



ALOS PALSAR 25 m global mosaic data

21st K&C Science Team meeting
Kyoto, Japan
January 27 – 31, 2014





As of October 31, 2014, JAXA have made **PALSAR 25 m global mosaic data** openly available **free of charge**.

Annual mosaics from 2007, 2008, 2009 and 2010, covering all land areas except Greenland and Antarctica. Generation will continue from 2014/2015 with **ALOS-2**

Available in 1° x1° tiles.

The data can be downloaded from
http://www.eorc.jaxa.jp/ALOS/en/palsar_fnf/fnf_index.htm



New Global Forest/Non-Forest Maps

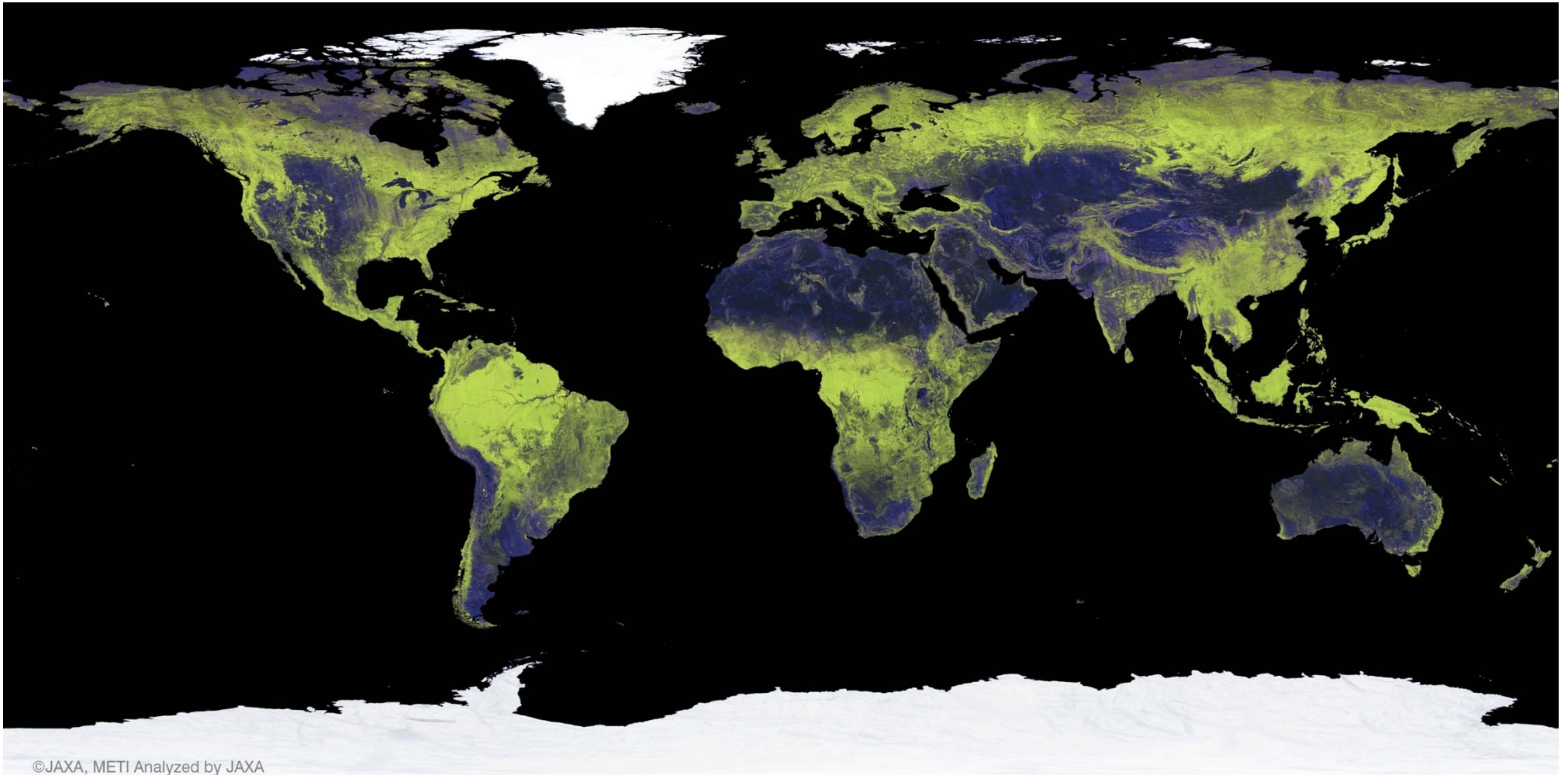
from ALOS PALSAR data (2007-2010)

25m mosaic product specifications and ancillary data

Characteristic	Description
Unit	1 degree latitude-longitude geographical unit
Reference location	Latitude and longitude of north west corner
Coordinate system	Latitude-longitude coordinate
Spacing	0.8 arcsec unit providing the spacing at 25m
Resolution of SAR image	36 m (azimuth) × 20 m (range)
Number of pixels and lines	4500 pixels × 4500 lines
Data volume	40.5 MB (per tile)
Contents	Normalized radar cross-section, gamma-naught in HH and HV, mask information (ocean flag, effective area, void area, layover, shadowing), local incidence angle, total dates from the ALOS launch (1:30:Jan. 24, 2006:UTC)
No of tiles per year	2007: 27062, 2008: 27163, 2009: 27703, 2010: 27923

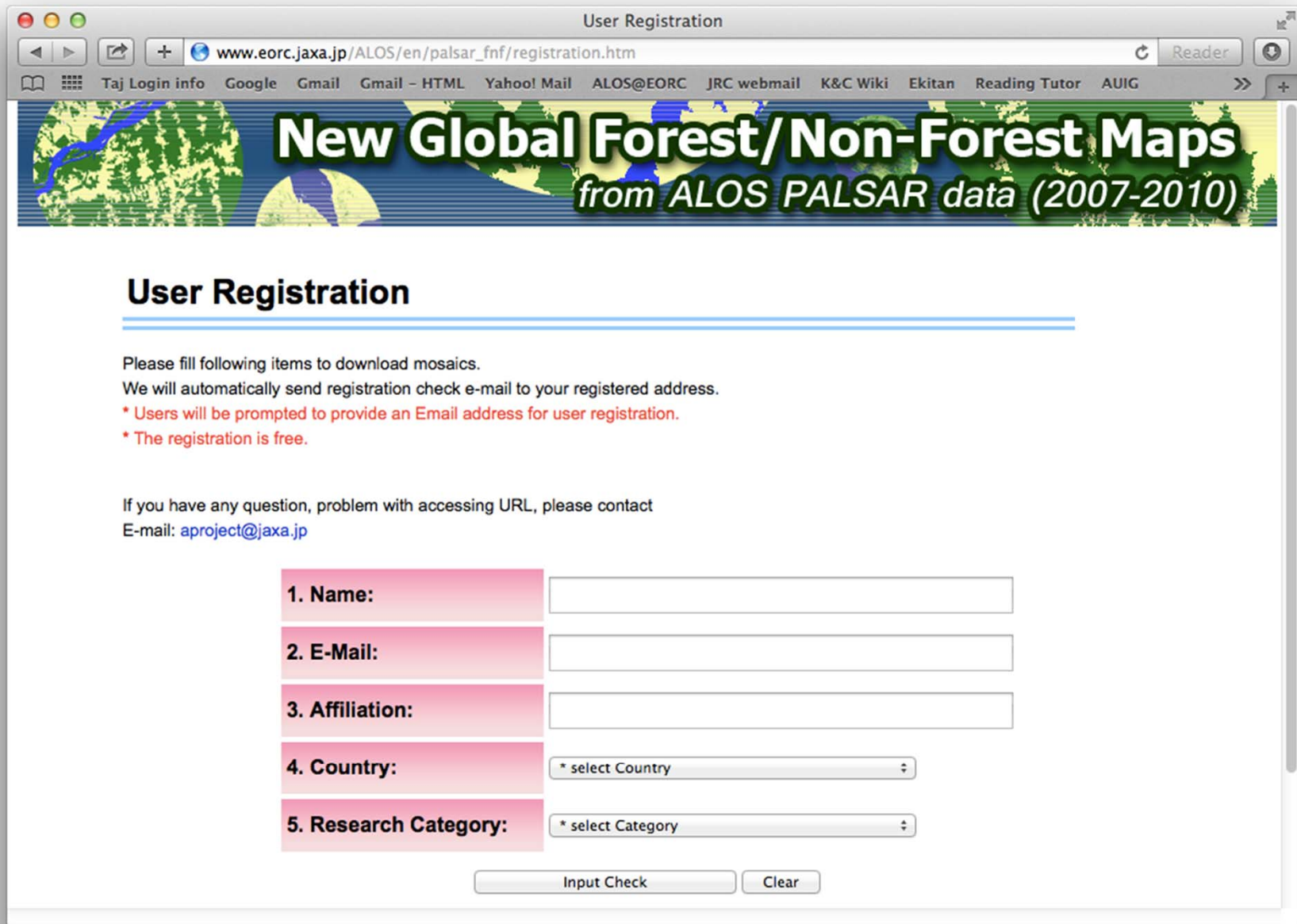
New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)



