

Navy Inaugurates New Next-Gen Air Combat Training System



The Tactical Combat Training System Increment II (TCTS Inc. II) pod on its first flight on a test F/A-18 aircraft over Patuxent River, Maryland, in February. *U.S. NAVY*

PATUXENT RIVER, Md. – The Navy's Naval Aviation Training Systems and Ranges program office's (PMA-205) Tactical Combat Training System Increment II (TCTS Inc. II) and Advanced Naval Technology Exercise (ANTX)-21 teams conducted their first live-virtual-constructive (LVC) demonstration in an operational environment last month, the Naval Air Systems Command said Sept. 27.

As part of the Navy's broader initiative to enhance capability, the event displayed early LVC capability for the TCTS Inc. II system and included many "firsts" in naval aviation training.

The ANTX-21 fleet demonstration simultaneously connected both fleet and test F/A-18 and EA-18G aircraft, an F/A-18 simulator, an operational destroyer, a guided missile from the ship pier side, the Joint Semi-Automated Forces system, and the Next Generation Threat System all via the Navy Continuous Training Environment (NCTE). This exercise was naval aviation's first demonstration of TCTS II in an operational environment, proving to be a simultaneous, multi-system, and multi-domain integrated warfighting training capability. The demonstration results will be used to further determine how TCTS Inc. II and LVC will be implemented effectively and efficiently in naval aviation training.

"While watching ANTX-21 unfold across the globe from Navy Warfare Development Command in Norfolk, Va., I had an opportunity to see and hear the Navy's excited reaction to TCTS Inc. II at the operation's center," said PMA-205 program

manager, Capt. Lisa Sullivan. "On the surface side, ships have been using a training LVC mode for a while, networking back and forth to exercise coordinators running complex scenarios. Now aviation is part of the mix through validation of TCTS Inc. II as the host system connecting live aircraft into a LVC environment."

The early LVC capability on the TCTS Inc. II system displayed during the event demonstrated successful integration of the system with the training environment, including simulated threats controlled by JSAF over NCTE, live aircraft air-to-air engagements, and integration with an F/A-18 simulator at the manned flight simulator facility.

Chuck Kaylor, the PMA-205 TCTS Inc. II team lead, said the event included several firsts for naval aviation training. It was the first flight of TCTS Inc. II pod on an operational fleet aircraft, the first time TCTS Inc. II was used to create a LVC surface-to-air engagement, the first virtual F/A-18 engaged with a simulated/constructive aircraft, and the first pier side operational ship receiving and engaging with TCTS Inc. II information.

"TCTS Inc. II is a critical enabler of Navy LVC, helping to close competition gaps in both operational security and training capabilities for the high-end fight, and this event comes with TCTS II already in production and approximately one year prior to initial operational capability" said Kaylor.

The program office in coordination with U.S. Fleet Forces Command, U.S. Pacific Fleet, and U.S. Naval Forces Europe conducted this exercise, which was designed to refine how the U.S. Navy synchronizes maritime operations across multiple fleets, in support of the joint force. The training is based on a progression of scenarios that will assess and refine modern warfare concepts, including distributed maritime operations, expeditionary advanced base operations, and littoral operations in a contested environment. This is the

first iteration of what will become a triennial exercise with plans for future iterations to include partners and allies from around the world.