

## 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	29JUL2009 06:04:54
Data source version	SCIA-OL/3.01-R
Processing scope for products	11JUL2009 00:00:00 to 12JUL2009 00:00:00
Start time of first product within scope	11JUL2009 00:06:40
Stop time of last product within scope	12JUL2009 00:30:18
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__2PRDPA20090711_000640_000033122080_00360_38490_3382.N1</a>	11JUL2009 00:06:40	11JUL2009 01:01:53	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20090711_014716_000033252080_00361_38491_3335.N1</a>	11JUL2009 01:47:16	11JUL2009 02:42:42	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20090711_032752_000033122080_00362_38492_3336.N1</a>	11JUL2009 03:27:52	11JUL2009 04:23:05	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20090711_050828_000033252080_00363_38493_3337.N1</a>	11JUL2009 05:08:28	11JUL2009 06:03:54	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20090711_064904_000033122080_00364_38494_3339.N1</a>	11JUL2009 06:49:04	11JUL2009 07:44:17	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20090711_082941_000033252080_00365_38495_3340.N1</a>	11JUL2009 08:29:41	11JUL2009 09:25:06	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20090711_101017_000033122080_00366_38496_3341.N1</a>	11JUL2009 10:10:17	11JUL2009 11:05:29	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20090711_115053_000033252080_00367_38497_3342.N1</a>	11JUL2009 11:50:53	11JUL2009 12:46:18	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20090711_133128_000033122080_00368_38498_3343.N1</a>	11JUL2009 13:31:28	11JUL2009 14:26:41	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20090711_151205_000033252080_00369_38499_3344.N1</a>	11JUL2009 15:12:05	11JUL2009 16:07:30	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20090711_165241_000033122080_00370_38500_3338.N1</a>	11JUL2009 16:52:41	11JUL2009 17:47:54	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20090711_183333_000033252080_00371_38501_3346.N1</a>	11JUL2009 18:33:33	11JUL2009 19:28:59	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20090711_201409_000033122080_00372_38502_3345.N1</a>	11JUL2009 20:14:09	11JUL2009 21:09:22	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20090711_215429_000033252080_00373_38503_3347.N1</a>	11JUL2009 21:54:29	11JUL2009 22:49:54	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20090711_233505_000033122080_00374_38504_3348.N1</a>	11JUL2009 23:35:05	12JUL2009 00:30:18	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: 146697

Total number of cloud data DSRs with good quality flag (=0): 146697 (100.0 %)

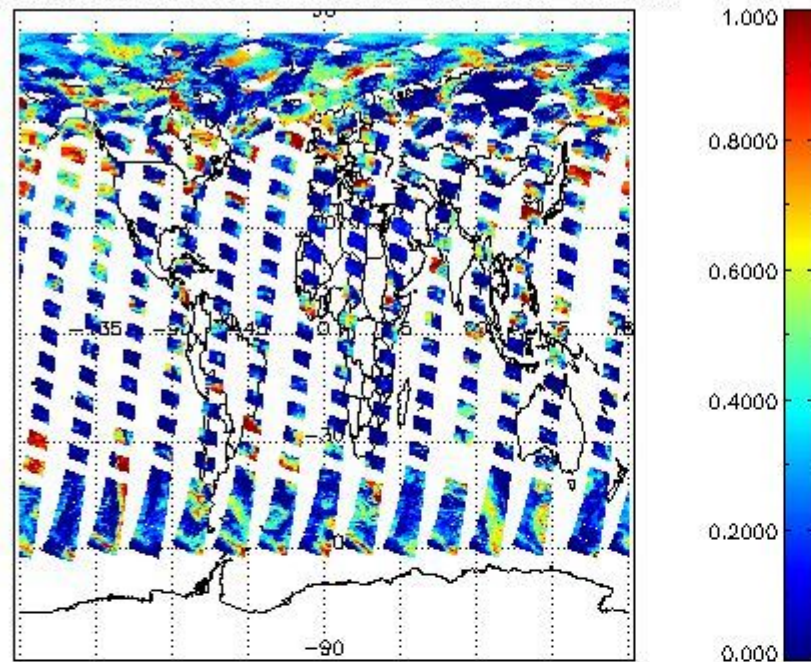
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	146697	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	146697	0.17024	0.12500	0.12500	0.25000	0.060071	s
CL_FRAC	146697	0.27225	0.20003	0.0000	1.0000	0.27221	-
CL_FRAC_ERR	146697	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	146697	5.4478	4.0000	4.0000	8.0000	1.9223	
PMD_READ_CL[0]	146697	0.15696	0.0000	0.0000	8.0000	0.92305	-
PMD_READ_CL[1]	146697	1.8715	0.0000	0.0000	8.0000	2.6411	-
CL_TOP_HEIGHT	127604	3.1353	1.1150	0.0000	17.000	3.7784	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	127604	56.382	66.146	0.0000	101.00	45.335	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	146697	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	146697	11001101	11000100	11000000	11100000	3631.7	flags
AERO_ABSO_IND	146697	4.2409	4.9138	-29.575	16.187	2.7751	
AERO_IND_DIAG	146697	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	146697	01011000	00000000	00000000	11000000	24495.	flags

### Time and geolocation plots:

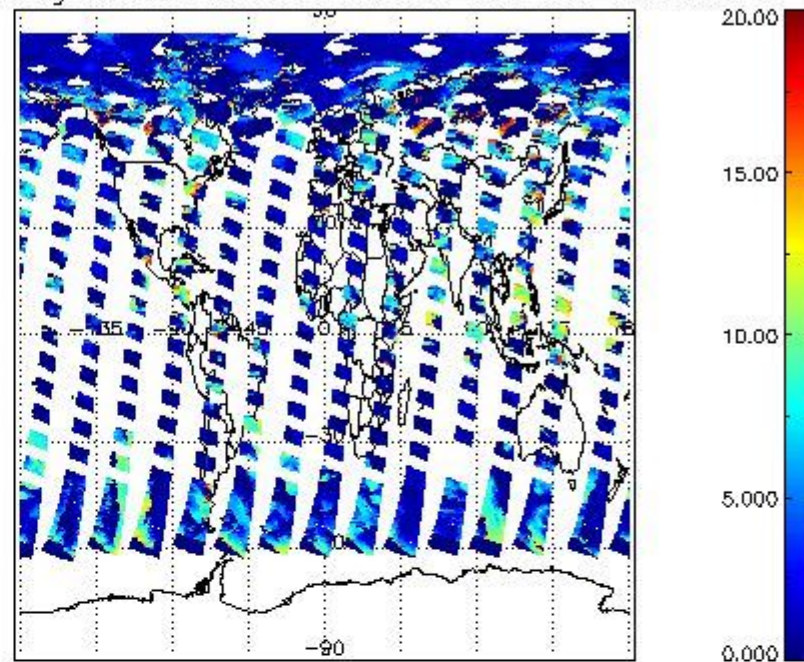
Plots are available for the following parameters:

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

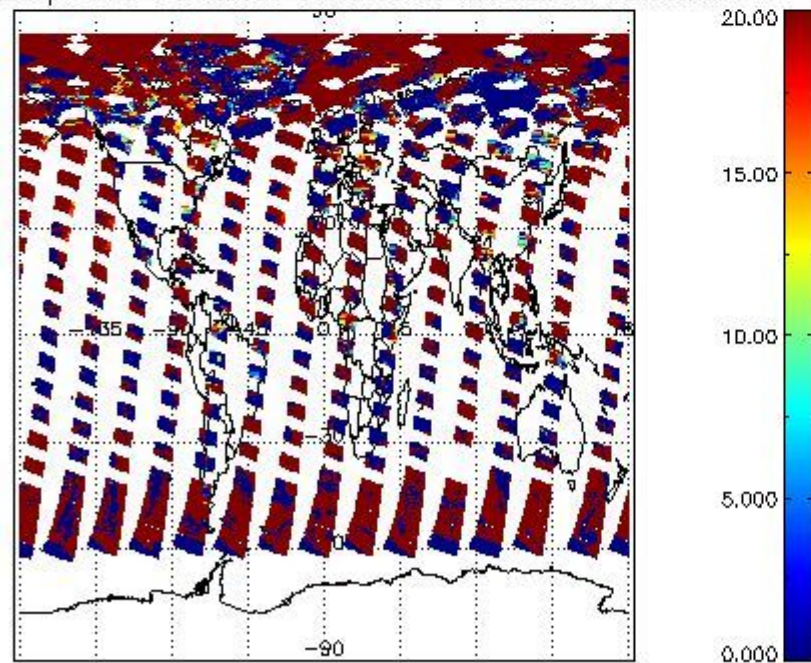
cL\_frac for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



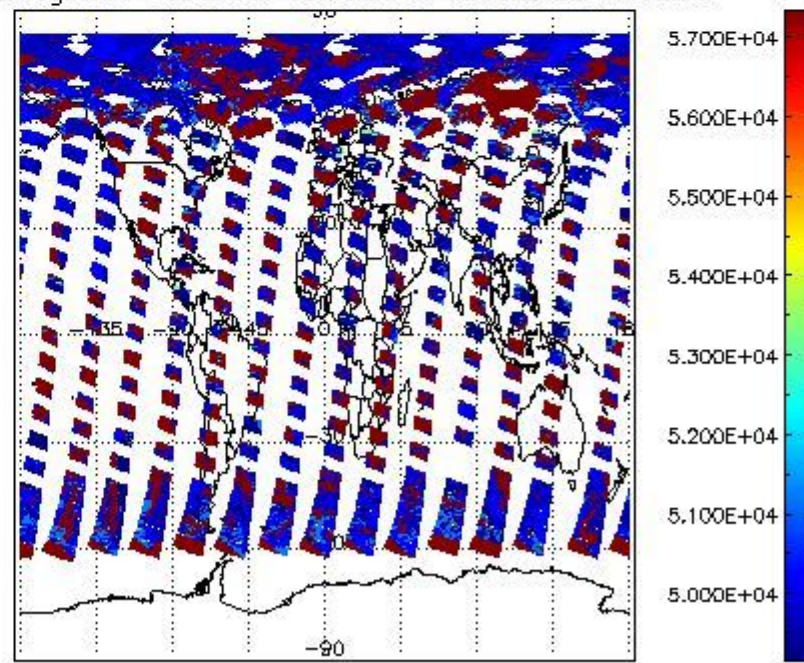
cL\_top\_height for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



