2021 JADC2 & ALL DOMAIN WARFARE SYMPOSIUM

Putting the Joint in JADC2, Are We There Yet?

July 12 – 14, 2021 | NDIA.org/JADC2 | College Station, TX
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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 than 100 years, NDIA and its predecessor organizations have been at the heart of the mission by dedicating their time, expertise, and energy to ensuring our warfighters have the best training, equipment, and support. For more information, visit [NDIA.org](http://NDIA.org).

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**THE TEXAS A&M UNIVERSITY SYSTEM**

**WHO WE ARE**

The Texas A&M University System is one of the largest systems of higher education in the nation with a budget of $6.3 billion. The System is a statewide network of 11 universities; a comprehensive health science center; eight state agencies, including the Texas Division of Emergency Management; and the RELLIS Campus. The Texas A&M System educates more than 151,000 students and makes more than 22 million additional educational contacts through service and outreach programs each year. System-wide research and development expenditures exceeded $1 billion in FY 2019 and helped drive the state’s economy.

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**SCHEDULE AT A GLANCE**

**MONDAY, JULY 12**

General Session  
Century Ballroom  
12:00 - 5:25 pm  

Opening Reception  
Brazos - Proper Texas Kitchen  
5:30 - 6:30 pm

**TUESDAY, JULY 13**

General Session  
Annenberg Presidential Conference Center  
8:00 am - 5:15 pm  

Reception  
Century Ballroom  
5:15 - 6:30 pm

**WEDNESDAY, JULY 14**

General Session  
Annenberg Presidential Conference Center  
9:00 am - 1:05 pm
WELCOME TO JADC2 & ALL DOMAIN WARFARE SYMPOSIUM

On behalf of the NDIA Cyber-Augmented Operations Division and the Texas A&M University System, we welcome you to our second annual symposium exploring the development and future evolution of the Joint All Domain Command and Control (JADC2) capability. Over the course of the symposium, visionary commanders, innovators and decision makers from across the Services and the Joint community, along with industry’s dynamic thought leaders, will review the progress being made to operationalize the JADC2 concept, design, architecture and technology.

The 2021 JADC2 event builds on the results of last year’s inaugural symposium, the legacy of NDIA’s concentration on Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) as well as joint operations and the evolution of the technologies enabling both concepts.

The hybrid model of the symposium enables us to broadcast the first day’s events at an unclassified level to expand its reach to our government and industry partners. The second and third days will be conducted in person and at a classified level. Keynote addresses and panel presentations will include industry leaders and our senior Service leaders who will address progress toward achieving the joint vision for JADC2, experimentation associated with JADC2, core enabling technologies, and potential applications for JADC2 in the joint force.

We are pleased that you are joining us to advance the JADC2 dialogue. We—along with the passionate group of NDIA professionals, volunteers from the Texas-Oklahoma Lone Star Chapter as well as the leadership, faculty, and staff of the Texas A&M University System—hope you will both contribute to and learn from this symposium today, tomorrow, and into the future!

Guy Walsh
Chair, Cyber-Augmented Operations Division, NDIA
Executive Director, National Security Collaboration Center

Stephen Cambone
Associate Vice Chancellor for Cybersecurity Initiatives and Professor of Practice, Texas A&M University System

GET INVOLVED
Learn more about NDIA’s Divisions and how to join one at NDIA.org/Divisions

LEADERSHIP AND COMMITTEES

Guy Walsh
Division Chair

Jim Keffer
Subcommittee Chair

CYBER-AUGMENTED OPERATIONS

WHO WE ARE

The Cyber-Augmented Operations (CAO) Division harnesses the power of cyber-related technologies to deliver speed and automation to create both tactical and operational advantages in military operations. The Division brings industry and government executives together to address pressing policy, technology, and budgetary matters to ensure the incorporation of CAO capabilities into the military and national security enterprises. In periodically sponsoring symposia, seminars, workshops, and executive breakfast meetings, the Division identifies and mitigates challenges confronting combatant commands and military services. Interested in joining or volunteering with the NDIA Cyber-Augmented Operations Division? Click here for more information.
ENABLING CJADC2
FROM CONCEPT TO REALITY

Connect, collaborate and rapidly innovate for any mission

As the battlespace becomes increasingly connected, we’re driving breakthroughs and advancing solutions that keep warfighters ahead of the fight. Collins Aerospace delivers secure communications, assured PNT and intelligent manned and unmanned systems for increased collaboration and situational awareness. Through our resilient networks, open systems architecture and sophisticated sensors, we can quickly accommodate Combined Joint All-Domain Command & Control (CJADC2), keeping forces safer, more secure and more informed.

