

*50th Annual*

# TARGETS, UAVS & RANGE OPERATIONS SYMPOSIUM & EXHIBITION

*“The Future of Testing and Training”*



OCTOBER 2-4, 2012

HYATT REGENCY ORLANDO INTERNATIONAL AIRPORT ► ORLANDO, FL

[WWW.NDIA.ORG/MEETINGS/3410](http://WWW.NDIA.ORG/MEETINGS/3410)

EVENT #3410

## LOCATION

Hyatt Regency Orlando International  
Airport  
9300 Jeff Fuqua Blvd.  
Orlando, FL 32827  
(407) 825-1234

## SYMPOSIUM THEME

This year's 50th Annual Symposium & Exhibition theme is, "The Future of Testing and Training." The goal of this three day, unclassified event will be to foster the technical exchange of information on current and future requirements for testing and training in a funding-short, threat-rich environment. Air systems will include piloted and remotely-piloted fixed and rotary-wing aircraft. In addition, land and waterborne robotic vehicles and vessels will be included as focus areas.

## WILLIS HOWARD AWARD

The Willis Howard Award is presented annually at the symposium to the person, either corporate or military, who in the view of the NDIA Targets Division Executive Board, has demonstrated both sustained superior service within the communities now represented by the NDIA Targets Division, as well as active service to the Division.

Named after Mr. Willis Howard, one of the founding owners of Cartwright Electronics (now a division of Meggitt Defense Systems, Inc.), it is the highest award presented within the Targets community. Mr. Howard was also one of the founding corporate members of the NDIA Targets Division, which was originally the Aerial Targets Division of the American Ordnance Association. He was an extremely active member of the Division who presented papers, chaired Sessions, and was Chairman of the Annual Symposium on two occasions.

Mr. Howard was killed in an auto accident while working with the USAF Weapons Evaluation Group at Tyndall Air Force Base. He was so well respected throughout the Targets community that the Division implemented an award in his honor.

## HUBERT D. HARRIS SCHOLARSHIP PROGRAM

The Hubert D. Harris Scholarship Program was established in 1991 to memorialize Mr. Hugh Harris for his many contributions to the Targets community in both government and industry. The NDIA Targets Division has been joined by NDIA's Gulf Coast Chapter as a co-sponsor of the Scholarship Program.

Mr. Harris was a longtime member and leader in various professional organizations including IEEE, AOC, and ADPA (forerunner of NDIA). He served two years as the National Chairman for the Aerial Targets and RPV Section, working closely with all three military services. Subsequent to his death on June 9, 1991, Mr. Harris was the posthumous winner of the Division's Willis Howard Award for outstanding service.

The Scholarship is presented annually to a deserving high school senior who will be entering an accredited four-year university in pursuit of a math, engineering, or hard science degree. Profits from the Hubert D. Harris Memorial Golf Tournament supplement the \$50,000 base scholarship fund.

## TUESDAY, OCTOBER 2, 2012

- 11:00 AM - 6:30 PM     **Registration Open**  
*Regency Ballroom Foyer*
- 5:30 PM - 6:30 PM     **Welcome Reception (Hosted Beer and Wine)**  
*Intercontinental Ballroom - Exhibit Hall*

## WEDNESDAY, OCTOBER 3, 2012

- 7:00 AM - 6:45 PM     **Registration Open**  
*Regency Ballroom Foyer*
- 7:00 AM - 8:00 AM     **Continental Breakfast**  
*Regency Ballroom Foyer*
- 8:00 AM - 8:15 AM     **Welcome Remarks and Keynote Speaker Introduction  
by Symposium Co-Chairmen**  
*Regency Ballroom*
  - ▶ MG Barry D. Bates, USA (Ret), Vice President, Operations, National Defense Industrial Association
  - ▶ Mr. Al Brown, Director, Targets Management Office, Redstone Arsenal, Huntsville, AL; Symposium Co-Chairman, NDIA Targets Division
  - ▶ Mr. Craig Tangedal, Vice President, 5-D Systems, Inc.; Symposium Co-Chairman, NDIA Targets Division
- 8:15 AM - 9:00 AM     **Keynote Address**  
*Regency Ballroom*
  - ▶ Mr. James Amato, SES, Executive Director, U.S. Army Operational Test Command, Fort Hood, TX
- 9:00 AM - 6:45 PM     **Exhibit Hall Open**  
*Intercontinental Ballroom - Exhibit Hall*

