NDIA
NATIONAL DEFENSE INDUSTRIAL ASSOCIATION
STRENGTH THROUGH INDUSTRY & TECHNOLOGY

REVISED AGENDA

NDIA
SCIENCE & ENGINEERING
TECHNOLOGY DIVISION

Presents:
THE 8th ANNUAL
SCIENCE & ENGINEERING
TECHNOLOGY
CONFERENCE/DoD
TECH EXPO

Event #7720
April 17 - 19, 2007

DoD
Technology Exposition

In Cooperation with the Office of the Director of Defense
Research and Engineering

The Charleston Convention Center
North Charleston, South Carolina

7:30 am   Conference Registration & Continental Breakfast

Preliminary Session: Opportunities for Collaboration

In this session we will present the Fiscal Year 2008 President's Budget Request for the Department of Defense S&T program. Specific programs that provide conference attendees opportunities to engage in collaborative efforts with the Department and international S&T community will also be highlighted. Presentations will provide information on technology areas of high interest to the DoD, time lines, and points of contact for the submission of proposals. Opportunities for both industry and academia will be covered. A wide range of programs, from the larger technology demonstrations funded by the Joint Capability Technology Demonstration program, that lead to the evaluation of military utility of advanced technology by a Combatant Commander; to the more focused technology development efforts that are funded by the Test & Evaluation/Science & Technology (T&E/S&T) program will be covered. Opportunities for proposing commercial off-the-shelf technology to meet current military needs will be addressed by the Quick Reaction Fund/Rapid Reaction Fund program presentation. Specific scientific research areas having high interest to the Department will be highlighted along with information on the process universities should use to submit proposals. The session will be rounded out with a presentation on opportunities for collaborative international research and technology development.

Preliminary Session Chairman - Mr. Robert W. Baker, Deputy Director, Plans & Programs, ODDR&E

8:15 am   **FY 2008 President's Budget Request for DoD S&T Program**
              Mr. Robert Baker, Deputy Director, Plans & Programs, ODDR&E

8:45 am   **Joint Capability Technology Demonstration (JCTD) Program**
              Mr. John J. Kubricky, Deputy Under Secretary of Defense for Advanced Systems & Concepts

9:15 am   **T&E/S&T Program**
              Mr. Derrick Hinton, T&E/S&T Program Manager, Defense Test Resource Management Center

9:45 am   BREAK

10:30 am   **Quick Reaction Fund/Rapid Reaction Fund**
              Mr. Ben Riley, Director, Rapid Reaction Technology Office

11:00 am   **DoD Basic Research Program with a Focus on Academia**
              Dr. William S. Rees, Jr., Deputy Under Secretary of Defense for Laboratories and Basic Sciences

11:30 am   **International Collaboration**
              Dr. Tony Sinden, Counsellor for Defence Science & Technology, British Embassy

12:00 pm   LUNCHEON - EXHIBITS AND POSTER PAPERS OPEN

CONFERENCE OPENING

1:00 pm   **Call to Order** - Dr. A. Louis Medin, Chairman, NDIA S&ET Division

              NDIA Welcome - Major General Barry D. Bates, USA (Ret), Vice President, Operations, NDIA

1:15 pm   **Keynote Address**
              Honorable John J. Young, Jr., Director, Defense Research and Engineering

Session I: Air Force Space Systems for Transformation

This session will focus on space systems under development by the Air Force that are important components of transformation in DoD. In particular, key leaders from the areas of Transformational Communications and Responsive Space will describe the ways that technology risk is being handled in these key space programs. Space programs have always provided challenges in balancing performance and risk. Program managers must often select fast-paced technologies to incorporate into space systems that will have operating lifetimes without the opportunity for technology refreshment. Transformational Communications, which will provide enormous increases in networking and capacity for military communications, has exceptional technology and software challenges in developing and acquiring the space, ground, and user segments for a long-life system with advanced networking capability operating in a military environment. Under Responsive Space, the Air Force plans to have small satellites called TacSats that can be launched quickly in response to an urgent need for a space capability. While there are clear opportunities to evolve TacSat capabilities, there are risks in continuing to bring in the latest software and technology. Leaders from the Government programs, the science and technology community, and industry will provide their perspectives on how risk can be mitigated in these challenging areas.

