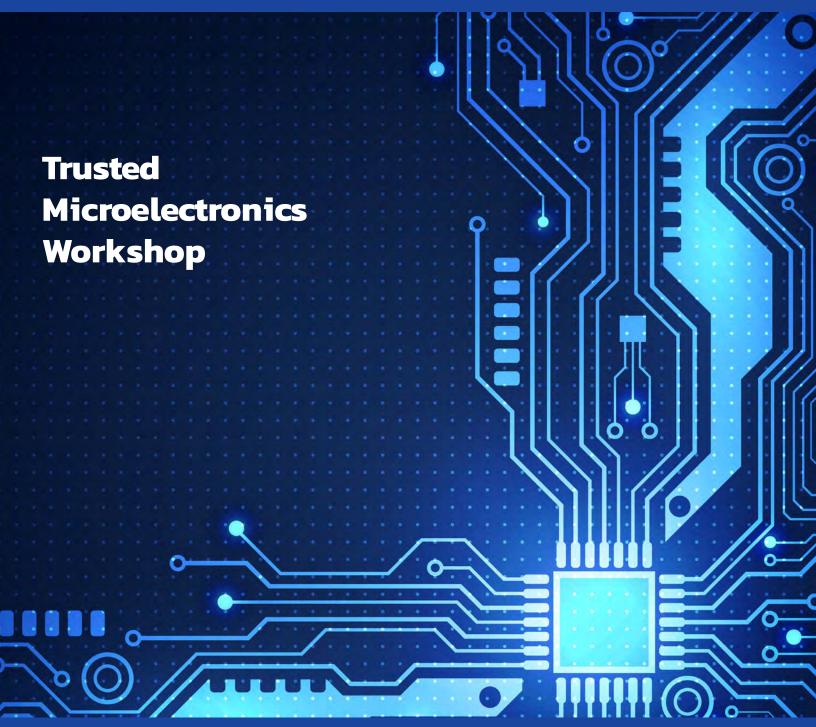
NDIN

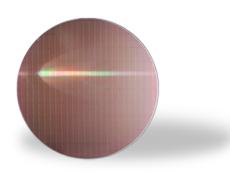


Onsite Agenda Speaker Biographies

August 16, 2017 Lockheed Martin Global Vision Center Arlington, VA



Trusted Microelectronics Workshop



Thank you for attending the NDIA's 9th Trusted Microelectronics Workshop! Obtaining Trusted and trustable leading-edge microelectronics is critical to maintaining the U.S. military's technological advantage. As the consolidation and offshore migration of integrated circuit design and manufacturing capabilities continue, the defense industry faces increasing challenges to obtain leading-edge and legacy components from Trusted Suppliers and trustable sources. Our workshops enable government and industry to jointly address these challenges with presentations by subject matter experts and full participant engagement.

Since our first workshop in June 2013, we have provided a forum to discuss a wide range of topics including:

- · Long-term microelectronics strategy: Government and Industry perspectives
- Third party intellectual property security
- Globalization threats and responses
- Policies and requirements overlap
- · Lifecycle sustainment planning for microelectronics

Today's workshop will offer an opportunity to discuss three recent strategic studies: The President's Council of Advisors on Science and Technology (PCAST) study, "Ensuring Long-Term U.S. Leadership in Semiconductors"; Potomac Institute for Policy Studies' "Trust Technologies and Procedures Assessment Study Report"; and The Defense Science Board Task Force on the Cyber Supply Chain. Please add your voice to this important dialog.

NDIA Trusted Microelectronics Joint Working Group (TM JWG) was formed to collaboratively examine issues and explore potential solutions for the reduced access to assured microelectronics for defense and national security systems. With members of government, industry, non-profits, and Federally Funded Research and Development Centers (FFRDCs), the TM JWG brought diverse backgrounds to explore solutions for this common concern.

Over the course of 14 months, the four teams worked via conference calls, and occasional in-person meetings. Each team produced a detailed white paper as their final product reflecting their conclusions that are available on the NDIA website.

