

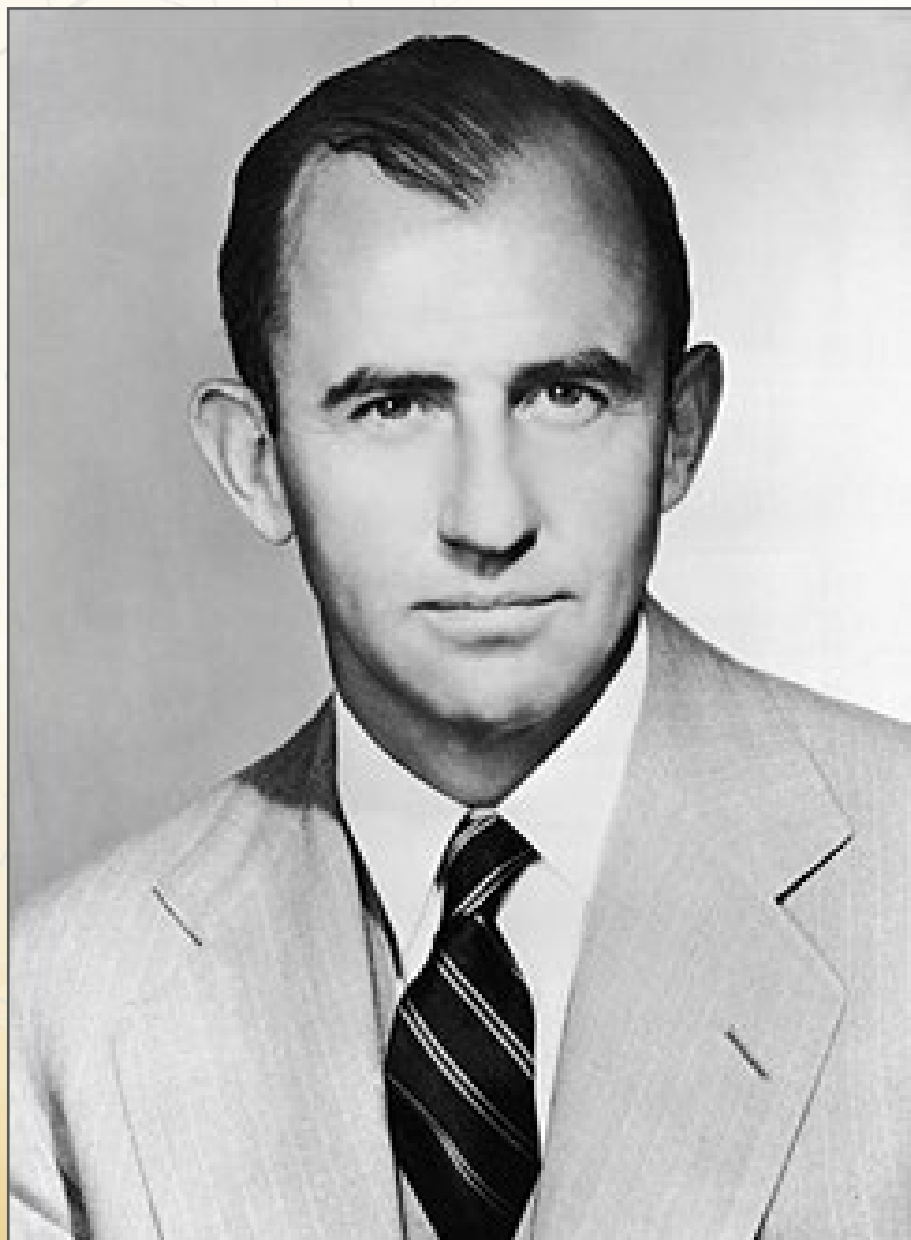


ARMY SCIENCE BOARD

2019 Members



Army Science Board
September 2018
Arlington, Virginia



FOREWARD

The Army Science Board (ASB) is a federal advisory committee organized under the Federal Advisory Committee Act. It provides the Army independent advice and recommendations on matters relating to the Army's scientific, technical, manufacturing, logistics, and business management functions, as well as other matters deemed important by the Secretary of the Army.

The ASB began in November 1951 when Secretary of the Army, Frank Pace, Jr., appointed twelve exceptional scientists and industrialists as members of a scientific advisory panel to assist him and the Army leadership in creating an effective, economical and progressive fighting force using existing scientific technology and industrial resources. Three years later, this panel was expanded and officially designated as the Army Science Advisory Panel (ASAP), with its first formal meeting held on November 16, 1954. The ASB was created in 1977 to replace the ASAP and continues in that function today.

ASB members and consultants are appointed under the authority of 5 U.S.C. § 3109 as Special Government Employees and are subject to federal ethics rules. They serve voluntarily without compensation.

The ASB is supported by an administrative staff under the Office of the Deputy Under Secretary of the Army.



IN MEMORIAM

Vanu G. Bose, Ph.D.

October 4, 1965 – November 11, 2017



Dr. Vanu Bose, Army Science Board Member since 2012, founder of Vanu Inc., and son of the founder of the Bose Corporation was a graduate of MIT where he earned a bachelor's degree (1988), a master's degree (1994), and a Ph.D. (1999). He also served on the Board of Trustees at MIT. His expertise offered important insights to the Secretary of the Army and the Secretary of Defense. Dr. Bose volunteered his time to the Army Science Board and contributed to a number of studies to include, "The Strategic Direction for Army Science and Technology" (2012), "Army Science and Technology Essential Core Competencies" (2013), "Air and Missile Defense Electronic Warfare Assessment" (2014), "Army Cyber at the Tactical Edge" (2015), and "Robotic and Autonomous System-of-systems Architecture" (2016).

Dr. Bose's work in Vanu Inc. was extraordinary, providing cellular coverage to underserved areas around the world. Vanu's software-defined radios (SDR) were specifically made to require low amounts of energy. Because of this, they can be powered by the sun via solar panels. This also allows them to be deployed to isolated areas around the world. Dr. Bose's SDRs were the first to be certified by the FCC and were later deployed to support Puerto Rico and the Virgin Islands during Hurricane Maria. Not only was Dr. Bose a genius, he was also known to be a very genuine and charismatic leader, family man, and avid sports fan. He will be sorely missed by the Army's Science Board Members and Staff. We are forever grateful for his contributions to the Army, the Department of Defense, and to society as a whole.

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MEMBER

Clinton J. Ancker III, COL (RET), USA

Former Director, Combined Arms Doctrine Directorate
U.S. Army Combined Arms Center



EXPERTISE

Military History

U.S. Army Doctrine

Armor and Armored
Cavalry Operations

Brigade and
Battalion Level
Operations

Multi-national
Doctrine and
Operations

EXPERIENCE

Mr. Clinton J. Ancker III graduated from the U.S. Military Academy (USMA) in 1970 and was commissioned an Armor Second Lieutenant. Shortly after that, Mr. Ancker served in multiple positions in Vietnam to include Platoon Leader and Troop Executive Officer, G Troop, 2/11 Armored Cavalry Regiment (ACR); Rifle Platoon Leader, 1-12 CAV (Airmobile); and Training Officer and Property Book Officer (PBO) with the Special Forces training an ARVN tank battalion and Cambodian Infantry battalions.

Upon returning from Vietnam, he served as Aide-de-Camp for the Superintendent, USMA. His career continued with many more assignments in the 11th ACR in West Germany and another assignment at USMA as a Military History instructor. After serving as Commander of 3/11 ACR, he deployed with the 2d Armored Division (Forward) to Operations Desert Shield and Desert Storm as the G-3.

Colonel Ancker later served as Special Assistant to the Commander-in-Chief, U.S. Special Operations Command, MacDill AFB. Then, after six months TDY as the Chief of the USEU-COM Military Liaison Team to Albania and five years as the Director of the Combined Arms Doctrine Directorate, U.S. Army Combined Arms Center, Fort Leavenworth, Kansas, COL Ancker retired 30 June 2001. Upon retirement from active duty, Mr. Ancker was hired as a Department of the Army Civilian (GS-15) to continue as the Director of the Combined Arms Doctrine Directorate at Fort Leavenworth, which he did for the next 16 years. He retired from civil service in 2017 and is currently residing in Gig Harbor Washington.

EDUCATION

U.S. Naval War College, M.A., International Relations/National Security Studies, 1992

Stanford University, M.A., Political Science, & M.A., Modern European History, 1980

CW Post College, Long Island University, M.B.A., 1974

United States Military Academy at West Point, B.S., Engineering, 1970



MEMBER

David Anderson, COL (RET), USA

Chief Executive Officer (CEO), Bay West LLC



EXPERTISE

Facilities and
Infrastructure

Construction

Project
Management
Environmental
Remediation
Engineering

Environmental
Restoration

Construction

Corporate Real
Estate

Congressional
Affairs

EXPERIENCE

Mr. Anderson is the CEO, Bay West LLC. He has over 29 years of experience in environmental restoration, construction, engineering, corporate real estate, and Congressional affairs.

Prior to joining Bay West, he served for 26 years as an officer in the United States Army. His early assignments included service in mechanized and airborne combat engineer units in the United States and Korea. Later in his military career, he commanded both the Honolulu District and the Baltimore District of the U.S. Army Corps of Engineers, where he spearheaded some of the most complex environmental cleanups at both Department of Defense (DoD) and Department of Energy (DoE) sites, led the successful completion of a \$5 billion military construction program for DoD and several intelligence agencies, oversaw the Army's Enhanced Use Lease Program, and participated in numerous emergency response operations. He served twice in the Army's Office of the Chief of Legislative Liaison (OCLL) where he served as the Army's principal liaison to the House and Senate Armed Services Committees on all matters related to construction, installation management, and real estate. He was the Legislative Assistant to the Secretary of the Army and the Vice Chief of Staff of the Army.

Mr. Anderson was a member of the Army Science Board's "Smart Installations" study (2018). His awards include the Goethals Medal (2011), awarded annually by the Society of American Military Engineers for "eminent and notable contributions in engineering, design, or construction in the past five years," and the Legion of Merit (2012).

EDUCATION

Dwight D. Eisenhower School for National Security and Resource Strategy

M.S., National Strategy Resourcing, 2009

University of Texas, Austin, MSE, Construction Engineering &
Project Management, 1996

U.S. Military Academy, B.S., Applied Sciences & Engineering, 1986



MEMBER

Robert G. Atkins, Ph.D.

Division Head, Advanced Technology Division, MIT Lincoln Laboratory



EXPERTISE

Intelligence,
Surveillance and
Reconnaissance

Air Defense Radar

RF Signatures and
Electromagnetic
Modeling

Systems Analysis
and Architecture
Engineering

Rapid Capability
Development

Technology
Development

EXPERIENCE

Dr. Robert G. Atkins is currently the Head of the Advanced Technology Division at MIT Lincoln Laboratory. He holds expertise in intelligence, surveillance and reconnaissance; air defense radar; radio frequency (RF) signatures and electromagnetic modeling; systems analysis and architectural engineering; rapid capability development; and advanced technology development.

He began working at the Laboratory as a cooperative-education student and research assistant in the Air Defense Techniques Group, where his work focused on the modeling of electromagnetic scattering and radar cross-section prediction.

From there, Dr. Atkins expanded his career across multiple divisions and groups within the Laboratory while holding the following positions: Assistant Head of the Intelligence, Surveillance, Reconnaissance, and Tactical System Division; Assistant Head of the Homeland Protection and Tactical Systems Division; Group Leader of the Advanced Capabilities and Systems Group; Assistant Group Leader of the Systems Analysis Group; and Associate Group Leader of the Sensor Exploitation Group.

Currently, Dr. Atkins develops revolutionary and subsystem technologies to enable new system-level solutions for critical national defense challenges. He is a member of the Army Science Board and has participated in a number of studies including, "Multi-Domain Battle," and "Robotics and Autonomous Systems," and has chaired studies on "Army Cyber" and "Improving the Army's Software Development and Sustainability Strategy."

EDUCATION

Massachusetts Institute of Technology, Ph.D., Electrical Engineering, 1993

Massachusetts Institute of Technology, E.E., Electrical Engineering, 1989

Massachusetts Institute of Technology, S.M., Electrical Engineering, 1988

Massachusetts Institute of Technology, S.B., Electrical Engineering, 1987



MEMBER

Vivian Baylor

Independent Consultant



EXPERTISE

Organizational
Culture and
Transformation

Technology
Transition

Security
Technologies

Vulnerability
Assessment

EXPERIENCE

Vivian Baylor has been self-employed as a consultant since her retirement from federal service in 2013. Previously, Ms. Baylor was a Highly Qualified Expert under the Deputy Under Secretary of the Army, where she was the Deputy Director, the Institutional Army Transformation Commission (IATC). The IATC led efforts with Army senior leaders to identify and facilitate initiatives to transform the non-warfighting portion of the Army to become agile, flexible and efficient. She was also the Senior Advisor to the Army Science Board (ASB). Before this, Ms. Baylor was on the staff of the ASB where she was the Studies Manager and worked on sustainability, biometrics, survivability, armed ground robotics and suicide mitigation.

Prior to this, Ms. Baylor worked for Oak Ridge National Laboratory and other DOE facilities, serving in a variety of positions until her retirement in 2008. She began her career as a metallurgical engineer supporting alternative energy programs before moving into program management. She spent almost two decades leading technology development efforts addressing national security principally in support of nuclear nonproliferation, intelligence, and law enforcement. Ms. Baylor received numerous awards for technical achievement, performance and operations including a special award from U.S. Customs and letters of commendation from the Secretary of Energy and the Director of National Intelligence. She also was the recipient of an R&D 100 award and an award from the Federal Laboratory Consortium for Technology Transfer for a human presence detection system.

EDUCATION

University of Tennessee, M.S., Industrial Engineering/Engineering Management, 2008

University of Tennessee, B.S., Metallurgical Engineering, 1978

Virginia Polytechnic Institute and State University, B.A., English, 1973

Virginia Polytechnic Institute and State University, B.A., Political Science, 1972



MEMBER

Gisele Bennett, Ph.D.

