

## Imperatives, Opportunities and Challenges in the Digital Age: An Industry Perspective

Mike Manazir, Vice President, The Boeing Company

How will industry work with the military to determine future needs and capabilities in a disruptive world? How is industry leading and shaping integrated force systems and structures? From a U.S. perspective, how does that scale to smaller actors, particularly Australia who needs to operate both independently in an emergent Asia (particularly SE Asia) and in coalition with the United States?

- A. Four Major Forces Changing Our View of the world/world order
  - a. Classic Maritime system
  - b. Acceleration of the Global Information System
  - c. Rate of Technology Creation and Adoption
  - d. Defense budget uncertainty
- B. Historic budget inconsistency and uncertainty (U.S. Budget Control Act of 2011, “Sequestration”) is creating an environment that is unsustainable for the government and the private sector.
- C. Wide, bipartisan agreement that military readiness has declined and the U.S. industrial base would have difficulty surging to support a defense buildup or to replace losses in a conflict.
- D. The Aerospace Industries Association has identified four pillars with underlying priorities to remedy this unsustainable path
  - a. Robust, balanced and stable defense spending
  - b. Streamlined acquisition policy
  - c. Talented workforce
  - d. Stewardship of key capabilities
- E. Integrated, informationized warfare systems are the necessary architectures to win conflict
  - a. Network architecture
  - b. Software-defined
  - c. “Comms as a service” approach
  - d. Open architecture
  - e. Common, flexible standards
  - f. Ability to aggregate/disaggregate; self-form networks (individual and coalition)
  - g. Cross-domain solutions; four-channel encryption
- F. Align under an integrating concept rather than rigid network requirements
  - a. Example: U.S. Navy Integrated Fire Control – Counter Air (NIFC – CA)
  - b. Concept will need to scale from independent ops to broad, coalition
- G. Acquisition system that values military-industrial partnership
  - a. Collaboration and transparency in requirements development
  - b. Risk-sharing
  - c. “Best athlete”
- H. Optimize investment strategy that adds value (R&D funds) incrementally; invest in the validation of foundational assumptions underpinning the capability
- I. Conclude with industry imperatives, U.S. focus and AU focus