United States Air Force - Scientific Advisory Board | 2019-2020

Air Force
Scientific Advisory Board
Biography Book

2019-2020
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Section 1: Mission of the Board

The Air Force Scientific Advisory Board (SAB) was established by General “Hap” Arnold to assist the Air Force in maintaining its “vision into the future” of technology-enabled capabilities. Since 1944, the SAB has served as the Air Force’s principle external advisory body for science and technical matters relating to its mission - to fly, fight and win in Air, Space and Cyberspace. The Board provides a link between the Air Force and the nation’s scientific community and provides independent scientific and technical advice to Air Force leadership.

The SAB accomplishes its mission by conducting studies on topics deemed critical by the Secretary and Chief of Staff of the Air Force, by conducting reviews of the Science and Technology portfolio in the Air Force Research Laboratory, and by providing independent technical reviews where needed by SecAF, CSAF, Major Commands, and the Air Force Research Laboratory. The SAB’s mission supports the Air Force in achieving its central strategy of adapting and responding faster than potential adversaries.

SAB members are among the nation’s top civilian scientists and engineers from industry, national labs, federal funded research and development centers, academia, and retired general officers. Members are selected to obtain the best, independent advice possible and on the basis of preeminence in scientific fields of interest and importance to the Air Force. It is the broad technical expertise, experience, leadership, and vision of its members that are essential to the Board’s ability to provide the type of advice that the Air Force relies on from the SAB.

The Board exists to complement, but not duplicate, the work of the Assistant Secretary of the Air Force for Acquisition, the Air Force Research Laboratory, and other Air Force activities that deal with science and technology issues. The Board is chartered by the Secretary of Defense and reports directly to the Secretary of the Air Force and to the Air Force Chief of Staff.

The SAB operates as a Federal Advisory Committee under the Federal Advisory Committee Act, therefore the Board’s function is purely advisory. The Board presents its findings and recommendations to the Secretary and Chief of Staff of the Air Force, as well as other senior leaders. All decisions or actions taken on Board advice or recommendations are made solely by full-time, salaried officers or employees of the Air Force.
Section 2: Member Biographies
Dr. James S. Chow  
RAND Corporation  
Chair, USAF Scientific Advisory Board

**EDUCATION**
Stanford University  
   Ph.D., Mechanical Engineering (Fluid Mechanics), 1994  
   M.S., Aero/Astro, 1989  
University of California at San Diego  
   B.S., Mechanical Engineering, 1988

**WORK EXPERIENCE**
RAND Corporation  
   Director, Force Modernization and Employment, Project AIR FORCE, 2018- Present  
   Senior Engineer, Engineering and Applied Sciences, 2003-2018  
   Assistant to the President for Research on Counterterrorism, 2004-2011  
   Program Director (Acting), Force Modernization and Employment, 2008  
   Associate Program Director, Force Modernization and Employment, 2006-2010  
   Manager, Technology and Applied Sciences, 2000-2003  
   Engineer, Technology and Applied Sciences, 1997-2003

Institute for Defense Analyses  
   Research Staff Member, Systems Evaluation Division, 1994-1997  
NASA Ames Research Center  
   Fellowship Researcher, Fluid Mechanics Laboratory, 1990-1994

**AREAS OF EXPERTISE**
Defense systems analysis; management and leadership; future systems and force modernization; aircraft survivability; countering anti-access/area denial, military operations modeling and simulation.

**PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS**
Chief of Staff of the Air Force Award for Exceptional Public Service; Affiliated Faculty Member, Pardee RAND Graduate School; Member, AIAA; Member, Association of Old Crows.
Dr. Nils R. Sandell  
Independent Consultant  
Vice Chair, USAF Scientific Advisory Board

EDUCATION  
Massachusetts Institute of Technology  
Ph.D., Electrical Engineering, 1974  
Massachusetts Institute of Technology  
M.S., Electrical Engineering, 1971  
University of Minnesota  
B.S., Electrical Engineering, 1970

WORK EXPERIENCE  
Independent Consultant  
2016-Present  
Defense Advanced Research Projects Agency  
Director, Strategic Technologies Office, 2013-2016  
Independent Consultant  
2010-2013  
BAE Systems  
Vice President, Advanced Information Technologies, 2004-2010  
ALPHATECH INC.  
President and CEO, 1979-2004  
Massachusetts Institute of Technology  
Associate Professor, Electrical Engineering and Computer Science, 1976-1979  
Assistant Professor, Electrical Engineering and Computer Science, 1974-1976

AREAS OF EXPERTISE  
Command and Control; Communications; Guidance, Navigation & Control; Information Fusion and Management; ISR, Tracking and ID; Low Observables; Modeling, Simulation and Analysis; S&T Management; Systems Engineering.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS  
Eta Kapa Nu; Tau Beta Pi.
Dr. Natalie W. Crawford  
RAND Corporation  
EXCOM Member

EDUCATION
Pardee RAND Graduate School, Santa Monica, California  
Public Policy Analysis, Honorary Ph.D., 2018
Michigan State University  
Engineering, Honorary Ph.D., 2016
University of California, Los Angeles  
Graduate Study, Engineering & Applied Mathematics, 1966-1967  
B.A., Mathematics, 1961

WORK EXPERIENCE
RAND Corporation  
RAND, 1964-Present
RAND Senior Fellow, 2006-Present
Project AIR FORCE Distinguished Chair in Air and Space Policy, 2014-Present
Vice President and Director Project AIR FORCE, 1997-2006
Associate Director, Project AIR FORCE, 1995-1997
Director, Force Modernization & Employment Program, Project AIR FORCE, 1993-1995
Director, Force Structure & Force Modernization Program, Project AIR FORCE, 1992-1993
Director, Theater Force Employment Program, Project AIR FORCE, 1988-1993
Associate Director, Theater Forces Program, Project AIR FORCE, 1986-1988

North American Aviation  
Programmer Analyst, 1961-1964

Air Force Scientific Advisory Board  
Co-Chairman, 1996-1999
Vice Chairman, 1990-1991
Member, 1988-2003; 2005-2014; 2015-Present

AREAS OF EXPERTISE
Conventional standoff weapons; night/adverse weather attack capabilities; tactical aircraft; aircraft survivability; munitions and targets; tactical air requirements; avionics; aero performance; aircraft survivability; electronic combat; weapons effects; off-board sensor support to combat operations; power projection force structure and assessments; theater air defense; force modernization; space systems; information operations; low observables; directed energy; space situational awareness.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
AIAA Honorary Fellow (2017), AIAA Fellow (2011); Project AIR FORCE Distinguished Chair in Air & Space Policy (2014); United States Air Force Academy Thomas D. White National Defense Award (2012); Air Force Association Lifetime Achievement Award (2011); OSD Medal for Exceptional Public Service (2006); NDIA Combat Survivability Lifetime Achievement Award (2006); RAND Medal for Excellence (2006); Lifetime Achievement Award, Air Force Analytic Community (2003); Lt Gen Glenn Kent Leadership Award (2003); Decoration for Exceptional Civilian Service, USAF (2003, 1995); Vance R. Wanner Memorial Award, Military Operations Research Society (2003); Kelly Johnson Award, San Fernando Valley Engineers Council (1998); Woman of the Year, Santa Monica Chamber of Commerce Women’s Business Council (1997); Santa Monica High School Hall of Fame (1995); YMCA Woman of the Year, (1983); Who's Who in the West; Member, JPL Advisory Council (2002 – 2009); Member, Sandia Nuclear Deterrence External Advisory Board (2007 --); Member, National Academy of Engineering (2001).
Gen Donald J. Hoffman, USAF (Ret)
Consultant
EXCOM Member

EDUCATION
University of California, Berkeley
    M.S., Electrical Engineering, 1975
US Air Force Academy
    B.S., Electrical Engineering, 1974

WORK EXPERIENCE
Self-owned company
    Consultant, 2012-Present
US Air Force
    Commander, Air Force Material Command, 2008-2012
    Military Deputy for Acquisition, HQ Air Force, Pentagon, 2005-2008
    Director of Requirements, Air Combat Command, 2002-2005
    Commander, 31st Fighter Wing, 2001-2002

AREAS OF EXPERTISE
Defense Weapon System Requirements, Research, Acquisition, Test, and Sustainment; Strategic Planning; Personnel Management and Training.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Dr. Andrew G. Alleyne
University of Illinois, Urbana-Champaign
S&T Review Chair

EDUCATION
University of California, Berkeley
Ph.D., Mechanical Engineering, 1994
University of California, Berkeley
M.S., Mechanical Engineering, 1992
Princeton University
B.S.E., Aerospace Engineering, 1989

WORK EXPERIENCE
University of Illinois, Urbana-Champaign
Director, NSF POETS Engineering Research Center, 2015-Present
Associate Head for Undergraduate Programs in MechSE, 2014-2015
Associate Dean for Research, College of Engineering, 2008-2012
ETH Zurich
Visiting Professor, 2012
University of Colorado at Boulder
FIRST Faculty, 2010
University of Illinois, Urbana-Champaign
Ralph & Catherine Fisher Professor, College of Engineering, 2002-Present
Professor, Mechanical Science & Engineering, 2004-Present
Professor, Coordinated Science Laboratory, 2004-Present
Delft University of Technology
Prof of Vehicle Mechatronics, Faculty of Design, Engr & Production, 2003

AREAS OF EXPERTISE

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
American Society of Mechanical Engineers, Fellow; Institute of Electrical and Electronic Engineers, Fellow; Society of Automotive Engineers; National Fluid Power Association; International Federation of Automatic Control, American Association for the Advancement of Science; Defense Science Study Group.
Dr. Michael J. Bear
BAE Systems

EDUCATION
George Mason University
Ph.D., Computational Physics, 1998
M.S., Applied Physics, 1994
Purdue University
B.S., Applied Physics, 1985

WORK EXPERIENCE
BAE Systems
Technical Director, C4ISR Solutions, 2015-Present
Systems Engineering Lead, C4ISR Solutions, 2008-2015
BAE Systems/Lockheed Martin
Managing Engineer for ASIC Design, Space Products, 2000-2007
Lockheed Martin
Lockheed Martin/Loral
Technical Lead of Device Modeling, Space Products, 1995-1998
Loral/IBM
Technical Lead of Reliability Engineering, Space Products, 1990-1995

AREAS OF EXPERTISE
Resilient system design (cyber/physical); Sensor systems; Embedded Cyber; Trusted and assured electronics; Semiconductor/material physics of failure; Plasma and semiconductor modeling; Multi-scale simulations; Radiation effects; Space environments.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
American Physical Society; Institute of Electrical and Electronic Engineers; American Association for the Advancement of Science; Virginia Tech ECE Industry Advisory Board; BAE Systems Chairman's Award; US Patent Award; Chief of Staff of the Air Force Award for Exceptional Public Service; Phi Beta Kappa.
Dr. Suzanne M. Beers
The MITRE Corporation

EDUCATION
Georgia Institute of Technology
Ph.D., Electrical Engineering, 1996
New Mexico State University
M.S., Electrical Engineering, 1994
New Mexico Highlands University
M.B.A., Business, 1986
Ohio State University
B.S., Mechanical Engineering, 1983
Miami University
B.S., Physics, 1982

WORK EXPERIENCE
The MITRE Corporation
OSD Test & Evaluation Portfolio Manager, Z610 OSD Portfolio Division, 2014-Present
Developmental Evaluation Framework Tech Lead, J610 OSD Project Division, 2013-Present
T&E Group Leader & DASD(DT&E) Space & Missile Defense Task Lead, J610, 2010-2013
DOT&E Project Lead, Center for Acquisition & System Analysis Tech Center, 2008-2010

United States Air Force
Commander, Air Force Operational Test & Evaluation Center, Detachment 4, 2006-2008
Deputy Director, System Engineering Group, National Reconnaissance Office, 2005-2006
Deputy Commander, 50th Network Operations Group, 2004-2005
Chief, AFSCN Sustainment Division, Space & Missile Systems Center, 2001-2004
Deputy Chief, Analysis and Engineering Division, Space Warfare Center, 1999-2001
Advisor to the Chief Scientist, Air Force Operational Test & Evaluation Center, 1996-1999
PhD Student, Air Force Institute of Technology (Georgia Tech), 1994-1996
Advisor to the Chief Scientist, Air Force Operational Test & Evaluation Center, 1993-1994
Cheyenne Mountain Upgrade Test Manager, 1992-1993
SRAM II Lead Analyst & MILSTAR Survivability Analyst, 1990-1992
Ground Launch Cruise Missile Operator & Instructor, 1987-1990
Nuclear Systems Physicist, Air Force Weapons Laboratory, 1983-1987

AREAS OF EXPERTISE
Test & Evaluation; Systems Engineering; Control Theory; Digital Communication; Digital Signal Processing; Fuzzy Logic; Decision Support; Operations Research; System Analysis; AF Missile Operations; Space System Operations; Ground Control Station Sustainment; Nuclear Weapons; Cybersecurity.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Mr. Aaron R. Blow  
MITRE Corporation

