

## 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	22AUG2008 17:47:22
Data source version	SCIA-OL/3.01-R
Processing scope for products	17JUN2004 00:00:00 to 18JUN2004 00:00:00
Start time of first product within scope	16JUN2004 23:09:16
Stop time of last product within scope	17JUN2004 23:32:51
Total number of level 2 products	15
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__2PRDPA20040616_230916_000033122027_00431_12008_8637.N1</a>	16JUN2004 23:09:16	17JUN2004 00:04:29	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040617_004952_000033252027_00432_12009_8520.N1</a>	17JUN2004 00:49:52	17JUN2004 01:45:18	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040617_023028_000033122027_00433_12010_8416.N1</a>	17JUN2004 02:30:28	17JUN2004 03:25:41	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040617_041104_000033252027_00434_12011_8624.N1</a>	17JUN2004 04:11:04	17JUN2004 05:06:29	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040617_055140_000033122027_00435_12012_8735.N1</a>	17JUN2004 05:51:40	17JUN2004 06:46:53	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040617_073216_000033252027_00436_12013_8544.N1</a>	17JUN2004 07:32:16	17JUN2004 08:27:41	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040617_091252_000033122027_00437_12014_8525.N1</a>	17JUN2004 09:12:52	17JUN2004 10:08:04	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040617_105327_000033252027_00438_12015_8652.N1</a>	17JUN2004 10:53:27	17JUN2004 11:48:53	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040617_123403_000033122027_00439_12016_8441.N1</a>	17JUN2004 12:34:03	17JUN2004 13:29:16	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040617_141439_000033252027_00440_12017_8707.N1</a>	17JUN2004 14:14:39	17JUN2004 15:10:05	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040617_155515_000033122027_00441_12018_8640.N1</a>	17JUN2004 15:55:15	17JUN2004 16:50:28	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040617_173538_000033162027_00442_12019_8630.N1</a>	17JUN2004 17:35:38	17JUN2004 18:30:55	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040617_191546_000033682027_00443_12020_8538.N1</a>	17JUN2004 19:15:46	17JUN2004 20:11:55	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20040617_205703_000033252027_00444_12021_8773.N1</a>	17JUN2004 20:57:03	17JUN2004 21:52:28	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20040617_223738_000033122027_00445_12022_8647.N1</a>	17JUN2004 22:37:38	17JUN2004 23:32:51	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: 145333

Total number of cloud data DSRs with good quality flag (=0): 145333 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	145333	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	145333	0.16995	0.12500	0.12500	0.25000	0.059985	s
CL_FRAC	145333	0.35399	0.29633	0.0000	1.0000	0.30254	-
CL_FRAC_ERR	145333	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	145333	5.4384	4.0000	4.0000	8.0000	1.9195	
PMD_READ_CL[0]	145333	0.25623	0.0000	0.0000	8.0000	1.1550	-
PMD_READ_CL[1]	145333	1.2092	0.0000	0.0000	8.0000	2.1979	-
CL_TOP_HEIGHT	128069	3.4881	1.4190	0.0000	17.000	3.8335	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	128069	59.115	84.450	0.0000	101.00	43.812	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	145333	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	145333	11001011	11000100	11000000	11100000	3388.7	flags
AERO_ABSO_IND	145333	0.74082	0.53283	-4.4711	16.932	1.0642	
AERO_IND_DIAG	145333	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	145333	01010111	00000000	00000000	11000000	24481.	flags

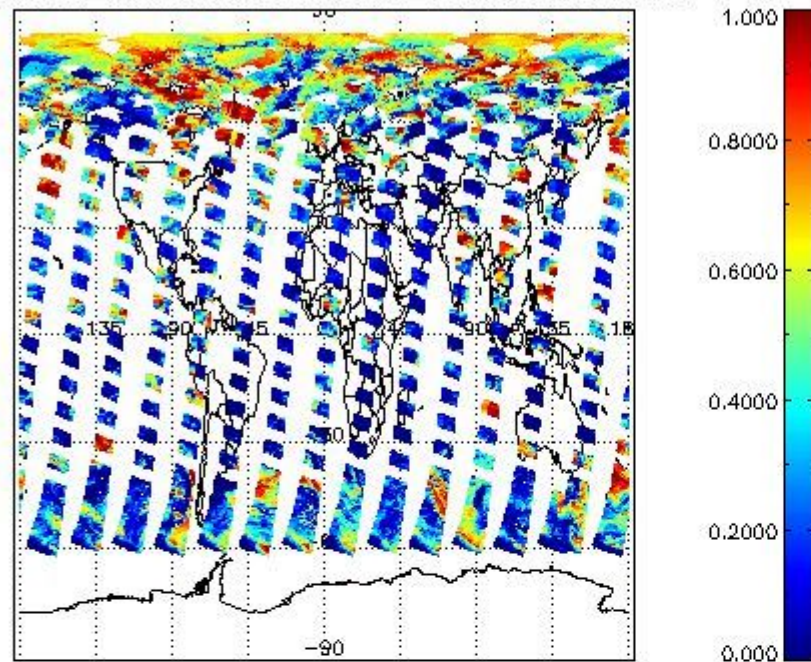
### Time and geolocation plots:

Plots are available for the following parameters:

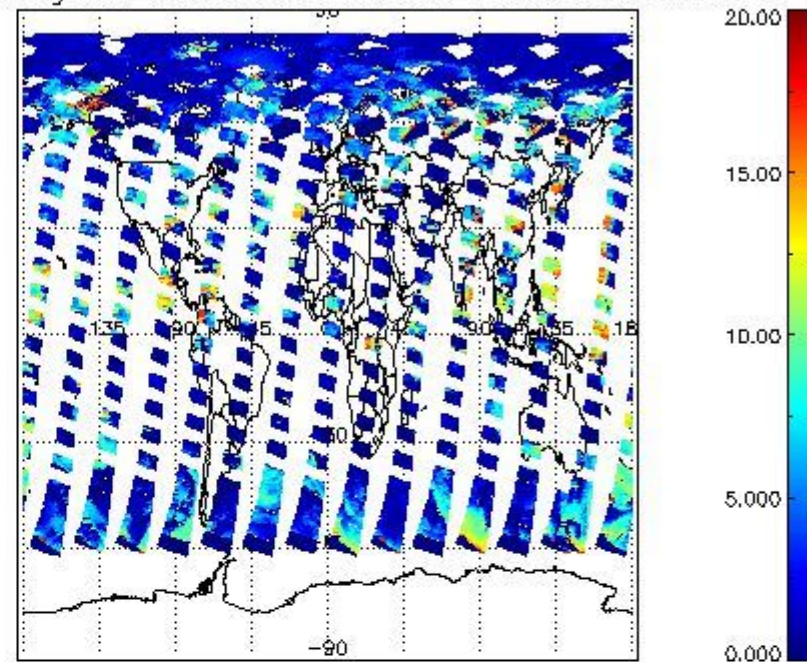
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



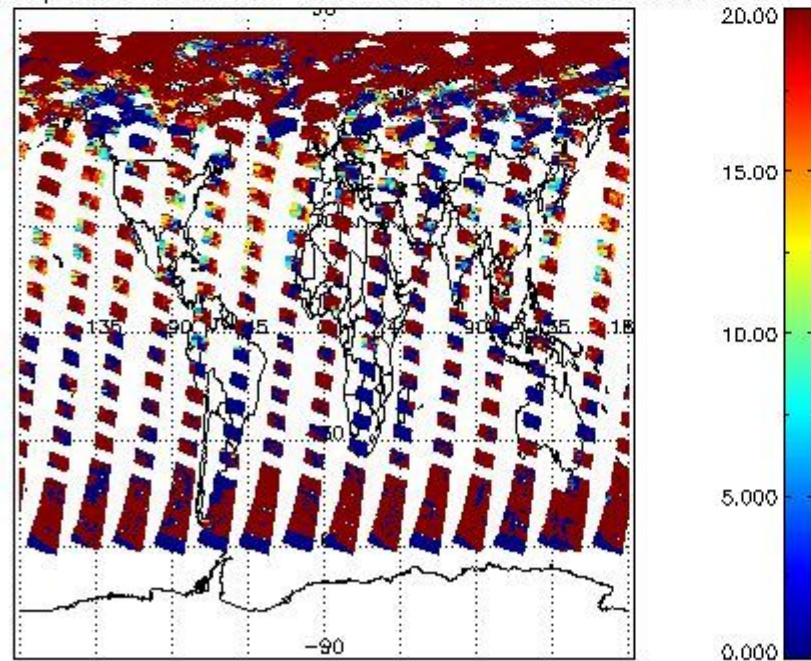
cL\_frac for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



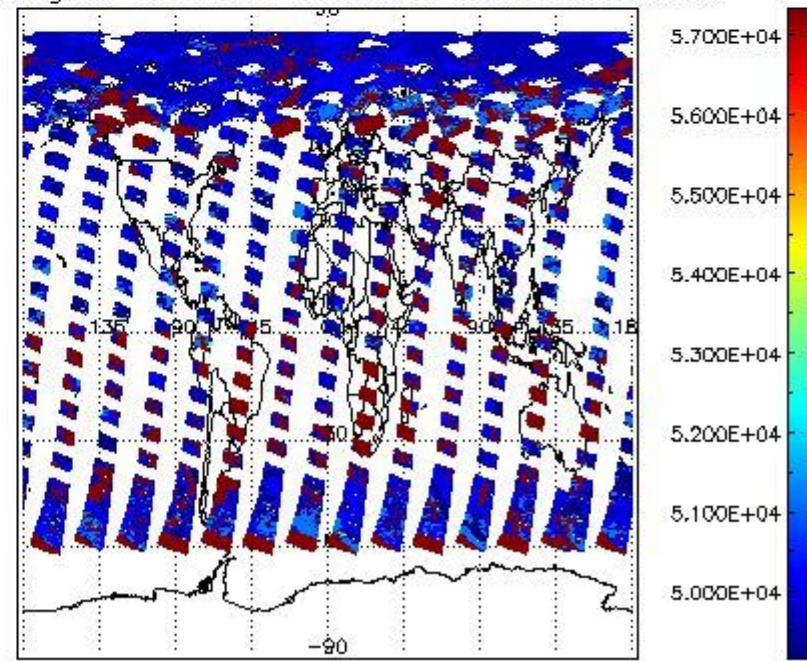
cL\_top\_height for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



