

NDIA

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Speaker Biographies

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Hilton Hawaiian Village, Honolulu, HI

MR. RICHARDO ARIAS

Mr. Ricardo Arias is a NASA Subject Matter Expert in Security and Defense Operational Requirements and Capabilities. Funded by OUSD (AT&L) Emerging Capability & Prototyping (EC&P) as the OUSD (AT&L) Science Advisor and LNO to U.S. Africa Command (USAFRICOM), he is a member of the USAFRICOM Science, Technology & Innovation Office, Strategic Capability Division, Resources & Assessments Directorate (J804). Mr. Arias plans, coordinates and manages execution of S&T activities that seek to fill U.S. forces' capability gaps or enhance Partner Nation capacity. Mr. Arias coordinates and manages activities funded by the Joint Capability Technology Demonstration (JCTD), Enabling Technology (ET), Rapid Reaction Technology Office (RRTO), and Rapid Innovation Fund (RIF) programs, as well as technical exchanges, joint experimentation and collaboration with both traditional and non-traditional partners in the African theater. Mr. Arias conducts evaluations of innovative technologies, systems and advanced concepts, and endeavors to enhance technical collaboration with partners in the USAFRICOM Area of Responsibility. He manages experimentation and technical investigations in areas such as Intelligence, Surveillance and Recognizance (ISR); unmanned systems and robotics; information technology and information sharing; environmental security, operational energy and renewable energy, and; humanitarian assistance, and disaster response. He is responsible for the formulation of material solutions to operational needs, demonstrations and validations of technology in operational scenarios, and integration of mature technical capabilities into field activities.

MR. JARED BATZEL

Jared Batzel is the Pacific Disaster Center's liaison to Pacific Command. He holds a Master of Public Affairs degree from Indiana University's School of Public and Environmental Affairs, concentrating in International Development (emphasizing post-conflict and post-disaster recovery with an additional focus on Social Entrepreneurship – studied in conjunction with IU's Kelley School of Business). He also holds a Master of Arts in International Relations from Salve Regina University in Newport, RI and is completing his thesis on The Marshall Plan for a Master of Arts in History from Sam Houston State University in Huntsville, TX. Jared previously served as an Officer in the United States Marine Corps. He served with military police, reconnaissance/special operations, and civil affairs units in deployments around the globe.

LIEUTENANT GENERAL DAVID H. BERGER

Lieutenant General Berger was commissioned as an infantry officer in 1981 following graduation from Tulane University. As a Lieutenant and Captain, he served as platoon commander in 1st Marine Division, and later as company commander and Battalion Operations Officer in 2d Reconnaissance Battalion during Operation DESERT STORM. He also served as Officer Selection Officer in Roanoke, Virginia. As a field grade officer, Lieutenant General Berger was an instructor at Marine Aviation Weapons and Tactics Squadron One (MAWTS-1) in Yuma, Arizona; instructor at III MEF Special Operations Training Group; and served on the Joint Staff as a policy planner in the Strategic Plans and Policy Directorate, J-5. Lieutenant General Berger commanded 3d Battalion, 8th Marines

from 2002 to 2004, deploying the Battalion first to Okinawa, and later to Haiti in support of Operation SECURE TOMORROW. As a Colonel, Lieutenant General Berger commanded Regimental Combat Team 8 in Fallujah, Iraq during Operation IRAQI FREEDOM. While serving as Assistant Division Commander of 2d Marine Division, he was appointed to the rank of Brigadier General. He then deployed to Kosovo, where he served for one year as Chief of Staff for KFOR Headquarters in Pristina. From 2009 to 2011, he served at Headquarters Marine Corps as the Director of Operations in Plans, Policies, and Operations. In 2012, he deployed to Afghanistan as the Commanding General of 1st Marine Division (Forward) in support of Operation ENDURING FREEDOM. Lieutenant General Berger served as Commanding General, MAGTF Training Command, Marine Corps Air Ground Combat Center from 2013 to 2014. In July 2014, Lieutenant General Berger was promoted to his current rank and assumed command of I MEF. In addition to a B.S. in Engineering, he holds a Master of International Public Policy from Johns Hopkins University School of Advanced International Studies, and a M.S. in Military Studies. His formal military education includes the U.S. Army Infantry Officer Advanced Course, U.S. Marine Corps Command and Staff College, and U.S. Marine Corps School of Advanced Warfighting. He is a graduate of the U.S. Army Ranger School, Jumpmaster School, U.S. Navy Dive School, and U.S. Marine Corps Amphibious Reconnaissance School. Lieutenant General Berger assumed command of U. S. Marine Corps Forces, Pacific on August 26, 2016.

CDR JOHN BERNIE

CDR John Bernie serves as an intelligence officer in the US Navy reserve component, and is currently on Active Duty orders with PACOM J81, serving as the Operational manager for the Low Cost Cruise Missile JCTD. As a DOD civilian, John Bernie serves as the Deputy Chief of the Capabilities Integration branch at PACOM Joint Intelligence Operations Center. Prior to his current position he has served at JDET Honolulu and with C3F Maritime Air Operations Detachment Honolulu as the N2/ Targeting Department head, as well as with a prior tour with JIOC O419, as well as tours with NSAWC O194 and COMPACFLT His deployments include USS Abraham Lincoln, where he led target development for CVW 14 for Operation Iraqi Freedom from Jan-April of 2003, USS Abraham Lincoln (2002), and USS Nimitz (2001). CDR Bernie began naval service with a commission after graduating from University of Colorado and completing the NROTC program. He served as intelligence officer in the Navy until 2001, when he transitioned to the reserves and started his career in the private sector.

MR. TODD BOSSE

Todd Bosse has worked with PDC for over 14 years, handling a wide range of disaster management projects and activities. Mr. Bosse has extensive experience working in the fields of disaster and information management in a variety of national and international settings, including projects in over thirty-five countries in the Asia Pacific, Latin America and Caribbean regions. In his current position, he provides support for disaster risk reduction projects by serving as a Disaster Management Specialist at PDC. As a

senior member of the Disaster Services Team, Mr. Bosse provides customer support and consultation to partners interested in integrating technologies, methods, and information products into disaster risk reduction activities and decision making processes. Mr. Bosse has extensive experience in analyzing data using geographic information systems (GIS), standard statistical methods, and risk and vulnerability assessment methodologies. Mr. Bosse previously served as PDC's Exercise Lead, responsible for coordinating and managing the use of PDC products and services to support partners/clients in exercises of various scales. Following numerous major disasters, Mr. Bosse has been deployed to provide onsite supporting during response operations including events within the State of Hawaii, and international events such as the Indian Ocean Tsunami, Super Typhoon Haiyan (Philippines) and Hurricane Matthew (Haiti, The Bahamas).

GENERAL ROBERT B. BROWN

General Robert B. Brown assumed command of the United States Army's largest Service Component command, U.S. Army Pacific (USARPAC), April 30, 2016. The command is headquartered at Fort Shafter, Hawaii with portions of the command-forward deployed and based throughout the Indo-Asia Pacific. USARPAC's 106,000 Active, Reserve Soldiers and Department of the Army Civilians support the nation's strategic objectives and commitment to the region. Prior to this assumption of command, General Brown most recently served as the Commanding General, U.S. Army Combined Arms Center at Fort Leavenworth, Kansas, where he led the synchronization of education; leader development; training support & development; and the development and integration of the doctrine the U.S. Army uses to fight and win our Nation's wars. During various times during his service, General Brown has served twelve years with units focused on the Indo-Asia Pacific region, including Commanding General, I Corps and Joint Base Lewis-McChord; Deputy Commanding General of the 25th Infantry Division including a second deployment to Operation Iraqi Freedom; Training & Exercises Director J7, United States Pacific Command (USPACOM); Executive Assistant to the Pacific Command Commander; Plans Officer, United States Army Pacific (USARPAC); and Commander of the 1st Brigade Combat Team (Stryker), 25th Infantry Division including a deployment to Operation Iraqi Freedom. General Brown was commissioned a second lieutenant of Infantry from the United States Military Academy in May 1981, and has served in many leadership positions from platoon to Corps, including as Platoon Leader and Company Commander in mechanized infantry units at Fort Carson, Colorado; Battalion Commander of 2-5 Cavalry, a mechanized infantry battalion at Fort Hood, Texas including a deployment to Bosnia-Herzegovina in support of OPERATION JOINT FORGE; and Commanding General of the Maneuver Center of Excellence (Infantry and Armor Forces) and Fort Benning, Georgia. General Brown has also served in numerous staff positions including: Assistant Professor of Military Science and Deputy Director, Center of Enhanced Performance, United States Military Academy; Plans Officer at USARPAC; Operations Officer, Executive Officer and Chief, G-3 Training in the 25th Infantry Division including a deployment in support of OPERATION UPHOLD DEMOCRACY in Haiti; Personnel Assignment Officer in Human

Resources Command; Aide-de-Camp/Assistant Executive Officer to the Vice Chief of Staff, Army; Plans Officer in the Department of the Army G-3/5/7; a Program Analyst in the Dominant Maneuver Assessment Division, Joint Staff (J8); Executive Assistant to the U.S. Pacific Command Commander and Director, J-7 (Training and Exercises) at USPACOM; and Chief of Staff United States Army Europe (USAREUR) / Deputy Commanding General U.S. Army NATO. His decorations include the Distinguished Service Medal (two Oak Leaf Clusters), the Defense Superior Service Medal, Legion of Merit, Bronze Star Medal (Oak Leaf Cluster), Defense Meritorious Service Medal, Meritorious Service Medal (Oak Leaf Cluster), Joint Service Commendation Medal, Army Commendation Medal (three Oak Leaf Clusters) and the Army Achievement Medal. He has earned the Combat Infantryman Badge, Expert Infantryman Badge, Parachutist Badge, Air Assault Badge, Joint Chiefs of Staff Identification Badge, and the Army Staff Identification Badge. General Brown holds a Bachelor of Science from the United States Military Academy, a Master of Education from the University of Virginia, and a Master of Science in National Security and Strategic Studies (Distinguished Graduate) from National Defense University.

GROUP CAPTAIN RUNGTHAM BUATANG

POSITION: DIRECTOR, INFORMATION DIVISION, DSTD
MILITARY EDUCATION: OFFICER BASIC COURSE
OFFICER ADVANCE COURSE
AIR COMMAND AND STAFF COLLEGE, RTAF 49
SPECIALIZE: COMPUTER AND NETWORK, INFORMATION OPERATIONS

MS. MELISSA BURNS

Melissa Burns's career has included positions in private industry, academia, government and the non-profit world, working on topics to include policy development and analysis, public health, international development, and environment/ natural resources risk analysis and protection. Ms. Burns currently serves as Senior Program Management support to United States Pacific Command (USPACOM), J9 Pacific Outreach Directorate. Her work focuses on strategy and program development to guide USPACOM actions in the Indo-Asia Pacific region during steady-state operations. In particular, Ms. Burns focuses on devising a strategy and building programs to address disaster response, resilience and environmental security issues, to include pandemic response. This work has called upon her to interact, work with and facilitate a broad range of actors from across US Department of Defense and the US Interagency, cross-DOD, international, academic and non-profit organizations with individuals working in the areas of policy, science & technology, operational tactics and technical experts. Ms. Burns brings nearly 20 years of experience in She has over 15 years of experience in project management, marketing and outreach, community and economic development, program development, management and evaluation. Before working with USPACOM, Melissa served as Vice President of a solar power and water management company which supports humanitarian and economic assistance programs overseas, developed and evaluated public health programs as a project manager and research consultant for a NY-based consulting firm, developed outreach strategies for less-developed countries in support of UNICEF initiatives, managed and worked as a Legislative Analyst for the New York State Assembly. She holds a Master's degree from Cornell University.

KENDALL L. CARD

Following his graduation from Vanderbilt University in 1977 with a degree in Mechanical Engineering, Vice Admiral (Retired) Card was commissioned an Ensign in the U.S. Navy. From 1979 to 2005, he served in various operational tours at sea, flying from the decks of USS Forrestal, USS America, USS Theodore Roosevelt, USS Saratoga, and USS Enterprise. He commanded Helicopter Anti-submarine Squadron 15, USS Rainier, and USS Abraham Lincoln. Under his command, the USS Abraham Lincoln participated in Operations Enduring Freedom, Southern Watch, and Iraqi Freedom, as well as Operation Unified Assistance in support of the tsunami relief efforts in Sumatra, Indonesia.

Following his selection as a flag officer in 2006, he served as Director, Command Control Systems, North American Aerospace Defense Command and US Northern Command; Expeditionary Strike Group Three Commander, Task Forces 51/58/59/151/158; Commander, and Director of Concepts, Strategies, and Integration for Information Dominance. His last assignment, from 2011 to 2013, was as the Deputy Chief of Naval Operations for Information Dominance and the 64th Director of Naval Intelligence. Kendall joined Oak Ridge National Laboratory shortly after his retirement in October 2013, where he currently serves as Director, Department of Defense and Intelligence Community Integration. As the Director, Kendall focuses on national level defense challenges with emphasis on understanding customer requirements, synchronizing laboratory activities, and building partnerships with other national labs and government agencies.

In addition to his bachelor degree from Vanderbilt University, Kendall holds a master's degree in national security and strategic studies from the US Naval War College, and graduated from the US Naval Test Pilot School Class '86. His decorations include the National Intelligence Distinguished Service Medal, the Defense Superior Service Medal, Legion of Merit (three awards), Bronze Star, and various personal, service, and campaign awards. Kendall and his wife, Becky, have two children and six grandchildren. His favorite activities include exercising, which he does often, and golfing, which he does poorly. He and Becky are also avid baseball fans.

ANTHONY T. CORTESE

Anthony T. Cortese, a native of Berlin, Maryland, graduated from Wake Forest University with a Bachelor of Science in Chemistry and received his commission in the Navy after attending Officer Candidate School in September 1978. After completing nuclear power training and Submarine School in December 1979, he reported to USS BIRMINGHAM (SSN 695) where he served as an Engineering Division Officer and Weapons Officer until November 1983. He was Engineer Officer on USS LOS ANGELES (SSN 688) from August 1986 to March 1989 and Executive Officer of USS WILLIAM H. BATES (SSN 680) from September 1991 to June 1993. Shore duty assignments included Staff Training at Nuclear Power Training Unit, Idaho Falls, Idaho from December 1983 to December 1985, as Squadron Material Officer of Submarine Group SEVEN in Yokosuka, Japan from March 1989 to July 1991 and as a member of the Commander Submarine Force, U.S. Pacific Fleet, Tactical Readiness Evaluation team from July 1993 to September 1995. Command assignments included USS TOPEKA (SSN 754) from

May 1996 to November 1998 and USS GREENEVILLE (SSN 772) from February 2001 to May 2001. USS TOPEKA was awarded the Commander Submarine Squadron SEVEN Tactical "T" for 1998. Post command assignments included Deputy Commander Submarine Squadron ONE in Pearl Harbor, Hawaii from December 1998 to December 2001, Director of Current Operations for U.S. Pacific Command from December 2001 to August 2004 and Deputy Director of Intelligence at U.S. Pacific Fleet from August 2004 to March 2007.

