

# AFCEA / WORKSHOP

Europe

## *Cyber Security in and for Space Operations*

**THURSDAY 3 SEPTEMBER 2020 - VIRTUAL EVENT**

### **SPEAKER BIOGRAPHIES**



#### **MR. GORDON DAVIS**

Deputy Assistant Secretary General  
Defence Investment Division, NATO

Gordon B. "Skip" Davis Jr is NATO's Deputy Assistant Secretary General for the Defense Investment Division. He previously served as Director of Operations, U.S. European Command in Stuttgart, Germany, Commander of Combined Security Transition Command – Afghanistan, and as Director of Operations and Intelligence for SHAPE in Mons, Belgium, before retiring from the U.S. Army as a Major General. Skip's professional life has been characterized by operational and institutional military assignments interspersed with study and practice of international affairs and defense issues, primarily in Europe. Most of Skip's career has been dedicated to NATO and European defense, including numerous assignments and operations with U.S., NATO, and UN forces in Europe, Africa, Middle East and Central Asia. Skip brings an unusual depth of practical experience and conceptual understanding of contemporary and emerging defense issues as well as executive-level experience in operations, intelligence, leader development, capability development, and policy development. Skip holds an undergraduate degree in nuclear physics and graduate degrees in international business, defense and military history, and strategic studies.



#### **MS. CARINE CLAEYS**

Special Envoy, Space Task Force  
European External Action Service

Carine Claeys is the EU Special Envoy for Space in the European External Action Service (EEAS) since July 2019. She is Head of the EEAS Space Task Force since 2015 and headed the Security of the EU Space Tools Cell of the EU Joint Situation Centre from 2005 to 2011. She has been a multilateral diplomat in the general Secretariat of the Council and in the EEAS since 1992, where she dealt with issues such as energy, drugs, terrorism, United Nations, public international law, agriculture, enlargement, transport...

Carine Claeys holds a PhD in political sciences, a Master degree in business engineering, a Master degree in international relations and a Master degree in development cooperation.



## **BRIGADIER GENERAL FREDERIC PESME**

Deputy Director, Policy & Capabilities Division  
International Military Staff, NATO

Brigadier General Pesme is a Combat Engineer officer. As a platoon leader and company commander, he has specialized in underwater reconnaissance and river crossing operations with the 3rd Armored Engineer Battalion (1987-1995). He was then assigned to the Engineer Corps Directorate, human resources management office (1995-1998). After graduation of the Joint Staff College (2000) he was promoted to lieutenant-colonel to become the head of the international studies department and the deputy director of the international program at Saint-Cyr Military Academy (2000-2003). He was then assigned as Staff officer, NATO desk, at the Joint Staff (2003-2006). Promoted to colonel in 2015, he took command of the 1st Marine Training and Education Battalion, Fort de France in July 2006. After his command, he was assigned to the Directorate for Strategic Affairs of the French Ministry of Defense, where he was the head of the North America and Arctic desk (2008-2011). He was then deployed with the NATO Training Mission – Afghanistan / Combined Security Transition Command – Afghanistan where he was the Chief, Force Integration Division within the DCG OPS G7 (April 2011 to April 2012). After this tour, he was assigned to Allied Command Transformation Norfolk where he was successively executive assistant to the deputy chief of staff Capability Development (2012-2013) and executive assistant to the Supreme Allied Commander Transformation (2013-2015).

Back in Paris, he was the deputy director of the Euro-Atlantic directorate of the Joint Staff. Upon selection for brigadier, he was elected to become the deputy director Policy and Capabilities division of the International Military Staff as of September 2018.



## **MR. PIERRE DELSAUX**

Deputy Director-General, DG DEFIS  
European Commission

Pierre Delsaux is Deputy Director General at the European Commission Directorate General for Defence Industry and Space (DG DEFIS). After studying Law at the University of Liège, he obtained his Master of Law at the Northwestern University, Chicago, in 1983. He was Legal Secretary at the European Court of Justice from 1984 to 1987.

He worked in the private sector before joining the European Commission in 1991. He started his career within the European Commission in the Directorate General for Competition. In 2007, he was appointed as Director responsible for regulating the financial services. In 2011, he was appointed as Deputy Director General with responsibilities for the Single Market in the EU. From November 2015, he was in charge of Space Policy and Defence.



