

**The Association of the United States Army Institute of Land Warfare
Hot Topic: Army Cyber
A Professional Development Forum**

“Cyber Operations and the Future Fight”

Agenda as of 4 December 2017

General Gordon R. Sullivan Conference & Event Center, Arlington, Virginia
13 December 2017

NOTE: All participants/speakers are on an invited basis only and subject to change

0730 – 1600 REGISTRATION

0730 – 0830 COFFEE SERVICE

0830 – 0835 SYMPOSIUM ADMINISTRATIONS, SAFETY, SECURITY

Michael M. Scanlan

Senior Director, Meetings Directorate
Association of the United States Army

0835 – 0845 INTRODUCTION

GEN Carter F. Ham

United States Army, Retired
President
Association of the United States Army

0845 – 0950 PANEL DISCUSSION 1

***The Army’s Academic and Partnership Outreach Efforts to Support the
Cyberspace Fight***

Panel Chair:

COL Andrew O. Hall

Director
Army Cyber Institute

Panel Moderator:

LTG John D. (JD) Johnson

United States Army, Retired
Vice President for Business Development for U.S. Army and Special Operations
Forces Programs
Raytheon

Panel Members:

COL Robert Kewley

Head, Department of Systems Engineering
United States Military Academy

COL John Giordano
J5, Cyber National Mission Force

LTC Joshua Bundt
Research Scientist
Army Cyber Institute

LTC Timothy D. Bloechl
United States Army, Retired
Director, Cyber Security Business
Quantum Research International & CyberDx

Natasha Cohen
Director, Cyber Policy and Client Strategy
BlueteamGlobal

Dr. Daniel Ragsdale
COL, United States Army, Retired
Director, Cybersecurity Center
Texas A&M University

Chief Joseph Pfeifer
Chief of Counterterrorism & Emergency Preparedness
New York City Fire Department

Tyson B. Meadors
Director for Cybersecurity Policy
National Security Council

0950 – 1000 KEYNOTE INTRODUCTION

LTG Paul M. Nakasone
Commanding General
United States Army Cyber Command

1000 – 1020 KEYNOTE SPEAKER

GEN Raymond A. Thomas III
Commander
United States Special Operations Command

1020 – 1050 REFRESHMENT BREAK

1050 – 1200 PANEL DISCUSSION 2

Cyber Electromagnetic Activities (CEMA) Support to Corps and Below

Panel Chair:

COL (P) William J. Hartman
Deputy Commander Joint Force HQ – Cyber (Army)
United States Army Cyber Command

Panel Moderator:
LTG Richard Formica
United States Army, Retired
Vice President
Calibre Systems

Panel Members:
MG Gregg C. Potter
United States Army, Retired
Corporate Lead Executive Northrop Grumman (Fort Meade/Aberdeen)
Northrop Grumman

MAJ(P) Wayne A. Sanders
Branch Chief
CEMA Support to Corps and Below
ARCYBER G39

MAJ Steven N. Feigh
Mission Team Lead
152nd Cyber Protection Team
United States Army Cyber Protection Brigade

COL Robert M. Ryan
Commander, 3rd Brigade Combat Team
25th Infantry Division

COL Adam C. Volant
Commander, 91st Cyber Brigade and
Commander, Task Force Echo
Army National Guard

1200 – 1330 LUNCH (On Own, Concessions available in immediate area)

1330 – 1430 PANEL DISCUSSION 3
The Future Force Build and Integration of the Electronic Warfare and Information Operations Fields into Cyber

Panel Co-Chairs:
MG Patricia A. Frost
Director of Cyber
Office of the Deputy Chief of Staff, G-3/5/7

MG John B. Morrison, Jr.
Commanding General
Cyber Center of Excellence and Fort Gordon

Panel Moderator:
LTG Jeff Sorenson
United States Army, Retired
President and Partner
A.T. Kearney Public Sector & Defense Services, LLC

Panel Members:
BG Neil S. Hersey
Commandant
United States Army Cyber Center and School

COL Paul “Tim” Brooks
Mission Assurance Division Chief
Department of the Army Management Office – Cyber

COL Laurie Buckhout
United States Army, Retired
President and CEO
Corvus Group

COL George Lewis
United States Army, Retired
Vice President - CEMA Initiatives
CACI International

Anita Pavadore
Principal Research Engineer
Network Vulnerability Division
Georgia Tech Research Institute

1430 – 1435 CLOSING REMARKS
LTG Paul M. Nakasone
Commanding General
United States Army Cyber Command

1435 – 1445 CLOSING REMARKS
GEN Carter F. Ham
United States Army, Retired
President
Association of the United States Army

1445 DEPARTURE

BIOGRAPHY

General Carter F. Ham, U.S. Army, Retired



General Carter Ham is the President and Chief Executive Officer of the Association of the United States Army, a Virginia-based, private non-profit organization with 121 chapters worldwide that acts primarily as an advocacy group for the Army and its soldiers, families and retirees.

General Ham retired from the United States Army in 2013 as the Commander, U.S. Africa Command where he traveled to 42 countries as part the Command's efforts to enhance America's security by establishing and developing partnerships. He directed military operations, including leading coalition forces during the Libyan conflict in 2011, hostage rescue operations in Somalia and counter-terrorism operations across the African continent.

Prior to leading AFRICOM, General Ham was the commander of all U.S. Army forces in Europe, where he oversaw troops deployed to the Balkans, to Iraq and as part of the North Atlantic Treaty Organization mission in Afghanistan. He spent nearly four decades in the Army and is one of a very small number of military leaders who rose from the rank of Private to four-star General.

General Ham served in various capacities both in the field and in the Pentagon. In January 2004, he assumed command of Multinational Brigade (Task Force Olympia) – North in Mosul, Iraq serving there until February 2005. He commanded the First Infantry Division (the Big Red One) and, later, served as the Director of Operations, J3, at the Joint Staff. In retirement, he chaired the Congressionally-mandated National Commission on the Future of the Army.