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User registration



User Registration

www.eorc.jaxa.jp/ALOS/en/palsar_fnf/registration.htm

New Global Forest/Non-Forest Maps
from ALOS PALSAR data (2007-2010)

User Registration

Please fill following items to download mosaics.
We will automatically send registration check e-mail to your registered address.

- * Users will be prompted to provide an Email address for user registration.
- * The registration is free.

If you have any question, problem with accessing URL, please contact
E-mail: aproject@jaxa.jp

1. Name:
2. E-Mail:
3. Affiliation:
4. Country:
5. Research Category:

http://www.eorc.jaxa.jp/ALOS/en/palsar_fnf/registration.htm

Welcome

www.eorc.jaxa.jp/ALOS/en/palsar_fnf/data/index.htm

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New Global Forest/Non-Forest Maps

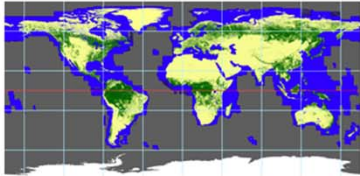
from ALOS PALSAR data (2007-2010)

ALOS Home > about PALSAR Global Forest / Non-forest Map > Gate of PALSAR Global Forest / Non-forest Map

New global 50m-resolution PALSAR mosaic and Global Forest / Non-forest Map

Welcome

It is prohibited to re-distribute the PALSAR mosaic and FNF data as is that users download. However, users can use the PALSAR mosaic and FNF data as is for research and publish thesis or research report, and modify the PALSAR mosaic and FNF data and publish or re-distribute such modified data. In such cases, data source shall be appropriately acknowledged as follows;



- In case of use of the PALSAR mosaic and FNF data as is:
©JAXA
- In case of users modify the PALSAR mosaic and FNF data and use such modified data:
Original data provided by JAXA

It is prohibited to use the PALSAR mosaic and FNF data for commercial, profit-making purposes without JAXA's consent. If users wish to use the PALSAR mosaic and FNF data for such purposes, please make contact to JAXA.

>> 2007 >> 2008 >> 2009 >> 2010

* This map uses Javascript. Please enable JavaScript on your browser.

Contact

Japan Aerospace Exploration Agency, Earth Observation Research Center, ALOS-Gr
e-Mail: aproject@jaxa.jp

Earth Observation Research Center
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http://www.eorc.jaxa.jp/ALOS/en/palsar_fnf/fnf_index.htm



PALSAR Global Forest / Non-forest Map "2007"

PALSAR Global Forest / Non-for...

www.eorc.jaxa.jp/ALOS/en/palsar_fnf/data/2007/map.htm

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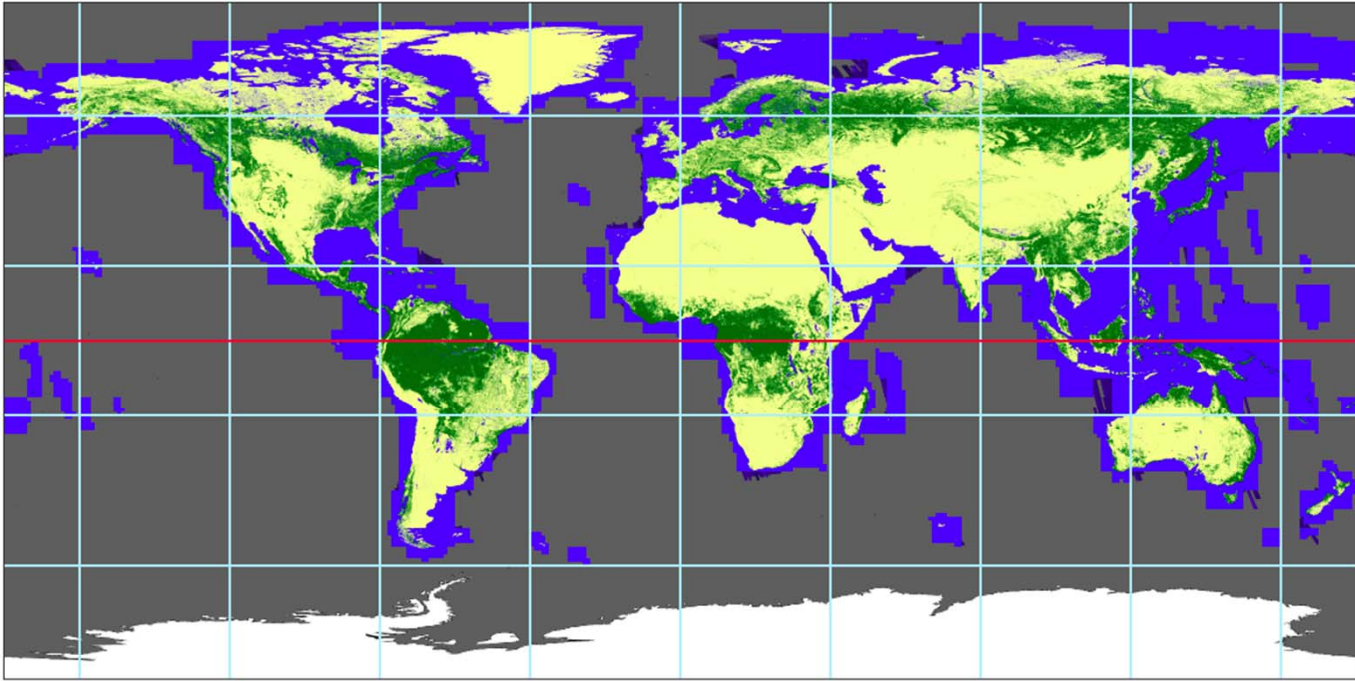
New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