## **DR. JOE TOUCH**

Sr. Distributed Systems Data Architect  
The Aerospace Corporation

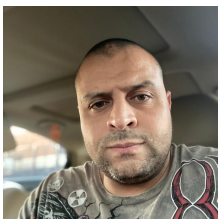
Joseph D. Touch is a senior distributed systems architect in the Information Systems and Cyber Division at The Aerospace Corporation. He supports a variety of projects including quantum key distribution (QKD), proliferated low Earth orbit (LEO) networking, MILSATCOM networking, and ground systems architectures. He was previously the Postel Center Director and a research professor at the University of Southern California's Information Sciences Institute (USC/ISI), publishing more than 150 papers and receiving 5 U.S. patents in virtual network architecture, Internet protocols, nonlinear optical computing, and quantum networking. He is an ACM Distinguished Scientist, a senior member of the IEEE and OSA, a member of Sigma Xi, and actively participates in the development of Internet protocol standards. Touch has a dual bachelor's degree in biophysics and computer science from the University of Scranton, a master's degree in computer science from Cornell University, and a Ph.D. in computer and information science from the University of Pennsylvania.



## **LIEUTENANT COLONEL HENRY HEREN**

Subject Matter Expert on Space  
Joint Air Power Competence Center

Lieutenant Colonel Henry Heren is a NATO Space & Cyberspace Strategist assigned to the Space Branch of the Joint Air Power Competence Centre since 2018. He is a Graduate of the US Air Force Weapons School with experience in assignments focusing on Space, Cyberspace, and Electronic Warfare Operations. His operational experience includes participation in Operations NOBLE EAGLE, IRAQI FREEDOM, and ODYSSEY DAWN. He is a Master Space Operator and a Fully Qualified Joint Staff Officer with more than 28 years' active duty experience in the US Air Force, and has been approved for transition to the US Space Force in September 2020.



## **DR. MUSTAFA SHHADIH**

Department of Engineering Management and  
Systems Engineering (EMSE), George Washington University

Mustafa Shhadih is currently working toward a Ph.D. degree in Engineering Management and Systems Engineering (EMSE) at George Washington University (GWU), Washington, DC, USA. His research interests include systems engineering, machine learning, Defensive Cyber Operations (DCO), Offensive Cyber Operations (OCO), and cyber deception.



## **MR. ALAN MEARS**

Associate Director  
Deloitte

With over 40 years service in the British Army as a Regular and Reserve officer, Alan has over 20 years of experience in strategic, operational and tactical targeting, intelligence and cyber operations. Alan joined the UK Deloitte Cyber Security team in Risk Advisory in September 2018, and recently completed a secondment to a global shipping company as interim Head of Cyber Security Compliance. This followed four years working as an independent Subject Matter Expert developing the UK's MOD's Cyberspace Operations Ways of Working with the Joint Force Cyber Group and the Cyber Joint User. He set up the "innovative" UK C2 Battlélab in Shrivenham where, working closely with deploying Brigades, he led efforts to "digitize" UK and NATO activities into Afghanistan between 2007 and 2011. He was mobilized as SO1 Targets to IMEF for Operation Iraqi Freedom in 2003, and again to set up ISAF's Joint Fires and Targeting capability with HQ Allied Rapid Reaction Corps in 2006. Alan has an MSc in Cyberspace Operations from Cranfield University. Alan's recent paper on Defending Forward was published in the Spring 2020 US Cyber Defense Review.



## **MR. ROBERT K. ACKERMAN**

Editor in Chief  
SIGNAL Magazine

Robert K. Ackerman has been the editor in chief of SIGNAL Magazine for more than 20 years. A seasoned technology journalist, Ackerman also has served as a war correspondent covering the Iraq War embedded with the U.S. Army's 101st Airborne Division. A journalist by training, Ackerman also minored in political science in university. His journalism career dates back more than three decades, beginning with stints as a radio reporter covering the Republican and Democratic parties' political conventions during the 1976 elections. Following those conventions, he served as a media advisor or a press secretary for candidates in state and presidential campaigns. Most of his journalism work over the years has been in print journalism. His writings have covered a range of issues involving technology, politics and international security. Prior to becoming SIGNAL's editor in chief, Ackerman served as the magazine's senior editor. He has been with SIGNAL Magazine for more than three decades, during which he has written hundreds of feature articles and authored more than 400 columns and commentaries. He has been a panel moderator or keynote speaker at conferences in the United States, Germany and Russia, and he has served as a subject matter expert on television in the United States, France and Russia. His areas of coverage have spanned topics such as military information systems, foreign affairs, intelligence, laboratory research and development, space technologies, international security, terrorism and information operations. He has won or shared in journalism awards from the Aviation Writers Association; APEX; the American Copy Editors Society; PRSA; the Society for Technical Communication; and the American Society of Association Executives.





