

## 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	11AUG2009 09:18:38
Data source version	SCIA-OL/3.01-R
Processing scope for products	20JUL2009 00:00:00 to 21JUL2009 00:00:00
Start time of first product within scope	19JUL2009 22:43:39
Stop time of last product within scope	20JUL2009 21:26:54
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__2PRDPA20090719_224339_000033122080_00488_38618_3464.N1</a>	19JUL2009 22:43:39	19JUL2009 23:38:52	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20090720_002415_000033252080_00489_38619_3465.N1</a>	20JUL2009 00:24:15	20JUL2009 01:19:41	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20090720_020451_000033122080_00490_38620_3466.N1</a>	20JUL2009 02:04:51	20JUL2009 03:00:04	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20090720_034527_000033252080_00491_38621_3467.N1</a>	20JUL2009 03:45:27	20JUL2009 04:40:53	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20090720_052604_000033122080_00492_38622_3445.N1</a>	20JUL2009 05:26:04	20JUL2009 06:21:16	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20090720_070640_000033252080_00493_38623_3460.N1</a>	20JUL2009 07:06:40	20JUL2009 08:02:05	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20090720_084716_000033122080_00494_38624_3450.N1</a>	20JUL2009 08:47:16	20JUL2009 09:42:29	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20090720_102752_000033252080_00495_38625_3468.N1</a>	20JUL2009 10:27:52	20JUL2009 11:23:17	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20090720_134904_000033252080_00497_38627_3469.N1</a>	20JUL2009 13:49:04	20JUL2009 14:44:30	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20090720_171033_000033252080_00499_38629_3470.N1</a>	20JUL2009 17:10:33	20JUL2009 18:05:59	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20090720_185110_000033122080_00500_38630_3471.N1</a>	20JUL2009 18:51:10	20JUL2009 19:46:22	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20090720_203129_000033252080_00501_38631_3472.N1</a>	20JUL2009 20:31:29	20JUL2009 21:26:54	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: 112320

Total number of cloud data DSRs with good quality flag (=0): 112320 (100.0 %)

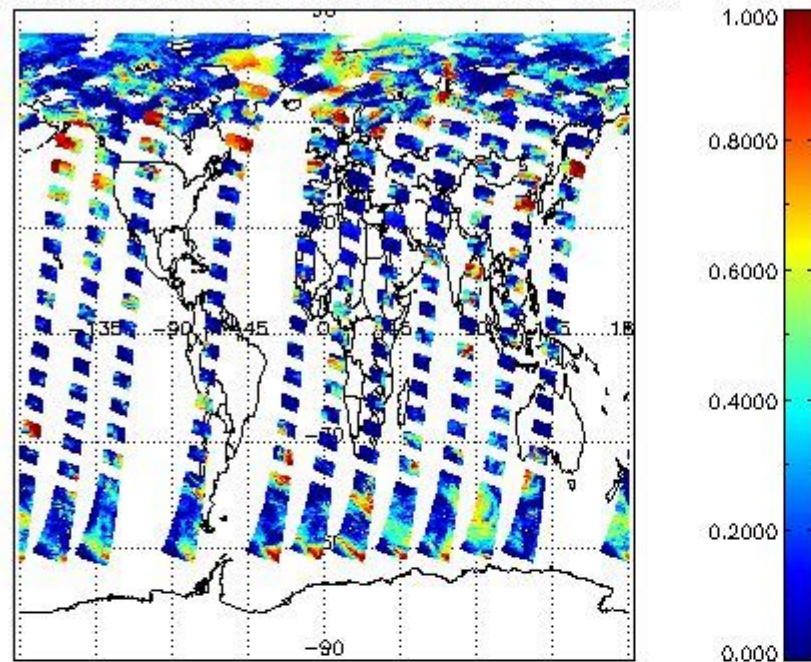
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	112320	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	112320	0.17130	0.12500	0.12500	0.25000	0.060363	s
CL_FRAC	112320	0.24701	0.17076	0.0000	1.0000	0.25787	-
CL_FRAC_ERR	112320	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	112320	5.4815	4.0000	4.0000	8.0000	1.9316	
PMD_READ_CL[0]	112320	0.14328	0.0000	0.0000	8.0000	0.89339	-
PMD_READ_CL[1]	112320	2.0079	0.0000	0.0000	8.0000	2.7190	-
CL_TOP_HEIGHT	97339	3.0883	1.1030	0.0000	17.000	3.7708	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	97339	57.772	100.00	0.0000	101.00	45.969	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	112320	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	112320	11001101	11000100	11000000	11100000	3649.4	flags
AERO_ABSO_IND	112320	4.3567	5.1483	-0.40467	19.054	2.7796	
AERO_IND_DIAG	112320	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	112320	01011001	00000000	00000000	11000000	24520.	flags

### Time and geolocation plots:

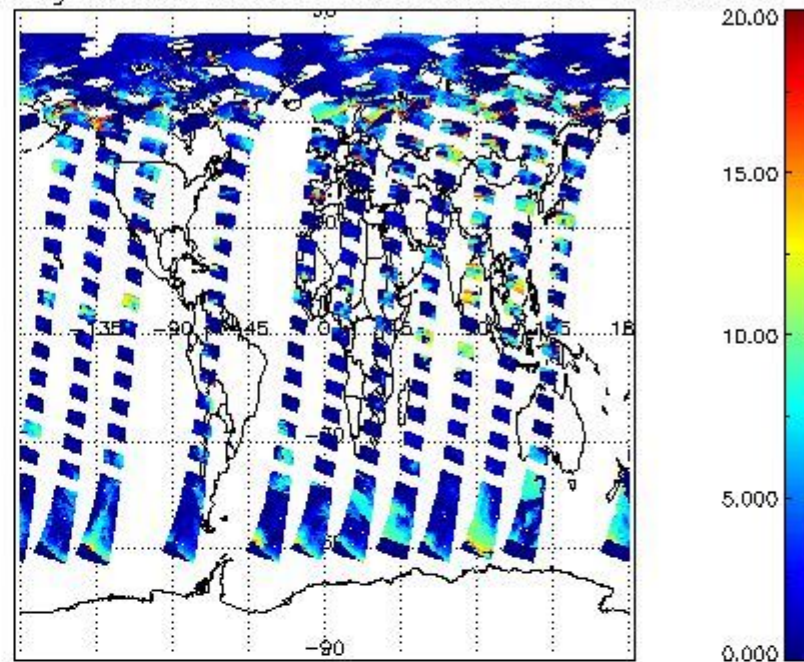
Plots are available for the following parameters:

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

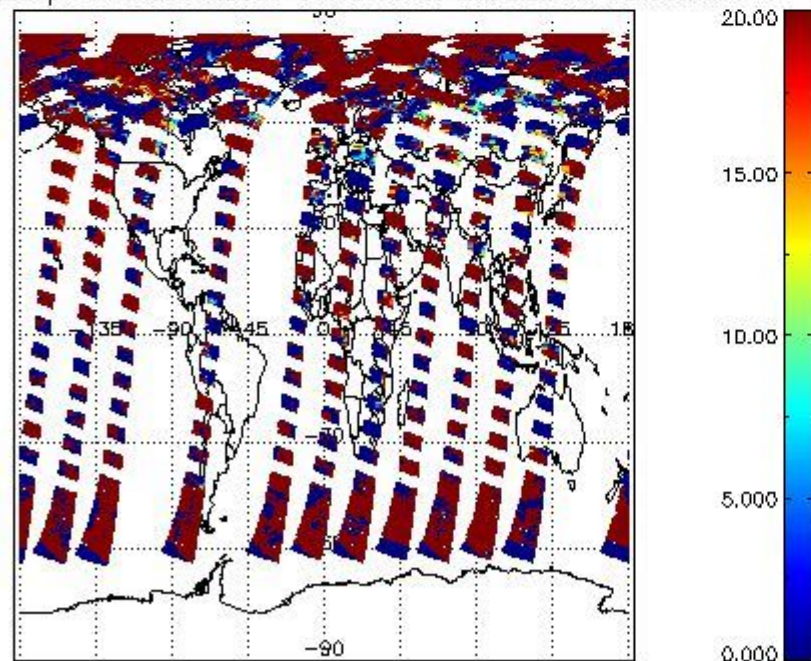
cL\_frac for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



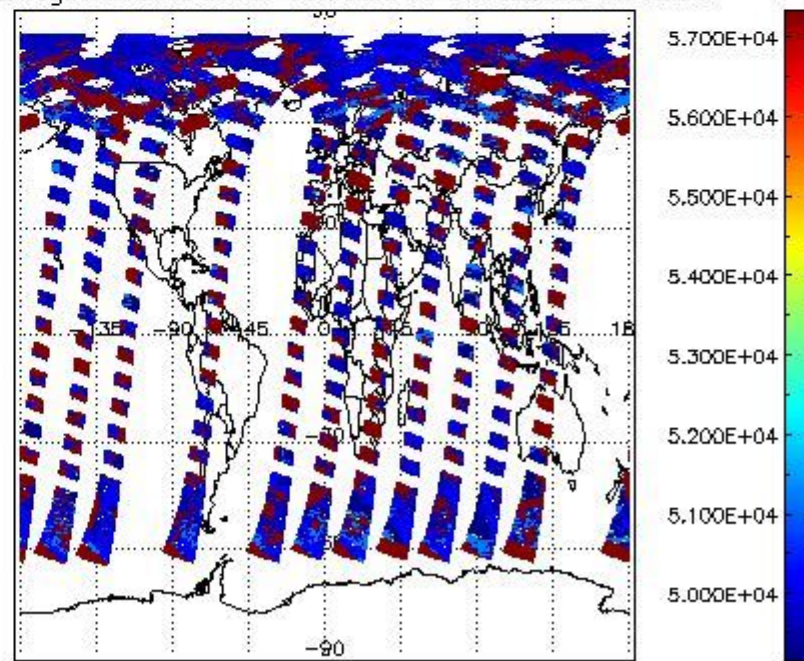
cL\_top\_height for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