Since retiring he has held positions with Scientific Applications International Corporation (SAIC) as Program Manager for Maritime Domain Awareness, and with Referentia and Cubic as a Senior Military Analyst in direct support of U.S. Pacific Command Joint Exercise Program.

COLONEL EVAN C. DERTIEN

Colonel Dertien received his commission from the United States Air Force Academy in June 1993. After attending Euro-NATO Joint Jet Pilot Training he served as an operational F-15 pilot and completed 3 combat deployments. He then served as an F-15 RTU instructor pilot and was selected to attend USAF Test Pilot School. After graduating from USAF TPS, he worked as an F-15, F-16 and F-22 test pilot in various test assignments. He was also assigned as an initial cadre instructor pilot for the first operational F-22 unit at Langley AFB, VA. He has served as a Flight Test Squadron Commander, Vice Wing Commander, Test Wing Commander and Vice Center Commander. Colonel Dertien is a Command Pilot with over 3,000 flying hours in a variety of aircraft. He is married to Erika O'Malley of Colorado Springs, CO and they have three children.

MARTIN (MARTY) A. DRAKE

A U.S. Naval Academy graduate with a Bachelor of Science in Systems Engineering. Holds a Master of Arts in National Security and Strategic Studies from the U.S. Naval War College. Graduate of the Harvard University Kennedy School of Government Senior Executive Fellow course. Qualified as a Surface Warfare Officer, serving in five ships; commanding two – USS PEGASUS (PHM-1) and USS THORN (DD988). Deployed five times to the Western Pacific, Indian Ocean, Mediterranean, and Middle East. Conducted numerous counter-drug/law enforcement patrols with the U.S Coast Guard in the Western Atlantic, Gulf of Mexico, and Caribbean while assigned in PEGASUS. Focus while assigned in surface ships was Weapons and Combat Systems. Also held assignments as an Engineering Officer in both steam- and gas turbine-powered ships. Held principal staff positions ashore in the U.S. Naval Academy (Instructor), Commander-in-Chief, U.S. Atlantic Fleet (Chief of Exercises), Naval Amphibious School (Deputy Director for Total Quality Leadership), a first tour in Commander, U.S. Central Command (Chief of Exercises; Division Chief, Transformation and Integration; Deputy Director, Resources and Assessment); and Office of the Secretary of Defense (Military Advisor to the Director, Defense Research and Engineering. Participated in numerous named operations and special missions, to include: EARNEST WILL, PREYING MANTIS (awarded the Combat Action Ribbon & the Navy Commendation Medal with Combat "V" authorized), ENDURING FREEDOM, IRAQI FREEDOM, NEW DAWN, and subsequent operations. Currently directs a staff chartered to conduct discovery,

research, analysis, and sponsor development of new and emerging technologies and techniques which have the potential to provide solutions to Headquarters and Service – Army, Navy, Air Force – Component validated Joint needs. Additionally, pursues integrating and non-material solutions to satisfy current and future military operational capability gaps. Holds a Defense Acquisition Workforce Improvement Act (DAWIA) Level III Systems Planning, Research, Development, and Engineering (SPRDE) qualification for Technology Management.

LT COL KENNETH A. FISHER, PH.D., USAF

Lt Col Kenneth A. Fisher, Ph. D., is the Deputy Science and Technology Advisor, HQ USPACOM, Camp Smith, Hawaii. He advises the Commander, US PACOM, on warfighter capability gaps, technological mitigation strategies, and builds international partnerships through science and technology collaborations. He also serves as the Vice Chairman of the US PACOM Science and Technology Board, which supports operations, contingencies and exercises in the US PACOM theater of operations, and Secretary of the US PACOM–Singapore Armed Forces Capability Development Working Group. Previously, Lt Col Fisher served Assistant Professor of Electrical Engineering and Deputy Director of the Advanced Navigation Technology Center, during which he taught graduate engineering courses, advised students, and coordinated 80 officers, civilians, and contractors in support of advanced engineering research in autonomous systems, alternative navigation, and navigation warfare.

MR. GEORGE GALDORISI

George Galdorisi is Director for Strategic Assessments and Technical Futures at SPAWAR Systems Center Pacific. Prior to joining SSC Pacific, he completed a 30-year career as a naval aviator, culminating in 14 years of consecutive experience as executive officer, commanding officer, commodore, and chief of staff; including command of HSL-43, the Navy's first operational LAMPS Mk III squadron, HSL-41, the LAMPS Mk III Fleet Replacement Squadron, USS Cleveland (LPD-7), and Amphibious Squadron Seven. His last operational assignment spanned five years as Chief of Staff for Cruiser-Destroyer Group Three, during which he made deployments to the Western Pacific and Arabian Gulf embarked in the USS Carl Vinson and USS Abraham Lincoln. He is a 1970 graduate of the U. S. Naval Academy and holds a Masters Degree in Oceanography from the Naval Postgraduate School and a Masters Degree in International Relations from the University of San Diego.

ROGER GARAY

Roger Garay currently serves as DTICs lead for Combatant Command (CCMD), Joint Staff and OSD level staff coordination. He supports Agency coordination with the CCMDs ensuring their needs are addressed in the varied S&T forums available to ensure they acquire the innovative solutions necessary to underpin the capabilities needed to perform their mission sets. Provides contracting support via the DTIC Energy OTA (Other Transaction Authority). He recently retired from the Marine Corps after 33+ years of uniformed service. While on active duty he served in a wide variety of Combat Arms Leadership positions which include command at every level from Platoon through Regiment and several

tours in Iraq. As a staff officer he completed an acquisition tour as the HIMARS Program Manager. His Pentagon assignments included tours in the Commandant of Marine Corps Strategic Initiatives Group, service as the USMC Program Objective Memorandum (POM) Branch Head and Military Assistant to the Director of OSD, CAPE. He was commissioned with USNA Class of 1986. He is also a graduate of the Marine Corps Command & Staff College and the Industrial College of the Armed Forces.

DR. WILLIAM H. GOLDSTEIN

Dr. William H. Goldstein is the twelfth Director of the Lawrence Livermore National Laboratory (LLNL). He is responsible for the management of the Laboratory and also serves as the President of Lawrence Livermore National Security (LLNS), LLC. Dr. Goldstein leads a workforce of approximately 6000 employees, and manages an annual operating budget of around \$1.5 billion. As Laboratory Director he shares the responsibility, along with the directors of Los Alamos and Sandia National Laboratories, of providing the President, through the Secretaries of Energy and Defense, an annual assessment of the safety, security, and effectiveness of the nuclear weapons stockpile, and whether confidence in the stockpile can be maintained without a nuclear test. He is committed to carrying on a tradition of scientific and technical excellence in service to the Nation. Prior to being selected as LLNL's Director in 2014, Dr. Goldstein served as Deputy Director for Science and Technology (DDST) at LLNL, where he led the strategic deployment of the Laboratory's portfolio of world-class science, technology, and engineering (ST&E) capabilities and managed the long-term health of ST&E at the Laboratory. He had line responsibility for the Laboratory's internal ST&E investment portfolio, which includes the Laboratory Directed Research and Development (LDRD) Program, and oversaw collaborative research with academia and private industry, and institutional planning activities. Between 2001 and 2012, as Associate Director, Dr. Goldstein led the Laboratory's Physics and Advanced Technologies Directorate which later became the Physical and Life Sciences Directorate, performing research in condensed matter and materials science, chemical and biological science, atmospheric and earth systems science, high energy density physics, nuclear science, and high energy physics, in support of LLNL's energy, nuclear, and international security missions. Dr. Goldstein has been a leader in the establishment and management of the Department of Energy's stockpile stewardship program. He formulated and initially led LLNL's Physical Data Research Program, with responsibility for providing experimentally validated equations-of-state, material properties, opacities, and nuclear cross section and transport data for nuclear design. Dr. Goldstein's main research interests have been in computational modeling of highly charged ions, atomic spectroscopy, and radiative processes in plasmas. His work has significantly advanced the understanding of high energy density plasma properties through spectral modeling, and has been applied in x-ray laser, high-energy astrophysics, and fusion energy research. Dr. Goldstein co-authored the concept of atomic "super transition arrays (STA)," a major advance in the simulation of heavy element opacity and plasma kinetics. He helped develop the first spectroscopic diagnostics for astrophysical photo-ionized plasmas and designed some of the earliest laboratory astrophysics experiments using

high-power lasers. Goldstein led the application of atomic modeling and the STA method to problems in the Department of Energy's nuclear-pumped x-ray laser, weapons physics, and ICF programs that resolved a series of scientific problems. Dr. Goldstein received his Ph.D. in theoretical physics from Columbia University in 1983, for work on symmetry breaking in models with composite quarks and leptons. As a postdoctoral fellow at the Stanford Linear Accelerator Center (SLAC), he studied magnetic monopoles before joining LLNL in 1985. Dr. Goldstein received a DOE Weapons Recognition of Excellence Award in 1994 and he became an AAAS Fellow in 2009.

MARK HADLEY

Mark Hadley has been a Senior Research Scientist at Pacific Northwest National Laboratory since 2001. His research focus the past twelve years has been control system security and critical infrastructure protection. Hadley has a proven track record working on collaborative projects with industry in the energy sector. He led the PNNL team transferring the Secure SCADA Communications Protocol (SSCP) to Schweitzer Engineering Laboratories under the Hallmark Project, was the cyber assessment lead for the award-winning SPIDERS project, and has worked with some of the largest suppliers of control system equipment such as Siemens, AREVA, and Telvent to improve the security of new and existing systems and components. Hadley is also a cyber security analyst providing SCADA and Industrial Control System (ICS) expertise to the Cyber Security Risk Information Sharing Program (CRISP). His work in control system security and critical infrastructure protection supports the Department of Energy, Department of Homeland Security, Department of Defense, and other private industry clients where he provides cyber security expertise, training, and assessments of products and systems. Prior to joining PNNL, Hadley was a network architect for the Washington State Department of Personnel for 11 years. In total, he has thirty years of application development, network security, and critical infrastructure protection experience.

COLONEL PAULA HAMILTON

Colonel Paula A. Hamilton is the Director of the Office of Science and Technology for NORAD/US NORTHCOM J8. Colonel Hamilton earned her commission through the Air Force Officer Training School in 1991, after serving ten years enlisted active duty time as an aircraft avionics technician. After graduating from Southern Illinois University with a Bachelor of Science in Electronics Technology and Management, she served as a Missile Launch Control Officer at Malmstrom AFB. While on crew there, she earned a Masters Degree in Aeronautical Science from Embry Riddle Aeronautical University. From there, Colonel Hamilton was selected to crossflow into Space Operations where she has performed duties in all five space mission areas, Launch, Command and Control, Missile Warning, Surveillance and Tracking. She has deployed in support of Operation Iraqi Freedom and Operation Enduring Freedom.

JOHN N. HANNA

John N. Hanna has over 18 years of leadership in technology, business development and innovation delivery. He has managed programs, built and motivated teams in demanding customer environments, and has developed long-lasting and trusting

relationships with many national security organizations such as the CIA, FBI, DIA, NGA and throughout the Department of Defense (DoD). Mr. Hanna currently serves as Vice President of U.S. Government Programs at Spaceflight Industries. Spaceflight is the driving force behind looking at our planet in real-time, providing an easy, affordable way to order and access high-quality satellite imaging to vastly improve understanding about our world. Through a planned 60-satellite constellation capturing over 95 percent of the Earth's populated area, the company will provide near real-time satellite imagery to ensure businesses, nonprofits, and governments make well-informed decisions. Prior to Spaceflight, Hanna was a Director at In-Q-Tel (IQT), responsible for leading their support to the DoD and Defense Intelligence Agency. IQT is the not-for-profit strategic investment firm that identifies, adapts and delivers innovative technologies from venture-backed start-ups, to support the missions of the U.S. Intelligence Community (IC). Mr. Hanna has led numerous investments on behalf of his government customers and is an established technology leader within the IC and DoD. While leading IQT's support to the DoD's Defense Innovation Initiative (DII), Hanna quadrupled IQT's DoD account from \$10M in 2015 to \$20M in 2016 to \$40M in 2017 (programmed). In addition to overseeing customer relationships, Mr. Hanna worked closely with government leaders to test, evaluate and transition innovative technologies to support their most critical missions. Prior to joining IQT, Mr. Hanna was at The MITRE Corporation, where he led their efforts at the CIA's Community Human Intelligence (HUMINT) Coordination Center and served as MITRE's program lead for the DoD's Special Communications Enterprise Office. He also led MITRE's efforts in establishing the Pentagon's Joint Intelligence Task Force on Darfur, the FBI's National Cyber Investigative Joint Task Force and the Office of the Undersecretary of Defense for Intelligence's Tagging, Tracking and Locating program. Mr. Hanna's career in intelligence and national security began with his service in the United States Air Force. As an Intelligence and Foreign Area Officer stationed in Germany, Hanna led and organized the scientific and technical intelligence research, analysis and collection of weapon systems in Europe, Asia, the Middle East and Africa. He followed this assignment as a HUMINT Officer assigned to the Defense Intelligence Agency in Washington, DC. Mr. Hanna has two advanced degrees. He earned a Master of Arts degree in Political Science and National Security from Virginia Tech, as well as a post-graduate degree in Strategic Intelligence from the National Intelligence University. He holds a Bachelor of Science degree in Engineering from Penn State University where he and was a cadet in the U.S. Air Force's ROTC Program.

DR. RONALD K. HANN, JR.

