OH-58D Operational Flight Trainer

In 2021, CAE acquired L3Harris' Military Training business, which included Link Simulation & Training and Doss Aviation. These businesses are now integrated with CAE USA as part of CAE's Defense & Security business unit.

Overview

Utilization of the OH-58D Operational Flight Trainer provides units and commanders with a powerful new training tool. In addition to providing OH-58D aircrews with a virtual simulation capability to safely practice essential flight-related tasks, CAE provides motion and non-motion platforms dependent on the training task needs. The simulators can also provide a highly realistic distributed and networked virtual simulation environment when used with other specific simulators.

OH-58D Training Versions

The OH-58D simulator platforms provide substantial benefits dependent on the need of the user. The motion-based OH-58D Operational Flight Trainer (OFT) is institutional based and is permanently housed in a large facility. The non-motion OH-58D Unit Level Trainer (ULT) can utilize a vibration seat shaker system or be housed within a transportable non-motion module. Both versions include an Instructor/Student Station as well as a Brief/Debrief Station.

The OFT is a motion-based, high fidelity simulator used for initial, recurring and mission rehearsal scenarios. The OH-58D OFT cockpit includes a seat transducer system that is then mounted on a six DOF electric motion system, which eliminates environmental issues associated with traditional hydraulic motion systems. The ULT contains a seat transducer system to enhance the environment in a containerized design that allows transportation via a trailer. The transportable module includes the simulator as well as the Instructor/Operator Station and Brief/Debrief Station. The ULT contains an accurate replication of the aircraft and allows for complete aircrew training and mission execution. This includes the capability for all system functionality and operation, with the ability to simulate systems emergencies, malfunctions, and degraded system operations.

OH-58D Mission Training:

➔ The Kiowa operations are observation, utility, and direct fire support. The Kiowa is primarily operated in an armed reconnaissance role in support of ground troops.

➔ The aircraft possesses an extended target acquisition range capability by means of a long-range stabilized optical subsystem for the observer, and improved position location through use of a computerized navigation system, improved survivability by reducing aural, visual, radar, and infrared signatures.

➔ The Kiowa's mission equipment package can include electro-optic and infrared sensor, digital moving map, searchlight, and data link.

➔ OH-58D simulators provide simulation fidelity that supports training exercise for the individual aviator and groups of aviators at the unit level. Aviators will have the ability to cross-train with different unit's expertise.

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Visual display system

The OH-58D is integrated with a high fidelity out-the-window (OTW) visual system display. A full complement of vehicles; troops; immobilized vehicles; inflight missiles and projectiles; animation and special effects; threat air defense units; and tactical smoke combine to support training on a virtual battlefield under a full range of environmental and battlefield conditions. The displayed images depict the speed, path and attitude of the simulated models.

High fidelity flight and communication models

Flight dynamics and engine models respond to all required flight and power plant controls and simulated environmental conditions (such as temperature, pressure, winds, and turbulence) in accordance with the aircraft "-10" manual performance data. The high fidelity blade element flight model includes variation in gross weight, inertias, center of gravity position, fuel, and cargo load. The OH-58D communication systems provide the functionality required to support all communication system training tasks. This includes the cockpit communication system controls, panels, switches, indicators, displays and helmet connections. All radio simulation is capable of communication across the real-time network to provide interoperability with other networked simulators or IOS role players containing compatible radio simulations.

This presentation consists of general capabilities information that does not contain controlled technical data as defined within the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11

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