

Interactive comment on “Ground-based observations for the validation of contrails and cirrus detection in satellite imagery” by H. Mannstein et al.

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General comments

We thank Anonymous Referee # 2 for his numerous comments that will definitely clarify the objective of the paper.

Specific comments

Introduction and Conclusions have been adjusted in order to give a clearer illustration of objectives, methods and results.

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Page 3188, line 8: The procedure for Wolkam data re-mapping has been briefly described.

Page 3191, line 27: The main principles of the CDA have been briefly described.

Page 3192, line 19: The procedure for AVHRR data re-mapping has been briefly described.

Page 3192, line 27 – page 3193, line 13: A new paragraph has been added named “3.4 Contrail width”.

Page 3193, Section 3.3 SEVIRI vs. Wolkam: The reason why the CDA adapted to MSG/SEVIRI has been applied to May 2007 “only” whereas MeCiDA was applied to the whole six month period data set is explained.

Page 3193, line 21: The brightness temperature difference applied in this study is really that between SEVIRI channel 7 (centred at $8.7 \mu\text{m}$) and channel 10 (centred at $12.0 \mu\text{m}$). The reason is explained in the text.

Page 3193, line 21: Four SEVIRI channels are used for the false colour composites. The Red and Green channels are a mixture of channel 1 plus channel 12 and channel 2 plus channel 12 respectively, where channel 12 is the High Resolution Visible channel of SEVIRI. This enables us to partly increase the resolution of the resulting pictures. The Blue colour only contains low resolution information from SEVIRI channel 10.

Page 3194, line 3: The main operating principles of MeCiDA are explained.

A **table** showing the numbers of the respective data sets for each sensor and algorithm used in the study has been added.

Page 3195, line 8: The weather situation has been specified.

Page 3201, line 18 – 23: The work of Bakan et al. (1994) has been better incorporated into the manuscript. The method of Bakan et al. (1994) is not applied to the current data set, we only give a rough estimation about the detection efficiency of the work of

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Bakan et al. (1994) based on our results.

Technical corrections

The language has been revised.

Interactive comment on Atmos. Meas. Tech. Discuss., 2, 3183, 2009.

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