

# 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	<b>Workshop Check in &amp; AM Beverage Service</b>
8:00 am to 9:00 am	<p>Opening Comments: <b>Dr. Dee Andrews</b>, Air Force Research Laboratory</p> <p>Key Note Address: <b>Dr. Dee Andrews</b></p> <p>Authors: Dr. Frank Greitzer, Pacific Northwest Laboratories; <b>Dr. Dee Andrews</b>            Title: Training Strategies to Mitigate Expectancy Induced Response Bias in Combat Identification: A Research Strategy</p>
	<b>Response Selection &amp; Bias Expectancy</b>
9:00 am to 9:30 am	<p>Authors: <b>Dr. Robert Proctor</b> and Motonori Yamaguchi – Purdue University            Title: Factors Affecting Speed and Accuracy of Response Selection in Operational Environments</p>
9:30 am to 10:00 pm	<p>Authors: <b>Dr. Mary Dzindolet</b>, 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</p>
10:00 am to 10:30 am	Break
	<b>Decision Making</b>
10:30 am to 11:00 am	<p>Authors: <b>Dr. Verlin Hinsz</b> and Dana Wallace – North Dakota State University            Title: Comparing Individual and Team Judgment Accuracy for Target Identification Under Heavy Cognitive Demand</p>
11:00 am – 11:30 am	<p>Authors: <b>Lt. Col. Robert Herz</b> and Dr. Robert Nullmeyer – AFRL-Warfighter Readiness Research Division, 711<sup>th</sup> Human Performance Wing            Title: Human Error in Predator UAV Mishaps</p>
11:30 am – 12:00 pm	<p>Author: <b>Dr. John Barnett</b>, US Army Research Institute for Behavioral &amp; Social Sciences            Title: The Case for Active Fratricide Avoidance in Net-Centric C2 Systems</p>
12:00 pm to 1:15 pm	Lunch will be served on the Towne Hall Patio.
	<b>Automation</b>
1:15 pm to 1:45 pm	<p>Authors: <b>Dr. Greg Jamieson</b>, Heather Neyedli and Lu Wang - University of Toronto; Justin Hollands, Defence Research &amp; Development Canada            Title: Evaluating Reliance on Combat Identification Systems – The Role of Reliability Feedback</p>
1:45 pm to 2:15 pm	<p>Authors: Dr. Stephen Rice, <b>Kristal Clayton</b>, Amy Wells, David Keller – New Mexico State University            Title: Manipulating Trust Behaviors in a Combat Identification Task</p>

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**Tuesday, May 13, 2008** *(continued)*

<b>Visual Discrimination</b>	
2:15 pm to 2:45 pm	Authors: <b>Dr. Vincent Billock</b> , 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
<b>Visual Discrimination</b> <i>(continued)</i>	
3:15 pm to 3:45 pm	Authors: <b>Dr. Cleotilde Gonzalez</b> , 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: <b>Dr. David Hall</b> , The Pennsylvania State University – College of Information Sciences and Technology Title: The Use of Soft Sensors and I-Space for Improved Combat Identification
<b>Overarching Human Factors Issues</b>	
4:15 pm to 4:45 pm	Authors: <b>Dr. Wayne Shebilske</b> , Wright State University; G. Levchuk and J. Freeman - Aptima, Inc. Title: Team Training Paradigm for Better Combat Identification
<b>1<sup>st</sup> Day Summary</b>	
4:45 pm to 5:30 pm	Discussant Leader: <b>Dr. William Howell</b> , Arizona State University Closing Comments: <b>Dr. Dee Andrews</b> , 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: <b>Dr. Dee Andrews</b>
8:10 am to 8:40 am	<b>Overarching Human Factors Issues</b> <i>(continued)</i>  Authors: <b>Julie Gadsden</b> , 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: <b>Julie Gadsden</b> Title: Hierarchical Task Analysis of Synthetic Environment-based Close Air Support Missions
9:10 am to 9:40 am	<b>Situational Awareness</b>  Author: <b>Scott Summers</b> , Raytheon Solipsys Corp. Title: Preattentive Attributes in Visualization Design: Enhancing Combat Identification.
9:40 am to 10:10 am	Authors: Dr. Clark Shingledecker, <b>Dr. David Weldon</b> , 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
10:30 am to 11:00 am	<b>Situational Awareness</b> <i>(continued)</i>  Authors: <b>Dr. Jerzy Jarmasz</b> , 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: <b>Dr. Cheryl Bolstad</b> , 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.
<b>Panel Session</b>	Topic: <b>Blue Force Tracker</b>
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 14<sup>th</sup> 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.*