

Human Factors Issues in Combat Identification

Gold Canyon Golf Resort & Conference Center

Tuesday, May 13, 2008 – Upper Towne Hall Meeting Space

7:15 am to 8:00 am

Workshop Check in & AM Beverage Service

8:00 am to 9:00 am

Opening Comments: **Dr. Dee Andrews**, Air Force Research Laboratory

Key Note Address: **Dr. Dee Andrews**

Authors: Dr. Frank Greitzer, Pacific Northwest Laboratories; **Dr. Dee Andrews**
Title: Training Strategies to Mitigate Expectancy Induced Response Bias in Combat Identification: A Research Strategy

Response Selection & Bias Expectancy

9:00 am to 9:30 am

Authors: **Dr. Robert Proctor** and Motonori Yamaguchi – Purdue University
Title: Factors Affecting Speed and Accuracy of Response Selection in Operational Environments

9:30 am to 10:00 pm

Authors: **Dr. Mary Dzindolet**, Cameron University; Dr. Linda G. Pierce, Army Research Institute; Dr. Hal P. Beck, Appalachian State University
Title: An Examination of the Social, Cognitive, and Motivational Factors that Affect Automation Reliance Decisions

10:00 am to 10:30 am

Break

Decision Making

10:30 am to 11:00 am

Authors: **Dr. Verlin Hinsz** and Dana Wallace – North Dakota State University
Title: Comparing Individual and Team Judgment Accuracy for Target Identification Under Heavy Cognitive Demand

11:00 am – 11:30 am

Authors: **Lt. Col. Robert Herz** and Dr. Robert Nullmeyer – AFRL-Warfighter Readiness Research Division, 711th Human Performance Wing
Title: Human Error in Predator UAV Mishaps

11:30 am – 12:00 pm

Author: **Dr. John Barnett**, US Army Research Institute for Behavioral & Social Sciences
Title: The Case for Active Fratricide Avoidance in Net-Centric C2 Systems

12:00 pm to 1:15 pm

Lunch will be served on the Towne Hall Patio.

Automation

1:15 pm to 1:45 pm

Authors: **Dr. Greg Jamieson**, Heather Neyedli and Lu Wang - University of Toronto; Justin Hollands, Defence Research & Development Canada
Title: Evaluating Reliance on Combat Identification Systems – The Role of Reliability Feedback

1:45 pm to 2:15 pm

Authors: Dr. Stephen Rice, **Krisstal Clayton**, Amy Wells, David Keller – New Mexico State University
Title: Manipulating Trust Behaviors in a Combat Identification Task

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Tuesday, May 13, 2008 *(continued)*

Visual Discrimination

2:15 pm to 2:45 pm

Authors: **Dr. Vincent Billock**, General Dynamics, Inc.; Dr. Douglas Cunningham, University of Tubingen-Tubingen, Germany; and Dr. Brian Tsou, Air Force Research Lab
Title: What Visual Discrimination of Fractal Textures Can Tell Us About Discrimination of Camouflaged Targets

2:45 pm to 3:15 pm

Break

Visual Discrimination *(continued)*

3:15 pm to 3:45 pm

Authors: **Dr. Cleotilde Gonzalez**, Carnegie Mellon University; R. Thomas, University of Oklahoma; P. Madhavan, Old Dominion University
Title: The Effects of Stimulus and Response Mappings on Identification Performance in Complex Environments

3:45 pm to 4:15 pm

Author: **Dr. David Hall**, The Pennsylvania State University – College of Information Sciences and Technology
Title: The Use of Soft Sensors and I-Space for Improved Combat Identification

Overarching Human Factors Issues

4:15 pm to 4:45 pm

Authors: **Dr. Wayne Shebilske**, Wright State University; G. Levchuk and J. Freeman - Aptima, Inc.
Title: Team Training Paradigm for Better Combat Identification

1st Day Summary

4:45 pm to 5:30 pm

Discussant Leader: **Dr. William Howell**, Arizona State University
Closing Comments: **Dr. Dee Andrews**, Air Force Research Laboratory