He is a 1976 Distinguished Military Graduate of John Carroll University in Cleveland, Ohio. General Ham earned a master's degree from the Naval War College, Newport, Rhode Island. He and his wife, Christi (also a John Carroll graduate and a lifelong educator), have two grown children and three fast-growing grandchildren.

Lt. Gen. Paul M. Nakasone



Commanding General U.S. Army Cyber Command

Lieutenant General Paul M. Nakasone assumed command of U.S. Army Cyber Command on Oct. 14, 2016.

A native of White Bear Lake, Minnesota, the general is a graduate of Saint John's University in Collegeville, Minnesota, where he received his commission through the Reserve Officers' Training Corps. LTG Nakasone has held command and staff positions across all levels of the Army with assignments in the United States, the Republic of Korea, Iraq, and Afghanistan.

Prior to his appointment as Commander of U.S. Army Cyber Command, LTG Nakasone commanded the Cyber National Mission Force at U.S. Cyber Command. LTG Nakasone has also commanded a company, battalion, and brigade, and served as the senior intelligence officer at the battalion, division and corps levels.

LTG Nakasone has served in Army assignments in the United States, the Republic of Korea, Iraq, and Afghanistan. His most recent overseas posting was as the Director of Intelligence, J2, International Security Assistance Force Joint Command in Kabul, Afghanistan.

LTG Nakasone has also served on two occasions as a staff officer on the Joint Chiefs of Staff.

LTG Nakasone is a graduate of the U.S. Army War College, the Command and General Staff College, and Defense Intelligence College. He holds graduate degrees from the U.S. Army War College, the National Defense Intelligence College, and the University of Southern California.

LTG Nakasone's awards and decorations include the Distinguished Service Medal, the Defense Superior Service Medal (with three oak leaf clusters), Legion of Merit, Bronze Star, Defense Meritorious Service Medal (with oak leaf cluster), Army Commendation Medal, Joint Service Achievement Medal (with oak leaf cluster), Army Achievement Medal (with four oak leaf clusters), Joint Meritorious Unit Award, Iraq Campaign Medal, Afghanistan Campaign Medal, Combat Action Badge, and the Joint Chiefs of Staff Identification Badge.

LTG Nakasone and his wife are the proud parents of four children, who form the nucleus of "Team Nakasone."



COL Andrew O. Hall is the Director of the Army Cyber Institute. He studied Computer Science at West Point, Applied Mathematics at the Naval Postgraduate School, and Operations Research at the Robert H. Smith School of Business at the University of Maryland. He has served on the Army Staff, Joint Staff, and MNC-I/XVIIIth ABC Staff deployed to Iraq. He is a Cyber officer and was instrumental in creating the Army's newest branch.

Col. Robert Kewley

Col. Kewley is the Head of Systems Engineering Department at the United States Military Academy, West Point, where he has been a professor since 2005. He was the Director of the Operations Research Center at the West Point Systems Engineering Department from 2007 to 2010. Col. Kewley received B.S. in Math from West Point in 1988, M.S. in Industrial and Management Engineering and Ph.D. in Decision Science and Engineering Systems, both from Rensselaer Polytechnic Institute, in 1998 and 2001, respectively.



LTC Joshua Bundt
Instructor, Digital Forensics
Research Scientist, Army Cyber Institute United States Military Academy

LTC Joshua Bundt is a Signal officer with extensive experience providing communications in tactical units and currently serves as a Research Scientist in the Army Cyber Institute. He has served three tours in support of Operation Iraqi Freedom and one tour in support of Operation Enduring Freedom with the 4th Infantry Division, the 16th Combat Aviation Brigade, and the 69th Air Defense Artillery. He studied Electrical Engineering at USMA and received a MS in Computer Science from the Naval Postgraduate School. His research interests are in the areas of computer security competitions, program analysis and digital forensics. He is a graduate of the Signal Officers Basic Course, the Marine Expeditionary Warfare School, Command and General Staff College, and Air Assault School.



Timothy D. Bloechl
Director, Cyber Security Business
Quantum Research International
& CyberDx

Tim Bloechl has 38 years of combined experience across the Defense, Information Technology, and Cyber Security industries. He joined Quantum Research International in February 2014 to drive its cyber security capabilities into the commercial market and to expand its public sector and defense business. Prior to joining Quantum, Tim was a Senior Vice President for WISEKey SA in Geneva, Switzerland developing partnerships and joint ventures centered on encryption technologies including Public Key Infrastructure, Identity Management, and Data Loss Protection. Before joining WISEKey, Tim was Microsoft Corporation's first Worldwide Public Safety and National Security business leader. For almost six years starting in August 2005 he led efforts to build the Microsoft vision, strategy and field sales force for defense, intelligence, justice and first responder markets resulting in approximately 218% revenue growth to almost \$1.7 Billion per year and a CAGR of over 15% during his almost 6 year tenure. Tim also played a significant role in expanding the company's focus on cyber security on behalf of his global clients experiencing increasing levels of cyber-attack. Before Microsoft, Tim served as the Director, International Cyber Security Program for the United States Department of Defense (DOD) as an NSA senior officer (GG-15) based in the Pentagon. He led international military cyber defense outreach, policy and program development, and also served as the department's representative for interagency, international and operational cyber security coordination. Additionally, Tim was co-chair with a DHS colleague of the National Cyber Response Coordination Group under the U.S. National Response Plan. Before this Pentagon assignment, Tim was a Senior Associate with Booz Allen Hamilton, providing international affairs, foreign disclosure, intelligence, policy development, and cyber defense operational consulting support to the Joint Task Force-Computer Network Defense (JTF-CND) and successor organizations in Arlington, VA, as well as building and leading the large Booz Allen team supporting the command. Before joining Booz Allen Hamilton, Tim served a 20-year career in the U.S. Army retiring as a Lieutenant Colonel.