cL\_opt\_depth for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



cloud\_flags for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



## 2.2.2 Nadir

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

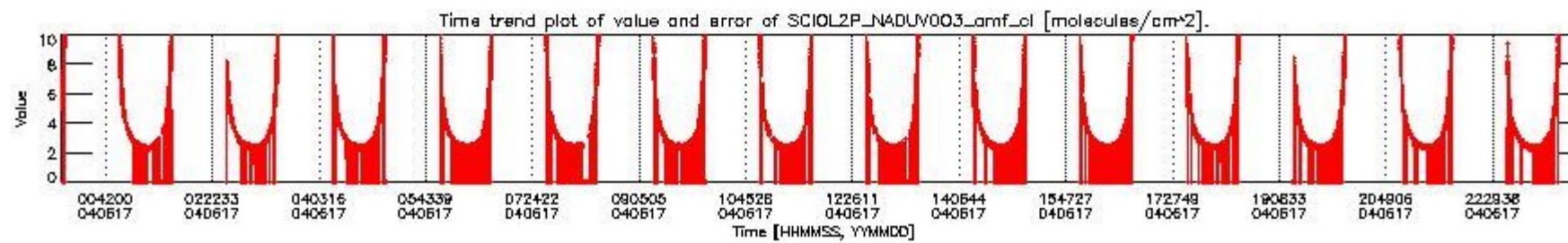
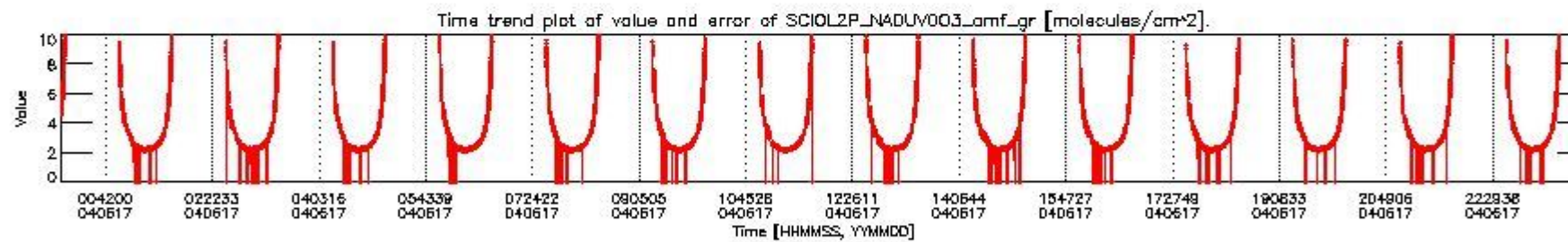
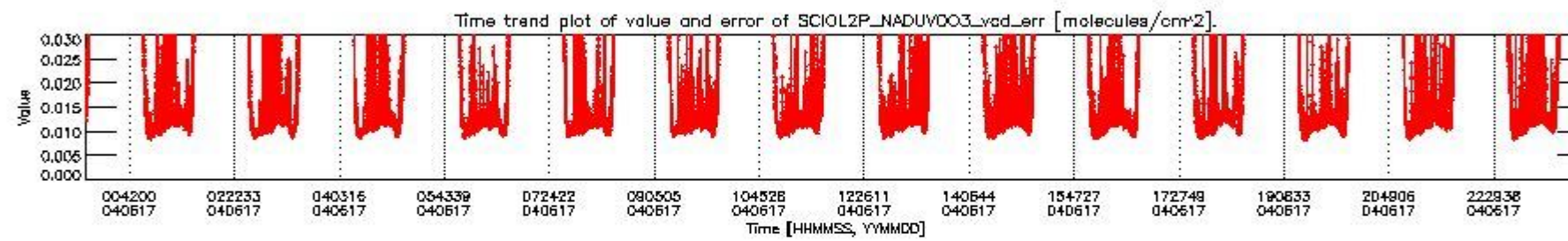
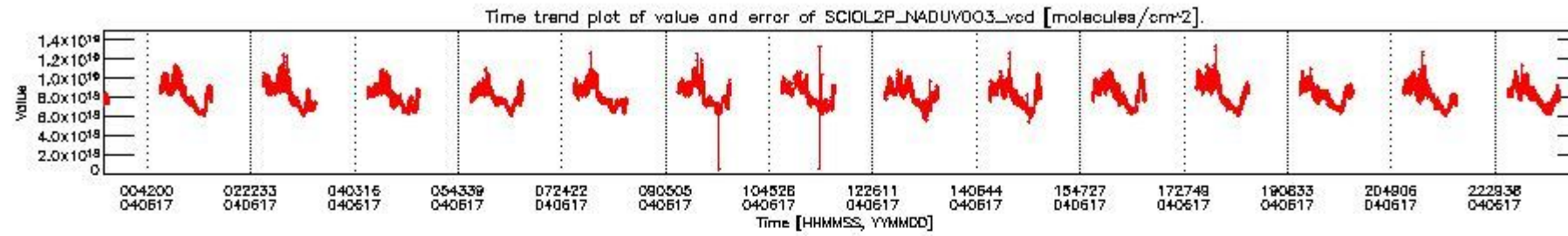
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



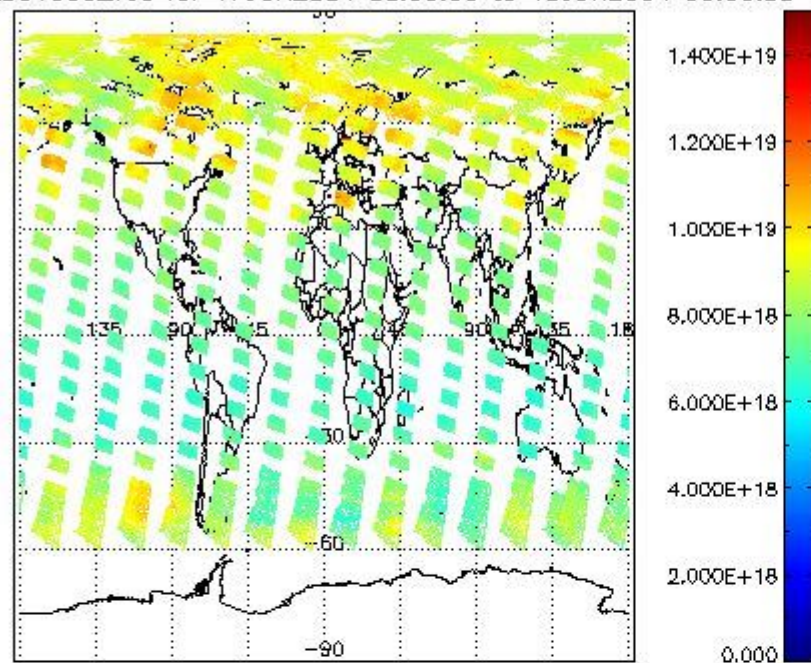
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

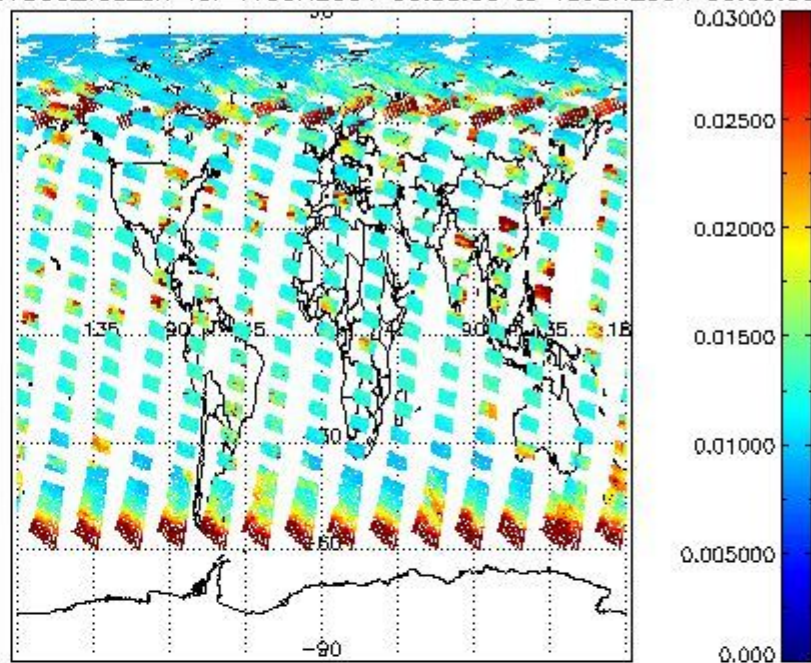




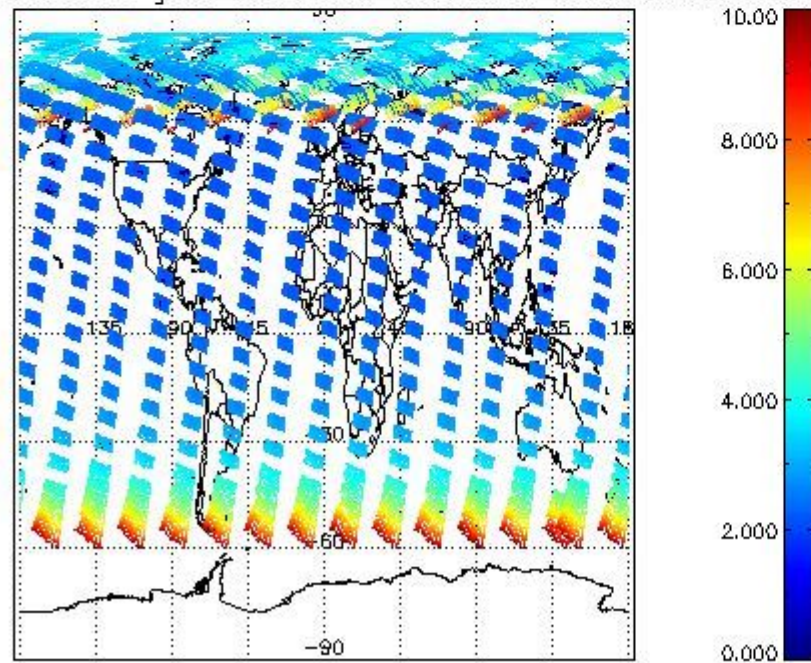
SCIOL2P\_NADUV003\_vcd for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



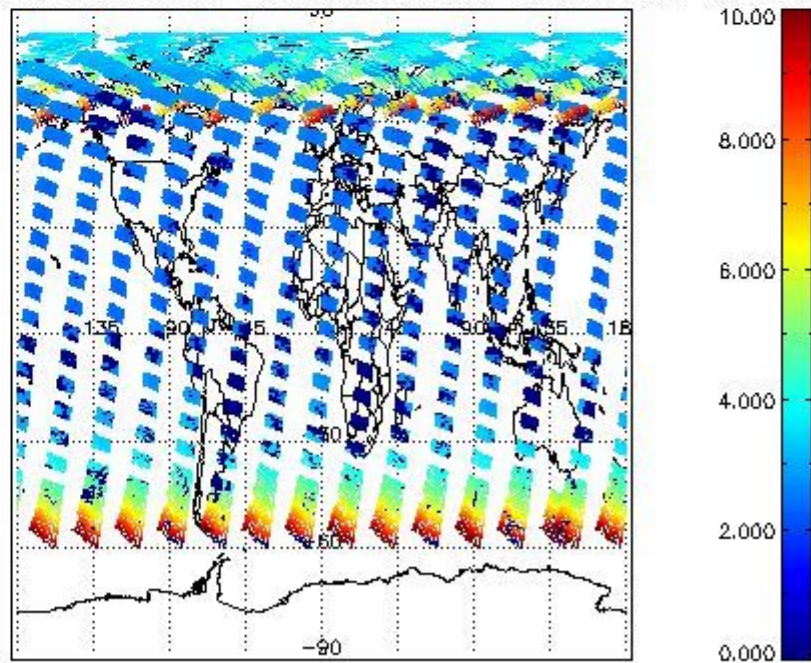
SCIOL2P\_NADUV003\_vcd\_err for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



