



MINISTÉRIO DA CIÊNCIA, TECNOLOGIA, INOVAÇÕES E COMUNICAÇÕES
INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS

Opportunities in Science and Engineering with Space Applications at INPE

Presented by:

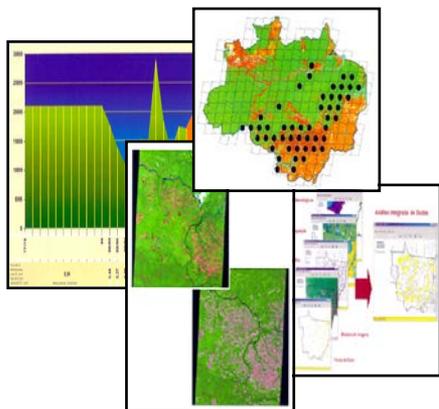
Clezio Marcos De Nardin (PhD)

Scientific and Technical Advisory Committee

For the occasion of the

54th Session of the Technical and Scientific Subcommittee of COPUOS
held in Vienna, Austria from January 30th to February 11th, 2017.

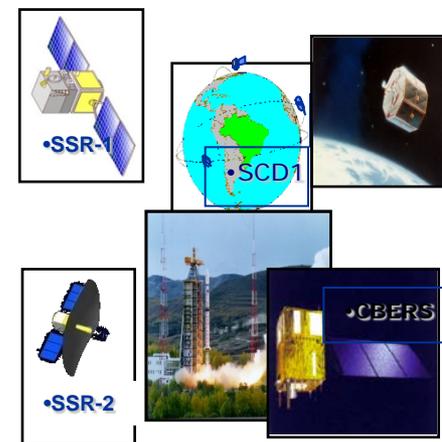
Areas of Activities



Earth Observation



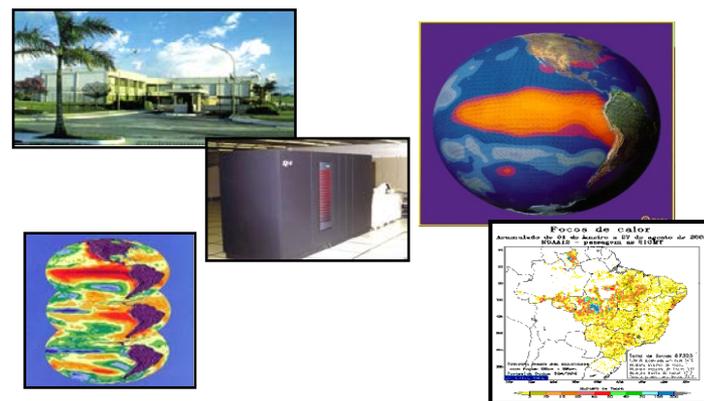
Space Science



Space Technology



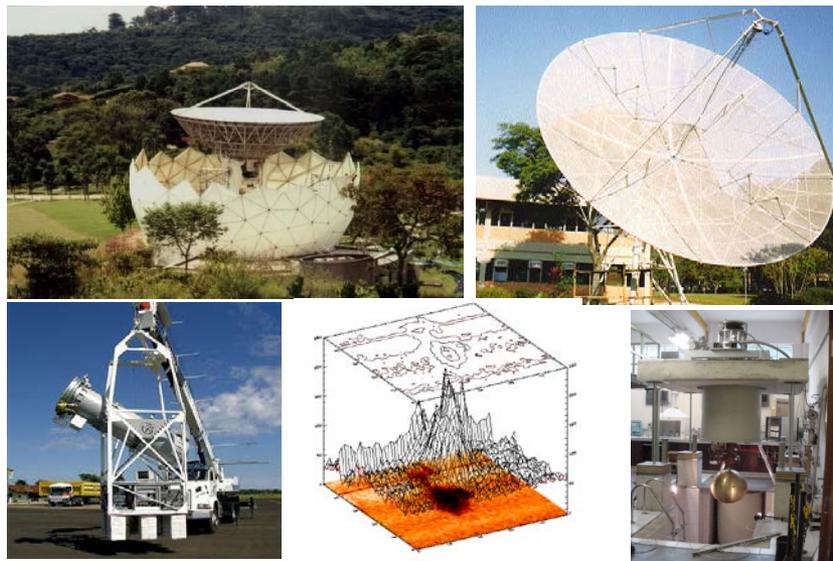
Earth System Sciences



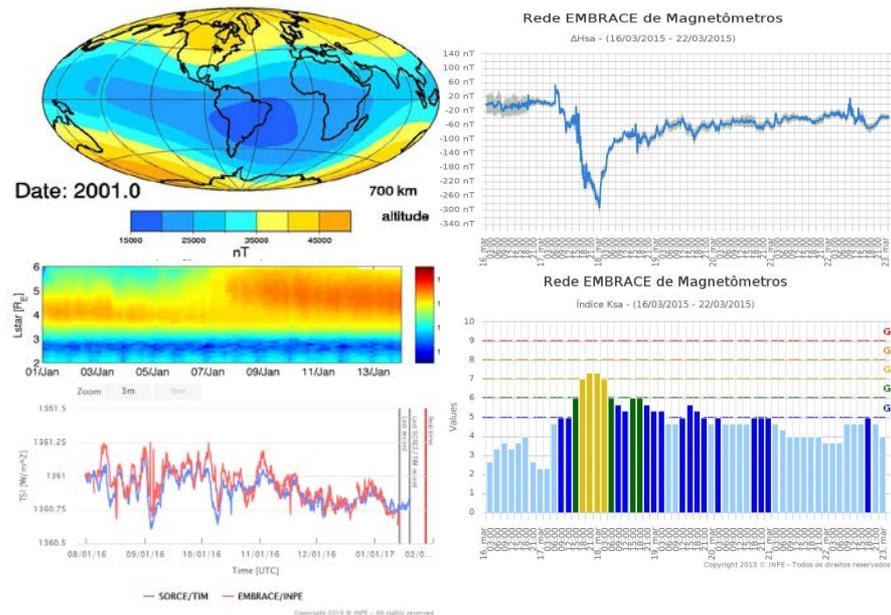
Meteorology and Climate

Space and Atmospheric Sciences (CEA)

