



DSB NEWSLETTER

October 1998

Philip A. Odeen, Vice Chairman

Craig Fields, Chairman

John V. Ello, Executive Director

CHAIRMAN'S CORNER

I would like to take the occasion of the fall Quarterly Meeting (Oct 28-29, 1998) to express the congratulations of all the Board Members to Dr. John S. Foster Jr. on the occasion of his selection to receive the 1998 Eugene G. Fubini Award for outstanding technical and scientific advice to the Department of Defense over a sustained period of time. Dr Foster's numerous contributions to the Department of Defense and the DSB clearly personify all the attributes that the Secretary of Defense identified when he first established the award in 1996. Again, congratulations from all of us to Dr Foster on receiving this prestigious honor.

I also want to express my sincere thanks and appreciation to the respective Chairs and Co-Chairs of the following new Task Force initiatives:

- Globalization & Security (Donald Hicks)
- Space Superiority (Pete Aldridge & Robert Hermann)
- DoD Human Resources Strategy (John Foster & Larry Welch)
- Investment Strategies for the DARPA (Vincent Vitto)
- Technology Capabilities of Non-DoD Providers (Walter Morrow)
- Bio Defense (George Whitesides)
- Tactical Battlefield Communications (Michael Frankel)

Many of these studies continue the direction which was first initiated in 1995 with a view toward addressing the new and very demanding defense challenges that the DoD will face in the 21st century. I look forward to working closely with each of these important Task Force studies in the months to come.

Craig Fields

1999 DSB MEETING DATES

- | | |
|----------------|--|
| • February 3-4 | Winter Quarterly Meeting (Pentagon) |
| • May 5-6 | Spring Quarterly Meeting (Pentagon) |
| • August 1-13 | Summer Study Conclusion (Beckman Center, Irvine, CA) |
| • November 3-4 | Fall Quarterly Meeting (Pentagon) |

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Note: More changes in the DSB Secretariat:

- Since our last meeting Capt Jim Lyons, USN, and LTC Don Burnett, USA, joined the DSB office full time. Wynne Waldron also recently left us for the Joint Strike Fighter JPO and her replacement, Maj Tony Yang, USAF from SAF/AQP is on-board. We welcome all of them to the team!

NEW WEB SITE: 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. An overall roster of current Board members is on page 8.

1998 SUMMER STUDY PROGRAM

DoD Logistics Transformation

(Co-Chairs: Mr. Phil Odeen and Mr. Bill Howard) The purpose of this summer study was to address the transformation of Military Logistics for the 21st Century. The Task Force has now developed recommendations to best make future military capabilities meet JV2010 initiatives including strategy & actions to accomplish a true transformation, not marginal improvements, to the logistics system. Since August, the Task Force has focused on completion of the written report text & selected out-briefings to the DoD. The JCS OPS DEPS were briefed on 7 Oct and the JCS Chairman, Vice Chairman & Service Chiefs will be briefed in the Tank on 29 Oct. Publication of the final report is targeted for Dec 98. (LTC Burnett)

Joint Operations Superiority in the 21st Century

(Co-Chairs: Gen. Larry Welch USAF (Ret.) and Mr. Donald Latham) The 1998 Summer Study addressed integrating capabilities underwriting joint operations superiority in the 21st Century. The Task Force focused on how new capabilities, operational concepts, and different force characteristics can be developed and integrated to underwrite Joint Vision 2010. The final report is currently being finalized with a target date for Volume I by early November. (CAPT Lyons)

STATUS OF RECENTLY COMPLETED AND ON-GOING STUDIES

- **Advanced Modeling and Simulation for Analyzing Combat Concepts in the 21st Century** (Co-Chairs: Dr. Ted Gold and Gen. Larry Welch, USAF (Ret.)) This Task Force is addressing the modeling and simulation capabilities required for analyzing concepts for 21st Century military combat operations. The study has now been completed and the written report has a target of Nov 98 for final approval, printing, and distribution. (LTC Burnett)
- **Coalition Warfare** (Chairman: Dr. Ted Gold) There have been numerous briefings from international and national organizations. The Army War College hosted a meeting and organized a seminar with their international students that was very enlightening. An interim report was requested and delivered to the USD(A&T) in April that noted preliminary observations and areas that are being examined. A companion effort has also been initiated by the UK equivalent of the DSB, the Defence Scientific Advisory Council (DSAC). It is expected that key findings of these two efforts will be exchanged as each study evolves in the months to come. There is one more meeting planned for Nov/Dec. A final report is expected in January 1999. (Maj. Yang)
- **Control of Military Excess/Surplus Materiel** (Co-Chairs: Dr. Delores Etter and Mr. John Stewart) This Task Force examined the effectiveness and relevance of current export controls; the threat posed from release of surplus military materiel; and any changes needed in current policy and regulations for controlling surplus military materiel. A final draft report is now being staffed with targeted completion in Nov 98. (LTC Burnett)
- **Defense Acquisition Reform, Phase IV** (Chairman: Dr. Robert Hermann) This Task Force is reviewing the status of current Acquisition Reform initiatives with a view toward developing metrics to improve future programs. An interim letter report was submitted to the USD(A&T) and the DUSD(Acquisition Reform) is reviewing possible actions to implement the Price-based Acquisition concept. The sub-panel on Research and Development is expected to submit final conclusions in the next several weeks. (LTC Burnett)
- **Defense Reform** (Chairman: W. Kross) (Capt Lyons) The expected start date for this Task Force is Jan 99.
- **DoD Human Resources Strategy** (Co-Chairs: Dr. John Foster & Gen. Larry Welch) This Task Force is co-sponsored by USD(A&T) and USD(Personnel & Readiness) and will review trends and opportunities to improve DoD's ability to attract and retain civilian and

