

**3rd Symposium on the Impacts of an Ice-Diminishing Arctic
on Naval & Maritime Operations**

***US Navy Engagement
in an Ice-Diminishing Arctic***



**RDML Dave Titley, Ph.D.
Oceanographer of the Navy (N84)
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Agenda

- **Drivers**
 - **Cooperative Strategy for 21st Century Seapower**
 - **Arctic Region Policy (NSPD-66 /HSPD-25)**
 - **The changing Arctic environment**
- **CNO's Executive Board (CEB) – A Way Ahead on the Arctic**
- **Task Force Climate Change**
- **US Navy's Arctic Roadmap**

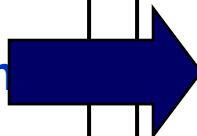




Maritime Strategy

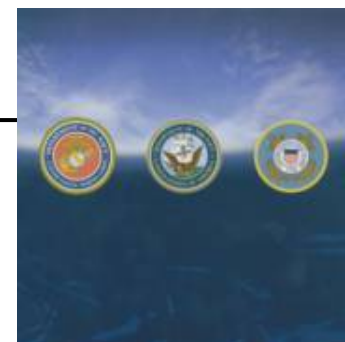
Strategic Imperatives

- Regionally concentrated, forward-deployed task forces to limit regional conflict
- Deter major power war
- Win our Nation's wars as part of a joint campaign
- **Contribute to homeland defense in depth**
- **Foster and sustain cooperative relationships with more international partners**
- Prevent or mitigate disruptions or crises



Expanded Core Capabilities

- Sea Control
- Power Projection
- **Forward Presence**
- Deterrence
- **Maritime Security**
- **Humanitarian Assistance / Disaster Response**



Seapower will be a unifying force for building a better tomorrow

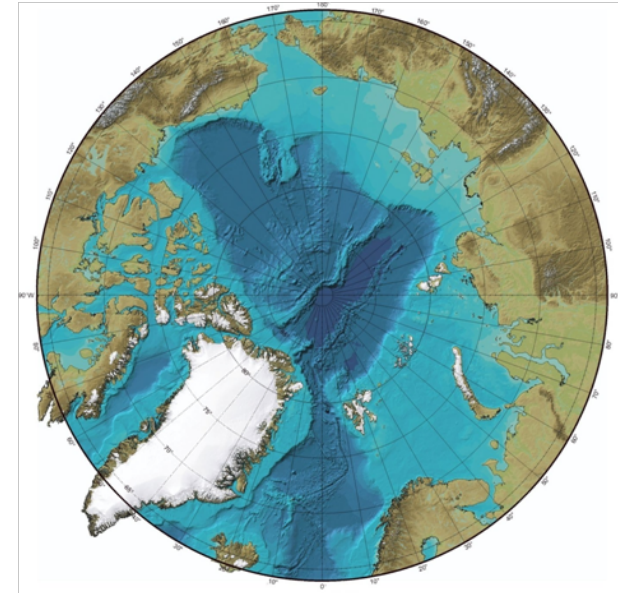
A Cooperative Strategy
for 21st Century Seapower



NSPD-66/HSPD-25 Arctic Region Policy

The Secretaries of Defense & Homeland Security shall...

- **Execute missions required for any region**
- **Increase Arctic Maritime Domain Awareness**
- **Evaluate feasibility of using the Arctic for strategic sealift**
- **Determine basing & logistics support requirements, including airlift & icebreaking capabilities**

