Aircraft Carriers: Years of Service

- **NIMITZ-Class**: 500 total carrier-years, serving over 84 years, from 1975 until 2059
- Only 46% through the service life of the NIMITZ Class - 270 carrier-years remaining.
- **FORD-Class**: 10 carriers, serving 2016 until 2110
CVN 78 Class Ship Improvements

Integrated Island
- Smaller Island Re-Positioned Aft & Outboard
- Mast with Clamp Antenna
- Dual Band Radar
- Enlarged Flight Deck Footprint “Pit Stop”
- Advanced Arresting Gear
- Aircraft Elevators (3) Stbd Sponson Redesign

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

Enhanced Flight Deck
- Hangar Bays (2)
- Electromagnetic Aircraft Launching System (4)
- #4 Catapult Unrestricted

Enhanced Ship Self Defense
- Improved Survivability
- Improved Weapon & Material Handling
- Heavy Underway Replenishment
- Plasma Arc Waste Destruction System
- Evolved Sea Sparrow Missile

KPP CVN 21
- Sustained SGR
- Surge SGR
- Service Life Allowance
- Net Ready
- Electrical Capacity
- Manpower
- Force Protection
- Survivability

Threshold
- 160
- 270
- 5%Wt / 1.5 ft KG
- Attain Critical KIPs
- 2.5X NIMITZ
- 500 reduction
- Classified

Objective
- 220
- 310
- 7.5%Wt / 2.5 ft KG
- Attain all KIPs
- 3.0 X NIMITZ
- 900 reduction
- Classified

Note: GFE systems are shown in green font.

PEO Aircraft Carriers
Gerald R. Ford (CVN 78)
Current Status

Design
- 99.0% complete

Material
- 95.0% procured

Construction (Hours)
- 73.6% construction complete
- 7 million feet of cable installed (of 9 million feet)
- 282 of 2608 compartments turned over to crew
- 1st movement of Advanced Weapons Elevators 28 Feb

Lifecycle
- Projected to meet all Key Performance Parameters (KPPs)
- Designed for 43-month maintenance cycle and 12-year docking intervals

Increased Capability ♦ Increased Margins for Future Technology ♦ $4B Reduction in Total Ownership Cost
**John F. Kennedy (CVN 79)**
**Construction and Contract Status**

**Construction Preparation (CP)**
- Long lead material procurement since FY07
- Engineering / cost savings analyses
- Build strategy changes in process
- Advance construction since FY11
  - 654 units under contract
  - 333 units started; 206 complete
  - 100% Product Model roll-over complete
- ~95% of material under contract

**Detail Design and Construction (DD&C)**
- FY15 award planned.
- Delivery at most economical date NLT March 2023
- Negotiations in progress

**Affordability**
- Major changes to build processes and strategy
- Major changes to material procurement processes

*Images: Lower Side Shell Assembly Fr 186-196, Inner Bottom Unit Fr 96-108*
Continuing to Modify our Build Plan to Achieve Affordability Goals

- Eliminating First-of-Class Issues
- Incorporating CVN78 Lessons Learned
- Earlier Material Procurement
- Paradigm Shifts to our Core Processes
- Steel Shop Efficiencies
- Shifting Work Earlier in the Build Phase
- Larger Units and Superlifts
- Key Facilities Investments

Working With Suppliers and the Navy on Material Procurement Cost Reduction Initiatives; Such as:

- Economic Order Quantities and Consolidated Procurements
- Supplier Development Continuous Improvement Program
- Simplified Weld Procedure Approval
- Competitive Second-in-Class Procurements

Implementing Significant Change to Drive for Affordability