The NDIA Trusted Microelectronics Joint Working Group demonstrates the value of government-industry collaboration when addressing critical issues facing the Department of Defense and the Defense Industrial Base. Because of the obvious value and critical importance of this work to the Defense Industrial Base and DoD, NDIA will explore converting the Joint Working Group into a standing NDIA Division so that it may continue under an officially recognized charter.

Wednesday, August 16

7:30am - 8:30am REGISTRATION CHECK-IN

8:30am - 8:35am **WELCOME**

Dr. Robie Samanta Roy, Vice President, Technology and Innovation,

Lockheed Martin Corporation

8:35am - 8:45am WORKSHOP INTRODUCTION

Mr. Daniel Marrujo, Chief Strategy Officer, Defense

Microelectronics Activity (DMEA)

8:45am - 9:00am MICROELECTRONICS CHALLENGES

The Honorable Page Hoeper, Corporate Director, VT Systems

9:00am - 9:30am PRESIDENT'S COUNCIL OF ADVISORS ON SCIENCE AND TECHNOLOGY

ENSURING LONG-TERM U.S. LEADERSHIP IN SEMICONDUCTORS

WORKING GROUP

Mr. Andrew Hunter, Director, Defense-Industrial Initiatives Group and Senior Fellow, International Security Program, Center for

Strategic & International Studies

9:30am - 10:30am DISCUSSION OF PCAST FINDINGS

Moderator: Mr. Andrew Hunter, Defense-Industrial Initiatives

Group and Senior Fellow, International Security Program, Center

for Strategic & International Studies

Panelists:

• Ms. Anita Balachandra, TechVision21

• Mr. Brad Botwin, Dept of Commerce

• Mr. Ezra Hall, GLOBALFOUNDRIES

• Mr. Daniel Marrujo, DMEA

Dr. Jeremy Muldavin, ODASD(SE)

10:30am - 10:50am BREAK

10:50am – 11:30am TRUSTED MICROELECTRONICS JOINT WORKING GROUP

LEADERS AND TEAM MEMBERS RECOGNITION

• Dr. Dan Radack, Assistant Director, Information Technology and

Systems Division, Institute for Defense Analyses and

• CAPT Frank Michael, USN (Ret), Senior Vice President, Program

Development, National Defense Industrial Association

11:30am - 12:30pm LUNCH (PROVIDED)



12:30pm - 1:00pm TRUST TECHNOLOGIES AND PROCEDURES ASSESSMENT

STUDY REPORT

Mr. Michael Swetnam, Chairman and CEO, Potomac Institute for

Policy Studies (PIPS)

1:00pm - 2:00pm DISCUSSION OF PIPS FINDINGS

Moderator: Mr. Michael Swetnam, Chairman and CEO, Potomac Institute for

Policy Studies (PIPS)

Panelists:

• Mr. James Chew, Cadence Design Systems

• Dr. Michael Fritze, Potomac Institute for Policy Studies (PIPS)

2:00pm – 2:20pm BREAK

2:20pm – 2:50pm DEFENSE SCIENCE BOARD TASK FORCE: CYBER SUPPLY CHAIN

Mr. Robert Metzger, DSB Cyber Supply Chain Task Force Member,

DoD Special Government Employee Shareholder, Rogers Joseph O'Donnell, PC

2:50pm - 3:50pm DISCUSSION OF DSB FINDINGS

Moderator: Dr. Brian Cohen, Research Staff Member, Institute for

Defense Analyses

Panelists: DSB Task Force Members

• Mr. Steve Lipner, Safecode

• Dr. Michael McGrath, McGrath Analytics, LLC

• Mr. Robert Metzger, Rogers Joseph O'Donnell, PC

3:50pm - 4:20pm NDIA ELECTRONICS DIVISION: IS IT TIME FOR OUR OWN DIVISION?