PALSAR Global Forest / Non-forest Map "2007"

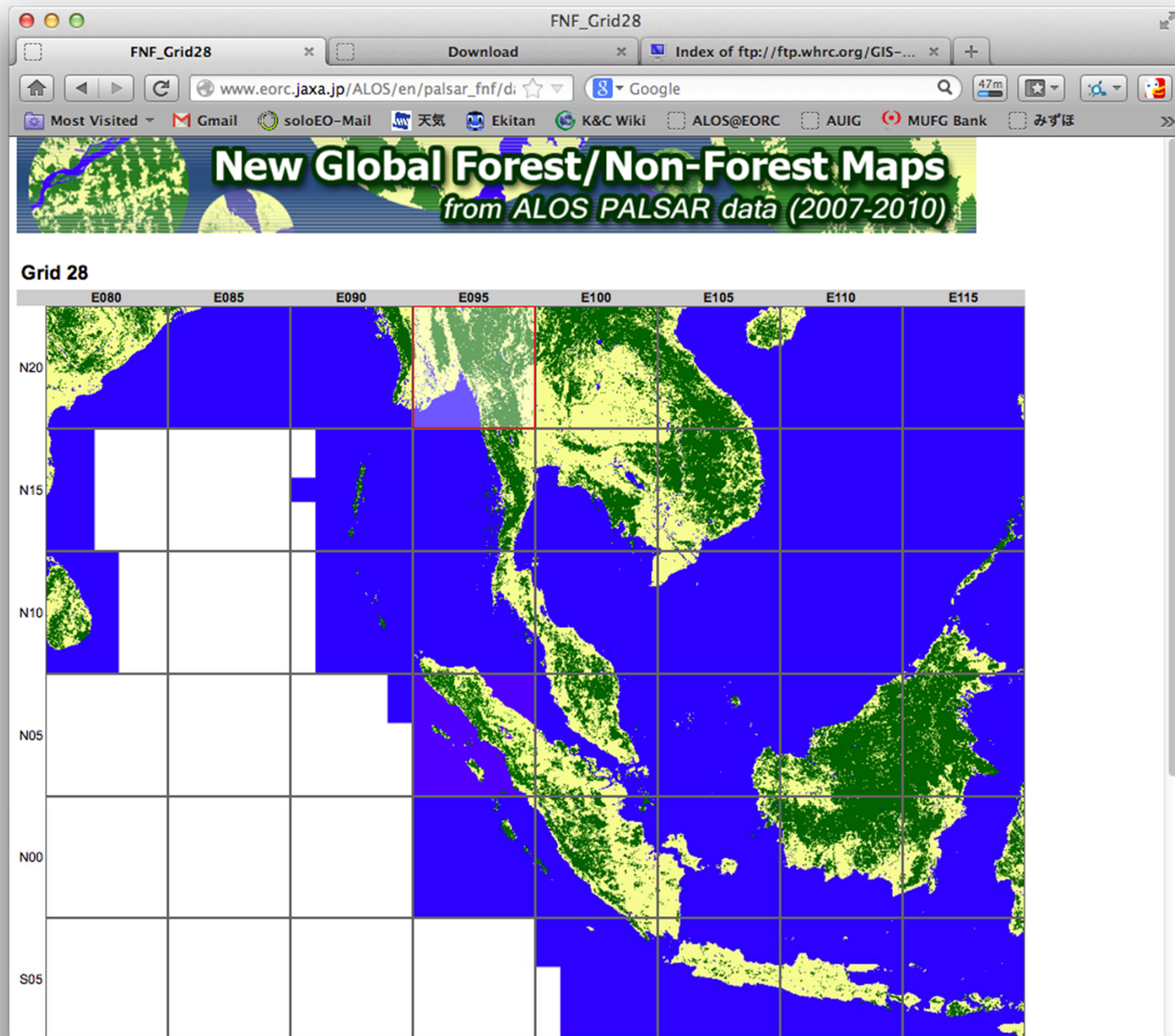
>> 2010 >> 2009 >> 2008

Please click the area which downloads a mosaic.



Earth Observation Research Center
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JAXA
Japan Aerospace
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New Global Forest/Non-Forest Maps

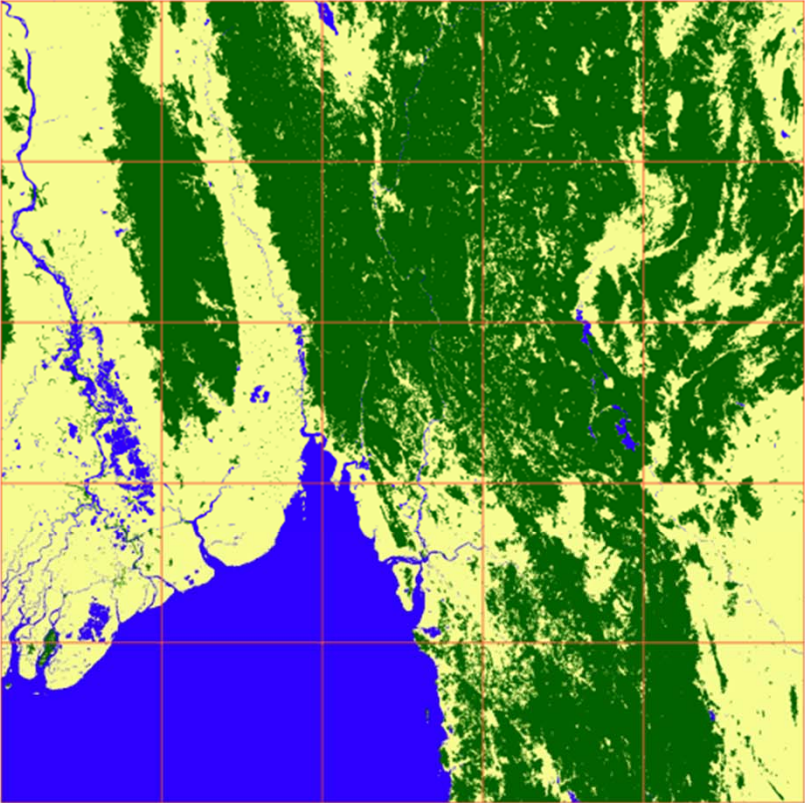
from ALOS PALSAR data (2007-2010)

2007 N20E095 * Please do not use "Back" button of a browser.

Download for image data of this area (5 by 5)

- » [Forest / Non forest data](#)
- » [HH / HV mosaic data](#)

* Please click the tile to view and download the image data of "1 by 1".



