



NASEM Transportation Research Board

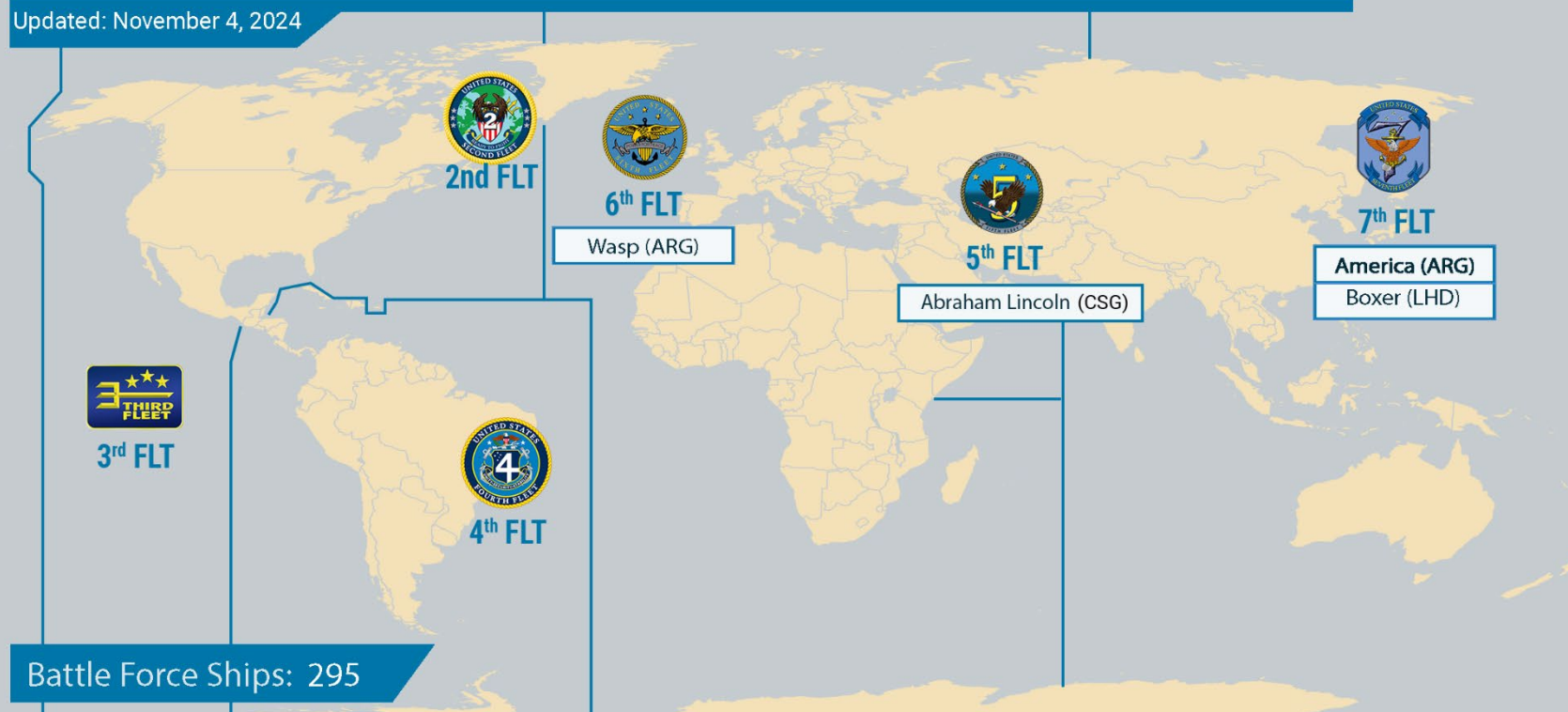
Marine Board Fall Meeting – ONR Update

Dr. Tom Fu, Executive Director
Office of Naval Research

November 2024

NAVY TODAY: CARRIERS & LARGE AMPHIBS

Updated: November 4, 2024



Battle Force Ships: 295

Ships Underway: 42 Deployed, 33 Non-Deployed, 75 Total (26%)

