



Jan 2004

Dr. William Schneider, Jr., Chairman

Mr. Vince Vitto, Vice Chairman

Mr. Brian Hughes, Executive Director

Chairman's Corner

The 2004 DSB Summer Study topic has been selected and chartered as follows:

Transition To and From Hostilities:

Co-Chairs: Dr. Craig Fields and Mr. Phil Odeen

Sub-Panels:

Historical Perspective – Dr. William Howard and Mr. Wick Murray

Country / Area Expertise – ADM Dennis Blair, USN (Ret.)

Intelligence – Mr. Art Money

Persuasion – Mr. Vince Vitto

Tagging and Tracking (via existing Task Force on Identification Technologies of the Future) – Dr. Delores Etter

Post-conflict Activities – GEN Mike Williams, USMC (Ret.) and Mr. Larry Wright

Force Protection – Dr. Ted Gold and GEN William Hartzog, USA (Ret.)

We look forward to the deliberations and conclusions from this timely effort. If you have an interest in joining the Summer Study, please contact the study leaders. Also, in the recent and coming weeks we have and will be initiating several other new studies that will tap into the expertise and capabilities of every member.

Dr. William Schneider, Jr.

DSB MEETING DATES FOR 2004

- 4-5 February 2004 – Winter Quarterly
- 12-13 May 2004 – Spring Quarterly
- 20-21 October 2004 – Fall Quarterly
- 2-13 August 2004 – Summer Study in Irvine, CA

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[DSB WEBSITE: www.acq.osd.mil/dsb](http://www.acq.osd.mil/dsb)

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. The roster of current Board members is included in this newsletter.

Staff Changes

LtCol Roger Basl was reassigned to the National Reconnaissance Office. Thank you Roger on a job well done and best wishes on your new assignment. LtCol Dave Robertson is Roger's replacement as the new Air Force Military Assistant.

Task Force Status

- **2003 Summer Study: DoD Roles and Missions in Homeland Security** (Co-Chairs: ADM Don Pilling, USN (Ret), and Mr. Don Latham) The study, co-sponsored by USD(AT&L), Assistant to the Secretary of Defense (Nuclear, Chemical, and Biological Defense Programs), Under Secretary of Defense (Policy), and Northern Command (NORTHCOM), is tasked to address the Department of Defense (DoD) roles and missions in homeland security. **Final Report (Volume I) has been released. Volume II is in Security Review.** (LTC Dolgoff)
- **2003 Summer Study: Future Strategic Strike Forces** (Co-Chairs: Mr. Vince Vitto and ADM Dennis Blair, USN (Ret)) The study, co-sponsored by USD(AT&L) and the Director, Defense Systems will assess the future strategic strike force needs of the Department of Defense. **The Final Report is in Security Review.** (LtCol Robertson)
- **Operation Enduring Freedom Lessons Learned** (Chair: Gen James McCarthy, USAF (Ret)) This study, co-sponsored by USD(AT&L), VCJS and CENTCOM, is examining current activities of Operation Enduring Freedom to determine both near- and long-term technical and operational considerations that could be used to improve this operation and future campaigns initiated in the War Against Terrorism. **The Phase IV main report has been completed. Phase IV supporting reports are in draft.** (LTC Dolgoff)
- **Defense Against Clandestine Nuclear Attack** (Co-Chairs: Dr. William Graham and Dr. Richard Wagner) This study, co-sponsored by USD(AT&L) and the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs), will assess the adequacy of the U.S. ability to detect, identify, respond, and prevent unconventional nuclear attacks by terrorist or sub-national entities. **The Final Report is in Security Review.** (LTC Dolgoff)
- **Unmanned Aerial Vehicles (UAVs) and Uninhabited Combat Aerial Vehicles (UCAVs)** (Co-Chairs: MGEN Ken Israel, USAF (Ret) and Mr. Bob Nesbit) This task force, co-sponsored by USD (AT&L), the former Assistant Secretary of Defense (Command, Control, Communications, and Intelligence), and the Director, Strategic and Tactical Systems, is tasked to conduct a comprehensive review of the Department's plans for the development and fielding of UAV and UCAV systems. **The Final Report is in Security Review.** (CDR Waugh)
- **Unexploded Ordnance - UXO** (Co Chairs: Dr. Delores Etter and Mr. Bill Delaney) This study, co-sponsored by USD(AT&L) and the Deputy Under Secretary of Defense (Installations and Environment), is chartered to address ways to reduce the extremely high cost of UXO clean up and identify technologies to help minimize the environmental impact of continued live-fire training and testing. **The Final Report has been released.** (LTC Dolgoff)
- **Smallpox Vaccine Down Select Process** (Chairman: Dr. George Poste) This Task Force, co-sponsored by USD (AT&L) and the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs), is tasked to perform an independent evaluation of the Department of Defense and Department of Health and Human Services smallpox vaccine candidates. **The Final Report is in Draft.** (CDR Waugh)
- **Missile Defense Phase III (Modeling and Simulation)** (Co-Chairs: Gen Larry Welch,

