Program Presenters:

**Charles Cooper**

Charles Cooper is Associate Administrator in NTIA’s Office of Spectrum Management. He leads the agency’s work on national and international spectrum policy issues, and oversees spectrum management efforts for federal agencies. He is responsible for frequency assignment and certification, and other strategic planning functions including development of innovation approaches to spectrum sharing.

Before joining the NTIA in July, 2019, Cooper was the Enforcement Bureau Field Director at the Federal Communications Commission (FCC) where he managed the nationwide enforcement of spectrum interference affecting public safety communications, FCC licensees and Federal agencies. Before being appointed to the Field Director, Cooper was District Director of the FCC’s Los Angeles Field Office. Earlier, Cooper served as senior engineer and partner with du Treil, Lundin, and Rackley, Inc., an engineering firm specializing in radio frequency coordination and design.

**John Alden**

John Alden is a Telecommunications Specialist in the Office of Spectrum Management at the National Telecommunications and Information Administration (NTIA). An expert on telecommunications policy development, Mr. Alden began his career in journalism, covering developments in U.S. domestic and international communications policy, with a concentration on wireless communications and radio-frequency spectrum. He worked as a private-sector consultant from 1999 until 2017, serving in senior staff positions on U.S. delegations to World Radiocommunication Conferences from 2003 through 2015.

**David Dombrowski**

David Dombrowski is the Regional Director of Region One of the Federal Communications Commission Enforcement Bureau. He manages the staff at the FCC field offices in Chicago, New York, Boston and Columbia, Maryland. He started his career with the FCC in 1992 in the Media Bureau and has been with the FCC Enforcement Bureau since 1995.

For almost 15 years, David has been a USTTI instructor for the Radio Spectrum Monitoring Techniques and Procedures course at the FCC Office in Columbia Maryland.

**Glenn Feldhake**

Glenn Feldhake is NASA’s International Spectrum Program Manager. He has been supporting NASA beginning with research in Ka-band radiowave propagation in 1993. He worked as a contractor supporting NASA’s spectrum management office from 2000-2003.

After that, he moved to NASA’s John Glenn Research Center to work directly for the Spectrum Management Office. He has been attending ITU-R meetings since 1996 and has served on all U.S. Delegations to the World Radiocommunication Conference since 2000. He has also served in roles...
making him responsible for all the filing and coordination of NASA satellites in the ITU and is the U.S. Head of Delegation to ITU-R Study Group 7.

**Charles T. Glass**

Charles Glass is the Chief, International Spectrum Policy Division (ISPD) for the United States Department of Commerce, National Telecommunications and Information Administration (NTIA), Office of Spectrum Management (OSM). He has worked for NTIA since 2001 within ISPD where he has had a diverse career, representing U.S. and federal government interests abroad in a variety of fields including mobile, fixed, and radiodetermination services.

**Dr. Giulia McHenry**

Dr. Giulia McHenry has been Chief of the Office of Economics and Analytics (OEA) since she directed the stand up in December 2018. OEA is responsible for expanding and deepening the use of economic analysis into Federal Communications Commission (FCC) policy making; enhancing and directing the development and implementation of FCC auctions; and implementing consistent and effective agency-wide data collections, practices and policies. Giulia joined FCC in 2018 after serving for three years as Chief Economist of the National Telecommunications and Information Administration (NTIA). She is an expert in the economics of the Internet, telecommunications, and media. She has advised and written reports on a range of issues including broadband policy, adoption and access; the digital economy; and the economics of spectrum and spectrum management.

Prior to joining NTIA, Giulia was a Senior Associate at The Brattle Group, where she focused on telecommunication matters, prepared expert reports and coauthored papers related to spectrum management and valuation, broadband deployment, regulatory proceedings, Universal Service Fund, and competition policy. Giulia received her Ph.D. in economics from the University of Maryland in 2009. She specialized in microeconomics, both applied and empirical methods, focusing on network theory and industrial organization.

**Scott Patrick**

Scott Patrick, Executive Director of NTIA’s Office of Spectrum Management, helps direct NTIA’s work on national spectrum strategies and policies. His responsibilities include overseeing the development of spectrum-sharing and band-clearing strategies that protect federal capabilities while making spectrum available for commercial services.

Before joining NTIA, Mr. Patrick was a wireless, media, and technology attorney in private practice, counseling telecom, cable, broadcast, and broadband companies on a wide range of policy, transactional, and regulatory matters. He also has served as an attorney in the Wireless Telecommunications Bureau at the Federal Communications Commission. His first job was as a research engineer at the U.S. Naval Research Laboratory where he helped develop fiber optic electromagnetic sensors. Mr. Patrick is a graduate of the University of Virginia School of Law and holds a master’s degree in electrical engineering from the University of Maryland.

Since joining NTIA in 2017, he coordinates outward-facing messaging, including speeches, presentations and blog posts, to inform the public about NTIA’s spectrum-related engineering and policy activities.
Axel Rodriguez

Axel Rodriguez is the Federal Communications Commission’s Enforcement Bureau Field Director, leading the Bureau’s field office staff in its work combatting harmful interference to authorized uses of the airwaves, supporting restoration of communications after disasters, and investigating rule violations and other illegal activities.

Prior to joining the Enforcement Bureau, Mr. Rodriguez served since 2013 as a supervisor in the FCC’s Office of Engineering and Technology Laboratory Division managing the Commission’s equipment authorization program. Mr. Rodriguez also has two decades of both active duty and reserve experience in the U.S. military including as a cyber-warfare officer, communications director, and battalion signal officer.

Rajendra Singh

Working as Senior Digital Development Specialist, Digital Development Department, The World Bank, Washington DC for last 14 years. Have experience of working in telecom sector in more than 50 countries.

Before joining The Bank worked as Secretary, Telecom Regulatory Authority of India (TRAI) and worked with Indian Railways for about 20 years in different capacities including Director (Telecom). His areas of interest are 5G, spectrum management and Digital Economy.

Mr. Singh received his M.B.A from University of Delhi, India, M.S and B.S in Electronics and Communication Engineering from I.I.T Roorkee, India and I.I.T Delhi, India.

Jonathan Williams

Jonathan Williams has spent more than 17 years in international and domestic spectrum management. Prior to coming to NSF, he was with the National Telecommunications and Information Administration in the Department of Commerce, where he conducted interference analyses and served as U.S. Chair of International Telecommunication Union Working Parties tasked with satellite, aeronautical, maritime, radar, and general spectrum issues, and led delegations to ITU meetings in Geneva and elsewhere.

At NSF, Mr. Williams serves as one of two program officers tasked with spectrum management efforts in the Astronomical Sciences Division. He is the Chair of the NSF Electromagnetic Spectrum Management Coordination Group, which includes representation from across the Foundation and is tasked with addressing spectrum needs and advocacy for scientific research. Founded in 2018, the Group has responded to several major requests for information from regulatory agencies and is currently working on enacting NSF’s Spectrum Innovation Initiative.

Mr. Williams holds a B.A. in psychology from the University of Northern Iowa, a B.S. and M.S. in electrical engineering from Iowa State University, and is pursuing a Ph.D. in astrophysics from the University of Maryland.