Sikorsky S-70i BLACK HAWK Training

Serving Government and Military Crewmembers Worldwide
FlightSafety International is a world-leading supplier of mission-critical training programs, proven advanced-technology training devices, classroom training equipment and specialized devices designed to ensure the safety and proficiency of government and military aircraft crewmembers. As the factory-authorized training provider for Sikorsky for more than 30 years, we offer type-specific pilot and maintenance technician training for the complete line of BLACK HAWK helicopters. Our highly qualified and experienced instructors, simulators qualified to the highest standards, production aircraft maintenance trainers and computer MATRIX-integrated training systems help ensure proficiency and safety.
Sikorsky BLACK HAWK Training Program Highlights

• We provide factory-authorized training for the complete line of BLACK HAWK helicopters at our Learning Center in West Palm Beach, Florida.

• Our Sikorsky S-70™ Multi Model full flight simulator is qualified to the equivalent of Level D by Sikorsky.

• FlightSafety and Sikorsky work together to ensure that crewmembers receive the most current and highest-quality training using the latest technical information and service bulletins.

• Training programs are customized to meet the specific needs of government agencies. This includes customized development of courses and devices for crewmember and maintenance technician training.

• Our highly experienced instructors are dedicated to enhancing aviation safety. They are recognized for their professionalism, knowledge and instructional skills and have the ability to effectively present complex aircraft systems and operating procedures.

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Sikorsky BLACK HAWK Training Program Highlights (continued from previous page)

• Our courseware designers and engineers translate the software code used to control the flight simulators into training curriculums, programs and course materials. They are responsible for the design, development and distribution of training materials and to ensure they are delivered according to Customer requirements, aircraft manufacturer’s specifications and regulatory requirements.

• Our simulator replicates the exact flying characteristics of the aircraft. It is equipped with a wide range of state-of-the-art features, including the new VITAL 1100 visual system; CrewView all-glass mirror; 60-inch electric motion and control loading and new advanced cueing system.

• Maintenance training programs at our West Palm Beach Learning Center offer a full range of hands-on courses that feature aircraft maintenance trainers, specialized tools and a state-of-the-art composite repair lab. Interactive training makes up nearly 50 percent of the instruction in many Sikorsky maintenance technician courses. The use of official Sikorsky manuals ensures that training closely replicates the tools and resources available to technicians in the field.

• We deliver BLACK HAWK maintenance programs that include initial and update training, plus advanced programs such as electrical/AFCS/stabilator, flight control rigging and hydraulics systems. Training incorporates a complete range of mock-ups plus a full-scale maintenance trainer.
World Leader in Training and Simulation Systems

FlightSafety International is a world leader and vertically integrated expert in aviation training and simulation technology. We design, manufacture and support full flight simulators, advanced flight training devices, part-task trainers, interactive classrooms, visual systems and displays. Our state-of-the-art training system design and manufacturing facility has 19 full flight simulator assembly positions to respond to the needs of government and military agencies. We produce highly integrated and robust training equipment that meets the demanding requirements of BLACK HAWK operators worldwide.

Full Flight Simulators
Our full flight simulators and training devices can replicate the operating characteristics of virtually any aircraft. The simulators provide the highest level of realism and feature advanced instructional capabilities. They are designed for maximum reliability, ease of maintenance and support. The highly robust modular design offers added configuration flexibility and ease of systems integration. This enables us to respond quickly to the specific needs of our Customers and as new aircraft and advances in technology are introduced.

We have built more than 800 full flight simulators and other advanced technology training devices to date including simulators for 80 different aircraft types in the past five years alone.
VITAL 1100 Visual System

Our new VITAL 1100 visual system features powerful graphics processors that provide up to 75x310 degree expanded field of view with continuous anytime-of-day operations during all phases of flight. VITAL 1100 simulates the imagery and environmental conditions experienced during aircraft taxi, takeoff, en-route and tactical flight operations; visual navigational and instrument flight; and landing maneuvers. Simulated flight conditions include continuous time of day, night, dawn/dusk and a comprehensive set of physics-based weather features. It offers five times greater computational performance than predecessor systems for exceptional visual realism. Environmental effects, such as physics-based weather models, develop and react as in the real world.

