Co-Editor Decision: Publish subject to technical corrections (11 Oct 2016) by Eliza Harris

Comments to the Author:

- Abstract L3: spell out numbers under 10 ie. three aircraft and seven ozonesonde... (throughout manuscript, except dates and table/fig crossreferences)

done

- Figure 1: Are these different flight tracks? Can you make each different flight a different colour or different shade of blue?

Done (color for each aircraft)

- Figure 2: Plot the altitudes as the correct values (not scaled by 50/100) on the right hand y axis please, instead of scaled and bunched with O3 on the left hand axis!

Done

- Figures 3 and 4: Reviewer 2 suggested a difference plot between measurements and model. The authors believe that the information in Table 5 is sufficient. I would tend to agree with the reviewer; a full 2D latitudinal difference plot may not be necessary, as it will emphasise spatial differences only as mentioned by the authors, but some visual representation of match/mismatch would be very useful. Can you plot altitude profiles at different latitudes to compare or something else, that will visually show the main points of agreement/disagreement?

We finally decided to include the altitude/latitude relative difference plot (now called Fig. 5) as suggested by the reviewer 2 and the editor. The discussion of the modeled versus measured ozone comparision in section 4 is slightly updated to include the discussion of this figure (p. 9 line 11-12)

- Page 6 L4: space between Table 3 - check this throughout, there are several locations with no space between Fig. and Table and the following number.

Done

- Figure 7 and 9 (now 8 and 10), y axis label: "km" not "Km"

Done

- Figure 10 (now 11): It is hard to compare. Can you rotate the MODIS view so the map of Canada has the same orientation as the forest fire counts? Similarly for Figure 11 and 12 (now 12 and 13).

We did not rotate the maps because we cannot do it with our plotting routine. Since it is not a strong requirement figures 11 to 13 are unchanged.