Personnel Forward Deployed by Fleet

4th FLT
200

5th FLT
10,000

6th FLT
24,000

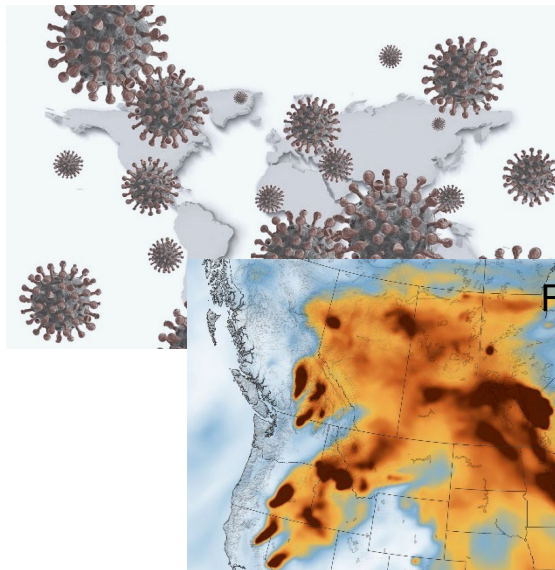
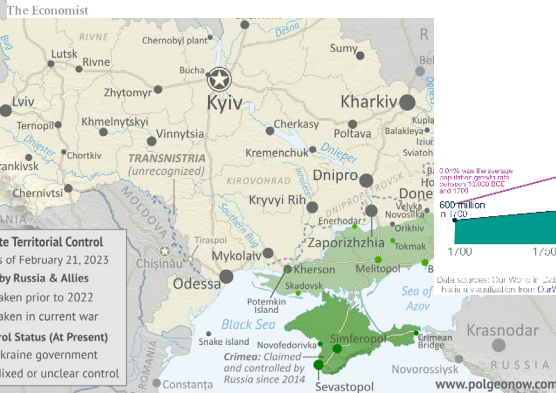
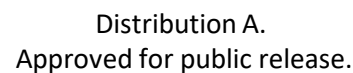
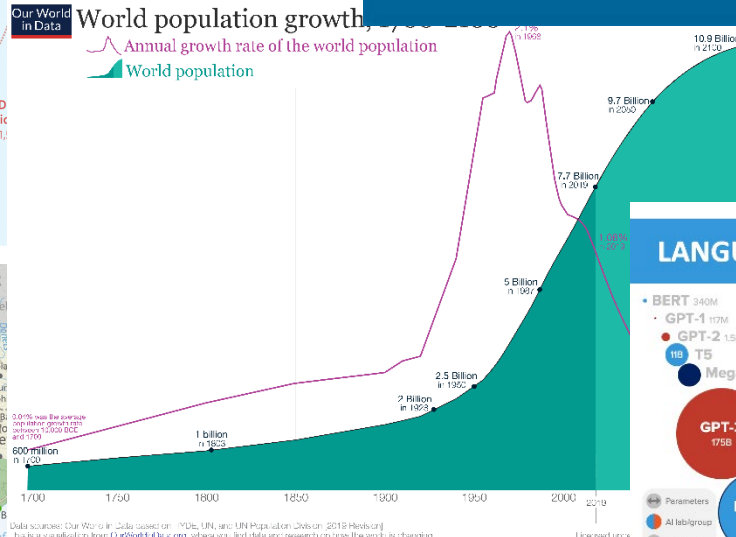
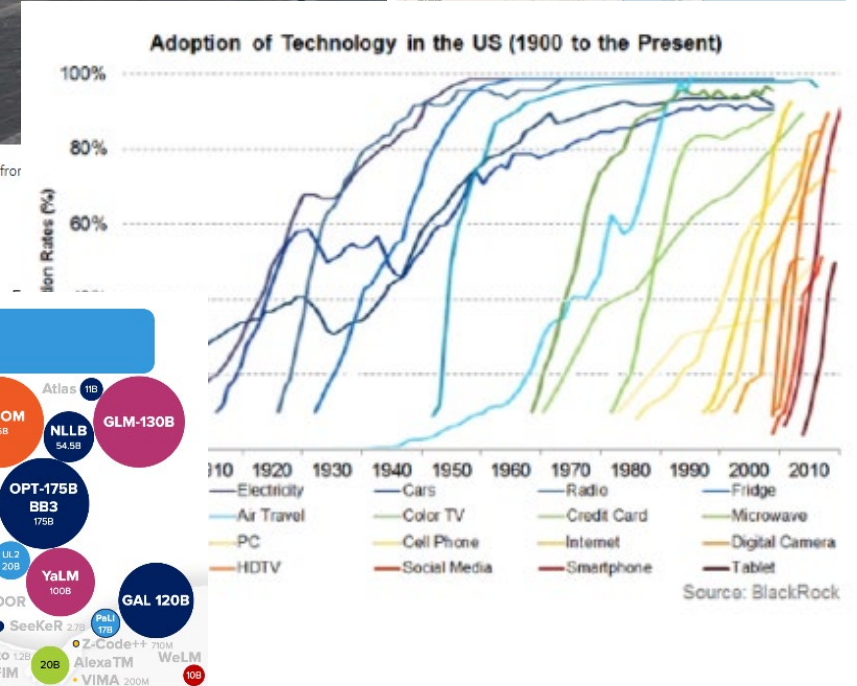
7th FLT
18,000