Co-Chairs: Mr. Ed Palo, Chief Engineer, The MITRE Corporation
                   Mr. Mark Stephen, Director of Strategic Planning, L-3 Coleman Aerospace

2:00 pm	**Air Force Space Transformation** Brigadier General Ellen M. Pawlikowski, USAF, Commander, Military Satellite Communications Systems Wing, USAF Space and Missile Systems Center
2:30 pm	**Responsive Space Technology** Dr. Robert Morris, USAF, Acting Chief Scientist, Air Force Research Laboratory, Space Vehicles Directorate
3:00 pm	BREAK IN EXHIBIT HALL
3:45 pm	**Program Office Perspective on Transformational Space** Colonel Rich White, USAF, Director, Developmental Planning, USAF Space and Missile Systems Center
4:15 pm	**Industry View and Experience with Responsive Space** Mr. Stuart Linsky, Vice President, Satellite Communications, Northrop Grumman Space Technology
4:45 pm	**User Perspective on Space Transformation Issues** Captain Mark Olson, USN, Chief, ISR & Space Division, United States Strategic Command
5:30 pm - 7:30 pm	RECEPTION IN EXHIBIT HALL

Wednesday, April 18, 2007

7:30 am	Conference Registration & Continental Breakfast

Session II: Integration of Naval Systems

The role of systems of systems integrations and interoperability has taken on increasing importance as the emphasis on network centric warfare has evolved and is being implemented in naval warfighting systems. While the Navy has always integrated multiple systems on their ships and aircraft, with the advent of the DDG-1000 Zumwalt Multi-Mission Surface Combatant, Littoral Combat Ship, Multi-Mission Aircraft (MMA) and other network centric platforms, a new dimension of complexity and risk is being added. Now, the ship and aircraft have become the hub into which different combat systems will be rapidly inserted and withdrawn as the operational challenges change. These systems will have to operate upon installation in a plug and play manner without extensive integration testing and grooming. The development and insertion of the software to allow these systems to be responsive to the operator's needs is crucial to the success of the future weapons systems platforms. This session is intended to explore some of the challenges, issues, and solutions associated with reducing the integration, interoperability and software technology risks associated with today's acquisition programs.

Co-Chairs:	Mr. Dennis Ryan, Science and Technology Planning Director, John Hopkins University Applied Physics Laboratory Captain Dennis Sorensen, USN, Assistant Chief of Naval Research, Office of Naval Research
8:30 am	**Challenges in Developing and Integrating Naval Warfighting Systems** Dr. Wayne Meeks, Executive Director, Program Executive Officer, Integrated Warfare Systems (PEO IWS)
9:00 am	**The Systems Engineering View of Naval Warfighting Systems Development** Mr. Carl Siel, ASN (RDA) Chief Engineer
9:30 am	**The Acquisition Perspective on Development of Naval Open Architectures** Captain James J. Shannon, USN, Program Manager for Naval Open Architecture (PEO IWS 7)
10:00 am	BREAK EXHIBITS AND POSTER PAPERS OPEN
10:45 am	**Industry Perspectives on Open Systems Architecture Development for Naval Weapons Systems** Mr. Robert Riche, Lockheed Martin Mr. Richard Rushton, Lockheed Martin
11:15 am	**Open RF System Architectures** Dr. Bobby Junker, Office of Naval Research
12:00 pm	LUNCHEON
	Luncheon Speaker: **S&T, S&Es and S&SE** Dr. Paul D. Nielsen, Director and CEO, Carnegie Mellon University Software Engineering Institute

