

# Glenn Experiments to Fly on Next Shuttle Mission

**When space shuttle Endeavour blasts off from Cape Canaveral on its STS-118 mission, it will be carrying two experiments built at NASA's Glenn Research Center.**

At 6:36 p.m. EDT on Wednesday, August 8, Endeavour will carry the Smoke Aerosol Measurement Experiment (SAME) and the Coarsening in Solid-Liquid Mixtures-2 (CSLM-2) Experiment. Both experiments were designed and built according to stringent flight hardware requirements to be operated onboard the International Space Station.

Researchers who helped manage the development of the experiments will be on hand at Glenn's Visitor Center, which will be open until 7:30 p.m. on launch day. Visitors are invited to watch Endeavor's launch on the big screen in the Visitor Center auditorium.

Data acquired by SAME, one of the Glenn experiments flying on STS-118, will be used to design more effective smoke detectors for space exploration vehicles and non-terrestrial habitats, such as the moon or Mars. Because the consequences of a fire during space travel could be disastrous, scientists continue to study how smoke behaves in the environment of space. SAME is scheduled to return to Earth in February 2008.

The second experiment developed by Glenn that will fly to station on STS-118 is CSLM-2, a materials science experiment. Data gathered by this experiment will advance the development of new high-temperature materials, such as those used in nuclear propulsion and waste heat coolant processes. CSLM-2 will be operated on station until October of this year.

"These experiments show Glenn's continued work in investigating the unique environment of space and its effect on various processes that are essential for safe spaceflight," said Tom St. Onge, chief of Glenn's ISS and Human Research Project Office.

During the 11-day mission to the International Space Station, Endeavour's crew will add another truss segment to the expanding station, install a new gyroscope and add an external spare parts platform. The flight will have at least three spacewalks. It also will debut a new system that enables docked shuttles to draw electrical power from the station to extend visits to the outpost. If this system functions as expected, three additional days will be added to the STS-118 mission.

Source: NASA

*This document is subject to copyright. Apart from any fair dealing for the purpose of private study, research, no part may be reproduced without the written permission. The content is provided for information purposes only.*