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EVENT INFORMATION

LOCATION

Unclassified Venue
Texas A&M Hotel and Conference Center
177 Joe Routt Blvd
College Station, TX 77840

Classified Venue
Annenberg Presidential Conference Center
1002 George Bush Drive West
College Station, TX 77843

WIFI

Hotel WiFi Password: GigemTime2021

ATTIRE

Civilian: Business
Military: Uniform of the Day

SURVEY AND PARTICIPANT LIST

You will receive via email a survey and list of participants (name and organization) after the conference. Please complete the survey to make our event even more successful in the future.

EVENT CONTACT

Andrew Peters, Meeting Manager
(703) 247-2572 | apeters@NDIA.org

Carizza Gutierrez, Manager, Divisions
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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.

EVENT CODE OF CONDUCT

NDIA's Event Code of Conduct applies to all National Defense Industrial Association (NDIA), National Training & Simulation Association (NTSA), and Women In Defense (WID) meeting-related events, whether in person at public or private facilities, online, or during virtual events. NDIA, NTSA, and WID are committed to providing a productive and welcoming environment for all participants. All participants are expected to abide by this code as well as NDIA's ethical principles and practices. Visit NDIA.org/CodeOfConduct to review the full policy.

REAL-TIME CROWD-SOURCED Q&A

Sli.do is an audience engagement platform that allows users to crowd-source top questions to drive meaningful conversations and increase crowd participation. Participants can up-vote the questions they would most like to hear discussed. Simply tap the thumbs-up button to up-vote a question. Top questions are displayed for the moderator and speaker to answer. Ask your question in sessions by going to Sli.do.com!

Event code: #JADC2

MOBILE APP

Make the most of your attendance at JADC2 2021 with the NDIA Events mobile app, available on the App Store for Apple devices and Google Play for Android devices. Simply search, “NDIA Meetings” to find and download the NDIA Events app for free. With it, you will have 24/7 access to an activity feed, speaker listings, sponsor information, Slido, and venue maps. Be sure to accept push notifications so that you can receive the most up-to-date information regarding any changes to the conference agenda.
AGENDA

SUNDAY, JULY 11

4:00 – 6:00 pm  REGISTRATION  CENTURY BALLROOM PREFUNCTION

MONDAY, JULY 12 – UNCLASSIFIED SESSIONS

8:00 am – 6:00 pm  REGISTRATION  CENTURY BALLROOM PREFUNCTION

8:00 – 11:00 am  TEXAS A&M TOURS & PRESENTATIONS  VARIOUS CAMPUS LOCATIONS

12:00 – 12:10 pm  WELCOME REMARKS  CENTURY BALLROOM
  Dr. John Hurtado
  Interim Vice Chancellor of Engineering, Texas A&M University System, Interim Dean of Engineering, Texas A&M University

12:15 – 1:00 pm  OPENING KEYNOTE  CENTURY BALLROOM
  Gen Hawk Carlisle, USAF (Ret)
  President & CEO, National Defense Industrial Association
  Moderator
  Lt Gen S. Clinton Hinote, USAF
  Deputy Chief of Staff for Strategy, Integration and Requirements, U.S. Air Force
  Virtual

1:05 – 2:05 pm  USINDOPACOM: CONCEPT OF OPERATIONS  CENTURY BALLROOM
  Gen Hawk Carlisle, USAF (Ret)
  President & CEO, National Defense Industrial Association
  Moderator
  Lt Gen Michael Minihan, USAF
  Deputy Commander, US Indo-Pacific Command
  Virtual

2:05 – 2:25 pm  NETWORKING COFFEE BREAK  CENTURY BALLROOM PREFUNCTION
2:25 – 3:25 pm

HOW INDUSTRY CAN ACCELERATE MULTI-DOMAIN OPERATIONS
CENTURY BALLROOM

Gen Hawk Carlisle, USAF (Ret)
President & CEO, National Defense Industrial Association
Moderator

