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“The christening of CVN 78 marks an important milestone for the Gerald R. Ford and brings us one step closer to the delivery of our next-generation CVN and the next 100 years of carrier aviation.”

- Rear Adm. Tom Moore, Program Executive Officer, Aircraft Carriers

Gerald R. Ford (CVN 78) Christening in Newport News, Va.

Pre-Commissioning Unit (PCU) Gerald R. Ford (CVN 78) was christened on Nov. 9 in Newport News, Va., by Mrs. Susan Ford Bales, daughter of the former president and namesake of the ship. [CVN 78](#) is the numerical replacement for the recently inactivated USS Enterprise, as well as the lead ship of a class that will be in service for 94 years. Each Ford-class carrier will save the Navy \$4 billion in total ownership cost (TOC) over her 50-year service life by reduced maintenance and reducing manning by over 600 crew members, provide a 33% greater sortie generation rate and provide three times the electrical generating capacity to accommodate future growth in yet-to-be-designed weapons (e.g., directed energy) and combat systems as compared to a legacy Nimitz class.

CVN 78 is a true leap forward technologically and will be the first aircraft carrier to use the advanced Electro-Magnetic Aircraft Launching System (EMALS) to replace legacy steam catapults, Advanced Arresting Gear (AAG) to replace the legacy Mk 7 Mod 4 AG, and Dual Band Radar (DBR), the most advanced phased array radar design in the Navy to replace legacy rotating antenna systems. These are the most significant advances in aircraft carrier technology since the introduction of steam catapults on USS Hancock (CVA 19) in 1954 and nuclear propulsion with USS Enterprise (CVN 65) in 1961.

CVN 78 also comes with a brand new propulsion plant design. The A1B reactor plant and its associated propulsion plant will require 50% fewer people to operate and maintain than a Nimitz class. The new A1B reactors also have 25% more energy than legacy A4W reactor plants, allowing for more steaming days and increased operational availability for the Combatant Commander over a 50-year service life.

In addition to technological improvements for warfighting and TOC Ford has been completely redesigned from a crew quality of life standpoint. Berthing compartments are smaller and each has its own head and showers so sailors no longer have to walk down passageways in gym shorts and a towel. The number of galleys has been reduced from five to two to reduce cost, while also rearranging the galleys and serving lines for easier access and to eliminate second deck main passageway lines and congestion. Finally, new stores elevator locations and food storage facilities will improve breakouts and logistics flows throughout the ship and significantly reduce the number of working parties needed to move food, parts and supplies throughout the ship.

Ford is now entering a 28-month test program at Newport News Shipbuilding and will deliver to the fleet in March 2016.

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Questions? Ask: nae@navy.mil

August 2013: Randy Boatwright, AIR 6.7.2.1, Naval Air Systems Command

September 2013: Leo Limcuando, Naval Air Forces Pacific

October 2013: John Quartuccio, AIR 4.1.1, Naval Air Systems Command

Main Points

- CVN 78 is the numerical replacement for CVN 65
- CVN 78 class provides the following key enhancements:
 - Improves flight deck arrangement to increase sortie generation rate by 33% over Nimitz class
 - Reduced manning and maintenance requirements leading to a \$4 billion reduction in TOC over 50 years compared to a Nimitz-class carrier
 - Increased margins (weight/space) to handle future air wings, weapon systems and missions

Facts/Figures/Resources

- CVN 78 is designed for a 50-year service life with one mid-life refueling and complex overhaul
- CVN 78 generates three times the electrical power of a Nimitz-class carrier to accommodate future growth in yet-to-be designed directed energy weapons and combat systems
- Significant Crew Quality of Life Enhancements including smaller berthing compartments with own heads/showers, improved mess deck arrangements