

The Navy's 30-year Shipbuilding Plan – Challenges To Making It A Reality



**Brief to National Defense
Industrial Association**

24 October 2007



The Navy Today

• Global War on Terrorism

– A Direct Navy Issue!

- Over 28,000 Marines and 19,500 Navy personnel in CENTCOM AOR for GWOT support
- Naval medical personnel in Iraq to support Marine forces
- CSG and ESG provide continuous on station operational & combat support

– Indirect Navy commitment

- Global engagement and partner nation support
- Stability operations in Philippines and elsewhere
- Humanitarian assistance and disaster relief throughout the world

• Maritime Presence, Domain Awareness and Supremacy

– Navy's core competencies!

- Worldwide presence with purpose – deterrent shield against major combat operations across the globe
- Transitioning from legacy to revolutionary platforms
- World Class people
- Heavy investment in transformational technology
- Platforms and people postured for short duration high intensity conflicts



The Navy's role increasingly important in global security environment



Changing Security Environment



Evolving security threat demands transformation



Challenge facing Navy Shipbuilding

Navy Goals

- Sustain Combat Readiness
- Build a Fleet for the Future



Transformation

Strategic Guidance

Current War Operations

Future Force Structure

Readiness

Manpower

How do we keep pace and maintain relevance in tightened fiscal environment?

Fiscal Realities

- Limited TOA
- Cost of OIF/OEF/GWOT
- Entitlement Growth in out years
- Competing Government Demand



New ships require major investment



Required Balance



30-year Shipbuilding Plan must be

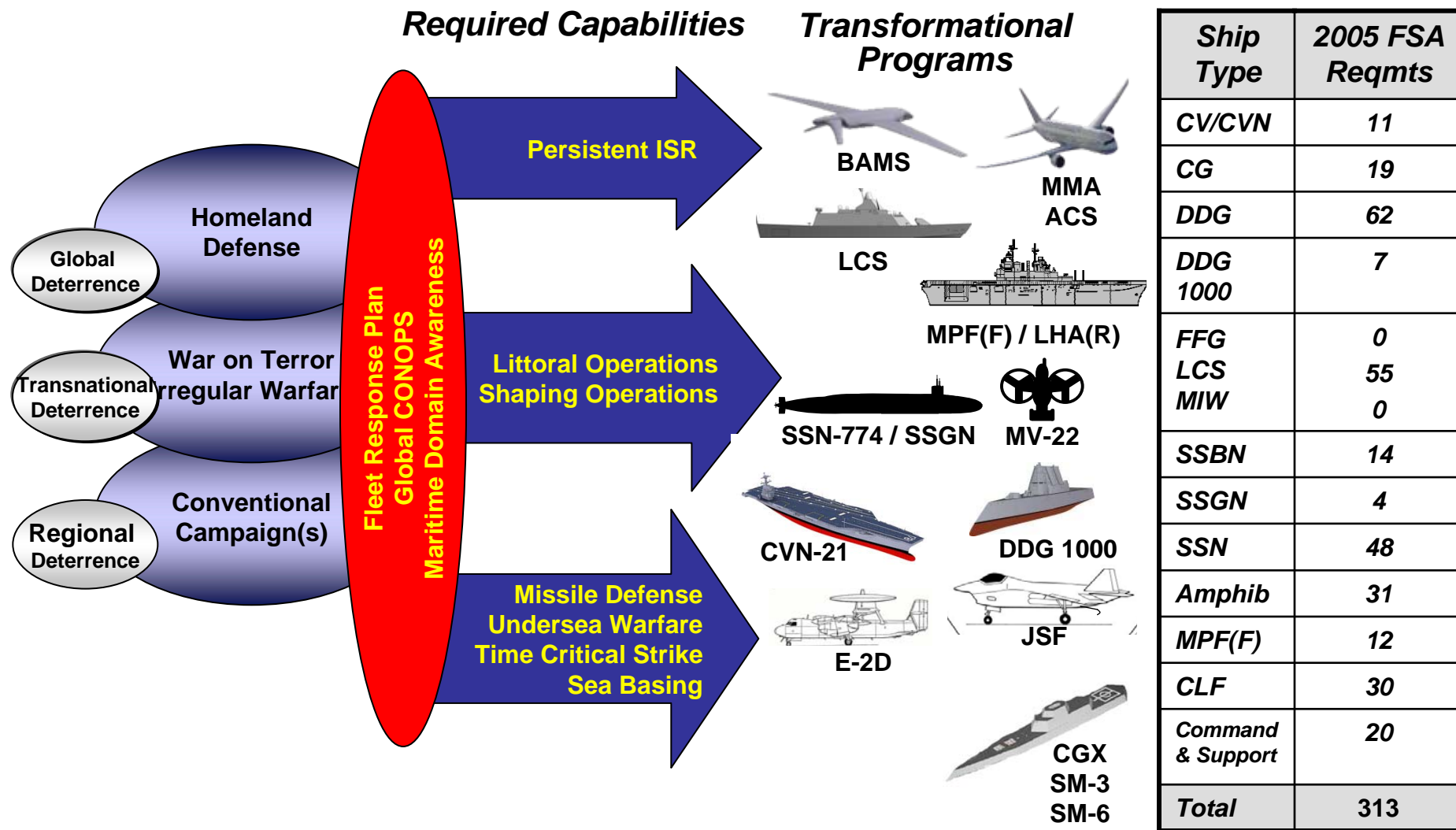
- Transformational
- Affordable
- Stable



