

DSB Secretariat Staff

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Staff Changes

LTC Scott McPheeters will shortly be retiring from the Army and his replacement, Mr. Robert Jamison, is now on board. We want to welcome Bob to the 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. An overall roster of current Board members is included in this newsletter.

Task Force Status

- **2000 Summer Study Program** – The following four studies of this year's Summer Study Program concluded on 18 Aug 00 at the Beckman Center, Irvine, CA.
 - **Defense Against Biological Weapons** (Chairman: Dr George Poste) This study, co-sponsored by USD(AT&L) and DDR&E, examined DoD roles and capabilities in response to a biological

attack. The panel is currently drafting their final report. (CDR Hughes)

- **Defensive Information Operations** (Chairman: Mr. Larry Wright) This study, co-sponsored by USD(AT&L) and ASD(C3I), reviewed and evaluated DoD's ability to provide information assurance to carry out JV2010 in the face of information warfare attack. The panel is currently working on drafting their report. (Maj Yang)
- **Intelligence Needs for Civil Support** (Co-Chairs: Dr. Ruth David and Mr. Peter Marino) The study, co-sponsored by USD(AT&L), ASD(C3I) & DCI, considered the full spectrum of issues from deterrence through response, including attribution, and evaluated collection, analysis and information management challenges. The Task Force findings and recommendations were subsequently integrated into the other three studies. (CDR Hughes)
- **Unconventional Nuclear Warfare Defense** (Chairman: Mr. Roger Hagenruber) This study, co-sponsored by USD(AT&L) and DTRA, reviewed and evaluated DoD's current state of detection, identification, response, and prevention to terrorist, subnational, or other unconventional nuclear attacks on the U.S. The panel is currently drafting their final report. (Mr. Jamison)

- **Biological Defense** (Co-chairs: Dr. Josh Lederberg and Dr. George Whitesides) This study, co-sponsored by USD(AT&L) and DDR&E, was a combined effort of the DSB and the TRAC. The study assessed the scope of activities conducted by the DoD to ensure its future preparedness to deter, defend against and respond to attack by biological weapons. Awaiting final report. (CDR Hughes)
- **Coalition Warfare** (Chairman: Dr. Ted Gold) The study, co-sponsored by USD(AT&L) and CJCS, examined how best to make future U.S. military capabilities, embodied by JV2010, coalition compatible. Awaiting final report. (Maj Yang)
- **Efficient Utilization of Defense Laboratories** (Chairman: Mr. Walter Morrow) This review was in response to the FY 2000 Defense Authorization Act directive for the Defense Science Board to conduct an analysis of the resources and capabilities of all DoD laboratory facilities. Since much of the desired analysis and activities had already been completed, the principle focus was to review all relevant DoD laboratory efforts and studies, and provide a letter report of findings regarding DoD compliance with the congressional directive. The final report is in security review. (Mr. Jamison)
- **Frequency Spectrum Issues** (Chairman: Mr. William Howard) The study, sponsored by USD(AT&L), ASD(C3I) and JCS/J-6, examined the competing interest in, and access to, the RF frequency spectrum and its impact on military readiness and national security in the 21st century. Awaiting final report. (Maj Yang)
- **Future DoD Airborne High-Frequency Radar Needs/Resources** (Chairman: Dr. David Briggs) This study, sponsored by USD(AT&L) and Director, Strategic and Tactical Systems, reviewed the use of airborne X-band radars to serve the broad mission areas of air defense and ground surveillance. Awaiting final report. (Mr. Jamison)
- **Future Perspectives** (Co-chairs: Dr. Robert Herman and Mr. Philip Odeen) This study, sponsored by USD(AT&L) is reviewing the findings, conclusions, and recommendations of the many DSB study initiatives taken since 1995. A summary report of this body of work is expected to provide useful insight for the Department as it moves to address the many demanding defense challenges that lie ahead. The Task Force is in process. (Maj Yang)
- **High Energy Laser Weapon Systems Applications** (Co-chairs: Mr. Don Latham and Gen Larry Welch, USAF (Ret)) This study co-sponsored by USD(AT&L), Director, Strategic and Tactical Systems, and Director, BMDO is reviewing the military applications of high energy laser weapon systems. The first meeting is scheduled for Oct. (Maj Yang)
- **Impact of DoD Acquisition Policies and Practices on Health and Competitiveness of US Defense Industry** (Chairman: Phil Odeen) This study, sponsored by USD(AT&L), is reviewing DoD acquisition policies to assess the impact of those policies, practices and regulations on the health and competitiveness of US defense companies. The Task Force is in process. (Maj Yang)
- **Improving Fuel Efficiency of Weapons Platforms** (Co-Chairs: Al Alm and VADM Richard Truly, USN(Ret)) This study, co-sponsored by DUSD(S&I) and DUSD(ES), will identify technologies that improve fuel efficiency of full range of weapon platforms (land, sea & air) and assess their operational, logistical, cost and environmental impacts for a range of practical implementation scenarios. The Task Force is in process. (CDR Hughes)
- **Intel Needs for Homeland Defense (Follow-on)** (Co-Chairs: Dr. Ruth David and Mr. Peter Marino) The study, co-sponsored by USD(AT&L), ASD(C3I) & DCI, will explore the intelligence ramifications posed by biological, chemical, information, nuclear, and radiological threats to the United States. The first meeting is scheduled for October. (CDR Hughes)
- **Logistics Transformation – Phase II** (Co-chairs: Mr. Phil Odeen and Mr. Bill Howard)

