



RHUMB LINES

Straight Lines to Navigate By



November 12, 2009

Gerald R. Ford (CVN 78) Keel Laying

"It is a source of indescribable pride and humility to know that an aircraft carrier bearing my name may be permanently associated with the valor and patriotism of the men and women of the United States Navy."

– Former President Gerald R. Ford

The Gerald R. Ford class will be the premier forward asset for crisis response and early decisive striking power in a major combat operation. Gerald R. Ford-class aircraft carriers and carrier strike groups will provide the core capabilities of forward presence, deterrence, sea control, power projection, maritime security and humanitarian assistance. The class brings improved warfighting capability, quality of life improvements for our Sailors and reduced acquisition and life cycle costs.

Improved Warfighting Capability

- The Gerald R. Ford class is designed to maximize sortie generation rates. While the design leverages the Nimitz-class hull, new flight deck and internal arrangements and systems are designed to move weapons, material, and information more effectively around the ship, significantly improving its warfighting capability.
- The CVN 78 design also provides infrastructure enhancements in electrical generation, heating, ventilation and air conditioning, and fresh water generating capacity. These enhancements provide sufficient margin to accommodate future developmental systems well into the 21st century.
- CVN 78 key innovations include a new propulsion plant, new electrical distribution system, new integrated warfare systems, advanced weapons elevators, electromagnetic catapults and advanced arresting gear.
- Electro Magnetic Aircraft Launching System (EMALS) and Advanced Arresting Gear (AAG) will provide greater operational flexibility, reduced manning requirements and the ability to operate all current and future naval aircraft.

Total Ownership Cost

- Each ship in the new class will save more than \$5 billion in total ownership costs over its 50-year life service, compared to the Nimitz class.
- Gerald R. Ford is the first aircraft carrier designed with all electric auxiliary systems, eliminating steam service lines from the ship, reducing maintenance costs and improving corrosion control.
- Technologies and ship design initiatives that replace maintenance and workload intensive systems with low maintenance systems will reduce ship's crew by more than 800 personnel. Coupled with projected airwing manpower reductions, the Gerald R. Ford class will carry 1,300 fewer personnel than the Nimitz class.
- CVN 78 is the largest warship, and first aircraft carrier, to be completely designed in a 3-D product model. 3-D modeling creates the opportunity for synergy between ship design and ship building, improving production accuracy, eliminating waste and reducing overall construction costs.

Key Messages

- Aircraft carriers like the future USS Gerald R. Ford enable execution of all six core capabilities of the Maritime Strategy.
- The Gerald R. Ford class is designed to maximize the striking power of the embarked carrier air wing.
- The Gerald R. Ford class will eventually replace the Nimitz (CVN 68) class.

Facts & Figures

- The keel laying for CVN 78 is scheduled for Nov. 14 in Newport News, Va.
- The ship's systems and configuration are optimized to maximize the sortie generation rate of embarked strike aircraft, resulting in a 25 percent increase the Nimitz class.
- The ship's configuration and electrical generating plant are designed to accommodate any foreseeable requirements during its 50-year service life.