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LASCO/EIT Description

LASCO/EIT consists of two experiments on the SOHO spacecraft, which was launched on 2 Dec 1995 from the Kennedy Space Center in Florida.

The LASCO experiment is a set of three coronagraph telescopes that will record white light images of the solar corona from 1.1 through 30 solar radii. It also will record spectral images of the solar corona from 1.1 to 3.0 solar radii. The questions of coronal physics that are to be addressed by LASCO are

- How is the corona heated?
- Where and how is the solar wind accelerated?
- What causes coronal transients?
- How do the large-scale structures evolve?

The LASCO experiment will investigate the following:

- The transport of mass, momentum, and energy through the corona and into the solar wind by measuring global distributions of key plasma parameters and their evolution with time
- The processes that occur in coronal transients, and the conditions that trigger them
- the interactions of the coronal plasma with dust, by observing the spatial distribution and the properties of dust particles near the sun, including those released from sungrazing comets.

LASCO was built by a consortium of four US and European institutions:

- Naval Research Lab (NRL), Solar Physics Branch, United States
- University of Birmingham (DSR), Department of Space Research, UK
- Laboratoire d'Astronomie Spatiale (LAS), France
- Max-Planck-Institut für Astronomie (MPAe), Germany

NRL is the principal investigator institution and was responsible for the C3 coronagraph, which images the corona from about 3.5 to 30 solar radii. It was also responsible for the cameras, the Fabry-Perot interferometer and the [electronics](#) (.tif image).

DSR was responsible for the telescope structure. It was also responsible for the boresight telescopes and the pointing leg mechanisms.

LAS was responsible for the C2 coronagraph, which images the corona from about 1.5 to 6 solar radii. It was also responsible for the filter and polarizer wheel mechanisms and the shutter mechanisms for all three telescopes.

MPAe was responsible for the C1 coronagraph, which images the corona from 1.1 to 3 solar radii. It was also responsible for the door mechanisms and focus mechanisms for all the telescopes.

All institutions as well as other co-investigators will share in the analyses.

Team and Operations

Resources

LASCO/C1 at MPAe
(Germany)

LASCO at LAS
(France)

LASCO Handbook

Technical Notes

Detailed

Documentation

Acronyms

The EIT telescope is an extreme ultraviolet imaging telescope, that will return EUV images of the sun in one of four wavelengths. EIT was also built by a consortium of European and US institutions:

- Institute d'Astronomie Spatiale (IAS), France
- Centre Spatiale de Liege (CSL), Belgium
- Laboratoire d'Astronomie Spatiale (LAS), France
- Max-Planck-Institut fur Aeronomie (MPAe), Germany
- Naval Research Lab (NRL), Solar Physics Branch, United States

IAS is the principal investigator institution and was responsible for the optics and the thin film filters.

Related Links

Solwind Images and
CMEs

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SOHO and SOHO

Instruments

Other Solar Satellites
and Observatories

CSL was responsible for the structure.

LAS was responsible for the filter wheel, sector wheel and the shutter mechanisms.

MPAe was responsible for the door mechanism.

NRL was responsible for the camera and for the electronics support, which was combined with the LASCO electronics.

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