Plan must balance required capability with affordability and industrial base



Transformation to 21st Century Navy



Warfighting requirements inevitably evolve and an adaptable force is a must



LCS Will Fill Today's & Tomorrow's COCOM's Demand Signals



- Theater Security Cooperation
- Counter Drug Ops
 - GWOT
 - Establish Regional Partnerships
 - Enhance Hemispheric Stability and Security

- Theater Security Cooperation
- Gulf of Guinea
 - Sub-Saharan Navy Cooperation
 - HOA
 - Counter Terrorism
 - Counter Piracy
 - Persian Gulf
 - Counter Terrorism
 - Regional Engagement
 - Oil Platform Protection

- Theater Security Cooperation
- Southern Philippines
 - Counter Terrorism
 - Establish Regional Partnerships
 - Enhance Hemispheric Stability and Security



**First MCM Mission Package
Delivered 14 September 2007**



Maintaining Industrial Base

Considerations

- Enduring requirement to maintain shipbuilding capability
 - Impacts shipbuilding plan
- Maintenance of 313-ship force structure
 - 8-10 ships per year
 - Stable and predictable
- Plans will provide
 - Longer production runs
 - Fewer design changes
- Intended to yield
 - Labor pool stabilization
 - More efficient production
 - Cost reduction



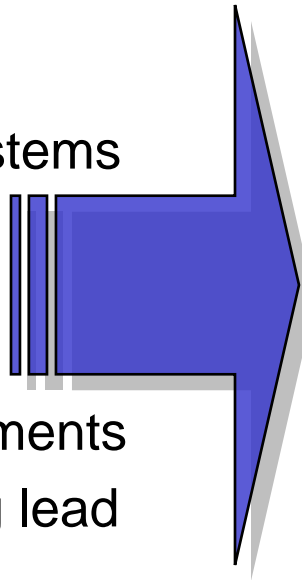
The Nation must maintain a viable shipbuilding industrial base



Industrial Partnership

Navy

- Limiting design changes
- Using common hull forms for multiple ship types
- Standardizing engineering plants across ship types
- Using common combat systems across multiple ship types
- Longer production runs
- Matching steady state requirements with procurements
- Incorporating gap following lead ship to integrate learning
- Stabilizing shipbuilding plans



Industry

- Improved production planning
- Economies of scale
- Long term learning
- Improved quality
- Easier modernization
- Quicker introduction of new technologies
- Shortened production times
- Reduced procurement costs

