N3SP
National Security
Strategic Studies Partnership

NATIONAL SECURITY
STRATEGIC STUDIES PARTNERSHIP (N3SP)

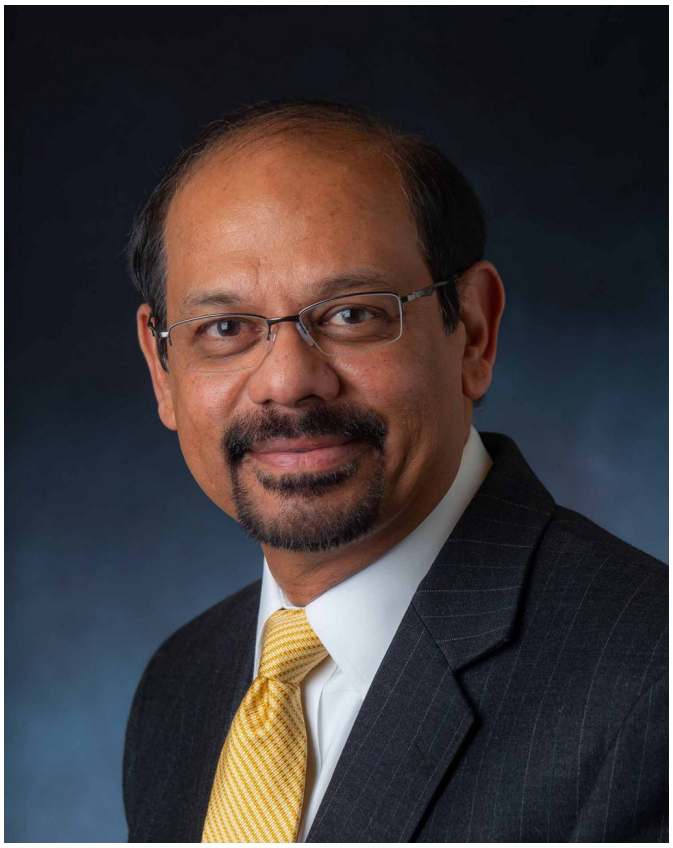
2022 FALL WORKSHOP

SPEAKER BIOGRAPHIES

Welcome Speaker

Venkateshwar ‘Venkat’ Reddy

Chancellor, University of Colorado Colorado Springs



Dr. Venkat Reddy serves as the Chancellor and professor of finance at the University of Colorado Colorado Springs (UCCS). He received his Ph.D. and master’s degrees from Penn State.

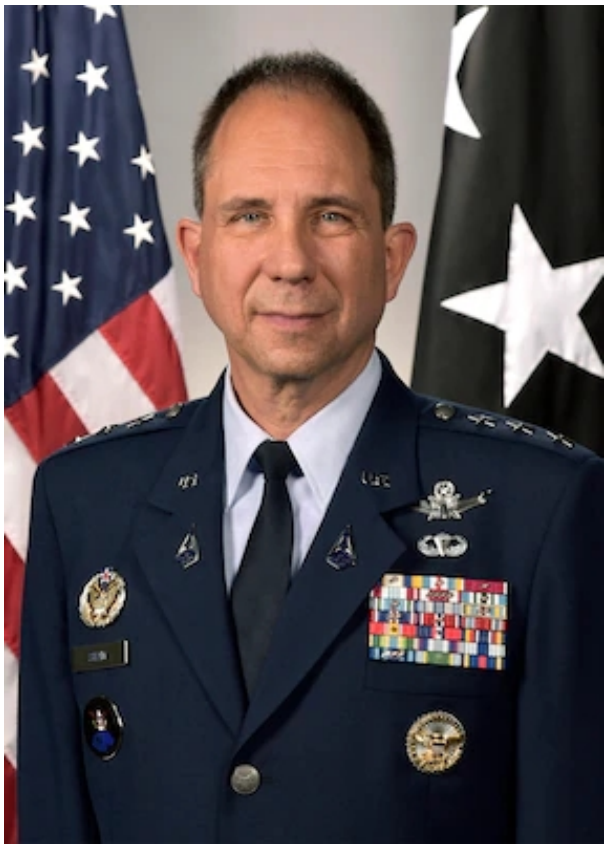
Over the last 30 years, Dr. Reddy has served as a faculty member and dean in the UCCS College of Business prior to taking on the role of Chancellor in 2017. Under Dr. Reddy’s leadership, the campus has taken on strategic initiatives in the areas of health and wellness, cybersecurity, online education, equity, diversity and inclusion, and public-private partnerships. The university has also launched its 2020-2030 Strategic Plan, which charts a clear path for the next decade at UCCS.

