

## 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	21AUG2008 07:18:43
Data source version	SCIA-OL/3.01-R
Processing scope for products	05JUN2004 00:00:00 to 06JUN2004 00:00:00
Start time of first product within scope	04JUN2004 22:46:36
Stop time of last product within scope	06JUN2004 00:50:58
Total number of level 2 products	16
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__2PRDPA20040604_224636_000033122027_00259_11836_8454.N1</a>	04JUN2004 22:46:36	04JUN2004 23:41:48	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040605_002711_000033252027_00260_11837_8580.N1</a>	05JUN2004 00:27:11	05JUN2004 01:22:37	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040605_020747_000033122027_00261_11838_8808.N1</a>	05JUN2004 02:07:47	05JUN2004 03:03:00	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040605_034823_000033252027_00262_11839_8753.N1</a>	05JUN2004 03:48:23	05JUN2004 04:43:48	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040605_052859_000033122027_00263_11840_8431.N1</a>	05JUN2004 05:28:59	05JUN2004 06:24:12	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040605_070935_000033252027_00264_11841_8656.N1</a>	05JUN2004 07:09:35	05JUN2004 08:05:00	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040605_085010_000033122027_00265_11842_8412.N1</a>	05JUN2004 08:50:10	05JUN2004 09:45:23	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040605_103046_000033252027_00266_11843_8704.N1</a>	05JUN2004 10:30:46	05JUN2004 11:26:12	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040605_121122_000033122027_00267_11844_8668.N1</a>	05JUN2004 12:11:22	05JUN2004 13:06:35	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040605_135157_000033252027_00268_11845_8558.N1</a>	05JUN2004 13:51:57	05JUN2004 14:47:23	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040605_153233_000033122027_00269_11846_8650.N1</a>	05JUN2004 15:32:33	05JUN2004 16:27:46	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040605_171255_000033162027_00270_11847_8619.N1</a>	05JUN2004 17:12:55	05JUN2004 18:08:12	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040605_185304_000033682027_00271_11848_8445.N1</a>	05JUN2004 18:53:04	05JUN2004 19:49:13	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20040605_203421_000033252027_00272_11849_8665.N1</a>	05JUN2004 20:34:21	05JUN2004 21:29:46	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20040605_221457_000033122027_00273_11850_8802.N1</a>	05JUN2004 22:14:57	05JUN2004 23:10:09	0	GOOD
15	<a href="#">SCI_OL__2PRDPA20040605_235532_000033252027_00274_11851_8421.N1</a>	05JUN2004 23:55:32	06JUN2004 00:50:58	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: 142480

Total number of cloud data DSRs with good quality flag (=0): 142480 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	142480	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	142480	0.17062	0.12500	0.12500	0.25000	0.060178	s
CL_FRAC	142480	0.37349	0.32526	0.0000	1.0000	0.31100	-
CL_FRAC_ERR	142480	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	142480	5.4599	4.0000	4.0000	8.0000	1.9257	
PMD_READ_CL[0]	142480	0.33476	0.0000	0.0000	8.0000	1.3565	-
PMD_READ_CL[1]	142480	1.1519	0.0000	0.0000	8.0000	2.1771	-
CL_TOP_HEIGHT	125819	3.2313	1.2340	0.0000	17.000	3.7119	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	125819	60.527	95.767	0.0000	101.00	43.255	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	142480	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	142480	11001010	11000100	11000000	11100000	3338.8	flags
AERO_ABSO_IND	142480	0.73073	0.57532	-4.7940	11.742	1.0607	
AERO_IND_DIAG	142480	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	142480	01011000	00000000	00000000	11000000	24504.	flags

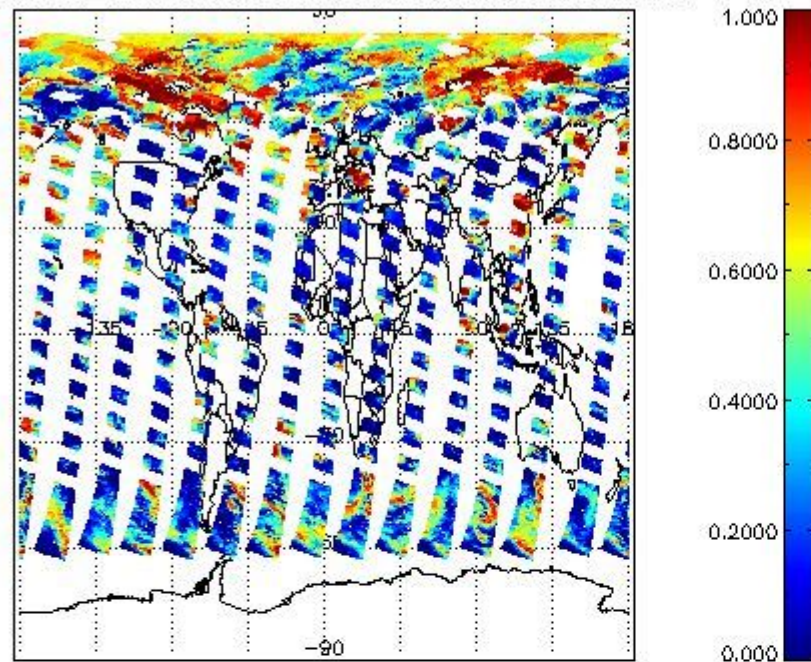
### Time and geolocation plots:

Plots are available for the following parameters:

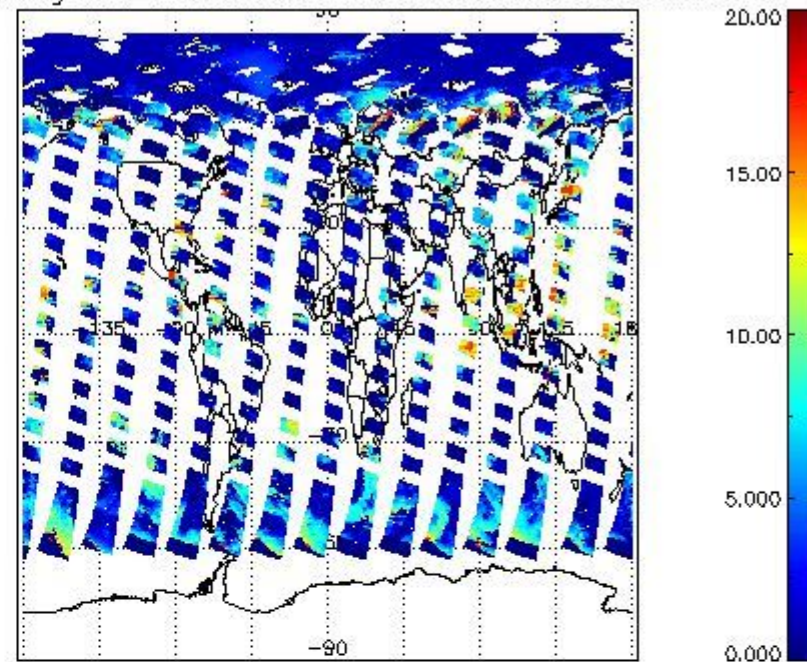
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



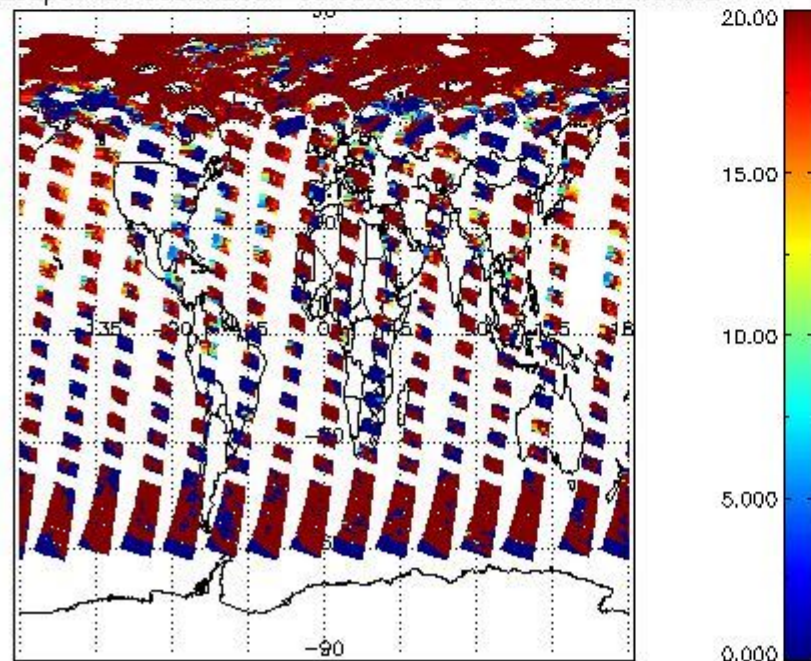
cL\_frac for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



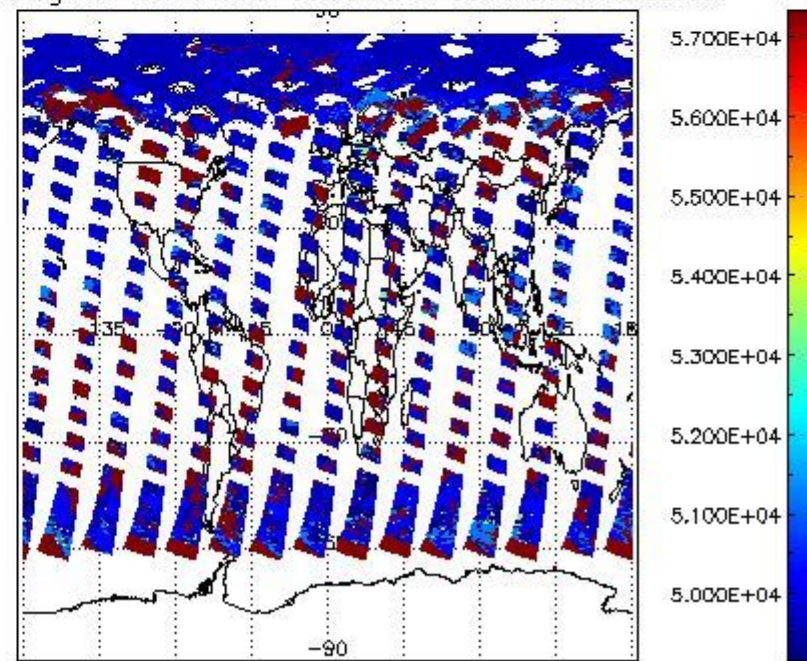
cL\_top\_height for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