Dr. Ron Hann, a member of the Senior Executive Service (SES), is the Director, Chemical/Biological Technologies Department (J9CB) for the Defense Threat Reduction Agency (DTRA) and the USSTRATCOM Center for Combating Weapons of Mass Destruction (SCC-WMD), located on Fort Belvoir, Va. DTRA/SCC-WMD safeguards America and its allies from weapons of mass destruction (chemical, biological, radiological, nuclear, and high explosives) by providing capabilities to reduce, eliminate, and counter the threat, along with mitigating its effects. Dr. Hann oversees a vibrant science and technology department that works with industry, research universities, other agencies

within the Department of Defense and the U.S. government to research, develop and field revolutionary technologies that address the threats posed by chemical and biological weapons, materials, agents and emerging diseases to our warfighters; J9CB also includes the Joint Science and Technology Office, a member of the Chemical and Biological Defense Program (CBDP). This office, established in 2003 by Congress, is tasked to develop, coordinate, integrate, execute, and transition DoD CB S&T medical and nonmedical programs in response to Joint Requirements Office for Chemical, Biological, Radiological, and Nuclear Defense requirements, the Joint Program Executive Office for Chemical Biological Defense programs, and Chemical and Biological Defense Program Test and Evaluation technology needs. Dr. Hann was promoted to the SES in April 2014 following his retirement from the U.S. Army Chemical Corps after almost 27 years of active duty. Prior to his current assignment, he was the Acting Director of J9CB. His first military tour with DTRA/SCC-WMD was in 2002 where he was assigned as a Mission Commander to the Chemical and Biological Division, On-Site Inspection Directorate. As mission commander, he led over 20 sensitive inspections at US chemical storage and destruction facilities in cooperation with the OPCW. While in that tour, he helped train, equip, deploy and led site exploitation teams in Iraq in the search for evidence of Saddam Hussein's WMD program. Following that tour, he earned a doctorate in Organic Synthesis from the University of Virginia; then taught Organic Chemistry at the U.S. Military Academy at West Point where he was promoted to assistant professor of chemistry. While there, his research efforts in "green" chemistry with the Pyrotechnics Pilot Plant at Picatinny Arsenal, N.J., earned him a co-patent for barium free white light signals and several co-authored papers published in peer reviewed journals. Dr. Hann's other assignments in the Army included Squadron Operations Officer (S3) for the 2nd Cavalry Regiment, Fort Polk, La., (2001-02); Division Liaison Officer for 3rd Infantry Division in Bosnia, Herzegovina (2000-01); Regimental Chemical Officer of the 2nd Cavalry Regiment, Fort Polk, La., (1999-2000); Instructor/Assistant Professor of Chemistry at the U.S. Military Academy at West Point, N.Y. (1994-97 and 2008-12); Commander of Radcliff Recruiting Company, Nashville Recruiting Battalion (1993-94); Future Concepts and Studies Officer, Directorate of Combat Developments, Fort McClellan, Ala., (1991-93); Brigadier Chemical Officer for the 210th Field Artillery Brigade, Force Field Artillery Headquarters for the 2d Armored Cavalry Regiment where he fought in Operations Desert Shield and Desert Storm; Battalion Chemical Officer, 2nd battalion, 12th Field Artillery in Herzogenaurach, Germany (1988-91). Dr. Hann received an ROTC scholarship and was commissioned as an officer in 1986; he first enlisted in the U.S. Army Reserve as an Infantryman in 1983. In addition to Dr. Hann's Ph.D. in Organic Chemistry from the University of Virginia, he holds both B.S. and M.A. degrees in Chemistry from the College of William and Mary in Williamsburg, Va. His military awards include the Defense Superior Service Medal, Bronze Star, the Defense Meritorious Service Medal, the Meritorious Service Medal with four oak leaf clusters, the Army Commendation Medal with one oak leaf cluster, the Joint Service Achievement Medal, the Army Achievement Medal with four oak leaf clusters, the National Defense Service Medal with Service Star, the Armed Forces

Expeditionary Medal, the Southwest Asia Service Medal with two campaign stars, the Iraqi Campaign Medal with two service stars, the Global War on Terrorism Service Medal, the NATO Service Medal, Liberations of Kuwait Service Medals and other service ribbons.

JENNIFER HARLAN

Lieutenant Colonel Jennifer Harlan came to the Daniel K. Inouye Asia-Pacific Center for Security Studies in August 2016 as a US Army Fellow. A Strategic Intelligence officer, Jenny was privileged to represent the US Army in the White House Situation Room from 2011-2013, where she supported the President of the United States and the US National Security Advisor and coordinated with foreign national security leaders and their teams. Most recently, LTC Harlan served with the US Army's I Corps, whose missions include building military-to-military relationships and enhancing partner capacity in the Indo-Asia Pacific region. LTC Harlan is a University of Michigan Army ROTC Distinguished Military Graduate, where she received a Bachelor of Arts degree with Distinction and Honors in English. Jenny holds Master of Science and Master of Arts degrees in Strategic Intelligence. She also holds an International Baccalaureate Diploma. Jenny's international experience includes a combat deployment to Iraq, two tours in the Republic of Korea, thesis research in Kenya, and operations support in Japan and Australia. Her awards include the Bronze Star, Defense Meritorious Service Medal, and Meritorious Service Medal. She has also been awarded the Presidential Service Badge and the Parachutist Badge. LTC Harlan's current research interest is US defense cooperation with India and Vietnam.

J. SCOTT HAUGER, PH.D.

Dr. Scott Hauger joined the Asia Pacific Center for Security Studies in April 2010. His area of expertise is that of science, technology and society, including issues of global change; environmental security; science diplomacy; barriers to international research collaboration; and innovation theory, policy and practices. He has a special interest in China and its emerging role as a leader in innovation-based economic development. Dr. Hauger's military service included active duty as a staff officer at a NATO Army Group headquarters in Izmir, Turkey, and eleven years in the U.S. Army Reserves in the fields of strategic intelligence and civil affairs. His career has spanned the research and innovation enterprise across the private, academic, non-profit and government sectors. In the 1980s, he was founder and CEO of Applied Concepts Corporation, a high tech, small business firm providing technology assessment and technology development services in areas including alternative energy, automation and robotics, and technology and disability as well as defense. In the 1990s, he led in the establishment of a branch program in graduate education in Science and Technology Studies at Virginia Tech's Northern Virginia Center, serving working professionals in the Washington, D.C., area. He then served as a program director at the American Association for the Advancement of Science (AAAS), where he oversaw four national programs in the science and policy arena, and was the founding director of the AAAS Research Competitiveness Program. As a consultant and as an adjunct staff member of the Institute for Defense Analyses, he has

worked in a variety of areas related to energy independence and environmental sustainability. Prior to joining APCSS, Dr. Hauger served as a Research Professor and Vice President for Government and Business Relations at Nevada's Desert Research Institute (DRI), where he developed an interest in issues of climate change and security, and worked to establish research collaborations with sister research institutes in Asia, Africa, South America, Australia, and the Middle East.

Dr. Hauger's education includes bachelor's and master's degrees in chemistry, from Stetson and the Johns Hopkins Universities, followed by an M.A. in history (University of Chicago) and a doctorate in Science and Technology Studies from Virginia Tech. He has broad experience in interdisciplinary education and research: He has developed and taught graduate-level courses in the history and philosophy of science and in science policy, and he has managed more than \$30 million in interdisciplinary research programs in areas related to innovation and science policy. He has edited a book on American academic research competitiveness, and published a variety of articles on science policy topics, as well as innovation theory and practice.

DR. ANDREW HIGIER

Dr. Andrew Higier joined U.S. Southern Command (SOUTHCOM) in January 2017 as a Program Manager and Liaison Officer to the Office of Under Secretary of Defense, Emerging Capability & Prototyping (EC&P). In this position his main role is to plan, coordinate and manage execution of S&T activities that seek to fill U.S. forces' capability gaps and/or enhance Partner Nation capacity in the SOUTHCOM Theater. This includes coordinating and managing activities funded by the Joint Capability Technology Demonstration (JCTD), Enabling Technology (ET), Rapid Reaction Technology Office (RRTO), and Rapid Innovation Fund (RIF) programs as well as others.

Prior to his time at SOUTHCOM Dr. Higier worked for the Office of Naval Research Global (ONRG) as an Associate Director, Power and Energy in Singapore. In this role he worked for ONRG providing regional expertise in Power and Energy (P&E) and interfacing with researchers across the Asia-Pacific Region. In addition he worked to discover innovative research and introduce it to the Office of Naval Research (ONR) and the Naval Research and Development Establishment (NR&DE).

Prior to joining ONRG, Dr. Higier was a Scientist at the U.S. Navy Space and Naval Warfare (SPAWAR) Systems Center Command Pacific. At SPAWAR Dr. Higier was responsible for a number of P&E projects ranging from basic research to demonstration scale involving technologies such as energy storage, fuel cells and microbial fuel cells.

Dr. Higier has over 15 years of experience in P&E and most specifically in fuel cells as well as over 10 years' experience in Program and Project Management. He completed his Master's Degree in Mechanical Engineering with a focus on Proton Exchange Membrane (PEM) fuel cells in 2001. In 2004 Dr. Higier joined the fuel cell company EnerFuel, Inc. as a Senior Engineer where he was responsible for PEM fuel cell stack design and development. Dr. Higier returned to the University of Miami to pursue his Doctorate in Mechanical Engineering with a focus on fuel cells and received his doctorate in 2010. He has since been involved in fuel cell research and project management for a number of organizations including the United Nations Industrial Development Organization (UNIDO)

International Centre for Hydrogen Energy Technology (ICHET) in Istanbul, Turkey.

In 2010 after receiving his doctorate he joined the Applied Research Center (ARC) of Florida International University (FIU) where he was a Research Scientist in charge of joint Renewable Energy projects with U.S. Southern Command (SOUTHCOM). Later he served as a consultant at a Silicon Valley flow battery startup company designing and building a unique electrochemical system. He is currently a reviewer for the International Journal of Hydrogen Energy as well as an Adjunct Professor in the Department of Mechanical Engineering at Florida International University (FIU). Dr. Higier holds a doctorate in Mechanical Engineering. He has authored a number of journal articles and patents and has presented at a number of conferences across the globe. He maintains close connections with the private sector as well as academia and regularly works to coordinate across sectors and the Department of Defense.

GENERAL CHARLES R. HOLLAND, USAF (RETIRED)

General (Ret) Holland entered the U.S. Air Force Academy and graduated in 1968 with a BS in Aeronautical Engineering. He received Master's Degrees in Business Management from Troy State University in 1976 and in Astronautical Engineering from the Air Force Institute of Technology in 1978. He completed several professional military education schools to include the Industrial College of the Armed Forces in 1986. In addition, he completed the Program for Senior Officials in National Security in 1990 and the National and International Security Management Program in 1998, both at Harvard University.

In 2003, he retired as the Commander, Headquarters, U.S. Special Operations Command. During that assignment he was responsible for all special operations forces of the Army, Navy and Air Force, both active duty and reserve. Prior to the culmination of his active duty military career, he commanded a squadron in the Philippines, two Air Force Wings, served as Deputy Commanding General of the Joint Special Operations Command, and was Commander of the Special Operations Command, Pacific. Prior to commanding USSOCOM, he commanded the Air Force Special Operations Command and was the Vice Commander of U.S. Air Forces in Europe. He was a Command Pilot with over 5000 flying hours which included over 100 combat missions in multiple C-130 and SOF aircraft to include a combat tour in the AC-130 Gunship at Ubon RTAFB, Thailand during the war in Southeast Asia. Upon retirement, he now serves as a Director or Advisor on multiple corporate boards and acts as an independent consultant for several companies to include the USAF and the Lawrence Livermore National Laboratory (LLNL). For the past twelve years, he has provided executive level counsel for Air Force wargame design in a joint, combined, interagency and multi-level security construct while over the last five years serving as a Strategic Advisor for LLNL. Beyond these duties, he is a volunteer Director Emeritus on the Special Operations Warrior Foundation Board which provides college educations to the children of fallen special operations personnel and if severely wounded, the foundation ensures that loved ones have immediate funds available to travel to be bedside when they are needed most.

JILL HRUBY

Jill Hruby has been the director of Sandia National Laboratories

(Sandia) and president of Sandia Corporation since July 2015. Sandia Corporation is a wholly owned subsidiary of Lockheed Martin Corporation, which operates Sandia for the U.S. Department of Energy's National Nuclear Security Administration. Sandia has principal sites in Albuquerque, New Mexico, and Livermore, California, an operating revenue of about \$3 billion, and more than 10,000 employees.

In 2010, Hruby came to Sandia's New Mexico site after 27 years at Sandia's California location to become vice president of the Energy, Nonproliferation, and High-Consequence Security Division, and leader of Sandia's International, Homeland, and Nuclear Security Program Management Unit.

As vice president, Hruby oversaw more than 1,300 employees and contractors and managed work in such areas as global security, energy technologies, weapon and force protection, critical asset protection, the nuclear fuel cycle, geoscience, and climate. The PMU mission encompassed nonproliferation and arms control; securing and safeguarding nuclear weapons and nuclear materials; protecting critical U.S. government assets and installations; ensuring the resilience of physical and cyber infrastructures; and reducing the risks of terrorist threats and catastrophic events. Hruby joined Sandia in 1983 and did research in thermal and fluid sciences, solar energy, and nuclear weapon components. During her career, she has been engaged in nanoscience research, hydrogen storage, mechanical component design, thermal analysis and microfluidics.

She earned her first management appointment in 1989 and held technical leadership positions at the California lab in polymer and electrochemical technologies, materials synthesis, and inorganic and physical chemistry for eight years. She then served as senior manager in organizations responsible for weapon components, micro-technologies, and materials processing.

Hruby was named a technical director in 2003, first leading the Materials and Engineering Sciences Center and its work in hydrogen science and engineering and microsystem science and fabrication. In 2005 Jill became director of the Homeland Security and Defense Systems Center, fostering Sandia work in systems analysis, applied research, and systems engineering, primarily for homeland security and nuclear weapons missions. Hruby earned her bachelor's degree from Purdue University and her master's degree from the University of California at Berkeley, both in mechanical engineering. She has authored numerous publications, holds three patents in microfabrication, and won an R&D 100 Award in solid-state radiation detection. In 2016, the Society of Women Engineers presented Hruby with the Suzanne Jenniches Upward Mobility Award in celebration of her rise to a leadership role and her dedication to creating a nurturing environment for women in the workplace. That same year, Jill Hruby received the Office of the Secretary of Defense Medal for Exceptional Public Service.

REAR ADMIRAL SCOTT B. JERABEK

U.S. Navy Rear Admiral Scott Jerabek is the Deputy Director of the Defense Threat Reduction Agency (DTRA) located on Fort Belvoir, Virginia. The DTRA mission is to safeguard the U.S. and its allies from weapons of mass destruction (WMD), specifically chemical, biological, radiological, nuclear, and high-yield explosive threats, and improvised threats by providing the means to prevent and counter the proliferation of WMD and improvised threats and to

reduce, eliminate, and mitigate their effects. This includes helping ensure the U.S. maintains a safe, secure, effective and credible nuclear weapons deterrent. As the DoD Combat Support Agency for the Counter WMD and improvised threats mission, DTRA develops and provides operational support for associated capabilities to warfighters worldwide.

The son of a Korean War veteran, Admiral Jerabek enlisted in the Navy in 1979 and then commissioned through the Navy Reserve Officers Training Corps (NROTC) at the University of Nebraska. His first sea assignment was aboard USS Gray (FF 1054) as gunnery officer, legal officer and damage control assistant. He was later assigned aboard USS Missouri (BB 63) as turret II officer and nuclear weapons security officer. He served ashore as executive officer of the Navy Reserve Center in Kansas City, Missouri, and officer in charge of Mobile Inshore Undersea Warfare Unit 114. He was the senior Navy representative in the Air Tactical Operation Center, Joint Task Force Southwest Asia in Riyadh, Saudi Arabia, for Operation Southern Watch. In 2003 he was a Task Unit Commander in Umm Qasr, Iraq, in support of Operation Iraqi Freedom/ Operation Enduring Freedom, responsible for the defense of Iraq's strategic port. He was Commodore, Maritime Expeditionary Security Squadron 1 in San Diego from 2006 to 2008, and commanded an Inshore Boat Unit, a Naval Special Warfare detachment. He was the director of the Navy Element, U.S. Army Command and General Staff College. He was the commanding officer of the U.S. Forces, Japan Detachment, and Chief of Staff, U.S. Forces, Japan, during Operation Tomodachi. His first ftag tour was as Deputy Commander, Navy Warfare Development Command. He was commander, Navy Warfare Development Command from 2013 to 2014 and recently served as Director, J7 (Theater Engagement), U.S. Southern Command from 2014 to 2016.