Tim was commissioned into the U.S. Army Military Intelligence branch in 1979 following graduation from the United States Military Academy, West Point, New York. He served in a number of command and staff assignments while on active duty. These assignments included command of a field artillery battery; deputy command of an intelligence brigade; serving as lead intelligence officer at battalion and brigade levels; leading ground and air intelligence collection operations during the Cold War out of West Berlin; leading corps-level intelligence planning efforts focused on the Asia-Pacific region; serving as operations officer for the Defense Intelligence Agency's National Military Intelligence Support Team (NMIST); and was the 1992 top graduate of his 1,113 officer class at the U.S. Army Command and General Staff College. Additionally, he was the first intelligence officer in the school's history to win the annual Master Tactician competition. His final military assignment was Director, J2 Plans, for United States Central Command. He coordinated intelligence planning support to 1996 coalition attacks to relieve Iraqi pressure on Kurdish enclaves in northern Iraq (Operation DESERT STRIKE); 1998 military force deployments reinforcing UN sanctions against Iraq (Operation DESERT THUNDER); a four-day bombing campaign against Iraq in December of that year (Operation DESERT FOX); and August 20, 1998 cruise missile attacks against terrorist camps and facilities in Afghanistan and Sudan responding to Al Qaeda terrorist attacks against U.S. Embassies in Kenya and Tanzania (Operation INFINITE REACH). He also led the command's Intelligence Exchange Program with several Middle Eastern, African, and European countries and was actively engaged with Gulf Cooperation Council (GCC) countries in improving intelligence operations.

Tim's combat tours include serving as NMIST Team Chief in Panama supporting United States Southern Command during the U.S. invasion in December 1989 (Operation JUST CAUSE), and as NMIST Team Chief in Saudi Arabia supporting XVIII Airborne Corps for Operations DESERT SHIELD/DESERT STORM (August 1990-March 1991). He holds a Master of Science in Strategic Intelligence degree from the Defense Intelligence College and a Master of Military Arts and Sciences degree from the U.S. Army Command and General Staff College. His 22 awards and decorations include the Legion of Merit and Bronze Star. He is also 1993 graduate of the U.S. Army School for Advanced Military Studies. In 2010, Tim was inducted into the Oshkosh North High School Hall of Fame at a ceremony in his hometown of Oshkosh, Wisconsin; was Wisconsin's Outstanding Teenager of the Year in 1975; and is an Eagle Scout and Vigil Honor recipient of the Order of the Arrow.

Tim serves on the Board of Directors and the Audit Committee for Global Impact (www.charity.org) a not-for-profit organization dedicated to helping the world's most vulnerable people. Tim also served on the Board of Officers for the U.S. Military Academy Class of 1979 and was the Historian for his class, and serves on the Board of Advisors for the Center for Strategic Decision Research (www.csd.org).



Natasha Cohen

Director of Cyber Policy and Client Strategy

Natasha Cohen is a fellow in New America's Cybersecurity Initiative. Cohen is the director of cyber policy and client strategy at BlueteamGlobal, where she directs a team of cyber professionals to help clients to assess, address, and integrate cybersecurity across their business enterprise and risk management frameworks. Cohen's purview includes the changing cyber regulatory environment, strategic initiatives in cybersecurity, and the latest domestic and international developments in cyber policy and best practices.

Before joining BTG, Cohen worked as a management consultant for PwC, the Rare Wine Co, and several other companies and nonprofits, advising clients on strategic solutions and operations. Her clients included government agencies, Fortune 100 companies, and small to midsize firms operating in the United States and international spheres.

Cohen has also served in the Office of the Undersecretary of Defense for Policy and at the Combating Terrorism Center at West Point, where she worked on counter-terrorism, defense, and security issues. Cohen was awarded the Army Achievement Medal for Civilian Service while working at West Point in 2009. Cohen holds a master's degree in public administration from Columbia University's School of International and Public Affairs and graduated Summa Cum Laude with Distinction from Boston University. Cohen is also a 2017 Transatlantic Digital Debates Fellow with New America and the Global Public Policy Institute.



Daniel Ragsdale
Director of Cyber Security Center
Texas A&M University

Dr. Daniel “Rags” Ragsdale is a thirty-year Army veteran whose service included combat deployments to Iraq (Operation Iraqi Freedom), Afghanistan (Enduring Freedom), and Grenada (Urgent Fury). He is currently a Professor of Practice at Texas A&M and is the Director of the Cybersecurity Initiative for the Texas A&M Experiment Extension Service (TEES). In that capacity he is responsible for managing and directing cybersecurity research and educational initiatives at Texas A&M.

In his previous job he was a Program Manager at the Defense Advanced Research Project Agency (DARPA) where he was responsible for a large portfolio of cybersecurity and educational programs. Before joining DARPA, Dr. Ragsdale served for over a decade at the United States Military Academy at West Point where he served in a variety of leadership roles, culminating with his service as Vice Dean for Education. In that capacity Dr. Ragsdale was the Strategic Planner and Principal Deputy to West Point's Chief Academic Officer.

Dr. Ragsdale graduated from the US Military Academy in 1981 with a bachelor's degree in engineering. He received his master's degree in computer science from the Naval Post Graduate School in 1990 and attended Texas A&M University where he received his Ph.D. in computer science in 2001.

His research interests include cybersecurity, vulnerability research, reverse engineering, computer ethics, privacy. Ragsdale has more than 20 years of supervisory experience in research and development and educational settings. His focus on the technical as well as the human dimension of cyber security helped him to bring innovation to the laboratory, to the classroom, and to operational settings. He has authored or co-authored dozens of cyber security papers, articles, and book chapters.



JOSEPH W. PFEIFER

Chief of Counterterrorism and Emergency Preparedness

**Assistant Chief
New York City Fire Department**

Joseph Pfeifer is the Chief of Counterterrorism and Emergency Preparedness for the New York City Fire Department (FDNY). During his career, he has commanded some of the largest fires and disasters in the New York City's history. He was the first Chief at the World Trade Center attack on the morning of September 11, 2001, played a major command role during Hurricane Sandy in 2012 and helped manage NYC's Ebola Response efforts.

