

2007 Netted Sensors Community Workshop



May 3-4

MITRE
McLean, VA

Welcome

2007 Netted Sensors Community Workshop

Mr. Bruce Johnson
The MITRE Corporation

MITRE



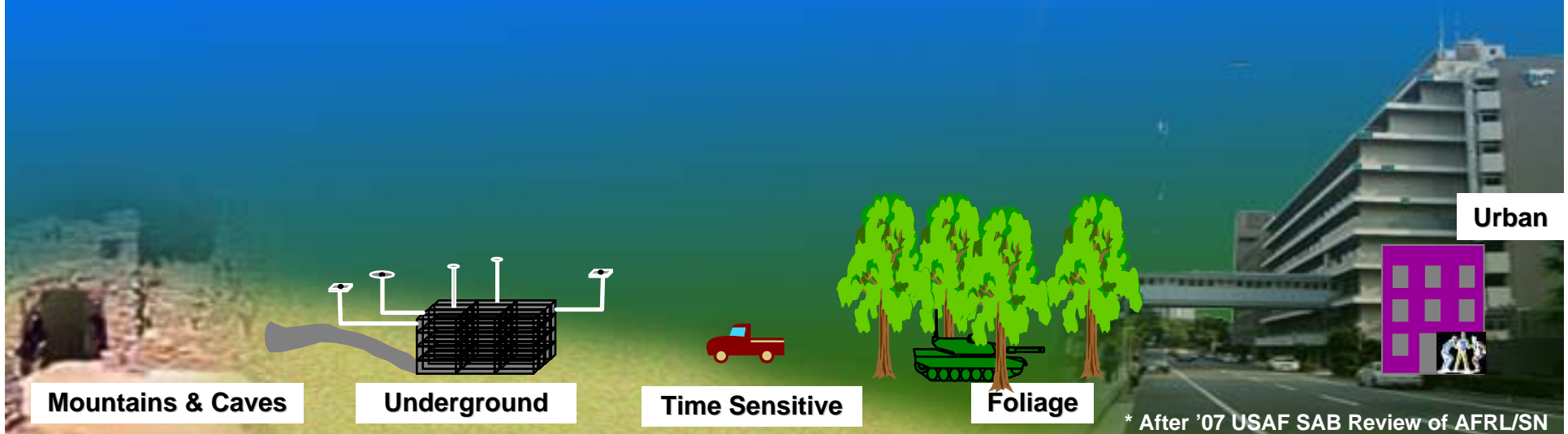
Evolving ISR Mission *Stressing Targets*

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*Vision: Proactively Find, Fix, Track, ID and Target
Anything, Anytime, Anywhere**



