New AH-1Z Helicopter Cockpit Simulator Ready to Train Marine Corps Cobra Pilots

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The first and only AH-1Z full-motion cockpit simulator was declared ready for training May 28 at Camp Pendleton, Calif.

The Naval Aviation Training Systems program office (PMA-205) and the H-1 Upgrades program office (PMA-276) worked closely with prime contractor, Bell Helicopter Textron and their subcontractor, Flight Safety International, to design, build, test and deliver this state-of-the-art full motion cockpit simulator for Marine Corps aviation.

“This AH-1Z cockpit simulator brings a lot of training capability to our warfighters,” said Capt. John Feeney, PMA-205 program manager. “The two-person crew has a greater field of view making it as realistic as possible, it has increased reliability and the actuators that move the cockpit are electrically powered versus the usual hydraulic system making it more environmentally friendly.”

The AH-1Z simulator is located at Camp Pendleton since it is the initial training site for all Marine Corps pilots transitioning from the AH-1W Super Cobra to the new AH-1Z helicopter.

“The Marine Corps uses flight simulators for a lot of training,” said Col. Harry Hewson, H-1 Upgrade program manager. “More than 46 percent of the transition training from the AH-1W to the AH-1Z can be done in this simulator.”

The simulator can train aircrews how to use the mission computers, communications, navigation and weapons systems on the AH-1Z, including the AIM-9 Sidewinder air-to-air missile, the Hellfire anti-armor missile, the 2.75 inch rocket pods and the 20 mm cannon, added Hewson.

“Another great feature of the simulator is that it can be electronically linked to the UH-1Y simulator and two other non-motion AH-1Z simulators allowing our aircrews to practice multi-ship formations and to train for combat missions,” said Hewson. “It has databases for many potential worldwide operating areas.”

One of the major differences between the legacy AH-1W Cobra and the new AH-1Z is the Zulu’s glass cockpit, which significantly changes the way the pilot interacts with the aircraft.

“Through this state-of-the-art simulator, which includes the latest technology in visual scene replication, pilots learn how to navigate mission computer page trees in a crawl, walk, run training syllabus, while simultaneously progressing through their normal flying syllabus,” said Maj. Phillip Tucker, Marine Aviation Training Systems Site officer-in-charge at Camp Pendleton. “At a pennies-on-the-dollar cost compared to aircraft flight hours, training in the AH-1Z full motion simulator augments what is conducted in the aircraft and allows pilots to focus on improving their heads down, ‘button pushing’ skills in a simulated environment; so that they can spend more time with their eyes out of the cockpit in the real world.”