

## 2. SCIAMACHY Daily Report for level 2 products

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## 2.1 General Info

This report contains a daily analysis on parameters extracted from SCIAMACHY level 2 data (The SCI\_OL\_\_2P product).

### 2.1.1 Report summary

The table below shows general characteristics of the data that are included into this report.

Item	Value
Report version	1.6 (28-07-2008)
Time of report generation	12AUG2008 08:43:03
Data source version	SCIA-OL/3.01-R
Processing scope for products	04APR2004 00:00:00 to 05APR2004 00:00:00
Start time of first product within scope	04APR2004 01:20:23
Stop time of last product within scope	05APR2004 00:03:48
Total number of level 2 products	12
Number of level 2 products with errors	0

### 2.1.2 Summary per product

The following table shows a summary for each product used in this report.

Products are linked to a corresponding server directory for view/download. Note: Link access may be restricted by security settings of your internet browser or firewall.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	<a href="#">SCI_OL__2PRDPA20040404_012023_000033962025_00375_10950_7508.N1</a>	04APR2004 01:20:23	04APR2004 02:17:00	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040404_030059_000033852025_00376_10951_7243.N1</a>	04APR2004 03:00:59	04APR2004 03:57:24	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040404_044134_000033742025_00377_10952_7548.N1</a>	04APR2004 04:41:34	04APR2004 05:37:48	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040404_062210_000033622025_00378_10953_7299.N1</a>	04APR2004 06:22:10	04APR2004 07:18:13	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040404_080245_000033512025_00379_10954_7531.N1</a>	04APR2004 08:02:45	04APR2004 08:58:37	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040404_094321_000033392025_00380_10955_7348.N1</a>	04APR2004 09:43:21	04APR2004 10:39:00	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040404_112356_000033272025_00381_10956_7248.N1</a>	04APR2004 11:23:56	04APR2004 12:19:24	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040404_130432_000033152025_00382_10957_7446.N1</a>	04APR2004 13:04:32	04APR2004 13:59:47	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040404_144507_000033862025_00383_10958_7225.N1</a>	04APR2004 14:45:07	04APR2004 15:41:34	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040404_162543_000033742025_00384_10959_7569.N1</a>	04APR2004 16:25:43	04APR2004 17:21:57	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040404_180625_000033852025_00385_10960_7305.N1</a>	04APR2004 18:06:25	04APR2004 19:02:51	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040404_231226_000030812025_00388_10963_7546.N1</a>	04APR2004 23:12:26	05APR2004 00:03:48	0	GOOD

## 2.2 Product Quality Indicators

### 2.2.1 Cloud parameters

This is a new section that shows information about the cloud parameters estimation, in particular cloud fractions and cloud top height. IMPORTANT NOTE: The contents and layout of this section are still being validated. Please use with caution.

#### General statistics:

Total number of cloud data DSRs: 88511

Total number of cloud data DSRs with good quality flag (=0): 88511 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	88511	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	88511	0.22836	0.25000	0.12500	1.0000	0.086054	s
CL_FRAC	88511	0.44682	0.40560	0.0000	1.0000	0.32761	-
CL_FRAC_ERR	88511	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	88511	7.3077	8.0000	4.0000	32.000	2.7537	
PMD_READ_CL[0]	88511	0.68286	0.0000	0.0000	26.000	1.9053	-
PMD_READ_CL[1]	88511	0.75714	0.0000	0.0000	32.000	2.1680	-
CL_TOP_HEIGHT	79227	3.6901	1.6830	0.0000	17.000	3.9907	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	79227	50.268	35.406	0.0000	101.00	39.877	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	88511	11100000	11100000	11100000	11100000	0.0000	flags. Bit definition = 0: low or high cloud; 1: ice or water cloud; 2: thick or thin cloud; 3-15: not used
CLOUD_FLAGS	88511	11000111	11000010	11000000	11100000	2842.8	flags
AERO_ABSO_IND	88511	0.66416	0.44993	-3.9030	11.479	1.0839	
AERO_IND_DIAG	88511	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	88511	01100110	11000000	00000000	11000000	24519.	flags

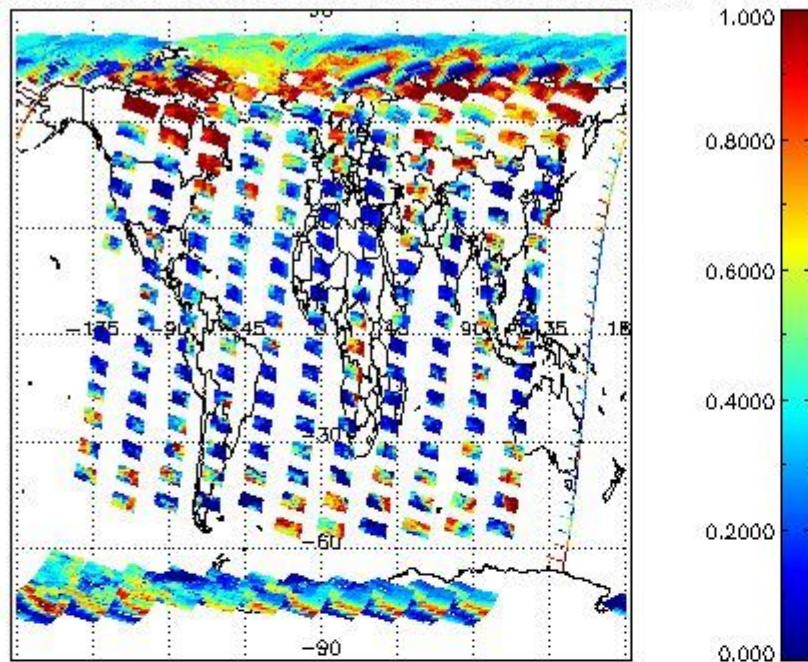
### Time and geolocation plots:

Plots are available for the following parameters:

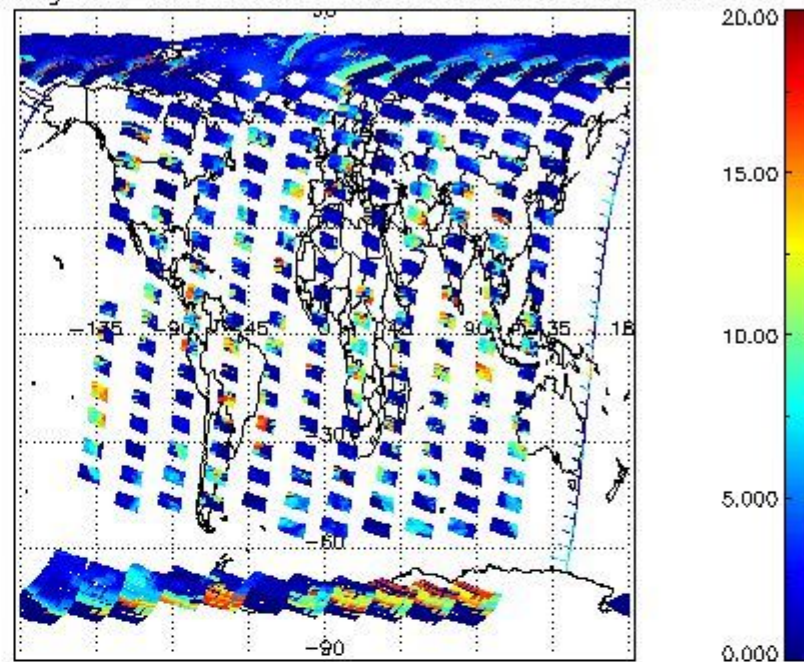
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



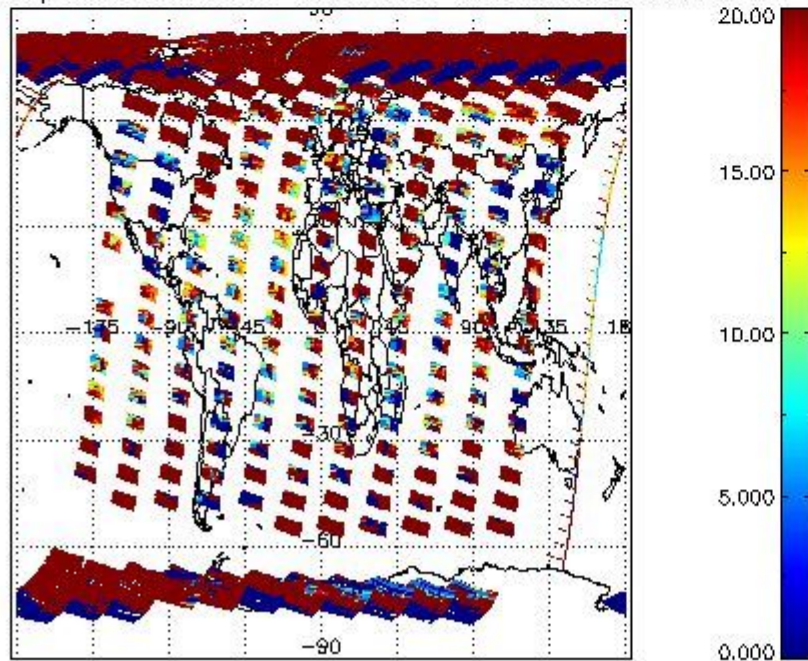
cL\_frac for 04APR2004 00:00:00 to 05APR2004 00:00:00



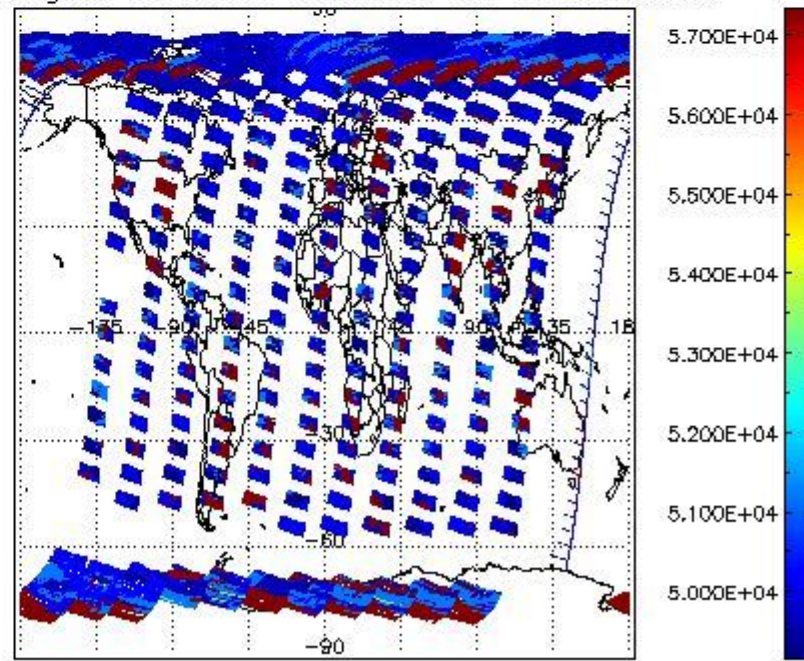
cL\_top\_height for 04APR2004 00:00:00 to 05APR2004 00:00:00



