

6TH ANNUAL DISRUPTIVE TECHNOLOGIES CONFERENCE

This conference
will be held at the
SECRET/US level.

“Capability Widening and Adapting to a Global Tech Base”

Convened by the C4ISR Division of NDIA
In Collaboration with the Office of the Director, Defense Research and
Engineering



WHAT YOU DON'T WANT TO MISS AT THIS CONFERENCE:

- ▶ Technologies that possess intrinsic benefits that:
 - alter warfighter operations
 - create game changing military capabilities
- ▶ Joint Staff Functional Capability Board identified gaps and desired operational capability needs
- ▶ A one of a kind panel seeking to unravel the “mystery” behind SCIF technical features, construction costs, reusability, and much, MUCH more!

FEDERAL GATEWAY ▶ NAVY YARD METRO ▶ 1100 NEW JERSEY AVENUE, WASHINGTON, DC

EVENT #0920

OCTOBER 14 - 15, 2009

WWW.NDIA.ORG/MEETINGS/0920

INTRODUCTION

Military doctrine is evolving from 'network centric warfare' to 'knowledge centric warfare', where the focus is on decentralized usage of 'higher level' knowledge of evolving social structures and information networks. As military operations increasingly move beyond symmetric kinetic warfare scenarios to embrace peacekeeping and counterinsurgency functions, their operational success will increasingly depend on the ability to harness the latent knowledge embedded in the evolutionary behavior (in both the real world and cyberspace) of individuals and social groups (military personnel, militia members and civilians). An increasing 'sensor-networked' physical world (e.g., Webcams on bridges, real-time traffic feeds, Google Map street-views) and a progressively 'participatory' demographic profile (expressed through the willingness to share images, opinions and real-time updates via technologies such as Facebook and Twitter) present both significant opportunities and serious challenges.

On the positive side, these disruptive technological trends offer the military unprecedented opportunities to exploit the 'power of the network'-sophisticated social and information network mining tools may be used to isolate key adversarial actors and gain a more detailed understanding of relevant activity patterns. On the flip side, these same technologies can be used by adversaries to learn and adapt to military tactics (e.g., using SMS broadcasts to alert sympathetic tribesmen or monitoring Webcams to learn troop movement patterns). In addition, the information content in a 'participatory' information network is also of widely varying fidelity-effective military invention, especially in civilian environments, mandates a reliance on near-real time, approximate analysis of the content embedded in very large, complex social and information networks.

This conference will address why military C2 practices and technologies will need revolutionary advances in two key areas in order to contend with the emergence of an increasingly sensor-rich, participatory, information grid:

- 1) Development of technologies that exploit the power of sensor-driven and participatory information systems, but can effectively 'interrupt', 'limit' or 'delay' the availability of such information to the adversary.
- 2) Adoption of decision architectures that exploit the responsiveness that arises from pushing decision-making to the 'edge', but that can contend with the higher degree of uncertainty and conflicting knowledge that results from the rapid, automated analysis of content in such decentralized information networks.

CONFERENCE OBJECTIVES

The NDIA C4ISR Division will convene the 6th Annual Disruptive Technologies Conference as a forum of discussion and opportunity for government and industry senior technologists, product engineers and strategists to focus upon technology induced game changing military capabilities. Avenues to proficiently deliver these new capabilities into the warfighters' hands will also be discussed.

Conference Goal: To enable rapid development and fielding of new warfighting capability.

SECRET/US Attendees.

Vtrue	Vind	Vtrue	Vind	VI	Vtotl
350.95	338.04	403.87	389.01	1,108.7	350.95 4
kts	kts	mph	mph	fpm	kts
Q	P	R			
-0.10922	3978	0.4975			
d/s	d/s	d/s			
pitch	roll	hdng	hdng	mag	
3.4009	11.859	106.06	92.553	102.52	
deg	deg	true	mag	comp	
lat	lon	alt	alt	alt	lat
36.121	-114.372	730.1	1,494.7	2,729.7	35.000
deg	deg	ftmsl	ftagl	ind	south



WEDNESDAY, OCTOBER 14, 2009

THIS CONFERENCE WILL BE HELD AT THE SECRET/US LEVEL. ALTHOUGH PRESENTATION MATERIALS WILL BE UNCLASSIFIED, ORAL PRESENTATIONS MAY BE SECRET/US. CLASSIFIED DISCUSSIONS WILL BE LIMITED TO THE DESIGNATED MEETING ROOMS.

