SUBMIT TO: AM105 HORAIS/TWIGGS
CONFERENCE: SMALL PAYLOADS IN SPACE

TITLE: Access To Space Interactive Design Web Site

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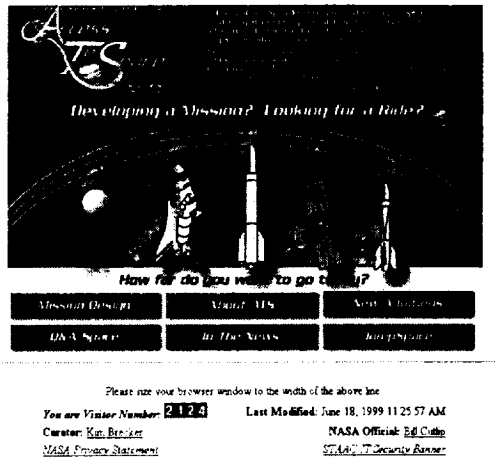
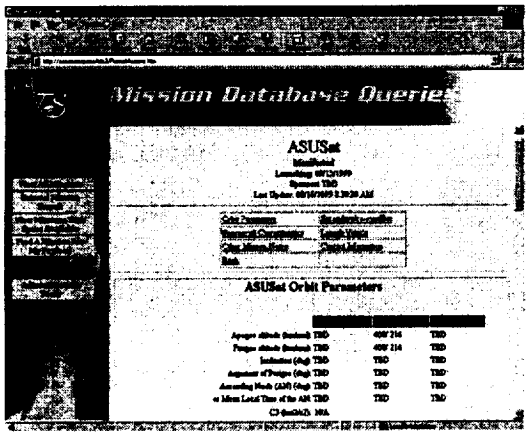
Abstract: The Access To Space (ATS) Group at NASA's Goddard Space Flight Center (GSFC) supports the science and technology community at GSFC by facilitating frequent and affordable opportunities for access to space. Through partnerships established with access mode suppliers, the ATS Group has developed an interactive Mission Design web site. The ATS web site provides both the information and the tools necessary to assist mission planners in selecting and planning their ride to space. This includes the evaluation of single payloads vs. ride-sharing opportunities to reduce the cost of access to space. Features of this site include the following:





Mission Database

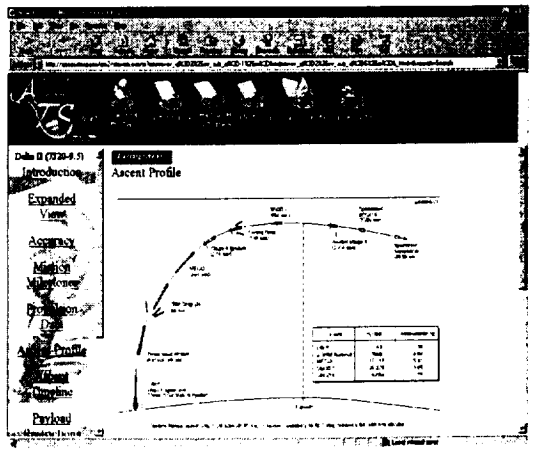
Our mission database contains a listing of missions ranging from proposed missions to manifested. Missions can be entered by our user community through data input tools. Data is then accessed by users through various search engines.

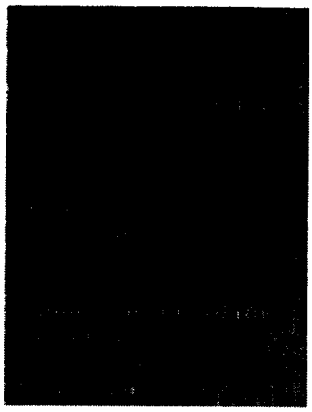
- ✓ Orbit Parameters
- ✓ Spacecraft Parameters
- ✓ Launch Vehicle
- ✓ Ride-Share Opportunities
- ✓ Other Mission Notes
- ✓ Contact Information

Launch Vehicle Toolboxes

The launch vehicle toolboxes provide the user a full range of information on vehicle classes and individual configurations. Topics include:

- ✓ General Information
- ✓ Performance
- ✓ Available Volume
- ✓ Environments
- ✓ Payload Interface
- ✓ Launch Sites





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In recent years there has been a significant increase in demand for testing, qualification, and evaluation of remote sensing and control systems in space. This will continue to be true with the dramatic growth in remote sensing and communication satellites and constellations. Finding ways to space-qualify components and sensors without paying for expensive, dedicated space experiments has prompted a number of aerospace companies (large and small) and government organizations to increase their emphasis on providing low-cost access to space by means of secondary rides on primary payloads and launch vehicle structures.

A critical category of secondary payload developers exists that have needs for space launch services: the new/innovative developers of space remote sensing components that do not have the knowledge, resources, or contacts necessary to successfully test their technologies in space.

As U.S. space programs have grown in scope and cost, the capacity to accept risk as part of the development process has diminished. As a result, the U.S. space industry is experiencing erosion in innovation, the cornerstone of our nation's security and space commerce leadership for the past four decades. It is not coincidental that in 1998, of 82 orbital launch attempts, 56% originated from outside the United States. In addition, the long timelines for space testing have reduced and eliminated opportunities for hands-on training at U.S. universities, further eroding U.S. sources of new space systems engineers. Expansion and acceleration of U.S. rideshare opportunities to include proactive matching of innovative component developers to space testing opportunities can reduce the risk, shorten the development timelines, and stimulate the development of trained space system workforces in the U.S.

The purpose of the conference is to introduce, educate, and bring together these secondary payload space test customers with the contractors and organizations that can provide rapid and low-cost access to space. This conference will include representatives from industry, academia, and government organizations to:

- explore means for use of current and planned secondary payload capabilities
- understand lessons learned from Ariane and European secondary payload successes
- evaluate potential for use of EELV as a standardized secondary payload launch service
- identify the connection between U.S. education in space

- identify the connection between U.S. education in space systems and space testing
- match payload customers to ride sources
- introduce new remote sensing space hardware developers to the space testing process
- describe the involvement required to support a secondary payload mission from concept to launch to data analysis
- identify remote sensing component testing requirements.

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