cL\_opt\_depth for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



cloud\_flags for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



## 2.2.2 Nadir

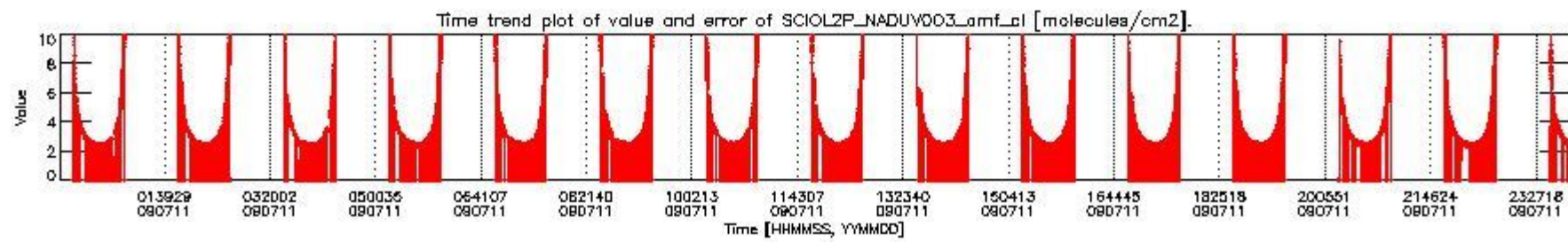
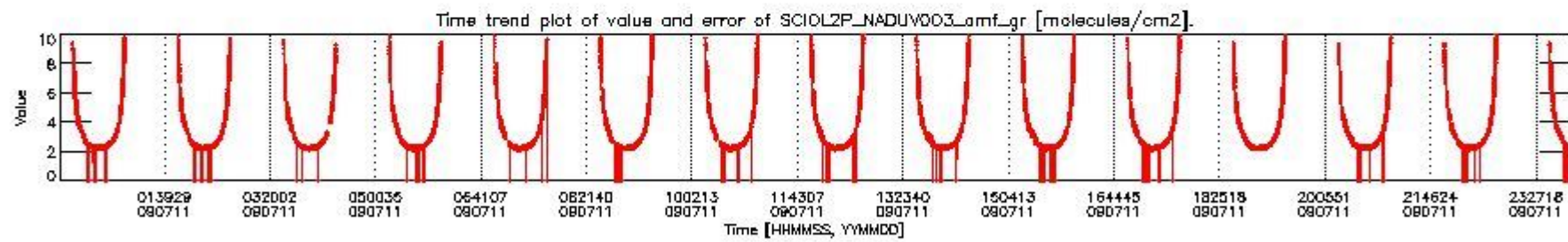
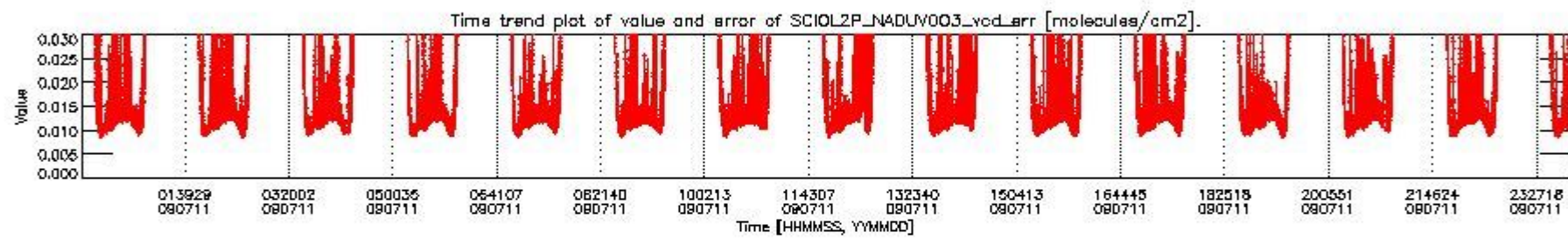
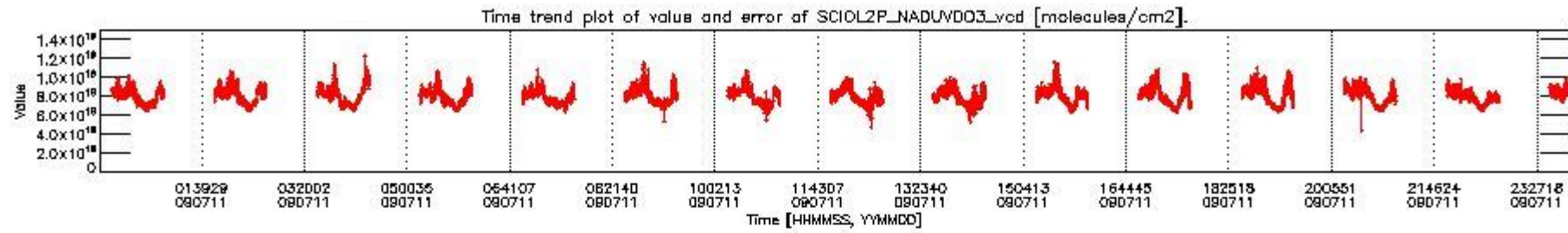
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

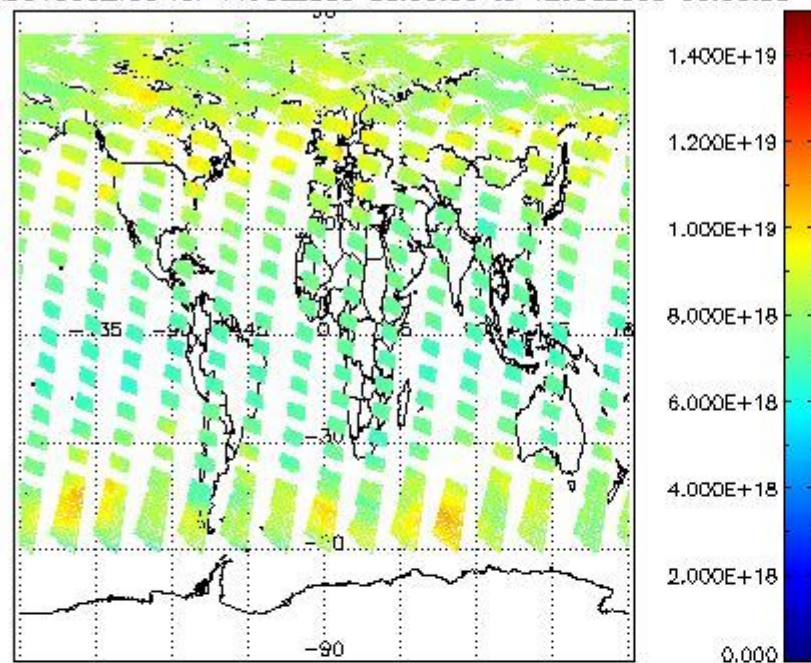
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

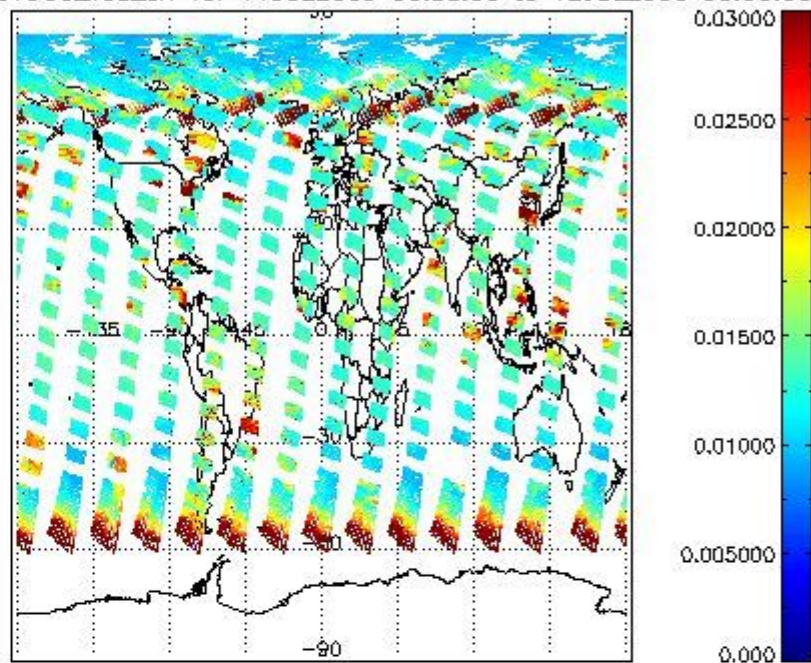
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



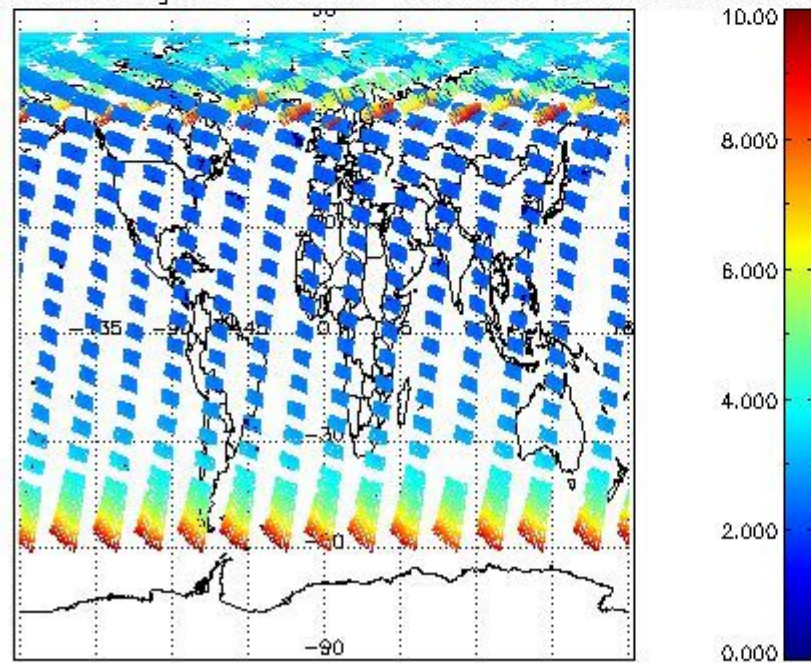
SCIOL2P\_NADUV003\_vcd for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



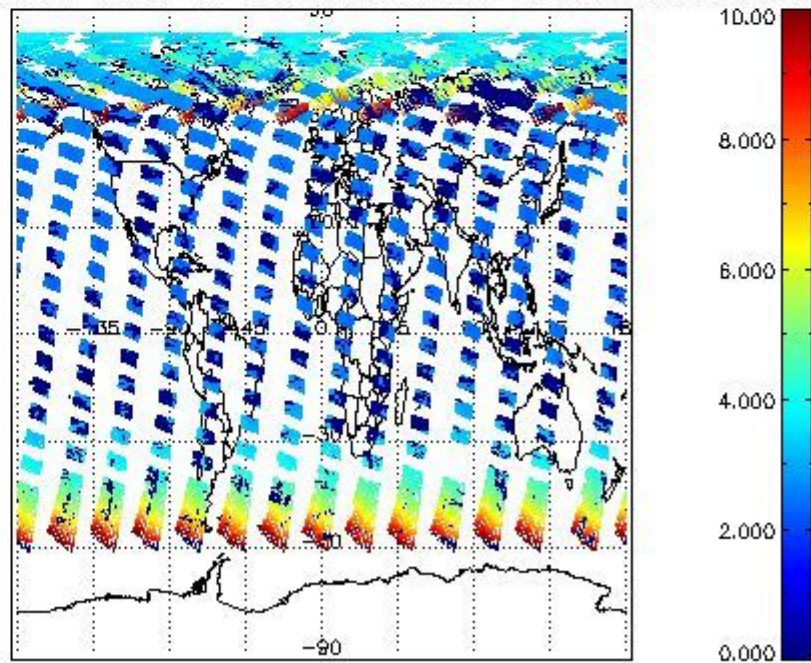
SCIOL2P\_NADUV003\_vcd\_err for 11JUL2009 00:00:00 to 12JUL2009 00:00:00

