

13th Annual

SCIENCE & ENGINEERING TECHNOLOGY CONFERENCE / DEFENSE TECH EXPOSITION

***“OUTLOOK FOR DEFENSE S&T IN A TIME OF AUSTERITY:
MAINTAINING THE WARFIGHTER’S EDGE DURING A PERIOD OF TRANSITION”***

- ▶ Overview of the changing global security environment and the challenges facing military operations
- ▶ Game changing S&T investments being made by the Military Services and Defense Agencies
- ▶ Challenges facing the Combatant Commanders and the role S&T can play
- ▶ One-On-One Sessions with Service Representatives
- ▶ Poster Papers on emerging concepts and technology
- ▶ Discussion of new business opportunities with DoD Speakers



Event #2720

April 17 – 19, 2012

Charleston Convention Center ▶ North Charleston, SC ▶ www.ndia.org/meetings/2720

LOCATION

Charleston Convention Center
5055 International Boulevard
North Charleston, SC 29418

ATTIRE

Appropriate dress for the conference is business coat & tie for civilians and Class A uniform or uniform of the day for military personnel.

ID BADGES

During conference registration, each Attendee will be issued an identification badge. Please be prepared to present a valid picture ID. Badges must be worn at all conference functions.

ONE-ON-ONE SESSIONS

Air Force
Meeting Rooms 6 & 7

Army
Meeting Room 3

Navy
Booth 304

There will be the opportunity to meet with a USA, USN or USAF Representative in One-On-One Sessions. You may sign-up for your private, 15 minute One-On-One Session on-site at the Conference Registration Desk. Reservations will be on a first-come, first-served basis, and will be limited to one session with each Service.

13TH ANNUAL SCIENCE & ENGINEERING TECHNOLOGY CONFERENCE / DEFENSE TECH EXPOSITION

April 17-19, 2012

Charleston Convention Center
North Charleston, SC

“Outlook for Defense S&T in a Time of Austerity: Maintaining the Warfighter’s Edge During a Period of Transition”

SYMPOSIUM OVERVIEW

The nation and the DoD are facing sobering economic realities. At the same time, national security uncertainties are growing. In this environment, S&T can be a force multiplier for enhanced military capabilities. Furthermore, facing a more selective acquisition portfolio, S&T can be leveraged to reduce the rising operations, maintenance, and personnel costs. Now, more than ever, S&T efforts must be focused to optimize outputs.

Technological superiority has been an asymmetric advantage for our U.S. armed forces and it must be protected. Technology enables high-performance systems, excellent readiness and training, and an awesome capability to project power. Given the fiscal challenges facing our Nation, future success depends on our ability to leverage the global commercial technology base to fuel innovation and the utilization/integration of technology for improved capabilities.

At this year’s conference, OSD and the Services will present their areas of technology focus and strategies to develop future capabilities. Given current fiscal realities, there is specific emphasis on driving down life-cycle costs. Industry’s perspective will be integrated into Service Sessions to reflect the importance of cross communication in this environment of scarce resources. Presentations will highlight opportunities for industry collaboration with Services and Agencies. The conference will also feature a Poster Paper Session with Authors available for discussion. There will also be opportunities for industry and academia to present ideas to Service representatives in One-On-One Sessions. Sign-up sheets will be available at the Conference Registration Desk. The DoD Speakers will also be available to discuss new business opportunities.

SCIENCE & ENGINEERING TECHNOLOGY DIVISION SUPPORT

S&ET Division Chair:

Mr. James Chew, Director, Advanced Concepts and Technologies, L-3 Communications

S&ET Division Vice Chair:

Dr. Jocelyn M. Seng, Research Staff Member, Institute for Defense Analyses

S&ET Division Secretary:

Mr. Michael Liggett, Director Technology Programs, Raytheon Corporation

S&ET Conference Chair:

Mr. Christopher Clay, Deputy Division Chief, Science and Technology Division, Office of the Deputy Assistant Secretary of the Air Force for Science, Technology, and Engineering

TUESDAY, APRIL 17, 2012

7:00 AM – 6:30 PM

Conference Registration

Ballroom C Foyer

7:00 AM – 8:00 AM

Continental Breakfast

Ballroom AB Foyer

8:00 AM – 8:15 AM

Welcome Remarks

General Session – Ballroom AB

- ▶ Major General Barry D. Bates, USA (Ret), Vice President of Operations, NDIA
- ▶ Mr. James Chew, Director, Advanced Concepts and Technologies, L-3 Communications; S&ET Division Chair

8:15 AM – 9:15 AM

Special Remarks

General Session - Ballroom AB

- ▶ Mr. Alan R. Shaffer, Principal Deputy Assistant Secretary of Defense for Research & Engineering, OASD(R&E)