cL\_opt\_depth for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



cloud\_flags for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



## 2.2.2 Nadir

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

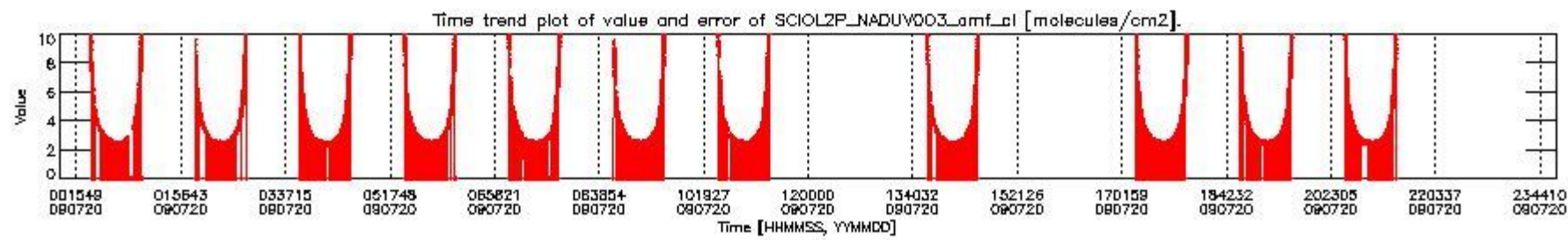
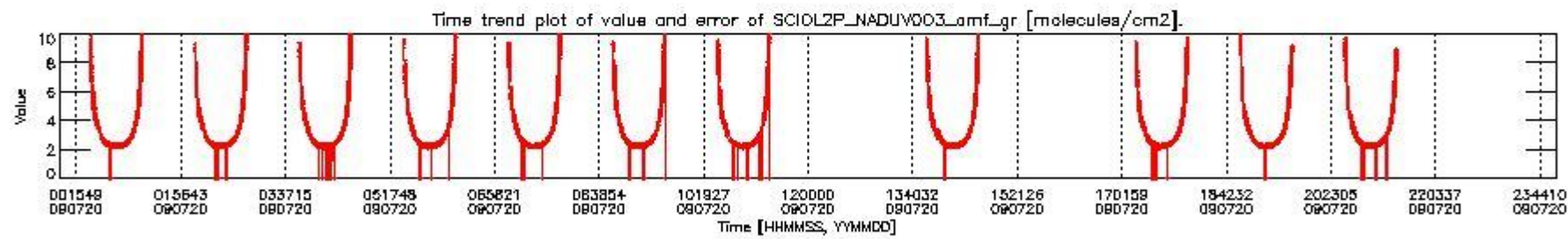
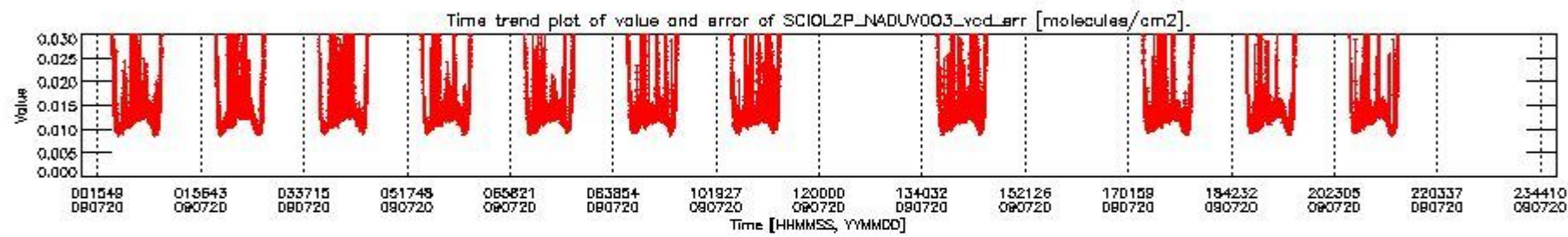
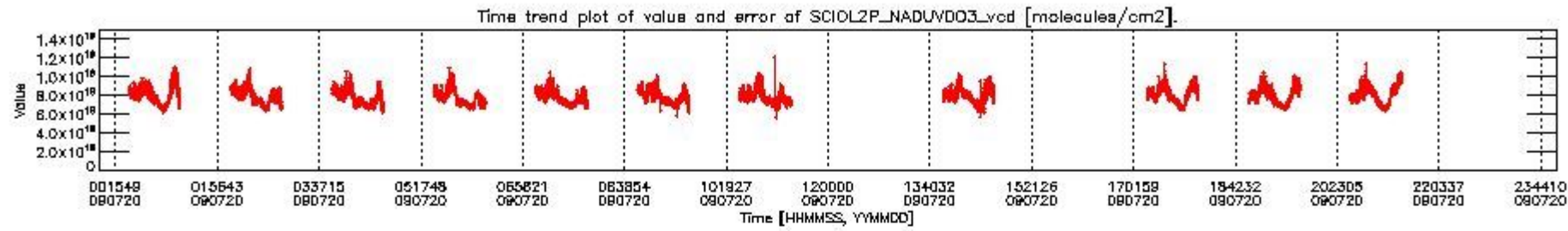
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



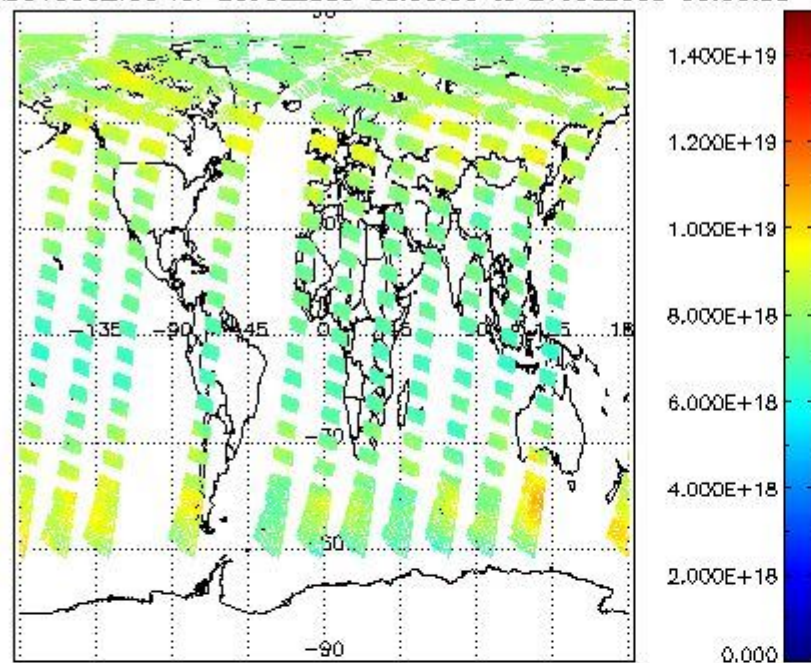
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

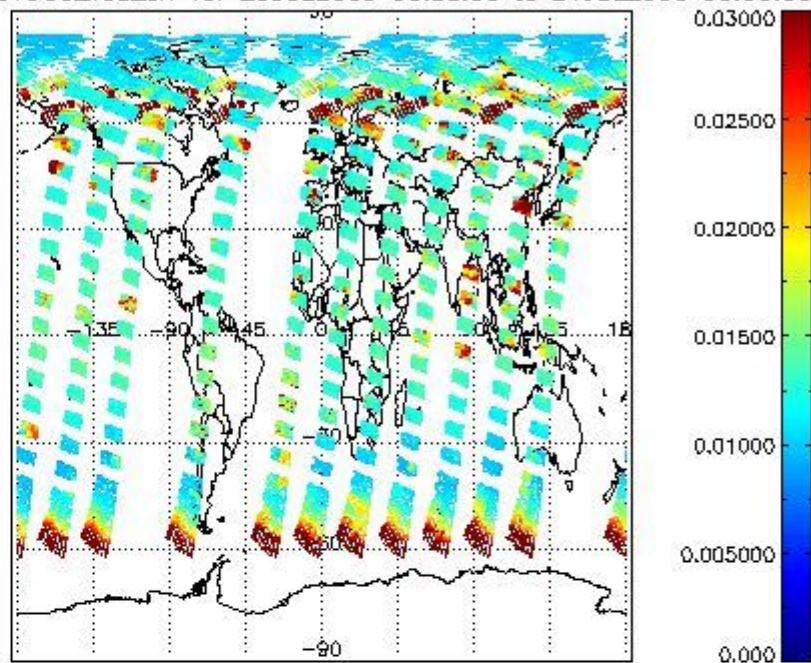




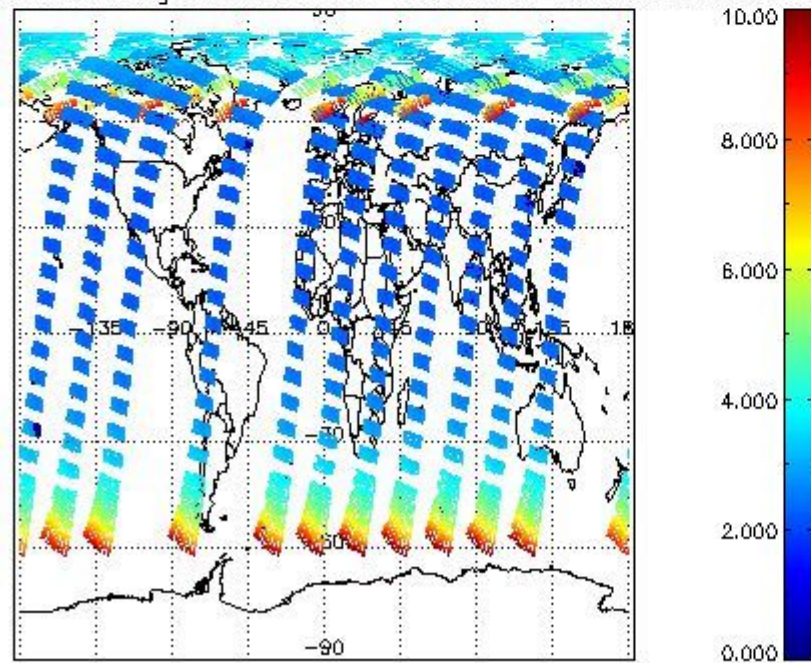
SCIOL2P\_NADUV003\_vcd for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



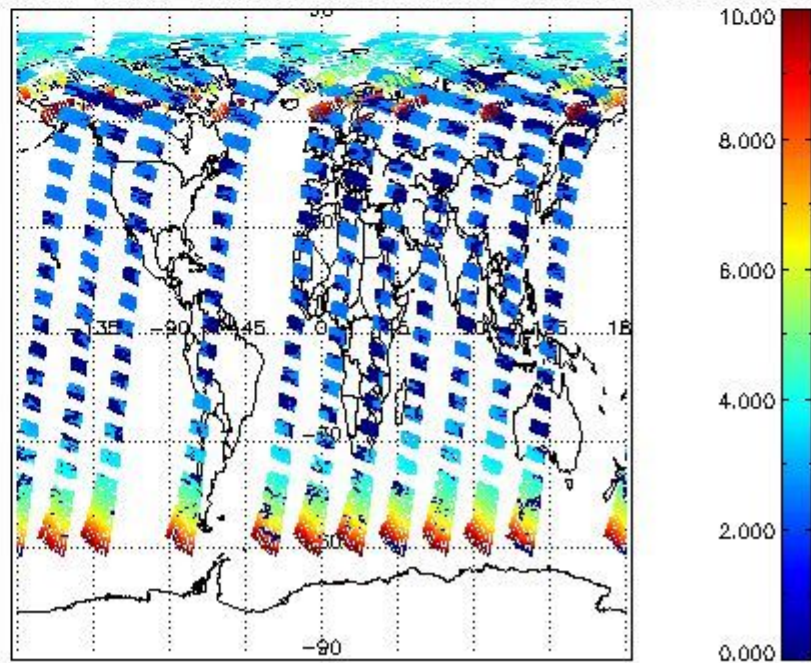
SCIOL2P\_NADUV003\_vcd\_err for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



