





PRECISION STRIKE TECHNOLOGY SYMPOSIUM

(PSTS-18)

Sharpening America's Competitive Edge with High Speed Precision Engagement



October 23-25, 2018

The Johns Hopkins University Applied Physics Laboratory Kossiakoff Conference Center | Laurel, MD

Symposium Will Be Conducted At SECRET//NOFORN Level
This document is unclassified in its entirety





Lieutenant General Anthony Ierardi, USA



General Mike Holmes, USAF



Honorable James "Hondo" Geurts

Welcome to PSTS-18

As DoD faces the realities of a changing world and focuses its attention to its major competitors China and Russia, the precision strike community must address enhanced lethality and modernization of key precision engagement capabilities for urgent execution of the National Defense Strategy. The theme **Sharpening America's Competitive Edge with High Speed Precision Engagement** demands serious and immediate technological innovation. PSTS-18 will allow the precision strike community the opportunity to pursue many new challenges and concerns by showcasing focus areas related to:

- Meet Major Threats & Gaps with Technologies for High-Speed Precision Engagement
- Regain Overmatch with Enhanced Lethality
- Deliver New Capabilities at the Speed of Technology
- Services' Policy and Posture and Modernization Priorities to meet the Threat
- Multi-Domain Operations / Over-the-Horizon Targeting
- Insights into the Kill Chain
- U.S. Hypersonics Landscape Contested Environment Operations and Challenges
- Artificial Intelligence on the Edge—Implications for Precision Strike
- Strategic Readiness/Nuclear Deterrence
- Strategic Programs Technical Achievements and Challenges Session
- The Arctic Strategy

In addition to the above focus areas, keynote and featured speakers from OSD, the Joint Staff, the Services, Intelligence Community, USSTRATCOM, USSOCOM, AFSOC, PEOs, DARPA, DTRA, AFRL, AMRDEC, ACC, JHU/APL, National Labs, and Industry will address numerous riveting topics during this important and engaging three-day classified symposium including:

~ Tactical Threat Challenges—China and Russia; Integrated Allied Capabilities Enabled through Technology; Rapid and Urgent Acquisition; DARPA Adaptive Capabilities; Enhanced Precision Strike Capabilities to Support the Warfighter; The Need for Speed; F-35 Joint Strike Fighter Program Update; Autonomous Weapon Systems Panel—Sensing & Dissemination; SOF Precision Strike Effects & Digitally Aided CAS in the Battlefield; Hypersonic Programs—HAWC, HCSW & ARRW; Government-Industry Panel—Industry's Role in "Speed to the Warfighter," Conventional Prompt Strike for the Future Fight; Services' Labs—Emerging Technologies Session; Speedy Defeat of Relocatable WMD Targets; Advantages of High Capacity Precision Weapons Carriage on Bomber; and, Steadfast Protector. ~

Special Award Ceremony
Presentation of 10th Richard H. Johnson Technical Achievement Award



Lieutenant General Arnold Bunch, USAF



Senator Lisa Murkowski R-Alaska



Vice Admiral Mat Winter, USN



Vice Admiral Bill Merz, USN



General Hawk Carlisle, USAF (Ret)



Maj Gen Tom Masiello, USAF (Ret)

TUESDAY, 23 OCTOBER 2018

0700 CHECK-IN / CONTINENTAL BREAKFAST

0745 SYMPOSIUM WELCOME

Ken Masson - Chairman of the Board

0750 JHU/APL WELCOME

Dr. David Van Wie-Precision Strike Mission Area Executive. JHU/APL

0800 TACTICAL THREAT CHALLENGES—CHINA & RUSSIA

W. Victor Dymond—Air Warfare/Electronic Warfare/Cyber Acquisition Intelligence Integration Division/TAC-11, Office of Naval Intelligence (ONI)

0845 AUTONOMOUS WEAPON SYSTEMS PANEL—SENSING & DISSEMINATION

Moderator: Dr. Kerry Neace—Program Area Manager for Integrated Strike, .IHLI/API

- Office of Naval Research Dr. Roger Sullivan
- Air Force Research Laboratory—Joe Letsinger (SSTM)— Deputy Director, Munitions Directorate, Eglin AFB
- JHU/APL—Dr. Brian Herdlick—Program Area Manager for Distributed Battle Management
- DARPA—Bill Suggs—Centra Services

1015 NETWORKING REFRESHMENT BREAK

1030 AIR FORCE HYPERSONIC PROGRAMS REVIEW

- HAWC (Hypersonic Air-breathing Weapon Concept)
- HCSW (Hypersonic Conventional Strike Weapon)
- ARRW (Air-Launched Rapid Response Weapon)

Colonel Colin Tucker, USAF—Military Deputy, Deputy Assistant Secretary for Science, Technology & Engineering, SAF/AQR

1115 F-35 JOINT STRIKE FIGHTER PROGRAM UPDATE

Vice Admiral Mat Winter, USN—Director, Joint Strike Fighter Program, Office of the Secretary of Defense

