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Interactive comment on “Brief Communication: Getting Greenland’s glaciers right – a new dataset of all official Greenlandic glacier names” by A. A. Bjørk et al.

H. Jiskoot (Referee)

hester.jiskoot@uleth.ca

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An official and standardized dataset of Greenland glacier names is a welcome resource for the community of glaciologists and fellow geoscientists. This short communication is a first attempt to present such a dataset in an accessible way that can be used and referenced for years to come.

Although I applaud the authors with taking this initiative, I feel the current presentation of the dataset is a little thin for a scientific publication. It reads more like a technical report such as those published by NAA/ Oqaasileriffik (e.g. <http://www.oqaasileriffik.gl/en/resources/publications>). Additionally, the digital and geo-

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graphical accessibility are deficient, and the presented database is static. I suggest the following should be added to improve both the paper and the format and presentation of the database:

A. DATA FORMAT

1) The database should have a electronic spatial component to it: for example a GIS or KML layer (also suggested by A Pope) and/or a direct link to the GLIMS, Randolph or WGMS glacier IDs (see also under 2, and e.g. Weidick et al., 1992; Raup et al., 2007; Pfeffer et al., 2014;). Alternatively, a direct link could be made to e.g. <http://www.nunagis.gl/en/kulturhistorie/19-stednavne/439-stednavne-en?cat=19>, where all official names should occur on the map.

2) To enable better cross-referencing with existing glacier inventories, the database should have a column with one or more of the following glacier IDs: WGI, GLIMS, or Randolph inventory. 3) The database should indicate whether a name refers to a part/outlet of the Greenland ice sheet, or one of the local glaciers: I suggest to add a column for this binary information.

4) It is unclear what criterion was used for the geographic location of the name. Both GLIMS and the Randolph glacier inventory use the centroid location of glaciers for IDs/names, but I assume the names in this manuscript is closer to the glacier margins. In order to be useful the official NAA/GDA lat-lon location for the glacier names should be as close as possible, or ideally correspond exactly, to these glacier inventory ID locations.

5) The supplement list should be available online and updated electronically; else it will become obsolete almost at the time of publication. For example, create a link to a dynamic supplement, e.g. on the NAA/ Oqaasileriffik (<http://www.oqaasileriffik.gl>) or the GDA (<http://eng.gst.dk/>) site.

6) Add the essential metadata (e.g. format info, contact information, version date, link

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to this publication) directly on the Supplement datafile. Also present in an alternative format (e.g. ASCII) that can be directly incorporated into e.g. a GIS or matlab. Be absolutely clear in the header which name is the (most) official.

7) I suggest adding the official name for the Greenland ice sheet (Inlandisen) in the same format as for all other glacier names. Also add this to the manuscript text.

B. PAPER

1) The paper should have more substance: numbers 2-6 include my main suggestions for improvement.

2) The introductory paragraph should already reference essential literature on the place names of Greenland glaciers, as several publications over the years have addressed this issue. Although some essential literature is included (e.g. Higgins, 2010), others are not Weidick, 1995; Rignot & Mougnot, 2012).

3) Whereas the historical changes in Greenland glacier and placenames are unique due to the many different languages used for unofficial names in Greenland and changes in Greenlandic language and spelling over time (Higgins, 2010), almost every glacierized region in the world has similar glacier name issues, in part because of international boundary issues, changes in glacier delineation and fragmentation, and albeit often over longer timespans (e.g. Rott et al., 1993; etc.). Is there a way to put this work into a better global context, e.g. by suggesting good practice from this effort, or pointing out good practice already applied to a particular region (Antarctica, China, Himalayas, Alps?)

4) Make a direct connection to the presently most completed set of Greenland glacier units (Rastner et al., 2012 or Pfeffer et al., 2014). I suggest to add to the abstract and to section 3 'A new dataset of Greenlandic glacier names', the total number (and percentage) of officially named glaciers compared to the total number of glacier units from the Randolph inventory (Pfeffer et al., 2014). Also, indicate how many of the

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names in total are for outlets/regions of the Greenland Ice, and how many are for the local glaciers.

5) The map in Figure 1 is not very informative. Look for example at Figure 2 of Rignot & Mouginot (2012), and see if it possible to scale up your map and show the exact locations and official names of the 100 largest/most-studied glaciers on the map. Alternatively, link to the electronic databases as suggested in A1, and show a full map with names for a spatial subsection.

6) The use of the English language is variable throughout the manuscript, and much of the text is repetitive and could be shortened. I suggest having it checked and improved by a proficient native speaker.

SPECIFIC MINOR COMMENTS:

P1594

Abstract: needs to be rewritten and phrased in an active and direct manner, and contain more concrete information.

L6-22. The writing in this section is vague and could be shortened to half, and yet enriched with references and put into a more global/general context. See also B1-2 above.

L15: Instead of the colloquial ‘their favorite’ I suggest rephrasing as ‘intensively studied and unofficially-named’

L23: Here, for example, the sentence should be changed to ‘was given’.

P1595

L2-3: Add the URLs for both authorities (NAA and GDA).

P1597

L4: Can you explain some of the procedures for erasing double entries, and replacing

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misplaced data points?

L8: glacier names

L17: “or has been discarded in the past”: by whom and can you give an example?

P1597

L1-12: I think rather than taking a passive role and waiting for glacier names to be recommended by the glaciology community, the NAA could take a more active role and extract some of the names from the seminal publications, including some of the references given below (in particular Weidick’s 1992 / 1995 papers; Rignot & Mouginot, 2012), as well as by incorporating recent glacier inventories (Rastner et al., 2012; Pfeffer et al., 2014).

L19: Please give a URL or email address (perhaps one of the co-authors offices) for further enquiries or for feedback when finding mistakes.

Table 1:

- Neither in the supplement data nor in this table do I see unique database IDs. Am I missing something?

- I am not sure, but I think the choice of the UTM notation needs to be better justified. I understand that you are using UTM zone 24. Add N-North for clarity. I have two questions about the negative eastings: 1) Plotting negative numbers for locations that are outside this UTM zone will only project properly when within 20 degrees of the centroid of the UTM zone for which the projection is defined: outside that contortions will occur. Did the authors consider this? 2) Negative easting can cause plotting problems in certain programs. This can be solved by either assigning an arbitrary number to the centroid, or by notating each zone in full (add a specific UTM zone column) with the corresponding zone easting and northing for each location. I suggest the second choice be implemented.

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