

Blechs Schmidt et al (in discussion) have successfully used satellite data, in situ measurements and numerical models to track dust storms from Icelandic dust sources. While CALIOP was used to confirm some of the findings, the authors have reached conclusions about the presence of dust in north western land regions that causes them to ignore CALIOP's data. CALIOP shows the presence of aerosols and in particular dust mixtures in these NW regions of Iceland on the date in question in February. First, we do not agree that it is rational to ignore data in one region because it might be in doubt in another. Secondly, the authors' concerns about the presence of dust are not adequately supported, and are in fact contrary to existing evidence from their Fig 5 and the work of Arnald et al. (2010) which is also cited in this paper.

We defer to the authors' geographic experience with the region and agree that it is feasible that the CALIOP classification of aerosols and subtypes in the north western region may be in doubt, especially in the presence of blowing snow. However, arguments for total lack of dust are not supported by the data presented in this paper. In particular, Figure 5 - the MODIS TERRA true color image, which is one of the main arguments presented for lack of dust, is inconclusive at best, and may in fact show the presence of dust. Here we call your attention to the brown hue of these north western clouds suggesting the presence of dust. The paper should also address the temporal mismatch between the MODIS image (Feb 25) and the date analysed in this paper (Feb 21) for which CALIPSO data is quoted. Furthermore, according to Arnald et al. (2010), most of the dust generated on the land sites towards central and northern regions do deposit in the north west (see Figure 5 of Arnald et al. (2010)). There is considerable deposition and overlap from source regions S4 and S2 to the CALIPSO ground tracks which traverse both of these regions.

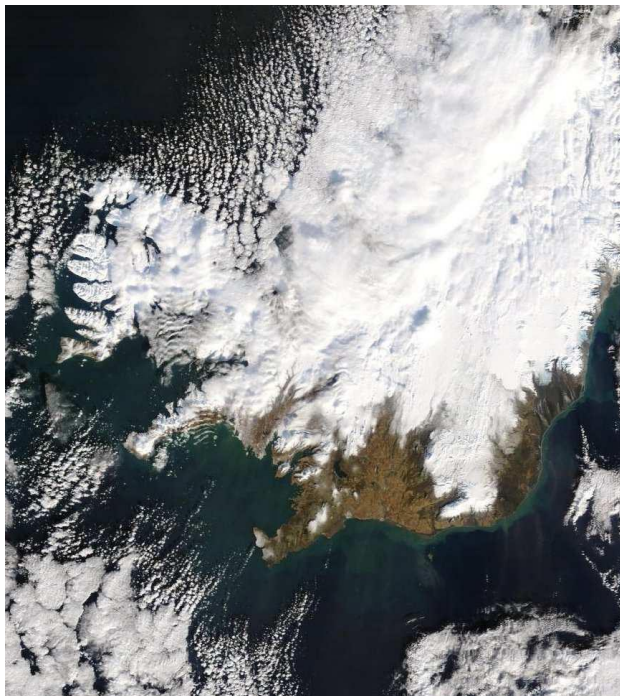


Fig. 5. MODIS Terra true-color satellite image from 25 February 2007 at 13:20 UTC (image courtesy of the NASA/GSFC) from Blechs Schmidt et al. (in discussion)

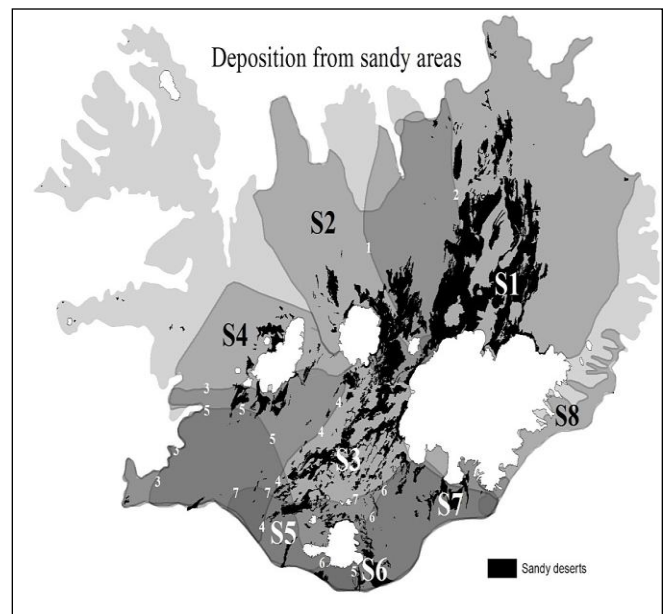


Fig5. Main aeolian deposition areas from sandy deserts. Each of these is discussed in the text. Numbers mark deposition contour lines where deposition areas overlap (Arnald et al. 2010)

In light of these observations, we would like to encourage the authors to present their results along with CALIOP observations where there is agreement with CALIOP and exclude the remark that reads "Hence, we do not present CALIPSO results here, due to concerns about the reliability of the data" as this is not neither helpful nor factual. The CALIPSO team is ready to provide assistance to interpret the data and strengthen the observational basis of this important paper.