Mozilla Firefox

http://www.eorc...Grid28_fnf.htm x Download x Index of ftp://ftp.whrc.org/GIS-... x +

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New Global Forest/Non-Forest Maps

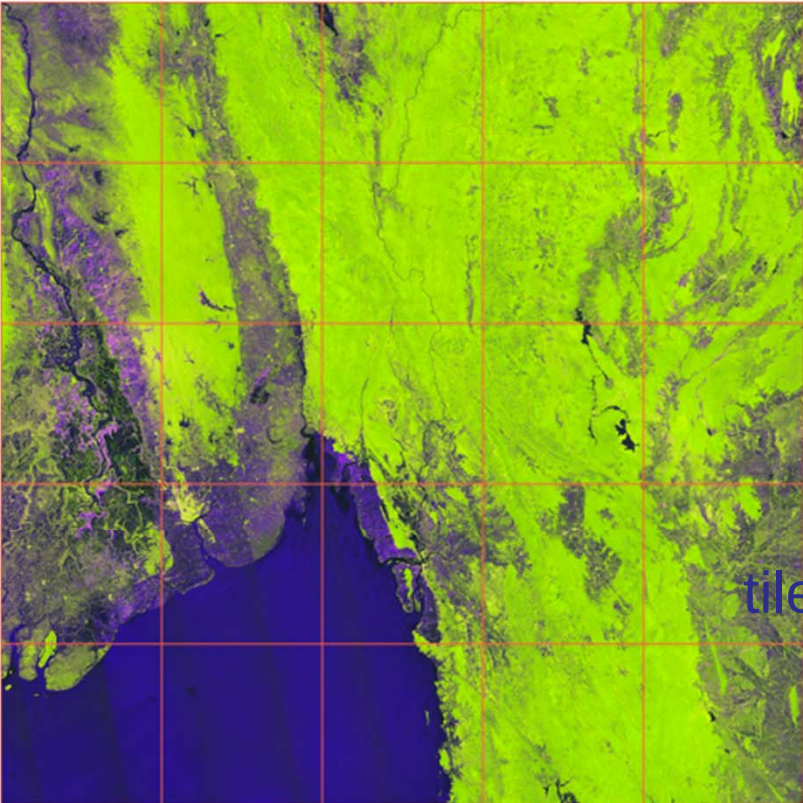
from ALOS PALSAR data (2007-2010)

2007 N20E095 * Please do not use "Back" button of a browser.

Download for image data of this area (5 by 5)

- » Forest / Non forest data
- » HH / HV mosaic data

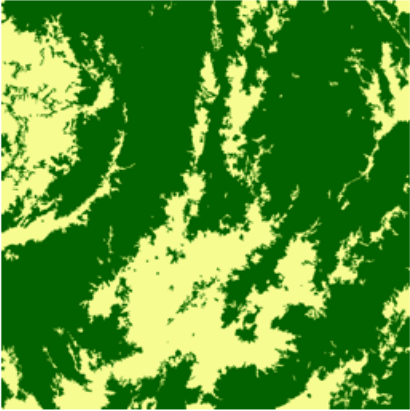
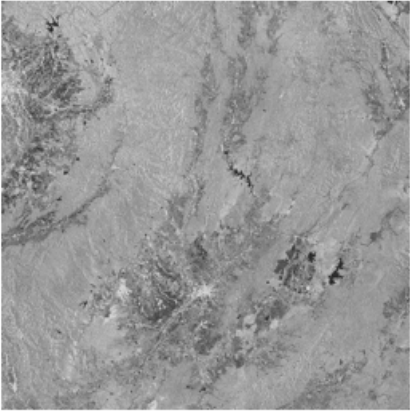
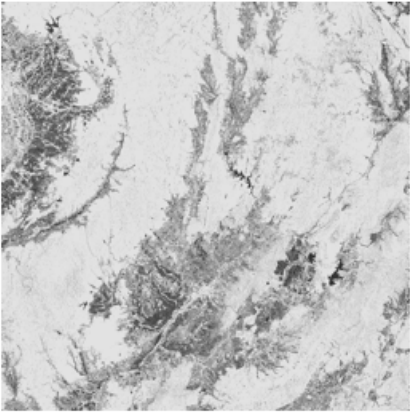
* Please click the tile to view and download the image data of "1 by 1".



OR

← click on a tile on the grid to download the individual 1° tile

1° x1°
tiles

N19E099_2007			
Year	Type	Image	Download
2007	FNF		
	HH		
	HV		

← download
100m forest/non-
forest classification

← download
25m PALSAR mosaic
data and ancillary
data layers

New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

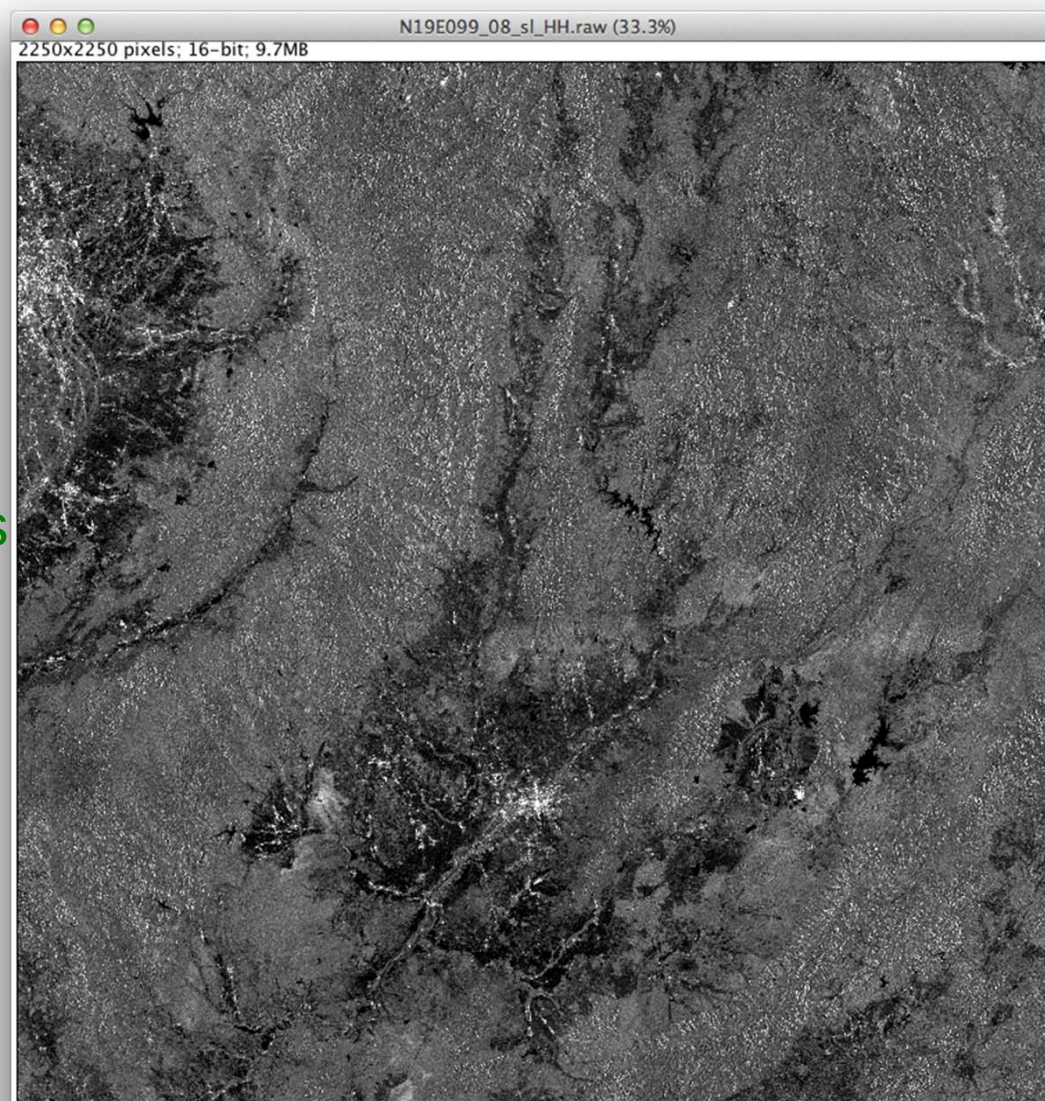
PALSAR 25 m global mosaic data

RAW data format

GEOTIF header
information

4500x4500 pixels

16 bits (UINT)



