“Questioning the Surface of Mars as the 21st Century's Ultimate Pioneering Destination in Space”

Distinguished Lecturer: DANIEL R. ADAMO

7:00 p.m. to 8:30 p.m., Wednesday, February 22, 2017

Weber State University, Tracy Hall Science Center, Room TY234

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Biography: Mr. Adamo is an astrodynamics consultant concentrating on space mission trajectory design and operations and space trajectory design/simulation software development. He recently worked with NASA on several projects that included various trajectory designs. Previously Mr. Adamo worked for the United Space Alliance as a primary trajectory expert, and served as a “front room” flight controller for 60 Space Shuttle missions. He regularly participated in trajectory design, software tool, flight rule, and operations concept development. He began his career at the Perkin-Elmer Corporation where he developed and operated proof-of-concept software for computer-controlled polishing of optical elements. He has degrees in Physical Sciences and Optical Engineering from the University of Houston and the University of Rochester. Mr. Adamo is a Senior Member of AIAA and is the author of many publications. He is the recipient of numerous awards, including 14 NASA Group Achievement Awards.

Presentation Abstract:
This 1.5-hour talk reviews historic Earthly distinctions between exploring and pioneering before applying these distinctions to destinations in space. Although a case can be made for human and robotic exploration in space, there is as yet no compelling rationale for "putting down roots" to pioneer anywhere off Earth. Why then is the surface of Mars widely accepted as humanity's future "home away from home" to the extent some 200,000 people are willing to attempt forming a permanent colony there? There is no evidence suggesting humans can survive on the surface of Mars long-term, let alone thrive there to produce viable offspring. A variety of evidence is presented to affirm the surface of Mars is a "socio-cultural" destination whose suitability for human pioneering is based on more than a century of fictional literature and poorly informed research as the Space Age dawned. More current knowledge of the "unexplored country" in our Solar System suggests small bodies such as asteroids and the moons of Mars are humanity's best hope for pioneering off Earth this century.

Light refreshments will be served at 6:45 pm