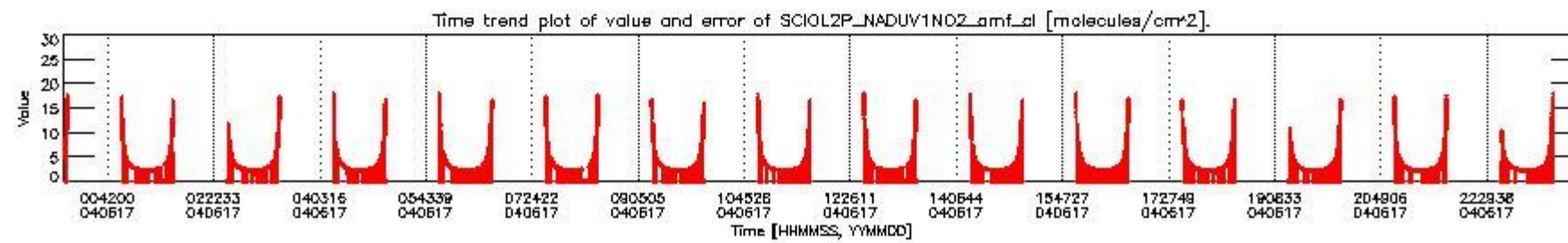
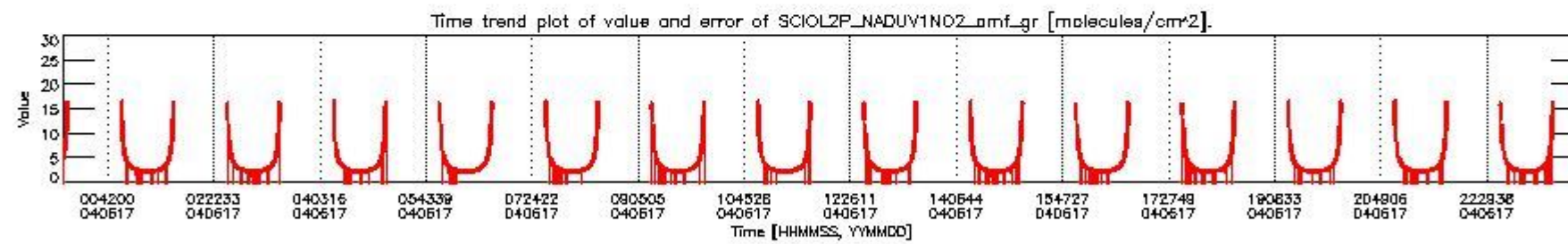
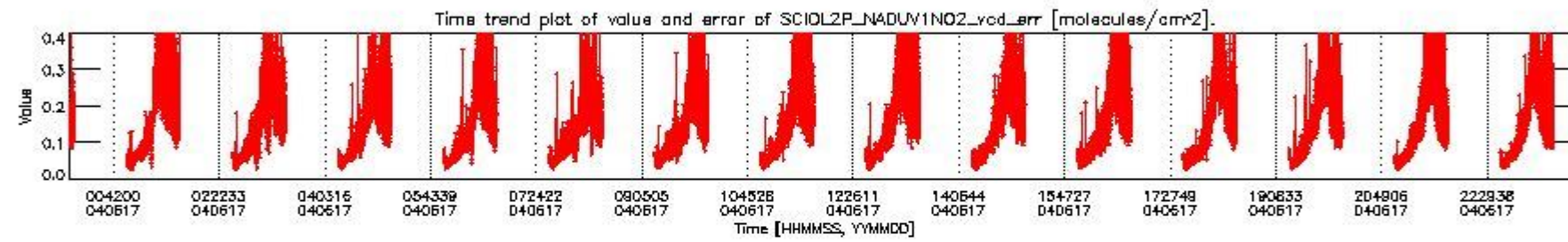
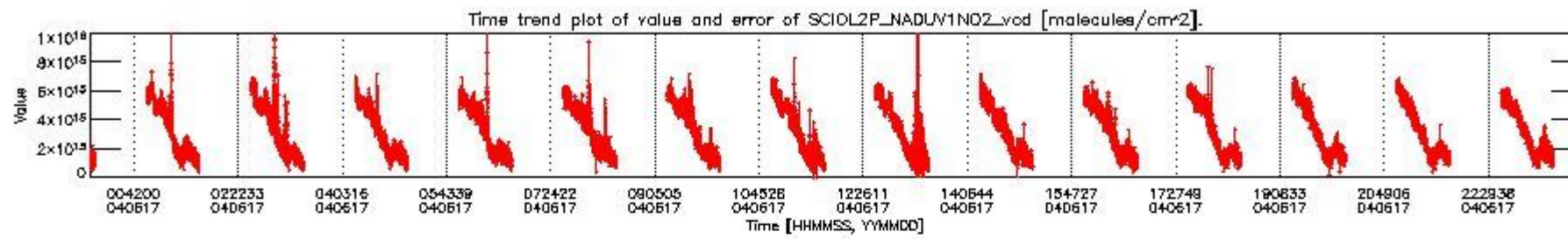
SCIOL2P\_NADUV003\_amf\_gr for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



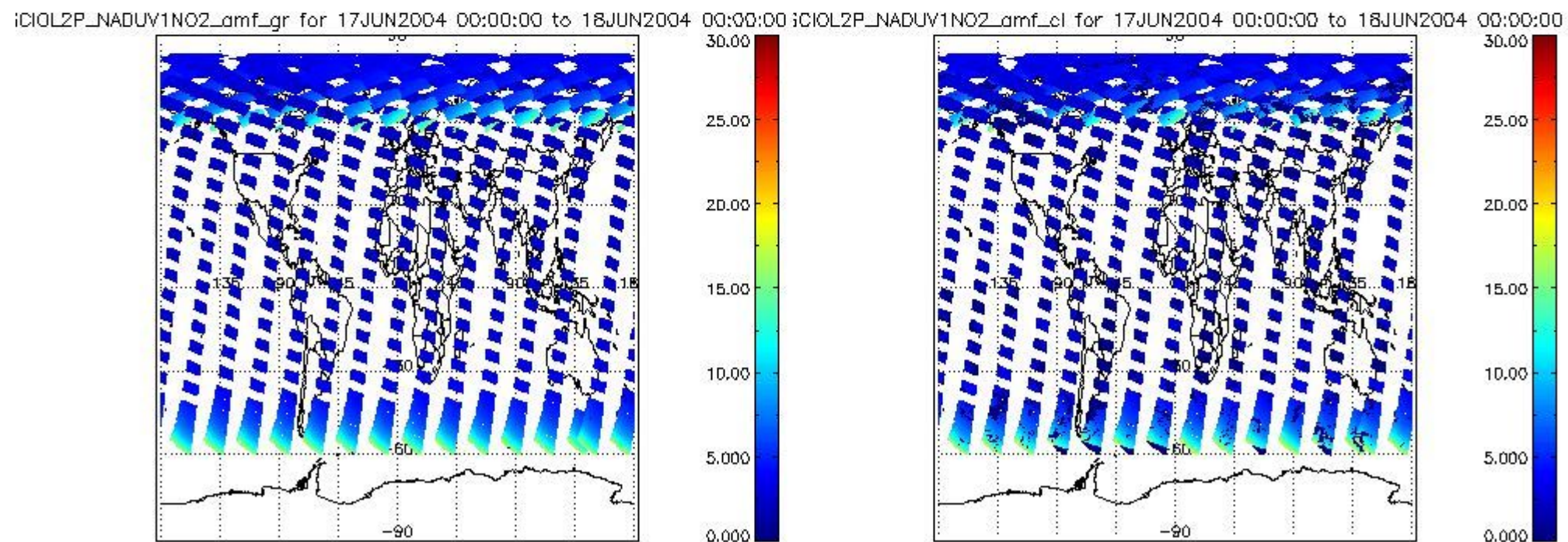
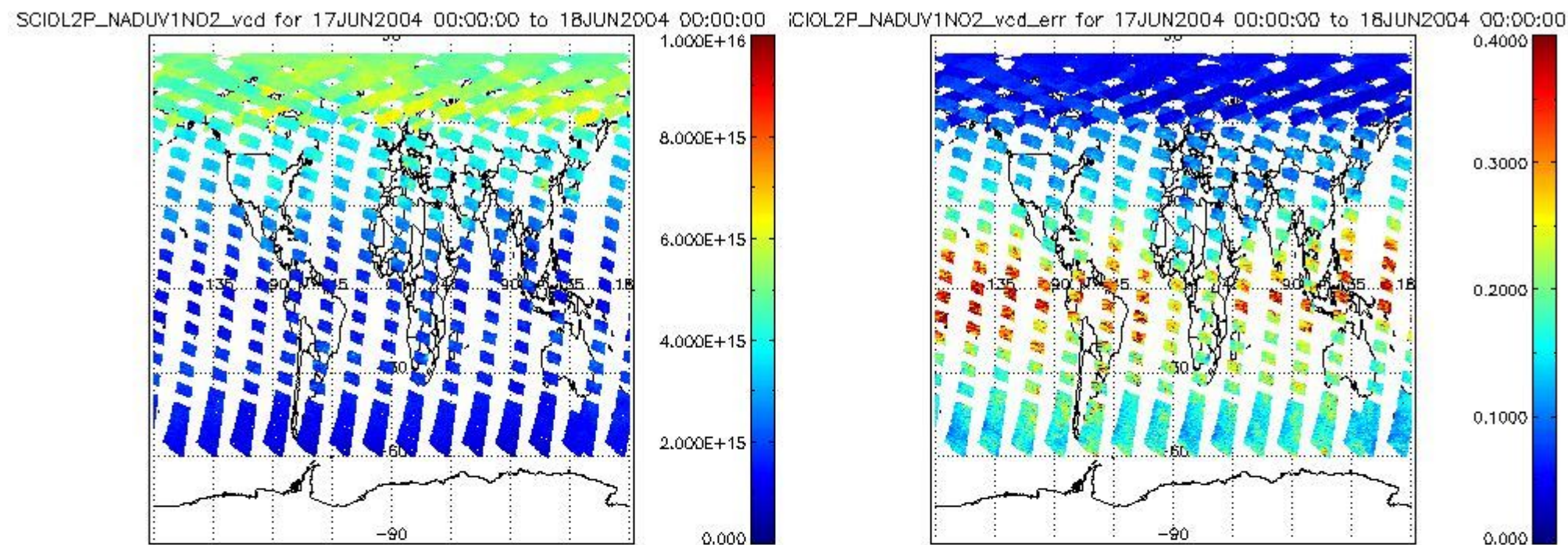
SCIOL2P\_NADUV003\_amf\_cl for 17JUN2004 00:00:00 to 18JUN2004 00:00:00











