



# DSB Newsletter

May 2011



**Dr. Paul Kaminski, Chairman**

General Lester Lyles, USAF (retired), Vice Chairman

Mr. Brian Hughes, Executive Director

## *Chairman's Corner*

### Welcome to the Spring Quarterly Meeting

Our Cyber Initiative is off and running. The Cyber Resiliency Metrics for Military Systems (co-chairs Mr. Jim Gosler and Mr. Lou Von Thaer), membership has been approved and the group is already meeting. Meanwhile, the Cybersecurity and Reliability in a Digital Cloud (Dr. Eric Evans, Dr. Robert Grossman) assembled their membership and are preparing for upcoming meetings. The groups will be meeting together next week for the first of several joint sessions. The planned multi-day offsite is now scheduled for the last week in October to coincide with the Fall Quarterly Meeting with the location still to be determined.

Likewise, the Predicting Violent Behavior Task Force (Ms. Judith Miller, Mr. Larry Lynn) recently convened. This very important effort was stood up in the wake of the tragedy at Fort Hood.

The Permanent Task Force on Nuclear Surety – Air Force Nuclear Enterprise Review (Gen Larry Welch) has released both the classified and unclassified version of their report. The unclassified version is now available on the DSB website. The classified version is available upon request.

In addition, the recent National Defense Authorization Act mandated a DSB study on Countering Violent Extremism. The TOR has been signed and membership is forming.

Briefings continue for the 2010 Summer Study on Enhancing Adaptability of our Military Forces (Mr. Al Grasso, Dr. Bill LaPlante). They've recently discussed the findings and recommendations with the Director of National Intelligence and the Commander, USCYBERCOM.

It's been another challenging quarter with Continuing Resolutions, potential government shutdowns, and travel budget restrictions – thank you for your patience. Your efforts are making a difference across a wide range of DoD operations. Please continue your strong support in as many DSB projects as your schedules allow.

*Dr. Paul Kaminski*

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## Membership

The Board continues to actively solicit suggestions for highly qualified scientific and technical candidate members, with special emphasis on women and minority candidates. Prior Task Force participation offers an individual, OSD, and the Board an opportunity to determine a person's interest and suitability to Board activities and is a desirable prerequisite to membership on the Board.

## Task Force Status

- **Improvised Explosive Devices (IED) Study** [co-chairs: Dr. Eric Evans and LTG Paul Funk (USA, Ret.)] This follow-on task force to the first IED effort will develop strategic and operational plans and examine the goals, process and substance of those plans. It will also act as an independent sounding board to the JIEDDO by providing feedback at a quarterly interval. Sponsored by: USD(AT&L) and JIEDDO. **Finalizing report.** (LCDR Reinbold)
- **Science and Technology Issues of Early Intercept Ballistic Missile Defense** [co-chairs: General Lester Lyles (USAF, Ret.) and Admiral William Fallon (USN, Ret.)]. This task force will study the feasibility of ballistic missile defense in engaging regional-level, adversary ballistic missiles in the early intercept phase of the ballistic missile's trajectory. Sponsored by USD(AT&L), USSTRATCOM, and VCJCS. **TOR signed December 2009, finalizing report.** (LCDR Reinbold)
- **Improvements to Services Contracting.** [chair: Dr. Jacques Gansler]. This study will assess improvements in the procurement and oversight of services by the Department of Defense. This is in accordance with Section 802 of the National Defense Authorization Act for FY 2010 (H.R. 2647, 211-212). Sponsored by USD(AT&L). **TOR signed December 2009, report released 3 May 2011.** (Maj Warner)
- **Role of Autonomy in Department of Defense (DoD) Systems** [co-chairs: Dr. Robin Murphy and Mr. James Shields]. This study will inform the Department's plans as it introduces significant numbers of unmanned platforms. It will deliver a roadmap for realizing as rapidly and efficiently as possible the battlefield potential of autonomous systems. Sponsored by USD(AT&L). **TOR signed March 2010, task force in progress.** (LCDR Reinbold)
- **Trends and Implications of Climate Change for National and International Security** [co-chairs: General Larry Welch (USAF, Ret.) and Dr. William Howard]. This study will provide a comprehensive picture of the current situation and trends regarding climate change. The task force will recommend an overall structure to capture effects on U.S. government programs to aid decision making to mitigate the effects on U.S. national and African partner security. Sponsored by USD(AT&L) and AFRICOM. **TOR signed April 2010, finalizing report.** (Maj Warner)
- **Assessment of Nuclear Treaty Monitoring and Verification Technologies** [co-chairs: Dr. Miriam John and Dr. Donald Kerr]. This study will assess the adequacy of the nation's technical tools to support monitoring and verification, both as part of the cooperative verification regimes of the treaties and through national intelligence. Sponsored by USD(AT&L), NNSA, and the DNI. **TOR signed April 2010, finalizing report.** (Maj Warner)
- **Basic Research** [co-chairs: Dr. Lydia Thomas and Dr. Craig Fields]. This study will assess matters relating to departmental planning and managing the defense basic research program. Sponsored by USD(AT&L). **TOR signed August 2010, task force in progress.** (LCDR Reinbold)
- **Predicting Violent Behavior** [co-chairs: Mr. Larry Lynn, Ms. Judith Miller]. This study will examine governmental and non-governmental programs and best practices to establish standards, training, reporting requirements/mechanisms, and procedures for assessing predictive indicators relating to pending violence. Sponsored by USD(AT&L) and USD(P). **TOR signed October 2010, task force in progress.** (Maj Warner)
- **Cyber Resiliency Metrics for Military Systems** [co-chairs: Mr. Jim Gosler, Mr. Lou Von Thær] This study will examine how to effectively measure the resiliency of military systems relative to various cyber attacks and adversaries, as a first step toward quantifying and developing systematic methods and standards to improve the resiliency of these systems and our confidence in the same. Sponsored by USD(AT&L). **TOR in draft, task force in progress.** (Maj Warner)
- **Cybersecurity and Reliability in a Digital Cloud** [Co-chairs: Dr. Eric Evans, Dr. Robert Grossman] The task force will evaluate all