military personnel with the motivation and intellectual capabilities to serve and lead in civilian and military capacities. The Co-Chairs have begun selected interviews with Service personnel chiefs and the final Task Force membership make-up will be completed shortly. A kickoff meeting is scheduled for 23-24 Nov 98. Preliminary plans call for completion of the study in July 99. (LTC Burnett)

- **Globalization & Security** (Chairman: Don Hicks) This Task Force is co-sponsored by USD(A&T) and OASD(C3I). Two meetings have been conducted. An estimated completion date is Jul 99. This study will examine a number of issues including both the risks and advantages of a globalized industrial base. (LTC Burnett)
- **National Imagery and Mapping Agency** (Co-Chairs: Dr. Anita Jones and Mr. Peter Marino) The Task Force is reviewing the objectives and plans of NIMA to meet the needs of the national and military intelligence customers as they enter the 21st Century. This Task Force is organized into three focus groups: User group; Commercial Group; and Technical Interface Group. The Commercial Group recently met on 22-23 Oct in Denver, CO to overview commercial capabilities and the User Group is expected to meet with the Army (DCSINT) in Nov to receive a brief from the Army on their requirements for NIMA to support Army XXI. The report is currently scheduled to be completed in Jan 99. (Maj Yang)
- **Nuclear Deterrence** (Chairman: Gen Larry Welch) The study was recently completed and is expected to be submitted to USD(A&T) for final approval and publishing in the next several weeks. (Capt Lyons)
- **Open Systems** (Chairman: Dr. Wayne O'Hern) The Task Force was sponsored by OUSD (A&T)/S&TS. The Task Force has completed their report and USD(A&T) has approved its release. A final published report is expected for distribution in Nov 98 (Maj Yang)
- **Space Superiority** (Co-Chairs: Mr. Edward Aldridge & Dr. Robert Hermann) This Task Force will provide recommendations on how best to respond to the evolving space environment in a manner which would preserve U.S. leadership, superiority and dominance in national security space capabilities. The first meeting is scheduled for 4-5 Nov 98. (Maj Yang)
- **Stealth Technology & Future S&T Investment** (Chairman: Dr. Robert S. Cooper) The Executive Secretary is Mr. Greico (OUSD/S&T Systems) The Task Force has concluded the study and the Chairman is finalizing the report. The final report is expected in Dec 98. (Maj. Yang)
- **Test and Evaluation** (Chairman: Mr. Dave Heebner) This Task Force is undertaking a broad review of the entire range of activities relating to Test and Evaluation (T&E), including such areas as ACTD; infrastructure; and a "systems of systems." The Task Force has held monthly meetings in May, June, July and September. The next meeting is scheduled for November. (Capt Lyons)
- **Technology Capabilities of Non-DoD Providers** (Chairman: Mr. Walter Morrow) This USD(A&T) sponsored study will examine the ability of Non-DoD providers to provide warfighting technology, engineering, and test capabilities needed for future U.S. military forces. A preliminary report is expected by Apr 99 with the final report due in Jun 99. (LTC Burnett)

Since publication of the last DSB Newsletter, the following reports have been completed and released:

- **Underground Facilities** (Chairman: Mr. Bill Delaney) (Capt Lyons)
- **Defense Science and Technology Base for the 21st Century** (Chairman: Mr. Walter Morrow) (LTC Burnett)
- **Submarine of the Future** (Chairman: Mr. John Steinbit) (Capt Lyons)

OTHER DoD ADVISORY BOARD ACTIVITIES

Army Science Board (ASB)

- Dr. Michael J. Bayer - Chairman
- Dr. W. Foster Rich - Vice Chairman
- COL Len Gliatta - Executive Secretary

The ASB concluded its Summer Study Meeting, 13-23 Jul, 1998, at the Beckman Center. Both of the 1998 DSB summer studies were briefed to the Army Science Board at Ft. Bliss, TX at its general membership meeting on 19-20 Oct 98.