Mr. Dave Chesebrough, Vice President, Program Development,

National Defense Industrial Association

4:20pm – 4:30pm WRAP UP

Dr. Brian Cohen, Research Staff Member, Institute for Defense Analyses

Speaker Biographies

DR. ROBIE I. SAMANTA ROY, LOCKHEED MARTIN CORPORATION

Dr. Robie I. Samanta Roy is Vice President, Technology and Innovation. Dr. Samanta Roy's responsibilities include leading the Corporation's enterprise-level technology innovation strategy to ensure the Corporation's continuing ability to develop and leverage new technologies to help solve customers' most challenging problems. In this role, he works with the Engineering & Technology Council and Enterprise Operations leaders to develop and actively manage an enterprise technology roadmap aligned with business area needs, focusing on innovation. He also works with Lockheed Martin's university program with the goal of fostering and transitioning research from leading U.S. research universities, as well as liaison with U.S. government organizations critical to the formation of technical policy and the execution of research.

Prior to joining Lockheed Martin, Dr. Samanta Roy was a Professional Staff Member with the Senate Armed Services Committee with the portfolio of the Department of Defense's wide spectrum of science and technologyrelated activities. He came to that position from the White House Office of Science and Technology Policy where he was the Assistant Director for Space and Aeronautics from 2005 to 2009 and was responsible for space and aeronautics activities ranging from human space flight to the Next Generation Air Transportation System. Before that, he was a Strategic Analyst at the Congressional Budget Office where he was responsible for studies on military and civil space, missile defense, international relations, and other strategic forces issues. Dr. Samanta Roy started his career as a Research Staff Member in the Systems Evaluation Division of the Institute for Defense Analyses in Alexandria, VA from 1995 to 2003 where he conducted studies related to Command. Control. Communications and Computers, Intelligence, Surveillance, and Reconnaissance systems. He holds a S.B., S.M., and Ph.D. in aeronautics and astronautics from MIT, as well as a Master's degree in Space Policy from the George Washington University and diplomas from the International Space University and Institut d'Etudes Politiques de Paris. Dr. Samanta Roy continues to serve in the U.S. Air Force Reserve.

MR. DANIEL MARRUJO, DEFENSE MICROELECTRONICS ACTIVITY

Mr. Daniel Marrujo is the Chief Strategy Officer for the Defense Microelectronics Activity. Mr. Marrujo, a native of Sacramento, Ca., began his career in 2008 at Raytheon Missile Systems in Tucson, AZ., developing missile guidance systems for their advanced programs. Mr. Marrujo moved to the Defense Microelectronics Activity (DMEA), Sacramento, CA., in 2009 working for the Trusted IC program office. In 2010 he began working towards development of DMEA's reliability capabilities and was selected as part of the leadership team for the National High Reliability Electronics Virtual Center. Mr. Marrujo has provided his technical expertise on multiple DARPA, IARPA, NSS and IC programs as a subject matter expert. His expertise is focused on supply chain risk mitigation, CMOS reliability, reverse engineering and radiation effects.

Mr. Marrujo holds a Masters Degree in Materials Engineering and a Bachelors Degree in Electrical Engineering from the California Polytechnic State University, San Luis Obispo, CA.

HONORABLE PAGE HOEPER

Mr. Page Hoeper is a Corporate Director for VT Systems. He helps set the strategic direction of the Company and assists on key projects. He is also the chairman of the board of Versar, Inc., a publicly traded company that provides a full range of solutions to toxic and hazardous materials problems; he is the corporation's designated audit committee financial expert. Mr. Hoeper is chairman of the board of trustees of OnPoint Technologies, Inc., a venture capital fund established by Congress. In addition, he is chairman of the board of Plasan U.S., a privately owned company that focuses on armor and survivability solutions.

In 1998 the Senate confirmed Mr. Hoeper as Assistant Secretary of the Army (Acquisition, Logistics and Technology). In this position he was the Senior Procurement Executive, the Science Advisor to the Secretary, and the senior research and development official for the Department of the Army. He developed and oversaw logistics policy for the Army as implemented by the various military commands. In his capacity as Army Acquisition Executive, Mr. Hoeper appointed, managed and evaluated program executive officers and program managers; managed the 23,000 members of Army Acquisition Corps; and oversaw \$17.3 billion in research, development, test and evaluation, and acquisition programs over \$9 billion of which was focused on information technology. Mr. Hoeper left government service in 2001.