Pfeifer is the founding director of the *Center for Terrorism and Disaster Preparedness*. He serves as a strategic leader assessing emergency response, identifying new budget and policy priorities, overhauling management practices, creating partnerships to supplement existing competencies with new expertise, shaping new technologies for emergency response and developing the FDNY's first Strategic Plan, Terrorism Preparedness Strategy and Continuity of Operations Plan. He produces weekly analyses of threats and crisis response throughout the world. He is also a Citywide Command Chief, responsible for commanding major incidents.

Pfeifer has appeared in major media interviews and has spoken at conferences at United Nations in New York and Geneva, the World Knowledge Forum in Seoul, Wharton Leadership Conference in Philadelphia, National Guard Joint Senior Leaders Conference in Washington, D.C. and other major events. He has taught senior leaders from around the world about crisis leadership, disaster management, critical decision-making, and crisis communication at extreme events. He has conducted hundreds of simulations to test public and private sector response capabilities, capacity and coordination. In addition, he has advised Fire Departments, law enforcement agencies, EMS, hospitals, building owners and managers, military organizations, FEMA and other domestic and international organizations on managing a network response to large scale events with an emphasis on major urban areas. . He has testified in front of the U.S. Congress about the threats cities will face in future.

He is also, a senior fellow at the Harvard Kennedy School and the Combating Terrorism Center at West Point, an adjunct senior staff associate at Columbia University and a visiting instructor at the Center for Homeland Defense and Security at the Naval Postgraduate School. He earned Master's degrees from the Harvard Kennedy School, Naval Postgraduate School, and Immaculate Conception and has written widely in professional journals and books.

Selected Publication Citations (from over 40 published articles and book chapters):

"Preparing for Cyber Incidents with Physical Effects." *The Cyber Defense Review*. Pending for 2018.

"International Anti-Terrorism Preparedness." *WNYF*, 4/2016.

"Tiered Response Pyramid: Enhancing Response Capability and Surge Capacity." with Roman in *Homeland Security Affairs*, 12, Article 5 December 2016.

"Crisis Leadership: The Art of Adapting to Extreme Events." Harvard Kennedy School's Program on Crisis Leadership, *Discussion Paper Series*, Cambridge, MA. 2013.

"The Decisive Moment: The Science of Decision Making Under Stress," with J. Merlo, in *Leadership in Dangerous Situations*. ed. by Sweeney, P. Matthews, M. and Lester, P. Annapolis: Naval Institute Press, 2011.

"Network Command: The High-Tech Future of Incident Management." *WNYF*, 1/2009.

"Understanding How Organizational Bias Influenced First Responders." in *Psychology of Terrorism*, ed. Bongar, Zimbardo, etc al. NY: Oxford University Press, 2007.

"Strategic Planning for First Responders," with R. Sawyer, in *Homeland Security and Terrorism*, ed. Sawyer and Howard. New York: McGraw-Hill, 2006.



General Raymond A. Thomas III **Commander, U.S. Special Operations Command**

General Raymond A. Thomas III currently serves as the 11th Commander of U.S. Special Operations Command (USSOCOM) headquartered at MacDill Air Force Base, FL.

Prior to assuming command of USSOCOM, General Thomas served as Commander, Joint Special Operations Command (JSOC), Fort Bragg, NC.

General Thomas' other assignments as a general officer include: Associate Director for Military Affairs at the Central Intelligence Agency; Commanding General, NATO Special Operations Component Command-Afghanistan; Deputy Commanding General, JSOC; Deputy Director for Special Operations, The Joint Staff in the Pentagon; Assistant Division Commander, 1st Armor Division in Iraq; and Assistant Commanding General, JSOC.



Prior to being promoted to brigadier general, General Thomas also served as the JSOC Chief of Staff and Director of Operations. His other formative and key, joint and special operations, assignments include: Commander, Joint Task Force-Bravo, Soto Cano, Honduras; Commander, 1st Battalion, 75th Ranger Regiment, Savannah, GA; and Commander, B Squadron, 1st Special Forces Operational Detachment-Delta, Fort Bragg, NC.

He is a graduate of the U.S. Army War College, Carlisle, PA., and the Naval Command and Staff College, Newport, RI.

General Thomas is a native of Philadelphia, PA. He attended the United States Military Academy at West Point, NY, and was commissioned an infantry second lieutenant upon graduation in 1980.

General Thomas and his wife, Barbara, have two sons-both of whom are United States Military Academy graduates, Tony (Class of 2007) and Michael (Class of 2008).

(Current as of April 2016)

Colonel William J. Hartman – Deputy Commander Joint Force Headquarters - ARCYBER

Colonel William J. Hartman is a native of Mobile, Alabama. He was a 1989 Distinguished Military Graduate from the University of South Alabama and was commissioned as a Second Lieutenant of Infantry through the Reserve Officer Training Corps. His first assignment was as an Infantry platoon leader in the 505th Parachute Infantry Regiment, 82nd Airborne Division, during Operation Desert Storm. He additionally served as an executive officer, and brigade S3 Air while assigned to the 82nd Airborne Division.



He was assigned to the Southern European Task Force (SETAF) from 1995-1998, where he served as a battalion S2, brigade S2, and company commander. During his time in SETAF, he provided intelligence support to Non-Combatant Evacuation Operations in Liberia, Albania, and Zaire, and contingency operations planning in the Balkans.

Colonel Hartman deployed to Turkey as the Army Forces G2 in support of initial combat actions during Operation Iraqi Freedom (OIF). Colonel Hartman also deployed to OIF as the S3 of the 165th MI Battalion which conducted theater wide HUMINT, Counterintelligence, and Long Range Surveillance operations.

Colonel Hartman served as the S2 for 1st Ranger Battalion from 1998-2001. He also served as the Ranger Regimental S2 from 2004-2007 and deployed multiple times as the J2 of a Joint Special Operations Task Force supporting Operation Enduring Freedom.