Senior Vice President for Research

Professor, Computer and Electrical Engineering

Florida Institute of Technology



EXPERTISE

Atmospheric
Turbulence

Optical Imaging
Systems

Secure Supply
Chain Technology

Decision Support
Systems

EXPERIENCE

Dr. Bennett is an exceptional and proven leader in her field. Her research interests are broad to include applied and basic research in coherence theory applications, optical imaging systems, atmospheric turbulence and wave propagation, radio frequency identification (RFID), and secure supply chain and manufacturing system modeling.

In addition to her current position at Florida Tech, she is also an Adjunct Professor in the School of Electrical and Computer Engineering (ECE) at the Georgia Tech. Prior to joining Florida Tech in 2018, she was a Regents' Researcher, an Associate Vice President for Research, Faculty Integration, and a Professor in the School of ECE at Georgia Tech. She held the Glenn Robinson Chair in Electro-Optics at GTRI and founded the Logistics and Maintenance Applied Research Center.

She is a Fellow in OSA and SPIE, and a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE). She has been a topical editor for Applied Optics (AO) and a feature editor for both AO and Optical Engineering. She is the President for the IEEE Council on RFID and on the board of directors for OSA.

She is one of the first ten fellows chosen for Georgia Tech's University leadership program and has over 130 publications, patents, and copyrights related to RFID and computer modeling for Wave Propagation through the atmosphere.

Dr. Bennett has chaired, co-chaired, and contributed to numerous Army Science Board studies. She is frequently called upon to lead ASB studies.

EDUCATION

Georgia Institute of Technology, Ph.D., Electrical Engineering, 1995

Georgia Institute of Technology, Certificate, Management of Technology, 1995

University of Central Florida, M.S.E.E., 1989

University of Central Florida, B.S.E., Electrical Engineering, 1987



MENTOR

Joseph V. Braddock, Ph.D.

Trustee, The Potomac Foundation



EXPERTISE

Nuclear Physics

Threat Assessment

Concept
Development

Systems
Architecture

Technology
Exploitation

EXPERIENCE

Dr. Joseph V. Braddock served in a multitude of jobs to include Co-Chairman, Board of Directors, Potomac Foundation (1988). In the foundation, he contributed significantly to NATO research. He is a distinguished nuclear physicist, business executive, and philanthropist recognized for his contributions in national security, health, and information technology fields. Dr. Braddock also supported the technical research and policy advances that enabled conventional deterrence in Europe. He is a member of the American Physical Society and the Institute for Electrical and Electronic Engineers (IEEE).

In his career, Dr. Braddock served as a professor at Fordham University and later lectured at Iona College. In 1959, he co-founded BDM International, a technology-based professional services firm and principal nuclear weapons' failure testing company. BDM was later acquired/re-acquired by Ford Motor Company. BDM eventually was integrated into Northrop Grumman having grown to over 10,000 employees globally.

Dr. Braddock has served on the Defense Science Board, the Army Science Board (ASB) (Chair & Vice Chair, 2000 – 2004), the National Security Agency Scientific Advisory Board, the Defense Threat Reduction Agency Advisory Committee, the Defense Nuclear Agency Scientific Advisory Group on Effects, and the Sandia National Laboratories National Security Advisory Panel (Chair and Co-Chair).

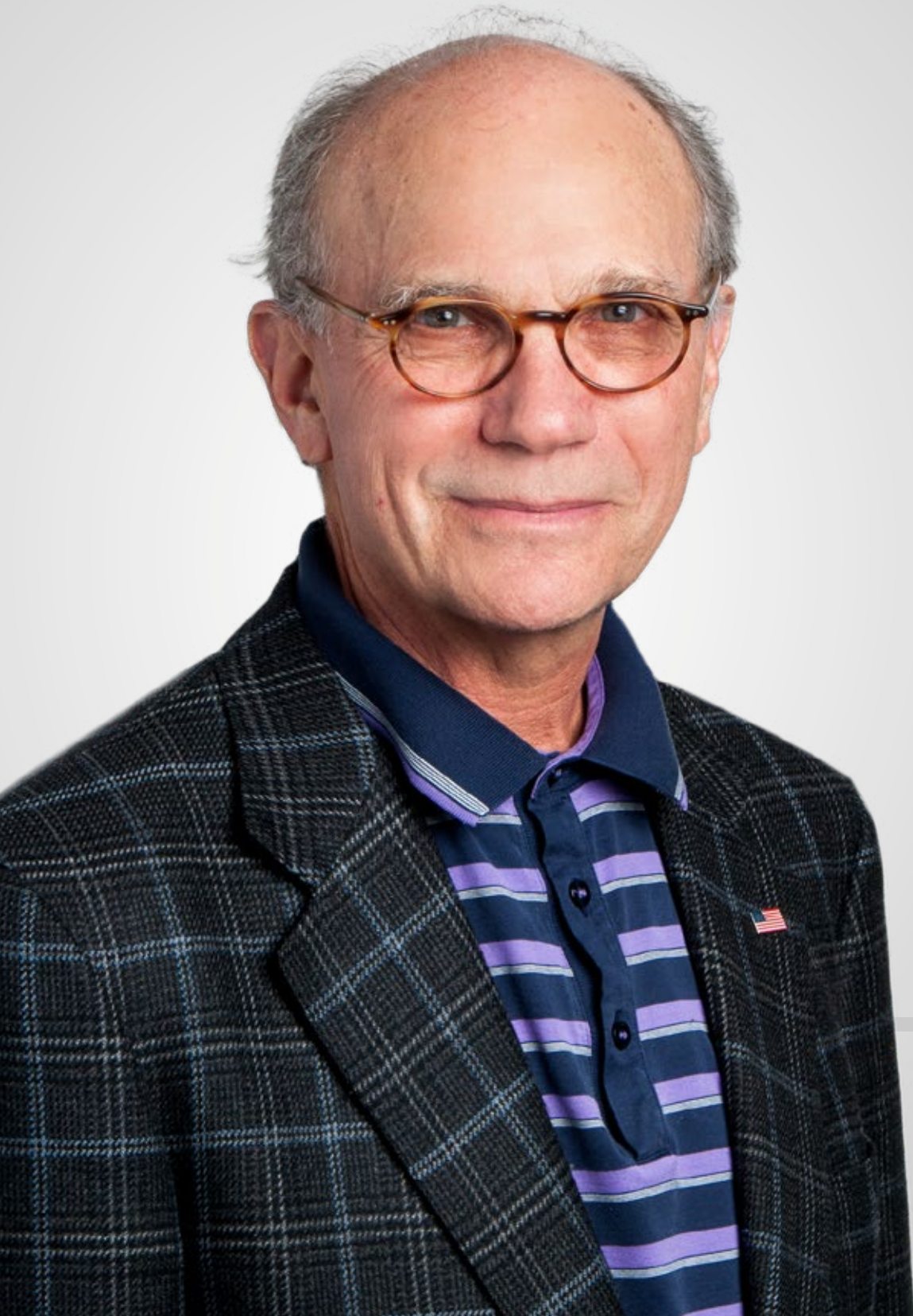
In honor of a lifetime of service, the Joseph Braddock award was created by the ASB and is now given out annually to a deserving ASB member.

EDUCATION

Fordham University, Ph.D., Physics, 1958

Fordham University, M.S., Physics, 1952

St. Peters College, B.S., Physics, 1951



MEMBER

Leonard W. Braverman, Ph.D.

Chairman, Army Science Board



EXPERTISE

Analog Electrical
Engineering

High Power
Electrical Devices

Pulsed Power

High Energy Lasers

Technology
Development and
Management

EXPERIENCE

Dr. Braverman currently serves as Chairman of the Army Science Board (ASB). He has worked on a number of ASB studies for the Secretary of the Army and has also served as Vice Chair, ASB.

Prior to his support for the U.S. Army, Dr. Braverman focused his work in the private sector where he personally developed and managed global sales and distribution channels for Universal Voltronics, Hipotronics, Maxwell Labs, and General Electric. Dr. Braverman has a lifetime career in the development, marketing, and management of highly sophisticated government and commercial systems. His expertise lies in transforming foreign Ministries of Defense, commercializing DoD-owned patents, transforming U.S. Army Headquarters, and determining the return on investment of DoD laboratories.

For the past decade, Dr. Braverman has dedicated his work to the transformation of U.S. Army organizations. His recent work includes transforming the Army Materiel Command (AMC) and the Training and Doctrine Command (TRADOC) resulting in tangible savings of more than \$1 billion per year.

EDUCATION

University of California, Berkeley, Ph.D., Electrical Engineering, 1975

University of California, Berkeley, M.S., Electrical Engineering, 1973

University of California, Berkeley, B.S., Electrical Engineering, 1971



MEMBER

Nancy J. Chesser, Ph.D.

Independent Consultant



EXPERTISE

Defense Systems
Analysis

Physics

Directed Energy
Weapons

Identification of
Technology to
Address Warfighter
Problems

Counter-improvised
Explosive Device
Systems

Biometrics

Infrared
Countermeasures

EXPERIENCE

Over the past 30+ years, Dr. Nancy Chesser performed requirements, feasibility, and comparative analysis on a multitude of systems including particle beam weapons, high energy lasers, and ballistic missiles. She also developed numerous computer models to analyze phenomena including charged particle beam propagation; nuclear blast, thermal, and radiation effects; and radio frequency (RF) propagation in the diffraction zone.

For the Navy Electro-Optics Technology Program Office, Nancy developed a complete electro-optics simulation. She performed endo and exo-atmospheric trajectory analyses for long-range vehicle trajectory prediction; and she developed parametric designs of intercontinental range anti-surface missiles using advanced guidance systems. Additionally, she developed a zero-order end-to-end model to assess overall scaling of the HEPS electrostatic fusion device.

Nancy worked for Directed Technologies, Inc. for 28 years. After which, she became an independent consultant, working primarily on projects for the Institute for Defense Analyses. She is the author of more than 150 technical reports on military applications of advanced technologies.

Dr. Chesser contributed to the Army Science Board on eleven studies since 2006 including: "The Future of Army Aviation," "Multi-Domain Battle," and "Multi-Domain Operations."

EDUCATION

State University of New York at Stony Brook, Ph.D., Physics, 1972

Cornell University, B.A., Physics, 1967



MEMBER

Christopher Cross, Ph.D. COL (RET), USA

Design Physicist, Lawrence Livermore National Laboratory



EXPERTISE

Physics

Joint Munitions

Tactical Warfare
Systems/Land
Warfare and
Munitions

Ground Combat

Capabilities
development

EXPERIENCE

Dr. Christopher Cross is a Design Physicist at Lawrence Livermore National Laboratory (LLNL) currently working as the LLNL technical liaison to the Missile Defense Agency. He recently served as an Intergovernmental Personal Act (IPA) leading the Joint Munitions Program as the Technical Director at the Office of the Under Secretary, Secretary of Defense, Acquisition, Technology, and Logistics (OUSD, (AT&L)) Acquisition/Tactical Warfare Systems/Land Warfare and Munitions.

While at the Office of the Secretary of Defense (OSD), Dr. Cross served on the Long Range Research and Development Program for Ground Combat and served as the OUSD (AT&L) lead for the Ground Combat Strategic Portfolio Review.

Dr. Cross retired from the U.S. Army as a Colonel and as the Chief Scientist and Chief Technology Officer, Capabilities Development and Learning Directorate, Army Capabilities Integration Center, Training and Doctrine Command. In this role, he was responsible for the warfighter validation of Army science and technology investment supporting current and future force developments. He coordinated efforts with other Army, Joint, industry, academia and international research efforts from basic research through fielding of advanced physics, chemistry, biology, material science, neuroscience, nano-technology, data management, electromagnetic spectrum, advanced communications, advanced manufacturing technologies, and engineering technologies.

EDUCATION

U.S. Naval Postgraduate School, Ph.D., Physics, 2007

U.S. Army War College, M.S., International Studies, 2013

University of Washington, M.S., Applied Physics, 1998

North Carolina State University, B.S., Mechanical Engineering, 1987



MEMBER

William S. Crowder, COL (RET), USA

Senior Fellow at Logistics Management Institute (LMI)



EXPERTISE

Strategic Concepts on Logistics

Supply Chain and Deployment

Operational Logistics

Change Management

Systems Design and Engineering

Program Management of Large Programs

Contingency Contracting

Financial Management

EXPERIENCE

Mr. William S. Crowder entered active duty in 1967 and retired after 26 years in 1993 as a colonel. Notable achievements included developing three major software systems in transportation and financial management; serving as Director of Strategic Mobility for the U.S. Army in Operations Desert Shield and Desert Storm; designing and implementing major revisions to the Army approach for strategic deployment and force projection.

Mr. Crowder has extensive experience in long-range planning, strategic mobility management, concepts and doctrine development, and technology assessments as a research program manager and Army officer. He is currently focused on helping various DoD communities improve operational contracting support and apply analytic frameworks to their large data sets.

Mr. Crowder's expertise lies in logistics, supply chains, and strategic deployments. He is currently a Senior Fellow at LMI having served there in the past as Director, Logistics Services and Future Concepts Division. He has also served at Boeing/SAIC and DARPA.

Mr. Crowder has contributed to numerous studies including "Task Force Odin Assessment," "Evaluation of the Army Use of Predictive Data for High Risk Behavior," "Decisive Army Strategic & Expeditionary Maneuver," "Strategies to Optimize Army Operating and Generating Forces," "The Military Benefits and Risks of the Internet of Things (IoT)," and "Dense Urban Operations" (Chair).

EDUCATION

Industrial College of the Armed Forces, 1990

University of Georgia, M.B.A., Business/System Design, 1973

University of Alabama, B.S., Accounting, 1966

Marion Military Institute, A.A., Business, 1966



MEMBER

Siddhartha Dalal, Ph.D.

Adjunct Professor and Executive in Residence Columbia University
Professor, Rand Corporation



EXPERTISE

Information
Analytics

Information
Technology

Machine Learning

Research
Management

Network
Engineering

Software
Engineering

Risk Analysis

EXPERIENCE

Dr. Siddhartha “Sid” Dalal is a Professor of Professional Practice at Columbia University’s School of Professional Studies. Prior to joining Columbia University, he was Chief Data Scientist and Senior Vice President at American International Group (AIG) in charge of research and development (R&D) that included creation and application of artificial intelligence (AI), Statistics and CS to Computer Vision, Natural Language Processing, and Sensors/Internet of Things for managing risks. He came to AIG from RAND Corporation where he was the Chief Technology Officer.

