

San Diego Section Dinner Meeting

Thursday, April 16th

Gene Austin, NASA, retired

Future Space Transportation: The Challenge



Many challenges face the future of space transportation. Two examples are the phasing out of the Space Shuttle and delays in operational readiness of the ARES I and Orion. Private industry in space travel has grown, such as Private Space Explorers on the International Space Station (ISS), Burt Rutan's SpaceShipOne and the follow on Virgin Galactic spacecraft. Beyond these purely private approaches, NASA is sponsoring commercial "joint ventures" with private companies that may be capable of taking future crews and cargo to the ISS. SpaceX and Rocketplane Kistler were the original teams and Orbital was recently added for ISS cargo following the Kistler cancellation in 2007.

The challenges ahead are many, but the opportunities are great. NASA's approach will give us the promise of not only continuing support of the ISS, but also a path for a return to the Moon and beyond. The investment by NASA encouraging privately financed launch systems that can possibly support the ISS is successfully moving forward. Private Space Flight is a growth industry that provides the promise of this fledgling industry fulfilling our goal of competitive Space Access for everyone.

Finally, NASA has a mission underway to visit the "Dwarf Planet" Pluto. This Spacecraft was launched in 2006 and will fly by Pluto in 2015. Our "ninth planet" will finally be visited after a flight of just over nine years. Advances in propulsion, power and reliability will be required to allow manned missions to the outer reaches of the solar system.

A Chinese buffet dinner will be served prior to the presentation so come hungry.

Limited to the first 50 reservations.

\$10.00 AIAA Members

\$5.00 AIAA Students

\$15.00 for Non-Members

Free for new AIAA members (joined in the last 6 months)

Social & Dinner: 5:30 p.m. - 6:30 p.m.

Presentation: 6:30 p.m.

Location: Wyle Labs

Reference attached map

RSVP by 14 April to Cody Krzton-Presson

E-mail: cody.kp@gmail.com

Phone: 619-306-0549 (Please leave message with your name and phone number)

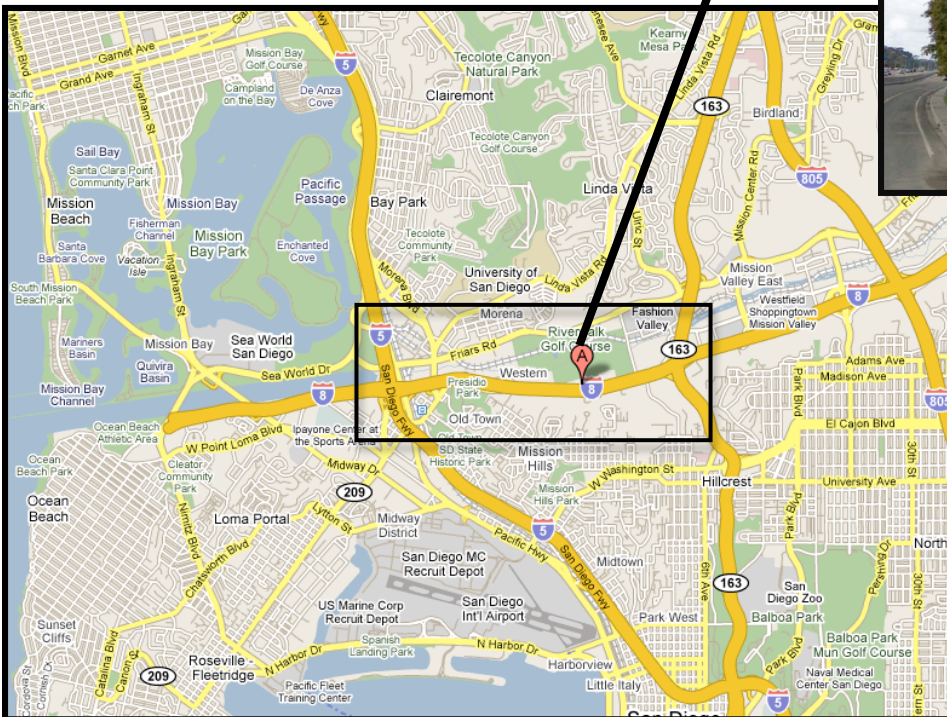
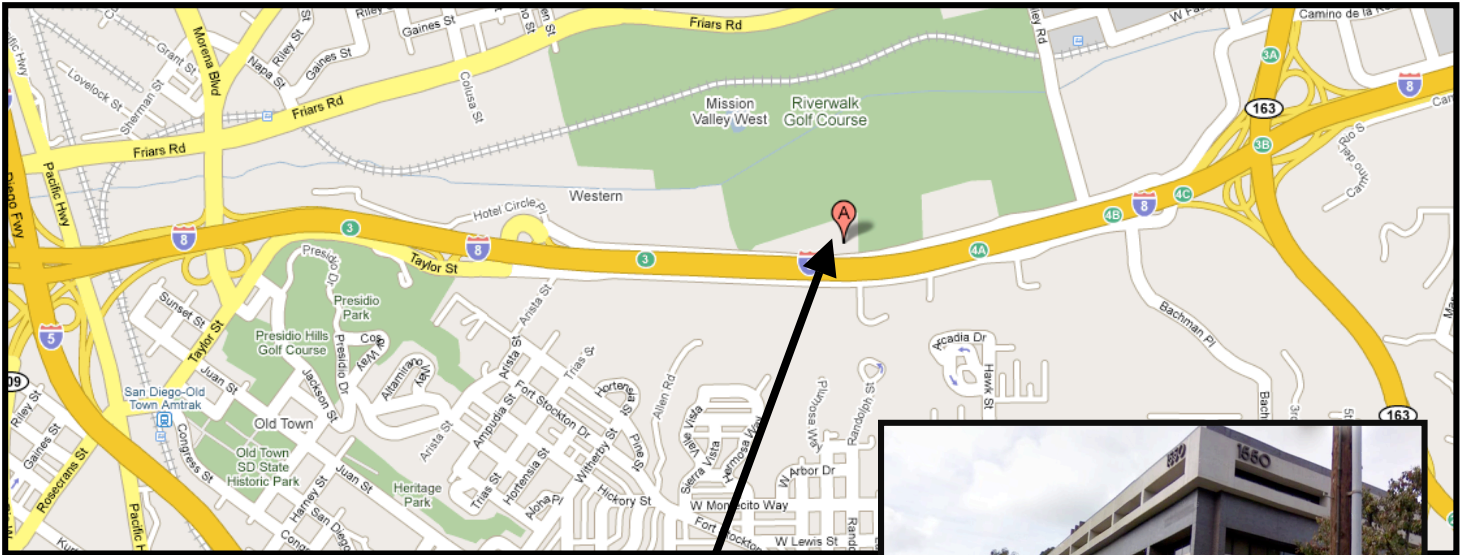
Free parking

