The SABIA-Mar Mission

Marco Antonio Chamon
Facilities

INPE São Luís (MA)
INPE Euzébio (CE)
INPE Natal (RN)
INPE Cuiabá (MT)
INPE Brasília (DF)
INPE Cachoeira Paulista (SP)
INPE São José dos Campos (SP)
INPE Atibaia (SP)
INPE São Paulo (SP)
INPE São Martinho da Serra (RS)
INPE Santa Maria (RS)
New Center - CRA
Aerial view of INPE in S. J. Campos

Area: 247.478 m²
Buildings: 71.487 m²
Integration and Test Laboratory
Purpose

The SABIA-MAR mission was conceived to provide information and products to studies of ocean ecosystems, carbon cycling, marine habitats mapping, coastal hazards, and coastal land cover/land use.
Basic requirements

Global coverage – open ocean

Regional coverage – coastal zones

Visible, near infrared (NIR), thermal

Daily revisit time for open ocean

Detailed imaging for coastal zones
Global Camera

Swath: 2200 km

Resolution: 1.1 km

Intended to open ocean coverage
Regional Camera

Swath: 200 km

Resolution: 200 m

Intended to cover coastal region coverage
## Spectral Bands (μm)

<table>
<thead>
<tr>
<th>0.380</th>
<th>0.680</th>
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<tbody>
<tr>
<td>0.412</td>
<td>0.710</td>
</tr>
<tr>
<td>0.443</td>
<td>0.750 (or 0.765)</td>
</tr>
<tr>
<td>0.490</td>
<td>0.865</td>
</tr>
<tr>
<td>0.510 (or 0.531)</td>
<td>(1.010)</td>
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<tr>
<td>0.555</td>
<td></td>
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<tr>
<td>0.620</td>
<td>3.8</td>
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<tr>
<td>0.665</td>
<td>10.8</td>
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<tr>
<td></td>
<td>11.8</td>
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</table>
Platform
Sensors

Main instruments

• Global camera
• Regional camera

Secondary payloads

• SST camera
• Land imaging camera
Schedule

- 5 years from now
- 9 months for Phase 0/A
Understanding Global Change

How is the Earth’s environment changing, and what are the consequences for human civilization?

source: IGBP
Thank you!

Courtesy: Guy Brasseur, NCAR, EUA