### 2.2.3 Limb

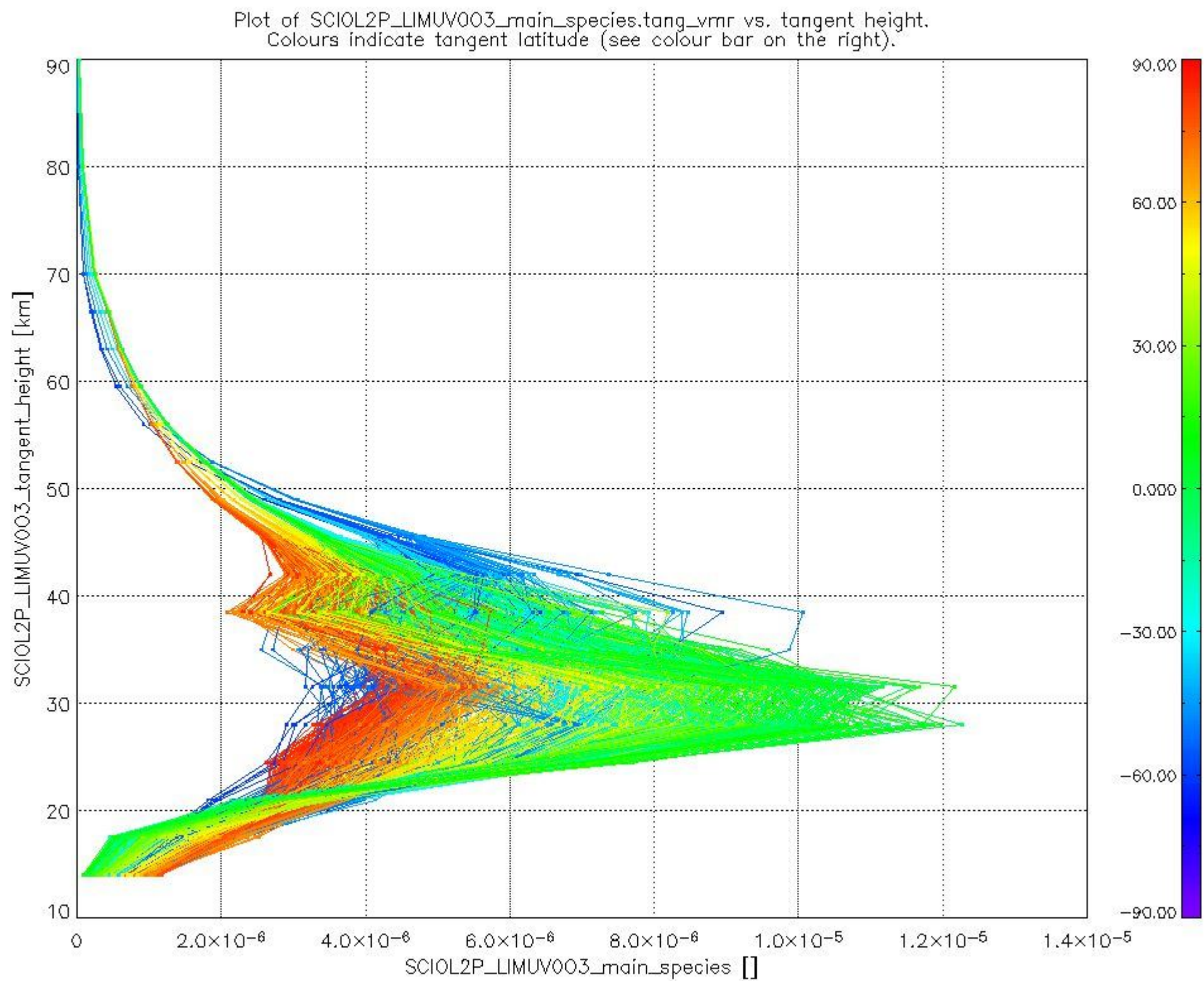
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

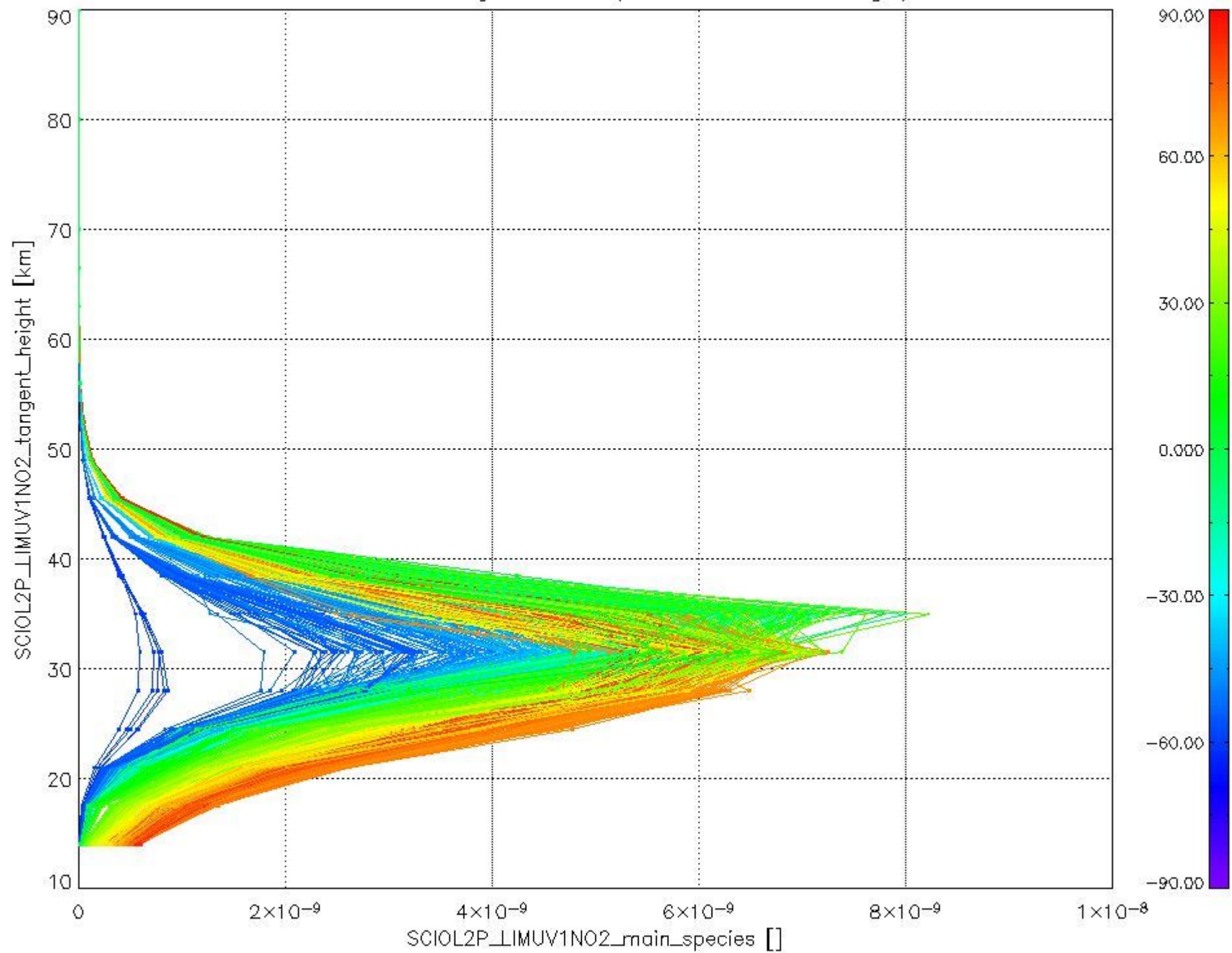


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





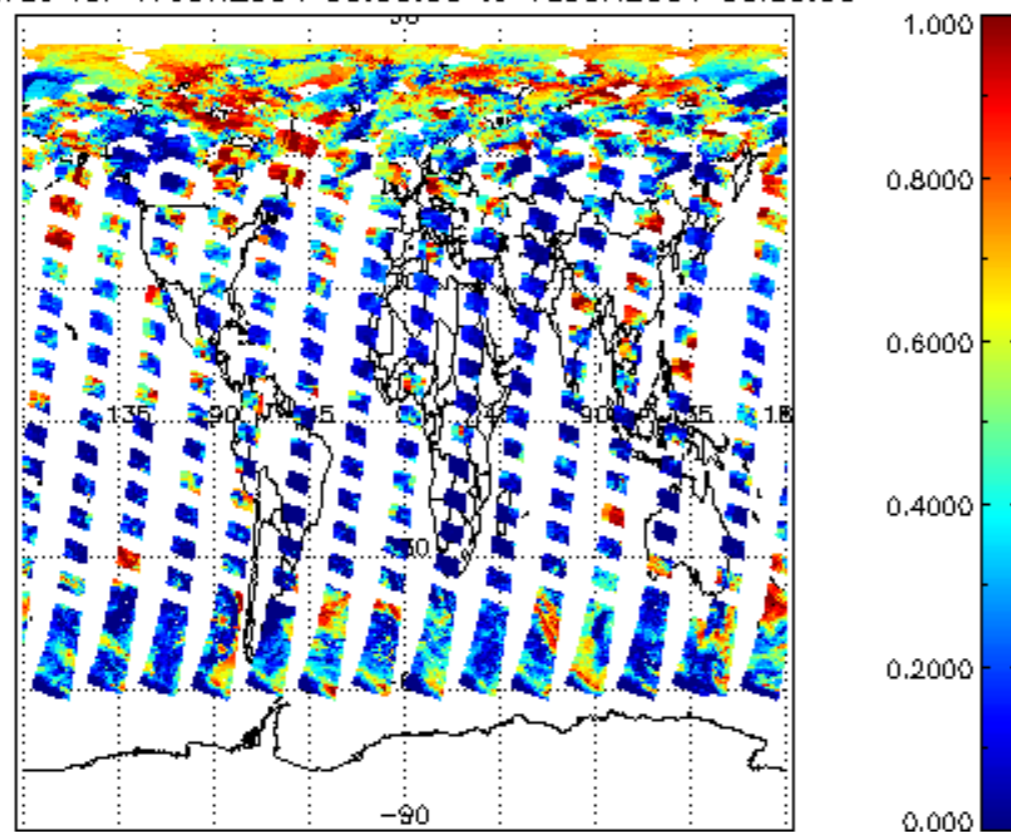
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