- 7:00 AM REGISTRATION & CONTINENTAL BREAKFAST
- 8:00 AM WELCOME REMARKS AND INTRODUCTIONS
- ▶ Mr. Sam Campagna, *Director, Operations, NDIA*
 - ▶ Dr. Steve Kimmel, *Chairman, NDIA CAISR Division; Senior Group Vice President, Alion Science & Technology*
- 8:10 AM DDR&E IMPERATIVES, HOW INDUSTRY CAN HELP
- ▶ The Honorable Zachary J. Lemnios, *Director, Defense Research & Engineering*
- 8:40 AM EXPANDING NATIONAL SECURITY TECHNOLOGIES & CAPABILITIES
- Keynote Speaker:*
- ▶ Dr. Regina E. Dugan, *Director, DARPA*
- 9:20 AM GOVERNMENT CTO PANEL: TECHNOLOGY OPPORTUNITIES AND CHALLENGES
- Panel Lead:*
- ▶ Mr. Frank Cooper, *Vice President and Chief Technical Officer, Concurrent Technologies Corporation*
- Panelists:*
- ▶ Dr. Thomas Killion, *Deputy Secretary of Army (Research & Technology/Chief Scientist)*
 - ▶ Dr. Scott P. Sarlin, *Director of Science and Technology (Acting), Office of the Director of National Intelligence*
 - ▶ Ms. Michele Weslander, *Office of the Director of National Intelligence (ODNI)*
 - ▶ Dr. Larry Schuette, *Director of Innovation, Office of Naval Research*
- 10:15 AM BREAK
- 10:30 AM CAPABILITY GAP CHANGING SURPRISES - AVOIDANCE AND EXPLOITATION
- ▶ Dr. Don Wyma, *Director for Scientific & Technical Intelligence Analysis Office of the Under Secretary of Defense (Intelligence)*
- 11:15 AM INDUSTRY CTO PANEL: PRODUCTIZING IRAD RESULTS
- Panel Lead:*
- ▶ Mr. Keith Masback, *President, US Geospatial Intelligence Foundation*
- Panelists:*
- ▶ Mr. Paul R. Davis, *Senior Vice President and Chief Technology Officer, NJVC, LLC*
 - ▶ Mr. Ed Zoiss, *Director, Research & Development, Harris Corp*
 - ▶ Mr. Brian O'Toole, *Chief Technology Officer, GeoEye*
 - ▶ Mr. Robert "Jeff" Morris, *Vice President, M&CSS Engineering, LMCO*
- 12:15 PM LUNCH
- 1:00 PM BREAKOUT TRACKS: EMERGING DISRUPTIVE TECHNOLOGIES

TRACK I

CYBER NETWORK ASSURANCE: OPERATIONS - DEFENSE/
ATTACK

Track I Leader:

- ▶ Mr. Tony Bogovic, *Assistant Vice President, Applied Research Organization, Telecordia Technologies, Inc.*

1:00 PM

DEVELOPING SECURITY ARCHITECTURES USING
PROTECTED CORE NETWORKING CONCEPTS

- ▶ Mr. Dennis McCallam, *Principal Architect, Security, Northrop Grumman*

1:30 PM

CYBER WARFARE-GOING ON THE OFFENSE

- ▶ Mr. John Kimmins, *Executive Director/Fellow, Telecordia Technologies, Inc.*

2:00 PM

CYBER TRADecraft & OPSEC: TECHNIQUES AND
TECHNOLOGIES TO RETAKE THE INTERNET HIGH
GROUND

- ▶ Mr. Lance Cottrell, *Chief Scientist, Anonymizer, Inc. - Abraxas Corporation*

TRACK III

CLOUD COMPUTING, DATA SERVICES, SOCIAL
NETWORKS

Track III Leader:

- ▶ Mr. John Scott, *Director, Mercury Federal Systems*

2:30 PM

THE BUSINESS CASE FOR A PUBLIC-PRIVATE
SECTOR PARTNERSHIP IN HIGH PERFORMANCE
COMPUTING

- ▶ Dr. Roger Werne, *Deputy Director - Industrial Partnerships, Lawrence Livermore National Laboratory*

