Tuesday, October 30

**P30A1**

**Coalition Interoperability Test and Evaluation (T&E)**

Tuesday 9:30–11:00 a.m.

Osceola 2

Coalition and joint interoperability T&E activities and various military exercises and warfighting support capabilities around the globe will be briefed and discussed by various Combatant Commands (COCOMs) including CENTCOM, SOCOM, and PACOM events with the Defense Information Systems Agency (DISA) Joint Interoperability Test Command (JITC). CENTCOM’s and JITC’s efforts with the Afghanistan Mission Network (AMN) Coalition Interoperability Assurance and Validation (CIAV) (transitioning to Future Mission Networks (FMN)) via Joint Staff J8 and other COCOMs will be showcased on this panel. Various COCOM military exercises and interoperability T&E activities will also be presented and discussed. FMN is an enterprise-level coalition network that may be used in multiple COCOM AORs and is currently projected to be funded and managed by Joint Staff J8.

**Organizer/Moderator**

Randon Herrin, Director and Chief Scientist, Defense Information Systems Agency (DISA) Joint Interoperability Test Command (JITC)

Dr. James Streilein, Deputy Director, NetCentric, Space & Missile Defense Systems, Department of Transportation (DOT) & Energy

**Panelists**

Col. Gary L. Lassee, Director of Operational Test and Evaluation, SOCOM J8

Terry Wilson

**P30A2**

**DoD Joint Tactical Data Link Migration**

Tuesday 10:30 a.m.–Noon

Osceola 3

Tactical Data Link (TDL) panel representing senior U.S. Department of Defense (DoD) organizations, are prepared to discuss DoD joint tactical data link migration.

**Organizer/Moderator**

David Narkevicius, Senior Staff Advisor, Department of Defense (DoD), Chief Information Office

**Panelists**

Lt. Col. Samantha Helwig, Joint Staff/J6, U.S. Air Force

Edward Marston, Tactical Data Links (TDL), Defense Information Systems Agency (DISA) Systems Engineering Center (EE3), Standards Management Branch (EE32)

**P30P1**

**Tactical Edge Networks**

Tuesday 2:30–4:00 p.m.

Osceola 2

Currently planned Department of Defense (DoD) tactical edge networks are based upon a collection of technical architectures developed over the years by multiple programs and vendors. These efforts lack sufficient and efficient interoperability due to the diversity of their architectures. This also reflects on the difficulty to configure and management these heterogeneous networks. In addition there still remain future challenges in developing effective network protocols and related services that operate robustly and adapt across these challenging environments. Representatives from all the Services are jointly working together in the OSD (R&E) Networked Communications Capability Program (NCCP) to help address these key challenges. A new program emphasis is being put in place to focus R&D efforts to promote joint development of common, interoperable, technical protocols and architectures for tactical networks. It intends to leverage these architectures to help define and drive new joint applied research across the Army, Navy and Air Force and other DoD laboratories to address gaps in interoperations of joint network deployments, and to
promote development of common standards for networking in the highly mobile, diverse and challenging environments. This panel will discuss and address issues related to directing networking research based upon architectural considerations and gaps, and to discuss the DoD’s role in promoting and defining new networking standards and open source code to improve joint tactical edge networks.

**Organizer/Moderator**
Robert G. Cole, Ph.D., Deputy Director, U.S. Army CERDEC

**Panelists**
Daniel Hague, U.S. Air Force Research Laboratory
Joseph P. Macker, Senior Communication Systems and Network Research Scientist, U.S. Naval Research Laboratory
Carl Fossa, Ph.D., Assistant Group Leader–Wideband Teactical Networking Group, MIT Lincoln Laboratory
John Moniz, Program Officer, Expeditionary Warfare C4, Office of Naval Research

**P30P3**

**From Development to Deployment: A Business Process for Mobile Applications**

Tuesday 3:30–5:00 p.m.  
Sarasota 3

The Army leadership launched a strategic effort to radically reduce the time it takes to deliver relevant applications across the force by synchronizing and integrating capabilities across three key initiatives: the Common Operating Environment’s (COE) deployment of standardized computing environments; the establishment of agile end-to-end software business process; and the implementation of an Army Software Marketplace to provide the capabilities and business operations needed to execute these agile processes. Achieving this goal requires the leadership, participation and support from numerous Army organizations. CERDEC has assembled a panel of SMEs to discuss the concepts, progress and lessons learned to date from initiatives targeting the development and deployment of mobile applications.

