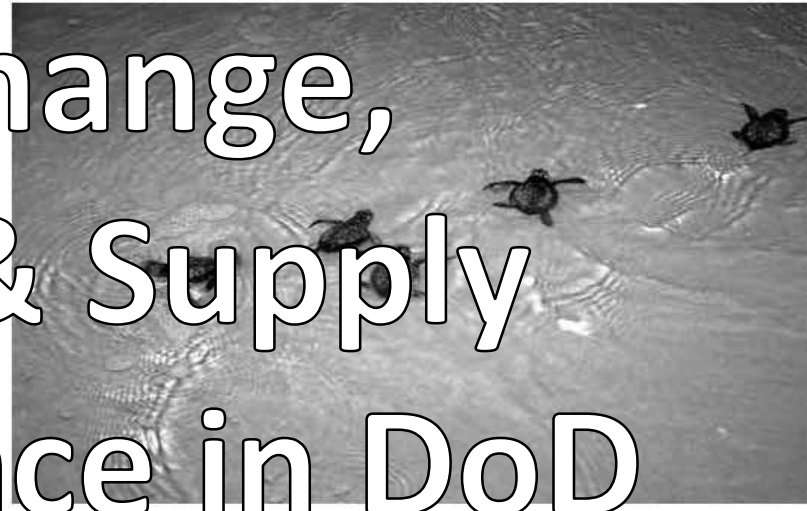




# Climate Change, Acquisition & Supply Chain Resilience in DoD

A Discussion of Roles and  
Responsibilities  
October 2016





# DoD Directive 4715.21, Climate Change Adaptation and Resilience

- Issued January 14, 2016
- Policy: The DoD must be able to adapt current and future operations to address the impacts of climate change in order to maintain an effective and efficient U.S. military
- Mission planning and execution must include:
  - Identification and assessment of the effects of climate change on the DoD mission
  - Taking those effects into consideration when developing plans and implementing procedures
  - Anticipating and managing any risks that develop as a result of climate change to build resilience



# How are changing conditions affecting operations and military readiness?

- **2010 & 2014 QDRs noted Climate Change Affects:**
  - How we train
  - Our infrastructure
  - The operational environment
- **Looking through the lens of mission**
  - In the Arctic, melting ice and increased shoreline erosion threaten critical infrastructure
  - Drought, flooding and extreme storms increase requests for Defense Support of Civilian Authorities
  - Extreme heat and drought impact western training areas
  - Rising sea levels threaten Atlantic and Gulf coast infrastructure



# What does this mean for acquisition and supply chain operations?

- **2014 DoD Climate Change Adaptation Roadmap:**
  - Acquisition & Supply Chain is one four major lines of effort in which to address climate change
  - Climate effects may be direct or indirect
    - Direct: operational system parameters directly impacted by temperature extremes, or transportation route inundated by non-receding flood waters multiple days per year
    - Indirect: parts manufacturer must relocate facility due to flooding or raw materials inaccessible or maintenance cycle changes due to extreme temps
  - Alterations in transport, storage and stockpile activities



# Who has a role?

- Essentially, everyone
- DoD Directive 4715.21 is applicable to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, Office of the Inspector General, Defense Agencies, DoD Field Activities and all other organizational entities with the DoD, collectively referred to as the “DoD Components.”
- And to all DoD operations worldwide unless superseded by international agreement



# What are the responsibilities?

- Broadly, everyone is responsible for considering the effects a changing climate will have on their ability to execute their mission and take appropriate action to ensure mission continuity and resilience in the face of those effects
- Appropriate actions may include updating issuances, factoring climate effects into planning at all levels, considering siting, timing or functions that may be affected by a changing climate





# What have we done?

- Issued the 2014 DoD Climate Change Adaptation Roadmap
- Issued the 2014 Policy Memorandum on Flood Plain Management on DoD Installations and DoD Directive 4715.21, as well as others
- Completed screening level vulnerability assessment surveys (SLVAS): High level, qualitative look at installations already experiencing impacts to mission from extreme weather events, wildfire, and sea level changes
- Developed regional coastal assessment scenarios for DoD sites to better understand the effects of changing sea levels



# What are we doing?

- Participating in regional climate change adaptation planning pilots sponsored by DoD, FEMA, CEQ, and local stakeholders to develop an “all of government” approach to assessing and responding to changes in climate.
- Conducting webinar series on the lines of effort defined in the Roadmap to help spread the word on the DoD Directive.
- Evaluating existing training and education programs to see where consideration of climate change effects should be incorporated.





# What do we have planned?

- Continuing to update DoD issuances to incorporate consideration of climate change effects. Broadening the scope of issuances beyond just land and water related documents
- Working with the DoD components on what additional guidance and direction is required to continue to move our efforts at climate resilience forward
- Continuing to track progress of our efforts at climate resilience in the annual Strategic Sustainability Performance Plan (SSPP)



## How are best practices being disseminated and implemented ?

- DoD Climate Change Adaptation Working Group meets monthly and highlights information exchange across all components
- Webinar series on implementing the new DoD Directive 4715.21, Climate Change Adaptation and Resilience began in April 2016.
- Pilot regional planning projects lessons learned and process templates being developed for use across all Components in 2016
- DoD Components are updating existing or creating new guidance specific to their mission requirements



## What challenges is the Department facing in carrying out preparedness and resilience initiatives?

- Understanding the potential effects of the changing climate on readiness and resilience
  - Conducted qualitative screening level vulnerability assessment surveys during 2015 to help identify where to look deeper
- Effects of a changing climate are site specific so response to those effects is also site specific



## What opportunities exist for working with industry to address and mitigate the effects?

- Understanding that the climate is not static and conditions are changing. Current and future buys should take this under advisement. This includes:
  - Operating temperatures
  - Water scarcity
  - Resource availability (e.g. raw materials)
  - Maintenance requirements
  - Human factors



# Information Resources

- 2014 DoD Climate Change Adaptation Roadmap ([www.acq.osd.mil/ie/download/CCARprint\\_wForward\\_e%202015.pdf](http://www.acq.osd.mil/ie/download/CCARprint_wForward_e%202015.pdf))
- DoD Directive 4715.21, Climate Change Adaptation and Resilience (<http://www.dtic.mil/whs/directives/corres/pdf/471521p.pdf>)
- Data.Gov/Climate and the U.S. Climate Resilience Toolkit ([www.data.gov/climate](http://www.data.gov/climate))



# Funding Resources

- No separate program element for climate change adaptation and resilience
- Planning and responding to the effects of a changing climate should be incorporated (integrated) into existing program/mission efforts





# Definitions

- **Adaptation.** Adjustment in natural or human systems in anticipation of or response to a changing environment in a way that effectively uses beneficial opportunities or reduces negative efforts
- **Climate change.** Variations in average weather conditions that persist over multiple decades or longer that encompass increases and decreases in temperature, shifts in precipitation, and changing risk of certain types of severe weather events. This term is included in Joint Publication 1-02, DoD Dictionary
- **Resilience.** Ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions



# Questions?