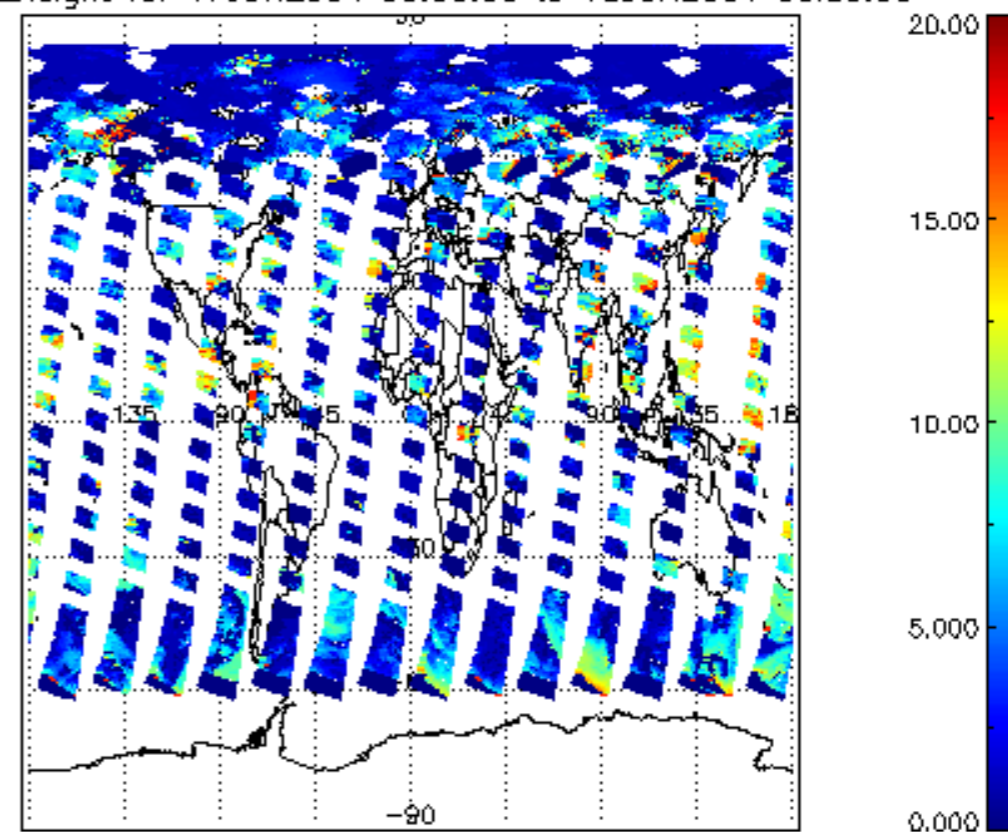
## 2.3 ADF monitoring

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

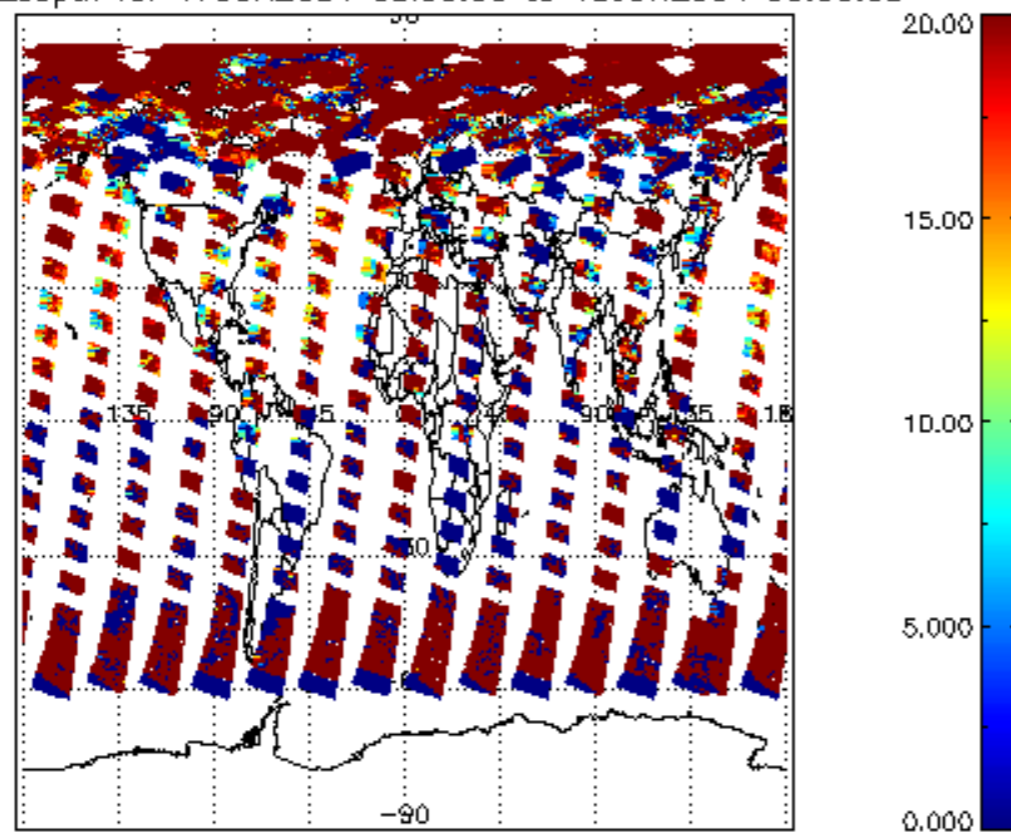
cl\_frac for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



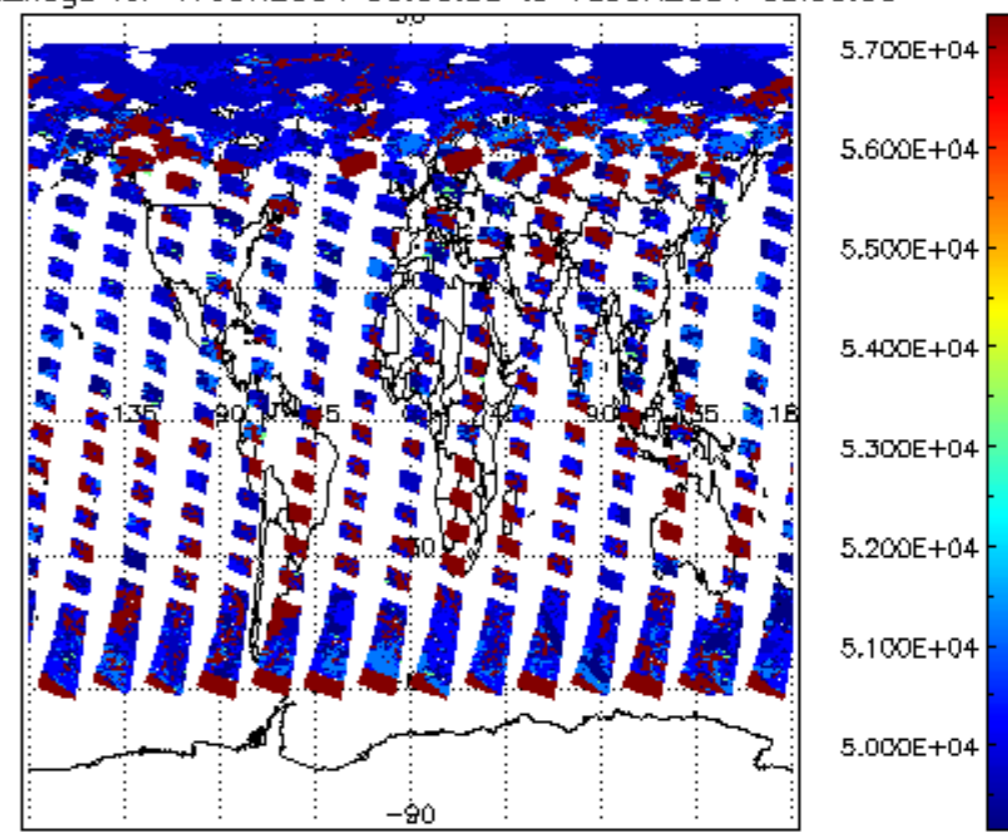
cl\_top\_height for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



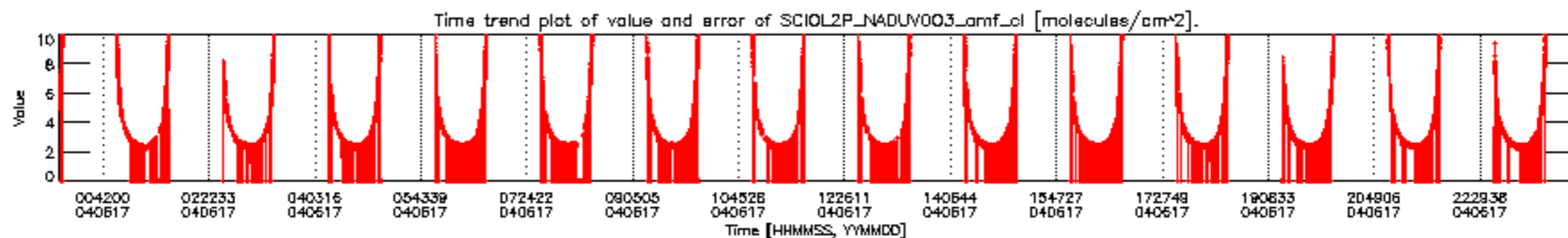
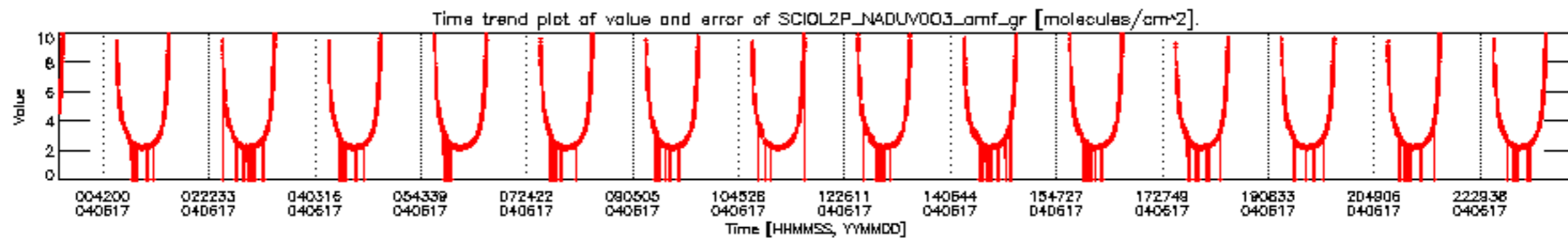
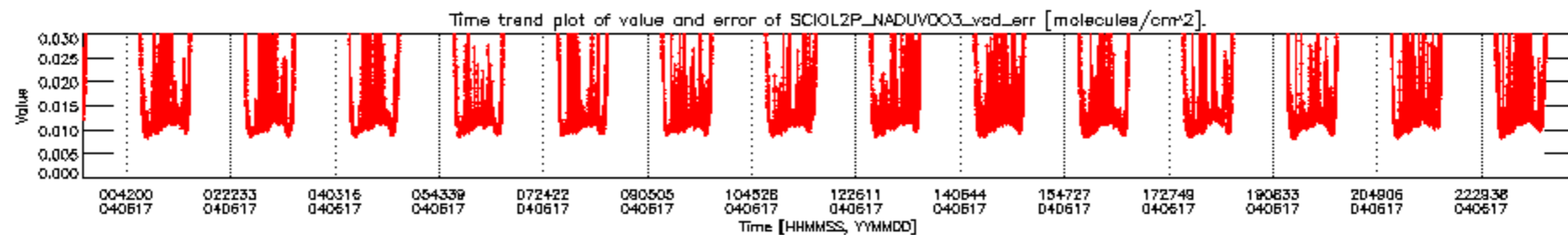
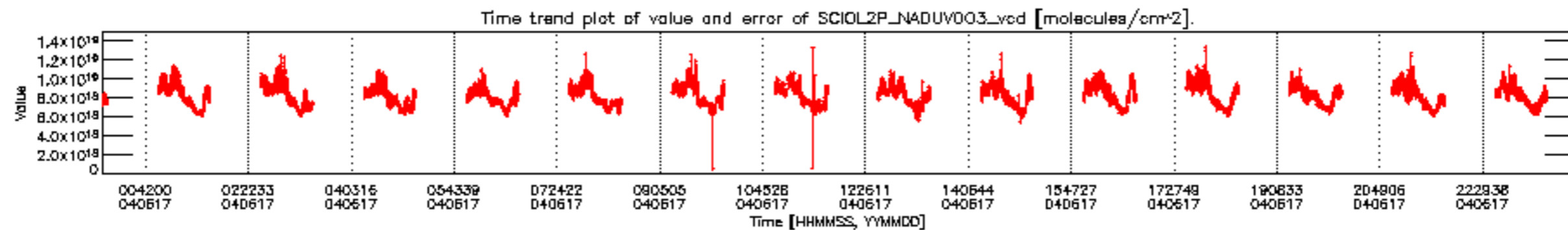
cl\_opt\_depth for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