Dr. Dalal served as Vice President of Research, Xerox, overseeing world-wide imaging and software services research. He served at Bell Labs and at Bellcore/SAIC as their Chief Scientist and Executive Director. Dr. Dalal has over 100 peer-reviewed publications, patents, and monographs covering the areas of risk analysis, medical informatics, Bayesian statistics and economics, image processing, and sensor networks.

At RAND, he was responsible for the creation of technology and spinning-off of Praedicat, Inc., a casualty insurance analytics company. He has received several awards including from Institute for Electrical and Electronics Engineering (IEEE), American Statistical Association, and the American Society for Quality. Dr. Dalal was also involved with determining the predictability of O-Ring failure at NASA surrounding the Challenger accident.

Dr. Dalal is one of only a few members of the Army Science Board (ASB) who have extensive knowledge and experience with AI. His work on the ASB included participation in the following studies: “Talent Management,” “Cybersecurity,” “Army R&D,” and “Manned, Unmanned Teaming.”

EDUCATION

University of Rochester, Ph.D., Statistics, 1976

University of Rochester, M.B.A., Marketing, 1973



MEMBER

Robert E. Douglas, Ph.D.

Managing Director, Douglas Analytic Services



EXPERTISE

Analysis of
Advanced Systems

Modelling and
Simulation

Systems
Engineering

EXPERIENCE

Dr. Robert E. Douglas graduated from West Point in 1962 and was commissioned as an Infantry Officer. He was in the top 1% of his class in engineering at West Point. During his Army career, he was an Airborne Ranger having a range of experiences from combat tours as an infantryman in Vietnam, to tours with the United Nations in the Middle East, to the Joint Chiefs of Staff, studying nuclear weapons, to developing a communications van for the Under Secretary of Air Force for Space Systems.

Dr. Douglas joined Martin Marietta, later to be part of Lockheed Martin where he was Director, Systems Analysis for 16 years. In this position, he was responsible for analysis of a wide-range of advanced weapons systems including fire control for Air Force fighters (F-22 and F-35); the Joint Air-to-Surface Standoff Missile; Army Javelin and Hellfire missiles; Longbow radar; the Medium Extended Air Defense System; and the Copperhead guided projectile. He later joined DRS Technologies as Vice President, Engineering with a focus on thermal imaging systems for Army combat vehicles (M1 and M2), combat aviation (AH-64 and OH-58D), and infantry weapons and helmets.

Dr. Douglas has been awarded five patents and has eight patents pending in the medical and space fields. He has been awarded the Personal Achievement Award by the College of Engineering, West Point.

Dr. Douglas supported the Army Science Board (ASB) as the Chair on at least eight studies, Panel Lead on five different panels, Head of the Membership Committee, member of the Red Team, and as the current Chair of "An Independent Assessment of the Next Generation Anti-Armor strategy." His contributions to the ASB are immeasurable.

EDUCATION

University of Central Florida, Ph.D., Operations Research, 1993

U.S. Naval Postgraduate School, M.S., Operations Analysis, 1972

U.S. Military Academy, West Point, B.S., Engineering, 1962



MEMBER

David A. Fastabend

Owner, Fastabend Solutions, LLC



EXPERTISE

Strategy and Planning

Strategic Communications

P&L Management & Leadership

Army and Joint Operations, Concepts, and Doctrine

EXPERIENCE

Mr. David Fastabend delivers formidable experience as a former Army general officer and a veteran leader in the defense industry with significant expertise in Army and Joint innovation, concepts, doctrine and capability development.

Mr. Fastabend's 35-year Army career encompassed tactical military operations, civil works, strategic leadership in Army capability development, multi-national operations in Iraq, and strategic planning. He is a recognized thought leader on strategy, Army and Joint concept and capability development, and cyber operations.

As Vice President and General Manager of Advanced Information Solutions (AIS) in the Exelis (now Harris) Information Systems Division, Mr. Fastabend led a \$400 million business encompassing 350 programs and 250 pursuits addressing DoD and DHS intelligence and cyber requirements, military service high-end professional engineering services, and DoD scientific and engineering technical services.

He is an expert at visualizing and leading change for both the Army and a complex defense industry profit and loss. He has a proven record of innovation and leadership in assessing conditions, formulating strategic choices, effectively communicating direction, and managing execution. He is skilled at complex integration, senior management, leadership, and strategic communications. His management experience includes combat engineering; concepts and capabilities development; experimentation; wargaming; and large scale military and civil works project development and construction. Mr. Fastabend is an accomplished writer of multiple works on future warfare and operational art.

EDUCATION

Stanford University, Hoover Institute, Strategic Fellow, 1996

U.S. Army School of Advanced Military Studies, 1989

U.S. Army Command and General Staff College, Masters of Military Art & Science, 1988

Massachusetts Institute of Technology, M.S., Structural Dynamics, 1978

United States Military Academy, West Point, B.S., 1974



MEMBER

Emerson Gardner, Lt.Gen (RET), USMC

President, Emerson Gardner LLC



EXPERTISE

Government
Budgeting
Processes and
Programmatic
Analysis

Defense and
Aerospace Industry

Merger/Acquisition
Evaluation

Combat Aviator

EXPERIENCE

General Gardner is President of Emerson Gardner LLC, providing strategic consulting services on government budgeting processes and programmatic analysis, with particular expertise in the defense and aerospace markets. General Gardner served 37 years in the United States Marine Corps where his last role was as the acting Director of Cost Assessment and Program Evaluation, Office of the Secretary of Defense.

In his book, "Call to Duty," Secretary of Defense, Robert Gates, cited General Gardner as his "go to guy on the budget." In this position, he led independent evaluations of all major defense programs and was responsible for the development of the Pentagon's \$3 trillion six-year Future Year Defense Plan.

Previously, he was the Deputy Commandant of the Marine Corps for Programs and Resources where he was directly responsible for the integration and execution of all aspects of the Marine Corps' \$33 billion annual budget. General Gardner is an aviator with over 4300 hours of flight and combat experience. His career highlights include tours in HMX-1 as a Presidential Helicopter Command Pilot for President Reagan, deployments to the Middle East, Europe, and Japan including command in the Middle East and Africa. He was Deputy Director for Operations at U.S. Central Command after 9/11 prior to becoming Director for Operations, U.S. Pacific Command.

General Gardner is a recognized expert on the federal government's programming and budgeting process and has been providing strategic consulting and subject matter expertise to several Fortune 500 companies and to Wall Street investors since his retirement from the Marine Corps in 2010.

EDUCATION

Duke University, A.B., History, Magna Cum Laude, 1972

Olmsted Scholar, Goettingen, Germany

Norwegian Defense College

Syracuse University, National Security Seminar, Maxwell School of International Relations



MEMBER

Mark N. Glauser, Ph.D.

Professor of Mechanical and Aerospace Engineering
College of Engineering and Computer Science

Professor of Physics, College of Arts and Sciences, Syracuse University



EXPERTISE

Turbulent Flows

Jet Noise

Aero-Optics

Flow Separation

Unsteady
Aerodynamics

Unmanned Air
Vehicles

Signal Processing

Principal
Component Analysis

Compressive
Sensing

Low Dimensional
Modeling

Intelligent Wind
Turbines

EXPERIENCE

Dr. Mark N. Glauser recently returned full time as a faculty member at Syracuse University. Prior to that, he served as the Research Dean in the College of Engineering and Computer Science. Past positions include Associate Editor, AIAA Journal; Program Manager, Turbulence and Internal Flows Program, AFOSR; and ABET EAC member and evaluator for Aerospace Engineering.

In his work, Dr. Glauser conducts major experimental, computational and theoretical efforts to apply low-dimensional models to turbulent and transitioning flows for understanding and control. He serves as a member of the NASA Langley Fundamental Aerodynamics Peer Review Panel and the ARO Mechanics program oversight board (2017 – present).

He has obtained more than \$12 million in research funding as Principle Investigator (PI)/Co-PI from NASA, EPA, DoE, GE, and many others. Dr. Glauser has published more than 120 peer-reviewed publications and conference proceedings and has presented more than 100 invited presentations and keynote talks world-wide. He has mentored multiple post doctorates, Ph.D.s and masters students.

Dr. Glauser is a Fellow of the American Institute of Aeronautics and Astronautics, the American Society of Mechanical Engineers, the American Physical Society, and the Institute of Physics (UK). In 1995, he was honored as a Fulbright Scholar in Poitiers France.

He has contributed to many Army Science Board studies to include “Multi-Domain Battle” (Vice Chair), “Multi-Domain Operations” (Vice Chair), “Future Armor/Anti-Armor” (Vice Chair), and “Army Aviation” (Vice Chair).

EDUCATION

University at Buffalo, SUNY, Ph.D., Mechanical and Aerospace Engineering, 1987

University at Buffalo, SUNY, B.S., Mechanical Engineering, 1982



MEMBER

Jay “Scott” Goldstein, Ph.D., BG, USAF

Chief Strategy & Technology Officer, ENSCO, Inc.



EXPERTISE

Information and
Detection Theory

Space Technology
and Space
Operations

Cyberspace
Operations

Electronic Warfare

Sensor Systems
and Signatures

Battle Management/
Command and
Control

Air Dominance

Multi-Domain
Operations

ISR

EXPERIENCE

Brigadier General (BG) Jay “Scott” Goldstein previously worked at Dynetics, QinetiQ North America, ManTech International Corporation, SAIC and the MIT Lincoln Laboratory. He has more than 35 years experience in the Army and Air Force. He is currently serving as the Mobilization Assistant to the Under Secretary of the Air Force and has previously served in general officer assignments at 24th Air Force (Air Forces Cyber), the Space and Missile Systems Center and Air Force Research Laboratory.

BG Goldstein began his military career in the U.S. Army and transferred to the U.S. Air Force in 1990. As a developmental engineer, he made significant contributions to intelligence, surveillance and reconnaissance systems, earning 15 Air Force Scientific Achievement Awards. He was mobilized seven times to lead Secretary of Defense authorized space and cyberspace activities during Operations Enduring Freedom and Iraqi Freedom.

In his civilian capacity, General Goldstein is an industry executive with extensive leadership and management experience as well as engineering expertise. He has published more than 100 peer-reviewed articles/book chapters and holds five U.S. patents on advanced topics in detection theory, information theory, data compression, ISR, and communications systems.

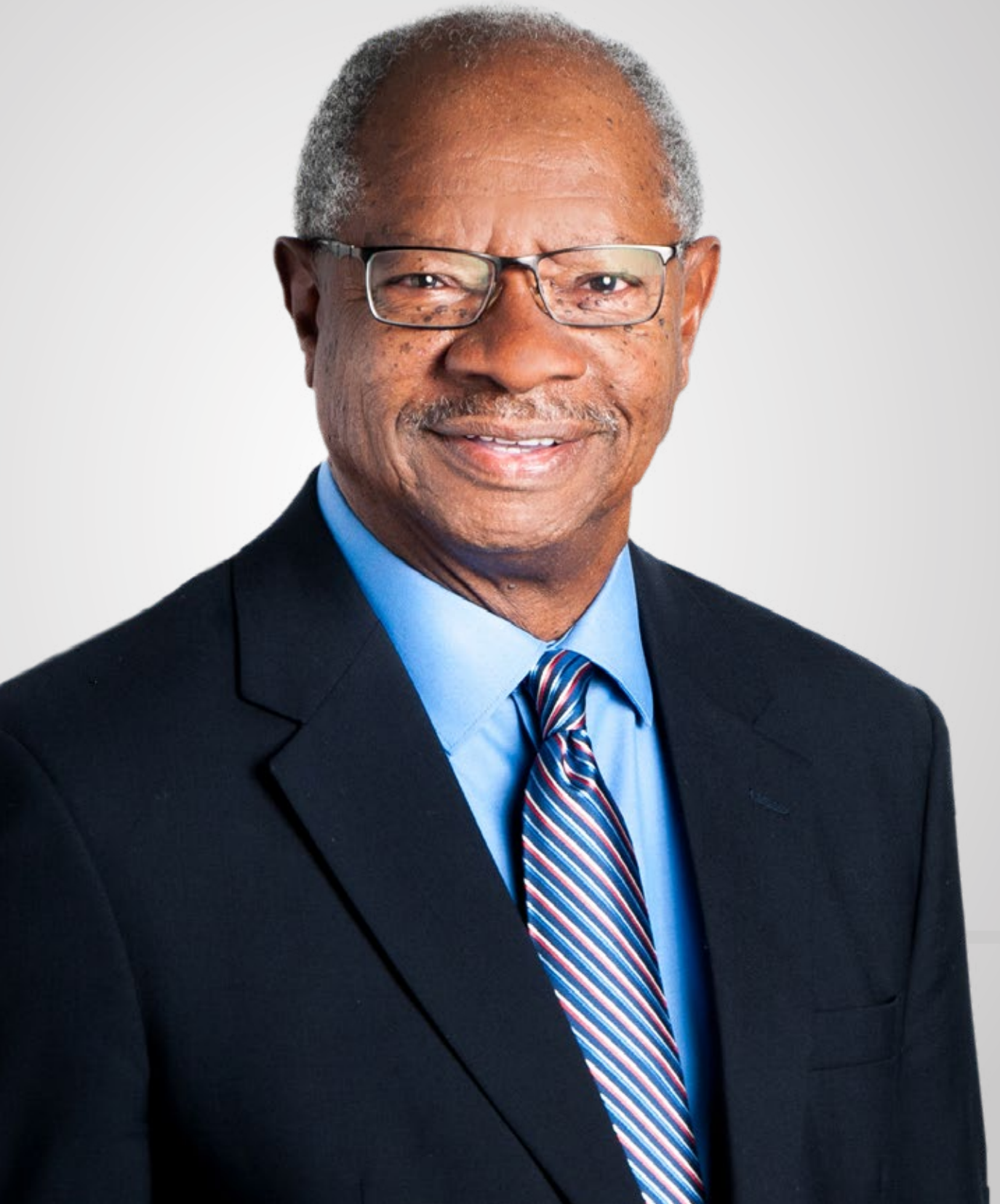
BG Goldstein is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), a Fellow of the Washington Academy of Sciences, a Member of the National Academy of Sciences, Engineering and Medicine’s Intelligence Science and Technology Experts Group, and served on the Defense Science Board’s Air Dominance Task Force.