Dr. Reddy continues to stay engaged with UCCS alumni, friends of the university, and the Colorado Springs community through a variety of programs. He serves on the National Cyber Security Center Board of Directors as well as one of the Honorary Commanders at the United States Air Force Academy. He is committed to student success and our community success.

Keynote Speaker

Lieutenant General John Shaw

Deputy Commander, United States Space Command



Lt. Gen. John E. Shaw is the Deputy Commander, U.S. Space Command. U.S. Space Command is the Unified Combatant Command responsible for conducting operations in, from, and to space to deter conflict, and if necessary, defeat aggression, deliver space combat power for the Joint/Combined force, and defend U.S. vital interests with allies and partners.

Lt. Gen. Shaw entered the Air Force in 1990 as a distinguished graduate of the U.S. Air Force Academy with a degree in astronautical engineering and a minor in Russian language. He has served in a variety of air and space operations and staff positions, including operations tours in the 50th Space Wing, the National Reconnaissance Office, the 32nd Air Operations Group and the Space Warfare Center. His operational commands have included the 4th Space Operations Squadron, the 50th Operations Group and the 21st Space Wing. He also served at U.S. Strategic Command as Director of the Commander's Action Group and as Deputy Director for Operations, and in the Pentagon as an Air Force intern, as Deputy Chief of Space Strategy and Integration, a speechwriter and as a senior space policy advisor.

Prior to his current position, Lt. Gen. Shaw was dual hatted as the Commander, Combined Forces Space Component Command, U.S. Space Command, and Deputy Commander, Space Operations Command, U.S. Space Force, Vandenberg SFB, California. He also served as the Deputy Commander of Air Force Space Command, United States Air Force.

PANEL ONE: BROTHERS IN ARMS?--THREATS TO COMMERCIAL "DUAL USE" SPACE SYSTEMS

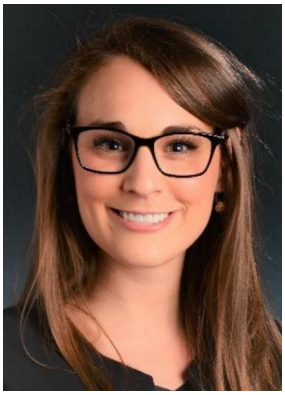
Chair: Dean Cheng, Senior Research Fellow, The Heritage Foundation

Dean Cheng brings detailed knowledge of China's military and space capabilities to bear as The Heritage Foundation's senior research fellow on Chinese political and security affairs. He specializes in China's military and foreign policy, in particular its relationship with the rest of Asia and with the United States. Cheng has written extensively on China's military doctrine, technological implications of its space program and "dual use" issues associated with the communist nation's industrial and scientific infrastructure. He previously worked for 13 years as a senior analyst, first with Science Applications International Corp. (SAIC), the Fortune 500 specialist in defense and homeland security, and then with the China Studies division of the Center for Naval Analyses, the federally funded research institute.

Before entering the private sector, Cheng studied China's defense-industrial complex for a congressional agency, the Office of Technology Assessment, as an analyst in the International Security and Space Program. Cheng has appeared on public affairs shows such as John McLaughlin's One on One and programs on National Public Radio, CNN International, BBC World Service and International Television News (ITN). He has been interviewed by or provided commentary for publications such as Time magazine, The Washington Post, Financial Times, Bloomberg News, Jane's Defense Weekly, South Korea's Chosun Ilbo and Hong Kong's South China Morning Post. Cheng has spoken at the National Space Symposium, National Defense University, the Air Force Academy, Massachusetts Institute of Technology (MIT) and Eisenhower Center for Space and Defense Studies.