EDUCATION
California State University at Northridge  
M.S., Physics, 2002  
Rensselaer Polytechnic Institute  
B.S., Physics, 1996

WORK EXPERIENCE
MITRE  
Director, Air Force Space, Cyber, and Intelligence Programs, 2007-Present
MIT Lincoln Laboratory  
Technical Staff, ISR Division, 2005-2007
MITRE  
Director, Air Force Strategic and Special Capabilities, 2002-2005
XonTech, Inc.  
Senior Analyst, Special Studies Division, 1997-2002

AREAS OF EXPERTISE
Systems Analysis; Mission Analysis; Space Systems; Intelligence, Surveillance, and Reconnaissance Systems; Signal Processing; Radar System Development; Hyperspectral Systems; Remote Sensing; Communications; Cyber; Multi-Sensor Fusion; Algorithm Development; Multi-Static Radar; Target Detection and Identification; Agile Acquisition; Command and Control; Systems Engineering; Modeling and Simulation; Electronic Warfare.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Member AFA; AUSA; NDIA.
Dr. Robert J. Bontz  
Northrop Grumman, Aerospace Systems

EDUCATION  
University of Utah  
Ph.D., Theoretical Astrophysics, 1980  
Northland College  
B.A., Physics & Mathematics, 1974

WORK EXPERIENCE  
Northrop Grumman Aerospace  
Director/Technology Integration, Advanced Programs, 2013-Present  
Institute for Defense Analyses  
Project Director, SED, 1985-2013  
Center for Naval Analyses  
Research Scientist, 1981-1985  
University of Utah  
Instructor, Dept. of Physics, 1980-1981

AREAS OF EXPERTISE  
Air Vehicle Design; Multi-Spectral Signature Control; Advanced Sensors; Advanced Weapons; Electronic Warfare; Special Technologies; Military Utility Assessment.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS  
Defense Science Board Consultant.
Dr. Rodney D. W. Bowersox
Texas A&M University

EDUCATION
Virginia Polytechnic Institute and State University
Ph.D., Aerospace Engineering, 1992
Virginia Polytechnic Institute and State University
M.S., Aerospace Engineering, 1990
Virginia Polytechnic Institute and State University
B.S., Aerospace Engineering, 1988

WORK EXPERIENCE
Texas A&M University, College Station TX
Department Head, Aerospace Engineering, 2013-Present
Professor, Aerospace Engineering, 2007-Present
Ford I Professor 2014-Present
Associate Professor, Aerospace Engineering, 2002-2007
The University of Alabama, Tuscaloosa AL
Associate Professor, Aerospace Engineering, 2000-2002
Assistant Professor, Aerospace Engineering, 1997-2000
Air Force Institute of Technology, Aeronautics and Astronautics, WPAFB OH
Assistant Professor, Aerospace Engineering, 1993-1997

AREAS OF EXPERTISE
Hypersonic viscous (transitional and turbulent) flows; thermochemical non-equilibrium gaseous flows; theoretical hypersonic turbulence modeling and numerical simulation; hypervelocity wind tunnel testing; laser diagnostics; experimental methods; aerodynamics; aero-propulsive flows; scramjets; unsteady flows.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
DoD Vannevar Bush National Security Science and Engineering Faculty Fellow, 2017-2022; American Society of Mechanical Engineers Fellow; American Institute of Aeronautics and Astronautics Associate Fellow; Associate Editor, Journal of Propulsion and Power; Hypersonic Technologies and Aerospace Planes Program Committee Member; US National Committee Member of the International Society of Air Breathing Engines; American Chemical Society Member; American Physical Society Member; Optical Society of America Member; Technical Advisory Board, National Aerospace Solutions, Inc.
Dr. Mark E. Campbell
Cornell University

EDUCATION
Massachusetts Institute of Technology
    Ph.D., Control/Estimation, Aeronautics and Astronautics, 1996
Massachusetts Institute of Technology
    M.S., Aeronautics and Astronautics, 1993
Carnegie Mellon University
    B.S., Mechanical Engineering, 1990

WORK EXPERIENCE
Cornell University
    Professor, Sibley School of Mechanical and Aerospace Engineering, 2011-Present
    Associate Professor, Sibley School of Mechanical and Aerospace Engineering, 2004-2011
    Assistant Professor, Sibley School of Mechanical and Aerospace Engineering, 2001-2004
University of Sydney
    Australian Research Council Int'l Fellow, Australian Centre of Field Robotics, 2006-2005
Insitu Group
    Visiting Research Scientist, Research and Development, 2005-2001
University of Washington
    Assistant Professor, Sibley School of Mechanical and Aerospace Engineering, 1997-2001

AREAS OF EXPERTISE
Spacecraft technologies; control systems; sensor fusion; autonomy; UAV technology; robotics; sensor networks; mixed initiative and human-machine systems.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Associate Fellow AIAA; Member ASME; Fellow IEEE; Member SPIE; Member ASEE.
Dr. Melissa G. Choi  
MIT Lincoln Laboratory

EDUCATION  
North Carolina State University  
Ph.D., Applied Mathematics, 1999  
Ithaca College  
B.A., Mathematics, 1994

WORK EXPERIENCE  
MIT Lincoln Laboratory  
Assistant Director, 2019 - Present  
Division Head, Homeland Protection and Air Traffic Control 2014-2019  
Assistant Division Head, ISR and Tactical Systems, 2013-2014  
Group Leader, Active Optical Systems, 2012-2013  
Group Leader, Systems and Analysis, 2009-2012  
Assistant Group Leader, Systems and Analysis, 2008-2009  
Assistant Group Leader, Advanced System Concepts, 2006-2008  
Technical Staff, Advanced System Concepts, 1999-2006

AREAS OF EXPERTISE  
Systems analysis; modeling and simulation; intelligence, surveillance & reconnaissance (ISR); active optical systems (laser radar); EO/IR sensor systems; RF sensors; multi-INT architectures; PNT.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS  
Society for Industrial and Applied Mathematics (SIAM), Phi Kappa Phi, Pi Mu Epsilon.
Dr. David J. Coombs  
Raytheon

EDUCATION  
University of Rochester  
Ph.D., Computer Science, 1992  
University of Rochester  
M.S., Computer Science, 1988  
Michigan State University  
B.S., Computer Science, 1986

WORK EXPERIENCE  
Raytheon Company  
Technical Director, R&D, Intelligence, Information, and Services (IIS), 2014-Present  
Intelligence Advanced Research Projects Activity (IARPA)  
Program Manager, Smart Collection Office, 2011-2014  
SET Corporation  
Director of Robotics Technologies, 2004-2011  
Science Applications International Corporation (SAIC)  
Director of Computer Vision, Reconnaissance & Surveillance Operation, 2001-2004  
Cytometrics  
Manager of Image Analysis, 2000-2001  
National Institute of Standards and Technology (NIST)  
Computer Scientist, Intelligent Systems Division, 1991-2000

AREAS OF EXPERTISE  
Technology development; applied research and development; advanced prototype development; sensor processing; perception; computer vision; real-time video and image processing; exploitation; LADAR; EO/IR; 3D shape; robotics; unmanned systems; UxVs; mission management; planning; guidance navigation and control; tracking; user interface; autonomy; command interfaces; system integration; space technologies; cyber technologies; analytics.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS  
Institute of Electrical and Electronics Engineers (IEEE); IEEE Computer Society; Association for Computing Machinery (ACM).
Dr. Steven T. Cummings
Raytheon - Retired

EDUCATION
Rensselaer Polytechnic Institute
  Ph.D., Controls and Systems Engineering, 1995
Clarkson University
  Master of Engineering, Communications/Radar, 1981
Clarkson University
  B.S., Electrical and Computer Engineering, 1979

WORK EXPERIENCE
Raytheon Company
  VP Technology Development & Execution, Space & Airborne Systems, 2010-2018
  Principal Engineering Fellow, Integrated Defense Systems, 1985-2010
Hughes Aircraft Company
  Group Head, Radar Systems Group, 1981-1985

AREAS OF EXPERTISE
Controls; Systems; Radar; Sensor Netting; C2BMC; Defense Planning; Ballistic Missile Defense; High Energy Laser Weapon Systems; Robotics.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
AIAA; Clarkson Dean's Leadership Council.
Dr. Llewellyn S. Dougherty  
Center for Elegant Design

EDUCATION
Air Force Institute of Technology  
Ph.D., Digital Systems Engineering, 1978
Massachusetts Institute of Technology  
MS, Aeronautics and Astronautics, 1968
US Air Force Academy  
BS, Engineering Sciences, 1967

WORK EXPERIENCE
Consultant 2011-present  
Raytheon Corporation  
Vice President, Special Programs, Raytheon, 2004-2011
Chief Scientist, Raytheon Space and Airborne Systems, 2002-2004
Director of Technology, Raytheon Electronic Systems, 1999-2002
Director of Technology, Raytheon Systems Company, 1998-1999
Hughes Aircraft Company  
Director of Technology, Hughes Sensors and Communications Systems Segment, 1994 - 1998
Director, Advanced Technology Programs, Hughes Radar Systems, 1993-1994
Assistant Division Manager, Reconnaissance Systems Division, Hughes Radar Systems, 1992-1993
Defense Advanced Research Projects Agency  
Technical Assistant to the Director, 1990-1992
DARPA Program Manager, Deputy Director and Acting Director, Aerospace and Strategic Technology Office, 1987-1990
US Air Force  
Deputy Director of Engineering, B2 Program Office, 1983-1987
Program Element Monitor, HQ USAF, 1979-1983
Avionics Systems Engineer, AF Avionics Laboratory, 1975-1976
Flight Test Engineer, AF Missile Development Center, 1968-1973
Thiokol Chemical Corp  
Associate Engineer (Solid Rocket Propulsion), 1967

AREAS OF EXPERTISE
Command and control, communications, ISR systems, digital computers, real-time systems, systems architecture, systems engineering, systems safety, solid rockets, military aircraft development, defense acquisition, low observables, special operations, avionics systems and sensors (radar; EO/IR; lasers; CNI); information warfare; mission analysis; signal processing; system security and anti-tamper, special program security.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
IEEE, Life Member.
Dr. Robert V. Duncan  
Texas Tech University

EDUCATION
University of California, Santa Barbara  
Ph.D., Physics, 1988  
Massachusetts Institute of Technology (MIT)  
S.B., Physics, 1982

WORK EXPERIENCE
Texas Tech University  
President’s Distinguished Chair in Physics, 2017-Present  
Senior Vice President for Research, 2014-2017  
University of Missouri  
Vice Chancellor for Research, 2008-2013  
University of New Mexico  
Professor of Physics, then Associate Dean for Research, 1996-2008  
Sandia National Laboratories  
Physicist, then Group Leader (Distinguished Member of Technical Staff), 1988-1996

AREAS OF EXPERTISE
Low-Temperature, Condensed Matter Physics; Critical Phenomena; Self-Organized Criticality; Metrology; Heat Transport; Orbital Measurements and Hardware Design; Biomedical Instrumentation Development; Research Administration; Physics Education; Technical Innovation and Invention.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Dr. Philip A. Fawcett
The Aerospace Corporation

EDUCATION
Georgia Institute of Technology
  Ph.D., Aerospace Engineering, 1992
Georgia Institute of Technology
  M.S., Aerospace Engineering, 1990
Georgia Institute of Technology
  B.S., Aerospace Engineering, 1989

WORK EXPERIENCE
The Aerospace Corporation
  General Manager, Electronic Programs Division, 2018-Present
  Principal Director, Imagery Programs Division, 2015-2018
  Principal Director, Electronic Programs Division, 2013-2015
  Principal Director, Advanced Research and Engineering Directorate, 2008-2013
  Brookings Institute Congressional Fellow, Office of Congressman Tim Ryan, 2007-2008
  Systems Director, Special Projects Directorate, 2001-2007
  Senior Project Engineer, Systems Engineering and Technology Directorate, 1998-2001
  Project Engineer, Space Warfare Center, 1996-1998
  Member of the Technical Staff, Titan Program Office, 1992-1996

AREAS OF EXPERTISE
Experimental Aerodynamics; Launch Vehicles; Intelligence, Surveillance, & Reconnaissance; Space Systems; Intelligence Missions; Systems Engineering; Project Management; Concept Development; Technology Development and Planning; Government Acquisition Processes.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Sigma Xi Scientific Research Honor Society; Georgia Tech AE School Senior Advisory Council.
Lt Gen Terry L. Gabreski, USAF (Ret)
Independent Consultant

EDUCATION
Louisiana State University
  B.A., History, 1973
Golden Gate University
  Master’s Degree, Public Administration, 1978

WORK EXPERIENCE
Pratt and Whitney
  Consultant, 2013-Present
Northrup Grumman
  Consultant, 2012-2014
AF Scientific Advisory Board
AF Scientific Advisory Board Member, 2017-Present
National Museum of the United States Air Force
  Heritage Board of Directors, 2010-Present
Falcon Foundation
  Governing Trustee/Board of Trustees, 2011-Present
Rand Corporation
  Adjunct Staff, 2011-Present
USAF Active Duty, 1974-2010

