

AT THE HEART  
OF THE MISSION

**NDIA**



# 2019 **ROBOTICS** CAPABILITIES CONFERENCE & EXHIBITION

Multi-Domain Operational Robotics

April 24 – 25 | Columbus, GA | [NDIA.org/Robotics](https://ndia.org/Robotics)

# AGENDA

## TUESDAY, APRIL 23

12:00 – 5:00 pm

### REGISTRATION

SOUTH HALL LOBBY

6:00 – 9:00 pm

### WELCOME RECEPTION

Hosted by NAMC

COCA-COLA SPACE SCIENCE CENTER

## WEDNESDAY, APRIL 24

7:00 am – 6:30 pm

### REGISTRATION

SOUTH HALL LOBBY

7:00 – 8:00 am

### NETWORKING BREAKFAST

SOUTH HALL LOBBY

8:00 – 8:15 am

### OPENING REMARKS

CENTER HALL

**LTC Matt Dooley, USA (Ret)**

Chair, NDIA Robotics Division

**MG James Boozer, USA (Ret)**

Chief of Staff, NDIA

**MG Gary Brito, USA**

Commanding General, U.S. Army Maneuver Center of Excellence

8:15 – 9:00 am

### KEYNOTE: PREPARING FOR MULTI-DOMAIN OPERATIONS

CENTER HALL

**LTG Eric Wesley, USA**

Deputy Commanding General, Futures and Concepts Center, U.S. Army Futures Command

9:00 – 9:45 am

### KEYNOTE: HELPING INDUSTRY UNDERSTAND THE ARMY'S EFFORT TO TRANSFORM ACQUISITIONS

CENTER HALL

**Helen Greiner, SES**

Army HQE Robotics, Autonomous Systems and Artificial Intelligence, ASAALT

9:00 am – 6:30 pm

### EXHIBIT HALL OPEN

SOUTH HALL

9:45 – 10:15 am **PURSUING ROBOTIC AUTONOMY THROUGH TRANSFORMATION**  
CENTER HALL

**Paul Decker**  
Deputy Chief Roboticist  
U.S. Army Combat Capabilities Development Command, Ground Vehicle Systems Center

10:15 – 10:45 am **NETWORKING BREAK IN THE EXHIBIT HALL**  
SOUTH HALL

10:45 – 11:15 am **THREAT RAS OVERVIEW**  
CENTER HALL

Representatives from the Central Intelligence Agency

11:15 am – 12:15 pm **ADVANCING AUTONOMY: INDUSTRY PERSPECTIVE**  
CENTER HALL

**Ted Maciuba**  
Deputy Director, Robotics Requirements, Army Maneuver Center of Excellence  
*Moderator*

**Carl Conti**  
Spatial Integrated Systems (SIS)

**Jeff Schneider**  
Carnegie Mellon University

**Buck Tanner**  
Combat Vehicle Chief Engineer, BAE Systems

**Mack Traynor**  
Chief Executive Officer, Robotic Research

12:15 – 12:30 pm **AWARDS CEREMONY**  
CENTER HALL

12:30 – 1:30 pm **NETWORKING LUNCH IN THE EXHIBIT HALL**  
SOUTH HALL

1:30 – 2:30 pm **NEXT GENERATION COMBAT VEHICLE & ROBOTIC COMBAT VEHICLE UPDATES**  
CENTER HALL

**COL Warren Sponsler, USA**  
Next Generation Combat Vehicle Cross-Functional Team

**LTC Jon St. John, USA**  
Product Lead Robotic Combat Vehicle, PM NGCV, PEO GCS

**COL Kevin Vanyo, USA**  
CCDC Ground Vehicle Systems Center

- 2:30 – 3:15 pm**      **A CONSTELLATION OF MULTI-DOMAIN ROBOTIC CAPABILITIES**  
CENTER HALL  
**COL Thomas Nelson, USA**  
Director, Robotics Requirements, Army Maneuver Center of Excellence  
**LTC Jonathan Bodenhamer, USA**  
Product Manager, Applique and Large Unmanned Ground Systems, PM-FP
- 3:15 – 3:45 pm**      **NETWORKING BREAK IN EXHIBIT HALL**  
SOUTH HALL
- 3:45 – 4:45 pm**      **ROBOTICS UPDATES BY SERVICE**  
CENTER HALL  
**CAPT Christian Dunbar, USN**  
Naval Surface Warfare Center N9, Future Concepts and Innovation  
**Col Kevin Murray, USMC**  
Director, S&T and RCO, Marine Corps Warfighting Lab  
**Dr. Steven Turek**  
Head of Robotics, Manufacturing and Industrial Technologies, Air Force Research Lab
- 4:45 – 5:15 pm**      **ROBOTICS AND AUTONOMOUS SYSTEMS IN ARMY SUSTAINMENT**  
CENTER HALL  
**Fred Wehrli**  
Chief of Requirements Integration for Army Futures Command, Sustainment Capabilities Development and Integration Directorate
- 5:15 – 5:30 pm**      **WRAP-UP**  
CENTER HALL  
**LTC Matt Dooley, USA (Ret)**  
Chair, NDIA Robotics Division
- 5:30 – 7:00 pm**      **NETWORKING RECEPTION IN THE EXHIBIT HALL**  
SOUTH HALL

