

CRAFT

# HELI CRAFT

CUSTOMIZABLE SIMULATOR

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**PRESAGIS**  
MAKE IT REAL

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Customizable, high-fidelity helicopter simulator designed to meet today's goals and tomorrow's needs.

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Leveraging 35 years of market experience, HELI CRAFT is our adaptable helicopter simulator built to deliver the highest fidelity at the most competitive price. As with all Presagis products, HELI CRAFT has been built for adaptability and can be customized in order to meet your specific needs. 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.

## 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. HeliCRAFT can be configured to simulate any rotary-wing aircraft — real or imagined.



### FLEXIBLE PLATFORM

Take advantage of HeliCRAFT'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, HeliCRAFT not only suits restrictive budgets, but also allows organizations to accomplish more for less money.



### MAKE YOUR OWN CHANGES

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

## 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 and Radar. 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.

HELI CRAFT is 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.

Clients using HELI CRAFT benefit from lower development costs, and a significantly faster time to market.

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.

HELI CRAFT



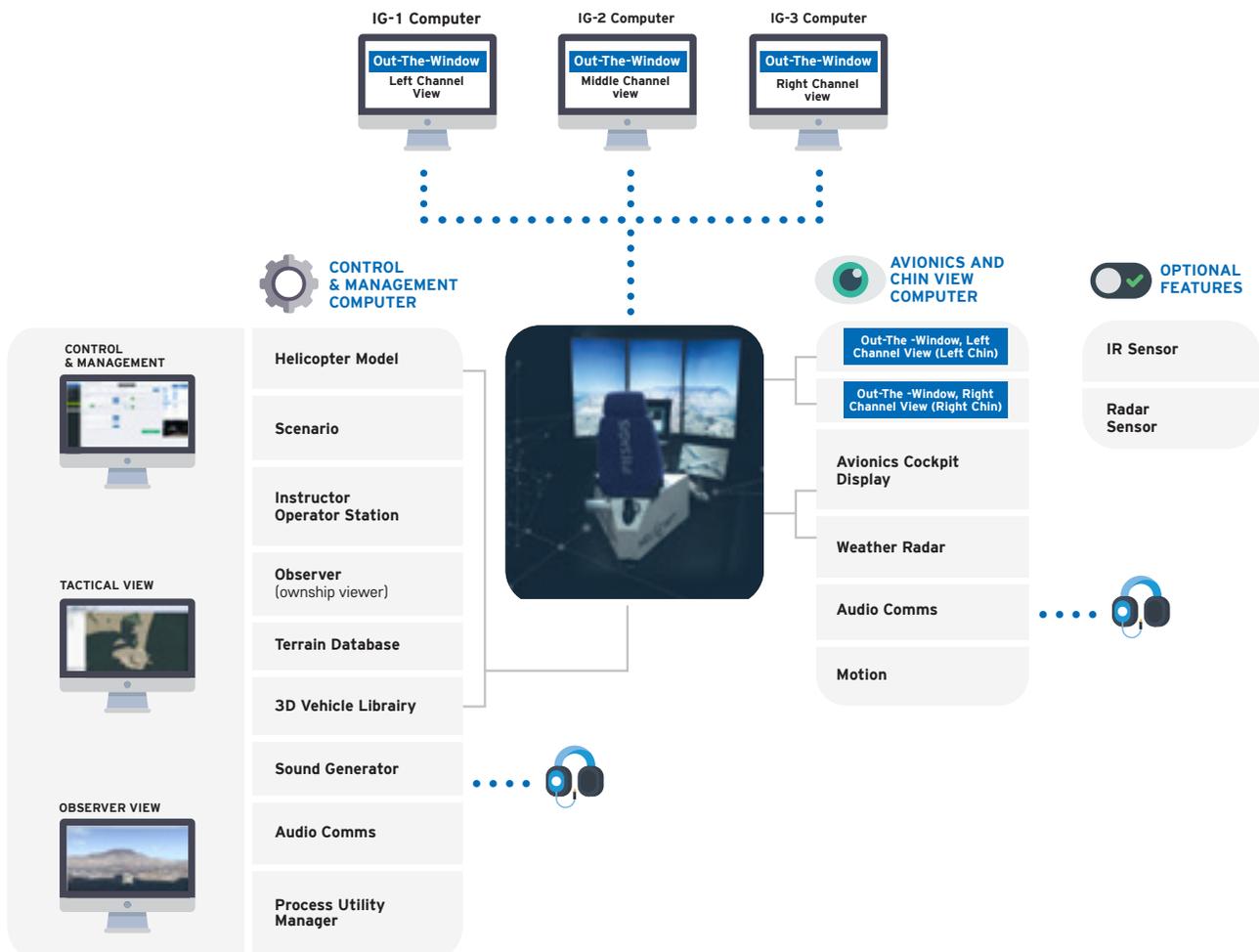
# COCKPIT

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.



## 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

### COCKPIT PRESAGIS RUNTIME SOFTWARE

- \ Two Vega Prime with simulated human characters
- \ VAPS XT
- \ Ondulus Radar (RBGM with weather)
- \ Optional sensors available



# IMAGE GENERATION / OUT-OF-THE-WINDOW

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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 90° 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

## **IMAGE GENERATION PRESAGIS RUNTIME SOFTWARE**

- \ Three Vega Prime with simulated human characters.



# 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

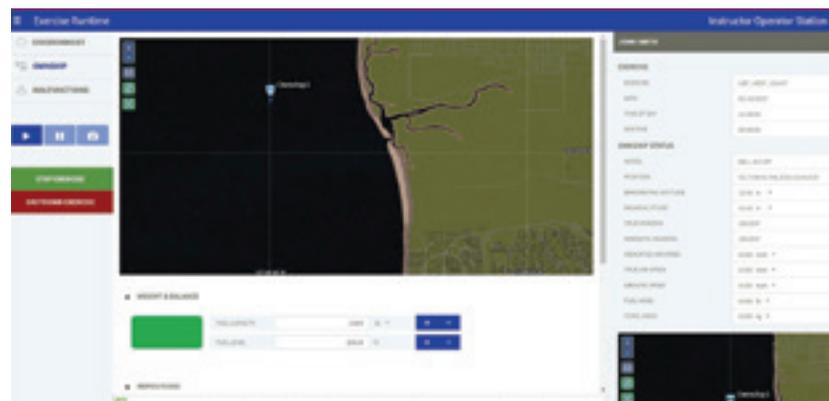
- \ 3D point of view of the helicopter ownership
- \ High accuracy helicopter flight model
- \ System Management tools
- \ Training management tools
- \ Audio communications
- \ Sample high-resolution 3D visual terrain database
- \ Content-rich training scenario
- \ 3D model library
- \ Sound generation

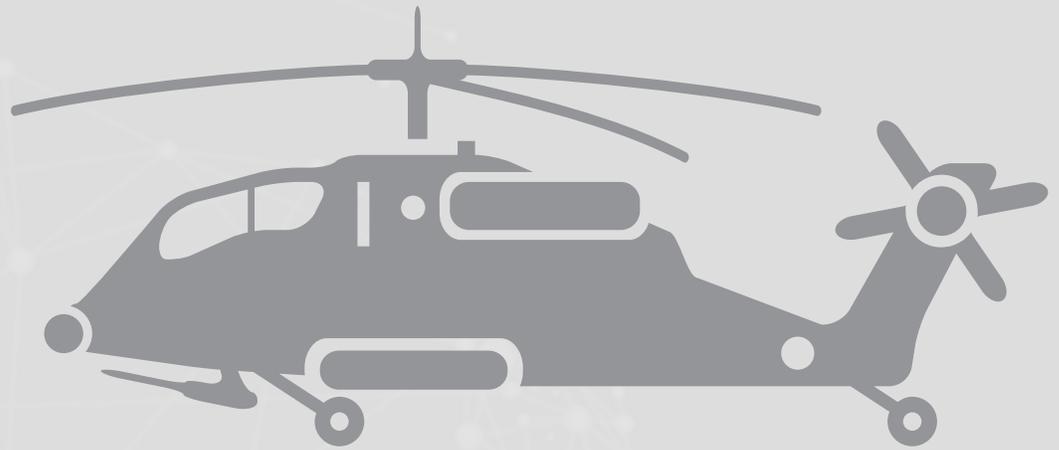
## CONTROL AND MANAGEMENT STATION HARDWARE

