



Claude Aiken became a member of NTIA's Commerce Spectrum Management Advisory Committee in 2019. Aiken is the President and CEO of WISPA, the association representing thousands of companies dedicated to closing the digital divide through fixed wireless broadband. He was named a Rising Star in Wireless by FierceWireless in 2018. Claude joined WISPA after nearly a decade at the Federal Communications Commission. There he served as an advisor to both Chairman Wheeler and Commissioner Clyburn. He joined the Commission through the Attorney Honors program, he held critical leadership positions in the Wireline Bureau and Office of General

Counsel, as well key staff attorney roles throughout the Commission. Prior to joining the FCC, he was a John Marshall Harlan Scholar at New York Law School, where he graduated with a specialization in information and technology law. Claude also holds a degree in English from Grove City College.



Audrey L. Allison has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2014. Allison is Vice President of Global Spectrum Management for The Boeing Company. Her organization provides enterprise-wide radiofrequency spectrum acquisition, compliance, and policy support for Boeing technology, products, services, and operations worldwide – and to Boeing's commercial and government customers. Her previous work history includes the Federal Communications Commission's International Bureau; Iridium LLC; and consulting to the Department of

Defense on international spectrum and regulatory issues. Allison is Boeing's representative to the International Telecommunication Union (ITU) in Geneva, Switzerland. She recently served as Chairman of Committee 6 of the 2015 World Radiocommunication Conference (WRC-15) and was elected Vice-Chairman of the ITU's Radiocommunication Advisory Group (2008-2015). Allison has an MBA, *cum laude*, from the International Space University, a Masters of Law in International and Comparative Law from Georgetown University, a J.D. degree from Catholic University's Institute for Communications Law Studies, and a Bachelor's degree in Communications from Penn State University.



Mary Brown has served as a member of NTIA's Commerce Spectrum Advisory Committee since 2016. Brown, Senior Director of Spectrum and Technology Policy for Cisco Systems, Inc., has managed wireless policy and technology issues for 15 years, focusing on policies for unlicensed bands as well as for 3G/4G and now 5G wireless networks. She participated in the initial government-industry discussions leading up to the FCC's 2006 decision to open the 5 GHz band to unlicensed technologies on a shared basis with government systems, and is currently active in several industry trade groups focusing on spectrum allocations and spectrum sharing. Prior to working at Cisco, Brown worked for the service provider industry and before that, at the FCC. Brown is a frequent speaker at industry events and has testified on spectrum-related matters before Congress. Brown earned a B.A. from

the University of Massachusetts/Amherst, an M.S. from the S.I. Newhouse School of Public Communications at Syracuse University, and a J.D. from the Syracuse University Law School.



Michael A. Calabrese has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2009. Calabrese directs the Wireless Future Project at the New America Foundation, a nonprofit think tank based in Washington, D.C. As part of the Foundation's Open Technology Institute, he develops and advocates policies to improve our nation's management of the public airwaves and to promote pervasive connectivity, particularly through more ubiquitous and affordable high-speed wireless broadband access. He also served as an Invited Expert on the President's Council of Advisors on Science and

Technology spectrum reform working group during 2011-2012. Calabrese has previously served as General Counsel of the Congressional Joint Economic Committee, director of domestic policy at the Center for National Policy, as a counsel at the national AFL-CIO, and as a Clerk to California Supreme Court Justice Allen E. Broussard. Calabrese is a graduate of Stanford Business and Law Schools, where he earned J.D. and MBA degrees, and Harvard College, where he earned a B.A. in Economics and Government.



Jeffrey Cohen became a member of NTIA's Commerce Spectrum Management Advisory Committee in 2019. Cohen is Chief Counsel and Director of Government Relations at APCO International. In this capacity, Jeff provides strategic guidance on policy, legislative, and regulatory matters to advance the association's work on 9-1-1 and first responder communications. Prior to joining APCO, Cohen served as a detailee from the Federal Communications Commission to the Communications and Technology Subcommittee of the House of Representatives Energy and Commerce Committee. While on the Hill, he was one of the authors of the FirstNet legislation enacted in February 2012. At the FCC, Cohen was Senior Legal Counsel to the Chief of the Public Safety and Homeland

Security Bureau. Before his move to the federal government, Cohen was a partner at the Washington, D.C., telecommunications law firm of Wilkinson Barker Knauer, LLP, where he worked for over ten years on wireless regulatory matters after graduating from the George Washington University Law School with honors in 1994. Cohen also holds a B.S. cum laude in electrical engineering from the George Washington University. He is a recipient of the FCC's Silver Medal Award, APCO's Leadership in Regulatory Service Award, and the National Emergency Number Association's Presidential Award.