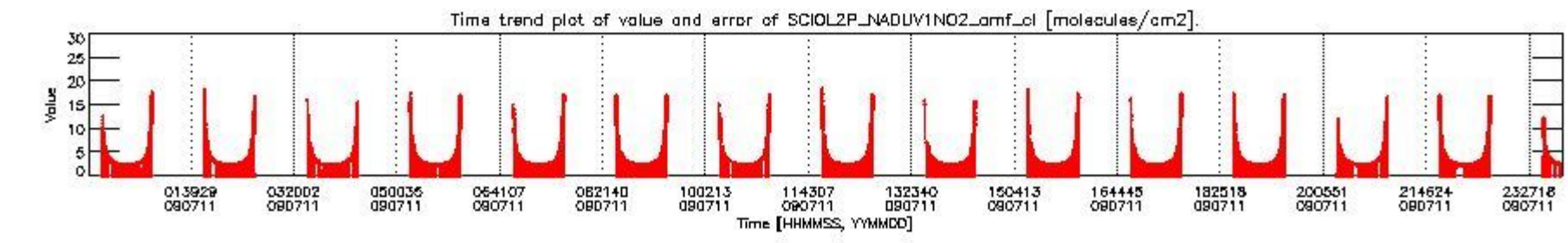
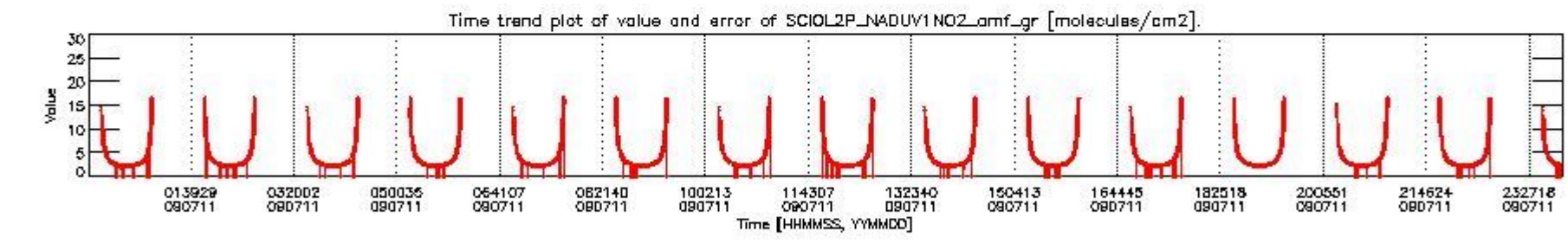
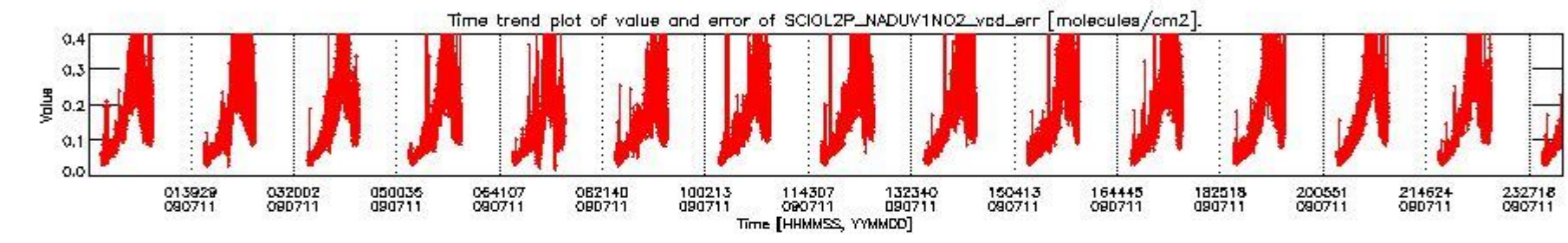
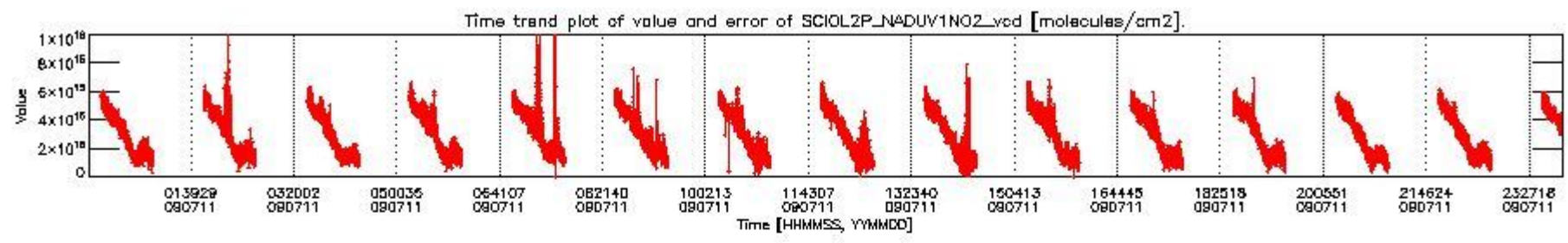


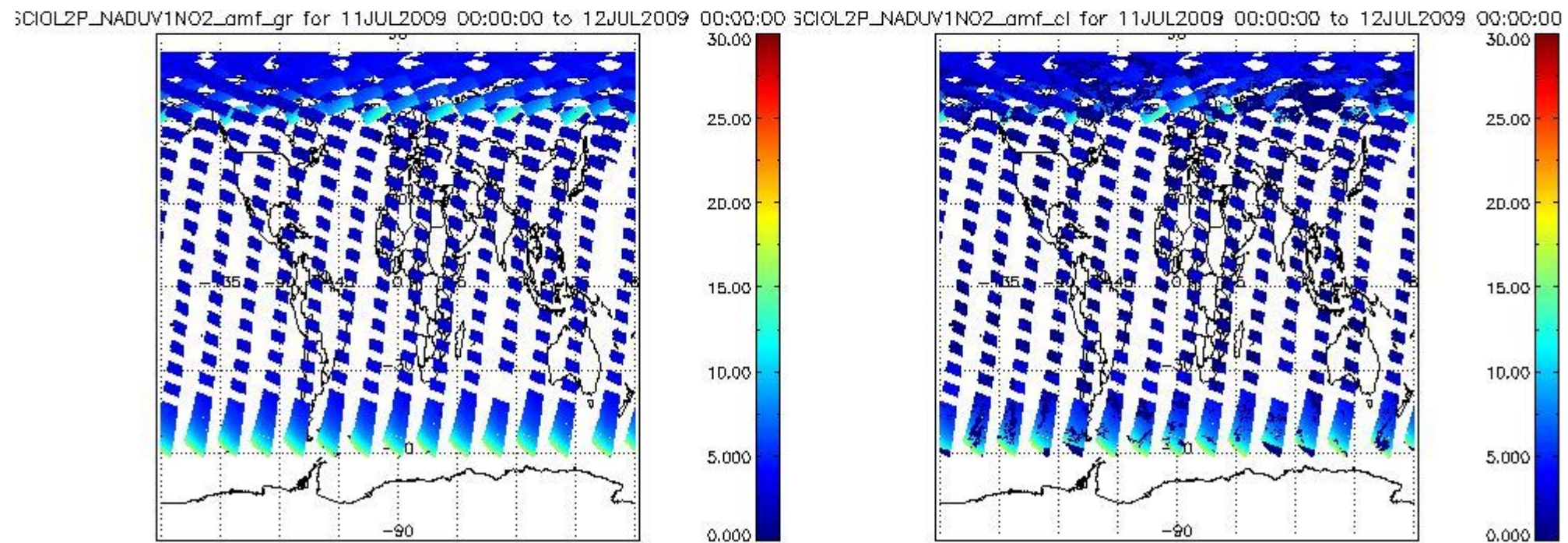
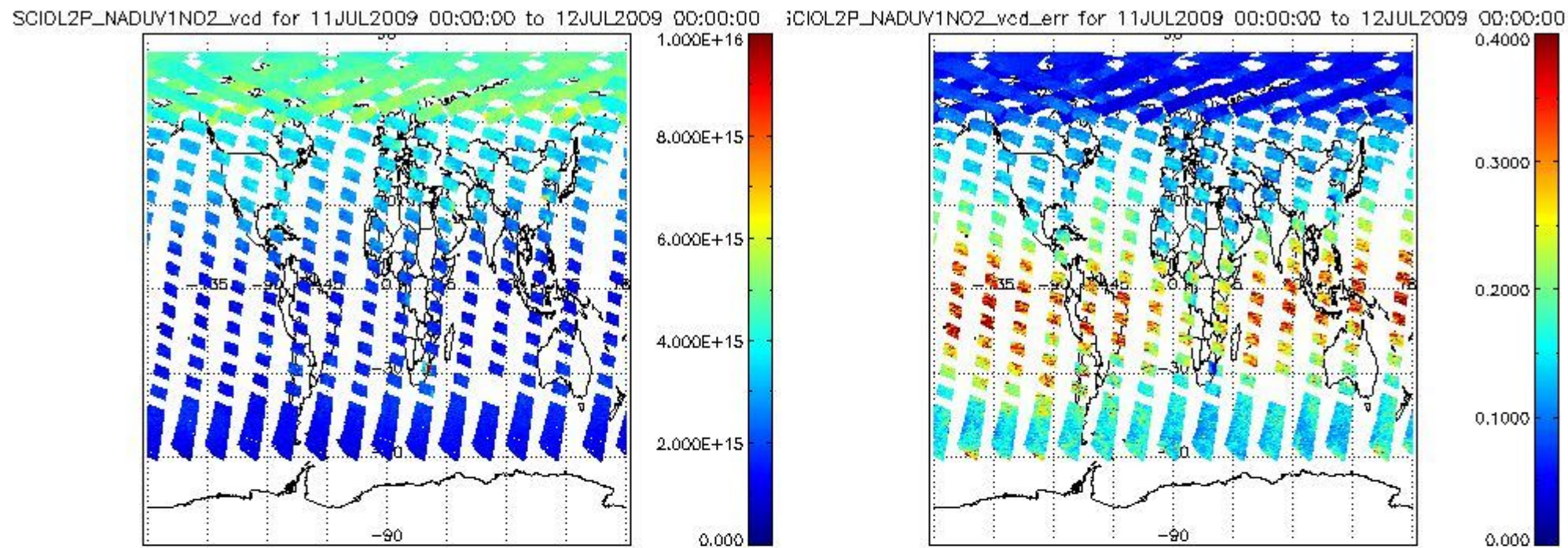
SCIOL2P\_NADUV003\_amf\_gr for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 11JUL2009 00:00:00 to 12JUL2009 00:00:00







