

Newport News Shipbuilding Carrier Update

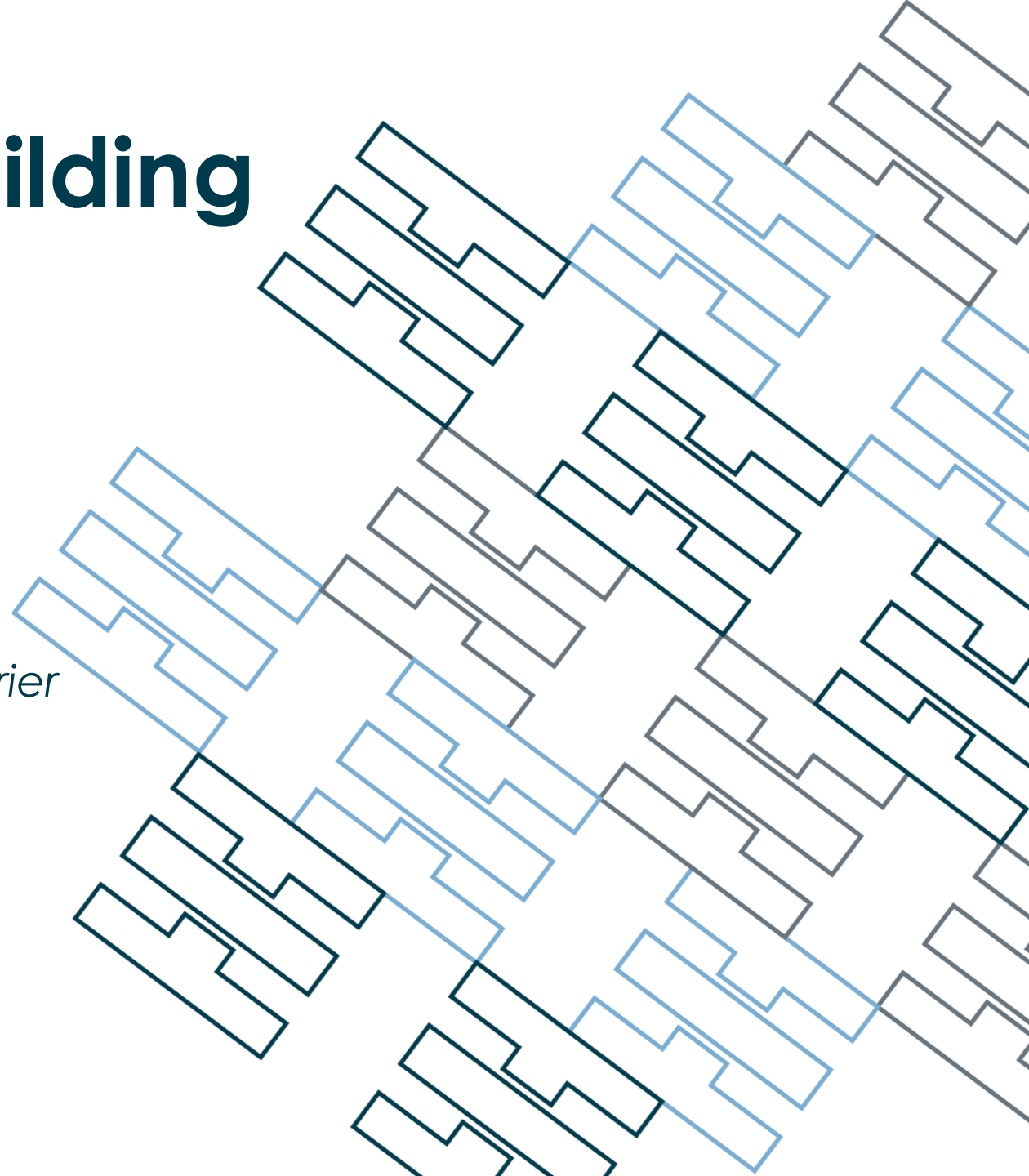
Newport News Shipbuilding
A Division of HII

Todd West – VP, In-Service Carriers Program

Lucas Hicks – VP, New Construction Aircraft Carrier
Programs – CVN 79

Brian Fields – VP, CVN 80/81 and Future Carriers

March 21, 2023



In-Service Aircraft Carrier Programs

Todd West, Vice President



In-Service Aircraft Carrier Programs



Refueling & Complex Overhaul



Fleet Support



Carrier Inactivation

ISCVN Total 5 Year Spend ~\$1.2B

Carrier Refueling and Complex Overhaul (RCOH) - (Nimitz-Class)