**Organizer/Moderator**
Eric Byrd, Systems Engineer, Mobile/Handheld Computing Environment, PEO Soldier

**Panelists**
Chris Matthews, M/HH CE Government Lead for PM FBCB2, PM FBCB2
Steven Mazza, TacMark Project Lead, U.S. Army CERDEC CP&ID
Cliff Daus, Army Software Marketplace Lead, Chief (A), Enterprise Architecture Division, Army CIO/G-6

**P30P2**

**Digital IF—The Digital Revolution for SATCOM Terminals**

Tuesday 3:30–5:00 p.m.  
Osceola 3

Affordability mandates have forced DoD to consider replacing uniquely designed & expensive analog components with digital components in future SATCOM terminals. These components will allow SATCOM terminals to take advantage of the DISN Core and transport digitized L-band signals to remote facilities. There is considerable activity around this topic both within DoD and their vendors. What is needed at this point is a standard that will lead to increased interoperability. Digital IF is that standard. Leaders from the terminal community will discuss their efforts to develop and integrate digital components into future SATCOM terminals and the effort to develop the Digital IF open system standard and CONOPS.

**Organizer/Moderator**
Bruce Bennett, Executive Director, Defense Information Systems Agency (DISA) PEO Comms

**Panelists**
Randy Nash, Branch Chief, U.S. Army CERDEC & S&TC
A.J. Vigil, Ph.D., Senior Systems Engineer, Team DCATS, U.S. Army/PM DCATS
Ken Quock, Chief Engineer, DISA Gateway Program Office
John Morris, Chief Engineer MILSATCOM Systems Directorate
Technical Program Panel Discussions
**Wednesday, October 31**

**P31A1**

**Cognitive Technology in Radios, Networks and Sensors**

Wednesday 9:30–11:00 a.m.  
Osceola 2

The need for advanced methods of managing use of the limited RF spectrum has given rise to the cognitive radio and, to a lesser extent, cognitive networks. Key to any gains with these technologies is the development and deployment of algorithms across the RF-user space that coordinates the dynamic RF spectrum use by communications, EW, PNT radar and others. The panel will address the issues confronting such coordination and what algorithms might be best employed.

**Organizer/Moderator**  
Jerry Sonnenberg, *Advance Programs Engineer, Harris Corporation*

**Panelists**

- Dr. Joseph Mitola III, *Founder and CTO, Mitola’s STATISfaction*
- Dr. Sherin S. Kamal, *Chief Scientist, Engineering, Science Applications International Corporation (SAIC)*
- Dr. David B. Chester, *Senior Scientist and the Principle Investigator of Cognitive Technology Development, Harris Corporation*
- Dr. John D. Matyjas, *Principal Research Engineer, U.S. Air Force Research Laboratory*
- Dr. Jeffrey Reed, *Director, Wireless, Virginia Tech*

**P31A2**

**The DirecNet Task Force: Building an Open Interoperability Standard for Theatre Area Network**

Wednesday 10:30–12:00 p.m.  
Osceola 3

Evolving DoD operational support requirements call for a more robust, higher capacity, interoperable communications infrastructure to support evolving DoD operational requirements. Efforts like the DirecNet™ Task Force teaming across industry are working to provide new communications capabilities offering interoperable, flexible, high bandwidth communications with a structure to optimize competition for cost savings to the Department. The Open Group DirecNet™ Task Force is an industry-led consortium to develop a vendor neutral, open interoperability standard for a next generation waveform. The waveform will be IP-enabled, support the use of directional high bandwidth links, and the use of ad hoc mobile mesh networking. A key objective of the Task Force is to bring the advantages of commercial interoperability and standards development processes into the government arena. This panel will discuss the DirecNet vision, waveform requirements drivers, and its current development status.

