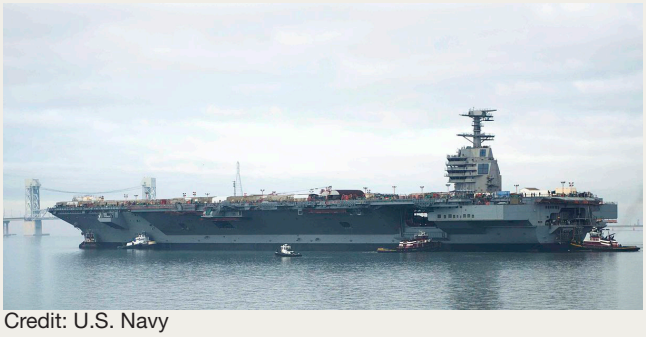
REQUIREMENTS DOSSIER

Name: Enterprise Air Surveillance Radar (EASR)

Purchaser/User: U.S. Navy

Description: The U.S. aircraft carrier's main mission is to transport, launch and carry aircraft, and few systems are more important on the U.S. Navy's largest ships than the radar suite providing air traffic control for sorties. The sensor and accompanying equipment also must serve other self-defense and combat-related roles.
As the Navy embarks on the development and construction of its next-generation Ford-class carriers, the service also has been searching for the proper mix of technology and effectiveness for a new radar suite for the vessels. Initially, the service had settled on the Dual-Band Radar (DBR) for the CVN 78 Gerald R. Ford and successor carriers – in part because the DBR was set to anchor the combat system for the new DDG 1000 Zumwalt-class destroyers, which the service was planning to build by the dozens, creating economies of scale for the sensors and allowing for a relatively cheap addition to the carrier program.
But the Navy instead opted to cut the Zumwalt buy to only three ships, curtailing DBR testing and development and making the suite more costly. The Navy at first decided to keep DBR for the carriers, but earlier this year the service said it would combine the functionality of AN/SPY-3 Multi-Function X-Band Radar and AN/SPY-4 S-Band Volume Search Radar for the DBR in the first-of-class Ford, and look for a less powerful and costly radar suite for the remaining Ford-class ships. Rear Adm. Thomas Moore, U.S. Navy program executive officer for carriers, has said the DBR is "too much radar" for carrier operations. The Navy instead will look to "tailor" an off-the-shelf radar model for carriers.


Credit: U.S. Navy

Precursor/Related Programs: Ford-class Carrier, Dual-Band Radar (DBR)

Budget: While no official estimates have been released, Navy officials say the new radar suite's initial per-unit cost will be about $180 million less than the DBR, for which the estimate is about $500 million.

Potential Players: Raytheon, Lockheed Martin, Northrop Grumman.

Latest News: U.S. Naval Sea Systems Command (Navsea) issued a request for proposals in August for an Engineering and Manufacturing Development (EMD) contract, data items, and provisioned item orders, as well as options for data rights, engineering services for the radar suite and associated equipment. The RFP also included Navsea plans to award one cost plus incentive fee base contract with fixed price incentive firm target options for associated work.

EASR, the RFP says, will consist of two configuration variants: Variant 1, a rotating array and Variant 2, a fixed-face phased array. The radar suite is envisioned as scalable and adaptable to accommodate current and future mission requirements for multiple platforms. EASR will be the primary air surveillance radar supporting ship self-defense, situational awareness and air traffic control (ATC) for Ford class carriers. For other ship classes, EASR will be the primary radar for self-defense and situational awareness and the backup radar for ATC.

On the related DBR program, the Navy this spring awarded Raytheon a $26.9 million cost-plus-fixed-fee design agent contract related to DBR development, verification and support as well as support of testing to be accomplished at Wallops Island Engineering Test Center Land Based Test Site.

-Michael Fabey,
michael.fabey@aviationweek.com

Timeline

► **March/April 2015:** Navy awards contract to revamp DBR on Ford; details decision to develop and new radar suite for Ford-class successor carriers and issues draft RFP for EASR.

► **June 2015:** Navy awards Huntington Ingalls Industries $4.3 billion in contracts for design, development and construction work related to CVN 79 John F. Kennedy, the first ship slated to get EASR.

► **August 2015:** Navsea issues RFP for initial EASR-related work. Keel laid for CVN 79.

► **October 2015:** EASR RFP responses due.

► **March 2016:** Ford scheduled for delivery to Navy.

► **September 2017:** First at-sea operational test and evaluation scheduled for Ford.

► **June 2022:** Kennedy scheduled for delivery to Navy.

All Program data is excerpted from the Aviation Week Intelligence Network (*awin.aviationweek.com*). To learn how to receive full access to updated online profiles of major international defense programs, call +1 646.291.6353 or email *anne.mcmahon@aviationweek.com*