ESSDD 5, 29-45, 2012
A 18-yr long (1993-2011_ snow and meteorological dataset from a mid-altitude mountain site (Col de Porte, France, 1325 m alt.) for driving and evaluating snowpack models.
Morin et al.

General Comments:
The authors present an impressive dataset for hydrologic modeling with particular emphasis on the snow season. The manuscript needs to be cleaned up in several areas but overall is presented well. The paper should be returned to the authors for minor edits.

Occasions where there is conflicting data or multiple sources for the same element must be clarified for the reader to understand the data source.

Consider using snowcover in place of snowpack

A mixture of data sources is a common theme in the document. When this occurs, please clarify which sensor is used to generate the data provided. Snow surface temperature is an example of this.

There are a few sections that need more references to support claims (see below for specifics).

Specific comments:
Define what is meant by evaluation data early in the manuscript for clarity.
Page 33, line 1-3: Providing dates of gap-filled data for the in-situ data for each year would be beneficial.
Page 33, line 16-19: More details on what is provided are needed. The reader is left wondering.
Page 33, line 23: consists in should be consists of
Page 34, line 1: Need references to back up "countless experiments"
Page 34, line 12: Add a reference to the uncertainty calculation.
Page 34, line 24-28: References needed here that support the use of air temperature versus dew point or wet bulb.
Page 36, line 20: clarify what is meant by "simultaneous snowfall" simultaneous with what?
Page 37: Clarify how these small lysimeters relate to contributing area of the melting snow cover that is characterized by all of this data. As a person unfamiliar with the site, this is not well explained in the manuscript and needs clarification.

Technical corrections:
Title: "An 18-year…" not "A 18-years…"

Abstract
Page 32
Line 6 "consist in measurements" should be consist of measurements
Line 14: internal snowpack " information are" information is singular

Line 18: “in developing snowpack model” should be plural

Line 24: Missing transition phrase from models to able to handle the inception…
Line 25: reword “consist in”
Line 26: reword “consist in”
Line 24-27: Reword this entire phrase. As it is written, doesn’t make sense.
Line 27: data-set or dataset- without the hyphen is preferred. Be consistent, the title uses dataset.

Page 31
Line 3: precise estimate is an oxymoron and should be avoided.
Line 21: “at most” seems unnecessary.
Line 22: Give brief but more detail about this building…location, height, to answer how it influences measured values. Reference figure 1 after the first sentence not the second.

Page 32
Line 17: I think you mean to use “assurance” not “ insurance”
Line 23: data are used

Page 34
Line 20: Consider using 1999-2000 snow season instead of snow season 1999-2000.
Line 20: Expand on the correction factor…this is unclear and has potential for changing driving data.

Page 35
Line 11: Write out approximately instead of using “ca.”
Line 19: “thus on” not “on thus”

Page 36
Line 11: consists in should be consist of
Line 14: terme should be termed
Line 25: “shades” should be “shading”

Page 37
Line 1: snow surface temperature should be the title of this section to consistency.
Line 5: “cleansing” should be “cleaning”
Line 6: Consider using instantaneous instead of punctual.
Line 8: The period after 1 should be removed.

Page 38
Line 1: “below the ground surface” is more accurate than “below ground”
Line 12: Reword “lies within”
Line 16: Write out approximately instead of using “ca.”

Page 39

There are several long sentences in the conclusions section that should be broken up for ease of reading.

Table 1. The … used in the table is odd. Use the actual years for .. and “whole record”.