cL\_opt\_depth for 04APR2004 00:00:00 to 05APR2004 00:00:00



cloud\_flags for 04APR2004 00:00:00 to 05APR2004 00:00:00



## 2.2.2 Nadir

This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

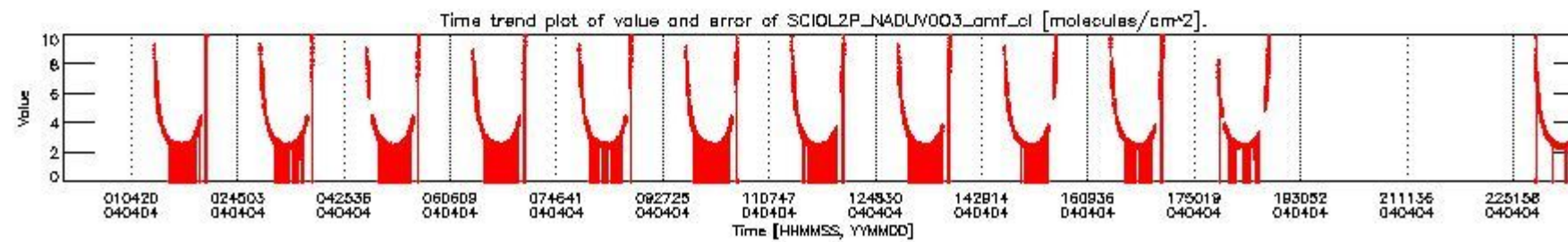
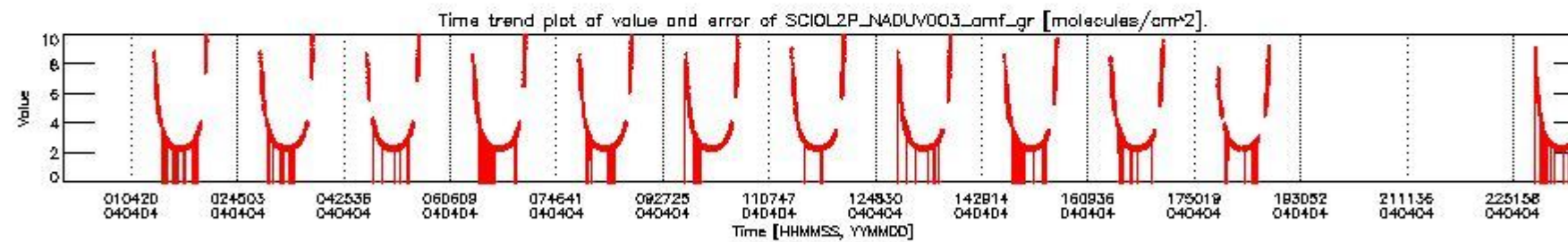
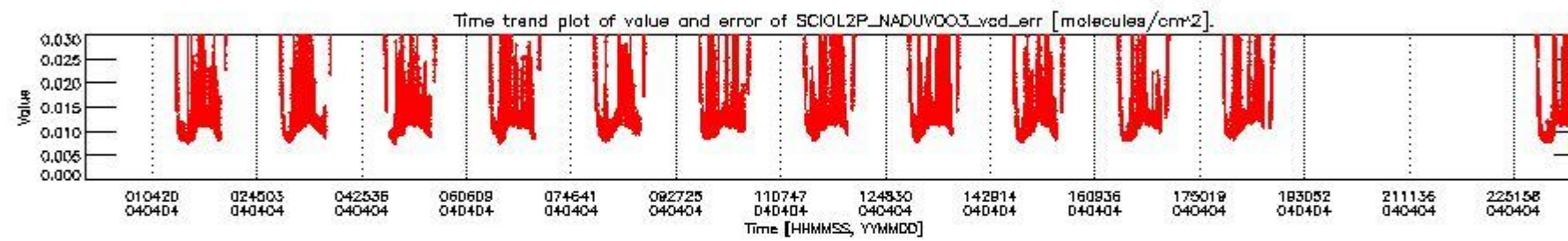
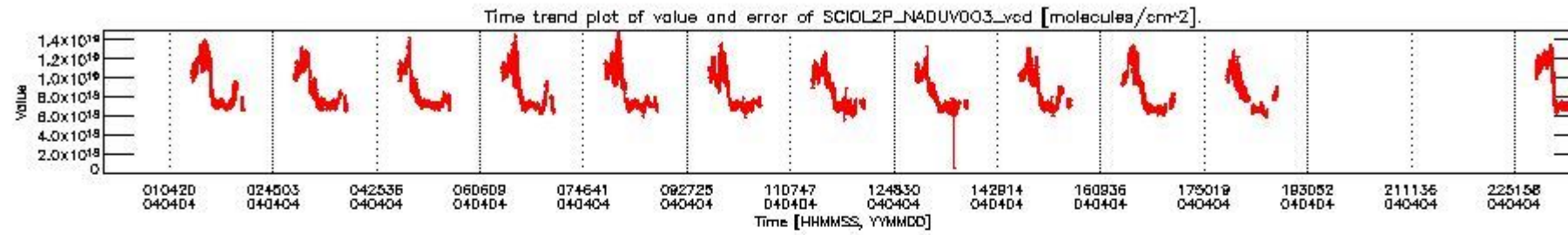
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



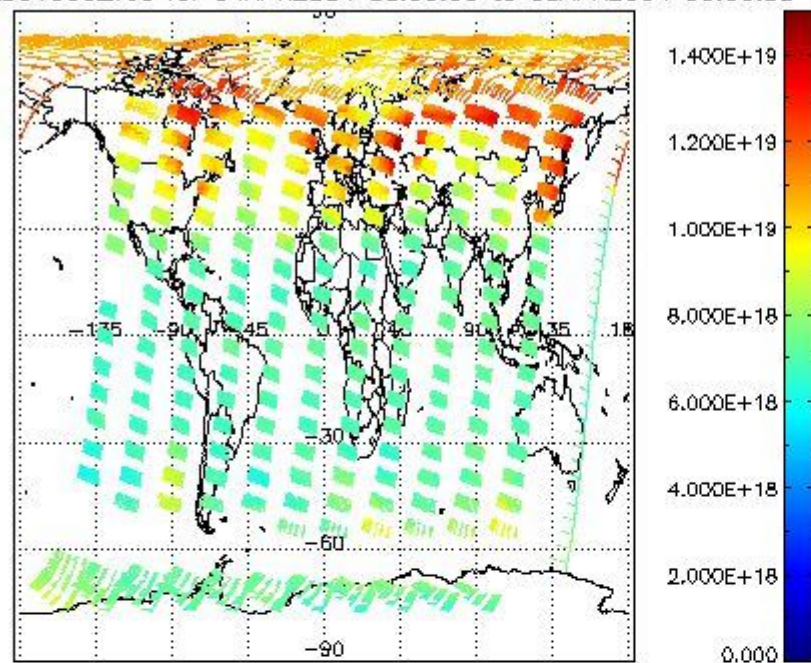
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in the MPH.

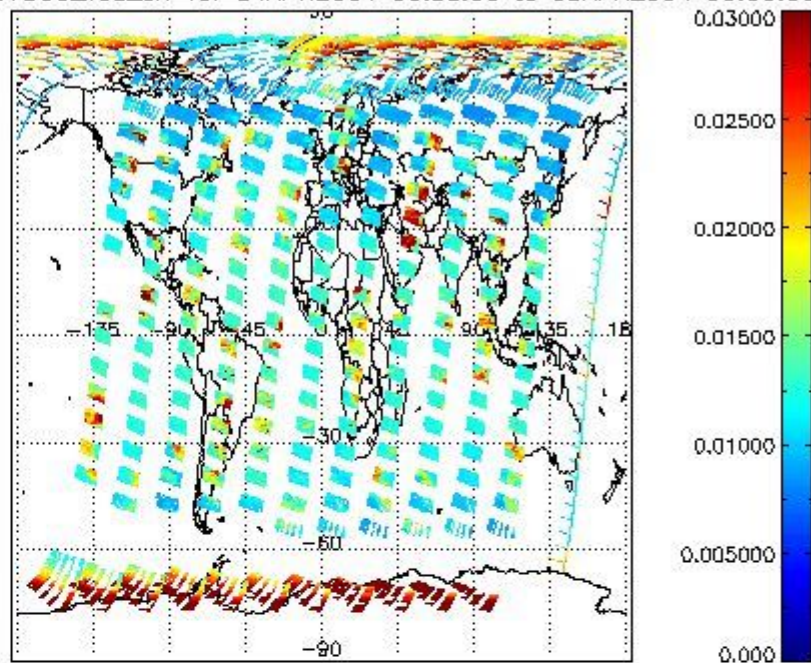




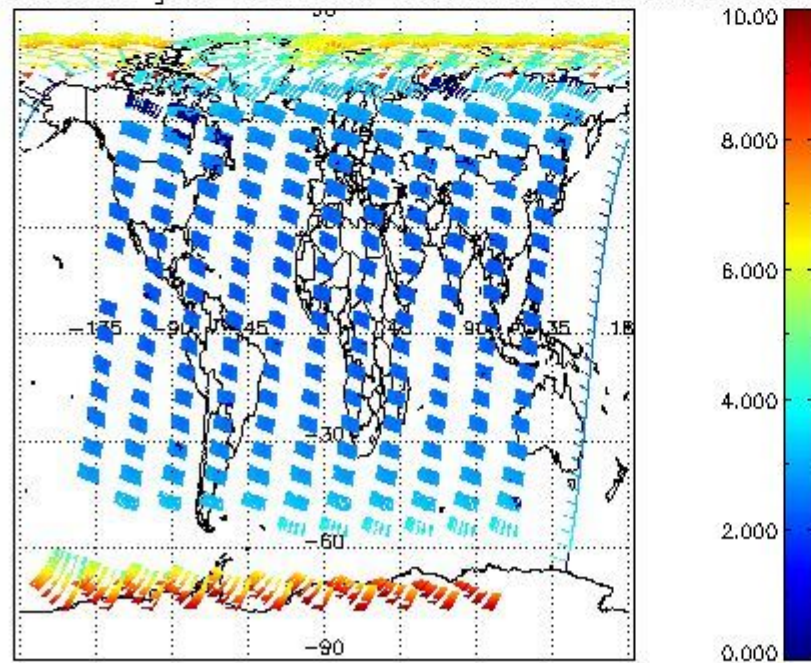
SCIOL2P\_NADUV003\_vcd for 04APR2004 00:00:00 to 05APR2004 00:00:00



