### Strategic Weapons in the 21<sup>st</sup> Century: Rethinking Nuclear and Non-Nuclear Elements of the Deterrent

## **Implementation Strategy**

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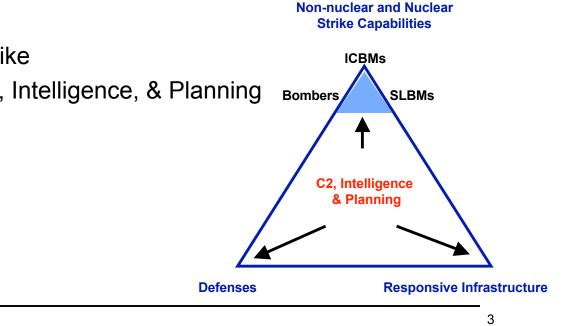
Within the new triad concept in the Nuclear Posture Review (NPR), what is required and what obstacles need to be overcome to transform <u>strategic capabilities</u> in order to optimize <u>readiness and responsiveness</u> in the 21st century?

- Strategic capabilities: ability to decisively alter an adversary's basic course of action
- Readiness: ability to promptly execute strategic missions with existing forces and capabilities
- Responsiveness: ability to augment existing forces with increased numbers and/or improved capability *more rapidly than evolving threats*



#### NPR defined a New Triad in a New Policy Context

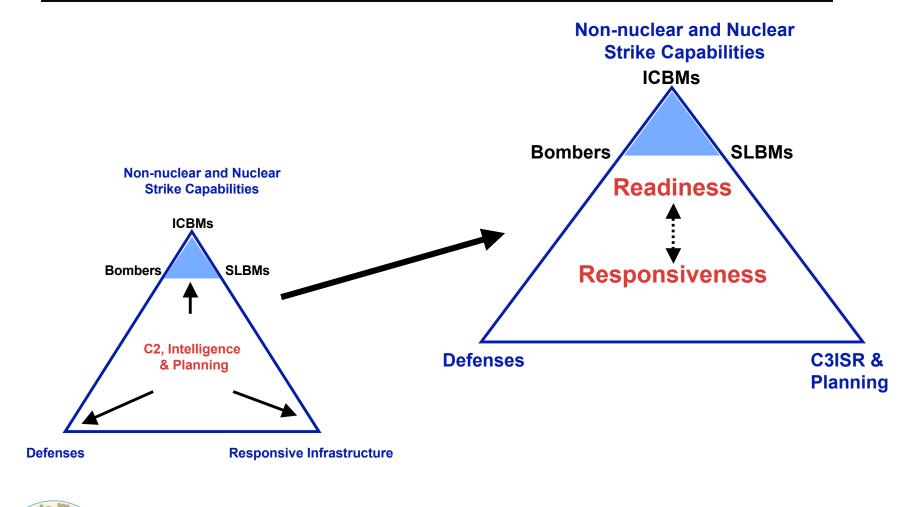
- Policy of Deterrence evolved to one of assurance-dissuasion-• deterrence-defeat (ADDD) to better call out specific goals and strategies
- The "New Triad" made explicit interplay among a number of • elements
  - Offense-defense
  - Readiness and response
  - Nuclear and non-nuclear strike
  - Command and Control (C2), Intelligence, & Planning Bombers





