General comments

This manuscript presents a detailed description of the station setup in Gual Pahari, India and provides 1st year preliminary results from the aerosol in-situ measurements. The instrumentation seems to be properly maintained and the data coverage issue is clearly addressed in the data analysis. Such long-term measurements provide useful information to address the climate effects of elevated aerosol pollution in India. I recommend publication after the authors have considered some comments listed below.

The calibrations are of great importance, e.g., to avoid drifting, especially for such long-term measurement. Unfortunately, I am sure what kinds of calibration measures have been taken in this work. Please specify your QA\QC criteria and uncertainties of the data.

Specific comments

1. p 9018, l16: where were the inlets mounted?

2. p 9018, l21-24: please give the instrument model, e.g., " …TSI (APS 3321…) etc"

3. p 9021, l15: it is not clear how the trajectory sector occurrences were calculated.

4. p 9023. sect 3.2.2. In the new particle formation events, the particles rapidly grew up to 100 nm, which is similar to the case in Beijing (Wiedensohler et al., 2009) and quite different (much larger) with NPF events in other places. So besides the number concentrations in the modes, their geometric mean diameter would also be an interesting parameter.

5. p 9029, l7: ".. the peak occurred during anthropogenic activity times ..", please specify the anthropogenic activity times and show the diurnal pattern of the BC fraction before making such conclusions.

6. p 9030, l3: The dilution influences the diurnal variation but it is not a removal process. The effects of dry deposition should be addressed instead.

7. As a paper showing preliminary results, tables could be more attractive for readers than figures. I recommend adding more tables in the paper.

Technical corrections

8. p 9016, l33: remove on the, "… the The ..."
9. p 9017, l3: To correct the referee 1#'s comments, according to a recent UNEP report, it is called the "atmospheric" brown cloud rather than "Asian" brown cloud (www.unep.org/pdf/ABCSummaryFinal.pdf)
10. p 9018, l10-11: please check the location of the site, "40 km south of New Delhi… 40 km north of the station ", I looked at the site by google earth and found different numbers for both distance.
11. p 9029, l10: "2002a, b) ." the period is missing.
12. p 9036: fig.2. The font in the label should be consistent, the "C" in "Temperature, C" and

"m/s" in "Wind speed, m/s" should be in italic. The "C" should be "^{o}C"

13. p 9043: fig.9. on the right axis, "km" should be in italic
14. p 9044: fig. 10. the unit (maybe ug cm^{-3}) is missing.

Ref:

Wiedensohler, A., et al. (2009), Rapid aerosol particle growth and increase of cloud condensation nucleus activity by secondary aerosol formation and condensation: A case study for regional air pollution in northeastern China, J. Geophys. Res., 114, D00G08, doi:10.1029/2008JD010884.