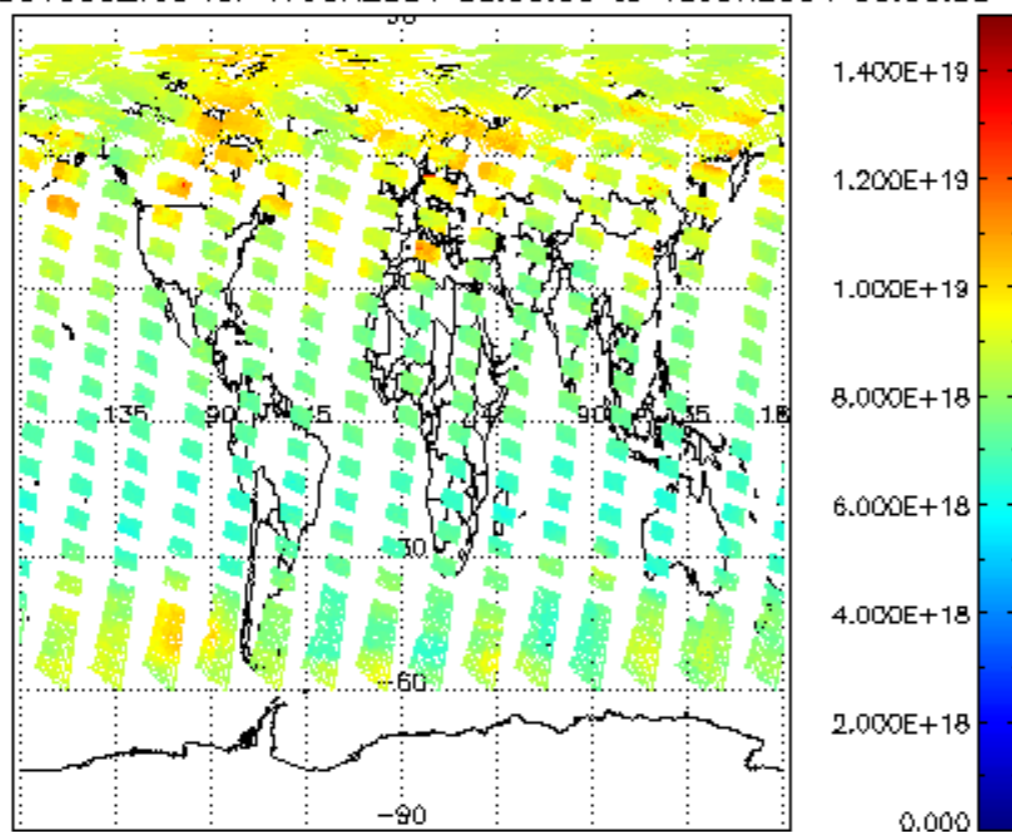
cloud\_flags for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



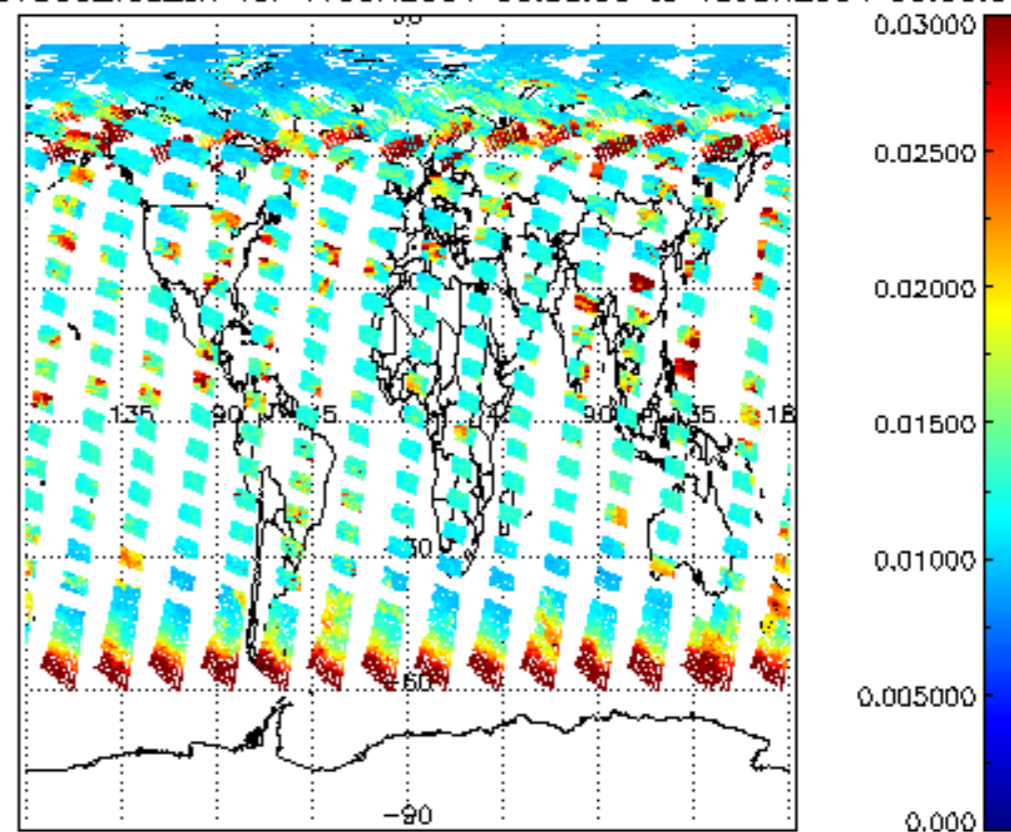




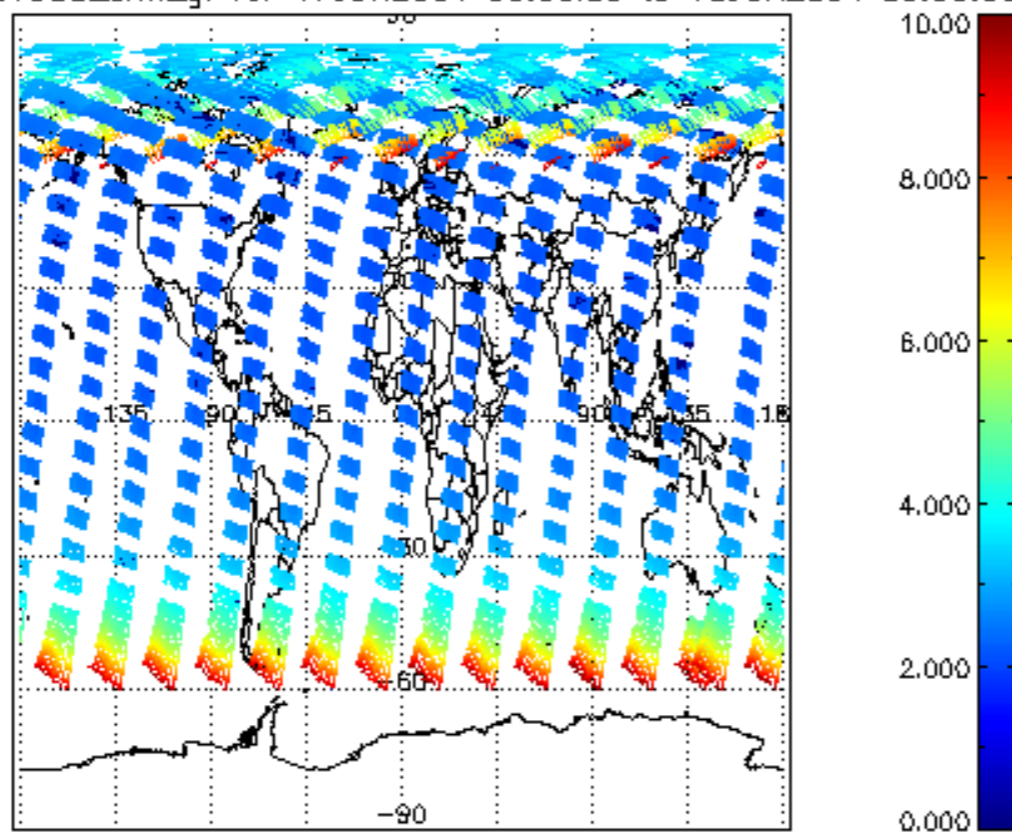
SCIOL2P\_NADUV003\_vcd for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



