

SCIAMACHY Product handbook maintenance

Bremen, 15.06.2016

Outline

- 1) Update procedure
- 2) Using the wiki
- 3) What needs to be updated?
- 4) Who needs to update what?
- 5) Schedule

1) Update procedure

- **Log in**

- Get a login for ESA Earth Observation at: <https://eo-sso-idp.eo.esa.int/idp/AuthnEngine>
- Inform Gabriele to get editing rights for the handbook copy

- **Handbook copy**

- Not public visible copy of the handbook:
<https://earth.esa.int/web/guest/sciamachy-handbook-version-2>
- Will replace the current version after the update
- Advantage: we can "publish" the changes and use complete functionality of the wiki
- The style of the copy (yellow titles) is different to the public visible version (blue titles) to better distinguish them and will be adjusted after the update
- Take care if there are blue titles somewhere, there are still some wrong links leading to the public version

- **Alternative**

- If you don't want to get a login, send me the changes with respect to the public visible version of the handbook at:
<https://earth.esa.int/web/guest/missions/esa-operational-eo-missions/envisat/instruments/sciamachy-handbook/wiki>

2) Using the wiki

- **Edit**

- Brings you to an online editor to edit the page
- "Source" allows to edit the html code
- "Publish" saves your changes and makes them visible to everybody

Introduction

[« Back](#)

Content Details History Incoming Links Outgoing Links Attachments

Version: 1.1 Status: Draft

Format

HTML

The screenshot shows the wiki editor interface. At the top, there's a toolbar with various formatting options like bold, italic, underline, and text color. Below the toolbar, there's a 'Table of Contents' section with a 'Continue' button. The main content area shows the following text:

CHAPTER 1

1. Introduction

The handbook version 2.0 is based in parts on the SCIAMACHY book (Gottwald et al. 2006) and has been updated to cover the operational processor Level 1 version 8 and Level 2 version 6 SCIAMACHY measurement data.

This chapter explains the background of SCIAMACHY. The recognition, that significant changes in the composition of the Earth's atmosphere are occurring on both short and long timescales and thereby modifying our environment and climate, has resulted in scientific debate as well as public concern, and emphasises the need for global measurements of atmospheric constituents at representative spatial and

Description of the Changes

Change of version nos.

☒ This is a minor edit.

► Categorization
► Related Assets

Save as Draft Preview Publish Discard Draft Cancel

2) Using the wiki

- **Details**

- Here you can subscribe to pages to be informed by email if anybody edits them










You are here [Home](#) › [Missions](#) › [ESA EO Missions](#) › [Envisat](#) › [Instruments](#) › [SCIAMACHY](#) › [Handbook](#)

SCIAMACH Handbook version 2

[FrontPage](#) | [Recent Changes](#) | [All Pages](#) | [Orphan Pages](#) | [Draft Pages](#)

FrontPage

[« Back](#)

Content	Details	History	Incoming Links	Outgoing Links	Attachments
Title	FrontPage				
Format	HTML				
Latest Version	1.1				
Created By	Daniel Heywood (5/20/16 3:07 PM)				
Last Changed By	Chris Mortimore (5/26/16 11:26 AM)				
Attachments	0				
RSS Subscription	 Atom 1.0 (Opens New Window)  RSS 1.0 (Opens New Window)  RSS 2.0 (Opens New Window)				
Email Subscription	You are not subscribed to this page.  Subscribe You are subscribed to this wiki.  Unsubscribe				
Advanced Actions	 Permissions  Copy  Move  Delete				

2) Using the wiki

- History

- Find and compare different versions
- Revert changes

You are here [Home](#) › [Missions](#) › [ESA EO Missions](#) › [Envisat](#) › [Instruments](#) › [SCIAMACHY](#) › [Handbook](#)

SCIAMACH Handbook version 2

[FrontPage](#) | [Recent Changes](#) | [All Pages](#) | [Orphan Pages](#) | [Draft Pages](#)

FrontPage

[« Back](#)

[Content](#) [Details](#) [History](#) [Incoming Links](#) [Outgoing Links](#) [Attachments](#)

Compare Versions


	Page	Status	Revision	User	Date	Summary	
<input type="checkbox"/>	FrontPage	Approved	1.1	Chris Mortimore	5/26/16 11:26 AM		
<input type="checkbox"/>	FrontPage	Approved	1.0	Daniel Heywood	5/20/16 3:07 PM		Revert

Introduction

[Content](#) [Details](#) [History](#) [Incoming Links](#) [Outgoing Links](#) [Attachments](#)

◀ Previous Change [Comparing Versions 1.0 \(First Version\) and 1.1 \(Last Version\)](#)

[HTML Mode](#) | [Text Mode](#)

 **snoel snoel** : Change of version nos. (Minor Edit)

Next Change ▶

[Table of Contents](#)

[Continue ▶](#)

CHAPTER 1

1. Introduction

The handbook version 1.2.0 is based in parts on the SCIAMACHY book (Gottwald et al. 2006) and has been updated to cover the operational processor Level 1 version 7-8 and Level 2 version 5-6 SCIAMACHY measurement data.

3) What needs to be updated?

- **Content**

- Change from L1V8/L2V6 to L1V9/L2V7
- Replace outdated figures and update text where necessary
- Check links, references, ...

- **Formatting**

- The wiki is based on the printed SCIAMACHY handbook
- The way it was created leads to a structure which is still based on the original printed pages and not on chapters or sections
- Suggestion: Pages are ok, but sections should not be split over two pages if possible
- The numbering of sections and subsections is inconsistent between different chapters

- **What to do first?**

- Formatting: the advantages would be that
 - It would make easier to find the content to change
 - Before everything for L1V9/L2V7 is decided we cannot start with all content changes
- Content: the advantage would be that the content change would start from the same structure as the public visible version

3) What needs to be updated?