- \ 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

## CONTROL AND MANAGEMENT STATION PRESAGIS RUNTIME SOFTWARE

- \ HeliSIM
- \ STAGE
- \ Vega Prime Pro
- \ Human Characters
- \ IOS Server
- \ Process Utility Manager





### **OPTIONAL SENSORS AVAILABLE**

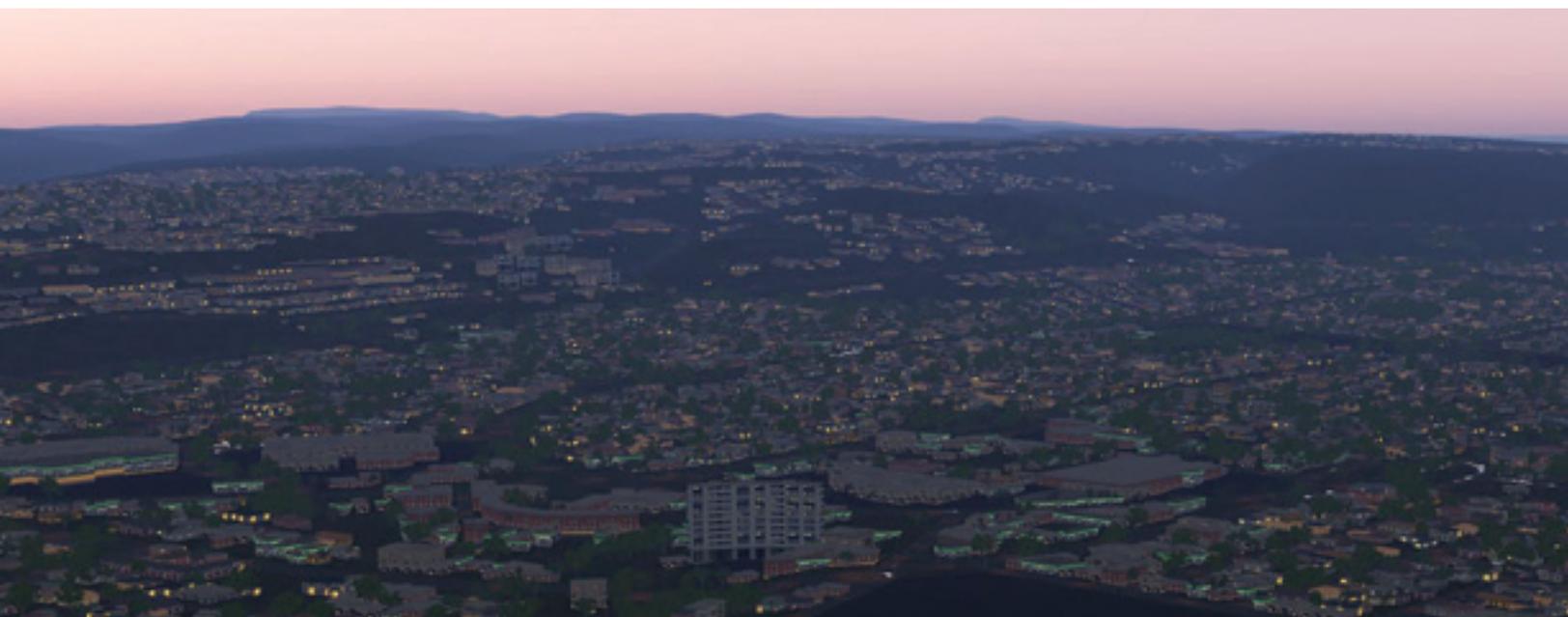
HELI CRAFT can be equipped with the following physics-based radar simulation modes:

- \ MTI
- \ iSAR
- \ Strip SAR
- \ Spot SAR
- \ EO/IR physics-based sensor simulation
- \ Display (streaming video)

### **INCLUDED SCENARIOS & DATABASES**

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

- \ Yemen database
- \ Convoy Follow scenario
- \ Tijuana database
- \ Drug Raid scenario





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