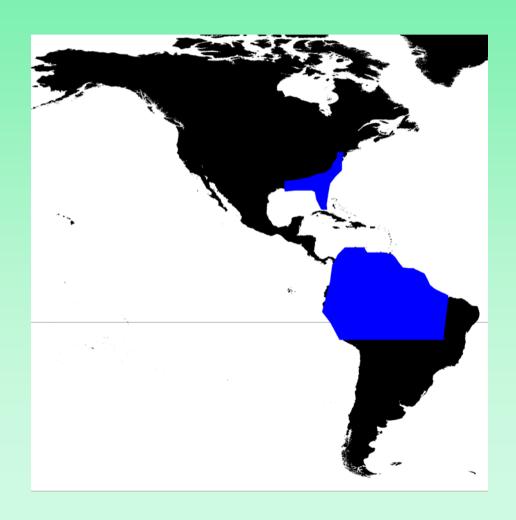
## ALOS K&C Product Update for UCSB



Laura Hess

Institute for Computational Earth System Science

University of California
Santa Barbara

## Products for northern South America (Scan\_G1) and Southeastern United States (Scan\_F4)

- Wetland extent and vegetation structure
- Seasonal monitoring of inundation and vegetation

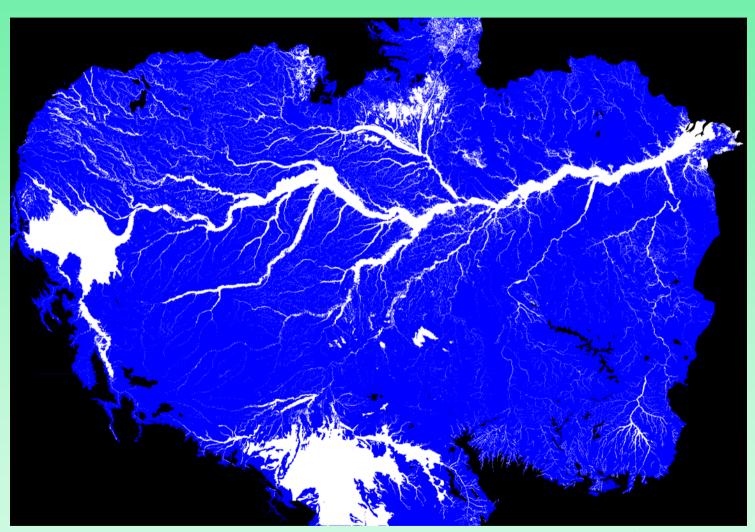
### **Applications**

- Carbon cycle: modeling of CH4 and CO2 emissions
- Conventions: wetland inventory for Ramsar and Convention on Biodiversity
- Conservation: SAR-based habitat mapping for reserve location and conservation planning on the varzea

#### Collaborators

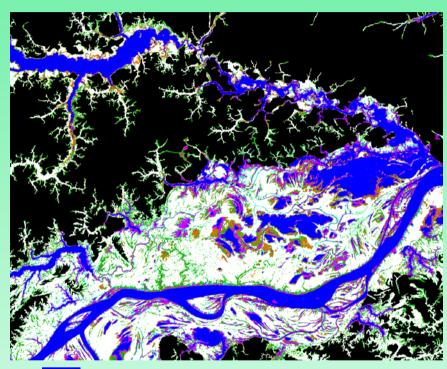
- KC agreement: Maycira Costa, Bruce Chapman, Evlyn Novo (INPE), Bruce Forsberg (INPA), Fernando Pellon (Petrobras)
- Pending FAPESP proposal: Ana Albernaz (Goeldi Museum), Dilce Rossetti (INPE), Bob Pressey (University of Queensland)
- Pending NASA-MEASURES proposal: Kyle McDonald, PI
- Other KC studies: Lucas, Hoekman, INPE, Rebelo