This study, co-sponsored by USD(AT&I) and USD(Logistics), is a follow-on to the DoD Logistics Transformation Task Force completed in Dec 98. The Task Force will assess the progress to date in implementing the recommended actions of the 98 report. The Task Force is in process. (CDR Hughes)

- **Nuclear Simulation** (Chairman: Dr. John Crawford) The study, sponsored by USD(AT&I), reviewed the operational, research, and management aspects of the Defense Threat Reduction Agency (DTRA) nuclear simulation program. This Task Force determined whether the DTRA program was focused on near and far-term DoD needs and requirements and provided a basis for assessing the adequacy of the overall program. The Task Force effort is now complete and a final draft report is expected shortly. (CDR Hughes)
- **Software** (Co-chairs: Bob Nesbit & Marcus Hanson) The study, co-sponsored by USD(AT&I) and DDR&E, is assessed the conditions under which the procurement of defense software can appropriately use commercial practices so as to develop a strategy for defense software procurement that substantially incorporates such practices. The Task Force effort is now complete and a final report is in review. (CDR Hughes)
- **Super Computing Needs** (Chairman: Mr. Bob Nesbit) The study, co-sponsored by USD(AT&I) and DDR&E, investigated the rapidly changing super computing technology which offered DoD an opportunity to explore new alternatives to existing capability, especially in the areas of distributed networks and multi-processor machines. The Task Force effort is now complete and the final report is in review. (CDR Hughes)
- **Systems Technology for the Future US Strategic Posture** (Dr. Bob Cooper) This study, co-sponsored by USD(AT&L) and Director, Strategic and Tactical Systems, will review the systems technology of the future U.S. strategic posture for dealing effectively with a range of possible future strategic challenges to the U.S. The first meeting is expected in Oct/Nov. (Maj Yang)
- **Test & Evaluation Capabilities** (Chairman: Mr. David Heebner) This study, sponsored by USD(AT&L) and DOT&E, conducted an analysis of Department of Defense Test and Evaluation capabilities required to support system development for Joint Vision 2010 and beyond. In addition, the task force also addressed the Defense Authorization Act directive to the DSB to analyze the resources and capabilities of all T&E facilities and identify opportunities to achieve efficiency and reduce duplication of effort. The final report is being reviewed. (Mr. Jamison)
- **Training and Education** (Co-chairs: Dr. Joe Braddock and Dr. Ralph Chatham) This study, co-sponsored by USD(P&R), DDR&E and JCS/J-7, analyzed the impact of training techniques and the potential future learning environment upon the warfare proficiency of our military forces, active and reserve components, and that of potential adversaries in the context of Joint Vision 2010 warfare. The study is complete and the final report is in review. (CDR Hughes)
- **PSYOPS, Phase II** (Chairman: Mr. Vince Vitto) This study, co-sponsored by ASD(SOLIC) & USD(AT&L), will assess the characteristics, organizational relationships and responsibilities of a US Government World Information Service. Such an Information Service could become a primary vehicle for presentation of the US Government's position on issues, point of view and policies. The first meeting will be in Oct. (CDR Hughes)
- *Since publication of the last DSB Newsletter, the following reports have been completed and released:*
 - AF Space Launch Facilities
 - GPS – Phase III
 - Info in Support of PSYOPS in Mil Conflict
 - Science & Technology Certification
 - Tech Capabilities of Non-DoD Providers