From 1996 to 1998, Mr. Hoeper was Deputy Under Secretary of Defense (International and Commercial Programs). He was responsible for all cooperative DoD research, development and acquisition programs around the world. He implemented and managed DOD's dual use technology program and the \$15 billion Defense Export Loan Guarantee Program.

Prior to his government service, Mr. Hoeper was for several years the president of Fortune Financial, a private merchant bank. Before this, he was the proprietor of Northshore Consultants, a firm that focused on problems at the intersection of finance, technology and law. Mr. Hoeper has also consulted to private companies in the high technology and aerospace industries on numerous programs, strategic issues and corporate restructurings. In 1993, he was selected to serve on the Defense Science Board (DSB) Task Force on Acquisition Reform.

Mr. Hoeper received numerous honors while serving at the Pentagon. His awards include the Army Decoration for Distinguished Civilian Service, the Defense Award for Outstanding Achievement, and the President's Award (the Biddle Medal) for his dedication and support to the Association of the United States Army. Mr. Hoeper is also the recipient of the Vice President of the United States "Hammer" award for reinventing government. In December 1996, Secretary of Defense William J. Perry awarded Mr. Hoeper the Secretary of Defense Medal for Outstanding Public Service.

Mr. Hoeper received his B.S.E. in Basic Engineering from Princeton University and his M.A.T. in Mathematics from Harvard University. He served on the faculty of Stanford Law School (1989–90) and as Adjunct Professor at the University of Southern California (USC) Law Center (1991–95). He is currently a member of the Annenberg Foundation's Investment Committee.



MR. ANDREW HUNTER, CENTER FOR STRATEGIC & INTERNATIONAL STUDIES

Mr. Andrew Hunter is a senior fellow in the International Security Program and director of the Defense-Industrial Initiatives Group at CSIS. He focuses on issues affecting the industrial base, including emerging technologies, sequestration, acquisition policy, and industrial policy. From 2011 to November 2014, Mr. Hunter served as a senior executive in the Department of Defense (DOD). Appointed as director of the Joint Rapid Acquisition Cell in 2013, his duties included fielding solutions to urgent operational needs and leading the work of the Warfighter Senior Integration Group to ensure timely action on critical issues of warfighter support. From 2011 to 2012, he served as chief of staff to Ashton B. Carter and Frank Kendall, while each was serving as undersecretary of defense for acquisition, technology, and logistics. Additional duties while at DOD include providing support to the Deputy's Management Action Group and leading a team examining ways to reshape acquisition statutes.

From 2005 to 2011, Mr. Hunter served as a professional staff member of the House Armed Services Committee, leading the committee's policy staff and managing a portfolio focused on acquisition policy, the defense industrial base, technology transfers, and export controls.

From 1994 to 2005, he served in a variety of staff positions in the House of Representatives, including as appropriations associate for Representative Norman D. Dicks, as military legislative assistant and legislative director for Representative John M. Spratt Jr., and as a staff member for the Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China. Mr. Hunter holds an M.A. degree in applied economics from the Johns Hopkins University and a B.A. degree in social studies from Harvard University.

MS. ANITA BALACHANDRA, TECHVISION21

Ms. Anita Balachandra works with technology developers to engage Federal partners and navigate critical policy issues. Prior to TechVision21, Ms. Balachandra worked for the Maryland Technology Development Corporation (TEDCO), working closely with Federal laboratories to showcase their capabilities and technology licensing opportunities. She also worked with small technology-based businesses, including start-ups, to identify appropriate Federal laboratory resources, research collaborators, state and Federal funding sources and business assistance, such as incubator space. Ms. Balachandra began her career at the U.S. Department of Commerce, Office of Technology Policy.

