

# Climate & Energy Imperatives for U.S. Naval Forces

Navy Arctic Conference  
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# CNA: National Security & Climate Change

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- Debate on climate change was polarized in the U.S.
  - Full implications not realized
- Help inform the national debate
- Panel of respected military leaders
  - Not weigh in on the science issues

# Recommendations

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- National security consequences of climate change should be fully integrated into national security and national defense strategies
- U.S. should commit to stronger national and international roles to help stabilize climate change at levels that will avoid significant disruption to global security and stability
- U.S. should commit to global partnerships that help less developed nations build the capacity and resiliency to better manage climate impacts

## Recommendations (continued)

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- The Department of Defense should enhance operational capability by accelerating the adoption of improved business processes and innovative technologies that result in improved U.S. combat power through energy efficiency
- The Department of Defense should conduct an assessment of the impact on U.S. military installations worldwide of rising sea levels, extreme weather events, and other projected climate change impacts

# Subsequent Activities

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- National Intelligence Council: NIA
- QDR
- Defense Science Board 2008
  - Energy inefficient
  - Lack of visibility of dollar costs in procurement decisions
  - Overly reliant on fragile grid

# Energy: The Past Year

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- Another spike in oil prices
- DoD-level
  - ASD for Operational Energy Plans & Programs
- Navy Task Force Energy
  - National leadership role
- Marine Corps Expeditionary Energy Office
- Mandates facing shoreside facilities

## Climate Change & U.S. Naval Forces: NAS / NSB

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- Followed the work of CNA, NIC, QDR...
- Study requested by CNO Roughead
- Report released March 10, 2011
  - *National Security Implications of Climate Change for U.S. Naval Forces*
- Part of the challenge facing Navy leaders:
  - *“...the Navy has billions of dollars in assets exposed to the threats of climate change, and it must make strategic decisions in the face of considerable uncertainty about pace, magnitude, and regional manifestations of climate change”.*

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OF CLIMATE CHANGE FOR U.S. NAVAL FORCES**

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# Area-1: UNCLOS

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- Finding:
  - As the Arctic opens, it becomes ever more important for the U.S. to be a party to negotiations....
- Recommendation:
  - The CNO, Commandant of the Marine Corps, and Commandant of the USCG should push the case for ratification.

## Area-2: HA/DR & opening of the Arctic

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- Finding-1:
  - Navy needs to maintain the capability provided by the hospital ships beyond the service lifetime of the current two ships
- Recommendation:
  - PEO-Ships, NAVSEA, and MSC should start looking at alternatives, to include construction of new platforms, modifications to some existing big-deck platforms, or even leasing of commercial platforms...
- Finding-2:
  - There will likely be an increased need for HA/DR missions
- Recommendation:
  - No need to start funding new force structure now; begin to consider if different force structure/platforms might be needed in the future, and consider potential training needs.
- Finding-3:
  - The nation has very limited icebreaker capability....
- Recommendation:
  - CNO should support the USCG in defining national needs, in a holistic sense...to support all of our nation's naval forces as well as scientific needs

## Area-2: HA/DR & opening of the Arctic

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- Finding-4:
  - The current situation of 3 COCOMs with overlapping Arctic responsibility is inconsistent with the increasing importance of this area
- Recommendation:
  - CNO should engage with JCS to address this
- Finding-5:
  - The Navy and U.S. military as a whole have lost competence in cold-weather warfare
- Recommendation:
  - Start increasing high-latitude OPS and training, and share lessons between USN, Coast Guard, and Marine Corps

## Area-3: Installation vulnerability to climate change

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- Finding:
  - Sea level rise is likely to be greater than that estimated in the IPCC FAR
- Recommendation:
  - For planning purposes, use a value of .8 m this century, but understand it could be as high as 2m
- Finding:
  - The key concern with SL rise is the accompanying storm surges that will ride in on an increased sea level
- Recommendations:
  - 1. CNIC should work with Coast Guard and the other services to address this vulnerability in a coordinated way across all services.
  - 2. In POM-14, start investing in early-stage adaptation at particularly vulnerable installations

## Area-4: Allied & international partnerships

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- **Finding:**
  - All nations will be affected, including vulnerable ones. The U.S. can't respond to all contingencies
- **Recommendation:**
  - Start developing partnerships with traditional and non-traditional allies to develop response capabilities
- **Finding:**
  - The likelihood of conflict in Arctic is low, but it can't be ruled out
- **Recommendation:**
  - Build partnerships in that region, that reduce the potential for conflict

## Area-5: Technical capabilities - especially in Arctic

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- **Finding:**
  - Communication support and environmental information and mapping in Arctic are lacking
- **Recommendations:**
  - 1. ASD(RDA) should support increased Arctic R&D, and Navy should work with NOAA on improved Arctic charting and mapping
  - 2. Navy should start sub ops and exercises in the Arctic again

## Area-6: Investments in additional R&D

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- **Finding:**
  - MEDEA has been very successful in supporting basic science
- **Recommendation:**
  - Navy should build a “MEDEA” philosophy and share data with civilian scientists wherever possible to support climate science
- **Finding:**
  - Navy is not a leader in modeling – particularly in coupled atmospheric-ocean coupled models.
- **Recommendation:**
  - Navy should assess its capability regarding predictive climate models. Also, Navy should become involved in development of an Arctic observing system