9:15 AM – 9:45 AM

Poster Papers - Author Presentations

General Session – Ballroom AB (Poster Boards on Display in Exhibit Hall)

- ▶ Dr. Raj K. Aggarwal, Managing Director, Advanced Research & Technology, College of Engineering, Iowa State University

9:30 AM – 6:30 PM

Exhibit Hall Open

Exhibit Hall – Ballroom C

9:45 AM – 10:15 AM

Networking Break

Exhibit Hall – Ballroom C

10:15 AM – 11:00 AM

Keynote Address

General Session – Ballroom AB

- ▶ Mr. Thomas Kalil, Deputy Director for Policy, Office of Science & Technology Policy, The White House

11:00 AM – 4:45 PM

FY 2013 President's Budget Request and Opportunities for Collaboration Session

General Session – Ballroom AB

In this Session we will present the Fiscal Year 2013 President's Budget Request for the DoD S&T program. Specific programs that provide conference Attendees opportunities to engage in collaborative efforts with the DoD 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. The morning portion of this Session will be rounded out with brief presentations by Poster Paper Authors, highlighting the topics of Poster Papers which will be on display. The afternoon Session will include 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. Opportunities for proposing commercial off-the-shelf technology to meet current military needs will be addressed by "The Rapid Fielding Directorate's Portfolio of Opportunities" presentation. Presentations by DARPA, DTRA, and JIEDDO will close out the Session.

Co-Chairs:

- ▶ Dr. Raj K. Aggarwal, Managing Director, Advanced Research & Technology, College of Engineering, Iowa State University

SPEAKER DONATION

In lieu of Speaker gifts, a donation will be made to the Wounded Warrior Project. For additional information, please visit:

www.woundedwarriorproject.org

ADVERTISING

Advertise in *National Defense* magazine and increase your organization's exposure. *National Defense* will be distributed to Attendees of this event, as well as other NDIA events. For more information, contact Mr. Dino Pignotti, VP Advertising, at (703) 247-2541 or dpignotti@ndia.org.

11:00 AM – 11:30 AM

- ▶ Mr. Michael Liggett, Director Technology Programs, Raytheon Corporation
- ▶ Dr. Kenneth Potocki, Johns Hopkins University, Applied Physics Laboratory, former Program Manager and Assistant Laboratory Director for R&D

FY 2013 President's Budget Request for DoD S&T Program

General Session – Ballroom AB

- ▶ Mr. Robert W. Baker, Deputy Director, Plans & Programs, OASD(R&E)

11:30 AM – 12:00 PM

DoD Basic Research Program with a Focus on Academia

General Session – Ballroom AB

- ▶ Dr. Robin Staffin, Director, Basic Science, OASD(R&E)

12:00 PM – 1:15 PM

Networking Buffet Lunch

Ballroom AB Foyer

1:15 PM – 1:45 PM

Rapid Fielding, A Path for Emerging Concept and Capability Prototyping

General Session – Ballroom AB

- ▶ Mr. Earl Wyatt, Deputy Assistant Secretary of Defense, Rapid Fielding, OASD(R&E)

1:45 PM – 2:15 PM

The DoD T&E/S&T Program

General Session – Ballroom AB

- ▶ Mr. George Rumford, T&E/S&T Program Manager, Defense Test Resource Management Center

2:15 PM – 3:15 PM

The DARPA S&T Program

General Session – Ballroom AB

- ▶ Mr. Ellison “Dick” Urban, Special Assistant for Strategic Execution & Analysis, DARPA

3:15 PM – 3:45 PM

Networking Break

Exhibit Hall – Ballroom C

3:45 PM – 4:15 PM

DTRA S&T to Counter WMD Threats

General Session – Ballroom AB

- ▶ Dr. Michael A. Kuliasha, SES, Director of Nuclear Technologies, DTRA

4:15 PM – 4:45 PM

JIEDDO Overview and Challenges

General Session – Ballroom AB

- ▶ Captain Fred Gaghan, USN, Chief, Technology, Requirements and Integration Division, JIEDDO

4:45 PM – 5:00 PM

Closing Remarks for the Day

- ▶ Mr. James Chew, Director, Advanced Concepts and Technologies, L-3 Communications; S&ET Division Chair

5:00 PM – 6:30 PM

Networking Reception (Hosted Beer & Wine)

