

Interactive comment on “MIPAS-STR measurements in the arctic UTLS in winter/spring 2010: instrument characterization, retrieval and validation” by W. Woiwode et al.

Anonymous Referee #2

Received and published: 2 March 2012

This paper presents an overview of the measurements from the MIPAS-STR instrument on board the M55 Geophysica aircraft during the RECONCILE campaign. Validation is performed against colocated in situ measurements and CRISTA-NF measurements. The content of this paper is suitable for publication in AMT.

General:

Figures: Ensure that all the figures are legible when printed out at the actual page size.

P7062/P12-17: The issue of not scanning above the flight path seems rather important and I would have expected to see a detailed simulation of a case where there is

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considerable overlaying stratospheric O₃ above the measurement scan and its effect on the retrieved O₃ below. This is listed as a 'secondary error' in section 5.5 but no convincing argument is given as to why this effect can be ignored.

Minor corrections and typos:

{text} add the text in brackets

/text/ delete the text between slashes

P7037/L3: RECONCILE => expand the acronym

P7037/L3: Arctic

P7037/L24: Considering for => Taking into consideration

P7038/L18 (and many other instances throughout the paper): 'ballon-borne' => 'balloon-borne'

P7038/L24: APE-GAIA => expand the acronym

P7038/L26: inconsistent use of ENIVSAT/Envisat (P7040/L23)

P7038/L28: MARSCHALS => expand the acronym

P7040/L24: and in a certain extend also to => and to a certain extent to the

P7041/L12: /,respectively/

P7041/L13: is entering => enters

P7042/L10: 10-states => 10-state

P7042/P11: low data age => low latency

P7043/P6: deep space => cold space

P7045/L19: sweep => sweeps

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P7046/L5: higher artefacts => higher order artefacts
P7046/L21: are resulting => result
P7048/L2 (and many other instances throughout the paper): suggest {flight part} is replaced with {flight segment} or {flight section}
P7048/L21: are containing => contain
P7048/L23: to obtain finally => to obtain final
P7049/L25: CRISTA was already defined
P7050/L18: from {the} north-west
P7050/L19: well coinciding => coinciding well
P7050/L20: Figs 7 to 8 => Figs 7 and 8
P7050/L22 (and many other instances throughout the paper): time should be followed by UTC, i.e. 10:30 UTC
P7050/L24: Atlantic western coast
P7050/L25: Voight profile
P7053/L15: which are not or inaccurately => which are omitted or inaccurately
P7055/L1: whereas => consequently
P7057/L23: origin => origins
P7059/L1: adjusted {to be} as
P7059/L8 (and many other instances throughout the paper): suited => suitable
P7049/L12: number independent => number-independent
P7059/L17: additional => an additional

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P7060/L19: are resulting => result
P7060/L25: referred => referred to
P7061/L23: other /side/ {hand}, to {a}
P7062/L2: along {the} flight
P7062/L17: extend => extent
P7063/L23: are scattering well around => are scattered around
P7063/L29: found => retrieved
P7064/L10: of to => in
P7064/L19: whereas => where
P7065/L1: whereas => where
P7065/L2: are resulting => result
P7065/L22: While e.g. => For example, while
P7067/L5: except that
P7067/L8: shown result => result shown
P7067/L11: in the context
P7067/L29: shown profile => profile shown
P7068/L2: are varying => vary
P7068/L4: dominating => dominant
P7068/L23: air volume
P7069/L7: along {the} flight track
P7070/L1: /also/ profiles are {also} shown

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P7070/L8: as {the} initial

P7071/L13: which are not or inaccurately => which are omitted or inaccurately

P7075/L20: are resulting => do result

P7077/L29: Arctic ... in /the/ early /year/ 2010

Interactive comment on Atmos. Meas. Tech. Discuss., 4, 7035, 2011.