cL\_opt\_depth for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



cloud\_flags for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



## 2.2.2 Nadir

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

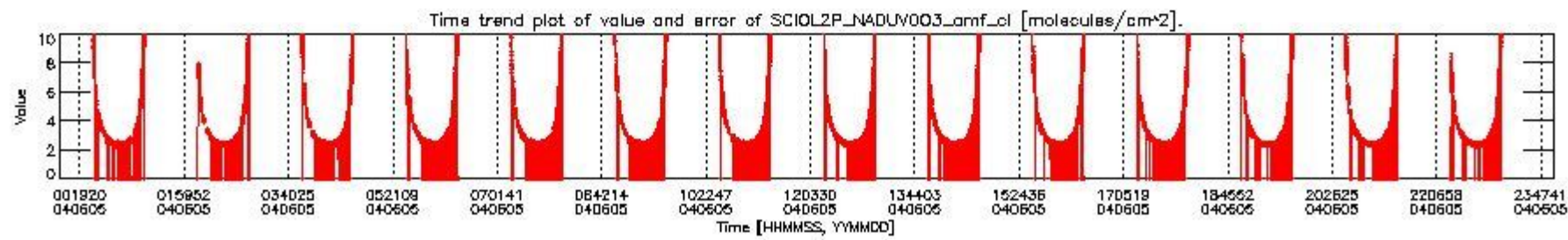
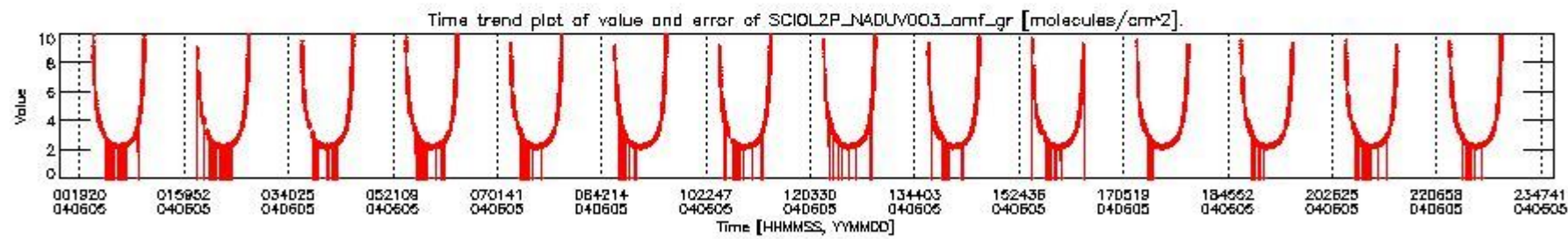
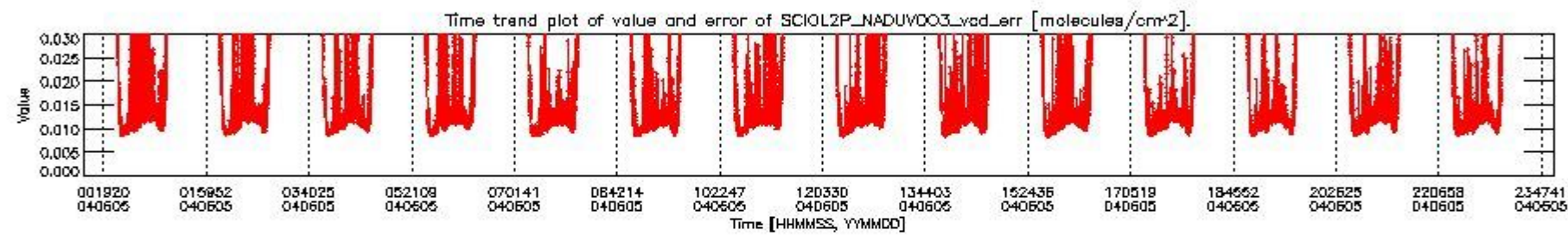
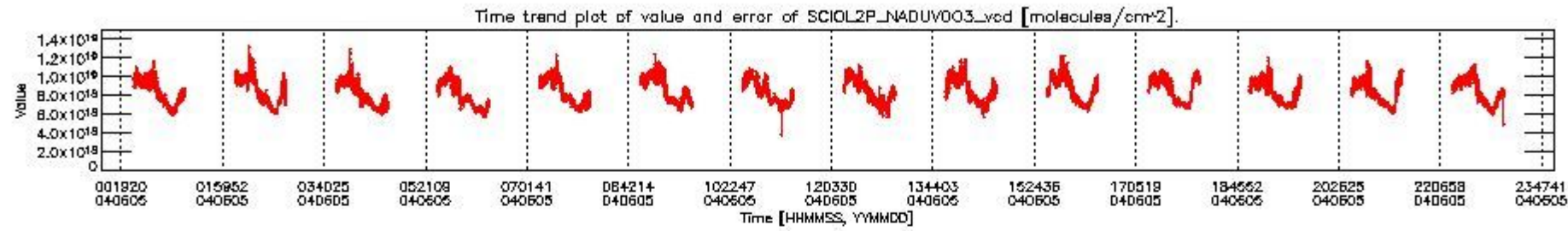
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



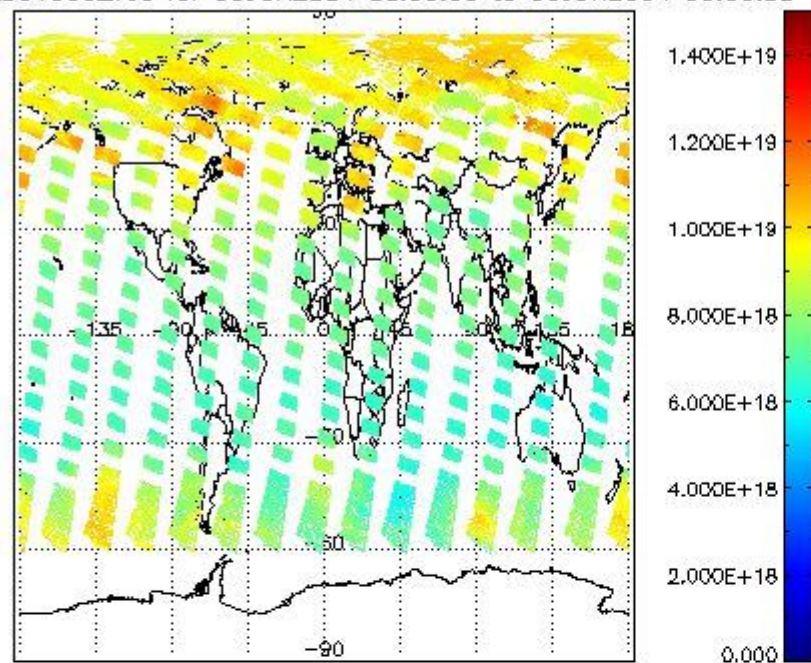
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

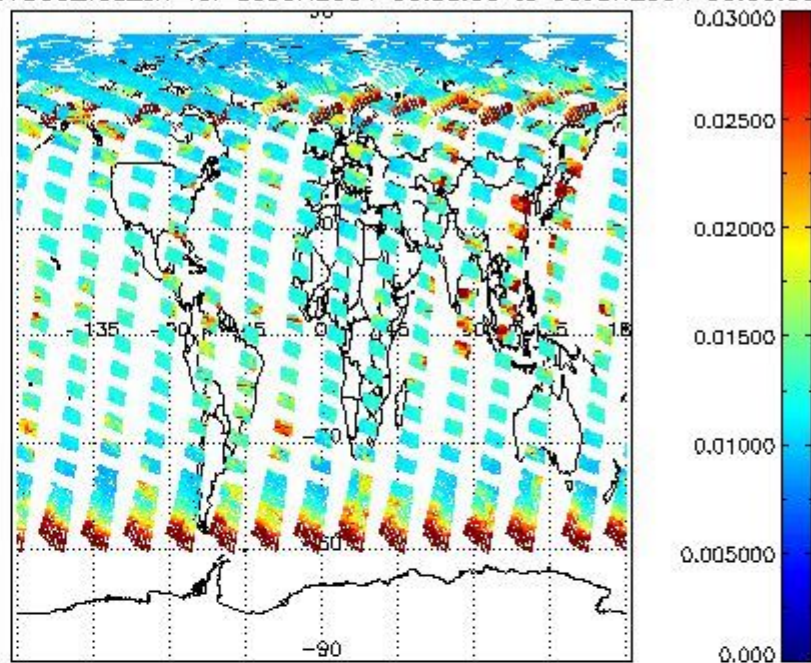




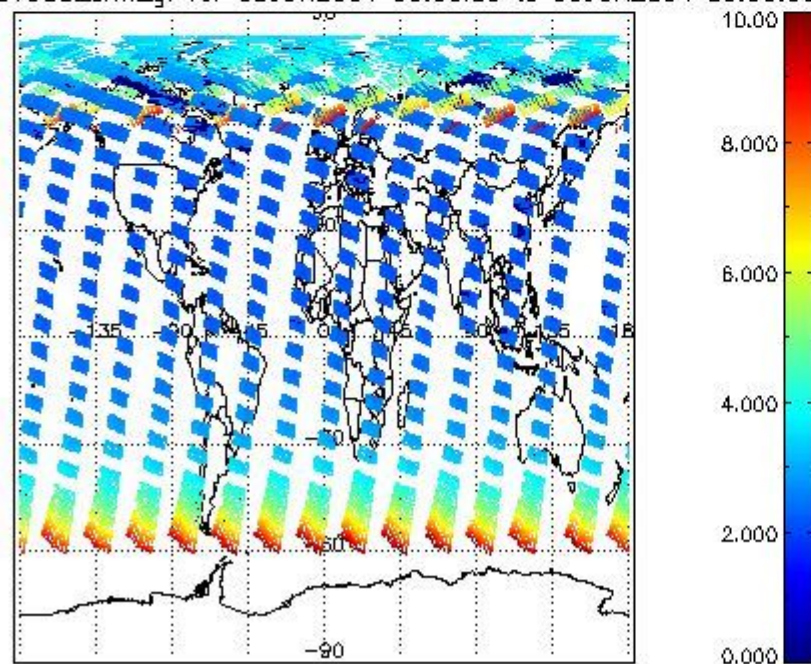
SCIOL2P\_NADUV003\_vcd for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



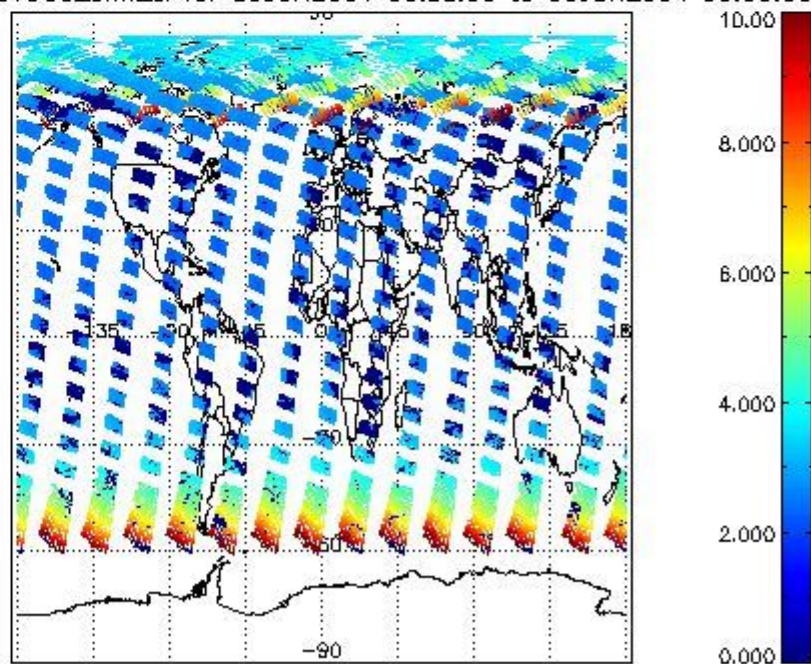
SCIOL2P\_NADUV003\_vcd\_err for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



