Amazonia 1 Mission

Brazilian Remote Sensing Mission

Space Science Week

March 21-22, 2022

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Summary

- Amazonia 1 Mission
- Amazonia 1 Satellite Overview
- Images
- Final Considerations

Amazonia 1 Mission

- **Remote Sensing Mission fully designed, integrated, tested and operated by Brazil**
- **Designed lifetime 4 years**
- **Main Purposes**
  - **Deflorestation monitoring**
  - **Agricultural monitoring**
  - **Coastal monitoring**
  - **Water reservoir monitoring**
  - **Natural disaster monitoring**

Amazonia 1 Mission

Launch date: 2021-02-28

Amazonia 1 Satellite

I. Service Module - MMP

II. Payload Module

III. Total Mass: 638 kg

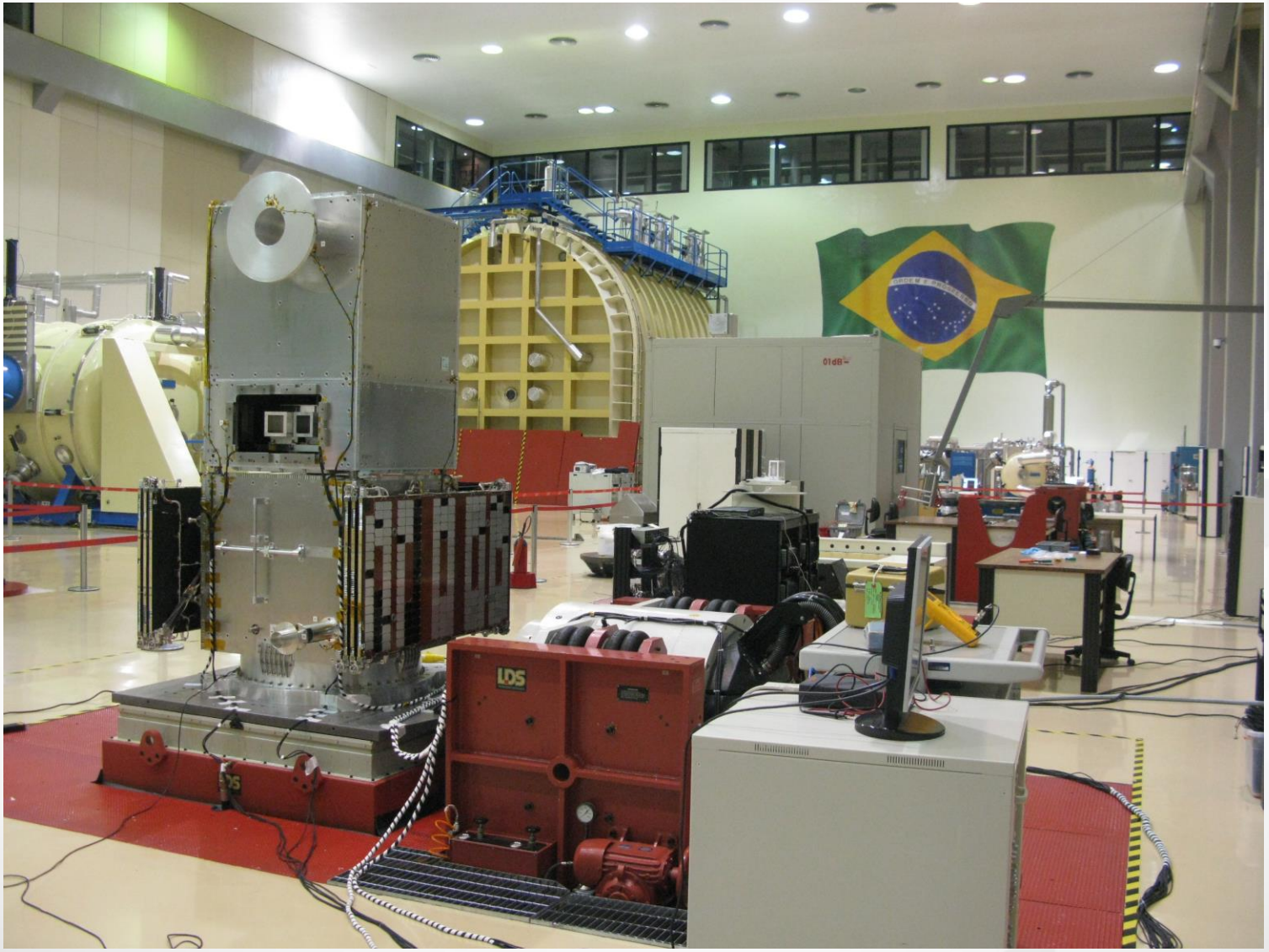
IV. Whole system developed by Brazil: Design, Development, Integration, Tests and Operation