Colonel Hartman commanded the 524th Military Intelligence Battalion (HUMINT/CI) from 2008-2010. The 524th MI BN is forward stationed in the Republic of Korea where it provides theater wide HUMINT and CI support to Combined Forces Korea, and the Eighth United States Army. He also commanded the Joint Communications Integration Element (JCIE), US Special Operations Command (SOCOM) from 2010-2013. JCIE provides unique intelligence and communications support to SOCOM units from its headquarters in the National Capitol Region. Colonel Hartman also deployed to Afghanistan as the J2 of a Joint Special Operations Task Force in 2012.

Colonel Hartman became a Cyber Officer in 2015 while in command of the 780th Military Intelligence Brigade (CYBER) at Fort Meade, MD. The 780th MI Brigade provides Cyber Mission Force Teams to support USCC and Combatant Commanders with teams stationed in Fort Meade, Fort Gordon, San Antonio, and Hawaii. The 780th also led the Army's effort to synchronize cyber operations with Corps and below level maneuver units. Colonel Hartman's last assignment was as the G3 for U.S. Army Cyber Command. He is currently the Deputy Commander of Joint Force Headquarters ARCYBER which executes Cyberspace Operations in support of CENTCOM, AFRICOM, and NORTHCOM.

Colonel Hartman's personal decorations and awards include the Legion of Merit with oak leaf cluster, Bronze Star with oak leaf clusters, the Meritorious Service Medal with oak leaf clusters, the Joint Commendation Medal, the Army Commendation Medal with oak leaf cluster, and the Army Achievement Medal with oak leaf clusters. He is qualified to wear the Ranger Tab, Master Parachutist Badge, the Combat Infantry Badge, and the Combat Action Badge. In 2007, COL Hartman was designated as a Distinguished Member of the 75th Ranger Regiment.

Colonel Hartman has Masters degrees from the Air University at Maxwell Air Force Base and the School of Advanced Military Studies at Fort Leavenworth, Kansas.

Colonel Hartman is married to the former Kathryn Brandau of Mobile, Alabama. They have two children: Isabel, seventeen, and Joseph, sixteen.



Richard P. Formica

Lieutenant General (USA-Ret.)
Vice President, Strategic Accounts

Lieutenant General Richard P. Formica, US Army, Retired, connects defense and other government clients' needs to CALIBRE capabilities; contributes to the development and implementation of CALIBRE's corporate strategic plan and market assessments; orchestrates and directs implementation of CALIBRE's space and missile defense business plan; supports the company's regional business development efforts; and provides leadership and oversight to CALIBRE's force management and leader development service offerings. He represents CALIBRE in various government and business forums.

General Formica joined CALIBRE in June 2014 after 36 years of service in the U.S. Army. He is a career field artillery/fire support officer with experience in leadership, operations, and training. He has senior executive level experience in force management and space and missile defense. He served as the Commanding General, Combined Security Assistance Command – Afghanistan; Joint Fires and Effects Coordinator/Force Field Artillery Commander in Multi-National Corps – Iraq; Deputy Director Political – Military Affairs (NATO/Europe) on the Joint Staff; and as the Director of Force Management for the U.S. Army. His final assignment was as the Commanding General, U.S. Army Space and Missile Defense Command and U.S. Strategic Command's Joint Functional Component Command for Integrated Missile Defense.

General Formica received a Bachelor of Science Degree in Law Enforcement from Bryant University in Smithfield, Rhode Island; a Master's Degree in Military Arts and Science from the U.S. Army Command and General Staff College; and a Master's Degree in National Strategic Studies from the National War College.



G R E G G C . P O T T E R

Corporate Lead Executive for Fort Meade and Aberdeen, Maryland

Gregg C. Potter is the corporate lead executive (CLE) for Northrop Grumman at Fort Meade and Aberdeen, Maryland.

As CLE, Gregg responds to and represents Northrop Grumman to our customer base and to other industry in the region. He develops and maintains key customer relationships and promotes communications among Northrop Grumman organizations in the area, facilitating a team approach among Northrop Grumman activities. Mr. Potter has extensive senior executive level leadership and management experience leading and directing large complex defense and intelligence community organizations in operational, joint and NATO environments. Gregg is a retired Major General with more than 32 years of military and intelligence community experience including command and numerous Director of Intel (J2) positions at the tactical, operational and strategic level. Notable assignments include, ISAF CJ2 Afghanistan, Commanding General Intelligence Center of Excellence and Fort Huachuca, Vice J2 on the Joint Staff, and J2 European Command and Joint Special Operations Command. His final active duty assignment was as the Director of Signals Intelligence for the National Security Agency.

Potter graduated from the University of Vermont with a BS in Forestry and earned a MS in Strategy from the US Army War College in Carlisle, Pennsylvania.

Northrop Grumman is a leading global security company providing innovative systems, products and solutions in autonomous systems, cybersecurity, C4ISR, and logistics and modernization to government and commercial customers worldwide. Please visit www.northropgrumman.com for more information.

MAJ Wayne A. Sanders
Chief, CEMA Support to Corps and Below
ARCYBER G39

Currently serving as the Chief of CEMA Support to Corps and Below for Army Cyber Commander. Served as the 23 National Mission Team Lead within the Cyber National Mission Force at Fort Meade. Served as both the S3 and XO for the 781st MI Battalion (Cyber), as well as the Chief of the 780th MI BDE's Cyber Fusion Cell. Previously served as the Division Chief of Expeditionary Access Operations and the Support to Military Operations Subject Matter Expert for the National Security Agency. He is a graduate of the United States Military Academy.

COL ADAM C. VOLANT – Commander, Task Force Echo

Born and raised in Bartlett, Illinois, COL Adam Volant enlisted in the Army in 1981 and trained as a helicopter crew chief on both the Huey and Blackhawk helicopter. First assigned to the 82d Airborne Division, Volant served with the 1-17th Air Cavalry. Later promoted to Sergeant, Volant completed his three year enlistment and matriculated at the Virginia Military Institute in 1984. With a bachelor's degree in English, Volant graduated in 1988 from VMI as a distinguished military graduate and commissioned in the Signal Corps.