Discussion Leaders:

Rachel Cheetham, CEO and Founder, Final Offset LLC



Rachel Cheetham is the CEO and Founder of Final Offset LLC, a consulting firm dedicated to building bridges between government, industry, and academia. Mrs. Cheetham has diverse experience in the aerospace industry from commercial to the Department of Defense (DoD) and serves as a subject matter expert for the space industry. Previously, Mrs. Cheetham served as the Director of the DoD Defense Innovation Board's (DIB) Space Advisory Committee supporting their mission to provide independent advice on strategic, organizational, and technological issues affecting the space domain. Prior to her work with the DIB, Mrs. Cheetham served as the Regional Director of the DoD National Security Innovation Network (NSIN) where she engaged military customers, start-ups, and academic institutions to leverage the best ideas, talent, and technology against critical national security problems. Mrs. Cheetham also served as the Chief of Staff of Sierra Nevada Corporation's Space Systems where she worked with the executive team to coordinate strategy development and execution. Mrs. Cheetham is a collaborator, mentor and has a proven record of elevating others as an advocate and champion of the aerospace industry. Mrs. Cheetham received a Bachelor of Business Administration in International Business and Economics from New Mexico State University and holds a Master of Business Administration from the University of Colorado.

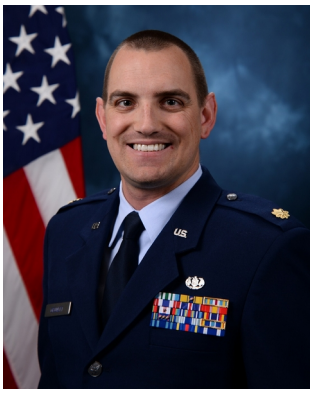
Charlie Crouse, Senior Analyst, Lockheed-Martin

Charlie Crouse is currently a Staff Business Development Analyst within the Special Programs line of business (LOB) of Lockheed Martin Space in Denver, Colorado. He has worked for Business Development and Strategy since August 2021, capturing new business, shaping opportunities, and expanding the market share of a $2B LOB, focusing on small satellites, national classified systems, technology development, JADO, and cislunar development.

Charlie is a former U.S. Air Force Intelligence Officer with nearly seven years of Air Force experience in various operational theaters, strategic planning, intelligence analysis, and the aerospace industry, After earning his commission from the Air Force Academy in 2013, Charlie served in several operational assignments and deployments in wide-ranging roles that included supporting VIP airlift, global threat analysis, tanker and refueling operations, airborne intelligence, and SIGINT analysis and reporting for a variety of customers. After separating from the Air Force in early 2020 as an Assistant Director of Operations, Charlie transitioned to Lockheed Martin.

Charlie received a Bachelor of Science in Foreign Area Studies from the Air Force Academy, a Master of Arts in Intelligence Studies from American Military University, and a Master of Business Administration from Saint Bonaventure University. He sits on a couple of local non-profit boards of directors and volunteers his time to various community causes, to include mentoring cadets and young officers and volunteering with Denver International Airport.

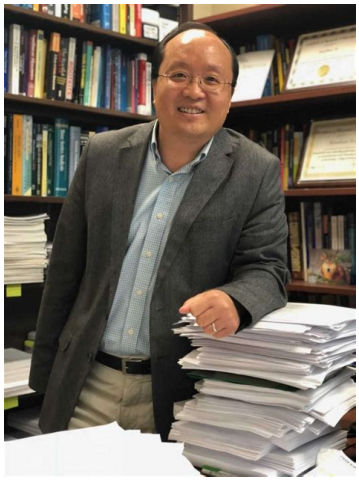
Jeremy Grunert, Department of Law, United States Air Force Academy



Major Jeremy Grunert is an officer in the United States Air Force Judge Advocate General's (JAG) Corps. In this capacity, he has served as a military prosecutor and legal advisor at assignments in Afghanistan, Qatar, Turkey, the United Kingdom, and the United States. Major Grunert is currently assigned to the United States Air Force Academy, where he serves as an Assistant Professor in the Department of Law. He instructs the Academy's core "Law for Air Force Officers" course and is the course director for the Academy's "Space Law" course. Major Grunert is also the Chief of Research for the Academy's Law, Technology, and Warfare Research Cell; in this capacity, he hosts a monthly webinar series on the subject of space law. Finally, Major Grunert is the author of The United States Space Force and the Future of American Space Policy: Legal and Policy Implications (Brill Nijhoff Publishing, 2022) and has published a number of journal articles and commentaries in publications such as the Air Force Law Review, the Journal of Drone Law & Policy, the Pepperdine Law Review, and War on the Rocks, His War on the Rocks articles include "Sanctions and Satellites: The Space Industry After the Russo-Ukrainian War," "The Future of Western-Russian Civil-Space Cooperation," and "The "Peaceful Use" of Outer Space?"

