Robert Andreas – Thales

Robert Andreas is Director R&D for the Systems Solutions Business Line of Thales Communications, located in Clarksburg, Maryland. In this role he leads advanced development initiatives, with particular focus on leveraging Thales Group wide technologies into DOD and Civil programs, building local competency for a sustained competitive position. Mr. Andreas is leading the capture and positioning of Thales' Edge Centric LTE technologies into the emerging opportunity in Public Safety Broadband Networks, and for Tactical Broadband Network opportunities within North America. He received BS and MS Degrees from Purdue University in West Lafayette, Indiana. A U.S. proxy company (100% American), Thales Defense & Security is part of Thales, a global technology leader (www.thalesgroup.com) for the Aerospace and Space, Defense, Security, and Transportation markets.

Kameron Behnam – PSCR

Kameron Behnam is a Senior Electronics Engineer in the Telecommunications and IT Planning Division at the U.S. Department of Commerce National Telecommunications and Information Administration (NTIA) Institute for Telecommunication Sciences (ITS) located in Boulder, Colorado. Mr. Behnam has been with the NTIA/ITS since 2002, and his main roles in the Public Safety Communications Research (PSCR) program include being the First Network operator representative in the PCS Type Certification Review Board (PTCRB) and development and execution of LTE test plans related to: Evolved packet core (EPC) interoperability, EPC interface conformance, network drive testing, and UE conformance/performance testing. The PSCR program is a joint effort with the National Institute of Standards and Technology (NIST) Office of Law Enforcement Standards (OLES) and serves a technical advisor and laboratory for public safety practitioners to accelerate the adoption and implementation of the most critical public safety communication standards and technologies. Mr. Behnam received the Department of Commerce Gold Medal award in 2008 for his efforts related to Public Safety communications research and development within the PSCR program. Prior to joining ITS in 2002, Mr. Behnam worked for seven years in the private sector at several different cellular infrastructure manufacturers. Projects included system level interoperability testing, deployment of commercial cellular systems worldwide, and embedded software development and test. Mr. Behnam received his Master's of Science in Electrical and Computer Engineering from Georgia Institute of Technology and a Bachelor's of Science in Electrical Engineering from Texas Tech University.

Dr. David Boyd – DHS Office for Interoperability and Compatibility

Dr. David G. Boyd joined the Department of Homeland Security (DHS) in March of 2003 and served as the Director of Command, Control and Interoperability with responsibility for research and development (R&D) programs to support command and control, communications, computing, intelligence, surveillance, reconnaissance, cyber security and interoperability until moving to his current position in the Department Headquarters. He also served as the Director of the Office for Interoperability and Compatibility, which included the research, development,

test, evaluation, and standards portions of SAFECOM and Disaster Management, two Presidential management initiatives, and was the DHS architect for the Virtual USA Program.

Before joining DHS, Dr. Boyd served as the Director of Science and Technology for the National Institute of Justice. His office managed R&D programs in every facet of technology affecting law enforcement and corrections, including the forensic sciences, less than lethal technologies, information and communications technologies, and concealed weapons and contraband detection, among others. He directed the DNA and forensic laboratory improvement programs, which grew the forensic community from fewer than six DNA-capable crime laboratories to more than 130 in all 50 states.

Before retiring from the Army to enter the Civil Service, Dr. Boyd commanded combat, combat support, and training units in the U.S. and overseas, in times of both peace and war, and served on military staffs from battalion level to the Pentagon. His more than three dozen military awards include the Bronze Star and the Purple Heart.

Dr. Boyd holds Presidential Rank, the highest recognition available in the Federal Civil Service, and holds a career appointment in the Senior Executive Service.

Jeff Bratcher - PSCR

Jeff Bratcher is the Division Chief for the Telecommunications and IT Planning Division at the U.S. Department of Commerce National Telecommunications and Information Administration (NTIA) Institute for Telecommunication Sciences (ITS) located in Boulder, Colorado. Mr. Bratcher has been with NTIA/ITS since 2003, and one of his primary roles is serving as the Operations Manager for the Public Safety Communications Research (PSCR) program. The PSCR program is a joint effort with the National Institute of Standards and Technology (NIST) Office of Law Enforcement Standards (OLES) and serves as an objective technical advisor and laboratory for public safety practitioners to accelerate the adoption and implementation of the most critical public safety communication standards and technologies. Mr. Bratcher received the Department of Commerce Gold Medal award in 2006 and Silver and Bronze Medal awards in 2011 for his efforts related to Public Safety communications research and development within the PSCR program. Prior to joining ITS in 2003, Mr. Bratcher worked for 10 years in the private sector at several different cellular infrastructure manufacturers. Projects included system level interoperability testing and deployment of commercial cellular systems worldwide. Mr. Bratcher received his Master's of Science in Telecommunications from Southern Methodist University and a Bachelor's of Science in Electrical Engineering from Texas Tech University.

Tony Chadney – FirstNet Consultant

Tony Chadney has spent 15 years planning more than a dozen radio networks around the globe. Tony's experience includes both development and early adopter rollouts of new wireless technologies, launching some of the first GSM and CDMA networks in the world. He began his career with British Telecom Labs working on the development, standardization and assessment of GSM and other digital mobile technologies, including IS-54 and CDMA for McCaw Cellular when British Telecom was a shareholder. Tony subsequently moved to PacTel in California where he led the radio planning for nationwide networks as PacTel expanded across the major European markets and Asia. In the US, he worked on the specification of the performance objectives for PacTel's first CDMA network in Los Angeles. Tony has also led the radio network planning and optimization activities for a turnkey project for a multi-thousand-site contract in

Asia for a Tier 1 wireless operator. He has also managed 2G/3G wireless network-related projects for the World Bank and Arthur D Little.