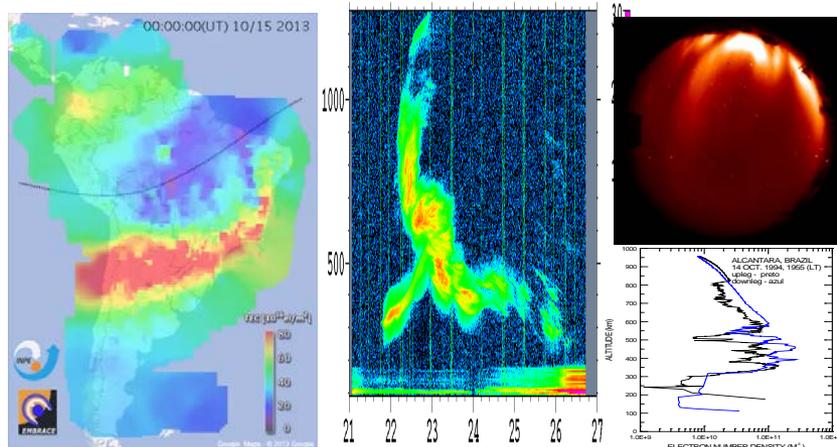
Astrophysics



Space Geophysics



Aeronomy



Balloons Launcher

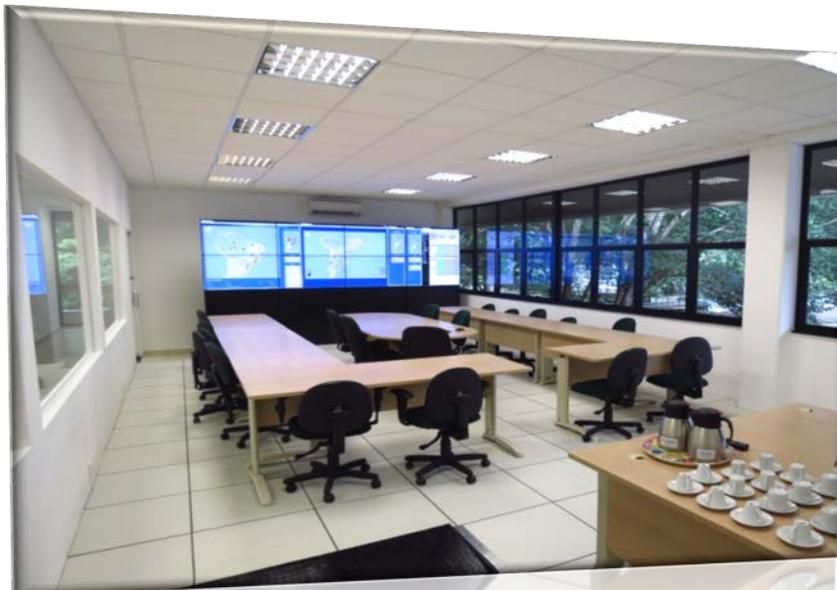




Space Weather Effects



www.inpe.br/spaceweather



DATA

Find the product to download

The screenshot displays the EMBRACE website interface. At the top, there is a navigation bar with the text "BRASIL" and "Acesso à informação" on the left, and "Participe", "Serviços", "Legislação", and "Canais" on the right. There are also flags for Brazil and the United Kingdom. The main content area is divided into two sections: "MANAGEMENT" and "INSTRUMENTS".

MANAGEMENT

- Over Password (Icon: ***)
- Over accounts (Icon: Refresh)
- Logout (Icon: X)

INSTRUMENTS

- Calçada**
 - FIS (Icon: Sun)
- Scintillation**
 - EXT (Icon: Blue square)
- Magnetometer**
 - TXT (Icon: Earth with magnetic field)
- Ionosfera**
 - GRM no SAO (Icon: Graph)
- Tecnia**
 - DIGRA (Icon: Spectrum)
 - IONEX no AMAP (Icon: IONEX logo)
 - GTEX (Icon: GTEX logo)
- Imagem**
 - TIFF (Icon: Blue circle)
- Grav**
 - TXT (Icon: Earth with gravity)
- UV**
 - UV, MET, ZHO, no ZHO (Icon: Water drops)

At the bottom, there is a footer with the EMBRACE logo and the text "EMBRACE - Brazilian Study and Monitoring of Space Weather (BRSMCTE)". Below this, there are links for "Home", "FAQ", "NSAFI", "Contact", and "About". A copyright notice at the very bottom reads: "Copyright 2011, © INPE - National Institute for Space Research. All rights reserved."