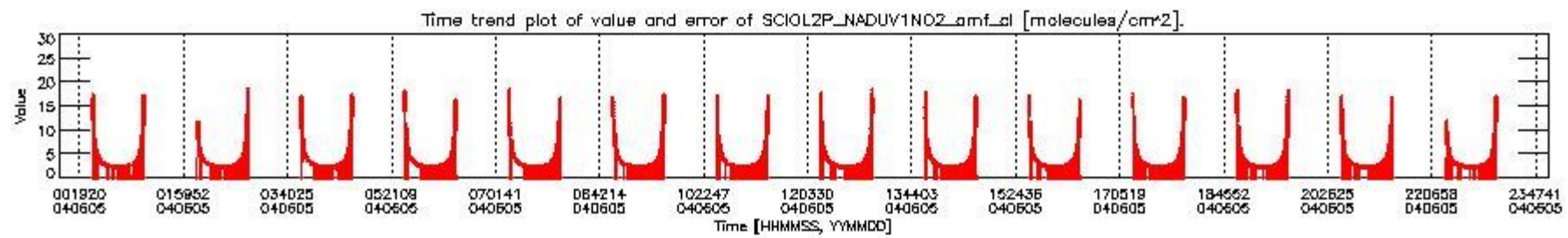
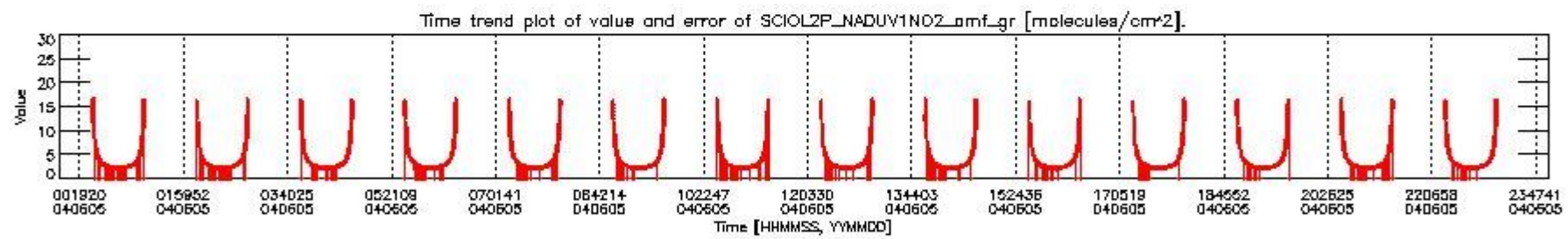
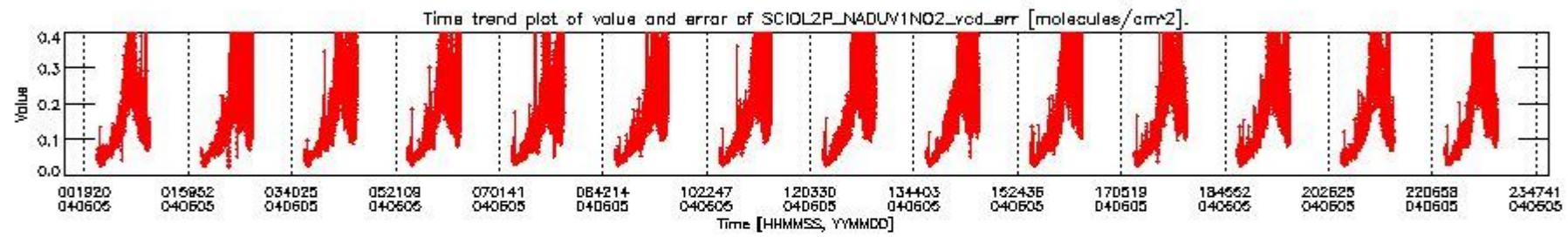
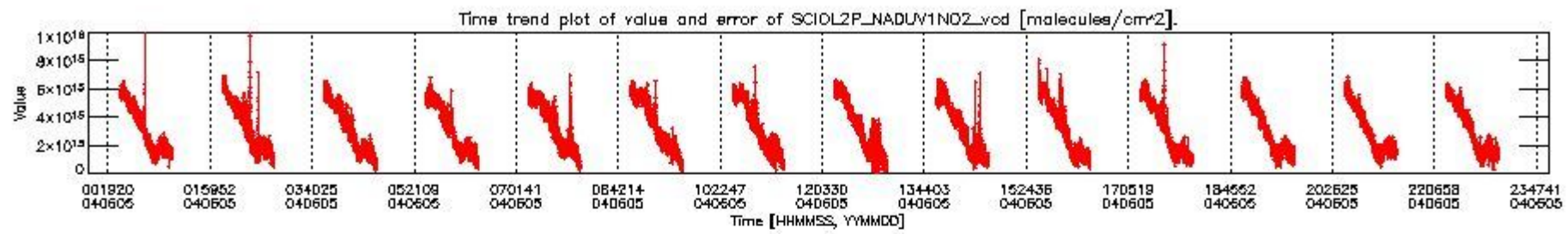
SCIOL2P\_NADUV003\_amf\_gr for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



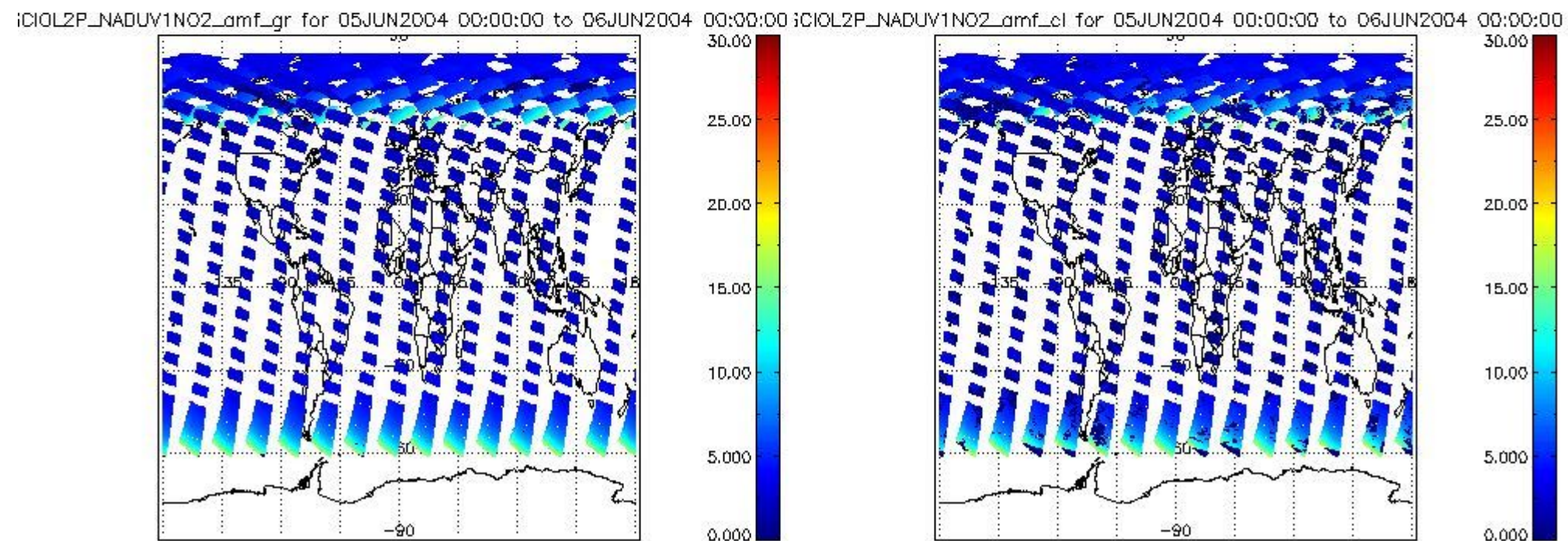
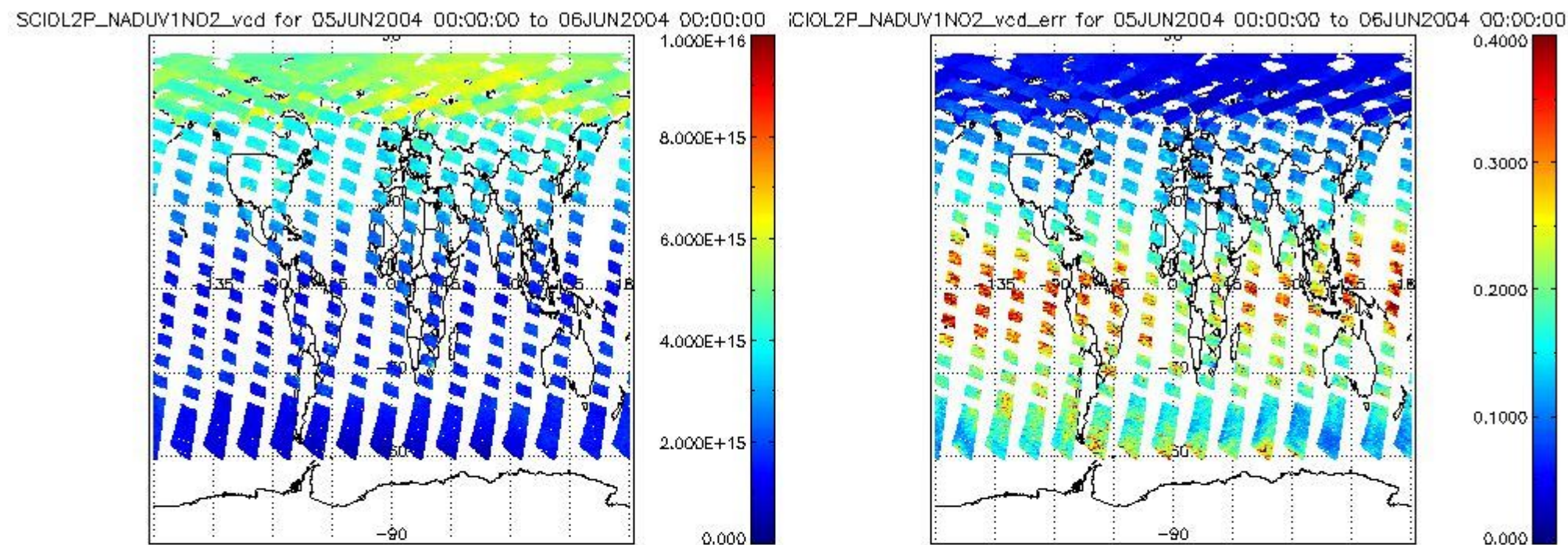
SCIOL2P\_NADUV003\_amf\_cl for 05JUN2004 00:00:00 to 06JUN2004 00:00:00