V. Cooperation among several institutions

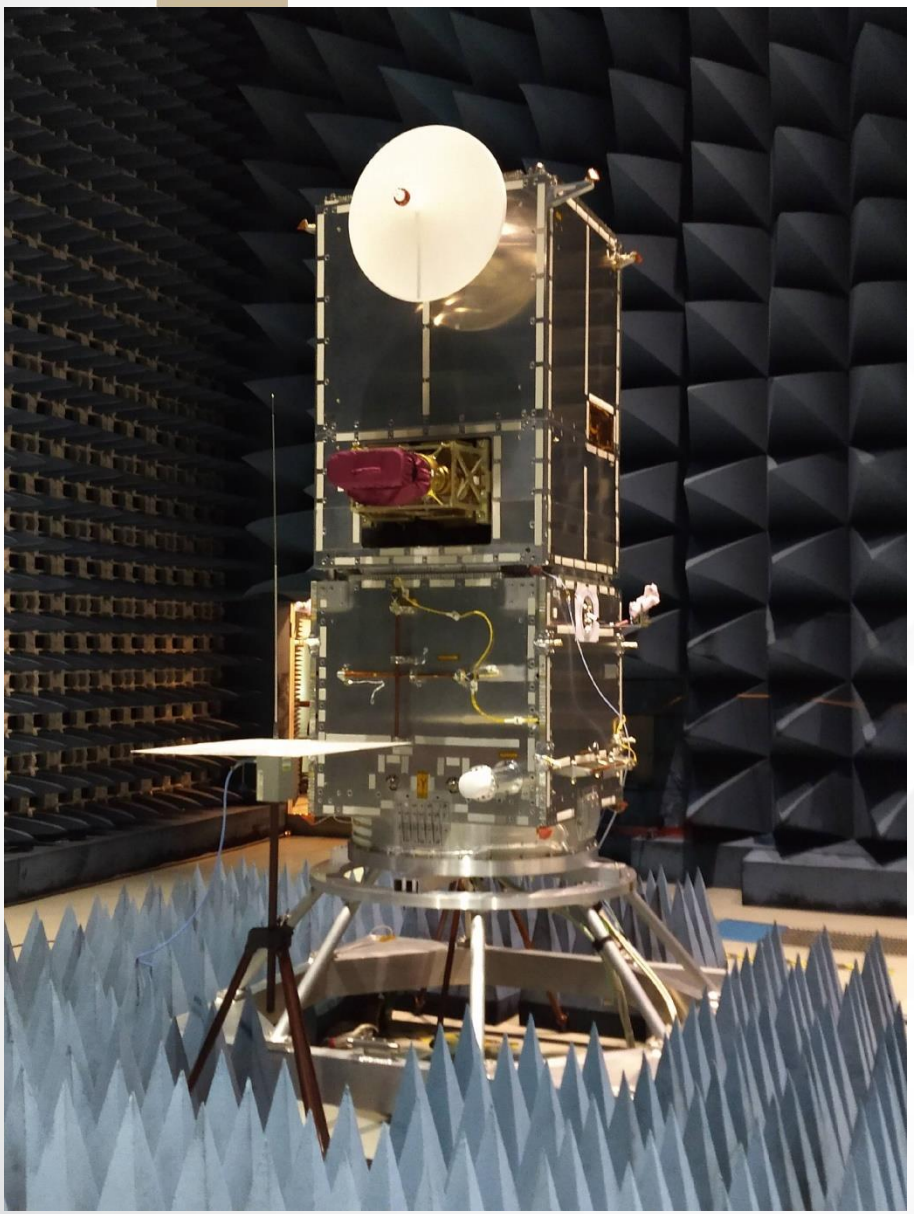
VI. Challenges in several fields have been overpassed