USAF (Ret) and Dr. William Graham) This study, co-sponsored by USD(AT&L) and the Missile Defense Agency, will assess the scope of the modeling and simulation (M&S) effort, the fidelity and validity of simulations, and additional opportunities for M&S contribution to BMDS development and evaluation. **The Final Report is in staffing for release.** (LtCol Robertson)

- **Enabling Joint Force Capabilities** (Co Chairs: Gen Larry Welch, USAF (Ret) and Dr. Bob Hermann) This study, co-sponsored by USD(AT&L) and the Chairman, Joint Chiefs of Staff, is chartered to review and understand the current state of assigned responsibilities and accountability for joint capabilities, identify unfilled needs and areas, and recommend further steps to strengthen the joint structure's ability to quickly integrate service-provided force capabilities. **The Phase I report has been released. Phase II of the Task Force is in progress.** (LTC Dolgoff)
- **Integrated Fire Support in the Battlespace** (Co-Chairs: Mr. Vince Vitto and Mr. Bob Nesbit) This study is co-sponsored by USD(AT&L); Commander, Joint Forces Command; Director, Defense Advanced Research Projects Agency; and the Director, Defense Systems. The task force is chartered to assess: the adequacy of current and proposed munitions; Intelligence Surveillance and Reconnaissance (ISR) techniques and mechanisms; the adequacy of battlefield command and control and integration techniques; the current impediments to a fully integrated Air, Land and Sea fire support; and the need for predictive engagement tools and derived intelligence products. **The Task Force is in progress.** (CDR Waugh)
- **Quarantining Guidance for the Severe Acute Respiratory Syndrome (SARS) Epidemic** (Chairman: Dr. Joshua Lederberg) This study, co-sponsored by USD(AT&L) and the Assistant Secretary of Defense (Health Affairs), is chartered to assess quarantining guidance for the Severe Acute Respiratory Syndrome (SARS) epidemic, to include existing doctrine and process by which quarantine policy is generated; methods, technologies and legal doctrine to allow safe transport of personnel through quarantined areas; identification and tracking of exposed individuals; and features of SARS guidance

which may be applicable to future infectious disease outbreaks. **The Task Force is in progress.** (CDR Waugh)

- **Patriot System Performance** (Co-Chairs: Gen Mike Williams, USMC (Ret) and Mr. Bill Delaney) This study, co-sponsored by USD(AT&L) and the Director, Defense Systems, is chartered to assess the recent performance of the Patriot System in OPERATION IRAQI FREEDOM from deployment through use across the threat spectrum, to include logistical, doctrine, training, personnel management, operational and material performance. The Task Force should also understand the causes of all fratricide incidents during OPERATION IRAQI FREEDOM. **The Task Force is in progress.** (CDR Waugh)
- **Corrosion Control** (Chairman: Mr. Larry Lynn) This study is co-sponsored by USD(AT&L) and the Deputy Under Secretary of Defense for Logistics and Material Readiness. The Task Force is chartered to assess on going corrosion control efforts across the DoD to include research, current and future technology, personnel training, maintenance processes, design and manufacturing, and unique environments. From these findings the Task Force is to determine which areas, if adequate resources were applied, would provide the most significant advances in combat readiness. **The Task Force is in progress.** (LtCol Robertson)
- **Critical Homeland Infrastructure Protection** (Co-chaired by Dr. Mim John and Dr. Ron Kerber) This study is co-sponsored by USD(AT&L) and the Assistant Secretary of Defense for Homeland Defense. The Task Force is chartered to assess best practices for protecting US homeland installations and recommending various approaches to enhancing security and protection of these facilities. The Task Force is to assess shortfalls, identify promising technology and/or processes, recommend methods to reduce manpower requirements, identify issues associated with military and private responsibilities for critical facility protection. **The Task Force is in progress.** (LtCol Robertson)
- **2004 Summer Study: Transition To and From Hostilities** (Co-Chairs: Dr. Craig Fields, and Mr. Phil Odeen) The study, co-

sponsored by USD(AT&L), Under Secretary of Defense (Policy), and Under Secretary of Defense (Intelligence), is tasked to address the transition to and from hostilities, and will be comprised of seven Panels. **The Summer Study is in progress.** (LTC Dolgoff)

