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Interactive comment on "Preliminary estimation of black carbon deposition from Nepal Climate Observatory-Pyramid data and its possible impact on snow albedo changes over Himalayan glaciers during the pre-monsoon season" by T. J. Yasunari et al.

## **Anonymous Referee #1**

Received and published: 27 May 2010

The paper "Preliminary estimation of black carbon deposition from Nepal climate observatory-Pyramid data and its possible impact on snow albedo changes over Himalayan glaciers during the pre-monsoon season", co-authored by T. J. Yasunari, P. Bonasoni, P. Laj, K. Fujita, E. Vuillermoz, A. Marinoni, P. Cristofanelli, R.Duchi, G. Tartari, and K. –M. Lau, was reviewed finished. I have the following comments.

Major comments The work used the atmospheric BC and meteorological data at a high-

C3240

elevated site on the south of the Himalayas to estimate BC deposition and its impact on the surrounding glacier's albedo and runoff. This is a bold try to research BC and its climate effects after its deposition in snow and ice, and provide a new method to understand the relationship between atmospheric particles and their deposits in snow, and would be useful for the future modeling. From this point of view, this work is worthy being published in the ACP journal after some minor revisions.

English presentation should be improved greatly.

Minor comments 1) P9291, The title of the paper is too long and should be shortened. 2) P9293, the abstract. Line 6, "We estimated..." and line 11 "We also estimated...", should be expressed as passive tense, which could be better. Line 21, "at similar altitude" should be "at the similar altitudes". 3) P9295, line 3, "are few" should be changed to "are less". Line 14-15, the briefs SHARE and ABC and their complete expressions should be changed in places where they first appeared in the text. Put the brief in the parenthesis in the first time as uniformed with the whole text. 4) P9307, line 4-7, "Finally, Hansen and ... old snow (Int/Old)". If change this expression to a table, that would be more concise. Line 14, delete "approximately". 5) P9310, the second paragraph, this paragraph of text should be shortened, because many sentences in this paragraph are out of the discussion. 6) P9310, Conclusions. The conclusion should be shortened and more concise. The last half of the first paragraph and the second paragraph are still like in discussion, other than conclusion. 7) P9328, Fig.8 is not necessary, since this work had not its own data, but cited from a reference.

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