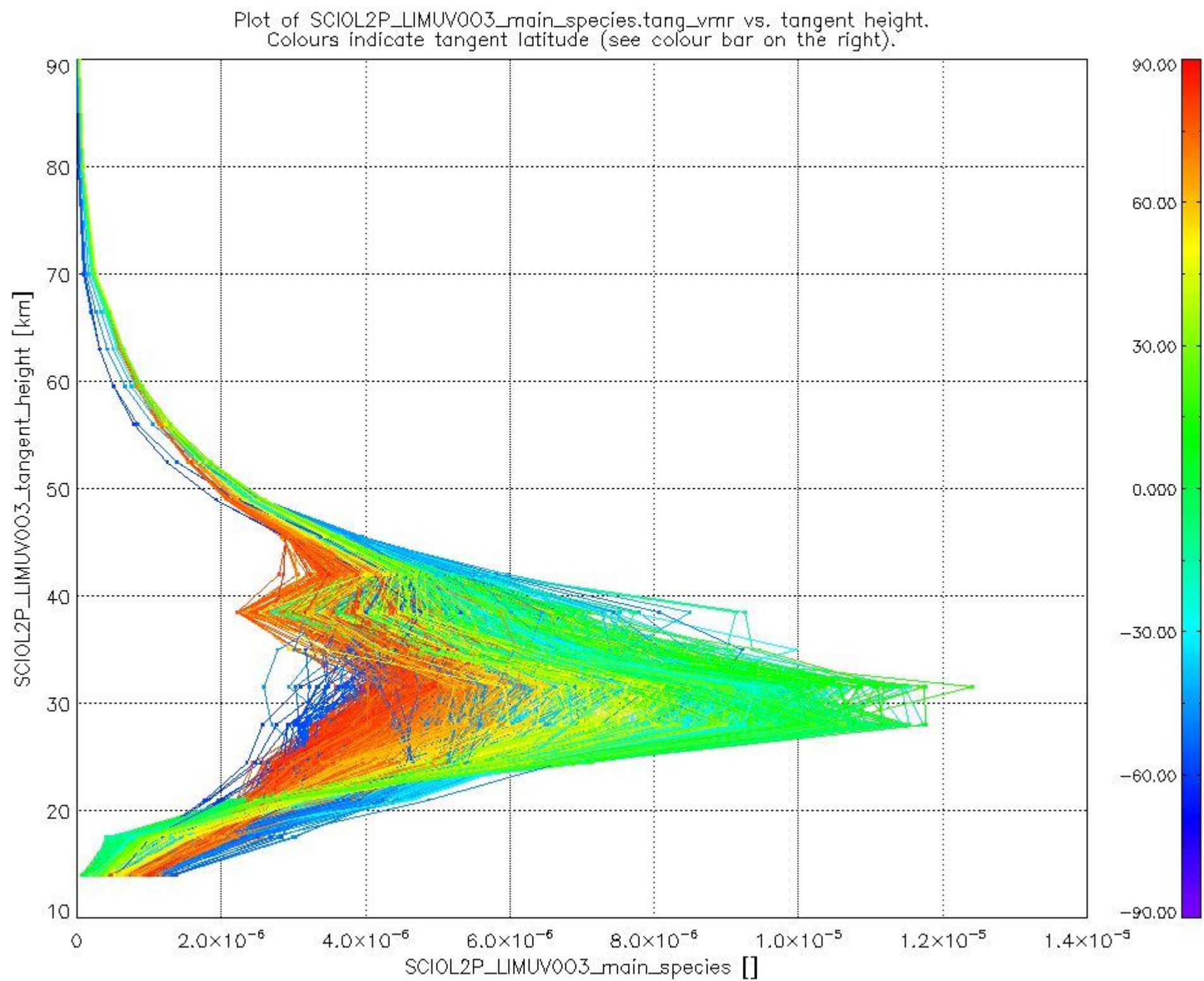
### 2.2.3 Limb

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:

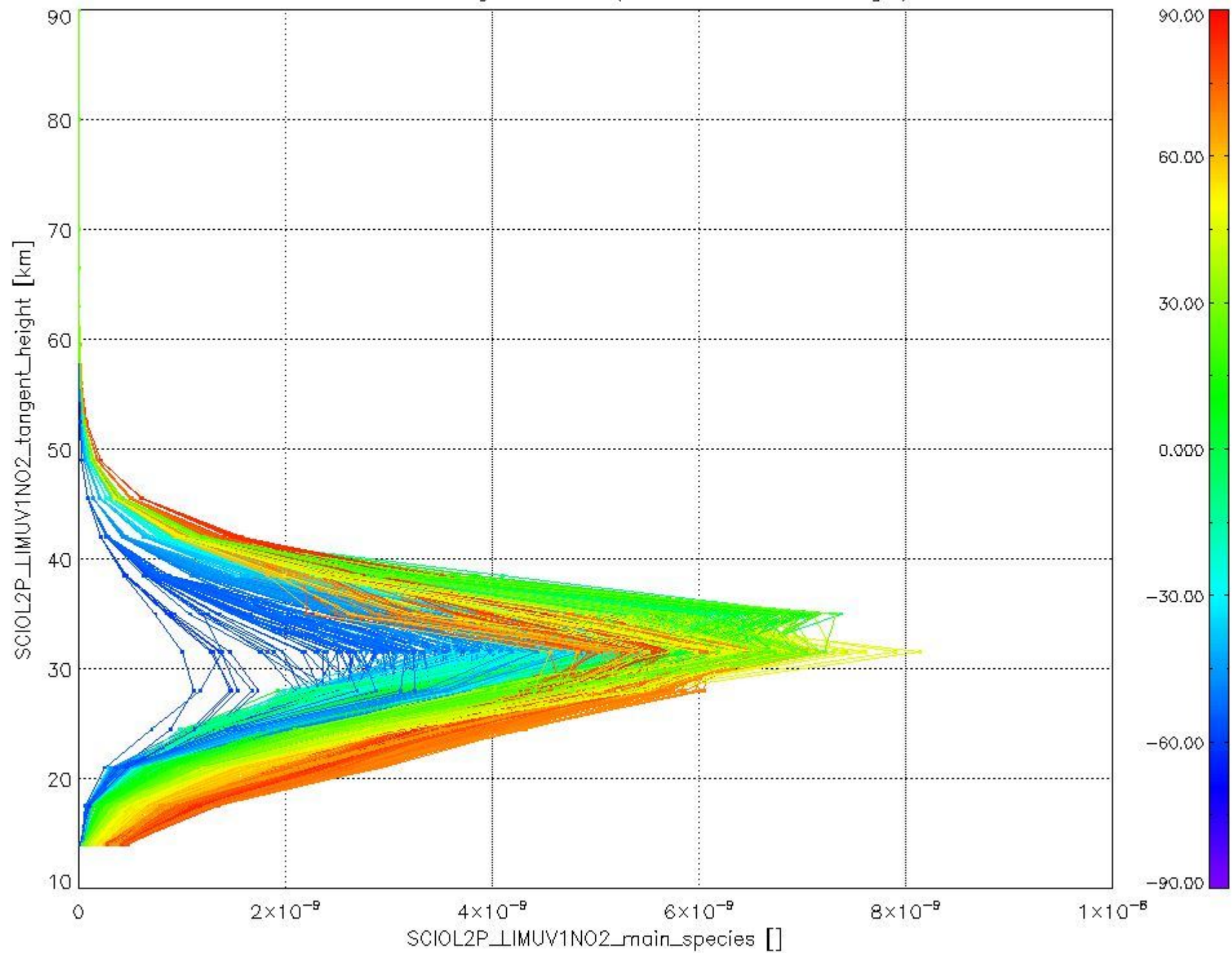
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





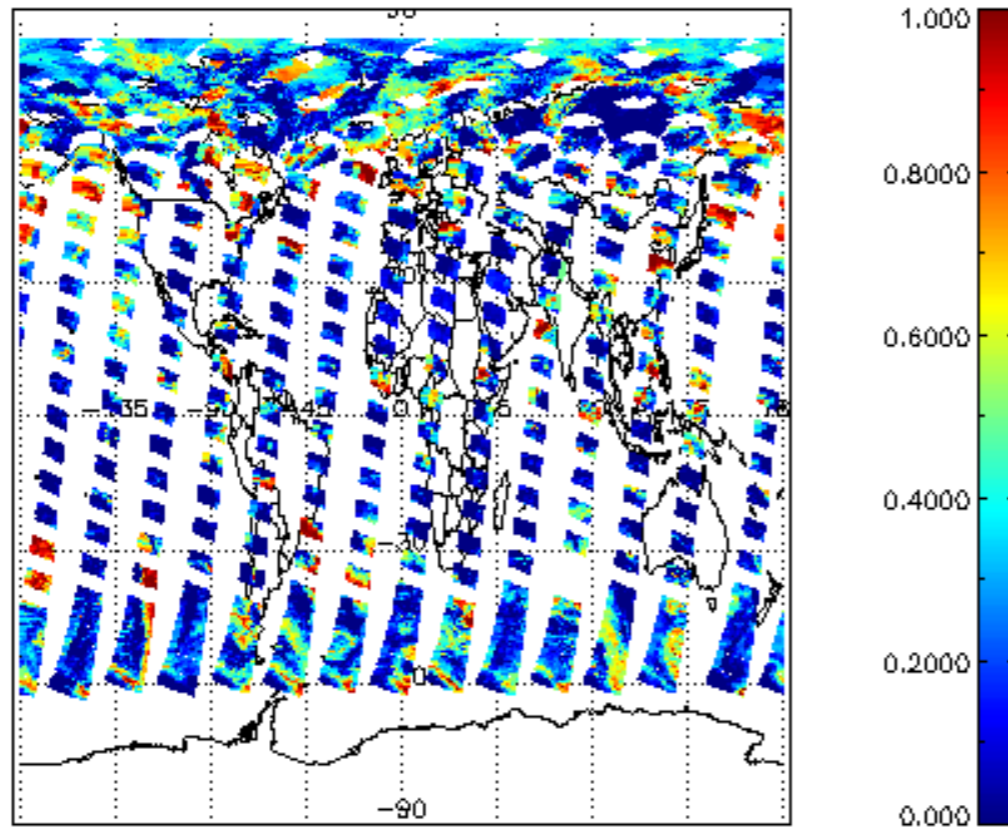
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



