



DSB Newsletter

December 2013



Dr. Paul Kaminski, Chairman

Gen Lester Lyles, USAF (Ret.), Vice Chairman

Mr. Brian Hughes, Executive Director

Chairman's Corner

Welcome to the Fall Quarterly Meeting

Since our last Quarterly meeting in May 2013, the task force on Military Operations in a Complex Electromagnetic Environment has kicked off and is well on its way to producing a series of findings and recommendations. In October, the Technology & Innovation Enablers for Superiority in 2030 study, (co-chairs: Mr. Jim Shields and Dr. Jim Tegnalia) released its final report. This study has received considerable interest throughout the Department, and the services continue to develop plans to incorporate the recommendations into their long-term R&D and acquisition programs.

In April the Permanent Sub-Committee on Nuclear Weapons Surety released its report, the Air Force Nuclear Enterprise Follow-on Review (chair: Gen Larry Welch, USAF (Ret)).

Additionally, both the reports on Contractor Logistics Support of Contingency Operations (chair: Dr. Ron Kerber), and the Assessment of Nuclear Treaty Monitoring and Verification Technologies report (co-chairs: Dr. Miriam John and Dr. Donald Kerr), are in final review and nearing completion.

The Task Force on Countering Violent Extremism (chair: Mr. Michael Bayer) has held initial start-up meetings, and will hold its formal kickoff early in calendar year 2014.

Over the next year the Department will continue to struggle with tight budgets and shifting priorities. Despite these challenges, the DSB continues its commitment to provide the very best advice and counsel we can for the Department of Defense and the courageous men and women serving this country. I thank you again for dedicating your valuable time, world-class skills, and significant efforts towards this important endeavor.

Dr. Paul Kaminski

Defense Science Board
The Pentagon OUSD(AT&L) Room
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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

- **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, Report awaiting final signature.** (CDR Reinbold)
- **Contractor Logistics Support of Contingency Operations** [chair: Dr. Ron Kerber] 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 signed March 2012, report awaiting security review.** (CDR Reinbold)
- **Countering Violent Extremism** [chair: Mr. Michael Bayer] The task force shall conduct an independent assessment of the Department of Defense strategy to counter violent extremism outside of the United States 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 signed May 2011, kickoff meeting February 2014.** (CAPT CoBell)
- **Defense Science Board Study on Technology & Innovation Enablers for Superiority in 2030 (Summer Study 2012)** [co-chairs: Dr. Jim Tegnalia and Mr. Jim Shields]. The task force will conduct a study of the emerging technologies that will enable the next generation of dominant military capabilities to be in development or fielded by 2030. **TOR signed March 2012, Report Published October 2013.** (CDR Reinbold)
- **Defense Science Board 2013 Summer Study on 21st Century Military Operations in a Complex Electromagnetic Environment** [co-chairs: Mr. Bill Delaney and Mr. Bob Stein] The task force will conduct a study of current and emerging EW techniques and capabilities that may face U.S. forces over the next two decades. **TOR signed November 2012, study ongoing.** (Lt Col Harvey)

Permanent Sub-Committees

- **Nuclear Weapons Surety**
 - Recently released the report on the Air Force Nuclear Enterprise Follow-on Review (April 2013).
- **Nuclear Weapons-Survivability of DoD Systems and Assets to EMP and other Nuclear Weapons Effects**
 - No recent activity.

Updates from Other Boards



Chairman – Dr. Eliahu Niewood
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Executive Director – LtCol Derek Lincoln, USAF

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The Air Force Scientific Advisory Board (SAB) concluded its FY2013 studies in June. Among them were the Microsatellite Mission Applications study which examined the potential mission utility of satellites with weights less than 300 kilograms. The study found that microsatellites have significant near-term (2-5 years) mission capability to include all Category A weather requirements and some critical space situational awareness requirements.

During the period of October through December 2013, the SAB conducted its annual Science and Technology (S&T) Quality reviews of the Air Force Research Lab's Materials & Manufacturing, Human Effectiveness, Information Dominance, and Munitions Directorates. The reviews will wrap up in the spring with a review of the Air Force Office of Scientific Research.

In January 2014, the SAB will kick off its newest round of studies including the Technology Readiness for Hypersonics Vehicles to identify overall system concepts that provide that utility, develop confidence in the requisite materials, propulsion, and flight control technologies for the vehicle; address the sensors, communications, and other auxiliary sub-systems needed for the overall concept; and effectively integrate all those technologies. The Defense of USAF Forward Bases study will identify the threat to USAF forward bases, including runways, platforms, shelters, C2, and critical infrastructure (e.g., communications, power, fuel, water) and prioritize identified vulnerabilities, as well as identify Air Force relevant technologies which could be used to provide improved and balanced defense of USAF bases via an inner layer defense or enhanced base survivability. Finally, the Nuclear Command, Control, and Communications (NC3) study will seek to understand the capabilities and vulnerabilities of the current NC3 system, including performance during a nuclear event, cyber mission assurance of the system and its underlying architecture, and the sustainment of the system are all critical to the nation's confidence in its nuclear deterrent, and recommend investments including S&T to redress any identified deficiencies.



Army Science Board (ASB)

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Website:
[http://www.army.mil/article/79442/Deputy
_Assistant_Secretary_Research_and___/](http://www.army.mil/article/79442/Deputy_Assistant_Secretary_Research_and___/)

ASB Charter

The ASB charter was renewed in May 2012. It is at <http://usarmy.vo.llnwd.net/e2/c/downloads/261951.pdf>.



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

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FY13 studies:

- Addressing Major Business Issues Facing the Department in the 2014 Quadrennial Defense Review
- Applying Best Business Practices for Corporate Performance Management to DoD
- Best Practices by the Department of Defense to Achieve More Effective Participation by Industry
- Taking Advantage of Opportunities for Commercial Satellite Communications Services
- Veteran Employment Study Part II: Review of Pilot Transition Goal Plans Success' Program

DSB Secretariat Staff

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Upcoming DSB Meeting Dates

- 26-27 February 2014 – Winter Quarterly Meeting
- 21-22 May 2014 – Spring Quarterly Meeting
- 29-30 October 2014 – Fall Quarterly Meeting
- 25-26 February 2015 – Winter Quarterly Meeting
- 20-21 May 2015 – Spring Quarterly Meeting
- 4-5 November 2015 – Fall Quarterly Meeting
- 24-25 February 2016 – Winter Quarterly Meeting
- 18-19 May 2016 – Spring Quarterly Meeting
- 2-3 November 2016 – Fall Quarterly Meeting
- 15-16 February 2017 – Winter Quarterly Meeting
- 17-18 May 2017 – Spring Quarterly Meeting
- 1-2 November 2017 – Fall Quarterly Meeting
- 7-8 February 2018 – Winter Quarterly Meeting
- 16-17 May 2018 – Spring Quarterly Meeting
- 7-8 November 2018 – Fall Quarterly Meeting

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