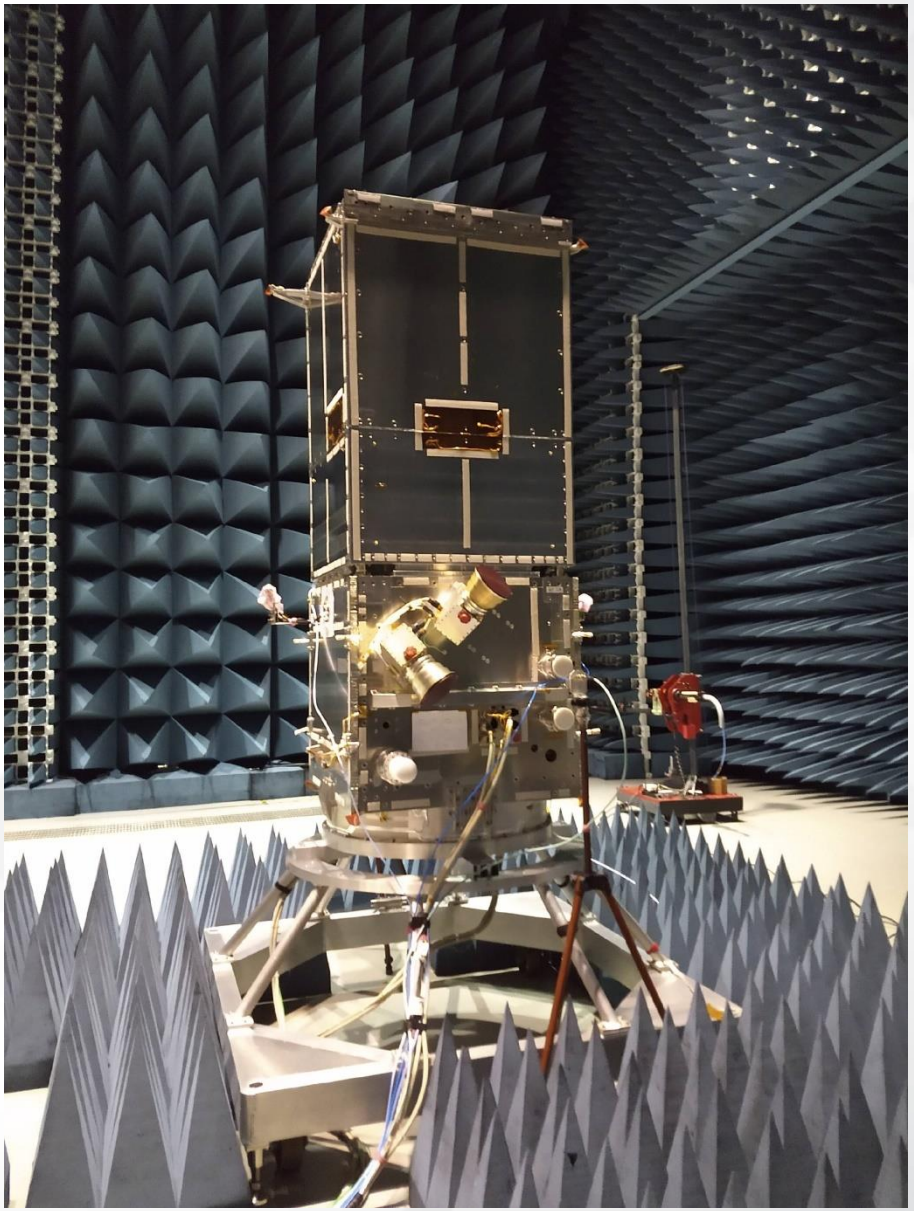
VII. Amazonia 1 Mission increases Brazil know how in Space Engineering

