BUENAVENTURA AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY

Jupiter Above, An Ocean Below: NASA's Mission to Europa

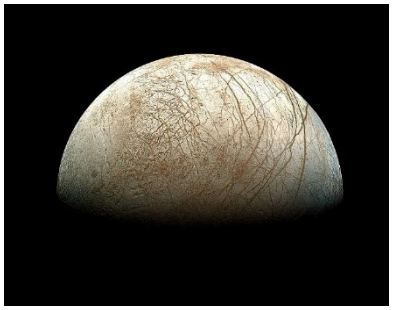
Robert Gounley

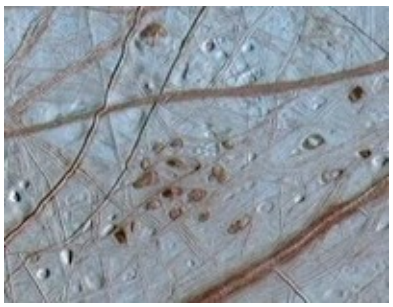
Thursday June 16, 2016 at 6:30 pm

California Lutheran University, Thousand Oaks, CA

Meetings are free and open to the public

Register at this website





NASA's Galileo mission to Jupiter uncovered strong evidence that its icy moon Europa encloses a vast sea of liquid water. Warmed by tidal heating, the ingredients for life (liquid water, chemistry, and energy) may be there in abundance. Seeking proof, NASA will send a spacecraft to explore this remarkable world.

Over the past several years, NASA's Jet Propulsion Laboratory, JPL, has led work to design a mission capable of making multiple flybys of Europa to investigate its habitability. Last year, NASA selected a suite of highly capable remote sensing and in situ instruments for the purpose. Design of the Europa mission enables globally distributed regional coverage of the moon's surface, with 40+ close flybys at altitudes from 25 to 100 km. With this robust, cost-efficient approach NASA's spacecraft will investigate Europa's habitability by understanding the satellite's ice shell and ocean – their composition, geology and the processes that drive them. It will monitor ongoing activity, such as the geyser-like plumes recently detected by NASA's Hubble Space Telescope, and gather high-resolution images to determine the best site for a future lander.

Launch is planned for 2022. Come to learn about the voyage ahead.

Robert Gounley is a member of Europa's Project System Engineering Team. His first JPL assignment was the Galileo mission to Jupiter where he became Deputy Chief of the Orbiter Engineering Team. In between, he served as Flight Director for the Deep Space 1 (DS1) mission to demonstrate ion propulsion for solar system exploration, Engineering Operations Team Lead for Mars Exploration Rover, Systems Engineer for the Dawn mission to Main Belt asteroids Ceres and Vesta, and Launch Sequence Lead for the Gravity Recovery and Interior Laboratory (GRAIL) lunar mapping mission. In his 30+ years at JPL, Robert's work has covered all project phases of deep space missions – proposal, design, development, testing, launch and flight operations. Robert earned his MS in Aeronautics and Astronautics from the Massachusetts Institute of Technology (MIT) and BSE in Mechanical Engineering from University of Pennsylvania.

Location: California Lutheran University
Swenson 101
141 Faculty Street, Thousand Oaks
Pizza/networking starts at 6:30 pm
Talk starts at 7:00 pm

Directions from Ventura:
Take the Ventura Freeway 101 South.
Take Lynn Road Exit, turn left, drive 2.9 miles.
Lynn Road turns into Olsen Road, drive .9 miles.
Turn right onto Mountclef Boulevard - the University is on the right

Directions from Los Angeles:
Take the Ventura Freeway 101 North.
Take Lynn Road Exit, turn right, drive 2.9 miles.
Lynn Road turns into Olsen Road, drive .9 miles.
Turn right onto Mountclef Boulevard - the University is on the right.

Before 7 pm, we recommend to park in the G lot on the southwest corner of Olsen and MountClef. You do not need a permit to park in the G lot. Visitors may park on the streets
after 7 pm without a permit. Important: watch the reserved parking signs and do not park in them.