### 2.2.3 Limb

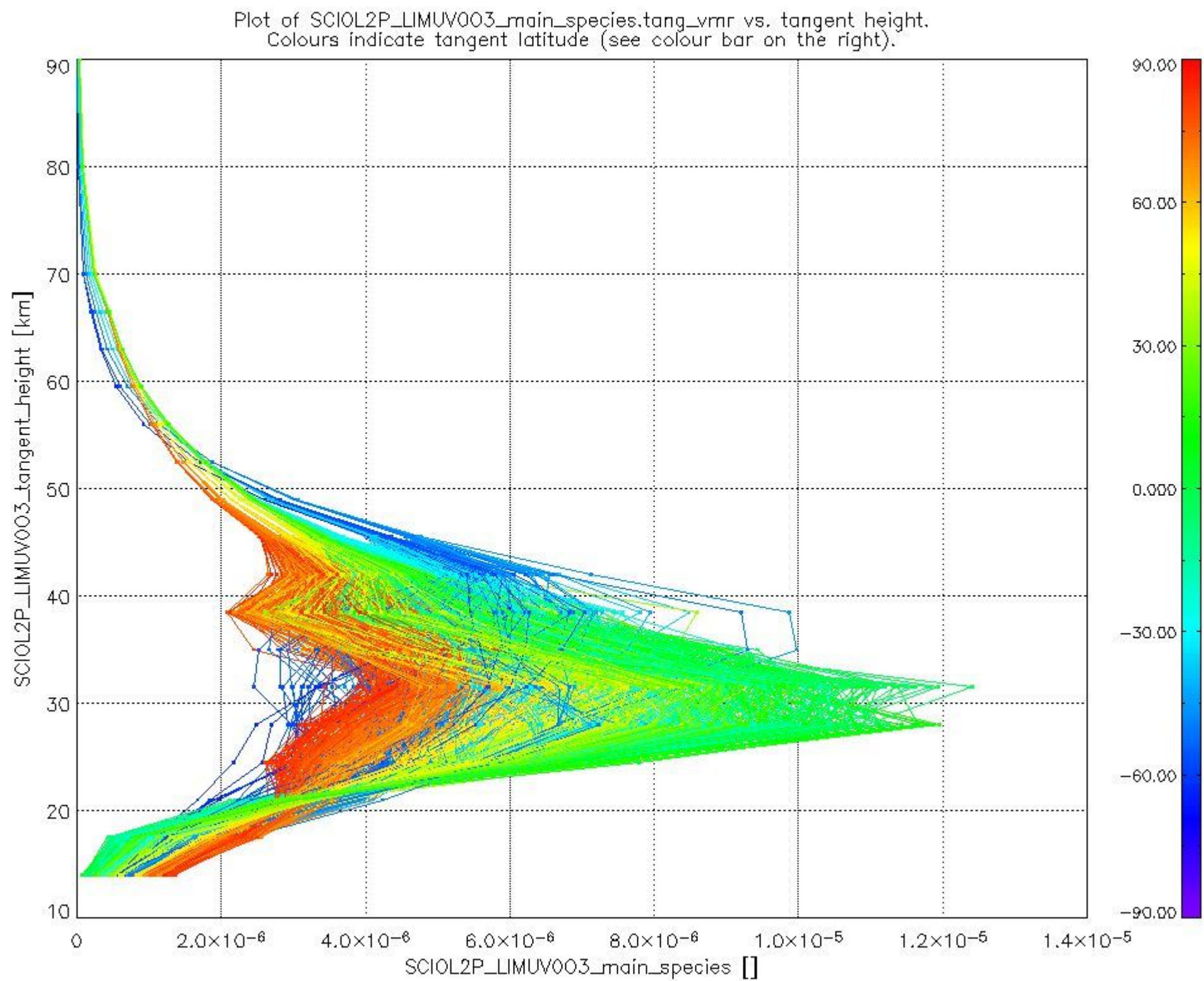
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

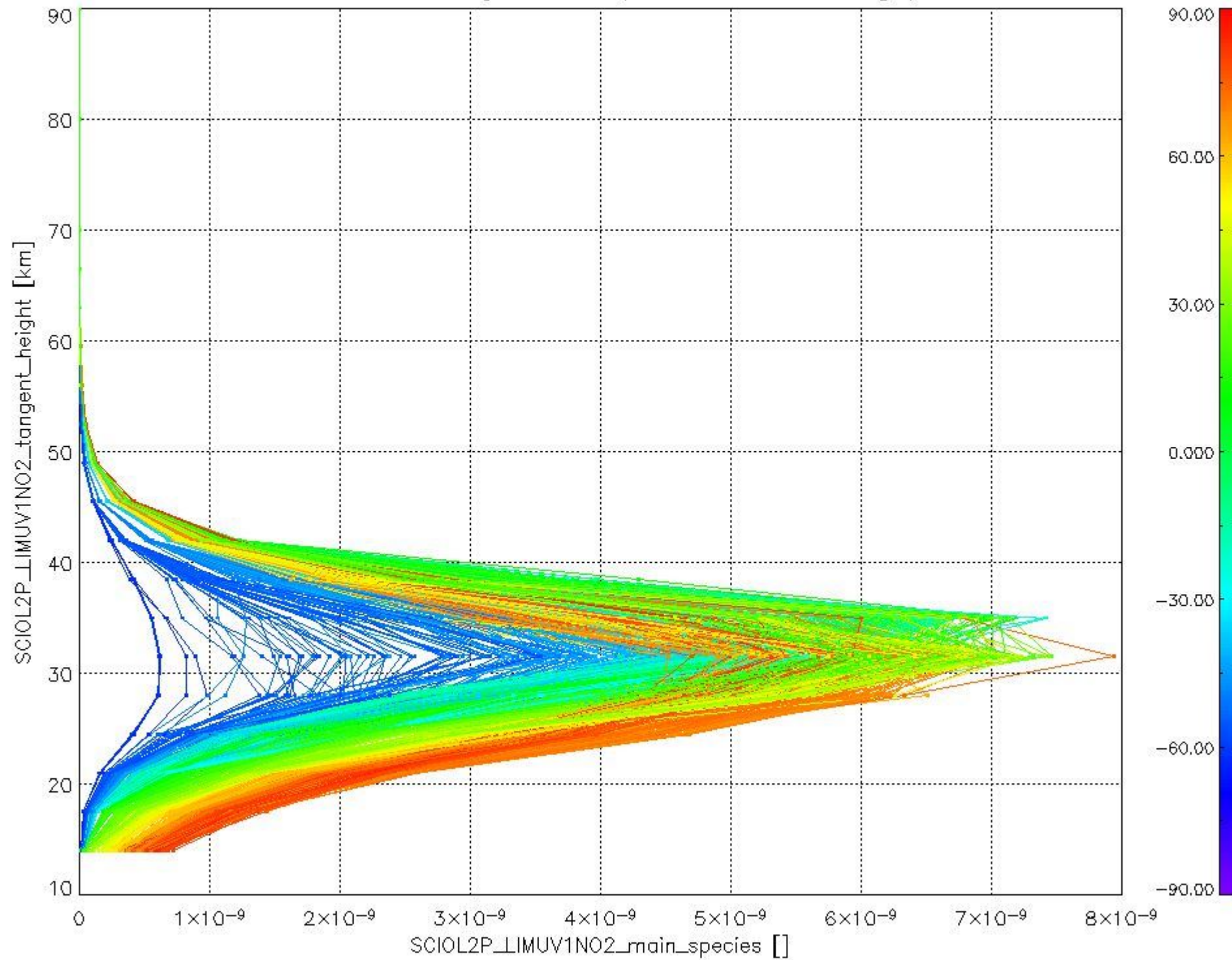


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





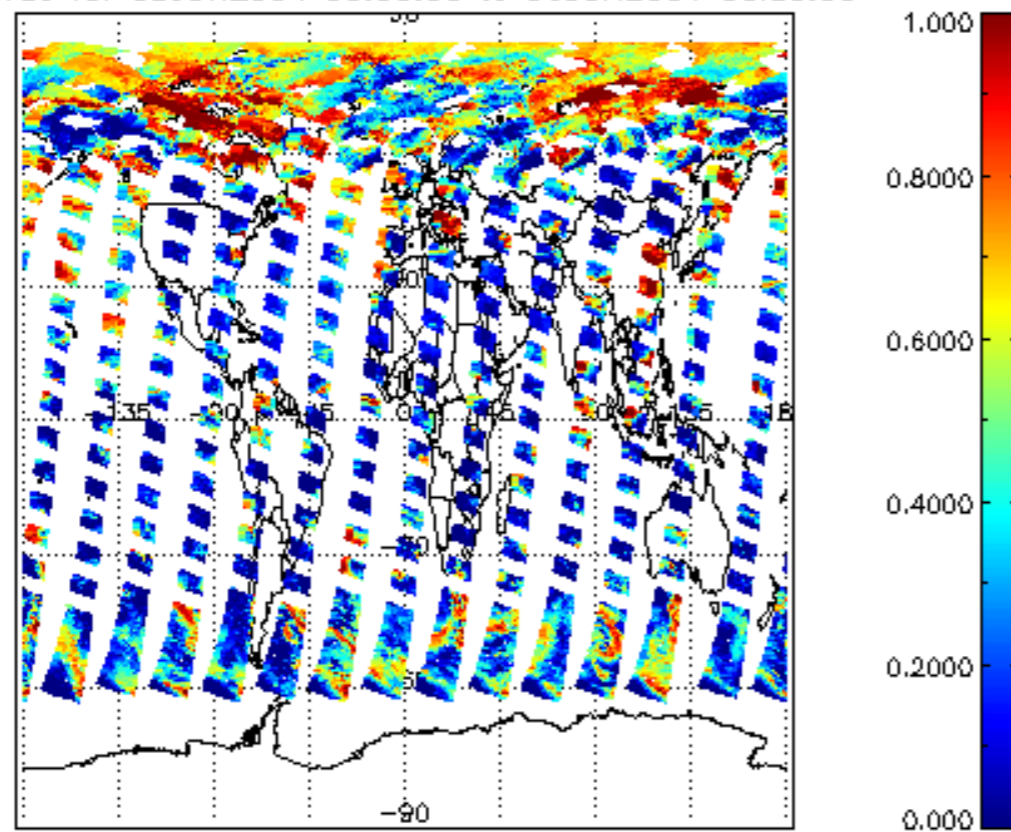
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