Mark E. Crosby has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2006. Crosby serves as the President and CEO of the Enterprise Wireless Alliance (EWA), a national association representing the wireless communication regulatory and spectrum allocation interests of private business enterprises, wireless sales/service organizations, private and commercial communication service providers and technology manufacturers. From 2001 to 2004, Crosby served as President of Access Spectrum LLC, a band manager licensee dedicated to providing exclusive spectrum with state-of-the-art equipment and engineering to create end-to-end

wireless communication systems in the 220 MHz and 700 MHz bands. He is a member of Access Spectrum's board of directors, serves as Secretary/Treasurer of the Land Mobile Communications Council, and is President of Spectrum Equity, Inc., a wholly-owned subsidiary of EWA organized to pursue strategic spectrum ventures. Crosby served as President and CEO of the Industrial Telecommunications Association from 1975-2001. Crosby earned his B.S. degree in Finance from the University of Maryland and is a graduate of the U.S. Chamber of Commerce's Institute for Organization Management, University of Delaware.



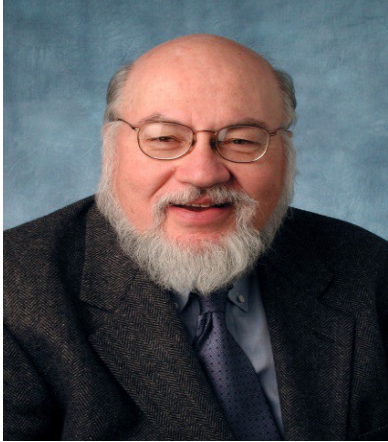
Thomas S. Dombrowsky, Jr. has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2011. Dombrowsky is a Senior Engineering Advisor with the law firm of DLA Piper LLP, where he provides technical advice and guidance to clients concerning wireless spectrum matters. Dombrowsky specializes in spectrum policy matters, especially with respect to issues that affect commercial mobile service providers. Over the past few years, Dombrowsky has been involved heavily in the National Broadband Plan spectrum reallocation discussions, including the Mobile Satellite Service proceedings and the recent proceedings concerning the

reallocation of additional TV broadcast spectrum for mobile broadband services. Previously, Dombrowsky held several positions within the Federal Communications Commission's Wireless Telecommunications and Private Radio Bureaus where he worked on commercial mobile spectrum policy and licensing matters. He earned a B.S. in Electrical Engineering from Lehigh University.



H. Mark Gibson has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2011. With over 35 years of spectrum management experience, Mark is responsible for developing domestic and international business opportunities for CommScope. In addition to leading technical and business development efforts for numerous wireless and spectrum-related products and services, he has led efforts to address spectrum sharing between Federal government and commercial users. He leads CommScope's CBRS efforts on the Spectrum Access

System/Environmental Sensing Capability. He is a board member of the CBRS Alliance and an officer on the board of the Wireless Innovation Forum. He has led spectrum management efforts including the development of the SAS and ESC, TV White Space, spectrum sharing analysis protocols and sharing criteria, as well as development of Comsearch's engineering services and software products. He has led efforts in working with the American Hospital Association as their technical partner for WMTS frequency coordination. He has authored several papers on spectrum sharing and relocation and has advised numerous wireless participants in their system design. He is a Life Member of IEEE.



Dale N. Hatfield has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2006. Hatfield is an Executive Fellow at the Silicon Flatirons Center for Law, Technology, and Entrepreneurship and an Adjunct Professor in the Telecommunications, Cybersecurity and Policy Program -- both at the University of Colorado at Boulder. Prior to joining the University of Colorado, Hatfield was the Chief of the Office of Engineering and Technology at the Federal Communications Commission (FCC) and, immediately before that, he was Chief Technologist at the agency. He retired from the FCC and government service in December 2000.