EDUCATION

University of Southern California, Ph.D., Electrical Engineering, 1997

George Mason University, M.S., Electrical Engineering, 1992

George Mason University, B.S., Electrical Engineering, 1989



MEMBER

William Guyton, Jr.

Former Director, Sandia National Laboratories



EXPERTISE

Missile Defense

Conventional
Weapon Systems

Directed Energy
Systems

Defense
Management

Systems
Engineering

EXPERIENCE

Mr. William Guyton, Jr. is the former Director, Integrated Military Systems, Sandia National Laboratories having served in this role for nearly a decade. At Sandia, he designed and developed missile defense test targets; operated the Kauai Test Facility; provided modeling and simulation for missile defense system prototypes, threat lethality, and range safety; designed and developed conventional systems' warheads/fuzes, penetrators, special materials, and hypersonic vehicles for the DoD; managed the Joint Munitions Program for DoD/DoE which develops dual-use munitions and sensor related technologies; and designed and developed directed energy technologies and sub-systems in high power microwave, short pulse lasers, electromagnetic applications and power sources. His areas of expertise focus on missile defense, conventional weapons systems, and directed energy.

Prior to his tenure at Sandia, Mr. Guyton had a 30-year career at Lockheed Martin where he served as Principal, Sr. and Jr. Engineer; Program Manager; Manager, Systems Engineering; Director, Advanced Programs; Manager, Systems Analysis and Simulation; and Vice President (VP) and General Manager, Applied Engineering and Development Lab. As the VP and General Manager, he lead over 1500 people in an organization that performs R&D and product/systems development for DoE, DoD, and FAA.

Mr. Guyton has participated on a number of Army Science Board studies to include: "Human Interaction and Behavioral Enhancement," "Countering Indirect Fires," "Multi-Domain Battle," and "Multi-Domain Operations (MDB 2.0)."

EDUCATION

Rutgers University, M.S., Electrical Engineering, 1970

Fairleigh Dickenson University, B.S., Electrical Engineering, 1966



MEMBER

William W. Hansen

Cavalry Creek Consulting Group, LLC



EXPERTISE

Doctrinal

Development

Strategic Mobility

Armor and Anti-Armor

Strategic Planning

Air and Missile Defense

Combat Vehicle Development

Training

Joint and Combined Operations

EXPERIENCE

Mr. William W. Hansen served for 24 years in positions at Ford Aerospace, Martin Marietta, and Lockheed Martin. His roles included Vice President (VP), Army Programs & Special Operations; VP, Direct Combat & Missile Defense & Strike Weapons; and VP, Information & Services Technology civil and commercial programs.

Mr. Hansen is an Army veteran with 27 years of service. Highlights of his service include Charter Membership, Chief of Staff Army Assessment & Initiatives group and Chief, Army Studies Group. He commanded the 1st Squadron, 10th Cavalry, and held positions at squadron, regiment, division, corps, Training and Doctrine Command, and at Headquarters, Department of Army staff level. His combat experience included positions in the 11th Armored Cavalry Regiment (Blackhorse).

Mr. Hansen has contributed to the development of U.S. Army operational concepts and doctrine; led transition teams for major Army commands; published articles in professional journals and contributed to several books. He served on the Army Science Board and on the Board of Directors, National Defense University. Mr. Hansen was awarded the J. William Middendorf Award for outstanding research. His military awards include two Silver Stars, a Purple Heart, and the Vietnamese Gallantry Cross. He also received two Secretary of the Army public service awards. The U.S. Army Armor Association recognizes him as a distinguished Knight of the Order of St. George.

Mr. Hansen is the founder of Warrior Afield Legacy Foundation, a 501(c)(3) which conducts hunting, fishing, and off-road events for Combat Veterans.

EDUCATION

Massachusetts Institute of Technology Seminar XXI, Fellow, 1988

U.S. Army War College, 1986

U.S. Navy Command and Staff College, Distinguished Graduate, 1980

University of Utah, M.S., 1974

University of Utah, B.S., 1967



MEMBER

Jill Harp, Ph.D.

Professor of the Department of Biological Sciences and the
Department of Chemistry, Winston Salem State University



EXPERTISE

Bioorganic
Chemistry

Neuroscience
Accreditation &
Assessment of
Academic Programs
and Policies

Higher Education
Administration

NIH and NSF Study
Section Member

EXPERIENCE

Dr. Jill Harp is the former Chair and current Professor of the Department of Biological Sciences at Winston-Salem State University and an Adjunct Professor at Wake Forest University Health Sciences in the Physiology and Pharmacology Department. Dr. Harp is involved in the assessment of university programs and student learning. She serves on various leadership teams and assessment committees, and serves or has served on the department's faculty development, assessment, and curriculum committees.

Dr. Harp has been active in developing faculty and postdoctoral associates by mentoring and presenting workshops in the areas of career building, student learning, and STEM student retention. She has received research and educational grants to enhance the training of hundreds of students (K-12 and college) in the lab and the classroom. She has also served in countless volunteer community education programs to include Cornerstone Life Center.

In addition to receiving faculty development grants, interdisciplinary educational grants were awarded to enhance the preparation of students as they pursued professional degrees by enhancing their critical thinking skills in biology, chemistry, and math. In 2011, Dr. Harp received the Board of Governors' Award for Excellence in Teaching, the highest award given in the state of North Carolina.

Dr. Harp participated in the following Army Science Board studies, "Talent Management," "Science and Technology Efficiency," "Harm Reduction," "Peacekeeping," "Enhancing Soldier and Team Performance," and "Multi-Domain Battle."

EDUCATION

University of Maryland, College Park, Ph.D., Organic Chemistry, 1991

York College, City University of New York, B.S., Chemistry, 1985



MEMBER

Michael Heinz

President, MHH Systems Corporation



EXPERTISE

Program Management
Defense Acquisition
Systems Engineering and Integration
Advanced Systems Development
Strategic Planning and Assessment
Weapons Systems Development

EXPERIENCE

Mr. Michael Heinz has over 40 years' experience in the aerospace industry. He started at McDonnell Douglas in 1967, which later merged with the Boeing Company in 1997. He retired from the Boeing Company in 2005 where he served as Vice President/General Manager (VP/GM) of Integrated Defense Advanced Systems Development programs.

Other positions at Boeing included VP/GM of the Unmanned Systems business unit, VP/Deputy Program Manager (PM) of the Joint Strike Fighter program, VP/PM of the F/A-18 A/B/C/D program, VP/GM of System Assessment and Planning, VP/GM of the Harpoon/Standoff Land Attack Missile program, VP/PM of Mission Planning and engineering manager of proprietary programs.

After retiring from Boeing in 2005, Mr. Heinz served as the Executive Director, Unmanned Air Vehicles (UAV) National Industry Team where he was responsible for working issues related to the safe and routine integration of UAVs with the National AirSpace (NAS).

Mr. Heinz has served as a consultant or member of the Army Science Board for over 12 years. During his tenure, he chaired the 2011 "Tactical Non-Cooperative Biometrics Systems" study, the 2016 "Robotic and Autonomous Systems of Systems" study, and the 2018 "Manned-Unmanned Teaming study."

EDUCATION

Washington University, St Louis, M.B.A., Business Administration, 1988

Stanford University, M.S., Aeronautical and Aerospace Engineering, 1967

University of Notre Dame, B.S., Aeronautical and Aerospace Engineering, 1966

University of Notre Dame, B.A., 1965



MEMBER

Grant T. Hollett, JR., RADM (RET), USN

Senior Advisor, The O’Gara Group, LLC

Chairman, Hollett and Co., LLC



EXPERTISE

Joint Operations

Nuclear Engineering

Manufacturing

Electrochemistry

Robotics

EXPERIENCE

Rear Admiral (RADM) (RET) Grant T. Hollett, Jr. is a graduate of the United States Navy’s nuclear power program. His expertise focuses on the design and manufacture of high-reliability government, aerospace, and commercial power systems and battery systems for missiles and satellites.

While in the Navy, he served on the USS Enterprise. He was the youngest qualified Engineer Officer of Watch, operating eight nuclear reactors, propulsion plants, and auxiliaries. RADM Hollett holds numerous combat decorations for his service in Vietnam where he served a total of four tours.

His industry experience includes over twenty-five years in numerous companies to include EaglePicher Technologies, LLC (Chairman, President, and Chief Executive Officer); Siemens Energy and Automation (Vice President); Vickers Electronic Systems (Vice President and General Manager, Electronic Controls Group); Cherry Electrical Products (President, Executive Vice President, and Production Vice President); Energy and Pollution Controls, Inc. (Vice President); and Proctor and Gamble in a number of management positions.

He has been a contributor to the following Army Science Board studies: “Army Science and Technology (S&T) Essential Core Competencies,” “Decisive Army Strategic & Expeditionary Maneuver,” “Future of Army Aviation,” “Robotic and Autonomous Systems of Systems Architecture,” “Multi-Domain Battle,” and “Multi-Domain Operations (MDB 2.0).”

EDUCATION

Harvard University, National Security Course for Senior DoD Executives, 1994

Naval Postgraduate School, M.S. equivalent, Navy Nuclear Power, 1966

Duke University, B.S., Mechanical Engineering, 1964



MEMBER

Susan Houde-Walter, Ph.D.

Chief Executive Officer (CEO), LaserMaxDefense (LMD)



EXPERTISE

Laser Physics
Directed Energy
Optical Engineering
Optical Materials
Manufacturing
Small Arms

EXPERIENCE

Dr. Susan Houde-Walter is the co-founder and CEO of LaserMaxDefense (LMD), a Woman-Owned Small Business (8m) manufacturer of ruggedized laser systems for government and Original Equipment Manufacturer (OEM) customers that specializes in quantum cascade laser and diode laser technology. She is a former President of the Optical Society, served as a tenured professor of Optics at the University of Rochester for 18 years, and is currently adjunct faculty at the College of Optical Science at the University of Arizona.

Dr. Houde-Walter has served on national security science boards, including the Air Force Science Advisory Board, the National Academy of Sciences Intelligence Science and Technology Experts Group, and the Special Operations/Low Intensity Conflicts Board of the National Defense Industry Association. She was a participant in the 71st Joint Civilian Orientation Conference and has been recognized with the Commander's Award for Public Service (from the Army and the Air Force). She holds 19 patents and is the author of over 100 peer-reviewed papers and talks.

Awards she has been recognized with include the 2019 Keeper of the Flame Award from the National Women's Hall of Fame, the Commander's Award for Public Service (from the Army and the Air Force). She's also been recognized for her service on the National Academy of Sciences Intelligence Science and Technology Experts Group and on the Joint Civilian Orientation Conference.

For the Army Science Board, she contributed to a number of studies including "Innovative Organizations," "Generation Y," "Soldier Resilience and Performance Sustainment" (Co-Chair), "Strategic Direction for Army S&T," "Air and Missile Defense Electronic Warfare Assessment," "Manned, Unmanned Teaming," "Air and Missile Defense Electronic Warfare Assessment," and presently, "Battlefield Uses of Artificial Intelligence."

EDUCATION

University of Rochester, Rochester, NY, Ph.D., Optics

University of Rochester, Rochester, NY, M.S., Optics



MEMBER

Deanne J. Idar, Ph.D., PCC

Director, Special Projects, Perspectives Inc.

Senior Program Manager and Technical Advisor, TechSource, Inc.

Chief Executive Officer/Owner, Top Seed Leadership Coaching



EXPERTISE

Physical Chemistry

Energetic Materials
RDT&E

Nuclear Weapons
and Global Security

National Security

Missions
Experience

Leadership Training
and Professional
Development

EXPERIENCE

Dr. Deanne J. Idar has held numerous technical and leadership assignments spanning over 21 years in national security mission activities at Los Alamos National Laboratory (LANL). These include technical research activities in DOE and DoD weapons-related energetic materials science for performance, safety, and reliability and personnel line management assignments supporting global security mission requirements including a one-year rotation to the Office of the Secretary of Defense, Policy.

While at the Pentagon, Dr. Idar served as the Senior Science Advisor for the Nuclear Defense Portfolio, CBRN Defense Policy, Countering Weapons of Mass Destruction, Global Strategic Affairs. In this role, she provided technical insights and guidance on global radiological/nuclear policy topics in collaboration with internal DoD components, U.S. government interagency entities and international agencies.

Dr. Idar has authored/co-authored 66 scientific reports/publications. Her career honors include six Defense Program Team Awards of Excellence, two LANL Distinguished Performance Awards for team contributions, and an individual LANL Star Award.

In her current technical assignments, Dr. Idar primarily serves as a Technical Advisor and Consultant for R&D organizations in support of reviewing and pursuing new, cutting-edge R&D objectives. Dr. Idar is also an International Coach Federation Certified Executive Leadership Coach at the Professional Certified Coach level, successfully working with personnel across multiple career levels.

EDUCATION

International Coach Federation Associate/Professional Certified Coach 2013/2017

University of Texas-Dallas, Executive and Professional Coaching Certification
ICF Accredited Coach Training Program, 2013

University of Arizona, Ph.D., Physical Chemistry with Analytical Chemistry Minor, 1990

University of Northern Iowa, B.A., Chemistry with Computer Science Minor, 1985



MENTOR

Jeffrey A. Isaacson, Ph.D.

President and Chief Executive Officer (CEO)

Universities Space Research Association (USRA)



EXPERTISE

Space Systems

Ballistic Missile
Defense

Systems
Engineering

EXPERIENCE

Dr. Jeffrey A. Isaacson became USRA's seventh President and CEO in 2014. USRA operates in association with 110 leading universities supporting NASA, DoD, DoE, and NSF in the areas of science, technology development, and STEM education.