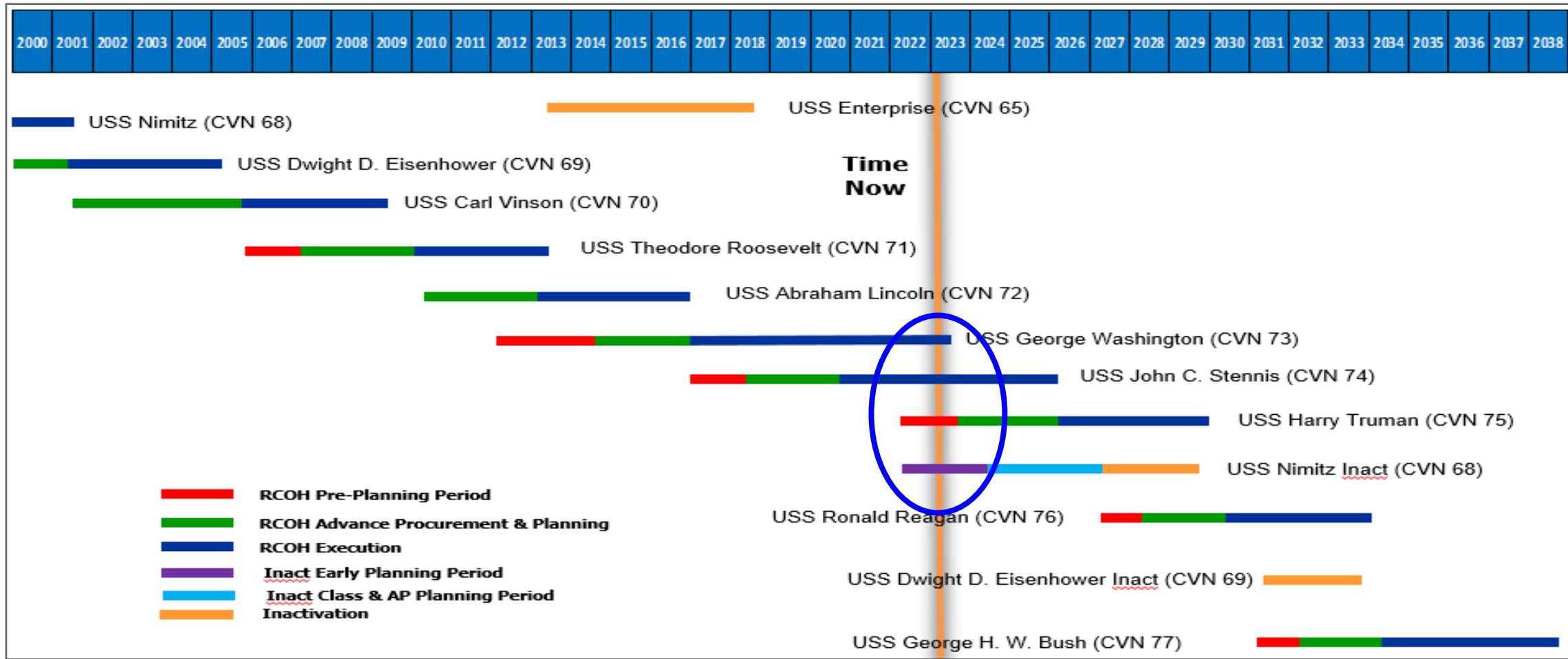
- Very mature and long running program
- Represents the mid-life overhaul and refueling of the Aircraft Carrier
- Recapitalization of the centerpiece of our U.S. Navy fleet for another 25 years
- 35% of a carrier's lifetime maintenance and modernization occurs during the RCOH
- 586 suppliers from 38 states provide material and services critical to the RCOH program
- Nimitz-Class material support required for an additional ~20 years
- Sustaining critical sub-tier supplier health is key to continued success
- Early notification of obsolescence needed



Building a Strong Foundation for the Remaining Service Life of Nimitz-Class Carriers



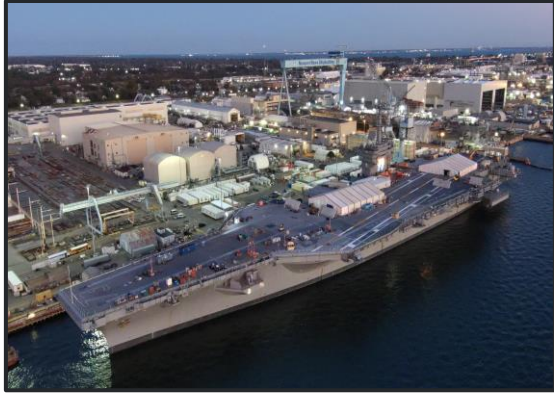
Carrier Refueling and Complex Overhaul (RCOH) & Inactivation - Schedules



