

Title: Pantanal

Product Leader: Maycira Costa

Affiliation: University of Victoria (UVic, Canada), Brazilian Institute for Space Science (INPE, Brazil)

Product Team (confirmed members only):

- Kevin Telmer (Uvic, Canada)
- Eliel Souza (Brazilian Institute for Environmental Research, IBAMA)

Agreement status: Ready to sign

Preferred agreement type (individual/institutional): Individual

Project objective(s):

- To produce multi-temporal maps of the spatial distribution of open water, aquatic vegetation, forest (and flooded), savanna (and flooded), and dry areas of the Pantanal. Associate estimated areas to seasonal methane emissions.
- To use PALSAR mosaic to map fresh and brackish lakes (geochemistry) of the entire Pantanal

RANSAR site → Wetland of
International Importance

362,000 km²

138,000 km² high water -
Brazil

11,000 km² water

Habitats: lakes, forest, and
aquatic vegetation



Wildlife

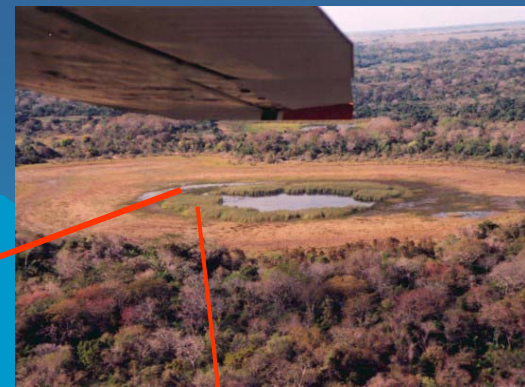
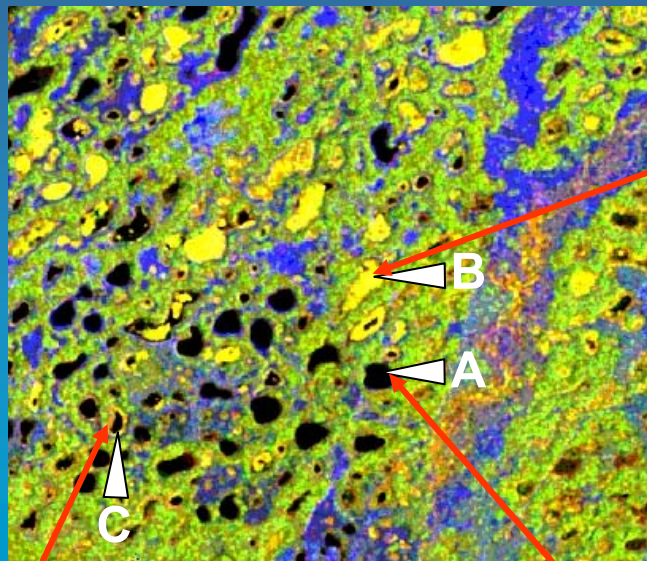


Human occupation

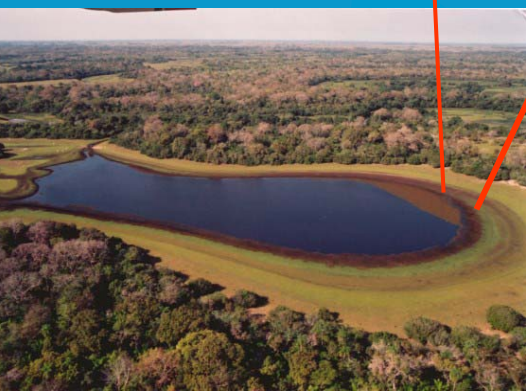


Hydrovia Paraguay-Parana???





Fresh hard $1 > \text{TDS} > 0.01 \text{g/kg}$



Fresh soft
 $\text{TDS} < 0.01 \text{g/kg}$



Brackish
 $10 > \text{TDS} > 1 \text{g/kg}$



Pantanal

Prototype Area 1: Pantanal

Corresponding observation plan polygon(s): G1 (part); G3 (part)

No. PALSAR paths/coverage: ~10 paths fine resolution

PALSAR request (Year 1-3): ~90 passes (3 annual coverages @30° and HH+HV;
3 annual coverages @45° and HH+HV)

Input data (EORC products): PALSAR path images (Sigma-0, ortho-rectified,
fine resolution)

Ancillary data requests: ~ 30 JERS-1 SAR path images 1992-1997

Prototype Area 1: Pantanal

Corresponding observation plan polygon(s): G1 (part); G3 (part)