Prior to joining USRA, Dr. Isaacson was Vice President for Defense Systems and Assessments, Sandia National Laboratories, where he was responsible for development and integration of advanced science and technology into state-of-the art systems for the National Nuclear Security Administration, DoD, and other national security agencies.

From 2007 – 2011, Dr. Isaacson was Vice President, RAND Corporation, where he directed the Army's FFRDC for studies and analysis (the Arroyo Center). He had returned to RAND from Lockheed Martin Space Systems Company, where he directed systems engineering and integration of the Space Based Infrared System-High, which is considered one of the nation's highest priority space programs. Prior to joining Lockheed Martin, Dr. Isaacson served in a variety of research and management positions for nearly 13 years at RAND, including Vice President and Director of the National Defense Research Institute, the FFRDC supporting the Office of the Secretary of Defense.

Dr. Isaacson served 25 years in the U.S. Navy Reserve, retiring as Captain. He is a veteran of Operation Enduring Freedom, having served on active duty in Afghanistan from 2009 – 2010.

EDUCATION

Massachusetts Institute of Technology, Ph.D., Theoretical Physics, 1991

Princeton University, M.S.E., Chemical Engineering, 1984

Columbia University, B.S., Nuclear Engineering, 1982



MEMBER

Sung M. Lee, Ph.D.

Senior Operational Staff, Carnegie Mellon University
Software Engineering Institute



EXPERTISE

Ground Vehicle
Mobility

Vulnerability

Survivability

Biometrics

Infrared Optics
Target Signature
Analysis and
Countermeasures

Graduate Education

Research
Program Portfolio
Development and
Administration

EXPERIENCE

Dr. Sung M. Lee is a visiting scientist at Carnegie Mellon's Software Engineering Institute. Prior to that, he was the Vice Provost for Research and the Dean of the Graduate School at Michigan Technological University. He served as Dean of Research and the Graduate School; Director, Keweenaw Research Center; Assistant Professor, Associate Professor, Professor of Physics, and Assistant Professor of Physics at Denison University.

Sung is an expert in ground vehicle mobility, vulnerability, and survivability; ground target detection and identification; infrared optics (target signatures and countermeasure); and biometrics. He is an expert in graduate education as well as research program portfolio development and administration. He has worked collaboratively on research with educational and research establishments in Korea, Japan, China, Britain, France, and Russia.

Dr. Lee is the recipient of the Certificate of Appreciation for Patriotic Civilian Service, the Antarctica Service Medal of the United States, National Science Foundation, the Antarctica Service Medal (U.S. Navy), the NATO Senior Fellowship in Science, and the Michigan Tech Faculty Research Award.

Dr. Lee served on a number of advisory boards for the federal government to include the Defense Science Board Study Task Force (1999 – 2003), and the Air Force Scientific Advisory Board Summer Study (1998). For the Army Science Board, he contributed to a number of studies to include, "Future Character of War," "Robotic and Autonomous Systems of Systems," and "Army Cyber."

EDUCATION

The Ohio State University, Ph.D., Physics, 1965

The Ohio State University, M.S., Physics, 1959

Yonsei University, Korea, B.S., Physics, 1955



MEMBER

Michael R. Macedonia, Ph.D.

Assistant Vice President for Research
University of Central Florida



EXPERTISE

Simulations
System Architecture
System Engineering

EXPERIENCE

Dr. Michael R. Macedonia is the Assistant Vice President for Research at the University of Central Florida (UCF). He is a computer scientist and an expert on modeling and simulation technologies, intelligence technology, data mining, networks, and high performance computing. He is a former Infantry officer and original member of the Uniformed Army Scientist Corps.

In 2010, he served as the Vice President and Chief Scientist/Chief Technology Officer/Technical Fellow for Simulation and Training Operations at SAIC. Prior to that, he was the General Manager for Forterra, a virtual reality software company. Dr. Macedonia also was the Director of the Disruptive Technology Office (DTO), now the Intelligence Advanced Research Projects Activity (IARPA), for the Office of the Director of National Intelligence. DTO was the U.S. intelligence community's centrally funded research activity for advanced technology. He also worked as the Chief Technology Officer for PEO STRI. In this role, he was responsible for the technology strategy of the U.S. Army's lead simulation system development organization.

Dr. Macedonia has authored over 50 scientific publications relating to virtual worlds, test and evaluation, and simulation. He has also contributed to the Army Science Board in a number of studies to include "Future Character of Warfare" (Chair), "Robotic and Autonomous Systems of Systems" (Vice-Chair), and "Human Interaction and Behavioral Enhancement" (Chair).

EDUCATION

Naval Postgraduate School, Ph.D., Computer Science, 1995

University of Pittsburgh, M.S., Telecommunications, 1989

U.S. Military Academy, B.S., Electrical Engineering and Political Science, 1979



MENTOR

David M. Maddox

GEN (RET), USA



Consultant

EXPERIENCE

General David M. Maddox is a retired Army 4-star general who served as Commander-in-Chief, U.S. Army Europe/Commander, Central Army Group (CINCUSAREUR/COMCENTAG) and Commander, 7th U.S. Army (1992 to 1993); Commander-in-Chief, U.S. Army Europe (CINCUSAREUR) and Commander, 7th U.S. Army (1993 – 1994). In addition to commanding at every warfighting echelon, he led multiple Army analysis organizations. General Maddox spent much of his time transitioning the Army in Europe to a post-Cold War stance.

After retiring, General Maddox has worked as an Independent Consultant. He has served on the Defense Science Board, the Army Science Board, the National Academy of Engineering, and the Board on Army Science and Technology (BAST) (Chair). He is a member of the Washington Institute of Foreign Affairs, George Mason University Volgenau School of Engineering Board of Advisors, and Emeritus member of the Corporation of the Charles Stark Draper Laboratory.

General Maddox was appointed by the Secretary of the Army to serve on the commission to examine Army expeditionary contracting which issued the report of the “Commission on Army Acquisition and Program Management in Expeditionary Operations.” He later served as a member of the Department of the Army’s study commissioned by the Secretary of the Army to conduct an “Army Acquisition Review.”

General Maddox is a member of the National Academy of Engineering and has received the Military Operations Research Society’s Wanner Award and the Management Sciences’ J. Steinhart prize. He is a member of the Army Operations Research Society’s Hall of Fame. He was the Army Science Board’s first recipient of the Joseph V. Braddock award. General Maddox has been a member, consultant, and mentor to the ASB for years.



EXPERTISE

Operations
Research

Simulation and
Modeling

Joint Operations/
Warfighting

Logistics

Organizational
Design

EDUCATION

U.S. Army War College

Armed Forces Staff College

Southern Illinois University, M.S., Operations Research, 1969

Virginia Military Institute, B.S., Mathematics, 1960



MEMBER

Anthony Manganiello, LTC (RET), USA

Chief Administrative Officer (CAO), Virtu Financial, LLC



EXPERTISE

Financial Services

Technology

Operations

Robotics

Accounting

Management and
Human Resources

EXPERIENCE

Mr. Tony Manganiello is the Chief Administrative Officer (CAO) of Virtu Financial, LLC and has served in such capacities since July 2011. Mr. Manganiello has a 30-year career as an experienced technology and operations leader in financial services and the U.S. Army. As the CAO, he is responsible for the design, implementation, and day-to-day operations of Virtu's non-trading activities, while remaining fully integrated with the technology development and infrastructure of the firm.

He is also the CEO of Rowan Technology Solutions, LLC that provides a digital, interactive educational experience utilizing leading edge technology in the higher education domain. This innovative educational technology transformed the way that military history is taught at West Point. Rowan is also executing groundbreaking projects for the Departments of Military Instruction and Behavioral Science & Leadership as well as for civilian universities and think tanks.

Prior to holding the CAO position at Virtu, Mr. Manganiello was instrumental in building the firm from its beginning in the areas of technology, operations, and finance. He came to Virtu from Lehman Brothers where he served as the Head of Infrastructure (Operations & Technology) for the Investment Management Division. Mr. Manganiello also worked at Goldman Sachs as a Senior Manager in the Building Infrastructure Technology organization and as a Senior Manager of their Project Management Offices across the firm. Mr. Manganiello served with distinction in both the Air Defense Artillery and the Army Acquisition Corp.

EDUCATION

Long Island University, M.S., Accountancy, 1987

Long Island University, M.B.A., Finance, 1987

Massachusetts Institute of Technology, M.S., Robotics, 1985

Webster College, M.A., Management and Human Resources, 1979

U.S. Military Academy, B.S., Applied Sciences & Engineering, 1977



MEMBER

Lester Martinez-Lopez, M.D. MG (RET), USA

Senior Independent Medical Consultant; President of Martinez Medical Consulting, LLC



EXPERTISE

Medical Research Management

Medical Quality and Patient Safety

Medical Research Translation

Deployment Medical Operations and Logistics

Disaster Management and Humanitarian Response

EXPERIENCE

Dr. Lester Martinez-Lopez is the President of Martinez Medical Consulting, LLC. Since 2015, he has served as President, Medical Technology Enterprise Consortium. Prior to that, he served as Chief Medical Officer, Brandon Regional Hospital, Florida where he improved staff performance and efficiency for a 407 bed hospital. In 2006, he served as Senior Vice President and Administrator, Lyndon B. Johnson General Hospital in Texas where he directed a 332 licensed-bed acute care teaching hospital.

In 2005, MG Martinez-Lopez retired from the Army as the first Hispanic to head the Army Medical Research and Materiel Command at Fort Detrick, Maryland. His responsibilities included directing the Army's world-wide medical research, acquisition, and logistics program. He oversaw a vast research portfolio that included cancer, trauma, biodefense, and chemical defense. He directed the premier national biological and chemical defense laboratories and research programs and led the development of the National Biodefense Campus at Fort Detrick, MD.

He served as Commanding General, Center for Health Promotion and Preventive Medicine at Edgewood, Maryland where he directed a world-wide public health organization.

During his military career, he commanded three hospitals; oversaw military health support during Hurricane Mitch in Central America; and served as Chief Medical Officer of the United Nation's Mission in Haiti. Dr. Martinez-Lopez is a diplomat of the American Board of Family Practice and the American Board of Preventive Medicine.

EDUCATION

Johns Hopkins University, School of Hygiene and Public Health, M.P.H., 1984

University of Puerto Rico, School of Medicine, M.D., 1978

University of Puerto Rico, B.S., Pre-Med, 1976



MEMBER

John Matsumura, Ph.D.

Senior Engineer, RAND Corporation



EXPERTISE

Advanced Technologies
Autonomous Robotics and Unmanned Aircraft Systems

Renewable Energy Technologies

Artificial Intelligence, Machine Learning and High-Performance Computing

Analytic Methods
System-of-System Analyses

Engineering and Economic Modeling

Acquisition Policy
Revolutionary Acquisition Processes

EXPERIENCE

Dr. John Matsumura is a Senior Engineer at RAND with over 25 years experience leading research focused on exploring advanced technology and policy. He has served in several research management roles including Associate Director of Research for RAND's Pittsburgh office, Associate Director for Force Development and Technology within the Army's Federally Funded Research and Development Center's Arroyo Center, and the Director of the Joint Warfare Simulation and Analysis Center. His current research focuses on advanced technologies including autonomous robotic systems, renewable energy technologies, and advanced modeling and simulation (M&S) methods. He has taught a variety of courses on M&S in support of technology and policy decisions, lectured in a number of national and international forums, and provided expert testimony to Congress.

He has co-authored several major reports within the DoD and has published extensively at RAND. External to RAND, he has served on advisory committees including the Defense Science Board Task Force on Power Projection, Office of the Secretary of Defense Task Force on Defense Architecture, and the Army Science Board. He is a recipient of the RAND President's Award, three RAND merit awards, and a DoD Commander's Award for outstanding civilian service bestowed by Office of the Assistant Secretary of the Army, Acquisition, Logistics, and Technology. He is also an adjunct professor in the Civil and Environmental Engineering and the Engineering and Public Policy departments within Carnegie Mellon University.

EDUCATION

Carnegie Mellon University, Ph.D., Engineering and Public Policy, 2012

Pennsylvania State University, M.S., Engineering Mechanics, 1987

Pennsylvania State University, B.S., Aerospace Engineering, 1985



MEMBER

Angela Messer

Executive Vice President, Chief Transformation Officer (CTO)
Booz Allen Hamilton



EXPERTISE

Strategic Planning

Organizational
Change
Management

Innovation and
Transformation

Cyber Security

Business Process
Improvement

Digital Technologies
and Analytics

Risk Management

Productions
and Solutions
Development

Executive
Leadership

EXPERIENCE

Ms. Angela Messer is Booz Allen's first CTO. In this role, she drives culture, business processes, data-driven organizational decision-making, artificial intelligence, and change management. She champions strategic mobility and associated innovative people model solutions for the firm-wide STEM and consulting capabilities. She is responsible for driving next generation recruiting and leadership. Ms. Messer previously led the company's cyber capability, guiding teams of cyber forensics engineers, data scientists, and threat intelligence experts focused on cyber malware and incident response. Key focus areas include next generation enterprise cybersecurity, cyber operations solutions, user behavior analytics, threat intelligence, TECHCraft, encryption, secure internet of things, and industrial cyber solutions.

She has developed solutions for clients in information technology, data science, enterprise systems and agile DevOps, open source, secure cloud computing, big data, artificial intelligence, and security systems. Ms. Messer previously led major profit and loss in the defense sector with operational understanding of government contracting, acquisition and procurement practices. A sought-after speaker, Ms. Messer has been featured at the Aspen Ideas Festival, National Ethics Conference, Washington Ideas Forum, Bloomberg Big Data seminar, NICE Government Conference, RSA, Executive Women's Forum, and numerous diversity and workforce events. Ms. Messer was a U.S. Army officer, managed two major commercial businesses, and launched a startup software development company.

