

## CLASSIFIED PROGRAM

### SESSION AND PAPER LOCATOR

AM Sessions:	PM Sessions:
Paper 1: 9:30AM – 9:55AM	Paper 1: 3:00PM – 3:25PM
Paper 2: 9:55AM – 10:20AM	Paper 2: 3:25PM – 3:50PM
Paper 3: 10:20AM – 10:45AM	Paper 3: 3:50PM – 4:15PM
<b>BREAK: AVAILABLE</b>	<b>BREAK: AVAILABLE</b>
Paper 4: 10:45AM – 11:10AM	Paper 4: 4:15PM – 4:40PM
Paper 5: 11:10AM – 11:35AM	Paper 5: 4:40PM – 5:05 PM

#### CS01 – C4 Network Management

Date: Tuesday, October 18, 2005

Time: 9:30AM – 11:35AM

Room: OFF-SITE ROOMS 113, 115 AND 131

Session Chair: Richard Lo, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)

Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)

Current Classification: US ONLY

#### *ISR Communications Requirements*

Rosie Bauer & Thomas Rittenbach  
US Army CERDEC, Space & Terrestrial Communications Directorate  
Daniel Hampel  
Booz Allen Hamilton

#### *Opportunistic Airborne Relay for MANET*

Joseph Suprenant, Robert Husnay, CPT Mark Saeger & LT Robert Patton  
AFRL, Information Directorate

#### *An Anti Tamper Design Method Using a Matrix Approach*

Charles Henter  
L-3 Communications

#### *Hierarchical Network Management for Tactical Environments*

Hesham El-Damhougy, Homayoun Yousefizadeh, David Lofquist, Ronald Sackman & Jerry Crowley  
The Boeing Co.

#### *Electronic Key Management System*

Edward Kierman  
US Army CERDEC, Software Engineering Directorate

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### **CS03 – Wireless Communication**

**Date: Tuesday, October 18, 2005**

**Time: 9:30AM – 11:35AM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Dominic Satili, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Current Classification: US ONLY**

*Performance and Security comparison of SecNet11 and 802.11b Wireless Technologies*

David Rohret

Joint Information Operations Center (JIOC) Information Warfare Analysis Division

*Improving Network Performance Using Multi-Criteria Routing for Mobile Ad-Hoc Networks*

Amit Patel

ITT Industries, Aerospace & Communications Division

*Network Modeling of a Multithreaded Information Management System - Information Management, Simulation, Ad Hoc Wireless - Concurrent Processes, Event-Driven Simulation, Middleware*

Benjamin Epstein

Op Coast

Dana Carberry & Kawaldeep Chadha

General Dynamics

*SRW Implementation for the NLOS-LS Domain*

KB Patel

ITT Industries, Aerospace & Communications Division

*Tactical Combat Connectivity System (TCCS)*

Thomas Seay

DIBRITOM Corporation

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### **CS04 – Electronic Warfare - SIGINT**

**Date: Tuesday, October 18, 2005**

**Time: 3:00PM - 5:05PM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Adam Bogner, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Current Classification: US ONLY**

*Future Technology Challenges*

David Potter

US Army CERDEC, Intelligence & Information Warfare Directorate

*A wave effect enabling monostatic passive radar, incoherent aperture synthesis, and immunity to jamming and interference*

V. Guruprasad

Inspired Research

*Performance Analysis and Statistical Tests of a COTS Automated Modulation Classifier for Military Electronic Warfare Systems*

Dr. Wei Su

US Army CERDEC, Intelligence & Information Warfare Directorate

*New Techniques for Interpreting and Collecting V/UHF Voice Communications*

Jerry Stone

Agilent Technologies, Inc.

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## **CS05 – IED Technologies and Countermeasures**

**Date: Tuesday, October 18, 2005**

**Time: 3:00PM - 5:05PM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Elham Salari, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Current Classification: US ONLY**

*Detection of IEDs/Mines using Forward-Looking Ground Penetrating Radar and Infrared*

Kelly Sherbondy

US Army CERDEC, Night Vision & electronic Sensors Directorate

*Optimized Jamming Techniques for Common Communication*

Eric Lentz

Syracuse Research Corp

Elham Salari

US Army CERDEC, Intelligence & Information Warfare Directorate

*Detection Techniques to Support Current Operations*

Dr. Robert Pastore, Moses Mingle & Kevin Boyle  
US Army CERDEC, Intelligence & Information Warfare Directorate

*Neutralization Techniques to Support Current Operations.*

Dr. Robert Pastore, Moses Mingle & Kevin Boyle  
US Army CERDEC, Intelligence & Information Warfare Directorate

