

DEPARTMENT OF MECHANICAL & AEROSPACE ENGINEERING

WILLIAM MAXWELL REED SEMINAR SERIES

“Engineering at the Extremes”

Debra D. Simmons, M.S.
Retired, Northrop Grumman Corp
Director, JWST Systems Engineering

Abstract:

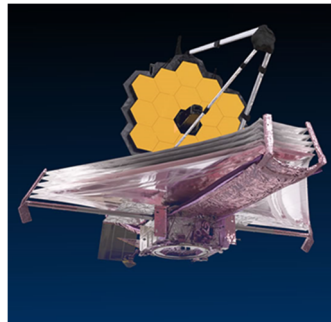
JWST is one of the most complicated satellites ever built. It is 7 tons of fragile hardware operating in the Near and Mid Infrared wavelengths. The amazing images of our universe captured by JWST required many engineering feats. In her talk, *Engineering at the Extremes*, Ms. Simmons describes several engineering extremes and the science that drove them.

Speaker Bio:



Debra Simmons is a retired Aerospace Engineer. She spent 41 years at TRW and Northrop Grumman Corporation working in Systems Engineering, Satellite Integration and Test, Software Engineering, Attitude Control Subsystems Engineering, and Orbital Operations. Half of her career was dedicated to NASA’s James Webb Space Telescope (JWST), and she retired as the Chief Systems Engineer on the program. She served in other leadership roles and was a key member of the team that defined the JWST Observatory concept a quarter of a century ago.

Ms. Simmons earned her Bachelor of Science degree in Aerospace Engineering from San Diego State University and her Master of Science degree in Electrical Engineering from the University of Southern California. She grew up and attended high school in the San Diego area and now resides in Palos Verdes, California. Her hobbies include yoga, riding her Peloton, playing pool, hiking, and researching family history.



JWST Observatory depiction from <https://jwst.nasa.gov>

Date: Friday, November 17, 2023
Place: Whitehall Classroom Building 110

Time: 3:00 PM EST
Contact: Dr. Jonathan Wenk

Attendance open to all interested persons

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