- **Identification Technologies of the Future** (Chair: Dr. Delores Etter; Vice-Chair: Mr. Jeffery Harris) This study is co-sponsored by USD(AT&L) and the Director, Defense Research and Engineering. The Task Force is chartered to assess current technologies and operational concepts to identify and track individuals and material. The investigation should encompass defense, intelligence, and commercial systems including promising technologies in the labs which are not yet deployed. **This Task Force is in progress.** (CDR Waugh)
- **Nuclear Weapon Effects Test, Evaluation and Simulation** (Chair: Dr. Mim John; Vice Chair: Dr. Jay Davis) This study is co-sponsored by USD(AT&L), Director, Operational Test and Evaluation and Assistant to the Secretary of Defense (Nuclear, Chemical and Biological Defense Programs). The Task Force is chartered to develop a comprehensive understanding of DoD needs and specific requirements for Nuclear Weapon Effects test, evaluation and simulation. **This Task Force is in progress.** (CDR Waugh)

[DSB Reports published since October 2003:](#)

- **[Intelligence in Support of War Against Terrorism \(October 2003\)](#)**
- **[DARPA Technology Review Letter Report \(November 2003\)](#)**
- **[DoD Roles and Missions in Homeland Security – Volume I \(November 2003\)](#)**
- **[Unexploded Ordnance \(December 2003\)](#)**
- **[Rebalancing Ends Versus Means in the Conduct of Intelligence Within DoD \(November 2003\)](#)**
- **[Interference Capability Volumes I and II \(November 2003\)](#)**

Army Science Board (ASB)

Dr. Joe Braddock – Chairman

Dr. James Tegnella – Vice Chairman

COL Jeff Willey - Executive Secretary

Mr. Wayne Joyner - Executive Assistant

FY04 Overarching Studies

The Army Science Board is conducting two concurrent summer studies. We will brief the results of both these studies to senior Army leaders at the University of California, Irvine Beckman Center on 23 July, 2004.

Force Balance Study. “Characterizing both the Capability Enhancement Synergisms and the Distribution of Resourcing Risks between Current and Future Force Options” (Co-chaired by Dr. Joe Braddock, LTG (R) Bill Campbell and Mr. Bill Yeakel). This study is organized into five panels: **Future Operations** co-chaired by LTG Bob Noonan (USA, Retired) and GEN John Tilelli (USA, Retired); **Resources** co-chaired by Mr. John McDonald and LTG Max Noah (USA, Retired); **Technology** co-chaired by Mr. Kurt Kovach and Mr. Andrus Viilu; **DOTMLPF** co-chaired by LTG Paul Funk (USA, Retired) and LTG Charles Otstott (USA, Retired); and **Analysis / Integration** co-chaired by Dr. Stuart Starr and Mr. John Matsumura. As the title suggests, this study will analyze and assess distribution of resourcing options and related risks as the Army invests in development of the Future Force and maintains the Current Force.

FCS Urban Ops Study. “Critical Technologies and Capabilities for FCS in Urban Combat and Stabilization Operations”, (Co-chaired by Mr. George Singley, LTG (R) John Miller and Dr. Tony Hyder). This study is organized into five panels: **Joint Urban Operations and Stabilization** co-chaired by Ambassador Bob Oakley and MG Bob Scales (USA, Retired); **Network Centric Information** co-chaired by Mr. Kalle Kontson and Dr. Barry Horowitz; **Personnel, Learning and Leadership** co-chaired by Mr. L. Neale Cosby and BG Jim Ralph (USA, Retired); **Fielding, Testing, Evaluation**

and Experimentation co-chaired by Mr. Charles Vehlou and Dr. Ed Reedy; and a **Gold Panel** comprised of senior members that will work with the four other panels (Dr. Phil Dickinson, Mr. Dick Ladd, LTG Randall Rigby (USA, Retired) and LTG Jack Woodmansee (USA, Retired)). This study will examine critical technologies and capabilities for Future Combat Systems (FCS) in urban combat and stabilization operations.

