NDIA

33RD ANNUAL NATIONAL TEST & EVALUATION CONFERENCE

FASTER, CHEAPER, HIGH QUALITY TESTING

May 15 – 17

Holiday Inn Solomons

Solomons, MD

NDIA.org/TandE18

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WHO WE ARE

The National Defense Industrial Association is the trusted leader in defense and national security associations. As a 501(c)(3) corporate and individual membership association, NDIA engages thoughtful and innovative leaders to exchange ideas, information, and capabilities that lead to the development of the best policies, practices, products, and technologies to ensure the safety and security of our nation. NDIA's membership embodies the full spectrum of corporate, government, academic, and individual stakeholders who form a vigorous, responsive, and collaborative community in support of defense and national security. For more information, visit **NDIA.org**

SCHEDULE AT A GLANCE

WEDNESDAY, MAY 16

Welcome and Introductory Remarks
Hunting/Battle Creek
8:00 – 8:15 am

Keynote & Feature Speakers
Hunting / Battle Creek
8:15 – 10:00 am

Walter W. Hollis Award Luncheon
Drum / Cedar Point
12:00 – 1:30 pm

Networking Reception
Drum / Cedar Point
5:00 – 6:30 pm

THURSDAY, MAY 17

Welcome and Introductory Remarks
Hunting / Battle Creek
8:00 – 8:15 am

Featured Speaker
Hunting / Battle Creek
8:15 – 8:50 am

Tester of the Year Luncheon
Drum / Cedar Point
12:00 – 1:30 pm

Concurrent Sessions
Mill Creek / Point Patience
1:30 – 3:00 pm & 3:30 - 4:30 pm

LEADERSHIP AND COMMITTEES

Joe Manas
Division Chair

Mike Rabens
ICOTE Chair

TEST & EVALUATION DIVISION

WHO WE ARE

Test & Evaluation (T&E) Division encourages informed dialogue between the private and public sectors on defense T&E issues; champions the development of T&E policies that improve the developmental, operational and live-fire T&E process; and builds partnerships between the private and public sectors. Focusing mainly on developmental, operational and live-fire testing, the division supports an annual symposium, a live-fire T&E event every 18 months and quarterly meetings of NDIA's Industrial Committee on Test & Evaluation. The division also presents the Walter Hollis Award for Lifetime Achievement in Defense Test and Evaluation, the Arthur Stein Award for Lifetime Achievement in Live-Fire Test and Evaluation and the Tester of the Year Awards.

EVENT INFORMATION

LOCATION	Holiday Inn Solomons 155 Holiday Dr Solomons, MD 20688
EVENT WEBSITE	NDIA.org/TandE18
EVENT CONTACT	Renata Casiel Meeting Planner (703) 247-2561 rcasiel@ndia.org
EVENT THEME	The 2018 conference will focus on the improvement of T&E in our defense and homeland security acquisition systems. The theme is "Faster, Cheaper, High Quality Testing" to support the rapid deployment of capability to the warfighter.
ATTIRE	Appropriate dress is business for civilians and Class B or uniform of the day for military personnel.

SURVEY AND PARTICIPANT LIST	A survey and list of attendees (name and organization only) will be emailed to you after the conference. NDIA would appreciate your time in completing the survey to help make our event even more successful in the future.
SPEAKER GIFTS	In lieu of speaker gifts, a donation is being made to the Fisher House Foundation.
HARASSMENT STATEMENT	NDIA is committed to providing a professional environment free from physical, psychological and verbal harassment. NDIA will not tolerate harassment of any kind, including but not limited to harassment based on ethnicity, religion, disability, physical appearance, gender, or sexual orientation. This policy applies to all participants and attendees at NDIA conferences, meetings and events. Harassment includes offensive gestures and verbal comments, deliberate intimidation, stalking, following, inappropriate photography and recording, sustained disruption of talks or other events, inappropriate physical contact, and unwelcome attention. Participants requested to cease harassing behavior are expected to comply immediately, and failure will serve as grounds for revoking access to the NDIA event.