Total
42,600

UNCLASSIFIED

HONOR | COURAGE | COMMITMENT

Story by jepstein@businessinsider.com (Jake Epstein) • 6d • 3 min





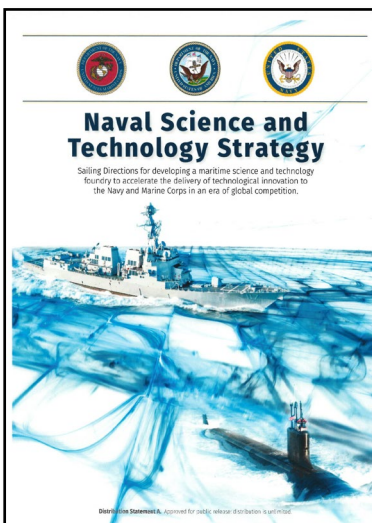
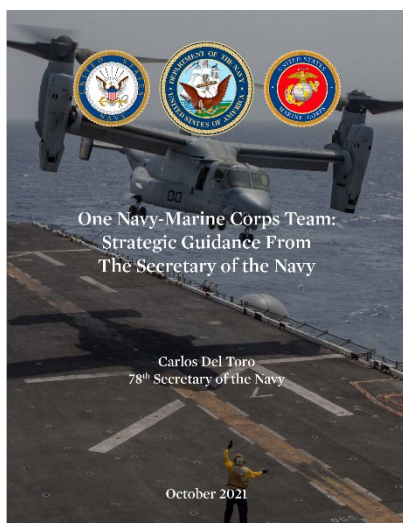
Dept of the Navy Strategy

MARITIME STATECRAFT*

The strategic use of *naval power* and *commercial maritime activities* to *advance a nation's interests*, ensuring *economic growth, prosperity, and national security*.

- Naval Power & Diplomacy
- Emerging Threats
- National & Economic Security
- International Partnerships
- Resilient Supply Chains
- International Commerce
- Maritime Industry
- Research & Innovation
- Workforce Education & Development
- Environmental Stewardship

*SECNAV Del Toro, John F. Kennedy School of Government at Harvard University, 26 Sept. 2023



- **Strengthening maritime dominance** so that we can deter potential adversaries, and if called upon, fight and win our Nation's wars.
- **Building a culture of warfighting excellence**, founded on strong leadership, which is rooted in treating each other with dignity and respect.
- **Enhancing our strategic partnerships**, across the Joint Force, with industry, with academia, and with our allies and partners around the globe



Food for Thought

<https://www.capitalone.com/tech/software-engineering/sres-architecting-with-resiliency-recovery-reliability/>

Resiliency is the ability to avoid or mitigate impact from an adverse event by quickly responding to, and fully recovering after, a failure.

Reliability is the ability for a service to provide its expected functions. Note, stability in this context also includes security. A reliable system is one that is performant, secure, and meets service level objectives, thereby instilling trust.

U.S. Navy Survivability Design Handbook For Surface Ships (reference OPNAV P-86-4-99)

Survivability has three capability areas:

- **Susceptibility**: the ability to avoid detection, reduce the probability and number of hits, or seduce weapons to less vulnerable areas – avoid damage or failure
- **Vulnerability** (damage tolerance): the ability to withstand damage, minimize casualties, and maximize the ability to recover
- **Recoverability** (restoration response actions): restoration of key capabilities.

U.S. Navy Survivability Design Handbook For Surface Ships (reference OPNAV P-86-4-99).

SAFETY

SECURITY

MISSION

All of these include people



Answers to your question

The Marine Board the current list of topics:

- Emerging Technologies and Potential Impacts on Maritime – *always a topic of interest to ONR*
- Environmental Justice and Social Equity in the Marine Transportation System
- Future of the Maritime Supply Chain - **2**
- Maritime Resilience - **1**
- Towards Zero Emissions Shipping - **4**
- U.S. Offshore Wind Energy Development

Crosscutting Elements

- Human and Intellectual Capital - **5**
- Safety Management, Culture and Inspections
- Cyber in the Marine Transportation System - **3**