MR. BRAD BOTWIN, U.S. DEPARTMENT OF COMMERCE

Mr. Brad Botwin currently serves as the Director of Industrial Studies in the Commerce Department's Office of Technology Evaluation. In this capacity, he is responsible for developing surveys and analyses, and implementing programs designed to ensure a technologically superior and competitive defense industrial base capable of meeting U.S. economic and national security requirements.

Mr. Botwin's programmatic responsibilities include: Assessments of U.S. Industrial Capabilities and Critical Technologies; Section 232 Investigations of the Effect of Imports on National Security; Foreign Availability Assessments; and Short Supply Determinations.

Prior to assuming this position, Mr. Botwin served as Division Director for Industrial Capabilities in Commerce's Strategic Analysis Division, with responsibilities for directing Production Assessments of Critical Sectors affected by foreign competition; Studies on Offsets in Defense Trade; and Reviews of the Impact of Foreign Investment in the U.S.

Mr. Botwin has a degree in international affairs and economics from the American University and an MBA from the George Washington University with a concentration in international business and finance.

MR. EZRA HALL, GLOBALFOUNDRIES

Mr. Ezra Hall is an executive at GLOBALFOUNDRIES with 27 years of electrical engineering experience and 16 years of project management leadership. Mr. Hall's previous employment includes over 20 years at IBM. Mr. Hall manages complex semiconductor related projects and programs for commercial and government customers, spanning small to large engagements across technical, business, and project management leadership roles, with specialization in bridging across these disciplines.

In the process of joining GLOBALFOUNDRIES, Mr. Hall successfully led a major divestiture work-stream for the transition from IBM Microelectronics to GLOBALFOUNDRIES. This result was achieved through leading team members across multiple companies/divisions and closing complex negotiations between industry and the government. Mr. Hall was selected by IBM as Master Inventor in 2015, holds 18 US Patents (additional pending), and applies a high degree of innovation in managing projects and solving challenges with a results oriented approach.

DR. JEREMY MULDAVIN. ODASD(SE)

Dr. Jeremy Muldavin received his BSE(95) engineering Physics, MSE(97), PhD(2001) in Electromagnetics from University of Michigan. He spent 15 years with MIT Lincoln Laboratory as a staff, and group leader researching microelectronics, imagers, embedded computing, open architecture, and autonomy. He currently is Deputy Director, Defense Software & Microelectronics Assurance Initiative with DASD(SE).

DR. DAN RADACK, INSTITUTE FOR DEFENSE ANALYSES

Dr. Daniel J. Radack is Assistant Director with the Institute for Defense Analyses (IDA) where he leads projects related to semiconductors and packaging, industrial capabilities, and defense applications.

Dr. Radack was previously with the Defense Advanced Research Projects Agency, Microsystems Technology Office (DARPA/MTO), as a Program Manager for high performance microelectronics and related technologies.

Prior to that, Dr. Radack was with SAIC working on defense electronics programs and for NIST in the Semiconductor Electronics Division where he developed dynamic test circuits and test structures for VLSI processes. He received the B.S. (1983), M.S. (1985), and Ph.D. (1989) in Electrical Engineering from the University of Maryland, College Park. He is a Fellow of the IEEE.

MR. FRANK MICHAEL, NATIONAL DEFENSE INDUSTRIAL ASSOCIATION

Mr. Frank J. Michael was appointed Senior Vice President, Program Development, National Defense Industrial Association in June, 2016. He is responsible for managing NDIA's relationships with industry stakeholders and government officials. In that role, he will collaborate with the Association's members, chapters, divisions and affiliates to provide forward thinking programming and activities that address current and future challenges in Defense and National Security.

Mr. Michael is a career naval officer and aviator who served in a number of critical leadership billets both at sea and ashore. His command tours include Helicopter Anti-Submarine Squadron Light Four Seven (HSL-47) and USS Boxer (LHD-4). During his most recent active duty assignment, he served as Strategy Branch Chief on the Navy Staff and was principal author of the Nation's maritime strategy "A Cooperative Strategy for 21st Century Seapower" released in March 2015. Other major assignments ashore include CNO Fellow, Chief of Naval Operations Strategic Studies Group and National Military Command System Branch Chief on the Joint Staff.