AGENDA

TUESDAY, MAY 15

7:00 am – 5:00 pm
REGISTRATION
PATUXENT CONCOURSE

7:30 - 7:45 am
PAX RIVER TOUR BRIEFING
MILL CREEK

Transportation provided

7:45 am – 12:00 pm
PAX RIVER TOUR
NAVAL AIR WARFARE CENTER

A guided tour of the test facilities that are critical to Naval Aviation

1:30 – 4:30 pm
ICOTE MEETING *INVITATION ONLY
ST. LEONARD CREEK

4:30 – 6:00 pm
ICOTE RECEPTION
ST. LEONARD CREEK & ISAAC'S RESTAURANT

WEDNESDAY, MAY 16

7:00 am – 5:00 pm
REGISTRATION
PATUXENT CONCOURSE

7:00 – 8:00 am
NETWORKING BREAKFAST
DRUM / CEDAR POINT

8:00 – 8:15 am
WELCOME AND INTRODUCTORY REMARKS
HUNTING / BATTLE CREEK

Joe Manas
Chief Systems Test Architect, Raytheon Company
T&E Division Chair

Leslie Taylor
Executive Director, Naval Air Warfare Center Aircraft Division

8:15 – 9:15 am
KEYNOTE ADDRESS
HUNTING / BATTLE CREEK

Key Focus Areas for The Future Of T&E
The rapid evolution of threats means emphasis on testing of software intensive systems and cybersecurity implications, integrated testing, test infrastructure, workforce and modeling and simulation.

The Honorable Robert Behler
Director Operational Test & Evaluation, OSD

9:15 – 10:00 am
FEATURED SPEAKER
HUNTING / BATTLE CREEK

The Critical Role of Effective T&E in the Air Force
LT Gen Arnold Bunch, Jr. USAF
Military Deputy, Assistant Secretary of the Air Force for Acquisition

10:00 – 10:30 am
NETWORKING BREAK
PATUXENT CONCOURSE

10:30 – 11:15 am

T&E FOR THE NAVY
HUNTING / BATTLE CREEK

CAPT John Lemmon, USN
Vice Commander, Naval Air Systems Command

11:15 am – 12:00 pm

T&E FOR THE ARMY
HUNTING / BATTLE CREEK

David Jimenez
Deputy Under Secretary for Operations Research/Director of Army Test and Evaluation

12:00 – 1:30 pm

WALTER W. HOLLIS AWARD LUNCHEON
DRUM / CEDAR POINT

Presentation for Outstanding Lifetime Achievement in Defense Test & Evaluation

Dave Duma
Deputy Director, DOT&E, OSD
Award Winner

1:30 – 3:00 pm

PANEL: T&E TO MEET THE PACE OF NEED
HUNTING / BATTLE CREEK

Gary Honea
Raytheon Missile Systems
Moderator

Carroll P. "Rick" Quade
Deputy for Test and Evaluation, DoN

Dr. Ed Kraft
Associate Director of Research, UTSI

Col Ted "Vader" Dempsey, USAF
53rd Test Management Group Commander

Paul Kratzer
AWS Integration and Verification Department Manager, Raytheon Missile Systems

Ed Burnett
Senior Fellow, Lockheed Martin Corporation

3:00 – 3:30 pm

NETWORKING BREAK
PATUXENT CONCOURSE

3:30 – 5:00 pm

PANEL: HYPERSONICS T&E
HUNTING / BATTLE CREEK

Larry Graviss
Eagle Engineering Group, Inc.
Moderator

Dr. John Schmisseur
Professor, Mechanical, Aerospace, and Biomedical Engineering, H.H. Arnold Chair, Goethert Professor, UTSI

Col Tim West, USAF
Senior Materiel Leade AEDC

Dr. Miles Palmer
Chairman, 8 Rivers Capital

5:00 – 6:30 pm

NETWORKING RECEPTION
DRUM / CEDAR POINT

THURSDAY, MAY 17

7:00 am – 5:00 pm

REGISTRATION
PATUXENT CONCOURSE

7:00 – 8:00 am

NETWORKING BREAKFAST
DRUM / CEDAR POINT

8:00 – 8:15 am

WELCOME AND INTRODUCTORY REMARKS
HUNTING / BATTLE CREEK

Joe Manas
Chief Systems Test Architect, Raytheon Company
T&E Division Chair

8:15 – 8:50 am

FEATURED SPEAKER
HUNTING / BATTLE CREEK

George Rumford
Deputy Director, Technology Development, Test Resource Management Center (TRMC)

8:50 – 9:30 am

T&E CHALLENGES AND INITIATIVES AT DHS
HUNTING / BATTLE CREEK

Dr. Steve Hutchinson
Director, Capability Development Support/Director, Department of Homeland Security (DHS)