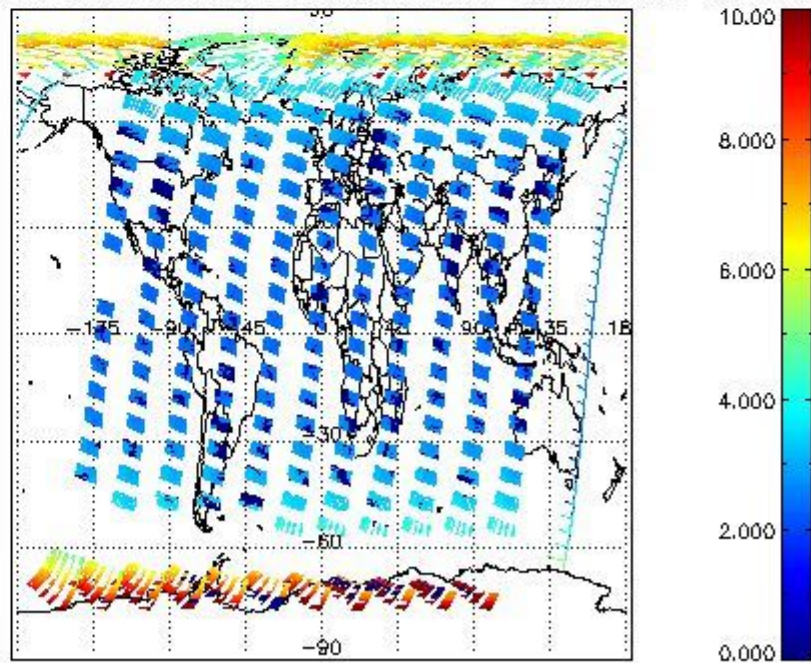
SCIOL2P\_NADUV003\_vcd\_err for 04APR2004 00:00:00 to 05APR2004 00:00:00



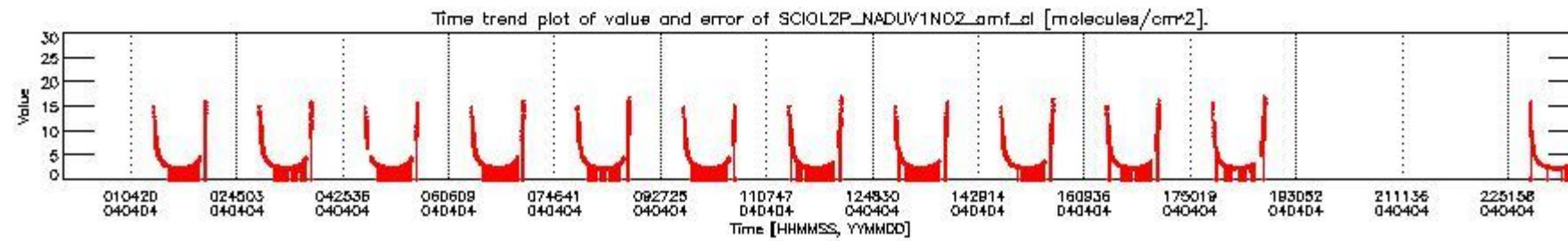
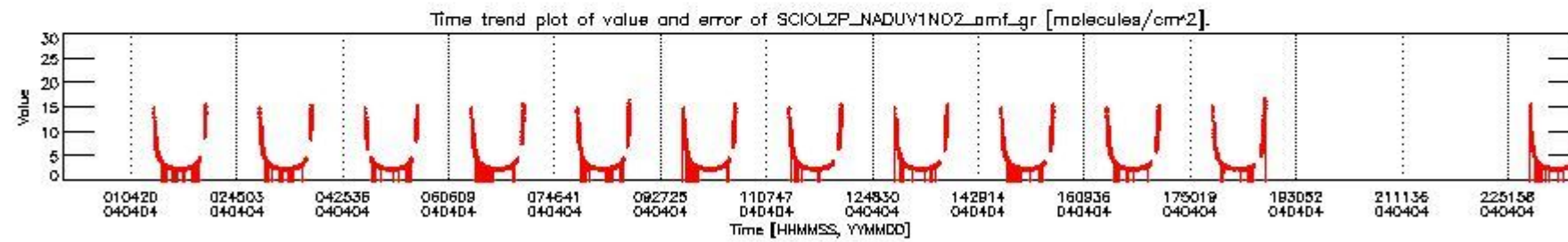
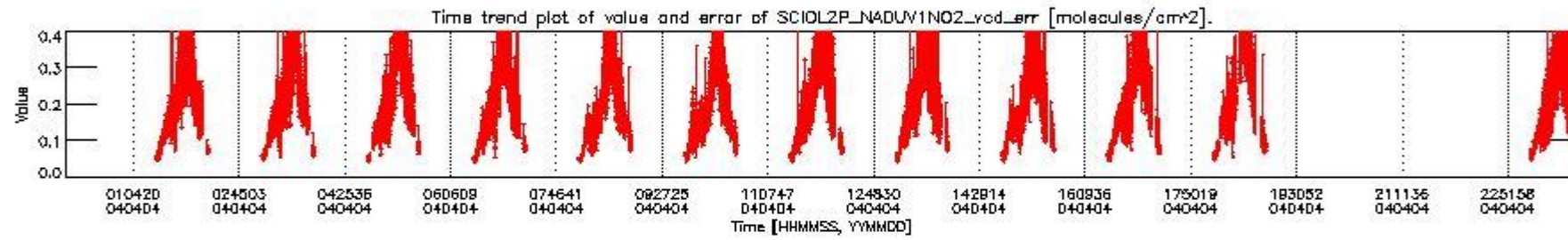
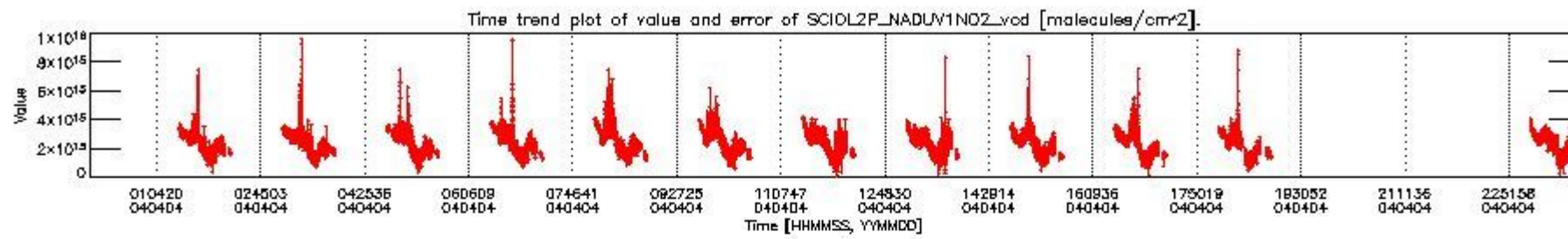
SCIOL2P\_NADUV003\_amf\_gr for 04APR2004 00:00:00 to 05APR2004 00:00:00



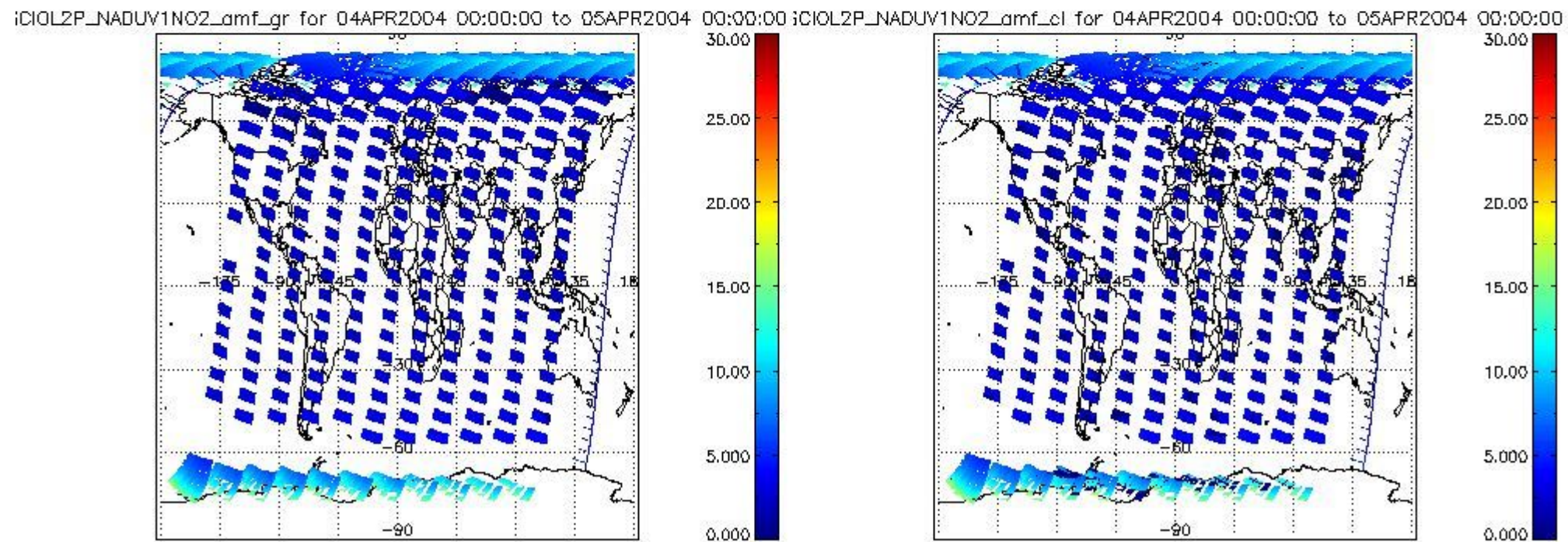
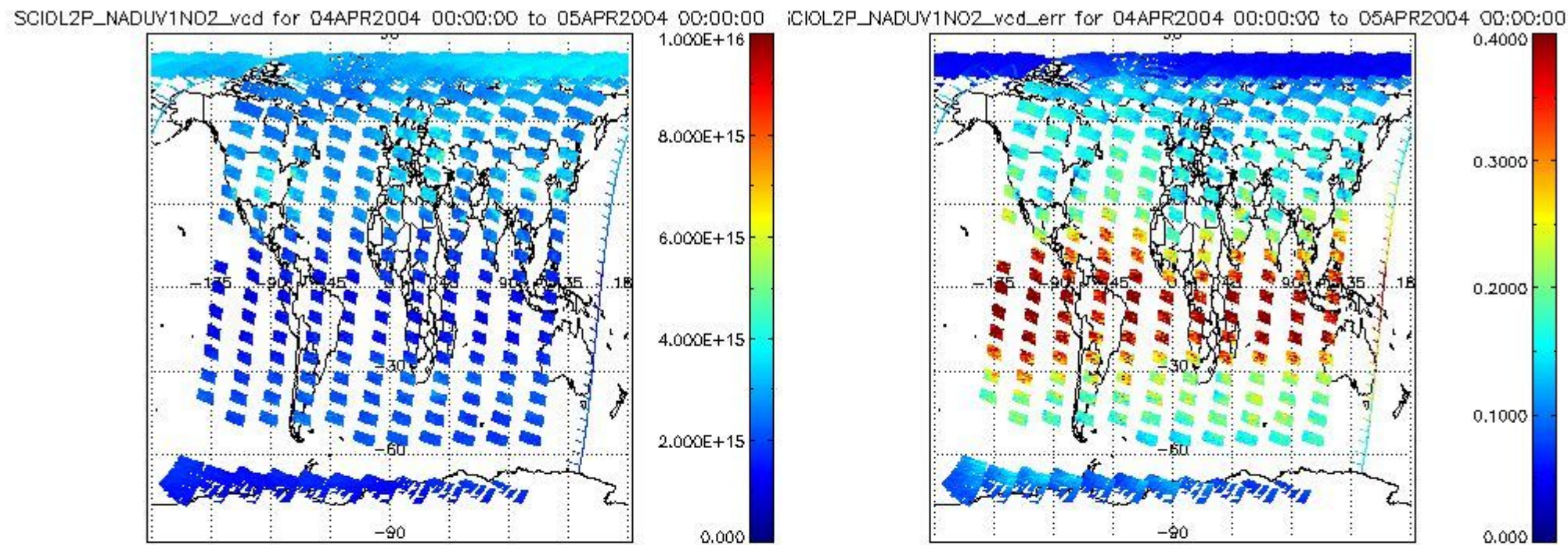
SCIOL2P\_NADUV003\_amf\_cl for 04APR2004 00:00:00 to 05APR2004 00:00:00