Exhibit Hall – Ballroom C

WEDNESDAY, APRIL 18, 2012

7:00 AM – 5:10 PM

Conference Registration

Ballroom C Foyer

7:00 AM – 7:55 AM

Continental Breakfast

Ballroom AB Foyer

7:55 AM – 8:00 AM

Opening Remarks

General Session – Ballroom AB

- ▶ Mr. James Chew, Director, Advanced Concepts and Technologies, L-3 Communications; S&ET Division Chair

8:00 AM – 5:10 PM

SERVICE SESSIONS

General Session – Ballroom AB

The Military Departments play a major role in the planning and execution of the DoD S&T program. The Services provide the stable long-term part of the program, focused on their Services' priorities and responsibilities. The Service S&T communities are also constantly looking for opportunities to achieve revolutionary breakthroughs; however, they must also maintain a range of core competencies while supporting the acquisition and logistics systems that produce and maintain military equipment. Each Service has a vision of future capabilities required to support the core competencies they are uniquely responsible for maintaining. In this Session Army, Navy, and Air Force representatives will provide overviews of their S&T programs and provide presentations on priority S&T programs in their portfolios.

8:00 AM – 10:15 AM

ARMY SCIENCE & TECHNOLOGY PROGRAM SESSION

General Session – Ballroom AB

Chair:

- ▶ Dr. Walter F. (Rick) Morrison, RM Consulting

8:00 AM – 8:50 AM

Army S&T Priority Update

General Session – Ballroom AB

- ▶ Dr. Marilyn M. Freeman, Deputy Assistant Secretary of the Army (Research & Technology), ODASA(R&T)

8:50 AM – 9:10 AM

Basic Research Supporting the Army Future

General Session – Ballroom AB

- ▶ Mr. Jeff Singleton, Director for Basic Research, ODASA(R&T)

9:10 AM – 10:00 AM

Technology Bridging Strategies in the Current Environment

General Session – Ballroom AB

- ▶ Ms. Nancy Harned, Executive Director, Strategic Plans and Program Planning, ODASA(R&T)
- ▶ Dr. M. John Cullinane, Deputy Director, U.S. Army Engineer Research and Development Center, U.S. Army Corps of Engineers
- ▶ Mr. Dale A. Ormond, Director, U.S. Army RDECOM
- ▶ Dr. Janet Harris, RN, Director, Medical Training and Health Information Sciences Research Program, USAMRMC

10:00 AM – 10:15 AM

Question & Answer Session

General Session – Ballroom AB

- ▶ Speakers from Army Science & Technology Program Session

9:30 AM – 3:55 PM

Exhibit Hall Open

Exhibit Hall – Ballroom C

PROCEEDINGS

Proceedings will be available on the web through the Defense Technical Information Center (DTIC) two weeks after the conference. All registered Attendees will receive an email notification once the proceedings are available.

SURVEY

A survey will be e-mailed to you after the event. NDIA would appreciate your time in completing the survey to help make our event even more successful in the future.

NDIA EVENTS

Please visit the NDIA website for a complete listing of the events we offer.

NDIA website:
<http://www.ndia.org>

Select:
Meetings & Events
Schedule of Events

10:15 AM – 10:45 AM

Networking Break

Exhibit Hall – Ballroom C

10:45 AM – 2:00 PM

NAVAL SCIENCE & TECHNOLOGY PROGRAM SESSION

General Session – Ballroom AB

Co-Chairs:

- ▶ Mr. Dennis L. Ryan, III, Science and Technology Planning Director, Johns Hopkins University, Applied Physics Laboratory
- ▶ Dr. Lawrence Schuette, Director of Innovation, ONR

10:45 AM – 11:30 AM

Overview of Naval Science & Technology

General Session – Ballroom AB

- ▶ Dr. Walter Jones, Executive Director, Office of Naval Research

11:30 AM – 12:00 PM

Innovation in Basic Science

General Session – Ballroom AB

- ▶ Dr. Kam Ng, Deputy Director of Research, ONR

12:00 PM – 1:00 PM

Networking Buffet Lunch

Ballroom AB Foyer

1:00 PM – 1:30 PM

Rapid Innovation for the Warfighter

General Session – Ballroom AB

- ▶ ETCM (SS) Charles Ziervogel, USN, Command Master Chief, ONR

1:30 PM – 2:00 PM

Transitioning Technology & Opportunities

General Session – Ballroom AB

- ▶ Mr. Eric Wilson, Deputy Director of Transition, ONR

2:00 PM – 5:10 PM

AIR FORCE SCIENCE & TECHNOLOGY PROGRAM SESSION

General Session – Ballroom AB

Co-Chairs:

- ▶ Mr. Michael C. Dudzik, Vice President, Science & Technology, Lockheed Martin Corporation
- ▶ Mr. Christopher Clay, Deputy Division Chief, Science and Technology Division, Office of the Deputy Assistant Secretary of the Air Force for Science, Technology, and Engineering; S&ET Conference Chair