First assigned to the 3d Armored Division as a platoon leader, Volant deployed as a part of Desert Shield and Desert Storm with 2-3 Field Artillery Battalion. Serving as an executive officer and staff officer, Volant's other assignments included the 101st Airborne Division where he worked as a systems integration officer and infantry brigade signal officer. Leaving active duty in 1995, Volant joined the Virginia National Guard in 1998 and served as an infantry battalion signal officer, DIVARTY signal officer and was also deployed as a part of Noble Eagle providing force protection in the National Capital Region. He came to the Information Operations Support Center in 2004 serving as operations officer and later executive officer prior to his selection for command. Volant commanded the Data Processing Unit, a Fairfax, Virginia based National Guard element and the largest cyber formation in the Army Guard. During his tour he deployed teams to two theaters, provided forces for the Army Web Risk Assessment Team as well as leading cyber missions with teams of highly credentialed cyber warriors. He later served as the G7, Information Operations Officer, for the 29th Infantry Division located at Fort Belvoir, Virginia. In 2014, he was selected as the Commander for the Information Operations Support Center. Prior to selection for Brigade Command, COL Volant was designated as the Commander of Task Force Echo, a cyber mobilization involving seven states providing support to critical infrastructure for US Cyber Command.

A graduate of the Signal Officer basic and advanced course, Volant also completed combined arms staff services school, the command and general staff officer course, and has masters of strategic studies from the Army War College and a master of science in organization management from Capella University. He has completed the information operations course (FA30), Security+ certification training, basic CNO planners course and joint information operations course and certified ethical hacker.

Volant's awards and decorations include the bronze star, meritorious service medal with two oak leaf clusters, army commendation medal with oak leaf cluster, joint service achievement medal, army achievement medal with three oak leaf clusters, good conduct medal, national defense service medal, armed forces reserve component medal, global war on terror service medal, overseas ribbon, Kuwaiti liberation medal with three stars, Southwest Asia service medal, basic parachutist badge, air assault badge and aircraft crewmember badge.

COL Volant and his wife Teresa live in Fairfield, Virginia and have four children; Kyle 25 (wife Lora), Anna 22, Joseph 20 and Devin 10.



Major General Patricia A. Frost

Maj. Gen. Patricia Frost is the director of cyber within the U.S. Army's Office of the Deputy Chief of Staff, G-3/5/7.

Prior to her current role, Frost served as deputy commanding general for operations at the Army Cyber Command and Intelligence and Security Command as well as the military branch's assistant chief of staff/G3.

Her previous assignments include roles as platoon leader of the 8th Infantry Division in Wildflecken, Germany; commander of headquarters and operations company and battalion operations and intelligence officer of the 741st Military Intelligence Battalion at Fort Meade, Maryland; and intelligence training and security officer of the 82nd Airborne Division at Fort Bragg, North Carolina.

She also supported *Operation Enduring Freedom* in Afghanistan and the Philippines as well as held the position of South Asia and Southeast Asia regional desk officer for the Pacific Command's J2 Intelligence directorate.

Additionally, she worked as deputy chief of initiatives group and director of executive engagements and services under the U.S. Army Pacific commanding general.

Frost completed military intelligence officer basic and advanced courses at the Combined Arms Services and Staff School, Command and General Staff College and Army War College.



**COMMANDING GENERAL
MG JOHN B. MORRISON, JR**

Major General John B. Morrison, Jr. assumed duties as the Commanding General, U.S. Army Cyber Center of Excellence and Fort Gordon on August 26, 2016. Major General Morrison, Jr. received his commission through ROTC at James Madison University in Virginia where he graduated in 1986 with a Bachelor of Business Administration degree, majoring in marketing. He also holds a Master of Science Degree in Telecommunications Management from Webster University and a Master of Strategic Resourcing from the Industrial College of the Armed Forces (ICAF). His military education includes Signal Officer Basic and Advanced Courses, the Tactical Signal Officer's Staff Course, and the Advanced Airborne (Jumpmaster) School. In addition to ICAF, Major General Morrison is a graduate of both the Command and General Staff College (CGSC) and the Joint Forces Staff College.

His initial assignments were as Platoon Leader and Assistant S-3 in the 1st Signal Battalion, 7th Signal Brigade, in Kaiserslautern, Germany. He later commanded B Company, 1st Signal Battalion and deployed as part of the 93rd Signal Brigade, VII Corps, during the Persian Gulf War. In 1992, he was assigned to Fort Bragg, North Carolina, as the Assistant Brigade S-3, 35th Signal Brigade (Airborne) and then as the Assistant Operations Officer for the 50th Signal Battalion (Corps, Forced Entry, Airborne) where he participated in the Hurricane Andrew relief effort in Florida and provided support for Operation Uphold Democracy. In 1995, he served as an intern in the Office of the Secretary of Defense (OSD) and as an Action Officer on the Army Staff (G-8) in the Pentagon. After CGSC, he served as the Deputy G-6, 1st Cavalry Division and Multi-National Division (North) in Bosnia-Herzegovina and later as the Battalion S-3 for the 13th Signal Battalion, 1st Cavalry Division. He then served in the Command, Control, Communications, and Computers Systems Directorate (J-6), Joint Staff, in Washington DC. Later, he commanded the 13th Signal Battalion (Task Force Mercury) supporting the 1st Cavalry Division and Task Force Baghdad in Iraq. In 2005, he served as the Signal Branch Chief, Human Resources Command, in Alexandria, Virginia, and later commanded the globally deployed Joint Communications Support Element (Airborne) from 2007-2009. At the Pentagon, he was the Executive Officer, Army CIO/G-6 from 2009-2010, and LandWarNet/Mission Command Director in the Department of the Army G-3/5/7 from 2010 to 2012. He served as the Commanding General for the 7th Signal Command (Theater), Fort Gordon, from 2012-2014. From 2014-2016, Major General Morrison served as the Commanding General for the United States Army Network Enterprise Technology Command at Fort Huachuca, Arizona.