### 2.2.3 Limb

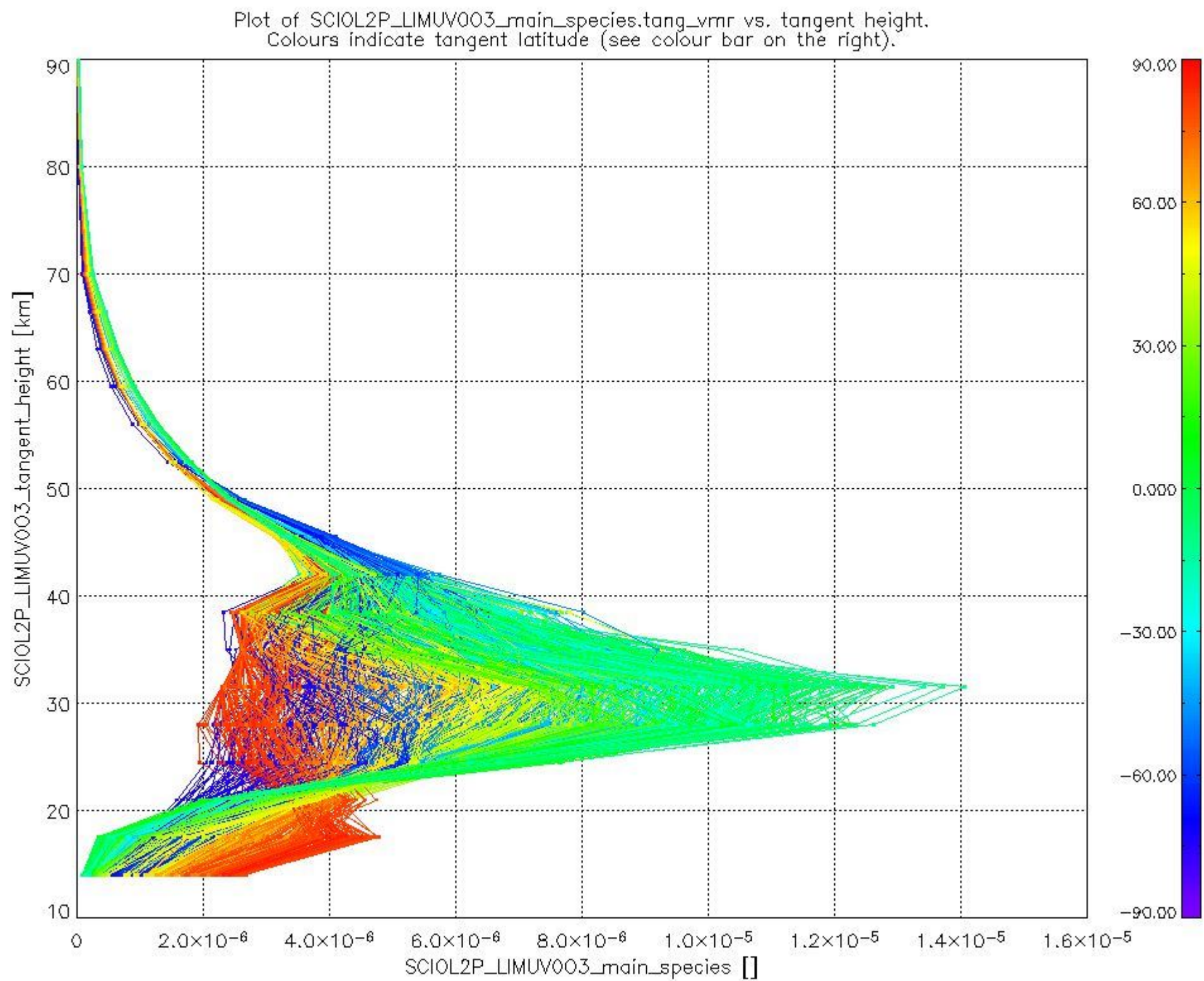
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

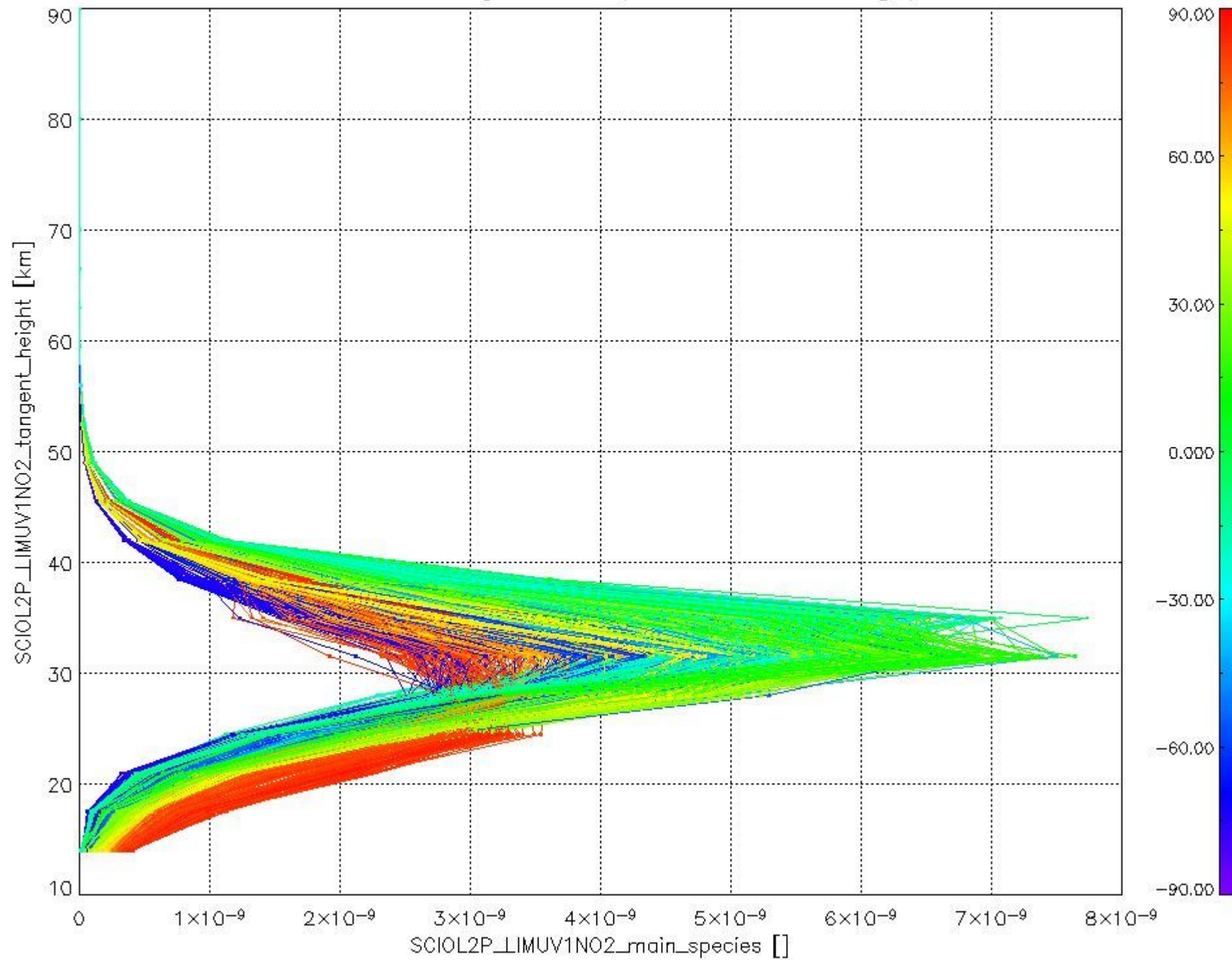


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





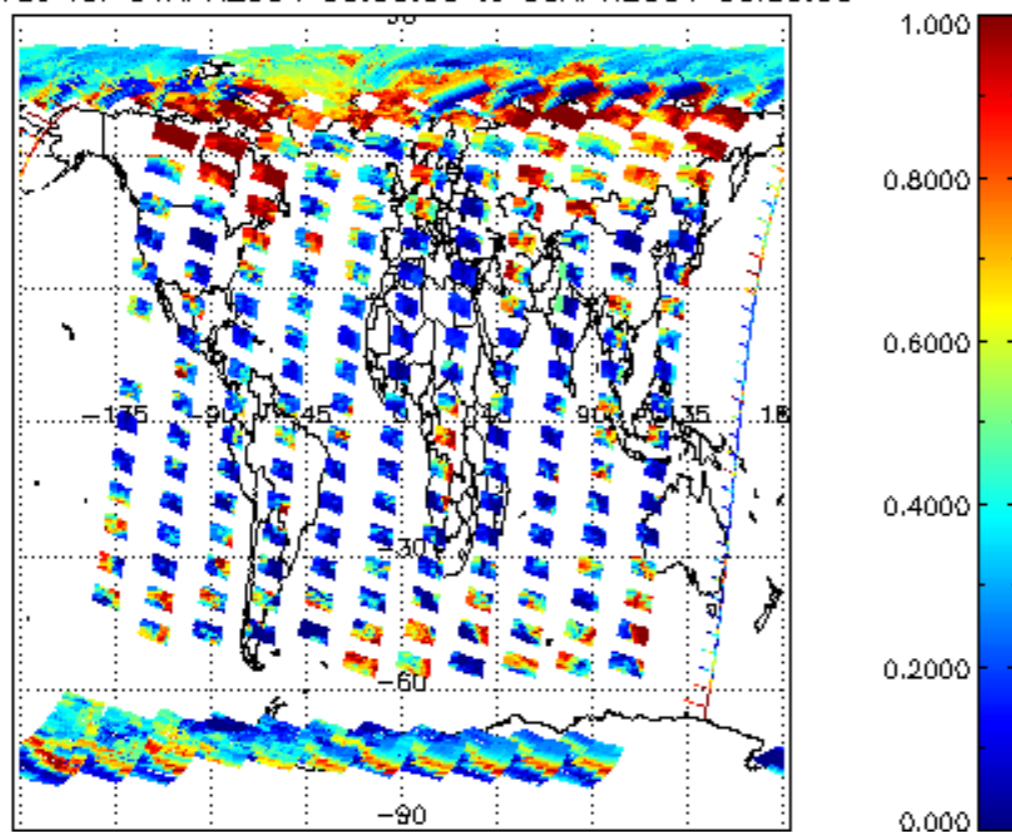
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



