

AEROSPACE ENGINEERING SCIENCES

Seminar

Lisa M. Mazzuca, Astrophysicist
NASA Search and Rescue Mission Manager
Goddard Space Flight Center

Satellite -Aided Search and Rescue: NASA Engineering Innovations

In June 2010, 16-year-old Abby Sunderland attempted to break the record for being the youngest person ever to complete a solo sail around the world. But when she found herself stranded at sea after her damaged her boat, Abby's life was saved by a Personal Locator Beacon (PLB), which transmitted a distress signal to a Search and Rescue (SAR) satellite, 22,500 miles away in space. What many do not know, is that the PLB that saved Abby Sutherland's wife developed by the NASA SAR Mission Office at Goddard Space Flight Center, a major participant in a system that has saved over 36,000 lives worldwide. This presentation will focus on the NASA engineering technology associated with developing the next generation global emergency transmitter.

Friday, January 23 , 2015
2:00 – 3:00 pm
DLC Bechtel Collaboratory

Dr. Lisa Mazzuca is the NASA Search and Rescue (SAR) Mission Manager. In that capacity she represents NASA both nationally and internationally to set policy and standards for the SAR community, as well as supply technological innovation for satellite-aided emergency transmitters. She began her career as a Flight Dynamics software engineer, where she developed and coded mathematical specifications related to spacecraft orbit trajectories. She received a master's degree in Astrophysics from Johns Hopkins University in 1997 and soon after joined the Hubble Space Telescope (HST) Project to become the HST Operations Instruments Manager for all orbit and developmental instruments. In 2005 Dr. Mazzuca accepted the position of HST Operations Integration and Test Manager for the final Servicing Mission, guiding the operations ground test program for the new and repaired instruments as well as the communications to HST via the Space Shuttle. In 2006, she received a doctorate in Astronomy from the University of Maryland. Her scientific focus is in extragalactic astrophysics with a specialty in spectroscopy and imaging of the nuclear regions of galaxies.