Structural Qualification



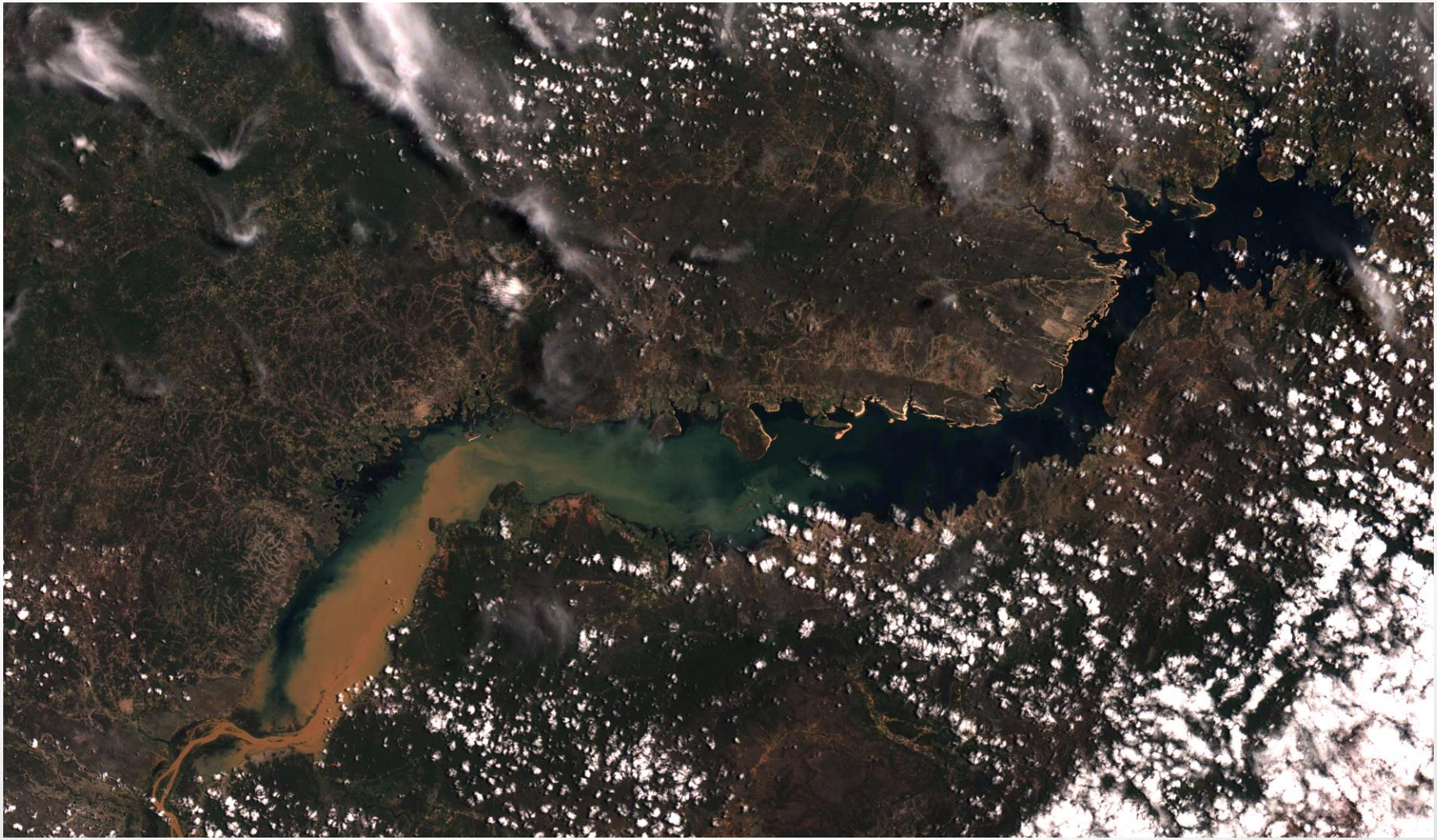
Electromagnetic tests – EMI/EMC





Amazonia 1 integrated to PSLV

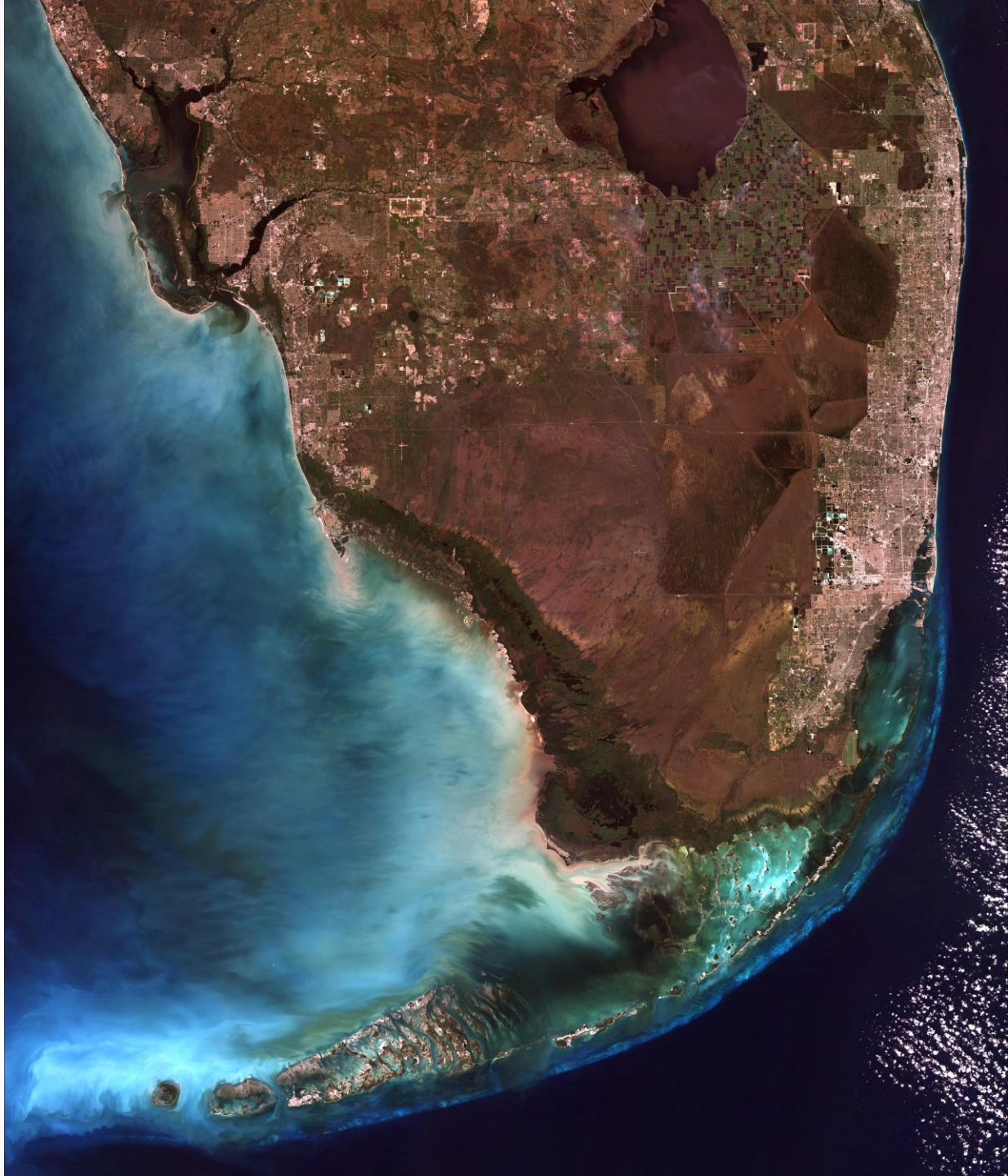
Amazonia 1 - Sobradinho Water Reservoir



Amazonia 1- Luis E Magalhães

Amazonia 1 - Istanbul

INPE/USGS Cooperation - Florida

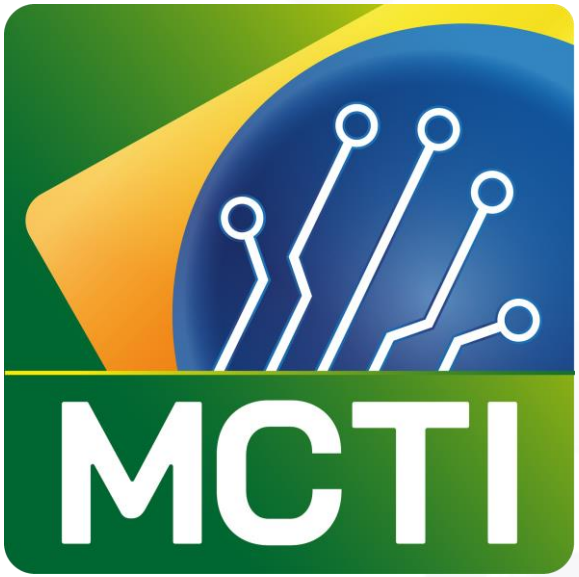


INPE/USGS Cooperation - Florida

Final Comments

The MMP is a robust and versatile design, able to meet requirements of several Missions categories. The MMP program/Amazonia1

- Was responsible for several technological progress in several areas;
- Consolidate the Brazilian capability in the development of complex satellite;
- All development cycle has been improved;
- The in orbit results met and surpass all the specified requirements;
- MMP has been in orbit validated and is available for future missions,
- Amazonia 1 satellite are being used in the cooperation between INPE and USGS – an area of 2.000.000 km2 per day are covered;
- The MMP can serve as a base for cooperation/joint program development.



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WFI Characteristics

WFI Imager	
Spectral Bands (μm)	0.45 – 0.52 0.52 – 0.59 0.63 – 0.69 0.77 – 0.89
Resolution (m)	64
Swath (km)	850
Revisit (dias)	5
Quantization	10 bits
Bit rate (Mbit/s)	50