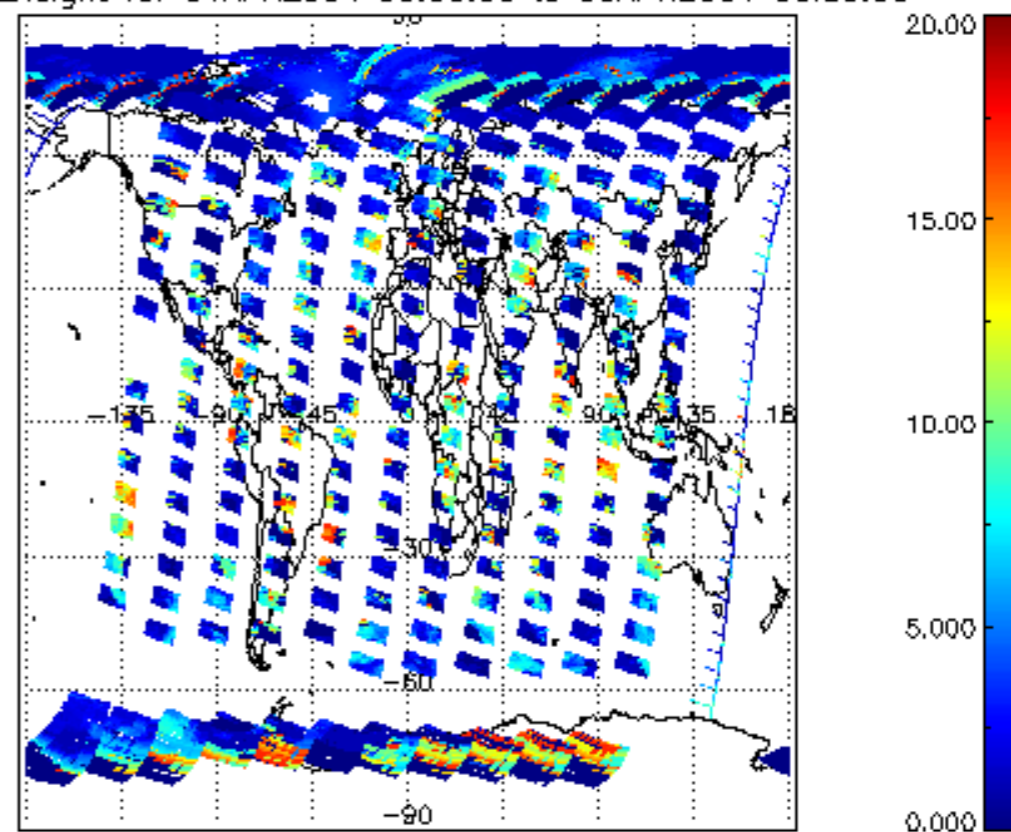
### 2.3 ADF monitoring

Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN__AXNPDE20070629_092400_20070720_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED

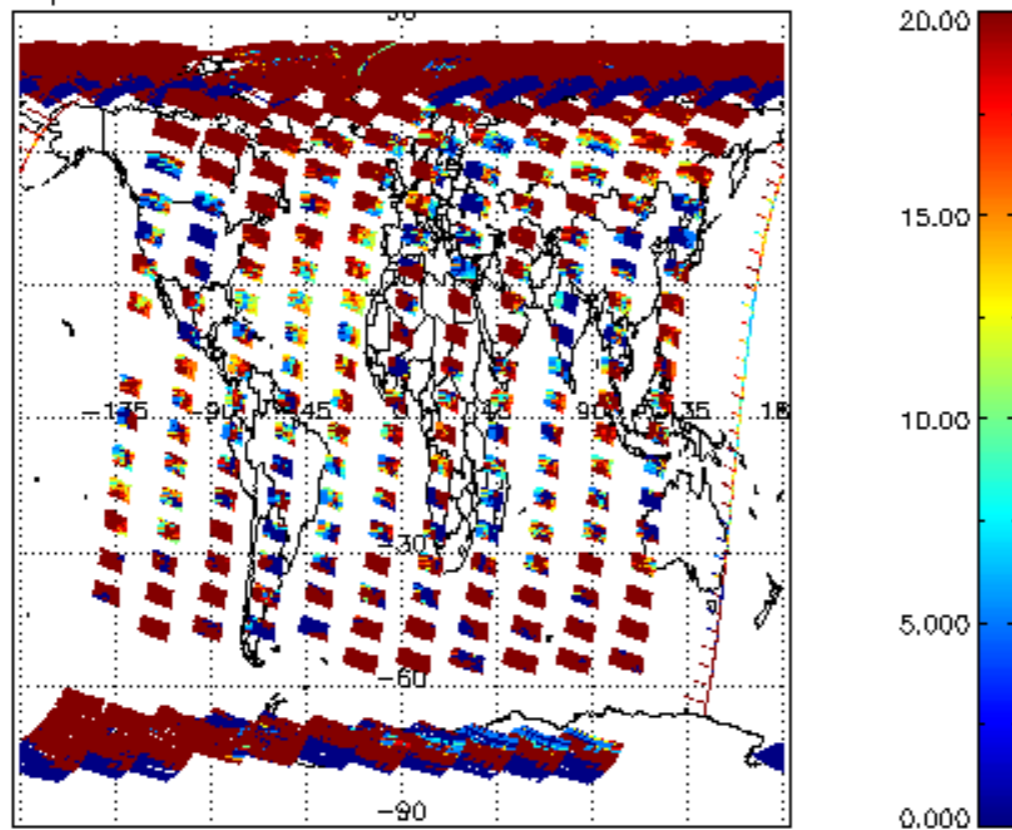
cl\_frac for 04APR2004 00:00:00 to 05APR2004 00:00:00



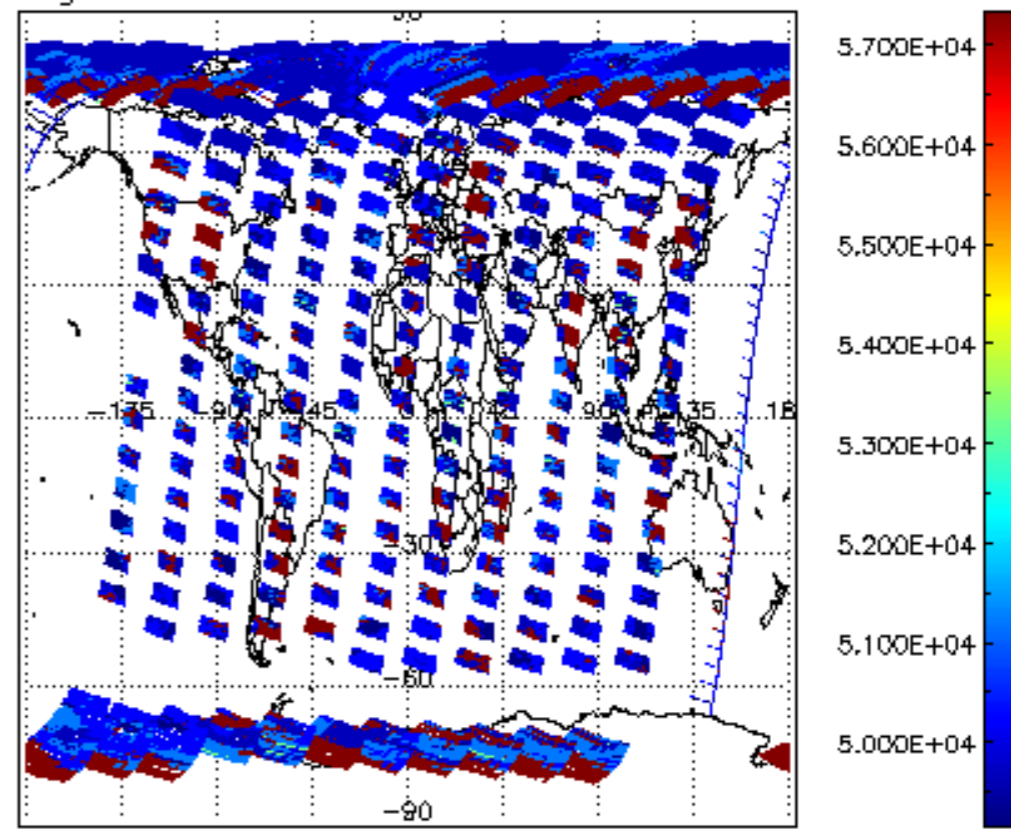
cl\_top\_height for 04APR2004 00:00:00 to 05APR2004 00:00:00



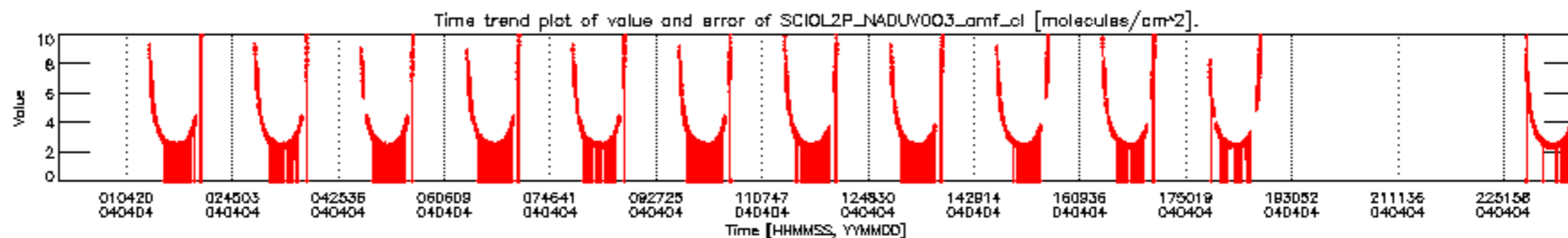
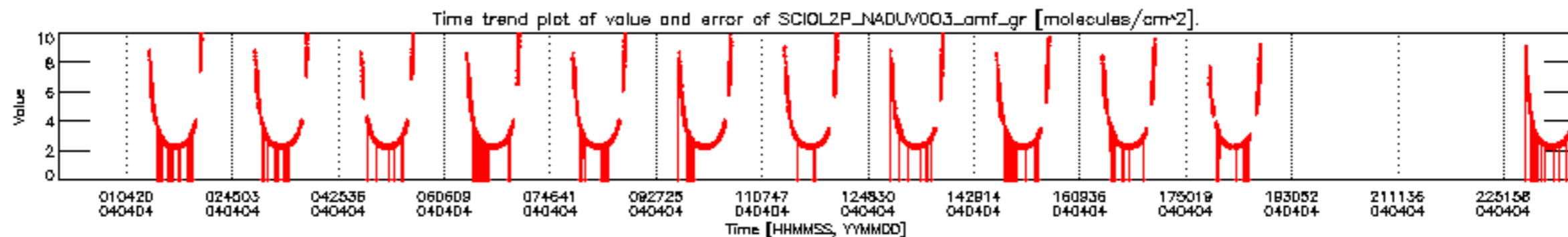
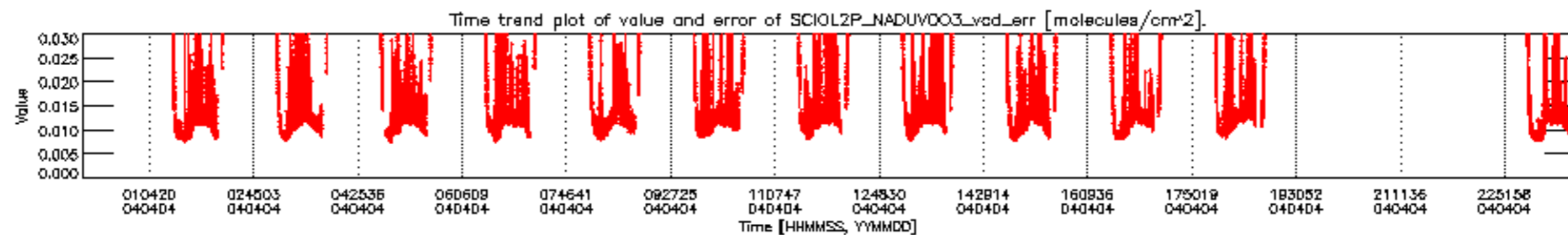
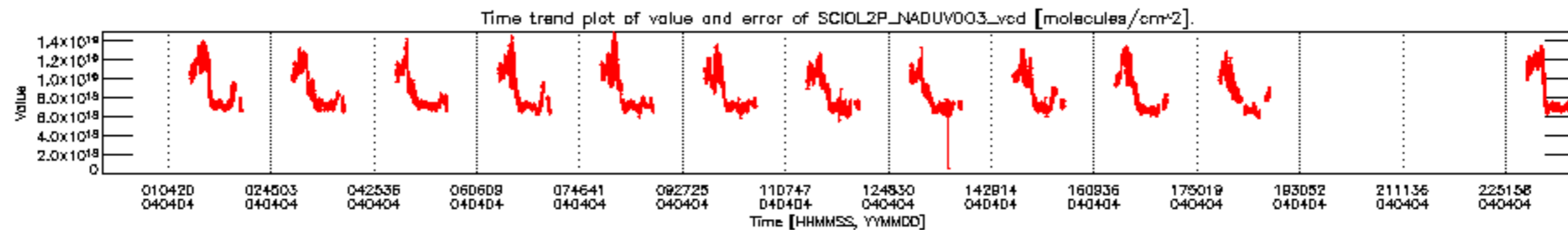
cl\_opt\_depth for 04APR2004 00:00:00 to 05APR2004 00:00:00