aspects of providing reliable, secure, and responsive services for military and intelligence applications using a digital cloud, a richly networked, distributed core of data storage and computational resources. Sponsored by USD(AT&L). **TOR in draft, membership forming.** (LCDR Reinbold)

- **Contractor Logistics Support of Contingency Operations** [co-chairs: TBD] The task force shall carry out a review of Department of Defense organization, doctrine, training, and planning for contractor logistics support of contingency operations. It is in accordance with section 848 of the National Defense Authorization Act for FY 2011 (H.R.

5136, 150-151). Sponsored by USD(AT&L). **TOR in draft, membership forming.** (Maj Warner)

- **Countering Violent Extremism** [co-chairs: Mr Michael Bayer, GEN Jack Keane (USA, Ret.)] The task force shall conduct an independent assessment of the Department of Defense strategy to counter violent extremism outside of the United States. It is in accordance with section 1239 of the National Defense Authorization Act for FY 2011 (H.R. 6523, 267-268). Sponsored by USD(AT&L). **TOR in draft, membership forming.** (LCDR Reinbold)

## Permanent Sub-Committees

- **Nuclear Weapons Surety**
  - Recently published a report entitled “Independent Assessment of the Air Force Nuclear Enterprise.” **Available on DSB website.**
- **Advisory Group on Defense Intelligence**
  - Recently finished a report entitled “Counterinsurgency (COIN) Intelligence, Surveillance, and Reconnaissance (ISR) Operations.” **Currently awaiting public release.**
- **Advisory Group on Electron Devices (AGED)**
- **Nuclear Weapons-Survivability of DoD Systems and Assets to EMP and other Nuclear Weapons Effects**
  - Recently finished Summary Report No. 1.

## Updates from Other Boards



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Vice Chairman – Dr. Rami Razouk  
Military Director – Lt Gen Mark Shackelford  
Executive Director – LtCol Tony Mitchell

SAB secretariat: 1-800-762-7407  
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## Army Science Board (ASB)

Chairman – Dr. Frank Akers  
Vice Chairman – Dr. Lawrence Delaney

ASB Secretariat: 703-617-0258  
Website:

The Army Science Board is currently conducting two studies:

**Strengthening Sustainability and Resiliency of an Expeditionary Force**

This study will recommend an overarching architecture of a Brigade Combat Team’s requirements for external support, including water, fuel, ammunition, spares, and how that impacts their capabilities. It will use this architecture to identify and quantify near, medium and long-term approaches to increase the efficiency and effectiveness of our expeditionary forces.

**Non-cooperative Biometrics**

This study will identify collection devices with regards to range, illumination techniques, frequency spectra, and data formats and develop recommendations on (1) how to define and identify non-cooperative biometric thresholds and objectives, and (2) data fusion methodologies, that will provide confident actionable identification.



Chairman – Dr. John C. Sommerer  
Program Director – Mr. William Ellis, Jr.  
Executive Director – BGEN Thomas Murray, USMC

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Chairman – Mr. John Goodman  
Executive Director – Ms. Phyllis Ferguson

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## ***DSB Secretariat Staff***

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## ***Upcoming DSB Meeting Dates***

- **October 26-27, 2011 – Fall Quarterly Meeting**
- **February 22-23, 2012 – Winter Quarterly Meeting**
- **May 23-24, 2012 – Spring Quarterly Meeting**

## *Defense Science Board Members and Ex Officio*

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Committee



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