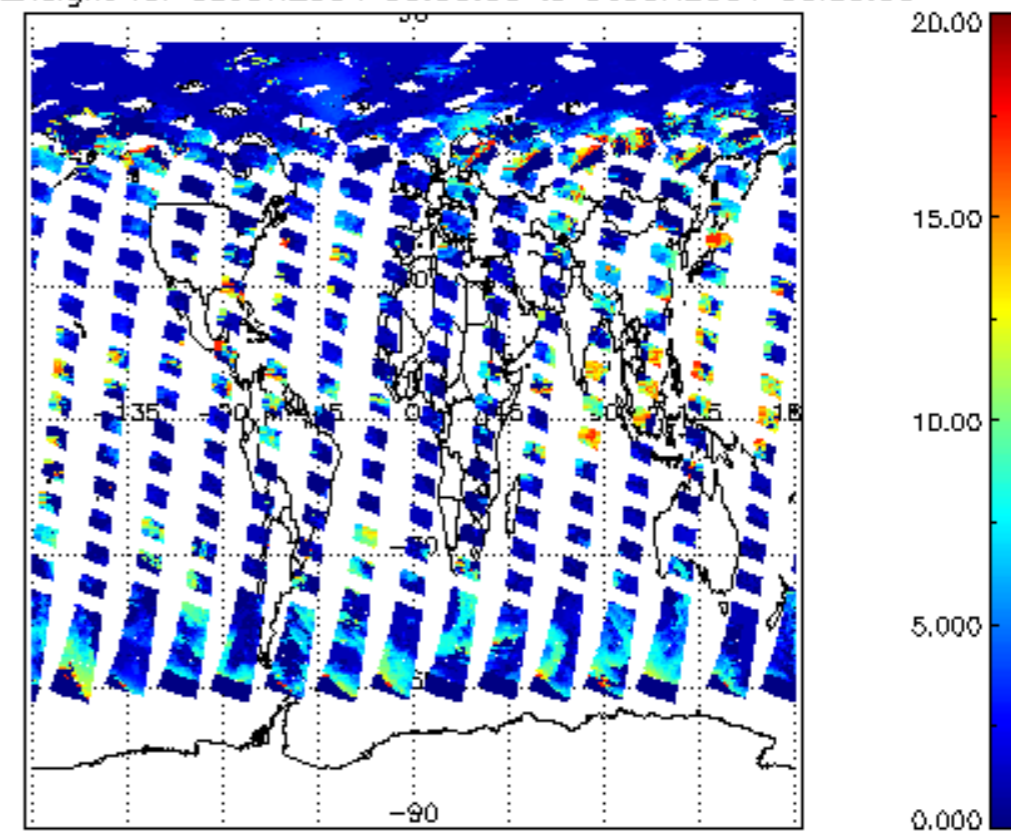
### 2.3 ADF monitoring

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

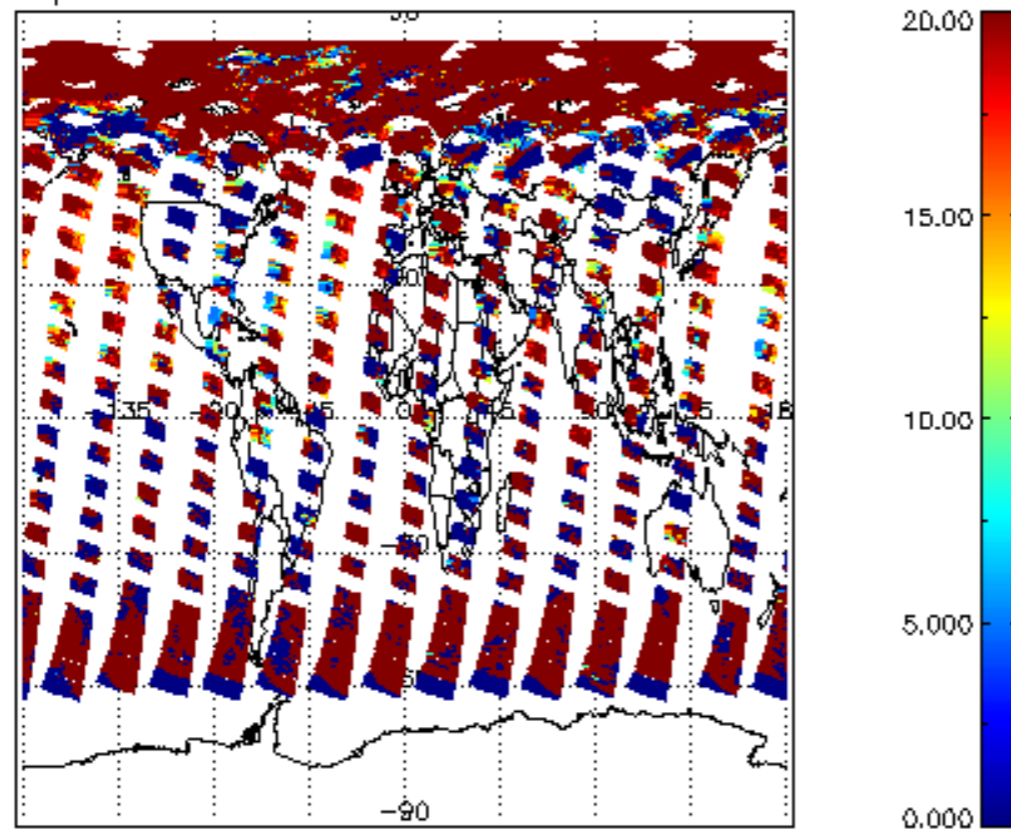
cl\_frac for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



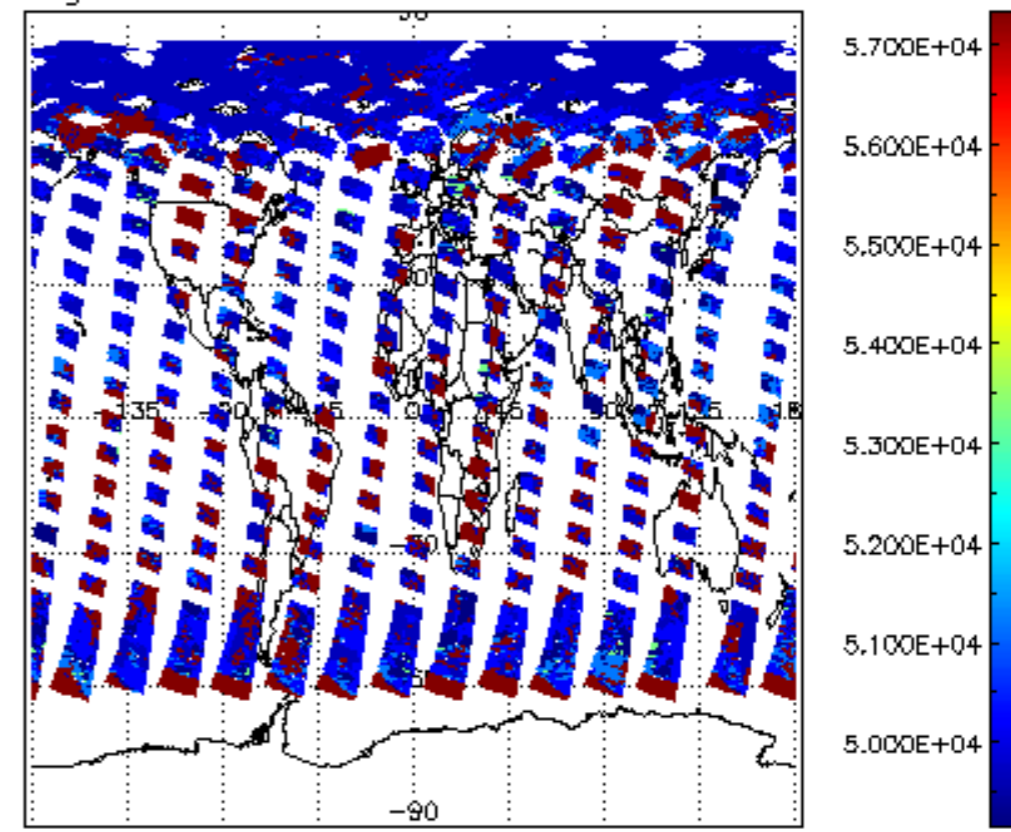
cl\_top\_height for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



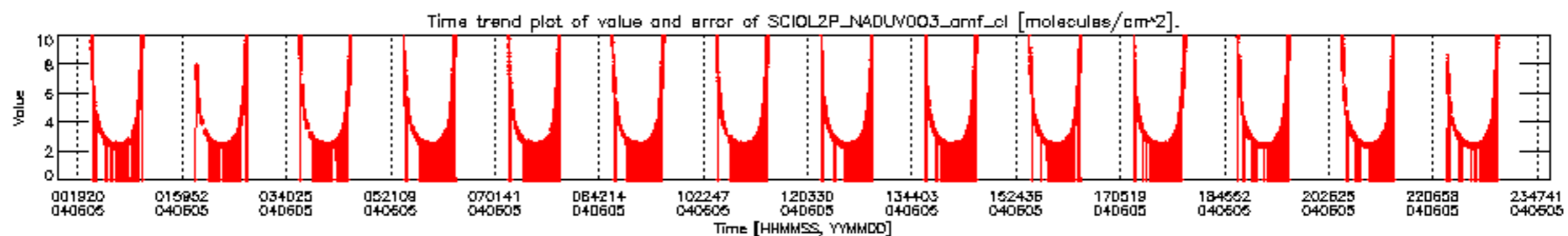
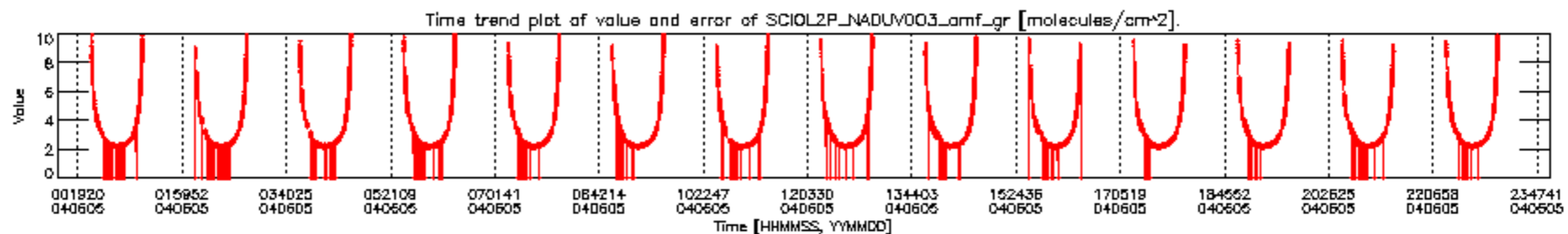
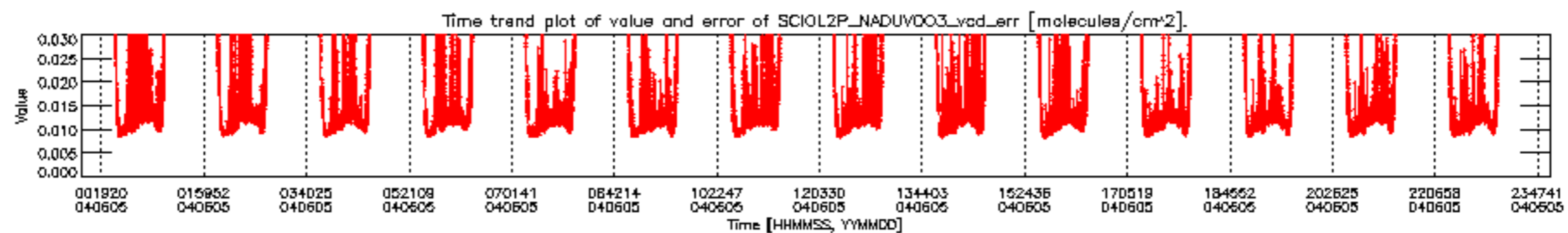
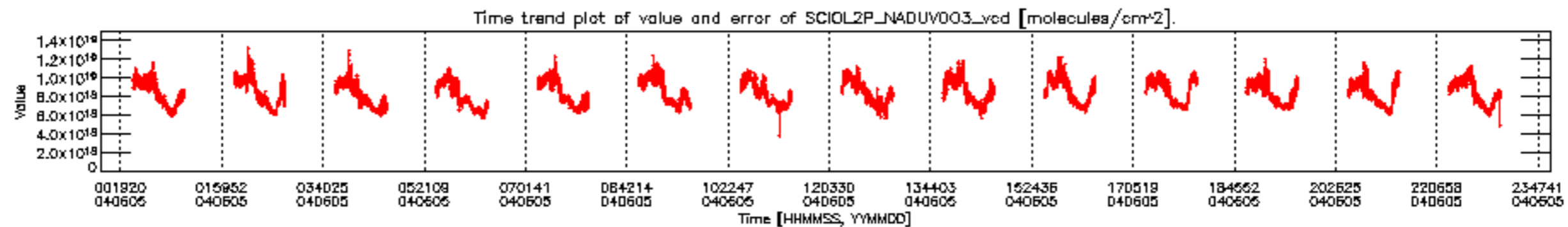
cl\_opt\_depth for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



