## ALOS KYOTO & CARBON INITIATIVE SCIENCE TEAM NEWSLETTER NO. 1 (FEB. 2007)

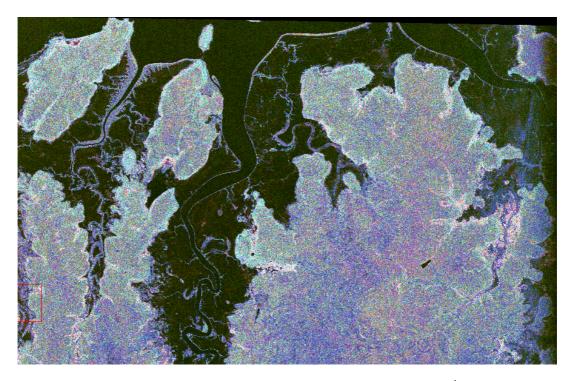


Dear K&C Science Team members.

I am happy to send you the first issue of the K&C Science Team Newsletter. It will be produced on a regular basis and aims to inform K&C Science Team members on the status of ALOS data acquisitions, news on activities within the different themes and general information, partly replacing the emails I send out. The style is informal! I hope you will find it helpful and any feedback is welcome.

Best regards, Ake Rosenqvist

### Image of the Month



ALOS PALSAR image of Kakadu National Park, Australia, acquired on July 3<sup>rd</sup>, 2006. The image shows the mangroves of the Alligator Rivers and inundated forests on the floodplain. In the wetlands theme, PALSAR data are to be used for mapping the extent of mangroves and wetlands.

### Processing request form updates

Starting with an urgent issue, we all need to revise our request forms, due to the change of the default off-nadir angle of PALSAR from 41.5 to 34.3 degrees. If you do not, the PALSAR strip data processed may not cover your project areas properly.

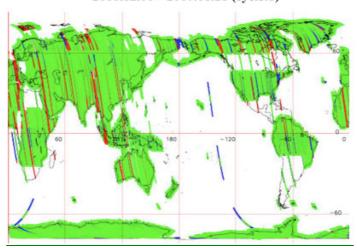
I still have only received updated Processing Request forms from a few of you (UVic, CTCD, sarmap, SarVision, FSU, SLU, Lucas). I still need forms from (Le Toan, Hallikainen, Hess, JPL, Siqueira, Milne, Dalton, Paillou) and so please provide these ASAP.

When updating, use the RSP maps sent to you by email in early February. For instructions on how to fill in these forms, consult:

http://www.eorc.jaxa.jp/ALOS/kyoto/jan2007/pdf/4-01-Rosenqvist\_KC7.pdf

Note again that the revision should ONLY concern the adjustment to the new offnadir angle (for the ascending FBS and FBD passes; ScanSAR request is not affected), and that this is NOT an opportunity to increase your requests for data.

PALSAR acquisition status @ AGAP



2006.12.06---2007.01.21 (cycle:8)

PALSAR (ascending) acquisition status for Cycle 8

The map above shows the acquisition status for PALSAR cycle 8, which was the first cycle where the systematic Observation strategy was implemented. Green - paths which have been acquired and browse images have been processed; Red – requested, but not scheduled; Blue – status not available.

Using the ALOS Geoscience and Applications Processor (AGAP) system you are able to check the status of the K&C observation strategy, cycle by cycle. For a test version of the system, see <u>http://www.eorc.jaxa.jp/ALOS/opn/</u>

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Mukaida-san is setting up user accounts, where you will be able to check the processing status of you specific requests (as defined in your Processing Request form).

#### Data download by FTP

Mukaida-san is still in the process of preparing the user accounts for your respective FTP directories, from which you will be able to download the data you have requested - by standard FTP or by the fast FTP ASPERA software.

We hope to have the first data on-line for you during the month of March.

### Allocation of full resolution JERS and ALOS data

As mentioned earlier, K&C Science Team members have the possibility to request a limited number of full resolution ALOS data within the K&C framework. Each organisation with a K&C contract concluded has the following allocation EVERY Japanese Fiscal Year (JFY):

\* 50 ALOS scenes

\* 50 JERS-1 scenes.

Note that at the end of the fiscal year (which runs from April 1st to March 31st), a new allocation of 50+50 will be issued. Any unused holding from the previous year will be lost. Hence - in order not to loose your allocation for JFY2006 (this year), you must place your orders prior to March 31st!

ALOS orders are made via the ALOS User Interface Gateway (AUIG): https://auig.eoc.jaxa.jp/auigs/en/top/index.html

JERS-1 SAR orders are made via the older EOIS (Earth Observation Data and Information System): https://www.eoc.jaxa.jp/iss/en/index.html

Use the user names and passwords you received when concluding your K&C agreements with JAXA (one for each of the AUIG and EOIS systems). In case you still have not received those, contact the EORC Order Desk orderdesk@jaxa.jp immediately.

