

ALOS Kyoto & Carbon Initiative
23rd Science Team meeting (KC#23)
Tokyo Denki University, Hatoyama/Saitama

WEDNESDAY January 18, 2017
TDU Hatoyama Campus, Building 3, Room 3330

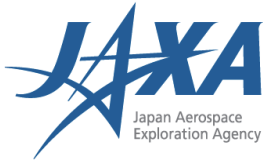
Introduction

- 10:30 Welcome** (Masanobu Shimada, Tokyo Denki Univ./JAXA)
10:40 K&C update (Ake Rosenqvist, K&C)
11:00 PALSAR-2 Cal/Val and operational status (Masanobu Shimada)
11:30 PALSAR-2 processing and data provision to K&C Science Teams
(Keiko Ishii and Takuya Itoh, RESTEC)
 - Path image data products
 - 25m FBD mosaic (2016)
 - ScanSAR mosaics
11:45 ALOS-2 BOS update (Ake Rosenqvist/soloEO, Fumi Ohgushi/RESTEC)
12:00 Open floor discussions

12:30 – 13:30 LUNCH

Wetlands – Intermediate results
(20+5 minutes)

- 13:40 Toshio Okumura (RESTEC) – W7: Asia-RiCE**
14:05 Carlos Pedraza (TNC/Colombia) – W6: Forest Monitoring in Colombia
14:40 Thiago Silva (UNESP/Brazil) – W4: Mapping habitat distribution,
vegetation structure and flooding dynamics in the Amazon basin wetlands
15:10 Kyle McDonald (CUNY/USA) – W3: Mapping Wetlands, Surface Structural
Attributes, and Boreal Freeze/Thaw at Regional Scales with JAXA SAR
Datasets



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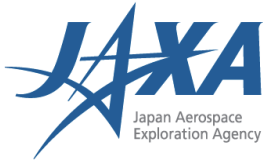
15:55 – 16:15 Coffee

16:15 Pete Bunting (U. Aberystwyth/U.K.) – W2: *The Global Mangrove Watch*

16:40 Lisa Rebelo (IWMI/Lao PDR.) – W1: *Nile and Zambezi Basins*

17:20 Josef Kellndorfer (for Bruce Chapman Caltech-JPL/USA) – *Near simultaneous observations of inundation by ALOS-2 and Sentinel and utilization of the SRTM-30 DEM to improve the radiometric correction of ALOS-2 PALSAR-2 data and derived products*

~ 17:45 Adjourn



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THURSDAY January 19, 2017
TDU Hatoyama Campus, Building 12, Room 12-229

Forestry – Intermediate results

- 10:10 Christian Thiel (FSU-Jena/Germany) – F24: PALSAR-1/2 Data for Vegetation Cover and Biomass Mapping in Various Climates**
- 10:30 Maurizio Santoro (Gamma RS/Switzerland) – F21: Coupling radar-based estimates of forest information with biosphere models for improved carbon flux estimation**
- 11:00 Nathan Torbick (AGS/USA) – F19: Operational rice mapping and forest structure assessment to support the 3Cs**

11:25 – 11:40 Coffee

- 11:40 João Carreiras (U. Sheffield/U.K.) – F17: Measuring above-ground biomass and its changes over Brazilian tropical secondary forests and savanna woodlands (Cerrado) using L-band SAR data**
- 12:05 Hamdan Omar (FRIM/Malaysia) – F15: Updating forest cover and assessing aboveground biomass in various tropical forest ecosystems from PALSAR-2 polarization data**

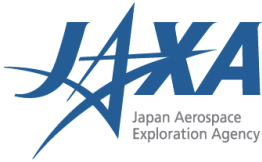
12:30 – 13:50 LUNCH

- 13:50 Joaquim Macuacua (Nat. Dir. on Forestry/Mozambique) – F11: National Forest Monitoring System For REDD+ in Mozambique**
- 14:15 Masato Hayashi (JAXA EORC) – JJ-FAST: JAXA-JICA Near-Real Time Deforestation Warning proj.**
- 14:45 Manabu Watanabe (Tokyo Denki Univ) – JJ-FAST: technical details**