Heel to Toe Planning and Execution = Program Efficiency

Carrier Refueling and Complex Overhaul (RCOH) - Program Status

USS George Washington (CVN 73)



- Currently 98% complete
- Projected redelivery June 2023
- Focused on Whole Ship Test Program in support of Redelivery
- Identified Forward Deployed Asset
- Direct buy material procurement estimated at **~\$350M** (Planning and Execution)

USS John C. Stennis (CVN 74)



- Ship arrival at NNS in May 2021
- Currently 45% complete
- Significant overlap with CVN 73 while in yard
- Leveraging digital shipbuilding technology
- Primary focus includes underwater hull work, refueling operations, superstructure upgrades, and critical component overhaul and installations
- Direct buy material procurement estimated at **~\$440** (Planning and Execution)

USS Harry S. Truman (CVN 75)



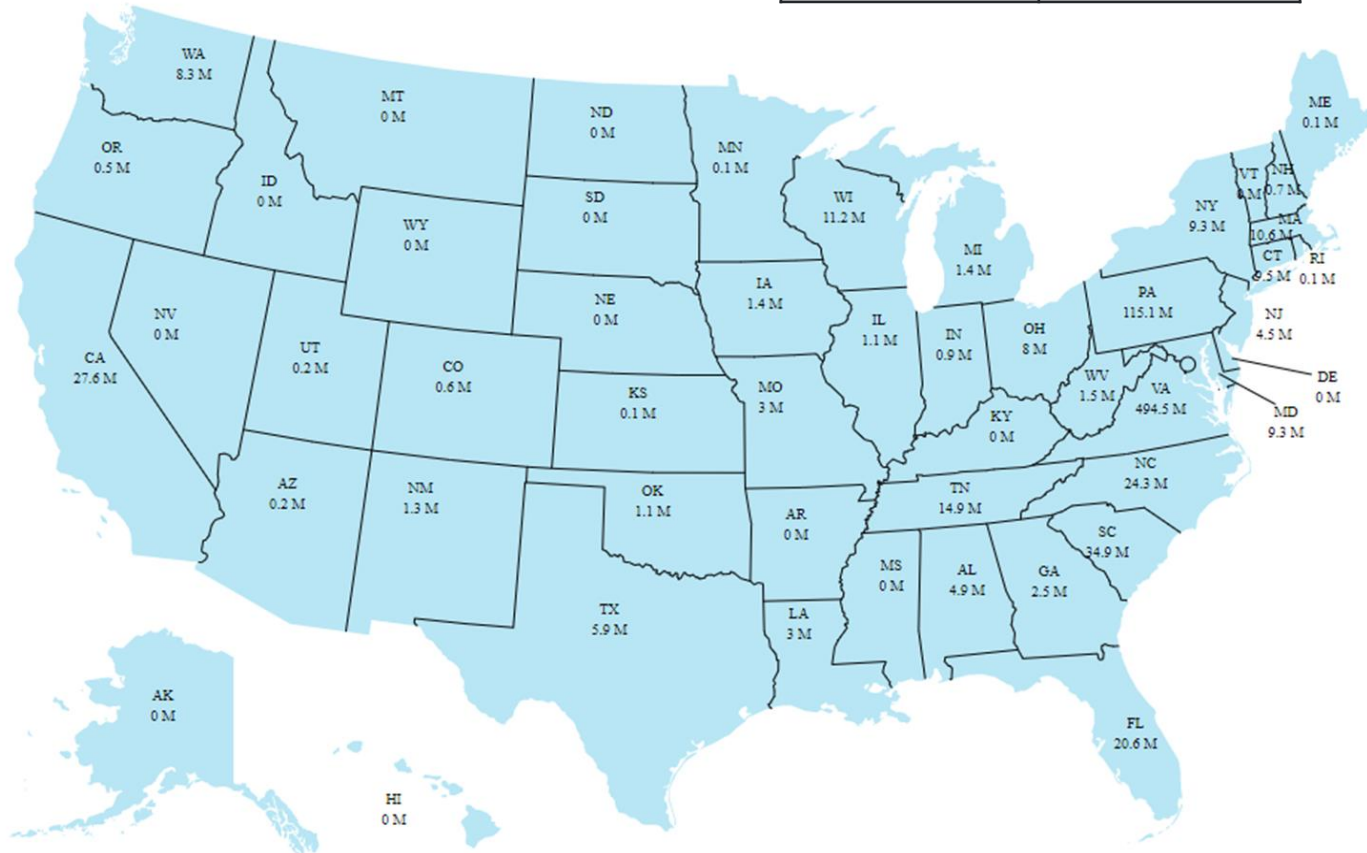
- Pre-AP contract & Shipchecks underway
- Advanced Planning Contract to be awarded in April 2023
- Execution Start in 4Q 2025
- Incorporating Lessons Learned from previous RCOHs
- Anticipating ~51 Month Schedule Duration
- Direct buy material procurement forecasted at **~\$490M** (Planning and Execution)