John Contestabile – Johns Hopkins University

John M. Contestabile is the Assistant Program Manager for Homeland Security for the Johns Hopkins University/Applied Physics Lab [JHU/APL]. He joined the Lab in July of 2009, after retiring from the State of Maryland Department of Transportation [MDOT] where he was Acting Assistant Secretary for Administration as well as the former Director of the Office of Engineering & Emergency Services. In that capacity, he had been responsible for Emergency Planning/Response/Recovery activities for the MDOT since 1996. In addition to working at MDOT, Mr. Contestabile was named by Governor O'Malley as the Director of the Maryland Statewide Communications Interoperability Program, reporting to the Superintendent of the Maryland State Police. Previously, Mr. Contestabile served on assignment with the Governor's Office during the Ehrlich administration as the Acting Deputy Director of the Office of Homeland Security. Mr. Contestabile participates on a number of committees including: the current Vice Chair of the Committee on Critical Infrastructure Protection for the *Transportation Research Board* [TRB], Chair of the *National Public Safety Telecommunications Council* [NPSTC] Video Technology Advisory Committee, and Chair of the *Department of Homeland Security Science and Technology Directorate* Video Quality in Public Safety [VQiPS] working group. He was just recently appointed in 2013 to a three-year term on the *District of Columbia Homeland Security Commission*. Mr. Contestabile was also a former board member of the *Public Safety Spectrum Trust* [PSST], who held the national license for the proposed 700 MHz National Public Safety Broadband system. He is a former Vice Chair of the *American Association of State Highway and Transportation Officials* [AASHTO] Security and Emergency Management Committee, as well as a former member of the Department of Homeland Security's *"Safecom"* Interoperable Communications Advisory Committee. He belongs to several organizations including: the *All Hazards Consortium*, the *American Society of Civil Engineers,* the *Maryland Emergency Management Association* and the *National Domestic Preparedness Coalition.*

Mr. Contestabile received his Bachelor of Science Degree in Engineering from Worcester Polytechnic Institute in Massachusetts and holds a Master of Business Administration Degree from the University of Baltimore.

Bill D'Agostino – FirstNet General Manager

D'Agostino is an accomplished telecommunications and wireless industry executive, with 33 years of experience designing, operating and upgrading telecommunications networks. D'Agostino most recently served as Executive Director, Network for Verizon Wireless in Southern California from 2008-12. Prior to that, he held executive positions in a number of other communications firms including Sprint PCS, Airtouch Communications and Pacific Bell.

Mike Dame – NTIA

Michael Dame is a Telecommunications Policy Specialist within Office of Public Safety Communications at NTIA. He currently serves as the Program Director for the State and Local Implementation Grant Program (SLIGP) authorized under the Middle Class Tax Relief and Job Creation Act of 2012. SLIGP is a formula-based grant program to assist State, local, and tribal governments with planning and consultation for the forthcoming nationwide public safety broadband network. Mr. Dame joined NTIA in December 2012. Mr. Dame served as a Division

Chief at the Office of Emergency Communications within the U.S. Department of Homeland Security from 2008 to 2012. In that role, he was a second-level manager overseeing several State, local and tribal stakeholder programs such as the SAFECOM Program, the National Council of Statewide Interoperability Coordinators (NCSWIC), the Interoperable Communications Technical Assistance Program (ICTAP), plus the annual series of Statewide Communications Interoperability Plan (SCIP) workshops. In 2007-2008, Mr. Dame served as the Division Chief of the Grants and Agreements Management Division at the National Institute of Standards and Technology (NIST) managing a number of grant programs for NIST and NTIA. Mr. Dame served 10 years at the U.S. Department of Justice, Office of Community Oriented Policing Services (COPS) in a number of roles to support law enforcement grant programs primarily focused on information technology and public safety communications which assisted State, local, and tribal governments. He was part of a team at COPS that helped the Department of Justice ultimately achieve a Presidential goal of funding an additional 100,000 community policing officers across the Nation in 1999. Mr. Dame served as a team leader, first-level supervisor, and his final position at COPS was as Assistant Director for Grants Administration. He began his career with the U.S. government in July 1996 at the Federal Election Commission serving as a Compliance Analyst. Mr. Dame holds a Bachelor of Arts degree in Government and Politics from the University of Maryland at College Park, and a Master of Public Administration degree from American University in Washington, D.C.

Stephen Devine – Missouri Department of Public Safety

Stephen Devine holds the position of Assistant Director of the Missouri Statewide Interoperability Network (MOSWIN) for the Missouri Department of Public Safety in Jefferson City, Missouri. Steve has been employed with the State of Missouri for 28 years in operational and technical roles supporting Missouri's public safety communications community. His current duties as Assistant Director for the MOSWIN network include technical support, education and outreach associated with all of Missouri's public safety communications interoperability initiatives and all technical responsibilities associated with Missouri's Statewide Interoperability Network (MOSWIN), a VHF/700/800 MHz Statewide Interoperability Network that serves Missouri's First Responder Community, their systems and users in Missouri's 115 counties.

Stephen also is Chairperson of both the Region 24 (Missouri) 700 MHz and 800 MHz Regional Planning Committees and participates nationally in the National Region Planning Council (NRPC). Stephen participated in the FCC's National Coordination Committee (NCC), a federal advisory committee charged with developing the rules for 700 MHz public safety spectrum. Under NPSTC's Technology Subcommittee, Stephen currently chairs a PTT over LTE Working Group made up of public safety users charged with identifying and developing public safety mission critical voice requirements for the National Public Safety Broadband Network (NPSBN). Steve is a recognized authority regarding public safety communications technology and operations, public safety 700/800 MHz regional planning, and spectrum management. Steve is also a Senior Member of APCO international and sits on the Project 25 Board of Directors. Stephen has been a long time member of NPSTC, the FCC's ERIC Technical Advisory Committee and APCO's Spectrum Management Committee. Stephen resides in Jefferson City, Missouri.

Todd Early – Texas Department of Public Safety

Todd Early **is** Deputy Asst Director of the Public Safety Communications Service for TxDPS. He has oversight of 27 Communications Facilities, 10 wireless communications radio shops and the

State's Strategic Technology Reserve. Mr. Early is Statewide Communications Interoperability Coordinator and Texas' single point of contact for First Responder Network Authority (FirstNet).   He is Chair of the Early Builders Advisory Council for the 700 MHz public safety mobile broadband waivers/network, and Chair of the State Agency Interoperability Committee.