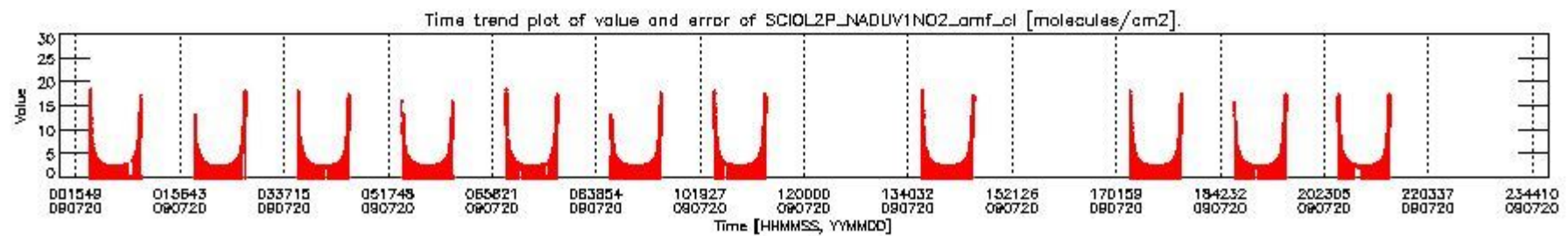
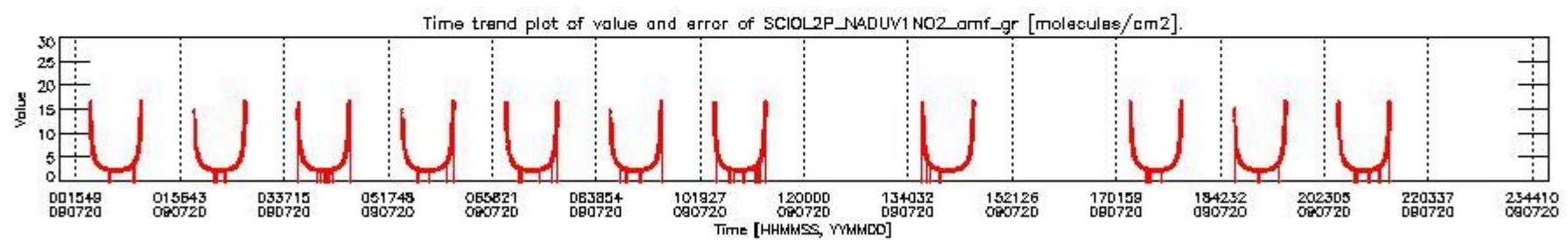
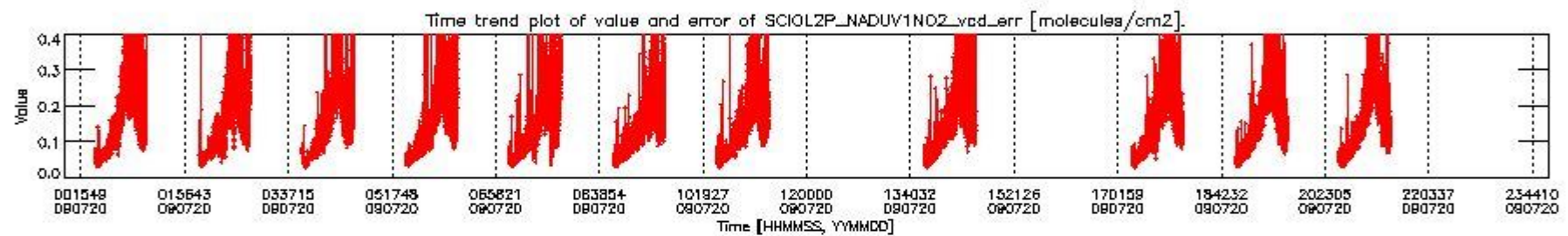
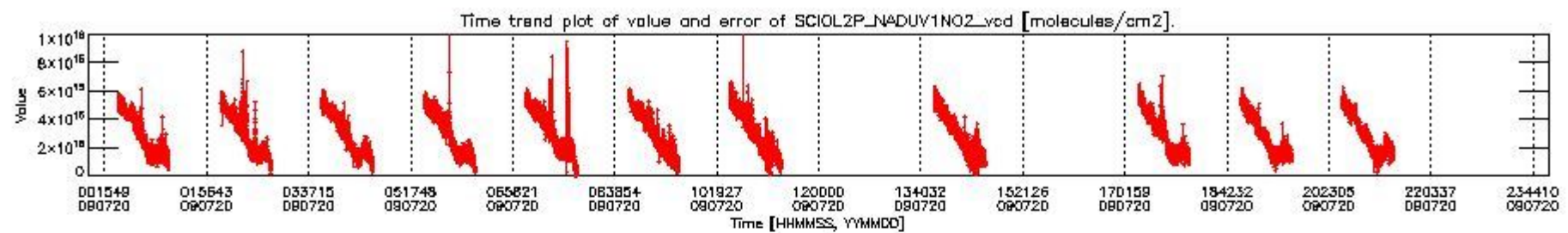
SCIOL2P\_NADUV003\_amf\_gr for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



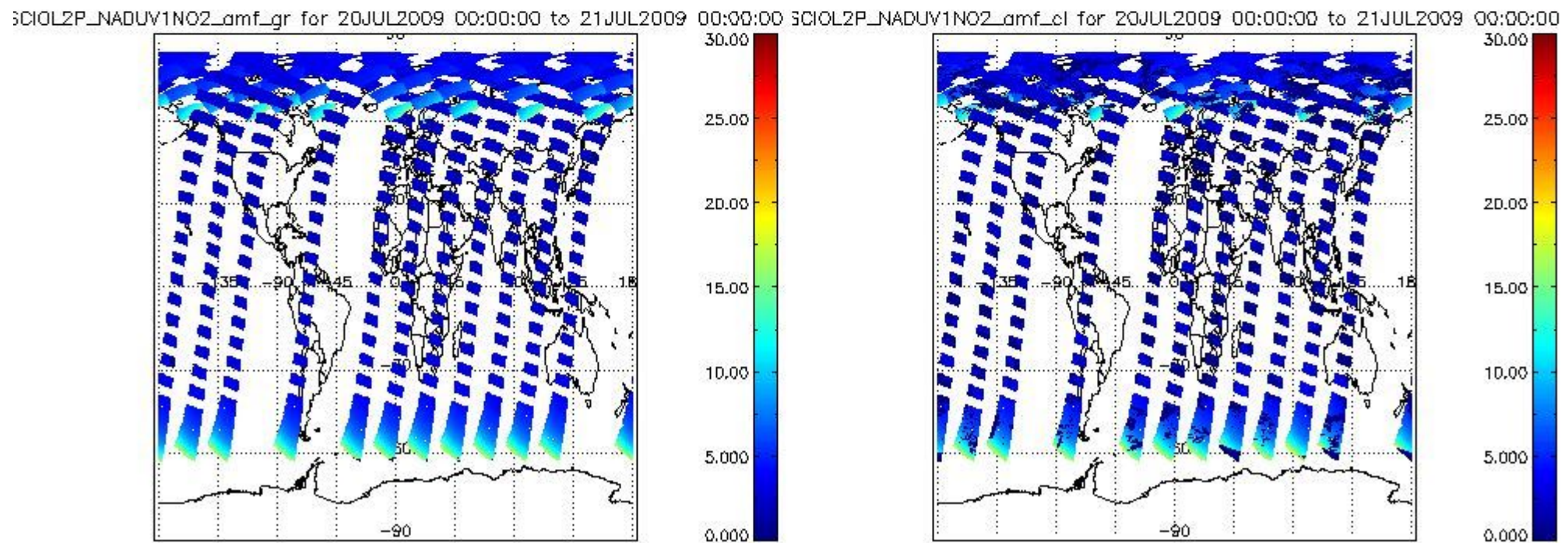
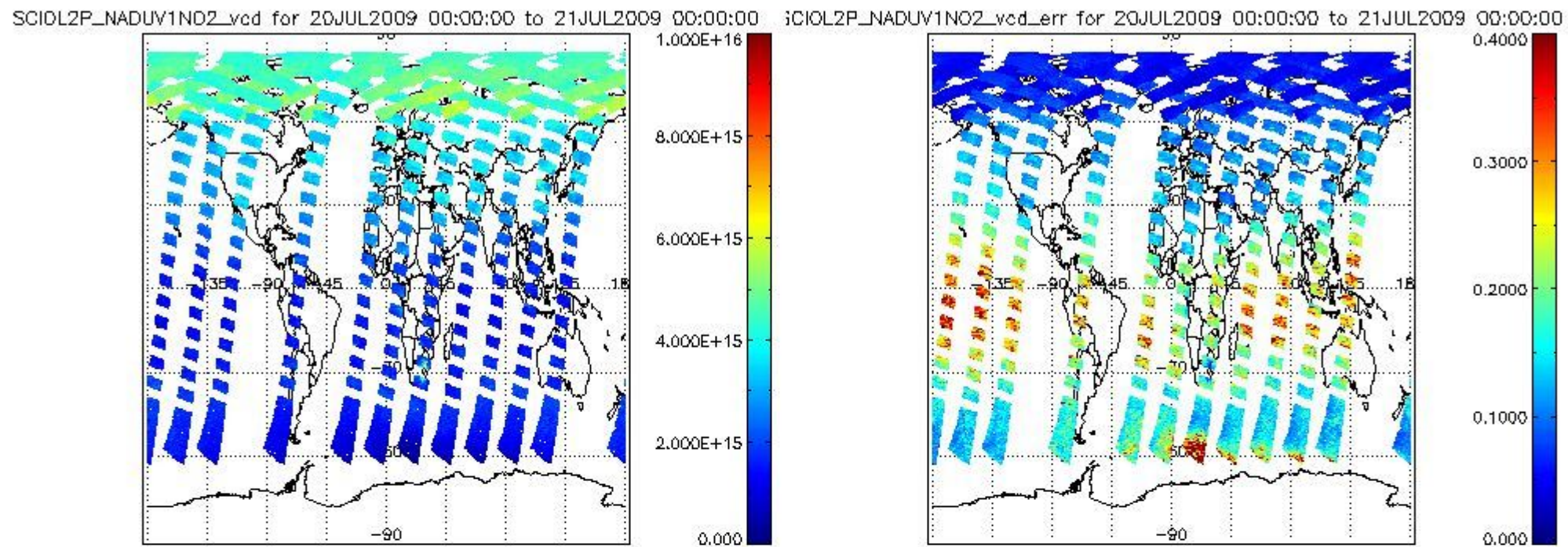
SCIOL2P\_NADUV003\_amf\_cl for 20JUL2009 00:00:00 to 21JUL2009 00:00:00