Session III: Army Future Combat System (Brigade Combat Team) (FCS(BCT)) Program

The Future Combat Systems (Brigade Combat Team) (FCS (BCT)) Program is the Army's flagship transformation program. FCS (BCT) is the Army's modernization program consisting of a family of manned and unmanned systems, connected by a common network, which enables a modular force, providing soldiers and leaders with leading edge technologies and capabilities. It is a joint (across all the military services) networked (connected via advanced communications) system of systems (one large system made up of 18 individual systems, the network, and most importantly, the soldier) connected via an advanced network architecture that enables levels of joint connectivity, situational awareness and understanding, and synchronized operations. It will operate as a System of Systems (SoS) that will network existing systems, systems already under development, and systems to be developed to meet the requirements of the Army's Future Force. This session will highlight the FCS program as an example of a major acquisition program which is software intensive, and employs various approaches for reducing technology risk. The discussion panel will highlight both technology opportunities and measures used in technology risk reduction.

Co-Chairs:	Dr. Michael Andrews, Vice President & Chief Technology Officer, L-3 Communications Corporation
	Dr. John Solomond, Program Manager C4ISR, Booz Allen Hamilton, Inc.
	Dr. Robert Berezdevin, Director, Strategic Programs, SAIC

1:30 pm   **FCS Program Overview and Challenges**
Brigadier General Tom Cole, USA
Lieutenant General Daniel R. Zanini, USA (Ret), Senior Vice President, SAIC, Deputy Program Manager, FCS
Ms. Philomena Zimmerman, Director, Modeling & Simulation Management Office, FCS

2:15 pm   **FCS Software & Distributed Systems**
Mr. Edgar L. Dalrymple, PM FCS BCT, Associate Director, Software and Distributed Systems

3:00 pm   BREAK LAST CHANCE TO VIEW EXHIBITS AND POSTER PAPERS

3:45 pm   **FCS Technology Insertion and Transition Panel**
Panel Moderator:
Dr. Thomas H. Killion, Deputy Assistant Secretary for Research and Technology/Chief Scientist, HQ Department of the Army

Panel Members:
Mr. Gary Martin, Director, CERDEC
Mr. Paul Rogers, TARDEC
Mr. Joe Lannon, Director, ARDEC
Mr. John Miller, Director, ARL

5:15 pm   Session Adjourn

Thursday, April 19, 2007

Session IV: Globalization

Over the recent years, globalization has taken on a whole new meaning in the defense industry. It has touched every facet of product life cycle: requirements, design, development, manufacturing, maintenance and repair. In this information age, the whole world appears to be operating without boundaries. Given that the world is becoming flatter by the day, no organization can rely solely on its own resources. This fast pace of globalization offers both opportunities and risks to the DoD in carrying out its mission. In this session, we will address the globalization issues from the perspectives of DoD, US industry and our global partners with special emphasis on ongoing initiatives and lessons learned.

Co-Chairs:	Dr. Raj Aggarwal, Vice President, Global Technology, Rockwell Collins, Inc.
	Dr. Kenneth Potocki, John Hopkins University Applied Physics Laboratory

8:15 am   **Overview of Global Adaptation of Technology**
Mr. Alan Shaffer, Director, Plans and Programs, ODDR&E

8:45 am   **US Industry Adaptation to Globalization**
Dr. Raj Desai, IBM, Vice President, Global Aerospace and Defense

9:15 am   **Coalition Partners Adaptation to Globalization**
Dr. Tony Lindsay, Counsellor, Defence Science, Australian Embassy

9:45 am   BREAK

10:25 am   BEST POSTER PAPER WINNER ANNOUNCEMENT

10:30 am   **DoD Adaptation to Globalization**
Mr. Gary Powell, Assistant Deputy Under Secretary of Defense for Industrial Policy

11:00 am   **Technical Workforce Issues**
Mr. Edward Swallow, Vice President, Strategic Capture & Campaigns, Northrop Grumman Information Technology

11:30 am   **Wrap Up & Adjourn**

12:00 pm   BUFFET LUNCHEON