

## ***Interactive comment on “An automatic contrail tracking algorithm” by M. Vazquez-Navarro et al.***

**M. Vazquez-Navarro et al.**

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We thank Reviewer 1 for their useful remarks and comments. We have considered all the technical comments on typos and figure numbering mistakes.

We considered the proposed changes in the references list and included the citations in the text.

On the "temporal resolution" comment: the temporal resolution used in ACTA is 5 minutes, it corresponds to a special SEVIRI mode called "Rapid Scan Services (RSS)". The nominal SEVIRI temporal resolution is 15 minutes. Figure 8 presents three images 25 minutes apart only as an example. With the 5 minutes timestep almost no differences would be seen from one image to the next.

On the "minimum length threshold" comment: 47 MODIS pixels is the distance be-

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tween both ends of the contrail. 19 MODIS pixels is the minimum number of pixels that must provide a positive answer for the algorithm to accept the structure as contrail. Therefore, it may not be a connected structure, similar to a dashed line.

We also thank the reviewer for the very helpful suggestions about how to emphasize the usefulness of ACTA. As ACTA relies on the Rapid Scan Service of Meteosat-SEVIRI, it can only be applied to the limited region observed by Meteosat-8 in this mode (which excludes Southeast Asia). The main goal of ACTA is to study life-cycle aspects of contrails, a full detection of all contrails and contrail cirrus is not possible, as the first detection of contrails is limited to the overpass times of the polar orbiting satellites with their higher spatial resolution data. The remarks have been considered and entered in a rephrasing of the "Conclusions".

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