## **MR. WOLFGANG ROEHRIG**

Head of Unit Information Security  
European Defence Agency

Wolfgang Röhrig is the Head of Unit Information Superiority in the Capability, Armament and Planning Directorate of the European Defence Agency (EDA). He was born 1966 in Germany and entered the German Navy in 1985. After completing his studies at the University of the Federal Armed Forces in Hamburg with the degree of MBA in 1990 he served in several officer's positions in the German Navy and the German Joint Services including several operational deployments and service in NATO. In March 2012 he joined EDA as Project Officer and became Programme Manager Cyber Defence beginning of 2014. In this position he developed and shaped the EDA Cyber Defence Programme, being inter alia responsible for the identification of capability gaps with respect to cyber defence in EU-led military operations, and the development and implementation of solutions for closing these gaps through cooperative projects with EU Member States. In February 2018 he returned to the German Armed Forces becoming a staff member of the new Cyber and Information Domain Services Headquarters dealing with International Cooperation in Cyber Defence. Since November 2018 he is leading the EDA Information Superiority Team in EDA. The EDA Information Superiority Team pools the EDA expertise on Capability Development in the Cyber Domain and the Space Domain as well as on ISR, Information Management and general CIS.



## **PROFESSOR DR. PAULO ESTEVES-VERISSIMO**

Full Professor and FNR PEARL Chair  
University of Luxembourg

Paulo Esteves-Veríssimo (PJV) is a professor and FNR PEARL Chair at the University of Luxembourg FSTM and SnT, and Head of the CritiX lab. He is adjunct Professor of the ECE Dept., Carnegie Mellon University. Previously, he has been a professor of the Univ. of Lisbon (PT). He is the representative of UNILU-SnT in ECSO, the European Cyber Security Organisation, and member of its Scientific & Technical Committee (STC). He was Chair of the IFIP WG 10.4 on Dependable Computing and Fault-Tolerance and vice-Chair of the Steering Committee of the IEEE/IFIP DSN conference. He is Fellow of the IEEE and Fellow of the ACM, and associate editor of IEEE Trans. on Emerging Topics in Computing (TETC). He is currently interested in architectures, middleware and algorithms for resilient modular and distributed computing, in areas like SDN-based infrastructures; autonomous vehicles from earth to space; digital health and genomics; or blockchain and cryptocurrencies. He is author or co-author of over 200 peer-refereed international publications and co-author of 5 books.



## **MS. KAITLYN JOHNSON**

Associate Fellow and Associate Director, Aerospace Security Project  
Center for Strategic & Associate Studies

Kaitlyn Johnson is an associate fellow and associate director of the Aerospace Security Project at the Center for Strategic and International Studies. Ms. Johnson manages the team's strategic planning and research agenda. Her research specializes in topics such as space security, military space systems, commercial space policy, and U.S. air dominance. Previously, Ms. Johnson has written on national security space reorganization, threats against space assets, the commercialization of space, escalation and deterrence dynamics, and defense acquisition trends. Ms. Johnson holds an M.A. from American University in U.S. foreign policy and national security studies, with a concentration in defense and space security, and a B.S. from the Georgia Institute of Technology in international affairs.