Before joining the FCC in December 1997, he was Chief Executive Officer of Hatfield Associates, Inc., a Boulder, Colorado-based multidisciplinary telecommunications consulting firm. Before founding the consulting firm in 1982, Hatfield was Acting Assistant Secretary of Commerce for Communications and Information and Acting Administrator at NTIA. Prior to joining NTIA, Hatfield was Chief of the Office of Plans and Policy at the FCC. He also serves on the FCC's Technological Advisory Council. Hatfield has over 50 years of experience in telecommunications policy and regulation, spectrum management and related areas. Hatfield holds a BS in electrical engineering from Case Institute of Technology, an MS in industrial management from Purdue University, and an honorary doctorate from the University of Colorado at Boulder.



Carolyn A. Kahn has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2016. Kahn is Principal Economics & Business Analyst and Group Leader at The MITRE Corporation, where she provides expertise in spectrum economics, policy, and strategy across portfolios of projects. For nearly 20 years, Kahn has provided independent advice, analysis, and support to senior officials to address the most challenging and sensitive economic and business problems in the radio frequency spectrum domain. Kahn served on the organizing committee and helped facilitate the White House Office of Science and Technology

Policy (OSTP) Wireless Spectrum Research and Development (WSRD) Workshop on Federal-Commercial Spectrum Sharing: Models, Applications, and Impacts of Incentives for Sharing, and is a co-author of its report. She previously led the Business and Investment Analysis core competency area within MITRE's Center for Acquisition and Management Sciences and also served as Lead Economic Advisor to the International Consortium for Telemetry Spectrum. Kahn earned an MBA in Finance and Marketing from McGill University and a B.A. with High Honors in Economics and International Studies from Brandeis University.



Dr. Paul Kolodzy has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2014. Kolodzy is an independent telecommunications consultant to government and commercial clients. His areas of expertise include the development of advanced component, device, and system technology; advanced architectures; interference analysis; and spectrum policy, regulation and acquisition. He has been active in broadcast; cellular including 700 MHz, AWS-1, AWS-3, and AWS4; and public safety spectrum policy and regulation. Prior to his work as an independent consultant,

Kolodzy was the Director of the Wireless Network Security Center at the Stevens Institute of Technology. He also served as the Senior Spectrum Policy Advisor and the Director of the Spectrum Policy Task Force at the Federal Communications Commission. He also has worked as a program manager at the Defense Advanced Projects Agency, and was the Director of Signal Processing and Strategic Initiatives at Lockheed Martin Sanders (now BAE). He began his career as a Group Leader and Staff Member at MIT's Lincoln Laboratory. Kolodzy is also a member of the National Research Council Panel on Active Sensing and founder and Executive Committee Member of the IEEE Dynamic Spectrum Access Network Symposium. He holds a Ph.D. degree in Chemical Engineering from Case Western Reserve University and a B.S. in Chemical Engineering from Purdue University.



Mark N. Lewellen has served a member of NTIA's Commerce Spectrum Management Advisory Committee since 2016. Lewellen is Manager of Spectrum Advocacy of Intelligent Solutions Group (ISG) at Deere & Company (John Deere). Of particular interest to him are spectrum concerns related to GPS and Global Navigation Satellite Systems (GNSS), interference protection standards for receivers, spectrum allocation policies and more recently rural broadband. As a founding member and Secretary of the Executive Committee for the GPS Innovation Alliance, he seeks to protect, promote and enhance the

use of GPS. Lewellen has over thirty years of spectrum management experience successfully advocating technical and regulatory issues for a variety of government and commercial organizations. He is an active member of the Agricultural Broadband Coalition (ABC) and was re-appointed to the Board of Directors for the Mobile Satellite Users Association (MSUA). He received his BSEE from West Virginia University.



Jennifer Manner became a member of NTIA's Commerce Spectrum Management Advisory Committee in 2019. Manner is Senior Vice President of Regulatory Affairs at EchoStar Corporation/Hughes Network Systems LLC, where she is responsible for the company's domestic and international regulatory and policy issues, including spectrum management and market access. Prior to this, Manner was Deputy Chief of the Office and Engineering and Technology and before that Deputy Chief of the FCC's Public Safety and Homeland Security Bureau, where she has had a focus on broadband and other related issues.