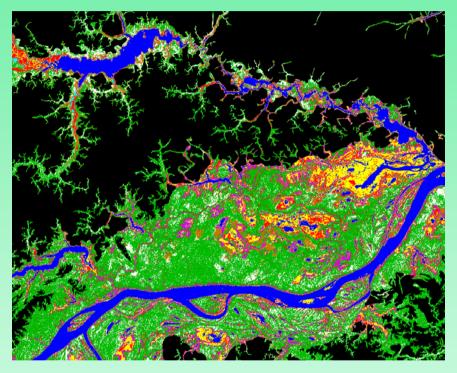
## Amazon Basin Wetlands Extent (100 m)



Amazon Basin below 500m: wetlands 17%, uplands 83%

# Wetland habitats at Cabaliana site, high and low water stages





Water

Bare/herbaceous, non-flooded

Herbaceous, flooded

Shrub, non-flooded

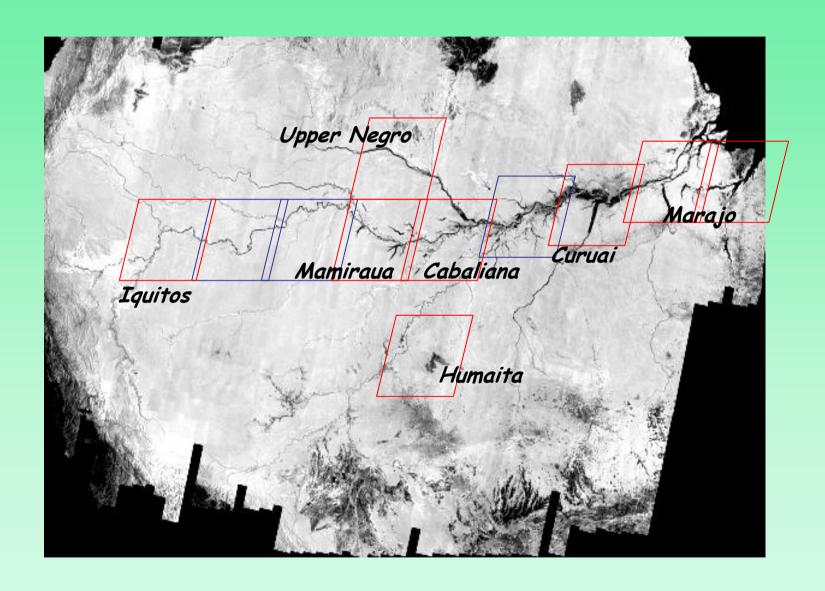
Shrub, flooded

Woodland, flooded

Forest, non-flooded

Forest, flooded

## Prototype Areas for Scan\_G1



ALOS KC 8 11-13 June 2007

## Prototype Area for Scan\_F4



ALOS KC 8 11-13 June 2007

## Data Acquisition Schedule

#### Amazon (G1)

- ScanSAR every cycle, 7-22 (Nov 2006 Oct 2008)
- -solar flares peaking Nov-Dec 2006 seriously impacted Amazon; assume actual coverage begins cycle 8-9 (Jan 2007)
- fine beam dual-pol, cycle 12-13, Jun 2007 Aug 2007
- Existing request: fine beam SLP, 2646 scenes, 1 coverage; wide beam SLP, 170 scenes, 14 coverages (=2382 scenes)

#### Southeast US (F4)

- planned acquisitions cycles 9-16 (Jan 2007 Jan 2008)
- Existing request: wide beam SLP, 156 scenes, 8 coverages

## Data Processing Schedule

-Currently using ftp but plan to switch to Aspera -Scenes processed so far (all G1 ScanSAR):

```
RSP397_SLT20070513WB1271HH5_W0475397001-02_005
RSP400_SLT20070518WB1271HH5_W0480400001-03_005
RSP403_SLT20070523WB1271HH5_W0485403001-04_005
RSP406_SLT20070528WB1271HH5_W0490406001-04_005
RSP430_SLT20070522WB1271HH5_W0484430001-03_003
RSP433_SLT20070527WB1271HH5_W0489479001-03_003
RSP436_SLT20070601WB1271HH5_W0494528001-02_003
RSP454_SLT20070516WB1271HH5_W0478454001-03_003
```

- Do not need scenes that are corrupted by solar flares. Do they have to be processed first to tell how much image quality has been affected or this there a way of flagging before completely processed?

