

## ***Interactive comment on “Inferring the zonal distribution of measured changes in the meridional overturning circulation” by A. M. de Boer and H. L. Johnson***

**Anonymous Referee #2**

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I have read the manuscript “Inferring the zonal distribution of measured changes in the meridional overturning circulation” by de Boer and Johnson. Content of this article can be summarized in one sentence: The Sverdrup interior flux is determined by the wind stress, which did not change much over the last 50 years, and therefore variability in the MOC is due to the variability in the nonlinear region of the western Atlantic. I am not sure that it is worth to publish a paper just to make only one comment, but there is nothing wrong with this claim – there is just not enough observational evidence to refute or support it. Probably there is an element of truth in the author’s considerations. However, given a number of very strong assumptions, such as the level of no motion at a fixed depth below the upper layer, their arguments are not particularly convinc-

ing. No attempt was made to quantify the errors in the analysis due to the simplifying assumptions.

Since we are considering a publication in a web based journal, which I guess is an equivalent of the internet chat room for scientists, I see no harm in posting this paper. I would mention though that deriving the Sverdrup theory is certainly not appropriate for an article – we are all supposed to know it from our first course in physical oceanography.

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Interactive comment on Ocean Sci. Discuss., 3, 1653, 2006.

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