Craig Farrill – FirstNet Board

Craig Farrill's leadership and experience in the wireless industry spans 38 years. Most recently, he founded advanced wireless systems company, Kodiak Networks, where he served as President and CEO from 2003-2007. Prior to that, he was Managing Director at inOvate Communications Group, an early stage wireless venture capital firm. For the majority of his career, Mr. Farrill has served as Chief Technology Officer (CTO) for large international wireless carriers, including Vodafone AirTouch Plc, PacTel Corp., and AirTouch Communications. He also was a founder of the CDMA Development Group (CDG), an international industry association furthering the development of next-generation wideband digital cellular technology. Mr. Farrill has over 13 years of experience on public, private and non-profit boards and currently serves on the board of Kodiak Networks. He has degrees from the University of Oklahoma and the University of Dallas.

Sheila Frankel – PSCR

Sheila Frankel is a computer scientist and computer security researcher in NIST's Computer Security Division. She is an active participant in the Internet Engineering Task Force (IETF) IPsec standardization effort, and was responsible for NIST's IPsec/IKE reference implementation and interactive Web-based interoperability tester. She is the author of a book on IPsec, "Demystifying the IPsec Puzzle." She also contributed to IEEE's 802.11i wireless security standardization. She is involved with the Federal Government's transition to IPv6, the next generation Internet protocol. Currently, she is working with PSCR, consulting on the development and testing of FirstNet security. She is also a participant in the 3GPP LTE SA3 Working Group, which is developing the security requirements for the next generation telecommunications standard. She holds a Masters degree from New York University's Courant Institute.

Dr. Patrick Gallagher – Department of Commerce

Dr. Patrick Gallagher was confirmed as the 14th Director of the U.S. Department of Commerce's National Institute of Standards and Technology (NIST) on Nov. 5, 2009. He also serves as Under Secretary of Commerce for Standards and Technology, a new position created in the America COMPETES Reauthorization Act of 2010. Prior to his appointment as NIST Director, Gallagher had served as Deputy Director since 2008. Gallagher provides high-level oversight and direction for NIST. The agency promotes U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology. NIST's FY 2013 budget includes $778.0* million in direct and transfer appropriations, an estimated $49.7 million in service fees and $120.6 million from other agencies. The agency employs about 3,000 scientists, engineers, technicians, support staff, and administrative personnel at two main locations in Gaithersburg, Md., and Boulder, Colo. NIST also hosts about 2,700 associates from academia, industry, and other government agencies, who collaborate with NIST staff and access user facilities. In addition, NIST partners with more than 1,300 manufacturing specialists and staff at more than 400 MEP service locations around the country. Under Gallagher, NIST has greatly expanded its

participation, often in a leadership role, in collaborative efforts between government and the private sector to address major technical challenges facing the nation. NIST's participation in these efforts stems from the agency's long history of technical accomplishments and leadership in private-sector led standards-development organizations and in research fields such as manufacturing engineering, cyber security and computer science, forensic science, and building and fire science. Currently, he co-chairs the Standards Subcommittee under the White House National Science and Technology Council. Gallagher joined NIST in 1993 as a research physicist and instrument scientist at the NIST Center for Neutron Research (NCNR), a national user facility for neutron scattering on the NIST Gaithersburg campus. In 2000, he became group leader for facility operations, and in 2004 he was appointed NCNR Director. In 2006, the U.S. Department of Commerce awarded Gallagher a Gold Medal, its highest honor, for his leadership in interagency coordination efforts. Gallagher received his Ph.D. in physics at the University of Pittsburgh and a bachelor's degree in physics and philosophy from Benedictine College.

Camillo Gentile - PSCR

Camillo Gentile received his Ph.D. degree from the Pennsylvania State University, University Park, Pennsylvania in electrical engineering. His doctoral work concentrated on computer vision and neural networks. He has been a researcher in the Advanced Network Technologies Division at the National Institute of Standards and Technology (NIST), Gaithersburg, Maryland since 2001. In the past he has worked on mobile ad-hoc network (MANET) routing and geolocation systems. His current interests include radio-frequency channel modeling, the Smart Grid, LTE, and millimeter-wave telecommunications.

Sam Ginn – FirstNet Board Chairman

Sam Ginn has been a leader in the telecommunications industry for more than four decades, beginning his career in 1960 as an engineer with AT&T. He later transitioned to Pacific Telephone in the mid-'70s and rose up through the ranks to become chairman and CEO of Pacific Telesis from 1988-1994. He is an early pioneer in the wireless phone industry, launching AirTouch wireless phone company while at PacTel. He served as AirTouch's chairman from 1993-1999. In 1999, Vodafone acquired Airtouch, and Mr. Ginn assumed the position of chairman in the United Kingdom. Mr. Ginn currently serves as Senior Advisor at Greenhill LLC, a Wall Street advisory firm, and is Director of OnDot Systems, Inc. He has significant board of directors experience, currently serving on the boards of Franklin Templeton Funds and Eisenhower Medical Center in Ranch Mirage, California. He previously served on boards for ICO Global Communications, CH2M Hill, First Interstate Bank, Pacific Telesis Group, Safeway, Transamerica Corporation, Vodafone, AirTouch Communications, Chevron Corporation, and Hewlett-Packard. Mr. Ginn is a graduate of Auburn University's College of Engineering, which is named after him. He will serve as chairman of the FirstNet Board.