AREAS OF EXPERTISE
Sustainment, logistics, aircraft maintenance, training, program management.
Lt Col Dennis P. Gilbert, Jr., USAF (Ret)
Duke Energy

EDUCATION
University of Southern California, Viterbi School of Engineering
   M.S., Systems Management, 1988
Louisiana Tech University
   B.S., Management Information Systems, 1984
Defense Systems Management College
   Advanced Program Management, 1998

WORK EXPERIENCE
Duke Energy
   Vice President, Chief Information Security Officer, 2018-Present
Exelon Corporation
   Vice President, Chief Information Security Officer, 2014-2018
Office of the Secretary of Defense
   Senior Advisor for Cybersecurity to the Chief Information Officer, 2012-2014
Booz Allen Hamilton
   Principal, Federal Sector Cybersecurity, 2008-2012
FGM Inc.
   Vice President, Business Development, 2005-2008
United States Air Force
   National Reconnaissance Office; Mission Integration Office, 2003-2005
   Office of the Secretary of Defense; Command, Control, and Communications, 2000-2003
   Secretary of the Air Force (Acquisition); Space Control & Advanced Technology, 1997-2000
   Space and Missile Systems Center; Advanced Systems Program Office, 1994-1997
   Aeronautical Systems Center; B-2 System Program Office, 1989-1994

AREAS OF EXPERTISE
Cybersecurity operations, architecture, data protection, governance and risk; cyber technologies; Operational Technology (OT)/Industrial Control Systems (ICS) cybersecurity; information warfare; information operations; space control; special communications; electronic warfare; energy and power technologies; systems engineering; program management; defense acquisition.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Air Force Association (Life Member); AFCEA; Edison Electric Institute (EEI) Science & Technology Executive Advisory Committee; Electricity Subsector Coordinating Council (ESCC) Cyber Mutual Assistance Executive Committee; American Gas Association (AGA) - Leadership Council; AGA Security Committee; Security Innovation Network (SINET) - Honorary Chair; Information Systems Audit and Controls Association (ISACA); University of North Carolina Charlotte (UNCC) - Cooperative Research Center for Cybersecurity Analytics & Automation - Industry Advisory Board.
Dr. Samuel Graham Jr.
Georgia Institute of Technology

EDUCATION
Georgia Institute of Technology
- PhD, Mechanical Engineering, 1999
Georgia Institute of Technology
- MS, Mechanical Engineering, 1995
Florida State University
- BS, Mechanical Engineering, 1993

WORK EXPERIENCE
Georgia Institute of Technology
- Department Chair, Woodruff School of Mechanical Engineering, 2018- Present
- Associate Chair for Research, 2016-2018
- Professor, 2013-Present
- Courtesy Appointment, 2009-Present
  School Of Materials Science and Engineering
  Georgia Institute of Technology
- Associate Professor, 2008-2013
- Assistant Professor, Mechanical Engineering, 2003-2008
  George W. Woodruff School of Mechanical Engineering
  Georgia Institute of Technology
Oak Ridge National Laboratories
- Joint Appointment, 2009- Present
Sandia National Laboratories
- Senior Member of Technical Staff, 1999-2003

AREAS OF EXPERTISE
Heat transfer, thermal metrology; materials characterization; thermal management; RF electronics, flexible electronics; organic electronics, electronics packaging.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
ASME Fellow, Member of IEEE, MRS, AAAS, Member of the ESRF Advisory Board for Sandia National Laboratories, Defense Science Study Group (2014-2016), NSF Career Award, NAE Japan-US Frontiers of Engineering Symposium participant, NAE U.S. Frontiers of Engineering Symposium participant, SME M. Eugene Merchant Outstanding Young Manufacturing Engineer Award.
Dr. Jonathan E. Green  
Northrop Grumman Mission Systems

EDUCATION
California Institute of Technology  
Ph.D., Chemical Physics, 2007  
California Institute of Technology  
M.S., Applied Physics, 2005  
University of California Irvine  
B.S., Chemical Physics, 2002

WORK EXPERIENCE
Northrop Grumman  
NG Fellow & Sector Architect for Disruptive Innovation, Chief Scientist Office, 2019-Present  
NG Fellow & Product Architect for Communications and SIGINT, CTO Office, 2017-2018  
Head of Technology Strategy, Avionics and Tactical Networks, 2016-2017  
Chief Engineer, Avionics and Tactical Networks, 2013-2016  
Senior Systems Engineer, Advanced Systems and Products, 2009-2013  
Systems Engineer, Command and Control Systems, 2007-2008  
California Institute of Technology  
Undergraduate Research Fellow, Jet Propulsion Laboratory, 2001-2002  
United States Army CA National Guard  
Intelligence Sergeant, 40th Infantry Div, 1998-2001  
United States Army  
Airborne Fire-Team Leader, 82nd Airborne Div, 1995-1998

AREAS OF EXPERTISE
Digital wireless communications; military tactical communications; Low Probability of Detection communications; RF systems; multifunction systems; electronic warfare; signals intelligence; RF emitter geolocation; quantum communications; physics-based model and simulation; technology strategy; disruptive innovation.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
IEEE Communications Society; Northrop Grumman Fellow; Northrop Grumman Technical Fellow Emeritus; Northrop Grumman Corporate Technology Council.
Dr. Eric K. Hall  
The Aerospace Corporation

EDUCATION  
Georgia Institute of Technology  
Ph.D., Aerospace Engineering, 1991  
Georgia Institute of Technology  
M.S., Aerospace Engineering, 1989  
University of Delaware  
Bachelor of Mechanical Engineering, 1988

WORK EXPERIENCE  
The Aerospace Corporation  
General Manager, Vehicle Systems Division, 2015-Present  
Principal Director, Atlas V Operations, 2011-2015  
Principal Engineer, Atlas V Operations, 2008-2011  
Director, Structures Department, 2004-2008  
Associate Director, Structures Department, 2002-2004  
Manager, Space Structures Section, 2000-2002  
Engineering Specialist, Structural Technology Department, 1997-2000  
Member of Technical Staff, Structural Technology Department, 1991-1997

AREAS OF EXPERTISE  
Technical and personnel management; vehicle engineering; mission assurance; risk assessment; launch operations; independent review teams; design and development of launch and space vehicles; large-scale deployable space structures; opto-mechanical systems; lightweight and deployable optical systems; technology development; composite spacecraft; precision structures; finite element analysis; adaptive/smart structures; vibration isolation; structures; and structural dynamics.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS  
Sr. Member, AIAA.
Dr. Peter A. Hancock
University of Central Florida

EDUCATION
Loughborough University
   D.Sc., Human-Machine Systems, 2001
University of Illinois
   Ph.D., Human Performance, 1983
Loughborough University
   M.Sc., Human Biology, 1978
Loughborough University
   B.Ed., Education, 1976

WORK EXPERIENCE
University of Central Florida
   Provost Distinguished Research Professor, 2001-Present
   University Trustee Chair, 2012-Present
University of Minnesota
   Associate Professor, 1989-2001
University of Southern California
   Assistant Professor, 1983-1989

AREAS OF EXPERTISE
Human Factors; Ergonomics; Modelling & Simulation; Applied Psychology; Neuroergonomics; Fatigue; Human-Robot Teams; Stress; Cognitive Workload; Trust; Human-Machine Interaction; Time.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Aerospace Human Factors Association; Aerospace Medical Association; American Association for the Advancement of Science; American Psychological Association; American Society of Heating, Radiation and Air-Conditioning Engineers (Honorary Member); Association for Psychological Science; Augmented Cognition Society; Chartered Institute for Ergonomics - Human Factors (CIEHF); Human Factors and Ergonomics Society; Institute of Electrical and Electronics Engineers (IEEE); Institute of Industrial and Systems Engineers, (Honorary Member); International Academy of Aviation and Space Medicine; International Ergonomics Association; National Academy of Sciences, Committee on Neurosciences in the Army; National Research Council Committee on Interfaces for Ground and Air Military Robots; Psychologic Society; Royal Aeronautical Society; Society of Engineering Psychologists; Society for Human Performance in Extreme Environments.
Dr. Ryan K. Hersey  
Georgia Tech Research Institute

EDUCATION
Georgia Institute of Technology  
Ph.D., Electrical and Computer Engineering, 2004
Pennsylvania State University  
M.S., Engineering Mechanics, 2000
Pennsylvania State University  
B.S., Engineering Science, 1998

WORK EXPERIENCE
Georgia Institute of Technology, Georgia Tech Research Institute  
Chief, Intelligence, Surveillance, and Reconnaissance Division, 2016-Present
Head, Advanced Processing and Algorithms Branch, 2014-2016
Principal Research Engineer – 2014-Present
Senior Research Engineer, 2009-2014
Research Engineer II – 2004-2009
Georgia Institute of Technology, School of Electrical and Computer Engineering  
Graduate Research Assistant, 2000-2004
Pennsylvania State University, Department of Engineering Science and Mechanics  
Graduate Research Assistant, 1998-2000
Undergraduate Research Assistant, 1996-1998

AREAS OF EXPERTISE
Sensors; distributed sensing; autonomous sensing; signal processing; physics-based modeling and simulation; machine learning and intelligent systems; open-system architectures; real-time processing; radar; synthetic aperture radar (SAR); ground moving target indication (GMTI); electronic warfare; electronic protection; SIGINT; automatic target recognition; ultrasonic non-destructive evaluation; ISR; fire-control systems.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
IEEE AESS Fred Nathanson Memorial Radar Award (2016); Senior Member IEEE (2013); Best Paper Award Tri-Service Radar Symposium (2011); Best Paper Award Tri-Service Radar Symposium (2009); Best Student Paper Award IEEE Radar Conference (2002); President's Fellow, Georgia Institute of Technology (2000-2004); Dean's Fellow, Pennsylvania State University (1998-2000).
Dr. Juliana J. Hsu
Lawrence Livermore National Laboratory

EDUCATION
Massachusetts Institute Technology
  Ph.D., Physics, 1991
University of Hawaii at Manoa
  B.S., Physics, 1985
University of Hawaii at Manoa
  B.S., Mathematics, 1985

WORK EXPERIENCE
Lawrence Livermore National Laboratory
  Deputy Program Director, Weapon Physics and Design, 2016-Present
  Distinguished Member of Technical Staff Emeritus, 2016-Present
  Distinguished Member of Technical Staff, 2013-2015
  Lead Primary Designer, Joint W78/W88-1 Warhead Life Extension Program, 2010-2014
  Point of Contact for Primary Design, Advanced Certification Campaign, 2007-2015
  Lead Primary Designer, Reliable Replacement Warhead Program, 2005-2007
  Designer on the Primary Design Team, W80-3 Left Extension Program, 1999-2005

AREAS OF EXPERTISE
Nuclear Weapon Design; nuclear weapon physics; weapon systems design; high explosives; integrated experiments; simulation tools and application.
Dr. Eric K. Jones  
**Systems & Technology Research**

**EDUCATION**
Yale University  
Ph.D., Computer Science, 1992  
M.Phil., Computer Science, 1987  
M.S., Computer Science, 1986

University of Otago, New Zealand  
B.Sc. (Hons, 1st), Mathematics, 1984  
B.A., Geography, 1983

**WORK EXPERIENCE**
Systems & Technology Research, LLC  
Vice President, Analysis and Decision Systems, 2011-Present

BAE Systems, Inc.  
Technology Group Director, Analysis and Decision Systems, 2009-2011  
Division Manager, Intelligent Systems Division, 2004-2009

ALPHATECH, Inc.  
Division Manager, Intelligent Systems Division, 2004  
Associate Division Manager, Intelligence and Decision Systems Division, 2003-2004  
Director, Knowledge-Based Systems, 2000-2003  
Senior Member of the Technical Staff, 1997-2000

Victoria University of Wellington, New Zealand  
Assistant Professor, 1992-1996

**AREAS OF EXPERTISE**
Command and control; multi-intelligence exploitation; natural language processing and text analytics; machine learning; artificial intelligence; model-based design; modeling and simulation; software and systems engineering technologies.

**PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS**
Association of Computing Machinery (ACM); Association for the Advancement of Artificial Intelligence (AAAI); Institute of Electrical and Electronic Engineers (IEEE).
Dr. Ann R. Karagozian
University of California, Los Angeles

EDUCATION
California Institute of Technology
Ph.D., Mechanical Engineering, 1982
California Institute of Technology
M.S., Mechanical Engineering, 1979
University of California, Los Angeles
B.S., Engineering, 1978

WORK EXPERIENCE
University of California, Los Angeles
Distinguished Professor, Mechanical & Aerospace Engineering, 2016-Present
Interim Vice Chancellor for Research, 2016-2017
Professor, Mechanical & Aerospace Engineering, 1993-2016
Associate Professor, Mechanical & Aerospace Engineering, 1988-1993
Assistant Professor, Mechanical & Aerospace Engineering, 1982-1988
Institute for Defense Analyses
Member, Board of Trustees, 2011-Present
Mentor, Defense Science Study Group, 2014-Present
Member, Defense Science Study Group, 1994-1995
Sandia National Laboratories
Consultant, 2003-2005
Pacific-Sierra Research Corporation
Consultant, 1985-1987
RAND Corporation
Consultant, 1979-1983
Aerospace Corporation
Associate Member, Technical Staff, 1978
Hughes Aircraft Company
Engineering Intern, 1976-1978

AREAS OF EXPERTISE
Fluid mechanics; combustion; air-breathing and rocket propulsion; energy generation systems.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Member of the U.S. National Academy of Engineering; Fellow of the American Physical Society; Fellow of the American Institute of Aeronautics and Astronautics; Fellow of the American Society of Mechanical Engineers; Air Force Decoration for Exceptional Civilian Service (2010, 2001); UCLA Samuei and TRW Excellence in Teaching Awards; Phi Beta Kappa; Tau Beta Pi; Combustion Institute; Society for Industrial & Applied Mathematics.
Dr. Leo C. Kempel
Michigan State University
Vice Chair, S&T Reviews

EDUCATION
University of Michigan
  Ph.D., Electrical Engineering, 1994
University of Michigan
  M.S., Electrical Engineering, 1990
University of Cincinnati
  B.S., Electrical Engineering, 1989

WORK EXPERIENCE
Michigan State University
  Dean of Engineering, 2014-Present
  Acting Dean of Engineering, 2013-2014
  Associate Dean for Research, 2008-2013
  Associate Dean for Special Initiatives, 2006-2008
  Professor, Electrical and Computer Engineering, 2006
  Director, High Performance Computing Center, 2004-2006
  Associate Professor, Electrical and Computer Engineering, 2002-2006
  Assistant Professor, Electrical and Computer Engineering, 1998-2002
Air Force Research Laboratory
  IPA (50%), Sensors Directorate, WPAFB, OH, 2004-2008
Mission Research Corporation
  Senior Research Engineer, Valparaiso, FL, 1994-1998

AREAS OF EXPERTISE
Applied Electromagnetics; conformal apertures; computational electromagnetics; low observables; directed energy; modeling and simulations; materials for radio frequency applications.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Institute of Electrical and Electronics Engineers, Fellow; Applied Computational Electromagnetics Society, Fellow; Engineering Society of Detroit, Fellow.
Dr. Brian Michael Kent  
Applied Research Associates

EDUCATION
The Ohio State University  
Ph.D. Electromagnetics-Math Minor/Electrical Engineering, 1984
The Ohio State University  
M.S. RF Materials Metrology/Electrical Engineering, 1981
Michigan State University  
B.S. Microwaves-Antenna/Electrical Engineering, 1980

WORK EXPERIENCE
Applied Research Associates  
Chief Scientist, BRD Division, 2017-Present
Senior Scientist for EM/RF Sensing, ECD Division, 2014-2017
United States Air Force – Air Force Research Laboratory  
Chief Technology Officer, 2013-2014
Chief Scientist, Sensors Directorate, 2011-2013
Chief Technologist (Acting), 2010-2011
Chief Scientist, Sensors Directorate, 2008-2010
Senior Scientist, Low Observables and Electromagnetics, 2006-2008
Research Fellow, Shuttle Investigation/Return-to-Flight Co-assignment (NASA), 2003-2006
Research Fellow (Low Observables), 1994-2006
RF Research Engineer (Various Assignments), 1977-1994

AREAS OF EXPERTISE
Radio Frequency (RF) Systems; RF Sensing; RF Antennas/Measurements; RF signal processing; RF Emissions; RF device technologies; RF Space sensing; Low Observable (LO) measurements; LO diagnostics; LO Sensor integration; LO design; LO Education/Training; Radar detection; Radar imaging; Synthetic Aperture Radar; Dynamic aircraft radar measurements; rocket ascent debris radar; Passive/active Electronic Warfare (EW); Passive RF Emissions Measurements.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
OPM Distinguished Presidential Rank Award Finalist; Michigan State University College of Engineering Distinguished Alumni; IEEE International Distinguished Lecturer; OPM Meritorious Presidential Rank Award, ARA Associate (Highest ARA Technical Award), Fellow of the Antenna Measurement Technique Association (AMTA); Fellow, Institute of Electrical and Electronics Engineers (IEEE); Fellow of the Air Force Research Laboratory; NASA Space Flight Awareness Award; Past President (AMTA); Feature Editor (IEEE/APS Magazine); Technical Reviewer (IEEE Transactions on Antennas and Propagation), Adjunct Professor of Electrical Engineering (Michigan State University).
Dr. Tadayoshi Kohno  
*University of Washington*

**EDUCATION**  
University of California San Diego  
Ph.D., Computer Science, 2006  
University of California San Diego  
M.S., Computer Science, 2004  
University of Colorado  
B.S., Computer Science, 1999

**WORK EXPERIENCE**  
University of Washington  
Professor, Computer Science & Engineering, 2016-present  
Associate Professor, Computer Science & Engineering, 2011-2016  
Assistant Professor, Computer Science & Engineering, 2006-2011  
Microsoft  
Visiting Researcher, Microsoft Research, 2014-2014  
Cigital  
Cryptographer, Software Security Group, 2000-2001  
Counterpane Systems  
Cryptographer, Security Consultant Group, 1999-2000

**AREAS OF EXPERTISE**  
Computer security; computer privacy; cyber security; applied cryptography; cloud security; cyber-physical systems security; cyber security for emerging technologies; embedded systems security; mobile device security; usable security; threat modeling; web security.

**PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS**  
Inaugural Member, Forum on Cyber Resilience, The National Academies of Sciences, Engineering, and Medicine, 2014-present; Founding Member, IEEE Center for Security Design, 2014-present; Member, Defense Science Study Group, 2014-2015; Senior Member, Institute of Electrical and Electronics Engineers (IEEE), 2012-present; Steering Committee Member, USENIX Security Symposium, 2012-present; Steering Committee Member, Network and Distributed Systems Security Symposium, 2011-2014.
Mr. William (Glenn) Kuller  
Lockheed Martin

EDUCATION
Central Michigan University  
M.S., Management, 1988  
Defense Systems Management College - Program Manager, 1986  
USAF Test Pilot School - Flight Test Engineer, 1982  
University New Mexico  
M.S., Mechanical Engineering, 1981  
University of Utah  
B.S., Mechanical Engineering, 1976

WORK EXPERIENCE
Lockheed Martin - Missiles and Fire Control  
VP, Advanced / Special Programs, 2012-Present  
Advanced Program, 2005-2012  
Program Manager, Classified Program, 2003-2005  
Director, JASSM Development, 2000-2003  
Hughes / Raytheon Missile Systems  
Director, Air-Launched Strike, 1996-2000  
Program Manager, AMRAAM (AIM-120B P31), 1994-1996 USAF  
Multiple, 1972-1995  
Director, F-117A Development System Program Office 1991-1994  
Strategic Air Command, Officer - Airborne Reconnaissance - 1987-1990  
Flight Test Engineer - Eglin AFB -1983-1986  
Airman — 1972-1976

AREAS OF EXPERTISE
Acquisition; Flight Test; Special Access Programs; Advanced Technology; Aircraft; Air Vehicles; Autonomy; Signature Management; Directed Energy, Systems Engineering; Conventional Weapons Technology / Missiles; Sensors; Cyber; Satellites / Spacecraft; Modeling and Simulation / Operational Analysis.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Air Force Association; Association of the United Army; Surface Navy Association; AIM (Assoc Fellow pending); Lockheed Martin Management Club.
Gen Lester L. Lyles, USAF (Ret)
General Dynamics Corporation

EDUCATION
Urbana University
Honorary Doctorate of Law, 2009
New Mexico State University
Honorary Doctorate of Law, 2002
National War College
Master’s Degree, 1985
Air Force Institute of Technology
M.S., 1981
Armed Forces Staff College
Master’s Degree, 1981
Defense Systems Management College
Master’s Degree, 1980
New Mexico State University
M.S., Mechanical Engineering, 1969
Howard University
Bachelor’s Degree, Mechanical Engineering, 1968

WORK EXPERIENCE
General Dynamics Corporation
Director, Member of Nominating & Corporate Governance Committee and Member of Audit Committee, 2003-Present
BAE Systems Science & Technology, Inc.
Director, 2003-Present
DPL, Inc.
Director, Vice Chairman of Nominating & Corporate Governance Committee 2004-Present
Member of Compensation Committee & Director of the Dayton Power & Light Company 2004-Present
United Services Automobile Association
Chairman, 2004-Present

AREAS OF EXPERTISE
Aircraft, air vehicles, and air platforms; Air breathing propulsion.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Air Force Scientific Advisory Board.
Dr. Kevin C. Massey
Leidos

EDUCATION
Georgia Institute of Technology
   Ph.D., Aerospace Engineering, 1997
Georgia Institute of Technology
   M.S., Aerospace Engineering, 1994
Georgia Institute of Technology
   B.S., Aerospace Engineering, 1992

WORK EXPERIENCE
Leidos
   Senior Supervisory Engineer, Hypersonics and High Speed Weapons, Leidos Innovation Center, 2018-Present
Raytheon
   Director Science and Technology, US Business Development, 2016-2018
Defense Advanced Research Projects Agency (DARPA)
   Program Manager, Tactical Technology Office, 2013-2016
RMIT University
   Department Head for Aerospace and Aviation, School of Engineering, 2011-2013
Georgia Tech Research Institute
   Senior Research Engineer, Aerospace, Transportation and Advanced Systems Lab, 2001-2011

AREAS OF EXPERTISE
Guided Projectiles; Smart Projectiles; Hypersonics; Lethality; Survivability; 6-DOF Simulation; Wind Tunnel Testing; Jet Noise; Aeroacoustics; Propeller Noise; Vibration; Flight Test; Signal Processing; Low Observables; Ground Vehicle Performance; Blast Testing; Systems Engineering; Jet Propulsion; Rocket Propulsion; Small Space; Ballistics; Flapping Wing Flight; Systems of Systems; IEDs, Rocket, Artillery and Mortars; Automobile Noise, Air Intake Systems; Flux Capacitors.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Mr. Thomas E. McNeil  
George Research Tech Institute (GTRI)

EDUCATION
Air Force Institute of Technology  
M.S., Engineering Physics 1986
Georgia Institute of Technology  
B.S., Applied Physics 1982

WORK EXPERIENCE
Georgia Institute of Technology, Georgia Tech Research Institute  
Associate Director, Advanced Concepts Laboratory, 2018-Present  
Division Chief, Signals and Systems, Advanced Concepts Laboratory 2013-2018  
Principal Research Scientist, Signatures Technology Laboratory, 2010-2013
CommScope, Inc.  
Director, Federal Programs, 2004-2010
OFS-Fitel  
General Manager, Federal Systems, 2003-2004  
Senior Manager, Customer Support Engineering, 2002-2003
Lucent Technologies  
Senior Manager, Applications Engineering and Marketing, Network Products, 2000-2002  
Senior Manager, Enterprise Networks Offer Management, Network Products, 1998-2000  
Manager, Enterprise Networks Optical Offers, Network Systems, 1997-1998  
Member of Technical Staff, Bell Laboratories, 1996-1997
Molex Fiber Optics  
Regional Fiber Optic Sales Manager & Applications Engineer, 1995-1996
Computer Communications Specialists, Inc.  
Senior Account Executive, 1994-1995
United States Air Force  
Assistant Professor of Physics and Course Director, US Air Force Academy, 1987-1989  
Graduate Student, Air Force Institute of Technology, 1985-1986  
Combat Survivability Design Engineer, Aeronautical Systems Division, 1982-1985

AREAS OF EXPERTISE
Modeling, Simulation and Analysis; Electronic Warfare; Information Operations; RF Systems; EO/IR Systems; Threat Systems Projection; Operational Analysis; Multi-Domain Operations; Advanced Kill-Chains; 5th and 6th Generation Capabilities; Systems Acquisition.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Institute of Electrical and Electronics Engineers (IEEE), Air Force Association (AFA), Association of Old Crows (AOC), Military Officers Association of America (MOAA).
Dr. Todd D. Murphey  
Northwestern University

EDUCATION  
California Institute of Technology  
Ph.D., Control and Dynamical Systems, 2002  
University of Arizona  
B.S., Mathematics, 1997

WORK EXPERIENCE  
Northwestern University  
Professor, Mechanical Engineering, 2017-Present  
Associate Professor, Mechanical Engineering, 2011-2017  
Assistant Professor, Mechanical Engineering, 2009-2011  
University of Colorado  
Assistant Professor, Electrical and Computer Engineering, 2004-2008  
Aerospace Corporation  
Senior Technical Staff, Control Systems, 2003-2004

AREAS OF EXPERTISE  
Robotics; automation; autonomy; control systems; human-in-the-loop systems; assistive and rehabilitative devices; machine learning.

