

The ALOS logo is displayed in white serif font on a dark blue background. The background of the header banner features a satellite image of a wetland area with green and brown terrain and blue water channels.

ALOS

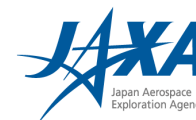
K&C Initiative
An international science collaboration led by JAXA

ALOS Kyoto & Carbon Initiative Science Team meeting #13

Wetland Theme Days

JAXA TKSC Jan 18-19, 2010

Science Team meeting #13
JAXA TKSC/RESTEC HQ, Tsukuba/Tokyo, January 18-22, 2010



Objectives of the Wetland Days

Provide concrete evidence of progress both externally and internally to JAXA management (CRITICAL)

- Poster presentations with latest results
- Work sessions:

Provide summary of Wetlands output that are ready/in pipeline for delivery to JAXA

- Products/deliverables (according to contracts)
- Phase-1 report compendium
- Journal and conference publications
- J-STARS special issue + other journal
- K&C booklet contributions (One Update + One New)

MONDAY, January 18, 2010
JAXA TKSC – Main meeting room, 1st floor

Wetland Theme - Day 1

10:00 Welcome (Masanobu Shimada, JAXA)

10:10 K&C intro to Wetland Theme Days (Ake Rosenqvist)

10:20 Poster presentations (10+5 minutes)

- Richard Lucas (U. Aberystwyth)
- Bill Salas (AGS) (by Ake)
- Tony Milne (Horizon)
- Lisa Rebelo (IWMI)
- Laura Hess (UCSB)
- Kyle McDonald (JPL)
- Philippe Paillou (U Bordeaux) (by Ake)

12:00 – 13:30 LUNCH

13:30 Wetland Theme work session 1: Theme issues

Lead: Laura Hess

15:30 Coffee

15:45 Wetland Theme work session 2: Preparations for Day 2 reports

- K&C member products/deliverables
- Time schedule for last year of Phase 2

~ 17:30 Adjourn

TUESDAY, January 19, 2010
JAXA TKSC – Main meeting room, 1st floor

Wetland Theme - Day 2

10:00 Member reports on deliverables and schedules (max 3 slides; 5+5 min)

- Richard Lucas (U. Aberystwyth)
- Bill Salas (AGS) (by Ake)
- Tony Milne (Horizon)
- Lisa Rebelo (IWMI)
- Laura Hess (UCSB)
- Kyle McDonald (JPL)
- Francesco Holecz (sarmap)

11:15 Coffee

11:30 Open floor discussion: Coordinating member output

- Products, conferences, J-STARS etc.

12:00 – 13:30 LUNCH

13:30 Wetland Theme work session 3: K&C booklet

- Preparations of member contributions to 2010 booklet

16:00 Coffee

16:15 Wetland Theme Summary

Lead: Laura Hess

~ 17:30 Adjourn

WEDNESDAY, January 20, 2010

RESTEC HQ/Roppongi, Tokyo – Meetingroom 1&2 (12th floor)

- 10:00 Welcome (Masanobu Shimada, JAXA)
- 10:10 K&C project issues (Ake Rosenqvist)
- 10:30 PALSAR observation strategy update (Fumi Ohgushi, RESTEC)
- 10:45 ALOS & PALSAR operation status (M. Shimada, JAXA/D. Sango, RESTEC)
- 11:10 EORC data processing – status & capacity issues (M. Shimada)
- 11:30 K&C data dissemination and user interface (Akira Mukaida, RESTEC)

11:45 K&C Mosaic status

- JAXA (M. Shimada)
- JRC (Frank Degrandi – by Ake R.)
- JPL (Bruce Chapman)

12:30 – 14:00 LUNCH

14:00 Mosaic Theme work session – Theme issues (Lead: Bruce Chapman)

15:00 Wetland Theme Days Summary (Laura Hess)

Forest Theme - Day 0.5

- 15:15 K&C intro to Forest Theme Days (Ake Rosenqvist)
- 15:30 Forest Theme Poster presentations, part 1 (10+5 minutes)
 - Richard Lucas (U. Aberystwyth)
 - Niels Wieleaard (SarVision)

16:00 Coffee

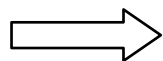
- Christiane Schmullius (FSU-Jena)
- Osamu Isoguchi (JAXA EORC)
- Nicolas Longépé (JAXA EORC)
- Shaun Quegan (U Sheffield)

~ 17:30 Adjourn

18:00 – 20:00 Joint dinner (3000 yen/person)
 “Shuraku Shunsai no Ie” restaurant (Kamiyacho, 10 mins walk from RESTEC)

K&C booklet on significant scientific findings

- 24 contributions from 16 (out of 22) science team members
- All contributions available on the K&C Wiki
<http://www.ies.aber.ac.uk/en/subsites/alos-kyoto-amp-carbon-initiative/kc-booklet-contributions>
- Publication originally planned for 2009, publication now planned by JAXA in early 2010 (using JFY-2009 budget)



KC#13 action:

- Finalise 2 contributions/member
 - UPDATE to one existing contribution
 - One NEW with Phase 2 results

