Office of Naval Research
Naval Science and Technology Exposition

Science and Technology Executives Panel

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for Research and Engineering
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DoD S&T Executive Committee (Panel Members)

- **S&T Executive Committee (S&T ExCom)**
  ASD(R&E), Service SAEs, DARPA Deputy Director
  - Ms. Mary Miller, Deputy Assistant Secretary of the Army for Research and Technology
  - RADM Mathias Winter, Chief of Naval Research
  - Mr. Jeffrey Stanley, Associate Deputy Assistant Secretary (Science, Technology & Engineering)
  - Dr. Steven Walker, Deputy Director, Defense Advanced Research Projects Agency

Science and Technology ExCom Membership

OSD
- ASD(R&E)
- Deputy Assistant Secretary of Defense (DASD) Research
- DASD Emerging Capabilities & Prototyping
- DASD Force Health Protection and Readiness
- DASD Manufacturing and Industrial Base Policy
- DASD Chemical & Biological Defense
- Director International Cooperation

Military Departments
- Deputy Assistant Secretary of the Air Force for Science, Technology, Engineering
- Deputy Assistant Secretary of the Army Research and Technology
- Chief of Naval Research
- Joint Chiefs of Staff, Deputy Director for Resources and Acquisition

Agencies
- Deputy Director, Defense Advanced Research Projects Agency
- Program Executive for Advanced Technology, Missile Defense Agency
- Joint Improvised Explosive Device Defeat Organization, Deputy Director for Rapid Capability Delivery
- Defense Threat Reduction Agency, Associate Director for R&D

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DoD at Strategic Crossroads

Secretary Hagel
Budget Roll-Out Brief
24 Feb 2014

"The development and proliferation of more advanced military technologies by other nations means that we are ***entering an era where American dominance on the seas, in the skies, and in space can no longer be taken for granted"***

The strategic question is – will the force of tomorrow be:

- Larger with diminished capability or,
- Smaller with more technologically advanced capabilities

Enhanced Mutual Reliance Offsets Some of These Risks

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Technology Offset

- **Deputy Secretary of Defense Work Proposes *Developing 3rd Offset Strategy***
  - We now face a more uncertain strategic environment with an increasing range of threats to mitigate
  - We must benefit from globalization, enabling effective international collaboration, while leveraging and building on domestic advantages
  - We will need to leverage widely available commercial technology, while simultaneously creating unique advantage
  - "Hard Problems"

Emerging Themes: Autonomy, Range, Quantity at Cost

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Defense R&E Strategy
"Three Enduring Principles"

1. **Mitigate current and anticipated threat capabilities**
   - Cyber
   - Counter Space
   - Missile Defense
   - Electronic Warfare
   - Counter-WMD

2. **Affordably enable new or extended capabilities in existing military systems**
   - Systems Engineering
   - Capability Prototyping
   - Interoperability
   - Modeling and Simulation
   - Developmental Test & Evaluation
   - Power & Energy

3. **Create technology surprise through science and engineering**
   - Autonomy
   - Human Systems
   - Quantum Systems
   - Big Data
   - Hypersonics
   - Sciences

Technology to offset Manpower

Technology Needs

- Cyber / Electronic Warfare
- Engineering / M & S
- Capability Prototyping
- Protection & Sustainment
- Advanced Machine Intelligence
- Anti-Access/Area Denial **(A2/AD)**

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The Marketplace:

Industry Engagement – DII and LRRDPP

www.DefenseInnovationMarketplace.mil/LRRDPP.html

- **Defense Innovation Initiative (DII)**
  - Identify and invest in innovative ways to sustain and advance our national security into the 21st century.
  - People
  - Wargaming
  - New Operational Concepts
  - Business Practices
  - LRRDPP

- **Long-Range Research and Development Program Plan (LRRDPP)**:
  - Study and prioritize new or unconventional technology that could provide significant, national security advantages.
  - ***Share your Ideas*** (***Link***)

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ASD(R&E)

DoD Research and Engineering Enterprise:
http://www.acq.osd.mil/chieftechnologist/

Defense Innovation Marketplace

www.DefenseInnovationMarketplace.mil

Twitter: @DoDInnovation

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