PROFESSIONAL/SCIENTIFIC/HONORARY AFFILIATIONS  
IEEE; ASME; AAAS.
Dr. Kenneth R. Olson  
The Johns Hopkins Applied Physics Laboratory

EDUCATION
University of Wisconsin
   Ph.D. Dissertation: Time Dependent Neutral Particle Transport, 1999
   M.S., Nuclear Engineering and Engineering Physics, 1996
   B.S., Nuclear Engineering and Engineering Physics, 1994

WORK EXPERIENCE
Johns Hopkins University Applied Physics Laboratory
   Program Manager: OSD/CAPE TACAIR Red Team, 2014-Present
   Principle Analyst, IADS-CCT USAF ACC/A8Z, 2012-Present
   Chief Analyst, OSD/CAPE TACAIR Red Team, 2008-2014
   Modeling Lead, USN PMA-234 JATO modeling and simulation, 2008-2011
   Principle Analyst, AFRL investigation of novel electronic attack systems, 2008-Present
   Modeling SME, USN Naval CONEMPs / HICAP working group 2008-Present
   Principle Analyst, USN Next Generation Jammer, 2009-Present
Massachusetts Institute of Technology, Lincoln Laboratory
   Staff, MIT Rapid Capabilities Office Red Team, 1999-2007
   Analyst, USAF Red Team, Operation Allied Force after-action study, 1999-2003

AREAS OF EXPERTISE
Survivability of legacy and advanced aircraft and weapons in an A2AD environment; Effectiveness of current and future electronic attack and protection; High fidelity engagement / mission level modeling effectiveness and optimization; Capabilities and limitations of ISR and reconnaissance systems; Vulnerability of PGM to threats; Capabilities and CONOPS of potential threat systems.

PROFESSIONAL/SCIENTIFIC/HONORARY AFFILIATIONS
Association of Old Crows, American Nuclear Society.
Dr. Alfred Anthony (Tony) Pandiscio
Raytheon Company

EDUCATION
University of Massachusetts Amherst
  B.S., Control Systems/Electrical Engineering, 1983
Harvard University
  M.S., Control Systems/Applied Mathematics, 1986
University of Massachusetts Amherst
  B.S., Control Systems/Electrical Engineering, 1983
Brown University
  Ph.D., Control Systems/Electrical Engineering, 1994
  M.S., Control Systems/Electrical Engineering, 1994

WORK EXPERIENCE
Raytheon Company
  Technical Director, Systems Technology, Corporate, 2012-Present

AREAS OF EXPERTISE
Control Systems; Missile Guidance Navigation & Control; Sensor Netting; Operations Analysis;
  Estimation Theory; Air Defense Systems; Modeling & Simulation; Systems Engineering.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Member, IEEE; Past chairman of the Boston Chapter IEEE Control Systems Society.
Dr. Patric L. Patterson
Utah State University

EDUCATION
Utah State University
- Ph.D., Space Systems/Electrical Engineering, 2005
- M.S., Electrical Engineering, 1990
- B.S., Electrical Engineering, 1989

WORK EXPERIENCE
Space Dynamics Laboratory, Utah State University
- Director, Advanced Concepts, 2015-Present
- Director, Military Space & Technology Innovation, 1998-2015
- Sensor Systems Engineer, 1997-1998
- Experiment Director, U.S.A.F. Phillips Laboratory, 1993-1997
- Electrical Engineer, 1992-1993
Utah State University Research Foundation
- Chairman, AIAA/USU Conference on Small Satellites, 2000-present
Utah State University/Electrical and Computer Engineering Department
- Adjunct Assistant Professor, 2008-present
Utah State University
- Program Coordinator, NASA Affiliated Research Center, 1998-1999
- Chief of Staff, Rocky Mountain Space Grant Consortium, 1992-1993
Honeywell Inc.
- Systems Engineer, 1990-1992

AREAS OF EXPERTISE
Space Systems; Small Satellite Technologies; Space Situational Awareness; Rendezvous and Proximity Operations; Laser Operations; Controls; Astrodynamics; EO/IR Sensors.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
- Chairman, AIAA/USU Conference on Small Satellites (2000-Present); Technical Committee Member, European Space Agency Small Satellites Systems and Services Conference (2008-Present); Scientific Program Committee Member, International Academy of Astronautics, Small Satellites for Earth Observation Symposium (2009-Present); Advisory Board Member, Electrical and Computer Engineering Department, Utah State University (2009-Present); Senior Member, International Academy of Astronautics, (2001-Present); Committee Member, AIAA Small Satellite Technical Committee (2015-Present); Council of Institutions Member, Universities Space Research Association (2009-2014); Committee Member, AIAA Space Systems Technical Committee Member (2002-2005).
Dr. Alan J. Pue
John Hopkins Applied Physics Laboratory

EDUCATION
University of Maryland
  Ph.D., Electrical Engineering, 1981
Cornell University
  M.Eng., Electrical Engineering, 1974
Cornell University
  B.S., Electrical Engineering, 1973

WORK EXPERIENCE
John Hopkins Applied Physics Laboratory
  Sector Chief Scientist, Air and Missile Defense Sector, 2010-Present
  Director, Interceptor Knowledge Center, Missile Defense Agency, 2008-2010
  Supervisor, Guidance Navigation and Control Group, Air and Missile Defense Department, 2000-2008
  Assistant Supervisor, Guidance and Navigation Group, Power Projection Department, 1996-2000
  Assistant Supervisor, Missile Guidance, Control, and Navigation Group, Fleet Systems Department, 1994-1996
  Section Supervisor, Navigation System Analysis Section, Missile Guidance, Control, and Navigation Group, Fleet Systems Department, 1987-1994
  Assistant Section Supervisor, Inertial and Pointing Systems Section, Missile Guidance, Control, and Navigation Group, Fleet Systems Department, 1981-1987
  Staff Member, Dynamics Analysis, Fleet Systems Department, 1974-1981

AREAS OF EXPERTISE
System Engineering; Weapon System Concept Development; Requirements Development; Missile Flight Test and Evaluation; Weapon System Performance Analysis; Guidance, Navigation, and Control System Design and Analysis.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
AIAA.
Dr. Helen L. Reed
Texas A&M University

EDUCATION
Virginia Tech
   Ph.D., Engineering Mechanics, 1981
Virginia Tech
   M.S., Engineering Mechanics, 1980
Goucher College
   A.B., Mathematics, 1977

WORK EXPERIENCE
Texas A&M University
   Edward “Pete” Aldridge `60 Professorship, Aerospace Engineering, 2014-present
   Regents Professor (in perpetuity), 2013/14-present
   Presidential Professor for Teaching Excellence (in perpetuity), 2013-present
   Department Head, Aerospace Engineering, 2004-2008
   Professor, Aerospace Engineering, 2004-present
Chandah Space Technologies
   Co-Founder, Chief Technology Officer, Board of Directors, 2012-present
Arizona State University
   Professor, Mechanical & Aerospace Engineering, 1992-2004
   Associate Professor, Mechanical & Aerospace Engineering, 1985-1992
   Director, Aerospace Research Center, College of Engineering & Applied Sciences, 1993-1996
Tohoku University, Sendai, Japan
   Associate Professor, Institute of Fluid Sciences, 1991-1992
Stanford University
   Assistant Professor, Mechanical Engineering, 1982-1985
NASA Langley Research Center
   Aerospace Technologist, 1977-1978
   Mathematics Aid, 1976

AREAS OF EXPERTISE
Boundary-layer laminar-to-turbulent transition, aerothermodynamics, flow control – low speed to hypersonic; energy efficient aircraft; quiet supersonic platform; computational fluid dynamics; small-satellite design/operations; on-orbit rendezvous/proximity operations; space situational awareness.

PROFESSIONAL/SCIENTIFIC/HONORARY AFFILIATIONS
Dr. William C. Regli
The University of Maryland

EDUCATION
The University of Maryland
Ph.D., Computer Science, 1995
The University of Maryland
M.S., Computer Science, 1994
Saint Joseph’s University
B.S., Mathematics, 1989

WORK EXPERIENCE
The University of Maryland at College Park
Director, Applied Research Laboratory for Intelligence and Security, 2018-Present
Director, Institute for Systems Research, 2018-2019
Professor, Department of Computer Science, 2018-Present
Defense Advanced Research Projects Agency (DARPA), United States Department of Defense
Special Assistant, Office of the Director, 2017
Acting Director, Defense Sciences Office, 2017
Deputy Director, Defense Sciences Office, 2014-2017
United States Department of Energy
Scientific Adviser, Office of Stockpile Services, 2010-2014; 2018-Present
Drakontas LLC
Founder and Scientific Adviser, 2003-Present.
Drexel University
Associate Dean for Research, College of Computing and Informatics, 2010-2014
Director, Applied Communications & Information Networking Institute, 2008-2010
Deputy Director, Applied Communications & Information Networking Institute, 2003-2008
Assistant, Associate and Full Professor of Computer Science, 1997-2014

AREAS OF EXPERTISE
Artificial Intelligence and Autonomy; Graphics, Modeling and Simulation; Engineering Design and Manufacturing; Military and wireless communications networks; Data-driven methods for science and engineering.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
IEEE (Fellow 2017); ACM (Senior Member); AAAI (Senior Member); AAAS.
Mr. David W. Robbins  
Leidos

EDUCATION
Rensselaer Polytechnic Institute
  M. Eng., Electrical Engineering, 1977
Rensselaer Polytechnic Institute
  B.S., Electrical Engineering, 1976

WORK EXPERIENCE
Leidos
  Sr. Vice President and Director, Leidos Innovations Center, 2019-Present
  Sr. Vice President and Manager, Sensors and Phenomenology Operation, 2014 –2018
  Vice President and Manager, Sensor Technology Division, 2005–2013
  Vice President and Deputy Division Manager, Sensor Design Division, 1997–2005
PAR Government Systems
  Vice President/San Diego Technology Center Manager, 1987–1997
  Section Manager/Program Manager, 1977–1987

AREAS OF EXPERTISE
Space-based EO/IR sensing; satellite technology, IR search and track systems; radar, electronic warfare; signature control; unattended ground sensing; directed energy; portable radiography systems; DNA-based human ID; bio threat detection.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Institute of Electrical and Electronic Engineers, American Association for the Advancement of Science, Association of Old Crows, Air Force Association, Association for Unmanned Vehicle Systems International.
Dr. Kevin J. Saeger  
Los Alamos National Laboratory

EDUCATION
Massachusetts Institute of Technology  
Ph.D., Aeronautics and Astronautics, 1989  
Massachusetts Institute of Technology  
M.S., Aeronautics and Astronautics, 1986  
Tri-State University  
B.S., Aerospace Engineering, 1984

WORK EXPERIENCE
Los Alamos National Laboratory  
Division Leader, Intelligence and Space Research, 2010-Present  
Group Leader, Decision Applications Division, 2005-2010  
Various, Decision Applications Division, 2001-2005  
Office of the Secretary of Defense/Program Analysis and Evaluation  
Director (SES), Planning and Analytical Support, 1997-2001  
Director (GS-15), Simulation and Analysis Center, 1996-1997  
Analyst, Land Forces Division, 1995-1996  
Institute for Defense Analyses  
Staff Member, System Evaluation Division, 1989-1996

AREAS OF EXPERTISE
Space Systems; Survivability; Remote Sensing; Modeling and Simulation; Weapons Effects; Structural Mechanics; Materials; C4ISR; Optimization; Nuclear Detection; Operations Research; Systems Analysis; Space Situational Awareness.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Associate Editor, Military Operations Research Journal.
Dr. Lara S. Schmidt  
RAND Corporation

EDUCATION
The American University
  Ph.D., Mathematical Statistics, 2001
West Virginia University
  M.S., Mathematics, 1993
Shepherd College
  B.S., Mathematics, 1991

WORK EXPERIENCE
The Aerospace Corporation
  Principal Director, Strategic and Global Awareness Directorate, 2019-present
RAND Corporation
  Director, RAND Homeland Security Operational Analysis Center FFRDC, Strategy, Policy and Operations Program, 2016-Present
  Associate Director, RAND Project AIR FORCE FFRDC, 2011-2016
  Associate Director, Force Modernization and Employment, 2010-2011
  Senior Statistician, 2003-Present
U.S. Naval Observatory
  Mathematician, 1995-2003

AREAS OF EXPERTISE
Intelligence analysis and threats to national security space systems. Policy and technology analysis to include the following areas: offensive and defensive cyberspace operations; risk analysis; operational employment of technology and effects on warfighting operations; methodological approaches to policy analysis; cyber-manpower analyses; space and satellite systems; atomic timekeeping; GPS and navigation; cybersecurity of industrial control systems; cyber effects estimation; quality assurance; weapon system acquisition; requirements analysis; cyber testing; cybersecurity practices; cyber operations planning.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Member, American Statistical Association. Board of Advisors, Harvard Data Science Review.
Dr. Gregory E. Shannon
Carnegie Mellon University

EDUCATION
Harvard University
Certificate, National International Security Policy for Senior Executives 2012
Purdue University
Ph.D., Computer Sciences, Purdue University, 1988
Iowa State University
B.S, Computer Science, Iowa State University, 1982

