

Interactive comment on “NORPERM, the Norwegian Permafrost Database – a TSP NORWAY IPY legacy” by H. Juliussen et al.

Anonymous Referee #2

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Comments on “NORPERM, the Norwegian Permafrost Database – a TSP NORWAY IPY legacy” by Juliussen et al.

The paper by Juliussen et al. provides a good description and overview of the Norwegian Permafrost Database development and also the monitoring network which provides the data and information for the database. The paper would be of interest to readers of the journal and those involved in development of environmental databases. The paper is acceptable for publication with a few minor revisions that are outlined below.

Some of the terminology (pg. 32 1st paragraph for eg.) utilized is a bit confusing and perhaps differs from that that might be used by others. I would suggest that the term study region be utilized instead of permafrost areas to avoid confusion with the per-

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mafrost zones (continuous, discontinuous etc). The term observatory should probably be used for individual monitoring sites (probably equivalent to what the authors now call Permafrost Areas) rather than these broad regions which perhaps are administrative/political units covering several hundred square km. Additional comments are provided below.

Specific Comments

Pg 29 Line 14 – It isn't so much the number of sites that is the issue but rather the uneven distribution of sites and the large areas that are not represented.

Line 24 – This ancillary data are not collect at all sites. It would be better to say that at some sites additional data such as air temperature, snow depth, etc. are also collected.

Line 27-28 – suggested revision “The objective is to maintain observatories after IPY...”

Pg 30 Line 1-3 – SAON is more of a process rather than an observation program

Line 10-13 – The intention of GTN-P (including both TSP and CALM components) and its associated web site was never to be an archive for all data that may be collected at the monitoring sites. It was only meant to provide key summary data and is fulfilling the criteria it was meant to fill. The data archives are the responsibility of national agencies etc. and some of this is handled by the National Snow and Ice Data Centre.

Pg 31 Line 19 – Are you referring to the discontinuous-continuous permafrost transition or the southern boundary of permafrost?

Pg 32 Line 11 – Do you mean 16 sites within these larger study areas?

Line 21 – The subtitle should perhaps be “Borehole Instrumentation”. Reference to IPY ground thermal instrumentation implies that these monitoring sites are only operational for a short period when in fact the intention is to operate them for several years.

Line 22 – suggested revision “. . .include continuous monitoring of ground. . .”

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Line 23-24 – Are you referring to temperature measurements in air, snow and ground surface etc.?

Pg 33 Line 2 – instrumented with permanent temperature cables?

Line 14-17 – It is unclear why the total length of boreholes is relevant. The distribution of boreholes and how well this represents the various conditions in a region as well as the depth of individual boreholes (especially if they allow measurements below level of seasonal variation) would seem to be more important. One 570 m borehole is not equivalent to 10 boreholes each approx. 50 m deep and distributed to represent the terrain and climate conditions in a region.

Line 19-20 – PYRN needs to be defined (program should probably be described). How deep are the holes?

Pg 33 line 24- Pg 34 line 3 – Is this description of instrumentation applicable to all boreholes or just the PYRN boreholes?

Pg 34 line 28-29 – Repeating information presented earlier?

Pg 35 Line 3 – Basal Temperature rather than Bottom Temperature?

Line 23 – Suggested revision “Prior to this, all data on permafrost temperature were stored only locally by individual scientists.”

Pg 36 Line 2 – suggested revision “. . . Norwegian ground temperature database.”

Line 8 – suggested revision “. . . with identification of the data types..?”

Line 15 -16 – Using language that is future tense, but hasn't this already been done?

Line 17-18 – suggested revision “Important criteria had to be defined and a suitable database structure developed.?”

pg 37 Line 4-5 – suggested revision “. . . the database is able to contain data from throughout the Norwegian Kingdom.”

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Pg 40 line 8 – It is unclear why metadata would need to be reported annually. Do you mean the reporting of summary data?

Interactive comment on Earth Syst. Sci. Data Discuss., 3, 27, 2010.

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