Frank St. John
Chief Operating Officer, Lockheed Martin

3:30 – 4:30 pm

CONGRESSIONAL PERSPECTIVE
CENTURY BALLROOM

Jim Keffer
Director, Cyber, Lockheed Martin
Moderator

Representative Seth Moulton (D-MA)
U.S. Representative for Massachusetts, 6th District
Virtual

4:35 – 5:20 pm

CLOSING KEYNOTE
CENTURY BALLROOM

Patricia Baumhart
Director, NDIA Lone Star Chapter & VP Business Development, National Security Corporation
Moderator

Lt Gen Dennis Crall, USMC
Director, Command, Control, Communications and Computers/Cyber, Chief Information Officer (CIO), J6
Virtual

5:20 – 5:25 pm

CLOSING REMARKS
CENTURY BALLROOM

Gen Hawk Carlisle, USAF (Ret)
President and CEO, National Defense Industrial Association

5:30 – 6:30 pm

OPENING RECEPTION
BRAZOS - PROPER TEXAS KITCHEN
Sponsored by L3HARRIS

FROM SENSOR TO DECISION, SEE WHAT’S POSSIBLE
GETTING VITAL INFORMATION TO THE MISSION PLANNER IN A TIMELY MANNER!

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KEY FUNCTIONALITY & ELEMENTS

- Fully secure with cross-organization/domain multilevel security.
- Easy to use with extensive natural language & batch query capabilities, plug-and-play integration, all-source data fusion and real-time data viewing.
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- Real-time Distributed Alert capability.
- Highly scalable due to its modular architecture.
- High capacity with high query volumes.
- Highly compatible with simultaneous cross-platform capability.

POC: David Tyler
Mobile: 315-254-0379
Email: DTyler@aac-usa.com
6:30 – 8:00 am  DISS PRE-CHECK AND BUS TRANSPORTATION  
CENTURY BALLROOM PREFUNCTION

7:00 – 8:00 am  CONTINENTAL BREAKFAST  
ANNENBERG PRESIDENTIAL CONFERENCE CENTER BANQUET ROOM 1011BC

7:00 am – 4:45pm  REGISTRATION  
ANNENBERG PRESIDENTIAL CONFERENCE CENTER LOBBY

8:00 – 8:10 am  OPENING REMARKS  
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM  
Mark Welsh  
Dean, Texas A&M University Bush School of Government & Public Service

8:15 – 9:15 am  KEYNOTE ADDRESS  
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM  
Mike Dietz  
President, NDIA Lone Star Chapter  
Moderator  
Brig Gen Jason Cothern, USAF  
Vice Commander, Space and Missile Systems Center

9:15 – 9:45 am  NETWORKING COFFEE BREAK  
ANNENBERG PRESIDENTIAL CONFERENCE CENTER LOBBY

9:45 – 10:45 am  DIA INTEL BRIEF  
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM  
Ross Guieb  
Executive Director, George H.W. Bush Combat Development Complex, The Texas A&M University System  
Moderator  
Dr. Trent Maul  
Director for Analysis, Defense Intelligence Agency

10:50 – 11:50 am  FEATURED SPEAKER  
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM  
Mike Dietz  
President, NDIA Lone Star Chapter  
Moderator  
Scott Lee  
NSEC FFDC Cross-Cutting Priority Lead for JADC2, MITRE
11:50 am – 1:05 pm  NETWORKING LUNCH
ANNENBERG PRESIDENTIAL CONFERENCE CENTER BANQUET ROOM 1011BC

1:05 – 2:05 pm  SPACE, ENABLING JADC2 PANEL
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM

Steven Butow  
Director, Space Portfolio, Defense Innovation Unit
Moderator

Maj Gen Thomas Ayres, USA (Ret)  
Chief Legal Officer, Voyager, Former General Counsel, U.S. Air Force

Dr. Didi Kuo  
Geospatial Intelligence Chief Architect, National Reconnaissance Office

2:10 – 3:10 pm  FEATURED SPEAKER: JADC2 – DATA AS THE KEY ENABLER
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM