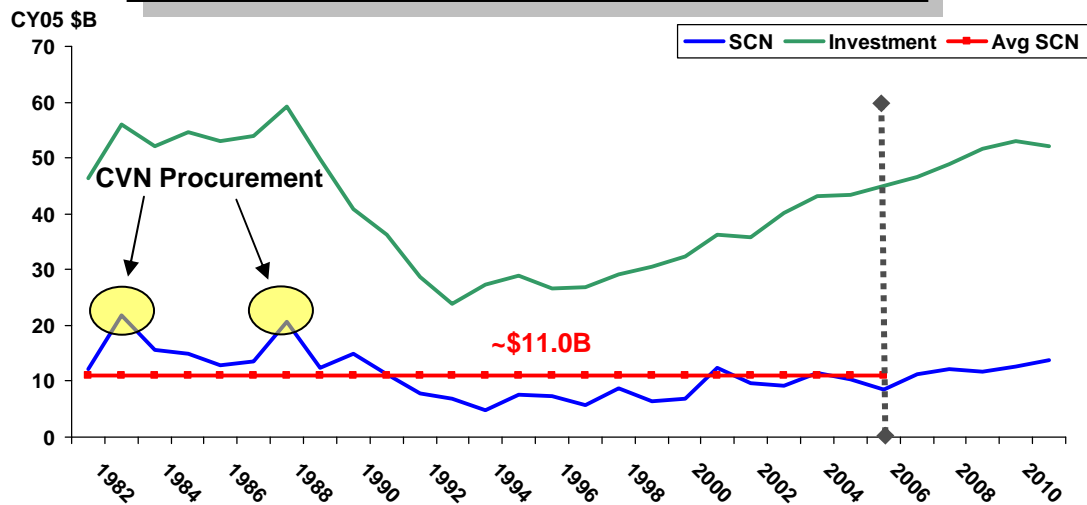
The Navy will do its part but must have industry support to achieve success



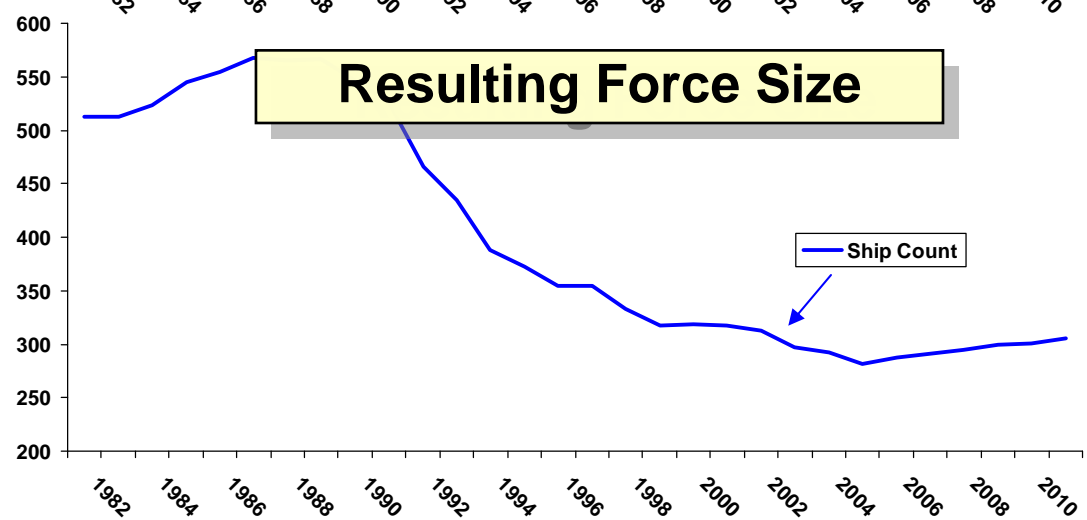
Shipbuilding Affordability

- Based on historical figures (FY05\$) ~\$11B invested annually for new construction yields ~260 ship Navy over long term
- Warfighting requirement about 313 ships requires ~\$13.4B annual investment
- Challenges:
 - Ship cost growth
 - Retirement rate
 - New designs
 - Capability gaps
 - New mission requirements

