

# EGS Abstract for The Hague, 1999

## AUTOMATED CONTRAIL DETECTION FROM AVHRR DATA

**H. Mannstein** and R. Meyer

Deutsches Zentrum für Luft- und Raumfahrt e.V., Institut für Physik der Atmosphäre, Oberpfaffenhofen, D-82234 Weßling.

Hermann.Mannstein@dlr.de/Fax: ++49-8153-28-1841

We describe a fully automated scheme that allows for the detection of contrails using the infrared channels of the Advanced Very High Resolution Radiometer (AVHRR).

The presented algorithm is adjusted to have a low rate of misdetection in spite of the low contrail detection efficiency resulting of this tuning. We derive a time-series and regional patterns of contrail cloudiness over Central and Western Europe. Daily analysis of noon scenes in 1996 indicates that the average of daytime contrail coverage over Central Europe was  $0.5\% \pm 0.25\%$  with regional maxima of  $1.2\%$ . Further results from the ongoing analysis of 10 years of archived AVHRR HRPT data will be presented.

**Abstracts to be submitted on or before December 15, 1998 to**

EGS Office  
Max-Planck-Str. 13  
37191 Katlenburg-Lindau  
Germany

Tel.: [+49] 5556-1440  
Fax.: [+49] 5556-4709  
Email: EGS@Copernicus.org  
<http://www.copernicus.org/EGS/EGS.html>

### Submittal Information

1.	Conference	EGS, 1999
2.	Submission type	First submission
3.	Title	Automated Contrail detection from AVHRR Data
4.	Author(s)	MANNSTEIN, H.; MEYER, R.
5.	Session	Use of satellite data for climate studies - CLOUDMAP subsession
6.	Organizer	Dr. Jean-Philippe Duvel
7.	Equipment	NONE
8.	Support Award	NONE
9.	Presentation	Oral presentation strongly preferred
10.	Abstract type	L <sup>A</sup> T <sub>E</sub> X
11.	Contact author	Mannstein
	First name	Hermann
	Title	Dr.
	Department	Institut für Physik der Atmosphäre
	Organization	Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)
	Address	Oberpfaffenhofen
	Postal code	D-82234
	City	Weßling
	Country	Germany
	Telephone	++49-8153-28-2503
	Telefax	++49-8153-28-1841
	Email	Hermann.Mannstein@dlr.de