JRC K&C AFRICA PALSAR MOSAICS
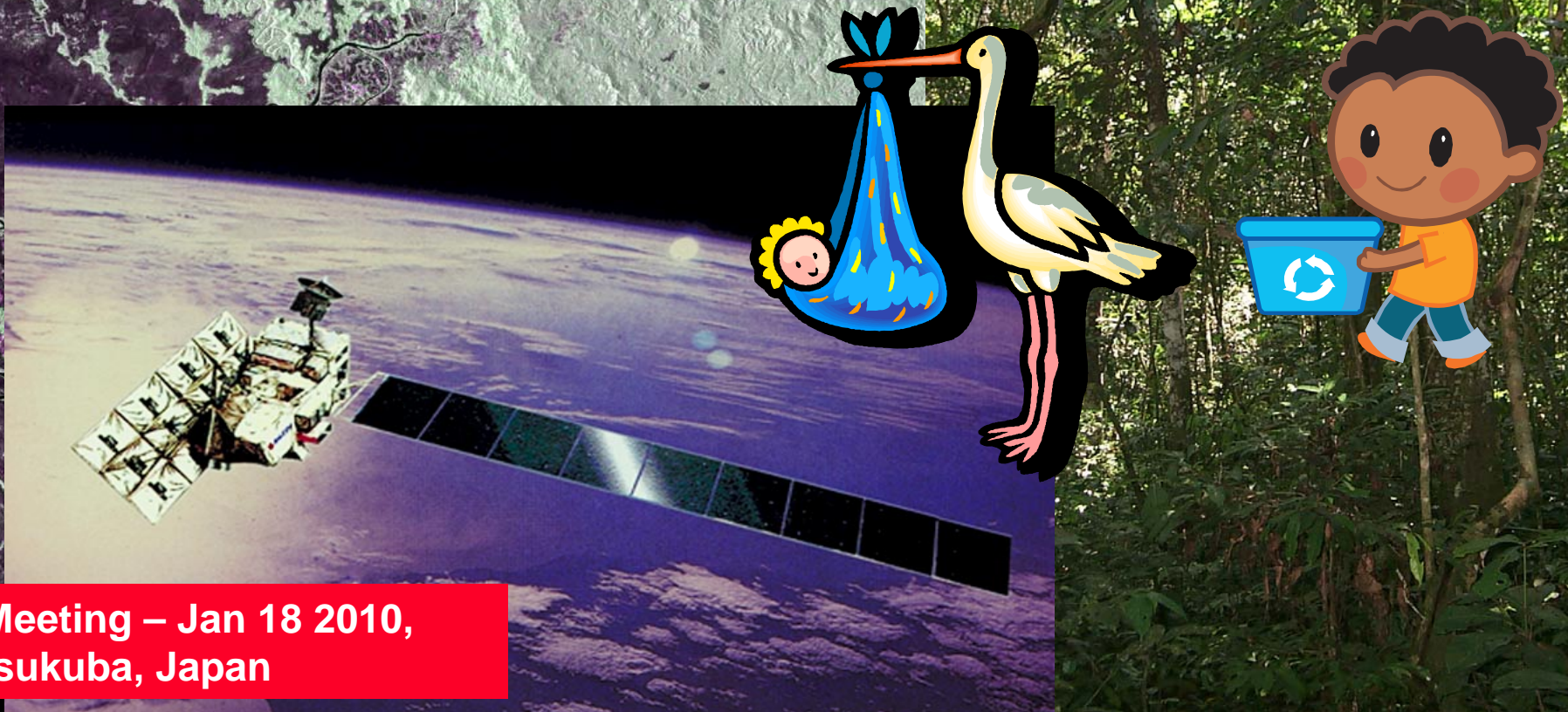
K&C 13 Meeting – Jan 18 2010,
Tsukuba, Japan

