

*49th ANNUAL*  
**TARGETS, UAVS & RANGE OPERATIONS  
SYMPOSIUM & EXHIBITION**

*“Budget Impacts on Test and Training”*



**OCTOBER 25-27, 2011**

**EMERALD COAST CONVENTION CENTER ► FORT WALTON BEACH, FL**

**WWW.NDIA.ORG/MEETINGS/2410**

**EVENT #2410**

## LODGING

Four Points by Sheraton  
1325 Miracle Strip Parkway  
Fort Walton Beach, FL 32548  
(800) 874-8104

## GOLF TOURNAMENT

Eglin AFB Eagle Golf Course  
1527 Fairway Drive  
Niceville, FL 32578-6901  
(850) 678-8726

Please join us on Tuesday, October 25, 2011 for a fun-filled golf outing to raise funds for the Hubert D. Harris Scholarship Program. Tee times will begin at 12:00 PM at the Eglin AFB Eagle Golf Course. This is a great course, ranked #3 among all military golf courses. All skill levels are welcome and encouraged to participate in this fun-filled day!

A fee of \$75 (includes green fees, cart, and lunch) is required to participate in the tournament. To rent clubs, please contact the golf course directly at: (850) 678-8726.

## SYMPOSIUM THEME

The 49th Annual Symposium will bring together recognized experts from government, military, and industry to showcase the latest developments in Targets, UAVs and Range Operations. As threats and weapons systems evolve and robotics become ever more prominent in warfare, training and testing for these advanced scenarios becomes increasingly critical. Questions of threat replication and fidelity versus the realities of cost and funds availability make the planner's role in product selection difficult.

Join us to address these realities through presentations on cutting edge developments: standardizing interfaces of joint control systems, the role of micro robotic air vehicles, testing of new target technologies on U.S. and allied ranges, and the challenges of making these systems affordable for the end user.

## 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. Willis 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.

Willis 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 & MEMORIAL GOLF TOURNAMENT

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.

Hugh 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, Hugh 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 25, 2011

- 11:00 AM - 6:30 PM     **Registration Open**  
*Emerald Ballroom Foyer*
- 12:00 PM - 5:00 PM     **Hubert D. Harris Memorial Golf Tournament**  
*Eglin AFB Eagle Golf Course - Registration Required*
- 5:30 PM - 6:30 PM     **Welcome Reception (Hosted Beer and Wine)**  
*Emerald Ballroom I&II - Exhibit Hall*

## WEDNESDAY, OCTOBER 26, 2011

- 7:00 AM - 5:15 PM     **Registration Open**  
*Emerald Ballroom Foyer*
- 7:00 AM - 8:00 AM     **Continental Breakfast**  
*Emerald Ballroom I&II - Exhibit Hall*
- 8:00 AM - 8:10 AM     **Welcome Remarks and Keynote Speaker Introduction  
by Symposium Co-Chairmen**  
*Emerald Ballroom III&IV*
  - ▶ Mr. Al Brown, Director, Targets Management Office, Redstone Arsenal; Symposium Co-Chairman, NDIA Targets Division
  - ▶ Mr. Craig Tangedal, Vice President, 5-D Systems, Inc.; Symposium Co-Chairman, NDIA Targets Division
- 8:10 AM - 8:50 AM     **Keynote Address**  
*Emerald Ballroom III&IV*
  - ▶ Maj Gen David J. Eichhorn, USAF, Commander, Air Force Operational Test and Evaluation Center, Kirtland AFB

### SESSION I: RANGES AND RANGE OPERATIONS

- 8:50 AM - 9:00 AM     **Introduction by Session Chair**  
*Emerald Ballroom III&IV*
  - ▶ Mr. Troy Bisbee, Director of Advanced Programs, Composite Engineering, Inc.
- 9:00 AM - 9:20 AM     **The Electronic Combat Range: The West Coast NAVAIR  
Electronic Warfare Range Complex**  
*Emerald Ballroom III&IV*
  - ▶ Mr. Joseph Albert, Section Head, Electronic Combat Range Test Management, NAVAIR, China Lake
- 9:20 AM - 9:40 AM     **P5CTS: The Vector for Air Combat Training**  
*Emerald Ballroom III&IV*
  - ▶ Mr. Randall King, Aerospace Engineer, AAC/EBYI, Eglin AFB

## KEYNOTE ADDRESS

Major General David J. Eichhorn, USAF



## LOCATION

Emerald Coast Convention Center  
1250 Miracle Strip Parkway, SE  
Fort Walton Beach, FL 32548  
(850) 609-3800