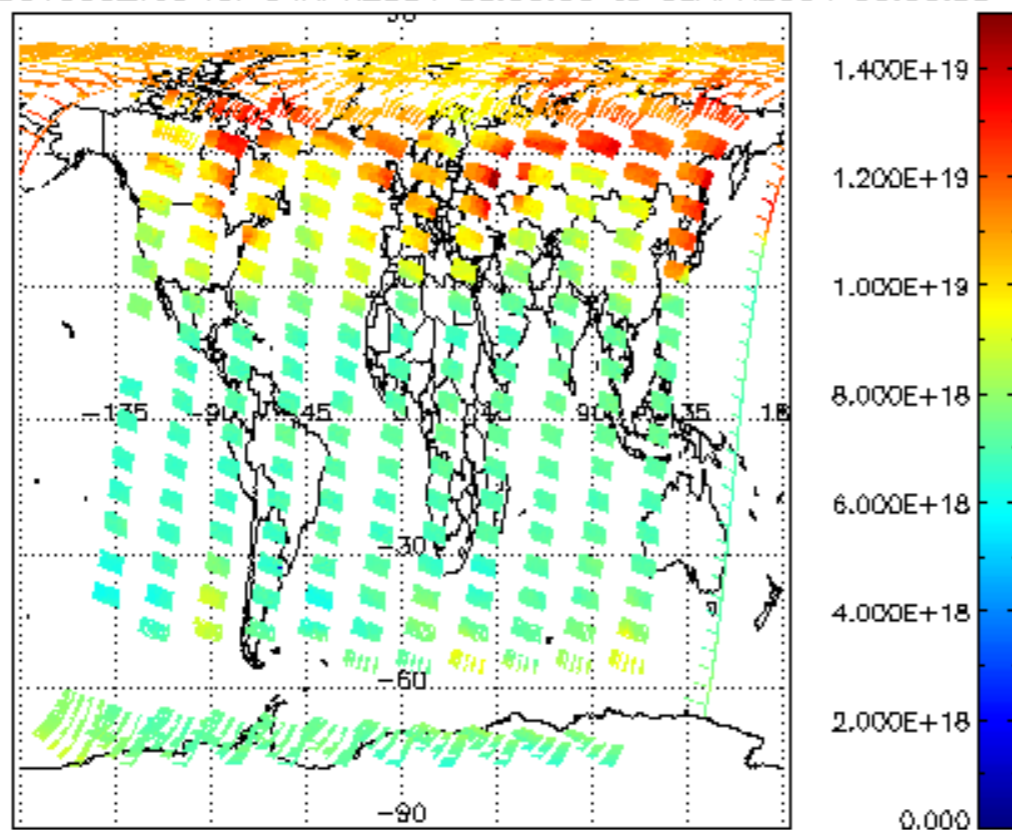
cloud\_flags for 04APR2004 00:00:00 to 05APR2004 00:00:00



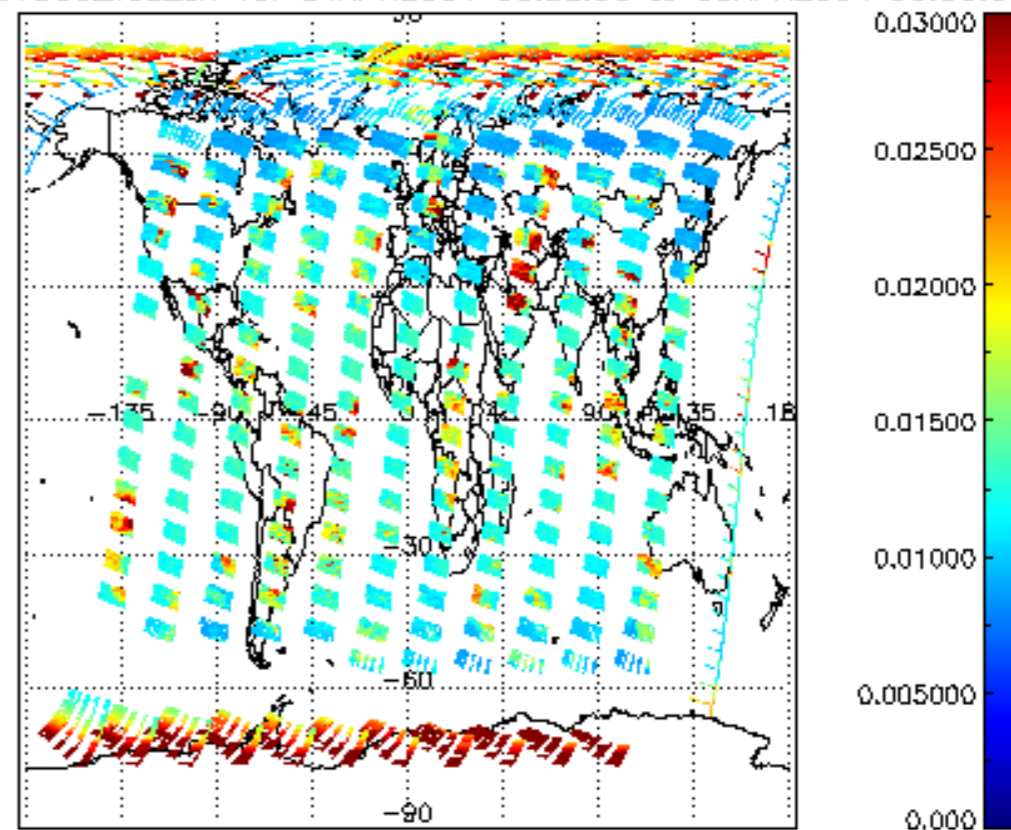




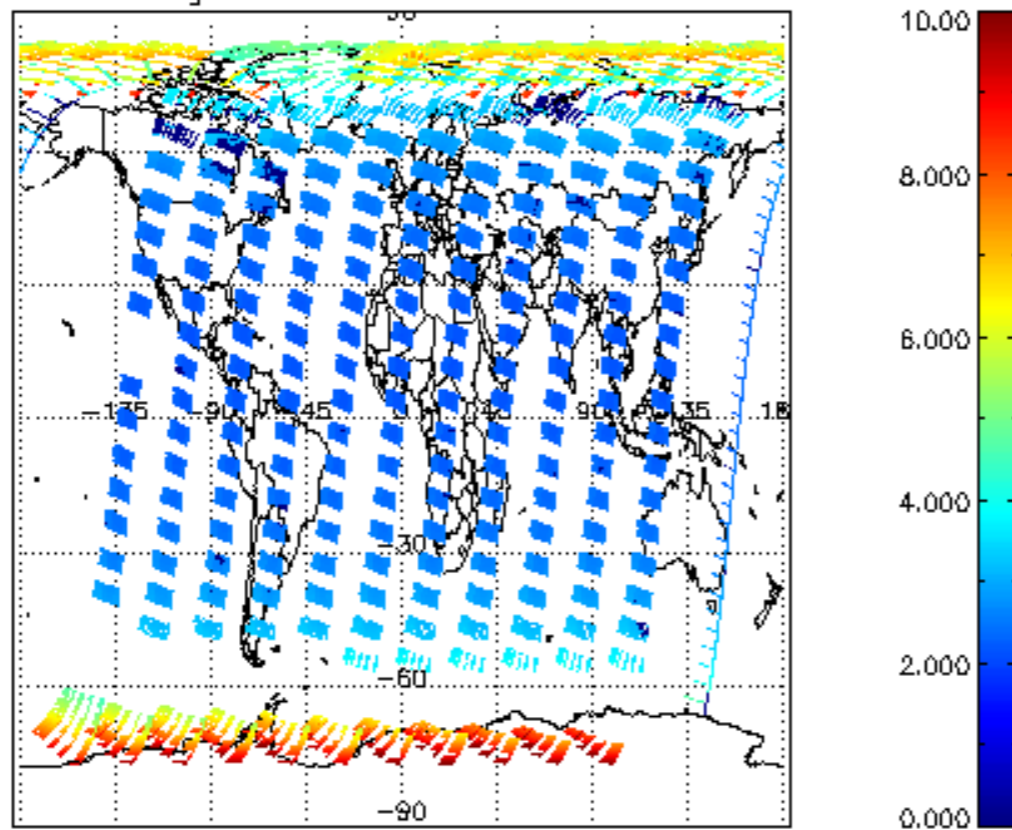
SCIOL2P\_NADUV003\_vcd for 04APR2004 00:00:00 to 05APR2004 00:00:00