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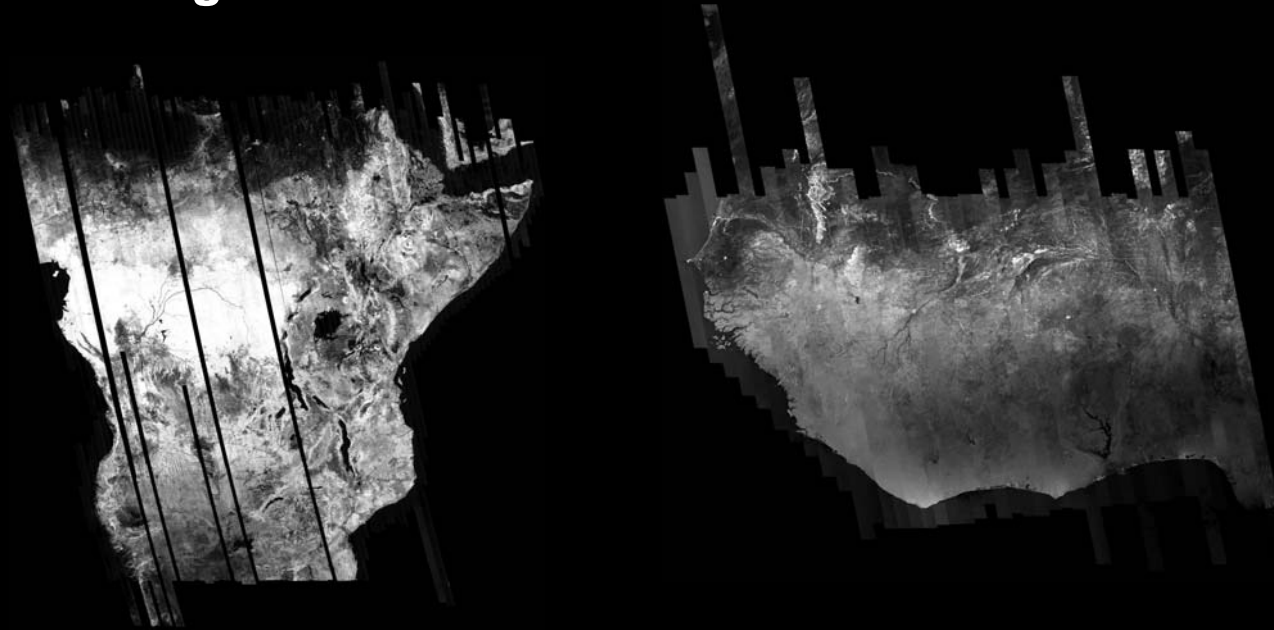
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David Kirk – Catching the bus

2009 - We are always late…

Therefore we invented the saying:

The later, the better….

2010 - We are still late…

Therefore we invented the saying:
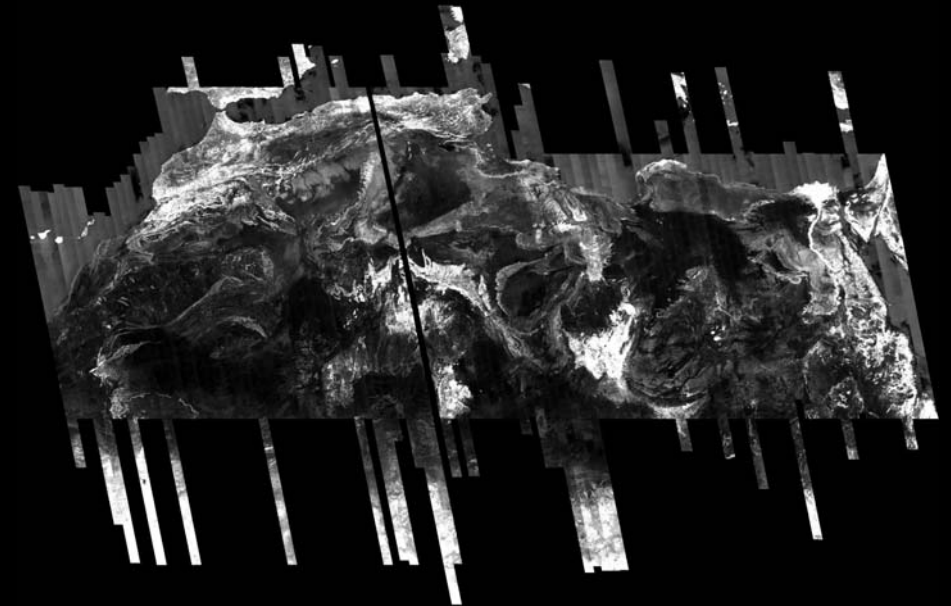
When the bus crashes, try to walk to destination….

