

Overview of AIAA



- Established in 1963 through the merger of two founding organizations, the Institute of Aeronautical Sciences and the American Rocket Society.
- Largest professional society devoted to the progress of engineering and science in aviation and space.
- Represents more than 35,000 professional and student members in over 90 countries, as well as more than 50 corporate members worldwide.
- AIAA members are engineers, scientists, executives and educators—leaders in the aerospace field from all levels of industry, academia, and government.
- **Mission:** Advance the arts, sciences, and technology of aerospace, and nurture and promote the professionalism of those engaged in these pursuits. AIAA seeks to meet the professional needs and interests of its members, as well as to improve the public understanding of the profession and its contributions.



Space Exploration Vision



- The new Space Exploration Vision outlined by President Bush on January 14, 2003:
 - Provides a long-term focus for U.S. civil space activities
 - Integrates the use of robotic and human missions
 - Will stimulate interest in pursuing careers in science and technology
- The American Institute of Aeronautics and Astronautics supports the objectives of the new vision as part of a balanced and comprehensive U.S. civil aeronautics and space program.
- The AIAA may wish to provide additional comments on the exploration vision when further details have been elaborated.



Private Sector Involvement

As it implements the space exploration vision, **the U.S. should encourage private sector involvement** in areas such as:

- Developing launch systems and services that support the new initiative and related programs such as the ISS
- Operating new communications satellites and ground systems to relay data, voice, and video signals from the Moon and Mars to Earth
- Coordinating operations support—at the national and the international levels—for exploration missions
- Stimulating new innovations in the development of exploration technologies

The AIAA commends NASA on the proposed “Centennial Challenges” program to establish annual prizes for breakthrough accomplishments that enhance solar system exploration.



International Participation

The U.S. should also encourage international participation in the new space exploration vision.

The international situation is very different today than it was when the Apollo, Space Shuttle, and ISS initiatives were launched:

- The Cold War is over.
- The U.S. now has considerably more experience in working with international partners on human space flight programs than in the past.
- Other countries have expanded interests and capabilities which could be combined with those of the U.S. in undertaking a human exploration initiative.



International Participation



- The new situation is well illustrated by the status of the ISS today. In the wake of the Columbia accident, the Space Station partnership is relying on Russian Progress and Soyuz vehicles to provide critical supplies and crew rotation.
- In light of this situation, the AIAA believes that the U.S. should actively encourage other countries to join with us—and play *significant* roles—in the exploration initiative through development, launch and operation of both robotic and human missions.
- We recognize that countries wishing to play such major roles in these programs must also be prepared to commit and assure the availability of commensurate resources.



International Benefits & Challenges

The potential **benefits** of international cooperation include:

- Enriching the scientific and technological character of the initiative
- Making the initiative more affordable to the U.S. even though the total cost may increase with several partners
- Adding robustness and redundancy through the development and use of parallel space transportation and orbital systems
- Providing access to launch sites, facilities, and capabilities that might not otherwise be available
- Increasing the global political legitimacy of the venture

The potential **challenges** include:

- Forging long-term commitments that survive changing political and funding conditions among the partners
- Resolving export control, non-proliferation, and competitiveness issues



AIAA International Activities

The AIAA includes:

- 5,000 international individual members
- 10 international corporate members

The AIAA sponsors:

- International joint technical conferences
- International Space Cooperation Workshops
 - Initiated in 1992. Six workshops held to date.
 - Seventh workshop to be held in Anchorage, Alaska, in May 2004.
 - These Workshops have provided opportunities for government and industry leaders from the U.S. and other countries around the world to discuss on an informal basis a wide variety of international space program and policy issues.



Conclusion

The President's vision for space exploration focuses on exploring the origins of our solar system and searching for life beyond planet earth. The vision also provides the U.S. with a unique opportunity to cooperate closely with other countries in the pursuit of these objectives.

Through its conferences and international cooperation workshops, the AIAA provides occasions where program and policy officials in the U.S. and other countries can discuss mutual interests and concerns on an informal basis. The AIAA will continue to provide such opportunities as the U.S. and prospective international partners pursue their space exploration objectives.