Nada Golmie - PSCR

Nada Golmie received her Ph.D. in computer science from the University of Maryland at College Park. Since 1993, she has been a research engineer in the advanced networking technologies division at the National Institute of Standards and Technology (NIST). She is currently the manager of the emerging and mobile network technologies group.
Her research in media access control and protocols for wireless networks led to over 100 technical papers presented at professional conferences, journals, and contributed to

international standard organizations and industry led consortia. She is the author of "Coexistence in Wireless Networks: Challenges and System-level Solutions in the Unlicensed Bands," published by Cambridge University Press (2006). She is a member of the NIST Public Safety Communication Research program and leading the efforts on the simulation modeling and evaluation of LTE in support of public safety communications. She is the editor of IEEE Journal on Selected Areas in Communications Smart Grid series.

Sam Gomez - PSCR

Sam Gomez has 25 years of cellular/wireless experience. Currently employed with DOC/NIST, Sam has worked for top telecom companies, which includes Ericsson, Alltel Wireless, Alcatel/Lucent and Motorola. Sam's professional experience includes working on 4G, 3G & 2G technologies with primary focus on the cellular infrastructure networks, Radio Base Station (RBS)/eNodeB, RF network, cellular handsets and user equipment (UE). Holds a BS degree from DeVry University.

Tony Gray – P3 Communications GmBH, Germany

Regional Business Director, P3 Communications GmbH, Germany
Tony Gray has worked in the mobile communications industry throughout most of his career spanning almost 35 years to date. During this time he has held senior engineering, management, and consulting posts throughout Europe, the Middle East and around the world. He has worked as a consultant on a wide variety of critical communications-related projects globally, and is currently appointed Regional Business Director on behalf of P3 communications GmbH, a highly regarded German communications engineering and consulting services provider with clients including end-user, network operator and regulatory organisations worldwide. Tony is a serving board member and director of the TETRA and Critical Communications Association (TCCA) and chairs the TCCA's Critical Communications Broadband Group (CCBG). The CCBG is working with standards bodies and other stakeholder groups worldwide to drive the development of common, global, mobile broadband technology standards and solutions for critical communications users. In addition, the TCCA is lobbying regulators for appropriate, and as far as possible harmonised, spectrum in which future critical communications broadband networks can operate.

Keil Green – Lafayette Group

Keil Green is a consultant with Lafayette Group who currently supports the Department of Homeland Security's Office of Emergency Communications (OEC) and has spent the last decade working on behalf of DHS on the interoperability issue. Mr. Green supported the establishment of the Interoperable Communications Technical Assistance Program (ICTAP) in 2003, and has since helped coordinate ICTAP's work with public safety agencies in all 56 States/Territories. Mr. Green was fundamental in the design and implementation of a number of major DHS initiatives including the Tactical Interoperability Initiative, the National Emergency Communications Plan (NECP) Goals validation, and the Public Safety Interoperable Communications Grant Program (in cooperation with the Department of Commerce). Over the last two years, Mr. Green has focused on public safety broadband and has led DHS workshops with over a dozen States on the broadband issue. Prior to his support for the Federal government, Mr. Green served as the program lead for a number of State and local law enforcement technology implementations focusing on biometric technology and mobile data

deployments. Mr. Green previously supported the Domestic Policy Council at the White House as a postgraduate scholar focusing on crime and drug policy. He is a graduate of the University of the South.

Vinay Gupta – Polaris Networks

Vinay is a Co-Founder and the Chief Technology Officer of Polaris Networks. He has over seventeen years of industry experience in the computer networking and telecommunication areas. At Polaris Networks, he has lead the company's efforts in developing telco equipment and test tools in technologies such as LTE, Wi-Fi and WiMAX. Before co-founding Polaris, Vinay headed Agilent Technologies' R&D center in Kolkata that developed test tools for MPLS and VPN technologies. He was earlier in charge of Dynamic Digital Technology, where he was instrumental in growing the company to the level at which it was acquired by Agilent Technologies. Vinay has a BS in Computer Science from IIT Mumbai and an MS in Computer Science from UNC Chapel Hill, North Carolina.

Nelson Hastings – PSCR

Nelson Hastings is a member of the Public Safety Communications Research (PSCR) program team organizing and leading their security research and testing efforts. Located in Gaithersburg, he has been part of the Computer Security Division in the Information Technology Laboratory at NIST for the past 15 years. Before joining the PSCR efforts, he was the Technical Lead of the NIST Voting Program while leading the program's computer security efforts. He also co-chaired the Cyber Security Working Group's Testing and Certification sub-group of the Smart Grid Interoperability Panel. In addition, he has worked in the areas of public key infrastructure and the cryptographic module validation (FIPS 140-2) program. Dr. Hastings received his Ph.D. in computer engineering from Iowa State University, M.S. in electrical engineering from Western Michigan University, and B.S. degrees in electrical engineering and computer engineering from the University of Missouri-Columbia.

Heather Hogsett – National Governors Association

Ms. Hogsett serves as Director of the National Governors Association's (NGA) Committee on Health & Homeland Security. In this capacity she directs and oversees NGA's federal legislative agenda and activities regarding health and human services; homeland security and emergency management; the National Guard and homeland defense; and veterans affairs. Since joining NGA in 2009, Ms. Hogsett has led numerous efforts to preserve and strengthen the role of governors in providing for the safety and security of their citizens. She helped establish and direct the Council of Governors – a presidentially appointed council bringing together 10 governors with the Secretaries of Defense and Homeland Security, as well as senior White House officials – which has established an unprecedented level of cooperation between state and federal military forces. As part of these efforts, Ms. Hogsett worked with governors and senior federal officials to gain enactment of legislation to address a long-standing concern regarding the coordination of military forces during disaster response. In addition, Ms. Hogsett has worked extensively with national public safety leaders and other associations to strengthen emergency communications for firefighters, police officers and emergency medical providers. Most notably, this work has focused on supporting legislative efforts to build the nation's first interoperable broadband network for first responders. She has also worked with bipartisan Congressional leadership, the White House and senior administration officials regarding state and local emergency preparedness matters such as grant program reform, contingency planning and performance measurement. Prior to joining NGA, Ms. Hogsett served as Senior Professional

Staff of the House Committee on Homeland Security where she directed the work of the Emergency Communications, Preparedness and Response Subcommittee. She also served as Professional Staff on the Senate Homeland Security and Governmental Affairs Subcommittee on Financial Management, the Budget and International Security. Ms. Hogsett holds a bachelor's degree in political science and international studies from Northwestern University in Evanston, Illinois, and a Master of Science in Foreign Service degree from Georgetown University in Washington, DC.