1200 INFORMAL LUNCHEON BUFFET—Kossiakoff Center Dining Room

1230 RUSSIA & THE ARCTIC STRATEGY—VIDEO INTRODUCTION & LUNCHEON ADDRESS

- Senator Lisa Murkowski (R-Alaska) (Video)—Chair, U.S. Senate Energy & Natural Resources & Member, U.S. Senate Appropriations
- Dr. Steve Blank (Remarks on Russia & The Arctic Strategy)—Senior Fellow for Russia and Internationally known Expert on Russia & the Former Soviet Union

1330 RAPID AND URGENT ACQUISITION

Chris O'Donnell (SES)—Director, Joint Rapid Acquisition Cell, Office of the Under Secretary of Defense for Acquisition and Sustainment (OUSD(A&S))

1415 AIR FORCE POLICY AND POSTURE TO MEET THREAT—FASTER ACQUISITION CYCLE TO CLOSE SPEED & RANGE DEFICIT

Lieutenant General Arnold Bunch, **USAF**—Deputy Assistant Secretary of the Air Force for Acquisition, Technology & Logistics

1515 NETWORKING REFRESHMENT BREAK



Dr. David Van Wie



Dr. Kerry Neace



Chris O'Donnell



Colonel Colin Tucker, USAF



Dr. Steve Blank

PSA Programs Chair: Ginny Sniegon

PSA Programs Vice Chair: CAPT David "Jumbo" Baird, USN

Tri-Chairs: David Uzzell (Day 1)
Dr. Kerry Neace (Day 2)
Mark Converse (Day 3)

U.S. Military & Civilian Advisors

OSD: CDR Sam "Chubs" Gray, USN &

Chuck "Tooba" Kelly

Air Force: Col Mark "Smash" Van Brunt, USAF

Navy: CDR Eric "Skip" Taylor, USN &

LtCol Ryan "Puddles" Thompson, USMC

Army: COL Frank Leija, USA, LTC Jeff Munn, USA & LTC Ken Britt, USA (Ret)

Marine Corps: MAJ Ryan "Spidey" Welborn, USMC

The Joint Staff: Lt Col Nathan "Vi-Dof" Diller, USAF

& MAJ Dan "Otis" Harper, USAF



Brigadier General James Adams, **USMC**

1530 ARMY FUTURES COMMAND-TOMORROW'S TECHNOLOGIES AND CONCEPTS Speaker TBD—Army Futures Command

1615 MULTI-DOMAIN OPERATIONS / OVER-THE-HORIZON TARGETING

Brigadier General James Adams, USMC - Director, Capabilities Development Directorate, HQMC Combat Development and Integration

EVENING RECEPTION WITH HEAVY HORS D'OEUVRES 1700

WEDNESDAY, 24 OCTOBER 2018



Rear Admiral Brian Corey, USN



Rear Admiral Brian Losey, USN (Ret)

CHECK-IN / CONTINENTAL BREAKFAST 0700

0745 INSIGHTS INTO THE KILL CHAIN—SOF PRECISION STRIKE EFFECTS

- Colonel Matthew Allen, USAF—Commander, 720th Special Tactics Group, 24th Special Operations Wing, Air Force Special Operations Command (AFSOC), Hurlburt Field
- Senior Master Sergeant Jared "Peaches" Pietras, USAF-SOCCENT J3, Tampa



Major General Tom Masiello, USAF (Ret) - Director, Adaptive Capabilities Office (ACO), Defense Advanced Research Projects Agency (DARPA)





Dr. Dean Wilkening



Carl Avila

0930 PEO PERSPECTIVE - TECHNOLOGIES FOR HIGH-SPEED PRECISION **ENGAGEMENT**

Rear Admiral Brian Corey, USN-PEO for Unmanned Aviation and Strike Weapons

1010 U.S. HYPERSONIC LANDSCAPE—CONTESTED ENVIRONMENT OPERATIONS AND CHALLENGES

Dr. Gillian Bussey (SES) - Office of the Under Secretary of Defense for Research and Engineering, (OUSD(R&E))

1050 THE NEED FOR SPEED

Dr. Dean Wilkening-Senior Professional Staff Member, JHU/APL

1130 LUNCHEON - Kossiakoff Center Dining Room



- Presentation of Tenth Annual Richard H. Johnson Technical Achievement Award
- Remarks by Honoree Carl Avila, Boeing Phanton Works

SUPPORTING THE KILL CHAIN THROUGH RESILIENT COMMUNICATIONS IN 1230 HIGHLY CONTESTED ENVIRONMENTS

Dr. Steve Walker-Strategy & Business Development, Electronic Systems Avionics Business Unit, Harris

1315 ARTIFICIAL INTELLIGENCE (AI) ON THE EDGE—IMPLICATIONS FOR PRECISION STRIKE

Rear Admiral Brian Losey, USN (Ret) - Partner, Shield Al, Inc.