2:00 PM – 3:00 PM

Game Changing Air Force Science & Technology Investments Panel

General Session – Ballroom AB

- ▶ Mr. James J. Brooks, Deputy Director, Strategic Planning, Deputy Chief of Staff for Strategic Plans and Programs
- ▶ Dr. Steven H. Walker, Deputy Assistant Secretary of the Air Force for Science, Technology and Engineering, Office of the Assistant Secretary of the Air Force for Acquisition
- ▶ Major General William N. McCasland, USAF, Commander, AFRL

3:00 PM – 3:25 PM

Air Force Basic Research Game Changing Technology Investments

General Session – Ballroom AB

- ▶ Dr. Patrick G. Carrick, Director, Physics and Electronics Directorate, Air Force Office of Scientific Research, AFRL

3:25 PM – 3:55 PM

Networking Break (Last Chance to View Exhibits and Poster Papers)

Exhibit Hall – Ballroom C

3:55 PM – 4:20 PM

Airbreathing Hypersonic Technologies in the Air Force S&T Portfolio

General Session – Ballroom AB

- ▶ Mr. John Leugers, Principal Aerospace Engineer, Munitions Directorate, AFRL

4:20 PM – 4:45 PM

'Back to the Future' - What History Tells Us About Contemporary ISR Challenges

General Session – Ballroom AB

- ▶ Dr. Brian M. Kent, Chief Scientist, Sensors Directorate, AFRL

4:45 PM – 5:10 PM

Small and Large Firm Synergies to Achieve Game-Changing Capabilities

General Session – Ballroom AB

- ▶ Mr. Joseph M. McDade, Jr., Director, U.S. Air Force Office of Small Business Programs

5:10 PM

Adjourn for the Day

THURSDAY, APRIL 19, 2012

7:00 AM – 12:00 PM

Conference Registration

Ballroom C Foyer

7:00 AM – 7:55 AM

Continental Breakfast

Ballroom C

7:55 AM – 8:00 AM

Opening Remarks

General Session – Ballroom AB

- ▶ Mr. James Chew, Director, Advanced Concepts and Technologies, L-3 Communications; S&ET Division Chair

8:00 AM – 11:40 AM

CAPABILITIES NEEDED BY THE COMBATANT COMMANDERS SESSION

General Session – Ballroom AB

Meeting the capability needs of the Warfighter is the most important goal of the DoD Science and Technology program. Establishing strong communications between the Warfighter and the Researcher is essential for understanding these capability needs. Warfighters traditionally communicate their needs in terms of capability gaps. The DoD S&T community must be able to address those gaps in S&T projects and demonstrate how enabling technology can effectively fill them. In this Session representatives of U.S. Combatant Commanders will describe what new operational capabilities would make a big difference in their ability to conduct military operations in their areas of responsibility.

Co-Chairs:

- ▶ Mr. Kurt Kratz, Associate Director, Joint S&T Support, OASD(A)
- ▶ Dr. Jim Wasson, President, Growth Strategies International, LLC

8:00 AM – 8:20 AM

How Capabilities are Developed and Delivered to the Combatant Commanders

General Session – Ballroom AB

- ▶ Mr. Kurt Kratz, Associate Director, Joint S&T Support, OASD(A)

CLASSIFIED SESSION

Additional Registration Required

Registered NDIA S&ET Conference Attendees are invited by OASD(R&E) and SPAWAR to attend a Classified Session held off-site. Classified Session Attendees must hold a Secret Level Clearance Classification and must have previously submitted and verified their clearance acceptance with SPAWAR's security office.

Classified Session Badge Pick up Hours

Do not forget to pick up your Classified Session badge in the Ballroom C Foyer! All Classified Session Attendees must have a conference badge, a Classified Session badge and a valid photo ID to attend the Session. **No onsite registrations will be accepted for this Session.**

Wednesday, April 18, 2012

8:00 AM – 11:00 AM

1:00 PM – 3:00 PM

CONTACTS

Ms. Brant Murray
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(703)247-2572
bmurray@ndia.org