Admiral Jerabek holds a Master of Foreign Affairs from the School of Advanced Military Studies, Operational Arts Fellowship, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, and a Master of Business Administration from Baker University, Baldwin City, Kansas.

MICHAEL A. JOHNSON

Michael Johnson is Chief Technologist of the Applied Engineering and Technology Directorate at NASA/ Goddard Space Flight Center. His primary role is to identify the capabilities required to execute tomorrow's visionary and challenging missions and measurements at Goddard and across NASA, and then lead or influence multidisciplinary teams across the Center, industry, academia, and other governmental agencies in establishing and implementing initiatives that will expand the possible and realize these visions. Michael leads small satellite technology development at Goddard and is the co-initiator and co-lead for the Small Satellite Reliability Initiative, a public-private effort involving industry, academia and a breadth of governmental agencies that collaboratively seeks to broaden SmallSat mission potential by defining and implementing approaches to characterize and increase SmallSat mission, subsystem, and component confidence.

Prior to coming to Goddard, Mr. Johnson was a Staff engineer at the Massachusetts Institute of Technology (MIT) Lincoln Laboratory for nearly 10 years, responsible for the design, development, and management of advanced ground- and space-based proof-of-concept systems. Michael received his Bachelor of Science in Electrical Engineering

and Computer Science, Master of Science in Electrical Engineering, and Degree of Electrical Engineer from MIT.

HARJINDER SINGH JOLLY DSTL, UK

Harjinder has worked on space projects, in a technical capacity, for a quarter of a century.

He started in academia and was responsible for the design and verification of a number of scientific space instruments including the successful ACC scientific instrument of the Atmospheric Structure Package of the European Space Agency Huygens Probe to Saturn's largest moon, Titan.

He left the academic world for the UK Defence Research Agency (DRA) where he was part of the tiger team that delivered the UK STRV-2 infra red imager for the US BMDO TSX-5 satellite and where he led a number of investigations into on-orbit, fabrication and test problems of the last MOD SKYNET 4 satellites.

At the end of the SKYNET 4 program he was appointed the Chairman of the Nuclear Hardening Control Board for the cryptosystem for the new SKYNET 5 A and B MILCOMSATS and was also appointed the government subject matter expert for the Nuclear Hardening Control Board of the same satellites.

At this time the Defence Evaluation and Research Agency (DERA), as DRA had now become was part privatised and he remained in the commercial part of the organisation's Space Department as the head of the group responsible for the design and build of space systems. Harjinder continued to work on space projects; military and civilian, until his move back into the Ministry of Defence (DSTL) in 2005.

Since then, Harjinder has been technical leader for a number of space projects. He represents the UK on multiple international collaborative panels and boards and is DSTL's principal consultant to the MOD SKYNET 6A project.

MR. MICHAEL JONES

Michael C. Jones from The Johns Hopkins University Applied Physics Laboratory (JHU APL) is the Office of Naval Research (ONR) Science Advisor to the Commander, US Pacific Command (PACOM). Mr. Jones reviews and evaluates existing and emerging Science and Technology products applicable to PACOM warfighting gaps and makes recommendations to the PACOM staff on actions to be taken. Prior to this assignment, Mr. Jones served as the Science Advisor to the Commander, US Pacific Fleet.

Mr. Jones began his career as a Navy submariner. After completing Basic Training and Electronics Technician Class "A" school as an enlisted Sailor, he was selected to attend the U.S. Naval Academy. He served at sea in USS Tennessee (SSBN 734), USS Santa Fe (SSN 763), and USS Nevada (SSBN 733). His shore assignments included tours as Operations Officer, Submarine Force Atlantic Fleet, and Commanding Officer, Submarine Training Facility, Norfolk, VA. Upon retirement from the Navy, Mr. Jones joined JHU APL as the Anti-Submarine Warfare (ASW) Assessments Program Manager. In this role he supported OPNAV N87, OPNAV N89, and the ASW Cross Functional Team by conducting technical studies of ASW systems from across the Navy. He then served as the Program Manager and lead Systems Engineer for Ocean Observing Systems (OOS). In this position he was the technical lead for a task force created to assess the vulnerability of U.S. submarines to detection by oceanographic sensors and generate operational as well as technical measures to manage the risk associated with the sensors.

Mr. Jones then served as the Domestic Cyber Program Manager where he led the JHU APL support for cyber operations within the Department of Homeland Security (DHS), the Federal Bureau of Investigation (FBI), the Federal Aviation Administration (FAA), and the Joint Coordination Element (JCE) between the National Security Agency (NSA) and DHS.

Mr. Jones graduated from the U.S. Naval Academy with a Bachelor of Science in Computer Science and earned a Master of Science in Electronic Systems Engineering and a Master of Business Administration, both from the Naval Postgraduate School. He has been certified by the International Council on Systems Engineering as a Certified Systems Engineering Professional (CSEP) and is a Ph.D. student in Modeling and Simulation Engineering at Old Dominion University.

In his spare time, Mr. Jones teaches systems engineering in the Engineering for Professionals Program of the Whiting School of Engineering at The Johns Hopkins University.

RICHARD JONES

Ric Jones serves as the Division Chief for Information Systems within the J9 (Research and Development) Enterprise of the Defense Threat Reduction Agency (DTRA). He is the innovator and senior program manager for the Integrated Weapons of Mass Destruction Toolset (IWMDT), Program Manager of the Integrated Theater Engagement Model (ITEM) and a senior government leader. In his current position he serves as the senior software and management lead for the transformation of Agency software tools into a service-oriented architecture for technology transfer and use by International, Federal, State, and local first responders and government planners for weapon of mass destruction (WMD) assessment and planning. As a retired Army Officer, graduate of the Naval Post Graduate School with a Masters degree in Software System Engineering, and graduate of the Senior Executive Fellowship from Harvard University, Mr. Jones has over 35 years of experience in development and use of software and software-based systems application to meet operational and planning requirements.

GEORGE KAILIWAI III, EDD

Dr. George Kailiwai III is the Director, Resources and Assessment Directorate (J8), Headquarters, U.S. Pacific Command (HQ USPACOM). As the HQ USPACOM J8, Dr. Kailiwai leads the Command in the strategic assessment process, facilitates the development of USPACOM requirements, translates those requirements into material and non-material solutions through advocacy, science and technology, innovation and experimentation, and is also responsible for the managing and directing the HQ USPACOM budget.

Dr. Kailiwai was appointed to the Senior Executive Service in July 2007. Prior to his appointment into the Senior Executive Service, Dr. Kailiwai was a Senior Level from July 2003 to July 2007. Dr. Kailiwai has 25 years as an active duty Air Force officer. Dr. Kailiwai served as the Chief Technology Officer and Technical Advisor, Air Force Flight Test Center from July 2003 through July 2007. In this capacity, Dr. Kailiwai provided the leadership and final review of the technical aspects of the center's overall program as well as consultant advice and technical guidance to the center's commander. Through the center's commander, Dr. Kailiwai established policy and procedures, and provided technical

expertise to a work force of more than 6,000 military and civilian personnel. He also formulated the testing philosophy and testing approaches to assure scientific validity and maximum efficiency in accomplishing ground and flight tests. From January 2001 through June 2003, Dr. Kailiwai served as the Commandant of the U.S. Air Force Test Pilot School at Edwards Air Force Base, California. As Commandant, he oversaw the training of experimental test pilots, flight test navigators and flight test engineers to conduct and manage the ground and flight test evaluation of research prototype and production aerospace vehicles and their systems.

Dr. Kailiwai was the Technical Director, Electronic Warfare Directorate, 412 Test Wing, Air Force Flight Test Center from July 1999 to January 2001. As Technical Director, Dr. Kailiwai supervised over 30 engineers and managers and controlled \$200 million in the Future Years Defense Program. He successfully led a team of engineers to develop the Air Force's first-ever Electronic Warfare Test and Evaluation (T&E) Roadmap and chaired a multi-service DoD electronic warfare T&E resource panel.

From July 1997 to July 1999, Dr. Kailiwai was the Squadron Commander for the Air Force Occupational Measurement Squadron, Air Education and Training Command. Dr. Kailiwai commanded 156 personnel to develop 350 promotion tests & analyze 260 career fields each year and developed enlisted promotion tests in which 98.4% of the questions were valid, fair, & credible. He was also the first commander to administer disk-based surveys and secured \$225K for web-based surveys.

Dr. Kailiwai was Deputy Chief, Regional Strategy and Policy Division, Strategic Planning and Policy Directorate (J5), United States Pacific Command from June 1994 to July 1997. He led five active duty joint staff officers, nine reservists and two civilians; developed and implemented strategic concepts and policies that supported US national interests and strategic objectives; researched, analyzed and assessed political-military developments throughout the Asia-Pacific region; developed the Command's future military strategy and force structure for the 1997 Quadrennial Defense Review (QDR); and was the Command's top strategy briefer. From May 1978 to June 1994, Dr. Kailiwai was a National Defense Fellow, served with the Air Force Studies and Analyses Agency (now AF/A9), was a RAND Research Fellow, and managed several high-priority, classified DoD avionics flight test programs on high-value, prototype aircraft.

Dr. Kailiwai is a distinguished graduate of the U.S. Air Force Academy and attended the California Institute of Technology under the Senior Commander's Education Program. He holds two other master's degrees from Golden Gate University. He is also a distinguished graduate of Squadron Officer School, Air Command and Staff College and the U.S. Air Force Test Pilot School. He earned a Doctor of Education degree in Educational Leadership at the University of Southern California in December 2000. Dr. Kailiwai's Air Force decorations include the Legion of Merit, Defense Meritorious Service Medal, Air Force Meritorious Service Medal (with two Oak Leaf Clusters), Joint Commendation Medal, Air Force Commendation Medal (with two Oak Leaf Clusters), and Air Force Achievement Medal. While at the USAF Academy, he was a United States Track and Field Federation All-American. Dr. Kailiwai is the only non-rated officer to have commanded the USAF Test Pilot School. He is the International Society of Flight Test Engineers' 2001 Kelly Johnson Award Recipient and Past President

of the Society of Flight Test Engineers.

SEAN KELLY

Mr. Sean Kelly, a Lead Associate with Booz Allen Hamilton, has over 37 years of military and industry experience. Sean specializes in Strategic planning, international security cooperation, and Project/ Program Management. His direct experience includes - Leading medium and large organizations with complex mission, personnel, training, and planning, programming, and budgeting issues-- including planning and overseeing pre-deployment training and preparations for operational and security cooperation deployments. Sean has proven adept at building and leading teams conducting comprehensive studies to analyze manning, organizational design, resourcing, training and leader development shortfalls in particular business sectors while developing and overseeing implementation of solutions to the problems. Sean possesses extensive experience as a staff director in increasingly complex and demanding positions, demonstrating capability to oversee planning, operations, training, personnel, logistics, communications and organizational development—all while challenged by time and resource constraints.

DR DAVID KERSHAW

David Kershaw started in Defence as a Cadet Engineer with Navy Material in 1987 and transferred to the then DSTO in 1989 following completion of a B.Sc(Hons) in Physics and a B.E in Electrical and Computer Systems Engineering. From 1989 through to 1999 he worked in the area of torpedoes, torpedo defence and undersea warfare, covering circuit analysis through signal processing to operations research. During this time he also completed a PhD in Tracking Systems.

Dr Kershaw was appointed as Head of the Torpedoes & Torpedo Defence Group in 1999 before also assuming responsibility for Undersea Warfare Operations Analysis in 2002. During 2003 and 2004 he was the Navy Scientific Adviser before returning to DSTO Edinburgh as the Air Warfare Destroyer S&T Adviser in 2005 and 2006. From September 2006 through January 2007 he was acting Research Leader in Surface Ship Operations with a focus on Combat Systems.

In 2007 Dr Kershaw was appointed as Head of the Torpedo Systems Group within the Undersea Sensors and Weapon Systems Branch in Maritime Operations Division. In this role he had responsibility for all DSTO support to torpedoes and torpedo defence for the RAN. He then became Head of the Submarine Combat Systems Group in May 2010 before assuming the role of Research Leader Submarine Systems and SEA 1000 (Future Submarine) S&T Adviser in July 2011. He was promoted to the position of Research Leader Undersea Command and Control in July 2014. David was appointed as Chief Maritime Division with Defence Science and Technology in May 2016

LIEUTENANT COLONEL SCOTT W. KEY

Lieutenant Colonel Scott W. Key is the Branch Chief for the Technology and Experimentation Branch of the Analysis Division of the Capability and Resource Development Directorate, U.S. Strategic Command, Offutt Air Force Base, Nebraska. LTC Key prior assignments include assignment officer, Army Human Resource Command at Fort Knox, Kentucky; Deputy Chief of Current Operations in 20th Support Command (CBRNE) Aberdeen Proving

Ground, MD; and Company Commander in B Company, 725th Support Battalion (ABN) at Fort Richardson, Alaska.

LTC Key has served in leadership positions as Maintenance Platoon leader, Maintenance Shop Officer, and Maintenance Company Commander. He has served in the 1st Infantry Division (Mech) in Germany, and the 4th Brigade (ABN), 25th Infantry Division (Light) in Alaska. He deployed twice to Iraq in support of Operation Iraqi Freedom. He earned the Bronze Star Medal and the Meritorious Service Medal with three oak leaf clusters.

LTC Key recently graduated from the Air Force Institute of Technology with a Master's of Science in Nuclear Engineering. He holds a Bachelor of Science in Chemistry from Mercer University. LTC Key is a Functional Area 52 Officer (Nuclear and Counter-proliferation) in the Army with training in nuclear weapons effects, radiation effects on electronics and humans, and radiation detection.

DR. INHO KIM

Dr. Kim was appointed as the 22nd President of Agency for Defense Development on 5 Feb 2016. Having joined ADD since 1979, Dr. Kim has been instrumental in research and development of various weapon systems for past 36 years particularly in the area of high energy materials and explosives.

As a researcher of the ADD, Dr. Kim served in various key research as well as management positions of the Agency including Director in the 4th R&D Institute, Vice President in charge of the 4th R&D Institute, and Executive Vice President of the Agency.

Dr. Kim received BS, MS and Ph.D. in nuclear engineering from prestigious Seoul National University. The Agency selected and sent him to University of California at Berkeley as a visiting researcher in 1991. He also completed the Advanced Industrial Strategy Program (AIP) from Seoul National University School of Engineering in 2011. His academic career and credentials culminated in 2015 when he was invited as a regular member of the National Academy of Engineering, the highest honor for all engineers and scientists in entire Korea.

Dr. Kim and Mrs. Kim are blessed with 2 daughters and a son. His decorations include the Order of National Security Merit, Cheonsu Medal, ADD Researcher of the year Award, and Defense S&T Gold Star Award.

