Airmen enhance F-15E capabilities with helmet-mounted cueing system

Tech. Sgt. Tammie Moore, 4th Fighter Wing Public Affairs
SEYMOUR JOHNSON AIR FORCE BASE, N.C. (AFNS) -- The concept is like something out of a movie -- the ability to find a target from a jet cockpit with the naked eye and lock onto it simply by fixing your gaze upon it. This science fiction concept has become a reality at the 336th Fighter Squadron.

The 4th Operations Support Squadron aircrew flight equipment technicians, who support the 336th FS, have spent the past few months equipping pilots with the Joint Helmet-Mounted Cueing System.

The JHMCS integrates a magnetic helmet mounted tracker that determines where the pilot's head is pointed with a miniature display system that projects information onto the pilot's visor. Together, the head tracker and visor display act as a targeting device that can aim sensors and weapons wherever the pilot is looking.

"JHMCS is a force multiplier that significantly improves the speed and agility with which F-15E (Strike Eagle) aircrew can find, fix, track, target and engage on the battlefield," said Lt. Col. Charles Wallace, the 4th Operations Squadron commander. "It's the next step in advanced sensor integration and man-machine interface in the cockpit."

Senior Airman Kevin Boyne custom fits Capt. Dan Olthoff's Joint Helmet-Mounted Cueing System Aug. 9, 2010, at Seymour Johnson Air Force Base, N.C.

"The JHMCS interface provides visual information from the aircraft such as basic flight parameters, sensor and targeting information from the crewmate and other aircraft's location and targeting information," said Capt. Matt Swanson, the 336th Fighter Squadron Weapons Flight commander. "It puts needed information in front of your eye so that you can quickly find those locations on the ground, and maneuver the aircraft to support the ground commander."

The F-15E pilot's use of the system enhances the aircrew's ability to engage threats facing ground troops and reduce collateral damage.

"It allows F-15E aircrew to provide unparalleled support to the ground troops in the close-air-support environment," Captain Swanson said. "The crew will be able to quickly cue sensors and identify friendly locations. The enhanced aircrew coordination and seamless system integration will increase accuracy while shortening the employment chain."

Although aircrew flight equipment technicians and aircrew members had to overcome some initial challenges in equipment maintenance and training, the implementation process has gone smoothly.

"Everyone involved is fully aware of the importance of getting this absolutely right as the (members of the 366th FS) prepare for their upcoming (air and space expeditionary force) deployment," Colonel Wallace said.

There is a huge sense of pride in the opportunity for the Rockets to be the first F-15E squadron to bring the JHMCS capability to Afghanistan, and the colonel said he's confident that they will prove the JHMCS combat value immediately.

In fact, the expectation is that once proven, JHMCS' combat utility will help provide the leverage necessary to fully fund F-15E JHMCS integration.

"We are definitely looking forward to the possibility of achieving the full synergy and capability of JHMCS by outfitting all F-15E pilots and (weapon system officers) (on base) in the future," Colonel Wallace said.

The aircrew members recognize the effort Seymour AFB Airmen have put into the successful implementation of the JHMCS at the 336th FS.

"The JHMCS modification has only been possible with the hard work of the aircrew flight equipment technicians, maintainers and avionics specialist Airmen," Captain Swanson said.