*I2WD IED Characterization*

Bing Mak & Greg Kubiak  
US Army CERDEC, Intelligence & Information Warfare Directorate

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**CS06 – Information Operations/Electronic Attack**

**Date: Tuesday, October 18, 2005**

**Time: Time: 3:00PM - 5:05PM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Giorgio Bertoli, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

*Networked Sensors for the Future Force (NSFF) Advanced Technology Demonstration – Preliminary Results from Technical Testing and User Evaluation*

Mr. Gene Klager  
CERDEC Night Vision & Electronic Sensors Directorate

*Networked Sensors for the Future Force (NSFF) Advanced Technology Demonstration (ATD) Communications System*

Mr. Jay Nemeroff  
US Army CERDEC, Space & Terrestrial Communications Directorate

*Communications Electronic Warfare Network Analyzer (CEWNA)*

Dr. Patrick Honan  
Digital Design Solutions

*CEC Enabled ARSR-4 Surveillance Network Capability*

Robert T. Healy, JR  
Raytheon

*Multimode Electronic Attach Mission*

Mr. Paul Zablocky & Jon Smolensk  
Booze Allen Hamilton & US Army CERDEC, Intelligence & Information Warfare Directorate

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## **CS07 – MILSATCOM**

**Date: Wednesday, October 19, 2005**

**Time: 9:30AM – 11:35AM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Carl Swenseon, US Army Communications Electronics Research, Development & Engineering Center (CERDEC).**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC).**

*Downlink Acquisition for COTM Terminals*

Navid Yazdani

Raytheon

*Uplink Acquisition and Tracking Performance for a Communications On-The-Move (COTM) AEHF Satellite Terminal*

Steven DeLisle, Andrea Malo & George Vachula

Raytheon

*Warfighter SATCOM Utilization Beyond 2010 (Analysis of SATCOM for Future Forces)*

Michael R. Moore

Oak Ridge National labs

*Digital RF Linearizer for Improved Broadband Multi-Carrier Power Amplifiers*

Richard Hitt & Adam Gerner

Hypress Inc & US Army CERDEC, Space & Terrestrial Communications

Directorate

*Multi-Vehicle Blockage Mitigation Techniques for On-The-Move Satellite Communications*

Jack Wong, Steven Lescriner, Gerald Michael

US Army CERDEC, Space & Terrestrial Communications Directorate

Thomas Hammel & Mark Rich

Fantastic Data

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## **CS08 – Modeling, Simulation and Connectivity**

**Date: Wednesday, October 19, 2005**

**Time: 9:30AM – 11:35AM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Monica Farah-Stapleton, US Army Communications Electronics Research, Development & Engineering Center (CERDEC).**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC).**

*Representation of Information Dissemination and Implications to Connectivity*

Russell Langan

US Army CERDEC

*3ID Analyses Observations*

Kristen Giammarco  
US Army CERDEC

*Tactical Data Collection for Network of Network Representations in M&S Analyses*

Erica Lindy & Saurabh Date  
MITRE & OPNET

*Modeling of the SLICE NLOS-LS Radio Network*

Y. J. Liu  
ITT Aerospace & Communications

*Operational/Technical Network Requirements and M&S-Perfect Together*

Dilip Kumar  
The Boeing Co.

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**CS09 – Transformation in Communications Systems**

**Date: Wednesday, October 19, 2005**

**Time: 9:30AM – 11:35AM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Thomas Rittenbach, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Current Classification: US ONLY**

*Uplink Time Tracking for TSAT*

Nancy List  
Lincoln Labs

*Evolutionary Implementation of Transformational Communications for Warfighters*

Norman Jones  
DISA

*Powering the Dismounted Soldier in OIF/OEF*

Steve Slane  
US Army CERDEC, Command and Control Directorate

*Using Ontologies to Formalize Warfighter Data Exchange*

Judy Pinsky & Mike McMahon  
US Army CE-LCMC, Software Engineering Center & CACI

*Above 2GHz Waveform Portability - Architectural Considerations*

George Vachula  
Raytheon

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## **CS10 – Antennas and Platforms**

**Date: Wednesday, October 19, 2005**

**Time: 3:00PM - 5:05PM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Dr. Mahbub Hoque, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Current Classification: US ONLY**

*Multi-Rate Signal Processing that enables Smart Antenna, Multi-Channel Communication, Wideband Intelligence Gathering and Data Compression Systems*  
Rich Crowley & Karl Hinman  
Raytheon

*Co-site Interference Test for Multiple Antennas Placement on the Aviation Platforms*  
Brandon Underwood, Anthony Savino, Frank Cansler & Joseph Welch  
US Army CERDEC, Space & Terrestrial Communications Directorate