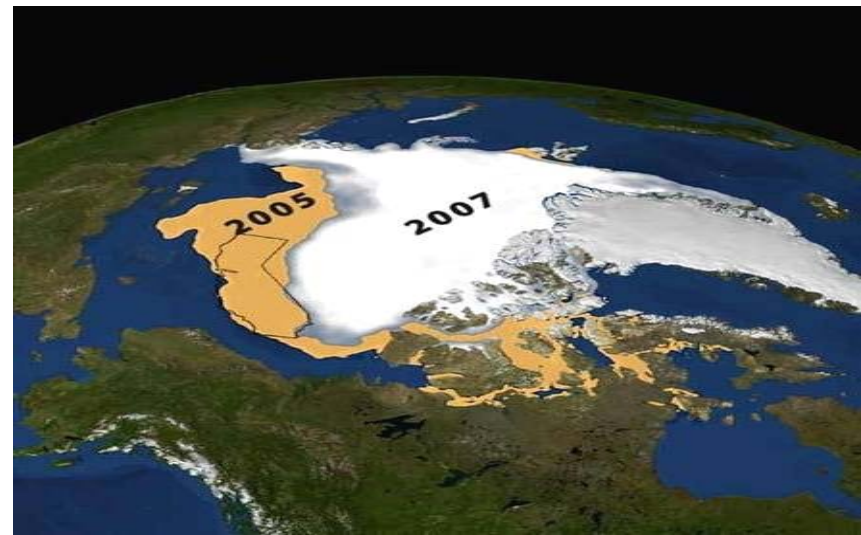


***No new Navy missions,
But implies “be prepared to increase Arctic engagement”***



The Changing Arctic Environment

- **Access to Arctic Basin is increasing**
 - Our best estimate: September 'ice free' conditions in 25-30 years
- **Complex Environment**
 - Observation & predictions are challenging
 - Arctic climate entering more dynamic mode
 - Highly variable
- **Harsh under normal conditions**





Arctic CNO Executive Board

- **Acknowledged Navy's Arctic experience**
 - Admiral Byrd
 - Submarine operations
 - Research (ONR, SCIEX's in the 1990's)
- **Answered key questions from leadership**
 - What do we know? (environment, infrastructure, communications, navigation capabilities/limitations)
 - What are the operating capabilities & limitations of the current Fleet?
 - What are we currently invested in, and in what do we *NEED* to invest?
- **Resulted in the following actions**
 - Established Task Force Climate Change
 - Initiated a Navy Arctic Roadmap





Task Force Climate Change

- **WHO:** Senior Navy staff & Stakeholders
- **WHAT:** Inform policy, strategy, & investments regarding the Arctic specifically, & climate change in general
- **HOW:** Develop a roadmap for Navy action regarding the Arctic
- **WHEN:** On a science-based timeline





US Navy Arctic Roadmap

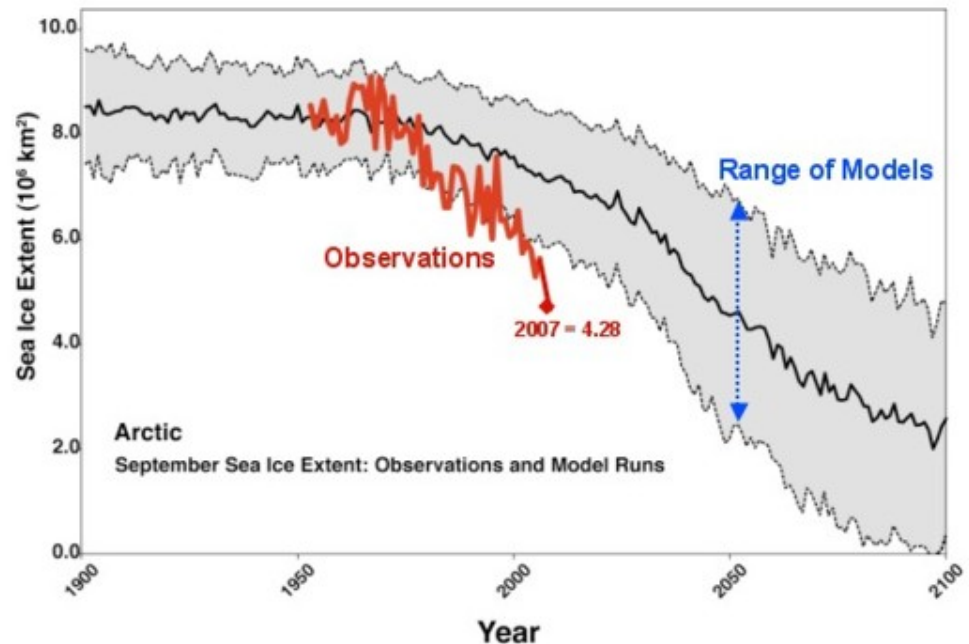
- **To be completed late summer 2009**
- **Holistic, chronological list of Navy objectives**
- **Tempered by fiscal realities**
 - Partnerships
- **Comprehensive framework to guide future strategy & policy**





