Sea Air Space 2017
CAPT Doug Oglesby
CVN 79/80 Program Manager
3 April 2017
Mission: Deliver Aircraft Carriers on time, ready for tasking, at an affordable cost.
Since the USS LANGLEY (CV 1), the aircraft carrier has continued to evolve alongside the technological advancements of our Navy.

- **LEXINGTON Class**, 1927 (above)
  - USS LANGLEY (CV 1), 1922
  - The first all-purpose carrier built by the U.S. Navy
- **YORKTOWN Class**, 1937 (above)
  - USS RANGER (CV 4), 1934
  - Included the first use of hydraulic catapults
- **ESSEX Class (CV 9)**, 1942 (above)
  - Midway Class, 1945
  - The first class of 'supercarriers'
- **FORRESTAL Class**, 1955 (above)
  - Midway Class, 1945
  - Considered the first class of 'supercarriers'
- **NIMITZ Class**, 1975 (above)
  - USS JOHN F. KENNEDY (CV 67), 1968
  - Last conventionally powered carrier
- **FORRESTAL Class, 1955** (above)
  - USS ENTERPRISE (CVN 65), 1961
- **GERALD R. FORD Class, 2017** (above)
  - USS GERALD R. FORD (CVN 78)

**EMALS will expand the launch envelope, paving the way for innovations in manned/unmanned aircraft as well as provide opportunity for other technological advancements in the future.**

NAVSEA: Statement A: Approved for Release, Distribution Unlimited
In-Service Aircraft Carriers

NIMITZ-Class: 500 total carrier-years, serving over 84 years, from 1975 until 2059

FORD-Class: Ushering in the Next Generation of Excellence

Only 52% through the service life of the NIMITZ-Class → 239 carrier-years remaining.
Increased Flexibility
- Nearly 3 times the electric plant capacity
- Restored weight and stability service life allowances
- 25% Increase in $A_o$

Increased Capability
- 33% increase in Sortie Generation Rate
- Increased space for flight deck operations and aircraft maintenance

Increased Affordability
- Reduced manning and 20% reduction in maintenance costs
- Designed for 12-year docking intervals/43-month maint. cycle
- ~$4.0B TOC reduction/ship
Gerald R. Ford Class

Integrated Island
- Smaller Island
- Re-Positioned
- Aft & Outboard
- Mast with Clamp Antenna
- Joint Precision Approach and Landing System
- Dual Band Radar
- Enlarged Flight Deck Footprint “Pit Stop”
- Advanced Arresting Gear
- Aircraft Elevators (3) Stbd Sponson Redesign
- #4 Catapult Unrestricted

New Propulsion/Electric Plant
- All Electric Aux Services
- Zonal Electrical Distribution System
- New Propulsion Plants

Improved Weapon & Material Handling
- Advanced Weapons Elevators
- Heavy Underway Replenishment
- Plasma Arc Waste Destruction System
- Evolved Sea Sparrow Missile

Enhanced Flight Deck

Improved Survivability

Enhanced Ship Self Defense
Gerald R. Ford Class Status

**CVN 78:** *The Finish Line is Near*
- 99% complete
- Crew living aboard since August 2015 (~2,500 sailors)
- Sea Trials in April 2017

**CVN 79:** *Coming Along Nicely*
- 27% constructed; 50% erected in June
- Enterprise Air Surveillance Radar
- Phase I delivery 2022; Phase II delivery 2024

**CVN 80:** *Off to a Great Start*
- Executing Advance Procurement
- Starting Advance Fabrication
- Ship construction award in 2018

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FORD Class Construction
Achieving Sustained Affordability for the Class

Driving Down Construction Costs

GERALD R. FORD (CVN 78)
Christening Nov 2013
Deliver 2017

- First new CVN design in 40 years
- New design specifications
- Design / build
- Digital manufacturing of pipe, steel
- New facilities

18% fewer production hours

JOHN F. KENNEDY (CVN 79)
Keel Laying Aug 2015
27% constructed
Replacement for CVN 68

- Modified repeat of CVN 78
  - Enterprise Radar Suite
  - Electric Aircraft Elevators
- Complete Bill of Material at start
- >60,000 lessons learned
- Build strategy improvements
- Increased use of digital data

8% additional reduction targeted

ENTERPRISE (CVN 80)
Planning Contract Awarded May 2016
Construction begins 2018
Replacement for CVN 69

- Rollover of CVN 79 design
- Lessons learned from both CVN 78 and CVN 79
- More build strategy improvements
- Integrated Digital Shipbuilding