Hydrology and
Earth System
Sciences
Discussions

Interactive comment on "River ice flux and water velocities along a 600 km long reach of Lena River, Siberia, from satellite stereo" *by* A. Kääb et al.

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We would like to thank the referee for her/his thorough reading of our manuscript, the positive feedback and the careful suggestions for improvements!

REFEREE: - Page 9969, line 25-26: The two papers by Romeiser et al. are based on spaceborne (SRTM and TerraSAR-X), not airborne, along-track InSAR data. Furthermore, I suggest to cite our peer-reviewed TGARS paper on early Elbe river results instead of the IGARSS paper. The reference is as follows: Romeiser, R., S. Suchandt, H. Runge, U. Steinbrecher, and S. Grünler, First analysis of TerraSAR-X along-track InSAR-derived current fields, IEEE Trans. Geosci. and Remote Sensing, 48, 820-829, 2010.

AUTHORS: We should have known and will change in the revised version.

REFEREE: - Page 9972, line 11: "than" should be "as". - Page 9973, line 4: I think "on the 21 August 2011" should be "on 21 August 2011". - Page 9977, lines 10-11: "but the 34 km (5 m) peak also strong" - something is not right with this part of the sentence. - Page 9981, line 21: "used else for Fig. 5" doesn't look like correct English.

AUTHORS: We will repair these language problems for the revised version.

REFEREE: - Fig. 1 is extremely small. It would be good to find a way to make it bigger.

AUTHORS: We fully agree. This is a problem of the default typesetting for HESSD. We envisage this Fig to be an entire column in the portrait format final version. In addition we will split the figure in the middle (at around km 250), so that the two parts will cover two full portrait format columns, i.e. the full page.

REFEREE: - Fig. 6 and 7 are similarly small. For my taste, each row (a,b,c of Fig. 6 and d,e,f of Fig 7) should be shown on a single page, as large as possible.

AUTHORS: Similar to above comment to Fig 1, we envisage that Figs 6 and 7 will fill a full portrait format page each. So, they will be around double the size they have in HESSD. Should this turn out to be not sufficient will we split the figures and enlarge.

REFEREE: - I would like to see additional figures at the beginning that show examples of the moving ice floes in a few analysis windows at full resolution (i.e. pattern in image 1 and in image 2 and derived displacement vectors). This should be shown before the complete resulting velocity field of Fig. 1.

AUTHORS: We acknowledge that such figures will be beneficial for the reader and will include such figures as proposed. I addition we will include animations (flickering between sections of image 1 and 2) as animated GIF in a supplement to the paper.

Again, thanks a lot to the referee!

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