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GVM

We are walking…..

Prototype mosaics (HH + HV):
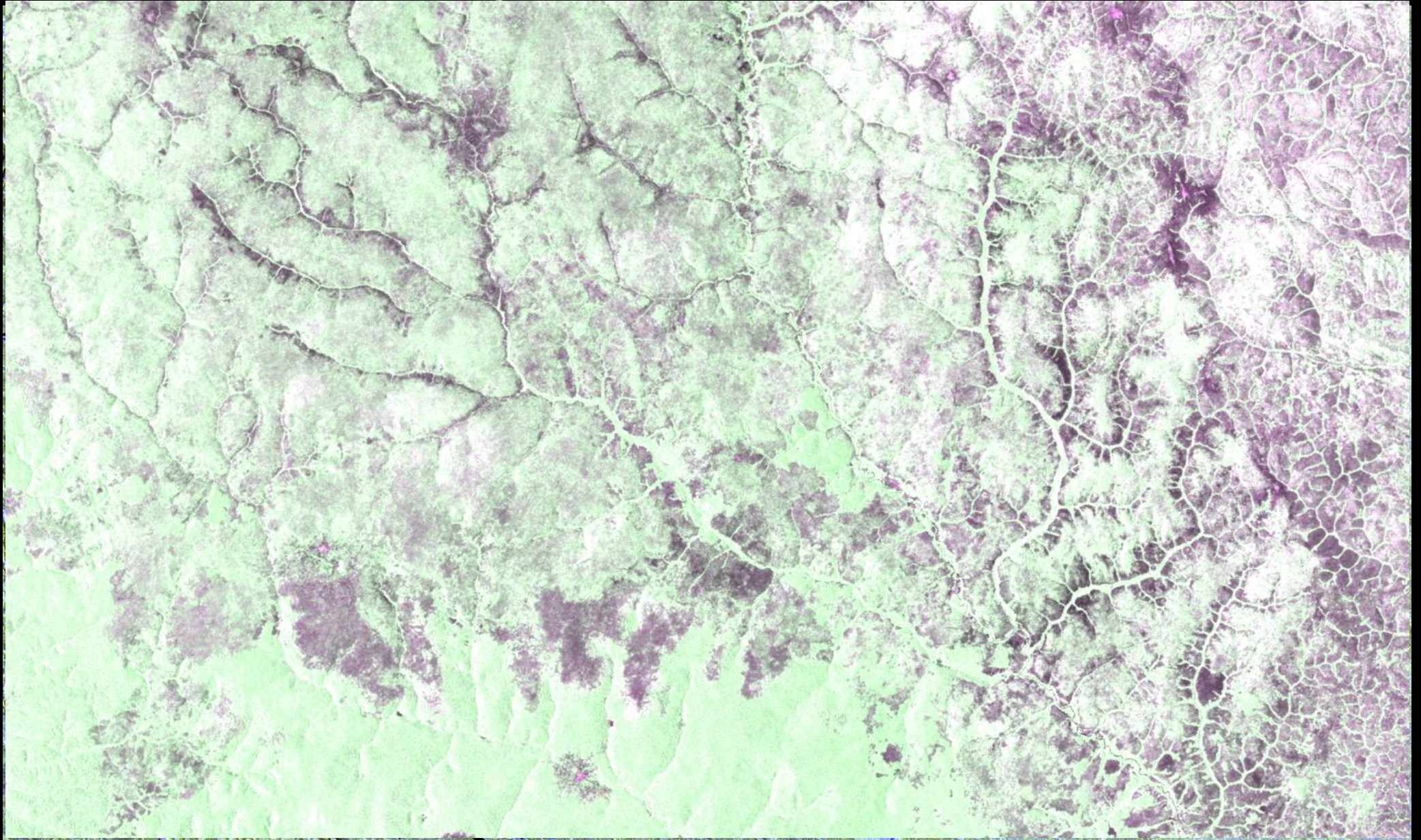   **Central Africa**
       West Africa
       Northern Africa