Manner previously worked as a Principal at ZComm Strategies LLC and she was Vice President of Regulatory Affairs at SkyTerra Communications, LLC, where she handled the company's domestic and international regulatory and policy issues. Before joining SkyTerra, Ms. Manner served as Senior Counsel to FCC Commissioner Kathleen Abernathy with responsibility for wireless, international and new technology issues. Ms. Manner joined the Commissioner's office after working at MCI Communications Corporation, later WorldCom, Inc., as Associate Counsel for Foreign Market Access and then as International Wireless Services and Director of International Alliances. Prior to this position, Ms. Manner was an associate in the Communications Group at Akin, Gump, Strauss, Hauer and Feld, L.P. Before joining Akin, Gump, Manner was an Attorney-Advisor at the FCC. Manner currently serves as an adjunct professor at Georgetown University Law Center. Manner received her B.A. from the State University of New York at Albany, from where she serves as Co-Chair of the Alumni Board of the Rockefeller College of Public Affairs and was awarded the Outstanding Alumni in Political Science Award. She received her J.D. cum laude from New York Law School and LL.M. with distinction from Georgetown University Law Center.



Dr. Mark A. McHenry has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2006. McHenry is President and Chief Technology Officer of Shared Spectrum Company, which he founded in 2000. McHenry was also a co-founder of San Diego Research Center Inc., which focused on Defense Department test and training systems. McHenry was a Program Manager at the Defense Advanced Research Projects Agency, where he managed multiple tactical wireless related programs. McHenry received the Office of Secretary of Defense Award for Outstanding Achievement in 1997 and the Office of Secretary of Defense Award for Exceptional Public

Service Award in 2000. McHenry was an engineer at SRI International, Northrop Advanced Systems, McDonnell Douglas Astronautics, Hughes Aircraft, and Ford Aerospace. McHenry was named Engineer of the Year by the District of Columbia Council of Engineering and Architectural Societies in February 2006. McHenry received his Ph.D. in Electrical Engineering from Stanford University, M.S. in Electrical Engineering from the University of Colorado, and B.S. in Engineering and Applied Science from the California Institute of Technology.



Donna Bethea Murphy has served as a member of the NTIA's Commerce Spectrum Management Advisory Committee since 2016. Bethea-Murphy is the Senior Vice President of Global Regulatory Policy and Development for Inmarsat. She leads the company's domestic and international regulatory policy activities. She has also been appointed to the Federal Communication Commission's Communications Security, Reliability and Interoperability Council and the National Telecommunications and Information Administration's Commerce Spectrum Management Advisory Committee. She also serves on the UN Broadband Commission for Sustainable Development, where she manages a Working Group on broadband technologies in space and the upper atmosphere. She is Vice Chair and a founding member of the ITU Smart Sustainable Development Board and Focal Point on the ITU/UNESCO Broadband Commission for Sustainable Development. She was previously Chair of the USITUA Board. Prior to joining Inmarsat, Bethea-Murphy was Vice President of Regulatory Affairs for Iridium, Senior Director of Spectrum Policy at the PanAmSat Corporation, Director of Technology and Regulatory Affairs for AirTouch Communications, and responsible for international and domestic spectrum policy at the FCC. She holds a BS in Electrical Engineering from Clemson University.



Dr. Wayne Phoel became a member of NTIA's Commerce Spectrum Management Advisory Committee in 2019. Phoel is currently a visiting research engineer at the University of Maryland Institute for Systems Research. He also serves as Director of Science and Technology for FinRegLab, a nonprofit investigating technology to improve financial inclusion, and he continues advanced research through the company he founded in 2017, Phoel Technology Solutions. From 2013 until 2017, Phoel served as a Program Manager at the Defense Advanced Research Projects Agency (DARPA), where he initiated and cultivated research efforts on wireless systems, novel techniques for protecting from attacks, and adaptability for operation in complex environments. Prior to DARPA, Phoel was a Senior Member of the Technical Staff at MIT Lincoln Laboratory where he guided research and development in protected wireless communications, including anti-jam techniques and analysis, interference cancellation, and wireless networking protocol attacks. Phoel earned a Ph.D. in Electrical and Computer Engineering from Northwestern University, and M.Eng. and B.S. degrees in Electrical Engineering from Cornell University.