Backscatter (HH)

Radar
backscatter,
normalised for
incidence angle ($\gamma^0 = \sigma^0 / \cos \theta_i$)

Radiometric and
geometric corr
for topography

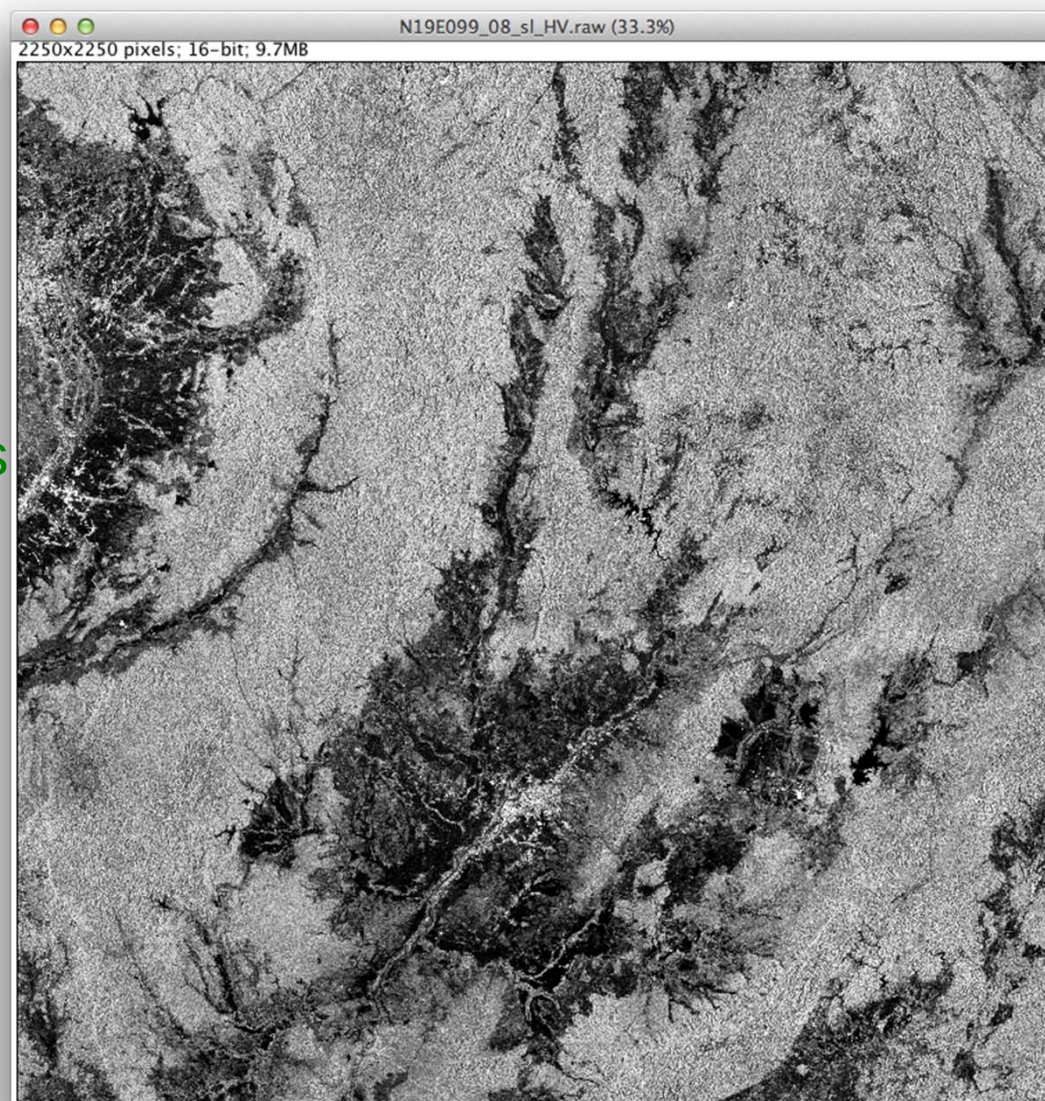
New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

PALSAR 25 m global mosaic data

GEOTIF header
information

RAW data format
4500x4500 pixels
16 bits (UINT)



Backscatter (HV)

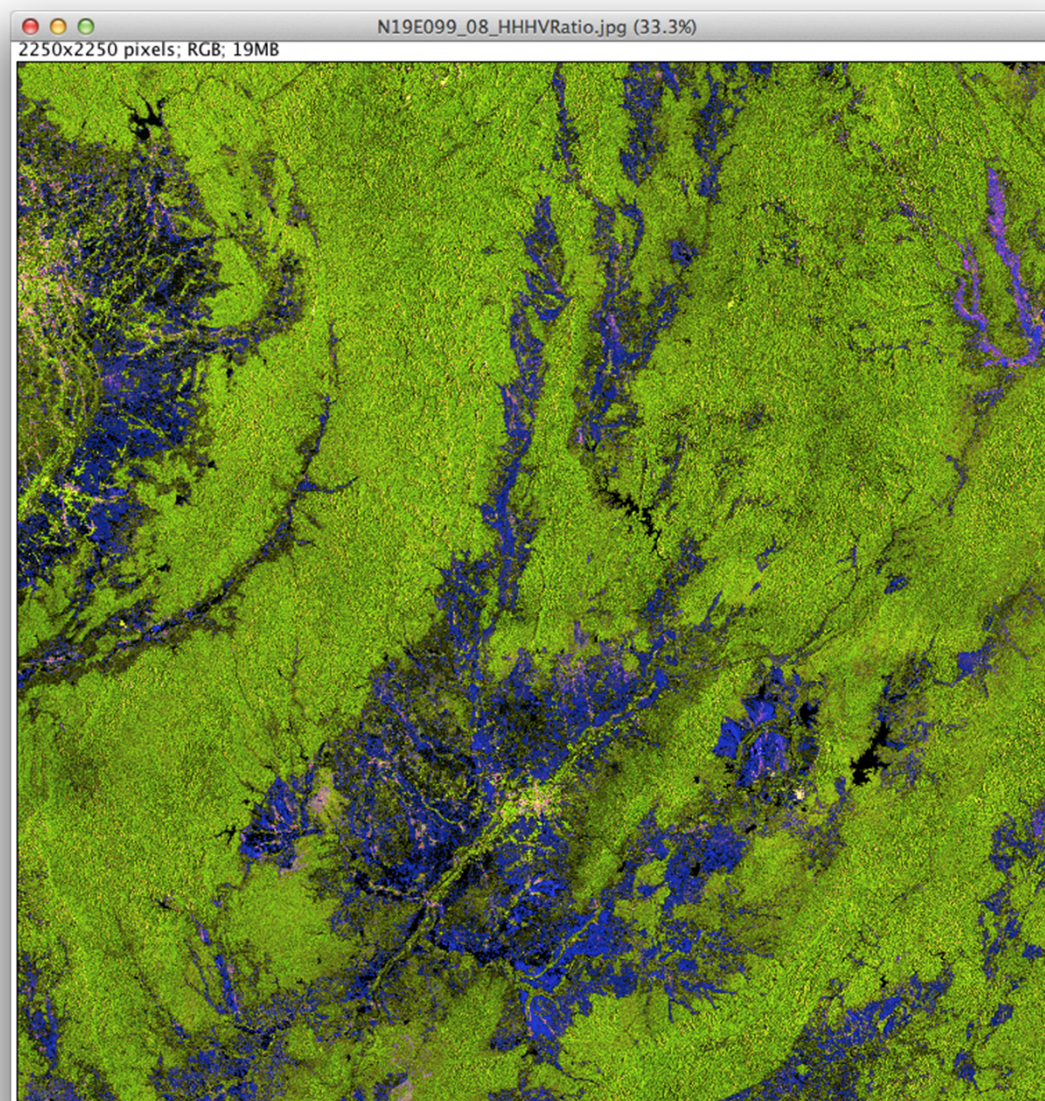
Radar
backscatter,
normalised for
incidence angle ($\gamma^0 = \sigma^0 / \cos \theta_i$)

