



Dancing Lights in Space: How to Manage the Risks of Satellite Close Approaches in Geostationary Orbit

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Marc Becker is a policy officer in the Department of Space Situational Awareness at the German Space Agency, situated within the German Aerospace Centre (DLR) in Bonn, Germany. He currently serves as co-chair of the European Space Surveillance & Tracking (EU SST) programme. Marc also chairs EU SST's internal Security Committee since 2019, dealing in particular with security and policy requirements for the handling and sharing of SST data. Prior to this, he worked with the German Ministry of Defence's Directorate General for Security and Defence Policy as a desk officer for space security policy.

Alessandro Cacioni is the Director of Flight Dynamics for Inmarsat. Alex completed his studies in aeronautical engineering in Rome, where he also qualified as a pilot. He has been involved in the space industry for over 35 years working on all aspects of geostationary satellite operations. Director of the Flight Dynamics group, he is responsible for orbital positioning and station keeping strategy of the Inmarsat fleet. Alex is also part of the ISO TC20/SC14 which builds space standards for best practices and he represents the UK in the ECCS (European Co-operation for Space Standardisation) in both Space Debris and Space Traffic Management working groups

Dr. Brien Flewelling is the Innovation Boffin at ExoAnalytic Solutions. In this role Dr. Flewelling works closely with engineers and scientists to establish, develop, communicate, and deliver technical solutions that apply ExoAnalytic's core technical capabilities in the physical and digital engineering domains. Dr. Flewelling is an aerospace professional with government, academia, and industry experience and has been recognized in each of those sectors as a thought leader including receiving a Rotary National Award for Space Achievement (RNASAS). Today Dr. Flewelling leads engagement focused on opportunities to provide flight safety support services, enabling increasingly ambitious space operations like on-orbit servicing, identifying and developing advanced value-added services for space traffic management, and pioneering extensions of SDA capabilities into the Cislunar Regime.

Todd Harrison is the director of the Aerospace Security Project and the director of Defense Budget Analysis at CSIS. As a senior fellow in the International Security Program, he leads the Center's efforts to provide in-depth, nonpartisan research and analysis of space security, air power, and defense funding issues.

Kaitlyn Johnson is the deputy director of the CSIS Aerospace Security Project and a fellow in the International Security Program. Ms. Johnson manages the team's strategic planning and research agenda. Her research specializes in topics such as space security, military space systems, commercial space policy, and U.S. air dominance.

Doug Loverro is a highly regarded national space thinker and leader who currently serves as President, Loverro Consulting, LLC. He has served in a variety of very senior government positions including at NASA where he led Human Exploration, in the DoD where he led space policy, and in multiple DoD and NRO space program leadership roles over a more than 40-year career.

Dan Oltrogge is the Director of the Center for Space Standards and Innovation, Director of Integrated Operations, and space policy expert at the Commercial Space Operations Center at COMSPOC Corporation, program manager of the Space Data Center, founder and administrator of the Space Safety Coalition, U.S. Head of Delegation to ISO TC20/SC14, and the author of numerous technical papers, international space standards, and industry best practices.

Almudena Azcarate Ortega is an Associate Researcher in the Space Security & the WMD Programmes at UNIDIR. Her research focuses on space security and missiles. Prior to joining UNIDIR, Almudena was a Research Assistant at Georgetown University Law Center, where she is currently an S.J.D. (Ph.D equivalent) candidate. She also holds an LL.M. in National Security Law from the same institution, where she was the recipient of Georgetown's Thomas Bradbury Chetwood, S.J. Prize for the most distinguished academic performance in the programme. Almudena received her LL.B. from the University of Navarra. She is admitted to practice law in Spain, and prior to her studies at Georgetown, she was a practicing attorney at Spanish law firm Uría Menéndez, where she specialized in international arbitration and litigation. She speaks English, Spanish, French and German.

Audrey Schaffer is the Director for Space Policy at the National Security Council. Ms. Schaffer previously served in the Office of the Secretary of Defense for over a decade, most recently as the Acting Deputy Assistant Secretary of Defense for Space Policy. While serving in the Office of the Secretary of Defense, Ms. Schaffer developed the legislative proposal that established the United States Space Force as the sixth branch of the Armed Forces and led the U.S. team that negotiated the first-ever United Nations space sustainability guidelines. Ms. Schaffer also has served in the Bureau of Arms Control, Verification and Compliance at the Department of State, where she established and led the Bureau's first cyber international security policy team and cross-Bureau cyber security working group. Ms. Schaffer holds a

B.S. in Aerospace Engineering from the Massachusetts Institute of Technology and a M.A. in International Science and Technology Policy from the George Washington University. She lives with her family in Washington, D.C.

Dr. Brian Weeden is the Director of Program Planning for Secure World Foundation and has more than 20 years of professional experience in space operations and policy. Dr. Weeden directs strategic planning for future-year projects to meet the Foundation's goals and objectives, and conducts research on space sustainability issues. He is a member and former Chair of the World Economic Forum's Council on the Future of Space Technologies, a former member of the Advisory Committee on Commercial Remote Sensing (ACCRES) to the National Oceanic and Atmospheric Administration (NOAA), and the current Executive Director of the Consortium for Execution of Rendezvous and Servicing Operations (CONFERS). Prior to joining SWF, Dr. Weeden served nine years on active duty as an officer in the United States Air Force working in space and intercontinental ballistic missile (ICBM) operations.

Makena Young is an associate fellow with the Aerospace Security Project at the Center for Strategic and International Studies (CSIS). Her research interests include international collaboration, space security, and orbital debris. Prior to joining CSIS, Ms. Young worked for the Federal Aviation Administration as an aerospace engineer, focusing on automatic dependent surveillance-broadcast certification and integration in small aircraft. She holds a B.S. in aeronautical and astronautical engineering from Purdue University with minors in international relations and environmental engineering.