Dynamic shadowing and enhanced shading add a new dimension to the training environment. Using the latest PC technology and high-performance off-the-shelf graphics processors, VITAL 1100 provides a fully certifiable PC image generator. It maintains the proper throughput required for the highest military accreditation levels. The system is completely compatible with other aircraft systems such as head-up displays, enhanced and synthetic vision systems and radar. VITAL 1100 also simulates high-quality forward-looking infrared (FLIR) and electro-optical sensors including ColorTV, LowLightTV, All Light Level TV and aircraft remote direct view camera systems.

VITAL 1100 provides a whole-Earth model for a realistic training environment between high-detail airport and other objective area models. The worldwide database incorporates the latest terrain information with geo-specific satellite images for unprecedented realism. This allows the aircrew to fly continuous, no-break flights anywhere in the world. The database includes sophisticated weather simulation that can be controlled automatically by current and forecast weather inputs of temperature, humidity, wind, ceilings and visibility. Seasonal weather includes snow, ice, hail and rainfall.
CrewView All-Glass Mirror Displays

Our CrewView All-Glass Mirror Displays provide superior optical performance, sharper image clarity, long-term reliability, and are night vision capable. The true collimated images they present are free of visible distortions and artifacts out to mirror edge, eliminating ground rush distortion in the bottom field of view.

Combined with our VITAL 1100 visual system, CrewView delivers unprecedented simulation training fidelity, offering the industry’s greatest level of realism.

Modular design produces fields of view (FOV) up to 300 degrees horizontally. By filling the entire aircraft window, these devices also allow greater levels of training and effectiveness by moving critical training tasks (checking for prop feathering, checking landing gear deployment, brownout training, search and rescue scans and advanced mission rehearsal scenarios) out of the aircraft and into the simulator.
MATRIX Integrated Training

MATRIX, our integrated training system, brings the realities of our advanced-technology simulators into the classroom and to other training devices. It draws on the same software that drives our full flight simulators. MATRIX consists of the DeskTop Simulator, Graphical Flight-deck Simulator, Integrated Courseware and the SimVu simulator session debriefing system.

The DeskTop Simulator can be used for instructor-led or self-paced instruction. It is an interactive PC-based training system used to demonstrate and learn the function and control of aircraft systems. It provides an interactive representation of the cockpit displayed on multiple touch-screen monitors enabling the pilot or technician to monitor or perform all the functions that would be performed in the aircraft.
MATRIX Integrated System  (continued from previous page)

The Graphical Flight-deck Simulator provides an interactive representation of the cockpit displayed on multiple touch-screen monitors. System schematics and flows are illustrated through animated graphics. An instructor operating station with the same appearance provides control of the Graphical Flight-deck Simulator, just as on our full flight simulators.

SimVu provides the pilot with a detailed visual representation of a full flight simulator training session. This allows immediate reinforcement of training lessons and provides an opportunity to identify areas for special emphasis. SimVu presents the audio, video and flight data collected during the simulator session, including air speed, altitude, aircraft orientation and engine performance. Pilots view a compilation of the Instrument Panel, Cockpit Camera and Jeppesen Chart flight profile. It also provides an outside view of the animated flight path, destination airport and more.
World-Class Training. Worldwide Reach. FlightSafety International is the world’s premier professional aviation training company and supplier of flight simulators, visual systems and displays to commercial, government and military organizations. The company provides more than 1.4 million hours of training each year to pilots, technicians and other aviation professionals from 167 countries and independent territories. FlightSafety operates the world’s largest fleet of advanced full flight simulators at Learning Centers and training locations in the United States, Australia, Brazil, Canada, China, France, Japan, the Netherlands, Norway, South Africa and the United Kingdom.