EDUCATION

Future Makers certification (Institute of the Future), 2018

IBM e-Governance certification, 2001 and Wharton e-Business certification, 1998

Florida Institute of Technology, M.S., Business Administration & Management, 1991

U.S. Military Academy West Point, B.S., Engineering Management, 1985



MEMBER

Michael R. Molino

Senior Vice President, Leidos Managing Corporate Strategy



EXPERTISE

Nuclear, Chemical
and Biological
Modeling and
Detection

Medical Science
and Wound
Management

Research and
Development

Risk Management

Analytical Decision
Support

EXPERIENCE

Mr. Michael R. Molino is the Senior Vice President for Corporate Development at Leidos (formerly SAIC). In this role, he has changed the company's investment process (R&D, mergers, and acquisitions) from annual models to long term portfolio analysis. He led the effort to merge Leidos with Lockheed Martin.

He worked at SAIC for many years from 2002 to present to include serving as the Vice President of Business Development Advanced Programs, Division Manager, and Program Manager/ Nuclear Engineer. At SAIC, he grew an R&D operation focused on applied science federal research organizations. He led the \$45 million Science and Technology Division focusing on R&D in risk management and analytical decision support. He oversaw submarine nuclear de-fueling operations, the design of casks for transporting nuclear material and three nuclear storage facilities, as well as remediation techniques for nuclear test sites as a part of the Nunn-Lugar Program dismantling former Soviet nuclear infrastructure.

He is an expert in Nuclear, Biological, and Chemical modeling and detection; systems analysis and modeling; and acquisitions, strategic planning, and program management. He has also served as the Director of the National Defense Industrial Association.

Mr. Molino is a former Army Ammunition Ordnance Officer having served in Korea and at Fort Bragg. He has contributed to a number of Army Science Board studies to include "Robotic and Autonomous Systems of Systems Architecture," "Nuclear Survivability in Future Warfare," "Future Character of Warfare," and "Manned-Unmanned Teaming."

EDUCATION

Cornell University, M.B.A., Johnson School of Management, 2002

U.S. Military Academy, West Point, B.A., Applied Physics, 1994



MEMBER

Maria Mouratidis, Psy.D.

Chair and Professor, Notre Dame of Maryland University
Department of Psychology

Psychologist, Independent Practice



EXPERTISE

Psychology

Military Mental
Health

Psychotherapy

Neuropsychology
and Neuroscience

Strategic Planning

Post-traumatic
Stress Disorder

Traumatic Brain
Injury

Suicide Prevention

EXPERIENCE

Dr. Maria Mouratidis is a licensed clinical psychologist, tenured professor, and Chair of the Department of Psychology at Notre Dame of Maryland University.

At the National Naval Medical Center (NNMC), Dr. Mouratidis was the command consultant and subject matter expert for Traumatic Brain Injury (TBI) and Psychological Health, and worked closely with combat casualty care leaders across DoD. Previously, she developed and led the Traumatic Stress and Brain Injury Program to provide assessment and treatment for returning service members. As the Head of Traumatic Stress and Brain Injury program, she was responsible for providing clinical services, and training interns and residents. She has served as an external advisory board member for two Congressionally Directed Medical Research Programs for Post-Traumatic Stress and TBI. Dr. Mouratidis is regarded as an expert and lectures widely on TBI and Psychological Health.

Previously, she was recruited to the NNMC from Yale University. While at Yale, Dr. Mouratidis served as a member of the School of Medicine Faculty and conducted neuroscience and neuroimaging research, taught, provided clinical services, and supervised fellows. She has extensive clinical training in psychotherapy and in psychological and neuropsychological assessments and research.

Dr. Mouratidis is the only psychologist on the Army Science Board and has contributed to many studies including "Talent Management and the Next Training Revolution," "Army Efforts to Enhance Soldier and Team Performance," "Human Interaction and Behavioral Enhancement," and many others.

EDUCATION

Argosy University, Psy.D., Psychology, 2002

Loyola University Maryland, M.A., Clinical Psychology, 1992

Loyola University Maryland, B.A. Psychology, 1991



MEMBER

Evelyn M. Mullen, P.E.

Associate Director, Threat Identification and Response (ADTIR)
Los Alamos National Laboratory (LANL)



EXPERTISE

Nuclear Engineering
Intelligence
Nuclear Weapons

EXPERIENCE

Ms. Evelyn Mullen is the Associate Director, Threat Identification and Response (ADTIR) at Los Alamos National Laboratory (LANL) where her research focuses on non-proliferation/counter-proliferation R&D associated with weapons of mass destruction, space defense and systems applications, warfighter support, homeland security, and intelligence analysis. ADTIR includes about 750 staff and executes a budget of \$400 million.

With more than 26 years at LANL, Ms. Mullen has served in many leadership roles. She has been engaged in the Weapons Program Science Campaigns as well as Global Security Programs, the Foreign Nuclear Weapons Intelligence Initiative (FNWII), the Capabilities for Nuclear Intelligence (CNI), the Nuclear Counterterrorism Program (NCT), and Nuclear Weapons Emergency Response. Ms. Mullen has been recognized with the National Nuclear Security Administration (NNSA) Medal of Excellence for Distinguished Service in the National Security of the United States, a Defense Program Award of Excellence for development and implementation of the CNI Program Strategy, a Defense Program Award of Excellence for Technical Support for U.S. Nuclear Weapons and Nonproliferation Policy, and a LANL Director's Large Team Distinguished Performance Award for the Critical Experiments Facility Operational Readiness Review Team.

Ms. Mullen is a registered Professional Engineer in New Mexico. She also currently serves on the Executive Board for the American Nuclear Society – Trinity Section.

EDUCATION

Texas A&M University, Nuclear Engineering, M.S., 1988

Texas A&M University, Nuclear Engineering, B.S., 1986



MEMBER

Venkat Mummalaneni

Patent Attorney and Telecommunications Expert



EXPERTISE

Convolutional
Neural Networks/
Artificial Intelligence

Virtual/Augmented
Reality

Wireless
Communications/
Internet of Things

Cloud Computing

Network/Device
Security

IP – Patents,
Licensing, and Data
Rights

Machine Learning/
Artificial Intelligence

Network/Device
Security

EXPERIENCE

Mr. Venkat Mummalaneni is a practicing patent attorney and a telecommunications expert with over 20 years of experience. He counsels top technology companies on intellectual property matters related to patent strategy, portfolio analysis and development, monetization, licensing, validity, and infringement. His areas of expertise include machine learning, artificial intelligence, virtual reality, augmented reality, cloud computing, image processing, video encoding and decoding, search engines, social networking, web browsers, mobile applications, data analytics, device and network security, processor architecture, graphical user interfaces, and wireless communications (5G, IoT, RFID, NFC, and Bluetooth).

Prior to this, Venkat worked as a senior leader at Nortel. His work at Nortel focused on designing, engineering, integrating, deploying, and supporting 4G (LTE) and 3G (CDMA, Ev-DO, Ev-DO Rev A) System of Systems (SoS). He worked with major wireless carriers including Verizon, Sprint, US Cellular, China Telecom, Telefónica, and more.

Mr. Mummalaneni worked on programs of national importance such as Wireless Priority Services (WPS) supporting local, state, and federal government agencies during emergencies; Communications Assistance for Law Enforcement Act for electronic surveillance by law enforcement agencies; and Enhanced 911 (E911) services that improves effectiveness and reliability of wireless 911 services. He also served on an expat assignment in Australia providing technical expertise for upgrading Telstra's network infrastructure that improved capacity, performance, and reliability of Telstra's networks for the 2000 Summer Olympics.

Mr. Mummalaneni is licensed to practice law in Washington, D.C., Texas, and before the United States Patent and Trademark Office.

EDUCATION

Texas Wesleyan University School of Law (NKA Texas A&M School of Law), J.D.,
Magna Cum Laude, 2010

University of Texas at Dallas, M.S., Computer Science, Networks & Telecommunications, 1997

Nagarjuna University, India, B.S., Electronics and Communications Engineering, 1995



MEMBER

Susan R. Myers, Ph.D., PMP COL (RET), USA

Vice President, Army Customer Relations Mission Solutions
and Services Group, ManTech International



EXPERTISE

Cyber Security

C4ISR

Organizational
Change

Innovation

Risk Management

Leadership

Management

Strategic Planning

EXPERIENCE

Dr. Susan R. Myers is currently serving as Vice President and Executive Director of Customer Relations at ManTech, Inc., a strategic international defense industry leader focused on Cyber Security, Data Collection & Analytics, Enterprise IT, Systems Engineering, Logistics and Lifecycle Program Management.

Dr. Myers works to develop strategic plans to implement effective and compliant processes to ensure a balanced budget, revenue growth, and retention of high performing personnel. During her tenure at ManTech she is responsible for over 1,000 cleared personnel in 30 locations in the United States and five countries, with a portfolio valued at over \$1 billion.

Dr. Myers provides the Army Science Board (ASB) members insight to Army leadership interests and current operational requirements by linking members with subject matter experts based on her 30 years of service as an Engineer Officer, War College Director, and Professor. She has contributed to the following ASB studies: "The Internet of Things," "Multi-Domain Operations," and "Army Software Management." Her service on the Army Science Board is an important way for her to carry forward the legacy of her late husband, MG Harry Greene, as a gifted Army leader, engineer, and scientist.

EDUCATION

The Pennsylvania State University, Ph.D., Public Administration, 2007

U.S. Army War College, M.A., Strategic Studies, 2003

National University, M.B.A., 1992

The Pennsylvania State University, B.S., Environmental Studies, 1980



MEMBER

Wendy C. Newstetter, Ph.D.

Assistant Dean for Educational Research and Innovation
College of Engineering, Georgia Institute of Technology



EXPERTISE

Learning Sciences

Culture and
Cognition

Teams and
Collaboration

Instructional Design

EXPERIENCE

Dr. Wendy C. Newstetter, a cognitive and learning scientist, investigates learning in both formal and informal educational environments. From 2001 – 2012, she and her team used ethnographic methods to investigate the cognitive and learning practices on the frontiers of science in four research laboratories: tissue engineering, neuroengineering, biorobotics and systems biology. Findings from these studies formed the basis for the design of problem-driven classrooms foundational in biomedical engineering at Georgia Tech and culminated in a book that won the American Psychological Association William James Book Award in 2012.

Currently, she is working on three educational research projects focused on 1) the design of inclusive work and learning environments; 2) educational portfolios to support an entrepreneurial mindset; 3) understanding social responsibility and ethical action in engineering education.

Dr. Newstetter is the author of books, numerous peer-reviewed journal articles, and reports in conference proceedings. She has also served as editor and/or reviewer for a number of professional science journals and has presented at numerous technical meetings. She is a recognized expert on the design of optimal learning environments.

Dr. Newstetter has contributed to several Army Science Board studies including “Experimentation (LABS)” and “Army Efforts to Enhance Soldier and Team Performance.”

EDUCATION

Lancaster University, UK, Ph.D., Linguistics, 1995

Lancaster University, UK, M.S., Linguistics and Language Learning, 1981

Colby College, B.A., Asian Studies, 1971



MEMBER

Thomas Ramos

Special Assignment to Principal Associate Director Weapons & Complex Integration, Lawrence Livermore National Laboratory



EXPERTISE

Systems
Engineering of
Weapons Systems
Intelligence Analysis
High Energy
Explosives
Lasers and Other
Forms of Directed
Energy
Nuclear Weapons
Design

EXPERIENCE

Mr. Thomas Ramos has been researching and writing a history of the nuclear weapons program of the Lawrence Livermore National Laboratory. Through his work, he has identified new perspectives on the weapons program that have not been understood before.

Mr. Ramos created several programs that served the Department of Defense, most notably the Counterproliferation Analysis and Planning System (CAPS) which helped military operators with missions against facilities that are linked to a hostile country's ability to manufacture weapons of mass destruction. CAPS was effectively used in Operations Enduring Freedom and Iraqi Freedom. Mr. Ramos started the Homeland Defense Operational Planning System (HOPS), a program similar to CAPS, but focused more on analyses of America's critical infrastructure.

Mr. Ramos has served as a nuclear weapons designer supporting the Strategic Defense Initiative. He led a team of physicists who designed the program's brightest laser. He also researched and submitted daily summary sheets for the Secretary of Energy to use at National Security Council (NSC) meetings on the resumption of START Talks. He was later assigned to the Pentagon as a nuclear weapons advisor to the Secretary of Defense with his primary role being to prepare the Assistant to the Secretary of Defense for Atomic Energy for Congressional hearings.

Before joining the Livermore National Laboratory, Mr. Ramos was an Associate Professor of Physics at West Point, New York. Prior to that he served in the U.S. Army, commanding combat engineer companies in Germany and Korea.

EDUCATION

Massachusetts Institute of Technology, S.M., High Energy Physics, 1977

U.S. Military Academy, West Point, B.S., General Engineering, 1969



MEMBER

Ronald M. Segal, Ph.D. Maj Gen (RET), USAF

Director and Woodward Professor of Systems Engineering
Colorado State University



EXPERTISE

Aerospace
Technology

Energy Technology

Systems
Engineering

Research and
Development
Management

EXPERIENCE

Dr. Ronald M. Segal has served as Director and Woodward Professor of Systems Engineering at Colorado State University (CSU) since 2007 and Special Assistant to the Chancellor for Strategic Initiatives since 2013. His Air Force assignments included Under Secretary of the Air Force (2005 – 2007) and serving as the DoD Executive Agent for Space.

A command pilot with more than 4,000 flying hours, Dr. Segal served as the Reserve Assistant to the Chairman of the Joint Chiefs of Staff. He joined NASA as an astronaut in 1990, making his first shuttle flight in 1994 aboard the Space Shuttle Discovery. Dr. Segal was Co-Principal Investigator and Program Manager for the Wake Shield Facility. From 1994 – 1995, he was NASA's Director of Operations, Russia, responsible for managing NASA activities supporting astronaut and cosmonaut training for the Russian Mir Space Station. He completed his second shuttle flight in 1996 as Payload Commander for the third shuttle/Mir docking mission aboard Atlantis, completing his astronaut tenure with 420 hours in space.

Dr. Segal was the Dean, College of Engineering and Applied Science and is currently Professor Emeritus, University of Colorado, Colorado Springs. In 2001, he was appointed as Director of Defense Research and Engineering, Office of the Secretary of Defense, serving as the Chief Technology Officer and Chief Advisor to the Secretary of Defense. He has authored/co-authored 150 publications and has served on numerous advisory and governance boards including the Army Science Board recently chairing two studies, "Multi-Domain Battle" and "Future of Army Aviation."