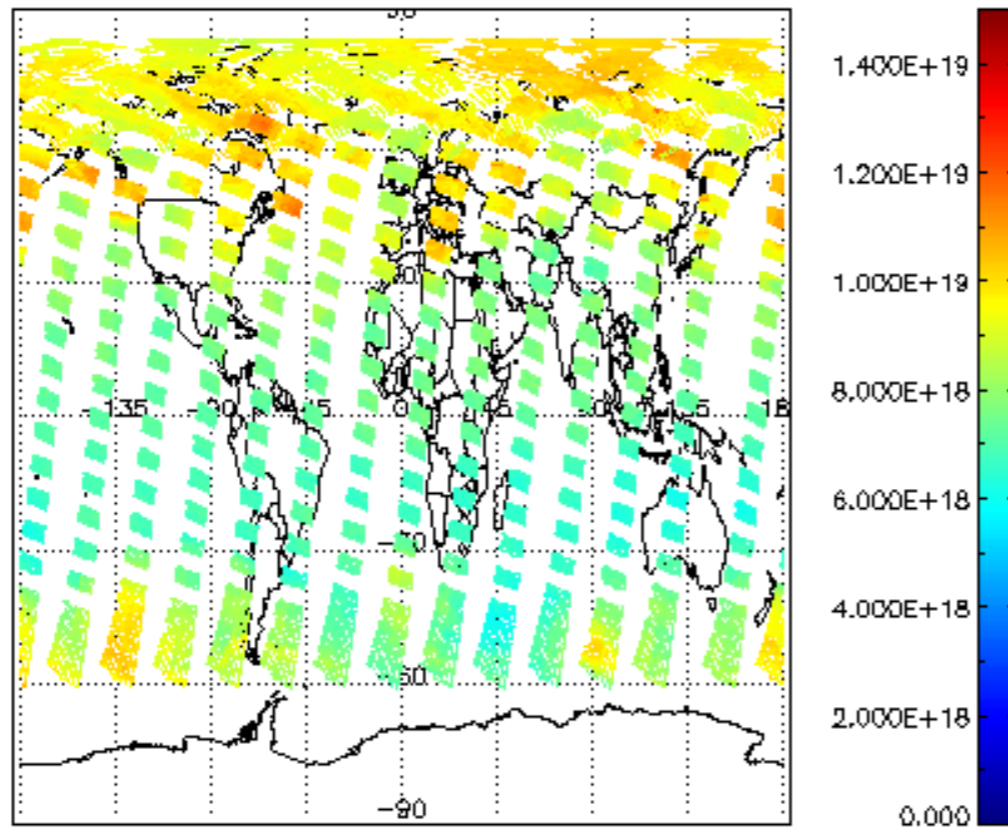
cloud\_flags for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



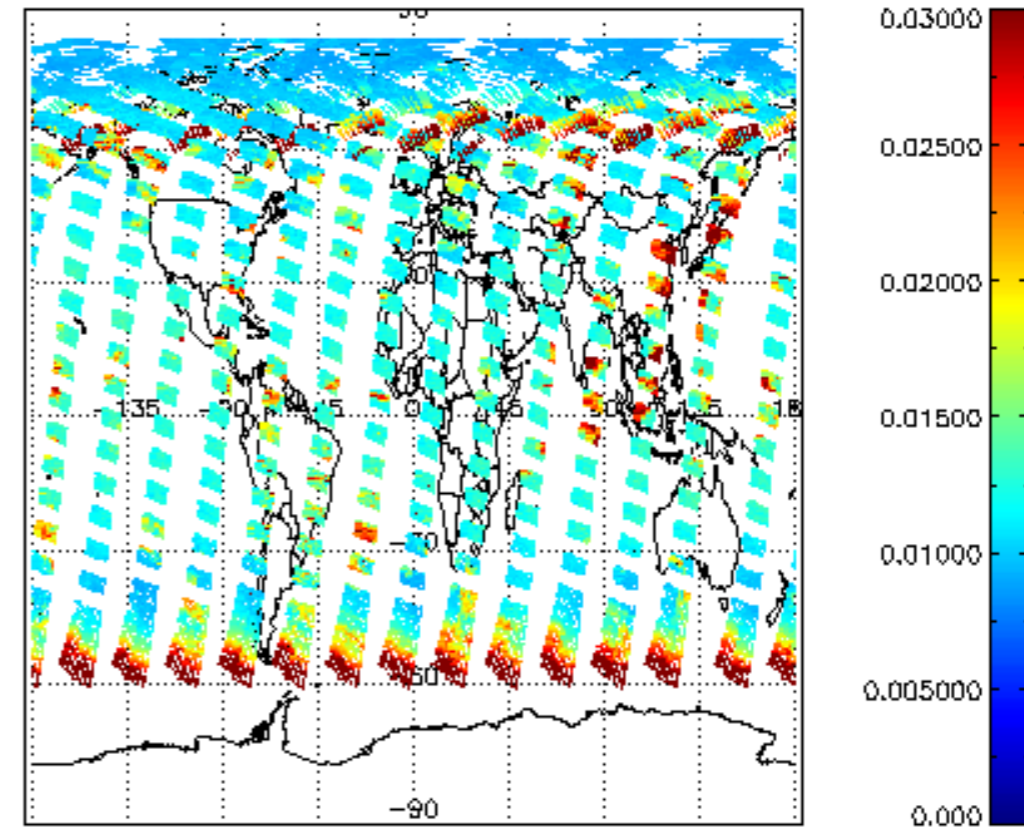




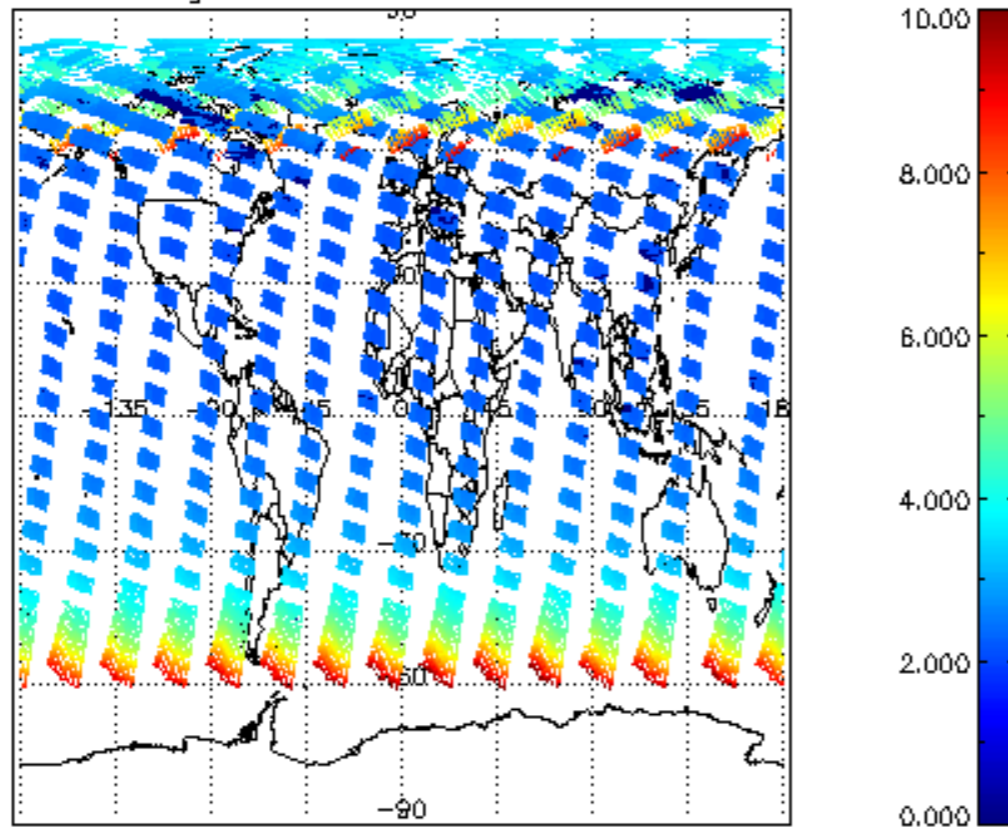
SCIOL2P\_NADUV003\_vcd for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