**Organizer**  
John Spalding, *Director, The Open Group/DirecNet Task Force*

**Moderator**  
David Narkevicius, *Senior Staff, Communications, OAD/NII*

**Panelists**

- David R. Bryant, *Director, Advanced Broadband Networks, The Boeing Company*
- Keith Olds, *Chief Architect, Wideband Mobile Networks, Harris Corporation*
- Andrew J. Hunton, *Technical Director for Airborne and Wideband Datalink Systems, BAE Systems*
- Jerry Sonnenberg, *Chief Engineer, Networks, Advanced Systems & Technology, Harris Corporation*
P31P1  
**Policy-Based Management and Beyond**  
Wednesday 2:30–4:00 p.m.  
Osceola 2

The panel will address the implementation, operations, and interoperability issues of the Policy Based Management (PBM) technology based systems in tactical MANETS. PBM technology is an enabler for controlling large-scale distributed systems, and for enforcing operational coherency through policy rules. PBM has been included in commercial IT networks and it has significantly contributed to their efficient performance. DoD efforts are progressing to insert PBM in a growing number of tactical Mobile Ad Hoc Networks (MANETS). The majority of PBM systems today implement proprietary policy-based control mechanisms. This lack of standardization creates significant problems during the integration of these individual tactical MANETS from a network automation and security aspect across these various networks. The tactical environment dynamic imparts a need for Dynamic Policy Based Management. The goal of this MILCOM session is to address the implementation, operations, and interoperability issues of the PBM technology based systems in tactical MANETS.

**Organizer/Moderator**  
Dr. Mahbub Hoque, Director, Chief Scientist of U.S. Army CERDEC S&TC & Division Chief, Antennas & Spectrum Analysis

**Panelists**  
Dr. Jeffrey Boksiner, Chief Engineer, Antennas & Spectrum Analysis, U.S. Army CERDEC & S&TC  
Howard McDonald, Branch Chief, Systems and Technology Branch, Defense Information Systems Agency (DISA)/Defense Spectrum Organization  
Dr. Ritu Chadha, Executive Director, Applie Communication Sciences (ACS)  
Dr. Edward Chow, Manager, Information System Projects Office, NASA Jet Propulsion Laboratory

P31P2  
**Cyber Mission Assurance, Mission Impact of Cyber Attacks, Cyber Security, Network Defense, Information Assurance**  
Wednesday 3:30–5:00 p.m.  
Osceola 3

The planning and successful execution of a mission depends in part on the availability, confidentiality and integrity of cyber assets. Network defense and operational decisions require insight into how defensive actions and network operations affect missions. However, the dependencies between network resources and missions are often unknown. This panel will provide real-world examples of the impact of cyber events on military missions, summarize technologies for mapping the dependencies between missions and network resources, describe the commander’s information requirements for cyber mission assurance and the network operator’s information requirements for assessing the mission impact of current or anticipated network activities, and discuss how to visually represent the complex relationships between cyber events and kinetic missions.

**Organizer/Moderator**  
Anita D’Amico, Ph.D., Director, Secure Decisions

**Panelists**  
Michael Van Putte, Ph.D., Computer Scientist, MOD-2 Systems  
Michael Grimaila, Ph.D., Associate Professor of Systems Engineering, Air Force Institute of Technology  
Laurin Buchanan, Principal Investigator and Project Manager, Secure Decisions  
Bob Leverton, J58 Requirements, J53 Mission Assurance
Thursday, November 1

P1A1

**Working With Non-Traditional Partners: Future Mission Networks**

Thursday 9:30–11:00 a.m.
Osceola 2

Experience in latest military missions shows that nations and NATO will have to heavily engage in the future with non-traditional mission partners. This new paradigm requires a number of material, but also non-material approaches and solutions to facilitate secure information sharing across the different partners. This panel will focus on capturing the emerging trends in coalition missions, along with the requirements that FMNs will impose in military doctrine, organization, training and communications and information systems, among others. The panel will also address the short-term evolution of current warfare concepts and supporting systems, in light of the requirements imposed by the emerging FMNs.