Jeffrey Johnson – FirstNet Board, Western Fire Chiefs Association

Jeffrey Johnson has an extensive public safety background, with broad experience at both the local and national level. Chief Johnson served as Chair of Oregon's Statewide Interoperability Executive Council, which is transitioning from four independent state-owned radio networks into a single interoperable modern voice and data network. Prior to that, Chief Johnson was the Tualatin Valley Fire & Rescue Fire Chief/CEO for 15 years. Chief Johnson is very active nationally on public safety communications matters, and has served on the International Association of Fire Chiefs (IAFC) Board of Directors and served as President and Chairman of the Board. He is now CEO of the Western Fire Chiefs Association and served as a representative of the SAFECOM Emergency Response Council. He also serves as Chairman of Emergency Services Consulting International (ESCI), a company majority-owned by IAFC to provide emergency services consulting. Chief Johnson is a graduate of Concordia University.

Kevin Jones – Samsung Telecommunications America

Kevin holds the position of Senior Director, Strategy and Business Development at Samsung Telecommunications America. In this role, he leads a variety of new mobile business and technology initiatives for Samsung in North America. Previously, Kevin was the Director of Service Provider Business Development at Intel Corporation. Kevin joined Intel as part of Intel Capital (ICAP) in 2005. As a member of ICAP he was responsible for a managing several telecom and software deals across Europe and Russia based out of the London office. He also represented Intel on the Board of Directors of the Wholesale Applications Community (WAC) and managed the transition of the LiMo Foundation into the Tizen Association. Prior to Intel, Kevin was the Vice President and General Manager of the Mobile Business Unit at Spectel (acquired by Avaya in 2004). Before joining Spectel, Kevin was the Vice President of Marketing and Sales at Groove Mobile (acquired by Livewire Mobile). Kevin also held a number of senior management positions at Nokia, including General Manager, Mobile Data (based in Helsinki, Finland) and Vice President, Nokia Ventures. Prior to Nokia, Kevin held senior level marketing, sales and engineering positions at Sun Microsystems and Hewlett-Packard. At HP, Kevin was one of the first members of the R&D organization to be promoted to Engineer-Scientist. A frequent speaker at industry events, Kevin has presented on a wide variety of topics in computer architecture, operating systems and mobile communications. Kevin holds a degree in Computer Science from California State University.

Robert Lopez – RCC Consultants, Inc.

Robert A. Lopez, P.E., (Rob) is Vice President and General Manager at RCC Consultants, Inc. He joined RCC in 1989 after beginning his career in public safety / mission critical land mobile radio

with Motorola C&E, Inc. in 1985. He earned his BSEE degree at the New Jersey Institute of Technology (NJIT) in 1986 and his MSEM in 1995. Rob is a member of the IEEE, APCO, NFPA, Project Management Institute (PMI), the Radio Club of America and the National Society of Professional Engineers (NSPE). Rob also holds a Level 2 certification in iBwave distributed antenna system (DAS) systems design. At RCC he leads a group specializing in the development of tools and processes for the planning, design and analysis of narrow band and broadband radio systems including P25, TETRA, DMR, LTE, fixed wireless point-to-point and multipoint networks addressing issues of radio coverage, delivered audio quality (DAQ), reliability, capacity, intermodulation, interference and non-ionizing radiation as dictated by FCC, TIA, ITU and 3GPP guidelines.

Harlin McEwen – FirstNet Public Safety Advisory Committee

Chief McEwen has been in the law enforcement field for more than 50 years, serving as a first responder and police executive. He serves as the Chairman of the Communications & Technology Committee of the International Association of Chiefs of Police (IACP), a position he has held for more than 35 years. He served as a Chief of Police for more than 20 years, last serving as Chief in the City of Ithaca, NY. Following his retirement as Ithaca Police Chief he served as a Deputy Assistant Director of the Federal Bureau of Investigation with his office located at FBI Headquarters in Washington, DC. During his tenure at the FBI he provided executive oversight for new FBI Criminal Justice Information Services such as the National Crime Information Center (NCIC) 2000 Project, the Integrated Automated Fingerprint Identification System (IAFIS), and the Law Enforcement Online (LEO) system, and traveled extensively throughout the United States and internationally meeting with law enforcement groups and speaking at law enforcement and criminal justice conferences. He represents the IACP on numerous committees including the SAFECOM Executive Committee, the Governing Board of the National Public Safety Telecommunications Council, and the Global Justice Information Sharing Advisory Committee. He is a Life Member and Honorary President of the IACP, Life Member of the National Sheriff's Association (NSA) and Life Member of the Association of Public-Safety Communications Officials-International (APCO). He has written many articles and is the recipient of many awards including the National Public Safety Telecommunications Council (NPSTC)-Radio Club of America (RCA) Richard DeMello Award and the FBI National Executive Institute Associates (NEIAA) Penrith Executive Leadership Award. He also currently serves as Chairman of the Public Safety Advisory Committee (PSAC) of the First Responder Network Authority (FirstNet).

Pam Montanari – Lafayette Group

Ms. Pam Montanri has over 25 years experience in public safety communications, including planning, grants, budgeting, managing and directing local and regional public safety efforts. Ms. Montanari worked as the Pinellas County Radio and Data Systems Manager for over 24 years where she oversaw all operations of the countywide P25-700/800 MHz Trunked radio and data systems, supporting over 81 agencies and 10,000+ users. In addition to her county responsibilities, she served as the Interoperability Chair in the Tampa Bay Region for over 10 years, coordinating Regional and Statewide efforts, working with agencies to improve interoperability for daily operations and large scale events. In 2012, Ms. Montanari worked with the multiple vendors to develop the strategy and provide oversight and coordination for the first multi-vendor public safety Band 14 LTE demonstration network used during the Republican

National Convention. She currently works as a public safety specialist for Lafayette Group. Ms. Montanari holds a Bachelors Degree in Business Management, two Associate Degrees in Electronics, and is a graduate of the Florida Certified Public Manager Program. With over 30 years experience in communications she has represented public safety in several programs at the national and federal level and currently serves as the NPSTC Vice-Chair for Interoperability, participates in broadband working groups, and is a former member of the SAFECOM ERC.