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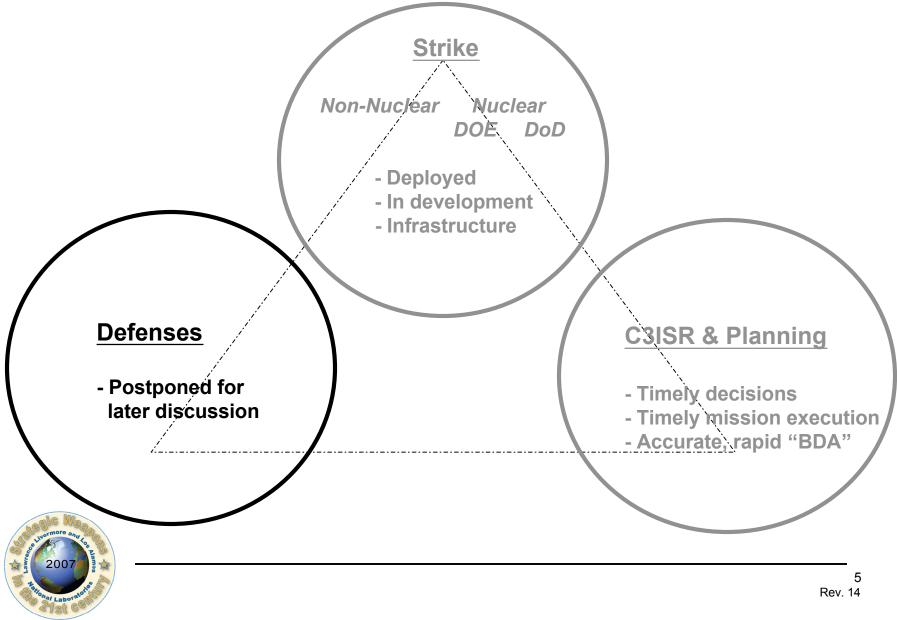
#### A Re-Interpretation of the New Triad Better Captures the Dynamics of ADDD



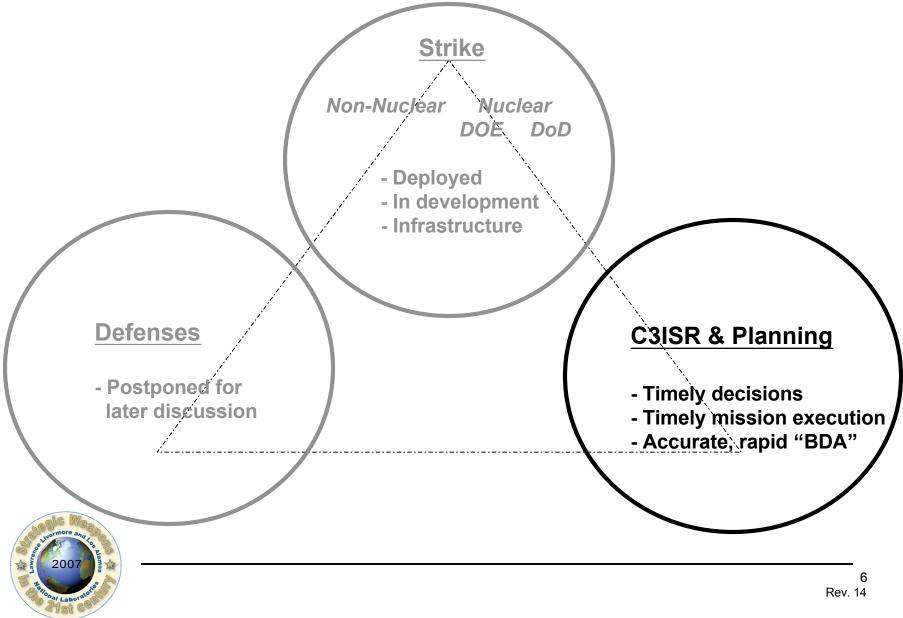


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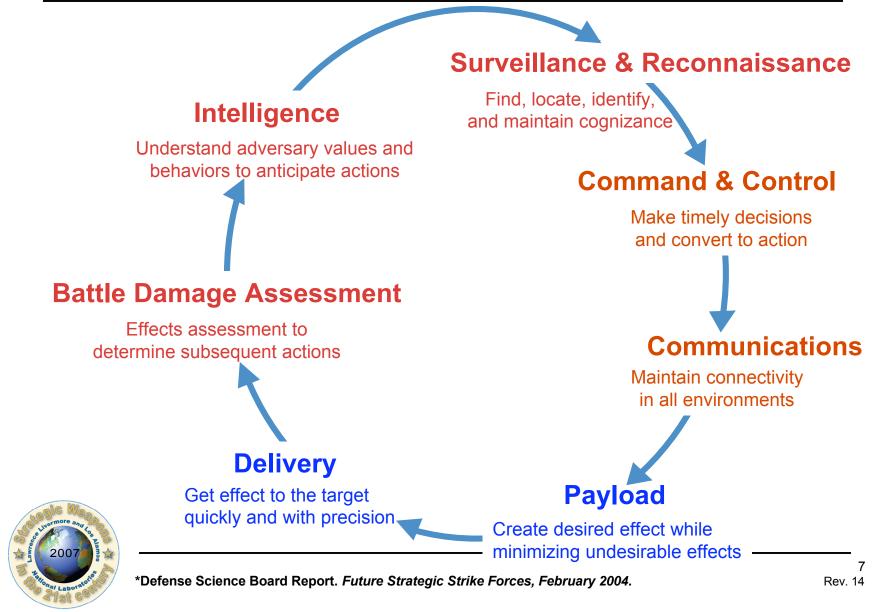
#### Key Issues for Strategic Capabilities in the Context of Readiness and Responsiveness