**Organizer/Moderator**
Dr. Alberto Domingo, Deputy Leader Information Superiority & NNEC, NATO

**Panelists**
Stuart Whitehead, J8, U.S. Joint Staff
Dr. Hermann Wietgrefe, Lead Scientist Deployable CIS, NATO C3 Agency
Steve Moore, Vice President, Booz Allen Hamilton

P1A2

**Science and Technology Efforts to Improve DoD Spectrum Effectiveness**

Thursday 10:30 a.m.–Noon
Osceola 3

Military operations are complicated by increasingly complex demands on the electromagnetic spectrum while all modern forces depend on the spectrum; access to the spectrum is also needed for deployment of commercial communications technologies and numerous other government functions. To meet the increasing demand for the electromagnetic spectrum, DoD needs to improve spectrum effectiveness and efficiency. This panel provides an opportunity for DoD components to discuss science and technology efforts that improve spectrum effectiveness with a focus on joint networking at the tactical edge. In addition, spectrum-related research sponsored by the National Science Foundation will be discussed.

**Organizer/Moderator**
Dr. Jeffrey Boksiner, Chief Engineer, Antennas & Spectrum Analysis, U.S. Army CERDEC & S&TC

**Panelists**
Howard McDonald, Branch Chief, Systems and Technology Branch, Defense Information Systems Agency (DISA), Defense Spectrum Organization
Dr. John Chapin, Program Manager, DARPA Strategic Technologies Office
Dr. Andrew Clegg, Program Director, National Science Foundation
Dr. Mahbub Hoque, Chief Scientist (S&TCD) and Division Chief, Antennas and Spectrum Analysis Division, U.S. Army CERDEC S&TCD
Joseph Molnar, Section Head, U.S. Naval Research Laboratory
Dr. John Matyjas, CTC Lead, Connectivity and Dissemination, U.S. Air Force Research Laboratory

P1P1

**Combating Satellite Interference: The Commercial Operators Game Plan**

Thursday 2:30–4:00 p.m.
Osceola 2

Satellite operators, broadcasters, and satellite service providers are grappling with the issue of interference and are key to resolving the issue surrounding it. Recently there have been a number of commercial initiatives designed to lessen this problem. These initiatives range from training to
product quality to the proposed system of carrier identification. This session will provide the background and the updates on these initiatives and how military and government satellite users can cooperate and benefit from them.

**Organizer/Moderator**
Dick Tauber, *Vice President, Transmission Systems & New Technology, CNN News Group*

**Panelists**
David Hartshorn, *Secretary General, Global VSAT Forum*
Ron Busch, *Vice President, Network Operations, Intelsat*
Diana Lachappell, *JFCC/J2 Defensive Space Control, JFCC SpaceJ2*
Martin Coleman, *Executive Director, Satellite Interference Reduction Group*
Fred Morris, *Vice President USA & EMEA Sales Engineering, Comtech EF Data*

**P1P2**

**Network Analysis for Secure Assured Communications and Assured Information**

Thursday 3:30–5:00 p.m.

Osceola 3

Network analysis techniques are essential to designing and operating communications networks and information systems that support critical missions. Network operators traditionally control traffic in their networks and analyze traffic patterns by looking at data flows and at control messages traversing their networks. However, networks and systems supporting critical missions must also operate securely and the protocols for securing systems inherently hide information that would otherwise help network operators understand the behavior of their networks. Many basic network analysis techniques are in conflict with strategies for securing networks and systems. This panel explores emerging strategies for securing mission-critical systems and looks at approaches to network analysis appropriate to secure assured communications and assured information environments.

**Organizer/Moderator**
Dr. Antonio DeSimone, *Chief Scientist, Johns Hopkins University Applied Physics Laboratory*

**Panelists**
Dr. Mark Althouse, *Technical Director, Mobility Mission Management, National Security Agency (NSA)*
Douglas W. Gray, *Director, Network Validation Directorate, Air Force Network Integration Center*
Jeff Osborn, *Chief Architect, Johns Hopkins University Applied Physics Laboratory*
Julie Tarr, *Chief Scientist, Johns Hopkins University Applied Physics Laboratory*