Ms. Cassandra Stewart
Exhibits Manager, NDIA
(703) 247-2582
cstewart@ndia.org

8:20 AM – 8:40 AM

USCENTCOM

General Session – Ballroom AB

- ▶ Mr. Martin Drake, Science Advisor, USCENTCOM

8:40 AM – 9:00 AM

USSOCOM

General Session – Ballroom AB

- ▶ Ms. Lisa Sanders, Science & Technology Advisor, USSOCOM

9:00 AM – 9:20 AM

USPACOM

General Session – Ballroom AB

- ▶ Mr. Ken Bruner, Science Advisor, USPACOM

9:20 AM – 9:40 AM

USSOUTHCOM

General Session – Ballroom AB

- ▶ Mr. Juan Hurtado, Science Advisor, USSOUTHCOM

9:40 AM – 10:00 AM

Networking Break

Ballroom C

10:00 AM – 10:20 AM

USTRANSCOM

General Session – Ballroom AB

- ▶ Mr. Lou Bernstein, Research, Development, Test & Evaluation Program Director, USTRANSCOM

10:20 AM – 10:40 AM

USSTRATCOM

General Session – Ballroom AB

- ▶ Mr. Dave Tyner, Science & Technology Advisor, USSTRATCOM

10:40 AM – 11:00 AM

USAFRICOM

General Session – Ballroom AB

- ▶ Mr. Mike Owens, Science & Technology Advisor, USAFRICOM

11:00 AM – 11:20 AM

USNORTHCOM

General Session – Ballroom AB

- ▶ Dr. Susanne Wirwille, Director, Science & Technology, NORAD and USNORTHCOM

11:20 AM – 11:40 AM

USEUCOM

General Session – Ballroom AB

- ▶ Mr. Stephen Spehn, Deputy Science Advisor, USEUCOM

11:40 AM – 12:00 PM

Poster Paper Winner Announcement & Closing Remarks

General Session – Ballroom AB

- ▶ Major General Barry D. Bates, USA (Ret), Vice President of Operations, NDIA
- ▶ Mr. James Chew, Director, Advanced Technologies and Concepts Business Development, L-3 Communications; S&ET Division Chair

12:00 PM

Conference Adjourned & Boxed Lunch

Ballroom C

CLASSIFIED SESSION - THURSDAY, APRIL 19, 2012

Registered NDIA S&ET conference Attendees are invited by OASD(R&E) and SPAWAR to attend a Classified Session held off-site. Classified Session Attendees must hold a Secret Level Security Clearance and must have previously submitted and verified their clearance acceptance with SPAWAR's security office.

CLASSIFIED SESSION BADGE PICK UP HOURS

Do not forget to pick up your Classified Session Badge in the Ballroom C Foyer! All Classified Session Attendees must have a conference badge, a classified badge and a valid picture ID to attend the Session. You may pick up your classified badge on Wednesday, April 18, 2012 from 8:00 AM – 11:00 AM and from 1:00 PM – 3:00 PM. **No onsite registrations will be accepted for this Session.**

- | | |
|--------------------------|---|
| 1:00 PM | <p>Bus Transportation to SPAWAR
<i>Front Drive</i>
Buses will leave at 1:00 PM sharp. Attendees must have a valid ID and a Classified Session badge.</p> |
| 1:30 PM – 4:30 PM | <p>CLASSIFIED SESSION
<i>Off-site Location: SPAWAR</i>
Co-Chairs:</p> <ul style="list-style-type: none"> ▶ Mr. James Chew, Director, Advanced Concepts and Technologies, L-3 Communications; S&ET Division Chair ▶ Dr. Al Emondi, Deputy Chief Technology Officer, SPAWAR, Atlantic |
| 1:30 PM – 2:15 PM | <p>Challenges of Anti-Access/Area Denial
SECRET</p> <ul style="list-style-type: none"> ▶ Mr. Alan R. Shaffer, Principal Deputy, OASD(R&E) |
| 2:15 PM – 2:45 PM | <p>USCENTCOM
SECRET - Releasable to FVEY</p> <ul style="list-style-type: none"> ▶ Mr. Martin Drake, Science Advisor, USCENTCOM |
| 2:45 PM – 3:15 PM | <p>USPACOM
SECRET - NO FOR, Releasable to AUSTRALIA</p> <ul style="list-style-type: none"> ▶ Mr. Ken Bruner, Science Advisor, USPACOM |
| 3:15 PM – 3:30 PM | <p>Networking Break (Refreshments not Provided)</p> |
| 3:30 PM – 4:00 PM | <p>USNORTHCOM
SECRET - NO FOR, Releasable to CANADA</p> <ul style="list-style-type: none"> ▶ Dr. Susanne Wirwille, Director, Science & Technology, NORAD and USNORTHCOM |
| 4:00 PM – 4:30 PM | <p>USSOCOM
SECRET - NO FOR</p> <ul style="list-style-type: none"> ▶ Ms. Lisa Sanders, Deputy Science & Technology Advisor, USSOCOM |
| 4:30 PM | <p>Adjourn</p> |