### 2.2.3 Limb

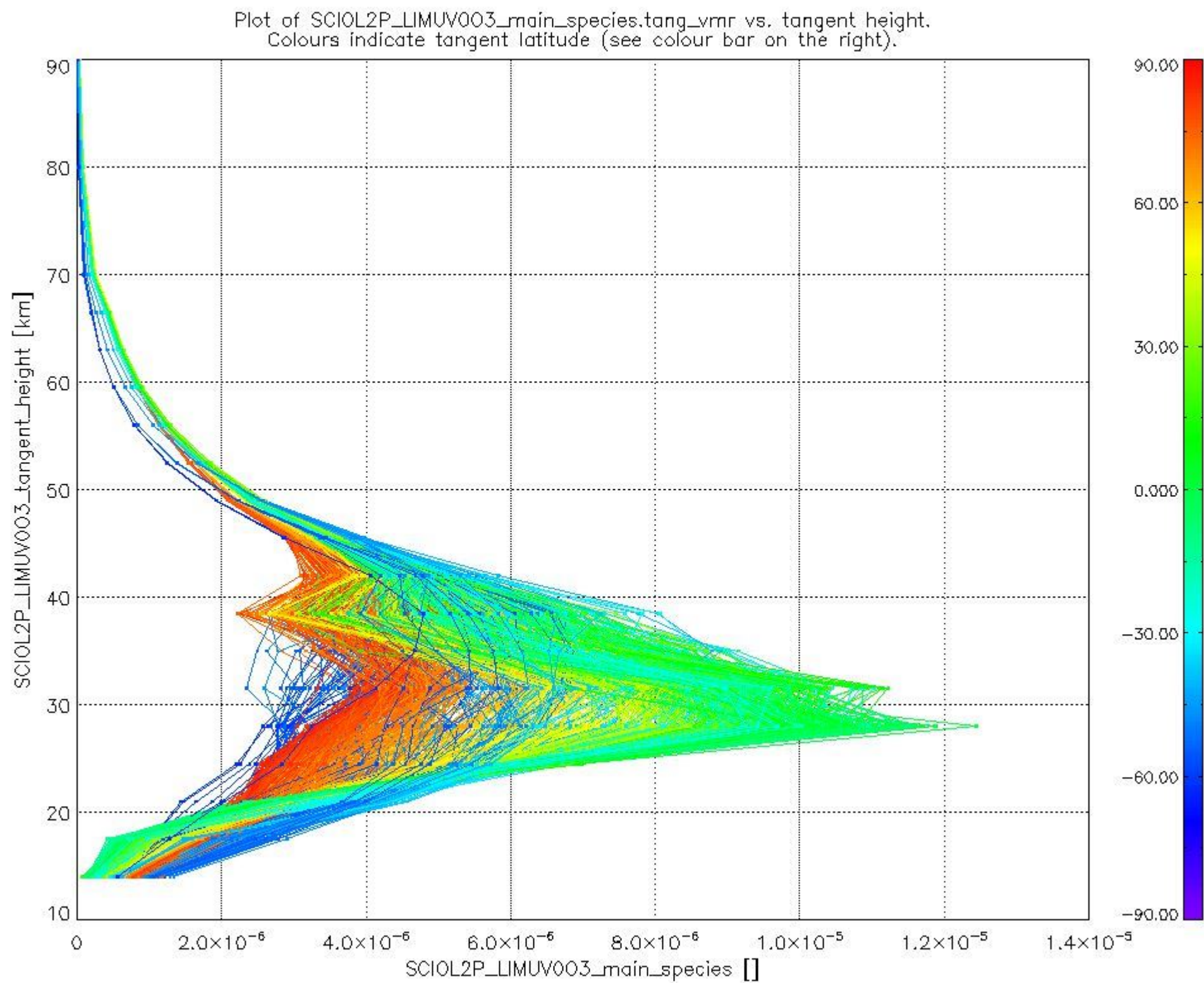
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

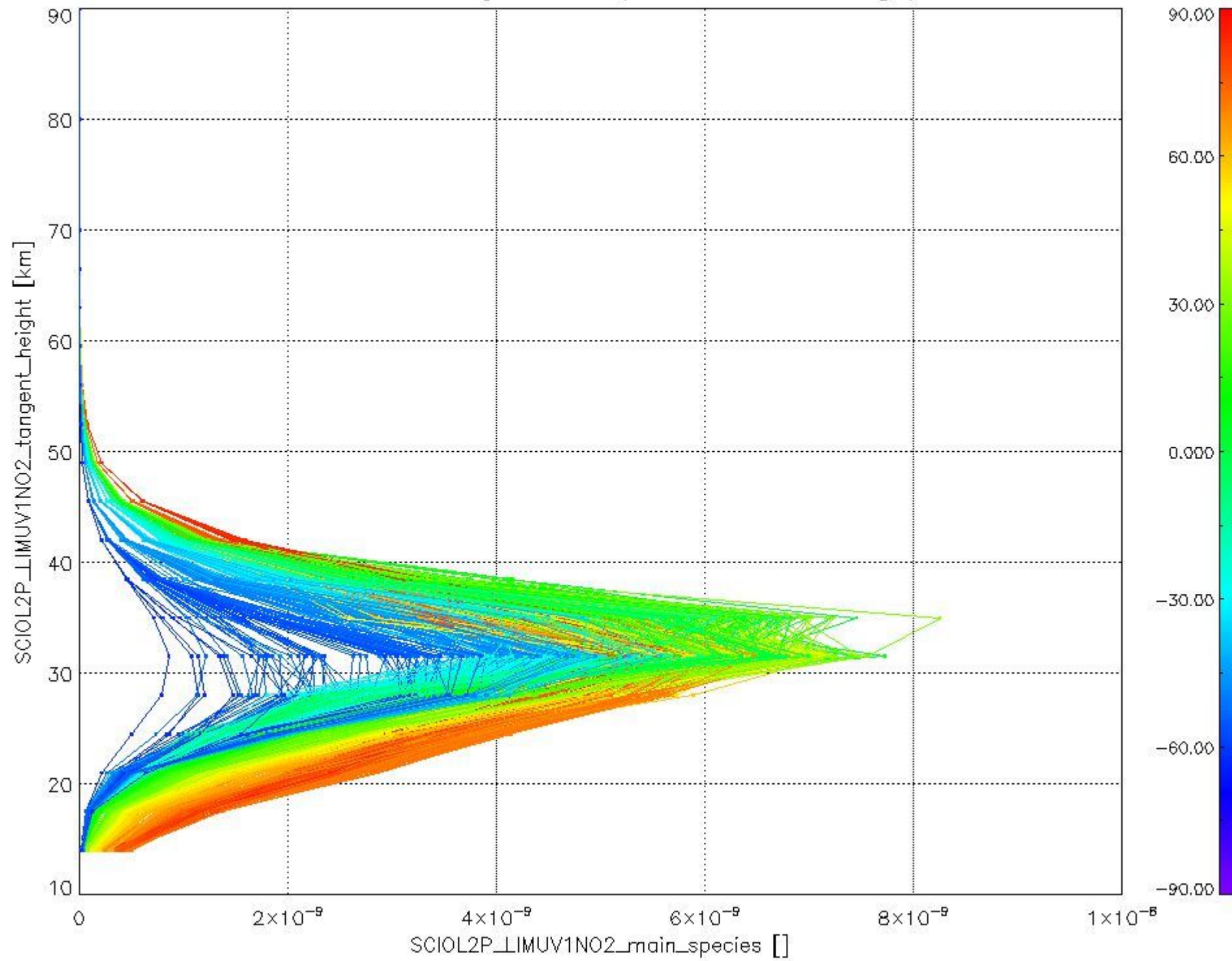


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





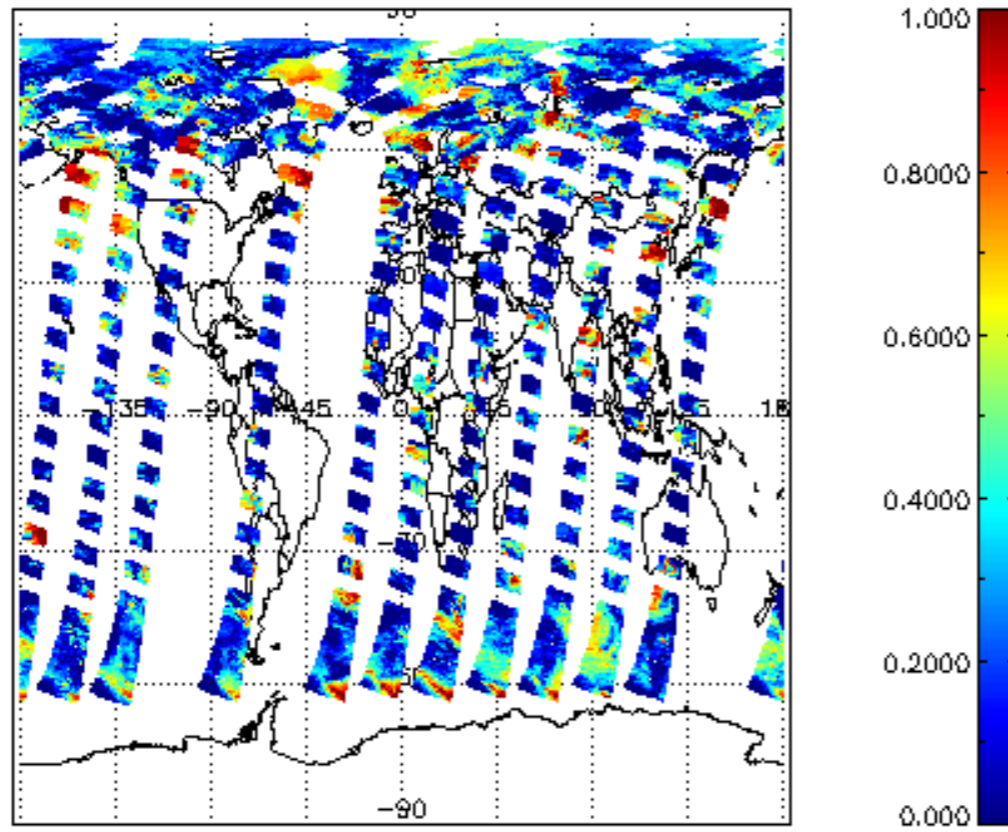
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



