

# MImOSA

monitoring ionosphere over south america



## MImOSA Workshop February 26th, 2013

In order to disseminate the project and to enable the necessary collaboration with Universities, Public and Private Institutions in South America, the MIMOSA team is glad to invite all the interested entities to attend the MIMOSA workshop. The event will be held on February 26th, 2013 at INPE premises, São José dos Campos (Brazil). No registration fees is required to attend.

Main topics of the workshop will be:

- identify existing ionospheric observing systems (GNSS-based or other)
- facilitate the contact with local institutions possibly interested to host new instruments or to share existing data;
- assess the state of the art in the field and stimulate possible partnerships for new activities;
- explore possible future services to be jointly developed and implemented.

To learn more about the workshop, please write to:

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## WHAT

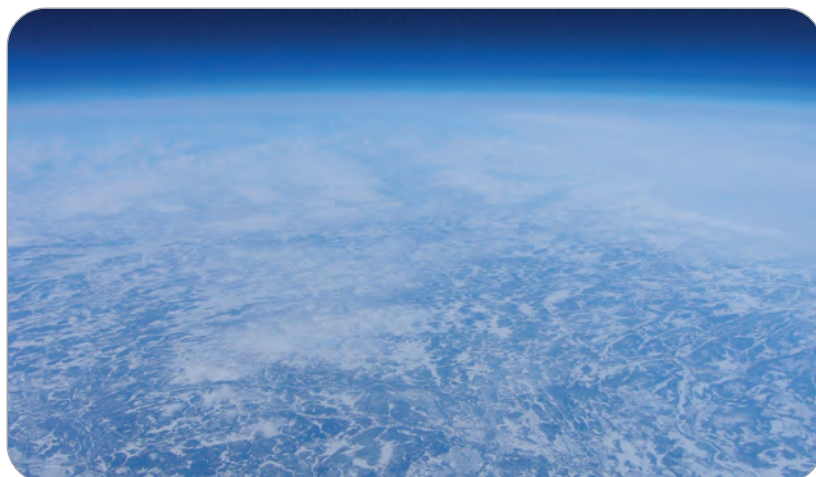
**MImOSA** is a competence survey funded by the European Space Agency (ESA) in the frame of the Alcantara initiative of the General Studies Programme, to assess the current South American capabilities on ionospheric monitoring, in order to understand how the existing facilities can be integrated with new installations, to effectively support and/or improve space weather activities oriented to assist GNSS operations.

## WHY

Over the longitudinal sector in which South America is confined, the large magnetic declination angle coupled with the horizontal gradients in the electron density due to the Equatorial Ionospheric Anomaly produces important peculiarities in the distribution of the plasma irregularities. Consolidating the operational monitoring of these irregularities, by taking also into account possible improvement on existing monitoring networks, will positively impact models and space weather activities.

## WHO

MImOSA partners represent a team of excellence, incorporating proved ionospheric theoretical know-how and technological background. The team is composed by Istituto Nazionale di Geofisica e Vulcanologia (Italy), University of Nottingham (UK) and Politecnico di Torino (Italy) and it is supported by Instituto Nacional de Pesquisas Espaciais (INPE), Universidade Estadual Paulista "Julio de Mesquita Filho" (UNESP), Universidad Nacional de Tucuman (UNT).



## GENERAL OBJECTIVES

To allow performing frequent scientific and technical studies of relevance to ESA programmes with a focus on international space research or an enlarged, world-wide geographical reach that space systems can enable.

- To facilitate the involvement of leading researchers in their respective fields with a



proven record and who are part of research groups that have demonstrated experience in working with partners beyond ESA Member States borders (as measured by e.g. joint publications, or patents).

- To increase the awareness of the international research community of ESA's activities, programmes and priorities.

## METHOD

In close collaboration with all the contacts within South America institutions, the MImOSA team looks for existing or planned observation sites, new installation sites, plans in the considered framework, facilitating data exchange and helping to understand the interests of potential users.

The MImOSA team identifies the geographi-



cal sectors not yet or only partially monitored, reports peculiarities of the regional ionosphere of interest for the GNSS operations, identifies and interacts with entities willing to host new installations, to integrate existing facilities, to extend on-going plans or to be part of this synergetic initiative.



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