### SESSION I: RANGES AND RANGE OPERATIONS

- 9:00 AM - 9:10 AM     **Introduction by Session Chair**  
*Regency Ballroom*
  - ▶ Ms. Robbin Finley, Lead Project Director, PM ITTS - Targets Management Office, Redstone Arsenal, Huntsville, AL
- 9:10 AM - 9:35 AM     **Definition of an Innovative Information Sharing  
Architecture: Development and Deployment of the  
Common Range Integrated Instrumentation System  
(CRIIS)**  
*Regency Ballroom*
  - ▶ Mr. James Marek, Principal Systems Engineer, Rockwell Collins
- 9:35 AM - 10:00 AM     **F-35 Range Requirements**  
*Regency Ballroom*
  - ▶ Col Bradley McCoy, USAF (Ret), F-22 & F-35 Strategy and Assessment, Strategic Studies Group, Lockheed Martin Aeronautics Co.

### REGISTRATION

Regency Ballroom Foyer

### GENERAL SESSION

Regency Ballroom

### EXHIBIT HALL

Intercontinental Ballroom

### EXHIBIT HALL HOURS

Tuesday, October 2, 2012  
5:30 PM - 6:30 PM

Wednesday, October 3, 2012  
9:00 AM - 6:45 PM

Thursday, October 4, 2012  
9:00 AM - 1:30 PM

## ATTIRE

Appropriate dress for the symposium is business casual for civilians and Class B uniform or uniform of the day for military personnel.

## ID BADGES

During symposium registration and check-in, each Attendee will be issued an identification badge. Please be prepared to present a valid picture ID. Badges must be worn at all symposium functions.

- 10:00 AM - 10:40 AM**    **Networking Break**  
*Intercontinental Ballroom - Exhibit Hall*
- 10:40 AM - 11:00 AM**    **Common Range Integrated Instrumentation System (CRIIS) USAF Update**  
*Regency Ballroom*  
▶ Ms. Amanda Taylor, Systems Engineer, Common Range Integrated Instrumentation System (CRIIS), Eglin AFB, FL
- 11:00 AM - 11:20 AM**    **Evolution of Unmanned Targets and Range Capabilities**  
*Regency Ballroom*  
▶ Mr. Maurice Bobbitt, Unmanned Targets Engineer, 96 RANSS/RNRT, Eglin AFB, FL
- 11:20 AM - 11:40 AM**    **RF Channel Simulation: Realistic Test and Training for Targets, UAVs and Ranges**  
*Regency Ballroom*  
▶ Mr. Steve Williams, Business Area Manager, Signals Instrumentation, RT Logic
- 11:40 AM - 12:00 PM**    **Fort Bliss Range Testing Update**  
*Regency Ballroom*  
▶ Mr. Alton Anderson, Range Operations Officer, DPTM-S Range Branch, Fort Bliss, TX
- 12:00 PM - 12:20 PM**    **Operating a Flight Test Center in the NAS**  
*Regency Ballroom*  
▶ Mr. Dennis Zaklan, Deputy Director, UAS FTC, New Mexico State University
- 12:20 PM - 1:40 PM**    **Networking Lunch**  
*Intercontinental Ballroom - Exhibit Hall*
- 1:40 PM - 1:50 PM**    **Hubert D. Harris Scholarship Program Update**  
*Regency Ballroom*  
▶ Mr. Cort Proctor, Consultant, Micro Systems, Inc.; Chairman, Scholarship Program, NDIA Targets Division
- 1:50 PM - 2:00 PM**    **Willis Howard Award Presentation**  
*Regency Ballroom*  
▶ Mr. David Miller, Business Development, Meggitt Defense Systems, Inc.; Chairman, NDIA Targets Division

## **SESSION II: NEW TECHNOLOGY**

- 2:00 PM - 2:10 PM**    **Introduction by Session Chair**  
*Regency Ballroom*  
▶ Mr. Maynard Factor, Business Development Engineer, Micro Systems, Inc.
- 2:10 PM - 2:30 PM**    **Navy Common Data Link (NCDL)**  
*Regency Ballroom*  
▶ Mr. Mick Owens, Director of Hardware Engineering, Micro Systems, Inc.