## AGAP Questions

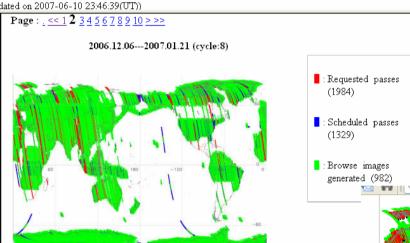
#### ALOS Geoscience Application Processor (AGAP) - K&C View Port

#### Information:

Test run

(Status map was updated on 2007-06-10 23:46:39(UT))



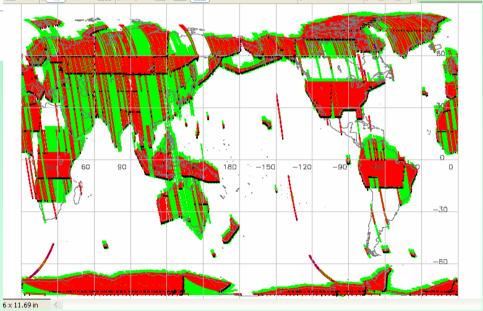


## Per Mukaida-san:

EORC will look at

- 1) indexing browse images by cycle rather than by page number
- 2) removing red outlines that obscure underlying coding unless highly magnified.

Will soon have access to browse images.



ALOS KC 8

## Data Analysis and Delivery Schedule

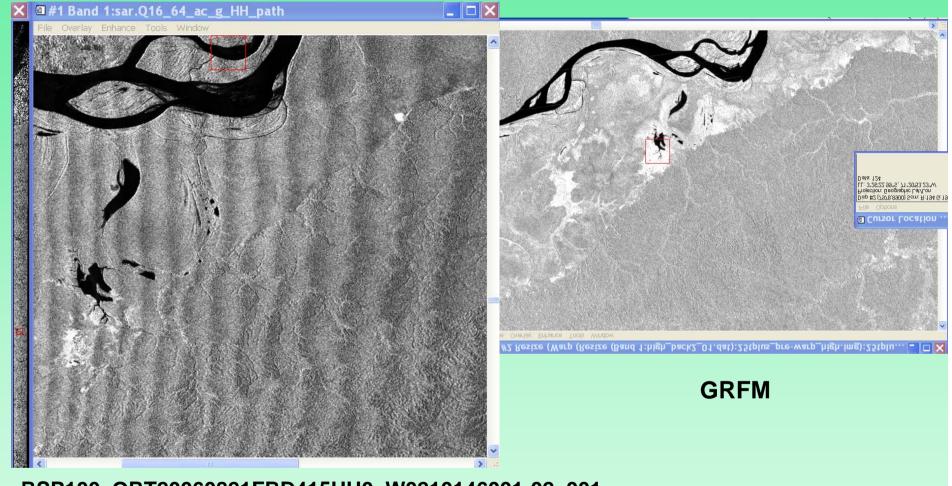
#### Amazon (G1) and Southeast US (G4):

- Preliminary products for prototype areas: Jan 2008
- Final products for prototype areas: Jun 2008
- Preliminary extension to full ScanSAR regions: Jan 2009

## Proposed Revision to Processing Request

- For a small test region, for 2 cycles (i.e. 9-10 for Amazon), UCSB will request SLP and ORT-Gec; UCSB will mosaic ORT-Gec
- JPL will mosaic from SLP data (using ASF tool?)
- Results of SLP-based and ORT-based mini-mosaics for test region will be compared
- Final decision on requested format within a month of receiving test data from EORC

## Ortho Example



RSP100\_ORT20060821FBD415HH0\_W0210146001-02\_001

ALOS KC 8 11-13 June 2007