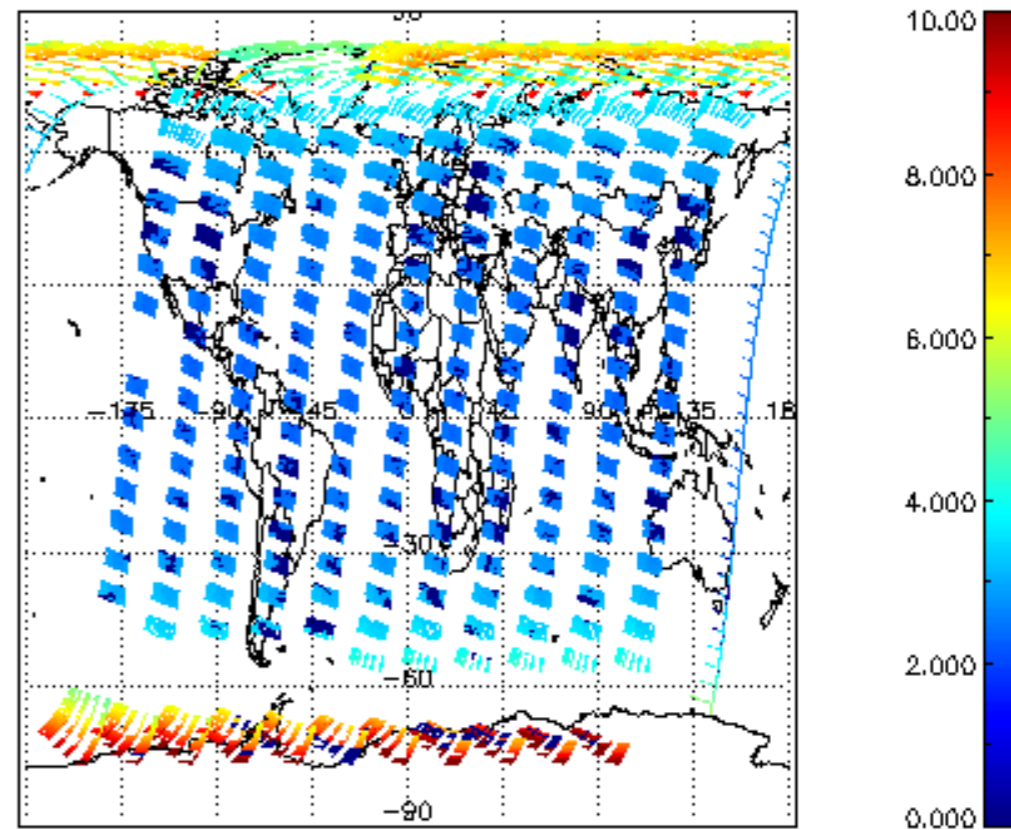
SCIOL2P\_NADUV003\_vcd\_err for 04APR2004 00:00:00 to 05APR2004 00:00:00



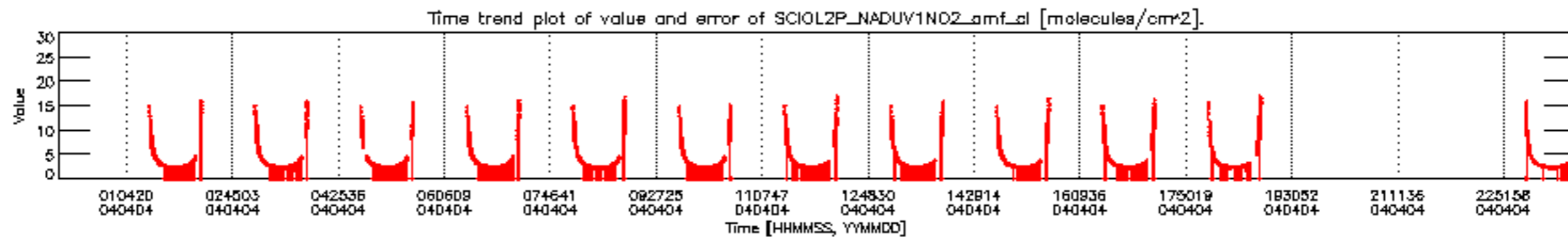
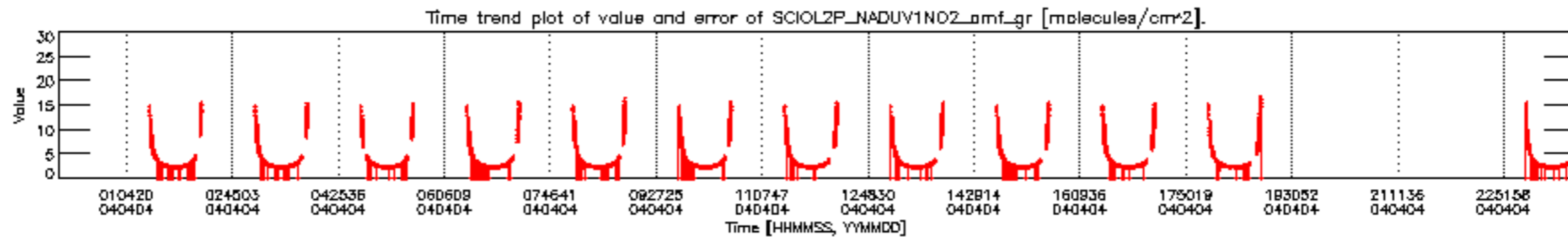
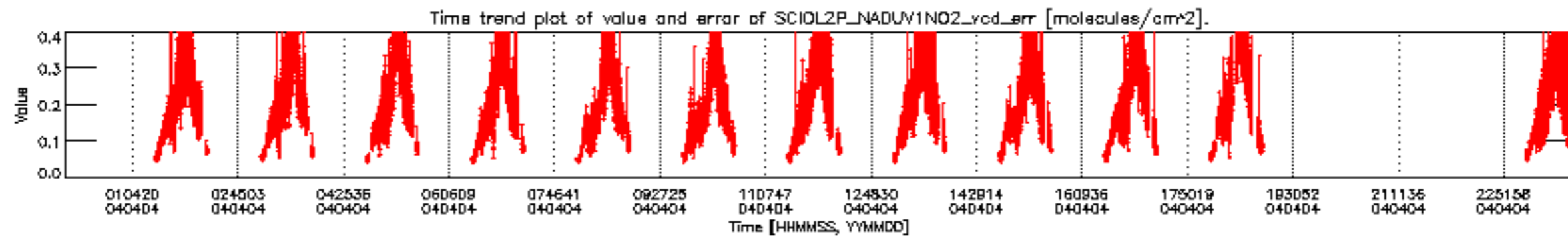
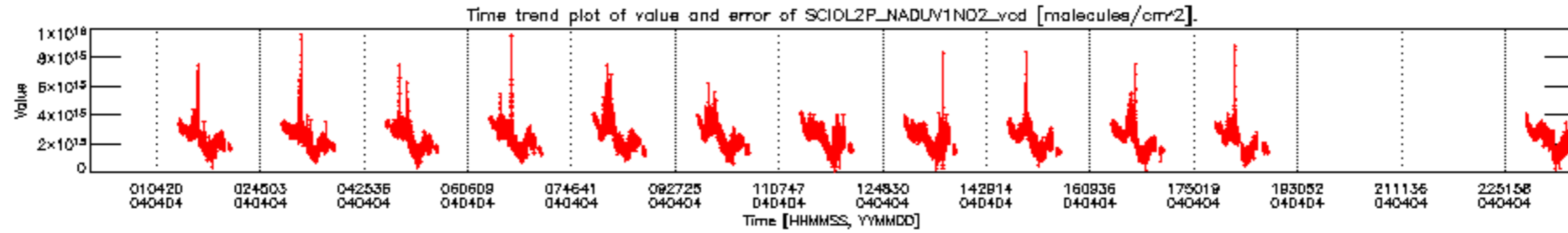
SCIOL2P\_NADUV003\_amf\_gr for 04APR2004 00:00:00 to 05APR2004 00:00:00



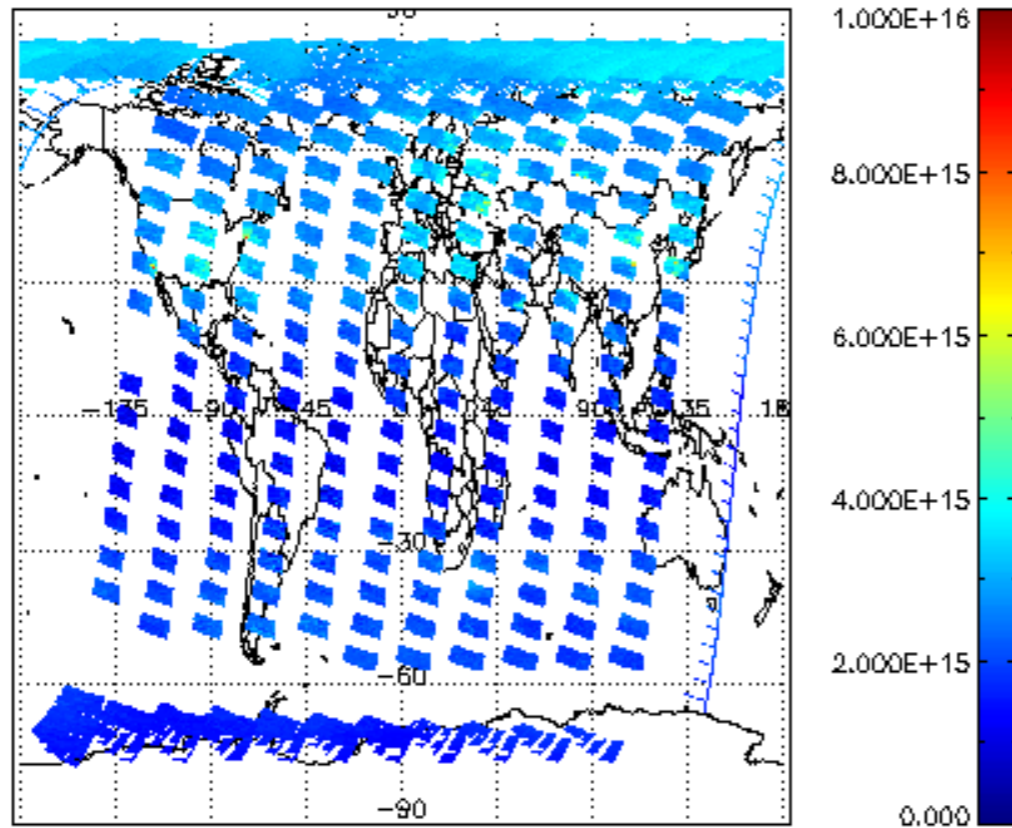
SCIOL2P\_NADUV003\_amf\_cl for 04APR2004 00:00:00 to 05APR2004 00:00:00



