

A large, light blue, semi-transparent world map is centered in the background of the slide, showing the continents of North America, South America, Europe, Africa, Asia, and Australia.

# United States Joint Forces Command

## Joint Operating Environment (JOE)

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# Much will Change

## *Trends Influencing the World's Security*



**Demographics** – Population growth/decline, age disparities, migration, sprawling urban areas



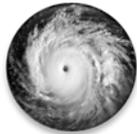
**Globalization** – Rising powers, interconnections, and inequalities



**Economics** – Trade imbalances, rising expectations vs. failing economies



**Resource Scarcity** – Competition for water, energy, food



**Climate Change & Natural Disasters** – Sea level, storms, growing coastal populations



**Cyber** – Exponential growth, advantage, vulnerability



**Space** – More have access, defense of US space assets



**Technology** – Exponential growth, ubiquity, lower cost of entry – to include CBRNE technologies

# New for 2010

- **China demographics**
  - Aging of the population and one-child policy
- **Globalization**
  - The global impact of Remittances – growth of middle classes
- **U.S. financial position and national defense**
  - Persistent trade and financial imbalances
  - Revenue falling farther behind government spending – Debt Crisis?
  - Squeeze on Defense Spending
- **Water stress in NE and SE Asia**
- **Conflict in the opening Arctic**
- **Cyberspace as an avenue of vulnerability**
  - Veil of anonymity
  - No “protected zones”
- **Operations in space**
  - More actors have access to space-based capabilities
  - Challenges to U.S. access



# New for 2010

- **Consequential India**
  - Commanding Presence in the Indian Ocean/Confluence of Interests and Worldviews with U.S.
  - Growing Economic Power
  - Greater U.S./India Cooperation (Nuclear Energy, Security, Economics)
- **Mexican security**
  - Drug Problem *Hemispheric* in Nature; Solutions will be as well
  - Mexican government taking risks to combat corruption
- **Iran challenges**
  - Expanding influence in region through proxy forces -
  - Confrontation, economic and political volatility – impending crisis
- **Science and technology**
  - Directed-Energy Systems
  - Robotics
  - Nanotechnology
  - **Nanoenergetics**
  - Biotechnology



# Contexts of Conflict and War



**Competition and Cooperation among conventional (state) powers** will provide a number of challenges and threats to the joint force



**Weak, pressured, and failing states** will need engagement and cooperation



**Urbanization** will require operations in large, sprawling urban environments – many with modern infrastructure



**Threats from Unconventional states and non-state powers** that will confront us with new and innovative ways to wage war



**“Battle of Narratives”** will bring populations directly in touch with joint force operations and shape perceptions – local, regional, global



**Defense of the US Homeland** will require operations abroad and at home

**Contexts are the confluence of two or more trends and illuminate why wars occur and how they might be waged.**

# Implications – 21<sup>st</sup> Century Warfare

- **Adversaries examine & circumvent how the U.S. wages war**
- **Adversaries will adapt military practice to:**
  - Construct a mix of conventional, irregular warfare, and nuclear threats
  - Blur the line between political conflict and open war
  - Place U.S. forces in strategic dilemmas by developing strategies to avoid our advantages and confront us with their own asymmetries.
- **Adversaries will use:**
  - Globally ranging networks and open-source capabilities (internet, commercial navigation and imagery).
  - Increasing technical equality to make anti-access strategies challenging in all domains.
  - Mobility, precision, & information while contesting our ability to respond.
- **Friction is unavoidable - Surprise will still be a major factor**

**Must build a force that is Adaptable, Agile, and Resilient**



# JOE - Future Opportunities

- **Professional Military Education**
  - PME must develop broad understanding of the world
  - More detailed cultural training and awareness
- **Personnel Systems**
  - Transform mobilization-based development paradigm
  - Incentivize adaptability and innovation
- **Defense Economics and Acquisition**
  - Adversaries outpacing our system
  - Tempo of acquisition is having strategic effects
- **Training Simulation Systems**
  - Advanced systems for ground forces