Delivering Another 25 Years of Critical Aircraft Carrier Value to the Fleet

Carrier Refueling and Complex Overhaul (RCOH) – Total Purchase Order Spending

January 2018 thru December 2022

Total Vendors	Total States
576	38



Project	Spend to Date	Projected Spend
CVN65	\$9M	\$1M
CVN73	\$250M	\$3M
CVN74	\$574M	\$111M
CVN75	\$0.2M	\$770M
Total	\$833M	\$884M

Total Five-Year Spend to Date: \$833M

576 Suppliers from 38 States Provide Material & Services Critical to RCOH



Carrier Fleet Support



- Fleet Support—East Coast/West Coast
 - Planning or executing maintenance on four (4) Nuclear Aircraft Carriers
 - Providing direct support for Ford Class unique expertise and material to support on-time operations
 - Focused on providing skilled shipbuilders in response to Navy requests
 - Supporting a variety of shorter and longer term maintenance availabilities
 - Procuring material and services support during each Availability Planning Phase

Providing Continuous Maintenance for the Carrier Fleet



Carrier Fleet Support – Program Status



Current Work

- **East Coast Maintenance**
 - Availability Execution
 - USS Gerald R. Ford (CVN 78) CM
- **West Coast Maintenance**
 - Availability Planning
 - USS Abraham Lincoln (CVN 72) PIA
 - Availability Execution
 - USS Carl Vinson (CVN 70) CM
 - USS Theodore Roosevelt (CVN 71) CM

Availability Types

- Continuous Maintenance Availability (CM)
 - Occurs Between At Sea Periods
 - 1 to 5 weeks Duration
- Planned Incremental Availability (PIA)
 - Occurs Every 3 to 5 years
 - 3 to 6 month Duration

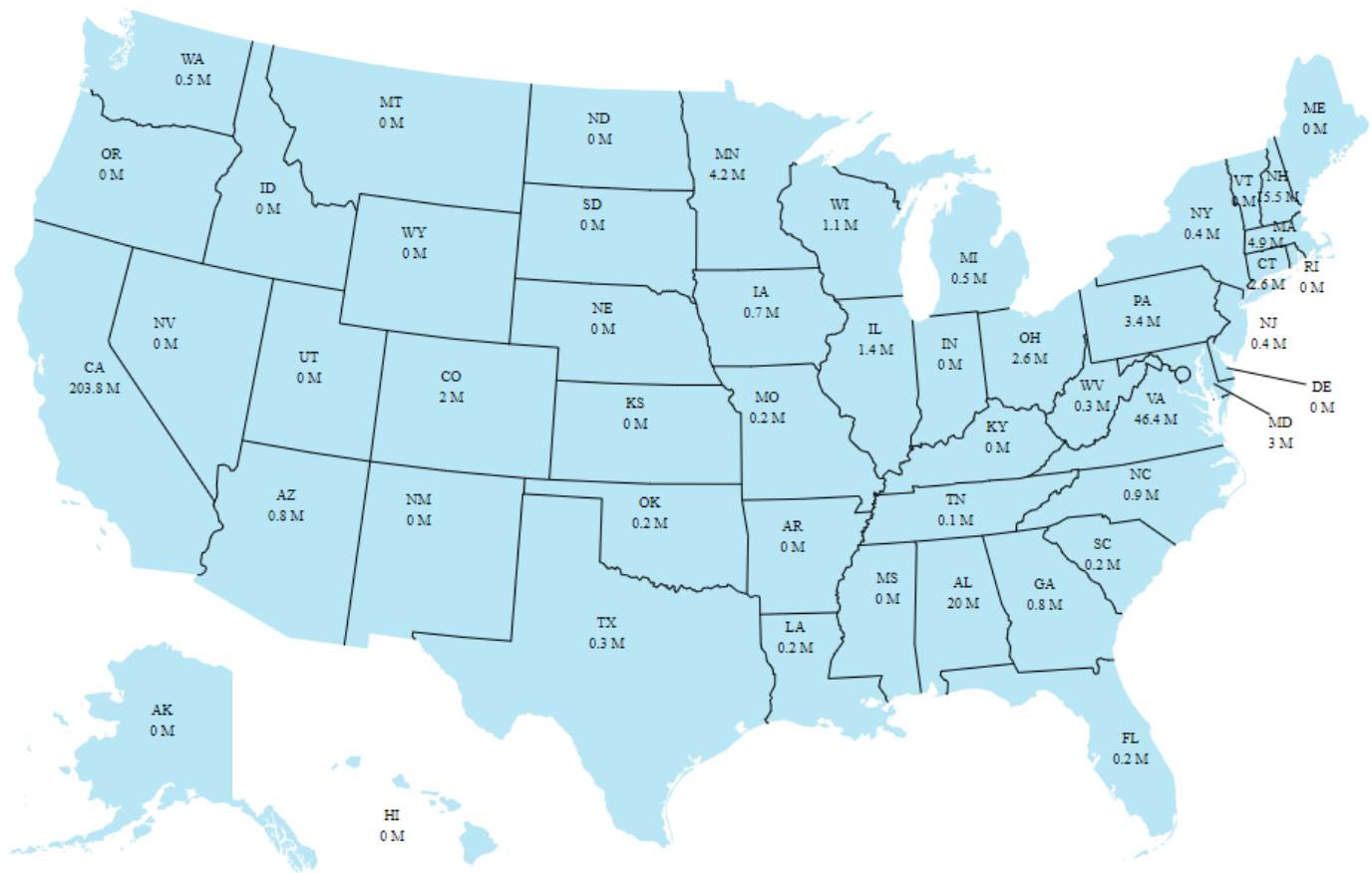
Concurrently Planning and Executing Multiple Fleet Support Availabilities