* After '07 USAF SAB Review of AFRL/SN

Evolving ISR Mission

Layered Netted Sensing

2007 Netted Sensors
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Global Access
Synoptic Sensing

Regional
Persistent Surveillance

Focused AOI
Continuous Surveillance

NTISR

Small UAV

Micro UAV

UGS

Micro UAV

Tags

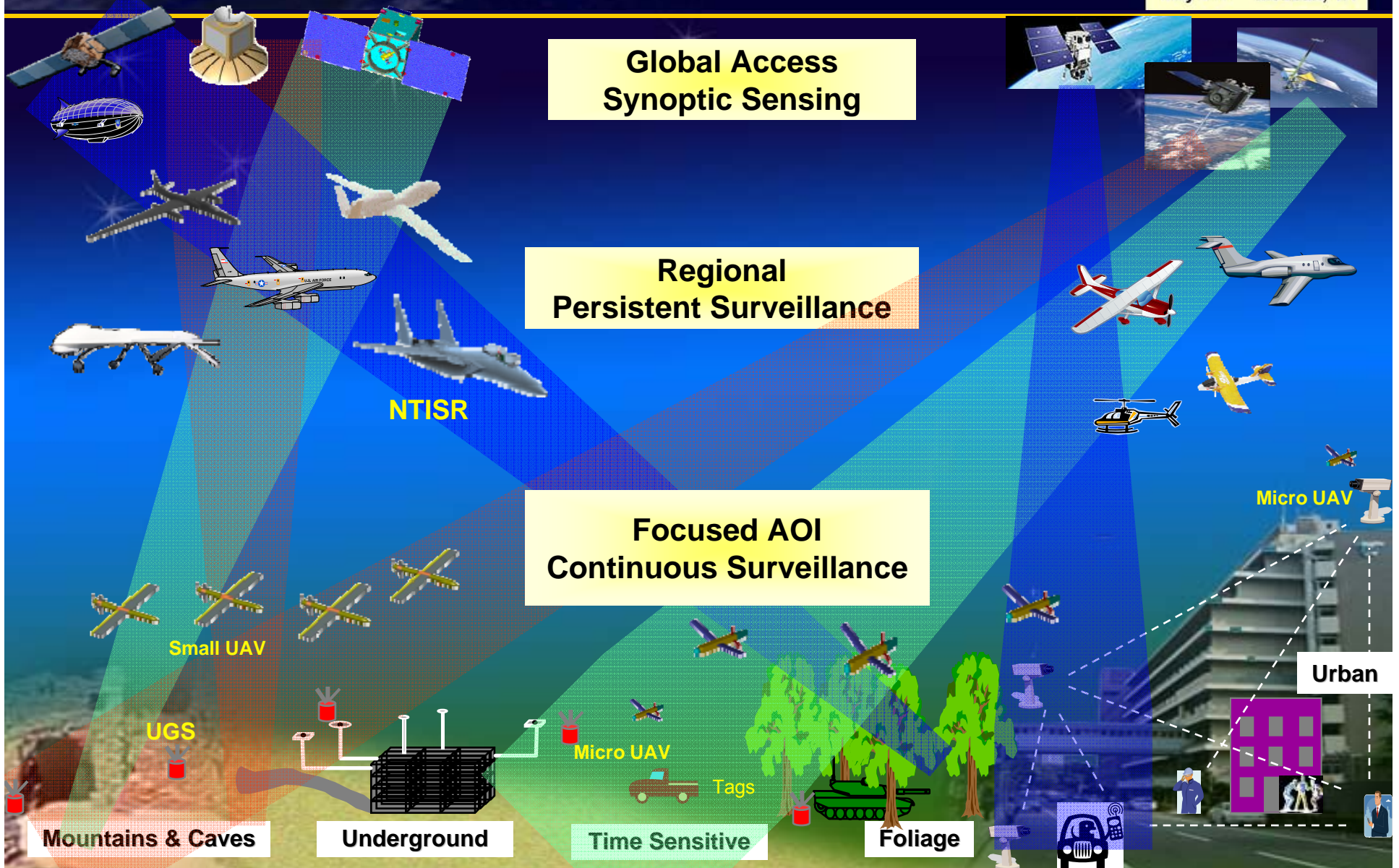
Mountains & Caves

Underground

Time Sensitive

Foliage

Urban



Layered Netted Sensing

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- **We know we want:**
 - Integration of legacy MIL and IC systems
 - “Plug and Play” with commercial systems and technologies
 - Rapid insertion of new capabilities
 - Multi-phenomenology, multi-aspect sensing with multi-source fusion to provide classification and identification
 - Enterprise-wide perception sharpening, weeding out redundant, confused, and deceptive information
 - Robustness against explicit enemy attempts to disrupt our sensor networks and provide misinformation

- **Enabling layered net-centric sensing requires an *Enterprise System Engineering* approach**
 - There is no specific step-by-step roadmap to follow, rather we must guide the evolution

2007 Workshop Focus

2007 Netted Sensors
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The 2007 Netted Sensors Community Workshop is focused on Expeditionary ISR (EISR) capabilities to provide the tactical unit leader with tools to counter stressing asymmetric and irregular threats in expeditionary engagements