## **LIEUTENANT GENERAL JOHN F. THOMPSON**

Commander, Space and Missile Center,  
US Air Force

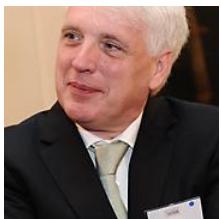
Lt. Gen. John F. Thompson is the Commander, Space and Missile Systems Center, Los Angeles Air Force Base, California. He is responsible for approximately 6,000 employees nationwide and an annual budget of \$9 billion. As the Air Force Program Executive Officer for Space, General Thompson manages the research, design, development, acquisition and sustainment of satellites and the associated command and control systems. His extensive portfolio includes military satellite communication, missile warning, navigation and timing, space-based weather, space launch and test ranges, certification for launch, space superiority, responsive space and other emerging evolutionary space programs. Lt. Gen. Thompson entered the Air Force in 1984 as a graduate of the U.S. Air Force Academy. He has served in a variety of scientific, acquisition and logistics-oriented capacities, including staff assignments at Air Force Systems Command, Air Force Materiel Command and in the office of the Assistant Secretary of the Air Force for Acquisition. The general has been Chief of the Commodities Division, Ogden Air Logistics Center, Utah, and Chief of the Air Vehicle Division, C-17 System Program Office, Wright-Patterson AFB, Ohio. He also served as Director of Propulsion, Oklahoma City ALC, Okla.; and Chief of Staff, Air Force Materiel Command, Wright-Patterson AFB. He has commanded the 327th Aircraft Sustainment Wing, Tinker AFB, Okla., and the 303rd Aeronautical Systems Wing, Wright-Patterson AFB, Ohio, where he served as Air Force Program Executive Officer for Intelligence, Surveillance and Reconnaissance. General Thompson has also served as Air Force Program Executive Officer for Strategic Systems, Deputy Program Executive Officer for the F-35 Joint Strike Fighter Program, and KC-46 Program Director. Prior to assuming his current position, Lt. Gen. Thompson was Commander, Air Force Life Cycle Management Center, Wright-Patterson AFB, Ohio.



## **DR. BEYZA UNAL**

Senior Research Fellow, International Security Programme  
Chatham House

Dr Beyza Unal is a senior research fellow with the International Security programme at Chatham House. She specializes in nuclear policy, cyber security, space security, and NATO's defence and security policy at Chatham House. She formerly worked in the Strategic Analysis Branch at NATO Allied Command and Transformation, taught International Relations, transcribed interviews on Turkish political history, and served as an international election observer during the 2010 Iraqi parliamentary elections. Dr Unal's current research interest is in emerging technology applications and security in the Middle East. Dr Unal also conducts research on urban preparedness and city resilience against CBRN threats. She has been given various fellowships for her achievements - most notably she is a William J Fulbright Alumni. She has also received funding from the US Department of Energy to participate workshops in Brookhaven National Laboratory, the James Martin Centre for Non-proliferation Studies, and Sandia National Laboratory.



## **DR. JAMIE SHEA**

Professor of Strategic Studies  
Exeter University

Prior to joining the University of Exeter, Jamie Shea was an international public servant and a member of the International Staff of NATO for 38 years. His last NATO post was Deputy Assistant Secretary General for Emerging Security Challenges. Other positions included Director of Policy Planning in the Private Office of the Secretary General, Deputy Assistant Secretary General for External Relations, Public Diplomacy Division, Director of Information and Press, Spokesman of NATO and Deputy Director of Information and Press, Deputy Head and Senior Planning Officer in the Policy Planning and Multilateral Affairs Section of the Political Directorate as well as Assistant to the Secretary General of NATO for Special Projects. Outside NATO, Jamie Shea has been involved with several prominent academic institutions. For 20 years, he was Professor at the Collège d'Europe, Bruges. He was also Visiting Lecturer in the Practice of Diplomacy, University of Sussex, Associate Professor of International Relations at the American University, Washington DC, where he also held the position of Director of the Brussels Overseas Study Programme. He has also lectured at the Brussels School of International Studies at the University of Kent and at the Security and Strategy institute of the University of Exeter, where he was an Honorary Fellow for six years. Jamie Shea is a Senior Transatlantic Fellow of the German Marshall Fund of the United States and a Senior Fellow at the London School of Economics, where he teaches a course on crisis management and political communication.



## **BRIGADIER GENERAL (RET.) ROBERT MAZZOLIN**

Chief Cyber Security Strategist  
RHEA Group

General Mazzolin has a track-record of excellence in the cybersecurity industry. Previous notable appointments include Director General Information Management Operations, responsible for all Canadian Armed Forces and Department of National Defence strategic network, signals intelligence, electronic warfare and cyber operations, the Commander of the Canadian Forces Information Operations Group, the Director Land Command Systems Program Management responsible for the engineering and programme management of the Canadian Army C4ISR system, and Commanding Officer Canadian Forces Station Leitrim and the Canadian Forces Signals Intelligence Operations Centre. In particular, with reference to the NSPA acquisition, it is relevant to highlight that he also served at United States Cyber Command and among his roles was as the Vice Director for Strategic Policy, Plans and Force Development. This involved being involved in the development and conduct of the US DoD cyber exercise programme which included Cyber Flag, Cyber Guard and the various mission certification activities in addition to the fielding of the Joint Cyber Training Range and concept development for the US DoD's Cyber Range evolution.