1400 NETWORKING REFRESHMENT BREAK



Colonel Matthew Allen, USAF



Senior Master Sergeant Jared Pietras, USAF

1415 NAVY POLICY AND POSTURE TO MEET THREAT—FASTER ACQUISITION CYCLE TO CLOSE SPEED & RANGE DEFICIT

Honorable James "Hondo" Geurts—Assistant Secretary of the Navy for Research, Development, and Acquisition

1515 NETWORKING REFRESHMENT BREAK

1530 GOVERNMENT-INDUSTRY PANEL—INDUSTRY'S ROLE IN "SPEED TO THE WARFIGHTER"

Moderator: General Hawk Carlisle, USAF (Ret)—President and CEO, National Defense Industrial Association

- General Mike Holmes, USAF—Commander, Air Combat Command (ACC), Joint Base Langley-Eustis
- Vice Admiral Bill Merz, USN—Deputy Chief of Naval Operations for Warfare Systems (OPNAV N9)
- Major General Dave "Limo" Scott, USAF (Ret)—Vice President, Business Development, Advanced Missile Systems, Raytheon Missile Systems
- Rear Admiral Mike Manazir, USN (Ret)—Vice President, Navy Systems, DSS Group, Government Operations, The Boeing Company





Rear Admiral Mike Manazir, USN (Ret)



Major General Dave Scott, USAF (Ret)

THURSDAY, 25 OCTOBER 2018

0700 CHECK-IN / CONTINENTAL BREAKFAST

0730 SERVICES' LABORATORIES—EMERGING TECHNOLOGIES

- Session Chair—Scene Setter Overview
- Ken Masson—Northrop Grumman Corporation Innovation Systems
- Office of Naval Research
- Dr. David Walker (SES) Portfolio Director, Office of SECNAV
- Air Force Research Laboratory
 - Joseph Letsinger (SSTM) Deputy Director, Munitions Directorate, Eglin AFB
- U.S. Army Aviation & Missile RD&E Center (AMRDEC)

 Data Facility and Departs Fire Corporat Completition Body
 - Rob Esslinger Deputy, Fire Support Capability, Redstone Arsenal



- Resources, and Assessment, J-8, The Joint Staff
- 0930 NETWORKING REFRESHMENT BREAK

0945 CONVENTIONAL PROMPT STRIKE (CPS) FOR THE FUTURE FIGHT

Dr. Joe Doychak—Acting CPS Program Manager, OUSD(R&E)



Ken Masson



Dr. David Walker



Joseph Letsinger



Rob Esslinger



Dr. Joe Doychak



Colonel George Holland, **USAF**



Lieutenant Colonel Todd Scherm **USAF (Ret)**





Lieutenant



Colonel Douglas Guard, USA



Lieutenant

Colonel Robert

Oakes, USAF

Jeff Braun



Colonel Jason Bartolomei, USAF

1030 ADVANTAGES OF HIGH CAPACITY PRECISION WEAPONS CARRIAGE **ON BOMBERS**

Lieutenant Colonel Todd Scherm, USAF (Ret)—Advanced Programs, B-52 & Air Launched Cruise Missile, The Boeing Company (Formerly 49th Test & Evaluation Squadron)

1115 INFORMAL LUNCHEON BUFFET—Kossiakoff Center Dining Room

STANDOFF MUNITIONS APPLICATION CENTER-COMBAT DEBUT & BEYOND 1200 Colonel George Holland, III, USAF-Commander, Standoff Munitions **Application Center**

1230 SPEEDY DEFEAT OF RELOCATABLE WMD TARGETS

- Lieutenant Colonel Robert Oakes, USAF-Counter WMD Technologies Department, Defense Threat Reduction Agency (DTRA)
- Lieutenant Colonel Douglas Guard, USA Counter WMD Technologies Department, Defense Threat Reduction Agency (DTRA)

STRATEGIC PROGRAMS TECHNICAL ACHIEVEMENTS AND CHALLENGES 1315

- Session Chair—Scene Setter Overview Jeff Braun-Scientific Advisor, Joint Staff/J5/StS/Strategic Deterrence & Nuclear Policy
- Columbia-Class Ballistic Missile Submarine Captain Thomas Shugart, III, USN-OPNAV N971
- Ground-Based Strategic Deterrent (GBSD) Colonel Jason Bartolomei, USAF-GBSD Systems Program Manager, Air Force Nuclear Weapons Center, Hill AFB

1415 **CLOSING REMARKS** Ken Masson-Chairman of the Board



Captain Thomas Shugart, III, USN

PSTS-18 WILL ADDRESS WHAT LEADERS WANT US TO KNOW ABOUT

Participate all 3 Days in Not-to-Miss Sessions Focused on:

- Threat and Posture
- DoD Faster Response
- Hi-Speed Technology Response
- Autonomous Weapons Systems
- Technologies Ahead
- Strategic Readiness / Nuclear Deterrence
- Strategic Program technical Achievements & Challenges