Historical SCN Investment



Resulting Force Size



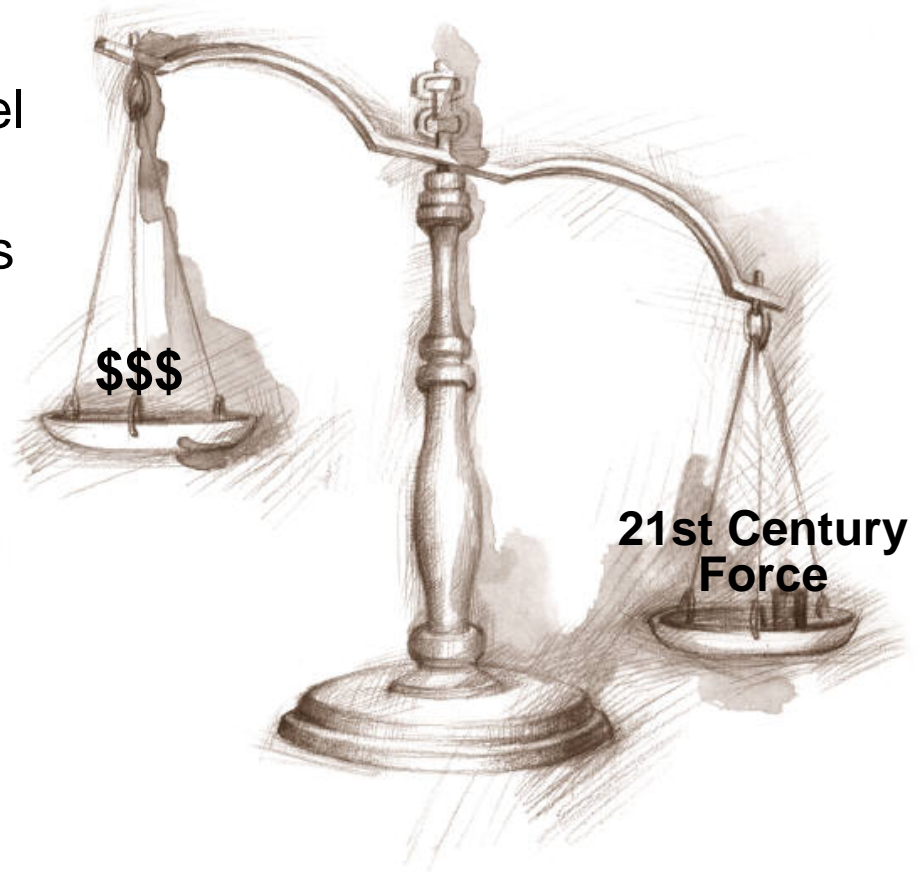
Affordability is a continuing challenge



Affordability – Primary Challenge

Navy Actions

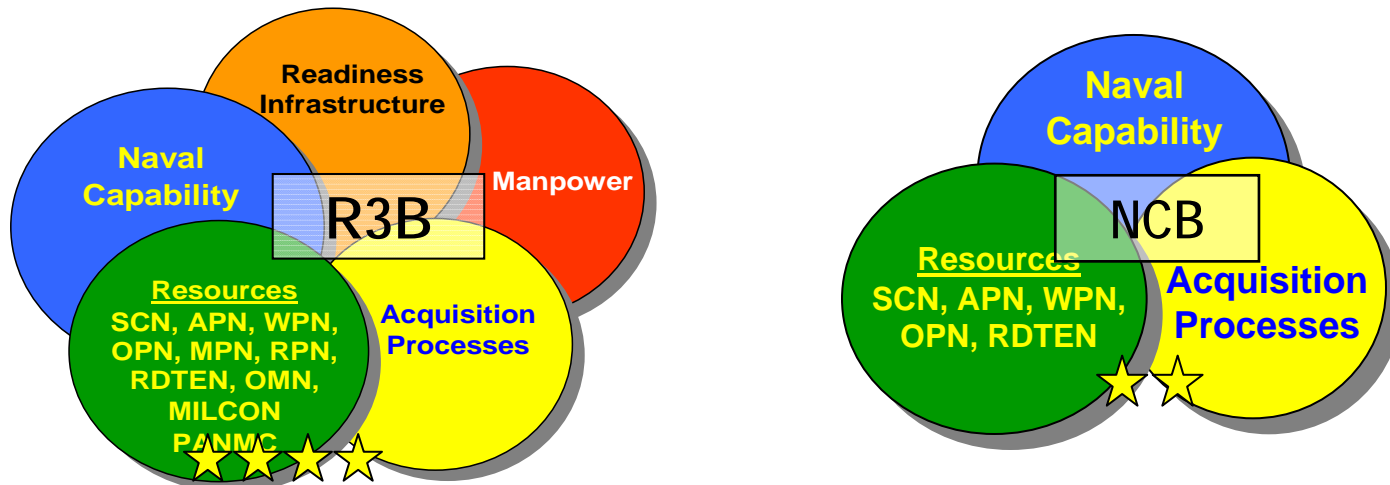
- Performing Long range force level requirements analysis
 - Ship service lives 25-50 years
- Incorporating production study recommendations
 - RAND Study
 - NAVSEA Affordable Future Fleet Study
- Incorporating risk analysis in budgeting
- Modeling procurement options
 - 30-year shipbuilding plan



The Navy will design a future force that is both capable and affordable



Requirements Checks & Balances



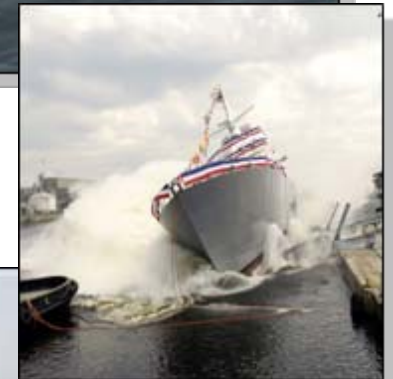
- Navy is committed to controlling the costs of its ships to ensure long-term affordability by enforcing budget discipline for each ship type
- Navy Capabilities Board (NCB) and Resources, Requirements, and Review Board (R3B)
- New ships will be built with cost as a design requirement
 - CG(X)
 - GWOT platforms

New capabilities are vital to an effective force - but how much is enough?



