

Titan atmospheric electricity investigation with the PWA-HASI instrument on the HUYGENS probe.

Trial balloon flights in the terrestrial atmosphere

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PWA/HASI experiment

(PWA: Permittivity, Waves and Altimetry

HASI: Huygens Atmospheric Structure Instrument):

- CISAS (Centre of Studies and Activities for Space 'G.Colombo', Padova)
- LPCE-CNRS (Laboratoire de Physique et Chimie de l'Environnement), Orléans
- CETP-CNRS (Centre d'Etude des Environnements Terrestre et Planétaires), Saint Maur
- IAA (Instituto de Astrofísica de Andalucía), Granada
- IWF (Institut für Weltraumforschung), Graz
- RSSD (Solar System Division), ESTEC-ESA, Noordwijk

HASI balloon flights:

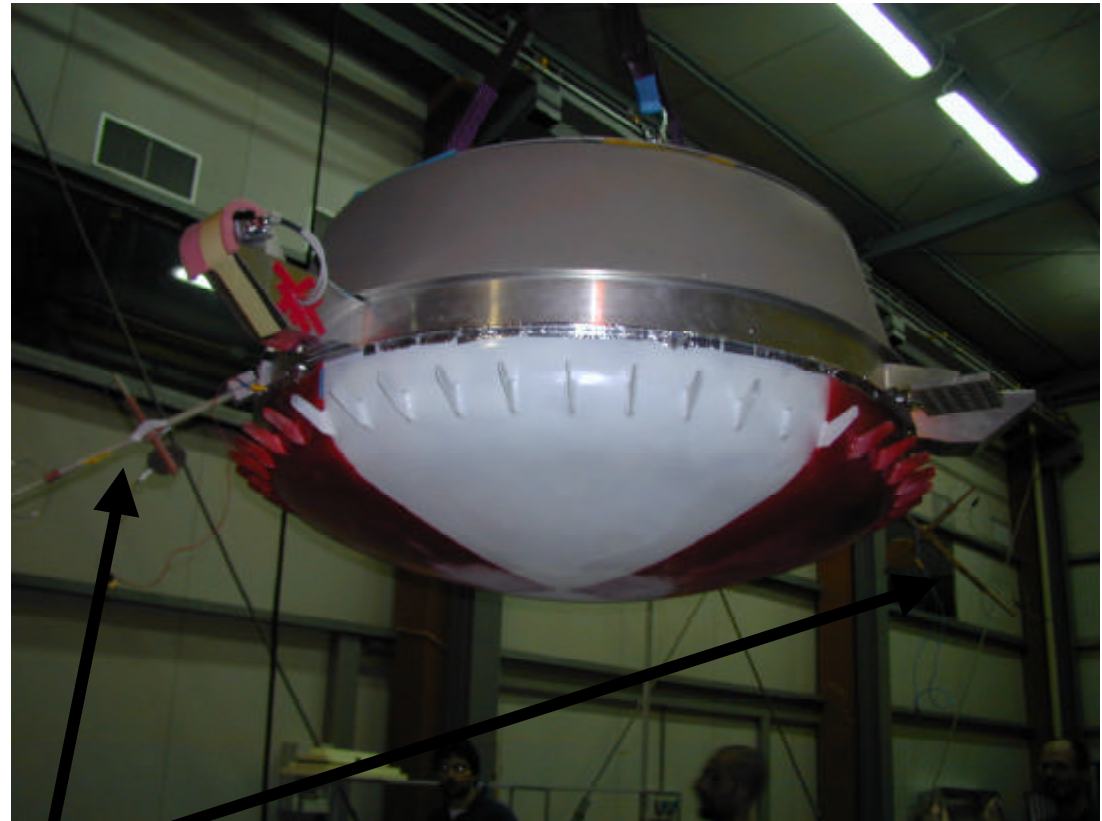
- Comas Solá, León, Spain, 1995 (IAA-INTAS)
- Hasi 2003, Trapani, Sicily (CISAS, Padova)



Trapani, 2003

PWA will measure the conductivity of the atmosphere with two instruments:

- Mutual Impedance Probe (MI) for electron conductivity
- Relaxation Probe (RP) for polar ionic conductivities



PWA electrodes

We show in the poster the PWA conductivity measurements with the MI and RP instruments that were tested in the terrestrial atmosphere during two balloon flights with mock-up of the Huygens probe in 1995 (León) and 2003 (Trapani).