Jim Keffer  
Director, Cyber, Lockheed Martin
Moderator

David Spirk  
Chief Data Officer, Department of Defense

3:10 – 3:35 pm  NETWORKING COFFEE BREAK
ANNENBERG PRESIDENTIAL CONFERENCE CENTER BANQUET ROOM 1011BC

3:35 – 4:35 pm  PANEL: INNOVATION FROM INDUSTRY
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM

Dr. Mark Lewis  
Executive Director, Emerging Technologies Institute, National Defense Industrial Association
Moderator

Joshua Marcuse  
Head, Strategy & Innovation, Global Public Sector, Google Cloud National Security Alliance Executive, Federal Transformation Team, Amazon Web Services

Dr. Reggie Brothers  
CEO, Big Bear AI and Former S&T Director

Margaret Calomino  
Senior Director of Strategy, L3 Harris

4:40 – 5:10 pm  CLOSING KEYNOTE
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM

Gen Hawk Carlisle, USAF (Ret)  
President & CEO, National Defense Industrial Association
Moderator

Wendell Foster, Jr.  
Executive Director, Joint Force Headquarters, Department of Defense Information Network, U.S. Cyber Command
5:10 – 5:15 pm  CLOSING REMARKS  
**ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM**  
Gen Hawk Carlisle, USAF (Ret)  
President and CEO, NDIA

5:15 – 6:15 pm  BUS TRANSPORTATION  
**ANNENBERG PRESIDENTIAL CONFERENCE CENTER LOT 41**

5:30 – 6:30 pm  NETWORKING RECEPTION  
**CENTURY BALLROOM**

**WEDNESDAY, JULY 14 – CLASSIFIED**

6:30 - 8:00 am  DISS PRE-CHECK AND BUS TRANSPORTATION  
**CENTURY BALLROOM PREFUNCTION**

7:00 - 8:00 am  CONTINENTAL BREAKFAST  
**ANNENBERG PRESIDENTIAL CONFERENCE CENTER BANQUET ROOM 1011BC**

7:00 am - 12:00 pm  REGISTRATION  
**ANNENBERG PRESIDENTIAL CONFERENCE CENTER**

8:00 - 8:10 am  OPENING REMARKS  
**ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM**  
Stephen Cambone  
Associate Vice Chancellor for Cybersecurity Initiatives and Professor of Practice, Texas A&M University System

8:15 - 9:15 am  KEYNOTE REMARKS  
**ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM**  
Gen Hawk Carlisle, USAF (Ret)  
President and CEO, National Defense Industrial Association  
**Moderator**  
Lt Gen Timothy 'Tim' Haugh, USAF  
Commander, Sixteenth U.S Air Force, Commander, Air Forces Cyber, Commander, Joint Force Headquarters - Cyber

9:20 - 10:20 am  FIRESIDE CHAT  
**ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM**  
Gen Hawk Carlisle, USAF (Ret)  
President and CEO, NDIA  
**Moderator**  
VADM David Johnson, USN (Ret)  
Vice President, Strategy Integrated Mission Systems Segment, L3 Harris
Lockheed Martin is demonstrating JADC2 capability today.

The future battlespace calls for future-forward solutions. That’s why Lockheed Martin aims to connect every system across every domain. With integrated advanced sensors, network connectivity and data analysis, you can gain insights to make critical decisions in a split second. So while the enemy is outpaced and outmaneuvered, you win in every domain. Learn more at lockheedmartin.com

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10:20 – 10:50 am  NETWORKING COFFEE BREAK
ANNENBERG PRESIDENTIAL CONFERENCE CENTER BANQUET ROOM 1011BC

10:50 – 11:50 am  MODERNIZING THE AOC WHILE CREATING THE FUTURE OF COMMAND AND CONTROL
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM
Col Brian Beachkofski, USAF
Commander, AFLCMC Detachment 12 (Kessel Run)
Moderator
Brig Gen Jeffrey Valenzia, USAF
Director, Joint Force Integration, Deputy Chief of Staff for Strategy, Integration and Requirements, U.S. Air Force

11:55 am – 12:55 pm  CLOSING KEYNOTE
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM
Gen Hawk Carlisle, USAF (Ret)
President & CEO, National Defense Industrial Association
Moderator
Gen John Murray, USA
Commanding General, U.S. Army Futures Command