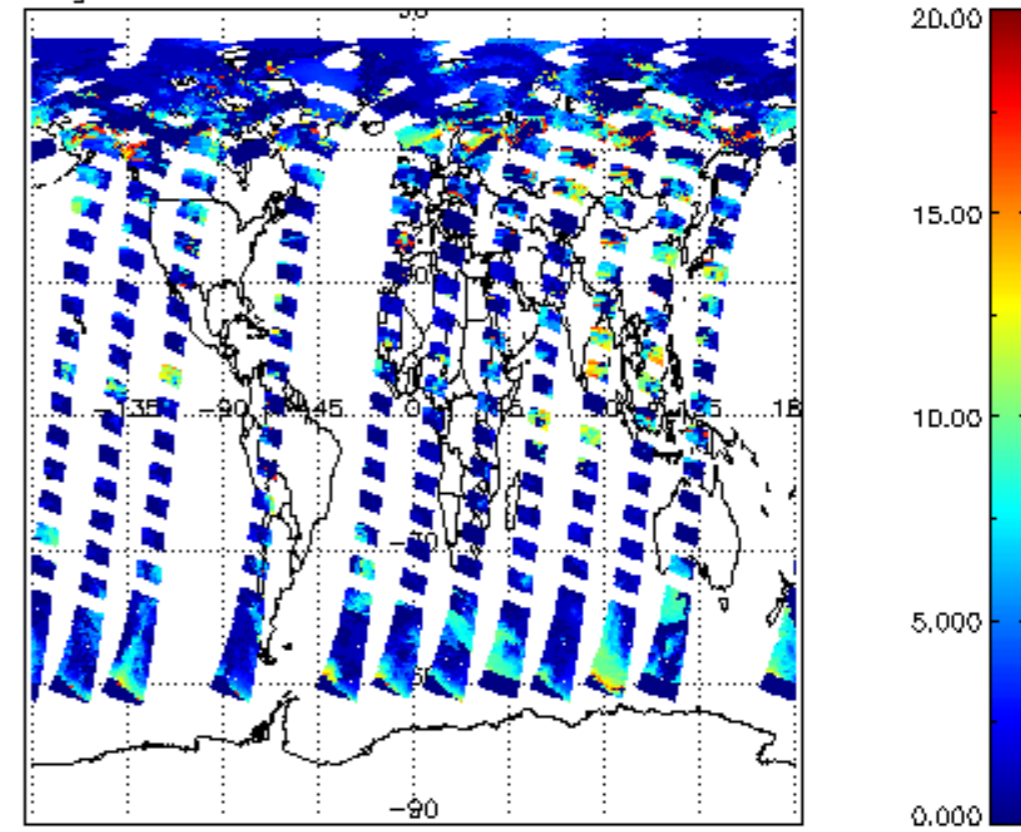
### 2.3 ADF monitoring

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

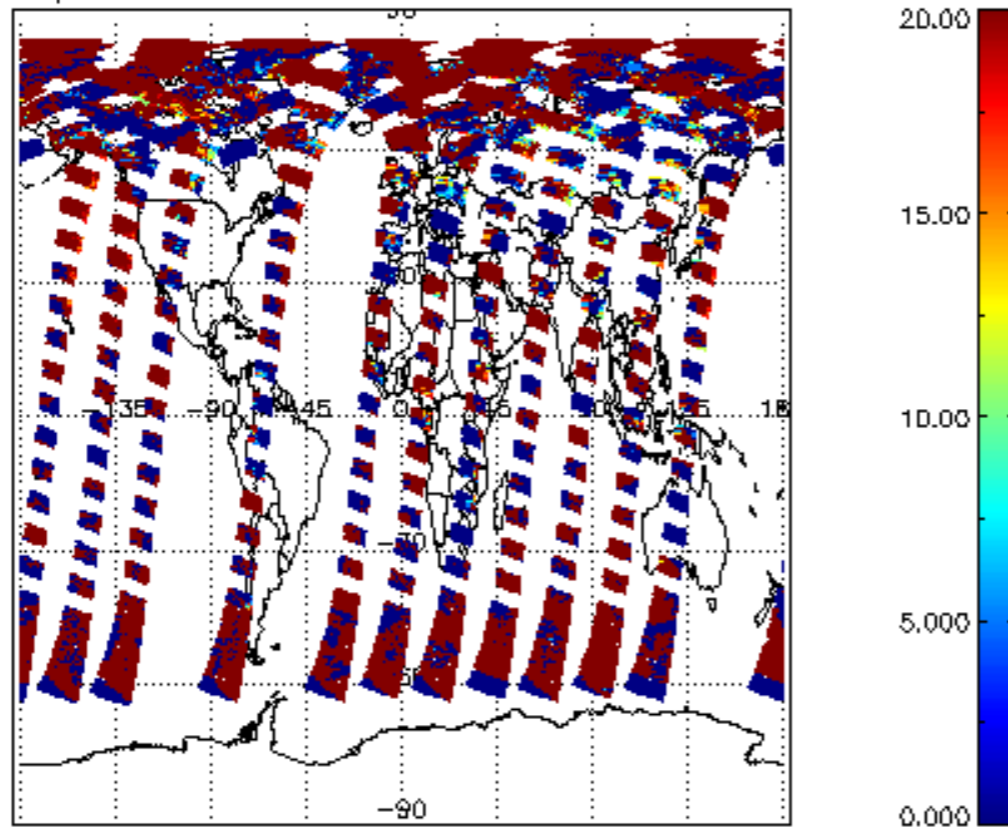
cl\_frac for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



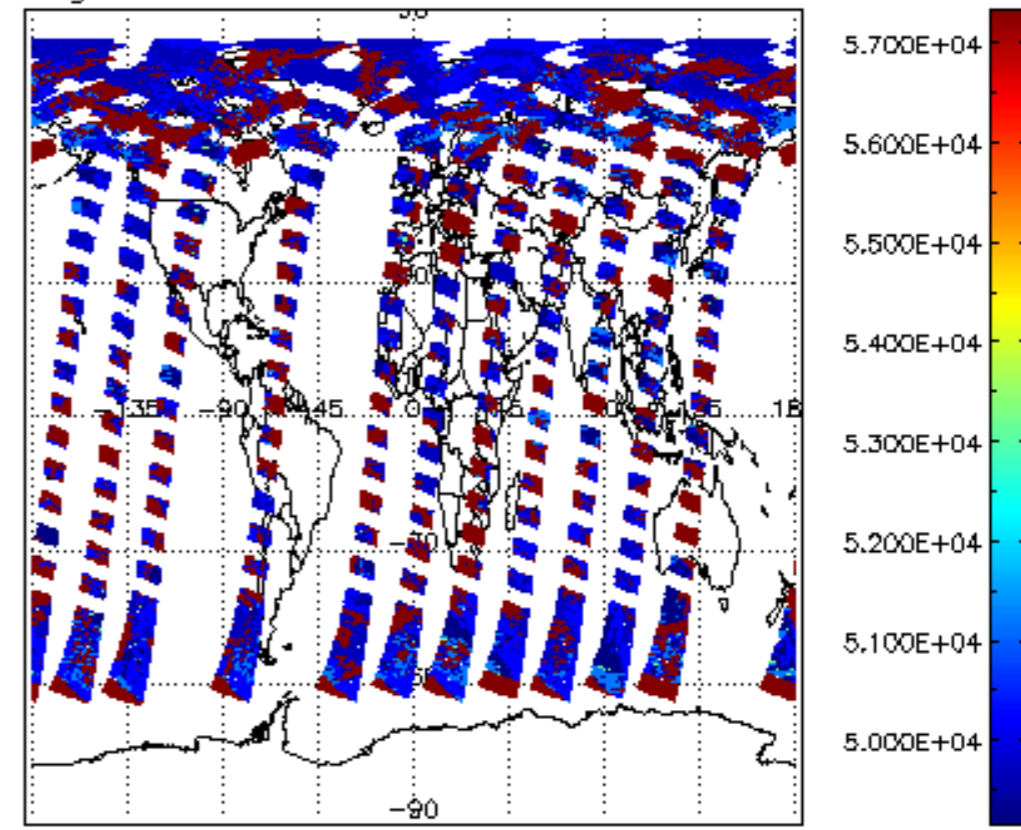
cl\_top\_height for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



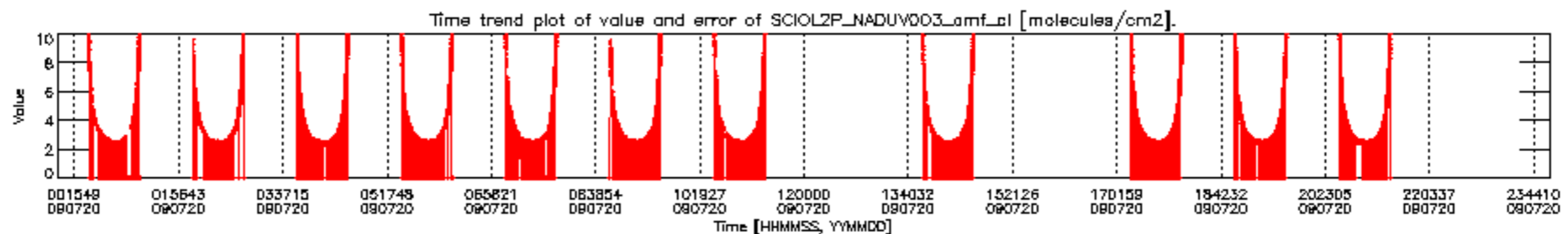
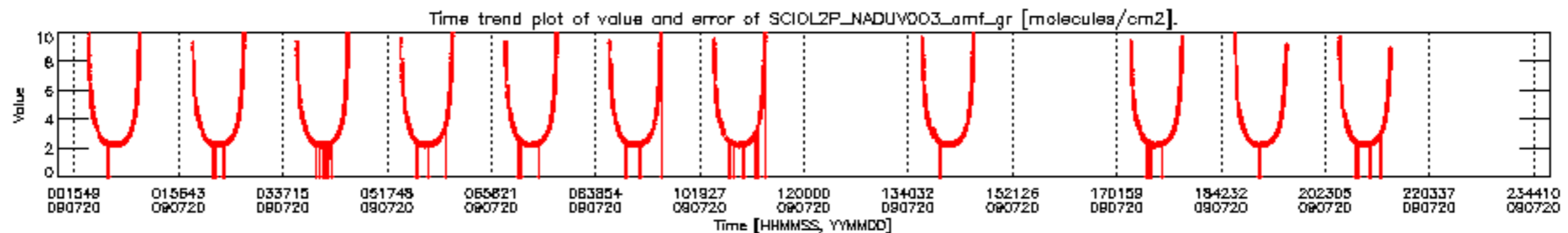
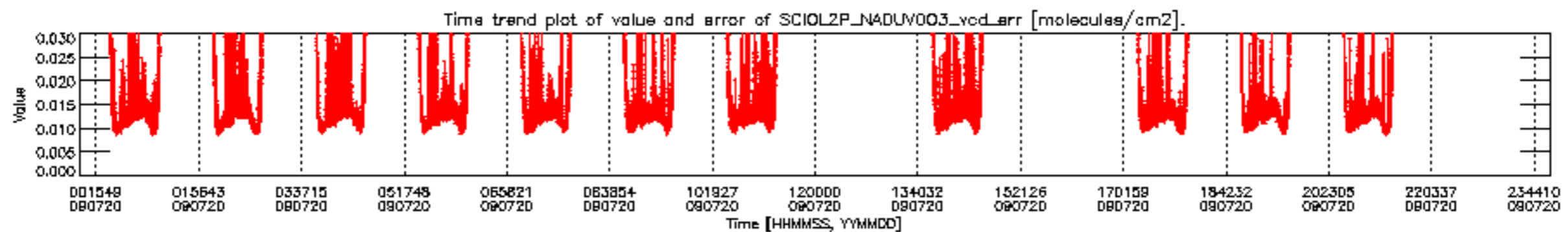
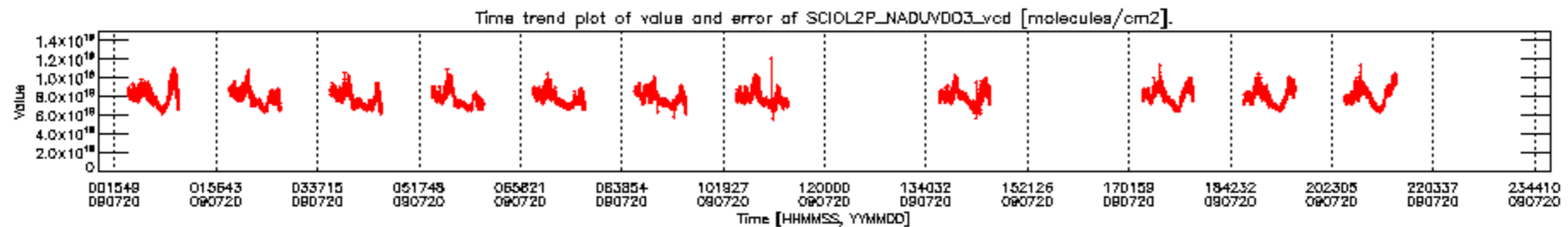
cl\_lopt\_depth for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



