



The Next Generation

Modular, Field Deployable Simulators & Training Devices

*Military Flight Trainers - Vehicle Simulators - Flight Controls
Rotary & Fixed Wing Cockpit Manufacturing - FAA Approved FTD's & AFTD's
Display Systems & Enclosures - Integration Services & Consulting*

Capabilities Brochure

v 11.01.03

The **RealSims FasTrac Reconfigurable Flight Trainer** is line of field deployable, rugged training devices specifically designed to take advantage of a unique, flexible and modular design concept that enables rapid and cost effective transformation of the training environment using interchangeable consoles, dashboards and control devices. A robust patented mounting system provides unlimited flexibility to allow the platform to be affordably reconfigured to emulate any type of rotary, fixed wing aircraft or ground vehicle cockpit at any fidelity.

FasTrac's Platform Optimization Deck (POD) serves as the primary base unit of construction Each POD includes a thick 5/8" Deck Plate with an array pattern of mounting points on the deck surface enabling the POD to be easily configured (without retrofit to the mounting structure) to support any cockpit configuration or internal console/control system layout, regardless of vehicle or aircraft type. FasTrac is a Commercially Available Off The Shelf (COTS) product that can be configured to meet the exact needs of the customer, integrator or prime



contractor looking to source the mechanical components needed to complete a fully integrated flight trainer or simulator at a very affordable price point.

In addition to supporting rapid mounting of a number of available flight consoles (front dash, center and overhead panels) and flight/driver controls the PODS are designed to accept optional exterior fuselage skins and integral mounted display system truss assemblies and projection screen supports.

Under the POD deck there are provisions to mount, rack computers, power supplies, switches, routers, audio speakers and control loader actuator and their linkage. The deck plate can be easily removed from the lower base support frame and affixed directly to a multi axis motion platform, or a fully enclosed fiberglass enclosure can be installed.

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Capt Larry McCracken, XO NAVAIR Orlando FL provides pre flight instruction on the Navy's SH60 FasTrac trainer to Florida Congressmen and Speaker Tom Feeney

FasTrac was originally designed by RealSims under a contract with the US Navy (NAVAIR Orlando, FL). the contract called for the delivery of a small, compact, modular reconfigurable trainer that can be organized in side by side or front and back configurations at varying elevations, fidelity modular enough to be deployed aboard ship or used in clusters within a classroom training environment. The result of the design enables the commercially available FasTrac system to be used as a single seat pilot trainer, a dual seat side by side trainer for pilot, co-pilot or multiple collaborative aircrew training. Set up in a tandem configuration, the trainer can be reconfigured for use as an Apache AH64D Longbow, or other helicopter, as well as a single or dual seat fast jet aircraft.

RealSims offers a wide variety of modular cockpit consoles, exterior fuselage skins, flight control packages and seats that can be configured to any fidelity necessary to support the optimum training experience. Figure 1 depicts a US Army Kiowa Warrior OH58D Dual Seat High Fidelity configuration. Our "Roll Your Own" approach using interchangeable dashboards, overhead and center consoles, flight control packages etc, enables you to select the type and fidelity of aircraft or vehicle you need NOW.. You can easily upgrade to a more robust level of trainer as the students advance through the training program without paying a premium UP FRONT for features you do not currently need. You can add a co-pilot location later or converting the trainer from a single seat (Part Task/Procedures) trainer to a full high fidelity Aircrew trainer.

Transforming From One Configuration To Another Is Easy And Affordable just swap out the interchangeable dashboards, overhead, center consoles and flight controls as needed. These modular components attach to the POD via our GRID MOUNTING deck. FasTrac can be configured to support any type of aircraft cockpit environment from fixed wing Cessna's and Lear Jets and Heavies. Several military rotary wing configurations are available for : TH 57/67, OH58, A & D, CH47,



RealSims CEO Bob McGraw Demonstrates US ARMY TH67 Single Seat, Single PCIG Helicopter Procedures Trainer With Immersive 2.25 meter Hemispherical Dome Display and Low Cost Virtual Instrument Panel At US Army Research Lab Ft Rucker Alabama

UH1,MH60, or Apache AH64D Longbow. We also offer several Commercial Helicopter Configurations such as : Bell Jet Ranger series, Eurocopter EC 135, SU76, SU90. FasTrac PODs can even be configured for use as a vehicle simulator for : Automobile, HumVee or Construction equipment.



Congressmen Feeney Fly's the US Navy 3 channel TH 57 Trainer While **RealSims CEO Bob McGraw** looks on



Dual Seat High Fidelity OH58D Kiowa Warrior With Optional Exterior Fuselage
Figure 1

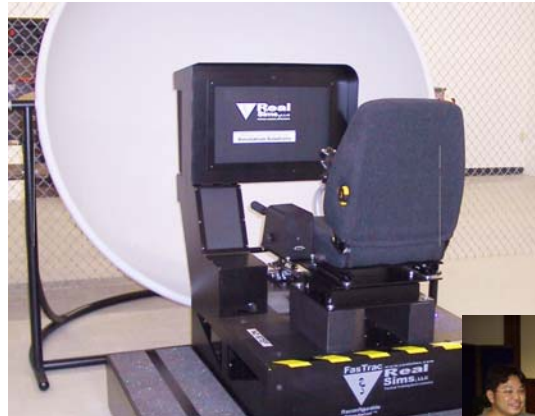


OH58D COTS Pilot Side Console

POD base via linkage. The two PODs are bolted to each other to create one seamless dual seat cockpit.

