K&C Product Delivery Report and Schedule for 2010

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

K&C deliverables

Papers and Reports

1. Published

Lucas, R.M. et al. (2010). An evaluation of the ALOS PALSAR L-band backscattering above ground biomass relationship over Queensland, Australia. IEEE JSTARS, K&C Special Issue (submitted).

De Grandi, G.D, Lucas, R.M. and Kropacek, J. (2009). Analysis of wavelet frames of spatial statistics in SAR data for characterising structural properties of forests. IEEE Transactions on Geoscience and Remote Sensing, 7(2), 494-507.

Lucas, R.M. et al. (2009). Quantifying Carbon in Wooded Savannas: The Role of Active Sensors in Measurements of Structure and Biomass. In: *Ecosystem Function in Savannas: Measurement and Modelling at Landscape to Global Scales*, Eds. M.J. Hill and N.P. Hanan, Taylor and Francis (in press).

Lucas, R.M., Accad, A., Randall, L. and Bunting, P. (2008c). Assessing human impacts on Australian forests through integration of airborne/spaceborne remote sensing data. In: *Patterns and Processes in Forest Landscapes: Multiple uses and sustainable management*, pp. 213-240, Ed. R. Lafortezza, J. Chen, G. Sanesi and T.R. Crow,

K&C deliverables

Papers and Reports

1. Published

- Armston, J., Lucas, R., Carreiras, J. and Bunting, P. (2008). Integration of Landsat and ALOS PALSAR data for mapping vegetation structure in Queensland. Proceedings, 14th Australian Remote Sensing and Photogrammetry Conference, Darwin, NT, Australia, October, 2008.
- Lucas, R.M., Carreiras, J.M.B., Bunting, P.J. and Armston, J. (2007). Pre-processing and geocoding of ALOS PALSAR data over Queensland, Australia. Proceedings, ALOS PI Workshop, Kyoto, Japan, November, 2008.
- Lucas, R.M., Carreiras, J., Bunting, P. and Armston, J. (2007b). ALOS PALSAR for characterising wooded savannas in northern Australia. Proceedings, ALOS PI Workshop, Kyoto, Japan, November, 2008.
- Lucas, R.M., Carreiras, J.M.B., Proisy, C. and Bunting, P.F. (2008). ALOS PALSAR applications in the tropics and subtropics: characterising, mapping and detecting change in forests and coastal wetlands. Proceedings, 2nd Joint PI Symposium of ALOS data notes for ALOS Science Program, Rhodes (Greece), 3-7 November, 2008.
- *Lucas, R.M. and Armston, J. (2007c). ALOS PALSAR for characterising wooded savannas in northern Australia. Proceedings, International Geoscience and Remote Sensing Symposium (IGARSS), Barcelona, Spain, July, 2007.
- *Lucas, R.M., Carreiras, J., Bunting, P., Armston, J. and Clewley, D. (2008). Forest parameter retrieval from SAR intensity data. Proceedings, International Geoscience and Remote Sensing Symposium (IGARSS), Boston, US, July, 2008.

K&C deliverables

Presentations

1. Not Published

- Lucas, R.M. and Armston, J. (2007). ALOS PALSAR for characterising wooded savannas in northern Australia. Proceedings, International Geoscience and Remote Sensing Symposium (IGARSS), Barcelona, Spain, July, 2007.
- Lucas, R.M., Carreiras, J., Bunting, P., Armston, J. and Clewley, D. (2008). Forest parameter retrieval from SAR intensity data. Proceedings, International Geoscience and Remote Sensing Symposium (IGARSS), Boston, US, July, 2008.
- Lucas, R.M, Armston, J. and Milne, A.K. (2009). Active remote sensing of wooded savannas, International Geoscience and Remote Sensing Symposium (IGARSS), Cape Town, July, 2009.

K&C deliverables

Papers and Reports

2. In preparation

- An approach to the regional mapping of regrowth stage (in prep.)
- Characterising Brigalow (*Acacia harpophylla*) growth stages through integration of ALOS PALSAR and Landsat sensor data. A case study from the Tara Downs.
- Lucas, R.M., Statewide estimation of above ground biomass of forests in Queensland from ALOS PALSAR mosaics (in prep).
- Effect of environmental conditions of ALOS PALSAR L-band backscatter mosaic s for Queensland, Australia.

K&C deliverables

Data sets and Thematic products (mosaics, classification maps etc.)

1. Completed and Delivered to JAXA

- *Draft biomass map for woody vegetation, Queensland, Australia (to be revised)*

2. Completed, but not yet delivered (please deliver ASAP)

K&C deliverables

Data sets and Thematic products (mosaics, classification maps etc.)

3. To be completed during 2010

- *Biomass change classes for part (northern Queensland) based on time-series of ALOS PALSAR and JERS-1 SAR data*
- *Biomass change classes for Queensland (if achievable) based on time-series of ALOS PALSAR data*