Mr. Michael holds an M.A Degree in Public Administration and has been recognized with a Doctor of Humane Letters from Misericordia University.



Mr. Michael Swetnam assisted in founding the Potomac Institute for Policy Studies in 1994. Since its inception, he has served as Chairman of the Board and currently serves as the Institute's Chief Executive Officer.

He has authored and edited several books and articles including: "Al-Qa'ida: Ten Years After 9/11 and Beyond," co-authored with Yonah Alexander; "Cyber Terrorism and Information Warfare," a four volume set he co-edited; "Usama bin Laden's al-Qaida: Profile of a Terrorist Network," co-authored with Yonah Alexander; "ETA: Profile of a Terrorist Group," co-authored with Yonah Alexander and Herbert M. Levine; and "Best Available Science: Its Evolution, Taxonomy, and Application," co-authored with Dennis K. McBride, A. Alan Moghissi, Betty R. Love and Sorin R. Straja.

Mr. Swetnam is currently a member of the Technical Advisory Group to the United States Senate Select Committee on Intelligence. In this capacity, he provides expert advice to the U.S. Senate on the R&D investment strategy of the U.S. Intelligence Community. He also served on the Defense Science Board (DSB) Task Force on Counterterrorism and the Task Force on Intelligence Support to the War on Terrorism.

From 1990 to 1992, Mr. Swetnam served as a Special Consultant to President Bush's Foreign Intelligence Advisory Board (PFIAB) where he provided expert advice on Intelligence Community issues including budget, community architecture, and major programs. He also assisted in authoring the Board's assessment of Intelligence Community support to Desert Storm/Shield.

Prior to forming the Potomac Institute for Policy Studies, Mr. Swetnam worked in private industry as a Vice President of Engineering at the Pacific-Sierra Research Corporation, Director of Information Processing Systems at GTE, and Manager of Strategic Planning for GTE Government Systems.

Prior to joining GTE, he worked for the Director of Central Intelligence as a Program Monitor on the Intelligence Community Staff (1986–1990). He was responsible for the development and presentation to Congress of the budget of the National Security Agency, and helped develop, monitor and present to Congress the DOE Intelligence Budget. Mr. Swetnam was also assigned as the IC Staff representative to intergovernmental groups that developed the INF and START treaties. He assisted in presenting these treaties to Congress for ratification. Collateral duties included serving as the host to the DCI's Nuclear Intelligence Panel and Co-Chairman of the S&T Requirements Analysis Working Group.

Mr. Swetnam served in the U.S. Navy for 24 years as an active duty and reserve officer, Special Duty Cryptology. He has served in several public and community positions including Northern United Kingdom Scout Master (1984–85); Chairman, Term limits Referendum Committee (1992–93); President (1993) of the Montgomery County Corporate Volunteer Council, Montgomery County Corporate Partnership for Managerial Excellence (1993); and the Maryland Business Roundtable (1993). He is also on the Board of Directors of Space and Defense Systems Inc., Dragon Hawk Entertainment Inc., and the Governing Board of The Potomac Institute of New Zealand.

$\label{eq:mr.def} \textbf{MR. JAMES CHEW, CADENCE DESIGN SYSTEMS}$

Mr. James Chew has thirty-two years of strategic development, program management, technology development, and marketing experience in the aerospace, automotive, electronics, and education fields.

Prior to joining Cadence, Mr. Chew served as a propulsion engineer for Boeing Aerospace Company, senior engineer for SPARTA, program manager for Air Force Rocket Propulsion Lab, Director of Rocket Propulsion Technology Plans and Programs for the Air Force Phillips Laboratory, Assistant Staff Specialist for Weapons Technology for the Office of the Secretary of Defense, and the Deputy Director of Air and Surface Weapons Technology for the Office of Naval Research. Mr. Chew also served as Exide's (Nasdaq:XIDE)Vice President for the Military and Specialty Global Business Unit, Product Marketing Consultant for the Dodge Division of Chrysler

Corporation, QWIPTECH's Chief Operating Officer, General Motor's American Tuner Program Manager, T/J Technologies Chief Operating Officer, Vice President, Science and Technology, ATK (NYSE: ATK), and SAIC's (NYSE: SAI) Vice President, Space Systems Development Division, L–3 Communications Holdings (NYSE: LLL) Director, Advanced Technologies and Concepts for the Precision Engagement Sector, and Director, Strategic Development, General Atomics.