9:30 – 10:00 am

NETWORKING BREAK
PATUXENT CONCOURSE

10:00 – 11:15 am	**PANEL: CYBER T&E**	
	Kevin Knudsen	
	The Boeing Company	
	Moderator	
	Mark Bradbury	Wayne Dumais
	Engineering Fellow, Raytheon Company	Test Area Manager, Department of Homeland Security
	Brian Hastings	AJ Pathmanathan
	Naval Air Warfare Center - Aircraft Division	Director, National Cyber Range Complex, TRMC
	Patrick Lardieri	
	Fellow, Lockheed Martin Corporation	

11:15 am – 12:00 pm	**PANEL: AUTONOMOUS T&E**
	HUNTING / BATTLE CREEK
	Henry Melton
	Department Manager, Flight Test Engineering, Northrop Grumman Corporation
	Moderator

	Dr. Katherine Lemos	Mr. Jeffrey Sappington
	Director, Autonomy, Northrop Grumman Corporation	Senior T&E Engineer for Interoperability, Naval Air Systems Command, Naval Air Warfare Center - Aircraft Division
	Dr. William D'Amico	
	Principal Professional Staff, The Johns Hopkins University Applied Physics Laboratory	

| 12:00 – 1:30 pm | **TESTER OF THE YEAR AWARD LUNCHEON** |
| | Recognition of key test and evaluation professionals in each of the Services |

CONCURRENT BREAKOUT SESSIONS

| **MBSE / M&S FOR TEST TRACK** | **AUTONOMOUS & BEST PRACTICES TRACK** |
| BACK CREEK | POINT PATIENCE |

1:30 – 2:00 pm	**MBSE: An Abstraction to Improve Reality**	**Ongoing Science & Technology (S&T) Efforts to Develop Test Tools for Autonomous Systems by the Unmanned and Autonomous Systems Test (UAST) Technology Area**
	George Hollenbeck	
	Senior Principal Systems Engineer, Raytheon Company	Jonathan Elliot
		Chief Engineer, Unmanned Autonomous Systems Test, Naval Air Warfare Center

2:00 – 2:30 pm	**The Joint Simulation Environment**	**Guardian Ground Based Detect and Avoid for Unmanned Aircraft Systems Test and Evaluation Operations**
	Jeremy Smith	
	JSE V&V Lead, Naval Air Warfare Center - Aircraft Division	Shane Murphy
		Guardian, Assistant Program Manager, Systems Engineering, Naval Air Warfare Center Aircraft Division

2:30 – 3:00 pm	**The Joint Simulation Environment: Big Data–Analysis and Reporting Tool**	**Triton Airspace Virtual Environment**
	Haley Sibley	Dr. Stephen O'Day
	Modeling and Interface Branch Head Simulation Division, NAVAIR	Triton Modeling and Simulation IPT Lead, NAVAIR

| 3:00 – 3:30 pm | **NETWORKING BREAK** |
| | PATUXENT CONCOURSE |

| **T&E FOR SYSTEM-OF SYSTEMS TRACK** | **BEST PRACTICES IN T&E TRACK** |
| BACK CREEK | POINT PATIENCE |

3:30 – 4:00 pm	**Improving Distributed Test and Evaluation with JMETC & TENA**	**Capabilities Based Test and Evaluation (CBTE)**
	Keith Poch	Kenneth Senechal
	Support Team and Conecting Team, TENA / JMETC	NAVAIR

4:00 – 4:30 pm	**End of T&E for System-of Systems Track**	**Integrated Operational Evaluation Through In-Stride Evaluations**
		Christopher Wilcox
		U.S. Army Test and Evaluation Command

| 4:30 pm | **ADJOURN** |

BIOGRAPHIES

ROBERT BEHLER
Director of Operational Test and Evaluation Office of the Secretary of Defense

Robert F. Behler was sworn in as Director of Operational Test and Evaluation on December 11, 2017. A Presidential appointee confirmed by the United States Senate, he serves as the senior advisor to the Secretary of Defense on operational and live fire test and evaluation of Department of Defense weapon systems.

Prior to his appointment, he was the Chief Operating Officer and Deputy Director of the Carnegie Mellon University Software Engineering Institute (SEI), a Federally Funded Research and Development Center. SEI is a global leader in advancing software development and cybersecurity to solve the nation's toughest problems through focused research, development, and transition to the broader software engineering community.