Emil Olbrich – PSCR

Emil Olbrich is currently the Head of RDT&E for the Public Safety Communications Research (PSCR) program within the Department of Commerce. Mr. Olbrich helps lead the PSCR LTE research, development, implementation, testing and evaluation activities for public safety communications. Currently he is leading the technical team in the engineering design, implementation, testing and evaluation of the entire LTE ecosystem - from devices to base stations to packet core to applications. Additionally Mr. Olbrich participates in standards and requirements work within ATIS, GSMA, NPSTC and 3GPP and leads the LTE interoperability and conformance testing efforts for PTCRB and ETSI. Prior to this position he was Principal Consultant with Protiro Inc. working at the Institute for Telecommunication Sciences (ITS) in Boulder, CO supporting the PSCR and NIST OLES teams. Mr. Olbrich has over 18 years of experience in the field of wireless telecommunications. He has worked primarily in R&D at some of the largest telecommunication companies in the world, such as Motorola, Qualcomm and Ericsson. This work included managing CDMA base station development; the nationwide 3G trials in China and the cellular network deployment for the 2002 SLC Winter Olympics. Additionally, Mr. Olbrich has been a guest speaker at Mobile World Congress, LTE World Summit, LTE North America, International Wireless Communications Expo and the Association of Public Safety Communications Officials conferences.

Dereck Orr – PSCR

Dereck Orr is the Program Manager for Public Safety Communication Standards at NIST's Office of Law Enforcement Standards, and has held that position since December 2002. In that role, he leads the Public Safety Communications Research (PSCR) program that serves as an objective technical advisor and laboratory to the Department of Homeland Security and public safety to accelerate the adoption and implementation of the most critical public safety communication standards and technologies. From October 2003 until October 2004, Mr. Orr was detailed to the Department of Homeland Security to serve as the Chief of Staff of the SAFECOM Office within the Science and Technology Directorate, to help establish the new program. Prior to working at NIST, Mr. Orr served as a professional staff member of the Senate Appropriations Subcommittee for the Departments of Commerce, Justice, and State, and Related Agencies under Senator Fritz Hollings. In that position, Mr. Orr was responsible for the appropriations accounts relating to state and local law enforcement issues. Prior to that, Mr. Orr served four years at the Office of Community Oriented Policing Services (COPS) at the Department of Justice. Mr. Orr received a Masters in Public Policy from the College of William and Mary and a Bachelor of Arts in American History from the University of Texas at Austin.

Paul Patrick – Utah Department of Health, FirstNet PSAC EC

Paul R. Patrick is currently the Deputy Division Director for the Utah Department of Health Division of Family Health and Preparedness. Paul is also the Emergency Medical Services and Preparedness Director for the State of Utah. In addition he is a President-Elect of the National Association of EMS Officials (NASEMSO). He also is a member of the Association of State and Territorial Health Officials (ASTHO) Preparedness Policy Committee and the CDC Public Health Preparedness Directors. Other groups he serves on include the Public Safety Advisory Committee Executive Committee (PSAC-EC), SAFECOM Executive Committee, National Public Safety Telecommunications Council (NPSTC) Executive Committee, Public Safety Alliance (PSA), Utah SIEC Executive Committee, and Chair of the Western Affiliate for the American Stroke Association. Paul has been involved in communications improvement in Utah for the past 15 years and also represents NASEMSO as the Communications Chair. Paul is a native of Utah, married, and the father of three children. He received his Eagle Scout award in 1967 and graduated with honors from Springville High School in 1971. Paul then completed his Design Engineering Degree in 1978 from Brigham Young University.

Laura Pettus – NTIA

Laura Pettus works on a variety of NTIA initiatives to support the communications needs of public safety entities. Currently she is serving as the Acting Deputy Associate Administrator for the Office of Public Safety Communications within NTIA. One of her primary responsibilities is to establish the State and Local Implementation Grant Program authorized under the Middle Class Tax Relief and Job Creation Act of 2012. In addition, Ms. Pettus served on the senior management team for NTIA's Broadband Technology Opportunities Program (BTOP), a $4 billion grant program that is expanding broadband access and adoption across the U.S., where she manages a portfolio of public safety infrastructure grants. She joined NTIA in February 2007 to serve as the Program Manager for the Public Safety Interoperability Communications (PSIC) Grant Program, providing guidance and assistance to the Assistant Secretary and senior NTIA officials during the development and implementation of this successful $1 billion initiative to enhance interoperable communications capabilities for public safety agencies. Prior to joining NTIA, Mrs. Pettus served as the citywide Grants Coordinator for the City of Alexandria, Virginia, where she worked with over 20 local agencies in the management of state and federal grants. As Grants Coordinator, Mrs. Pettus maintained responsibility for the management of the City's critical interagency grants dealing with homeland security, law enforcement, and disaster assistance. Mrs. Pettus began her work with the City as an Emergency Management Analyst for the Alexandria Fire Department. Her professional experience also includes service as the Director of Operations for a start-up pharmaceutical company and service as an economic research analyst for the Alliance to Save Energy. Before arriving in the Washington, DC area, Mrs. Pettus worked in the Office of the Head Economist in St. Petersburg, Russia, to assist with balancing the city's first budget in the aftermath of the devaluation of the Russian ruble. Mrs. Pettus received a B.A. in Economics with Honors from Kenyon College and resides in Alexandria, Virginia.