Aircraft Carrier Fleet Support– Total Purchase Order Spending

January 2018 thru December 2022

Total Vendors	Total States
351	33

Project	Spend to Date
CVN 69	\$4.1 M
CVN 70	\$80.8 M
CVN 71	\$80.9 M
CVN 72	\$80.8 M
CVN 76	\$1.5 M
CVN 77	\$14.8 M
CVN 78 PIA	\$55.1 M
Total	\$318.0 M



Total Five-Year Spend
to Date: **\$318M**

351 Suppliers from 33 States Provide Material and Services Critical to Fleet Support Maintenance and Upkeep of Carriers



***FORD* Class Aircraft Carrier Programs**

CVN 79, CVN 80, CVN 81 & Future Carriers

Lucas Hicks, Vice President

Brian Fields, Vice President

FORD Class Aircraft Carrier Programs



John F. Kennedy (CVN 79)



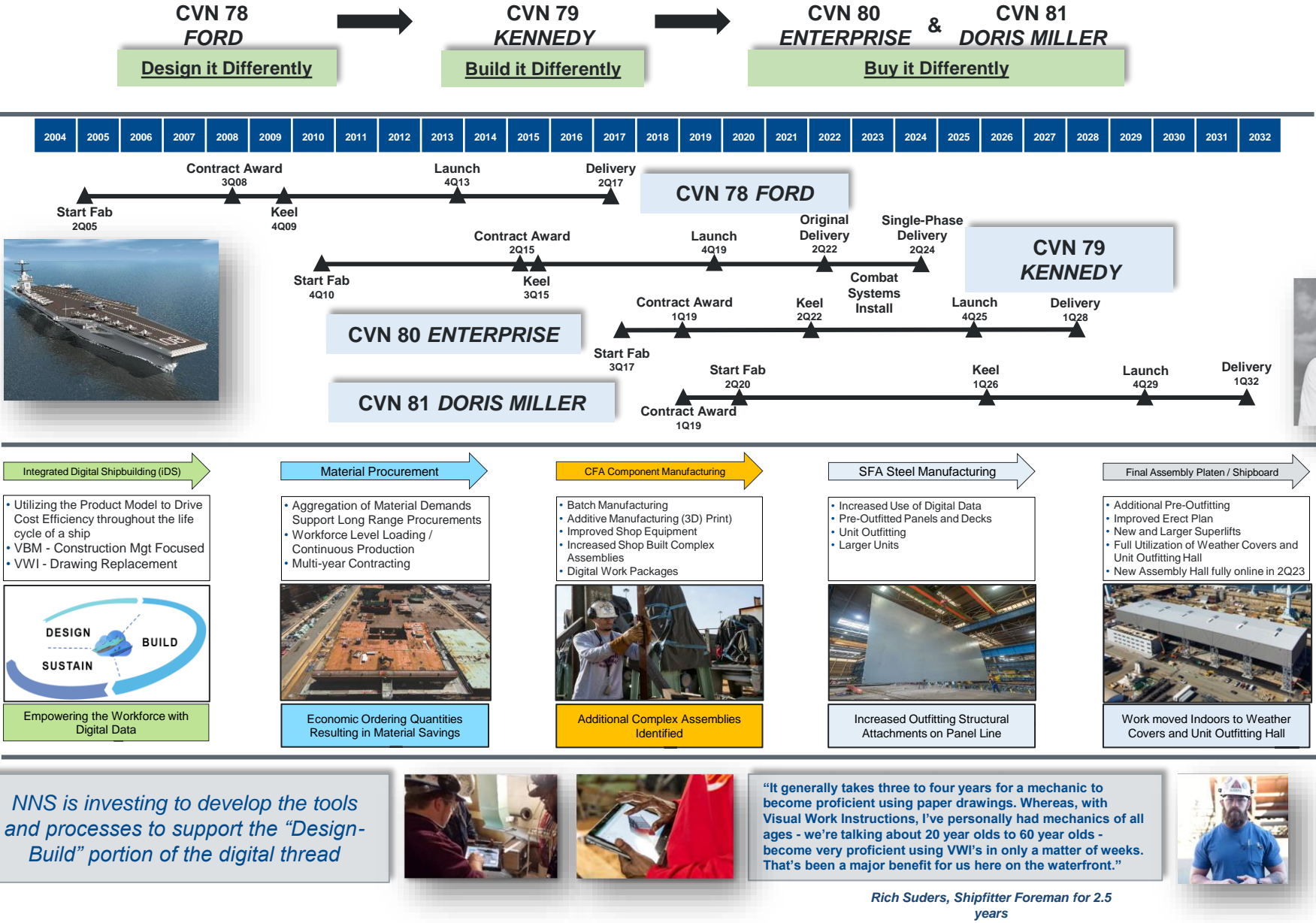
Enterprise (CVN 80)