K&C booklet on significant scientific findings

- Aim: General public with little scientific knowledge
- Short background intro of the issue studies (e.g. why is natural flooding of wetlands important)
- 1-2 illustrative images/thematic products
- Highlight the importance of ALOS PALSAR in the context

ALOS

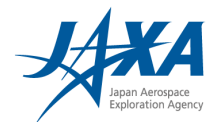
K&C Initiative
An international science collaboration led by JAXA



Global Imager がとらえた地球
Observing Our Planet Earth Using Global Imager

気候変動の 解明に向けて

Improving Our Understanding of Climate Change



5.5

インドシナ半島の土地被覆分類

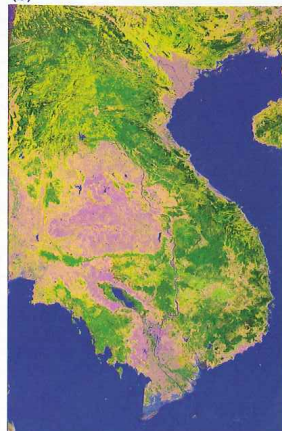
Land Cover Mapping of Indochina Peninsula

(a) Apr. 7, 2003 - Apr. 22, 2003



RGB=ch. 28, 23, 22

(b)



凡例 Legend	
0. 不明 Unknown	13. 果樹 FrTree : Fruit Trees
1. 密生常緑広葉樹 CEBFor : Closed Evergreen Broadleaf Forest	14. モザイク (耕作地、未開墾地、庭園などの混成地) Mosaic : Including mixture of: cultivated land, natural land, garden, etc.
2. 中層常緑広葉樹 MEBFor : Medium Evergreen Broadleaf Forest	15. 水田と他の耕作地の複合 Crp1d1 : Combination of rice land and other crop lands
3. 疎生常緑広葉樹 OEBFor : Open Evergreen Broadleaf Forest	16. 未作地 Crp1d2 : Rice in all of year
4. 半落葉広葉樹 SDBFor : Semi Deciduous Broadleaf Forest	17. 洪水被害に遭う水田 Crp1d3 : Rice land has one flood season
5. 落葉広葉樹 DBFor : Deciduous Broadleaf Forest	18. 耕作地 Crp1d4 : Dry crop land
6. 常緑針葉樹 ENFor : Evergreen Needleleaf Forest	19. 市街地 Urban : Building Area
7. マングローブ林 Mangro : Mangrove Forest	20. 乾度地 Barren : Dry Barren
8. 森林サバンナ Wd_Sav : Woody Savannas	21. 牧草と低木 BazanS : Grass and Shrub in Bazan Soil
9. 密生低木 CSHrub : Closed Shrub	22. 砂、岩石 Sand : Sand, Rock
10. 疎生低木 OSHrub : Open Shrub	23. 沼地と池 (水産養殖地) WetLd1 : Swamp, Pond (Aquaculture land)
11. 牧草と低木 Grass1 : Grass and Shrub	24. 沖積土、湿った砂 WetLd2 : Warp, Wet Sand
12. 牧草と裸地 Grass2 : Grass and Bare Soil	25. 水 Water : Water

図 5.5.1 GLIによるインドシナ半島の (a) 擬似カラー合成画像 (b) 土地被覆分類 (250m分解能)

Fig. 5.5.1 (a) False color RGB image. (b) Land classification result of Indochina Peninsula as observed by GLI (250m resolution).

GLIは250mの空間分解能をもつので、地域、国、全球規模での研究に適しており、天然資源や環境の観測、管理に役立ちます。実際にインドシナ半島の土地被覆を分類した結果を図5.5.1に示します。GLIデータの39シーンを活用し、IGBP (International Geosphere-Biosphere Program) をもとに25クラスに分類しています。分類画像は、地上被覆物を土壌の種類、物質の水分量、植被率でも区分することができ、ベトナムの地上調査で取得した画像データベースと比較検証を行ったところ、分類結果は約90%の精度でした。この結果から、GLIの250m分解能の画像が土地被覆分類の研究に大変役立つことがわかります。なお、この分類アルゴリズムは、VAST (Vietnamese Academy of Science and Technology) のDr. Nguyen Dinh Duong 教授によって開発されたものです。

Moderate spatial resolution (250m) is suitable for studies regionally, countrywide, and globally and has precedence for monitoring and managing natural resources and the environment. Figure 5.5.1 displays the result of land classification of the Indochina Peninsula using GLI 250m resolution data. The used images are composed of 39 GLI scenes. The classification legend was chosen following the IGBP (International Geosphere-Biosphere Program) standard with 25 classes. The GLI image will facilitate determining land cover objects such as type of soil, moisture of objects, and vegetation-cover percentage. Training area was selected and validated based on the ground truth photo database of Vietnam. The accuracy of land cover classification was estimated at 90%. The above result confirms that GLI images are very good for land cover studies. This algorithm was developed by Prof. Dr. Nguyen Dinh Duong in the Department of Environmental Information Study and Analysis Institute of Geography, Vietnamese Academy of Science and Technology (VAST).