12:55 – 1:05 pm  CLOSING REMARKS
ANNENBERG PRESIDENTIAL CONFERENCE CENTER FRYMIRE AUDITORIUM
Stephen Cambone
Associate Vice Chancellor for Cybersecurity Initiatives and Professor of Practice, Texas A&M University System

12:45 – 4:00 pm  BUS TRANSPORTATION
ANNENBERG PRESIDENTIAL CONFERENCE CENTER LOT 41

1:05 – 3:30 pm  WORKING GROUP MEETING (INVITE ONLY)

The NDIA has a policy of strict compliance with federal and state antitrust laws. The antitrust laws prohibit competitors from engaging in actions that could result in an unreasonable restraint of trade. Consequently, NDIA members must avoid discussing certain topics when they are together at formal association membership, board, committee, and other meetings and in informal contacts with other industry members: prices, fees, rates, profit margins, or other terms or conditions of sale (including allowances, credit terms, and warranties); allocation of markets or customers or division of territories; or refusals to deal with or boycotts of suppliers, customers or other third parties, or topics that may lead participants not to deal with a particular supplier, customer or third party.
BIOGRAPHIES

LT GEN S. CLINTON HINOTE, USAF
Deputy Chief of Staff for Strategy, Integration and Requirements
U. S. Air Force

Lt. Gen. S. Clinton Hinote is the Deputy Chief of Staff for Strategy, Integration and Requirements, Headquarters U.S. Air Force, the Pentagon, Arlington, Virginia. In this position, Lt. Gen. Hinote is responsible for developing the Air Force strategy and multi-domain operating concepts, integrating through centralized design, and validating (and prioritizing) operational capabilities-based requirements to achieve national defense objectives and deliver timely and effective capability to the warfighter.


Lt. Gen. Hinote is a command pilot with more than 2,000 flight hours and 240 combat hours in operations Northern and Southern Watch.

LT GEN DENNIS CRALL, USMC
Director for Command, Control, Communications and Computers/Cyber, Chief Information Officer (CIO)
J6

Lieutenant General Crall currently serves as the Director for Command, Control, Communications, and Computers / Cyber and Chief Information Officer, Joint Staff J6.

Recent assignments include Deputy Principal Cyber Advisor / Senior Military Advisor for Cyber Policy; and Director – Command, Control, Communications, Computers (C4), Headquarters Marine Corps / Chief Information Officer (CIO) of the Marine Corps.

Lieutenant General Crall is a native of South Carolina where he graduated from the University of South Carolina. He is a career Aviation Command and Control Officer who has commanded at the Squadron and Group levels. He deployed as the Direct Air Support Center – Airborne, Officer-In-Charge in support of Operation Iraqi Freedom, conducting thirty-four combat missions spanning over three hundred fifty flight hours.

Joint assignments include: Deputy Principal Cyber Advisor / Senior Military Advisor for Cyber Policy; Chief, Joint Cyberspace Center, US Central Command (CENTCOM); Executive Officer to the Deputy Commander, CENTCOM; Division Chief, Information Operations, CENTCOM; Division Chief, Developments and Concepts, CENTCOM; Branch Chief, Strategic Plans, Information Operations, US Special Operations Command (SOCOM); Joint Liaison Officer to the 7th Air Force, 607th Air Support Operations Group in Osan, Korea.

Supporting assignments include: Director – Command, Control, Communications, Computers (C4), Headquarters Marine Corps / Chief Information Officer (CIO) of the Marine Corps; Marine Corps Recruiting Command, Operations Officer, Recruiting Station Albuquerque, NM; and Contact Team Officer, 6th Marine Corps District, Parris Island, SC.

Lieutenant General Crall is a graduate of the Marine Corps Command and Control Systems Course; a distinguished graduate of the US Air Force Air Command and Staff College where he earned a M.S. in Military Operational Art and Science; a distinguished graduate of the National War College where he earned a M.S. in National Security Strategy. He has also completed the Harvard Kennedy School Cybersecurity Executive Program.
ENABLING ALL-DOMAIN OPERATIONS ACROSS THE JOINT FORCE

L3Harris’ state-of-the-art strategic and tactical all-domain sensors, with data fused at the tactical edge, provide a foundational element to JADC2. Our system-of-systems architecture is platform agnostic, data-centric, software defined and capable of hosting third party applications and retrieving open source data.