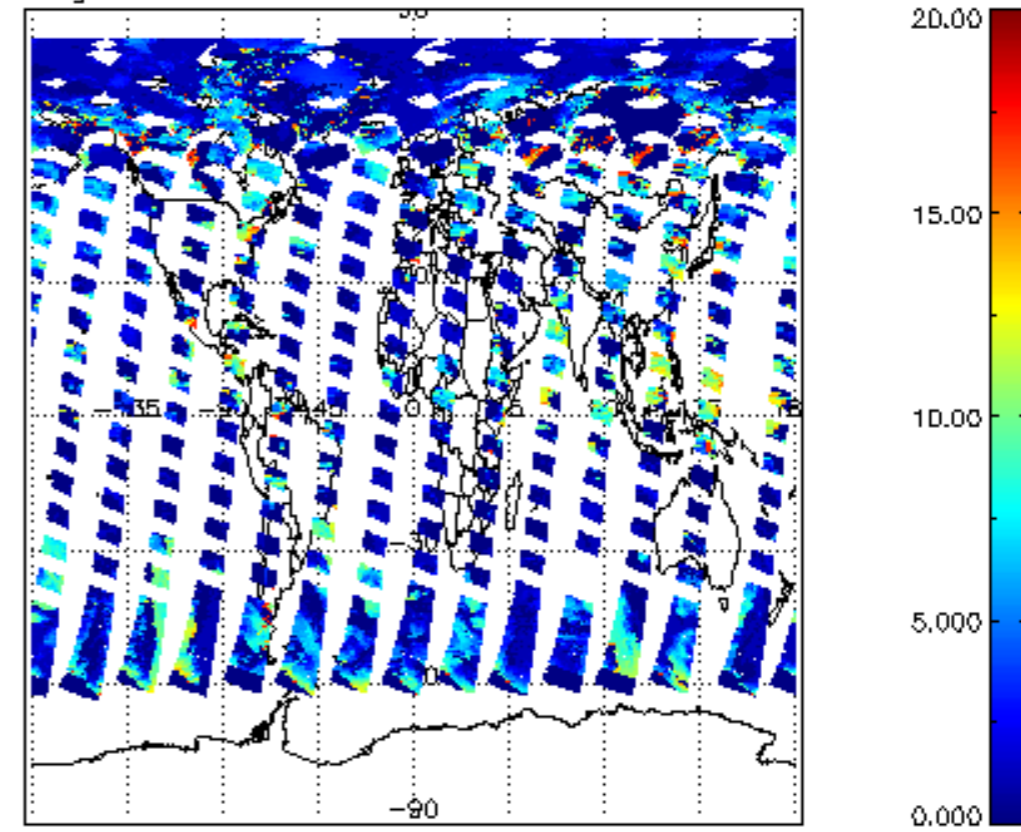
### 2.3 ADF monitoring

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

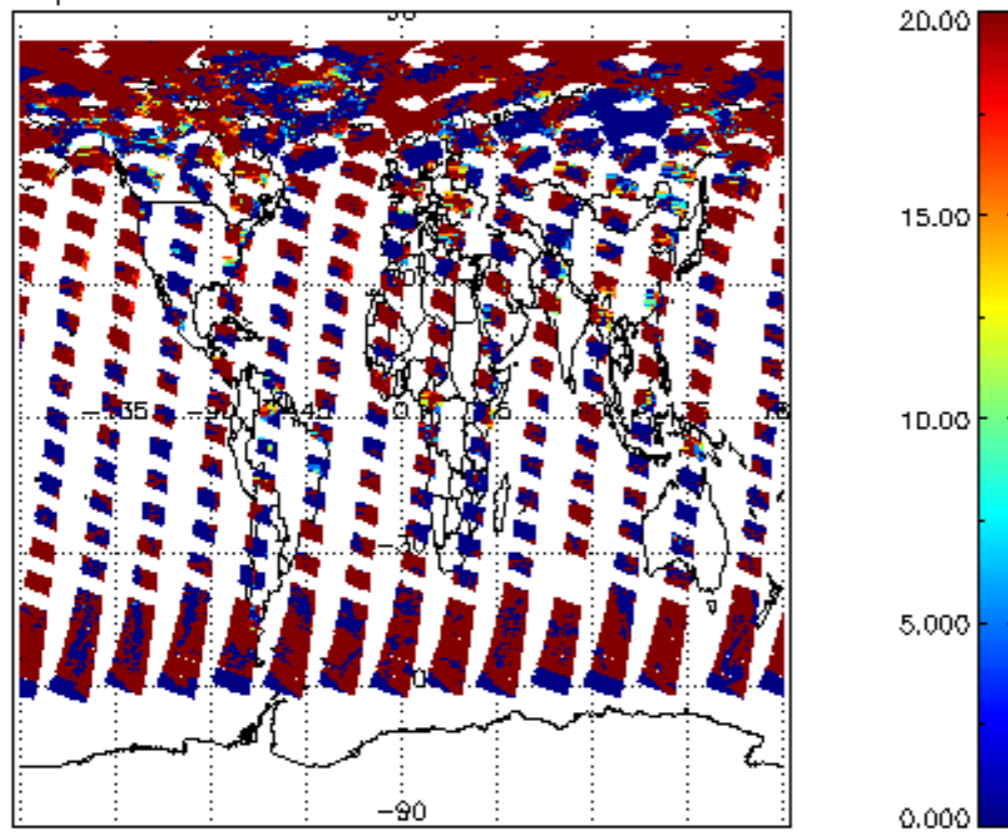
cl\_frac for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



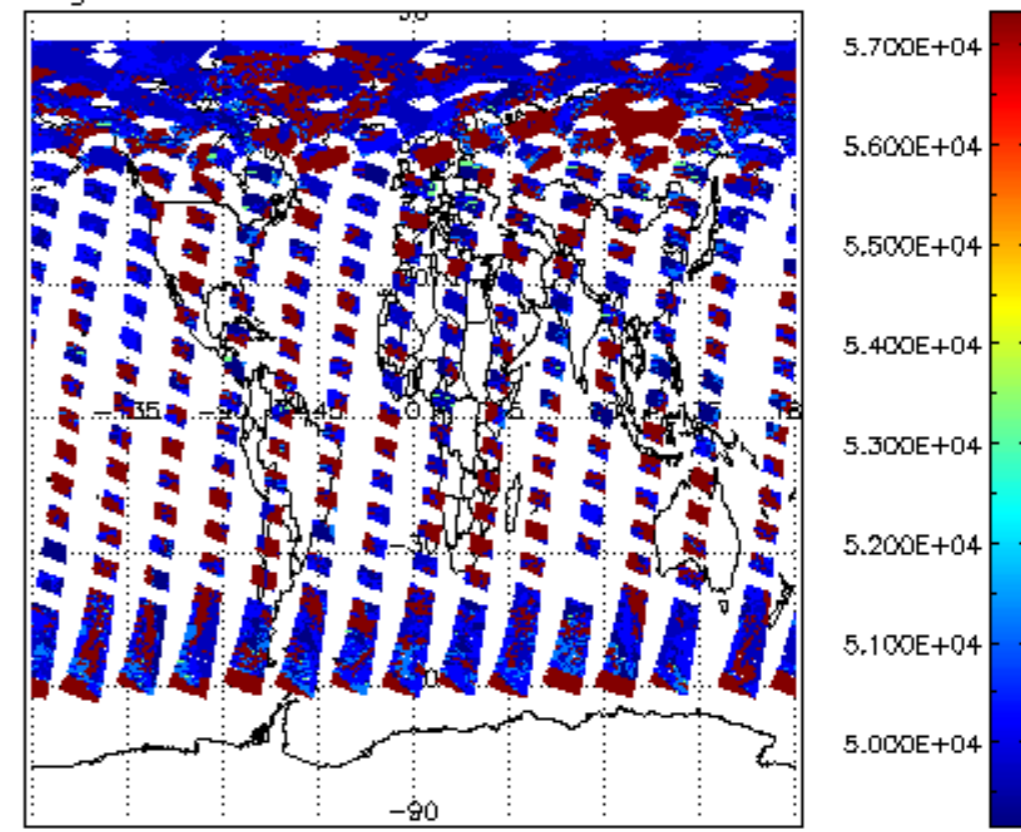
cl\_top\_height for 11JUL2009 00:00:00 to 12JUL2009 00:00:00

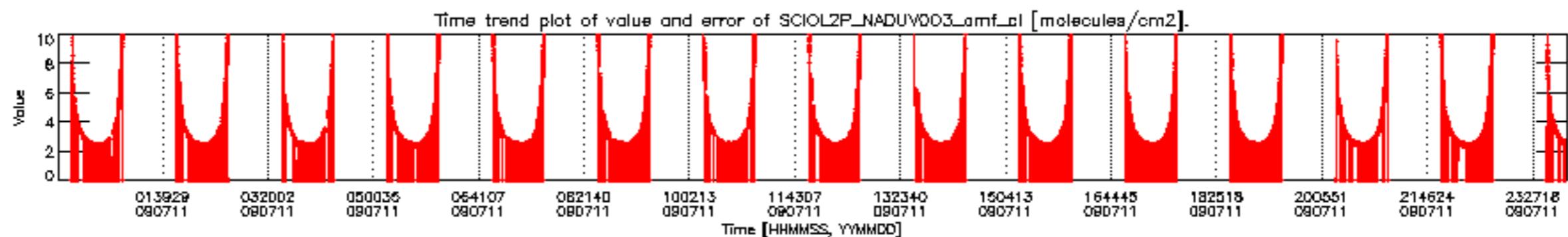
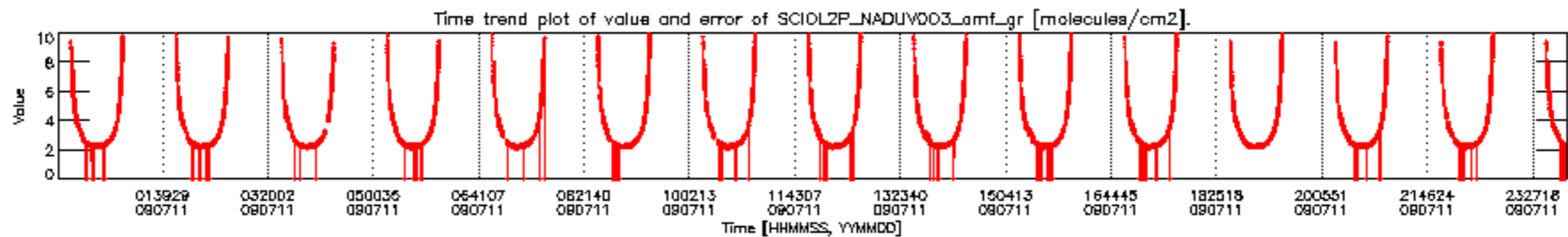
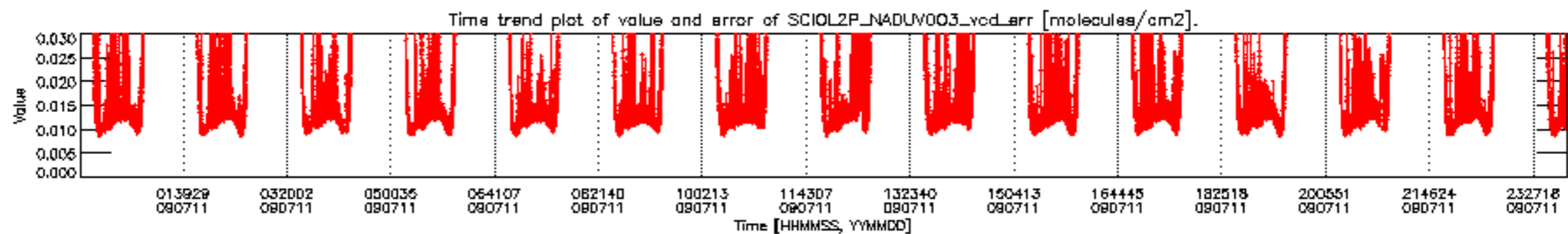
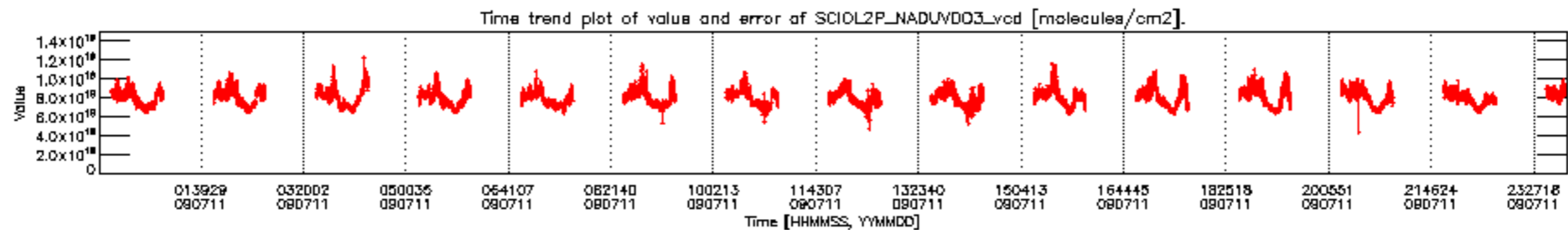


