

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

LTC Stu Hatfield, USA (Ret) (Invited)
Chief Robotics Branch, HQDA G8

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

COL John Cochran, USA

Deputy Director, Close Combat Lethality Task Force, Office of the Secretary of Defense

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

10:45 – 11:10 am	BAE Systems Autonomous Robotics Abstract Buck Tanner and Thomas McCloud 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	

OFF-SITE DEMONSTRATION ATTENDEES

12:00 – 1:00 pm	LUNCH ON YOUR OWN
1:10 – 1:15 pm	HARD DEPART COLUMBUS MARRIOTT
2:00 – 5:00 pm	OFF-SITE DEMONSTRATIONS MCKENNA URBAN OPERATIONS TRAINING SITE

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