## REGISTRATION

Emerald Ballroom Foyer

## GENERAL SESSION

Emerald Ballroom III&IV

## EXHIBIT HALL

Emerald Ballroom I&II

## 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.

## DONATION

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

- 9:40 AM - 10:00 AM** **Outlaw ER**  
*Emerald Ballroom III&IV*  
▶ Mr. Greg Chando, Aeronautical Engineer, Griffon Aerospace
- 10:00 AM - 10:45 AM** **Networking Break**  
*Emerald Ballroom I&II - Exhibit Hall*
- 10:45 AM - 11:05 AM** **ATEC Re-organization and Support to the Test Ranges**  
*Emerald Ballroom III&IV*  
▶ Mr. Allen Tyler, Threat Combat Developer and Senior Threat Coordinator, Test & Evaluation Directorate, U.S. Army Test & Evaluation Command (ATEC), Aberdeen Proving Ground
- 11:05 AM - 11:25 AM** **Joint Standard Target Control System Interface (JSTCSI)**  
*Emerald Ballroom III&IV*  
▶ Mr. Dae Hong, Head, Target Systems Division, NAVAIR Weapons Division, Pt. Mugu
- 11:25 AM - 11:45 AM** **Range Encroachment Defense**  
*Emerald Ballroom III&IV*  
▶ Mr. Steve Shegrud, Senior Manager, Range Resources, Analysis & Tools, Whitney, Bradley & Brown, Inc.
- 11:45 AM - 12:00 PM** **Willis Howard Award Presentation**  
*Emerald Ballroom III&IV*  
▶ Mr. David Miller, Business Development, Meggitt Defense Systems, Inc.; Chairman, NDIA Targets Division
- 12:00 PM - 1:30 PM** **Networking Lunch**  
*Emerald Ballroom I&II - Exhibit Hall*

## SESSION II: NEW TECHNOLOGY

- 1:30 PM - 1:40 PM** **Introduction by Session Chair**  
*Emerald Ballroom III&IV*  
▶ Mr. Steve Williams, Business Area Manager, Signal Instrumentation, RT Logic, Inc.
- 1:40 PM - 2:00 PM** **Some Enabling Technologies**  
*Emerald Ballroom III&IV*  
▶ Mr. Brad Westphal, Director of Business Development, Honeywell Aerospace - Defense & Space
- 2:00 PM - 2:20 PM** **Supersonic Aerial Target (SSAT) 167X**  
*Emerald Ballroom III&IV*  
▶ Mr. Bret Torgerson, SSAT Program Manager, Composite Engineering, Inc.

- 2:20 PM - 2:40 PM**      **Introduction to the Army Common Control System (ACCS)**  
*Emerald Ballroom III&IV*  
▶ Mr. Barry Hatchett, Lead Project Director, PEO STRI Targets Management Office, Redstone Arsenal
- 2:40 PM - 3:25 PM**      **Networking Break**  
*Emerald Ballroom I&II - Exhibit Hall*
- 3:25 PM - 3:45 PM**      **K-MAX: Robotic Helicopter Operations**  
*Emerald Ballroom III&IV*  
▶ Mr. Edward "Bud" Sauvageau, Senior Analyst, Lockheed Martin Corporation, Mission Systems and Sensors (MS2)
- 3:45 PM - 4:05 PM**      **Tri-Service Directed Energy Update**  
*Emerald Ballroom III&IV*  
▶ Mr. Doug Weatherford, Senior Advisor, PEO Simulations, Training and Instrumentation, PM Instrumentation, Targets and Threat Simulators, Instrumentation Management Office (PM ITTS-IMO)
- 4:05 PM - 4:15 PM**      **Hubert D. Harris Scholarship Program Update**  
*Emerald Ballroom III&IV*  
▶ Mr. Cort Proctor, Consultant, Micro Systems, Inc.; Chairman, Scholarship Program, NDIA Targets Division
- 4:15 PM - 5:15 PM**      **Networking Reception (Hosted Beer and Wine)**  
*Emerald Ballroom I&II - Exhibit Hall*

## THURSDAY, OCTOBER 27, 2011

- 7:00 AM - 3:20 PM**      **Registration Open**  
*Emerald Ballroom Foyer*
- 7:00 AM - 8:00 AM**      **Continental Breakfast**  
*Emerald Ballroom I&II - Exhibit Hall*
- 8:00 AM - 8:10 AM**      **Welcome Remarks and Keynote Speaker Introduction by Symposium Co-Chairmen**  
*Emerald Ballroom III&IV*  
▶ Mr. Al Brown, Director, Targets Management Office, Redstone Arsenal; Symposium Co-Chairman, NDIA Targets Division  
▶ Mr. Craig Tangedal, Vice President, 5-D Systems, Inc.; Symposium Co-Chairman, NDIA Targets Division
- 8:10 AM - 8:50 AM**      **Keynote Address**  
*Emerald Ballroom III&IV*  
▶ Mr. Dyke Weatherington, Deputy Director, Unmanned Warfare, Portfolio Systems Acquisition, Office of the Under Secretary of Defense (OUSD) for Acquisition, Technology and Logistics (AT&L) and the Office of the Assistant Secretary of Defense for Acquisition

## KEYNOTE ADDRESS

Mr. Dyke Weatherington



## NDIA EVENTS

Thank you for your interest in the Targets 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  
Schedule of 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, NDIA, at (703) 247-2541 or [dpignotti@ndia.org](mailto:dpignotti@ndia.org).