PANEL TWO: SPACE SECURITY AND THE CYBER DOMAIN
COUNTERING THREATS IN CONTESTED ENVIRONMENTS

Chair: Shouhuai Xu, Gallogly Chair in Cybersecurity, University of Colorado Colorado Springs



Shouhuai Xu is the Gallogly Chair Professor in Cybersecurity, Department of Computer Science, University of Colorado Colorado Springs (UCCS). Prior to joining UCCS in 2021, he was with Department of Computer Science, University of Texas at San Antonio. He pioneered a systematic approach, dubbed Cybersecurity Dynamics, to modeling and quantifying cybersecurity from a holistic perspective. This approach has three orthogonal research thrusts: cybersecurity metrics, cybersecurity data analytics, and cybersecurity first-principle modeling (for seeking cybersecurity laws).

His research has won several awards, including the 2019 worldwide adversarial malware classification challenge organized by the MIT Lincoln Lab. His research has been funded by AFOSR, AFRL, ARL, ARO, DOE, NSA, NSF and ONR. He co-initiated the International Conference on Science of Cyber Security (SciSec) and is serving as its Steering Committee Chair. He has served as Program Committee co-chair for several international conferences. He is/was an Associate Editor of IEEE Transactions on Dependable and Secure Computing (IEEE TDSC), IEEE Transactions on Information Forensics and Security (IEEE T-IFS), and IEEE Transactions on Network Science and Engineering (IEEE TNSE). More information about his research can be found at https://xu-lab.org.

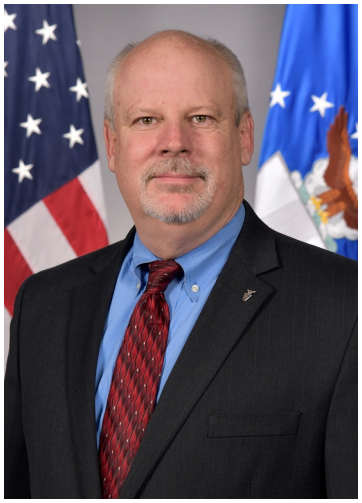
Discussion Leaders: **Calvin Chan, Senior Research Associate, Center for National Security Initiatives, University of Colorado Boulder**

Dr. Calvin Chan is a Senior Research Associate with the Center for National Security Initiatives (NSI) at CU Boulder. (https://www.colorado.edu/center/nsi) He serves as the NSI Lead for Microelectronics and Cyber Security Research, which strives to unite academic, industry, and government partners in research to advance information and protective technologies in emerging critical domains such as space and energy. His work has spanned the entire range of the microelectronics life cycle, from basic materials and device research, to applied systems and technical evaluations. As a respected researcher across national security, defense, and intelligence communities, he is often called upon by industry and government stakeholders to assemble and lead agile teams to quickly research new phenomena and evaluate new technologies for acquisition, integration, deployment, and security.

Prior to joining NSI, Calvin spent 15 years in government laboratories, including Sandia National Laboratories and the National Institute of Standards and Technology. Dr. Chan previously served as a technical program manager for decision makers in the U.S. government, by directing a $2 million annual budget leading multidisciplinary government, industry, and university teams to address urgent priorities impacting multi-billion dollar programs. Calvin is the an author on over 60 peer-reviewed publications, conference proceedings, government reports, and patents. He currently serves on the Organizing Committee and the Technical Programming Committee of the IEEE Symposium on Hardware Oriented Security and Trust, and the Executive Committee of the American Physical Society Four Corners Section. He received his BS, MA and PhD degrees in Electrical Engineering from Princeton University, and was a NRC Postdoctoral Research Associate with the National Institute of Standards and Technology.

Steve Luczynski, Chairman, Aerospace Village

Steve Luczynski is a former US Air Force fighter pilot who is now the Board Chairman for the Aerospace Village when he's not working with clients to improve the security of their critical infrastructure as a Senior Manager at Accenture. After retiring in 2017, he continued his career in infosec as a Chief Information Security Officer, leading a pandemic task force at the Cybersecurity and Infrastructure Security Agency, and promoting better collaboration across government, industry, and hackers.