Mr. Chew earned his Bachelor of Science degree in Mechanical Engineering from the California State Polytechnic University, Pomona and a Master of Science degree in Systems Management from the University of Southern California. Mr. Chew is a graduate of the Stanford Executive Engineering Program and the Defense Systems Management College Advanced Program Management Program.

DR. MICHAEL FRITZE, SENIOR FELLOW, POTOMAC INSTITUTE

Dr. Michael Fritze's focus is on the Microelectronics Policy efforts at the Potomac Institute which he joined in April of 2015. A major interest is innovative approaches for assured trusted access for USG Microelectronics needs. A pressing problem in the wake of the recent IBM Microelectronics sale and the globalization of this critical Industry. Dr. Fritze also works on issues involving more effective technology transition of USG funded research into the US Industrial Base and DoD.

Prior to PIPs, Dr. Fritze was the Director of the Disruptive Electronics Division at the USC Information Sciences Institute (2010–2015). He also held a Research Professor appointment in the USC Ming Hsieh Department of Electrical Engineering (Electrophysics). He was a Program Manager at the DARPA Microsystems Technology Office (MTO) from 2006–2010 with a broad Microelectronics portfolio including 3DIC, Low Power Electronics, Rad-hard electronics, Carbon electronics, Si-RF electronics, Low volume manufacturing and foundry access issues. Prior to joining DARPA, Dr. Fritze was a staff member from 1995–2006 at MIT Lincoln Laboratory in Lexington, Massachusetts, where he worked on fully-depleted silicon on insulator (FDSOI) technology development with an emphasis on fabrication methods & novel devices.

Dr. Fritze received a Ph.D. in Physics from Brown University in 1994 and a B.S. in Physics in 1984 from Lehigh University. He is a recipient of the Office of the Secretary of Defense Medal for Exceptional Public Service awarded in 2010. He is a Senior Member of the IEEE and is active on the program committee of the GOMAC conference. Dr. Fritze has published over 75 papers and articles in professional journals and holds several U.S. Patents.

MR. ROBERT METZGER, ROGERS JOSEPH O'DONNELL, PC

Mr. Robert S. Metzger, an attorney in private practice, heads the Washington, D.C. office of Rogers Joseph O'Donnell, P.C., a law firm that specializes in public contract matters. He advises leading U.S. and international technology companies.

Mr. Metzger attended Georgetown University Law Center, where he was an Editor of the Georgetown Law Journal. Subsequently, he was a Research Fellow, Center for Science & International Affairs, Harvard Kennedy School (now, "Belfer Center"). As a Special Government Employee of the Department of Defense, Mr. Metzger is a member of the Defense Science Board task force that produced the Cyber Supply Chain Report in February 2017.

For RSA Conference 2017, Mr. Metzger moderated a panel discussion on "Cyber/physical Security and the IoT: National Security Considerations." At https://youtu.be/ly_EAjD4mul. In March 2017, ITAPS, a leading technology trade association, published his New White Paper, Federal Actions to Enable Contractors to Protect "Covered Defense Information" and "Controlled Unclassified Information.



Named a 2016 "Federal 100" awardee, Federal Computer Week praised Mr. Metzger for his "ability to integrate policy, regulation and technology" and said of him: "In 2015, he was at the forefront of the convergence of the supply chain and cybersecurity, and his work continues to influence the strategies of federal entities and companies alike."

