The Cryosphere Discuss., 6, C53–C54, 2012
www.the-cryosphere-discuss.net/6/C53/2012/

The Cryosphere Discussions

Interactive comment on "Remote sensing of sea ice: advances during the DAMOCLES project" *by* G. Heygster et al.

Anonymous Referee #1

Received and published: 26 February 2012

General

The participants of the EU project DAMOCLES have decided to publish their results in a special issue distributed over three different journals of Copernicus (TC, ACP, and OS). This approach has the advantage that the accepted papers will become ISI listed peer reviewed scientific literature. However, unlike as the publication in a project report this requires a standard quality. The editor should not have accepted this manuscript for publication in The Cryosphere Discussion due to formal reasons. This manuscript is neither a usual presentation of primary scientific results nor has it the quality of a scientific review.

My main concern is that the manuscript aims to be a review but includes previously unpublished primary results. It seems that the in situ measurements of snow reflectance,

the sea ice drift from ASAR observations, and the sea ice deformation have not been published before in a peer reviewed journal. Thus, large parts of the manuscript can be regarded as primary scientific work. However, the description lacks certain details and is therefore not sufficient to reproduce the results.

Other parts of the manuscript review previously published results. However, I have found about ten references to gray literature which should be avoided. A review should include a comprehensive state of the art, a description of the problem, and generate new knowledge from the synthesis of primary literature.

Most of the presented primary material is a significant new contribution to the research field and should be published. However, the manuscript in the current form is not suitable for this purpose. I suggest to split the manuscript in at least three parts - 1. microwave remote sensing, 2. snow and sea ice albedo, and 3. sea ice dynamics - and to describe the primary results in more detail.

Specific comment

The permission for the reproduction of figures must be obtained from IEEE and AARI prior to publication in electronic media.

Interactive comment on The Cryosphere Discuss., 6, 37, 2012.