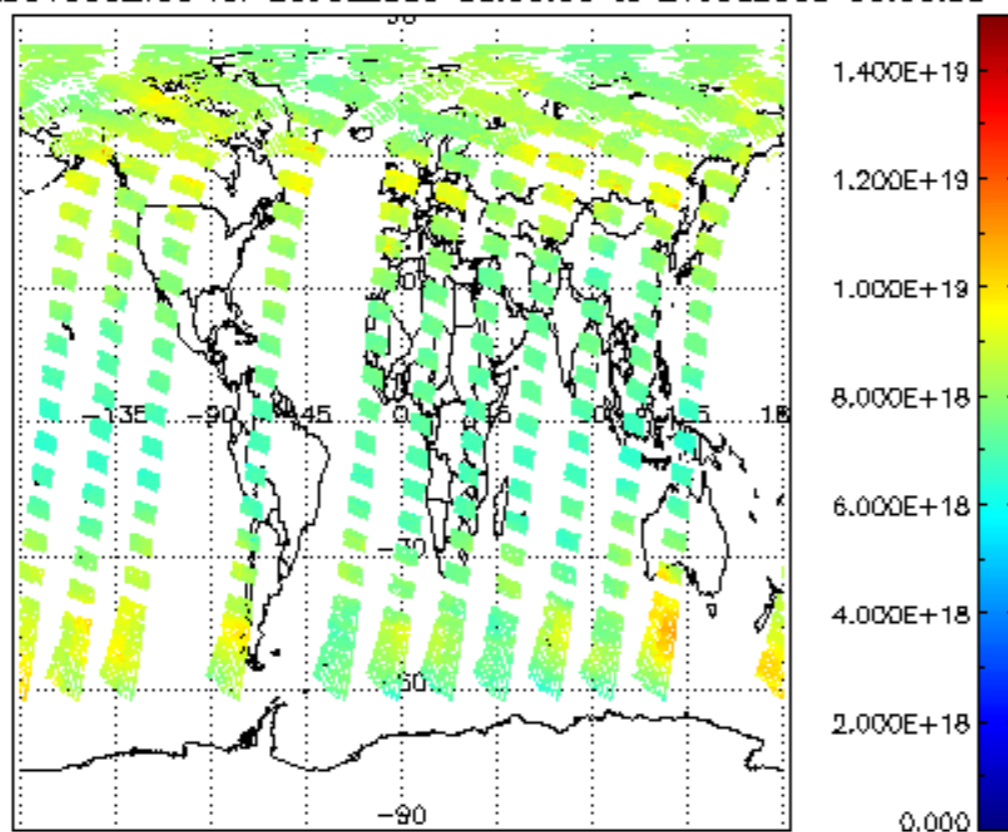
cloud\_flags for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



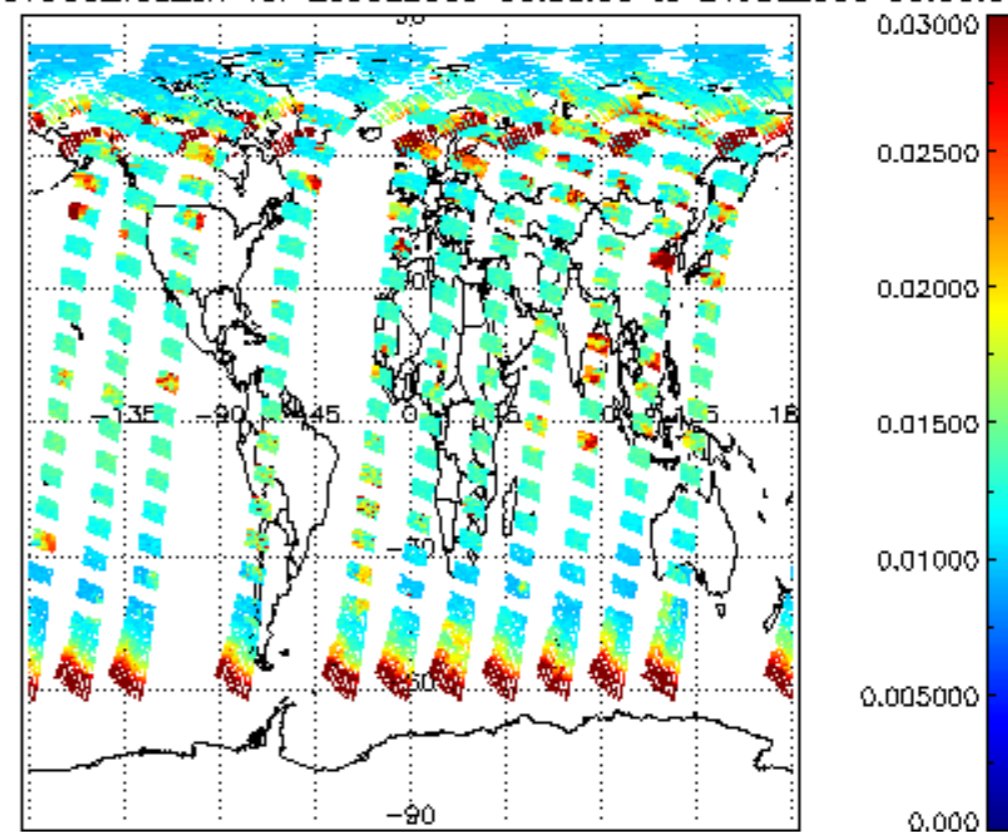




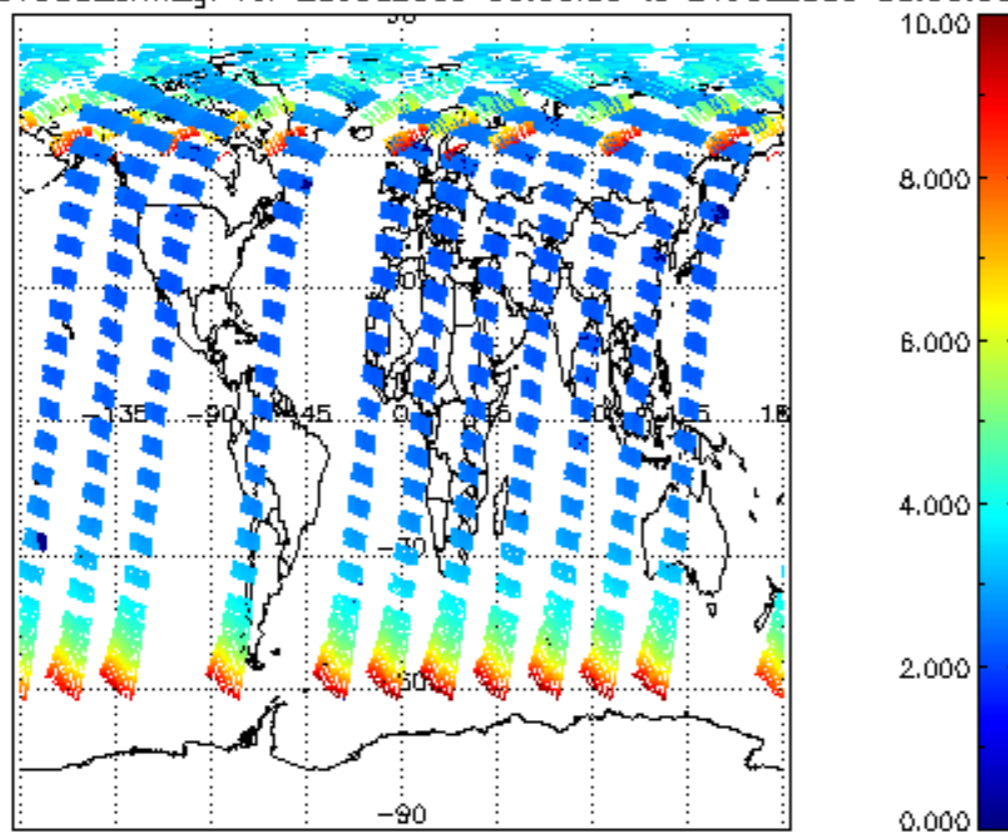
SCIOL2P\_NADUV003\_vcd for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