cl\_opt\_depth for 11JUL2009 00:00:00 to 12JUL2009 00:00:00

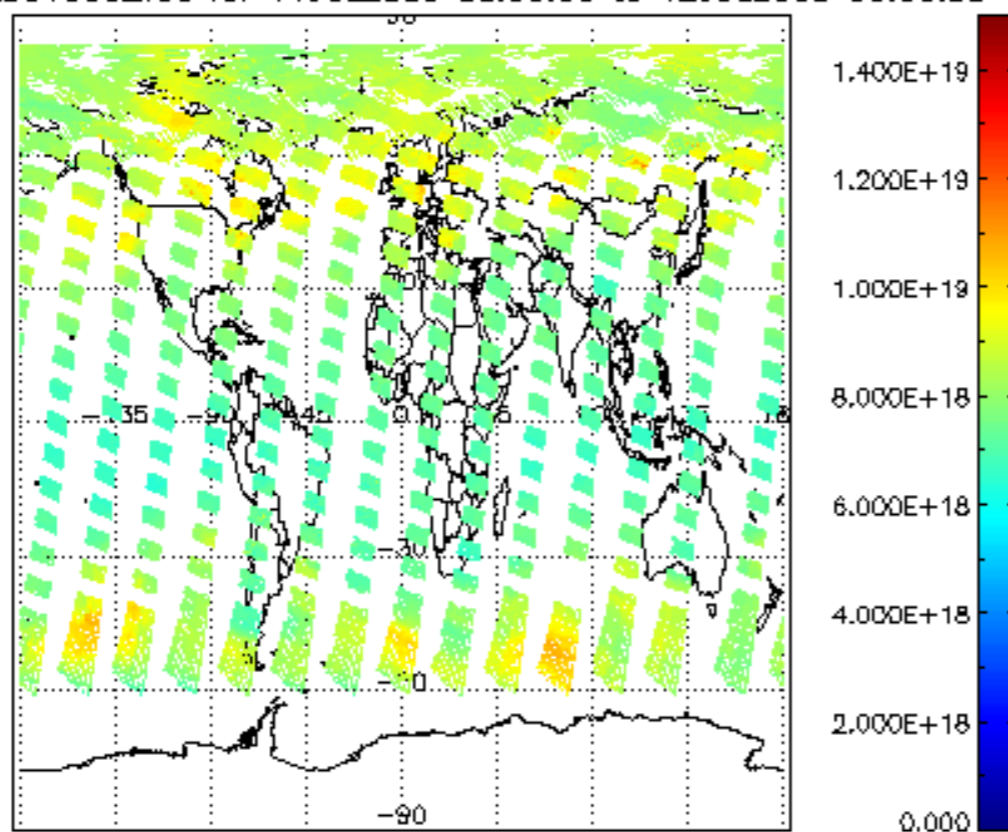


cloud\_flags for 11JUL2009 00:00:00 to 12JUL2009 00:00:00

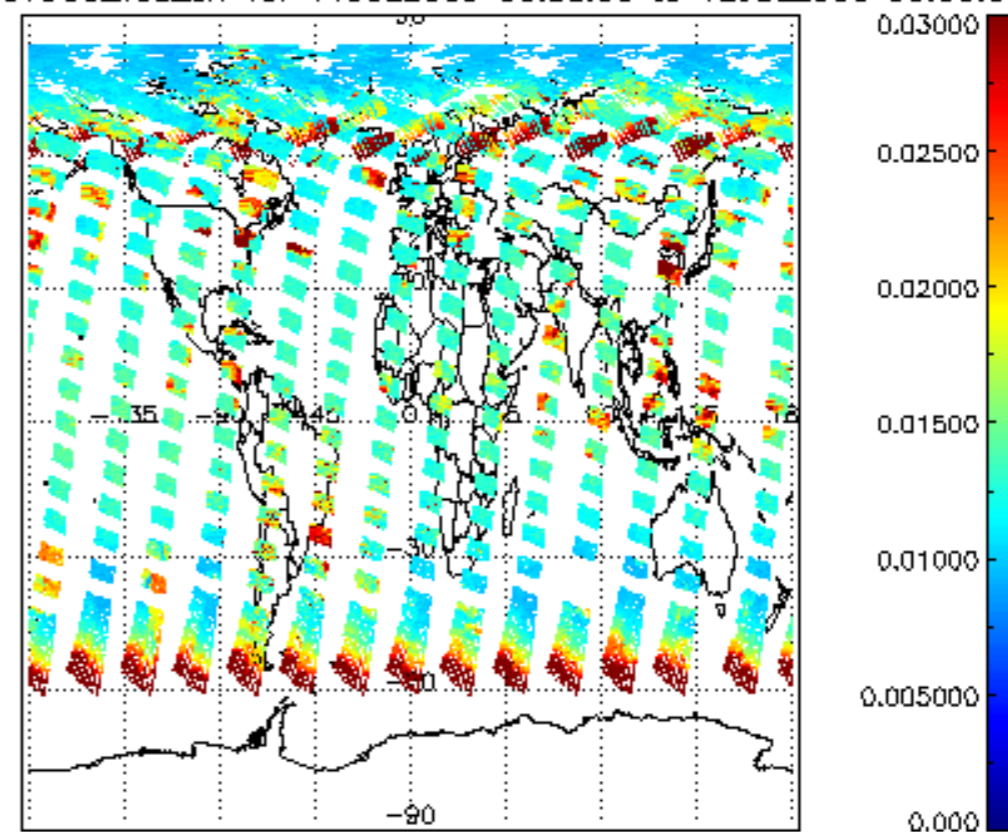




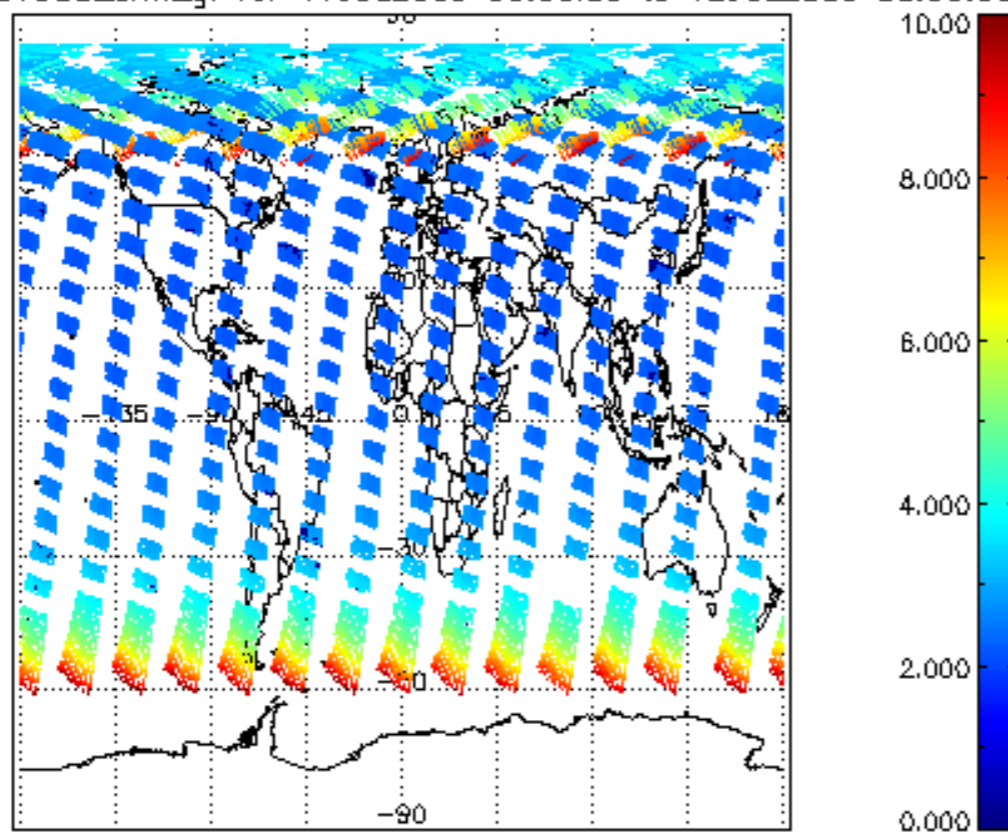
SCIOL2P\_NADUV003\_vcd for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