Other Advisory Board Activities

Army Science Board (ASB)

Mr. Michael J. Bayer - Chairman
LTC Damian Bianca - Executive Secretary
MAJ William Belknap – Executive Officer

FY00 Overarching Study

Technical and Tactical Opportunities for Revolutionary Advances in Rapidly Deployable Joint Ground Forces in the 2015-2025 Era (Chaired by Dr. Joe Braddock, LTG (Ret.) Paul Funk and Dr. Marygail Brauner) This study described key technical opportunities for the Army's Objective Force in four studies:

- **Operations** (Co-chaired by Dr. Bob Douglas, LTG (Ret) Daniel Schroeder and USMC LTG (Ret) Paul VanRiper) Towards the goal of achieving rapidly deployable forces with dominant maneuver supported by precision fires, the panel identified those opportunities which offered the greatest pay off in operational improvements of these forces.
- **Information Dominance** (Co-Chaired by: Dr. Phil Dickinson, LTG (Ret) Jack Woodmansee, and Gen James McCarthy, USAF(Ret)) To the goal of providing information dominance through the provisioning of an advanced "central nervous system" to meet the needs of our forces and to deny the threat force with basic information needs, the panel identified capabilities that support this concept.
- **Sustain and Support Panel** (Co-chaired by: Mr. Ed Brady, GEN (Ret) Leon Salomon and VADM Bill Hancock, USN(Ret)) To the goal of providing the forces with a support/sustainment capability with significantly reduced logistic burden, the panel identified opportunities to provide significantly greater mechanical reliability, simplified battlefield maintenance and repair, significantly smaller fuel and ammunition tonnage requirements, and improved battlefield medical support.
- **Training Panel** (Co-chaired by Dr. Harry

O'Neil, MG (Ret.) Chuck Drenz and VADM Fred Lewis, USN(Ret)) To the goal of ensuring that these forces have an organic capability to train to peak effectiveness within the theater of operations, the panel identified opportunities for providing embedded training devices for crew, team and small unit training; the ability to deliver training into the theater using distance learning opportunities; the ability to provide mission rehearsal capabilities as required; and the ability to permit staff and command training with sensitive intelligence products.

Special Studies

- **Army Countermine Technologies –** Chaired by Mr. Frank Kendall
- **C4ISR – Leveraging Commercial Applications –** Chaired by Mr. John Cittadino

On 27 July at the Beckman Center in California, the ASB FY 2000 overarching study findings and recommendations were briefed to the Army Chief of Staff and to a Joint audience. This concluded two year's worth of work in one year, involving 170+ members, consultants and government advisors on the Army's deeper tactical futures.

The ASB is now conducting an aggressive outreach effort to the remainder of the Army, OSD/JCS, other Services and CINCs. In addition, the ASB will conduct its first public outbrief at the Marriott Wardman Hotel, Washington, DC on 17 October during the annual meeting of the Association of the U.S. Army

- **Countermine Warfare and Joint Opportunities for the Future** is now in its 6th month. The ASB and NRAC continue to conduct a joint study examining promising countermine technologies. The specific focus is on programs and technologies for mine detections and neutralizations in the surfzone and inland. The study will be recommending areas for joint Army and Navy/USMC technology development. Technologies that support emerging Army and USMC operational concepts will be emphasized. Outbriefs to the Joint community are being planned for the Nov/Dec timeframe.

- **The Joint Service Advisory Group (JSAG)**, is now in its 4th month of deliberations. Composed of members drawn from the ASB, AFSAB, NRAC, and DIA S&T Advisory Board, the JSAG will provide advice and counsel to ASD(C3I) on issues relating to technology, policy, architecture, joint interoperability, inter-Service coordination, and commercial standards. Two specific initiatives receiving the most attention are science and technology opportunities for the Global Information Grid and Public Key Infrastructure initiatives. An initial feedback session is expected to occur in Nov.