Before joining the SEI, Mr. Behler was the President and CEO of SRC, Inc. (formerly the Syracuse Research Corporation). SRC is a not-for-profit research and development corporation with a for-profit manufacturing

subsidiary that focuses on radar, electronic warfare and cybersecurity technologies. Prior to working at SRC, Mr. Behler was the General Manager and Senior Vice President of the MITRE Corp where he provided leadership to more than 2,500 technical staff in 65 worldwide locations. He joined MITRE from the Johns Hopkins University Applied Physics Laboratory where he was a General Manager for more than 350 scientists and engineers as they made significant contributions to critical Department of Defense (DOD) precision engagement challenges.

General Behler served 31 years in the United States Air Force, retiring as a Major General in 2003. During his military career, he was the Principal Adviser for Command and Control, Intelligence, Surveillance and Reconnaissance (C21SR) to the Secretary and Chief of Staff of the U.S. Air Force

(USAF). International assignments as a general officer included the Deputy Commander for NATO's Joint Headquarters North in Stavanger, Norway. He was the Director of the Senate Liaison Office for the USAF during the 104th congress.

Mr. Behler also served as the assistant for strategic systems to the Director of Operational Test and Evaluation. As an experimental test pilot, he flew more than 65 aircraft types. Operationally he flew worldwide reconnaissance missions in the fastest aircraft in the world, the SR-71 Blackbird.

Mr. Behler is a Fellow of the Society of Experimental Test Pilots and an Associate Fellow of the American Institute of Aeronautics and Astronautics.

He is a graduate of the University of Oklahoma where he received a B.S. and M.S. in aerospace engineering, has a MBA from Marymount University and was a National Security Fellow at the JFK School of Government at Harvard University.

Mr. Behler has recently been on several National Research Council studies for the National Academy of Sciences including: "Critical Code," "Software Producibility, Achieving Effective Acquisition of Information Technology in the Department of Defense" and "Development Planning: A Strategic Approach to Future Air Force Capabilities."

LT GEN ARNOLD BUNCH, JR., USAF
Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition

Lt Gen Arnold W. Bunch, Jr., is the Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition, the Pentagon, Washington, D.C. He is responsible for research and development, test, production, and modernization of Air Force programs worth more than $32 billion annually.

General Bunch was commissioned in 1984 as a graduate of the U.S. Air Force Academy. He completed undergraduate pilot training in 1985. He completed operational assignments as an instructor, evaluator and aircraft commander for B-52 Stratofortresses. Following graduation from the Air Force Test Pilot School, General Bunch conducted developmental testing in the B-2 Spirit and B-52 and served as

an instructor in each. Additionally, he has commanded at the squadron, group and wing levels. Prior to his current assignment, he was the Commander of the Air Force Test Center, headquartered at Edwards Air Force Base, California.

DR. STEVE HUTCHINSON
Director of the Capability Development Support Group (CDS), DHS

Dr. Steven J. Hutchinson is the Director of the Capability Development Support Group (CDS) in the Science and Technology Directorate of the Department of Homeland Security (DHS), and continues to serve as the Director, Test and Evaluation.

Prior to coming to DHS, Dr. Hutchison served in the Office of the Secretary of Defense as Principal Deputy,

Developmental Test and Evaluation. Dr. Hutchison previously served in the Defense Information Systems Agency (DISA) as Test and Evaluation Executive, and in the office of the DoD Director, Operational Test and Evaluation (DOT&E) as a net-centric warfare system analyst.

Dr. Hutchison retired from the US Army in 2002. His military career included assignments in the 82nd Airborne and 3rd Infantry divisions, as an Assistant Professor in the Department of Mathematics at the

United States Military Academy, and as Assistant Technical Director and system evaluator in the Army Test and Evaluation Command (ATEC).

Dr. Hutchison earned a Bachelor of Science degree from the United States Military Academy, a Master of Science in Operations Research at the US Naval Postgraduate School, and his Ph.D. in Industrial Engineering from Purdue University.

DAVID JIMENEZ
Deputy Under Secretary for Operations Research/Director of Army Test and Evaluation

Mr. Jimenez serves as the Assistant Deputy Under Secretary of the Army / Director of Army Test and Evaluation. Mr. Jimenez has over 30 years of results-oriented experience working in Test and Evaluation, Research and Development, Major System Acquisition, Production Engineering and Sustainment. He is responsible for the Leadership of the Army's Test and Evalution community ensuring that Army and OSD senior leaders have the essential information required before weapons and equipment are placed into the hands of Soldiers and that the major test facilities and Test and Evaluation Workforce are ready and

responsive to the needs of the Army.