- 2:30 PM - 2:50 PM**      **Maverick UAS Test Program**  
*Regency Ballroom*  
▶ Mr. Chris Whitaker, Senior Engineer, U.S. Special Operations Command, SORDAC
- 2:50 PM - 3:30 PM**      **Networking Break**  
*Intercontinental Ballroom - Exhibit Hall*
- 3:30 PM - 3:50 PM**      **Advancements in Tow Targets**  
*Regency Ballroom*  
▶ Mr. Gary Freudenberger, Business Development, Composite Engineering, Inc.
- 3:50 PM - 4:10 PM**      **The eAPU - New Technology Auxiliary Power**  
*Regency Ballroom*  
▶ Mr. Karl W. Poulsen, VP and General Manager, Microturbo, Inc.
- 4:10 PM - 4:30 PM**      **New Tactical Applications of Multiple Armed Collaborative SUAS on a Common Target**  
*Regency Ballroom*  
▶ Mr. W. "Skip" Parish, COO and Director, Unmanned Aerial Technology PTY, LLC
- 4:30 PM - 4:50 PM**      **Reusable Surrogate Missile Targets**  
*Regency Ballroom*  
▶ Mr. Geoffrey Babb, Missile Airframe Simulation Testbed (MAST) Program Lead, U.S. Army AMRDEC, Redstone Arsenal, Huntsville, AL
- 4:50 PM - 5:10 PM**      **5th Generation Aerial Target**  
*Regency Ballroom*  
▶ Mr. Steve Fendley, President, 5-D Systems, Inc.
- 5:10 PM - 6:45 PM**      **Networking Reception (Hosted Beer and Wine)**  
*Intercontinental Ballroom - Exhibit Hall*

## THURSDAY, OCTOBER 4, 2012

- 7:00 AM - 3:05 PM**      **Registration Open**  
*Regency Ballroom Foyer*
- 7:00 AM - 8:00 AM**      **Continental Breakfast**  
*Regency Ballroom Foyer*
- 8:00 AM - 8:10 AM**      **Welcome Remarks and Keynote Speaker Introduction by Symposium Co-Chairmen**  
*Regency Ballroom*  
▶ Mr. Al Brown, Director, Targets Management Office, Redstone Arsenal, Huntsville, AL; Symposium Co-Chairman NDIA Targets Division  
▶ Mr. Craig Tangedal, Vice President, 5-D Systems, Inc.; Symposium Co-Chairman, NDIA Targets Division

## DONATION

In lieu of Speaker gifts, a donation will be made to the Hubert D. Harris Scholarship Program.

## PROCEEDINGS

Proceedings will be available on the web through the Defense Technical Information Center (DTIC) two weeks after the symposium. All registered Attendees will receive an email notification once the proceedings are available.

## NDIA EVENTS

Thank you for your interest in the 50th Annual Targets, UAVs & Range Operations Symposium & Exhibition! We hope to see you at a future NDIA event. Please visit the NDIA website for a complete listing of the events we offer.

NDIA website:  
<http://www.ndia.org>

Select:  
Meetings & Events

## ADVERTISING

Advertise in *National Defense* magazine and increase your organization's exposure. *National Defense* will be distributed to Attendees of this event, as well as other NDIA events. For more information, please contact Mr. Dino Pignotti, VP Advertising, at (703) 247-2541 or [dpignotti@ndia.org](mailto:dpignotti@ndia.org).

**8:10 AM - 8:50 AM**

### **Keynote Address: Update on the Use of UAS in Homeland Security Applications**

*Regency Ballroom*

► Maj Gen Michael C. Kostelnik, USAF (Ret), Assistant Commissioner, Office of CBP Air & Marine, U.S. Customs and Border Protection

**9:00 AM - 1:30 PM**

### **Exhibit Hall Open**

*Intercontinental Ballroom - Exhibit Hall*

## **SESSION III: CURRENT DEVELOPMENTS**

**8:50 AM - 9:00 AM**

### **Introduction by Session Chair**

*Regency Ballroom*

► Mr. Bruce Truog, Deputy Director, PM ITTS - Targets Management Office, Redstone Arsenal, Huntsville, AL