The ASB Annual Meeting will be held on 30 Oct - 1 Nov at Ft Benning, GA. This meeting will kick-off the FY01 studies. The topics for the FY01 will focus on enabling future joint light forces to be more lethal as discussed in the Chief's vision statement. Members of this year's study will include representatives from each of the Services as well as the CINCs and other Science Boards.

For more information on ASB activities visit, <http://www.sarda.army.mil/home.htm>

Naval Research Advisory Committee (NRAC)

Dr. Patrick H. Winston – Chairman
Ms. Diane Mason-Muir – Program Director

Ms. Katherine Hegmann will replace Dr. Patrick Winston as NRAC Chair in Nov 00.

2000 Summer Study Program

The NRAC 2000 Summer Study panels were briefed to Washington DC area Flag/General officers and Senior Executives at the Pentagon on 14 Sep 00:

- **Command Center of the Future** - The purpose of this study was to recommend a Navy strategy for developing a next generation Maritime command and control capability. (The panel is currently working on drafting their report.)
- **Quality of Life (QOL)** - The purpose of this study was to examine QOL issues for Sailors and Marines in order to anticipate what they will be

for the new Department of the Navy of the 21st century and identify what the responses to the new challenges will have to look like. (The panel is currently working on drafting their report.)

Study Updates:

The NRAC Panel on Unmanned Vehicles for Mine Countermeasures Report (99 Summer Study) addressed the application and identification of alternatives for Unmanned Vehicles (UVs) in Mine Countermeasures. The panel reviewed current programs under development to determine gaps and overlaps and made recommendations for future UV requirements. A draft report is being edited and undergoing a security review.

A new **NRAC Panel on Aging Aircraft** is being formed, sponsored by the Commander, Naval Air Systems Command. The draft study objective is to identify the current state of need of legacy Naval Air Systems for inspection, repair and overhaul due to aging; identify known mitigation opportunities; link the needs and mitigation opportunities to Science and Technology Objectives for Platforms, Subsystems and Processes in the current Naval Technology Plan; and provide recommendations for technology transition across the board, Naval Technology Planning, and product/process technology insertion opportunities for the future.

The following NRAC reports have recently been released:

- **Optimized Surface Ship Manning Report**
- **Commercial Science and Technology Report**

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

Air Force Scientific Advisory Board (SAB)

Dr. Robert Selden – Chair
Dr. Mike Borky – Vice Chair
Col Greg Bishop - Executive Director

The SAB S&T review of Air Force Laboratories is underway. This year's reviews include the Propulsion, Sensors, Directed Energy, Space Vehicles, and Special Programs directorates.

Future meeting dates:

20-22 Sep, S&T Quality Review Kickoff, Woods Hole, MA

31 Oct-1 Nov, Fall General Board Meeting @ Crystal City Doubletree Hotel, Arlington VA

31 Oct-1 Feb, SAB Studies 2001 Kickoff Meeting @ Crystal City Doubletree Hotel, Arlington VA

Study Updates:

- **AFC2-The Path Ahead.** Outbriefed to CSAF & SecAF on 15 Sep. Report to follow.
- **S&T and the AF Vision.** Scheduled to be outbriefed to CSAF and SecAF on 13 Oct. Report to follow.
- **Hypersonics.** Scheduled to be outbriefed to CSAF and SecAF on 13 Oct. Report to follow.
- **AF Battlelabs Quick Look Study.** The report has been released for public distribution.

