Authors response to interactive comment on "Hydrological and meteorological investigations in a periglacial lake catchment near Kangerlussuaq, west Greenland – presentation of a new multi parameter dataset" by E. Johansson et al.

"Anonymous Referee #1"

1. Vegetation height measurements made by the AWS require an additional explanation, as it is unclear from the text how this data can be treated and told apart from snow height.

   Answer: A sonic ranger was mounted on the Automatic weather station (AWS) to register changes in surface level due to the presence of snow. In the summer, the sonic ranger measures vegetation height instead of snow due to the presence of grass and shrubs at the site. The data on vegetation height is not used for any hydrological purposes. The aim with the short sentence about vegetation growth is to clarify that the recorded value of changed surface level during summer is not due to snow but to vegetation growth.

   Changes in manuscript: Section 5.1, page 730, row 18. Updated text: "In the summer, a surface height increase of similar magnitude was recorded; this was due to vegetation growth as could be determined from the low albedo value of 0.16 (Fig. 5c). Accordingly, data from the sonic ranger for the vegetation period (June-September) should not be interpreted as representing a snow cover, and the albedo can be used to distinguish snow from vegetation growth.

2. A GIS layer comprising all location points and transects could be an unobligatory but useful supplement

   Answer: The coordinates for each data point are given in PANGAEA, and each user can easily create a GIS-layer from that information. The projection of geographical data may differ between different users; from the information provided, each user can then transform the given coordinates to their projection of choice. All data in PANGAEA has to be given in lat-long. However, the recommended local projection for the data from TBL is WGS84_UTM22N.

   No changes related to this comment have been made in the revised manuscript.

3. The basin topography and lake bathymetry data, mentioned in the article, are necessary to include in the dataset

   Answer: The topography and lake bathymetry data (i.e the DEM for the whole catchment) is available in PANGAEA but with another DOI representing only geometrical data, http://doi.pangaea.de/10.1594/PANGAEA.845258. A reference to this dataset is now included in the manuscript.

   Changes in manuscript: In section 2, page 718 row 2. The reference to the data is added.

4. Technical corrections: On line 1 of page 718 of the article there are two spelling mistakes in the words "measurements" and "echo sounding"

   Answer: The words are corrected in the updated manuscript.