



## MIKE GRUNTMAN

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### **Biography:**

Dr. Mike Gruntman is professor and chair of astronautics at the University of Southern California (USC). His life journey took him from a child growing on the Tyuratam (Baikonur) missile and space launch base during the late 1950s and early 1960s to an accomplished space physicist and engineer to joining USC in 1990 and founding a major educational program in space engineering. Today it is a nationally recognized unique astronautical engineering department at USC.

Mike is actively involved in R&D programs in space science and space technology. He served as a co-investigator (Co-I) on NASA missions and is a recipient of three NASA Group Achievement Awards. Mike has authored and co-authored 300 scholarly publications, including four books. His "Blazing the Trail: The Early History of Spacecraft and Rocketry" (AIAA, 2004) won the International Academy of Astronautics' book award. More than two thousand graduate students took Dr. Gruntman's courses in space systems and rocket propulsion at USC. He also teaches short courses (AIAA and ATI) for government and industry.

Mike is an Associate Fellow of AIAA and Member (Academician) of the International Academy of Astronautics.

### **Abstract: "The Road to Space. The First Thousand Years"**

This 70-80 min lecture presents the fascinating history of early rocketry and subsequent developments that led to the space age. It introduces visionaries, scientists, engineers, and political and military leaders from various lands who contributed to this endeavor. The development of rocketry and spaceflight is traced from ancient times through many centuries to the breakthrough to space. The story concludes with the launches of first artificial satellites in the late 1950s. Based on an award-winning AIAA-published book.

### **Abstract: "Intercept 1961. From Air Defense SA-1 to the Birth of Soviet Missile Defense"**

This 70-80 min lecture focuses on Soviet strategic missile defense. On March 4, 1961, a guided missile intercepted and destroyed the approaching warhead of an intermediate range ballistic missile (IRBM) SS-4 at the Saryshagan test site in the Kazakhstan desert. This event led to the emergence of a powerful political, military, scientific-technological, and industrial missile defense complex in the Soviet Union, a major factor in shaping U.S. defense programs and technologies during the Cold War. A new chapter in the eternal competition between protecting and avenging, between the sword and the shield, has begun. The lecture tells a little known story, based on an AIAA-published book, of the first Soviet anti-aircraft system SA-1 and the first intercept of an IRBM, leading to the birth of Soviet missile defense and deployment of the first operational missile defense system A-35.