3:00 PM

SUPER ENPOWERED INDIVIDUALS

- ▶ Mr. William Coffey, *Director, The Telesti Group*

3:30 PM

OPEN ARCHITECTURE (OA) IS BUSINESS CHANGE

- ▶ Mr. Michael McCrave, *Military System Engineer, Alion Science and Technology*

TRACK II

MOBILITY AND TERRAIN/SEA CONTROL: ENERGY, POWER
SUPPLY, PROPULSION

THIS SESSION WILL BE HELD AT THE UNCLASSIFIED LEVEL

Track II Leader:

- ▶ Mr. Robert Baker, *Deputy Director, Plans & Programs, Office of the Director of Defense Research & Engineering*

1:00 PM

NEW PACKAGING AS A CLUTTER REDUCTION
METHOD

- ▶ Joe Spitz, *Vice President, Liberty Packaging Co., Inc.*
- ▶ Mr. Keith Donaldson, *VP Technology, Liberty Packaging Co., Inc.*

1:30 PM

THE CYCLONE ENGINE AND ITS APPLICATION TO
POWERING MANNED AND UNMANNED VEHICLES
OR AS AN AUXILIARY POWER UNIT (UNCLASSIFIED)

- ▶ Dr. Phillip Myers, *President, Advent Power Systems*

2:00 PM

REAL-TIME 3D DATA GATHERING, VISUALIZATION,
AND DATA FUSION FROM MANNED/UNMANNED
PLATFORMS

- ▶ Mr. Chris Brown, *Business Development Manager, Autonomous Solutions, Inc.*

TRACK IV

ISR—SEE, ACT DECIDE

Track IV Leader:

- ▶ Mr. Sam Chun, *Director Solutions, EDS/HP*

2:30 PM

MINIATURIZED, MODULAR, HIGH RESOLUTION
X-RAY BACKSCATTER IMAGING AS A BLUE FORCE
ENHANCER

- ▶ Mr. William Baukus, *Director, Technology Development, American Science and Engineering, Inc.*

3:00 PM

COUNTERSPACE CAPABILITIES USING SMALL
SATELLITES: BRIDGING THE GAP IN SPACE
SITUATIONAL AWARENESS

- ▶ Dr. Rick Mullikin, *Business Development Manager, Lockheed Martin IS&GS*

3:30 PM

CARBON NANOTUBE (CNT) COMPOSITES USING
SOLUTION SPUN FIBERS

- ▶ Dr. Amy Heintz, *Principal Research Scientist, Battelle Memorial Institute*

THURSDAY, OCTOBER 15, 2009

7:00 AM

REGISTRATION & CONTINENTAL BREAKFAST

8:00 AM - 11:00 AM

JOINT CAPABILITY AREA: COCOM PERSPECTIVE

The following Tracks and JCA sessions will provide a forum for Joint Staff Functional Capability Board representatives to discuss capability gaps and associated desired operational capabilities.

JOINT CAPABILITY AREAS*

SECRET/NO FOREIGN

TRACK V

Track V Leader:
CDR Chris Nash, *Joint Staff, J8*

8:00 AM

Mr. John Neri: Battlespace Awareness: The ability to understand dispositions and intentions as well as the characteristics and conditions of the operational environment that bear on national and military decision-making.

8:30 AM

COL William Hickman: Command and Control: The ability to exercise authority and direction by a properly designated commander or decision maker over assigned and attached forces and resources in the accomplishment of the mission.

9:00 AM

CAPT Ken Bowen: Net-Centric: The ability to provide a framework for full human and technical connectivity and interoperability that allows all DoD users and mission partners to share the information they need, when they need it, in a form they can understand and act on with confidence, and protects information from those who should not have it.

9:30 AM

Mr. Harry Argo (Cancelled): Building Partnerships: The ability to set the conditions for interaction with partner, competitor or adversary leaders, military forces, or relevant populations by developing and presenting information and conducting activities to affect their perceptions, will, behavior, and capabilities.

10:00 AM

General Discussion

TRACK VI

Track VI Leader:
Mr. Mike Knollman, *Assistant Deputy Under Secretary of Defense Acquisition, Technology and Logistics (Joint/Coalition Operation Support)*

8:00 AM

CAPT William Campbell, J8 FAD: Force Application: The ability to integrate the use of maneuver and engagement in all environments to create the effects necessary to achieve mission objectives.