Carl Povelites has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2011. Povelites is Assistant Vice President Public Policy, Mobility, for AT&T. He leads a group responsible for the development of public policy initiatives for AT&T's wireless business to advance and facilitate AT&T Mobility's business initiatives on a wide-range of issues, from spectrum policy to emerging devices and technologies to safe driving. With more than 20 years of experience in the wireless industry, Povelites has had the opportunity to participate in and actively shape its extraordinary growth. Povelites joined AT&T Mobility (formerly as known Cingular) as Executive Director of External Affairs in

December 2000. Prior to joining Cingular, he was Vice President of Regulatory Affairs for Evolution Networks, a start-up fiber-optic networking company. He began his telecommunications career as a pricing analyst for Contel Telephone Operations in 1986, joining GTE Wireless in 1990 and was responsible for state regulatory and legislative activities. While at GTE Wireless, his responsibilities expanded to include state and federal regulatory and legislative activities as the Assistant Vice President of Government Relations. Povelites earned his Bachelor's degree in Economics and Management and an MBA degree from New Mexico State University.



Ruth Pritchard-Kelly became a member of NTIA's Commerce Spectrum Management Advisory Committee in 2019. She has over 25 years of experience in the commercial communications satellite industry. Pritchard-Kelly is currently the Vice President for Regulatory Affairs for OneWeb, where she oversees a global team of legal, technical, and policy analysts who work to reform regulatory and spectrum policies internationally, specifically on behalf of the newer non-geostationary satellite constellations such as OneWeb. Prior to OneWeb, Pritchard-Kelly was the Director of Regulatory

Affairs for O3b, now SES Networks, where she successfully licensed the space and ground segment worldwide for that medium-Earth orbit satellite constellation. Pritchard-Kelly has also worked for the law firm of Swidler Berlin (now Morgan Stanley) and American Mobile Satellite Corporation, an early U.S. mobile satellite licensee. She has a Master's Degree in space and telecommunications policy from George Washington University's Space Policy Institute, and a J.D. from the University of Maryland. Pritchard-Kelly represents OneWeb on the Board of the US Telecommunications and Training Institute, is active in the Satellite Industry Association, and was a founding member of the Space and Satellite Professionals International.



Mark Racek has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2016. Racek is Senior Director of Spectrum Policy for Ericsson. Racek spent his early years at Ericsson standardizing a product family based on the Enhanced Digital Access Communication System architecture within the Telecommunications Industry Association engineering committees and International Telecommunication Union. This trunking-based EDACS communications system served industrial and business needs, but primarily served two-way radio communications for Public Safety. During this time, Racek also developed traffic simulations for

operational analysis and system design. Racek has also been involved in the development of an expert system for dynamic reconfiguration of a fault tolerant communication network for NASA. In his current role, Racek is involved in the development of Ericsson's global spectrum strategies.



Charla Rath (Co-chair) has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2014. Rath is an independent consultant who until March 2019 was Vice President of Wireless Policy Development at Verizon, where she led a team engaged in the development of Verizon's public policy positions on long term spectrum policy issues. Previously, as Executive Director of Spectrum and Public Policy at Verizon Wireless, Rath worked with the company's business development and network planning groups to address policy and regulatory issues related to the acquisition of spectrum. Prior to joining Verizon Wireless, Rath served as Vice President

– Strategic Affiliations, of NextWave Telecom, Inc. and Vice President of Freedom Technologies, Inc., a Washington, D.C.-based telecommunications consulting firm. She also served as advisor to Federal Communications Commission Chairman Alfred C. Sikes on common carrier and spectrum policy issues and as a primary specialist in spectrum and Internet policy at the National Telecommunications and Information Administration. Rath has a B.S.F.S. (Foreign Service) in International Economics and Finance from Georgetown University and a M.A. degree in Science, Technology, and Public Policy from The George Washington University.



Richard L. Reaser, Jr. has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2009. Reaser is head of the Spectrum Management and Electromagnetic Environmental Effects Department for Raytheon Company's Space and Airborne Systems. Reaser has more than 35 years of expertise in spectrum matters, engineering and program management. In his current position, he plans and coordinates SAS use of electromagnetic spectrum and executes E3 technical designs consistent with applicable specifications, standards, laws and regulations to meet customer product needs. Reaser joined

Raytheon in August 2006. Prior to joining Raytheon, he was deputy system program director and chief engineer for the \$32 billion Navstar Global Positioning System. He served as deputy director of spectrum management in the Office of the Secretary of Defense and held spectrum positions in the White House and State Department. He was technical advisor to the U.S. Ambassador to the World Radio Communications Conference (WRC) 2000 and was a U.S. Spokesperson at WRC-2003. He negotiated landmark navigation and communication signal and spectrum agreements between the United States, Russian Federation, France, Japan and European Union. Reaser earned his bachelor's degree in engineering mechanics from the U.S. Air Force Academy. He holds master's degrees in systems technology (command, control, communications) and national resource strategy from the Naval Postgraduate School and National Defense University, respectively. He retired from the Air Force after 28 years of service at the rank of Colonel.