## SESSION III: CURRENT DEVELOPMENTS

- 8:50 AM - 9:00 AM**      **Introduction by Session Chair**  
*Emerald Ballroom III&IV*  
▶ Mr. Josh Messner, T&E Resource Analyst, Office of the Secretary of Defense (OSD), DOT&E
- 9:00 AM - 9:20 AM**      **QF-16 Developments**  
*Emerald Ballroom III&IV*  
▶ Dr. Kevin Wise, Senior Technical Fellow, The Boeing Company
- 9:20 AM - 9:40 AM**      **Common Range Integrated Instrumentation System (CRIIS) Update**  
*Emerald Ballroom III&IV*  
▶ Mr. Christopher Hughes, Program Manager, CRIIS Program Office, AAC/EBYC, Eglin AFB
- 9:40 AM - 10:00 AM**      **Land and Surface Target Scorer: Results From 2011 Proof of Concept Firing Trials**  
*Emerald Ballroom III&IV*  
▶ Mr. Gary Kemp, Program Director, Missile Scoring, Cambridge Consultants
- 10:00 AM - 10:45 AM**      **Networking Break**  
*Emerald Ballroom I&II - Exhibit Hall*
- 10:45 AM - 11:15 AM**      **Target Support to Test Events in a Resource Constrained Environment: The Navy's Way Forward**  
*Emerald Ballroom III&IV*  
▶ CAPT W.J. Jensen, USN, Navy Ranges and Targets Branch Head, OPNAV N433
- 11:15 AM - 11:45 AM**      **Aerial Weapon Scoring System (AWSS) Future Integration: Radar Rocket Scoring and Data Capture**  
*Emerald Ballroom III&IV*  
▶ Mr. Derek Foster, Program Director, Electronic Systems, Meggitt Defense Systems, Inc.
- 11:45 AM - 12:05 PM**      **Spectrum Processes: What Does it Take to Radiate?**  
*Emerald Ballroom III&IV*  
▶ Mr. Joe Giangrosso, RF Spectrum Engineer, 96 CS/SCXF, Eglin AFB
- 12:05 PM - 12:25 PM**      **F-16 & F-4: From Boneyard to Drone**  
*Emerald Ballroom III&IV*  
▶ Mr. Jeff Peterson, Director, Business Development, 309 AMARG, Davis-Monthan AFB
- 12:25 PM - 1:40 PM**      **Networking Lunch (Last Chance to View Exhibits)**  
*Emerald Ballroom I&II - Exhibit Hall*

## SESSION IV: MILITARY PROGRAMS AND REQUIREMENTS

- 1:40 PM - 1:50 PM**      **Introduction by Session Chair**  
*Emerald Ballroom III&IV*  
▶ Mr. Ken Hislop, QF-16 Program Manager, AAC/EBYA, Eglin AFB
- 1:50 PM - 2:10 PM**      **U.S. Air Force**  
*Emerald Ballroom III&IV*  
▶ Ms. Holly Reedy, Chief, Full-Scale Targets, Aerial Targets Program Office, Eglin AFB
- 2:10 PM - 2:30 PM**      **U.S. Army**  
*Emerald Ballroom III&IV*  
▶ Mr. Bruce Truog, Deputy Director, Targets Management Office, Redstone Arsenal
- 2:30 PM - 2:50 PM**      **U.S. Navy**  
*Emerald Ballroom III&IV*  
▶ CAPT Daniel McNamara, USN, Program Manager, Aerial Target and Decoy Systems, PMA-208, Patuxent River
- 2:50 PM - 3:00 PM**      **Concluding Remarks by Symposium Co-Chairmen**  
*Emerald Ballroom III&IV*  
▶ Mr. Al Brown, Director, Targets Management Office, Redstone Arsenal; Symposium Co-Chairman, NDIA Targets Division  
▶ Mr. Craig Tangedal, Vice President, 5-D Systems, Inc.; Symposium Co-Chairman, NDIA Targets Division
- 3:00 PM**                      **Symposium Adjourned**

## SYMPOSIUM CONTACT

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## EXHIBITS CONTACT

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## 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.