**9:00 AM - 9:20 AM**

### **U.S. Army Live Force on Force Training Environment**

*Regency Ballroom*

► LTC Scott Tufts, USA, Product Manager, Live Training Systems, PM Training Devices and PEO Simulation, Training and Instrumentation

**9:20 AM - 9:40 AM**

### **An Update on the Land and Surface Target Scorer - Small Projectile Test Results**

*Regency Ballroom*

► Mr. Gary Kemp, Program Director, Cambridge Consultants

**9:40 AM - 10:00 AM**

### **Development & Testing of the Mobile Anti-Submarine Training Target (MASTT)**

*Regency Ballroom*

► Mr. William Senke, Business Development Manager, Lockheed Martin Undersea Systems

**10:00 AM - 10:40 AM**

### **Networking Break**

*Intercontinental Ballroom - Exhibit Hall*

**10:40 AM - 11:00 AM**

### **Use of Calibrated Airborne Targets for Validation of Radar Modeling and Simulation Results**

*Regency Ballroom*

► Mr. Patrick Harris, President, Aeromation Corporation

**11:00 AM - 11:20 AM**

### **Measuring Vehicle Environments and Testing Their Small Stabilized Payloads - A Simple, Affordable Approach**

*Regency Ballroom*

► Mr. Greg Mooty, Principal, Ascendant Engineering Solutions

**11:20 AM - 11:40 AM**

### **Next Generation Outlaw**

*Regency Ballroom*

► Mr. Larry French, CEO/CTO, Griffon Aerospace

**11:40 AM - 12:00 PM**

### **QF-16 Update: Flight Test Results in pre-EMD**

*Regency Ballroom*

► Mr. Paul Cejas, Chief Engineer, QF-16 Full Scale Aerial Target, Global Services & Support, Boeing Defense, Space & Security (BDS)

**12:00 PM - 12:20 PM**    **Mosquito Unmanned Helo Target**  
*Regency Ballroom*  
▶ Mr. Spencer Fraser, President, Meggitt Training Systems, Canada

**12:20 PM - 1:30 PM**    **Networking Lunch (Last Chance to View Exhibits)**  
*Intercontinental Ballroom - Exhibit Hall*

**SESSION IV: MILITARY PROGRAMS AND REQUIREMENTS**

**1:30 PM - 1:40 PM**    **Introduction by Session Chair**  
*Regency Ballroom*  
▶ Mr. Ken Hislop, QF-16 Program Manager, AFLCMC/EBYA, Eglin AFB, FL

**1:40 PM - 2:00 PM**    **CATS Program Evolution, Execution and Refreshment Activities**  
*Regency Ballroom*  
▶ Mr. Steve Attrill, Operations Delivery Manager, Test PT, UK Ministry of Defence  
▶ Mr. Rik Sellwood, Service Development Manager, Range Capability Services, QinetiQ, Ltd.

**2:00 PM - 2:20 PM**    **U.S. Air Force**  
*Regency Ballroom*  
▶ Mr. Paul Garvey, Materiel Leader, Aerial Targets, AFLCMC/EBYA, Eglin AFB, FL

**2:20 PM - 2:40 PM**    **U.S. Army**  
*Regency Ballroom*  
▶ Mr. Barry Hatchett, Lead Project Director, PEO STRI PM ITTSW - Targets Management Office, Redstone Arsenal, Huntsville, AL

**2:40 PM - 3:00 PM**    **U.S. Navy**  
*Regency Ballroom*  
▶ Mr. Tim Barnes, Program Manager, Aerial Target and Decoy Systems, PMA-208, Patuxent River, MD

**3:00 PM - 3:05 PM**    **Concluding Remarks by Symposium Co-Chairmen**  
*Regency Ballroom*  
▶ Mr. Al Brown, Director, Targets Management Office, Redstone Arsenal, Huntsville, AL; Symposium Co-Chairman, NDIA Targets Division  
▶ Mr. Craig Tangedal, Vice President, 5-D Systems, Inc.; Symposium Co-Chairman, NDIA Targets Division

**3:05 PM**    **Symposium Adjourned**

**SYMPOSIUM CONTACT**

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