## THURSDAY, APRIL 25

- 7:00 am – 12:00 pm**      **REGISTRATION**  
SOUTH HALL LOBBY
- 7:00 – 8:00 am**      **NETWORKING BREAKFAST**  
SOUTH HALL LOBBY

9:00 am – 12:00 pm **EXHIBIT HALL OPEN**  
SOUTH HALL

## TECHNICAL SESSIONS

8:00 am – 12:00 pm	<b>TRACK I: ADVANCED AUTONOMY: OPERATIONAL AUTONOMOUS BEHAVIORS IN APPLICATION</b> CENTER HALL	<b>TRACK II: ROBOTICS IN APPLICATION AT THE TACTICAL LEVEL- PLATOON AND SQUAD</b> ROOM 211
8:00 – 8:25 am	<b>Advanced GNSS Positioning for Cooperative Adaptive Cruise Control (CACC) Truck Platooning</b> Patrick Smith Graduate Research Assistant, Auburn University	<b>GEDI Crazy Turtle- Stealth Performance Communication</b> Daniel Reyes Chief Executive Officer, Crazy Turtle Robotics
8:25 – 8:50 am	<b>Towards a Multi-Agent/Multi-Domain World Model</b> Mark Hinton Senior Systems Engineer, Johns Hopkins APL	<b>Organic Precision Strike Using Robustly Networked Loitering Munitions and Robotic ISR</b> Dr. Adam MacDonald Director Business Development, AeroVironment
8:50 – 9:15 am	<b>Unmanned System (UxS) and Engineering Precepts for Safe Autonomy</b> Michael Demmick OSD UxS Safety IPT, NAVSEA	<b>Autonomous Precision Landing of sUAS onto Moving Vehicles at Night</b> David Twining Chief Operating Officer, Planck Aerosystems, Inc
9:15 – 9:40 am	<b>Autonomy</b> Alberto Lacaze President, Lead Engineer, Robotic Research	<b>Modular Mission Payloads for Small Unmanned Ground Vehicles (SUGV)</b> Dr. Richard Pettegrew General Manager, IEC Infrared Systems
9:40 – 10:20 am	<b>NETWORKING BREAK IN THE EXHIBIT HALL</b> SOUTH HALL	
10:20 – 10:45 am	<b>Adapting NASA Mars Rover Autonomy to Army Vehicles for Intelligent Autonomous Control</b> Carl Conti Technical Director, Spatial Integrated Systems	<b>Scalability of Mobile Ad Hoc Networks</b> Nick Naioti Vice President, Business Development, Persistent Systems, LLC

10:45 – 11:10 am

### **BAE Systems Autonomous Robotics Abstract**

**Buck Tanner and Thomas McLoud**  
BAE Systems Land and Armaments L.P.

### **Towards Autonomous Robotic Manipulation**

**Amanda Sgroi**  
Principal Research Scientist, RE2 Robotics

11:10 – 11:35 am

### **Autonomous Topography Localization and Analysis System (ATLAS)**

**Javier Rodriguez**  
Aerospace Engineer, Air Force Research Lab (AFRL)

### **UAS Deployment of Micro UGV with Tactical Payloads**

**Mack Traynor**  
Chief Executive Officer, Recon Robotics

11:35 am – 12:00 pm

### **Modular Multi-Purpose Autonomy-Enabled Platforms**

**Kevin Mulrenin**  
Director, Pratt & Miller Engineering

### **AI for Maneuver: Artificially Intelligent Robots in the Last Mile of Combat**

**Brandon Tseng**  
Chief Operating Officer & Co-founder, Shield AI

12:00 pm

## **PROGRAM CONCLUDES**

The NDIA has a policy of strict compliance with federal and state antitrust laws. The antitrust laws prohibit competitors from engaging in actions that could result in an unreasonable restraint of trade. Consequently, NDIA members must avoid discussing certain topics when they are together at formal association membership, board, committee, and other meetings and in informal contacts with other industry members: prices, fees, rates, profit margins, or other terms or conditions of sale (including allowances, credit terms, and warranties); allocation of markets or customers or division of territories; or refusals to deal with or boycotts of suppliers, customers or other third parties, or topics that may lead participants not to deal with a particular supplier, customer or third party.