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Division on Engineering and Physical Sciences
Division of Behavioral and Social Sciences and Education

Committee on Increasing Diversity and Inclusion in the Leadership of Competed Space Missions

Public Meeting 1–Virtual

Presenter Bios

DEBORAH AMATO has over 25 years of experience in the aerospace engineering field. She currently serves as Chief of the New Opportunities Office for NASA Goddard Space Flight Center and manages all new business development for major missions and instruments. Prior to her current position, Deborah managed Goddard's Heliophysics Line of Business focusing on mission and instrument concept and proposal development, strategic planning including environment assessment, and Internal Research and Development (IRAD) and Bid and Proposal (B&P) portfolio formulation. Previously, she served as Goddard's Deputy Chief Technologist and managed the IRAD program. Deborah began her career doing mechanical design, thermal and structural analysis, and systems engineering for small scientific instruments. Her career experience has also included integration and testing, instrument management, and collaborative engineering. Deborah worked as the Senior Systems Engineer in Goddard's Integrated Design Center, where early mission and instrument concept studies are conducted. Over the years she has supported many projects including Constellation-X, the James Webb Space Telescope Integrated Science Instrument Module (JWST ISIM), the Reuven Ramaty High Energy Solar Spectroscopic Imager (RHESSI), and the Transition Region And Coronal Explorer (TRACE). She received a bachelor's degree in aeronautics and astronautics from the Massachusetts Institute of Technology and a master's degree in aerospace engineering from the University of Maryland, College Park.

ELIZABETH COLE is Professor of Psychology, Women's and Gender Studies, and Afroamerican and African Studies at the University of Michigan (U-M). Before joining U-M in 2000, she taught at Northeastern University. Her scholarship applies feminist theory on intersectionality to social science research on race, gender, and social justice. Her current project aims to complicate current debates on free speech on college campuses by considering the issue through the lens of feminist psychology. Her research has been published in journals in psychology and women's studies, including American Psychologist, Cultural Diversity and Ethnic Minority Psychology, and Psychology of Women Quarterly. She is coauthor (with Andrea Press) of Speaking of Abortion: Television and Authority in the Lives of Women (University of Chicago Press, 1999). She is a past president and a fellow of the Society for the Psychological Study of Social Issues (American Psychological Association Division 9), and a consulting editor for Psychology of Women Quarterly. Dr. Cole has served as the associate dean for social sciences and the interim dean of the College of Literature, Science, and the Arts, and is currently the Associate

Chair for Diversity Initiatives in the Psychology Department. She earned her doctorate in Personality Psychology from the University of Michigan.

NICOLA FOX is the Heliophysics Division Director in the Science Mission Directorate at NASA Headquarters in Washington, DC. Until August 2018, Fox worked at the Applied Physics Lab at the Johns Hopkins University in Laurel, Maryland, where she was the chief scientist for Heliophysics and the project scientist for NASA's Parker Solar Probe – humanity's first mission to a star. She previously served as the deputy project scientist for the Van Allen Probes, and the operations scientist for the International Solar Terrestrial Physics program. Fox was born in Hitchin, Hertfordshire in England. She graduated from The Imperial College of Science, Technology and Medicine in London with a BS in Physics. She received an MS in Telematics and Satellite Communications from the University of Surrey. She then returned to Imperial College to complete a PhD in Space and Atmospheric Physics.

LEILA GONZALES is a Technical Specialist at the American Geosciences Institute (AGI). She works with AGI's Geoscience Workforce program to analyze and report on data related to the geoscience workforce trends. She earned a B.S.A degree in mathematics and Spanish from Regis University, a M.S. in geophysical sciences from the University of Chicago, and a Ph.D. in physical geography from the University of Wisconsin-Madison.

ERIKA HAMDEN is a professor of astrophysics at the University of Arizona. She specializes in ultraviolet detectors, UV instrumentation and spectroscopy, and observing diffuse hydrogen to understand how galaxies and stars form. She is the Deputy PI of Aspera, a NASA Pioneers mission, and the PI of Hyperion, an FUV Explorer mission concept to be proposed to the upcoming Astrophysics MIDEX AO. Dr. Hamden helped found the PI Launchpad, a workshop to teach future PIs the basics of getting a mission off the ground. Dr. Hamden was awarded a Nancy Grace Roman Technology Fellowship for her detector work in 2016. She also was awarded a Presidential Early Career Award for Scientists and Engineers in 2019 for her work on FIREBall, a UV telescope. She received a bachelor's degree in Astronomy and Astrophysics from Harvard College in 2006 and a doctorate in Astrophysics from Columbia University in 2014

CHRISTOPHER KEANE is the Director of Geoscience Profession and Higher Education at the American Geosciences Institute. He oversees AGI's Workforce Program activities, including data collection and analysis, student recruitment, diversity initiatives, and AGI's collaboration with the higher education community. He earned a B.S. in Geology and a Ph.D. in Marine, Estuarine & Environmental Science from the University of Maryland.

