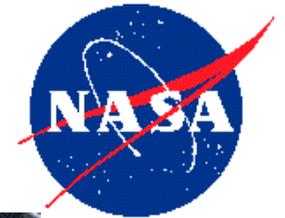


# Infrared Spectral Imaging Radiometer (ISIR)

*Space Instruments, Inc.*  
Encinitas, CA



## INNOVATION

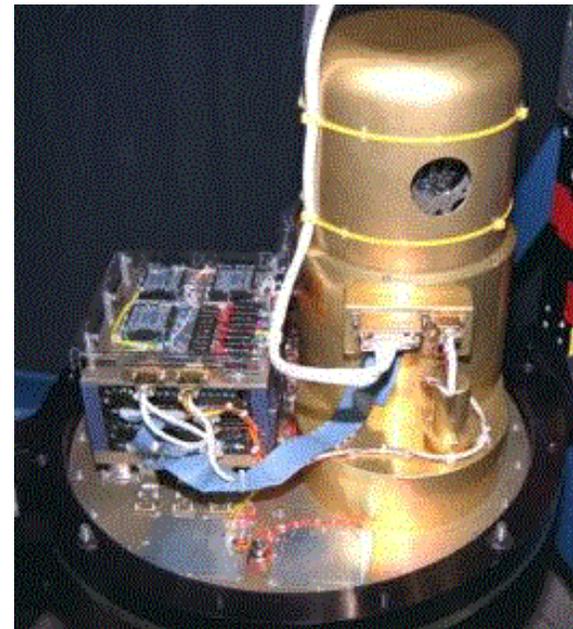
Developed a high precision, multispectral imaging radiometer that will help scientists study the effects of cloud formations on global climate patterns.

## ACCOMPLISHMENTS

- ◆ ISIR operates in the thermal infrared spectrum without cryogenic cooling and without mechanical scanning.
- ◆ First uncooled infrared spectral imager to venture beyond Earth's atmosphere.
- ◆ Has four times the resolution as the US government's polar weather satellite.
- ◆ ISIR flew on Discovery, August 1997 as a Technology Application and Science Hitchhiker payload.

## COMMERCIALIZATION

- ◆ NASA provided \$75K Phase III funding for instrument improvement and design studies.
- ◆ Forest Service applications to map forest fires.
- ◆ Crop monitoring, outer planets & moons imaging and environmental monitoring.



**ISIR AND TAPE RECORDERS IN  
HITCHHIKER CANNISTER**

## GOVERNMENT/SCIENCE APPLICATIONS

- ◆ Data provided NASA researchers with a tool to help study the effects of cloud formations on global climate patterns.
- ◆ A number of important uses include weather forecasting, scientific research and intelligence gathering.
- ◆ Next Shuttle flight for the ISIR instrument scheduled for 1999.

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