1998 ASB Studies:

- **Concepts and Technology for the Army Beyond 2010** (Summer Study).
- **Prioritizing Army Space Needs** (Summer Study).
- **Demilitarization of MLRS Rockets and Conventional Ammunition.** Ongoing.
- **Recruitment, Training and Retention Options to Meet Force Structure Needs Associated with the Digitization of the Army.** Concluding.
- **Review of Risk Assessment Methodology for Proposed DoD Range Rule.** Ongoing.
- **Independent Assessment of the Technical Maturity of the SWORD Advanced Technology Demonstration Program.** Concluding.
- **Schedule Realism.** Concluding.

Proposed Studies:

- **Acceleration of Warfighter Information Network Terrestrial (WIN-T) Acquisition**
- **A council for the DCSINT to periodically advise on Intelligence XXI**
- **Military Applications for Microelectromechanical Systems**
- **Potential Exploitation of COTS Technology for Ground-Emplaced Surveillance System**
- **Measurement and Signature Intelligence (MASINT)**
- **Army Space Vulnerabilities Assessment**
- **Army Investment Strategy for Directed Energy Weapons**
- **Information Assurance**

Naval Research Advisory Committee (NRAC)

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

NRAC 1998 Summer Study task forces are complete. Out-brief was given on 2 Oct at the Pentagon and the draft reports are expected in about sixty days. The subjects were: **Information Technology Interoperability** which assessed technologies and interoperability implications associated with information transfer and interaction among systems as well as between systems, especially among and between NATO and coalition forces and **Training Technologies** which evaluated new and emerging technologies and technology-enabled methodologies for training Naval personnel.

A third NRAC panel has been formed on **Global Positioning System (GPS) Vulnerability and Alternatives**. This panel will examine the vulnerabilities of GPS on Navy and Marine Corps platforms and weapons systems, identify deficiencies, and recommend solutions to the problems.

The new topics for 1999 study are in the process of being selected. The approved list should be released around 1 December.

Air Force Scientific Advisory Board (SAB)

The SAB Co-chairs are: Mrs. Natalie Crawford, RAND Corporation and Dr. William Ballhaus, Lockheed Martin Corporation. Colonel Robert Schraeder was recently appointed as the new Executive Director. The SAB held its annual Fall Meeting, 14-15 October.

1998 SAB Studies:

- **Going to Space: A Roadmap (Summer Study)**. The growing importance of space systems in the emerging global security environment makes it imperative that the Air Force, as the executive agent for DOD, deploy and operate effective space and trans-atmospheric systems and associated infrastructure. This study effort included a quick-look study led by the USAF Chief Scientist. The results have been briefed to the SecAF, CSAF and several organizations including the OSD Office of Net Assessment and NRO.
- **Information Management Support for the Warrior**. Desert Storm identified the need for increased communications bandwidth and information support systems to enhance Air Force combat support capability. In the ensuing years, a "push-pull" system has developed. A consequence is that users oftentimes find themselves overwhelmed with data and unable to sort out what is important to them at any given time. The SAB study effort has identified a new concept, the Battlespace Info-sphere, to increase reachback, based on Publish and Subscribe principles. A briefing to CSAF is scheduled for 29 Oct and to SecAF on 6 Nov.
- **AF Test and Evaluation Infrastructure Study**. This report is in the review process and expected to be released by mid November.
- **Magnetic Levitation at the Holloman High Speed Test Track Quicklook Study**. This study is being finalized. Briefings have been given to SAF/AQ and OSD and are scheduled to be briefed to BMDO. This technology is currently used in German and Japanese high-speed rail systems and in the New Attack Submarine. The final report will soon be posted on the SAB Web site at <http://web.fie.com/fedix/sab.html>.

