

Galini: Navy Considering Land-Based Test Site for Integration of Frigate Systems



An artist's rendering of the Constellation-class guided-missile frigate (FFG), which may have some of its systems tested on land. U.S. Navy

ARLINGTON, Va. – The commander of Naval Sea Systems Command (NAVSEA) praised the risk-mitigation qualities of land-based testing and prototyping of ship systems and said the Navy said the Navy is considering it for some level for the Constellation-class guided-missile frigate (FFG).

NAVSEA Commander Vice Adm. William Galini, speaking during a webinar of the National Defense Industrial Association's Expeditionary Warfare Conference, said the Navy is using more land-based testing and integration to reduce risk before the

systems are installed on a ship.

Land-based testing “is not something we can do for every platform, but judicious use of land-based testing where it makes sense is a good engineering development tool and a risk mitigator.”

Galiniis noted that extensive land-based testing is being conducted for the Flight III Arleigh Burke-class guided-missile destroyer (DDG) at the Naval Surface Warfare Center Philadelphia Division.

“As we upgrade to the Flight III [of the Arleigh Burke class], we need additional cooling capacity, additional power-generation capacity, higher voltage level,” he said. “That electric plant is being tested right now in Philadelphia from the prime mover all the way to the power conversion modules.”

The SPY-6 radar, built by Raytheon Technologies for the Flight III DDG, is being tested at the Lockheed Martin Aegis test site in Moorestown, New Jersey, with the combat systems software, “from the power-conversion unit all the way out through the array face.”

Major propulsion components of the new Columbia-class ballistic-missile submarine, being built by General Dynamics Electric Boat, also are going through extensive land-based testing at Philadelphia.

“We will probably do something along that line for the Constellation-class frigate,” Galiniis said. “We’re working through the details of that right now.”

Because the hull and propulsion of the Constellation is from a proven, parent design – the Fincantieri FREMM frigate – land-based testing is likely to focus on integration of systems, particularly combat and sensor systems.

Galiniis said there are changes to the frigate in terms of "buy America" requirements and certain Navy requirements.