Energy and Climate Change in the QDR and Beyond

Amanda J. Dory

Deputy Assistant Secretary of Defense

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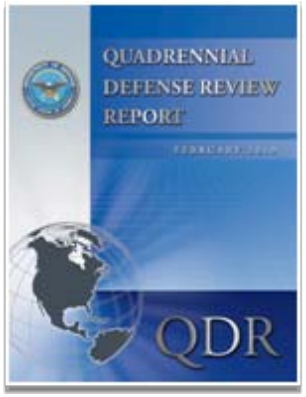
QDR Highlights



- **<u>Rebalances</u> US military capabilities <u>and reforms</u> defense processes and institutions to**
  - ***Prevail*** in today's wars
  - ***Prevent and deter*** conflict
  - ***Prepare to defeat*** adversaries and succeed in a wide range of contingencies
  - ***Preserve and enhance*** the All-Volunteer Force
- **Emphasizes flexibility of the force and investment in key enablers**
- **Sets the force on a path toward sustainable rotation**
- **Integrates activities with other US Government agencies and allies and partners**
- **Initiates a cooperative, tailored approach to global defense posture**

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Approach

- **Strategy driven**
  - National Defense Strategy 2008 was the point of departure
  - NSC staff-led interagency effort to define national security strategy priorities in early 2009
  - Connected to nuclear, missile defense, and space policy reviews
  - Explicitly links defense objectives to force planning construct
- **Unprecedented engagement and consultation**
  - Interagency: Formal coordination and engagement through NSC processes; NSC, State, USAID, DHS representatives on QDR teams; links to other Departments' strategic reviews
  - Congress: Regular briefings to defense committee staffs
  - International: Briefings to allies and partners; UK, AUS, CAN representatives on QDR teams
  - Outside Defense Experts: Industry, Think Tanks, SecDef's Red Team

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Security Environment

❑ Complex security landscape stemming from:

- Current Conflicts – The outcome of conflicts in Iraq, Afghanistan, and against Al Qaeda and its allies, will shape the security environment for decades to come
- Enduring Trends
  - Rise of new powers
  - Growth of non-state actors
  - Lowered barriers for dangerous technologies, including WMD and ballistic missiles
  - Resource scarcity, climate change, disease, and demographics
- Challenging Operational Landscape
  - Increasingly multidimensional conflicts (“hybrid” threats)
  - Threats to the global commons and expansion into space & cyber
  - Growing anti-access/area denial capabilities, including ballistic missile threats
  - Fragile states

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Achieving Our Objectives

❑ Strengthening Relationships at Home & Abroad

- Close collaboration with allies and partners
- Cooperative and tailored approach to global defense posture
- Strong civilian toolset, with DoD often in support of others

❑ Reforming How We Do Business

- Reform security assistance authorities and approaches
- Reform how we buy
- Strengthen the industrial base
- Reform export control system
- Develop enterprise-wide climate change and energy strategies

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Crafting a Strategic Approach to Climate and Energy

- **2008 NDAA Section 951 tasked QDR to consider the effects of climate change on DoD facilities, capabilities and missions**
- **Key findings summarized in 2010 QDR Report as part of "Reforming How We Do Business"**
  - The report is a foundation for future efforts
- **Climate change, energy security and economic stability are inextricably linked**
- **DoD is incorporating these issues into its strategic planning processes**
- **DoD relies on other USG agencies for the science/intel**
  - Relied on the work of the US Global Change Research Program
  - 2008 NIA "National Security Implications of Global Climate Change to 2030"
  - Planning processes account for uncertainty and risk

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Strategic/Operational Energy Findings

- **Energy may be either a potential asymmetric vulnerability or a force multiplier through efficiency**
- **Develop a strategy to provide assured energy for task-critical assets, at home and abroad**
  - Energy security for DoD means having assured access to reliable supplies of energy and the ability to protect and deliver sufficient energy to meet operational needs.
- **Vital role of the new Director of Operational Energy Plans and Programs**
- **DoD will incorporate energy considerations into force planning, requirements development and acquisition processes**

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Installation-Level Energy Findings

- **Increase use of renewable energy supplies and reduce energy demand**
  - Improves operational effectiveness
  - Reduces greenhouse gas emissions in support of U.S. climate change policy
  - Reduces exposure to energy price fluctuations
- **Make energy infrastructure more resilient**
- **Prioritize energy R&D to reduce vulnerabilities of operating forces, and forward operating bases**

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DoD and Climate Change

- **For the first time, DoD explicitly evaluated climate change as a part of a QDR**
  - Climate change will shape DoD's operating environment, roles and missions
  - Climate change as an instability accelerant
- **DoD is not the US Government "lead" on climate change, but we can demonstrate leadership**
  - Appropriately addressing the evolving challenges
- **Opportunity for interagency and intergovernmental cooperation**
  - Also a significant opportunity for enhanced collaboration with the private sector, civil society, and nongovernmental organizations that share environmental and development concerns

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Climate Change Trends and Challenges

- **First order effects**
  - Temperature and sea level rise
  - Increased intensity of severe weather events
  - Ocean acidification
  - Increased water stresses (e.g., drought, flooding)

- **Cascading effects**
  - Competition for scarce resources such as water and arable land
  - Negative impacts on agricultural productivity leading to increased strain on global food markets
  - Challenges to governments from due to resource allocation or possible mass migration

DoD Initiatives/Way Forward

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- Incorporation of QDR findings into follow-on strategic planning
- Compliance with federal energy directives, legislation, and executive orders
- Assessment of installation vulnerabilities
- Integration into force planning analysis
- Mitigation efforts
  - Research and development
  - Scientific data sharing
- Adaptation efforts
  - Strategic planning
  - Build cooperative capacity through military-to-military engagement

Mitigation and adaptation efforts will compete with other programs for funding

Background Slides

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Climate Change Legislative Language

- **2008 NDAA Section 951 tasked QDR to consider the effects of climate change on DoD facilities, capabilities and missions:**
  - *"Examine the capabilities of the armed forces to respond to the consequences of climate change, in particular, preparedness for natural disasters from extreme weather events and other missions the armed forces may be asked to support inside the U.S. and overseas."*
  - *"Use mid-range projections of the IPCC 4AR."*
  - *"Use findings of appropriate and available estimations or studies of the anticipated strategic, social, political and economic effects of global climate change and the implications of such effects on the national security of the United States."*