Mr Jimenez previously served as the Executive Technical Director / Deputy to the Commander of the U.S. Army Test and Evaluation Command (ATEC). Prior to leading ATEC, he was the Director of the Army Evaluation Center (AEC), responsible for the Evaluation of all Army and tri-service systems where the Army was the lead agency. Before AEC, Mr Jimenez was the Director of the Developmental Test Command, responsible for executive leadership of all the Army's major test ranges – White Sands Missile Range, Aberdeen Test Center, Dugway Proving Ground, Electronic Proving Ground, Redstone Test Center, and Yuma Proving

Ground (including Cold Regions Test Center and Tropic Regions Test Center). He was responsible for test execution, evaluation and reporting on approximately 3,500 test projects per year in support of more than 740 weapons systems for the Army, Air Force, Marine Corps, Navy and other DOD organizations with a budget of over $2 billion annually. His other previous assignments include the Associate Director of System Engineering at U.S. Army Communications Electronics Center (CERDEC) and Director (A) of the Space and Terrestrial Communication Directorate CERDEC and Director of the Product Realization Directorate – CERDEC. He is a Lean Six Sigma Black Belt.

CAPT JOHN LEMMON

Vice Commander, Naval Air Systems Command

Capt. John Lemmon is a native of Champaign, Illinois and a 1988 graduate of the United States Naval Academy. He was designated a naval aviator in 1990 and is a graduate of the United States Naval Test Pilot School Class of 107.

Lemmon attended the Naval Postgraduate School and received his Master of Science degree in systems engineering and analysis. He is Level III qualified in Defense Acquisition Workforce Improvement Act for program management, test and evaluation, and systems planning, research, development and engineering.

During his operational tours with Carrier Airborne Early Warning Squadron (VAW) 122, VAW-124, and VAW-123, he deployed and flew the E-2C Hawkeye aboard USS Forrestal (CV 59), USS Theodore Roosevelt (CVN 71), and USS John F. Kennedy (CV 67).

His ashore tours include several acquisition assignments at Naval Air Systems Command, Program Executive Office for Tactical Aircraft Programs, Naval Air Station (NAS) Patuxent River, Maryland, in the E-2/C-2 Airborne Tactical Data System program office (PMA-231). Lemmon also served as the E-2/C-2 chief test pilot, Naval Air Depot, North Island, California, and was the chief test pilot and commanding officer of Air Test and Evaluation Squadron (VX) 20, NAS Patuxent River from November 2006 to December 2009.

In a forward-deployed assignment, Lemmon served as commander, Task Group 67.8, Horn of Africa, before returning to his shore assignment as the E-2D Advanced Hawkeye integrated product team co-lead in PMA-231. Lemmon served as the PMA-231 program manager from May 2012 through May 2016

and the program manager for the Air Warfare/From The Air Program Office (PMA-298) from June through November 2016. Lemmon was then selected to serve as the executive assistant to the Assistant Secretary of the Navy for Research, Development and Acquisition from December 2017 through February 2018. He currently serves as the NAVAIR vice commander.

Lemmon has accumulated more than 3,400 total flight hours, completing 324 carrier arrested landings on nine different aircraft carriers. He has flight time in several aircraft models, including jet, helicopter, multi-engine, turboprop, piston, tail-wheel and sailplane. His personal decorations include the Legion of Merit, three Meritorious Service Medals, four Navy and Marine Corps Commendation Medals, and various other unit and service awards.

GEORGE RUMFORD

Deputy Director for Technology Development
Department of Defense (DoD) Test Resource Management Center

George Rumford is the Deputy Director for Technology Development for the Department of Defense (DoD) Test Resource Management Center (TRMC), a field activity that reports directly to the Under Secretary of Defense for Acquisition, Technology, and Logistics. In this capacity, Mr. Rumford serves as the Program Manager for the Test and Evaluation / Science and Technology (T&E/S&T) Program. Sponsoring advanced technology research and development in industry, academia, and government laboratories, the T&E/S&T Program develops technologies to upgrade the capabilities at