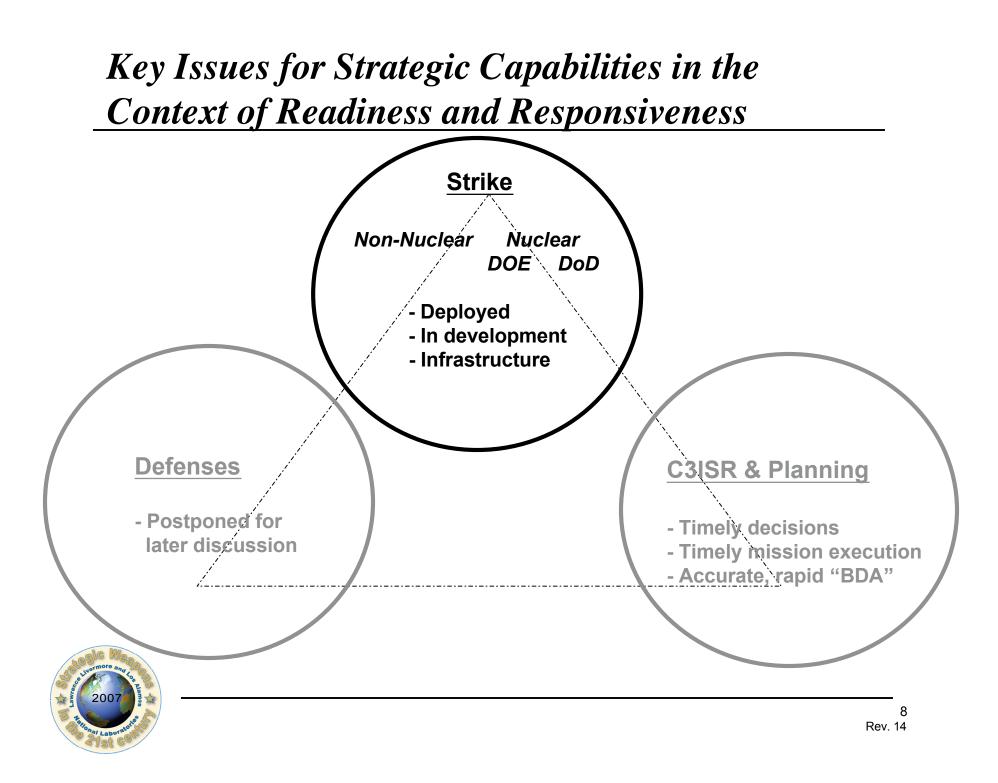


#### Key Issues for Strategic Capabilities in the Context of Readiness and Responsiveness



#### **C3ISR & Planning** to Support Strike Needs Improvement at Every Level\*



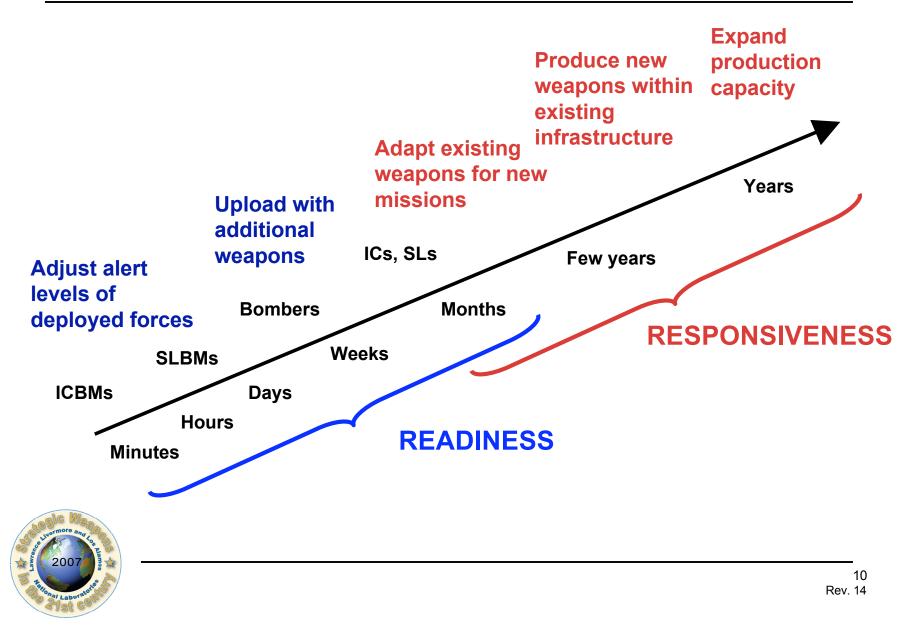


#### Non-Nuclear Strike Forces

- Deployed
  - Numerous
  - Tested in operations
  - Modern technology
  - Adaptable to multiple delivery platforms
  - Survivability in an adversary's nuclear environment?
- In development
  - Continuous pipeline of new capabilities
- Infrastructure
  - Fully exercised, easily expanded
  - Acquisition still not as agile as we might like



# Nuclear Strike Forces: The Vision for Readiness and Responsiveness



## Nuclear Strike: Department of Energy

- Deployed weapons
  - Life extensions of Cold War systems
- In development
  - Recent Nuclear Weapons Council approval of Reliable Replacement Warhead 1 (RRW1)
    - RRW will provide added safety and security, plus confidence through "replacement"
    - However, by law, the program introduces no new military capability
- Infrastructure
  - RRW to exercise infrastructure fully for first time in ~15 years
    - Current plans would assure continuous operation through gradual change-out of all legacy warheads
  - National Nuclear Security Administration Complex 2030 Plan provides roadmap for modernizing aging infrastructure
  - Capacity still uncertain: How much infrastructure vs. how many deployed and reserve weapons needed in 20 to 30 years?



- Deployed platforms
  - Life extensions of Cold War systems