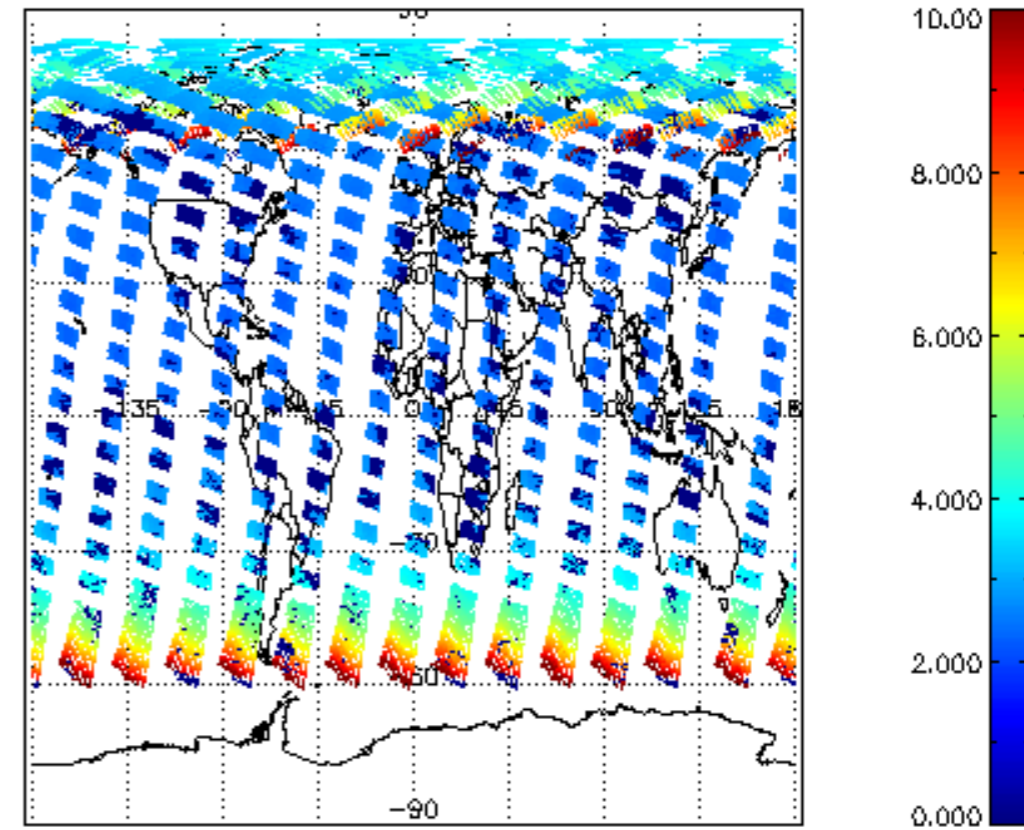
SCIOL2P\_NADUV003\_vcd\_err for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



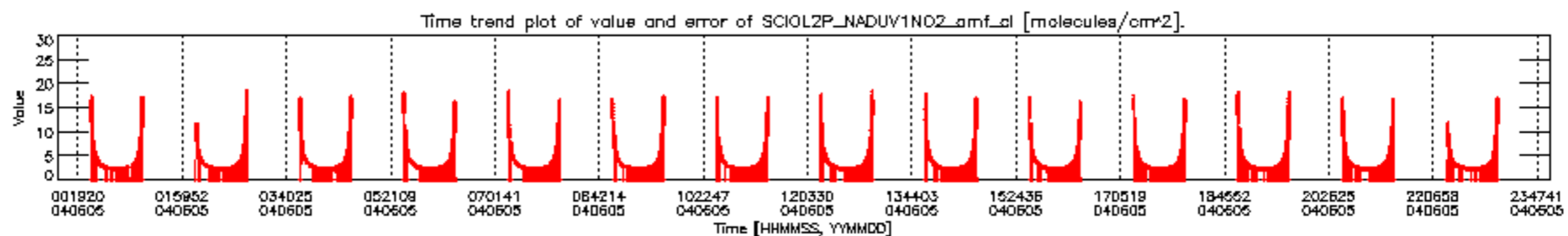
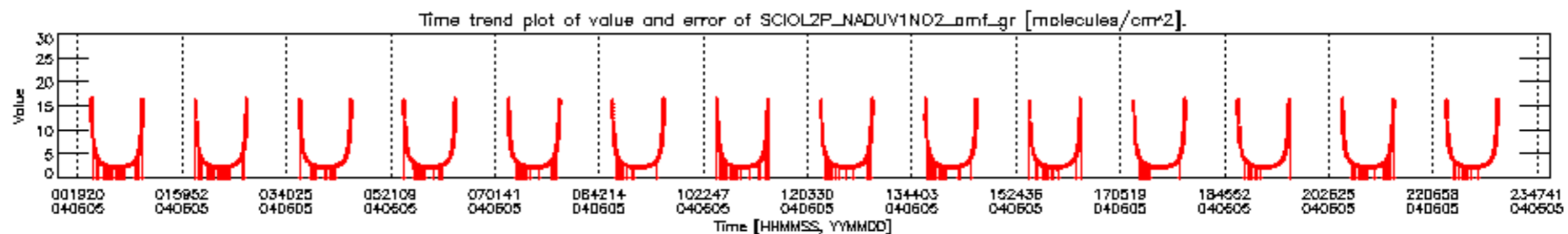
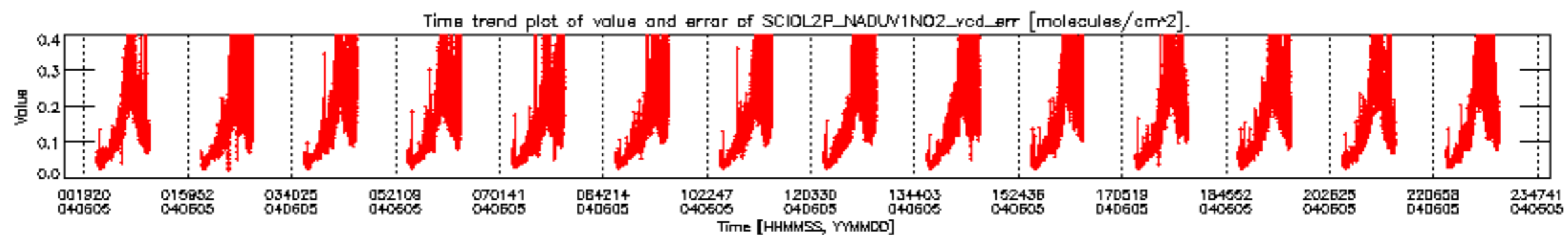
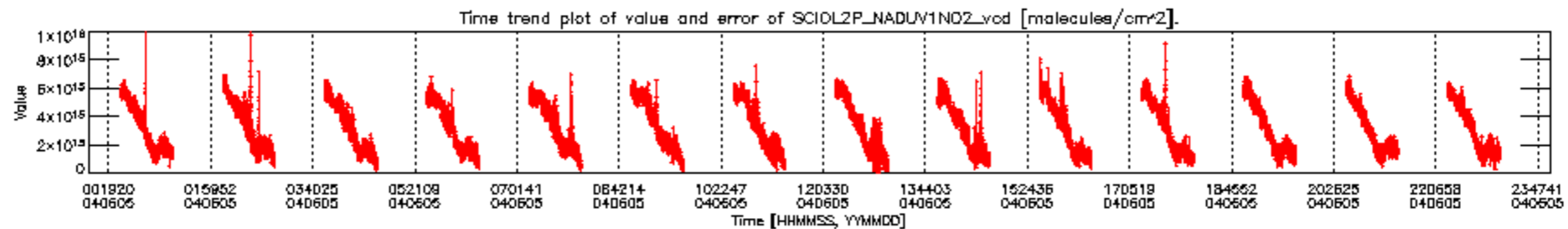
SCIOL2P\_NADUV003\_amf\_gr for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



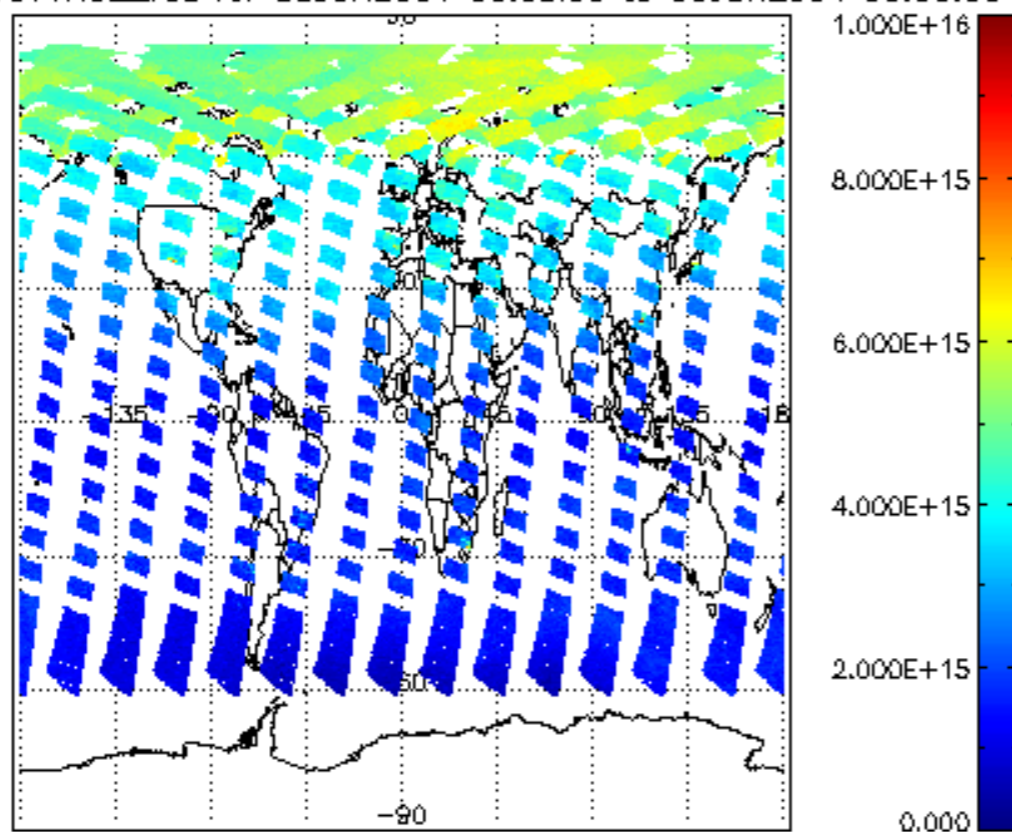
SCIOL2P\_NADUV003\_amf\_cl for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



