

**Reviewer response: A comparison of very short-lived halocarbons (VSLs) and DMS aircraft measurements in the Tropical West Pacific from CAST, ATTREX and CONTRAST by Andrews et al.
AMTD doi:10.5194/amt-2016-94**

This is a well thought out and concisely written paper that I recommend by published with minor corrections.

(1) There is no standard intercomparison for DMS (Fig. 2 etc.) – this should at least be discussed. DMS was also only compared between two instruments. Compared to the extent of halocarbon data in this paper it is harder to draw conclusions on a comparison of DMS measurements between groups. I feel this paper needs to be clearer in the Abstract/Intro that DMS is a ‘sideline’ measurement in this paper, compared to the halocarbons.

(2) I feel the authors could improve the colour selections in Figs. 3-5. It is difficult to distinguish between the blues/purples (e.g. Fig. 4) and a red/green combination can also cause problems.

(3) Why was the UofY in-situ-GCMS not included in the intercomparison (Fig. 2)? This should be discussed.

(4) The authors do a good job of defining each measurement and associating it an acronym that is used throughout the paper. However, I feel the introduction to these acronyms needs some tidying up. On p.3 line 22 the acronyms ‘AWAS’, ‘WAS’ and ‘in-situ-GCMS’ are introduced but without explanation. A few lines later (p.4, line 4) the abbreviation ‘UoY’ is introduced without being explained in full (if one considers the abstract separately).

It may be worth having a table at the start of the method section that out all the information, e.g.:

Platform	Institution (abbreviation)	Instrument	Instrument description	Sampling altitude range	Number of samples used
UK FAAM BAe 146	University of York (UoY)	In-situ GCMS	Section 2.2.2		
...	...	Whole Air Sampler – WAS	Section 2.2.1		
...	...	AWAS			158

(5) Page 5, line 1 – ‘atmospherically relevant concentration’ – can you provide specifics? You mention the benefits of using a calibration gas at ambient concentration ranges (e.g. p.7, line 26) so it would be helpful to give the concentration in all of the standards used by the groups involved in this comparison and how that compares to the ambient concentration range.

(6) You mention that water built up in the long sampling lines to the WAS canisters pre-flight (p.8, line 30) but also that this was removed pre-flight (p.8, line 25) – so what is the relevance of the water? Are you suggesting water remained in the line and contributed to losses? Or, as the water was removed, are there other aspects of the sampling line that may have led to losses? If it is water, can this not be tested with your data? For example, does the discrepancy increase over flight time – which would suggest something building up in the sampling line over time.

(7) Finally, there are a few typesetting issues. For example a lack of a space between multiple references (e.g. p.2, line 10) and a lack of capital letters when referring to specific tables/figures (e.g. p.8, line 9). However, I imagine these will be ironed out during processing and proofing for publication.