

Dear Taku Umezawa,

Thank-you for the work that you and your co-authors have undertaken to address the reviewers comments on your manuscript. Overall I think you have answered the concerns sufficiently. In reading the manuscript again, I would like to recommend the following technical corrections. The page and line numbers refer to the version of the manuscript which shows the tracked changes.

P1, line 20: You appear to have misunderstood the correction requested by reviewer 1 and have deleted 'the' earlier in the sentence than was required. The sentence should read '... observed in the vertical profiles of CO₂ over the Pacific Rim of continental East Asia.'

P1, line 23: delete 'the' in two places so that the sentence reads '...over the northwestern Pacific comes from continental East Asian emissions in spring, ...'

P1, line 25: add 'a' before 'distinct imprint'

P4, line 7: delete 'the' before 'North America'

P7 line 21 onwards. Reviewer 1 has suggested the location of airports near cities as one explanation for the difference between the Asian profiles in summer compared to those from North America, and your additional paragraph discussing this is useful. I wonder whether it would also be appropriate to mention here that coastal/inland differences may also be important. I think most of the North American sites are inland, and are consistent with the features you see at DEL which is also inland. The other Asian sites are coastal, and may be influenced by sea-breezes in summer which could also reduce the signal from biospheric uptake.

Regards,

Rachel Law, rachel.law@csiro.au