#### K&C Science Team meeting #7 – Presentations on-line

Meeting agenda and presentations are available on-line on the K&C home page at: http://www.eorc.jaxa.jp/ALOS/kyoto/jan2007/kyoto meeting 2007jan.htm

 $\underline{8^{\text{th}} \text{ Science Team meeting} - \text{new dates}!}$ The 8<sup>th</sup> K&C Science Team meeting is scheduled for (**Mon-Wed**) June 11-13, 2007. Please note that the meeting dates have been shifted to the beginning of the week (in contrast to the information provided to you in my 020207 email to you). The reason is that all Tsukuba hotels were fully booked during the dates originally planned.

The KC#8 meeting will focus on ironing out any remaining issues regarding data formats and data dissemination prior to the summer PALSAR dual-pol acquisition cycles, when most of you have requested data. There will not be a need for any team member presentations (except for team members who did not present at KC#7) but there will be more of a hands-on approach and time for Theme meetings. This will allow people to discuss problems and issues associated with the data. The tentative meeting schedule as follows:

Day 1:	Data dissemination issues and usage; the website; seeking and downloading data
	from the website; processing requests, update on the storage issue; CALVAL.
Day 2:	Half day continuation of the Day 1. Afternoon dedicated to the wetland and desert
	themes (e.g., progress, coordination), updating the science plan and material
Day 3:	Morning dedicated to the forest theme (e.g., progress, coordination), updating the
	science plan and material placement on the website. Afternoon concluding and
	making recommendations for further work placement on the website

## Outcomes from the Theme Coordinator meeting (22<sup>nd</sup> January, 2007)

[by Richard Lucas]

Following the K&C Science Panel meeting, a coordination meeting was attended by the theme coordinators in conjunction with JAXA. The main outcomes from this meeting were:

#### Production of a regular newsletter.

To keep members informed of general issues and advances in ALOS data acquisition, processing and analysis, a newsletter will now be produced on a regular basis. The newsletter will summarise emails forwarded by JAXA and also contain contributions from panel members. If you have a contribution, please forward to Richard Lucas (Forests), Laura Hess (Wetlands), Bruce Chapman (Mosaics) and/or Philippe Paillou (Deserts) which will then be passed to Ake Rosenqvist (Editor-in-Chief).

#### Development of Google Earth to display ALOS PALSAR images.

Bruce Chapman will be coordinating with JAXA to start a demonstration of how Google Earth can be used to display ALOS PALSAR images. Once demonstrated, it is expected that the procedures will slot into existing JAXA ALOS processing and will be applied to the archive. For an example of a kml file used in Google Earth, see <a href="http://southport.jpl.nasa.gov/test/ALOS\_test.htm">http://southport.jpl.nasa.gov/test/ALOS\_test.htm</a>.

#### Establishment of a dedicated K&C Website

A wiki website is proposed that is likely to be served from the University of Wales Aberystwyth. This website will replace that developed earlier because of efficiency. The broad structure of the website is suggested below. A particular advantage of this approach is that the website can be edited by anyone, thereby reducing the need for website management. Please use this website when this becomes available. Comments and contributions to the website will be welcomed when this is up and running. We anticipate that this will be ready before the end of March but an email will be forwarded to you concerning this site.

Top level description of the ALOS K&C													
ALOS K&C	SCIENCE	SCIENCE	FIELD	ACQUISITION			RE	SOU	RCES <sup>3</sup>	E	ND		
DESCRIPTION	THEMES	TEAMS	SITES	&	PRC	OCE	SSI	NG				US	ERS
(Overview and link to science plan; observation strategy)													
FORESTS	WETLANDS			DESERTS			MOSAICS						
General descriptions of themes													
Study areas	"			"			"						
Collaborators	"			"			"						
Field validation	"			"			٠٠						
$^{1}1$ 2 3 4 5	1 2	3 4	5	1	2	3	4	5	1	2	3	4	5
Summary of	"			"			"						
individual projects													
<sup>2</sup> Field sites													
CALENDAR	ANNOUNCEMENTS			LINKS			PUBLICATIONS						
VIDEOS	PROCESSING ALGORITHMS												

<sup>1</sup>Field sites may be used by several science teams (e.g., wetlands and forests)

<sup>2</sup>Each K&C Member needs to have a section with links to individual websites etc.

<sup>3</sup>Wiki automatically updates

#### **Forest Theme Supplement**

A Forest Theme supplement is included to this newsletter. This relates to the presentation at IGARSS (see below) and also to the possibility of a Special Issue for the Canadian Journal of Remote Sensing on ALOS for forest applications.