8:30 AM

CAPT William Campbell, J8 FAD: Force Support: The ability to establish, develop, maintain and manage a mission ready Total Force, and provide, operate, and maintain capable installation assets across the total force to ensure needed capabilities are available to support National security.

9:00 AM

Mr. Steve Inada: Protection: The ability to prevent/mitigate adverse effects of attacks on personnel (combatant/non-combatant) and physical assets of the United States, allies and friends.

9:30 AM

Lt COL Lisa Hess: Logistics: The ability to project and sustain a logistically ready joint force through the deliberate sharing of national and multi-national resources to effectively support operations, extend operational reach and provide the joint force commander the freedom of action necessary to meet mission objectives.

10:00 AM

General Discussion

* JOINT CAPABILITY AREAS...

- ▶ are comprised of functional portfolios to focus management and resource attention upon a desired capability-based vice threat-based envisioned and synchronized military force development and planning enterprise.
- ▶ encompass capability needs definition, gap and excess analysis, major trade analyses, and capabilities planning, i.e., the DoD military capability divided into manageable functional entities.
- ▶ provide a framework to enable a capabilities-based US military enterprise to focus on emerging technological opportunities that certain capabilities such as long-range precision strike; transformed maneuver and expeditionary forces; and systems to overcome anti-access and area-denial threats.
- ▶ enable and anticipate the diverse range that any adversary might employ and the necessary US military responsive mix of technology-system-operational capabilities required to resolve such.



10:30 AM

CLOSING PANEL: SENSITIVE COMPARTMENTED INFORMATION FACILITY (SCIF)
CHALLENGES AND SOLUTIONS

THIS SESSION WILL BE HELD AT THE UNCLASSIFIED LEVEL

This one-of-a-kind panel seeks to unravel the “mystery” behind SCIF technical features, certification, construction costs, reusability, etc. and much, much more!

Moderator:

- ▶ Mr. Warren Amason, *Senior Vice President, Grubb and Ellis*

Panelists:

- ▶ Mr. Jason Phillippe, *Director, Intelligence Programs and Operations, Copper River Information Technology*
- ▶ Mr. Joseph D. Cooper, *President, SCIF Contractors Association*

11:00 AM

WRAP-UP

- ▶ Dr. Steve Kimmel, *Chairman, NDIA C4ISR Division; Senior Group Vice President, Alion Science & Technology*

11:15 PM

ADJOURN

PROMOTIONAL PARTNERSHIP

Increase your company or organization's exposure at this premier event by becoming a Promotional Partner. For this conference, we are offering three promotional tiers:

SILVER	GOLD	PLATINUM
\$1,000	\$2,500	\$5,000
		2 Complimentary Attendees
	Company Logo on Materials	Company Logo on Materials
Breakfast or Break Sponsorship Signage	Reception Sponsorship Signage	Main Podium Recognition at Conference

For more information, please contact Sam Campagna at (703) 247-2544 or scampagna@ndia.org

ATTIRE

Appropriate attire for the conference is business suit for industry and class A uniform of the day for military.

TRAVEL INFORMATION

Metro Rail (Preferred):

The Green Line's Navy Yard Metro Station is located directly across from the Federal Gateway (1100 New Jersey Avenue). For Metro schedules and fare information go to: <http://www.wmata.com/>

Parking:

Area street parking is limited. Metro is suggested.

From Ronald Reagan National Airport:

Take George Washington Parkway North to Interstate 395 North. Then follow Northern VA directions provided below.

From Northern VA:

Take Interstate 395N across the 14th St. Bridge. Stay Right and follow signs to the South Capitol St. exit. Stay to the right and exit right at South Capitol St. Continue through the first traffic light and stay to the right (the two left lanes pass under M St.). Turn left at the next traffic light, M St. SE. Go three blocks and Federal Gateway is on your left.

From Southern MD:

Take Interstate 295 North across the South Capital St. Bridge. Stay to the right (the two left lanes pass under M St.) until you reach the fifth street. Turn Right on M St. SE and Federal Gateway is three blocks down on your left.

PROCEEDINGS

Unclassified proceedings will be made available after the conference.

CONTACTS

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