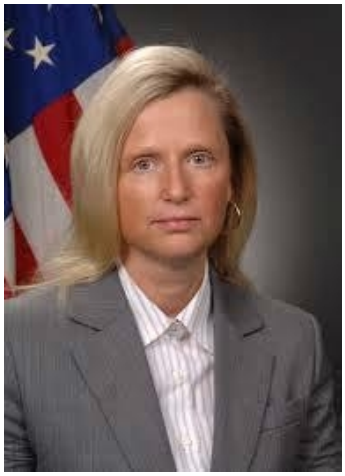
Joel Mozer, Chief Scientist, United States Space Force

Dr. Joel B. Mozer, a Senior Level Executive, is the United States Space Force Director of Science, Technology and Research, the Pentagon, Arlington, Virginia. He serves as the central lead for all science and technology matters for an organization that comprises approximately 11,000 space professionals worldwide and manages a global network of satellite command and control, communications, missile warning and launch facilities. In this role, he develops long-term military requirements for the Space Force and interacts with other principals, operational commanders, combatant commands, acquisition, and international communities to address cross-organizational science and technical issues and solutions. Dr. Mozer represents U.S. Space Force science and technology on decisions, high-level planning, and policy, building coalitions and alliances throughout the U.S. government, industry, academia, the international community, and other scientific and technology organizations.

Dr. Mozer entered government service in 1992 with the U.S. Air Force. Prior to this assignment, he was Chief Space Experimentalist of the Air Force Research Laboratory Space Vehicle Directorate, Kirtland Air Force Base, New Mexico. In that role, he was responsible for managing AFRL's $40 million-per-year investment in research and development related to the development of experimental satellites and payloads and conducted a team of 100 engineers and scientists at Kirtland and Holloman AFB, N.M. — all working to develop cost effective ways to assemble, integrate, test and fly novel spacecraft and systems and to demonstrate new concepts for Defense Department systems and missions. His area of specialization relates to space control and remote sensing — understanding the natural and man-made space environment and developing forecast tools for warfighters, theater battle commanders and other decision-makers to mitigate risks.

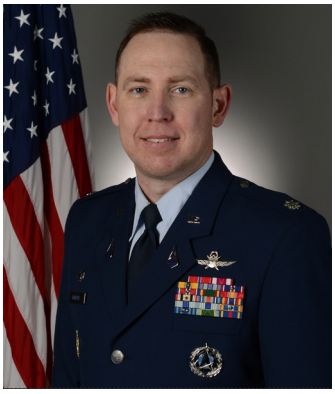
Dr. Mozer has more than 30 years of space science, engineering, management, and financial experience working space and ground systems for the DoD. In addition to the Integrated Experiments Division, he served as Chief of the Battlespace Environment Division and led the laboratory's Space Weather Center of Excellence and was a scientist at the National Solar Observatory at Sacramento Peak. Before arriving to AFRL, Dr. Mozer worked at the Air Force's Radar Attenuation and Scattering facility at Holloman AFB, N.M. where he developed measurement and analysis techniques to study the radar cross section of low-observable aircraft and technology. Prior to that, he worked for the Army's Atmospheric Sciences Laboratory where he developed techniques to quantify the effects of natural and man-made battlefield obscurants on electro-optical sensors.

Dianne Poster, Senior Advisor, National Institute of Standards and Technology



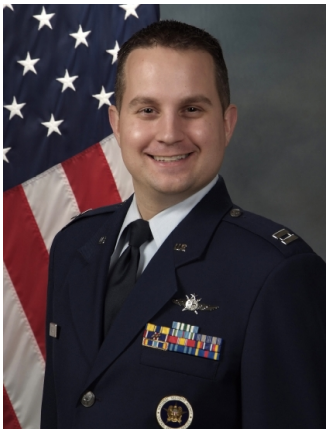
Dr. Dianne Poster provides more than two decades of technical experience in research and development for measurements, standards, technology, and data at the United States Department of Commerce National Institute of Standards and Technology (NIST). Her portfolio has included innovative developments in radiation physics and chemistry, materials engineering, and optical, dimensional, and chemical metrology. Her most recent work supports the U.S. National Oceanic and Atmospheric Administration, National Environmental Satellite Data and Information Service, Office of Space Commerce promoting U.S. space commerce through international technical standards development and innovation in space communications, data, and cybersecurity technologies. Previously, as the deputy associate director for technology and environmental policy at the White House Council on Environmental Quality, Dr. Poster administered the environmental federal regulatory portfolio and advised on policy and strategy issues related to protecting the environment.