Radiometric and
geometric corr
for topography

New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

PALSAR 25 m global mosaic data



Backscatter
false-colour
composite

R: HH

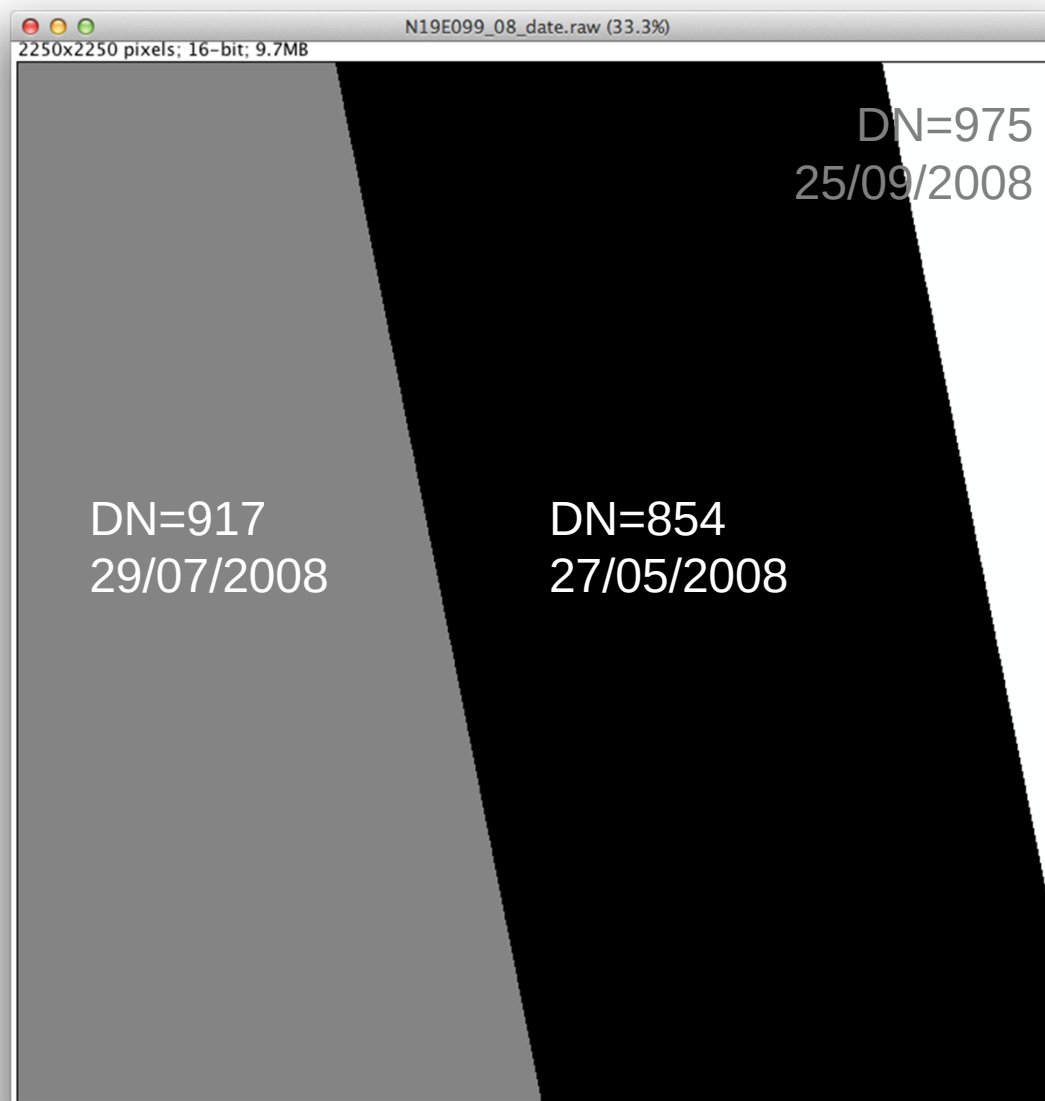
G: HV

B: HH/HV

New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

PALSAR 25 m global mosaic data



Observation date

Data layer
showing the
acquisition date
for each pixel in
the image:

