**Atmospheric
Chemistry
and Physics
Discussions**

Interactive comment on "Source attribution of Bornean air masses by back trajectory analysis during the OP3 project" *by* N. H. Robinson et al.

Anonymous Referee #2

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This paper presents a detailed account of the chemical composition of air in relation to air mass back-trajectories over Borneo. It is generally well-written and clear, however there was little discussion of uncertainties in other than general terms. There are several relatively minor comments which should be addressed prior to final publication.

1: p 15165 line 24. Do the authors mean the 'last' 36 h, i.e. those closest to the measurement site? Reword to avoid ambiguity.

2: p 15167 line 10. Is this the percentage of all trajectories calculated? line 13: is this an appropriate statistic for data which are (probably) not normally distributed? would it be more robust to use a non-parametric measure?

3: p 15171 line 29. Check spelling 'Sumatera'

C6308

4: p 15173 line 10. ...algae which have been shown...

5: line 16. Not clear - less separation between terrestrial and marine trajectories presumbaly implies potential sources from both terrestrial and marine, rather than 'relatively weak on-island sources'.

line 26. ...known to comprise oil palm....

6: p 15185 line 12. not clear - presumably the HCl displaced from sea salt is measured by AMS as ammonium chloride, rather than the aqueous sodium nitrate being more easily detected (than what?)

7: to address issues of uncertainties, which are not sufficiently covered in text, I suggest showing statistically significant differences between Marine and Terrestrial data in Table 4, using ANOVA or similar approaches. A non-parametric approach may be appropriate. Statistically significant differences could be designated by an asterisk for 5% probability level, for example.

Table 4: CO data are reported to too many significant figures - 3 are sufficient