DR. MARTIN F. LINDSEY

Dr Martin Lindsey is the Aerospace Subject Matter Expert supporting the PACOM/J8 and Science & Technology Advisor for U.S. Pacific Command (USPACOM). His chief role is to advise PACOM staff and advocate for space-domain S&T activities that better enable USPACOM warfighters to accomplish assigned missions. To accomplish this, he actively engages with Service and Agency Labs, serves as the Operational Manager for space-related technology demonstrations and pursues relevant cooperative efforts with international partners and allies within the Pacific region. Prior to assuming his current duties, Dr Lindsey retired from the Air Force with 20 years of service. His last military assignment was as the PACOM Deputy S&T Advisor. Previous to that, he earned a PhD in Aeronautical Engineering from the Air Force Institute of Technology with a follow-on tour as a branch and deputy division chief for hypersonic propulsion at the Air Force Research Laboratory. His military career also included launch crew commander and operations flight commander responsibilities

for the Atlas II/III and Delta IV space launch systems and an assignment as a Minuteman III ICBM maintenance officer.

DR. SORIN LUNGU

Sorin Lungu is a Professor in the Department of National Security and Industrial Base at the Eisenhower School of National Security and Resource Strategy at the National Defense University (Washington, DC). Since August 2010 he is the faculty lead for the Aircraft Industry Study program (where he teaches also Industry Analytics and the International Comparative Defense Business Environments modules). He also developed and leads (since fall 2010) the (Indo-Asia-Pacific focused) Long-Term Strategy electives concentration program, where he teaches courses in diagnostic net assessment, defense strategic planning, military technology diffusion and Asian defense markets dynamics, and directs research.

Before joining the National Defense University in October 2006, he previously taught at the U.S. Air War College in the Department of Joint Military Operations (July 2005–October 2006). A naturalized U.S. citizen, he earned his PhD in International Affairs from the Fletcher School of Law and Diplomacy at Tufts University (1999–2005), with a dissertation titled “European Defense Market Integration: The Aerospace Sector in 1987–1999.” He holds an MA in National Security Affairs (Western Europe concentration) from the U.S. Naval Postgraduate School at Monterey (1997–98) and a BS/MS in Mathematics from the University of Bucharest, Romania (1987–92).

He also attended the Vienna-based Austrian Diplomatic Academy (1994–95) and was awarded research fellowships by the WEU Security Studies Institute (Paris, 2001) and the Konrad Adenauer Foundation (Germany, 2001–02). He was a fellow in MIT’s Seminar XXI program (September 2007–May 2008). Since February 2006 he is a member of the London-based International Institute for Strategic Studies. His articles appeared in The RUSI Journal, Comparative Strategy, Defense and Security Analysis, American Diplomacy, and Strategic Insights. From 1992–94, he was broker at the Romanian Commodities Exchange (Bucharest), and then a member of the Romanian diplomatic corps (1994–98). During the 2012–13 academic year he was on sabbatical as a William C. Foster Fellow with the Department of State (in the Regional Security and Arms Transfer Office, Bureau of Political Military Affairs). He participated in the 2013 SAIS Hertog Summer Study and completed executive education programs focused on global strategic management (Harvard Business School) and competitive strategies (Wharton School of Business).

MS. KATE MANGUM WOOD

Ms. Kate Mangum is the Director of International Cooperation & Exchange (IC&E) at the Army’s Research, Development & Engineering Command (RDECOM). Her team manages RDECOM’s international programs to include Engineer Scientist Exchange Program, Foreign Technology Assessment Support, Foreign Comparative Testing, and Coalition Warfare Program, as well as international agreements. IC&E also provides the primary interface between RDECOM’s research centers and laboratories, RDECOM’s Forward Element Centers, and the Pentagon. Prior to RDECOM, Ms. Mangum was the Office of Naval Research (ONR) Global Science Advisor to the Commanding General (CG) of

III Marine Expeditionary Force (III MEF) in Okinawa, Japan. She was responsible for developing and evaluating the III MEF portfolio of science and technology capability gaps; advocating for solutions with the requirements, technology, and material developer communities; and maintaining visibility of new and evolving technology for the CG and staff. She collaborated with foreign governments and research organizations in order to leverage their investments, and was responsible for integrating prototypes into multiple annual III MEF exercises.

Preceding this assignment, Ms. Mangum was the Chief of Naval Operations Executive Panel (CEP) Science Advisor, serving on the personal staff of the Chief of Naval Operations (CNO). The CEP is comprised of eminent authorities in the fields of science, engineering, business and political-military affairs who offer peer advice on issues of importance to the CNO. Ms. Mangum was ONR Global’s technology liaison, leading studies related to disruptive technology, personnel policy, and resource sponsorship. Prior to the CEP, Ms. Mangum was detailed to ONR, where she was a Program Officer for Seabasing Future Naval Capability (FNC) programs.

Ms. Mangum was responsible for an \$80M portfolio to advance cutting edge research.

Ms. Mangum started her career at the Naval Surface Warfare Center Carderock Division (NSWCCD) through an advanced rotational program offered to high performing graduates. This program allowed her to work for several different divisions within NSWCCD, as well as gain experience during rotations to NSWC Panama City and the Pacific Missile Range Facility. Primary projects included advanced submarine concept design, mine hunting vehicle and tow cable analysis, and RIMPAC war game support. After the program, she continued work at NSWCCD, focusing on hydrodynamics and towed systems with an emphasis on hands-on test and evaluation. Ms. Mangum holds a Bachelors of Science in Mechanical Engineering from The Johns Hopkins University, and a Masters of Science in Systems Engineering from the Naval Postgraduate School. Ms. Mangum was awarded the Navy Meritorious Civilian Service Award in 2012 for her work with the CEP, and again in 2015 for her work with III MEF.

MR. RICHARD MATLOCK

Mr. Richard Matlock, the Program Executive for Advanced Technology, is one of the Department of Defense’s six Science and Technology Executives, led by the Assistant Secretary of Defense for Research and Engineering. In this position he is leading the development of the next generation of cutting-edge Missile Defense technologies and proving their benefit to the Warfighter through realistic experiments in relevant environments. Mr. Matlock’s portfolio includes high energy lasers, advanced sensors for discrimination and future anti-ballistic missile interceptors and rail guns. Since May 2015, Mr. Matlock has been detailed to the Deputy Secretary of Defense where he is directing a Department-wide Special Program tackling a high priority issue. Some of Mr. Matlock’s previous Senior Executive assignments included the Program Director for the BMDS Kill Vehicles program, Program Director for Modeling and Simulation, and Technical Director for Kinetic Energy Interceptors.

Mr. Matlock’s broad based 39 year career in government service includes major acquisition and scientific positions with the Office of the UnderSecretary for Acquisition, Technology and Logistics,

the Missile Defense Agency, the U.S. Navy, the Strategic Defense Initiative Organization and the U. S. Air Force. During his tenure with Naval Sea Systems Command, he led the development and implementation of a joint missile defense research program with the Japan Defense Agency. Prior to employment with the Navy, Mr. Matlock was the Program Manager for Interceptor Technology Integration in the Ballistic Missile Defense Organization. Mr. Matlock developed the Lightweight ExoAtmospheric Projectile (LEAP), a primary building block for the nation’s missile defense programs. As Program Manager for the BMDO/Navy Terrier LEAP Technology Demonstration Program, he established the experimental pathfinder for the Aegis Ballistic Missile Defense program. Mr. Matlock also built, launched and operated several earth observing satellites, proving the value of micro-satellites for complex missile defense and space control missions.

In addition to eight years in the Strategic Defense Initiative Organization, Mr. Matlock held several positions in the Department of the Air Force, both as an officer and civil servant, including Chief of Integration and Analysis at the Air Force Rocket Propulsion Laboratory and Technology Director, Space Based Interceptor System Program Office at Air Force Systems Command’s Space Division.

Mr. Matlock’s major awards include the Air Force Aerospace Primus Award (1987), the Outstanding Technical Achievement Award for Missile Defense (1989), the Navy Superior Civilian Service Award (2000) and the inaugural Missile Defense Technology Pioneer Award (2006). In 2014, Mr. Matlock was designated a Meritorious Presidential Rank Award winner.

CRAIG R. MCKINLEY, GENERAL, USAF (RET)

Craig R. McKinley assumed the role of President and CEO, National Defense Industrial Association (NDIA) on January 1, 2015. Prior to joining NDIA, he served as President of the Air Force Association (AFA).

He retired after 38 years in the Air Force as a four-star general in November 2012. His last assignment was as the Chief, National Guard Bureau, where he also served as a member of the Joint Chiefs of Staff. In this capacity, he was a military adviser to the President, the Secretary of Defense, the National Security Council. He was the Department of Defense’s official channel of communication to the Governors and to State Adjutants General on all matters pertaining to the National Guard.

He received his commission in 1974 as a distinguished graduate of the ROTC program at Southern Methodist University. He has served in numerous assignments in flying and operations, as well as command positions at group, wing, sector and field operating agency levels.

He was a command pilot in the Air Force with more than 4,000 hours, primarily in the T-38, F-106, F-16 and F-15. He graduated with a Bachelor’s degree in business administration at Southern Methodist University, Dallas, Texas, in 1974; and received his Master’s degree in management and economics, at Webster College, St. Louis, Missouri, in 1979. He completed studies at the National War College, National Defense University, in 1995, earning a degree in National Security Management.

REAR ADMIRAL VICTORINO G. “VIC” MERCADO

Rear Adm. Victorino G. “Vic” Mercado is the director of maritime operations for Commander, U.S. Pacific Fleet.

Mercado graduated from U.S. Naval Academy in May 1983 with a Bachelor of Science degree in mathematics/computer science. His career as a surface warfare officer includes assignments aboard USS Leftwich (DD 984), USS Valley Forge (CG 50), USS Antietam (CG 54) and USS Curtis Wilbur (DDG 54), culminating with command of USS Decatur (DDG 73) during an accelerated deployment with the John C. Stennis Battle Group in support of operation Enduring Freedom – Afghanistan and United Nations sanctions on Iraq. He subsequently commanded Destroyer Squadron 21 with additional duties as sea combat commander for the John C. Stennis Carrier Strike Group.

Ashore, he completed a tour with the Navy’s engineering and acquisition community as the command, control, communications and intelligence warfare systems engineering manager for the AEGIS Program Manager (PMS 400); served as an action officer and vice director, Navy Staff for Staff Operations and Special Events (OPNAV N09BX); as the national defense legislative fellow for Sen. Edward M. Kennedy; and later led the Commander’s Action Group for Commander, U.S. Pacific Fleet. On the Joint Staff, he served as the joint staff lead in the JCS Strategy Group; as assistant deputy director, Global Strategic Partnerships (J-5); as executive assistant to the Director, Strategic Plans and Policy (J-5); and as executive assistant to the Chairman of the Joint Chiefs of Staff. After the Joint Staff, he served as the military assistant to the deputy secretary of defense.

His flag officer tours include deputy director, Surface Warfare Division (N96) on the staff of the chief of naval operations, and vice director, Strategy, Plans, and Policy (J5) at U.S. Central Command. Most recently he commanded Carrier Strike Group 8, including the transition from the Dwight D. Eisenhower to the Harry S. Truman Carrier Strike Group.

Mercado holds a master’s degree in Systems Technology in Joint Command, Control and Communications from the Naval Postgraduate School in Monterey; completed Air Command and Staff College; and is a graduate and a Commandant’s Writing Award winner from the Joint/Combined Warfighting Senior School at Joint Forces Staff College. He is also a former Commander in Chief, U.S. Pacific Fleet Shiphandler of the Year award winner.

His decorations include the Defense Superior Service Medal (3), the Legion of Merit Medal (3), and various individual and unit campaign awards.

MR. JEFF MOULTON

Jeff Moulton is the Executive Director of Stephenson’s National Center for Security Research and Training and the Transformation Technologies and Cyber Research Center at Louisiana State University (LSU). He provides strategic direction and leadership and is responsible for focusing research, business development, building technical teams, and coordinating information operations across the university and institute. Mr. Moulton has in-depth experience within the intelligence communities assessing and defining corporate-level and globally deployable network security solutions. Mr. Moulton actively participates in numerous National and International Cyber Forums. Most notably he has been appointed to the ODNI/NSA Computational Cyber Security in Compromised Environments (C3E); the Secretary of the Air Force’s Cyber Vision 2025 (CV2025) Committee; the AFCEA International Cyber Committee, and the IEEE Homeland Security Technologies (Cyber Panel) Committee. His technical certifications include:

Certified Information Systems Security Professional (CISSP), International Information Systems Security Certification Consortium (ISC2), Project Management Professional (PMP), Project Management Institute, National Security Agency (NSA) Information Assurance Manager (IAM), National Security Agency (NSA) INFOSEC Evaluation Methodology (IEM), Open Source Professional Security Analyst (OPSA), and Malware Forensics Investigator (MFI), Wetsone.

Prior to LSU, Mr. Jeff Moulton served as the Director of Program Development and Information Operations for Georgia Tech Research Insitute (GTRI). At GTRI, Mr Moulton established GTRI’s first cyber lab, recruited and hired the technical team, and grew GTRI’s newest laboratory into the largest of GTRI’s eight labs.

Before joining GTRI, Mr. Moulton served as the Information Assurance Assistant Program Manager at the Naval Surface Warfare Center. In this role he established an Information Assurance (IA) Division for the Deployable Joint Command and Control (DJC2) Joint Program Office. He provided leadership and direction for all information assurance facets of the \$566M Joint Program of Record and managed the many facets of a major DoD acquisition program. He recruited and built the first joint integrated IA team across government and military service branches, with members from DIA, NSA, SPAWAR, NETWARCOM, OSD NII, JITC, USJFCOM, USPACOM, USEUCOM, USSOUTHCOM, and other Department of Defense (DoD) IA stakeholders. Mr. Moulton authored the DJC2 IA Strategy, Technology Readiness Assessments, Analysis of Alternatives, and other DoD acquisition documents required by public law. Mr. Moulton continues to represent the DJC2 Joint Program Office as the IA subject matter expert with DoD intelligence agencies. In addition, Mr. Moulton serves on the Department of the Navy Network Warfare Command (NETWARCOM) IA Working Group.

Prior to his position with the U.S.Navy, Mr. Moulton served as the Executive Director, Integrated Solutions Division (ISD) at Concurrent Technologies Corporation (CTC), a 501(c)3 non-profit research and development company. He was responsible for contract performance, business development, human resources, financial performance, and organizational development for the ISD. This included operational responsibility for over 350 employees, 8 major offices and multiple operating locations. Focus areas included: communications/network engineering, software/systems engineering, visualization, battlefield situational awareness, advanced technology prototyping, C4ISR systems, information assurance, logistics decision support systems, supply chain integration, and general information technology (IT) development. Preceding his assignment at ISD, Mr. Moulton served as the Director, Information Assurance Programs at CTC where he provided overall leadership on multiple multi-million dollar programs and directed the organization’s personnel. His programs ranged from improving network security and developing unique solution sets for advanced network security problems utilized throughout the Department of Defense, to designing high-speed systems and modeling and simulating these network architectures. Mr. Moulton established the National Attack Sensing, Warning and Response (ASW&R) Laboratory. This National asset is currently hosted and operated by the National Security Agency (NSA). Mr. Moulton served a twenty-four year career with the United States Air Force. He held a diverse set of technical and leadership positions across the globe, including Communications and Information Functional Manager for Air Force Special Operations Command, Hurlburt Air Force Base.