Doris Miller (CVN 81)

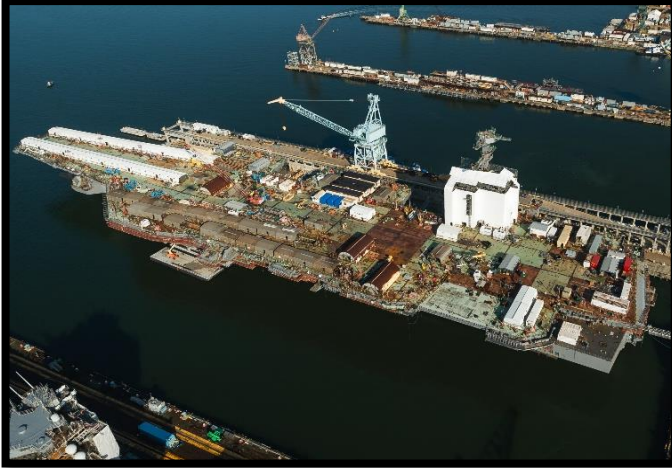
FORD Class Total 5 Year Spend ~ \$4.2B

FORD Class Construction Evolution



FORD Class Program Status Update

John F. Kennedy (CVN 79)



Good Progress to Date:

- Total program – 88% progressed
- 53% of total compartments turned over to Ship's Force
- 95% of baseline cable pulled
- Topside testing commencing
- Propulsion testing commencing
- 99% of material is committed to vendors

Where We'll Be Year End:

- ~70% of total compartments turned over to Ship's Force
- Dead Load Testing
- Stores elevator testing
- Distributed systems testing
- Key Propulsion Plant milestones achieved
- Heavily focused on system testing and turnover

Enterprise (CVN 80)



Progress to Date:

- Two-ship procurements being executed to support CVN 80 and CVN 81 construction schedules
- 83% (~\$2.1B) of CVN 80 material \$ have been committed
- Total Program – 20% progressed
- 481 of 1,068 Structural Units complete
- Outsourcing 183 Structural Units (32 Complete)
- ~11.9K tons of steel loaded into Dry Dock 12
- Build Strategy improvements from CVN 79; ~28% less total superlifts
- Dry Dock 12 modifications began in January
- Utilizing Additive Manufactured components

Where We'll Be Year End:

- New Assembly Hall online (30% increase in covered work area when complete)
- >25% Erected in Dry Dock 12

Doris Miller (CVN 81)



Progress to Date:

- 71% (~\$1.8B) of CVN 81 material \$ have been committed
- Total Program 1% progressed
- Started Structural Units in August of 2021
- 1 of 1,068 Structural Units complete; 14 more currently in WIP
- 1st of 42 large castings poured by the NNS Foundry in 1Q23 (Upper Rudder Frame Port pour weight of 38K lbs.)