Bohdan Pyskir – Lemko

Bohdan Pyskir, Chief Operating Officer, Lemko
Mr. Pyskir has 20 years of international wireless telecom experience. Prior to founding Lemko he was the Motorola Ukraine Country Manager and subsequently the General Manager for the Latin American paging infrastructure division. After graduating from West Point he served as a

US Army Armored Cavalry officer and is Airborne Ranger qualified. Bo holds an M.A. from Harvard University and a B.S. from United States Military Academy.

Chris Redding – PSCR

Christopher Redding is an Electronics Engineer with the Institute for Telecommunication Sciences (ITS) where he has worked since 1990. He is currently working on the PSCR program where he has been involved in LTE testing to include test plan development, RF test and measurement, drive testing and data analysis. His past experience includes work in the areas of adaptive radio technology, IP applications over radio networks, cellular network discovery and LMR. Prior to joining ITS he worked at the National Security Agency where he was involved with the development of tactical secure voice systems. Chris holds a BS in Electronics Engineering Technology from Kansas State University.

Richard Reed – DHS OEC

Richard Reed is the Branch Chief for Technical Assistance within the Office of Emergency Communications (OEC), U.S. Department of Homeland Security. In that capacity, he manages the Interoperable Communications Technical Assistance Program (ICTAP) as well as the Modeling, Analysis and Continuity (MAC) section that directs the activities of over 90 project leads, engineers, software developers and public safety Subject Matters Experts' (SME) that deliver hundreds of direct technical assistance engagements to Federal, State, local, territorial and tribal public safety agencies. Mr. Reed brings more than 25 years of experience in communications, and has an extensive background in Land Mobile Radio (LMR) & Satellite Communications (SATCOM) installation, maintenance and repair. His career began as an Electronics Technician in the United States Navy where he was responsible for maintaining a host of radio and radar systems aboard the USS FAHRION (FFG-22). After completing a sea service rotation, he was recruited for a position at the White House Communications Agency (WHCA) where he spent 5 years traveling with the advance team for the President and Vice Presidential trips as a Presidential Senior Radio Technician (PSRT). In August 1995, after leaving the active duty Navy and joining the Navy Reserve Intelligence Program, he joined the private sector as Project Management consultant for the National Institutes of Health (NIH). Since then Mr. Reed worked in executive positions in various system integrations companies in the National Capital Region. Most recently, he served as a Director of Systems Integration where he built a division of engineers, technicians and project managers that supported White House Communications Agency (WHCA), National Security Council (NSC) and other Federal, State and local entities in solving complex communications challenges with technology integration and process engineering. Mr. Reed has a Bachelor of Science degree in Management, with a Minor in Criminal Justice and Electronics Technology with extensive training in program management, voice and data communications and intelligence collection.

Patrik Ringqvist – Ericsson

Patrik Ringqvist is the Vice President, Wireless Networks for Ericsson North America. Ringqvist has 30+ years of experience in the telecommunications infrastructure industry. He is responsible for Ericsson's North American direction for expanding and evolving mobile networks in support of public safety. Prior to his current role, Ringqvist has also held positions in sales and product development in the United States and Sweden. He has extensive experience in working with wireless networks, from first-generation analog systems through fourth-generation broadband

systems. Ringqvist holds a Master of Science in Engineering Physics from Chalmers University of Technology in Gothenburg, Sweden.

Richard Rouil – PSCR

Richard Rouil is a researcher working at the National Institute of Standards and Technology (NIST). He holds a Ph.D. in Computer Science from Telecom Bretagne, France (2009) that focused on mobility in heterogeneous networks. His main interests include modeling and simulation of wireless networks such as LTE and WiMAX. His current research focuses on the performance evaluation of LTE to support the deployment of networks used by Public Safety.

John Saboe – FirstNet Consultant

John Saboe is presently serving as a consultant to FirstNet focused on support of the State and Local Implementation Grant Program (SLIGP) and public safety-specific Broadband Technology Opportunities Program (BTOP) initiatives. He is a senior leader with over twenty years of experience in the design, deployment, operations, and continuous improvement of wireless telecommunications products and services. He has held roles ranging from engineering to national network operations, creatively driving a unique balance of quality and industry leading cost performance. Prior to his work on FirstNet, John served as Vice President of National Network Operations for Cricket Communications, and previously as their Vice President of Engineering. Prior to Cricket, John served as Qualcomm's Director of Network Planning, focused on wireless network design, technology planning and product development. While with Telecom Solutions Inc., he supported the network design and deployment of Nextel's initial push-to-talk networks. He also provided systems engineering support of military satellite systems while with Booz-Allen. John holds a Bachelors of Science in Electrical Engineering from Virginia Tech.

Andrew Seybold – Andrew Seybold, Inc.

Andrew Seybold heads Andrew Seybold, Inc. a wireless consulting, education, and publishing company founded in 1991. Clients of the firm include both commercial and public safety entities around the world, and Mr. Seybold's articles, commentary's blog are widely read by both wireless sectors. Mr. Seybold has served on the Motorola Research Visionary Board and IBM's Mobile Computing Advisory Board, among others. Mr. Seybold is a Fellow in the Radio Club of America for his contributions to the wireless industry, recipient of the Radio Club of America Sarnoff Citation. He was recently honored with two awards from APCO, the Associated Public Safety Communications Officials organization: The President's Award and a special recognition award. He also received the National Sheriffs' Association (NSA) President's Award for his contributions to Public Safety communications and has been recognized by the National Public Safety Telecommunications Council (NPTSC) for his contribution to Public Safety Broadband communications and the Public Safety Spectrum Trust (PSST). Andrew Seybold's *COMMENTARY* is possibly the most widely read e-newsletter among executives of leading wireless network operators, as is his *Public Safety Advocate*. He co-founded the Andrew Seybold Wireless University in 1995, which has been attended by thousands of industry professionals and continues to be the only in-depth education program of its kind in the wireless industry. As a trusted authority on wireless technology and business issues, Mr. Seybold has been featured in the *Wall Street Journal*. He is author of *Using Wireless Communications in Business* and two other books. He writes for *Forbes.com* and many industry publications including *Wireless Week*,

Urgent Communications, *Fierce Wireless,* and others.

