

ILWS activities in Spain

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Solar Observatories



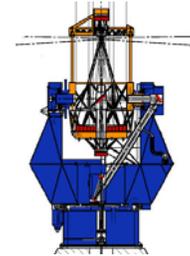
- Major concentration of ground facilities

- Groups in Mallorca, Tenerife, Barcelona, Granada, Valencia, Madrid
- French-Italian THEMIS
- German GCT [Gregor]
- German VTT
- Spanish VNT [Koronamater]
- International Helioseismology Lab. [GONG+]



OT

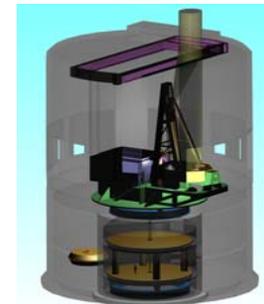
- Swedish NSST
- Dutch DOT
- Site candidate for US ATST [4 m]



ORM



High Resolution & Synoptic programs



The SUNRISE balloon project



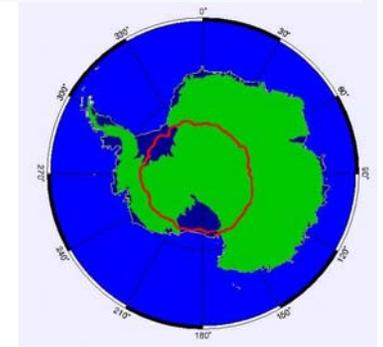
- DLR+NASA+PNE project:

- MP Ae PI institution, KIS. DLR funding.
- HAO PI for NASA LDB program. LMSAL.
- High energy particle detector (Univ. Osnabrück)
- Spain provides magnetograph



- Sunrise rationale

- 1 mt aperture (100 km vis., 35 Km UV)
- Lightweight C/SiC mirror (25 kg)
- Test flight in NM (2005) funded NASA LDB
- Antarctica flight in late 2006 (McMurdo)
- Summer flights always sun pointing
- Circular trajectories for 15 days



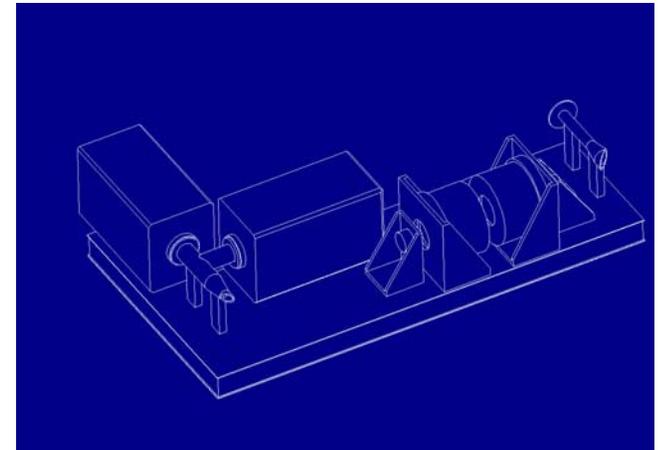
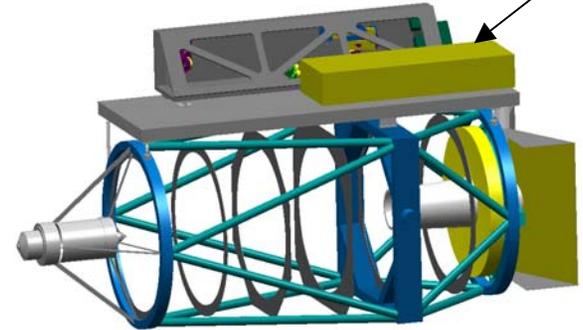
Imaging Magnetograph eXperiment



- IMaX partners contributions

- Magnetograph for SUNRISE
- Mapping surface magnetic fields
- MDI (SOHO), FPP(Solar-B), HMI (SDO)
- IAC is Spanish PI of IMaX
- IAA, INTA, GACE
- PNE has funded up to phase B
- Under evaluation phases C/D/E

IMaX



Solar Orbiter mission

- Solar Orbiter: Visible-light Imaging Magnetograph
 - VIM provides magnetic context
 - VIM (- telescope) ~ IMaX
- Solar Orbiter: In-situ
 - LET-EPD: Alcalá de Henares
 - SW-EU FP6: Univ. Barcelona
 - Energetic particles in Heliosphere
 - CME magnetic cloud propagation