Scott Roberts, Commander, 62nd Cyberspace Squadron



Lieutenant Colonel Scott Roberts is the Commander, 62d Cyberspace Squadron, Buckley SFB, Colorado. As the commander, he is responsible for leading 108 personnel executing defensive cyberspace operations to protect the Space Delta 4 missile warning and missile tracking mission area. The command is responsible for developing and presenting combat ready cyberspace operators to deliver defensive space operations effects in the cyberspace domain as part of daily operations supporting Combatant Commanders worldwide.

Prior to taking command, Lieutenant Colonel Roberts served as the Chief, Competitive Activities Division within Checkmate, the Department of the Air Force Headquarters' operational strategy cell and think-tank. In this capacity, he and his team were responsible for providing Department of the Air Force senior leaders near-term, competition-focused strategies and military advice regarding globally integrated operations in the information environment and military employment of informational power. Lieutenant Colonel Roberts is a Distinguished Graduate from the Air Force Reserve Officer Training Corps program at Valdosta State University. commissioned in 2006. He is also a graduate of the US Air Force Weapons School, the inaugural Schriever Space Scholars program, and the School of Advanced Air and Space Studies.

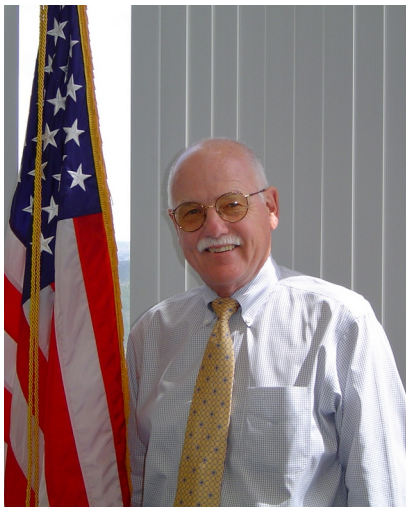


Major Jerad Sayler, Commander, 71st Intelligence, Surveillance, and Reconnaissance Squadron

Maj Jerad K. Sayler assumed command of Detachment 6, 71st Intelligence, Surveillance & Reconnaissance Squadron, Delta 7, Space Operations Command in June 2022. He leads a team of 28 Guardians providing vital intelligence to Delta 6, responsible for the cyberspace defense of all Space Operations Command space mission systems. Maj Sayler is a 2009 graduate of the Reserve Officer Training Corps program, earning a Bachelor's of Science in Computer Science from the University of North Dakota, Grand Forks, ND. Serving as flight commander and chief for several squadrons prior to the transfer Air Force cyberspace operations from Air Force Space Command to Air Combat Command, Maj Sayler became the Branch Chief in the Space Security & Defense Program's Non-Kinetic Effects Division. He transferred to the U.S. Space Force and into the newly formed Spectrum Warfare Center, Headquarters Space Operations Command.

PANEL THREE: MANAGING CONFLICT IN SPACE

Chair: Ambassador Roger Harrison, Professor Emeritus, United States Air Force Academy



Ambassador Roger G. Harrison is the founding director of the Eisenhower Center for Space and Defense Studies at the United States Air Force Academy. Dr. Harrison received his Ph.D. in Government from Claremont Graduate School. He had previously done graduate work at Pembroke College, Oxford University and undergraduate studies at the Free University of Berlin. Dr. Harrison's undergraduate degree in Political Science was awarded by San Jose State University in 1965. Dr. Harrison joined the United States Foreign Service in 1967 and was assigned to Manila, Philippines, as Vice Consul. He was subsequently assigned to Warsaw as Second Secretary (1970-73), London as First Secretary and Deputy Political Counselor (1981-85), and to Tel Aviv as Counselor of Embassy for Political Affairs (1985-87). In Washington, Dr. Harrison served as Special Assistant to the Director of Politico-Military Affairs (1974-75), Deputy Director of the National Security Council Planning Staff at the White House under President Ford (1975-76), Officer in Charge of NATO Political Affairs in the State Department (1979-81), and Deputy Assistant Secretary of State for Defense and Arms Control (1987-9). In the last of these positions, Dr. Harrison chaired all the senior interagency arms control working groups, including the group which successfully backstopped the negotiation which resulted in the treaty with the Soviet Union eliminating Intermediate Range Nuclear Forces. Just as the first Gulf War began, he was appointed by President George H.W. Bush to be the Ambassador to Jordan. He held that position from 1990-93.. Following his retirement, Dr. Harrison worked in private industry as CEO of Specialty Vehicles International. In 2001 he reentered government as first Dean of the Near East South Asia Center for Strategic Studies of the National Defense University.

