

# Marines, Air Force Fight as Joint Force for First Time in Navy's Joint Simulation Environment



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NAS PATUXENT RIVER, Md. – For the first time, U.S. Marine Corps F-35 and Air Force F-22 pilots trained as a joint fighting force in the [Naval Air Warfare Center Aircraft Division](#)'s (NAWCAD) Joint Simulation Environment (JSE) at Naval Air Station Patuxent River, March 24-27.

The training event brought eight U.S. Marine Corps F-35s to train alongside four Air Force F-22 Raptors in the DOD's most advanced digital test and training range.

“This milestone is a game-changer that ushers in a new era of

interoperability for aviation's combat community and served as a pivotal exercise getting NAWCAD ready to make this joint training standard for Navy and Air Force fighters starting this spring," said NAWCAD Commander Rear Adm. John Dougherty IV.

During the event, F-35B and F-35C pilots from Marine Fighter Attack Squadrons (VMFA) VMFA-122, VMFA-225, and VMFA-311 trained with several F-22 pilots from the Combat Air Forces and test community. Over two days, F-35 and F-22 pilots practiced fifth generation fighting together in 17 simulated combat missions against advanced enemy threats only available at JSE. After each mission, the pilots reviewed their performance using cockpit video and audio recordings.

"The cross talk [while training in the JSE] is unparalleled in terms of being able to talk tactics [and] actually get in the same room with people," said F-22 pilot Capt. Brett Myer. "It helps iron out a lot of the small details that really matter when it comes down to it."

Real world training on open-air ranges at this scale is expensive, difficult to coordinate, and lacks a realistic threat environment. The JSE solves this problem by providing defense aviation a secure simulated range that puts pilots in threat environments not replicable in real life.

"At the end of the day, it's going to be the people that win our nation's wars," said VMFA-225 pilot Maj. Patrick Hoffer. "Having those person-to-person connections between the Air Force, the Navy and the Marine Corps [in the JSE] is the most important part and biggest objective that we're able to achieve."

Developed by NAWCAD engineers and industry partners, the JSE is a digital training and test facility that features realistic domed simulators with actual defense hardware, software, and adversary aircraft. The immersive environment

enables pilots flying F-35 and F-22 to practice complex combat scenarios and receive instant feedback, accelerating the learning process and honing their skills. Tactical groups training in the JSE fly more sorties in one week than they fly over a year on open-air ranges.

NAWCAD's JSE is formally integrated into the Navy's Strike Fighter Tactics Instructor Program –commonly known as TOPGUN – and efforts are underway to incorporate JSE training across additional warfighter programs.

NAWCAD will expand JSE's capabilities with the addition of a highly realistic E-2D Advanced Hawkeye this year, and the F/A-18 Super Hornet and EA-18G Growler next year.

NAWCAD's military, civilian, and contract personnel operate test ranges, laboratories, and aircraft in support of test, evaluation, research, development, and sustainment for all Navy and Marine Corps aviation platforms. Based in Patuxent River, Maryland, NAWCAD also has major sites in St. Inigoes, Maryland; Lakehurst, New Jersey; and Orlando, Florida.