Mr. Moulton, who was born and raised in St. Marys, Pennsylvania, studied Business and Management at Allentown College of St. Francis DeSales (now DeSales University), and holds a Masters of Science Degree in Management from the Troy State University.

TECHNICAL SERGEANT JOSEPH T. NEEJER-WIDENER

Technical Sergeant Joseph T. Neejer-Widener is the Noncommissioned Officer of Plans for Emergency Management, 647th Civil Engineering Squadron, Joint Base Pearl Harbor-Hickam, Hawaii. In this role he manages Joint Base Emergency Management Plans Program in which he coordinates FEMAs Awareness Campaign, Event Action Plans, executes training, and briefs emergency trend analysis for Navy Region Hawaii. He also provides Emergency Operations Center with equipment, personnel, and crisis management support to the Joint Base Commander for exercises and real-world activations.

Technical Sergeant Neejer-Widener enlisted in the Air Force 22 August 2006. He started his technical training on 16 Oct 2006 and became a Readiness and Emergency Management Apprentice on 9 February 2007. As the Noncommissioned Officer of Plans for Emergency Management, 647th Civil Engineering Squadron he led the Joint Base Pearl Harbor-Hickam to become the 1st Department of Defense installation to be awarded Hawaii’s Hazards Awareness and Resiliency Program Certification which led to him being recognized by the Governor of Hawaii and the Hawaii Adjutant General as well as being awarded the Navy and Marine Corps Achievement Medal for his actions.

He has deployed twice. On his first deployment he went to Kuwait in support of Operation Iraqi Freedom and provided bomb search and armed security for over 100 high-risk convoys. On his second deployment he forward deployed to Bagram AB, Afghanistan in support of Operation Enduring Freedom and led a retrograde team inventorying and redistributing two million dollars of construction material across the Gulf Cooperation Council countries, facilitating the execution of multiple projects and ensuring the teams on time Afghanistan withdrawal.

LIEUTENANT COLONEL MATTHEW J. NICHOLSON

Lieutenant Colonel Matthew J. Nicholson serves as the Strategic Capabilities Integration Officer and Director of the USPACOM Strategic Capabilities Office for USPACOM J81. He leads the development and implementation of strategic and operational initiatives to satisfy warfighting requirements in support of USPACOM, the Joint Staff, and the Department of Defense.

Lt Col Nicholson graduated from the United States Air Force Academy in 1996. He has held a variety of operational, flying and staff assignments including Squadron Command, F-15C Instructor Pilot, Air Liaison Officer, HQ Air Force Staff Officer, and Wing Director of Staff.

Lt Col Nicholson is a Command Pilot with more than 2100 hours in the F-15C/D, AT-38, T-38, and T-37. He has been qualified as a combat ready pilot since 2000, deploying in support of Operations SOUTHERN WATCH, IRAQI FREEDOM, and NOBLE EAGLE.

Lt Col Nicholson is married to the former Lisa Belew and they have two children, Emily and Jude.

MR. J. SCOTT NORWOOD

Mr. Norwood serves as Strategic Effects Director to the Commander, U. S. Army Pacific (USARPAC). In this role, he advises the Commander with respect to the theater environment, campaign strategy, and the synchronization of campaign activities and communications with theater partners to achieve desired strategic effects.

Mr. Norwood joined USARPAC following his assignment as Executive Director of Strategy, Policy, and Plans, Combined Security Transition Command, Afghanistan. Prior assignments as an SES include a Fellowship at the Naval Postgraduate School and a five-year tour of duty as Deputy Director for Global Security Affairs, Strategic Plans and Policy, Joint Staff. Mr. Norwood is also a retired fighter pilot with 27 years in the U.S. Air Force. While on active duty, he served as a policy and issues analyst for the Secretary of the Air Force; as commander of a USAF fighter and bomber test group; as Director of Operations, Cheyenne Mountain, NORAD/USPACECOM during 9/11; and as Senior Military Assistant to the Administrator of the Coalition Provisional Authority during the occupation of Iraq. Mr. Norwood was also a recipient of the USAF’s Lance Sijan Award for leadership in combat during Desert Storm.

Mr. Norwood graduated from the USAF Academy in 1980. He holds masters degrees from the University of South California in Systems Management; from the Naval War College in National Security and Strategic Studies; from the School of Advanced Air and Space Studies, in Air and Space Studies; and is currently a doctoral candidate in Security Studies at the Naval Postgraduate School. Mr. Norwood’s wife, Carol Ann, is a school teacher, who originally hailed from Newport, Arkansas. They have two children, Matthew (26) and Samantha (24).

COL BRENT M. PARKER

COL Brent M. Parker is currently assigned as Director, Theater Joint Force Land Component Command-Coordination Cell (TJFLCC-CC) and Chief of Fires, U.S. Army Pacific (USARPAC), Fort Shafter, Hawaii. Responsible for visibility and coordination of Joint Land Forces in the Unites States Pacific Command Area of Responsibility for the TJFLCC Command Team. He also served as Director, USARPAC Coordination Element (UCE) forward deployed South Korea.

Prior to this assignment Colonel Parker served as Director Operations, J3 and Chief Policy and Theater Security Cooperation, J5, Joint Task Force – North (JTF-N), United States Northern Command (USNORTHCOM) providing DoD support to Drug Law Enforcement Agencies in the war on drugs and terror. During other assignments, He served as a School of Other Nation student attending the National Defense College, New Delhi, India and Joint and Professional Military Education II, Joint Forces Staff College, National Defense University, Norfolk, VA. Colonel Parker served as Battalion Commander, Fires Battalion, 5th Brigade Combat Team (BCT), Army Experimental Task Force (AETF), 1st Armored Division, Fort Bliss, Texas, (now 4-29 FA and the Brigade Modernization Command).

Colonel Parker joined the Kansas Army National Guard in 1985 and attended Field Artillery Basic Training at Fort Sill, Oklahoma becoming a 13B Cannon Crewman for Battery A, 1st Battalion, 127th Field Artillery. He was commissioned a second lieutenant Field Artillery, University of Kansas. He then served in leadership positions with the 4th Battalion, 1st Field Artillery, 5th Infantry Division, Fort Polk, LA as a company Fire Support Officer and

Battery Fire Direction Officer. 1st Battalion, 3rd Field Artillery, 2nd Armored Division, Fort Hood, Texas as a Firing Battery Platoon Leader, Battalion Adjutant, and Battalion Fire Direction Officer. 1st Battalion, 7th Field Artillery, 1st Infantry Division, Schweinfurt, Germany where he served as a Battalion Assistant Operations Officer, Headquarters and Headquarters Battery Commander, and conducted an operational deployment to Bosnia. After attendance at the Command and General Staff College, Fort Leavenworth, Kansas he was assigned to the Division Artillery, 3rd Infantry Division, Fort Stewart, GA as the Division Assistant Fire Support Coordinator and then to 1st Battalion, 76th Field Artillery, 4th Brigade Combat Team as the Battalion Operations Officer during a combat deployment to Operation Iraqi Freedom, Baghdad, Iraq.

Colonel Parker served in key leadership training roles at the Combat Maneuver Training Center (CMTC), 7th Army Training Command, Hohenfels, Germany, National Training Center (NTC), Fort Irwin, CA as a Fire Support Analyst, Combat Service Support Observer/Controller, Brigade Fire Support OC and also at the Air-Ground Operations School, 6th Combat Training Squadron, Army Joint Support Team as Deputy Commandant and Joint Fires Instructor, Nellis Air Force Base, Las Vegas, NV.

His awards and decorations include the Bronze Star Medal, Defense Meritorious Service Medal, Meritorious Service Medal (5 OLC), Army Commendation Medal (3 OLC), Air Force Commendation Medal, Army Achievement Medal (3 OLC), National Defense Service Medal (2 OLC), Armed Forces Expeditionary Medal, Iraq Campaign Medal, Global War on Terrorism Medal, Military Outstanding Volunteer Service Medal, Armed Forces Service Medal, Korea Defense Service Medal, NATO Medal, Valorous Unit Award, Army Superior Unit Award, Parachutist Badge, Combat Action Badge. He is special operations trained as a Joint Terminal Attack Controller.

Colonel Parker holds a Bachelor Degree in Organizational Communication, University of Kansas, a Master Degree, Computer Resource and Information Management, Webster University, St. Louis, Missouri and Master of Philosophy Defense & Strategic Studies, University of Madras, National Defense College, New Delhi, India.

COL Parker is married to the former Lynette Jean Broers of Desoto, Kansas a Registered Nurse (RN) and they have one daughter Rebekka (Bekka) Lynn also a Registered Nurse (RN).

DR. ANTHONY J. PEURRUNG

In his current position as Associate Laboratory Director of the National Security Directorate, Dr. Tony Peurrung oversees the portfolio of national security programs at PNNL. Under his leadership, PNNL delivers scientific insights, tools, and methods to deploy impactful science and technology to clients in the Department of Energy, Department of Homeland Security, Department of Defense, the Intelligence Community, and the National Nuclear Security Administration.

Dr. Peurrung has contributed to a variety of fields within fundamental and applied physics including fluid mechanics, plasma physics, medical physics, separations science, environmental remediation, nuclear physics, and radiation detection methods and applications. His current research interests are centered on detection and characterization of special nuclear material, particularly problems where strong links to fundamental science capability are important.

At PNNL since 1994, he has served as the Director of the Physical and Chemical Division, Technical Group Manager in the Radiological and Chemical Sciences Group, and prior to that held positions of Staff Scientist and Senior Research Scientist. He managed an internal capability-building investment, "Radiation Detection Material Discovery" which held the goal of improving the understanding of radiation detection material performance to enable the discovery of new and improved materials. He also held leadership positions in both the Department of Energy Radiation Detection Panel and the Department of Homeland Security radiological and nuclear countermeasures program.

Dr. Peurrung holds four patents, has been an invited speaker at numerous conferences, and has provided testimony to Congress. He was awarded a Ph.D. in Physics from the University of California, Berkeley in 1992 and received a B.S. in Electrical Engineering from Rice University in 1987.

BRIGADIER GENERAL ANTHONY W. POTTS

Brig. Gen. Anthony (Tony) Potts assumed the roles of Deputy Commanding General, U.S. Army Research, Development and Engineering Command, and Senior Commander, Natick Soldier Systems Center, on January 5, 2017.

The general previously served as Special Assistant to the Program Executive Officer (PEO) – Missiles and Space at Redstone Arsenal, Ala.

Potts earned a Bachelor of Science degree in Management Information Systems from Murray State University in 1986, and was commissioned a second lieutenant in Army Aviation. His military education includes Rotary Wing Flight Training, AH-64 Apache Instructor Pilot Course, Command and General Staff College, Program Manager's Course, and the Senior Service College. He holds a Masters of Business Administration from the University of Kentucky and a Masters of Strategic Studies from the U.S. Army War College.

In prior assignments, Potts served as acting Deputy for Acquisition and Systems Management, PEO Missiles and Space; as Director, Terminal High-Altitude Area Defense and Army/Navy Transportable Radar Surveillance, Sustainment Management Office, Redstone Arsenal; as Deputy Director for Acquisition and System Management, Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)); and Director of Resource Integration, (ASA(ALT)), in Washington, D.C. He also served as Project Manager, Aviation Systems, PEO Aviation; Deputy G-3, Aviation & Missile Command; Product Manager, Apache Modernization; Product Manager, Blue Force Tracker – Aviation; and as the Assistant Product Manager for the Army Airborne Command and Control System, at Redstone Arsenal. He also served as Task Force Commander-Balkans Digitization Initiative; the Balkans.

Potts has served as an attack helicopter platoon leader in Germany, and in staff positions as a logistics officer, an intelligence officer and an operations officer. He served as commander of the U.S. Army's AH-64 Apache Attack Helicopter Training Company, and also served in the FORCE XXI experiments in the Digital Force Coordination Cell as Operations Officer for Aviation, Field Artillery, and Air Defense.

The general's awards and decorations include the Legion of Merit, Bronze Star, Meritorious Service Medal, Air Medal with Valor Device, Army Commendation Medal, Army Achievement Medal, Army Superior Unit Award, National Defense Service Medal, Army Service

Ribbon, Overseas Service Ribbon, Kuwait Liberation Medal, Saudi Kuwait Liberation Medal, Senior Aviator Badge, Air Assault Badge and Army Staff Badge.

Potts is a rated AH-64 Apache Instructor Pilot with a combat tour in Operations Desert Shield/Desert Storm. As an acquisition officer he has made numerous deployments to the Balkans, Operation Enduring Freedom and Operation Iraqi Freedom, fielding and sustaining critical battlefield systems.

DR. GREGORY J. POWER

Dr. Greg Power currently serves as a Principal Research Engineer and Program Manager assigned to the Science and Technology (S&T) Office at the United States Pacific Command (USPACOM). He is the focal point for coordinating coalition and joint technology development programs that deliver capability-based solutions for USPACOM.

In his military capacity, Dr. Power was commissioned in 1983 and served as an Air Force Communications-Electronics Reserve Officer responsible for engineering of communication systems. He later served as Director of Operations for a Combat Communications Group, responsible for oversight of four Combat Communication Squadrons and two Air Traffic Control Squadrons. He was the Director of Communications in multiple national military exercises. After the events of 9/11, he deployed to support current operations for Operation Enduring Freedom and Operation Iraqi Freedom. Afterward, he served as the Senior Reservist at Headquarters, Air Force Research Laboratory (AFRL), Wright-Patterson AFB, Ohio. While at AFRL, he was responsible for a reservist team that system engineered technologies into national and combatant command field exercises.

In his civilian capacity, Dr. Power served as a research engineer at AFRL where as part of the Sensors Directorate he focused on aspects of Automatic Target Recognition for avionics and space-based sensor systems, including radar and electro-optic sensors. While at AFRL he also taught engineering courses as an Adjunct Professor in Electrical Engineering at Wright State University, Dayton, Ohio. Following this, Dr. Power started his assignment to support the USPACOM S&T Office.

Dr. Power received his Bachelor of Science in Electrical Engineering from the Ohio State University. He received his Master of Science in Systems Engineering from Wright State University and his Ph.D. in Electrical Engineering from the University of Dayton. He was an honor graduate from the Air National Guard Academy of Military Science and an Outstanding Graduate from Air War College. He is the author of over 60 professional journal and technical research papers.

COLONEL BOB A. REEVES

Colonel Bob A. Reeves is the Director of Space Forces for Pacific Air Forces, Hickam AFB, Hawaii. Col Reeves executes Space Coordinating Authority on behalf of the Joint Force Air Component Commander to coordinate, integrate and synchronize space capabilities and effects throughout the Pacific theater of operations.

