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
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

CS04 – Electronic Warfare - SIGINT

Date: Tuesday, October 18, 2005
Time: 3:00PM - 5:05PM
Room: OFF-SITE ROOMS 113, 115 AND 131
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.

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

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 (NSIFF) 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
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

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
3D 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.

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 CE-LCMC, 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
**CS10 – Antennas and Platforms**

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

**CS11 – Data Networks and Protocols**

**Date:** Wednesday, October 19, 2005  
**Time:** 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*
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
CS13 – Communications Vulnerability

Date: Thursday, October 20, 2005
Time: 9:30AM – 11:35AM
Room: OFF-SITE ROOMS 113, 115 AND 131

Session Chair: Lou Rodriquez, 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

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
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