Human Factors Issues in Combat Identification

Wednesday, May 14, 2008 – Upper Towne Hall Meeting Space

7:30 am to 8:00 am	Workshop Check in; AM Beverage Service
8:00 am to 8:10 am	Opening Comments: Dr. Dee Andrews
Overarching Human Factors Issues <i>(continued)</i>	
8:10 am to 8:40 am	Authors: Julie Gadsden , UK Defence Science & Technology Laboratory; M. Dixon, Canadian Forces Experimentation Centre; D. Krause, Defence Science & Technology Organization-Australia; L. Lewis, US Joint Forces Command Title: The Human Factors in Combat Identification – an International Research Perspective
8:40 am to 9:10 am	Author: Dr. Beejal Mistry, UK Defence Science & Technology Laboratory presented by: Julie Gadsden Title: Hierarchical Task Analysis of Synthetic Environment-based Close Air Support Missions
Situational Awareness	
9:10 am to 9:40 am	Author: Scott Summers , Raytheon Solipsys Corp. Title: Preattentive Attributes in Visualization Design: Enhancing Combat Identification.
9:40 am to 10:10 am	Authors: Dr. Clark Shingledecker, Dr. David Weldon , K. Behymer, B. Simpkins, and E. Lerner - JXT Applications; Dr. J. Warm, Dr. G. Matthews, V. Finomore, and T. Shaw - University of Cincinnati; Dr. J. Murphy, US Army Research Institute Title: Measuring Vigilance Abilities to Enhance Combat Identification Performance
10:10 am to 10:30 am	Break
Situational Awareness <i>(continued)</i>	
10:30 am to 11:00 am	Authors: Dr. Jerzy Jarmasz , Defence Research and Development Canada; R. Zobarich, L. Bruyn-Martin, and T. Lamoureux - HumanSystems, Inc. Title: Team Cognition During a Simulated Close Air Support Exercise: Results from a New Behavioral Rating Instrument
11:00 am to 11:30 am	Authors: Dr. Cheryl Bolstad , Mica Endlsey, Haydee Cuevas - SA Technologies, Inc. Title: Team Coordination and Shared Situation Awareness in Combat Identification
11:30 am to 1:00 pm	Lunch will be served on the Towne Hall Patio.
Panel Session	Topic: Blue Force Tracker
1:00 pm to 3:00 pm	Panelists: Major Bill Meredith, MC3 Instructor, US Army Armor Center- Ft. Knox, KY Captain Scott "Lucky" Johnson, 62 Fighter Squadron Luke AFB

Human Factors Issues in Combat Identification & Human Factors Issues in Imagery Analysis using UAV's Joint Workshop Events

Gold Canyon Golf Resort & Conference Center

Wednesday, May 14th 2008 – Resort Pavilion

Interactive Poster-Demo Session

3:00 pm to 5:30 pm

*Resort Pavilion –
Light refreshments served and
cash bar available.*

Both topics will be represented in Poster and Demonstration form during this time.

Human Factors Issues in Combat Identification

Presenter: Krisstal Clayton, NMSU, **Using State Trace Analyses to Measure Effects of Automation Errors on Cognitive Processes**

Human Factors Issues in Imagery Analysis using UAV's

Presenters: Doug Limbaugh and Jeff Getzlaff - Kutta Technologies
Title: **Bi-Directional Remote Video Transceiver (BDRVT), Unified Ground Control Station (UGCS), Network-Centric Distributed UAV Access System**

Presenters: Dr. Bill Marshak and Dominic Bartek - Sytronics, Inc.
Title: **Retrofitting Mission Essential Supplemental Information into Existing Ground Control Stations**

Presenter: Dr. Ericka Rovira, US Military Academy
Title: **The Development of A Decision Support Tool to Dynamically Re-task Intelligence Surveillance and Reconnaissance Assets**

Presenter: Jay Shively, US Army/ARMDEC
Title: **Playbook® Control of Multiple UAS in a Coordinated Target Engagement"**

Event Dinner

6:00 pm to 8:00 pm

Please join us for an Event Dinner (with cash bar) which will be served on the pavilion of The Gold Canyon Golf Resort.
A pre-purchased Dinner Ticket is required.

Human Factors Issues in Imagery Analysis using Unmanned Aerial Vehicles

Gold Canyon Golf Resort & Conference Center

Thursday, May 15, 2008 – Upper Towne Hall Meeting Space

7:15 am to 8:00 am	Workshop Check in; AM Beverage Service
8:00 am to 8:10 am	Opening Comments: Dr. Nancy Cooke , Arizona State University and Cognitive Engineering Research Institute
Human Imagery Analysis Performance	
8:10 am to 8:35 am	Presenter: Bill Evans , University of Central Florida Title: The Effects of Motion on ROV Target Identification Tasks
8:35 am to 9:00 am	Presenter: Michael Curtis , University of Central Florida Title: Usability of Image Generation Platforms to Produce Oblique Viewpoints
9:00 am to 9:25 am	Presenter: Thomas Fincannon , University of Central Florida Title: Constructs of Spatial Ability and Their Influence on Performance with Unmanned Systems
9:25 am to 9:50 am	Presenter: Joseph Keebler , University of Central Florida Title: A Cognitive Basis for Combat Misidentification
9:50 am to 10:20 am	Break
Technology for Improving Human Imagery Analysis Performance	
10:20 am to 10:45 am	Presenter: Patricia McDermott , Alion Science and Technology Title: To send or not to send: Does the transmission of unmanned vehicle imagery help or hinder Soldier performance?
10:45 am to 11:10 am	Presenter: Lamar Warfield , Air Force Research Laboratory Title: Multi-Video Inspection Performance: Results of 3 Preliminary UAV Studies
11:10 am to 11:35 am	Presenter: Dr. Ryan Kilgore , Charles River Analytics, Inc. Title: Determining the Impact of Haptic Peripheral Displays for UAV Operators
11:35 am to 12:00 pm	Presenter: Doug Limbaugh , Kutta Technologies Title: CONOPS for the Army's new Bi-Directional Remote Video Transceiver (BDRVT)
12:00 pm to 1:10 pm	Lunch will be served on the Towne Hall Patio.