Force Structure Changes

- Current force was largely designed to fight Cold War threat which required costly high-end multi-mission capability
- Current and future threat requires different mix
 - High-end ships to fight and win against future major combat operation threat
 - Larger number of less sophisticated ships to deliver GWOT-level capability in more places
 - Net effect is a larger fleet at lower average per-ship cost
 - Future ship design is less manpower intensive, freeing manpower resources to pay for shipbuilding



The Navy will design a future force that is both capable and affordable



Challenges to Plan Becoming Reality



- Normal challenges in accurately predicting the future
 - Warfighting requirements
 - Economic environment
 - National will
- Increasing budget requirements to support other higher priority defense requirements
- Time required to build a new force
 - Ships being built today will be operational in 2050

Significant challenges must be overcome if plan is to become a reality



Summary

- The Navy's 30-yr shipbuilding plan will:
 - Address the evolving warfighting requirements to ensure the force we build today is relevant in tomorrow's global security environment
 - Maintain legacy ships to ensure they reach their expected service lives
 - Establish a viable strategy for acquiring the ships we need when we need them
 - Control costs, minimize design changes and execute optimum procurement methods to ensure the force we build will be affordable

**To be successful
we will need help**

- Industry can contribute by:
 - Relentlessly driving to reduce production costs while maintaining quality
 - Improving manufacturing and production techniques
 - Developing designs that are easily modernized
 - Shortening construction times

Together we can face these challenges and build the right Navy for the Nation

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BACK UPS



Littoral Combat Ship

Lockheed Martin Team

Lockheed Martin

Gibbs & Cox

Marinette Marine

Bollinger Shipyards



General Dynamics

Bath Iron Works

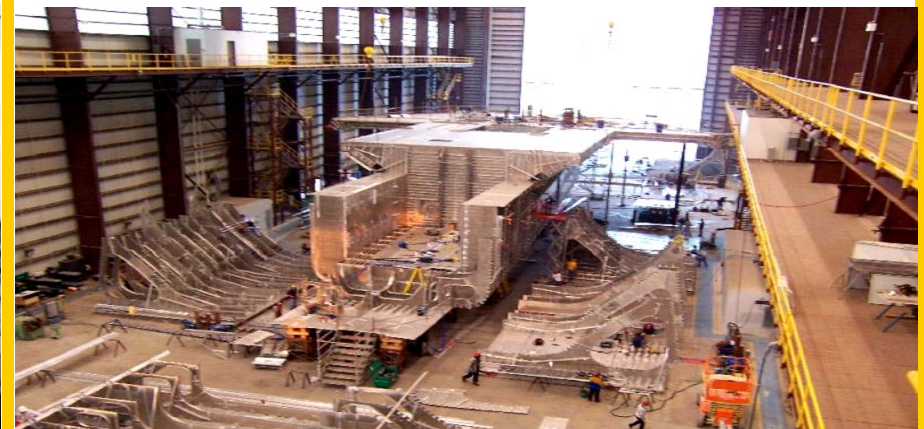
General Dynamics AIS

Austal USA

BAE Systems

MAPC

L3



Competition leads to better ships



LCS Mission Package Capability

Mine Warfare

Antisubmarine Warfare

Surface Warfare

VTUAV



USV



MH-60R



RMS



VTUAV



MH-60R/S

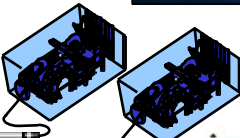
RMS



UUV



TOWED ARRAY



USV



VTUAV



NETFIRES

UUV



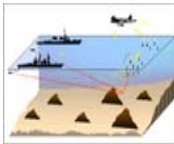
30mm Gun

COBRA



Beach/Surf Zone Detection

EOD



MULTISTATIC

Installed in Mission Module Spaces

A 21st Century Ship for Asymmetric Threats