General Mazzolin holds a Bachelor of Electrical Engineering, Master of Science with specialization in Electronics and Guided Weapon Systems, Master of Arts in Security and Defence Management and Policy, and a Ph.D. in Engineering Management. He is a licensed Professional Engineer in the province of Ontario and Senior Member of the Institute of Electrical and Electronics Engineers. He is an Officer of the Canadian Order of Military Merit, and among other awards include the United States Legion of Merit, United States Meritorious Service Medal, Canadian Chief of Defence Staff Commendation and the Italian Army Chief of General Staff Commendation for professionalism and courage for actions in Somalia.



## **MS. LARYSSA PATTEN**

Portfolio Manager for Space and Alliance Ground Surveillance  
Joint Intelligence & Surveillance Service Line, NCI Agency

Ms Laryssa Patten is the Portfolio Manager for Space and Alliance Ground Surveillance (AGS) UAV projects in the Joint Intelligence and Surveillance Service Line at NCI Agency. Laryssa has over 20 years of experience in the space industry. She has worked on Satellite Operations, International Space Station Operations and she has supported the European Commission on Space Policy and the Galileo Programme strategy. Laryssa has been working on enhancing space support to NATO operations since 2012. Most recently, this includes leading the effort to establish the NATO Space Technology Centre within NCI Agency.



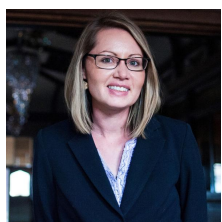


## **MS. SARAH BROWN**

Senior Scientist, Capability Development Branch  
NATO Cyber Security Centre, NCI Agency

Sarah Brown is a cyber security expert with interests in threat intelligence, security standards, and information sharing. She particularly enjoys working across organizations, in a multinational environment, addressing common technical and strategic challenges.

She is serving in the role of senior scientist in the Capability Development Branch within the NATO Cyber Security Centre (NCSC) since August 2016. In this role, she is responsible for requirements capture, policy recommendations, and system design for future cyber security capabilities in NATO and is involved in evaluating NCIA and NATO cyber security programs and recommendations for their evolution. She has focused on technical tasks in the area of cloud security, incident response, and threat intelligence. In addition, she serves as the NCSC industry liaison to ensure an active exchange with leading industry cyber security and has been involved in organizing NATO's flagship cyber security conference, NIAS.



## **MS. ERIN MILLER**

Vice President for Operations, Space-ISAC  
National Cyber Security Center, USA

Erin has over a decade of experience building meaningful tech collaborations and has formed hundreds of formal partnerships between government, industry and academia to solve problems for warfighters and national security. Currently Erin is building a Public-Private Partnership (P3), called Space ISAC. This is the third non-profit launch Erin has led and has been passionate about P3 for her entire career. In her role as Vice President of Operations at Space ISAC, she stood up the organizations board of directors and is leading the organization to its initial operating capability.

Erin was the Managing Director of the Center for Technology, Research and Commercialization (C-TRAC) and brought three USAF-funded programs to bear at the Catalyst Campus for Technology & Innovation ([www.catalystcampus.org](http://www.catalystcampus.org)) from 2016-2018. Her expertise in brokering unique partnerships using non-FAR type agreements led to the standup of the Air Force's first cyber focused design studio, AFCyberWorx at the United States Air Force Academy, and the first space accelerator, Catalyst Accelerator, at Catalyst Campus in Colorado Springs - in partnership with Air Force Research Laboratory and AFWERX. In 2018 Erin was recognized by the Mayor of Colorado Springs as Mayor's Young Leader (MYL) of the Year Award for Technology. She is also the recipient of Southern Colorado Women's Chamber of Commerce Award for Young Female Leader in 2018. In her previous roles she developed and managed intellectual property portfolios, technology transfer strategies, export control/ITAR, secure facilities, and rapid prototyping collaborations.