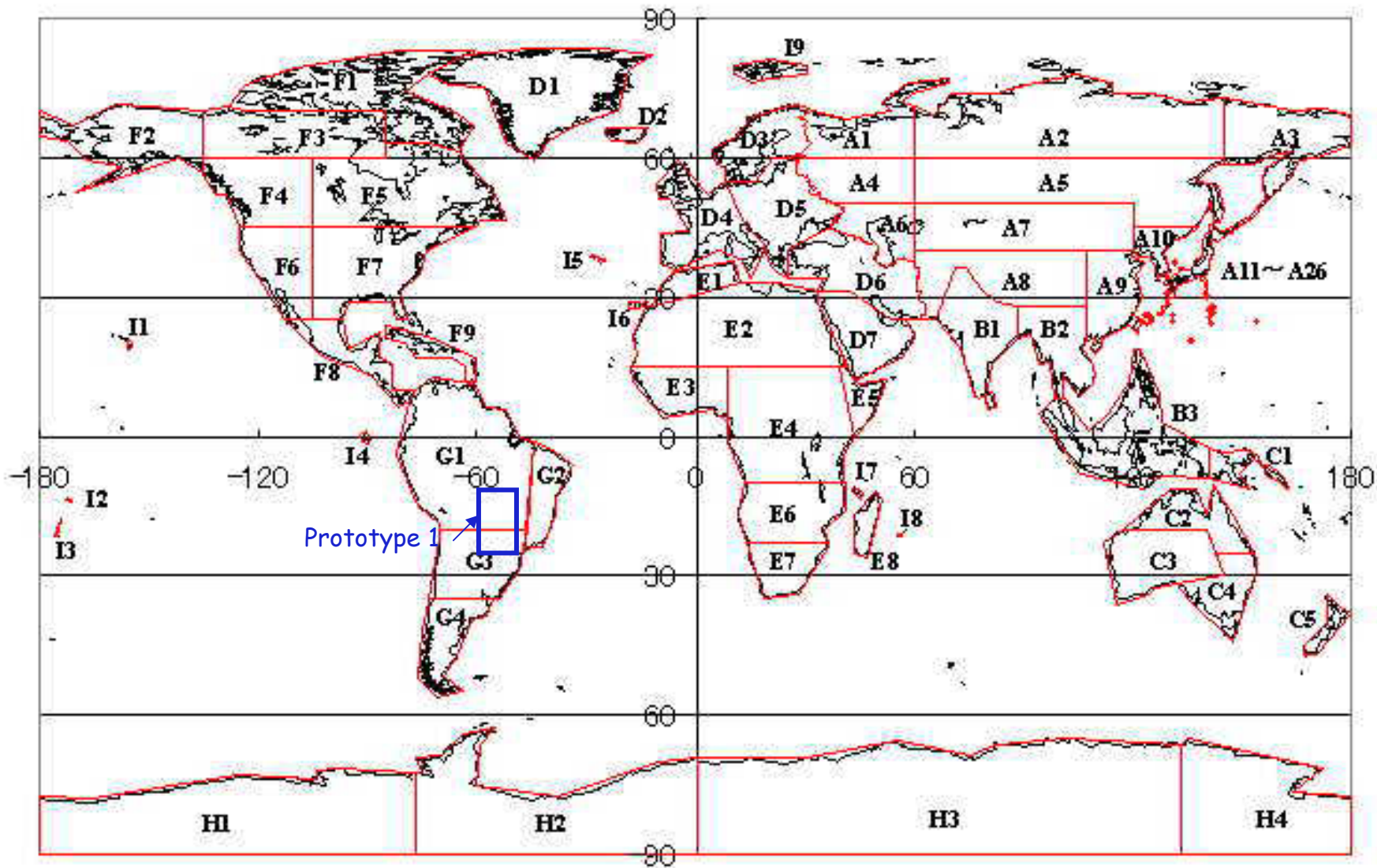
No. PALSAR paths/coverage: ?

PALSAR request (Year 1-3): 3 full coverages

Input data (EORC products): PALSAR image mosaics (Sigma-0, SRTM corr.,
50m)

Ancillary data requests: JERS-1 SAR (GRFM) mosaics from mid-1990's

Pantanal



Location of Prototype Areas

Pantanal

K&C Product Deliverables (before end of Year 3):

- **Maps of lake distribution, area, number and associated geochemistry.**
- **Seasonal maps of the flooded areas of the Pantanal and seasonal methane estimates.**
- **Product methodology and validation report**

Prospects for Years 4-6 (assuming agreement extension)

Monitoring program for the Pantanal (2007-2008); (2008-2009); (2009-2010)