Chambers USA (2017) ranks Mr. Metzger among top government contracts lawyers nationwide and in 2015 cited him for abilities with "cuttingedge issues in areas such as counterfeit goods and cybersecurity." The Legal 500 in 2016 cites Mr. Metzger as an "expert" in cyber and supply chain security; in prior years, he was recognized by The Legal 500 for telecommunications (litigation and appellate). Mr. Metzger also is among the 49 U.S. lawyers rated as "Expert" in government contracts by Who's Who Legal (2016, 2017).

DR. BRIAN COHEN, INSTITUTE FOR DEFENSE ANALYSES

Dr. Brian Cohen has been a Research Staff Member in the Information Technology and Systems Division of the Institute for Defense Analyses (IDA) for over 25 years. He received his B.S. EE and Mathematics from Carnegie–Mellon University in 1981, an MS ECE, Systems and Control Theory from University of Massachusetts in 1983 and Ph.D. in Engineering Sciences from Thayer School of Engineering, Dartmouth College in 1988. After graduation, Dr. Cohen held a research professorship at Dartmouth College until 1991 when he joined IDA. Dr. Cohen has performed a range of studies at IDA, with a focus on technology and business assessments for national security. Many of these studies have dealt with sensor, electronic and microsystem device technology issues. Recent studies have examined problems with assuring the supply chain for defense systems in the face of increased trends toward off–shore sources.

DR. MICHAEL MCGRATH, MCGRATH ANALYTICS, LLC

Dr. Michael McGrath is an independent consultant for government and industry technology programs. He is also a Senior Technical Advisor (and former Vice President) at Analytic Services Inc. (ANSER), a not-for-profit government services organization. He co-chaired a 2014 NDIA study of Cybersecurity for Advanced Manufacturing and recently served on the Defense Science Board Task Force on Cyber Supply Chain.

Dr. McGrath previously served as the Deputy Assistant Secretary of the Navy for Research, Development, Test and Evaluation (DASN(RDT&E)), where he was a strong proponent for improvements in technology transition. In industry, he served as chairman of the board of Advanced Technology

International, Vice President for Systems and Operations Analysis at ANSER, and Vice President for Government Business at the Sarnoff Corporation. As a member of the Senior Executive Service he served as ADUSD for Dual Use and Commercial Programs in the Office of the Secretary of Defense (OSD), Program Manager and Assistant Director for Manufacturing at the Defense Systems Research Projects Agency (DARPA-DSO), and OSD Director of the DoD Computer-aided Acquisition and Logistics Support (CALS) program. His early government career included positions in Logistics Management at Naval Air Systems Command and in Acquisition Management in OSD. He is a member of several National Academies boards and industry and university advisory boards.

Dr. McGrath holds a BS in Space Science and Applied Physics and an MS in Aerospace Engineering from Catholic University, and a doctorate in Operations Research from George Washington University.

MR. STEVEN B. LIPNER, SAFECODE

Mr. Steven Lipner is executive director of SAFECode, a non-profit organization dedicated to increasing trust in information and communications technology products and services through the advancement of effective software assurance methods.

Mr. Lipner retired in 2015 as partner director of software security at Microsoft. He joined Microsoft in 1999 as director of the Microsoft Security Response Center (MSRC) and was the creator and long-time leader pf Microsoft's secure development process, the Security Development Lifecycle (SDL). He has over forty years of experience in computer and network security, and is named as inventor on twelve U.S. patents.

Mr. Lipner was elected to the National Cybersecurity Hall of Fame in 2015 and to the National Academy of Engineering in 2017.

MR. DAVE CHESEBROUGH, VICE PRESIDENT, PROGRAM DEVELOPMENT

Mr. Dave Chesebrough is the Vice President for Program Development for NDIA. In this role he works with NDIA Divisions and work groups to assure program content, thought leadership and NDIA strategic initiatives are aligned. Dave has a background in engineering and electronic commerce. His prior experience includes business and IT consulting, systems integration, logistics, training and commercial nuclear power systems design. His military experience was as an astronautical engineer in the US Air Force. He has lectured on logistics, e-commerce and IT strategy in Europe, Asia and Africa.

NOTES		