EDUCATION

University of Colorado, Ph.D., Electrical Engineering, 1982

The Ohio State University, M.S., Physics, 1975

U.S. Air Force Academy, B.S., Math and Physics, 1974



MENTOR

James D. Shields

Independent Consultant



EXPERTISE

Guidance
Navigation and
Control

Systems
Engineering and
Analysis

Autonomous
Systems

Logistics

Data Fusion

EXPERIENCE

Mr. James Shields retired in 2014 as the President and Chief Executive Officer, The Charles Stark Draper Laboratory, an independent non-for-profit research institution that develops innovative solutions to some of the nation's most difficult national security and space problems. The Laboratory also supports pioneering collaborations between traditional engineers and life scientists to demonstrate the value of biomedical engineering in creating systems' solutions to healthcare problems that would not evolve if the disciplines worked independently. Previously, Mr. Shields was the Vice President for Programs where he was responsible for developing and executing the laboratory's business and strategic plans. He led the organization that is responsible for identifying and capturing new programs. Further, he was responsible for the successful execution of all the laboratory's R&D.

Mr. Shields is currently a member of the Defense Science Board (DSB) as well as the Army Science Board (ASB). He has supported the DSB on multiple studies as Co-Chair and member to include "Next Generation Undersea Systems," "Time Critical Conventional Strike from Strategic Standoff," "Integrating Sensor Collected Intelligence," and "The Role of Autonomy in DoD Systems." Mr. Shields has been a member of many ASB studies including "Electronic Warfare for Air and Missile Defense Systems" (Chair), and "Robotic and Autonomous Systems of Systems" (Vice Chair). He also served as a member of the Air Force Scientific Advisory Board on Networking to Support Coalition Operations.

EDUCATION

Massachusetts Institute of Technology, M.S., Electrical Engineering, 1972

Massachusetts Institute of Technology, B.S., Electrical Engineering, 1972



MEMBER

Neil G. Siegel, Ph.D.

IBM Professor of Engineering Management in the Epstein
Department of Industrial and Systems Engineering within Viterbi
School of Engineering at the University of Southern California



EXPERTISE

Systems
Engineering

Mission Systems

Tactical Systems

U.S. Blue-Force
Tracker

Forward-Area Air
Defense System

Drug-Interaction
Analysis

Unmanned Air
Vehicles

Ground-based,
Short-range Air
Defense Systems

Ground-based
Laser Weapon
Systems

EXPERIENCE

Dr. Neil Siegel is a recognized expert in the design and development of large, complex systems that serve the United States and society overall. He is a computer scientist, systems engineer, and engineer. Until the end of 2015, he held the position of Sector Vice President and Chief Technology Officer at Northrop Grumman. He led the sector's 12,000+ scientists and engineers, directed their technology activities and research, and oversaw the development of solutions for the customers' most complex problems.

Dr. Siegel served as a Vice President, Northrop Grumman for nearly 18 years. He led the engineering on a large number of successful fielded military, intelligence, and commercial systems including U.S. Blue-Force Tracker, the Army's first unmanned aerial vehicle, the Forward-Area Air Defense system, and Global Positioning Systems-enabled devices such as the iPhone. These systems have repeatedly been cited as model programs and important national capabilities.

He has inventions that are used in a large number of consumer devices around the world, and he holds more than 50 issued and pending patents world-wide, many of which are considered corporate trade secrets. Customers of his include the Department of Defense, US Steel, and the movie industry.

Dr. Siegel's honors include election to the National Academy of Engineering, membership in the National Academy of Inventors, the Institute of Electrical and Electronics Engineers' (IEEE) Simon Ramo medal for systems engineering, and many others.

For the Army Science Board, Dr. Siegel contributed to the "Landwarnet" study in 2007.

EDUCATION

University of Southern California, Ph.D., Industrial & Systems Engineering, 2011
University of Southern California, M.S., Mathematics, 1976
University of Southern California, B.S., Mathematics, 1974



MEMBER

Teresa Smith

Director, Advanced Technology, Northrop Grumman Corporation
Vice Chair, Army Science Board



EXPERTISE

Research and
Development

Strategic Planning

System Design and
Development

Micro-Electronics

EXPERIENCE

Ms. Teresa Smith has over 40 years of experience serving in technology management positions at Westinghouse and Northrop Grumman and is a former Corporate Director of Technology for Northrop Grumman. She has been responsible for numerous advanced program and technology development efforts intended to significantly enhance defense and national security capabilities.

Recent work included a corporate project with the California Institute of Technology aimed at developing a source of Space-Based Solar Power that could provide energy from space to points of interest on or above the Earth via Radio Frequency (RF) transmission. She has also worked in developing counters for improvised explosive devices, advanced electronic warfare (EW), radar, custom integrated circuits, and space programs.

Ms. Smith served as a White House Fellow in the Regan Administration and holds two patents. She is an accomplished author on topics related to technology development and technology strategy. Ms. Smith currently serves as the Vice Chair of the Army Science Board and has been involved in numerous studies, most recently including: "Creating an Innovation Culture in the Army," "Future of Army Aviation," "Countering Enemy Indirect Fires," "Improving Transition of Laboratory Programs into Warfighting Capabilities through Experimentation," and "Independent Assessment of the Army's Science and Technology Portfolio Realignment."

EDUCATION

Harvard Business School, General Manager's Program, 2001

Johns Hopkins University, B.E.S., Electrical Engineering, 1979



MEMBER

William E. Snowden, Ph.D.

Technical Consultant



EXPERTISE

Materials Science

Armor/Anti-armor
Technology

Active Protection
Systems (APS)

Defense Technology

Microtechnology
and Applications

EXPERIENCE

Dr. Snowden is a materials scientist and defense technologist currently working as a Technical Consultant supporting the Defense Advanced Research Project Agency (DARPA) and selected industrial organizations. He has broad industrial (Corning, General Electric), national laboratory (Lawrence Livermore National Laboratory (LLNL)), and government (Department of Defense) experience as a research scientist and technical program manager. Dr. Snowden has a long history of involvement in the armor/anti-armor community, including as a research scientist at LLNL, as a DARPA program manager for the agency's Armor/Anti-Armor Research and Technology Program (1983 – 1985), as a member of the DoD Senior Executive Service, and as a consultant supporting the Institute for Defense Analyses (IDA).

For many years, he has also supported important technology development activities of DARPA's Microsystems Technology Office, particularly as related to the development of MEMS and nanotechnology for high-payoff applications in both military and non-military systems.

Dr. Snowden previously served as a member of the Army Science Board from 1994-2000. Since rejoining the Board in 2012, he has contributed to the following ASB studies: "The Strategic Direction for Army Science and Technology," "Army Science and Technology (S&T) Essential Core Competencies," "Decisive Army Strategic & Expeditionary Maneuver," "The Future of Army Aviation," "Future Armor Anti-Armor Competition" (Chair), "Multi-Domain Battle," and "Multi-Domain Operations (MDB 2.0)."

EDUCATION

University of California, Berkeley, Ph.D., Materials Science and Engineering, 1976

University of California, Berkeley, M.S., Materials Science and Engineering, 1971

Alfred University, B.S., Ceramic Engineering, 1969



MEMBER

Bruce A. Swett, Ph.D.

Chief Scientist, Intelligent Systems Group
Johns Hopkins University – Applied Physics Lab



EXPERTISE

Biologically-Inspired
Robotic Autonomy
and Expertise
Development

Applied
Neuroscience for
Brain-Computer
Interfaces

High Performance
Computing

Machine Learning
Artificial Intelligence

Computational
and Experimental
Neuroscience

EXPERIENCE

Dr. Swett is a computational and experimental neuroscientist with expertise in the neural substrates of motor sequence learning and motor control, high performance computing, and machine learning/artificial intelligence algorithms. Dr. Swett's Ph.D. is in Neuroscience and Cognitive Sciences (NACS) from the University of Maryland at College Park; his post-doctoral work was completed at the National Institute of Deafness and other Communications Disorders (NIDCD), National Institutes of Health (NIH).

Dr. Swett's research areas include novel brain-computer interfaces, advances in artificial intelligence (AI), high performance and neuromorphic computing, and biologically-inspired robotics. He is the only neuroscientist on the Army Science Board (ASB); his unique skill set is very beneficial to the board where he has served on multiple study teams.

Dr. Swett has contributed to the following ASB studies: "Evaluation of the Army Use of Predictive Data for High Risk Behavior," "Talent Management and the Next Training Revolution," "Human Interaction and Behavioral Enhancement" (Vice Chair), "Countering Enemy Indirect Fires" (Chair), "Improving Transition of Laboratory Programs into Warfighting Capabilities through Experimentation," and "Manned Unmanned Teaming" (Vice Chair). Dr. Swett is currently serving on the "Battlefield Uses of AI" study.

EDUCATION

University of Maryland, College Park, Ph.D., Neuroscience and Cognitive Sciences, 2007

McDaniel College, B.A., Psychology, 1981



MEMBER

Albert Buck Tanner, Ph.D. LTC (RET), USA

Technology Director for Combat Vehicles, BAE Systems



EXPERTISE

Ground Combat
Vehicle Design

EXPERIENCE

Dr. Albert Buck Tanner served as Program Director for combat vehicle programs including Mobile Protected Firepower; Future Fighting Vehicle; Ground Combat Vehicle; Manned Ground Vehicles (Future Combat Systems) Common Integrated Product Teams including Propulsion, Armor, Crew Station, Signature Management, Hit Avoidance, Track and Close-Combat Armament System, and the Armed Robotic Vehicle, the largest FCS unmanned ground vehicle. He also served as Chief, R&D and Standardization Division, London, UK; Program Manager, Electro-Magnetic Gun Program; Director of Studies, Future Combat Vehicles and Senior Material Scientist; and numerous R&D positions focused on combat vehicle survivability.

Dr. Tanner joined the former United Defense in 2004 after serving 31 years as an Infantry Officer in the U.S. Army. In the Army, he worked as the Associate Professor and Executive Officer of the U.S. Military Academy, Department of Civil and Mechanical Engineering; Commander, C/1-11 Infantry (Mechanized); and M60 Machine Gunner, C (Airborne Ranger)/1-29 Infantry.

Dr. Tanner has been a Professional Engineer in the State of Virginia since 1989. For the Army Science Board, he contributed to multiple studies including, "Army Science and Technology (S&T) Essential Core Competencies," "Decisive Army Strategic & Expeditionary Maneuver," "Strategies to Optimize Army Operating and Generating Forces," "Future Armor Anti-Armor Competition," "Multi-Domain Battle," and "Multi-Domain Operations (MDB 2.0)."

EDUCATION

Georgia Institute of Technology, Ph.D., Mechanical Engineering, 1998

Massachusetts Institute of Technology, M.S., Mechanical Engineering-Robotics, 1987

U.S. Military Academy, West Point, B.S., 1979



MENTOR

James A. Tegnella, Ph.D.

Former Chairman, Army Science Board



EXPERTISE

Management

Physics

Nuclear Engineering

Science

Administration

EXPERIENCE

Dr. James A. Tegnella served as Chairman of the Army Science Board (ASB) twice from 2004 – 2005 and from 2015 – 2017. He is currently a member of the Defense Science Board (DSB). He lectures as a Research Professor at the University of New Mexico and Georgetown University. He's the Chairman of the Governor of New Mexico's Military Planning Commission; the Chairman, Kirtland Air Force Base Partnership Committee; and a member of the Department of State International Security Advisory Board. He is an expert in Management, Physics, Nuclear Engineering, and Science Administration.

Dr. Tegnella served in a multitude of positions to include Director, Defense Threat Reduction Agency (DTRA); Vice President (VP), Executive VP, and Deputy Director, DoD Programs, Sandia National Laboratories; President, Lockheed Martin Advanced Environmental Systems, Inc.; VP, Lockheed Martin Corporation; VP, Business Development, Electronics Group, Martin Marietta Corporation; and Deputy Director and Acting Director of Defense Advanced Research Projects Agency (DARPA). Dr. Tegnella has served as the Assistant Undersecretary of Defense and Acting Deputy Undersecretary of Defense in the Office of the Undersecretary of Defense for Research and Engineering where he oversaw program manager activity on the JSTARS radar and ATACMS missile.

Other notable jobs include work in Smart Weapons, Radar, Sensors, Stealth Technology; work in the Army's Night Vision Laboratory; and Advisor, National Security Advisory Panel Board of Advisors. Dr. Tegnella is a Vietnam Veteran and a recipient of the Bronze Star (1970).

EDUCATION

George Washington University, M.B.A., 1974

The Catholic University of America, Ph.D., Physics, 1968

Georgetown University, B.S., Physics, 1964



MEMBER

Anthony J. Tether, Ph.D.

Chief Executive Officer (CEO), The Sequoia Group



EXPERTISE

Organizational
Culture and
Transformation

Technology
Transition

Security
Technologies

Vulnerability
Assessment

EXPERIENCE

Dr. Anthony J. Tether served as Director, Defense Advanced Research Projects Agency (DARPA) from 2001 – 2009. Dr. Tether has served as Chief Executive Officer and President of The Sequoia Group, which he founded in 1996. Prior to that, he served as CEO, Dynamics Technology Inc.; Vice President (VP), Advanced Technology Sector, SAIC; VP and General Manager, Range Systems; VP, Technology and Advanced Development, Ford Aerospace (acquired by Loral Corporation); Director, Strategic Technology Office, DARPA; and Director, National Intelligence, Office of the Secretary of Defense from 1978 – 1982. He also served as VP, Systems Control Inc., where he applied stochastic estimation and control theory to military and commercial problems, while developing algorithms to perform resource allocation and control.

Dr. Tether has been a Member of the Army, Navy, and Defense Science Boards, and a Member of the Office of National Drug Control Policy Research and Development Committee. He is a Life Fellow of the Institute of Electrical and Electronics Engineers (IEEE) and is listed in several Who's Who publications.