Assessment & Prediction

- Navy understands recent changes, but needs to understand them & their implications better
- Low confidence in today's prediction systems
- Timing, severity, & type of impact are critical
 - Too early:
wasted resources
 - Too late:
mission impairment





Assessment & Prediction

- **Questions to answer:**
 - Regional impacts?
 - More extreme weather?
 - Observations
- **Cooperative partnerships are key**





Conclusions

“ Climate change is gradually opening up the waters of the Arctic, not only to new resource development, but also to new shipping routes that may reshape the global transportation system. While these opportunities offer potential for growth, they are potential sources of competition for access and natural resources.”

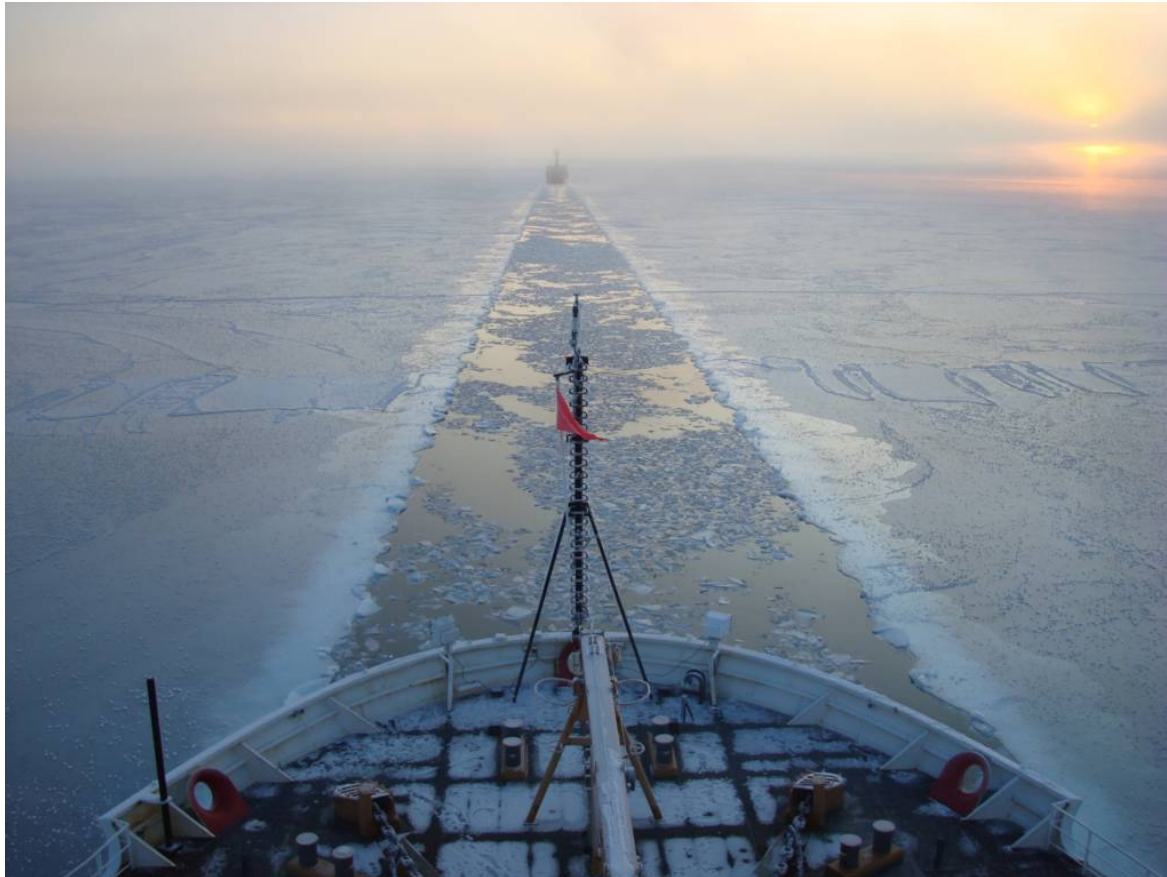
**Cooperative Strategy
for 21st Century Sea Power**



***Science-based approach, Assess for potential risk,
Partnership opportunities***



Questions?



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