Major General Morrison is married to the former Ann Graves, and they have four wonderful daughters – Christine, Kate, Colleen, and Kelly – a son-in-law, Andrew, and a granddaughter, Kaitlyn.

COL Paul “Tim” Brooks
IO, USA
*Mission Assurance Division Chief, DAMO-CY
Pentagon, Washington, D.C.*



COL Paul “Tim” Brooks was born and raised in Syracuse, New York. He received his Bachelors of Arts from the University of Notre Dame in May 1990. In March 2004, he earned a Masters of Science degree in Information Operations from the Naval Post Graduate School in Monterey, California.

In May of 1990 he was commissioned through the Reserve Officer Training Corps program as a 2LT in the Armor Corps and was assigned to Germany where he served as a tank platoon leader, tank company XO and Headquarters and Headquarters Company XO with the 2nd Armored Cavalry Regiment and the 2nd Battalion, 37th Armored Regiment, 3rd Infantry Division.

COL Brooks transitioned to the Military Intelligence Corps in 1994 and was posted to Fort Campbell, KY where he served in a variety of intelligence positions including Battalion and Brigade S-2 as well as Direct Support Military Intelligence Company Commander in the 101st Airborne Division (Air Assault). During this tour he deployed to Haiti with the 1st Brigade, 101st in 1996 to support of the UN Mission in Haiti. After command COL Brooks was reassigned to the Battle Command Training Program in Fort Leavenworth, KS, as an Intelligence, and later Information Operations (IO), Observer-Trainer where he had the opportunity to work with Army National Guard units throughout the U.S. to develop their staff skills and procedures.

Following his promotion and selection as an IO Officer, he was reassigned to Camp Red Cloud, Korea, as the 2nd Infantry Division’s IO Officer for 15 months. Upon returning from Korea, COL Brooks was assigned to the 1st Cavalry Division in Ft Hood, TX where he served as the Effects Coordinator for the 3rd “Greywolf” Brigade, the Secretary to the General Staff and the Division G-7. While assigned to the division he deployed to Iraq twice from 2006 to 2008 and later from 2009 to 2010, serving in IO leadership positions during both tours.

Upon completion of his tour with the 1st Cavalry Division, COL Brooks was assigned as the IO Plans and Policy Lead for the Operations Division of the NATO International Military Staff. In this role he served as the Secretary for the NATO Electronic Warfare Committee (NEWAC) and supported working groups tasked with developing Alliance strategic communication plans, as well as IO and PSYOP policy and doctrine. In JUL 14, upon promotion and completion of the U.S. Army War College, COL Brooks was assigned as the G-7, 8th Army in Yongsan, Korea. His duties included coordinating IO activities and strategic communications for the command.

COL Brooks returned to the U.S. in JUL 16 and currently serves as the Mission Assurance Division Chief, Department of the Army Management Office – Cyber (DAMO-CY).

COL Brooks’ awards include the Legion of Merit, Bronze Star Medal (two), Defense Meritorious Service Medal, Meritorious Service Medal (three), Joint Service Commendation Medal, Army Commendation Medal (four), Army Achievement Medal (two), and the Combat Action Badge.



Colonel (Retired) Laurie Moe Buckhout is currently the President and CEO of The Corvus Group, LLC, a strategic consulting and services group bringing together senior leaders to solve complex defense problems. She served as an Army Officer from 1984 to 2010, retiring to assume a position in the Defense Industry. Ms Buckhout is a native of Virginia and attended James Madison University. Upon completion of JMU's ROTC Scholarship program, she was commissioned a 2LT in the Army Signal Corps in 1984, and from there served in leadership and staff positions from the 3rd Infantry Division to the White House, and from Platoon Leader to Battalion Commander, ending her career as Chief of Electronic Warfare for the Army's Headquarters Staff. In addition to a Bachelor of Science Degree from James Madison University, she holds a Masters of Military Arts and Science, Command and General Staff College, Fort Leavenworth, Kansas; and Masters of Science in Information Systems Management, Webster University, St Louis, Missouri.

Ms Buckhout's career highlights include nearly a decade of service in Germany and the Middle East, to include a year as a battalion commander of the 32d Signal Battalion in Iraq, from 2003-2004. She has also served as a Company Commander, Battalion and Brigade Assistant S3, Battalion Executive Officer, Presidential Communications Officer while assigned to the White House Communications Agency, Executive Assistant to the Commanding General of NETCOM, Assignment Officer at Human Resources Command, Deputy Brigade Commander of the 22d Signal Brigade, Deputy Division Chief, J6 Current Operations Division on the Joint Staff, and Chief of the Army Electronic Warfare Division, The Army Staff.

Ms Buckhout's military awards include the Distinguished Service Medal, the Bronze Star, the Defense Meritorious Service Medal (two awards), the Meritorious Service Medal (four awards), and several awards of Joint and Army Commendation and Achievement Medals and well as other various service awards. She also wears permanent orders of the Meritorious Unit Citation, the Presidential Unit Citation, and the Meritorious Unit Award, as well as the Combat Action Badge, the Parachutist Badge, and the Joint Staff, White House and Army Staff Badges.

Ms Buckhout was hand selected at the four-star level to develop the Army's first Electronic Warfare capability since the 1980's, after leading efforts in the Counter-Radio-Controlled Improvised Explosive Device fight, personally advising the Chairman, JCS. After her work in these endeavors, she was elected as President of the International Electronic Warfare Association, the AOC, an organization charged with leading global efforts to raise the awareness of Electronic Warfare. She publishes on EW and Cyber in trade and technical periodicals and is a frequent interviewee on Cyber and EW such print and television forae such as the *Journal of Electronic Defense*, *the Washington Post*, *the New York Times*, *the Army Times*, *Inside Defense*, *Jane's Defence Weekly*, and *National Geographic*. COL (Ret) Buckhout is also a guest lecturer on Cyber and EW at the National Defense University and the Marine Corps Command and Staff College.