DIA Science and Technology Advisory Board

Dr. Michael Wartell – Chairman

Maj Don Culp – Executive Secretary & Director

1998 DIA STAB Studies:

- **Intelligence Modeling and Simulation.** This study is examining the approaches to the modeling of intelligence for use in simulations. As the DIA is the Executive Agent for DoD intelligence modeling and simulation, the study has been focusing on such areas as mission needs and requirements; program management and infrastructures; technology challenges; and strategic planning. The study is projected to conclude in Jan 99.
- **Science & Technology Threats.** This study is examining individual technologies and applications as they relate to weapons development and acquisition, and the implications for intelligence collection. Specifically, the study is looking at emerging technologies, potential technological surprises, breakthrough technologies, and foreign revolution in military affairs. The first meeting was held in April 1998.
- **Intelligence Integration and Dissemination.** This study is examining the problems of integration/fusion of intelligence information for use at levels below the Joint Task Force. The study is to recommend an approach to provide timely integration/fusion of intelligence into a comprehensive picture of the operational environment and battlespace. The study is projected to conclude in Nov 98.
- **Intelligence Products.** This study is examining all intelligence products of the DIA in terms of quality, value added, and timeliness. The study has been surveying the users, both policymakers and warfighter, to determine some measures of quality on which the community can agree. The study is projected to conclude in Nov 98.
- **DIA Manning Strategy.** This study is examining existing, proposed, and potential strategies for DIA intelligence manning, focusing on scientific and technical intelligence requirements. The study is to focus on the required characteristics of entry-level intelligence officers that will carry the DIA into the twenty-first century. The study is projected to conclude in Jan 99.
- **Transnational Threats.** This study is examining the issues raised by the 97 DSB Summer Study on Transnational Threats, with respect to DIA and its roles and responsibilities. The study will develop suggested courses of action toward improvement of intelligence capabilities, collection approaches, information management, and threat assessments and warning. This study is projected to conclude in Apr 99.

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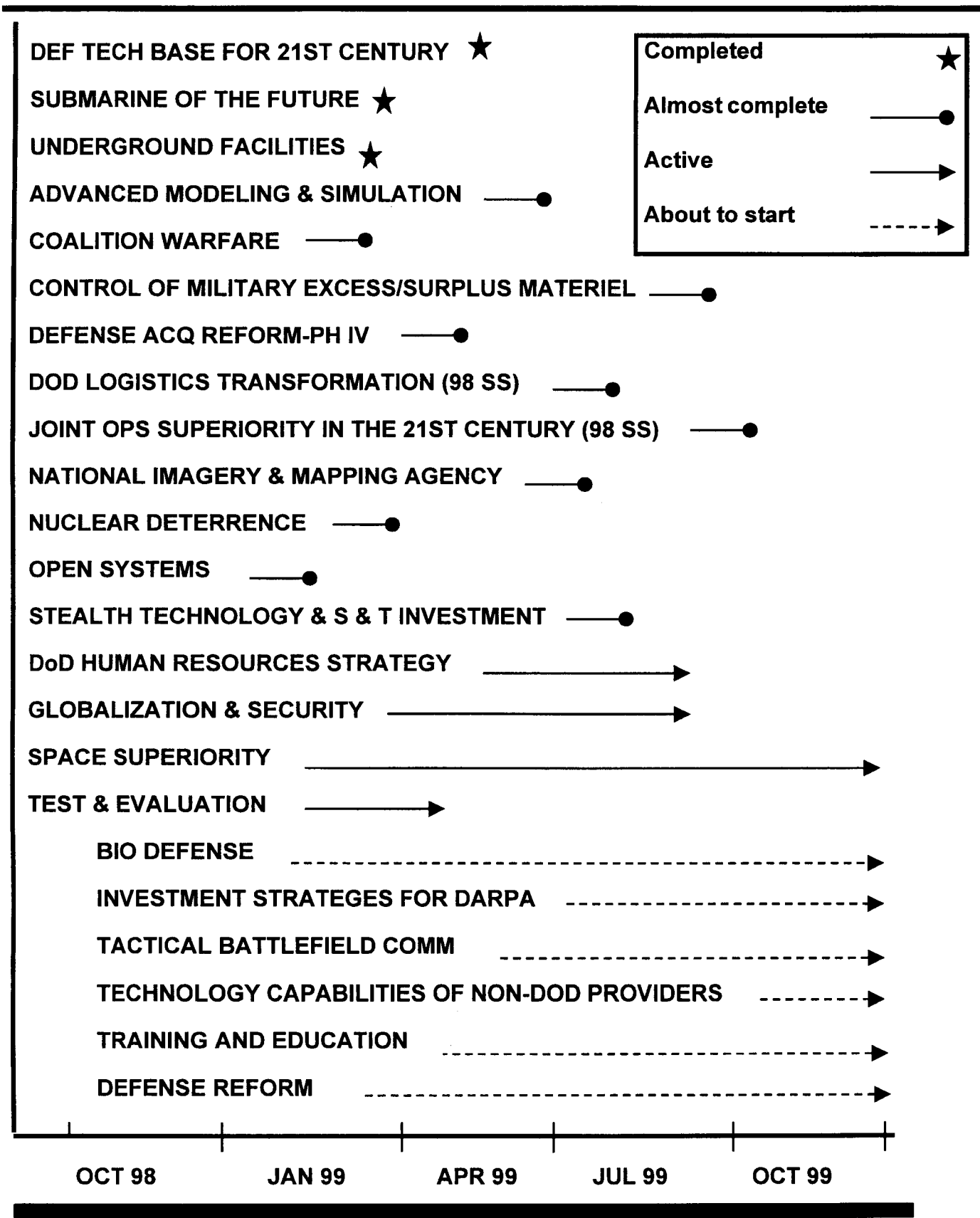
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DSB Task Force Timelines



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