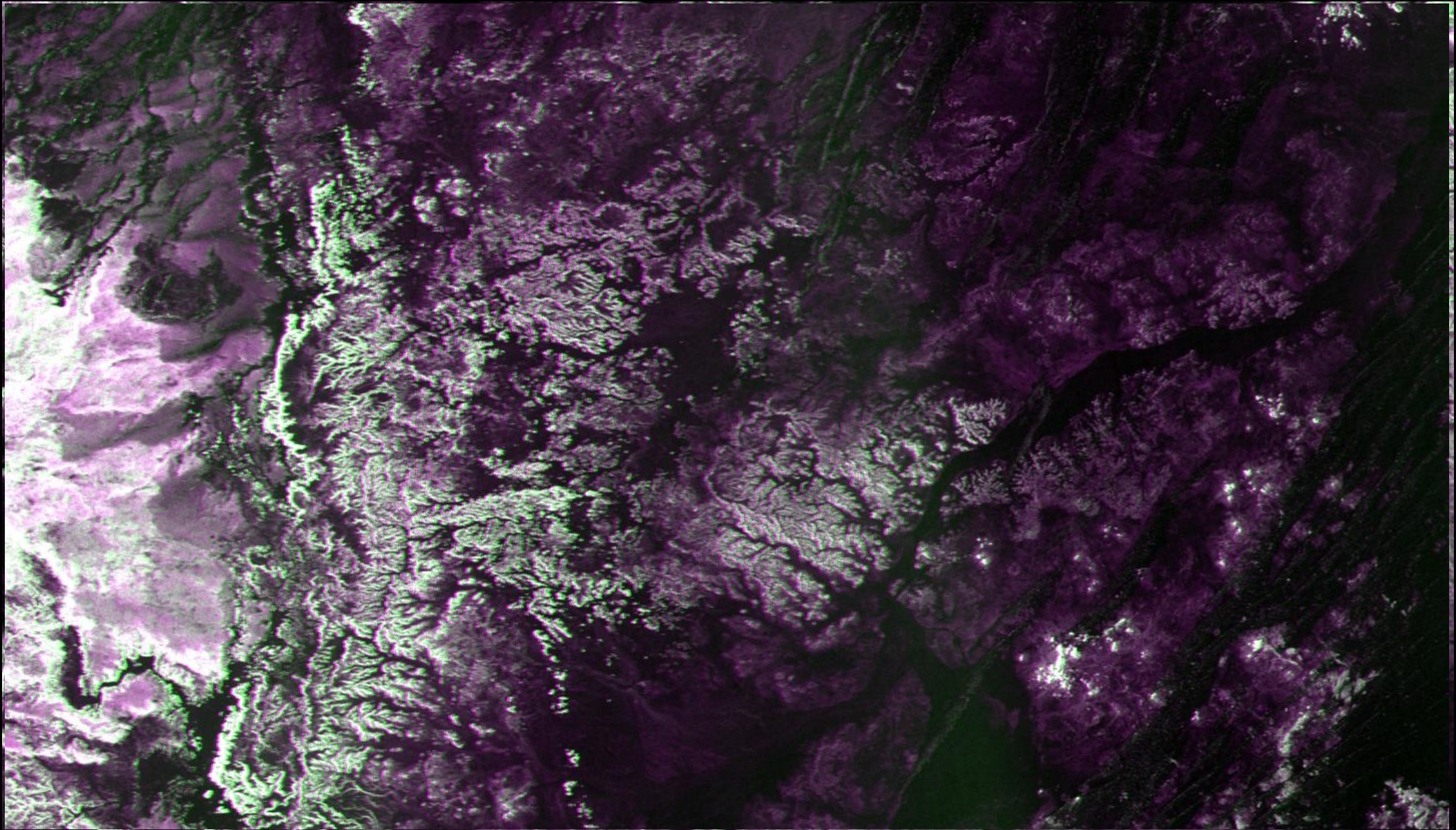**Preliminary thematic observations and comparison with GRFM Africa data sets**

Development of algorithms for enhanced radiometric revision

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We are walking…..