Col Reeves commissioned in the Air Force upon graduation from the University of Georgia in 1994. He served as missile combat crew commander and senior instructor crew commander at Malmstrom AFB, and then led space integration efforts as chief

of space wargames at the Space Warfare Center. Upon graduating from the USAF Weapons School in 2001, Col Reeves served as the operations officer of the 67th Information Warfare Flight for Air Mobility Command and as Air Force Space Command's chief of weapons and tactics. Col Reeves had multiple assignments at the USAF Weapons School serving as an instructor, the chief of Weapons School academics, and commander of the 328th Weapons Squadron. Most recently, Col Reeves proudly served as deputy commander and commander of the 460th Operations Group at Buckley AFB.

Col Reeves has led Air Force combat capabilities integration as both space and non-kinetic effects planner for Operations Southern Watch and Iraqi Freedom.

ELMER L. ROMAN

Mr. Roman currently serves as the Director of the Joint Capability Technology Demonstration (JCTD) program at the Office of the Under Secretary of Defense (OSD) for Acquisition, Technology and Logistics in the office of Research and Engineering / Emerging Capability and Prototyping (EC&P). In this role, Mr. Roman is responsible for providing executive leadership and management oversight for EC&P's prototyping and experimentation efforts, as well as planning for the transition of selected projects into the formal acquisition process in support of Combatant Commands, Services, and National Security Agencies.

Mr. Roman previously served as the Oversight Executive for International Cooperation and Irregular Warfare programs at the Office of the Under Secretary of Defense, Acquisition, Technology and Logistics / Research and Engineering (OUSD/AT&L/RE). In this capacity, he was responsible for monitoring DoD Joint Concept Technology Demonstration programs supporting the areas of Irregular Warfare, Security Cooperation, Humanitarian Assistance / Disaster Relief, and Building Partner Capacity. This included programs supporting joint and coalition command and control, adaptive planning, information sharing, autonomous systems, logistics and Coalition Warfare programs.

Prior to joining OUSD AT&L, Mr. Roman served for five years as the Regional Director of the Office of Naval Research Global – Americas, located at the U.S. Embassy in Santiago, Chile. As Regional Director he served as the senior U.S. Navy Liaison for Science and Technology for all countries in the Western Hemisphere and Africa. While in Chile, he was named Secretariat General of the Specialized Inter-American Naval Conference on Science and Technology and was a member of the U.S. Embassy Santiago Country Team.

Before joining the staff at the U.S. Embassy in Chile, Mr. Roman served as the Science Advisor to both the Deputy Chief of Naval Operations for Plans, Policy, and Strategy (CNO N3N5) and the Director of the Naval Criminal Investigative Service. There, Mr. Roman provided technical oversight of the Navy's Antiterrorism Research and Development Program and served as liaison between the U.S. Naval Research Enterprise, OSD, the Joint Staff, the Fleet / Marine Forces, and other government agencies.

Mr. Roman earned his B.S. degree in Mechanical Engineering from the University of Puerto Rico-Mayaguez Campus and a M.S. degree in Systems Engineering from Virginia Polytechnic Institute and State University. He is a graduate of the United States Marine Corps (USMC) Recruit Depot in Parris Island, the USMC Officer Candidates School, U.S. Navy Engineering Duty Officer School, Federal Executive Institute, and Executive Development at Harvard's

John F. Kennedy School of Government. After performing six years of service in the United States Marine Corps, Mr. Roman transferred to the Navy Reserve Engineering Duty Officer program and is currently assigned as the Commanding Officer of the Naval Sea Systems Command Heavy Lift Unit under the Supervisor of Salvage and Diving Unit.

MR. GERALD SCOTT

Gerald (“Scotty”) Scott is a Research Fellow, Information Science PhD. Student, and Deputy Director of Field Experimentation at the Naval Postgraduate School (NPS) in Monterey California. The purpose of the Field Experimentation program is to generate knowledge regarding the utility, application and integration of emerging technology for the Navy, DoD and Government leaders. The the programs, U.S. Military services and the Combatant Commands have adopted technological, procedural and organizational innovations for new weapons and ISR platforms, multi-level secure computing, decision-making in complex environments and HADR operations. Scotty is also a lecturer in Ethics in Communication Sciences and Technology at California State University – Monterey Bay, and a retired Army Lieutenant Colonel. While on active duty he served as an Air Defense Officer in Europe and the Middle East and as an Information Operations Officer in the Middle East and the Pentagon. He hold an MS degree in National Security Affairs with and emphasis in Information Operations and Interagency Cooperation, also from NPS.

DAVID M. SHANAHAN

Retired Army Colonel David Shanahan joined the Asia-Pacific Center for Security Studies in December 2004 while still on active duty. He served in roles as Transnational Studies Department Chairman, acting deputy director, and assumed duties as deputy dean upon his Army retirement in April 2006. His academic interests are in Globalization and Security Sector Reform and he has both lectured and participated in Center outreach events on these topics.

Prior to his arrival at the Center, he was assigned for three years as the Chief of Staff of U.S. Army Pacific (USARPAC) at Ft. Shafter, Hawaii. There he oversaw the post 9/11 evolution of USARPAC’s role in providing the base to U.S. Pacific Command Joint Task Force Homeland Defense. During his tenure, USARPAC readied and deployed the preponderance of its assigned forces in operational support to the Global War on Terrorism. As well, he oversaw implementation of the U.S. Army’s many transformation initiatives in the Pacific most notably the formation of two stationing of Stryker Brigades.

Col. Shanahan was commissioned as an Infantry Officer upon his graduation from the U.S. Military Academy (USMA) in 1976. He served in a succession of infantry troop assignments culminating with command of 1st Battalion, 21st Infantry, 25th Infantry Division. While in troop leading positions, he participated in numerous joint and combined training exercises within the United States as well as Japan, Korea, Australia, Philippines, Spain, Germany, and Panama. In 1995, he was assigned to the Pentagon, initially to the Army Staff, and later to Joint Staff’s Directorate for Force Structure Resources and Assessments (J8). In 1998, he was assigned to Heidelberg, Germany, where he assumed command of the North Atlantic Treaty Organization’s Allied Land Forces Central Europe Support Group. Col. Shanahan was operationally deployed to: the

Sinai in 1990-91 as part of the Multinational Force and Observers; to Hurricane Relief operations on Kauai in 1992, and in support of both the Stabilization Force and Kosovo Force (KFOR) in the Balkans. In KFOR, for seven months in 1999-2000, he commanded a multinational force of 2000 soldiers and civilians comprising 13 nationalities.

He is a graduate of U.S. Army Command and General Staff College, 1990; U.S. Army War College fellowship at the Center for Strategic and International Studies, 1995; and he is a graduate of APCSS Executive Course O4-3. He has a Bachelor of Science in engineering from USMA, 1976, and a Master of Arts in international relations from the Naval Postgraduate School, 1986.

SERGEANT MAJOR ANTHONY A. SPADARO

Sergeant Major Anthony A. Spadaro is the Command Senior Enlisted Leader for U.S. Pacific Command, one of six geographic unified combatant commands of the United States Armed Forces. In this capacity, he provides the commander with the enlisted perspective on theater security cooperation, encouraging peaceful development, responding to contingencies, and deterring aggression throughout the Indo-Asia-Pacific region. Additionally, he is responsible for mentoring senior enlisted leaders at the four component commands, and coordinating with command joint directorates and senior enlisted members on matters pertaining to the command’s mission, vision, core values, commander’s intent, enlisted utilization, and professional development.

A native of New Brunswick, N.J., SgtMaj Spadaro enlisted in the Marine Corps in 1985, and attended recruit training at the Marine Corps Recruit Depot, Parris Island, S.C. Upon completion of his initial training as an artillery fire direction controlman, he was assigned to Battery R, 5th Battalion, 11th Marines, followed by additional training as an artillery nuclear projectileman. In 1987, SgtMaj Spadaro attended the Marine Security Guard School in Quantico, Va. Upon completion, he served as a watchstander at the U.S. Embassy in Abidjan, Cote D’Ivoire, and eventually as the assistant detachment commander and detachment commander of the Marine Security Guard detachment at the U.S. Embassy in Gaborone, Botswana.

SgtMaj Spadaro’s other early career assignments include Battery G, 3rd Battalion, 12th Marines, 1st Marine Division where he deployed in support of Operation Desert Shield/Storm, as well as 11th Marines S-2 for duty as an intelligence analyst, chief and officer, and Area Guard Chief. Other operational assignments include duty as the 11th Marines survey and meteorological chief, and as the Platoon Sergeant for Headquarters Battery, 11th Marines. Additionally, he served as a Drill Instructor, Senior Drill Instructor and Chief Drill Instructor with Company I, 3d Recruit Training Battalion, Marine Corps Recruit Depot San Diego, and eventually transitioned to the Drill Instructor School staff where he served as the history, leadership and SOP instructor, and the academic coordinator/curriculum developer.

His senior enlisted leadership assignments include: First Sergeant at Special Training Company, Support Battalion, MCRD San Diego; Battery B, 1st Battalion, 12th Marines, 3d Marine Division and Company C, First Recruit Training Battalion at MCRD San Diego; Sergeant Major, First Recruit Training Battalion, MCRD San Diego; Squadron Sergeant Major, Marine Medium Helicopter Squadron 165; Sergeant Major, Aviation Combat Element, 15th Marine Expeditionary Unit; Sergeant Major, 3D Marine Aircraft Wing

(Forward); Sergeant Major, Aviation Combat Element, Regional Command (Southwest) I MEF (Fwd) supporting Operation Enduring Freedom; Sergeant Major, Third Marine Aircraft Wing, and as the Force Sergeant Major for Marine Forces Reserve/Marine Forces North in New Orleans. In March 2016, he selected at the Command Senior Enlisted Leader for U.S. Pacific Command.

Sergeant Major Spadaro has completed the following Professional Military Education courses: NCO Academy, SNCO Career Course, SNCO Advance Course, First Sergeant’s Course, Warfighting, Expeditionary Warfare School (by extension), Command and Staff College (by extension), Navy Senior Enlisted Academy, the Senior Enlisted Professional Military Education Course, the Keystone Fellows Course (National Defense University) and the Asian-Pacific Orientation Course. SgtMaj Spadaro holds a Bachelor of Science Degree (Summa Cum Laude), from Rutgers University in Labor and Management. He is currently completing his Masters of Arts Degree (Liberal Studies) from Rutgers University.

SgtMaj Spadaro’s significant awards and decorations include the Legion of Merit (with Gold Star), the Bronze Star Medal, the Meritorious Service Medal (with Gold Star), the Air Medal (with strike numeral “3”), the Navy and Marine Corps Commendation Medal (with three Gold Stars), the Navy and Marine Corps Achievement Medal, the Army Achievement Medal the Combat Action Ribbon, and Naval Aircrewman Insignia. He was inducted into the Honorable Order of Saint Barbara in 1996.

CAPT WILL STEVENS, UNITED STATES NAVY

CAPT Stevens is a native of Sudbury, Massachusetts. He graduated from the University of Massachusetts, Amherst, in 1984 with a Bachelor of Science in Electrical Engineering. After three years at Hughes Aircraft Company he entered the Navy through Officer Candidate School and received his commission in July 1987. Following OCS he attended Basic Underwater Demolition/SEAL training and Army Airborne School prior to his first operational assignment. CAPT Stevens currently serves as the Deputy Commander for Support at Commander, Special Operations Command Pacific.

Operational assignments include SEAL Team THREE, SDV Team ONE Det Hawaii, SEAL Team ONE, Naval Special Warfare Unit ONE, Naval Special Warfare Unit THREE, Joint Special Operations Task Force-South, Special Operations Command Pacific, Joint Special Operations Task Force-Arabian Peninsula, Joint Special Operations Task Force-Philippines and Commander, U.S. SEVENTH Fleet. Shore assignments include the Naval Reserve Center in Port Hueneme, Naval Small Craft Instruction and Training School, Naval Special Warfare Group THREE and Special Operations Command. CAPT Stevens’ awards include the Defense Meritorious Service Medal, Meritorious Service Medal, the Joint Commendation Medal and the Navy and Marine Corps Commendation Medal.

ERICA SULLIVAN

Erica Sullivan is the Program Manager for Agile Space at Los Alamos National Laboratory’s Global Security Directorate. In that role, Erica is responsible for program development and serves as the primary sponsor interface for LANL’s CubeSat technology. Prior to assuming the role as program manager, Erica was the technical project manager for LANL’s first CubeSat development project, as well as other projects across multiple technical disciplines in

Global Security.

Erica received Bachelor’s Degrees in Economics and Biology at Loyola Marymount University, and a Masters in Business Administration from San Diego State University, and more recently, received PMP certification. Prior to joining the Global Security Directorate at LANL in 2011, Erica spent 9 years in LANL’s Technology Transfer Division as a Licensing and Business Development Executive.

ADMIRAL SCOTT H. SWIFT

Adm. Scott Swift was promoted to Admiral and assumed command of the U.S. Pacific Fleet on May 27, 2015. He is the 35th commander since the Fleet was established in February 1941 with headquarters at Pearl Harbor, Hawaii. Swift attended San Diego State University and received his commission in 1979 through the Aviation Reserve Officer Candidate program. He received his master’s degree from the Naval War College, Newport, Rhode Island. His operational assignments include Attack Squadron (VA) 94; VA-97; Carrier Air Wing 11 staff; commander, Strike Fighter Attack Squadron 97; commander, Carrier Air Wing 14; deputy commander, Naval Forces, U.S. Central Command; commander, Carrier Strike Group 9; and commander, U.S. 7th Fleet. During those tours he participated in combat Operations Praying Mantis, Southern Watch, Enduring Freedom and Iraqi Freedom. His shore tour assignments include VA-122; Naval War College; commander of Strike Fighter Weapons School, Pacific; F/A-18 requirements officer, OPNAV; commander, VFA-122; officer of the Under Secretary of Defense for Acquisition, Technology and Logistics staff; and director of Operations, U.S. Pacific Command. Prior to assuming command at U.S. Pacific Fleet, he was assigned to the Pentagon as the director, Navy Staff. Swift has been recognized as the commander, Naval Air Forces, U.S. Pacific Fleet Landing Signal Officer of the Year; was presented the Commander Michael G. Hoff Award as the U.S. Pacific Fleet Attack Aviator of the Year; and is entitled to wear the Distinguished Service Medal, Defense Superior Service Medal, Legion of Merit, Bronze Star, Meritorious Service Medal, and Air Medal with Combat V, along with various other personal, unit and service awards.

BRYAN TEPPER

Bryan is the Information Assurance Manager for Hawaiian Electric. He is responsible for the cybersecurity team that designs all layered security, and information risk management including data privacy for the companies. He is an attorney, CISSP, CISM, and CIPP/US.