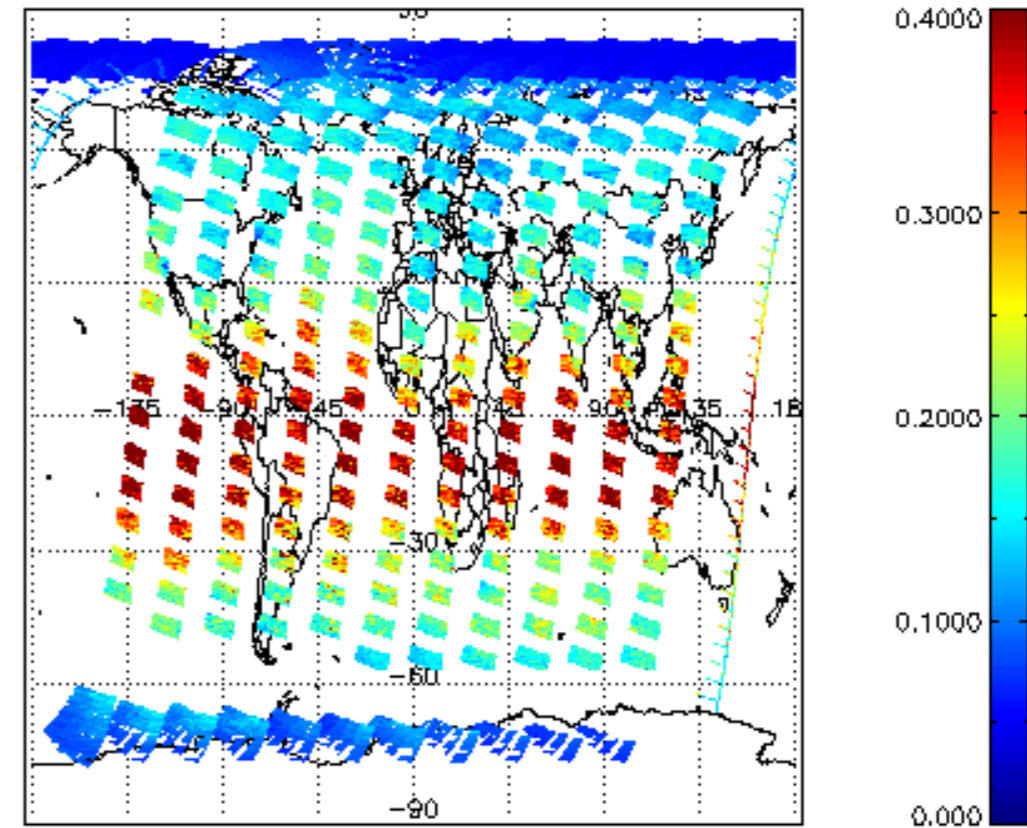




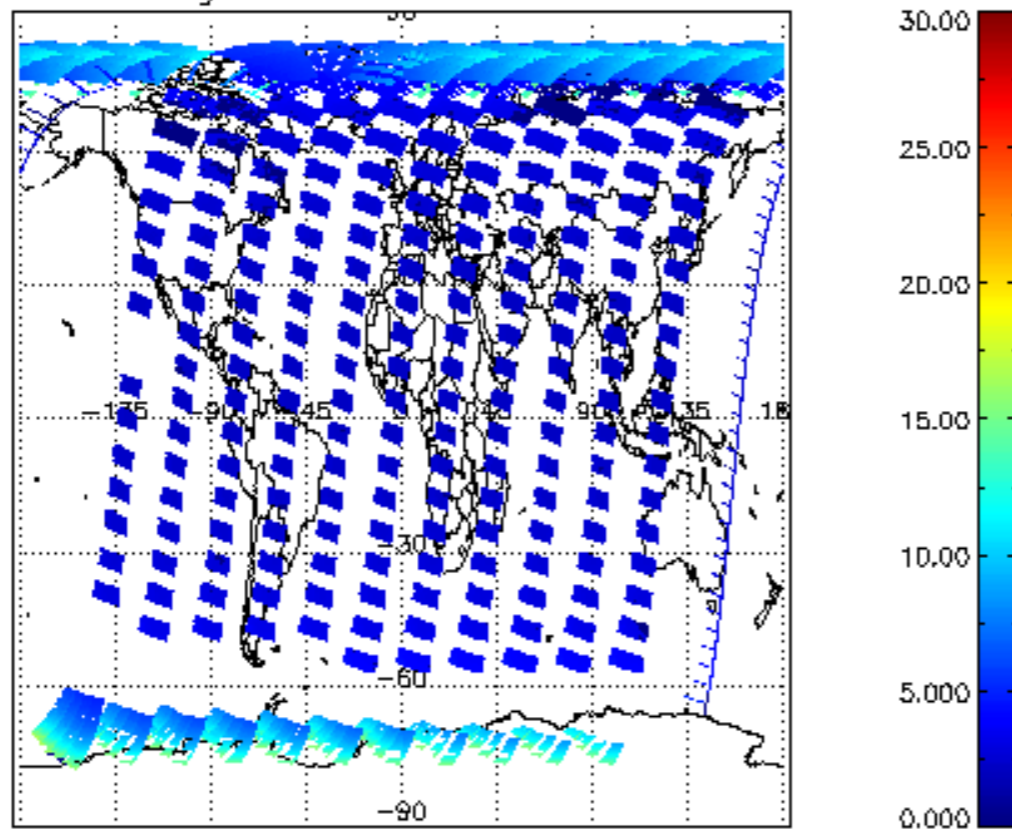
SCIOL2P\_NADUV1NO2\_vcd for 04APR2004 00:00:00 to 05APR2004 00:00:00



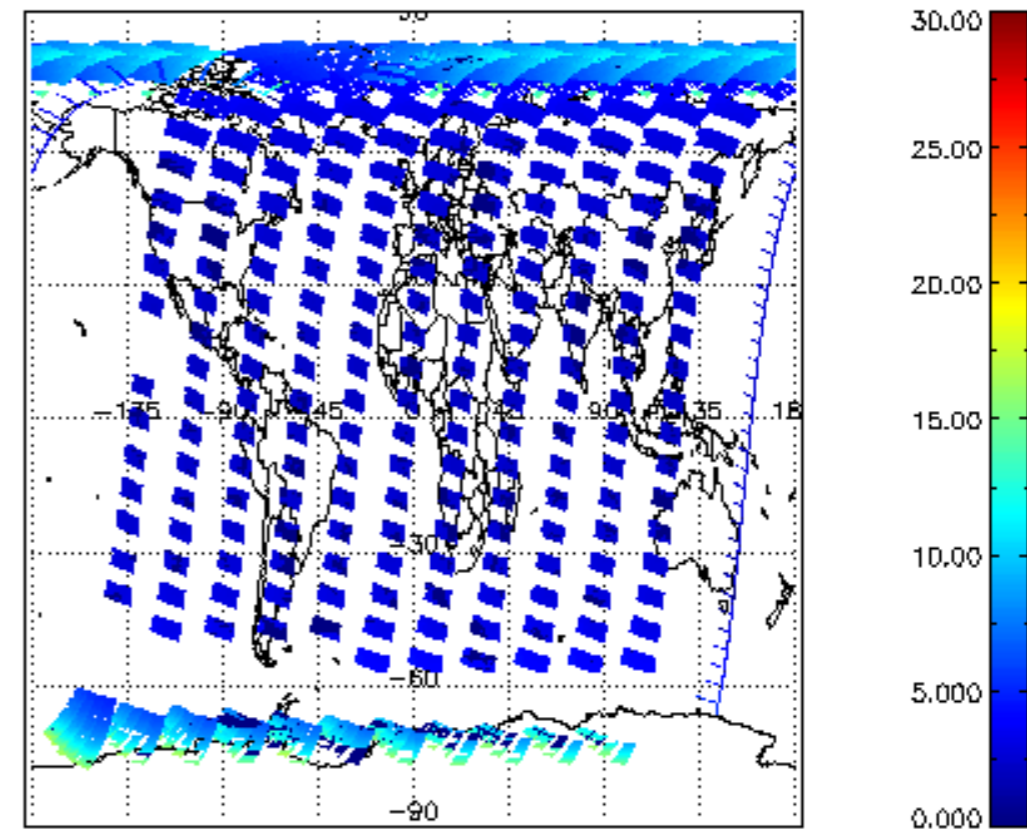
iCIOL2P\_NADUV1NO2\_vcd\_err for 04APR2004 00:00:00 to 05APR2004 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_gr for 04APR2004 00:00:00 to 05APR2004 00:00:00

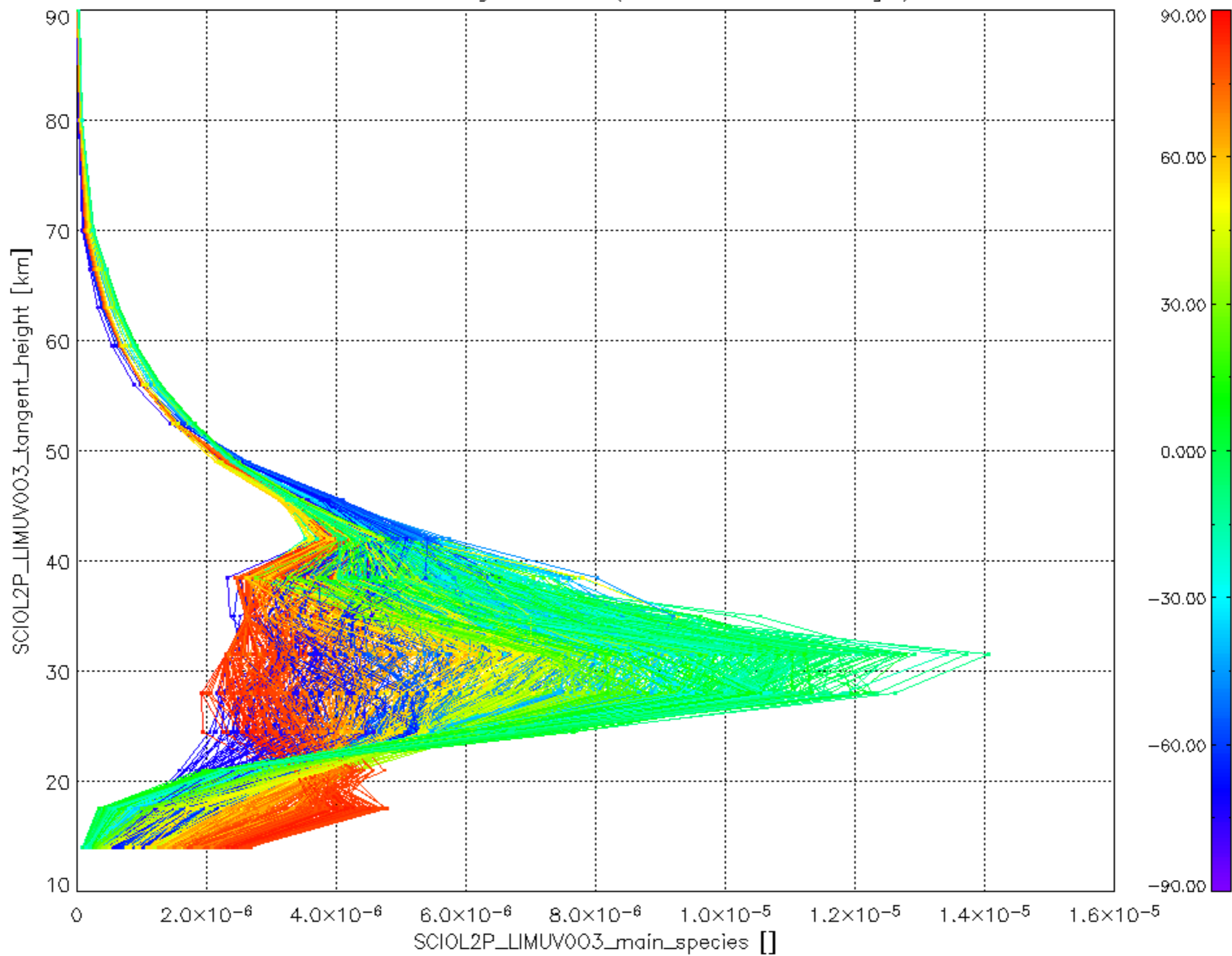


iCIOL2P\_NADUV1NO2\_amf\_cl for 04APR2004 00:00:00 to 05APR2004 00:00:00





Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).



Plot of SCIOL2P\_LIMUV1N02\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).