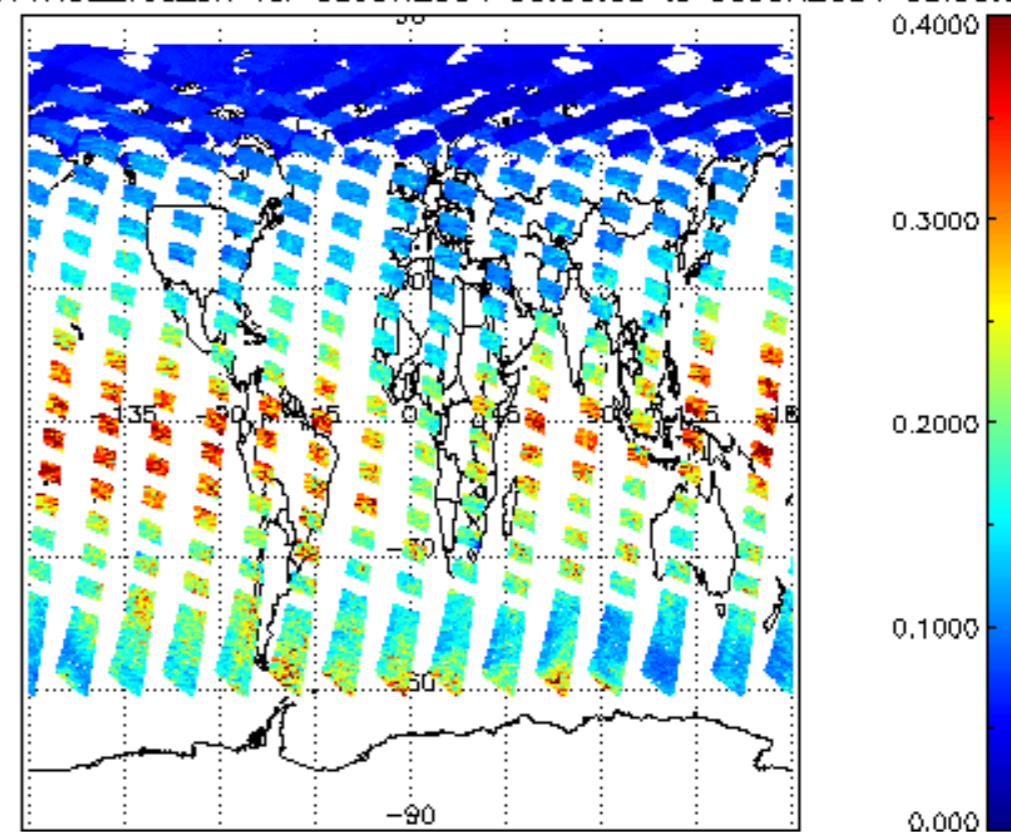




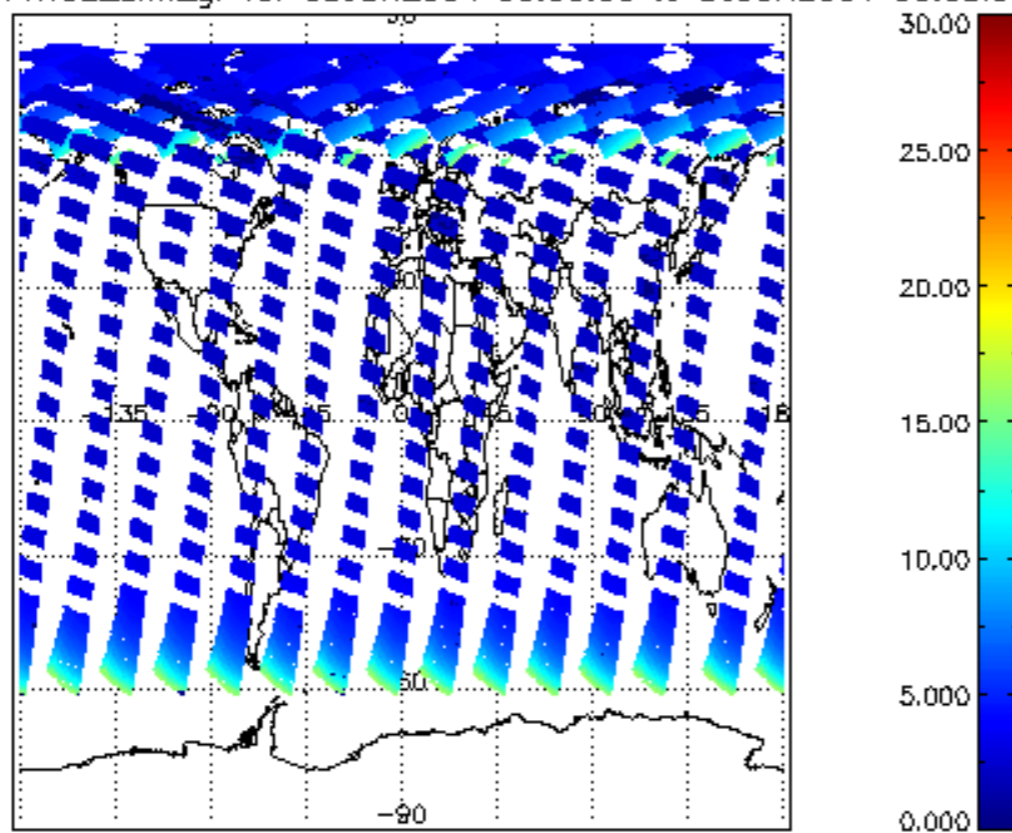
SCIOL2P\_NADUV1NO2\_vcd for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



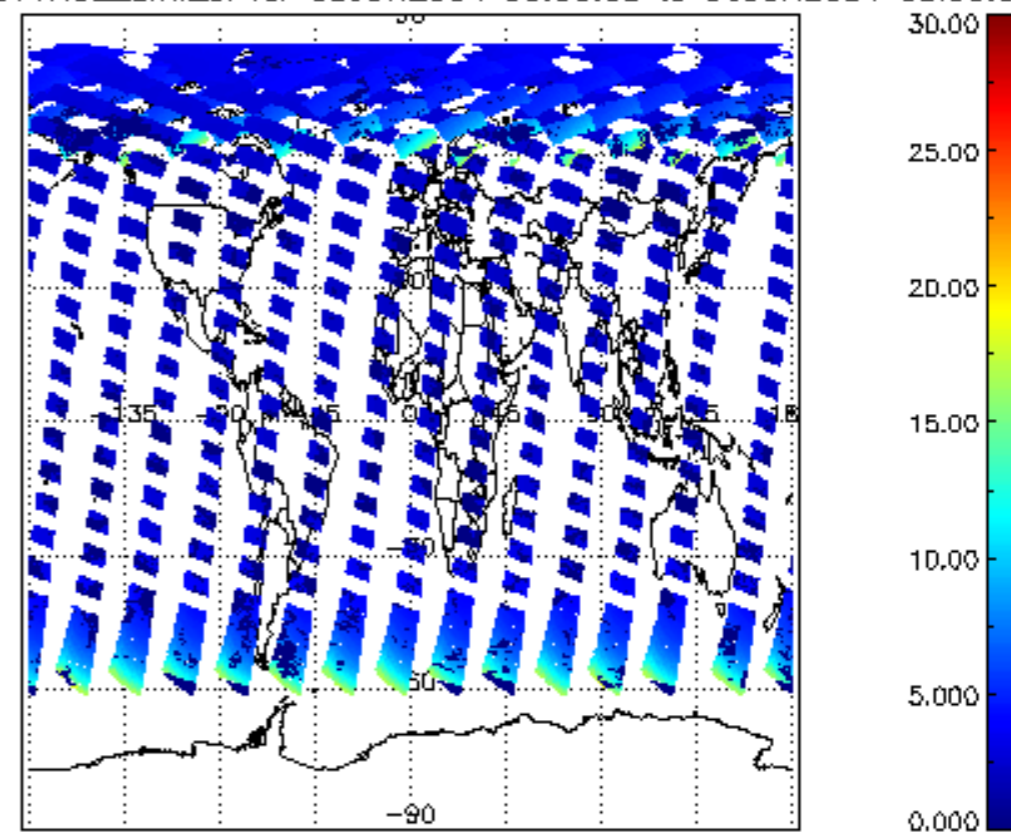
iCIOL2P\_NADUV1NO2\_vcd\_err for 05JUN2004 00:00:00 to 06JUN2004 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_gr for 05JUN2004 00:00:00 to 06JUN2004 00:00:00

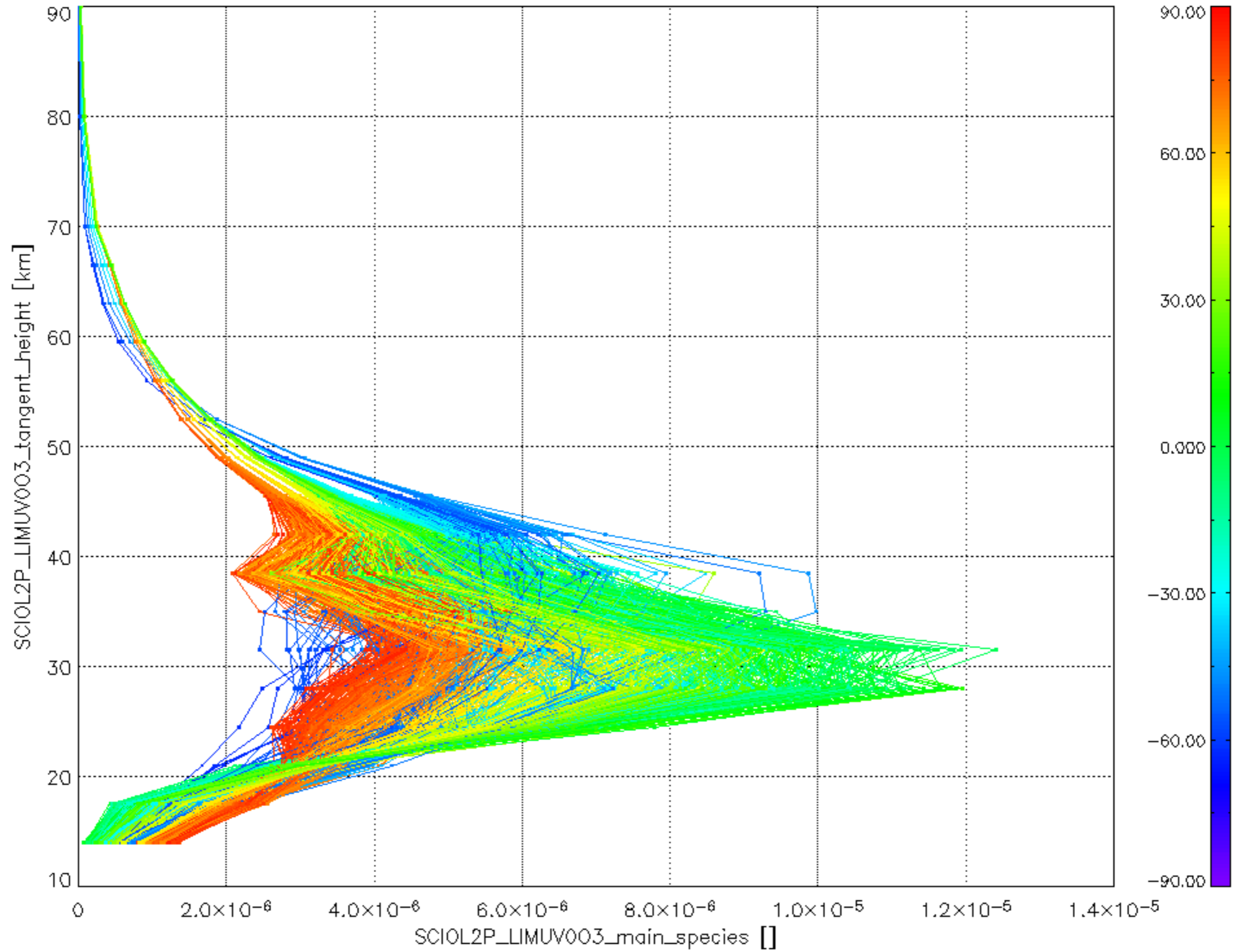


iCIOL2P\_NADUV1NO2\_amf\_cl for 05JUN2004 00:00:00 to 06JUN2004 00:00:00





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



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