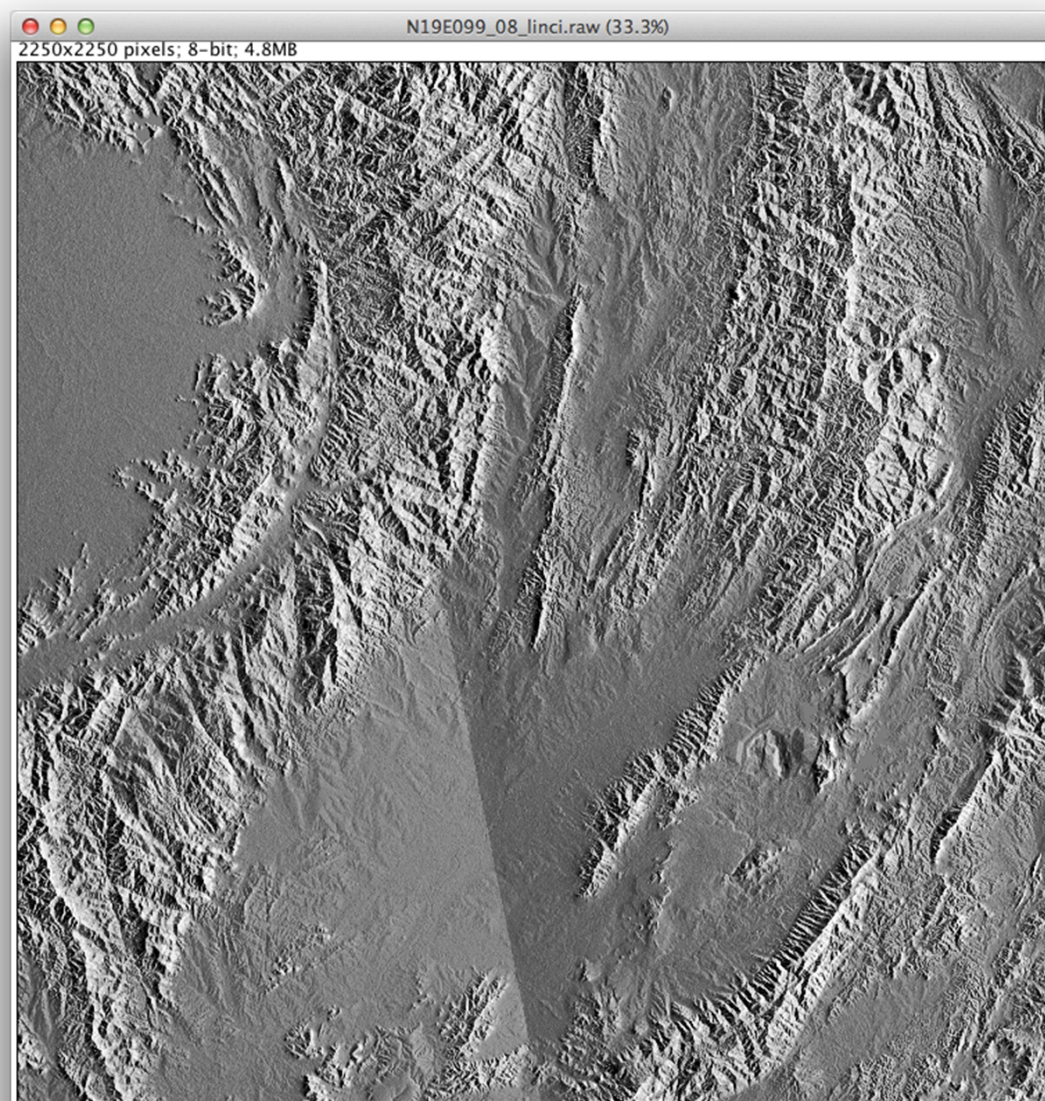
Date = 24/1/2006 +
DN

RAW data format
4500x4500 pixels
16 bits (UINT)

New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

PALSAR 25 m global mosaic data



Incidence angle

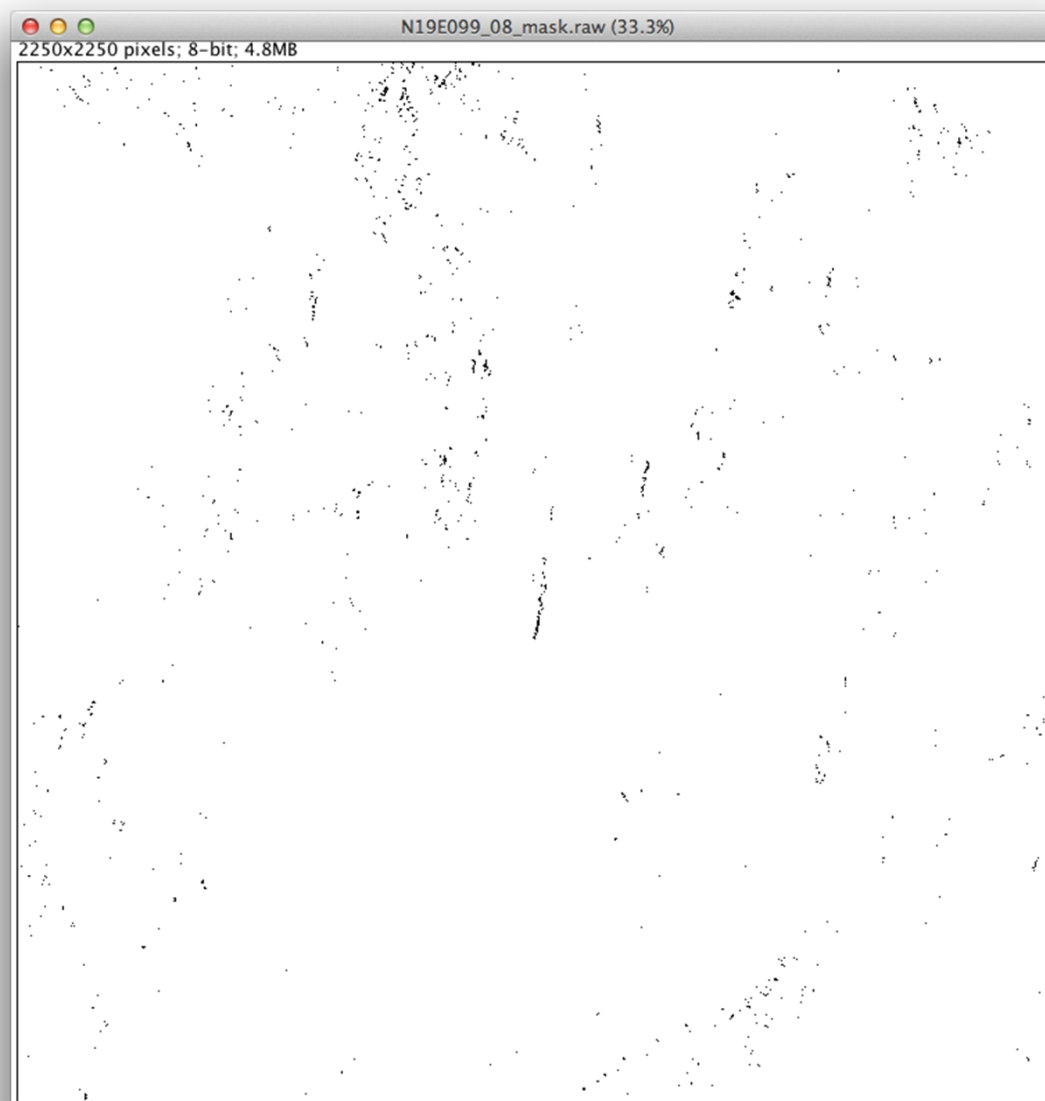
Layer with local
incidence angle
for each pixel

RAW data format
8 bits
4500x4500 pixels

New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

PALSAR 25 m global mosaic data



Mask data

Layer showing
ocean and no-
data areas:
layover, shadow.