WORK EXPERIENCE
Carnegie Mellon University
Chief Scientist, CERT Division, 2010-Present
Science Applications International Corp. (SAIC)
Chief Scientist, Cyber Security, Science Engineering and Technology Corporation, 2008-2010
CounterStorm, Inc.,
Chief Scientist, New York, NY, 2003-2008
Lucent Technologies, Inc.
Manager, Technology and Business Strategist, Columbus, OH, 1997-2003
Spanning Tree Technologies, Inc.
Founder and Chief Scientist, Ames, IA, 1994-1997
Indiana University
Assistant Professor, Bloomington, IN, 1988-1995

AREAS OF EXPERTISE
Cybersecurity, resilience, artificial intelligence, software, and science of security.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
IEEE, Senior Member; Association of Computing Machinery, Member; Women in Cyber Security (WiCyS) Conference, Steering Committee Member.
Mr. Gregory J. Simer  
Northrop Grumman Mission Systems

EDUCATION
Johns Hopkins University  
M.S., Electro-Optical Engineering, 2001  
Virginia Tech  
B.S., Electrical Engineering, 1999

WORK EXPERIENCE
Northrop Grumman  
Director, Air Dominance, 2017-Present  
Director, Advanced EO/IR Systems, 2014-2017  
Program Manager, EO/IR & Distributed Systems, 2007-2014  
Senior Systems Engineer, 2003-2007  
Independent Consultant 2002-2004  
University of Maryland  
Research Scientist, Army Research Lab, 2003  
Yafo Networks  
Systems Engineer, 2000-2002  
Gould Fiber Optics  
Engineer, 1995-2000

AREAS OF EXPERTISE
EO/IR Systems; Infrared Search and Track, Laser Radar; Fiber Optics; Lasers; Focal Plane Arrays, Optical Windows; Airborne System Integration; Flight Test; Low Observable Technologies; Radar, Optical Communication systems; ISR; Fire-control; Tracking and ID.
Dr. Katherine M. Simonson  
Sandia National Laboratories

EDUCATION
Princeton University  
Ph.D., Statistics, 1989  
Princeton University  
M.A., Statistics, 1986  
Middlebury College  
B.A., Mathematics, 1984

WORK EXPERIENCE
Sandia National Laboratories
- Senior Scientist, Systems Mission Engineering, 2015-present  
- Distinguished Member of Technical Staff, Data Analysis & Exploitation, 2002-2015  
- Principal Member of Technical Staff, Sensor Exploitation Applications, 1995-2002  
- Senior Member of Technical Staff, Statistics & Human Factors, 1989-1995

AREAS OF EXPERTISE
Statistics; Data Analytics; Automatic Target Recognition; Synthetic Aperture Radar; Image Processing;  
Intelligence, Surveillance and Reconnaissance.

PROFESSIONAL / SCIENTIFIC/HONORARY AFFILIATIONS
Association for Women in Mathematics; Automatic Target Recognizer Working Group; Phi Beta Kappa.
Dr. Annette L. Sobel
Texas Tech University Health Sciences Center

EDUCATION
Wright State University
M.S., Aerospace Medicine/Human Factors Engineering, 1992
Duke University
Family Medicine Residency, 1986
Case Western Reserve School of Medicine
M.D., Medicine, 1983
Rutgers University
B.S., Biochemistry/Computer Science, 1979

WORK EXPERIENCE
Texas Tech University Health Sciences Center
Associate Professor, Medical Education, 2013-present
Adjunct Professor
Electrical and Computer Engineering, 2013-present
University of Missouri
Assistant to the Provost for Strategic Opportunities, 2008-2013
Sandia National Laboratories
Distinguished Member of the Technical Staff, 1992-2008

AREAS OF EXPERTISE
Aerospace Medicine; Human Factors Engineering; Virtual Reality/Augmented Reality; Simulation; Informatics; Disease Surveillance; Intelligence Fusion; CBRNE; Homeland Defense and Security; Humanitarian Assistance/Disaster Response; Automatic Target Recognition; One Health.

PROFESSIONAL/SCIENTIFIC/HONORARY AFFILIATIONS
Fellow, Aerospace Medical Association; Fellow, American Academy of Family Physicians; USGIF; IEEE; Association of Military Surgeons; Association of Old Crows; Human Factors and Ergonomics Society; AFCEA International.
Dr. Lindley T. Specht
Raytheon

EDUCATION
University of Illinois at Urbana-Champaign
Ph.D., Electrical Engineering, 1981
University of Illinois at Urbana-Champaign
M.S., Electrical Engineering, 1978
University of Florida
B.S., Chemistry, 1974

WORK EXPERIENCE
Raytheon
Subject Matter Expert, RayTech, 2015-Present
Senior Principal Engineering Fellow, Integrated Defense Systems, 2009-2014
Engineering Fellow, Raytheon Electronic Systems, 1999-2003
Manager/Lead Scientist, Raytheon Systems Company, 1998-1999
Manager/Principal Engineer, Raytheon Electronic Systems, 1995-1998
Manager/Principal Scientist, Corporate Research Division, 1989-1995
Senior Scientist, Corporate Research Division, 1981-1989

AREAS OF EXPERTISE
Electro-Optics; Infrared Focal Plane Arrays; Lasers including HEL/DEW; Advanced Materials and Material/Chemical Science; MEMS, Nanotechnology; RF Devices, Semiconductor Materials and Device Fabrication; IC Design; Computer Systems; Signature Management; Sensor Systems; System Design and Analysis; Emerging Technology Development; Commercial Technology Applications.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
IEEE; ACS; ARRL.
Dr. Stefanie Tompkins
Colorado School of Mines

EDUCATION
Brown University,
   Ph.D, Geological Sciences, 1997
Brown University
   M.Sc., Geological Sciences, 1993
Princeton University
   B.A., Geological and Geophysical Sciences, 1987

WORK EXPERIENCE
Colorado School of Mines
   Vice President for Research and Technology Transfer, 2018-Present
X (formerly Google X)
   Advisor to X, 2018-present
Defense Advanced Research Projects Agency (DARPA)
   Acting Deputy Director, 2017-2018
   Director, Defense Sciences Office, 2014-2017
   Chief of Staff, 2013-2014
   Deputy Director, Strategic Technology Office, 2012-2013
   Program Manager, 2007-2012
Science Applications International Corporation
   Deputy Operations Manager, Reconnaissance and Surveillance Operation, 2006-2007
   Division Manager, Advanced Technology Applications Division, 2003-2006
   Senior Staff Scientist, 1996-2003
SETS Technology, Inc.
   Associate Scientist, 1993-1996
U.S. Army (Military Intelligence)
   Commissioned Officer, 1987-1991

AREAS OF EXPERTISE
Reflectance spectroscopy; imaging spectroscopy (hyperspectral imaging) and remote sensing; positioning, navigation, and timing; geology and detection of underground structures.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Member, Sigma Xi.
Dr. Vyshnavi Suntharalingam  
MIT Lincoln Laboratory

EDUCATION
Pennsylvania State University  
Ph.D., Engineering Science and Mechanics, 1996
Yale University  
B.S., Electrical Engineering, 1989

WORK EXPERIENCE
MIT Lincoln Laboratory  
Senior Staff, Space Systems & Technology, 2014-Present
Group Leader, Advanced Imaging and Silicon Technology, 2010-2014
Senior Staff, Advanced Imaging Technology, 2005-2010
Assistant Group Leader, Advanced Silicon Technology, 2000-2005
Technical Staff, Advanced Technology, 1996-2000

AREAS OF EXPERTISE
EO/IR components, sensors, systems; advanced materials and materials science; microelectronics; satellites and space system technologies; manufacturing technologies; RF components and sensors.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Mr. Lee A. Venturino  
First Principles Inc.

EDUCATION
California State University, Fullerton  
M.S., Communications, Electrical Engineering, 1991  
Pennsylvania State University  
B.S., Electrical Engineering, 1987

WORK EXPERIENCE
First Principles Incorporated  
President and CEO, Founder, 2004-Present
Dynamic Analytics and Test  
President and Co-Founder, 1999-2004
USAFR  
Program Subject Matter Expert, SAF/AQL, 1999-2007
USAF  
Branch Chief, Advanced Strike Technologies, SAF/AQLR 1996-1999  
Test Program Manager, Det 3, 1992-1996  
Advanced Technology Program Manager, Ballistic Missile Office, 1988-1992

AREAS OF EXPERTISE
Aircraft survivability, Aircraft Lethality, Electronic Warfare, Electronic Protection, Low Observables, Countermeasures, Towed Decoys, Ballistic Missiles, Satellite survivability.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Dr. Steve Warner  
Institute for Defense Analyses

EDUCATION
Massachusetts Institute of Technology  
Ph.D., Inorganic Chemistry, 1986  
State University of New York, Stony Brook  
B.S., Chemistry/Minor Mathematics, 1982

WORK EXPERIENCE
Institute for Defense Analyses  
Director, System Evaluation Division, 2008-Present  
Assistant Director, System Evaluation Division, 2005-2008  
Research Staff Member, Operational Evaluation Division, 1986-2005  
Massachusetts Institute of Technology  
Research and Teaching Assistant, Chemistry Department, 1982-1986

AREAS OF EXPERTISE
Assessments of Weapon System Performance (missiles, sensors, torpedoes, countermeasures); Mission- and Force-Level Modeling and Simulation; Test and Evaluation of Military Systems; Evaluation of Tools for Predicting Atmospheric Transport and Dispersion (chemical-biological agent defense, nuclear effects, hazardous materials), Electronic Warfare (counter-improved explosive device and air warfare); Evaluation of Undersea and Antisubmarine Systems; Operational Assessment of Counterdrug Operations and Coast Guard Law Enforcement Activities.
Dr. Peter M. Wegner  
Spaceflight Industries

EDUCATION
University of Wyoming  
   Ph.D., Composite Materials/Mechanical Engineering, 1999
Stanford University  
   M.S., Aerospace Engineering, 1993
University of Arizona  
   B.S., Aerospace Engineering, 1992

WORK EXPERIENCE
Spaceflight Industries  
   Chief Technology Officer, 2014-Present
USU/Space Dynamics Laboratory  
   Director of Advanced Concepts, 2012-2014
USAF  
   Director of Operationally Responsive Space Office, 2008-2012
   Air Force Research Laboratory, 1993-2007

AREAS OF EXPERTISE
Satellites; Rockets; Remote Sensing; Ground Systems; Data Analytics; Cloud Processing.

PROFESSIONAL / SCIENTIFIC / HONORARY AFFILIATIONS
Associate Fellow AIAA; USAF Harold Brown Award; Rotary NASA Award.
Mr. Alan R. Wiechman
Eagle Aerie Inc.

EDUCATION
California Polytechnic State University
B.S., Electrical Engineering, 1972

WORK EXPERIENCE
Eagle Aerie Inc.
Chief Technology Officer, 2014-Present
Contractor for MTSI, 2015-Present
Contractor for MIT/LL, 2015-Present

Boeing
Vice President Special Technology Integration, 2009-2014
Vice President Advance Combat Systems, 2004-2006
Division Director, Special Assignment, 2000-2004
Director Proprietary Professional Grounds Managements, 1985-2000
Deposition Technology, Brunswick, 1985-1985
LO Section Chief, McDonnell Douglas 1981-1985
LO Engineer, Lockheed Skunks Works 1977-1981
Electronic Engineer, Vitro Labs, Naval Upgrades 1971-1977

AREAS OF EXPERTISE

PROFESSIONAL/ SCIENTIFIC/ HONORARY AFFILIATIONS
AIAA, Aerospace Design Award; National Defense Industrial Association Combat Survivability Award, Tech Achievement; Pioneer of Stealth Award; Tulare Western High School (First Ever Wall of Fame); College of Sequoias (Hall of Fame).
Dr. Yadunath B. Zambre  
Lockheed Martin

EDUCATION
Stanford University  
Ph.D., Applied Physics, 1987  
Yale University  
M.S., Engineering and Applied Science, 1979  
Yale University  
B.S., Engineering and Applied Science, 1979

WORK EXPERIENCE
Lockheed Martin  
Director & Chief Technologist, New Ventures, 2018- Present  
Chief Scientist, Advanced Technology Center, Space Systems, 2012-2017  
Chief Scientist, Information Systems and Global Services, Defense Engineering, 2009-2012  
Senior Fellow, 2011-Present  
Fellow, Information Systems and Global Services, 2008-2011  
Principal Engineer, Information Systems and Global Services, 2005-2008

UTtrue, Inc.  
Chief Technology Officer, 2003-2005

R.B. Webber & Company  
Principal, 2002-2003

Atomic Tangerine  
Chief Technology Officer, 2000-2002

Stanford Research Institute  
Principal Consultant, SRI Consulting, 1997-2000  

AREAS OF EXPERTISE
Cyber security; communications; networking; systems architecture; space systems; business models; technology incubation; technology commercialization.

PROFESSIONAL/SCIENTIFIC/HONORARY AFFILIATIONS
Member, IEEE.
Section 3: Air Staff and Secretariat Biographies
lt Gen Duke Z. Richardson
SAB Military Director

Lt. Gen. Duke Z. Richardson is the Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition, Technology, and Logistics, the Pentagon, Arlington, Virginia. He is responsible for research and development, test, production, product support, and modernization of Air Force programs worth more than $60 billion annually.