AIAA San Diego Section

April 16th 5:30 pm

Dinner Meeting

1550 Hotel Circle North, Suite 425, San Diego, California 92108-2910
(The meeting room is on the fourth floor; take the elevators in the lobby and all facilities are handicapped accessible.)



Biography

Following his retirement from NASA, after a career of nearly 42 years, Gene and his wife (Judith) formed a company, GJ Systems, Inc. The purpose of the company is to provide Systems Consulting and Seminars in the area of Space Transportation. During the period following his retirement, Gene has consulted with NASA on the National Launch System, Human Mars Mission approaches, and the ARES Launch Vehicle Program, He was also a regular contributor to the NASA Business Education Program since the X-33 was a key element in NASA's Business Development approach of the pre 2000 timeframe.

Gene's position prior to his retirement from NASA was the NASA X-33 Program Manager. He located his Program Office at the Lockheed Martin Skunk Works in Palmdale, CA, where the design and development effort took place. The X-33 Program was a unique new approach in development of Space Programs by NASA. It was a Partnership between NASA and Industry. The X-33 Program had as its primary goal, to demonstrate the technologies necessary to reach a decision to commercially develop and operate a Single Stage to Orbit Reusable Launch Vehicle. Gene was elected to the rank of AIAA Associate Fellow in May 1989 and has served on the AIAA Electric Propulsion and Space Transportation Technical Committees.

Other key positions during his career include: Director of the Space Transportation and Exploration Office, Deputy Director of the Advanced Transportation Technologies Office and Manager of the Aeroassist Flight Experiment Project at the NASA Marshall Space Flight Center in Huntsville, Alabama. He also served as Director of the Advanced Transportation Branch of the NASA Headquarters Office of Space Flight in Washington, DC. His assignment in 1993 as NASA lead of the Advanced Technology Team of NASA's Access to Space Study, led to establishment of the agency's goal toward the development of an operational Single Stage To Orbit. As a result of that goal, and working with the DoD and the White House Office of Science and Technology Policy, NASA was then assigned the responsibility for Reusable Launch Vehicle technology development and demonstration in the Administration's August 1994 National Space Transportation Policy.

He received a Bachelor of Science in Aerospace Engineering from Auburn University in 1963. Mr. Austin did graduate studies in Engineering Mechanics at the University of Alabama in Huntsville. Background After graduation from Auburn University, he returned to the NASA Marshall Space Flight Center (MSFC) where he had participated in the Cooperative Education Program during his college years. He served in progressively increasing job responsibilities over his career at MSFC from a specialist who performed theoretical investigations in mission analysis and conceptual designs of nuclear rocket systems to his present assignment.

Some of the key assignments in his career include:

- Director, Space Transportation and Exploration Office within Program Development at MSFC
- Acting Chief, Advanced Development Branch within Advanced Programs of the Office of Space Flight, NASA Headquarters;
- Served on the NASA Headquarters negotiation team leading to the Agreement between NASA 12 and Orbital Sciences Corporation for the commercial development of the Transfer Orbit Stage;
- Chief of MSFC's Space Transportation Group within Program Development;
- Manager of the Aeroassist Flight Experiment Project;
- Deputy Manager, Space Transportation Study Team;
- Acting Chief, Advanced Transportation Branch in the NASA Headquarters Office of Space Flight's Advanced Program Development Division;
- Chairman, NASA Advanced Technology Option Team of the NASA Access to Space Study.