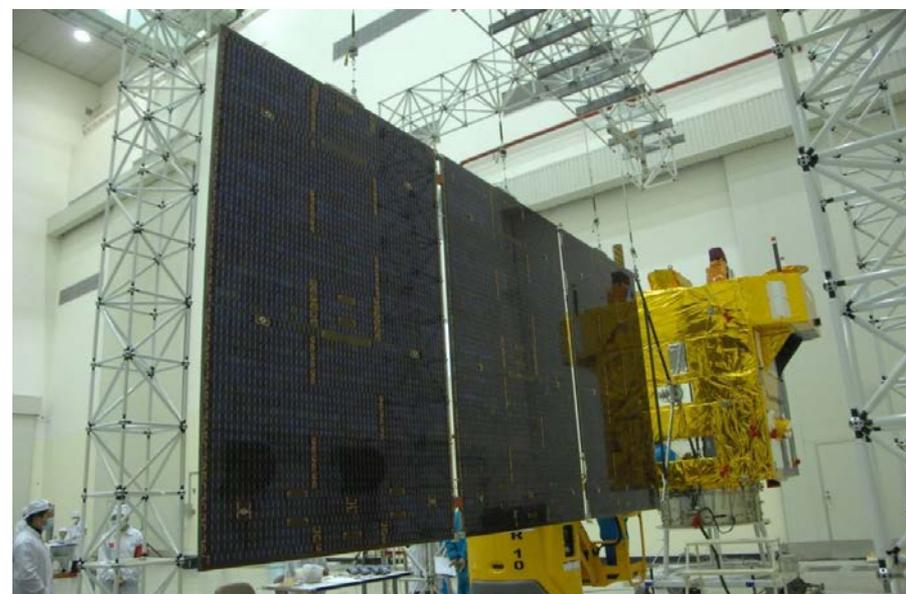


Integration and tests laboratory - LIT





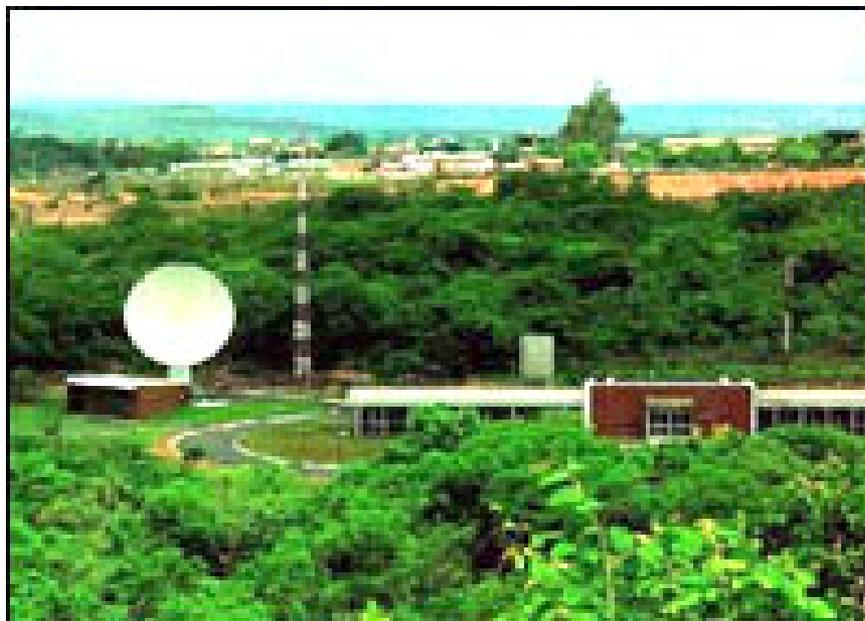
Integration and tests laboratory - LIT





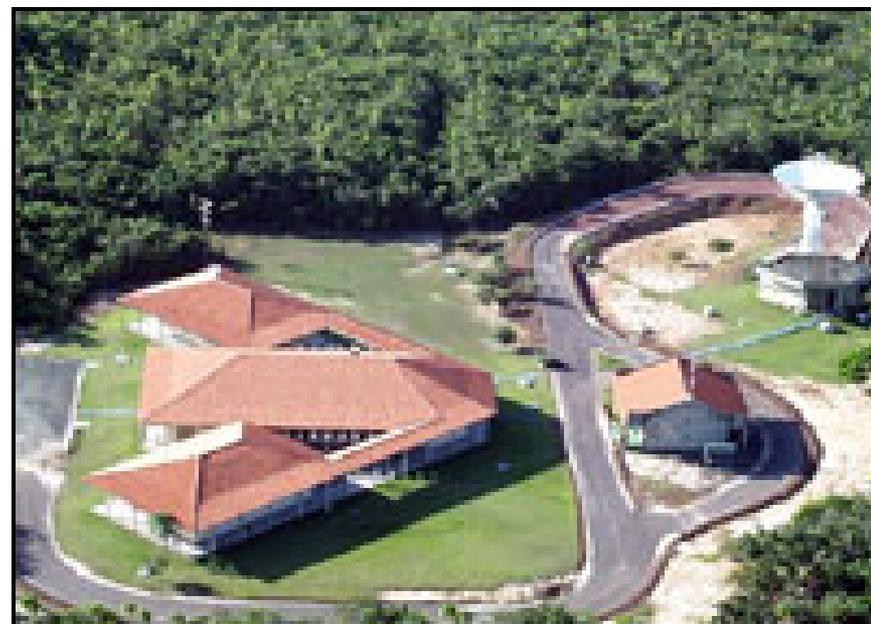