We are walking…..

PALSAR 2007 mosaic subset (RGB composite HH-HV-HH) for an area near the town of Pokola (1.868 N, 16.252 E).

Corresponding GRFM Africa 1997 (JERS-1 HH) mosaic subset.
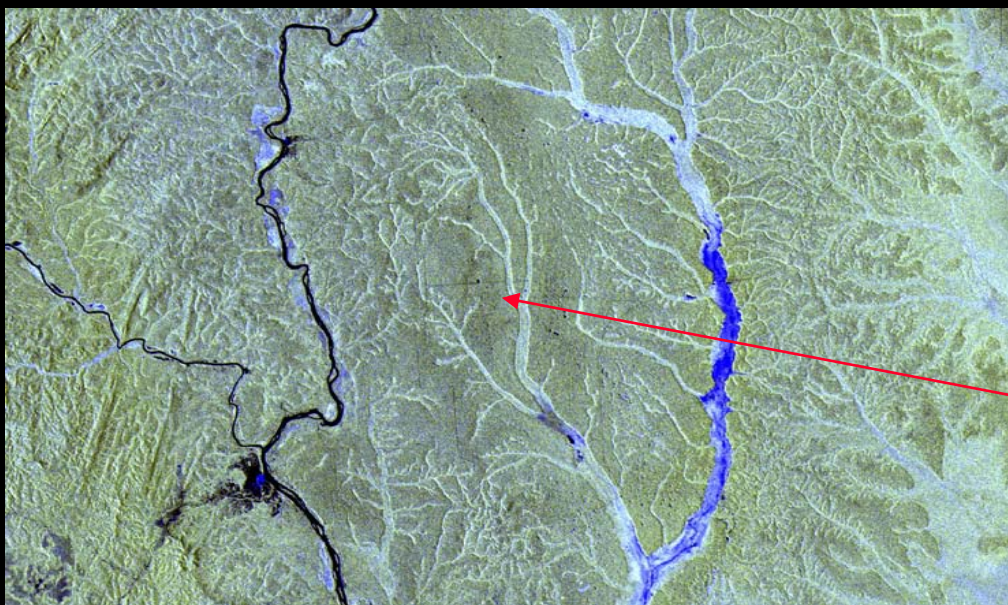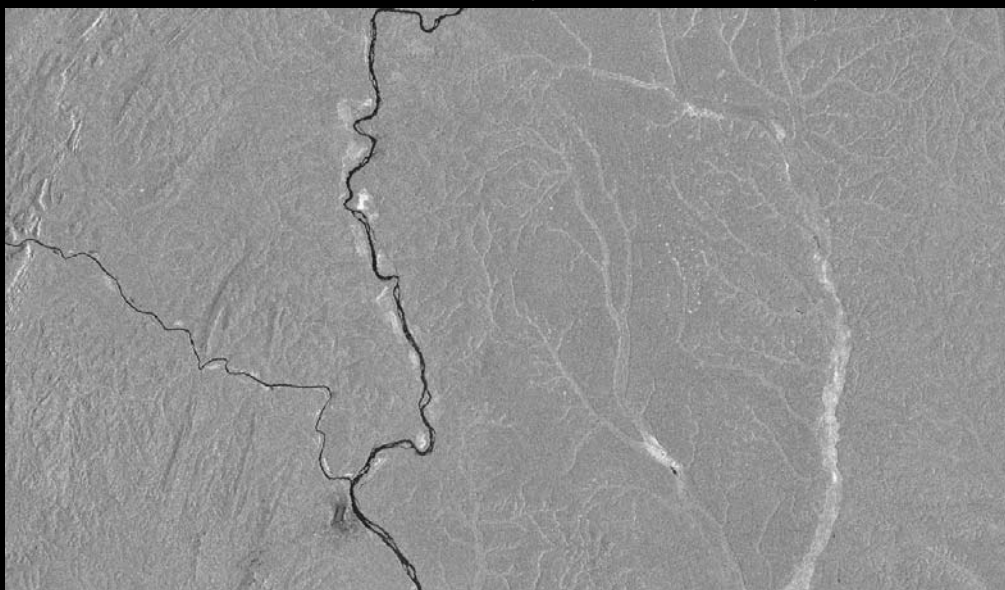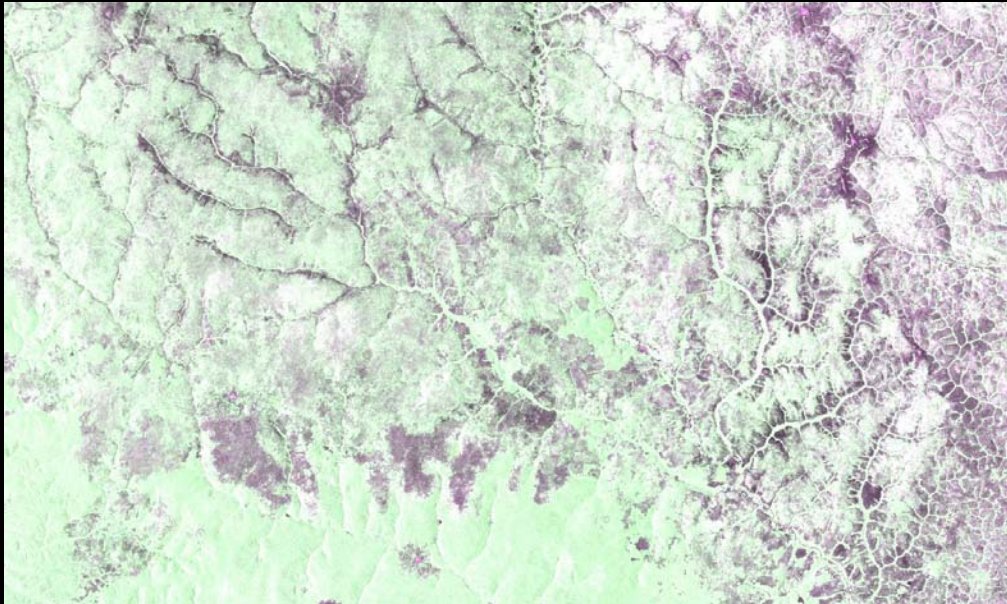
Logging Roads Detection