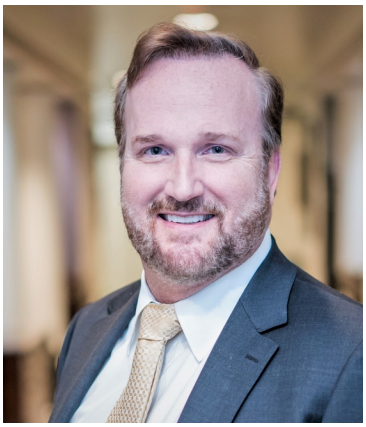
Dr. Harrison has also had extensive experience as a teacher. He has been a member of the Air Force Academy on three occasions: as Associate Professor of Political Science on detail from the State Department (1977-79), as John M. Olin Professor (1993-94) and as Wesley Posvar Chair (2003-present). He was also Distinguished Visiting Professor of National Security at George Mason University, Diplomat in Residence at Colorado College and Adjunct Professor of Business at Colorado State University. Dr. Harrison is the author of numerous commentaries on foreign affairs, has published in the field of political philosophy, and has written op-ed pieces which have appeared in The New York Times, The Los Angeles Times, and The American Interest.

Discussion Leaders:

Joshua Carlson, Managing Editor, Dauntless Space

Joshua P. Carlson is the author of Spacepower Ascendant (2020), a book independently published through Kindle Publishing and available through Amazon. It was the culmination of nearly twelve months of dedicated research and evaluation of both the United States' and China's view of the space domain – and the ongoing strategic conflict there. Josh has spoken at several USAF schools about the current space strategic struggle and how to address it, including the National Security Space Institute (NSSI), Air Command and Staff College (ACSC), Squadron Officers School (SOS). Josh is also the Managing Editor of Dauntless, an online space magazine (https://dauntlessspace.org/), where he provides a platform for discussion and exploration of the future of U.S. and allied space programs. Josh holds a master's in English, with an emphasis in Science Fiction literature from Cal State University Long Beach and a second master's in Military Operational Art and Science from Air Command and Staff College.

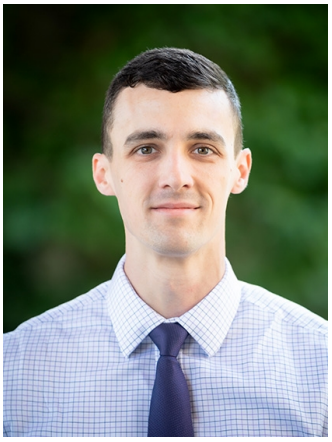
John Klein, George Washington University Space Policy Institute



Dr. John Klein, callsign "Patsy," is a Senior Fellow and Strategist at Falcon Research, Inc., and also instructs space policy and strategy courses at George Washington University's Space Policy Institute, Georgetown University's Strategic Studies Program, and Institute of World Politics at the undergraduate, graduate, and doctorate levels respectively. He routinely writes on space strategy, deterrence, and the Law of Armed Conflict. He is the author of the books Understanding Space Strategy: The Art of War in Space (2019), Space Warfare: Strategy, Principles and Policy (2006), and the forthcoming book Small Space Wars: Irregular Warfare and Competition in the Space Domain (2023), along with a score of other book chapters and articles. Patsy is also a retired Commander, United States Navy, receiving his commission through the NROTC program at Georgia Tech. He served for 22 years as a Naval Flight Officer, primarily flying in the S-3B Viking carrier-based aircraft. Patsy supported combat operations in Iraq and Afghanistan. His tours included Executive Officer of Sea Control Squadron Twenty Four and as the final Commanding Officer of Sea Control Weapons School.