Optional removable exterior fuselage skins are available allowing the trainer to be easily transported and used for classroom or other tight spaces. In certain situations (such as classroom training for procedures) the fuselage may not be needed at all opting to the open design with walk around observation deck as depicted in the TH67/57/Bell 206 single seat configuration pictured below. This configuration uses an open cockpit arrangement ideal for procedures, cockpit familiarization training. The optional hemispherical dome is mounted on a rotatable frame assembly. The dome can be rotated down (under the rudder pedals) to provide a 'Chin Bubble View' using only one dual head PCIG Channel which drives both a virtual instrument panel and the out the window display projector. This provides excellent depth perception to determine closure rates with the ground, ships deck and other obstacles for landing and hover training.

A Detachable Observation Deck surrounds our open cockpit configuration providing an excellent vantage point for collaboration between the Instructor and other students. Optional Operator Instructor Station Desks are available. These modular stations can attach to any of the the four corners of the POD. This arrangement is ideal for collaborative air crew training where the pilot, and other crew members can be setup to interact and communicate via a LAN for to emulate real world conditions.



Basic FasTrac Bell 206/TH57/67 Without NAVCOM and Instrument panel installed



Display Systems and Display Systems Enclosures FasTrac trainers support any type of display technology, from flat or curved screen front projection systems, to rear projection cubes, wrap around Plasma/LCD display panels, large multi channel hemispherical domes to single mini domes such as those pictured here.



83" Hemispherical Do With Rotatable Frame Ass- Up 30 Degrees For Fast



83" Hemispherical Dome With Rotatable Frame Assembly Down Rotation - Halo Chin Bubble

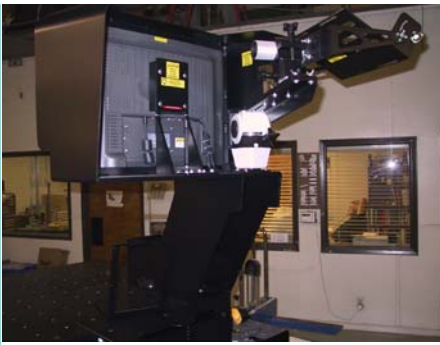
RealSims manufactures two sizes of hemispherical domes (79" and 83" Diameter). These domes were specially designed for the US Navy for potential classroom and ship-board use. The smaller dome fits through a standard

36"x80" door opening while the larger size can fit through a standard double sized door opening 72" Wide x 80" high.

The rotatable frame assembly allows you to raise the dome and tilt to any angle. This is especially useful for air to air refueling training when the pilot needs an over canopy view, the boom operator needs a look down view. The dome is also an excellent display for heli-



Three Channel Rear Projection Open Cockpit configuration Configuration.



Pivitol Projection Mount Assembly
Centered For Single Projector Screen
Application

copter door gunners where they need to lean out the door to look forward or back at targets.

Only FasTrac Trainers Provide Built in Provisions to Support The Mounting of Multiple Front Screen Projection Systems . Tightly tucked behind the front instrument panels and out of site our patented PIVITOL projection arm mounting system allows you to install up to (4) small footprint projectors behind the front instrument panel for a multi-channel wide field of view (FOV) display system. The PIVITOL projection arm assemblies can be mounted at offset angles allowing you to install up to 3 front view channels and 1 overhead channel (edge blended) to produce a CAVE like display at an affordable low cost.

FasTrac Mobile Simulator Solutions

In response to a growing demand for affordable field deployable simulation solutions RealSims offers a complete line of Mobile Reconfigurable Simulators and Training products for fixed, rotary /wing aircraft construction vehicles, autos and trucks. Taking the FasTrac concept the next level, these mobile units are totally self contained complete with cockpit and visual systems. Mobile simulators are available in tow behind trailers (18-24') or in a fully self contained Motor Coach with optional living quarters or office configurations. The Motor Coach is ideal Aircraft operators, Police Search & Rescue units or Certified Flight Instructors interested in establishing a Mobile flight training business. Mobile solutions are available for purchase or lease and can be configured to meet the specific needs of the customer.



For additional information on this and other products visit <http://www.RealSims.com> Follow the link to the appropriate section. Don't forget to check out our FLIGHT CONTROL products . We offer a complete line of TURNKEY simulation solutions for military and commercial Fixed and Rotary wing training Visit our new ONLINE CATALOG site at <http://www.HeloSims.com>