May 3rd Agenda

Morning

2007 Netted Sensors
Community Workshop



May 3-4 McLean, VA

- 0730 Registration, Poster Exhibits, and Continental Breakfast**
(MITRE 1 South Lobby, MITRE 1 Atrium)
- 0830 Welcome, Logistics, and Introduction**
Mr. Bruce Johnson MITRE
- 0845 Recap of 2006 Identifying Humans at a Distance Workshop**
Mr. Paul Morgan USSOCOM
- 0915 Keynote Address**
Workshop Focus – Expeditionary ISR Dr. Mark Davis DARPA
- 1015 Break and Poster Exhibits (MITRE 1 Atrium)**
- 1045 Topic Area 1 – New Netted Sensor Programs**
- 1045 – 1120 Large Tactical Sensor Network (LTSN) Ms. Suzanne Logan ONR (MITRE)
- 1120 – 1130 Discussion Session
- 1130 Lunch Break**
Lunch (1H-300, MITRE 1 Auditorium)
Poster Exhibits (MITRE 1 Atrium)
MITRE Technology Symposium Tours (MTP Tents)

May 3rd Agenda

Afternoon & Evening

2007 Netted Sensors
Community Workshop



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1300 Topic Area 2 – Netted Sensor Systems

1300 – 1335 Portable Sentry

Dr. Thomas Strat SET Corporation

Dr. Qinfen Zheng

1335 – 1410 FCS UGS

Mr. Dean Risseeuw Textron Defense Systems

1410 – 1445 Netted Sensors for
Situational Awareness

Mr. Hung Nguyen Sandia National Laboratory

Dr. Mark Yee

Dr. K. Terry Stalker

1445 – 1500 Discussion Session

1500 Break and Poster Exhibits (MITRE 1 Atrium)

1530 Topic Area 3 – Communications, Networking, and Security

1530 – 1605 Secure Information Sharing

Dr. Alexander Roberston Northrop Grumman

Mr. George Hartshorne CloudShield Technologies

1605 – 1640 Applications of Wireless
Mesh Networks

Mr. Gerry Nadler MachineTalker

1640 – 1715 Network Considerations
for UGS

Mr. John Finklea Crane Aerospace &

Dr. Lee McFearin Electronics

1715 – 1730 Discussion Session

1730 Cocktail Reception and Poster Exhibits (MTP Tents)

1830 Dinner and Keynote Speaker (MTP Tents)

Netted Sensors, from OIF to Network Centric Warfare

Dr. / COL(R) Michael Bowman

Murray State University

2000 Adjourn

Poster Presentations

1 of 2

2007 Netted Sensors
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Localization and Intensity Tracking
of a Diffusing Point Source Using
a Sensor Network

Dr. Venugopal Veeravalli

University of Illinois at
Urbana-Champaign

Real-Time Micro Air Vehicle
Video Stabilization

Dr. Reuven Meth
Dr. Yang Ran
Dr. Thomas Strat

SET Corporation

RFID Reliability Technique for
Single Tag Interrogation

Dr. Weilian Su
Ms. Ling Siew Ng
Dr. Tri T. Ha

Naval Postgraduate
School

Poster Presentations

2 of 2

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Standards Harmonization
for Sensor Information Flow

Dr. William Healy
Dr. Kang Lee
Dr. Steven Fick
Dr. Albert Jones
Dr. Eugene Song

National Institute of
Standards and
Technology

Project Sun Small Programmable
Object Technology (Sun SPOTs)

Dr. Dennis McLain

Sun Microsystems
Laboratories

Sensor and Geospatial Semantic
Web for Border Patrol and Crime
Analysis

Mr. Alam Ashraful
Dr. Latifur Khan
Mr. Ganesh Subbiah
Dr. Bhavani Thuraisingham
Dr. Shashi Shekhar