Dennis A. Roberson has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2011. Roberson is President/CEO of Roberson and Associates, a technology and technology management consulting company and Executive Chairman of entigenlogic. He is also a Research Professor at Illinois Institute of Technology where he was co-founder of IIT's Wireless Network and Communications Research Center and co-founder of the Intellectual Property Management and Markets program that he currently co-directs. His research focuses on dynamic spectrum access networks, spectrum observation, measurement and management, and wireless interference and mitigation. Previously he was Vice Provost for Research at Illinois Institute of Technology and before that Motorola's EVP/CTO. He

had an extensive corporate career including business/technology responsibilities at IBM, DEC (now part of HP), AT&T, and NCR. He has been involved with numerous technology, educational, and youth organizations including current board service on several technology-based companies. He serves as Chair of the FCC's Technological Advisory Council, and Chair of SonSet Solutions. Mr. Roberson has BSEE and BS Physics degrees from Washington State University and an MSEE from Stanford.



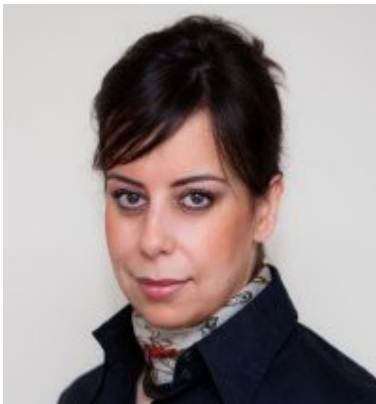
Andrew Roy has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2016. Roy is the Director of Engineering Services at Aviation Spectrum Resources, Inc. (ASRI), advising US airlines and other commercial aviation users on spectrum engineering and regulatory considerations for aeronautical systems. Roy provides aviation spectrum expertise at the Federal Communications Commission, International Telecommunication Union, and International Civil Aviation Organization (ICAO), and is Executive Secretary for the US Aeronautical Frequency Committee. He is currently the Vice-Chairman of the ICAO Frequency Spectrum Management Panel, and regularly chairs aeronautical working groups at the ITU and aviation standards groups. Roy is actively involved with radar systems, GPS protection, aeronautical regulatory planning, aircraft radio altimeters, and VHF channel planning. As a veteran of the UK Royal Air Force, Roy served as an engineering officer specializing in communications and spectrum exploitation. Roy earned his Master's in Systems Engineering from Loughborough University, and is a Chartered Engineer at the UK Institute of Engineering and Technology.



Kurt Schaubach has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2014. Schaubach is Chief Technology Officer at Federated Wireless, where he plays a key role in developing technologies and new business strategies to create the next-generation architecture of broadband wireless. Previously, Kurt served in various engineering management roles with wireless network operators, equipment manufacturers, and semiconductor suppliers. Kurt has been active in spectrum development, management, and policy matters throughout his career. Kurt was a founding member of a publicly traded wireless broadband and multimedia software company and led the acquisition and integration of two wireless infrastructure companies. Kurt received his B.S. and M.S. in Electrical Engineering from Virginia Tech.



Steve Sharkey has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2014. Sharkey is Vice President, Government Affairs, Technology and Engineering Policy in T-Mobile's Government affairs office in Washington, D.C. He has overall responsibility for T-Mobile's technical policy agenda and manages a team of technical experts to achieve the company's policy goals. He is responsible for T-Mobile's technical policy agenda and manages a team of technical experts to achieve the company's policy goals. Prior to joining T-Mobile, Sharkey had technical representation positions at Motorola and AirTouch Communications. Prior to AirTouch, he served in a variety of roles at the Federal Communications Commission, including in the Office of Engineering and Technology, where one of his responsibilities was as an alternative liaison representative to the IRAC, and as Chief, Satellite Engineering Branch in the International Bureau. Sharkey has a Bachelor of Science in Electrical Engineering from the University of Delaware.