#### Key dates and events

#### IGARSS'07

There will be an ALOS Special Session at IGARSS07 in Barcelona, Spain in July. Talks on the K&C are scheduled by Tony Milne (ALOS PALSAR for wetlands mapping and monitoring) and Richard Lucas (ALOS PALSAR for forest assessment), and on cal/val by Shimada-san and the JAXA team, and by Moreira/Kostas. K&C related talks are also scheduled in ordinary sessions (to my knowledge by myself, Paillou. Thuv Le Toan, Schmullius/Santorio, Bruce Chapman. Philippe Fransson/Eriksson, For the talks by Tony Milne and Richard Lucas, material relating to recent results would be needed. Please email any information to rml@aber.ac.uk (Forest Theme) or Laura Hess (lola@icess.ucsb.edu)/t.milne@unsw.edu.au (Wetlands Theme). An email requesting more specific information will be forwarded in the For the Forest Theme members, requests are detailed in the coming weeks. supplement.

### Event scuedule

The following table outlines key events which are of relevance to the K&C panel. If you have any events to add, or if you require any further information, please contact the relevant Theme Coordinator or Ake Rosenqvist.

Dates	Event	Theme	Priority
January 22, 2007	Coalition of Rainforest Nations, New York (Josef	F	
	Kellndorfer attended)		
February 26' 2007	GMES remote sensing for biodiversity workshop,	F/W	
	World Conservation Monitoring Centre (WCMC)		
	Cambridge UK (Richard L. attended)		
February	Final deadline for revised processing request	All	*
	sheets/forms		
March 5-6, 2007	ALOS Cal/Val meeting, JAXA TKSC (Ake R.	All	*
	attending)		
Open	Titles/abstracts for Forest Theme topics (Forest	F	*
	Theme only)		
April 27, 2007	Deadline for IGARSS papers: material needed a	F/W	*
	month before.		
March 26-30, 2007	Ramsar Convention, Science and Technology	W	*
	Review Panel meeting, Geneva, Switzerland (Ake R.		
	attending)		
	http://www.ramsar.org/meetings.htm		
March 31 <sup>s</sup> , 2007	Last chance to complete AUIG orders (standard	All	**
	products) for ALOS PALSAR and JERS-1 SAR data		
	for fiscal year 2006. 50 scenes of each are available		
	per year to each K&C project. Don't order at the		
	last minute!		
22-25 May 2007	AGU Joint Assembly, Acapulco, Mexico.	W	
	Special session on "Remote Sensing and Modeling		
	of Hydrologic and Methane Dynamics in Natural		
	Wetlands"		
	http://www.agu.org/meetings/ja07		
	/?content=search&show=detail&sessid=305		ata ata ata
June 11-13, 2007	8 <sup>th</sup> K&C Science Team meeting, Tsukuba.	All	***
July 15 2007	Draft material/outline for Forest Theme Presentation	F	
	at IGARSS.	4 11	
July 23-27, 2007	IGARSS'07, Barcelona, Spain	All	
Samt 10 17 2007	http://www.igarss07.org/	Ρ	
Sept. 10-17, 2007	International Workshop on Environmental Changes	D	
	and Sustainable Development in Arid and Semi-arid		
	Regions.		
	Inner Mongolia, China. (Philippe P. attending)		
O 20 N 2 2007	http://www.iggcas.ac.cn/iw07/index.htm		
Oct 30-Nov 2, 2007	Symposium on Radio Wave Propagation and	FW	
	Remote Sensing, Rio de Janeiro, Brazil. (Dalton in		
	programme committee)		
רחד	http://www.sers.rdc.puc-rio.br/ursif	<b>W</b> 7	
TBD	Deadlines for proposing a special session at INTECOL (20.25 July 2008 Chicks Provide Read)	W	
	INTECOL (20-25 July 2008, Cuiaba, Brazil)		
TBD	http://www.intecol.pakmultimidia.com.br/		
	Deadline for proposing an AGU special session		
Oct/Nov, 2007	Deadline for proposing a special session at the Australasian Pamota Sansing and Photogrammatry		
	Australasian Remote Sensing and Photogrammetry		
	Conference (ARSPC)		
(TBD) December (TPD)	ALOS PI Meeting (Yokohama or Kyoto)		
December (TBD)	AGU Meeting (10-14 Dec 2007, San Francisco)		

### Miscellaneous

#### **National Anecdotes**

At the initiative of Richard (again!), we will in each issue appreciate amusing anecdotes or photographs from the K&C team. Here is one from a Swedish colleague!