Gen. Richardson enlisted in the Air Force in 1983 as an avionics technician, and later received his commission via Officer Training School. In addition to four Program Executive Officer leadership tours, Gen. Richardson has held a breadth of materiel-related assignments within Program Offices, the Air Force Research Laboratory, Headquarters Air Force Life Cycle Management Center, Headquarters Air Force Materiel Command, Headquarters Air Force, U.S. Special Operations Command and the Office of the Secretary of Defense.

In his previous assignment, he was the Air Force Program Executive Officer for Presidential & Executive Airlift, where he oversaw the planning and execution of all life cycle activities for programs including the Air Force One recapitalization, current Air Force One, C-12, C-21, C-32, C-37, C-40 and E-4B.

EDUCATION
1989 Bachelor of Science, Electrical Engineering, Arizona State University, Tempe
1993 Master of Science, Electrical Engineering, University of New Mexico, Albuquerque
1997 Squadron Officer School, Maxwell Air Force Base, Ala.
2001 Air Command and Staff College, Maxwell AFB, Ala.
2006 Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.
2006 Senior Acquisition Course, Fort Lesley J. McNair, Washington, D.C.
2012 Executive Program Manager’s Course, Fort Belvoir, Va.
2016 Advanced Senior Leader Development Program, Warrenton, Va.

ASSIGNMENTS
2. October 1989 - May 1993, Space Electronics Engineer, Air Force Research Laboratory (formerly Phillips Laboratory and Weapons Laboratory), Kirtland AFB, N.M.
5. July 1997 - June 1999, F-15 Suite 4 Program Manager, F-15 System Program Office, Wright-Patterson AFB, Ohio
6. July 1999 - July 2000, Designated Acquisition Commander Staff Officer, Aeronautical Systems Center, Wright-Patterson AFB, Ohio
16. August 2012 - September 2013, Vice Commander, Air Force Life Cycle Management Center, Wright-Patterson AFB, Ohio
17. September 2013 - September 2014, Director, Logistics and Sustainment, Headquarters Air Force Materiel Command, Wright-Patterson AFB, Ohio
20. September 2018 - June 2019, Air Force Program Executive Officer for Presidential & Executive Airlift, PE Directorate, Air Force Life Cycle Management Center, Wright-Patterson AFB, Ohio

MAJOR AWARDS AND DECORATIONS
Defense Superior Service Medal
Legion of Merit with oak leaf cluster
Meritorious Service Medal with five oak leaf clusters
Air Force Commendation Medal
Air Force Achievement Medal

OTHER ACHIEVEMENTS
1991 Weapons Laboratory Young Scientist/Engineer of the Year
1995 Outstanding Academy Educator, Department of Mathematical Sciences
1997 Distinguished Graduate, Squadron Officer School
2001 Distinguished Graduate, Air Command and Staff College
2006 Distinguished Graduate, Industrial College of the Armed Forces

EFFECTIVE DATES OF PROMOTION
Second Lieutenant Sept. 28, 1989
First Lieutenant Sept. 28, 1991
Captain Sept. 28, 1993
Major July 1, 1999
Lieutenant Colonel March 1, 2003
Colonel Jan. 1, 2007
Brigadier General Aug. 2, 2013
Major General July 3, 2017
Lieutenant General June 20, 2019

(Current as of June 2019)
Dr. Richard J. Joseph
Air Force Chief Scientist
Ex-Officio Member

Dr. Richard J. Joseph is the Chief Scientist of the United States Air Force, Washington, D.C. He serves as the chief scientific adviser to the Chief of Staff and Secretary of the Air Force, and provides assessments on a wide range of scientific and technical issues affecting the Air Force mission. In this role, he identifies and analyzes technical issues and brings them to the attention of Air Force leaders, and interacts with other Air Staff principals, operational commanders, combatant commands, acquisition and science and technology communities to address cross-organizational technical issues and solutions. He also interacts with other services and the Office of the Secretary of Defense on issues affecting the Air Force technical enterprise. He serves on the Executive Committee of the Air Force Scientific Advisory Board. He is the principal science and technology representative of the Air Force to the civilian scientific and engineering community and to the public at large.

Dr. Joseph has more than 40 years of experience as a physicist, directed energy researcher, senior program manager, national security advisor and executive. Prior to assuming his current position, Dr. Joseph was the Chief Executive Officer for Earthstar LLC, a small consulting firm he founded in 1998. In this position, he has served government agencies, national laboratories and public companies on the development and management of programs in a broad range of technical areas.


Upon leaving active duty, Dr. Joseph joined Los Alamos National Laboratory in the Accelerator Technology group. In 1985 he was chosen as the Neutral Particle Beam program manager in the Strategic Defense Initiative Office's Directed Energy Office. While in this role he instituted and directed three major spacecraft-based programs.

In 1987 he divided his time between serving as a senior advisor to the Defense and Space Delegation in the Nuclear and Space Talks with the Soviet Union in Geneva, acting as a senior policy analyst for national security at the White House Office of Science and Technology Policy, and directing a large study on deployment of an initial missile defense capability for the Secretary of Defense.

Between 1988 and 1990 Dr. Joseph led multiple research programs in laser remote sensing to include an airborne laser system capable of detecting biological warfare agents at LANL. This system, designed to support Operation Desert Storm, was built and successfully tested in 28 days.

In 1992 Dr. Joseph took a leave of absence to join the National Aeronautics and Space Administration where he was part of a small group of senior managers directing the restructuring of the agency. While at NASA he also led an interagency task force on remote sensing that moved the agency from using very large satellites for the Earth Observing System to constellations of smaller platforms. Upon returning to Los Alamos in 1993, he directed the Laboratory's missile defense programs and in 1995 he joined the Accelerator Production of Tritium program which intended to use a new approach in a new production plant to produce material for the nuclear weapons program.
EDUCATION
1970 Bachelor of Science Physics, Georgetown University, Washington D.C.
1979 Ph.D. Physics, University of Texas, Austin

CAREER CHRONOLOGY
1983 – 1985, Program manager, Neutral Particle Beam program, SDIO Directed Energy Office
1986 – 1987, Director, Missile Defense Study, Office of the Secretary of Defense, the Pentagon, Washington, D.C.
1993 – 1995, Missile Defense Program Director, LANL, N.M.
1995 – 1998, Accelerator Production of Tritium program, Department of Energy, LANL, N.M.
1998 – 2017, Owner, Earthstar LLC, LANL, N.M.

BOARDS AND ADVISORY GROUPS (Recent)
Oak Ridge National Laboratory, Global Security Advisory Group
Oak Ridge National Laboratory, Nuclear Science and Engineering Advisory Board
Argonne National Laboratory, Global Security Advisory Group
Nevada Test Site, Senior Advisory Group

(Current as of February 2018)
Lt Col Elizabeth D. Sorrells
Executive Director

Lt Col Elizabeth Sorrells is the Executive Director, Air Force Scientific Advisory Board, Office of the Assistant Secretary of the Air Force for Acquisition, the Pentagon, Washington, D.C. She is responsible for the 20-person Secretariat at Headquarters Air Force, which supports over 50 leading scientists and engineers from industry, FFRDCs, national labs, and academia who perform in-depth reviews of Air Force science and technology programs and conduct major studies on topics deemed critical by the Air Force. Prior to her current assignment, Lieutenant Colonel Sorrells was assigned to Headquarters Defense Threat Reduction Agency where she finished up her tour there as the Deputy Chief, Chemical Biological Radiological Nuclear (CBRN) Preparedness and Response Division.

Lt Col Sorrells graduated from Arizona State University in 2002 with a Bachelor of Science Degree in Chemical Engineering and commissioned as a second lieutenant through the Reserve Officer Training Corps. Her first assignment was at the Air Force Research Laboratory at Edwards AFB CA, where she worked on research identifying and testing new liquid hydrocarbon rocket fuels. At the Air Force Technical Applications Center she supported the nuclear surveillance mission through chemical research and development. While assigned to AFTAC, Lt Col Sorrells deployed with the Defense Intelligence Agency (DIA) to Baghdad, Iraq, leading their analysis laboratory and participating in CBRNE technical collection missions supporting the intelligence mission.

Lt Col Sorrells was then assigned to DIA as the deputy chief for Irregular Warfare and Weapons of Mass Destruction requirements branch, assessing cutting edge technology to support technical collection teams. She then took over as the DIA Program Manager for agency R&D efforts leveraging laboratory and industry partner R&D funding. She also worked closely with CIA and InQTel, accessing and influencing cutting edge technologies of small business startups. At the Space and Missile Systems Center, she supported the Military Satellite Communications (MILSATCOM) Directorate, looking at future MILSATCOM technologies and satellite architectures. After ACSC, Lt Col Sorrells was assigned to the Defense Threat Reduction Agency, where her initial position was as the NORTHCOM Country Lead for the Chemical Biological Radiological Nuclear (CBRN) Preparedness Program, assisting Partner Nations build the capability to respond to CBRN incidents.

**EDUCATION**
2002 Bachelor of Science in Engineering, Chemical Engineering, Arizona State University, Tempe, Ariz.
2002 Air and Space Basic Course, Maxwell Air Force Base, Ala.
2006 Squadron Officer School, Maxwell AFB, Ala., by correspondence
2007 Squadron Officer School, Maxwell AFB, Ala.,
2010 Master of Arts in Procurement and Acquisition Management, Webster University
2013 Air Command and Staff College, Maxwell AFB, Ala., by correspondence
2016 Master of Military Operational Art and Science, Air Command and Staff College, Maxwell AFB, Ala.

**ASSIGNMENTS**
10. June 2015–June 2016, Student, Air Command and Staff College, Maxwell AFB, AL.

MAJOR AWARDS AND DECORATIONS
Defense Meritorious Service Medal
Meritorious Service Medal
Joint Service Commendation Medal with oak leaf cluster
Air Force Commendation Medal
National Defense Service Medal
Iraq Campaign Medal

EFFECTIVE DATES OF PROMOTION
Second Lieutenant May 29, 2002
First Lieutenant May 29, 2004
Captain May 29, 2006
Major June 1, 2012
Lieutenant Colonel April 1, 2017

(Current as of July 2019)
Mr. Evan G. Buschmann
Deputy Executive Director

EDUCATION
University Illinois Champaign-Urbana
B.S., General Engineering, 2005

AREA OF EXPERTISE
Acquisition Program Management; Systems Engineering; Continuous Process Improvement; Aircraft Survivability and Mission Effectiveness Engineering and Test.

ASSIGNMENTS
USAF Life Cycle Management Center (ASC/WWJP), F-35 Joint Program Office (Arlington, VA)
F-35 Strategic Initiatives Lead, 2016-2017
F-35 Block 3i Deputy Capability Manager, 2014-2016
F-35 Deputy Program Manager for Production Planning, 2012-2014

NAVAIR/NAWCAD AIR-4.1.8 (Patuxent River Naval Air Station, MD)
F-35 Survivability and Mission Effectiveness Verification Lead, 2010-2012
F-35 RF/IR Signature Engineer, 2010
VH-71 Presidential Helicopter Survivability Engineer, 2008-2010
HX-21 Rotary Wing Flight Test Engineer, 2007-2008
AH-1W/Z and UH-1N/Y Aircraft Survivability Engineer, 2005-2007

Lt Col Melissa M. Tallent
Chief of SAB Studies

EDUCATION
Old Dominion University
M.P.A., Public Administration, 2000
James Madison University
B.S., Political Science, 1996

AREA OF EXPERTISE

ASSIGNMENTS
(Pentagon, VA, 2018-Present) Office of the Assistant Secretary of the Air Force (Acquisition); (Pentagon, VA) Chief Air& Space Branch, Joint Staff J-8, Joint Requirements and Assessments Division; (PACOM, Camp Smith, HI) Deputy Chief Headquarters Command, Control, Communications and Cyber Services Division; (Langley AFB, VA) Flight Commander, C4 Systems; (FLARNG) Battalion Signal Officer; (USAREUR) Operations Officer; (MDARNG) Signal Platoon Leader.
Maj Jed E. Sherman  
Chief of S&T Reviews

EDUCATION
Georgetown University  
M.S., Infectious Diseases  
American Military University  
M.A., National Security Studies  
West Liberty University  
B.S., Biology

AREAS OF EXPERTISE
Program Management; Special Military Operations; Air Mobility.

ASSIGNMENTS
(Pentagon, VA 2016-present) Office of the Assistant Secretary of the Air Force (Acquisition); (Hurlburt Field) Formal Training Unit Instructor/Evaluator & Flight Commander U-28A; (Dyess AFB) Instructor Navigator C-130 E/H.

MSgt Aileen L. Griffith  
Superintendent

EDUCATION
Ashford University  
Bachelors of Administration, Organizational Management  
Community College of the Air Force  
Community College of the Air Force  
Associates, Aerospace Ground Equipment (AGE) -Maintenance  
Master Resiliency Trainer  
Professional Manager Certification  
USAF Senior Non-Commissioned Officer Academy (Distant Learning)  
Non-Commissioned Officer Academy (In-residence, Germany)  
Joint Senior Non-Commissioned Officer Academy (Distant Learning)  
Airman Leadership School (In-residence, LA)

AREAS OF EXPERTISE
Office management; Human Resource Actions; Defense Travel System; Resource Management; Project Management; Event Planning; Development & Mentoring Airmen; Resiliency Training; Military Professional Development Classes; Process improvement; Protocol.