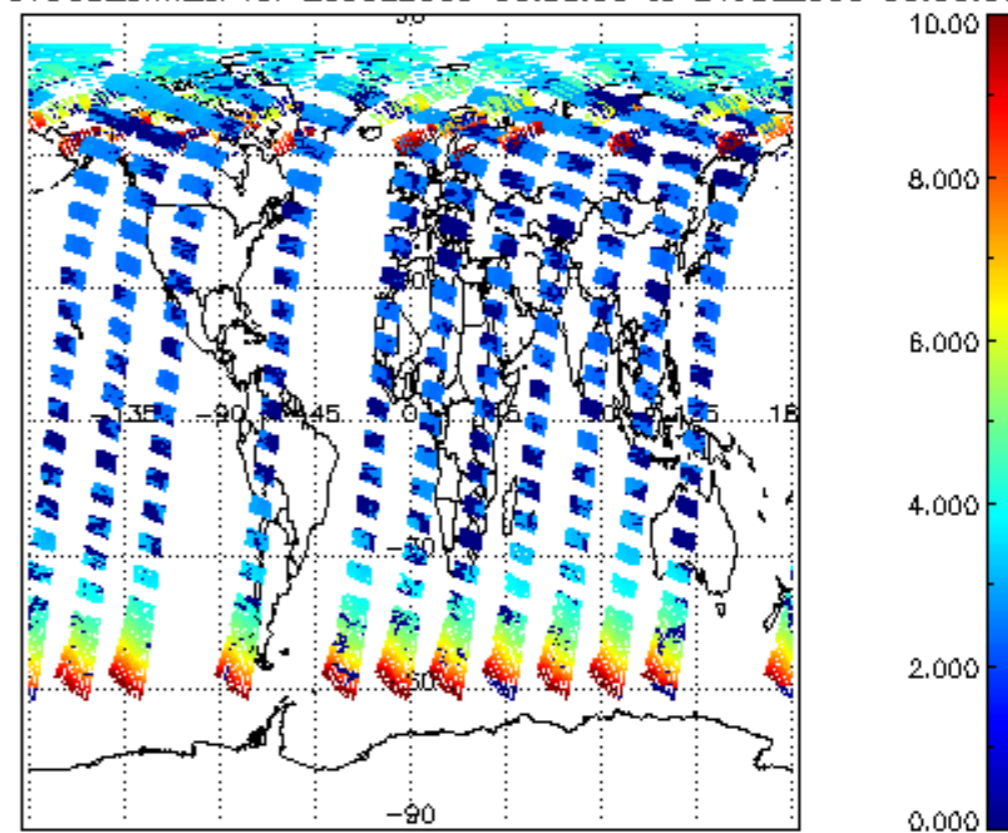
SCIOL2P\_NADUV003\_vcd\_err for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



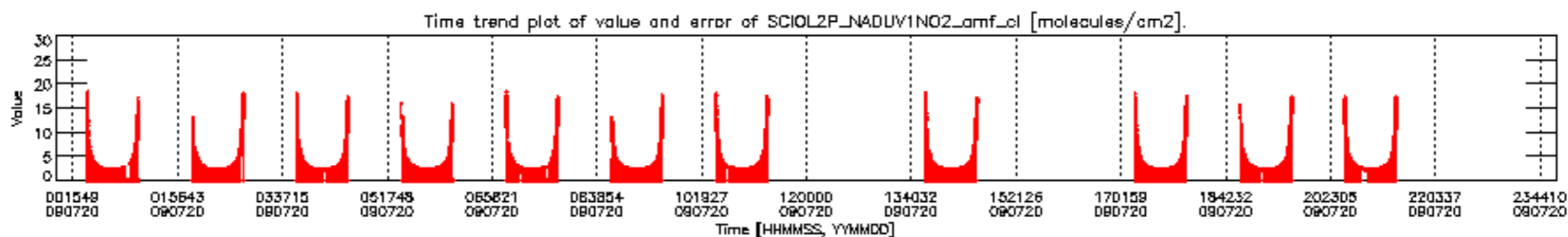
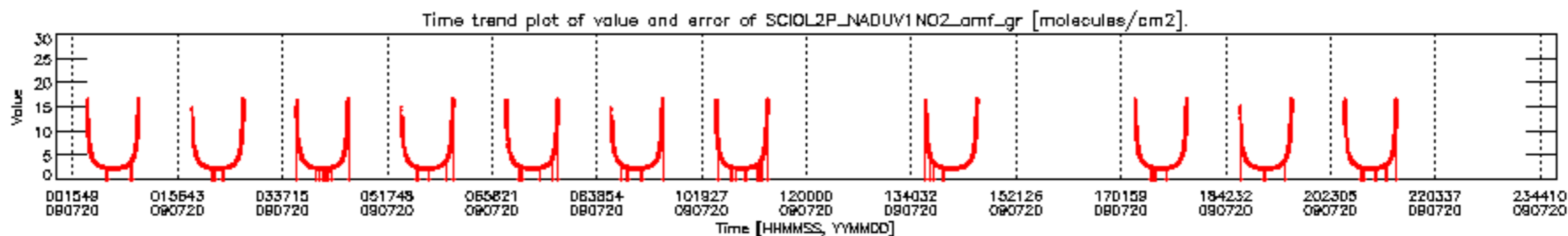
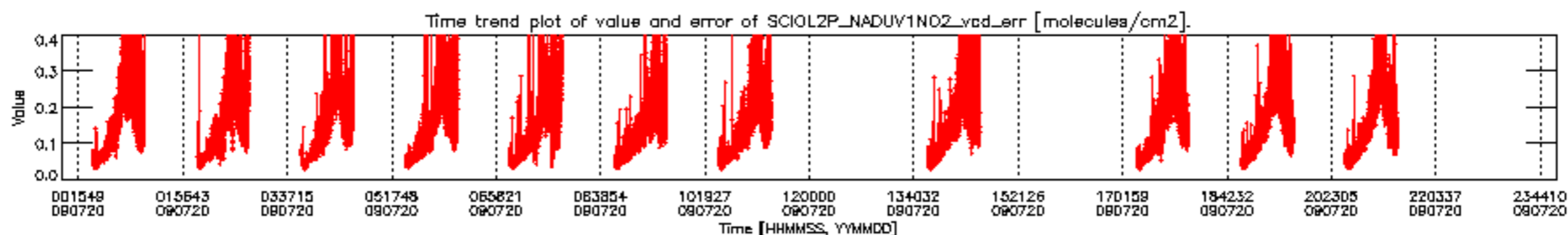
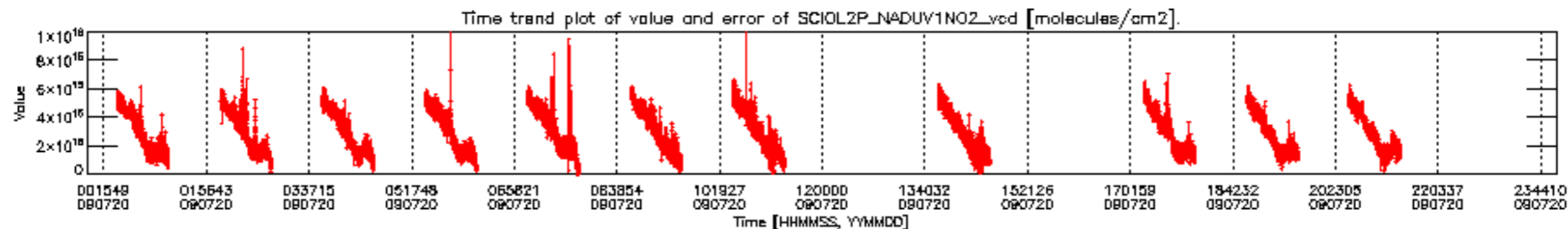
SCIOL2P\_NADUV003\_amf\_gr for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



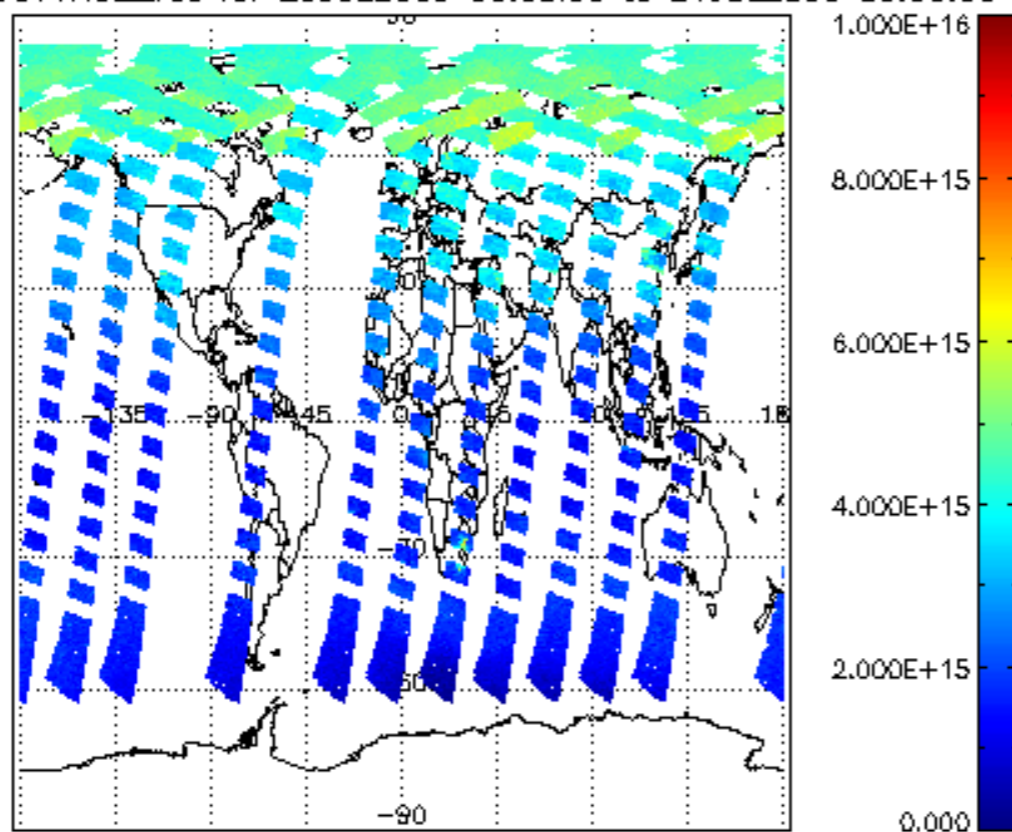
SCIOL2P\_NADUV003\_amf\_cl for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