*Tunable Antenna Study for Army Airborne Platforms*  
Anthony Savino & Brandon Underwood  
US Army CERDEC, Space & Terrestrial Communications Directorate

*Antenna Optimization Analysis for SLAM RAAM Platform*  
Daniel Duvak & Waliul Mizan  
US Army CERDEC, Space & Terrestrial Communications Directorate

*Antenna Placement Study for Stryker TACP Platform*  
Jeff Hoppe & Waliul Mizan  
US Army CERDEC, Space & Terrestrial Communications Directorate

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## **CS11 – Data Networks and Protocols**

**Date: Wednesday, October 19, 2005**

**Time: 3:00PM - 5:05PM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Bob Both, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Current Classification: US ONLY**

*JTRS Mobility in Tactical Military Environments*

Eric Fleischman  
The Boeing Co.

*Bandwidth Centric Engineering*

Jeff Keehn, Gerry Michael, Seth Spoenlein & Aristides Staikos  
US Army CERDEC, Space and Terrestrial Communications Directorate

*Above 2GHz Communications System Modular Architecture Development Methodology*

John Pehowich, David Henduy & George Vachula  
Raytheon

*TCP over AEHF*

Navid Yazdani & Johan Kullstan  
Raytheon

*Radio Service Applications in SWAP Constrained Environment*

Annamarie Miller, Byron Tarver and Mike LaMacchia  
General Dynamics C4 Systems

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## **CS12 – Communication Propagation**

**Date: Wednesday, October 19, 2005**

**Time: 3:00PM - 5:05PM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Walt Lucchesi, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC).**

**Current Classification: US ONLY**

*Designing Portable Radio Software*

Darryn Johnnie  
Raytheon

*Wideband Communications On-The-Move: Theory and Practice*

David Cooper, George Horihan & Gary Lomp  
BAE Systems

*Applying Improved Taguchi Optimization to NLOS*

Y. J. Liu & Chris Li  
ITT, Aerospace and Communications Division

*The High-Band Networking Waveform: A Directional Ad Hoc Networking Waveform for Battle-Command-On-The-Move in WIN-T and Other Battle-Space Networks*

Keith Olds  
Harris Corp.

*Compact Millimeter Wave Power Modules for High Data Rate Communications*

Carter Armstrong, Richard Vaughan, Tom Schoemehl, Jim Taylor, John Kennedy, Ray Watkins, R. True & D. Whaley

**CS13 – Communications Vulnerability**

**Date: Thursday, October 20, 2005**

**Time: 9:30AM – 11:35AM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Lou Rodriguez, General Dynamics, C4S**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Current Classification: US ONLY**

*Social Engineering the Network Security Analyst: An Advanced Study in Intrusion Detection System Evasion*

Dr. Richard A. Raines, David J Chaboya, Rusty O. Baldwin & Barry E Mullins  
Air Force Institute of Technology

*The Heart of the Black Core and the Vulnerabilities of the GIG/JTRS/TSAT*

Erik Mettala  
Sparta

*A Decision Support System (DSS) Based Methodology to Support the Engineering of a Network Centric Architectural Solution*

Walter Lucchesi  
US Army CERDEC, Space & Terrestrial Communications Directorate

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**CS14 – Information Assurance/Information Security**

**Date: Thursday, October 20, 2005**

**Time: 9:30AM – 11:35AM**

**Room: OFF-SITE ROOMS 113, 115 AND 131**

**Session Chair: Kevin Oakes, US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Sponsored by: US Army Communications Electronics Research, Development & Engineering Center (CERDEC)**

**Current Classification: US ONLY**

*GECKA – A Distributed Group Key Agreement Protocol*

Steve Lucas & Benjamin Yau  
US Army CERDEC, Space & Terrestrial Communications Directorate  
Frank Geck, Kathleen McFarland, Robert Serenelli & Mike Straw  
Key Way Security

*Information Sharing Across Domains with Different Security Levels*

George Barrett  
JHU-APL  
Loring Hosley & Jonathan Santos  
US Army CERDEC, Space & Terrestrial Communications Directorate  
Kathleen McFarland  
Key Way Security

*Army Battle Command Systems (ABCS) Security Testing : A Systems - of - Systems Approach*  
Sam Nitzberg & John Skrletts  
NetCentric Technologies, Inc.

*Crypto Modernization: Issues and Impact to INFOSEC System Designers*  
Mike Kleidermacher  
L-3 Communications

*A Cooperative Intrusion Detection Architecture for MANET*  
Kashif Brown & Steve Lucas  
US Army CERDEC, Space & Terrestrial Communications Directorate  
Greg Cirincaione - ARL  
Dan Sterne - Sparta  
Petros Mouchtaris - Telecordia