Where We'll Be Year End:

- 537 cumulative castings poured (~550 tons poured this year alone)
- More than 40 Structural Units Completed

Building Bigger and Delivering Innovation to Those Who Protect Our Freedom

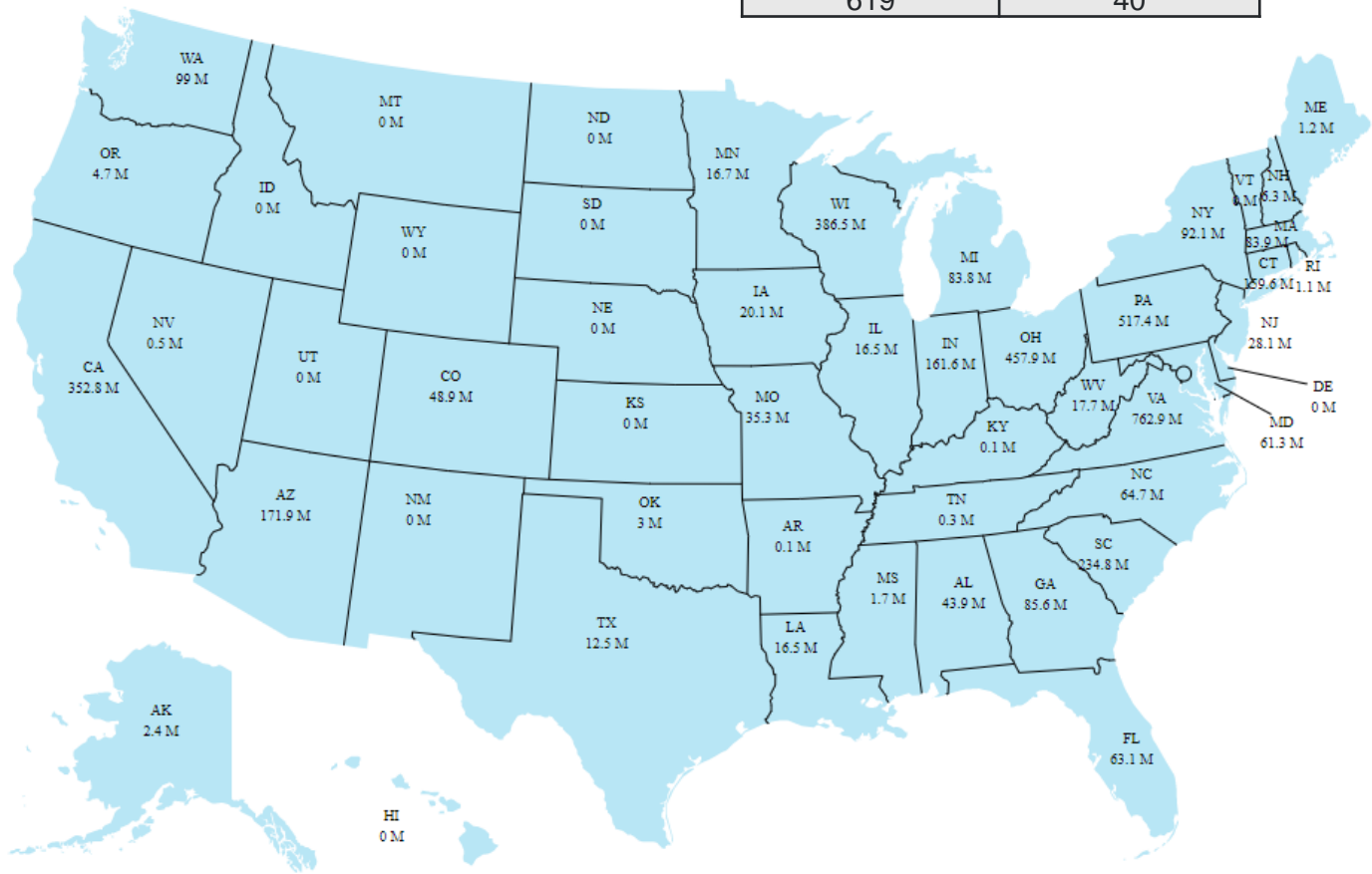


FORD Class Aircraft Carrier Programs – Total Purchase Order Spending

January 2018 through December 2022

Total Vendors	Total States
619	40

Project	Spend to Date	Projected Spend
CVN 78	\$120M	\$0
CVN 79	\$415M	\$230M
CVN 80	\$1.8B	\$993M
CVN 81	\$1.8B	\$1,882M
Total	\$4.1B	\$3,105M