Dr. SARAH LIPSCY is the Deputy Director, New Business and Innovative Solutions
Civil Space, Ball Aerospace. Dr. Sarah Lipscy is the Deputy Director for New Business and Innovative Solutions within Ball's Civil Space business unit. In this role, she engages with both internal and external teams to develop and implement strategies to further the success of the business. Sarah was previously the Mission Area Lead for Astrophysics for the Civil Space. She was responsible for developing Ball's capture strategy for Ball's astrophysics pursuits. In this role,

Dr. Lipscy managed Ball's Explorer AO responses, decadal survey preparations, and ROSES technology development proposals. Dr. Lipscy also acted as a science liaison to many of Ball's current astrophysics hardware development programs including the Roman Space Telescope's WFI-WOMA, the Small Explorer IXPE, and the Medium Explorer SPHEREx. Dr. Lipscy has been at Ball 16 years and has previously served as the Project Scientist and Deputy Program Manager of the OMPS (Ozone Mapping and Profile Suite) instruments on the S-NPP and JPSS satellites and as a systems engineer on the OLI (Operational Land Imager) on Landsat-8. Dr. Lipscy holds a BA in Physics from the University of Colorado at Boulder and a PhD in Physics and Astronomy from the University of California Los Angeles.

MICHAEL NEW is the Deputy Associate Administrator for Research within NASA's Science Mission Directorate. His responsibilities there include oversight of SMD scientific competition processes for research awards and flight programs. He also represents SMD research goals, policies and programs inside and outside NASA. Previously, Dr. New was the Astrobiology Discipline Scientist and Discovery Program Lead Scientist in the Planetary Science Division in the SMD. Before coming to NASA Headquarters, Dr. New performed research in the Exobiology Branch of NASA's Ames Research Center in northern California and served as the Acting Deputy Branch Chief for that organization. Dr. New holds a BS degree in Chemistry from Yale University and obtained his Ph.D. in Chemical Physics at Columbia University.

CATHY OLKIN is an Institute Scientist at the Southwest Research Institute in Boulder, CO. She currently serves as the Deputy Principal Investigator of NASA's Lucy mission to the Trojan asteroids. She is also the Principal Investigator for the Ralph instrument on NASA's New Horizons mission. Ralph is a color imager and infrared imaging spectrometer. She was previously the Deputy Project Scientist for the New Horizons mission. She also uses ground-based observations to understand the size and composition of small bodies in our solar system. In her free time, Cathy mentors FIRST robotics programs providing hands-on STEM education for students from 4th grade to 12th grade.

THOMAS WAGNER is a Program Scientist in the Planetary Science Division at NASA Headquarters. He leads the Discovery Program, which selects new missions for exploration of the solar system, and serves as Program Scientist for the DragonFly mission that will search for precursors to life on Saturn's moon Titan. Previously, Tom served as NASA's Cryosphere Program Scientist in the Earth Science Division at NASA Headquarters. He was the Program Scientist for development and launch of NASA's ICESat-2, a space-based lidar currently characterizing the changing heights of global ice and forest cover, as well as designing and overseeing the decade-long Operation IceBridge mission. Tom also developed and ran various research programs focused on the Arctic and Antarctic, remote sensing, climate change, sea level rise, weather, and water resources. He served as the NASA Staff Representative to the Interagency Arctic Research Policy Committee at the Whitehouse's Office of Science and Technology Policy and helped author the US Arctic Research Plan: 2013-2017. Before joining NASA in 2009, Tom was the Program Director for Antarctic Earth Sciences at the US National Science Foundation. He

helped plan the US research program for the International Polar Year (2007-2009), including serving as Program Director for the ANDRILL and AGAP projects. Tom earned his bachelor's degree in geology at the State University of New York at Binghamton and his doctorate at the Massachusetts Institute of Technology with thesis research focused on volcanoes of the Earth and moon. After graduate school, Tom spent six years teaching at the University of Papua New Guinea, where he became involved in university administration and foreign aid projects supported by the United Nations and the World Bank.

SUSAN WHITE is the Interim Director of the Statistical Research Center at the American Institute of Physics (AIP). Since joining AIP thirteen years ago, she has overseen and participated in a number of research projects examining physics education and the workforce. She and her colleagues have provided workforce data for a number of Decadal Surveys, including Astronomy and Astrophysics, Planetary Science, and Solar and Space Physics. In addition to examining physics education and the workforce within the US, Dr. White helped direct the Global Survey of Science as part of study examining gender differences in science disciplines around the world. Prior to joining AIP, Dr. White taught statistics and quantitative methods in business schools in Louisiana, Texas, and Washington DC. She earned her doctorate from Texas A&M University.

THOMAS ZURBUCHEN is the Associate Administrator for the Science Mission Directorate at the Agency's Headquarters in Washington, D.C. Previously, Zurbuchen was a professor of space science and aerospace engineering at the University of Michigan in Ann Arbor. He also was the university's founding director of the Center for Entrepreneurship in the College of Engineering. Zurbuchen's experience includes research in solar and heliospheric physics, experimental space research, space systems, and innovation and entrepreneurship. During his career, Zurbuchen has authored or coauthored more than 200 articles in refereed journals on solar and heliospheric phenomena. He has been involved with several NASA science missions — Ulysses, the MESSENGER spacecraft to Mercury, and the Advanced Composition Explorer (ACE). He also has been part of two National Academy standing committees, as well as various science and technology definition teams for new NASA missions. Zurbuchen earned his Ph.D. in physics and Master of Science degree in physics from the University of Bern in Switzerland. His honors include receiving the National Science and Technology Council Presidential Early Career for Scientists and Engineers (PECASE) Award in 2004, a NASA Group Achievement Award for the agency's Ulysses mission in 2006, and the Swiss National Science Foundation's Young Researcher Award in 1996-1997.