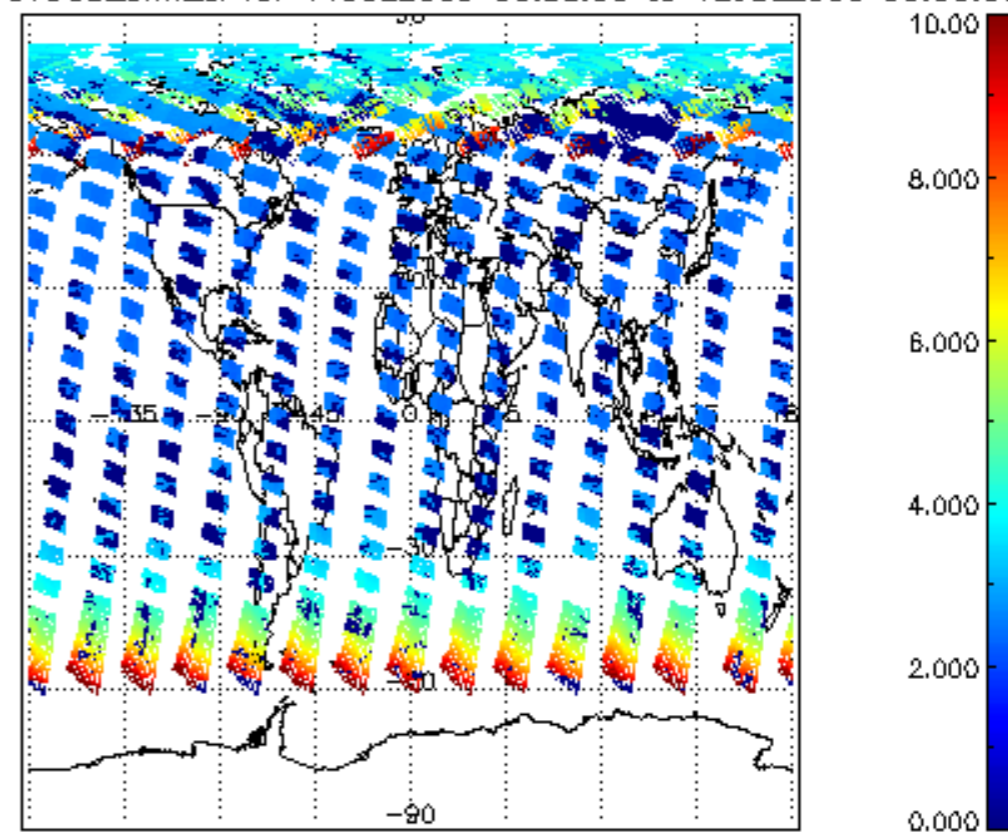
SCIOL2P\_NADUV003\_vcd\_err for 11JUL2009 00:00:00 to 12JUL2009 00:00:00

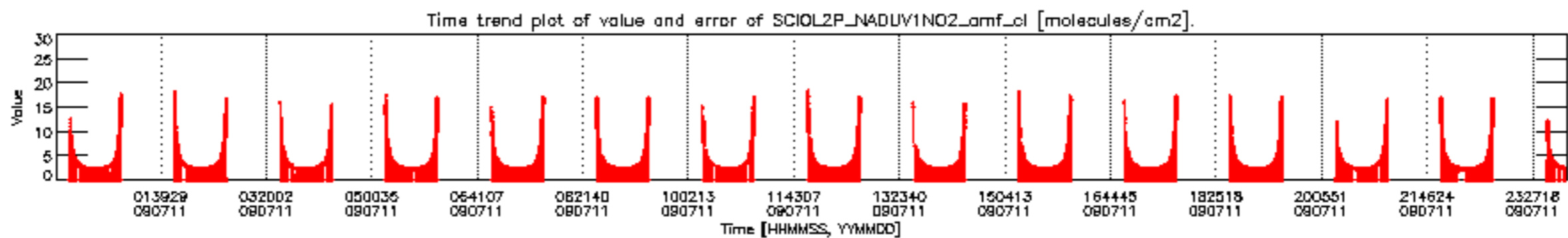
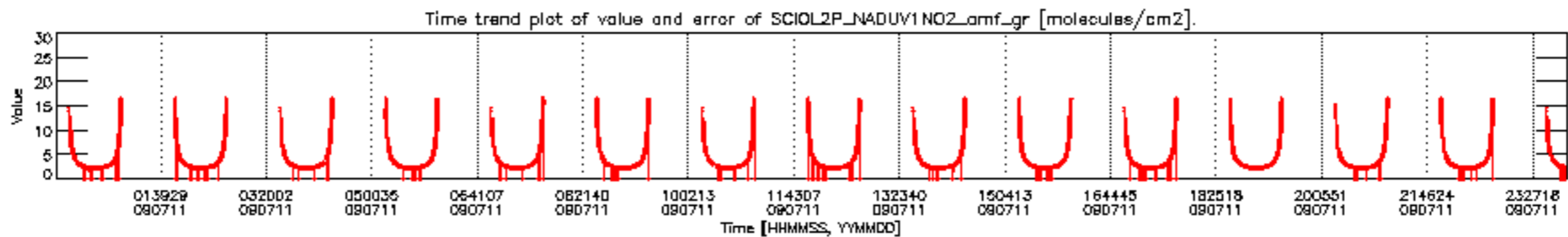
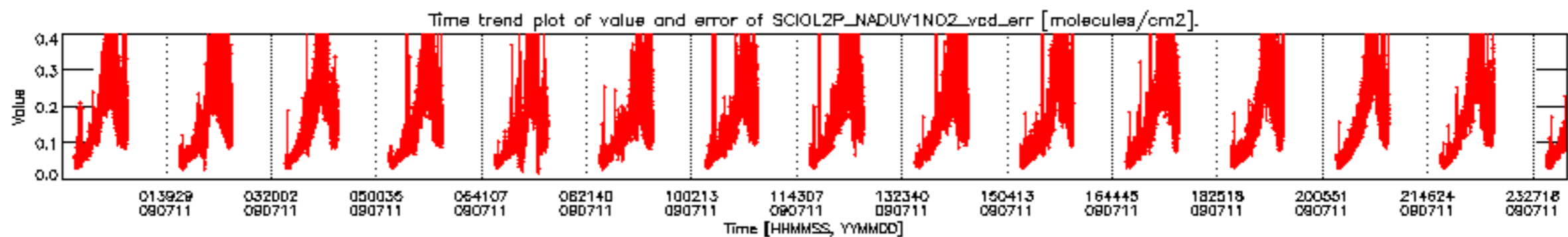
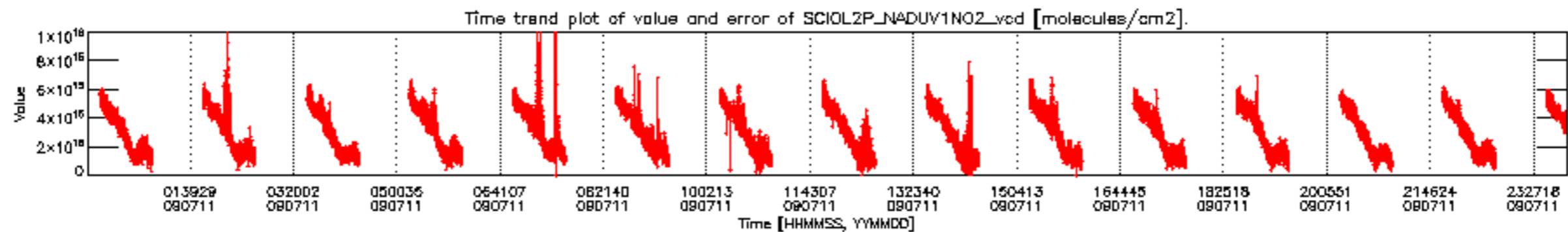


