

	<b>MAPP</b>	
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**Titel:** MAPP Algorithm Theoretical Basis Document

**Project:** MAPP

**Doc. No.:** MAPP-ATBD

**Issue:** 2

**Revision:** 0

**Date:** 27.3.2000

	<u>Function</u>	<u>Name</u>	<u>Organisation</u>	<u>Signature</u>	<u>Date</u>
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### Internal Distribution

<u>Name</u>	<u>Organisation</u>	<u>Quantity</u>
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### Change Record

<u>Issue</u>	<u>Revision</u>	<u>Date</u>	<u>Changes</u>
1	0	8.3.1999	initial issue
2	0	27.3.2000	updated ATBDs 1,4,5 new ATBDS 12,13,14,15,16

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# MAPP

## Algorithm Theoretical Basis Documents

### 1 GUIDE

This document is the foundation of the theoretical basis of the algorithms and associated products developed within the MERIS Application and regional Products Project, MAPP.

The overview about the different algorithms and products, their interdependencies and their integration within a single software processor is described in the System Architecture Theoretical Basis Document, SATBD, which is the first in the sequence of the following detailed text sections. The sections 2 – 8 describe the operational Level 2 algorithms and products, their physical background, a mathematical description, implementation details and validation plans. The Level 3 products are described in sections 10 and 11. For most products, a general method will be applied which is outlined in section 10, while for the cloud and water vapour level 3 products a different approach is foreseen which is described in section 11. Finally, sections 12 – 16 include the ATBDs for the experimental products.

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Document Overview

<b>Index No.</b>	<b>Doc. No.</b>	<b>Title</b>	<b>March 99 Issue No.</b>	<b>March00 Issue No</b>	
1	MAPP-SATBD	MAPP System Architecture Theoretical Basis Document	1.0	1.1	
2	MAPP-ATBD-WC1	Regionalized Case-II Water Products and Algorithms	1.0		
3	MAPP-ATBD-WC2	Chlorophyll Concentration, Sediment Scattering and Gelbstoff Absorption derived from MERIS Normalised Water Leaving Reflectances using Principal Component Inversion (PCI)	1.0		
4	MAPP-ATBD-AER	Optical Depth of "Fine" and "Coarse" Aerosols, total Aerosol Optical Depth, Optical Depth of Thin Cirrus and Water Leaving Reflectance	1.1	2.0	
5	MAPP-ATBD-LCC	Land Cover / Land Use Classification	1.1	1.6	
6	MAPP-ATBD-NDVI	AVHRR Compatible NDVI	-	1.0	
7	MAPP-ATBD-CACO	Cloud Albedo and Cloud Optical Thickness	1.1		
8	MAPP-ATBD-CTP	Cloud Top Pressure	-	1.0	
9	MAPP-ATBD-WV	Water Vapour	1.1		
10	MAPP-ATBD-GENL3	Generic algorithms for Level 3 products	1.0		
11	MAPP-ATBD-CLWVL3	Cloud and Water Vapour Level 3 Products	1.0		
12	MAPP-ATBD-ARF	Aerosol direct Radiative Forcing	-	1.0	
13	MAPP-ATBD-CMP	Cloud Microphysical Properties	-	1.0	
14	MAPP-ATBD-CMAP	Chlorophyll Map	-	1.0	
15	MAPP-ATBD-PCLASS	Phytoplankton Classification	-	draft	
16	MAPP-ATBD-PP	Primary Production	-	draft	

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