In 1986, the Director, Central Intelligence Agency (CIA) honored Dr. Tether with the National Intelligence Medal. He was also honored by the Secretary of Defense with the DoD Civilian Meritorious Service Medal and the DoD Outstanding Public Service Medal. In 2013, he was awarded the Aerospace Communications Award.

EDUCATION

Stanford University, Ph.D., Electrical Engineering, 1969

Stanford University, M.S., Electrical Engineering, 1965

Rensselaer Polytechnic Institute, Bachelor, Electrical Engineering, 1964



MEMBER

Michael E. Williamson, LTG (RET), USA

Former Principal Military Deputy to the ASA(ALT)



EXPERTISE

Army Acquisition

Congressional
Affairs

Air Defense
Artillery

Future Combat
Systems

EXPERIENCE

LTG Williamson was commissioned at the University of Maine as a Second Lieutenant in the Air Defense Artillery (ADA) in 1983. He served in a multitude of assignments to include Chaparral and Vulcan Platoon Leaders, Germany, ADA commander, Ft. Hood, Texas, Senior Military Software Analyst, NATO headquarters, Belgium, and Chief, Information Technology, Acquisition Career Management, ASA(ALT). As a Congressional Fellow, he served as a Legislative Assistant on Capitol Hill. He has served as Product Manager, Global Command and Control System-Army; Acquisition Military Assistant to the Secretary of the Army; Commander, Software Engineering Center, Fort Belvoir; Project Manager, Network Systems Integration, within Program Manager, Future Combat Systems (Brigade Combat Team); Director of Systems Integration, ASA(ALT); and Deputy Program Executive Officer, Integration and Joint Program Executive Officer for the Joint Tactical Radio Systems.

After serving as the Assistant Deputy for Acquisition and Systems Management, LTG Williamson was selected to be the Assistant Military Deputy to the ASA (ALT). His most recent assignment was as the Deputy Commanding General, Combined Security Transition Command Afghanistan. He is a graduate of the Advanced Management Program, Harvard Business School and was a Senior Service College Fellow at the University of Texas at Austin. LTG Williamson is Level III certified in Program Management and Information Technology.

EDUCATION

Georgetown University, Graduate certificates in Public Policy and Government Affairs

Madison University, Ph.D., Business Administration

Naval Postgraduate School, M.S., Material Acquisition Management

Husson College, B.S., Business Administration



MEMBER

Alan E. Willner, Ph.D.

Steven and Kathryn Sample Chair in Engineering
University of Southern California



EXPERTISE

Optical
Communications

Optical and
Photonic
Technologies

EXPERIENCE

Dr. Alan E. Willner was a Postdoctoral Member of the Technical Staff at AT&T Bell Laboratories and a Member of the Technical Staff at Bellcore. He is currently the Steven & Kathryn Sample Chaired Professor of Engineering at the University of Southern California. Dr. Willner is a member of the Army Science Board (ASB) and was a member of the Defense Sciences Research Council that provided reports to DARPA.

Dr. Willner has been honored with the following: Member, U.S. National Academy of Engineering; International Fellow, U.K. Royal Academy of Engineering; Presidential Faculty Fellows Award from the White House; Institute of Electrical and Electronics Engineers (IEEE) Eric E. Sumner Award; Fulbright, Guggenheim, Packard, and DoD's Vannevar Bush Fellowships; Egleston Medal from Columbia Engineering Alumni Association; Fellow, National Academy of Inventors; Optical Society (OSA) Paul Forman Engineering Excellence Award; SPIE President's Award; and IEEE Globecom Best Paper Award. He is Fellow of AAAS, IEEE, IET, OSA, and SPIE.

Dr. Willner's activities include: Co-Chair, U.S. National Academies Study on Optics and Photonics; President, Optical Society; President, IEEE Photonics Society; and Editor-in-Chief of IEEE/OSA Journal of Lightwave Technology, OSA Optics Letters, and IEEE Journal of Selected Topics in Quantum Electronics.

He has recently contributed to the following Army Science Board studies: "Planning for Climate Change," "Future of Army Aviation," "Improving Transition of Laboratory Programs into Warfighting Capabilities through Experimentation," and "Independent Assessment of the Army's Science and Technology Portfolio Realignment."

EDUCATION

Yeshiva University, Honorary Doctorate, 2012

Columbia University, Ph.D., Electrical Engineering, 1988

Columbia University, M.S., Electrical Engineering, 1984

Yeshiva University, B.A., Physics, 1982



MEMBER

Michael Wong, Ph.D.

Professor and Chair, Department of Chemical & Biomolecular Engineering, Rice University



EXPERTISE

Chemical and Biomolecular Engineering

Civil and Environmental Engineering

Materials Science

Nano Engineering

EXPERIENCE

Dr. Michael S. Wong is Professor and Chair of the Department of Chemical and Biomolecular Engineering, Rice University. He is also the Professor of Chemistry, Civil and Environmental Engineering and Materials Science, and Nano Engineering. His research addresses chemical engineering problems using the tools of materials chemistry and heterogeneous catalysis. His Catalysis and Nanomaterials Laboratory has earned over \$15 million in grants. Dr. Wong's primary work is in nanotechnology, with a particular interest in energy and environmental applications "catalysis for clean water."

Dr. Wong is a research thrust leader on multi-functional nanomaterials in the NSF-funded Nanotechnology Enabled Water Treatment (NEWTE) Engineering Research Center. He is chair of the ACS Division of Catalysis Science and Technology (CATL) and serves on the Applied Catalysis B: Environmental editorial board. Previous experiences include Chairman, AIChE Nanoscale Science and Engineering Forum, and Member, Chemistry of Materials Editorial Board. His laboratory has produced over 120 publications, 20+ pending/issued patents, 300 presentations, and one start-up company.

Dr. Wong has received numerous honors including the MIT TR35 Young Innovator Award, the American Institute of Chemical Engineers (AIChE) Nanoscale Science and Engineering Young Investigator Award, Smithsonian Magazine's Young Innovator Award, and the North American Catalysis Society/Southwest Catalysis Society Excellence in Applied Catalysis Award.

EDUCATION

University of California, Santa Barbara, Postdoctoral training, 2000-2001

Massachusetts Institute of Technology, Ph.D., Chemical Engineering, 2000

Massachusetts Institute of Technology, M.S., Chemical Engineering Practice, 1997

California Institute of Technology, B.S., Chemical Engineering, 1994



MEMBER

Joan B. Woodard, Ph.D.

EDT Consulting, LLC



EXPERTISE

Nuclear Weapons
Systems Engineering
Energy Systems

EXPERIENCE

Dr. Joan B. Woodard is formerly the Executive Vice President (VP) and Deputy Laboratories Director, Nuclear Weapons, Sandia National Laboratories. Dr. Woodard was responsible for Sandia's programs, operations, staff and facilities, developing policy, and assuring implementation and strategic planning. Her Sandia history began in 1974. She rose through the ranks to become the Director, Environmental Programs Center; Director, Product Realization Weapon Components Center; VP, Energy & Environment Division, and VP, Energy Information and Infrastructure Technologies Division. Dr. Woodard has served on numerous panels and boards including the Air Force Scientific Advisory Board, the National Academy of Sciences' study on "Science and Technology for Countering Terrorism," the Secretary of Energy's Nuclear Energy Research Advisory Council, the Congressional Commission on Electromagnetic Pulse, and the Intelligence Science Board.

Dr. Woodard's honors include the Upward Mobility Award from the Society of Women Engineers, DOE/NNSA Gold Medal Award for Distinguished Service to National Security (2010), and the Department of the Air Force Award for Meritorious Civilian Service (2009).

Currently, Dr. Woodard serves as Independent Consultant (and former Chair), Lawrence Livermore National Laboratory Global Security Director's Review Committee, Member, Oak Ridge National Laboratory Global Security Strategic Advisory Group, and Senior Mentor, DARPA – Defense Science Study Group.

EDUCATION

University of California Berkeley, Ph.D., Mechanical Engineering, 1982

Stanford University, M.S., Engineering Economic Systems, 1975

Missouri University of Science & Technology, B.S., Applied Mathematics, 1973



MEMBER

Mary Anne Yates, Ph.D.

Independent Consultant



EXPERTISE

Nuclear Science

Treaty Negotiation

EXPERIENCE

Dr. Mary Anne Yates recently retired from her work as Senior Technical Advisor and Senior Chemist in the Nuclear Engineering Division at Argonne National Laboratory. She has published over 60 peer-reviewed scientific articles across the fields of nuclear chemistry and nuclear, atomic, particle and plasma physics. Dr. Yates joined the staff of Los Alamos National Laboratory (LANL) to develop nuclear chemistry based diagnostics for laser fusion. She continued on to develop diagnostics and experiments for underground testing of nuclear devices, “Star Wars” technologies, advanced accelerator applications, and studies related to non-proliferation. After 9/11 she assisted both the Department of Energy and LANL in providing expertise to fight terrorism.

Dr. Yates has served as Technical Advisor, Arms Control Issues, Department of Energy (DOE) where she was the Technical Lead for the Fissile Material Cutoff Treaty (FMCT), the Executive Secretary for the bilateral negotiations with Russia on the Production Reactor Shutdown/Conversion Agreement, Technical Advisor to the U.S. Delegation to the Conference on Disarmament (CD) on FMCT, and Coordinator for the U.S. Ambassador to the CD for the Host Country Agreement for the Comprehensive Test Ban Treaty Organization negotiations with the government of Austria. She served as the lead, 9-11 Response Team, LANL. In addition to expertise in nuclear science, she brings a perspective to assessing issues that is different from those steeped in the military traditions, yet still informed by logic, technical expertise, and a commitment to the best interests of the United States Army.

EDUCATION

Carnegie Mellon University, Ph.D., Nuclear Chemistry, 1976

Carnegie Mellon University, M.S., Chemistry, 1973

University of Rochester, B.A., Chemistry, 1971



MEMBER

Christopher C. Yu, Ph.D.

Division Leader, Draper Laboratory



EXPERTISE

Communications
and Networking

Signal Processing

Guidance,
Navigation, and
Control

Software Systems

EXPERIENCE

Dr. Chris Yu has been with Draper, an independent non-profit engineering organization located in Cambridge, MA since 2004. Draper's mission is to develop and prototype innovative solutions for some of the nation's most challenging problems. Dr. Yu is currently the Secure and Assured System Software Engineering Division Leader, which delivers mission critical software solutions for challenging applications of national interest. At Draper, Chris has also served as the Signals, Sensors, and Navigation Division Leader, Internal Research and Development Director, Education Office Director, Diversity and Inclusion Lead, and Signal Processing Group Leader. Prior to joining Draper in 2004, Chris was at Bell Laboratories in Murray Hill, New Jersey, where he was a member of the Video Networking Group developing technologies for broadband access, wireless networks, and optical back-haul.

Dr. Yu has most recently contributed to the following Army Science Board (ASB) studies: "The Military Benefits and Risks of the Internet of Things (IoT)," "Dense Urban Operations," "The Future of Telemetry," and "Software Development and Sustainability."

EDUCATION

Princeton University, Ph.D., Electrical Engineering

Princeton University, M.A., Electrical Engineering

Massachusetts Institute of Technology, B.S., Electrical Engineering



MEMBER

Marc A. Zissman, Ph.D.

Associate Head, Cyber Security and Information Sciences Division
MIT Lincoln Laboratory



EXPERTISE

Human Language

Technology and
Speech, Speaker
and Language
Recognition

Networking and
Communications

Tactical Networking
on the Move

Cyber Security

Quantitative Test
and Evaluation
of Systems and
Technology

EXPERIENCE

Dr. Marc A. Zissman is Associate Head of the Cyber Security and Information Sciences Division, MIT Lincoln Laboratory. He joined the Laboratory in 1983. His early research focused on digital speech processing including parallel computing for speech coding and recognition, co-channel talker interference suppression, language and dialect identification, and cochlear-implant processing for the profoundly deaf. After working for one year in DoD under the Intergovernmental Personnel Act (IPA) program, he expanded his research interests to include cyber security technology. He served in a series of laboratory leadership roles including Associate Leader of the Human Language Technology Group, Leader of the Wideband Tactical Networking Group, and Assistant Head of the Communication Systems and Cyber Security Division. Most recently, he had responsibility for developing and executing a strategic plan for growing the laboratory's cyber security research, development, evaluation and technology transfer efforts.

In addition to his work at Lincoln, Dr. Zissman served for four years as a U.S. technical specialist to the NATO IST-011/TG-001 task group which studies military applications of speech technology for NATO. He was elected to and served for four years on the Speech Processing Technical Committee of the Institute of Electrical and Electronics Engineers (IEEE) Signal Processing Society. He also served for four years on the Defense Advanced Research Projects Agency (DARPA) Information Science and Technology Study Group. He was part of the U.S. Southern Command (USSOUTHCOM) and Joint Task Force-HAITI team that responded to the January 2010 earthquake in Haiti. Since 2011, he has been serving as a member of the Army Science Board.

EDUCATION

Massachusetts Institute of Technology, Electrical Engineering, Ph.D., 1990

Massachusetts Institute of Technology, Electrical Engineering, S.M., 1986

Massachusetts Institute of Technology, Electrical Engineering, S.B., 1986

Massachusetts Institute of Technology, Computer Science, S.B., 1985

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1956 – 1957

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1951 – 1956

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The Joseph V. Braddock Award was established as an honorary award of the U.S. Army for members of and consultants to the U.S. Army Science Board (ASB). This award is intended to annually recognize an individual who has made a highly significant contribution to the Department of the Army in the ASB chartered fields of science, technology, manufacturing, acquisition, logistics, and business management while serving in a voluntary advisory capacity as a member of or consultant to the ASB.

This award is named in honor of Dr. Joseph V. Braddock, who has served as an uncompensated volunteer Chair, member, and consultant of the ASB for over 33 years.

Dr. Braddock continues to serve as a senior fellow consultant on the ASB's Red Team, where he mentors and advises the Board's executive committee, study chairs, members, and consultants. His efforts continue to develop the capacity of the ASB and its members to enable timely and relevant advice on some of the most challenging problems the Army is facing.

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