| Ground Systems

C u i a b a S t a t i o n



SCD-1
GOES-15

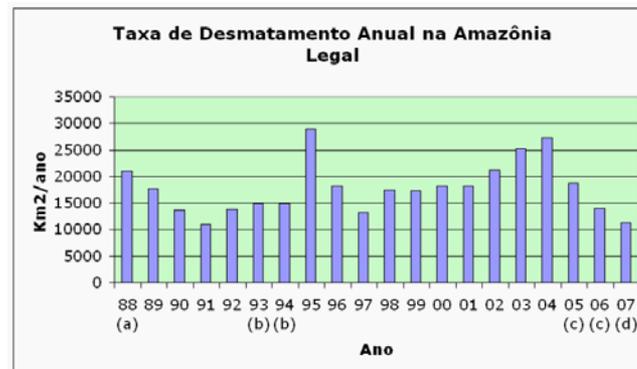
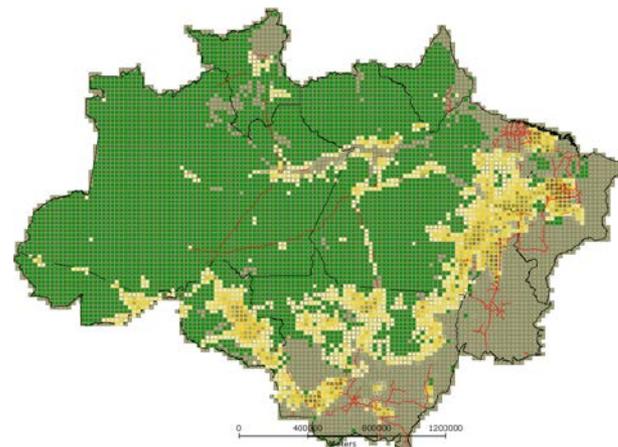
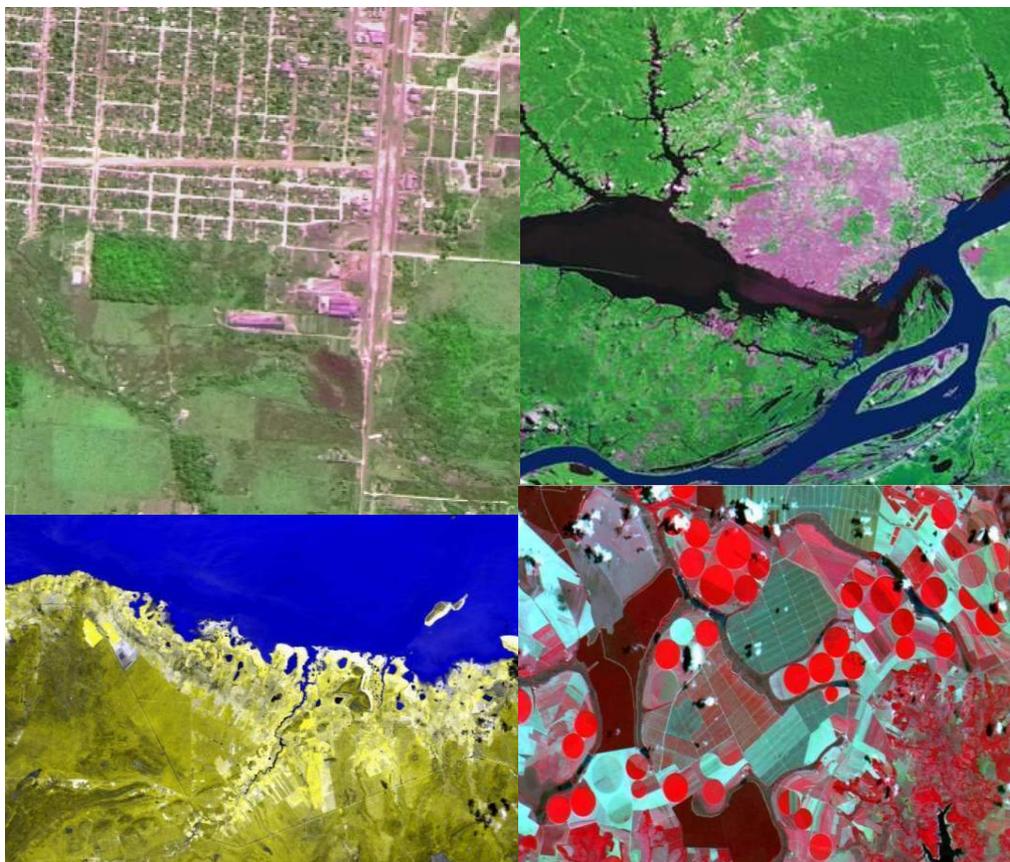