For more information on SAB activities or past reports, please visit our website at: <http://www.sab.hq.af.mil/index.htm>

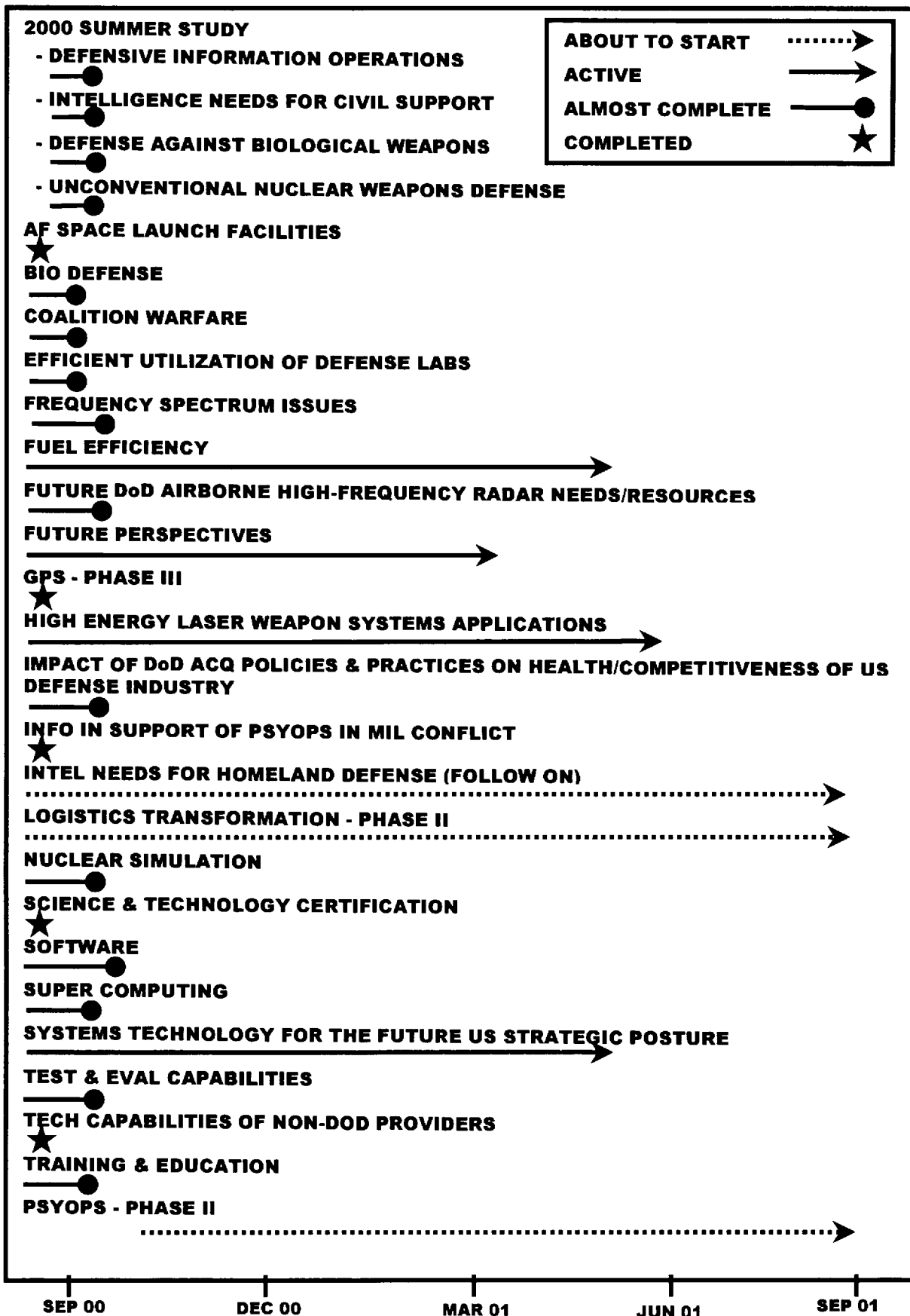
DIA Science and Technology Advisory Board

Dr. Michael Wartell – Chairman

Ms. Victoria Prescott – Exec Sec & Dir

The Science and Technology Advisory Board (STAB) continues its representation on the Senior Steering Groups for the four defense intelligence priority thrusts, which are: attack the database problem, intelligence integration/interoperability with the common operating picture, shaping to meet the asymmetric threat, and revitalizing and reshaping the workforce. STAB members are taking part in separate panel studies to augment these efforts. These panels are assessing Human Intelligence (HUMINT) within the asymmetric threat context, information technology and knowledge engineering tools for indications and warning (I&W), and enhancing workforce competency through expanded outreach or innovative partnerships with laboratories, academia and industry.

DSB Task Force Timelines



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