

## ***Interactive comment on “Characteristics of Monsoon inversions over Arabian Sea observed by satellite sounder and reanalysis data sets” by Sanjeev Dwivedi et al.***

### **Anonymous Referee #2**

Received and published: 21 December 2015

#### General comment

This is a well-written and thorough study of the characteristics of monsoon inversions over the Arabian Sea. The authors make use of a range of remote-sensing measurements validated against available in situ observations and some reanalysis products. I have only a few minor corrections/clarifications before this paper is suitable for publication.

#### Specific comments

Page 35288 lines 14-15: "...somewhat varying strengths..." - and heights, at least of the inversion base, though the top height is quite consistent.

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Page 35290 lines 4-11: You should also mention the low level vertical wind shear which is prevalent in this region, particularly near the coast.

Fig. 3 - is this a percentage of DAYS with a MI present or a percentage of the profiles measured that had a MI? Please specify in the figure caption.

Page 35294 lines 8-9: How do you reach the conclusion that IASI "performs better" than AIRS? I can't see how you judge this from the information you have provided. Please clarify.

#### Technical corrections

Page 35293 line 11: "...less value of..." replace with "a lower value of"

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Interactive comment on Atmos. Chem. Phys. Discuss., 15, 35277, 2015.