Gordon Shipley – UK Home Office Crime and Policing Group

Gordon Shipley is a Director in the UK Home Office's Crime and Policing Group responsible for the Emergency Service Mobile Communications Programme, to procure a national voice and broadband data service for the police, fire, ambulance and other users. With a technical background and experience in public procurement, he was previously the Olympic Delivery Authority's Head of Systems and Technology, responsible for system integration and information technology, and delivering the Olympic Park's security projects. On commissioning from the Royal Military Academy, Gordon joined Royal Signals and served in a variety of signal units, airborne forces, and the infantry. He attended the Army Staff Course and was appointed to various staff and command appointments in UK and Northern Ireland, including the Ministry of Defence and the Procurement Executive. He attended the US Army War College before forming a joint C3I team at the British Embassy, Washington, reporting on US technical and operational capability. His final tour was as Chief of Staff at the UK Defence Academy. Gordon Shipley is married with a grownup family. He jogs to keep fit, plays golf and fishes.

Tom Sorley – City of Houston

Tom Sorley is a Deputy Director of Information Technology Services for the City of Houston. He is a nationally recognized leader in public safety communications with over 28 years of experience in city and county government. Mr. Sorley serves on several national and international committees including the Governing Board Vice-Chair of the Department of Homeland Security P25 Compliance Assessment Program, the Chair of the Technology Committee for the National Public Safety Telecommunications Council (NPSTC) and as Vice-Chair of the FirstNet Public Safety Advisory Committee (PSAC).

Geoff Spring – APCO Australia

Geoff Spring is the Director International Business Development and Strategy for APCO Australasia. Geoff has over 20 years experience in strategy development and project management for public safety communications. Geoff is also the immediate past President and a member of the Global Alliance of APCO Partners; a member of the P25 Steering Committee, Senior Advisor to the University of Melbourne's Centre for Spatial Data Infrastructure and Land Administration as well as a member of a number of Australian Commonwealth and State Government advisory Committee's through which he promotes the importance of *mission critical* public safety communications.

Peters Suh – FirstNet Consultant

Peters Suh is a consultant to the FirstNet Board advising them on their applications efforts. Previously, Peters was the CEO of the Wholesale Applications Community (WAC), an alliance of communications companies committed to building an open applications platform which included over 60 members comprised of the leading wireless operators and technology suppliers. Peters was the CEO of JIL (Joint Innovation Lab), a joint venture with Vodafone, China Mobile, Verizon Wireless, and Softbank Mobile. Peters volunteers as a director on Vodafone Americas Foundation Board, the Diablo Regional Arts Association Board, and he is on the advisory council of the San Francisco Children's Creativity Museum. Peters holds a B.A. and M.B.A., both from the University of California, Los Angeles.

Assistant Deputy Chief Michael Sullivan – Ottawa Fire Services

Assistant Deputy Chief Michael Sullivan is a 33-year veteran with Ottawa Fire Services currently on secondment to the City of Ottawa as the Program Director for the City Radio Project.

Michael has an extensive background in a wide range of firefighting services from suppression and training to communications with ever expanding leadership roles. After a serious injury sustained on the job, Assistant Deputy Chief Sullivan focused his energies on a myriad of technology related projects. In 2003 he received the General Manager's Commendation Award for implementing a state of the art CAD and RMS. Since 2010, Michael has been supporting the Canadian Association of Fire Chiefs (CAFC) as their lead on the issue of 700 MHz broadband for mission critical public safety data in Canada. In 2011 he was asked to be their representative on the Interim Board of the Canadian Interoperability Technology Interest Group (CITIG), a role he continues today. He is also the CAFC representative on the Senior Officials Responsible for Emergency Management (SOREM) Federal/Provincial/Territorial Interoperability Working Group. Michael is a sought after speaker and commentator on public safety interoperability. He holds an Economics degree from Carleton University. He is married with three adult children. In October 2012 he was honoured with the Queens Diamond Jubilee Medal.

Doug Sharp – Oceus Networks

Douglas Sharp is the Director of Engineering at Oceus Networks, Inc., a broadband services and solutions provider that empowers government and industry across the globe to deliver high-speed voice, video and data communications. In his role as lead technologist for the Private and Federal Solutions group, he is responsible for advising customers with regard to mobile broadband communication system technology, standards, radio propagation and security.   Mr. Sharp has more than 25 years experience in Land Mobile Radio, Cellular and Mobile Broadband communication systems.   Prior to joining Oceus Networks in 2012, Mr. Sharp designed and implemented 4G LTE Site Solutions for Ericsson, Inc., was a member of the Systems Engineering team for Ericsson CDMA Systems in Boulder, CO, and a Systems and Design Engineer for Public Safety Trunked Radio Systems with Ericsson Private Radio Systems in Lynchburg, VA.

Andrew Thiessen – PSCR

Andrew Thiessen is the Head of Requirements and Standards Development for the Public Safety Communications Research program. Mr. Thiessen leads the standards development efforts for the PSCR, which includes working in such standards development organizations as 3GPP, ATIS, GMSA, representing public safety's communications requirements and the First Responder Network Authority. Mr. Thiessen is the Project 25 Compliance Assessment Program (P25 CAP) Laboratory Program Manager. Mr. Thiessen is also the Vice-Chair of the National Public Safety Telecommunications Council (NPSTC) Technology Committee and Chair of the NPSTC Broadband Working Group (700MHz). Mr. Thiessen has worked as a principal in several small start-ups, as a Senior Systems Engineer for Sun Microsystems, an engineer for MITRE, and an engineer for the National Security Agency. Mr. Thiessen holds a Bachelor's degree in electrical engineering for Worcester Polytechnic Institute (WPI), a Bachelor's degree in English, also from WPI, a Master's degree in electrical engineering from Stanford University, and an MBA from Duke University.