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Paper Session II-B - A Look at NASA's In-Space Technology Experiments Program

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A Look at NASA's In-Space Technology Experiments Program

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Abstract

In 1986, NASA's Office of Aeronautics and Space Technology (OAST) initiated the In-Space Technology Experiments Program to sponsor the verification and/or validation of unique, innovative space technologies in the space environment. The program includes technology experiments from U.S. industry, U.S. universities and NASA centers which have a demonstrable requirement for evaluation of validation in the space environment or under microgravity conditions. Currently, over 40 experiments have been funded for either feasibility definition or development and additional experiments are expected to be selected for funding in the near future.

These experiments are in the categories of space structures; space environmental effects; power and propulsion systems; fluid and thermal management; automation and robotics; sensor, communications and information systems; in-space systems; and humans in space. These experiments are expected to be conducted on the National Space Transportation System (NSTS) or expendable launch vehicles (ELVs) in the early 1990's and beyond into the era of the space station.

This paper will provide a look at the current status of the In-Space Technology Experiments Program, including a discussion of those experiments which are under development. Also, the status of OAST's recent Announcement of Opportunity for In-Space Technology Experiments will be discussed.