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Biogeosciences Discussions

Interactive comment on "Mapping tropical forest biomass with radar and spaceborne LiDAR: overcoming problems of high biomass and persistent cloud" *by* E. T. A. Mitchard et al.

H. Balzter (Referee)

hb91@le.ac.uk

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Overall, I consider this paper an excellent piece of work. It is thoroughly done, making good use of datasets and presents highly significant findings.

I have some minor changes I would suggest:

The ICESAT-GLAS dataset is available from 2003 to 2009 and not 2007 as stated in the manuscript. See http://nsidc.org/data/icesat/laser_op_periods.html.

NASA is planning a follow-on mission called ICESAT-2 (http://icesat.gsfc.nasa.gov/icesat2/). Unlike ICESAT, ICESAT-2 will use a micro-

pulse multi-beam approach, and the instrument may create the need to look at algorithms for forest monitoring again. The manuscript should mention this mission and discuss how vaulable this new potential dataset could be for forest mapping if it was launched.

Although the scientific use of biomass maps is undisputed, the REDD+ initiative may not actually require spatial biomass data. It could rather be centered around maps of deforestation rates (forest cover change), which could equally be derived from multi-temporal optical/near-infrared maps. The manuscript should qualify the statements about the relevance of SAR and LIDAR derived biomass maps for direct REDD+ applications and stress the availability of other change detection maps, including what advantages SAR and LIDAR based biomass maps may have over such forest cover change maps.

Figure 1 and Figure 2 should show the maps in larger size, so the reader can see spatial details.

Interactive comment on Biogeosciences Discuss., 8, 8781, 2011.