Ad Hoc Studies

Combat Identification Study. “Combat Identification Strategies for Current, Stryker and Objective Forces” (Chaired by LTG (R) Jack Woodmansee). This quick turn-around study was completed and briefed in December. A briefing and text executive summary are the final study products and were provided to major study sponsors. The ASB may decide to distribute the results of this study in a publication (TBD).

Directed Energy Weapons Study. (Co-chaired by Dr. Greg Canavan, GEN (R) Malcolm O’Neil and Dr. Mike Wartell). This study examines the implications of directed energy weapons and devices on the future battlefield. It is continuing and expected to be completed at the July Summer Session at the Beckman Center in Irvine, CA.

Theater Supply Distribution Study. (Co-Chaired by GEN (R) David Maddox and Dr. Marygail Brauner) This study is just starting. A draft Terms of Reference has been submitted for approval and a panel has been assembled. It will examine logistics requirements and capabilities.

The ASB is planning additional plenary sessions in the March-April 2004 timeframe and in June 2004. Whether these will be joint, including both summer study panels, or separate sessions, remains to be determined in discussion with study chairs. Regardless of plenary format, senior Army leaders will address the ASB membership and provide study guidance, direction and focus. The ASB Summer Session is planned for 12-23 July at the Beckman Center in Irvine, California, with a briefout to senior leaders on 23 July.

For more information on the ASB visit:
<https://webportal.saalt.army.mil/SARD-ASB/default.htm>

Naval Research Advisory Committee (NRAC)

Mr. John M. “Jack” Bachkosky – Chair
CAPT Dennis L. Ryan, III USN (Ret.) -
Program Director

During the past quarter NRAC has been preparing the reports accompanying the three studies conducted in 2003. Those studies were:

Science and Technology in FORCEnet;
Technology Acquisition Reform; and
Electromagnetic Gun Technology Assessment.

In November, a new panel was approved to provide science and technology advise from a venture capital perspective. This panel will be composed of members largely from the venture capital community. The objective of the panel is to identify emerging standards and technologies in the technology sector that the Department of the Navy should incorporate into its technology roadmap for providing state-of-the-art capabilities to the Fleet/Force. The first meeting will be conducted as soon as panel membership is approved.

A main emphasis during this quarter was topic selection for the 2004 Summer Studies. A total of 59 different suggestions were provided for consideration from operational and administrative organizations within the Navy and Marine Corps. During a recent NRAC Executive Committee Meeting three topics were selected for this year’s study. They are:

Sea Basing;
Modular Science and Technology for Modular Mission Packages; and
Science and Technology for Naval Warfare, 2015-2020.

Terms of reference are being drafted in conjunction with panel formulation to enable timely commencement of these studies.

For more information on NRAC activities visit
<http://nrac.onr.navy.mil/webpace>

Air Force Scientific Advisory Board (SAB)

Dr. Daniel E. Hastings - Chair

Ms. Heidi Shyu - Vice Chair

Lt Gen John D.W. Corley - Military Director

Col Charles D. Bowker - Executive Director

FY04 Kickoff Meeting

The FY04 Kickoff Meeting was held 13 - 14 January 2004 at the SAFTAS Conference Center in Rosslyn, VA. The FY04 SAB studies on *Operationalizing Space Launch and Networks to Enable Coalition Operations* were commenced. Members were briefed by the SAB Military Director, Panel Chairs; the Director for Research and Strategic Planning (OSD/NII); the AF CIO; VADM Arthur K. Cebrowski, USN (Ret.), Director, Force Transformation; Air Marshall Glenn Torpy; Deputy Commander, RAF Strike Command, Lt Gen Ronald E. Keys; Mr. Robert Johnston, AF/CVAX; Mr. Stanley Stefansky, J28; Maj Gen Sovey and Mr. McKinney, SAF/USA; and Mr. Robert Dickman, SAF/US.

FY04 Spring General Board Meeting Dates Announced

The Air Force Scientific Advisory Board will hold its annual Spring General Board Meeting on 13-15 April 2004 at Langley Air Force Base.