15:00 – 15:15 Coffee

- 15:00 Open floor discussions – Forests and Wetlands**
- 15:30 Update of K&C Wiki project info pages (All)**

~ 17:00 Adjourn and joint travel to Kawagoe



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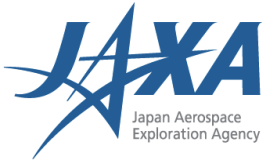
18:30 – 20:30 Reception dinner

Restaurant “*Koedo Kurari*”

<http://www.machikawa.co.jp/taisho/>



Located a few minutes' walk from Kawagoe Prince Hotel
(D5 in the Kawagoe City tourist map)
Shintomi-cho 1-10, Kawagoe-shi



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FRIDAY January 20, 2017
TDU Hatoyama Campus, Building 3, Room 3130

Forestry – Intermediate results

- 10:00 Thuy Le Toan (CESBIO/France) – F10: Forest Cover Change and Biomass Mapping using ALOS PALSAR and ALOS-2 PALSAR-2 data**
- 10:35 Johan Fransson (SLU/Sweden) – F6: Retrieval of forest biomass and biomass change with spaceborne SAR**
- 11:10 Josef KelIndorfer (Earth Big Data/USA) – F9: Land Cover Change and Forest Carbon Tracking with L-Band SAR and Optical Time Series Data**

11:45 – 12:00 Coffee

- 12:00 Mari Trix Estomata (GIZ/The Philippines) – F4: Utilising L-Band SAR Data for Natural Resource Management in the Philippines**
- 12:15 Patricia Sanchez (GIZ/The Philippines) – F4: Forest Cover Change in Selected Illegal Logging Hotspots**

12:30 – 13:40 LUNCH

- 13:40 Humberto de Mesquita (IBAMA/Brazil) – F3: Forest Structure to Map of Forest Types with ALOS-PALSAR**
- 14:15 Arief Rahmat (LAPAN/Indonesia) Inundation Mapping during flood events in Bima City, West Nusa Tenggara, Indonesia**

Related projects

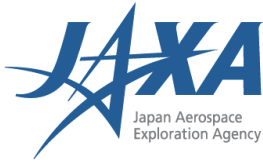
- 14:40 Josef KelIndorfer – NISAR status update**
- 15:15 João Carreiras (for Shaun Quegan, U. Sheffield/U.K.) – ALOS-2, the Ionosphere & BIOMASS calibration**

15:30 – 15:40 Coffee

15:40 Takeshi Motohka (JAXA EORC) – ALOS Next Generation Mission

16:00 K&C Issues (All)

~ 17:00 Closing of KC#23 meeting



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K&C training course – RSGISLib for Forestry

MONDAY-TUESDAY January 16-17, 2017
10:00 ~ 17:00

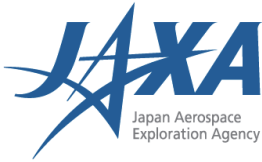
RESTEC HQ, Tokyu Reit Bldg. 1F, 3-17-1 Toranomom, Tokyo

1. Course Description:

This course will focus on using the python library of tools RSGISLib (The Remote Sensing and GIS software library) and associated tools for analysing remote sensing data, primarily SAR and optical either independently or in combination. RSGISLib is not specific to any particular application but a general set of tools, however this course will primarily focus on mapping forestry applications through classification. Prior to classification pre-processing and preparing multiple datasets to be used in combination is a critical step and this will also be covered. One of the key advantages of the RSGISLib tools are that everything is scripted, which means very large datasets and/or large numbers of files can be processed, which little further complication than a single scene. The system is can also be deployed on high performance computing (HPC) and cloud based systems and connected into an automated system.