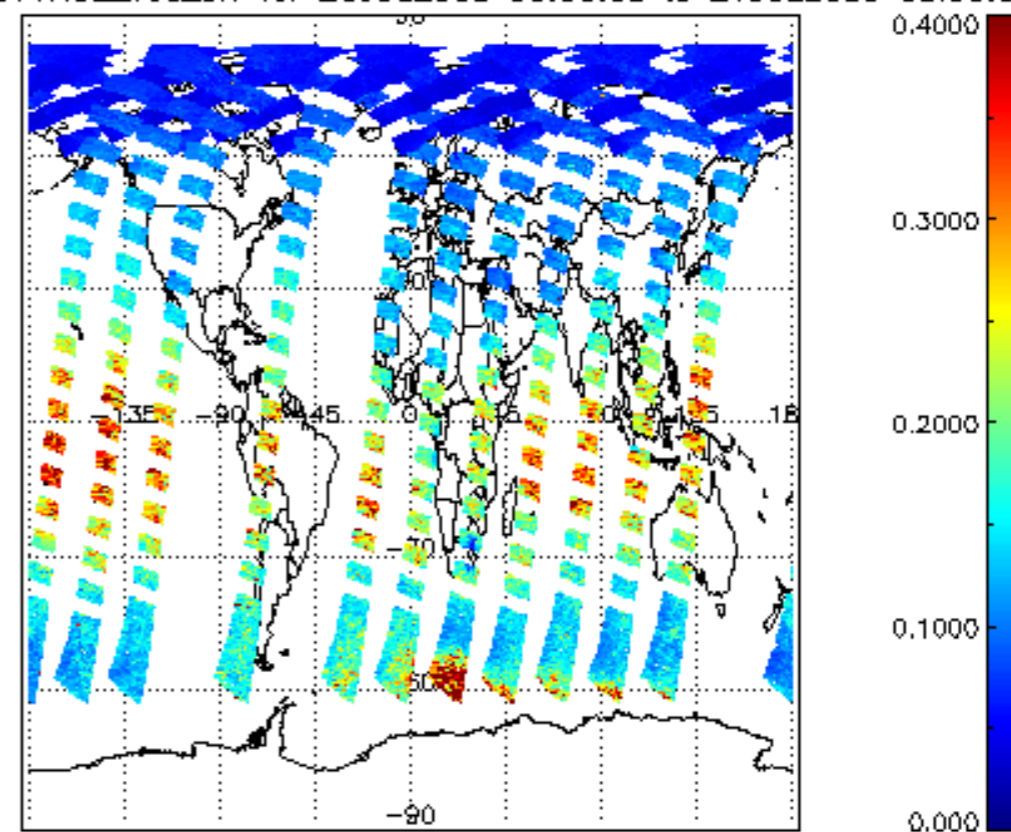




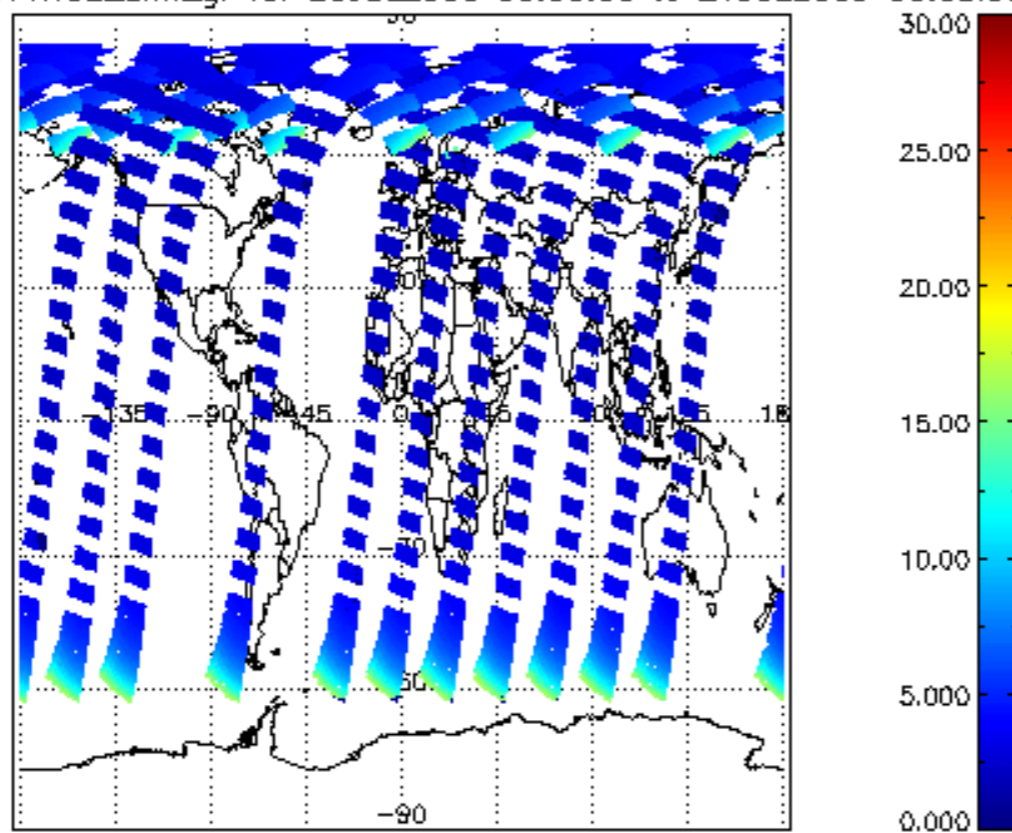
SCIOL2P\_NADUV1NO2\_vcd for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



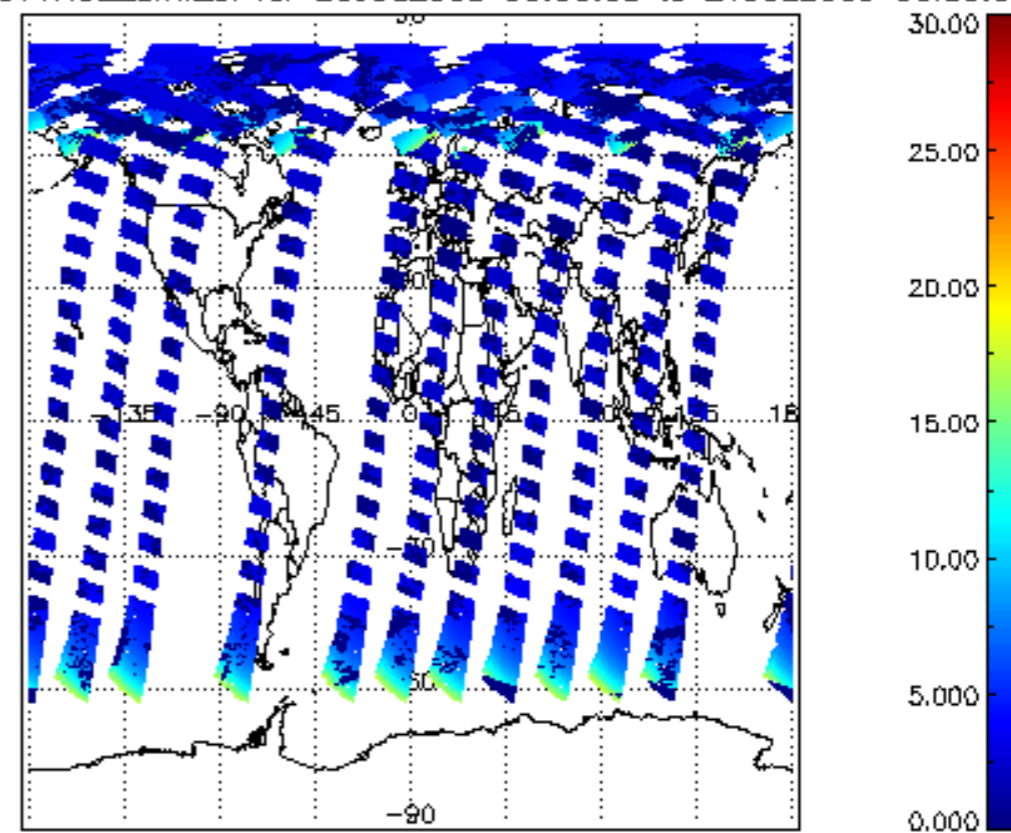
SCIOL2P\_NADUV1NO2\_vcd\_err for 20JUL2009 00:00:00 to 21JUL2009 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 20JUL2009 00:00:00 to 21JUL2009 00:00:00

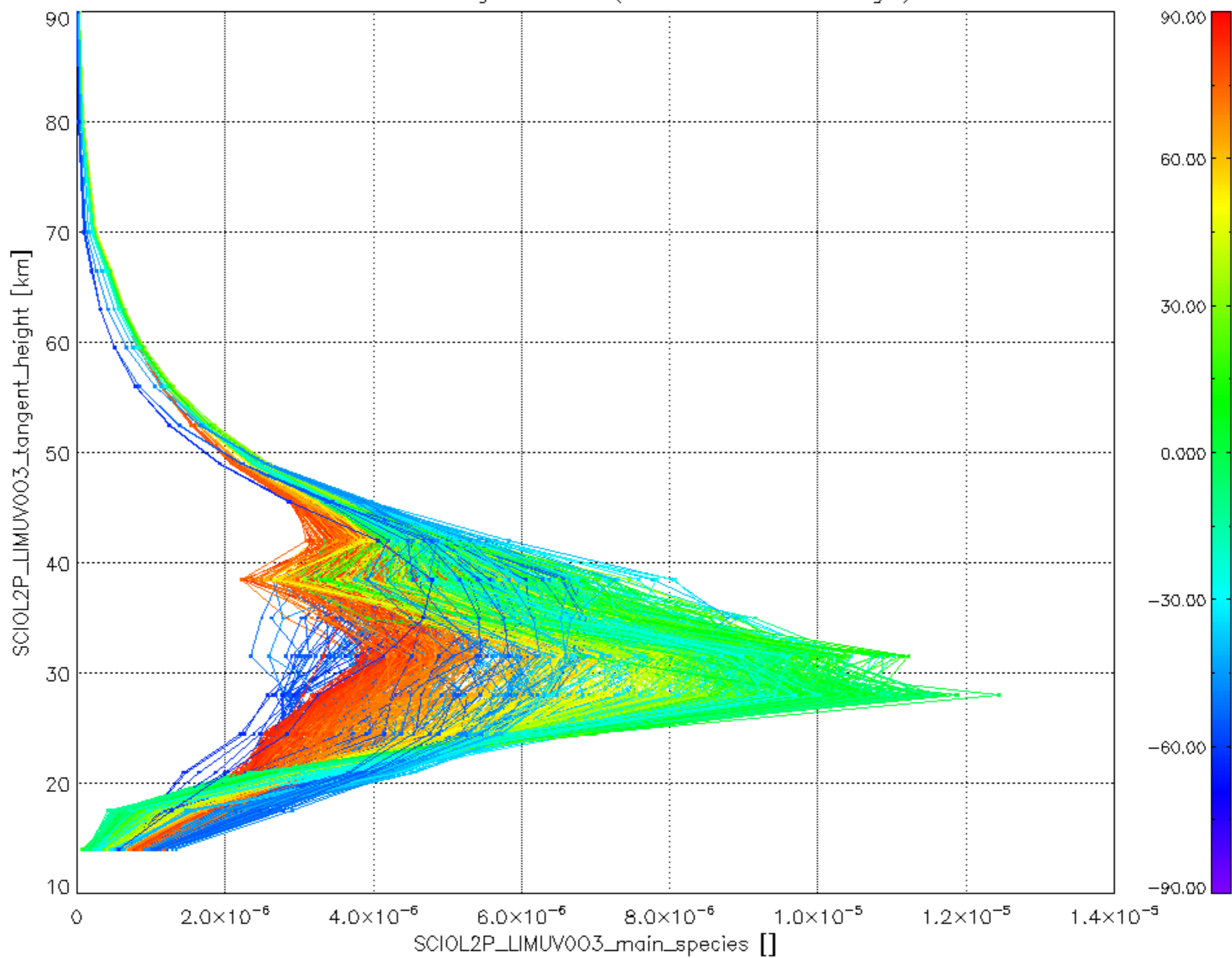


SCIOL2P\_NADUV1NO2\_amf\_cl for 20JUL2009 00:00:00 to 21JUL2009 00:00:00





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).

