, and mouse
- Three 24” monitors
- One Multi-Screen monitor stand
- One 3D mouse to control the observer point of view
- One radio headset
- Speakers with sub-woofer
- Local Network components


\**OPTIONAL SENSORS AVAILABLE**

HELI CRAFT can be equipped with the following physics-based radar simulation modes:

- IR
- NVG
- Spot SAR
- Strip SAR
- ISAR
- MTI
- GMTI
- DBS
- STT
- TWS
- LiDAR*
- Leddar*

*: Technical services required

\**INCLUDED SCENARIO & DATABASE**

HELI CRAFT also includes a high-quality database – with a scenario -- out-of-the-box so you can start testing or training immediately.

- Yemen database
- Convoy Follow scenario
EXPERT SERVICES

Presagis Technical Services can help you get the most from your HELI CRAFT investment. In order to support our customers’ development efforts we offer a wide variety of services including product training, product customization, content development, and product adoption guidance.