ASSIGNMENTS
**SrA Jaedon A. Clarke**  
Exec Admin & Security Manager

**EDUCATION**  
University of Maryland University College  
Currently pursuing - B.S, Social Science/Art Minor,

**AREAS OF EXPERTISE**  
Security Manager; Command Support Section; decorations; evaluations; promotions and ceremonies; administrative-related duties; skilled painter.

**ASSIGNMENTS**  
(Pentagon, DC, 2019-Present), Office of the Assistant Secretary of the Air Force (Acquisition), Security Manager/Administrator; (Joint Base San Antonio (JBSA) Kelly AFB, Texas, 2018) Air Force Information Mission Support Center HQ, Command Support Staff; (JBSA Lackland AFB, Texas, 2016-2018) 68th Network Warfare Squadron, Command Support Staff.

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**Mr. Raymond H. McJonathan**  
Budget Officer

**EDUCATION**  
Airman Leadership School  
Non Commissioned Officer Academy  
Senior Non Commissioned Officer Academy

**AREAS OF EXPERTISE**  
Military finance, personnel, and travel; SAF/AQB budget and fiscal integrity.

**ASSIGNMENTS**  
(Pentagon, VA, 2002-present) Office of the Assistant Secretary of the Air Force (Acquisition); (Robins AFB) 78th Comptroller Squadron – AF Reserve; (Wright Patterson AFB) HQ AFMC Logistics Support Office; (Bolling AFB) 11th Wing Financial Management; (Robins AFB) Warner Robins Air Logistics Center; (Kelly AFB) San Antonio Air Logistics Center; (Dover AFB) 436th Comptroller Squadron; (Offutt AFB) 55th Comptroller Squadron.
Mr. Nicholas A. Stern
Senior Program Analyst

EDUCATION
Virginia Commonwealth University
B.A., History / Anthropology

AREAS OF EXPERTISE
Strategic Planning; Force Management; Program Management; Supply Chain Logistics; Budget Analysis; Database Management; Mortuary Affairs; Historical Archaeology.

ASSIGNMENTS
(Fort Bragg, NC, 2016 – 2017) Strategic Planner, 1st Sustainment Command (Theater); (Fort Lee, VA, 2014 – 2016) Battalion S-3 (FWD), 82nd Special Troops Battalion.

Mr. Steven B. Chambers
Senior Program Analyst

EDUCATION
Joint Forces Staff College Norfolk Virginia
International Relations (Graduate)
Command and General Staff College
PRINCE II Practitioner
Practitioner Certified
Army Systems Automation Management School, 2006
CISCO Academy Cert
University of Texas at San Antonio
B.S., Geopolitics, 1986

AREAS OF EXPERTISE

ASSIGNMENTS
Ms. Kimia L. Blackwell
Analyst

EDUCATION
Annandale High School
   General Studies
Woodson Technical Program
   Cosmotology Program

AREAS OF EXPERTISE
Providing exceptional commitment to administrative support and customer service to the DoD and their families.

ASSIGNMENTS

Ms. Erika Castedo
Event Planner

EDUCATION
George Mason University
   B.A. Global Affairs; Concentration in International Development, 2011
   Minor Public Health

AREAS OF EXPERTISE
Event/Conference Planning & Managing at the IC level; Client & Vendor Relations; Client Database Administration; Project Management.

ASSIGNMENTS
Ms. Sanaa A. Lasher
Information Manager

EDUCATION
University of Maryland Global Campus
  M.S., Data Analytics (Graduate)
Saint Leo University
  B.S., Computer Information Systems, 2014

AREAS OF EXPERTISE
Data Science and Big Data Analytics, Office 365: SharePoint Online Administrator, Mining Massive
DataBase, Oracle, Python, SAS, Java, HTML, CSS, JavaScript, SQL, R Language, Statistics, IBM Congo,
Adobe Creative Suite InDesign, Photoshop, Photoshop Light room, Illustrator, and Dreamweaver.

ASSIGNMENTS
(USAF Scientific Advisory Board, 2019-Present) Information Manager – (UMC-Naval Health Clinic
Quantico, 2019-2020) DBC Administrative Assistant for OCS, TBS, WNY – (Chemonics International
Paso County Legal Assistant – (USAF Eaglewood Golf Course, 2011-2014) Administrative Assistant –
(Middle East Broadcasting Center-MBC, 2005-2010) Television Post Production Coordinator.

Mr. Phillip W. Burnham
ISSM

EDUCATION
CCAF, Jun 2012
  AA Information Technology
Stephen F. Austin State University, May 1999
  BS Interdisciplinary Studies

AREAS OF EXPERTISE
Info Assurance, COMSEC, Certified Information Security Manager (ISACA),
Security Plus CE (COMPTIA)

ASSIGNMENTS
(Herndon, VA, 2019-Present), US Air Force 1999-2019); ISSM, Air Force Special Security Office,
Pentagon, VA (2018-2019); COMSEC Responsible Officer, 644 Combat Communication Squadron,
Andersen AFB, Guam (2011-2018); ISSM/CRO, 707 Communications Squadron, Ft Meade, MD (2008-
2011); CRO, NATO IT Wing, Geilenkirchen NATO Air Base, Germany (2004-2008); COMSEC
accountant/ADPE Specialist, 355 Communications Squadron, D-M AFB, AZ (2000-2004); Student, 336
Training Squadron, Keesler AFB, MS (2000-2000); Trainee, 320 Training Squadron, Lackland, AFB, TX
Col Brian K. Beachkofski  
Senior Executive Staff Officer

EDUCATION
Massachusetts Institute of Technology  
M.B.A., Data & Entrepreneurship, 2012
Wright State University  
Ph.D., Engineering, 2004
Georgia Institute of Technology  
M.S., Aerospace Engineering, 1999
United States Air Force Academy  
B.S., Engineering Mechanics, 1998

AREAS OF EXPERTISE
Fracture mechanics; Probabilistic analysis; Quantitative financial analysis; Operations research; Risk assessment; Data analysis; Optimization; Stratified sampling techniques.

MILITARY ASSIGNMENTS
Lt Col Jennifer L. Dahms
Executive Staff Officer

EDUCATION
Harvard University
   M.A., Extension Studies/Government
United States Air Force Academy
   B.S., Legal Studies

AREAS OF EXPERTISE
Program Management, Intelligence Policy & Strategy,
Data Exploitation & Dissemination Systems.

MILITARY ASSIGNMENTS
(Pentagon, VA, Mar 14-present) Office of the Assistant Secretary of the Air Force (Acquisition);
(National Air and Space Intelligence Center) Program Manager for Business Analytics;
(166 Network Warfare Squadron, Delaware Air National Guard) National Security Agency Threat Operations Center Analyst;
(102 Network Warfare Squadron, Rhode Island Air National Guard) Flight Commander, Intelligence Support to Air Force Network Operation Center;
(Hanscom Air Force Base) Program Manager, Distributed Common Ground System Block 10.2 and Air Operations Center Integration;
(Hanscom AFB) Project Manager, Joint Mission Planning System.

Lt Col Jonathon I. Henry
Executive Staff Officer

EDUCATION
University of Dayton
   M.S., Aerospace Engineering
West Virginia University
   B.S., Aerospace Engineering

AREAS OF EXPERTISE
Aerodynamics; Aircraft Configuration; Flight Test; Wind Tunnel Testing; Hypersonics; Powered Lift Systems; Missile Testing; Education and Training.

MILITARY ASSIGNMENTS
(Pentagon, VA, May 15-present) Office of the Assistant Secretary of the Air Force (Acquisition);
(Maxwell AFB) Chief, Commanders Action Group, HQ Air University; Dir of Ops, 23d Training Sq, OTS; Student Sq CC, 23d Training Sq, OTS;
(Kirtland AFB) Chief, Airborne Sensors Branch, Airborne Laser Program Office; Deputy Chief, Airborne Sensors Branch, Airborne Laser;
(Camp Victory, Iraq) Ops Officer, DCMA Central Iraq; (Edwards AFB) Lead B-2 Ops Engineer, 419th Flt Test Sq, 412th Test Wing; Flight Test Engr, Hypersonic Flight Test Team, 412th Test Wing;
(Wright Patt AFB) Deputy Chief, Advanced Mobility Office, Air Vehicles Dir, AFRL; Developmental Engr, Air Vehicles Dir, AFR.
Maj Lloyd “Tom” Hunsaker  
Executive Staff Officer

EDUCATION
Georgetown University  
CMAP., Change Management Advanced Practitioner, 2011
University of Colorado – Colorado Springs  
MBA., Organizational Development and New Venture Management, 2008
Utah State University  
B.S., Business Administration, 2002

AREAS OF EXPERTISE

MILITARY ASSIGNMENTS
(Pentagon, VA, Oct 19-present) Office of the Assistant Secretary of the Air Force (Acquisition); (Peterson AFB) Dean’s Office and Instructor, National Security Space Institute, (Schriever AFB) Satellite Operations, DMSP; (Vandenberg AFB) Assistant Director, Missile Defense Office; (Vandenberg AFB) Program Manager, Evolved Expendable Launch Vehicle (EELV).

Capt Matthew C. Renner  
Executive Staff Officer

EDUCATION
Harvard Business School  
M.B.A., Business Administration, 2016
John Hopkins University  
M.S., Systems Engineering, 2013
University of Michigan  
B.S., Mechanical Engineering, 2010

AREAS OF EXPERTISE
Strategy consulting; general management; due diligence; financial analysis; engineering management; program management; mechanical engineering; systems engineering; design.

MILITARY ASSIGNMENTS
United States Air Force Reserve Staff Officer, Air Force Science Advisory Board, 2016-Present
Capt Young-Jun (Y.J.) Yoon
Executive Staff Officer

EDUCATION
Johns Hopkins University
   M.B.A., Financial Engineering, 2017
Rensselaer Polytechnic Institute
   M.Eng., Computer & Systems Engineering, 2002
University of Delaware
   B.S., Computer Science, 1997

AREAS OF EXPERTISE
Big Data Analytics; Server Platform Infrastructure & Engineering; Artificial Intelligence; Machine Learning; SIGINT; Cyber Security; Data Collection & Analysis; Software Engineering.

MILITARY ASSIGNMENTS
(Pentagon, VA, Apr 19-present) Office of the Assistant Secretary of the Air Force (Acquisition); (Fort Meade, MD) Computer & Systems Engineer, DISA; (Fort Meade, MD) Deputy Branch Chief, 29th Intelligence Squadron, NSA; (Fort Meade, MD) Technical Director, 34th Intelligence Squadron, NSA; (Shaw AFB) Crew Commander, AFCENT; (Fort Meade, MD) Flight Commander, 707th Comm Squadron.
Section 4: Membership Departure List

**FY2020**
Dr. Andrew Alleyne  
Dr. Melissa Choi  
Dr. Mark Campbell  
Dr. James Chow  
Lt Gen Terry Gabreski, USAF (Ret)  
Dr. Samuel Graham Jr.  
Dr. Tadayoshi Kohno  
Gen Lester Lyles, USAF (Ret)  
Dr. Kenneth Olson  
Dr. Alan Pue  
Dr. Nils Sandell Jr.  
Dr. Lara Schmidt  
Dr. Yadunath Zambre  

**FY2021**
Mr. Aaron Blow  
Dr. Robert Bontz  
Dr. Eric Hall  
Gen Donald Hoffman, USAF (Ret)  
Dr. Juliana Hsu  
Dr. Ann Karagozian  
Dr. Leo Kempel  
Dr. Patric Patterson  
Dr. Kevin Saeger  
Dr. Gregory Shannon  
Mr. Gregory Simer  
Dr. Lindley Specht  
Dr. Vyshnavi Suntharalingam  
Dr. Steven Warner  
Mr. Alan Wiechman  

**FY2022**
Dr. Suzanne Beers  
Dr. Rodney Bowersox  
Dr. David Coombs  
Dr. Natalie Crawford  
Dr. Doc Dougherty  
Dr. Robert Duncan  
Dr. Philip Fawcett  
Dr. Peter Hancock  
Dr. Ryan Hersey  
Dr. Eric Jones  
Mr. Glenn Kuller  
Dr. Todd Murphey  
Dr. David Robbins  
Dr. Katherine Simonson  

**FY2023**
Dr. Michael Bear  
Dr. Steven Cummings  
Mr. Dennis Gilbert  
Dr. Jonathan Green  
Dr. Brian Kent  
Dr. Kevin Massey  
Mr. Thomas McNeil  
Dr. Tony Pandisco  
Dr. Helen Reed  
Dr. William Regli  
Dr. Annette Sobel  
Dr. Stefanie Tompkins  
Mr. Lee Venturino  
Dr. Peter Wegner