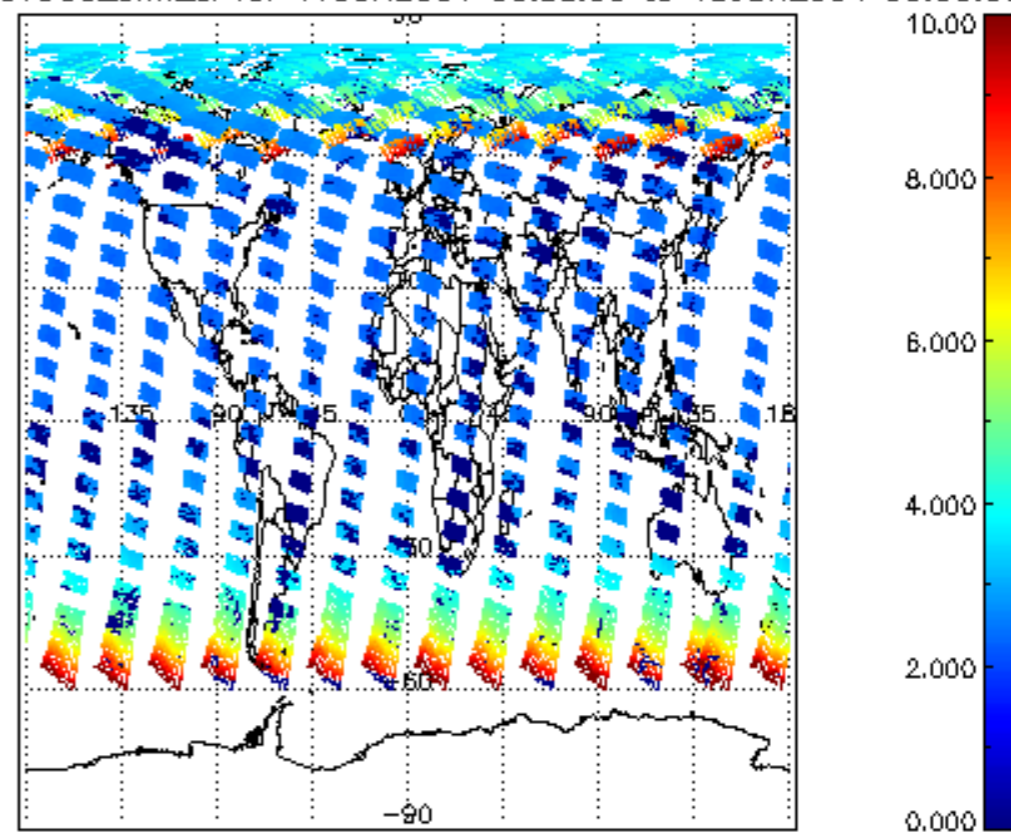
SCIOL2P\_NADUV003\_vcd\_err for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



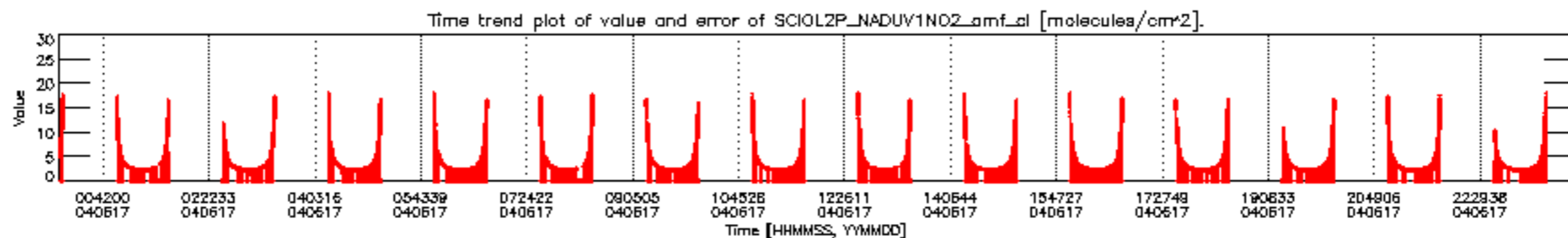
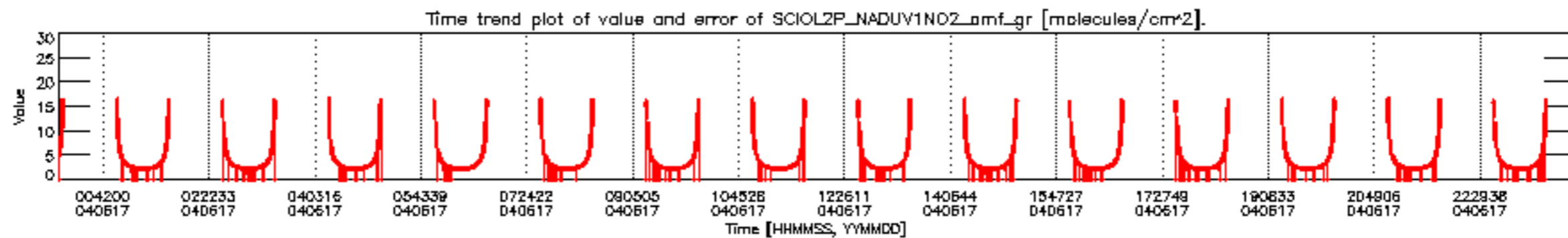
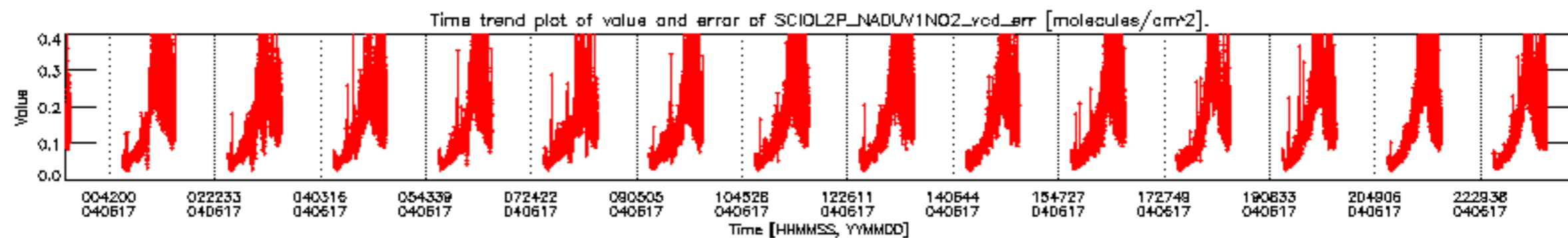
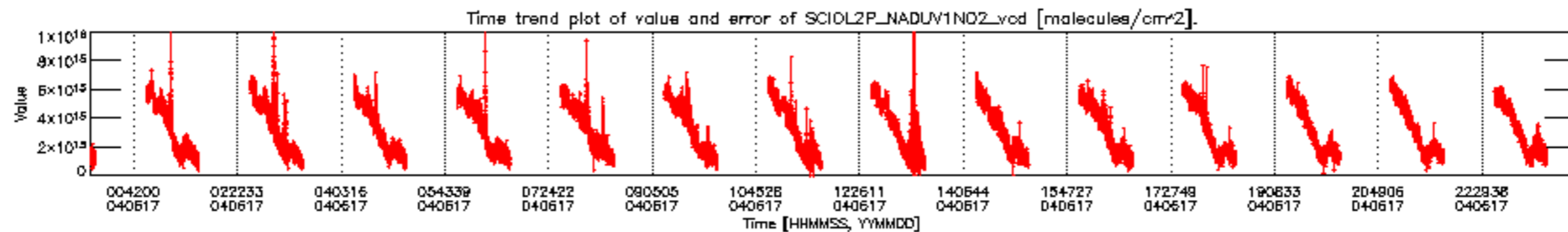
SCIOL2P\_NADUV003\_amf\_gr for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



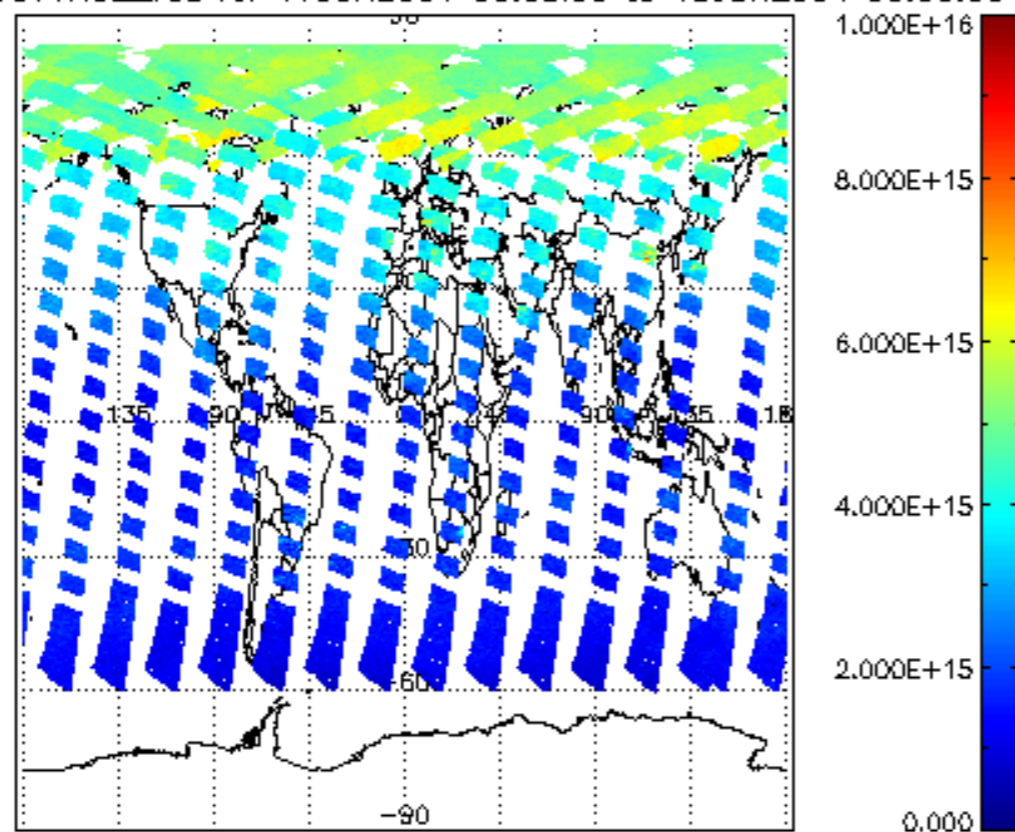
SCIOL2P\_NADUV003\_amf\_cl for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