Linear thin features corresponding to logging roads are visually clear in the PALSAR image, while they are not detectable in the corresponding GRFM image.

This case could suggest that the PALSAR data set offers better performance in small but genuine features detection, due to higher radiometric resolution with respect to JERS-1. However, further analysis using a third information source will be needed to rule out the possibility of true changes between the two dates.

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PALSAR 2007 mosaic subset for an area at the margin between the rain forest and the savanna.
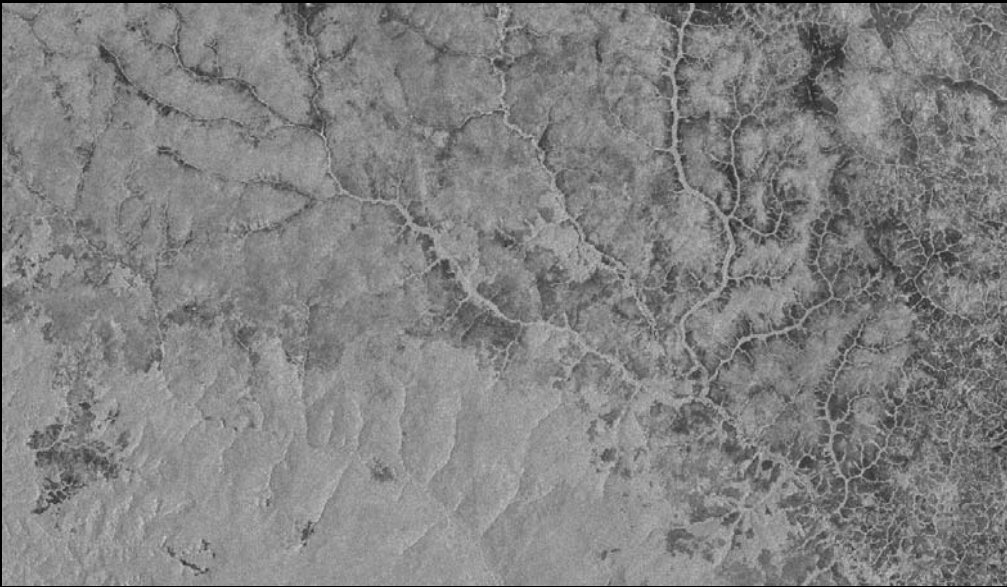
Corresponding GRFM Africa 1997 mosaic subset.