University of Texas
at Dallas

University of Minnesota

Logistics

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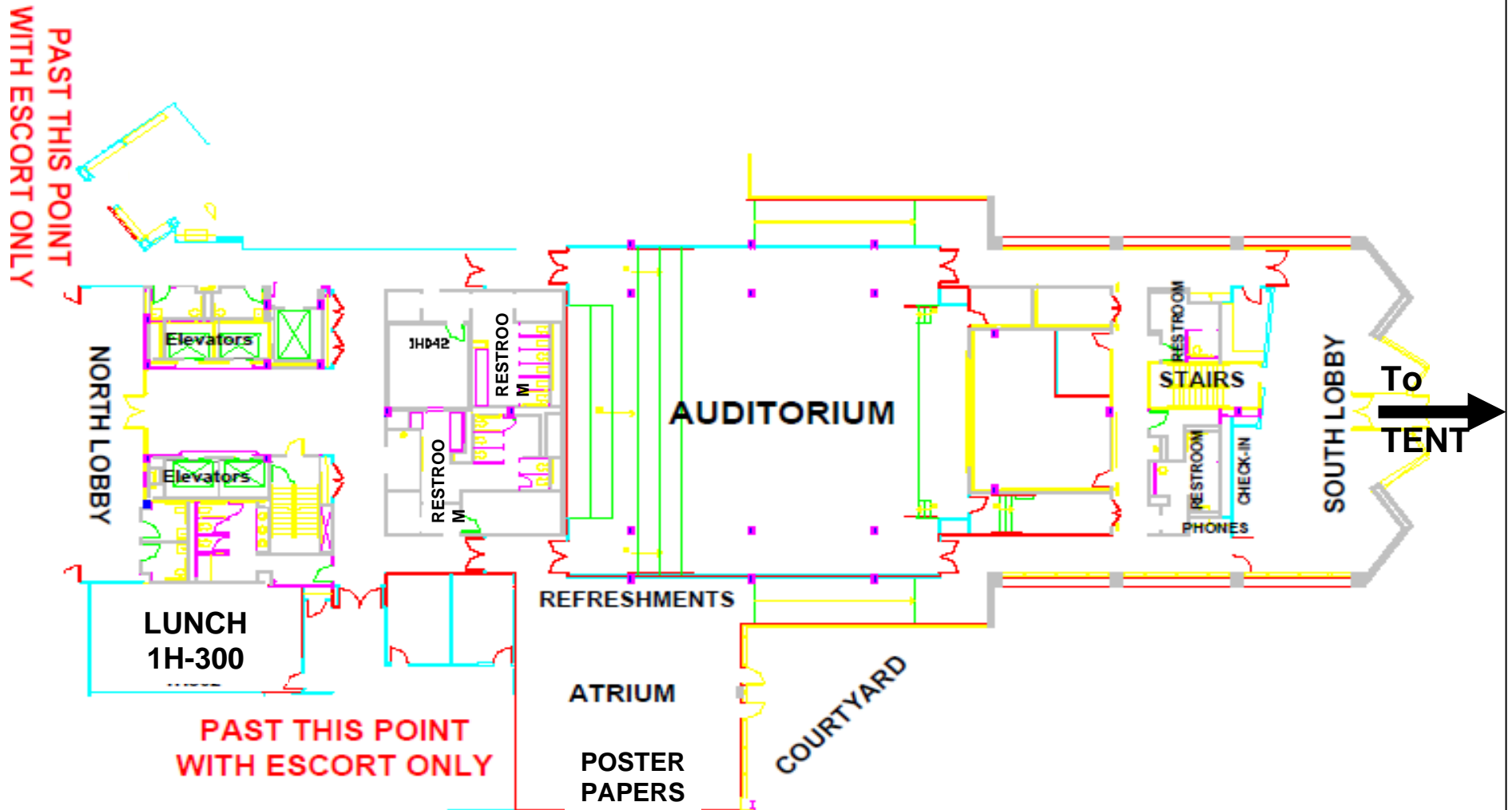
- **Today's session of the Workshop is unclassified**
 - MITRE is a secure facility - Workshop attendees are not permitted beyond the marked boundary without an escort (see map)
 - MITRE is a non smoking facility
- **Phones are located in South Lobby, rest rooms are located in front and back of the Auditorium (see map)**
- **Phone numbers for messages are 703-983-6361 or 703-983-6362**
- **Poster papers will be in the Atrium (see map)**
- **Refreshments will be served in the Atrium (see map)**
- **Lunch will be served in 1H-300 (see map)**
- **Cocktail Reception and Dinner will be in the tent in the parking lot**
 - Need to go through the South Lobby to get to the tent
- **There will be signs to MITRE 3 for those attending the classified session tomorrow**
- **Badges will need to be turned into security at the end of the day**

Floor Plan Map

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