- In development
  - Currently, none
    - RRW decision should lead to some change
- Infrastructure
  - Eroding rapidly with a single bright spot\*



\* Defense Science Board Report. Future Strategic Strike Skills, March 2006.

Threat Reduction Advisory Report, An Evaluation to DoD's Responsive Infrastructure for Strategic Strike, 2006, 2014

#### Key Issues – or Opportunities?

- Understanding of what deters our adversaries
  - To ensure that *strategic* strike capabilities achieve *strategic* goals
- Decision-making process that supports timely strike
  - Requires highest levels of leadership involvement
- Nuclear weapons on conventional delivery platforms
  - Introduces both technical and political questions, but offers a cost effective and timely path for modernizing nuclear strike <u>systems</u>
- Conventional weapons on nuclear delivery platforms
  - Much done already with bomber force and SSGN
  - Congressional resistance to conventional Trident missile (CTM)
- A roadmap for strategic strike
  - Currently lacking integration of nuclear and non-nuclear capabilities
  - Limited DoD leadership support prior to RRW
- A strong analytical base
  - The Nation needs answers to key questions, e.g.,
    - How do both nuclear and non-nuclear capabilities contribute to ADDD?
- A common vision on role of nuclear weapons in future strategic landscape
  - US Strategic Command and Department of Energy have created RRW, but only addresses warheads
  - Many disparate views within DoD and Congress
  - Legislative prohibition on new nuclear capabilities