Bryan retired from the FBI after a 26 year career. He has held a number of supervisory and leadership positions at the FBI in Los Angeles, Washington D.C., Ottawa, and Honolulu. Bryan was the Chief Security Officer for the FBI Los Angeles Division, and supervised all physical, personnel and informational security requirements, including several counterintelligence investigations. As a technically trained agent supervisor he managed the Los Angeles FBI diverse resources with direct authority over all electronic interception activities, computer interception, computer forensics, cellular telephone triangulation, vehicle tracking, video and microphone installations, and covert entries. He has worked numerous domestic and international kidnappings, and investigated several high profile computer hacker cases involving the compromise of phone company systems and switches. He was the Supervisory Special Agent, Unit Chief, for the 16

Regional Computer Forensic Laboratories (RCFL) at the Operational Technology Division in Quantico Virginia. He is a recipient of the National Intelligence Medal of Achievement.

GROUP CAPTAIN TIROJ VIROJTRIRATANA

POSITION: STAFF OFFICER, DSTD

MILITARY EDUCATION: – OFFICER BASIC COURSE

OFFICER ADVANCED COURSE

STUDY VISITS: JOINT AUSTRALIA AND THAILAND DEFENCE

COOPERATION COMMITTEE MEETING

CANBERRA, AUSTRALIA

NAVAL POSTGRADUATE SCHOOL, MONTEREY, USA

DEFENCE RESOURCE MANAGEMENT STUDY, MANILA, PHILIPPINES

DEFENCE RESEARCH AND DEVELOPMENT, INDIA

KIDA, SEOUL, REPUBLIC OF KOREA

PREVIOUS POSITION: DIRECTOR, DOCTRINE RESEARCH AND

DEVELOPMENT DIVISION, MRDC

DIRECTOR, FOREIGN LANGUAGE CENTER, DSTD

DIRECTOR, INFORMATION DIVISION, DSTD

F. MICHAEL VON FAHNESTOCK, PH.D., PMP, LSSBB

Dr. von Fahnestock serves in the USPACOM S&T Office through an Interagency Personnel Agreement (IPA) between USPACOM and Battelle. His emphasis areas are Countering Weapons of Mass Destruction (CWMD) technology coordination and operational management for CBRN, water purification and energy S&T Projects. Specifically, he is the Operational Manager for DTRA’s Integrated Early Warning (IEW) Advanced Technology Demonstration (ATD) and for two Rapid Innovation Fund (RIF) projects dealing with tactical UAV remote CBRN sensing and novel individual water purification. He also functions as a Reserve Colonel for the USRDECOM Forward Element Pacific to coordinate technology engagements and assessments in USPACOM Warfighter exercises.

Prior to coming to USPACOM in 2011, Dr. von Fahnestock was the U.S. Army Human Resources Command project officer for The Adjutant General Directorate. When not on assignment through the Reserves or as an IPA, Dr. von Fahnestock is a program manager with Battelle, where he has over 20 years of experience in process design, in-house R&D management, and systems engineering, in areas such as environmental restoration, CBRN defense and demilitarization and water purification.

DAVID VOSS

Dr. David Voss works for the Air Force Research Laboratory’s Space Vehicles Directorate. He is currently the Principal Investigator for the Small Satellite Portfolio which includes numerous government small satellite (1-50kg) missions, and the nationally recognized University Nanosat Program. His primary research efforts are attempting to understand and communicate how small satellites can support DoD objectives. Dr. Voss received his PhD from Boston University in Electrical Engineering with a focus on modular spacecraft designs and space weather instrumentation. Dr. Voss regularly participates in small satellite capability assessments and mission formulation, development, and implementation for AFRL, the DoD, and across the national and international small satellite community.

DR. RICHARD R. VUYLSTEKE

Areas of Expertise: Strategic and operational leadership of

multicultural organizations; Asia Pacific business and trade; Asian and Western history and philosophy.

Dr. Richard R. Vuylsteke (pronounced VUL–stek) took office as the East–West Center’s 11th chief executive on 1 January 2017. A former EWC grantee and staff member, he rejoins the Center after several decades living in Asia and serving most recently as president of the American Chamber of Commerce in Hong Kong.

Previously he served as president of the American Chamber in Taipei, editor–in–chief of the Taiwan Review, and area studies coordinator for the US Department of State Foreign Service Institute in Taipei. Earlier in his career, he was a research fellow in East Asian Legal Studies at Harvard Law School as well as a Fulbright scholar at the University of Rajasthan, India.

Originally from Illinois, Dr. Vuylsteke was an East–West Center grantee in the 1970s while he earned MA and PhD degrees from the University of Hawai’i at Mānoa, specializing in Western and Chinese political philosophy. While still a graduate student he joined the Center’s staff as a research assistant to the director of the Culture Learning Institute, and later worked as a special assistant to the EWC president with a focus on Pacific community topics. In addition, he taught courses at the University of Hawai’i and Chaminade University in Asian history and social, political, and legal philosophy. He also worked at the Pacific Forum (now Pacific Forum/CSIS).

Prior to graduate school, he served three years in the US Army, leaving active duty as a 1st Lieutenant. While in the service, he was stationed in Hawai’i at the US Army Pacific Command (USARPAC) as chief of the China Desk and later seconded to CINCPAC (now PACOM) as chief of the Soviet Far East Desk.

Dr. Vuylsteke is married to Josephine Wu Vuylsteke, a former broadcast journalist; they have three sons.

MATTHEW WARREN

Matthew Warren is the Director, International Armaments Cooperation in the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics). His Directorate is the Department of Defense focal point for cooperation in defense equipment acquisition with nations worldwide. He has served in international defense equipment–related positions in the Pentagon since September 2000.

Matt Warren is a native of Welcome, Maryland. After graduating from the University of Dayton in 1984 (B.S. in Business Management and Marketing), he was commissioned as a Field Artillery Second Lieutenant in the US Army. As a Field Artillery officer, he served in a variety of positions from Battery to Brigade level. During his assignment as Battery Commander, his unit was deployed to Operation Desert Shield and Desert Storm. In 1992, after returning from Iraq, he was selected to be an Army Acquisition Corps officer. His experience in program management includes assignments as the Weapons System Manager Forward Repair System – Heavy, Assistant Project Manager (APM) Aerostat Joint Project Office, APM Communication and Intelligence Systems, Deputy Director Sensors & Signature Managements, Department of Army (DA) Chief, Intelligence Electronic Warfare & Sensors, DA Systems Coordinator for Intelligence platforms and Deputy Director, Armaments Cooperation in the Office of the Deputy Assistant Secretary of the Army (Defense, Exports and Cooperation). Prior to assuming his current duties, he served as the Acting Director, Pacific Armaments Cooperation.

Significant awards and decorations he received during his military service include the Bronze Star, Legion of Merit, Army Meritorious Service Medal, Kuwait Liberation Medal, Army Commendation Medal, and the Army Achievement Medal. He became a member of the Senior Executive Service in April, 2013. Matt also holds a Masters of Science degree in Materiel Acquisition Management from Florida Institute of Technology (1995). Matt’s hobbies include spending time with his family, landscaping and cycling. He is married to the former Christine Terry of South Boston, Virginia and they have three children Steve, Shaundale and Danielle.

MR. WILLIAM J. WESLEY

Mr. William J. Wesley assumed duties as the Director, Plans and Policy, U.S. Pacific Fleet in January 2001. As the N5, Wesley acts as the principal advisor to the Commander on matters of policy and planning development regarding foreign engagement, strategic planning, operational research, and Joint and Navy doctrine. In this capacity, the N5 supports the Commander’s Strategic Plan by leading a diverse organization that translates national political–military strategy and policy into Pacific Fleet objectives; develops and articulates Fleet input into regional and national political–military strategy and policy; formulates and conducts the Pacific Fleet Research, Analyses and War Game Program, which is responsible for resourcing, training, and sustaining naval operational forces for the Pacific Theater; and acts as policy coordinator and planner for conventional and nuclear war plans issues, strategic planning, theater security cooperation planning, foreign engagement, combating weapons of mass destruction, humanitarian civic assistance planning, and pandemic influenza planning. Wesley was selected for appointment to the Senior Executive Service (SES) in July 2005. As the N5, he is the chief architect for the coordination and preparation of the Pacific Fleet input into U.S. Pacific Command’s Theater Campaign Plan, which supports the Secretary of Defense’s priorities for creating new partnerships, coalitions and building the capacity of existing international friends, allies and partners to support confidence building measures throughout the Indo–Asia–Pacific rim. The N5 provides Fleet recommendations to support PACOM’s theater engagement strategy for the 36 nations in the Indo–Asia–Pacific, and is responsible for guiding the development of regional military–to–military relationships among senior U.S. Navy and Indo–Asia–Pacific international military staffs. The N5 is also responsible for ensuring the analysis and review of data related to political–military situations in the Indo–Asia–Pacific region supports planning efforts relative to potential contingency operations, non–combatant evacuation operations, and humanitarian civic assistance. Because of the importance of the United States’ relationship with Japan, the N5 is a key advocate in discussions with the Japanese government in support of the Defense Policy Review Initiative, a major Defense Department policy which will drive the future basing and force posture in Japan, our premier ally in the Pacific.

Wesley is also the primary advisor to the Commander in the analysis, development, synchronization, and sustainment of Operations Plans (OPLANs) and Contingency Plans (CONPLANs) that advance Combatant Commanders’ plans for maintaining security and prosperity throughout the Indo–Asia–Pacific region. In this capacity, the N5 must address heightened regional tensions with

analysis of action/reaction/counter–action moves and mitigate the risks associated with operational planning and execution across the full range of military operations. Moreover, the N5 directs and oversees the development of supporting plans for wartime and crisis response actions in support of two geographic Combatant Commanders (PACOM/NORTHCOM), while ensuring full understanding of trans–regional influence planning with CENTCOM to assure appropriate actions are effective in the Indian Ocean. He previously served in the U.S. Marine Corps for 35 years where attained the grade of Colonel. He served a ground combat tour in Vietnam, and after commissioning, was designated both a Naval Flight Officer, and later as a Naval Aviator flying RF4B/F4/OA4M aircraft. After retiring in July 2000, he accepted a civilian government service position in January 2001.

Wesley graduated with a bachelor’s of arts degree in History from Pepperdine University where he graduated Magna Cum Laude, and a master’s degree in Public Administration from the University of Oklahoma where he was appointed to the National Honor Society for academic excellence.

Wesley’s personal decorations include 3 Legion of Merits, 3 Meritorious Service Medals, a Navy Achievement Medal, and the Combat Action ribbon, as well as various service medals, commendations and citations to include the Navy Superior Civilian Service Award and Navy Meritorious Civilian Service Award.

WILLIAM A. WIENINGER, PH.D.

Dr. Bill Wieninger joined the faculty of the Asia–Pacific Center for Security Studies in November 2008, earning his doctorate in philosophy at McGill University in Montreal, Quebec in 2004. He completed his dissertation assessing the effectiveness of nuclear deterrence across the world from 1949–2004 using both quantitative and qualitative methodology. Of note, he has also done extensive background research on civil–military relations in Indonesia. His current research interests include general international relations, weapons of mass destruction proliferation and non–proliferation, Indonesian politics, geopolitics in South Asia, and energy security.

Dr. Wieninger has taught political science and security–related issues at various universities and institutions, including two years at the U.S. Air Force Academy in Colorado from 1998–2000 and two years at the Defense Nuclear Weapons School in Albuquerque, New Mexico, from 2004–2006, where he was the number one instructor for both years.

During 15 years with the USAF, Dr. Wieninger served in various political–military positions, including staff officer at 13th Air Force for developing security cooperation programs with India, Indonesia, Bangladesh, and Sri Lanka. He also served for two years as the principle Deputy Political Advisor for Air Combat Command, the USAF’s largest Major Command from 2006–2008. In that capacity, Dr. Wieninger provided policy analysis and political perspectives on key political–military issues, including Strategic Arms Reduction Treaty compliance, security developments across the globe, and the growing importance of China.

Dr. Wieninger is an avid soccer player, reader, and world traveler. A native New Yorker, he speaks English, French, and does his best in Indonesian.

GYSGT WOOLFORD, JAMES N. WOOLFORD

Civilian Education:

High School Diploma (1999)

Military Education:

2000	Recruit Training MCRD San Diego Marine Combat Instructor Course	2013
2001	Mortarman	
2002	MOUT Instructor Course Basic Instructor Course	2013
2004	Martial Arts Instructor Course Senior Enlisted Joint PME Non-Res	2013
2006	Sergeants Course DEP Curriculum Developers Course	2014
2006	Sergeants Course Resident	
2014	Single Channel Radio Incidental	
2007	SNCO Career Course DEP Senior Enlisted Joint PME Non-Res	2009
2010	SNCOA Advanced Course DEP Infantry Unit Leaders Course	2014
2010	SNCOA Career Course Resident	

EDUCATION: MASTER OF ARTS PROGRAM IN POTITICAL SCIENCE, UNIVERSITY OF CHIANGMAI
STUDY VISITS: - TOW FIELD TEST SET, HUGE AIRCRAFT COMPANY, LONGBEACH, CA, USA (1982)
. ORDNANCE MAINTENANCE MANAGEMENT OFFICER BASIC COURSE, ABERDEEN
PROVING GROUND, MARYLAND, USA (1.985)
- PACOM OPERATTONS S&T CONFERENCE, HAWA , USA (20L3)
PREVIOUS POSITION: - DIERECTOR, SCIENCE ANDTECHNOLOGY POLICY DIVISION
- DEPUTY DIRECTOR-GEN ERAT, DSTD

Current Assignment: TSC Operations Chief G37, MARFORPAC

DR. TATEO YAMAOKA

March 1984 BE in Electronics, Osaka Prefecture University
March 2002 Ph. D. in Electrical Engineering, Keio University
2015 Oct., Present Assignment
2015 Apr., Director, Program Dept., TRDI
2014 Apr., Director, Missile Research Division,
Air Systems Research Center, TRDI
2012 Apr., Director, Program Management Div.,
Program Dept., TRDI
2011 Apr., Director, Technical Policy & External Affairs Div.,
Plans Dept.,
Technical Research and Development Institute
(TRDI)

BRUCE YOST

Mr. Bruce Yost is the Director of the newly formed NASA Small Spacecraft Systems Virtual Institute (S3VI). The Institute is chartered with aggregating, organizing, and disseminating smallsat related knowledge throughout NASA and within the larger smallsat community for the benefit of NASA and the nation. Prior to this, Mr. Yost served as the original Program Manager for the Space Technology Mission Directorate's Small Spacecraft Technology Program (SSTP). He was also a Mission Manager for all of the NASA Cubesat missions developed and launched by NASA's Ames Research Center from 2006 to 2010. Mr. Yost also worked at NASA HQs as a Program Analyst and began his career at the Kennedy Space Center during the Space Shuttle era as a payload integration engineer.

LT GEN SIRISAK YUTTAPAWET

POSITION: DIRECTOR _ GENERAL, DEFENCE SCIENCE AND TECHNOLOGY DEPARTMENT
MILITARY EDUCATION: ARMED FORCES ACADEMIES PREPARTORY SCHOOL, CLASS 17
BACHELOR OF SCIENCE, CHULACHOMKLAO ROYAL MILITARY ACADEMY, CLASS 28
MILITARY COURSES: OFFICER BASIC COURSE, ORDNANCE 21
OFFICER ADVANCED COURSE, ORDNANCE 1,9
ARMY STAFF COLLEGE 69