Mariam Sorond has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2014. Sorond is the Chief Wireless Architect and Vice President of Technology Development for DISH Network, LLC. In this position, she is responsible for spectrum technology and strategy, end-to-end technology development, creating the next generation network architecture, and standards development. Sorond has more than 24 years of technical and strategy experience in the telecommunications industry. Prior to joining DISH, she worked for several operators, including ICO, Nextel, and PrimeCo and vendors such as Lucent Technologies (now Nokia). She has a broad range of experience and significant technical expertise working across most wireless technologies for both mobile and fixed terrestrial and satellite networks. Sorond's expertise covers both domestic and international technology and spectrum. Sorond holds B.S. and M.S. degrees in Electrical Engineering from the University of Houston.



Bryan Tramont has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2006. Tramont is widely recognized as one of the nation's top media and communications lawyers. A relentless advocate, Tramont is sought after by clients ranging from Fortune 50 companies to innovative startups for his exceptional understanding of spectrum management, transactions and strategic advocacy before multiple regulatory agencies. His commitment to excellence brings both loyal clients and leading industry honors. Tramont's years as Chief of Staff at the Federal Communications Commission under Chairman Michael

Powell, along with his earlier work at the agency and beyond, give him a profound understanding of the often complex legal, political and regulatory environments where his clients operate. His keen instincts for achieving results have been honed at the center of the industry. In addition to his role as Managing Partner, Tramont also leads the strategy and implementation of WBK's award-winning communications, media and technology team, and directs client management and development. Tramont lives by the pay it forward ethos, a philosophy he's helped to infuse throughout WBK. He gives generously of his time and talents to support the community. Whether as a speaker, educator or thought-leader, Tramont is always focused on helping others succeed and encouraging the next generation to thrive.



Jennifer Warren (Co-Chair) has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2006. Warren serves as Vice President, Technology Policy, and Regulation, in the Lockheed Martin Washington Operations' Government and Regulatory Affairs. In this position, she is responsible for managing the development and implementation of corporate domestic and international regulatory, licensing and associated policy strategies, including in the areas of spectrum access/operations, commercial space, cyber security, and sustainability. Prior to joining Lockheed Martin in 1996, Warren served in various capacities at the Federal Communications Commission, including Senior Legal Advisor,

International Bureau and Assistant Chief, Wireless Telecommunications Bureau. Since 1995, she has served on the U.S. Delegations to the International Telecommunication Union's World Radio Conferences, and oversees Lockheed Martin's participation in the ITU and regional organizations. Prior to joining the FCC, Warren was at the Commission of the European Union in Brussels, and in Washington, D.C. Warren is a graduate of Georgetown University (B.S. in Languages) and Georgetown University Law Center (J.D.).



Christopher G. Weasler has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2016. Weasler is Global Head of Spectrum Policy and Connectivity Planning at Facebook, where he has been since early 2012. In this role he is one of the key stakeholders driving Internet.org's connectivity strategy. Weasler and his team provide direct support for Facebook's Connectivity Lab and the Telecom Infra Project (TIP). He has also led Facebook's connectivity for refugees initiative and the company's connectivity response to the ebola crisis in west Africa. Previously, Weasler managed Facebook's partnerships with mobile operators. Prior to Facebook, Weasler has held a range of senior operational and strategic roles including VP of Business Development at LightSquared and VP of Global Development and Roaming at Sprint Nextel, while also launching the first wireless PDA at Palm, and leading the product and business development for OmniSky's wireless portal. He has also consulted with start-ups and wireless operators and advised the FCC on a host of roaming and spectrum issues. Early in his career, Weasler wrote custom software applications for telco clients while at Accenture, and provided strategic consulting services to international telco clients while at KPMG. He has an undergraduate degree from Marquette University and an MBA from Dartmouth's Tuck School.



Robert D. Weller has served as a member of NTIA's Commerce Spectrum Management Advisory Committee since 2016. Weller is currently Vice President for Spectrum Policy at the National Association of Broadcasters. Prior to joining NAB he was Chief of Technical Analysis in the FCC's Office of Engineering and Technology. Weller has over thirty years of spectrum management and regulatory experience, divided equally between the public and private sectors. He has spent his career developing, enhancing and applying mathematical models relating to radio wave propagation, RF safety, frequency allotments, and pursuing technology-based initiatives to improve spectrum efficiency and utilization. He has written extensively on signals analysis, interference mitigation, and various other regulatory matters. Weller earned B.S. and M.S. degrees in Electrical Engineering from the University of California at Berkeley and The George Washington University.