FY05 Fall General Board Meeting Dates Announced

The Air Force Scientific Advisory Board will hold its annual Fall General Board Meeting 12-13 October 2004 at the SAFTAS Conference Center in Rosslyn, VA. There will be a welcome of the new members and a **celebration to commemorate 60 years of the SAB.**

Science and Technology Reviews

Dr. Wilson will be taking over coordination and selection of the review teams is now underway.

Advisory Groups

The newly established ACC Advisory Group met on 6-7 January 2004; the meeting was very successful. The promise of further constructive

activity resulted in a follow-up meeting being scheduled for 27 February 2004.

The AFC2ISRC Advisory Group is scheduled to meet on 18-19 February.

The Networking to Enable Coalition Operations Study kicked off on 12 Jan with a meeting in Rosslyn, VA. Fact-finding activities began with trips planned to PACAF, PACOM, CENTCOM, SOCOM, SOUTHCOM, USAFE, NATO, and UKMOD. The study will wrap up in June at Irvine, CA.

Publishing Status

The following study is awaiting security and publication clearance from OSD and the Air Staff:

- *Technology for Machine-to-Machine ISR Integration*

The following study is in final publishing review:

- *Unmanned Aerial Vehicles in Perspective, Volume 0 (annotated briefing)*

The DIA Advisory Board

Dr. Michael Wartell – Chairman

Mr. Frank Kendall – Vice Chair

Ms. Jane McGehee – Program Manager & Executive Secretary

The Board will turn toward implementing the Director's proposed directional changes in collection, analysis, and information management. In support of this, the Board has organized into three similarly named sub-panels for FY04. The Board determined that culture, process, and technology are germane to each of the three focus areas and therefore will consider these during their deliberations. The next scheduled full board meeting is 25-26 February 2004.

Defense Science Board Active Task Forces

Green – Army Mil Assist

Light Blue – Air Force Mil Assist

Dark Blue – Navy Mil Assist

ID	Task Force	TOR Date	Finish	Oct '03	Nov '03	Dec '03	Jan '04	Feb '04	Mar '04	Apr '04	May '04
1	ENDURING FREEDOM LESSONS LEARNED	12/14/01	2/27/04					Phase IV Main Report Complete			
2											
3	INTELLIGENCE IN SUPPORT OF WAR AGAINST TERRORISM	1/10/02	10/31/03					In Distribution			
4											
5	DEFENSE AGAINST CLANDESTINE NUCLEAR ATTACK	4/9/02	3/15/04					Final Report in Security Review			
6											
7	UNMANNED AERIAL VEHICLES & UNINHABITED COMBAT AERIAL VEHICLES	7/15/02	3/15/04					Final Report in Security Review			
8											
9	UNEXPLODED ORDNANCE	9/26/02	12/15/03					Final Report Released			
10											
11	SMALLPOX VACCINE DOWNSELECT	10/2/02	4/30/04					Final Report In Draft			
12											
13	MISSILE DEFENSE PHASE III (MODELING & SIMULATION)	1/30/03	2/15/04					Final Report in Staffing for Release			
14											
15	ENABLING JOINT FORCE CAPABILITIES, PHASE II	2/3/03	4/30/04					Phase II In Progress			
16											
17	INTEGRATED FIRE SUPPORT	6/3/02	7/30/04					In Progress			
18											
19	QUARANTINING GUIDANCE FOR SARS	6/11/02	6/30/04					In Progress			
20											
21	PATRIOT SYSTEM PERFORMANCE	6/3/02	6/30/04					In Progress			
22											
23	DARPA TECHNOLOGY REVIEW	10/2/03	11/14/03					Letter Report Released			
24											
25	CORROSION CONTROL	11/4/03	7/15/04					In Progress			
26											
27	CRITICAL HOMELAND INFRASTRUCTURE PROTECTION	1/20/04	8/30/04					In Progress			
28											
29	2003 SS: DoD ROLES & MISSIONS IN HOMELAND DEFENSE	1/3/03	2/27/04					Vol II Report in Security Review			
30											
31	2003 SS: FUTURE STRATEGIC STRIKE FORCES	1/31/03	2/15/04					Final Report in Security Review			
32											
33	2004 SS: TRANSITIONING TO AND FROM HOSTILITIES	1/23/04	9/30/04					In Progress			

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