Patsy holds a master's in Aeronautical Engineering from the Naval Postgraduate School, a master's in National Security and Strategic Studies from the Naval War College, and a PhD in Strategic Studies from the University of Reading, England. Patsy is a distinguished graduate of the U.S. Naval Test Pilot School. He has over 2,700 flight hours in 27 different type aircraft and over 600 carrier arrested landings.

PANEL FOUR: ANTI-SATELLITE WEAPONS, HYPERSONIC VEHICLES, AND THE PRESERVATION OF DETERRENCE IN THE 21ST CENTURY



Chair: David Arceneaux

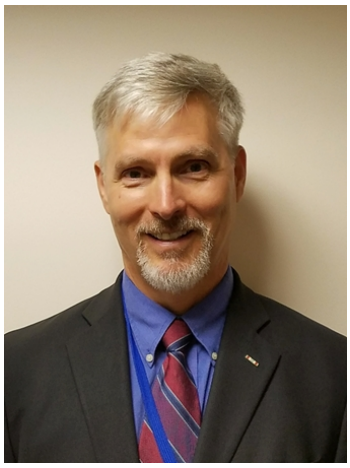
David Arceneaux is an assistant professor of political science at the University of Colorado, Colorado Springs, currently serving as the Rossetti Fellow for Future Conflict in the Air Force Academy's, Institute for Future Conflict. He earned a Ph.D. in political science from Syracuse University in 2019. He also holds a master's degree in political science from Syracuse University, as well as a master's degree in international affairs from the Bush School of Government and Public Service at Texas A&M University. Dr. Arceneaux was previously a postdoctoral fellow at Harvard University's Belfer Center for Science and International Affairs, affiliated with the International Security Program and Project on Managing the Atom. He was also a predoctoral Stanton Nuclear Security Fellow at the MIT Security Studies Program and a Carnegie International Politics Scholars Consortium and Network (IPSCON) predoctoral fellow at John Hopkins University's School of Advanced International Studies (SAIS), affiliated with the Kissinger Center for Global Affairs.

Dr. Arceneaux studies several topics related to international security, with a focus on nuclear weapons strategy and operations. His book project builds upon archival and original interview data with political and military elites to explain variation in regional nuclear power command and control systems. He also has ongoing research projects on nuclear platform diversification and North Korean nuclear operations.

Discussion Leaders:

Michael P. Gleason, Center for Space Policy and Strategy, Aerospace Corporation

Dr. Michael P. "Mick" Gleason is a well-regarded author on space policy subjects including national security space, space weapons, space and deterrence, international cooperation, and space traffic management. He has presented his research on critical space policy issues at conferences in Canada, Europe, Japan, and across the United States. A graduate of the Air Force Academy, Gleason enjoyed 29 years in the space career field with expertise in meteorological, telecommunication, and missile warning satellite operations. His e career included stints on the Academy faculty, the Pentagon, and the State Department. He is the lead author of the 2013 Air Force Space Policy and co-author of NASA's Congressionally directed 2016 Space Traffic Management Study. Gleason holds a Ph.D. in International Relations from George Washington University (GWU) and is an alumnus of the GWU Space Policy Institute. He is the recipient of the Defense Superior Service Medal, the Department of State Superior Honor Award, and the Defense Meritorious Service Medal. Mick frequently contributes to his company's online space policy paper series and webinar/podcast series (www.aerospace.org/policy).



Peter L. Hays, George Washington University

Peter L. Hays is a retired Air Force Lieutenant Colonel who works as a defense contractor in the Pentagon supporting the Assistant Secretary of the Air Force for Space Acquisition and Integration. He has been directly involved in developing and implementing national security space policy and strategy initiatives since 2004. Professor Hays' research interests coincide with his current graduate seminars on “Space and National Security” and “Science, Technology, and National Security Policy” at the Space Policy Institute at George Washington University, service as the Space Chair at Marine Corps University (MCU), and teaching air- and spacepower seminars at the MCU School of Advanced Warfighting.

He was a 1979 Honor Graduate of the USAF Academy and holds a Ph.D. from the Fletcher School of Law and Diplomacy.

Hays’ major publications include: Handbook of Space Security, Space and Security, and Toward a Theory of Spacepower.