In Sweden, there are state owned stores that sell alcohol and the manger of one of the stores gets a late phone call asking politely: "What time do you open the store tomorrow?" The store manager replies: "At nine o'clock". An hour later, the phone rings again and the same man asks: "Wha' tiiiime do you open the store tomorrow?" "At nine o'clock", the manager replies, slightly irritated. An hour later, the phone rings again and the same man asks: "Wha' tiiiime do you oopen the store tom...?" The manager looses patience and replies: "We open at nine o'clock. But as drunk as you are, we will NOT let you in!" "Let me IN?", the man shouts. "I wanna get OUT!"!!!

#### **Offsetting Carbon Emissions**

Air travel to the K&C meetings is essential but the carbon emissions can be offset. See <u>http://www.co2balance.com/</u> as an example. The cost of a return flight from London to Tokyo was £19.00 as shown below.

SKU	Product					
	Carbon Zero Flights					
	Options: Offset Project: Enter First Name:	Bishops Wood, Devon Project Richard				
SKU113210737	Enter Surname: Certificate Text: Certificate Type:	Lucas Lucas CO2 Emissions Offset for return flight London Heathrow UK to Narita Japan. eCertificate	£19.00			
	Include in the Roll of Honour:	Yes				
	Flight Info:	For 2.11 tonnes of CO2 arising from a return journey for 1 person from London, Heathrow to Tokyo, Narita / New Tokyo International				

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Forest Theme Supplement [by Richard Lucas]

At the Forest Theme Meeting, it was suggested that publication associated with the K&C Project was one important avenue by which the members could collaborate and exchange ideas and results (e.g., processing, classification and retrieval techniques).

A first opportunity to show results (which is perhaps too early for many) from the various themes is at IGARSS in Barcelona in July. Along with several other colleagues, I submitted an abstract to the Invited Session (IS43. M. Shimada/A. Rosenqvist) on preliminary results from Australian forests. However, this can be broadened or refocused to encompass early results from other forested regions if these are available. The deadline for full paper submission is April 2007 (http://www.igarss07.org/frontal/Dates.asp).

A second opportunity is with the Canadian Journal of Remote Sensing. I have been in contact with the Editor and he is favorable to the idea of a special issue on ALOS PALSAR for forest applications. There is no commitment or deadline for this, but it would be useful to have comments and for Forest Theme members to put forward suggested topics. There are two main options (although please feel free to put forward others)

- a) To submit papers by theme. At the Forest Theme Meeting, it was suggested that individual members could select a general topic (see below) such as mapping deforested areas or regrowth (e.g., in regions such as Australia and Brazil) from ALOS and then collate material/results from members working in these areas. In this way, members would become aware of the activities of others and this would promote exchange of ideas.
- b) To submit papers on particular regions. In this case, a paper could be written on, for example, regrowth mapping in Australia and one on regrowth mapping in Brazil. This would ultimately lead to exchange of ideas but probably after the work has been completed rather than when it is in progress.

I would therefore like to suggest the following:

- a) As a written paper needs to be put together for the IGARSS session, I would be happy to collate major results and integrate these in an 'early outcome' paper (note the deadline of 27<sup>th</sup> April). This would then form the basis for further discussion (e.g., at IGARSS but also between members) and a platform on which to focus further activities (e.g., future publication).
- b) An oral presentation also has to be given at IGARSS and so it would be helpful also to receive some material for this prior to the conference in July so that this can be included.

It would also be useful to have feedback regarding the Special Issue for the Canadian Journal of Remote Sensing (including whether this is the most appropriate journal) and in particular the nature of the papers submitted. In the table below, I have suggested a framework which addresses Option a (see above) and have also filled in where interests might lie (as examples). Can I suggest the following:

- If you consider that Option a is a useful way to progress, then could you fill in your name and comments in the table below. You can either take the lead on this or elect to act as a co-author so state your preference as well.
- If you would prefer to stay within your chosen area (option b), then again, please email me with a suggested title/topic.

• If you have other suggestions, then please feel free to contact me to discuss. In all cases, I will then collate the information and provide feedback to you. I hope that these suggestions help with progressing the Forest Theme.

With best wishes, Richard Lucas, Forest Theme Coordinator

Suggested Topics for a Special Issue of the Canadian Journal of Remote Sensing The Role of ALOS PALSAR in Supporting Forest Assessment						
The legacy of the JERS-1 SAR and overview of ALOS PALSAR						
Ake Rosenqvist						
1. Establishing deforested areas						
2. Regrowth mapping						
3. Forest structural mapping						
Richard Lucas						
4. Biomass retrieval through integ	gration of ALOS PALSAR					
Thuy Le Toan						
5. Height retrieval from polInSA	R data					
6. Relevance of ALOS data to ca	rbon cycle science					
7. Benefits of ALOS PALSAR data in assessing and monitoring biodiversity (Conservation)						
8. Supporting international conventions						
9. Climate change impacts: observations using ALOS PALSAR						
10. Ecosystem restoration: inform	mation provision by ALOS PALSAR					