SCIOL2P\_NADUV003\_amf\_gr for 11JUL2009 00:00:00 to 12JUL2009 00:00:00

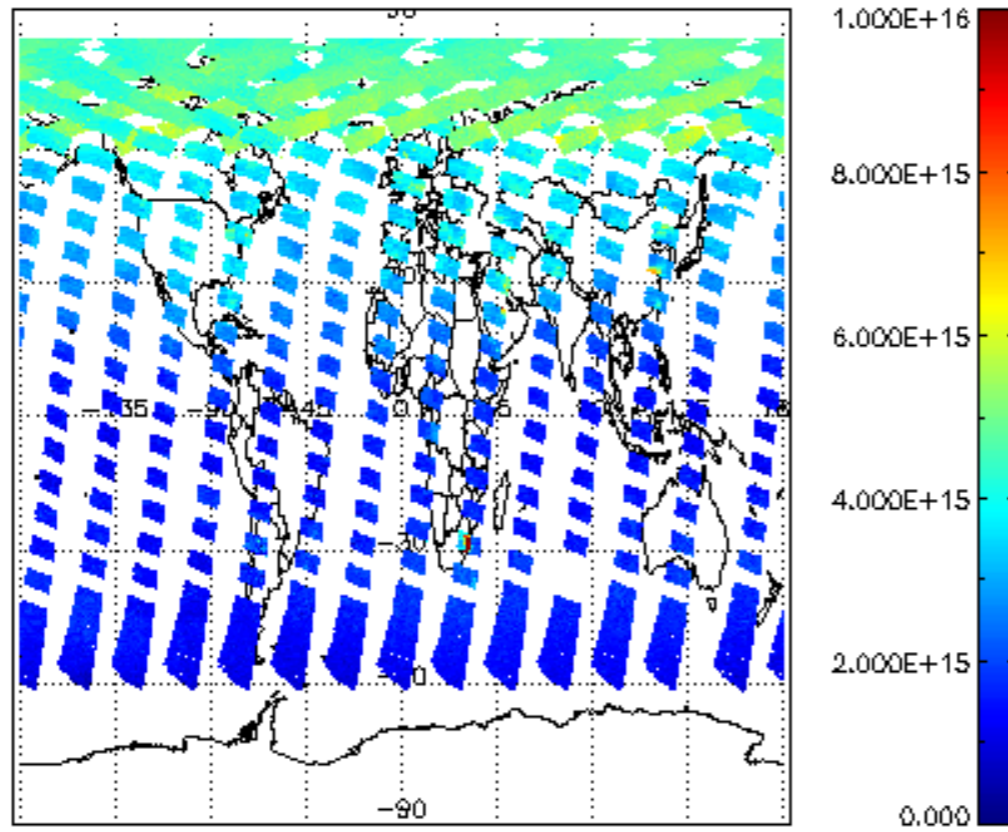


SCIOL2P\_NADUV003\_amf\_cl for 11JUL2009 00:00:00 to 12JUL2009 00:00:00

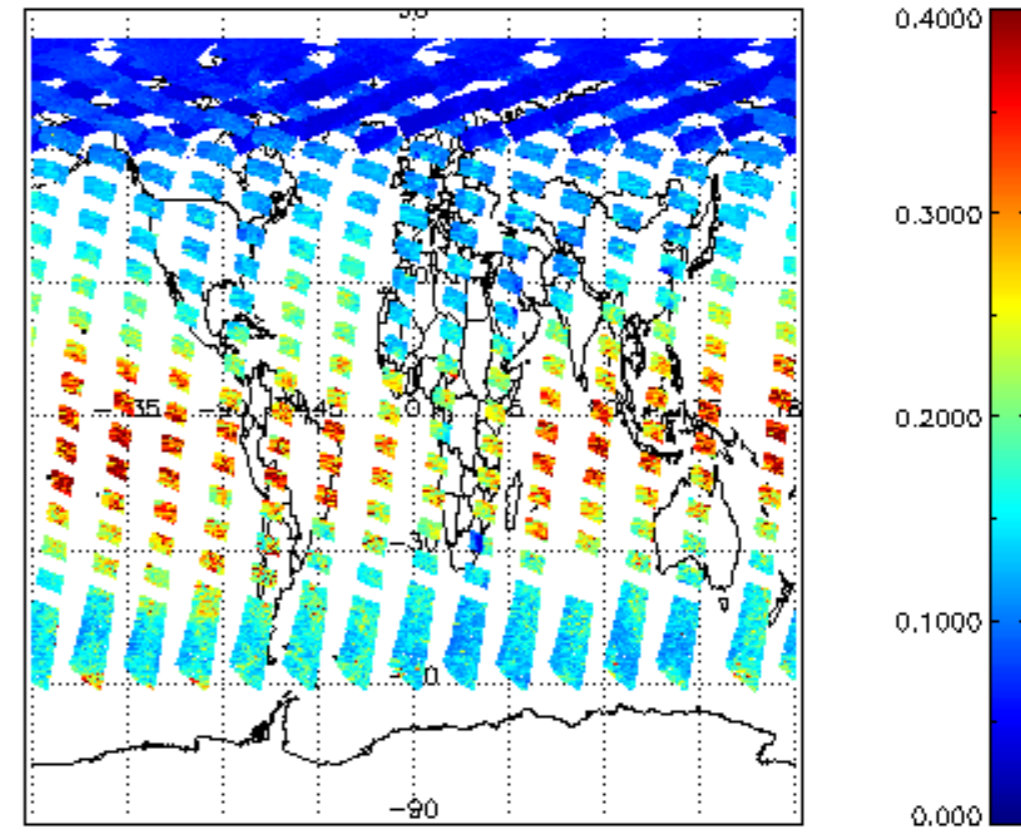




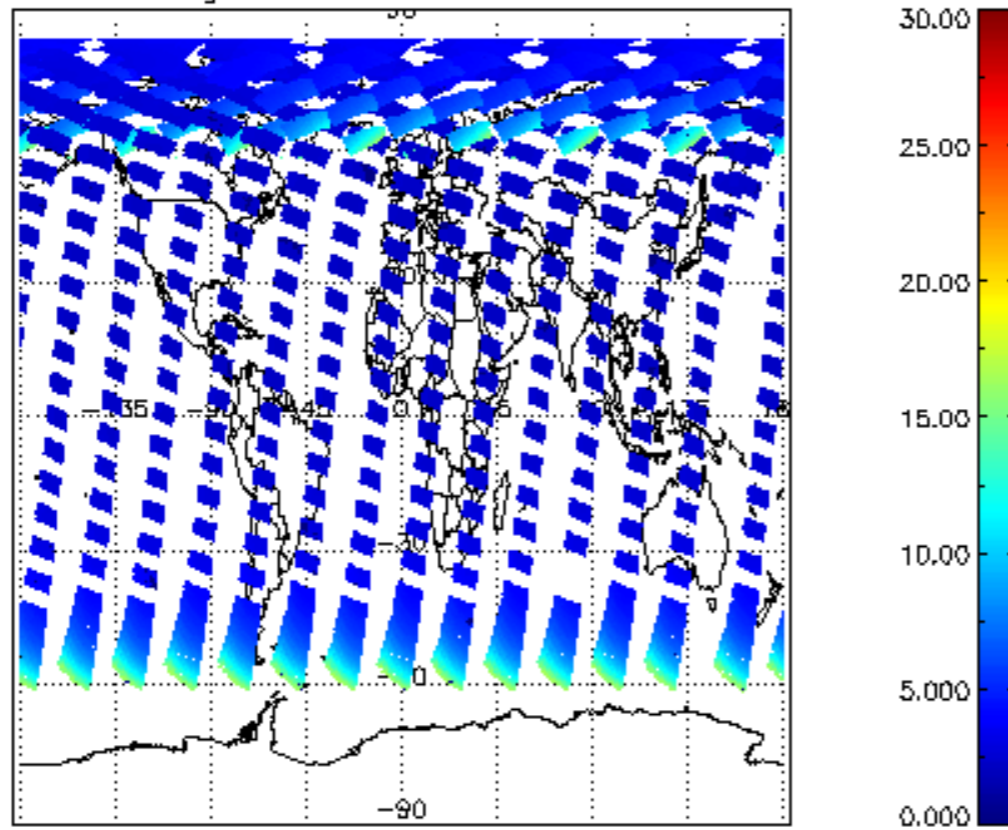
SCIOL2P\_NADUV1NO2\_vcd for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



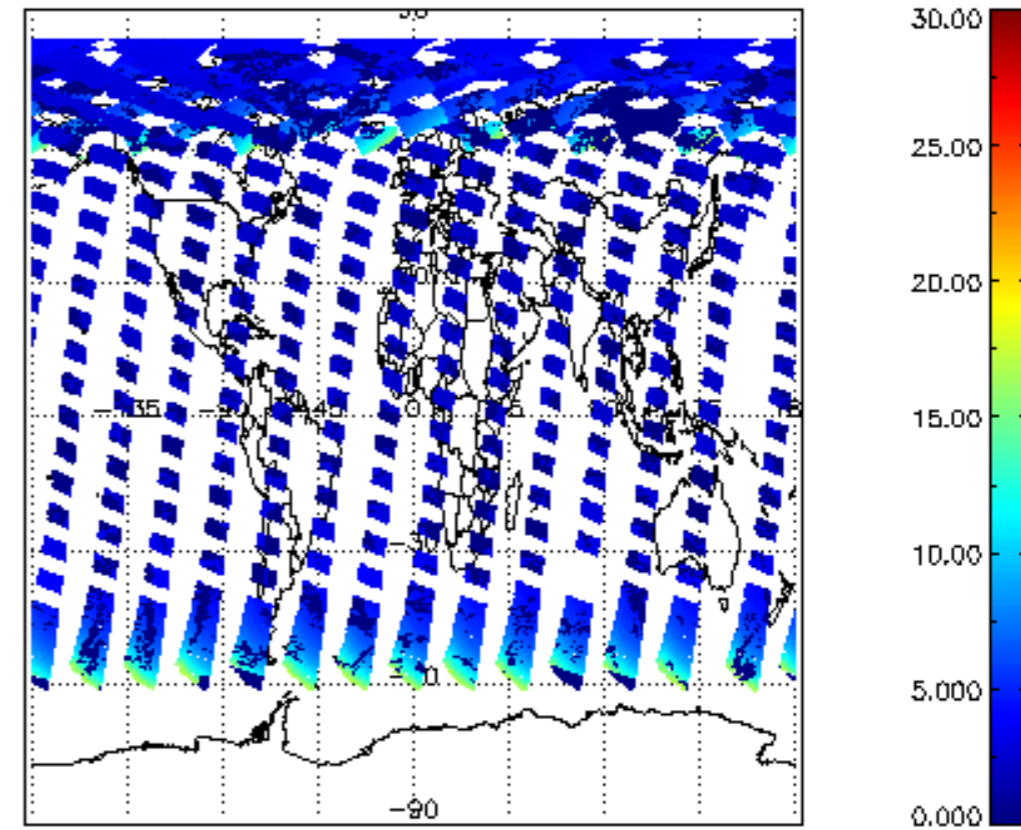
SCIOL2P\_NADUV1NO2\_vcd\_err for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



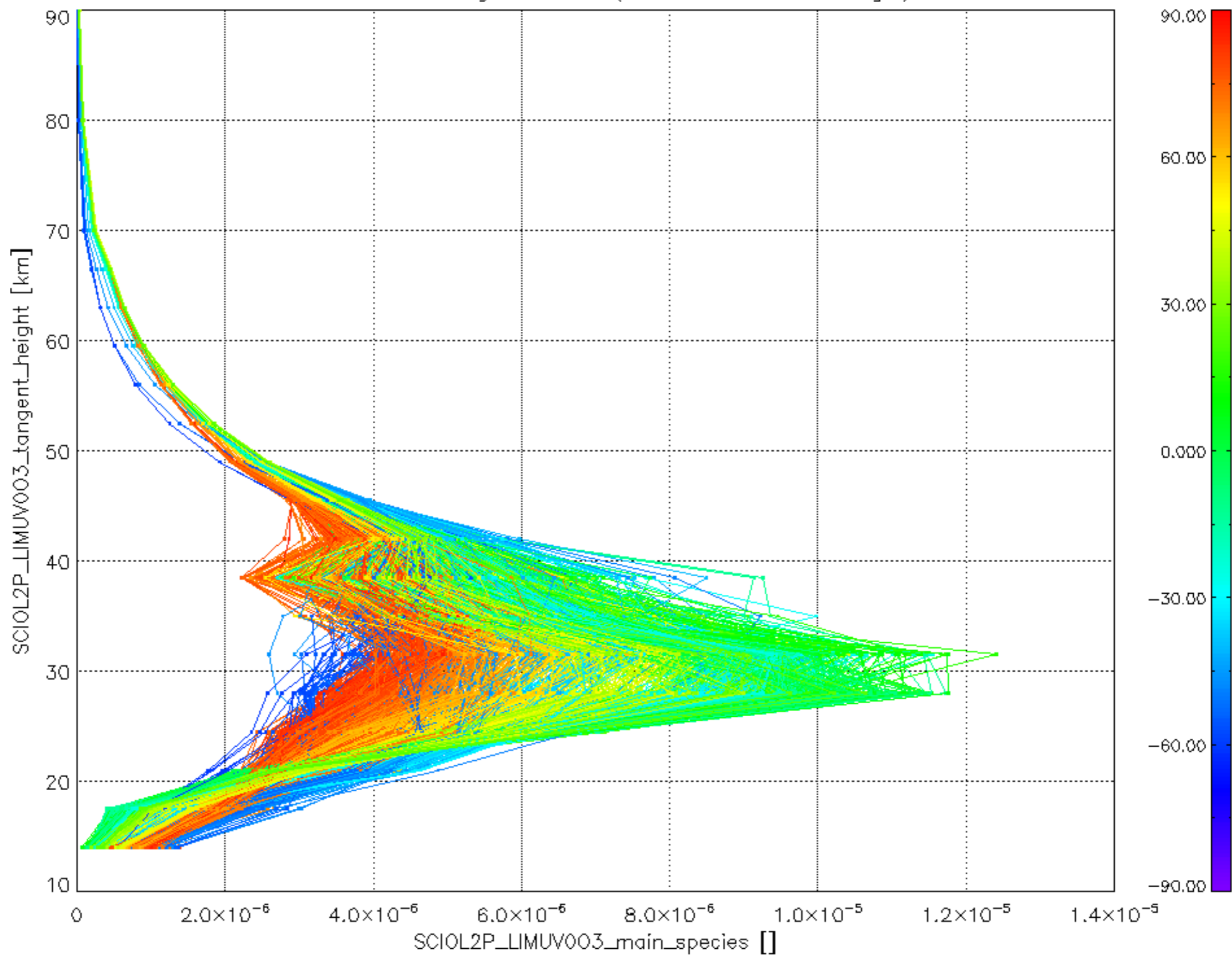
SCIOL2P\_NADUV1NO2\_amf\_gr for 11JUL2009 00:00:00 to 12JUL2009 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 11JUL2009 00:00:00 to 12JUL2009 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).