LEARN MORE

BRIG GEN JASON COTHERN, USAF
Vice Commander
Space and Missile Systems Center

Brig. Gen. D. Jason Cothern serves as the Vice Commander, Space and Missile Systems Center, Los Angeles Air Force Base, California. He is responsible for assisting the Commander in managing the research, design, development, acquisition, and sustainment of space and missile systems, command and control, launch and operational satellite systems. The Space and Missile Systems Center is the nation’s center of technical expertise for military space acquisition with approximately 6,000 employees nationwide and an annual budget of $9 billion.

Brig. Gen. Cothern was commissioned in 1993 as an ROTC graduate of the University of Central Florida. His career has spanned a range of assignments primarily acquiring or planning for a variety of space systems, running the gamut from communications, signals intelligence, missile warning and force application. His space systems experience includes all major segments: ground, space vehicle, payloads and launch vehicles. He commanded the Space Based Infrared Systems Ground Squadron, Space and Missile Systems Center at Los Angeles Air Force Base, California, where he led his unit during development, test and fielding of the ground control system for the first SBIRS geosynchronous satellite. Brig. Gen. Cothern’s joint assignment was in the U.S. Strategic Command’s Center for Combating Weapons of Mass Destruction Chief of Requirements Integration Department.

Prior to his current assignment, the general served as the Assistant Program Director for Development at the F-35 Lighting II Joint Program Office, Arlington, Virginia. He led all aspects of fifth generation fighter modernization activities focused on delivering three F-35 variants to the Air Force, Navy, Marine Corps, eight international partners and three foreign military sales nations, ultimately producing 3,170 aircraft and supporting air system elements utilizing over $250 billion in U.S. funds. He directed a 1,194-person joint nd multinational team, building and executing acquisition strategies for continued modernization and delivery of the F-35.
LT GEN TIMOTHY ‘TIM’ HAUGH, USAF

Commander, Sixteenth Air Force and Air Forces Cyber
U.S. Air Force

Lt. Gen. Timothy D. Haugh is the Commander, Sixteenth Air Force; Commander, Air Forces Cyber, and Commander, Joint Force Headquarters-Cyber, Joint Base San Antonio-Lackland, Texas. Lt. Gen. Haugh is responsible for more than 44,000 personnel conducting worldwide operations. Sixteenth Air Force Airmen deliver multi source intelligence, surveillance and reconnaissance products, applications, capabilities and resources. In addition, they build, extend, operate, secure and defend the Air Force portion of the Department of Defense global network. Further more, Joint Forces Headquarters-Cyber personnel perform operational planning as part of coordinated efforts to support Air Force component and combatant commanders and, upon approval of the President and/or Secretary of Defense, the execution of offensive cyberspace operations. In his position as Sixteenth Air Force Commander, Lt. Gen. Haugh also serves as the Commander of the Service Cryptologic Component. In this capacity, he is responsible to the Director, National Security Agency, and Chief, Central Security Service, as the Air Force’s sole authority formatters involving the conduct of cryptologic activities, including the spectrum of missions related to tactical warfighting and national-level operations. The general leads the global information warfare activities spanning cyberspace operations, intelligence, targeting and weather for nine wings, one technical center and an operations center.

Lt. Gen. Haugh received his commission in 1991 as a distinguished graduate of the ROTC program at Lehigh University. He has served in a variety of intelligence and cyber command and staff assignments. The general has commanded at the squadron, group and wing levels and served on staffs at a numbered Air Force, major command headquarters and combatant command headquarters. Prior to his current position, Lt. Gen. Haugh was the Commander, Cyber National Mission Force.