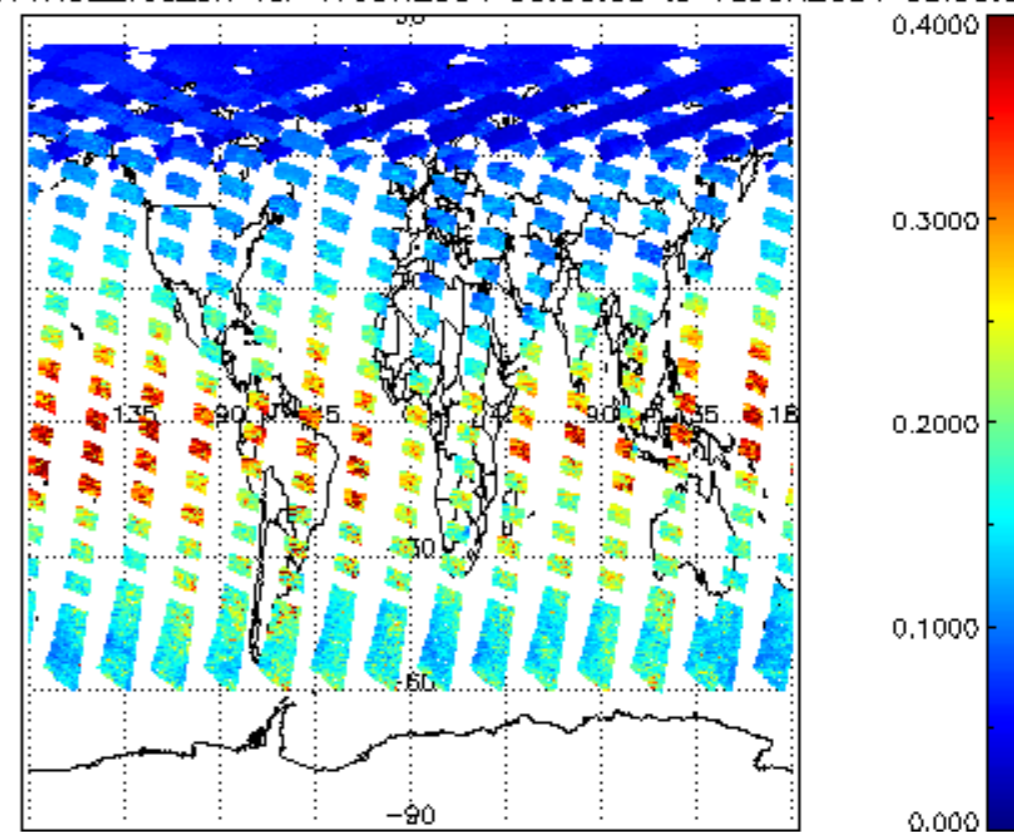




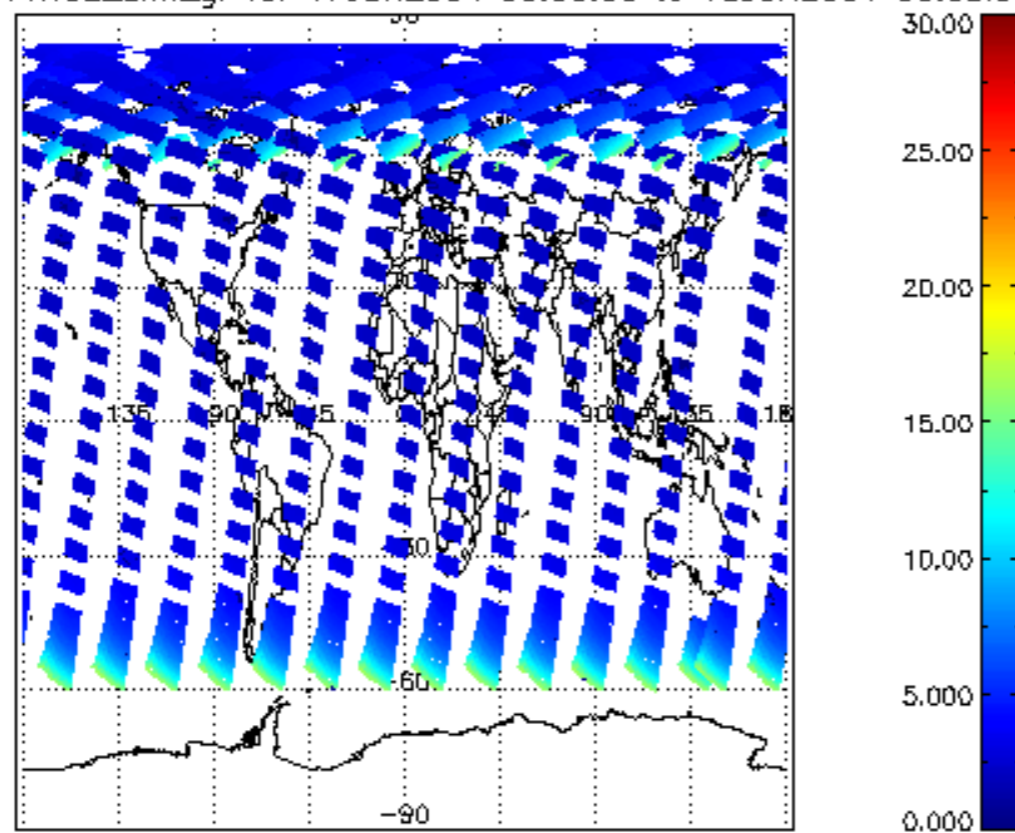
SCIOL2P\_NADUV1NO2\_vcd for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



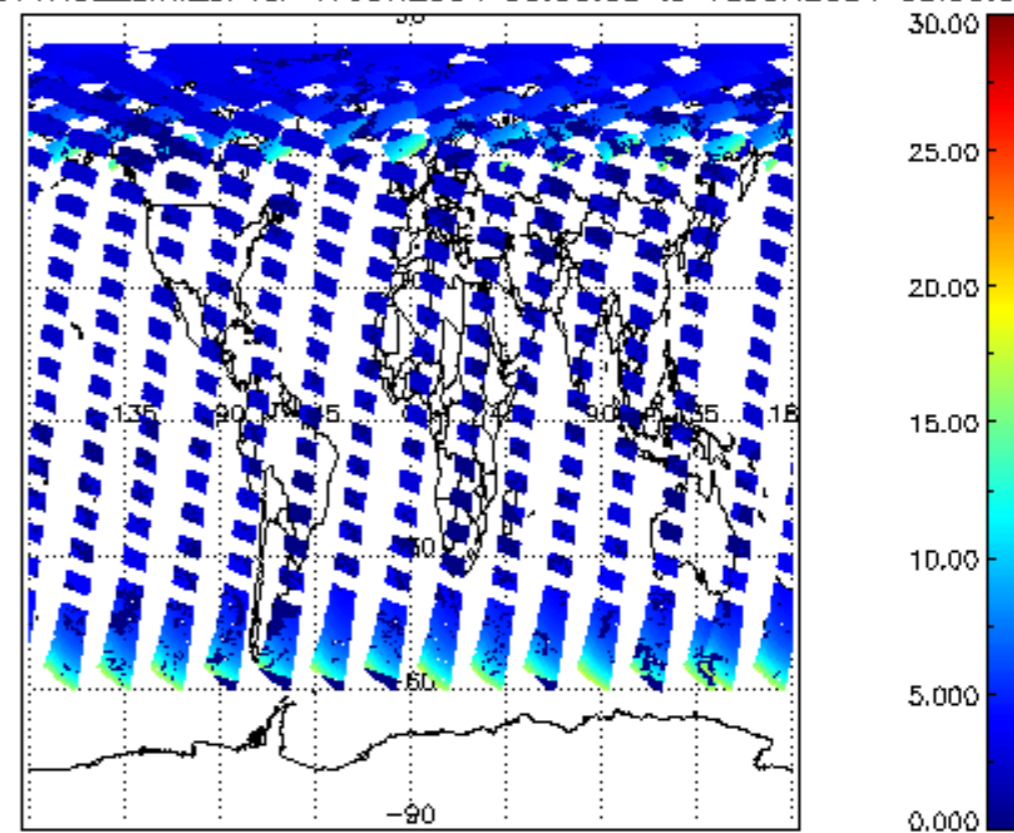
iCIOL2P\_NADUV1NO2\_vcd\_err for 17JUN2004 00:00:00 to 18JUN2004 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_gr for 17JUN2004 00:00:00 to 18JUN2004 00:00:00

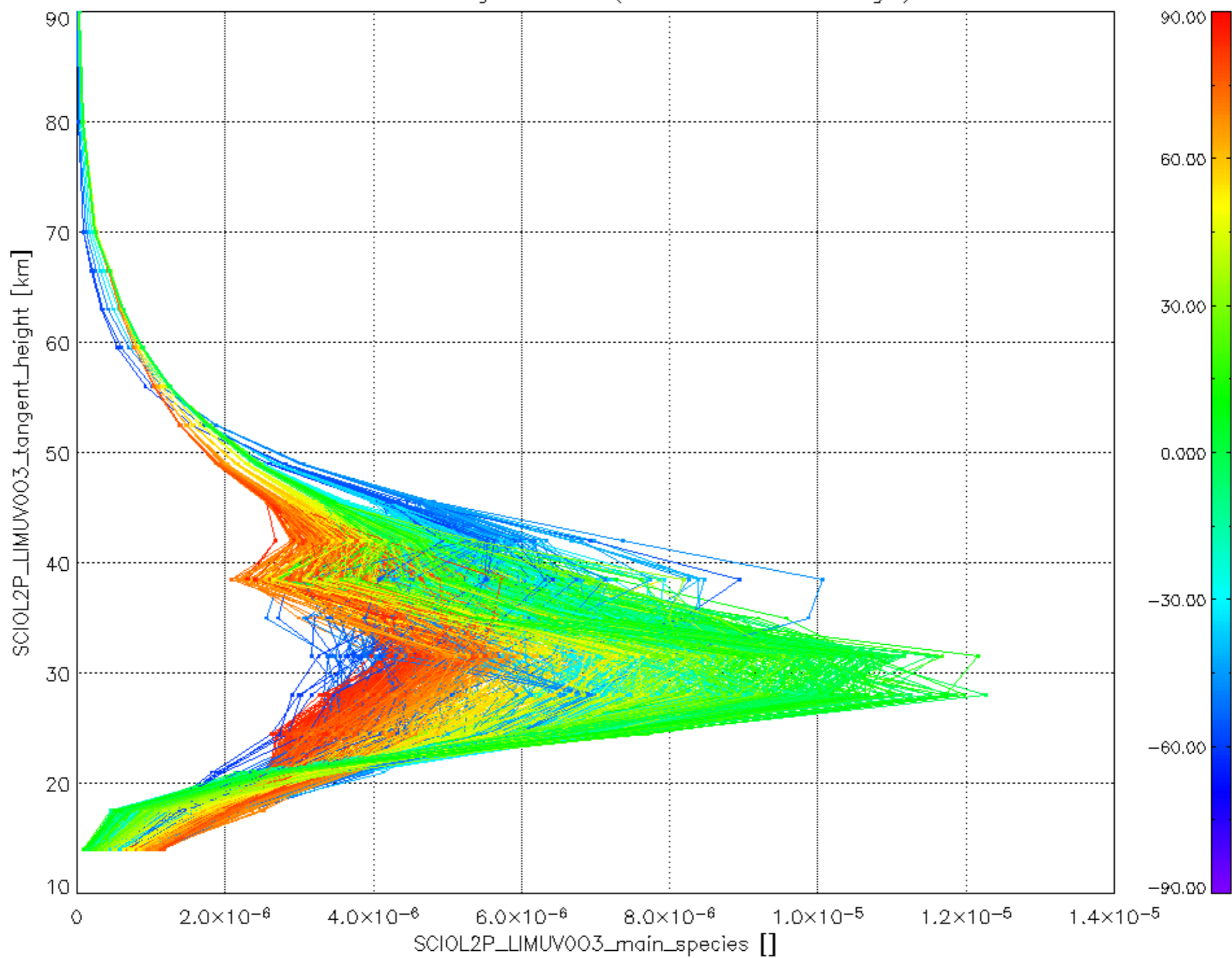


iCIOL2P\_NADUV1NO2\_amf\_cl for 17JUN2004 00:00:00 to 18JUN2004 00:00:00





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).