A l c a n t a r a S t a t i o n



SCD-2
COSMIC-1/2

CBERS Series
COROT

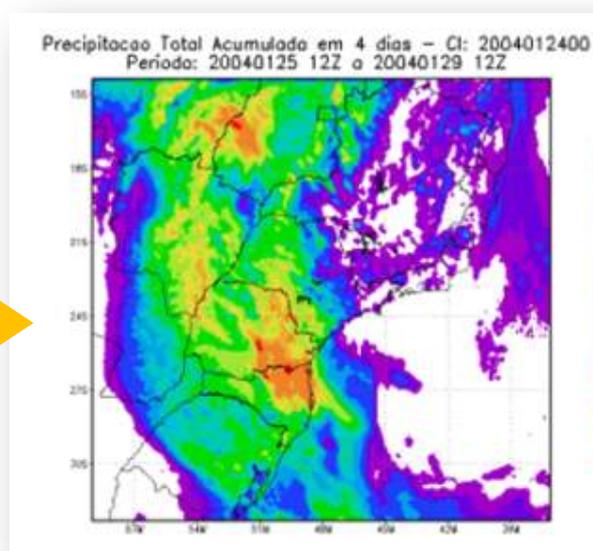
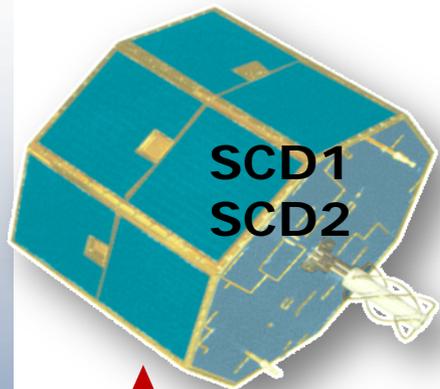
Earth Observation (OBT)



