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7, C267–C269, 2014

Interactive Comment

Interactive comment on "ObsPack: a framework for the preparation, delivery, and attribution of atmospheric greenhouse gas data" *by* K. A. Masarie et al.

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1) The reviewer acknowledges the challenge of data selection. It is true that selection strategies vary among measurement laboratories, but it is our opinion that data selection goals among labs are similar, i.e., to identify and communicate as clearly as possible what each measurement of air represents. Since selection of an atmospheric measurement record is a research question which typically results in publication, a reference to published literature will provide the most thorough description. However if measurement PIs can develop a communication protocol that adheres to ISO metadata standards and represents their selection outcome in an abbreviated, concise, and

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clear way, it will add considerable value to any data product. We believe it is a goal worth pursuing.

2) The reviewer proposes introducing a new variable into the ObsPack framework based on model results, specifically, identifying values that have been rejected by an assimilation system. Such a strategy was considered during development of the ObsPack framework. Modeling studies including assimilations and footprint analysis are active areas of research and have their own sources of uncertainty. While such information will likely be quite valuable to users and providers alike, we believe results derived from using a data product should not be included in the data product itself. To address this need, however, we are considering the introduction of an ObsPack "blog" where users and contributors can share experiences, concerns, and caveats of using specific ObsPack products.

It is worth noting that some CarbonTracker PIs also share the reviewer's opinion that relating a subset of model output to the assimilated ObsPack data products would be beneficial. A subset of results from the recent CarbonTracker (North America) update (CT2013) has been distributed using the ObsPack framework as a "model" product. This value-added product includes the actual data used in the assimilation (derived from several ObsPack data products) as well as modeled "data" coincident with actual data, model-data mismatch assignments, and identification of actual data rejected by the assimilation procedure.

3) The reviewer raises an important point regarding use of DOIs. While we have given this considerable thought (which includes concepts suggested by the reviewer), we recognize that our strategy will likely evolve in time. We describe our current strategy, but at the same time, recognize that use of DOIs with data streams and products is a relatively new capability and there continues to be considerable discussion on conditions for which new DOIs should be minted. We fully expect that guidelines for best practices will be forthcoming by those directly involved in the development and administration of this work (e.g., DataCite, data centers, and data producers). In the meantime,

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our strategy is inherently flexible so that we can readily adapt once standards become available.

* The revised manuscript is included as a supplemental PDF.

Please also note the supplement to this comment:
http://www.earth-syst-sci-data-discuss.net/7/C267/2014/essdd-7-C267-2014-supplement.pdf

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Interactive comment on Earth Syst. Sci. Data Discuss., 7, 495, 2014.