Monitoring in time the interface between primary rain forest and savanna

Visual comparison between the two images acquired respectively in 2007 and 1997 points to the fact that encroaching of the savanna into the rain forest domain (due to anthropogenic impact) proceeds at a fast pace.

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The Frank-Masanobu algorithm to clean the noted "Richard's Strips"

• Estimation of piece-wise linear gain functions derived from the left-right overlap areas of each strip with respect to neighbors.

• Successive approximations gain function refinement and strip calibration.

John Von Neumann, the inventor of the programmable computer, the ENIAC, asked by a US government official to predict how many computers the US would need in the future, replied: EIGHTEEN.

Frank is evidently also a very poor predictor of the future.

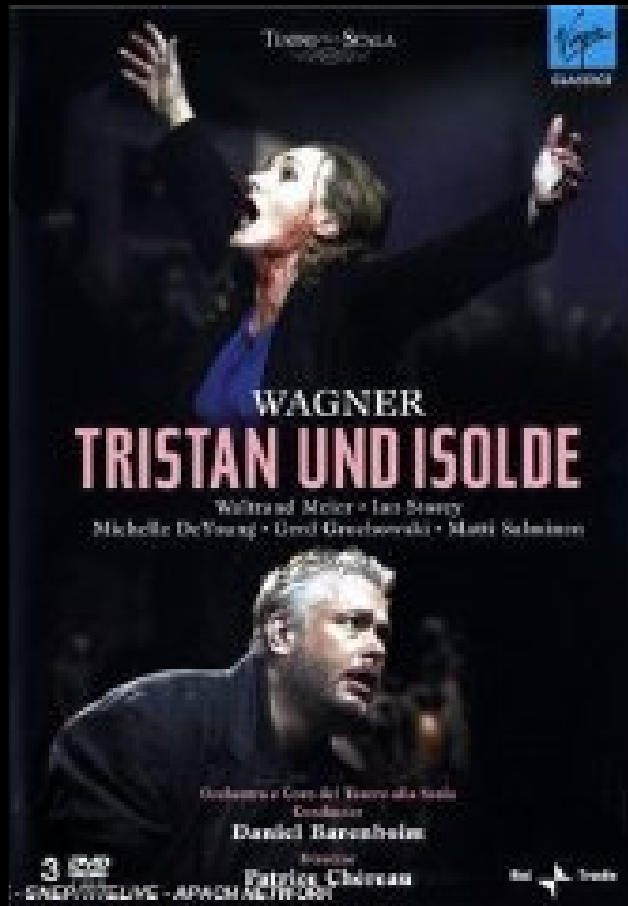However….

Expected appearance Spring 2010

Prototype mosaics (HH+HV) covering West, North, Central and South Africa will be made available to JAXA around April 2010.

Next, in the context of the new JAXA-JRC collaborative agreement, which is presently at the Directors' signature it is foreseen to:

• Improve these data sets with respect to geometric and radiometric quality

• Frame quantitatively the information strength of these mosaics with respect to the JRC actions related to Africa, e.g. forest resources, biodiversity, land cover, water availability.

This continuing effort will cover the timeline of the new agreement. Materials and methods will be made available to JAXA.

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GVM

Wo ich erwacht - weilt' ich nicht, doch wo ich weilte, das kann ich dich nicht sagen…

Where I woke up, there I was not, but where I was, I cannot tell you...

Still, I am back….

Frank