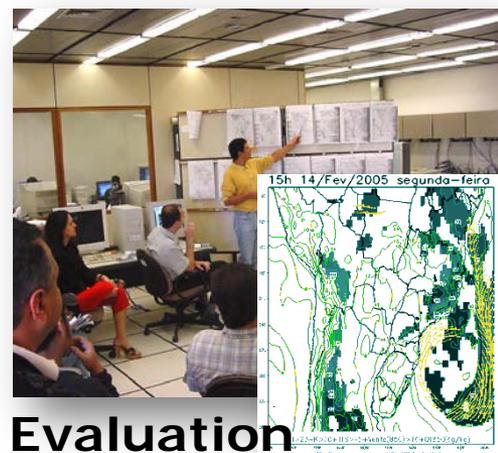
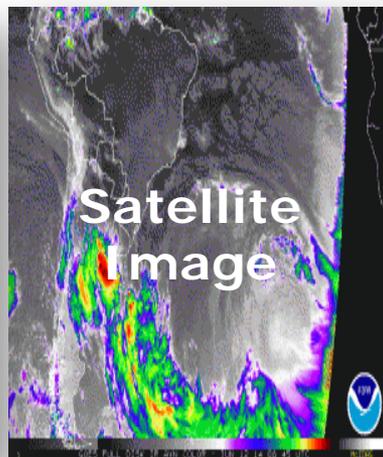
- ❖ Remote Sensing Research on Geology, Water Resources, Oceanography, Ecosystems and Territorial Management and Monitoring.
- ❖ Technological Development: SPRING, Terralib, etc
- ❖ Amazônia Program – Monitoring of Deforestation in the Amazon Region
- ❖ Forest Fire Monitoring and Prevention



Daily Weather Forecast



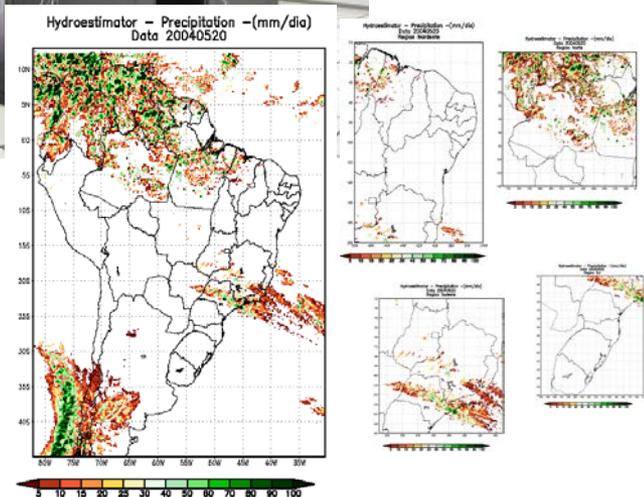
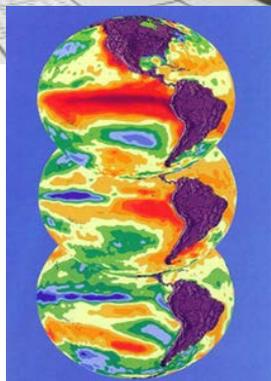
Weather Products



Evaluation



Weather Forecast and Climate Studies



- ✓ Weather and Climate numerical forecasting
- ✓ Supercomputer facility CRAY XTS (258 Teraflop/s – TOP(2012) 16.32 petaflop/s).
- ✓ Research and Development:
 - ❖ R&D in weather forecast and climate change;
 - ❖ R&D in Climate and Hydrology of Amazon Ecosystems;
 - ❖ R&D in the áreas of Climate, Weather, Micro-Meteorology, Ocean-Atmosphere interaction and Marine Meteorology.



OBRIGADO