- **Formatting**

- The way it was created leads to a structure which is still based on the original printed pages and not on chapters or sections, see **Table_of_content.pdf**

CHAPTER 1

1	Introduction	1-01
	Issues: Page ends before section	
1.2	The Road to SCIAMACHY	1-02
	Issues: Page ends before section	
	The Initial Phases of SCIAMACHY	1-05
1.3	SCIAMACHY's Goals	1-06
	The Atmospheric Layers	1-07
	Anthropogenic Impact on the Earth-Atmosphere System	1-08
	Issues: Figure on next page	
	Tropospheric Chemistry	1-09
	Issues: Figure on next page	
	Page ends before section	
	The Tropopause Region	1-10
	Stratospheric Chemistry and Dynamics	1-11
	Issues: Page ends before section	
	Mesospheric Chemistry and Dynamics	1-12
	Global Warming and Climate Change	1-12

CHAPTER 2

2	SCIAMACHY: The Instrument onboard ENVISAT	2-01
2.1	Measurement Goals	2-01
2.2	SCIAMACHY on ENVISAT	2-02
	Issues: Next section starts before end of page	
	Orbit and Attitude	2-02
	Issues: Section starts on previous page	
	Page ends before section	
	ENVISAT On-board Resources	2-04
	Issues: Page ends before section	
	ENVISAT Ground Segment	2-05
2.3	Instrument Description	2-06
2.3.1	Science Requirements and Instrument Concept	2-06
2.3.2	Optical Assembly	2-07
	Scanner Mechanisms and Baffles	2-08
	Issues: Page ends before section	
	Telescope and Spectrometer	2-09
	Detector Modules	2-10
	Calibration Unit	2-11
	Polarization Measurement Device	2-11
2.3.3	Thermal Subsystems	2-12
	Radiator A and Active Thermal Control	2-12

4) Who needs to update what?

- **Basically everybody can implement changes where necessary**

- **List from my email:**

- Changes/ questions/ additions?
- What happens if several people should update one chapter?

Chapter 1

General check [Katja Weigel, Stefan Noel]

Chapter 2

General check [Manfred Gottwald, Katja Weigel, Stefan Noel]

New chapter 2.5 "In-Orbit Operations and Performance 2002-2012"[Manfred Gottwald]

2.3.2 Polarization Measurement Device: IUP [Patricia Liebing]/SRON [Ralph Snel]

Chapter 3

Update figures, all, mainly [DLR, IUP, KNMI, + others]

Include Stratospheric Aerosol and H₂O and Mesospheric metals?

[IUP Katja Weigel + others]

Scientific limb cloud product [IUP Patricia Liebing]

Include occultation data products? [Klaus Bramstedt, Stefan Noel]

Chapter 4

4.1.2 The scanner model approach [Klaus Bramstedt]

4.2 Detector Corrections - changes for channel 6+? [Günther Lichtenberg]

4.4 Stray Light [Günther Lichtenberg]

4.5 Polarisation [Klaus Bramstedt, Patricia Liebing, Günther Lichtenberg, Ralph Snel]

4.6 Radiometric Calibration [Klaus Bramstedt, Günther Lichtenberg, Ralph Snel]

4.7 Optical Throughput Monitoring [Klaus Bramstedt]

Chapter 5

5.4.2 Application of Inversion Theory to Limb Retrieval incl. Table 5-3 [DLR, IUP]

5.5.2 Limb/Nadir Matching [IUP Nabiz Rahpoe]

Chapter 6

6.1 Level 0 Products [DLR Manfred Gottwald]

6.2 Operational Level 1b Products and Algorithms [DLR Günther Lichtenberg]

6.2.2.2 Dead and Bad Pixel Mask [Ralph Snel]

6.2.2.7 Polarization Correction [Patricia Liebing, Stefan Noel, Günther Lichtenberg, Ralph Snel]

6.2.2.8 Radiometric Correction [Klaus Bramstedt, Günther Lichtenberg, Ralph Snel]

6.2.2.10 and 6.2.4 Degradation Correction [Klaus Bramstedt, Ralph Snel]

(fig 6-3 and 4-6 are identical?)

6.2.3 Relevant Auxiliary Data [Klaus Bramstedt]

6.2.6 Data Format Description [DLR Günther Lichtenberg, Manfred Gottwald]

6.2.7 Product Quality Information [DLR, IUP, ESA]

6.3 Operational Level 2 Products and Algorithms [DLR]

6.3.3.1 Ozone Profile [DLR, IUP]

6.3.3.4 Cloud flagging and top height [Kai-Uwe Eichmann, Sergei Gretschan]

6.3.5 Data Format Description [DLR Günther Lichtenberg, ESA]

6.3.6 Product Quality Information [BIRA, ESA]

6.3.7 Software Tools [ESA]

Tropospheric NO₂ and BrO need to be added to Chapter 6? [Christophe Lerot, Sergei Gretschan]

(There is something about tropospheric NO₂ in Chapter 5.6.1)

Eventually some chapters mentioned above needs to be merged and some added.

5) Schedule

- Planed to finish the handbook in September 2016
- Is that to early?
- When will the baseline for L1V9/L2V7 be ready?
- Start with the update of the format or the content?

5) Schedule

- Planed to finish the handbook in September 2016
- Is that to early?
- When will the baseline for L1V9/L2V7 be ready?
- Start with the update of the format or the content?

Thank you for your attention!

