

## ***Interactive comment on “Singular vector based targeted observations of chemical constituents: description and first application of the EURAD-IM-SVA” by N. Goris and H. Elbern***

### **Anonymous Referee #1**

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The paper demonstrated singular vector analysis using EURAD-IM-SVA based on ZEPTEP-2 campaign measurements. It provided sufficient description of the system and results are well presented.

While the paper focus on the leading singular value and its corresponding singular vector, it is worthwhile to present the other singular vectors since the second largest singular value can be very close to the first one.

There are quite many papers on the optimal positioning of the observations or the adaptive observations. The authors should add more of those previous work to their paper.

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Specific:

p6271, line 9: initial uncertainties -> initial concentration uncertainties

p6282, line 5: SO<sub>2</sub>O<sub>3</sub> -> SO<sub>2</sub>, O<sub>3</sub>

p6292, Equation A3: Indices "i,j" should appear at LHS as well to be consistent with Equation A1.

p6298, Table 2: Please remove the last two digits from the heights.

p6300, Figure 1: The units of the emission source strength indicate that the emissions are dependent on the height of the first layer. It is better to be converted them to flux types.

p6303, Figure 4: The position of the two panels are inconsistent with text (p6284 line 8).

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Interactive comment on Geosci. Model Dev. Discuss., 8, 6267, 2015.

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