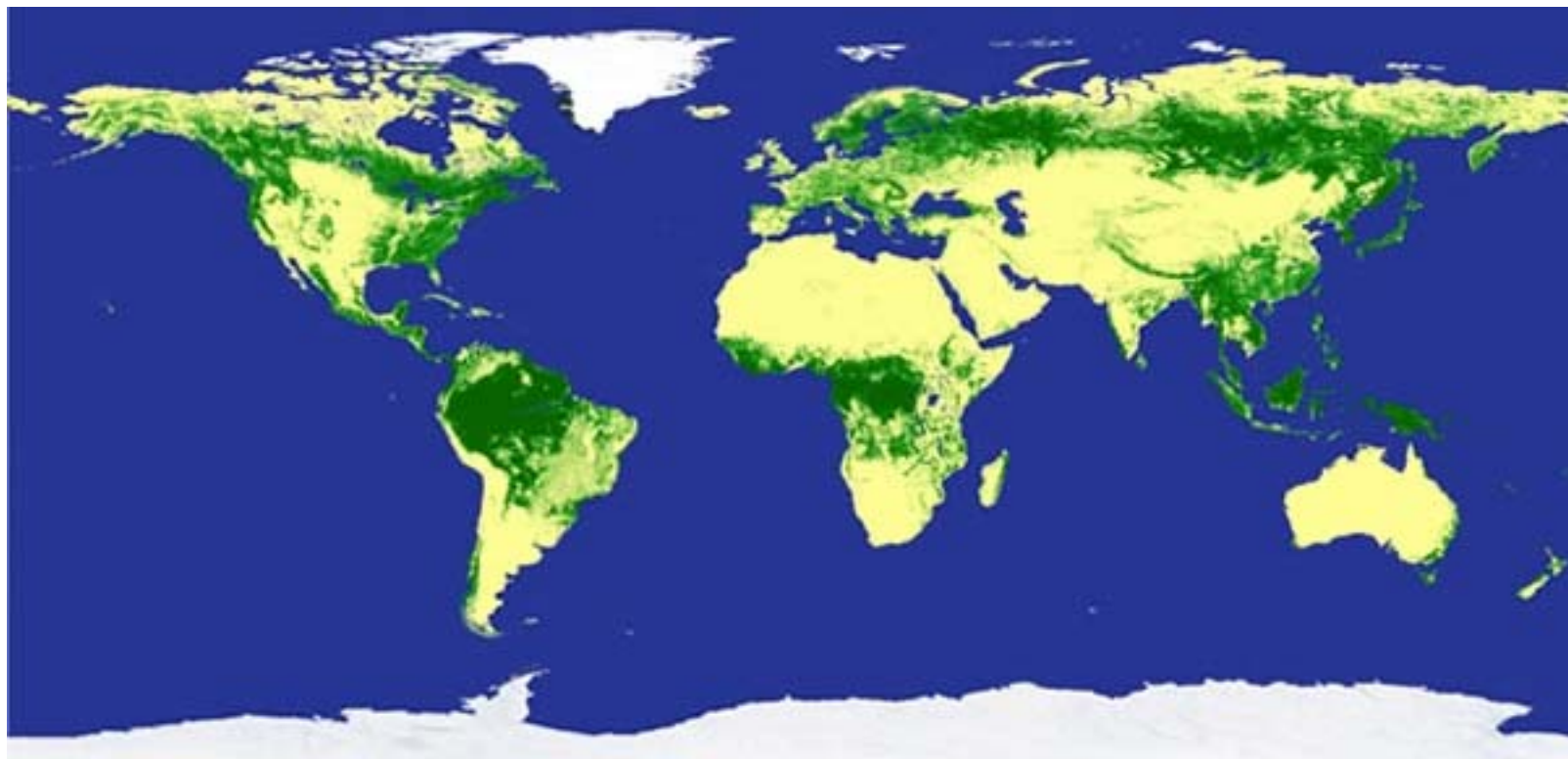
RAW data format
8 bits
4500x4500 pixels

New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

In addition, JAXA are making available their global forest/non-forest (FNF100) classification "version 0" from 2007 – 2010.

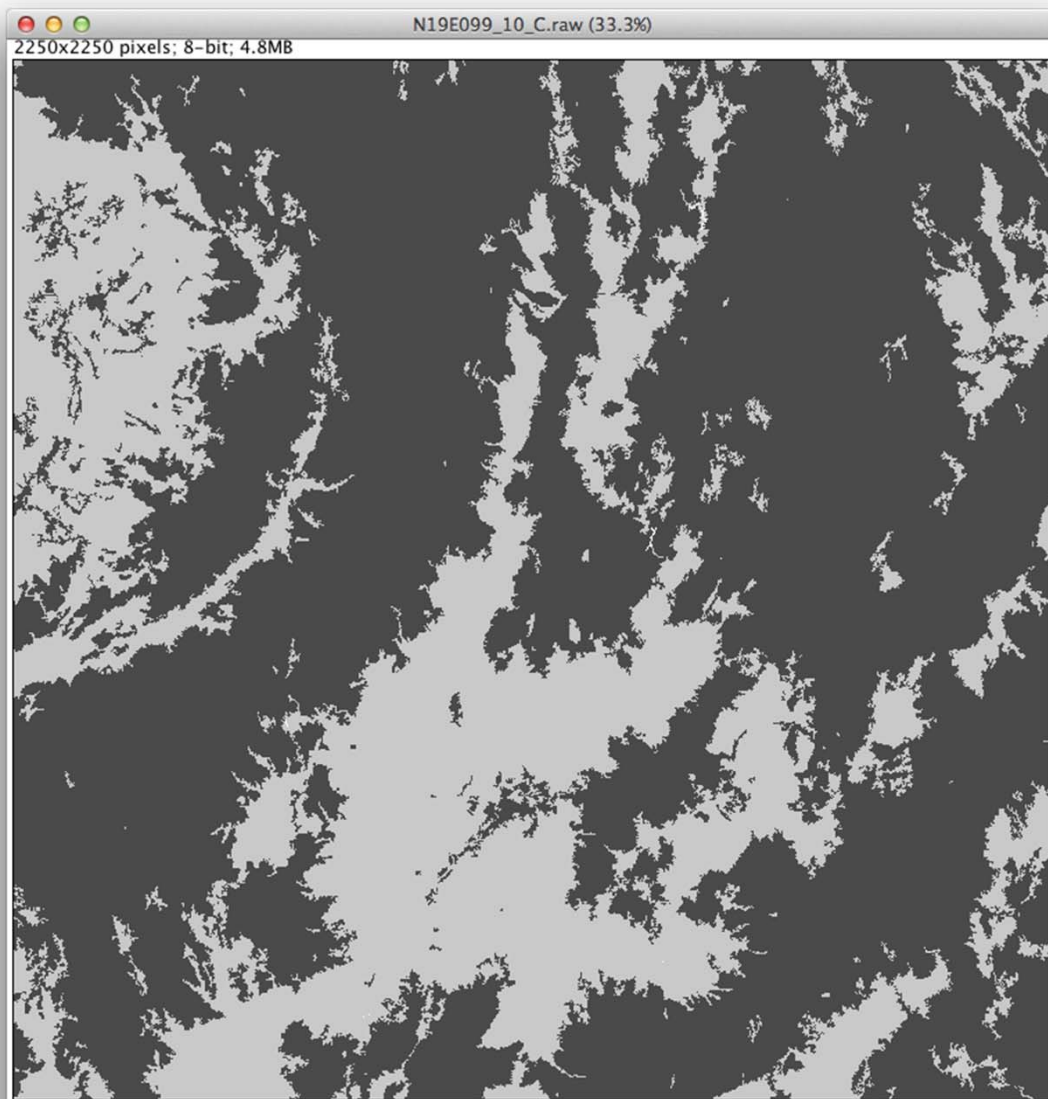
100m pixel spacing, generated from 25m products.



New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)

Global Forest/Non-Forest Classification "FNF100"



1x1 degree tiles,
8 bits, 1125x1125 pixels

100 m pixel spacing, generated
from 25 m FNF. DN levels
indicate forest cover fraction:

- 0: NoData
- 1: Water
- 2: Blank
- 3: Non-Forest
- 4: Forest (10-25%)
- 5: Forest (26-50%)
- 6: Forest (51-75%)
- 7: Forest (76-100%)