



DSB Newsletter

February 2011



Dr. Paul Kaminski, Chairman

General Lester Lyles, USAF (retired), Vice Chairman

Mr. Brian Hughes, Executive Director

Chairman's Corner

Welcome to the Winter Quarterly Meeting

The 2010 Summer Study on Enhancing Adaptability of our Military Forces (co-chairs Mr. Al Grasso and Dr. Bill LaPlante) was released on February 9. You can find a link to the report on the DSB website. As part of the efficiencies initiatives in the Department, hard copies will no longer be distributed. Al and Bill's briefing of the Summer Study findings and recommendations was enthusiastically received. They have already briefed SECDEF, DEPSECDEF, DOT&E, and various leaders within the Services, along with a group at an open meeting in the Pentagon after the last Quarterly. The chairs will continue to brief interested senior leadership in the coming months.

In place of a Summer Study for 2011, we decided to run two related topics as regular task forces: Cybersecurity and Reliability in a Digital Cloud (Dr. Eric Evans, Dr. Robert Grossman) and Resilient Military Systems (Mr Jim Gosler, Mr. Lou Von Thaer). Both are recruiting membership now and the TORs are in coordination. The task forces plan to meet together for a multi-day offsite in the latter stages of both studies. In addition, Congress recently mandated a study for the DSB, Contractor Logistics Support of Contingency Operations (Dr. Jacques Gansler & GEN Paul Kern), which is in the process of starting up. The TOR is in coordination and the membership is forming.

I would also like to extend my congratulations to Gen Les Lyles and Dr. Fred Schneider for their recent election to the National Academy of Engineering. Les was honored for "advancing air and space technology and for national service in space exploration," while Fred was recognized for "contributions to the design of trustworthy and secure computer systems."

The DSB Secretariat has also seen another personnel change. CDR Rob Medve, USN, moved back to the Office of Naval Research and was replaced by LCDR Doug "Rhino" Reinbold. Doug is expected to be with us for a three-year tour in the Naval Military Assistant position.

I thank you for your patience through Continuing Resolutions and travel budget restrictions. My meetings with DoD senior leaders assure me that your efforts to improve DoD operations are greatly valued. Please continue your strong support in as many DSB projects as your schedules allow.

Dr. Paul Kaminski

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

- **2010 Summer Study on Enhancing Adaptability of our Military Forces** [co-chairs: Mr. Al Grasso and Dr. Bill LaPlante]. This study will examine how the military can improve and enhance the adaptability of our forces and force structure to meet the challenges of the 21st century. The Summer Study will establish defining metrics and identify fundamental attributes of an architecture to enhance adaptability. Sponsored by USD(AT&L). **TOR signed April 2010, report published Feb 2011.** (Maj Warner)
- **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 in security review.** (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, task force in progress.** (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** [chair: Mr. Larry Lynn]. 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, membership forming.** (Maj Warner)
- **Resilient Military Systems** [Co-chairs: Mr Jim Gosler, Mr. Lou Von Thae] 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, membership forming.** (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: Dr. Jacques Gansler and GEN Paul Kern, USA (Ret.)] 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)

Permanent Sub-Committees

- **Nuclear Weapons Surety**
 - Recently finished a report entitled “Independent Assessment of the Air Force Nuclear Enterprise.” **Currently in Security Review.**
- **Advisory Group on Defense Intelligence**
 - Recently finished a report entitled “Counterinsurgency (COIN) Intelligence, Surveillance, and Reconnaissance (ISR) Operations.” **Currently in Security Review.**
- **Advisory Group on Electron Devices (AGED)**
- **Nuclear Weapons-Survivability of DoD Systems and Assets to EMP and other Nuclear Weapons Effects**

Updates from Other Boards



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SAB secretariat: 1-800-762-7407
Website: <https://www.sab.hq.af.mil/>
Email: afsb.workflow@pentagon.af.mil

The Air Force Scientific Advisory Board (SAB) is conducting three studies for the Secretary of the Air Force and the CSAF in FY11:

- 1) **Sensor Data Exploitation:** Identify exploitation tools and architectures to reduce demands on communications and manning while providing actionable information to the warfighter.
- 2) **Sustaining Air Force Aging Aircraft into the 21st Century:** Identify and prioritize investments in aging aircraft while identifying how such investments can establish a foundation for future adaptations and performance enhancements.
- 3) **Munitions for the 2025+ Environment and Force Structure:** Recommend operational concepts, development, and enabling Science and Technology (S&T) to achieve munitions lethality and force effectiveness in the 2025 environment.

The Air Force Scientific Advisory Board (SAB) is soliciting inputs for FY12 Board membership. We seek your help in identifying top scientists or engineers who are pre-eminent in their field, with a minimum of a SECRET clearance. They cannot be current employees of the US Government. Detailed instructions for submitting new member nominations can be found on the SAB website: <https://www.sab.hq.af.mil/>.



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Website:

<https://www.alt.army.mil/portal/page/portal/oasaalt/ASB>



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Chairman – Mr. John Goodman
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Upcoming DSB Meeting Dates

- **May 11-12, 2011 – Spring Quarterly Meeting**
- **October 26-27, 2011 – Fall Quarterly Meeting**
- **February 22-23, 2012 – Winter Quarterly Meeting**

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