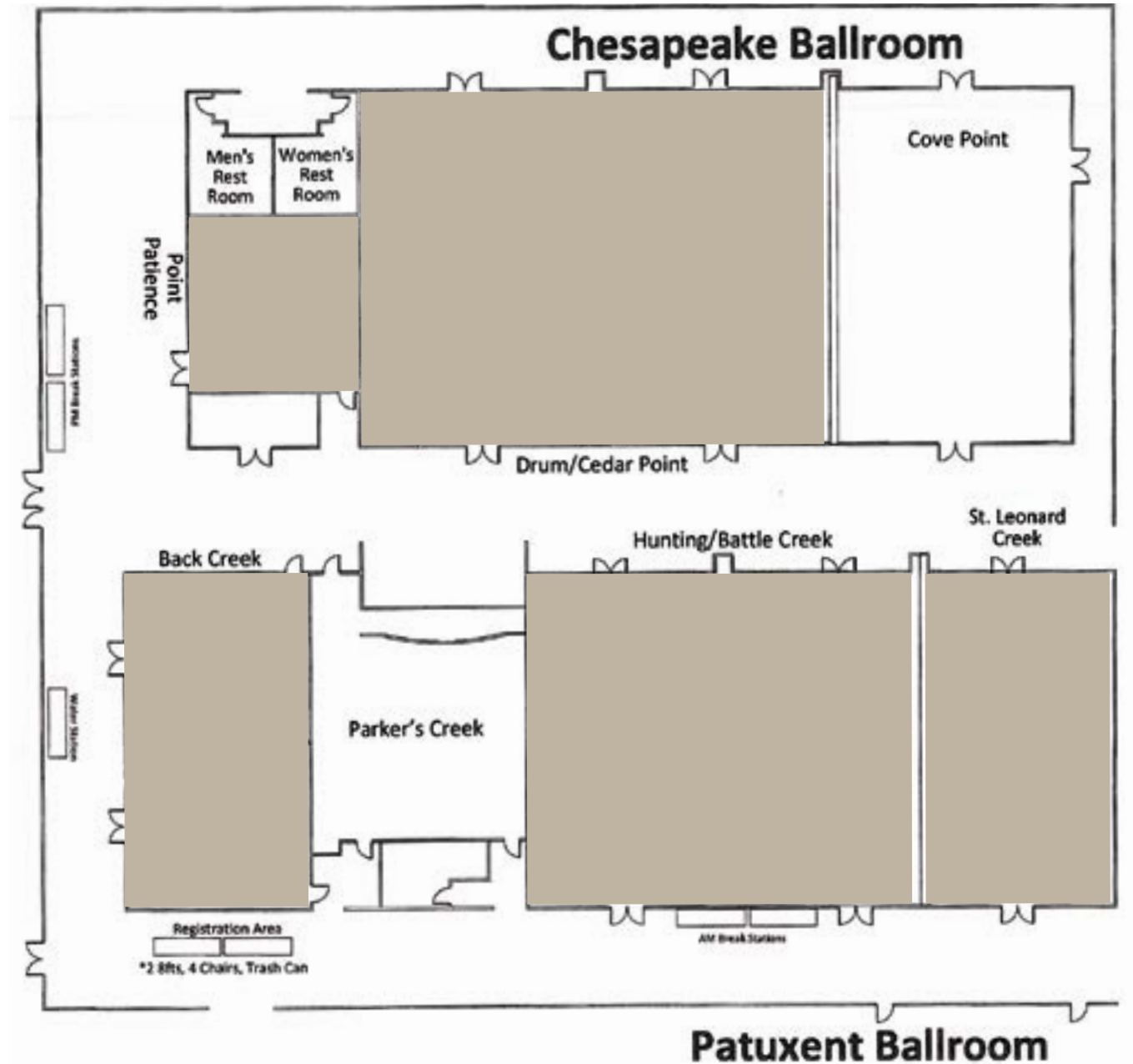test and training ranges to support future warfighting systems.

Advancing common instrumentation solutions at test and training ranges, Mr. Rumford also leads the Test and Training Enabling Architecture (TENA) Software Development Activity (TENA SDA), the common integrating software architecture for range systems, simulations, and facilities in the test and training communities. In addition, he is the Senior Technical Advisor for the National Cyber Range (NCR) and the Joint Mission Environment Test Capability (JMETC), an enterprise solution to integrate test facilities and laboratories

across the Services and in industry to enable early testing of warfighting systems in an operational Joint context.

Prior to joining the TRMC, Mr. Rumford worked at the Defense Information Systems Agency (DISA) and for the Army at White Sands Missile Range, supporting testing of missile defense systems, space systems, and several multi-Range, multi-Service exercises.

Born in St. Louis, Missouri, Mr. Rumford has received degrees with honors in Electrical Engineering and in Computer Engineering from the University of Missouri.

VENUE MAP

NOTES

REGISTER NOW

2018 DLA LAND & MARITIME SUPPLIER CONFERNCE & EXPOSITION

June 19 – 20

Greater Columbus Convention Center

Columbus, OH

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