

SERVIR Messages

- The SERVIR project is a joint venture between USAID and NASA. The project provides satellite-based Earth observation data and science applications to help developing nations in Central America, East Africa, and the Himalayas improve their environmental decision making.
- The SERVIR system provides critical information to help countries assess damage and respond to disasters and environmental threats.
- SERVIR provides data and science applications that address themes identified by the Global Earth Observation System of Systems (GEOSS), including disasters, ecosystems, biodiversity, weather, water, climate, health, and agriculture.
- SERVIR's long-range goal is to build capacity within the host nations to replicate many of the services SERVIR provides and become more self-sufficient in the use of Earth observation data and geospatial tools.
- SERVIR is an example of direct benefits to life on Earth through space-based technologies.
- SERVIR demonstrates Marshall Space Flight Center's critical expertise in analyzing Earth observation data and developing and transferring space-based technologies to direct benefit life on Earth.
- SERVIR demonstrates MSFC's ability to form partnerships within NASA and other agencies within the U.S. Government as well as internationally.

ISERV Messages

- ISERV Pathfinder, the International Space Station SERVIR Environmental Research and Visualization System, is positioned in the Destiny module's Earth-facing window and consists of a commercial camera, telescope, and pointing system.
- Acting on commands from the ground, it can photograph specific areas of the Earth's surface as the space station passes over them.
- Pathfinder's special software knows where the space station is at each moment as well as its attitude and direction. With this information it calculates the next chance to view a particular area. If there is a good viewing opportunity, the SERVIR ISERV team sends instructions to the camera to capture images.
- Pathfinder can take a series of high-resolution photographs of the area at 3-7 frames per second, totaling as many as 100 images per pass.
- The camera's nominal resolution is approximately 3.5 meters, so its images are potentially valuable for disaster assessments.
- ISERV Pathfinder is primarily an engineering exercise to help scientists gain experience and expertise in automated data acquisition from the space station -- valuable information for developing more capable future instruments.
- ISERV is, however, expected to provide useful images useful for disaster monitoring and assessment and environmental decision making. Such information will help officials in developing nations monitor impacts of disasters such as floods, landslides, and forest fires as well as address other environmental issues.
- At first, the instrument will be tasked only by SERVIR and its hubs in Mesoamerica, East Africa, and the Hindu Kush-Himalaya region. After proving itself, ISERV could be made available to the broader disaster community and the NASA science community.