**THERESA W. BEECH**

*NASA Goddard Space Flight Center*

Theresa has worked for almost 25 years in satellite ground systems, space mission design, and space communications network design for space operators around the world. She has extensive experience in satellite ground system design and development, space-to-ground interfaces, satellite flight dynamics, precise orbit determination, software development, and technical team leadership. She has implemented ground systems software using international ground systems standards such as CCSDS packets, CFDP, XTCE, SLE and OMG’s C2MS throughout her career.

Theresa has worked on a wide variety of types of satellite missions including: communications, imagery, PNT, and scientific missions for US Government space agencies (NASA, NOAA, USGS, DoD), commercial telecommunications operators (Intelsat, Star One of Brazil, Measat of Malaysia, Azerspace of Azerbaijan), and joint agency missions. Specific mission experience includes: GOES-R, TDRSS, Landsat-8, the Lunar Reconnaissance Orbiter, the US Air Force Satellite Control Network (AFSCN), and multiple commercial telecommunications systems. She has successfully led technical teams responsible for developing new ground systems from a green field, as well as teams doing complex, multi-satellite, multi-site ground system migrations.

Before joining NASA Goddard Space Flight Center, Theresa founded and ran MetiSpace Technologies Inc., a small engineering business dedicated to satellite ground systems engineering. She is currently the Goddard Mission Services Evolution Center (GMSEC) Product Development Lead and Deputy Project Manager, leading a technical team of 20+ engineers who design and develop ground systems SW for NASA and other US Government Space Agencies. As part of her NASA duties, she is responsible for the day-to-day management of the team, setting technical strategy, planning and meeting budgets, and managing the interface with NASA and Other Agency missions. She teaches the widely attended “Mission Ops and Ground Systems 101” class, consults on cyber aspects of ground systems, acts as NASA technical liaison with other space agencies, and is regularly asked to provide subject matter expertise in satellite ground systems. She is a member of the GSAW Program Committee, and has given numerous technical talks throughout her career at GSAW, SpaceOps, Satellite, and ISSFD.

Early in her career, Theresa spent 6 years living in Europe, working in satellite flight dynamics primarily in the early phases of ESA’s Galileo mission related to the Orbitography and Time Synchronization. She is bilingual in English and Spanish, and speaks fluent French.

Outside of work, Theresa does osteosarcoma (bone cancer) patient/parent advocacy. This includes: applying systems engineering principles to cancer cell genomics, running an osteosarcoma information support group to provide easy-to-understand scientific/medical information to osteosarcoma families, and collaborating with multiple research organizations on osteosarcoma-related research. She co-founded and is on the Board of two non-profit organizations: Because of Daniel, and the Osteosarcoma Collaborative. She is the Principal Investigator of the IRB-approved Patient/parent Osteosarcoma genome-Wide Registry (POWR), and is on the Scientific Advisory Committee of the “Count-Me-In-Osteosarcoma”, and the “Osteosarcoma Leg Surgery Decision Aid” projects. She has spoken widely at pediatric oncology research and advocacy conferences, giving keynote talks at FACTOR 2017, Fortune Magazine’s Brainstorm Health 2018, National Cancer Institute’s Pediatric Oncology seminar series, Musculoskeletal Tumor Surgeons’ Society Annual Meeting 2019, The Adolescent and Young Adult (AYA) Cancer Symposium 2019, Grand Rounds at Case Western University Hospital, and CureFest 2019. She co-authored two papers presented at the international Connective Tissue Oncology Society (CTOS) Annual Meeting in 2017 and 2018. A TV long-story about her and her son Daniel won the prestigious national June L. Biedler TV Journalism Award in 2018.