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Interactive comment on "Detailed ice loss pattern in the northern Antarctic Peninsula: widespread decline driven by ice front retreats" *by* T. A. Scambos et al.

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Scambos et al. (2014) present a detailed analysis on changes of ice volume and mass of glaciers on the northern Antarctic Peninsula. This is an important contribution based on careful analysis of satellite data sets, greatly reducing the uncertainties on down-wasting of glaciers in this region. Of particular interest are the spatial patterns of ice loss, showing distinct differences between sub-regions as well as individual glaciers. The work is well presented, including detailed descriptions on data base, methods and results, and an in-depth discussion.

There is just one main point that should be treated more precisely: the specification

of the epoch to which the numbers on volume and mass changes refer. In Table 1 (caption), as well as in other sections of the manuscript, the period 2001 to 2010 is quoted, whereas the satellite data cover different periods, depending on region and sensor (stereo images 2001-2006, 2004-2010, etc. see table S1; ICESat 2003-2008). At least for several of the main glaciers on the Weddell coast large variations in calving velocities were observed during 2001-2010 so that the time span covered by the topographic data matters.

Minor issues:

Regarding the reported losses at elevation >1000 m for the west coast glaciers that are contrasting with ice core data, some details on sampling would be of interest (dates, location of track). According to Fig. 3a it seems that these affect mainly the elevation zone 1200 to 1800 m (slopes?) and turn to positive values above. The same question arises for the trend in elevation dependence of dh/dt, reversing at about 1800 m in Fig. 3b and 3c (in the caption quoted as being not significant).

Page 3248, line 14: Check the sentence "…. suggests that mass balance for the Peninsula is not decreasing signiïňĄcantly at the present time". Suppose "not" should be omitted here.

In the main text and in the supplementary text there a few references to Table S5. Should probably be Table S2 or S3.

Interactive comment on The Cryosphere Discuss., 8, 3237, 2014.

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