Ms Buckhout recently sat the Defense Science Board Summer Study on 21st Century Electronic Warfare, and also has served as an advisory board member to the Student Veterans of America, Guardian Angel Therapy Dogs and to several small businesses. This year, she was selected as a Special Government Employee for the Commerce Spectrum Management Advisory Committee (CSMAC), which advises the Assistant Secretary for Communications and Information at NTIA on a broad range of spectrum policy issues. Committee members offer expertise and perspective on reforms to enable new technologies and services, including reforms that expedite the American public's access to broadband services, public safety, and long-range spectrum planning. She is an experienced operator and briefer at International, DoD, Congressional and Presidential levels and is currently advising the Army Staff, OSD-CIO, and the Joint Improvised Threat Defeat Organization (JIDO) on EW and Cyber threats and countermeasures.

George Lewis

Vice President, CACI

CEMA Initiatives



George Lewis enlisted in the Army in 1985 as a signals intercept (SIGINT), electronic warfare (EW) and cryptology specialist. He graduated from the Defense Language Institute and Electronic Warfare Operators Course before being assigned to XVIII airborne Corps' 525th Combat Electronic Warfare & Intelligence (CEWI) brigade. George served in numerous roles as an intercept, direction finding, jamming and targeting analyst in team leader, squad leader and platoon sergeant positions. He was responsible for developing and writing the Corps' electronic support (ES) and electronic attack (EA) crew drill manuals, several of which were later adopted by the Army. George was next assigned as a Low-Level Voice Intercept (LLVI) and strategic reconnaissance team sergeant in 3/5th Special Forces Group where he led reconnaissance and targeting teams and instructed foreign internal security forces on emitter reconnaissance, targeting and EW operations. George completed his enlisted career in August of 1990 as a staff sergeant in 1/3rd SFG(A) as the Special Operations Team – A (SOT-A) detachment sergeant. His team supported operations in Africa, CENTCOM and Panama.

After receiving a Green-to-Gold scholarship, George was commissioned in the Army Military Intelligence Corps in May of 1993 through ROTC from Methodist University, North Carolina. Relevant assignments included Infantry Battalion and Brigade S2, charged with the intelligence, surveillance and reconnaissance plans as well as the intelligence and surveillance (I&S) platoon leader and company XO for the 82nd Airborne Division's 313th CEWI battalion. Missions included sensor reconnaissance with ground surveillance radars and unintended ground sensors as well as ES and EA operations. George next was assigned as an instructor and company commander at the Army's intelligence center where he was responsible for EW doctrine and the conduct of the Army's last tactical electronic warfare operators course for enlisted, warrants and officers. George served as the EW senior instructor and course developer for all Army soldiers ranging from E-1 to O-6. Later he served in command and staff positions in

battalion, brigade, division, theater and joint assignments. George also led and conducted EW, SIGINT and other special missions globally during the initial years of the Global War on Terrorism while assigned to JSOC. As a battalion commander in Anbar, Iraq, George commanded route clearance, EOD, MP, UAS, signal and intelligence forces and was his Brigade Task Force's commander charged with the Counter IED fight.

In George's final tour in the Pentagon he served as the G-8 Force Development Director for all ISR, EW and cyber capabilities, and briefly as the requirements director in the Army G-3's newly established Cyber directorate (DAMO-CY). He co-led the Chief of Staff of the Army's (CSA) first Russia study making key recommendations about threat capabilities to include specific DOTMLPF-P recommendations for EW and cyber capabilities.

Since retiring from the US Army as a Colonel, George has served as a senior advisor to the Army Staff's Cyber and Electronic Warfare Director and currently is a Vice President with CACI International where he teams to accelerate solutions development in the EW, cyber and ISR mission areas.

Georg's military and civilian education includes the Defense Language Institute (French), Electronic Warfare / Signal Intelligence Operator and Officer Courses, Jumpmaster, Ranger and Special Operations Qualification Courses, the School of Advanced Military Studies (SAMS), the Naval War College and the Army Acquisition Management Course. He holds a bachelor of arts degree in Political Science from Methodist University, and master's degrees in Business Administration (Touro University International), Military Art and Science (US Army Command and General Staff College) and National Security Studies (Naval War College).

COL(R) Lewis' operational and combat experience includes: Special Operations deployments to Africa, Asia, the Middle East and South America; Battalion Intelligence and Operations Officer of 2/325 AIR in Saudi Arabia in response to the bombing of Khobar Towers; Commander of Joint Special Operations Command teams with CJTF-Dagger/11 and CJTF-HOA during Operation Enduring Freedom; Deputy A&P Chief, CJ2 CIOC, MNF-I in support of Operation Iraqi Freedom; and most recently as the Battalion Commander of 4-3 BSTB during Operations Iraqi Freedom (OIF) and New Dawn (OND), USD-C, USF-I, Al Anbar Province, Iraq.

Anita Pavadore is a Principal Research Engineer at GTRI and has over twenty years' experience in working on and managing programs in military C3 systems development/analysis, foreign materiel exploitation (FME) and the development of RF countermeasure techniques. During her career at GTRI, she has led more than thirty exploitation programs involving both tactical and commercial communication systems and has been primary author of more than fifty technical reports. In her current position as the Division Chief of the Network Vulnerability Division (NVD), she heads a 50+ person research team expert in reverse engineering, vulnerability discovery, and forensics analysis of embedded systems and wireless communications equipment. Red team activities focus on vulnerability discovery and the development and demonstration of RF and network-based techniques to gain unauthorized access to and/or exploit information networks. These efforts identify weaknesses and help ensure that mitigations are effective. The Division specializes in wireless and embedded devices such as radios, modems, routers and embedded controllers comprising various military and Industrial Control System (ICS) networks. Research is also focused on developing innovative tools, architectures, and methodologies to support FME and for software and microelectronic hardware assurance. She received her BSEE and MSEE degrees from Georgia Tech.