GEN JOHN MURRAY, USA

Commanding General
U.S. Army Futures Command

General Murray was commissioned as an Infantry officer in the U.S. Army upon graduation from the Ohio State University in 1982. Throughout his career, General Murray has served in leadership positions and commanded from Company through Division, with various staff assignments at the highest levels of the Army. General Murray has held numerous command positions. His command assignments include: Commanding General Joint Task Force-3; Deputy Commanding General – Support for U.S. Forces Afghanistan; Commander Bagram Airfield; Commanding General 3rd Infantry Division at Fort Stewart, Georgia; Commander, 3rd Brigade, 1st Cavalry Division, at Fort Hood, Texas while serving in Operation IRAQI FREEDOM; Commander, 1st Battalion, 18th Infantry, 1st Infantry Division, United States Army Europe and Seventh Army, Germany; Commander, C Company, 1-12th Infantry Battalion, 4th Infantry Division (Mechanized), Fort Carson, Colorado.

Previously, he was the Deputy Chief of Staff, G-8, in the Pentagon; Director, Force Management, the Pentagon; Assistant Deputy Director for Joint Training, J-7, Joint Staff, Suffolk, Virginia; Director, Joint Center for Operational Analysis, United States Joint Forces Command, Suffolk, Virginia; Deputy Commanding General (Maneuver), 1st Cavalry Division, Fort Hood, Texas; Deputy Commanding General (Maneuver), Multi-National Division-Baghdad OPERATION IRAQI FREEDOM, Iraq; G-3 (Operations), III Corps, Fort Hood, Texas; Chief of Staff, III Corps and Fort Hood, Fort Hood, Texas; C-3, Multi-National Corps-Iraq, OPERATION IRAQI FREEDOM, Iraq; G-3 (Operations), 1st Infantry Division, United States Army Europe and Seventh Army, Germany; Chief, Space Control Protection Section, J-33, United States Space Command, Peterson Air Force Base, Colorado; S-3 (Operations), later Executive Officer, 1st Battalion, 5th Cavalry, 1st Cavalry Division, Fort Hood, Texas; Chief, Plans, G-1, III Corps and Fort Hood, Fort Hood, Texas.

General Murray’s awards and decorations include: the Distinguished Service Medal with Oak Leaf Cluster, the Defense Superior Service Medal with Oak Leaf Cluster, the Legion of Merit with two Oak Leaf Clusters, the Bronze Star Medal with three Oak Leaf Clusters, the Defense Meritorious Service Medal, the Meritorious Service Medal with two Oak Leaf Clusters, the Army Commendation Medal with Oak Leaf Cluster, the Joint Service Achievement Medal, the Army Achievement Medal with Oak Leaf Cluster, the Ranger Tab, the Combat Infantryman Badge, the Expert Infantryman Badge, the Parachutist Badge, the Air Assault Badge, the Joint Chiefs of Staff Identification Badge and the Army Staff Identification Badge.

General Murray hails from Kenton, Ohio. He and his wife, Jane, have three lovely daughters and seven grandchildren.
AN ONLINE COMMUNITY FOR DEFENSE PROFESSIONALS

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Connect.NDIA.org

EMERGING TECH HORIZONS

A National Security Podcast with Dr. Mark Lewis

This brand-new podcast invites you to listen in on conversations with Dr. Mark Lewis, the Executive Director of NDIA’s Emerging Technologies Institute, as he welcomes a diverse slate of national security leaders from government, industry, and academia to discuss the defense technologies of today and tomorrow. Each episode takes a deep dive as the experts share their personal views on future technology topics, providing listeners with unique perspectives on the latest in emerging technologies and how they relate to national security. Listen to Emerging Tech Horizons where you find all your favorite podcasts.

NDIAETI.org/Podcast
SPONSOR DESCRIPTIONS

**PREMIER SPONSOR**  
Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 114,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

**ELITE SPONSOR**  
L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers’ mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

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Maxar is a trusted mission partner that enables the U.S. government and its allies to monitor, understand and respond to change, deter threats and ensure global security. Our Earth observation satellites offer the highest resolution imagery commercially available and have provided strategic and tactical advantages to the USG for two decades.

Space-based sensing is increasingly important as the DOD pivots to JADC2 with the goal of accelerated decision-making. Maxar offers all of the leading-edge capabilities necessary to rapidly identify objects from broad area surveillance. Our proven workflow significantly reduces the sensor-to-decision timeline—from hours to minutes—by combining our industry-leading imagery with remote ground station support, 3D foundation data and precision georegistration, AI/ML tools and more.

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