The State of U.S. Naval Shipbuilding
Why a New Yard Is No Longer Optional

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The State of U.S. Naval Shipbuilding and Industrial Endurance

Purpose of This Brief

This briefing summarizes the findings of a comprehensive assessment of U.S. naval shipbuilding capacity, workforce readiness, and industrial resilience. It is intended to inform oversight, authorization, and appropriation discussions related to fleet size, ship construction, maintenance, and long-term deterrence. This brief does not propose a specific ship design, acquisition program, or budget line. It focuses exclusively on the industrial conditions required to build, sustain, and regenerate any fleet the nation chooses to field.

1. Strategic Context

For decades, U.S. naval superiority rested on an implicit assumption that industrial capacity, while strained, would ultimately be sufficient to support fleet operations. That assumption was shaped by post–Cold War force reductions, episodic conflicts, and an operating environment in which combat losses at sea were rare. Shipbuilding and ship repair infrastructure were optimized for peacetime efficiency rather than wartime resilience.

That context no longer applies. The United States now faces potential adversaries capable of contesting sea control, striking ships at long range, and sustaining pressure over extended periods. At the same time, the Navy is retiring large, highly capable platforms faster than replacements can be delivered, while introducing new classes that depend on stable industrial performance and mature technology to achieve promised capability.

The central finding of this assessment is that **fleet ambition has outpaced industrial capacity**. This gap does not manifest primarily in acquisition milestones or topline budgets. It manifests in schedule slippage, cost growth, deferred maintenance, and limited ability to absorb disruption. In wartime, it would manifest as reduced fleet availability, constrained operational behavior, and diminished endurance.

2. Shipyard Capacity: The Structural Reality

Atlantic and Pacific Shipyards Are Fully Committed

U.S. public and private shipyards on both coasts operate near their maximum sustainable throughput. New construction, maintenance, and modernization availabilities are scheduled years in advance. There is no meaningful excess capacity available for surge.

When unplanned work occurs due to material condition, late discovery of repairs, design changes, or workforce shortfalls, delays cascade across multiple hulls. Ships awaiting induction sit idle. Ships already in dock occupy space longer than planned. The result is system-wide disruption rather than isolated delay.

Efficiency Has Replaced Resilience

Current scheduling models maximize utilization under steady-state conditions. This improves apparent efficiency but eliminates slack. When additional work arises, the system responds by displacing other ships, not by expanding output. What is often described as “surge” is, in practice, reallocation and delay.

From a warfighting perspective, this is a critical vulnerability. Combat damage does not respect schedules. A shipyard system that struggles to absorb unplanned work in peacetime cannot reliably regenerate combat power under sustained wartime conditions.

3. Current Outcomes: Late and Over Budget

Recent shipbuilding and maintenance results demonstrate consistent underperformance relative to plan. Ships are delivered later than scheduled. Costs exceed initial estimates. Maintenance availabilities extend well beyond planned durations.

These outcomes are not attributable to a single cause. They reflect a recurring pattern:

- **Unfinished designs** entering construction
- **Immature or evolving technology** integrated during build
- **Complex platform integration** without sufficient stabilization

When construction begins before designs are finalized, rework becomes unavoidable. Rework consumes skilled labor without producing forward progress. It disrupts material flow and erodes schedule credibility.

Workforce shortages compound these effects. Skilled trades and experienced planners take years to develop. Attrition and retirement remove institutional knowledge faster than it can be replaced. Supply chain fragility further amplifies delay, as many components have limited suppliers and long lead times.

The cumulative effect is an industrial base operating in perpetual recovery mode. This condition may be tolerable in peacetime. It is not compatible with sustained conflict.

4. Wartime Implications: Regeneration Is Combat Power

Battle Damage and Concurrency

In a peer conflict, shipyards would face multiple simultaneous demands: damaged ships requiring urgent repair, routine maintenance needed to keep undamaged ships deployable, and new construction required to replace losses. At the same time, supply chains and logistics infrastructure could be disrupted.

Dry dock availability, skilled labor, and testing requirements impose hard limits on how much work can be performed concurrently. These constraints cannot be waived without risk.

If repair timelines stretch from weeks into months, operational commanders adjust behavior accordingly. Ships become assets to be preserved rather than tools to be employed aggressively. In this way, industrial limitations translate directly into operational caution and strategic vulnerability.

The following section extends this analysis from individual repair events to the cumulative effects of regeneration limits over time¡

Protracted Conflict Dynamics

In a prolonged campaign, the decisive factor is not initial fleet size, but regeneration rate. Time out of service becomes functionally equivalent to attrition. As repair backlogs grow, effective fleet size contracts even if ships are not sunk.

Industrial capacity thus becomes a pacing element of the conflict. An adversary that can impose repair-intensive damage without sinking ships can achieve strategic effect by exhausting regeneration capacity.

5. Options to Restore Industrial Margin

Modernization of Existing Yards

Targeted modernization of selected East and West Coast yards can yield incremental improvements, but physical and workforce constraints limit the scale of achievable gains. Existing yards are already heavily burdened by nuclear maintenance, large hull work, and long-term schedules.

Modernization alone cannot restore meaningful surge capacity.

New Yard Construction

Purpose-built new yards offer the opportunity to design throughput, repair integration, and workforce flow from inception. Options include:

- **Southeastern Atlantic Coast**
- **Texas Gulf Coast**
- **Great Lakes Region**

Each option offers different tradeoffs in geography, workforce access, resilience, and mission scope.

Great Lakes Shipyard Option

A Great Lakes shipyard is technically feasible but constrained by Saint Lawrence Seaway limits. It cannot support large capital ships, but it is well suited for:

- Frigates and escort combatants
- Fleet tenders and support vessels
- Repair and modernization of Seaway-constrained ships

Its greatest value lies in load balancing, geographic resilience, and industrial diversification.

Binational Production Opportunity

The Great Lakes region uniquely enables binational supply and construction integration with Canada. Leveraged deliberately, this could support modular production, distributed manufacturing, and allied sustainment capacity at a scale not currently realized within NATO. Governance and security considerations are manageable within existing allied frameworks.

6. Workforce: The True Limiting Factor

Infrastructure establishes capacity ceilings. Workforce capability determines whether those ceilings can be reached.

A viable shipyard workforce must be able to:

- Deliver predictably on schedule and at cost
- Absorb unforeseen disruption without collapse
- Sustain and transfer expertise across generations

Workforce investment must be treated as a strategic capability. Training pipelines take years to mature. Experience cannot be surged on demand. High turnover degrades resilience and increases rework.

The assessed workforce framework emphasizes additive investment that does not cannibalize hull quality or safety. It links performance incentives, resilience, training, retention, and knowledge transfer into a governed system designed to stabilize output under stress.

7. Key Takeaways for Congressional Oversight

- Fleet size without regeneration capacity is misleading
- Shipyard efficiency and wartime resilience are opposing optimizations
- Workforce stability is more decisive than infrastructure alone
- Industrial capacity directly shapes operational behavior
- Endurance, not peak output, underwrites deterrence

Closing

The Constitution assigns the nation the responsibility to build and maintain a navy. Deterrence therefore depends not only on the ability to strike, but on the certainty to endure. A fleet capable of fighting and winning a modern maritime war requires an industrial foundation able to sustain it. Investment in that foundation is not optional. It is a prerequisite for credible naval power.