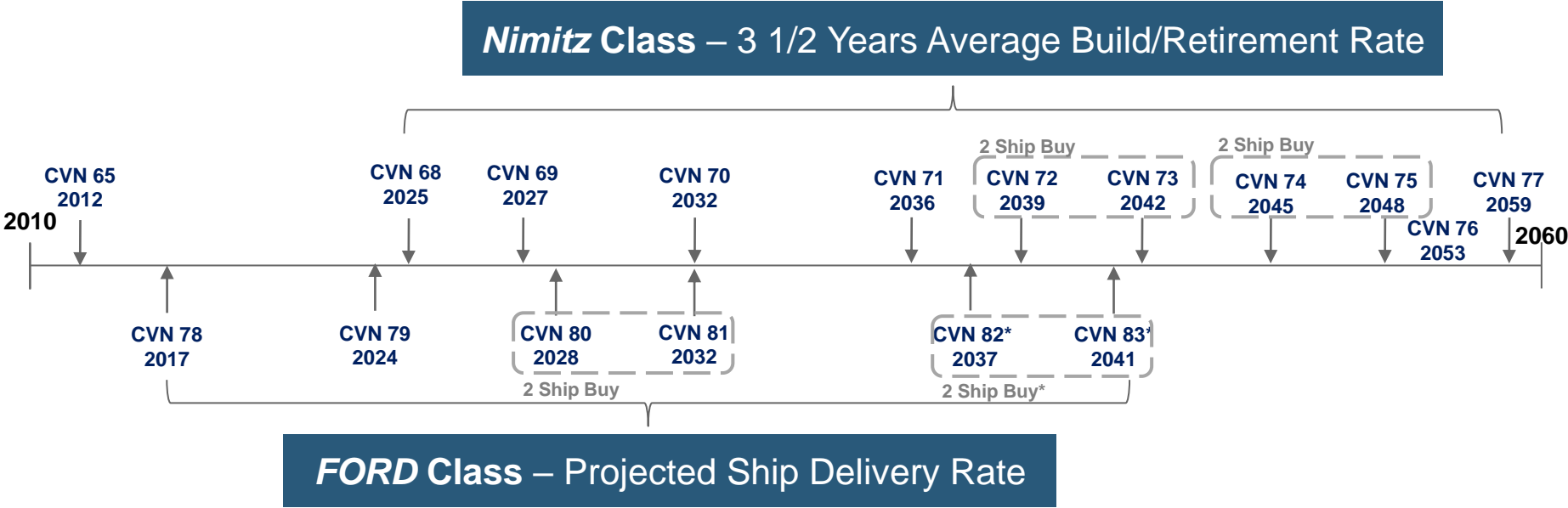


Total Five-Year Spend
to Date: **\$4.1B**

619 Suppliers from 40 States Provide Material & Services Critical to NEWCON



CVN Projected Retirement / Build Plan



* Not Under Contract

FORD Class – 2 Ship Buys Every 8 Years Sustains 11 Carrier Operating Fleet



FORD Class CVN “2 – 3 – 4” Plan for CVN 82 & 83

Cost Reduction

2

“Block Buy” of Carriers -
Authorization to Procure Two Ships

Stabilize the Supplier Base

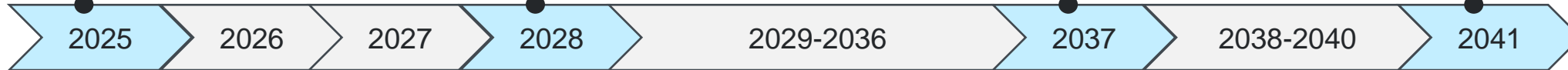
3

Execute Three Year Advance
Procurement for Both Ships

Stabilizes the Workforce Optimizes Force Structure

4

Four Year Construction
Intervals



- Procuring CVNs 82/83 as a two ship Block Buy with Economic Order Quantity (EOQ) authorization with at least three years of Advanced Procurement (AP) funding starting in FY25 and DD&C award in FY28 is the most efficient, affordable and predictable means of procuring, building & delivering the next two aircraft carriers
- **Three Year AP with EOQ:**
 - Injects predictability into the supplier base to maintain hot production lines and
 - Enables the construction and delivery of CVNs 82/83 on four-year centers



Two CVN Block Buy with EOQ saves more than \$5B over individually procured ships on 5 year centers

FORD Class Aircraft Carrier Programs Summary

- **Chief of Naval Operations Navigation Plan (NAVPLAN) 2022** delineates a CVN force structure goal of 12 nuclear-powered aircraft carriers – “the most survivable and versatile airfields in the world capable of providing long-range, persistent sea control, power projection and organic sensing in contested seas and flexible options across the entire spectrum of conflict.”
- To get to 12 CVNs, **industry performance must improve**. Every leader and worker in the defense industry needs to understand **how critical their performance is to the defense of our country and the American way of life**.
- **The keys to our success includes:**
 - Open and continuous communication
 - Alignment on critical issues and recommendations
 - Investments in innovative tools and processes
 - Stable and predictable requirements and funding
 - Recruiting and retaining a trained workforce
 - Teamwork

“For the first time in at least a generation, we have a strategic competitor who possesses naval capabilities that rival our own, and who seeks to aggressively employ its forces to challenge U.S. principles, partnerships, and prosperity.”

- SECNAV Del Toro