The course will cover the following:

- a. Image band maths
- b. Data pre-processing:
 - i. Image subsetting
 - ii. Re-projecting images
 - iii. Re-sampling (i.e., change pixel size)
 - iv. Raster to Vector
 - v. Vector to Raster
- c. Pixel base image classification
- d. Segment (object) base image classification



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2. Software Installation:

You are encouraged to use your own laptop for the course. If possible, please install the RSGISLib software in advance. See the installation document for the details:

http://www.rsgislib.org/docs/RSGISLib_IntroTraining_Jan2017.pdf

MacOS/Linux: Install conda package management software and then the packages from there.

Windows: Install VirtualBox and download Linux image with conda and software setup.

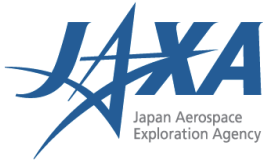
3. Datasets and scripts

Please download the package with datasets and scripts for the course at:

<https://sourceforge.net/projects/rsgislib/files/Training/RSGISLibIntroTrainingJan2017.tar.gz/download>

4. Own data

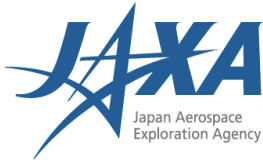
Time permitting, at the end of the course (last half day) we will look at some of your own examples/problems to put these tools into your own context. Therefore, could you bring some of our own data / problem(s) which we can look at how you'd solve using RSGISLib and associated tools.



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List of Participants – K&C Science Team

Name	Surname	Institution	Country
Rahmat	Arief	LAPAN	Indonesia
Alexandre	Bouvet	CESBIO	France
Peter	Bunting	Aberystwyth University	UK
João	Carreira	University of Sheffield	U.K.
Humberto	de Mesquita	Brazilian Forest Service	Brazil
Trix	Estomata	GIZ	Philippines
Johan	Fransson	Univ. of Agricultural Sciences	Sweden
Masaki	Kawai	Kokusai Kogyo	Japan
Josef	Kellndorfer	Woods Hole Research Center	USA
Thuy	Le Toan	CESBIO	France
Joaquim	Macuacua	National Directorate of Forestry	Mozambique
Kyle	McDonald	City College of New York	USA
Stéphane	Mermoz	CESBIO	France
Toshio	Okumura	RESTEC	Japan
Hamdan	Omar	Forest Research Institute Malaysia (FRIM)	Malaysia
Carlos	Pedraza	The Nature Conservancy	Colombia
Lisa	Rebelo	International Water Management Institute	Laos
Johannes	Reiche	Secretariat of the Pacific Community / WUR	Fiji / NL
Nelissa	Rocas	Forest Management Bureau	Philippines
Patricia	Sanchez	Forest Management Bureau	Philippines
Maurizio	Santoro	Gamma Remote Sensing	Switzerland
Thiago	Silva	University of São Paulo (UNESP)	Brazil
Christian	Thiel	Friedrich-Schiller-University Jena	Germany
Nathan	Torbick	Applied Geosolutions, LLC	USA



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List of Participants – Japan internal

Name	Surname	Institution	Country
Masanobu	Shimada	JAXA EORC / Tokyo Denki Univ.	Japan
Ake	Rosenqvist	solo Earth Observation (soloEO)	Japan
Masato	Hayashi	JAXA EORC	Japan
Tomohiro	Watanabe	JAXA EORC	Japan
Takeshi	Motohka	JAXA EORC	Japan
Yousei	Mizukami	JAXA EORC	Japan
Kei	Oyoshi	JAXA EORC	Japan
Mitsunori	Ishihara	JAXA EORC	Japan
Ryo	Natsuaki	JAXA EORC	Japan
Yukiko	Yaguchi	JAXA EORC	Japan
Shizu	Yabe	JAXA SAOC	Japan
Manabu	Watanabe	Tokyo Denki Univ.	Japan
Christian	Koyama	Tokyo Denki Univ.	Japan
Takuya	Itoh	RESTEC	Japan
Keiko	Ishii	RESTEC	Japan
Atsushi	Sugano	RESTEC	Japan
Risako	Dan	RESTEC	Japan
Kenichiro	Kobayashi	RESTEC	Japan
Erina	Sakaguchi	RESTEC	Japan