

## 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	24NOV2009 03:09:31
Data source version	SCIA-OL/3.01-R
Processing scope for products	06NOV2009 00:00:00 to 07NOV2009 00:00:00
Start time of first product within scope	06NOV2009 00:09:44
Stop time of last product within scope	07NOV2009 00:33:38
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__2PRDPA20091106_000944_000033252084_00045_40179_5197.N1</a>	06NOV2009 00:09:44	06NOV2009 01:05:10	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20091106_015020_000033812084_00046_40180_5198.N1</a>	06NOV2009 01:50:20	06NOV2009 02:46:42	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20091106_033057_000033252084_00047_40181_5199.N1</a>	06NOV2009 03:30:57	06NOV2009 04:26:22	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20091106_051133_000033812084_00048_40182_5200.N1</a>	06NOV2009 05:11:33	06NOV2009 06:07:54	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20091106_065209_000033252084_00049_40183_5201.N1</a>	06NOV2009 06:52:09	06NOV2009 07:47:35	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20091106_083246_000033812084_00050_40184_5203.N1</a>	06NOV2009 08:32:46	06NOV2009 09:29:07	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20091106_101322_000033252084_00051_40185_5204.N1</a>	06NOV2009 10:13:22	06NOV2009 11:08:48	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20091106_115358_000033812084_00052_40186_5202.N1</a>	06NOV2009 11:53:58	06NOV2009 12:50:20	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20091106_133435_000033252084_00053_40187_5205.N1</a>	06NOV2009 13:34:35	06NOV2009 14:30:00	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20091106_151511_000033812084_00054_40188_5206.N1</a>	06NOV2009 15:15:11	06NOV2009 16:11:32	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20091106_165547_000033252084_00055_40189_5207.N1</a>	06NOV2009 16:55:47	06NOV2009 17:51:13	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20091106_183644_000033122084_00056_40190_5208.N1</a>	06NOV2009 18:36:44	06NOV2009 19:31:57	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20091106_201720_000033252084_00057_40191_5209.N1</a>	06NOV2009 20:17:20	06NOV2009 21:12:46	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20091106_215736_000033812084_00058_40192_5210.N1</a>	06NOV2009 21:57:36	06NOV2009 22:53:58	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20091106_233813_000033252084_00059_40193_5211.N1</a>	06NOV2009 23:38:13	07NOV2009 00:33:38	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: 148487

Total number of cloud data DSRs with good quality flag (=0): 148487 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	148487	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	148487	0.16858	0.12500	0.12500	0.25000	0.059567	s
CL_FRAC	148487	0.38375	0.37879	0.0000	1.0000	0.27657	-
CL_FRAC_ERR	148487	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	148487	5.3945	4.0000	4.0000	8.0000	1.9062	
PMD_READ_CL[0]	148487	0.15236	0.0000	0.0000	8.0000	0.87761	-
PMD_READ_CL[1]	148487	1.1506	0.0000	0.0000	8.0000	2.3955	-
CL_TOP_HEIGHT	124129	4.0926	2.9680	0.0000	17.000	4.0668	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	124129	54.846	48.353	0.0000	101.00	41.004	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	148487	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	148487	11001011	11000100	11000000	11100000	3377.1	flags
AERO_ABSO_IND	148487	4.0217	4.6426	-0.30146	15.666	2.7529	
AERO_IND_DIAG	148487	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	148487	01010101	00000000	00000000	11000000	24430.	flags

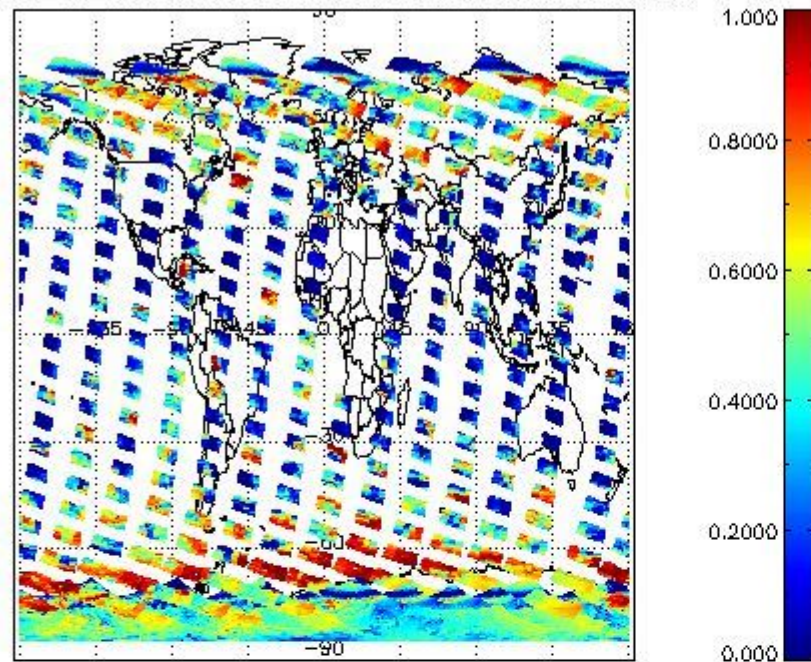
### Time and geolocation plots:

Plots are available for the following parameters:

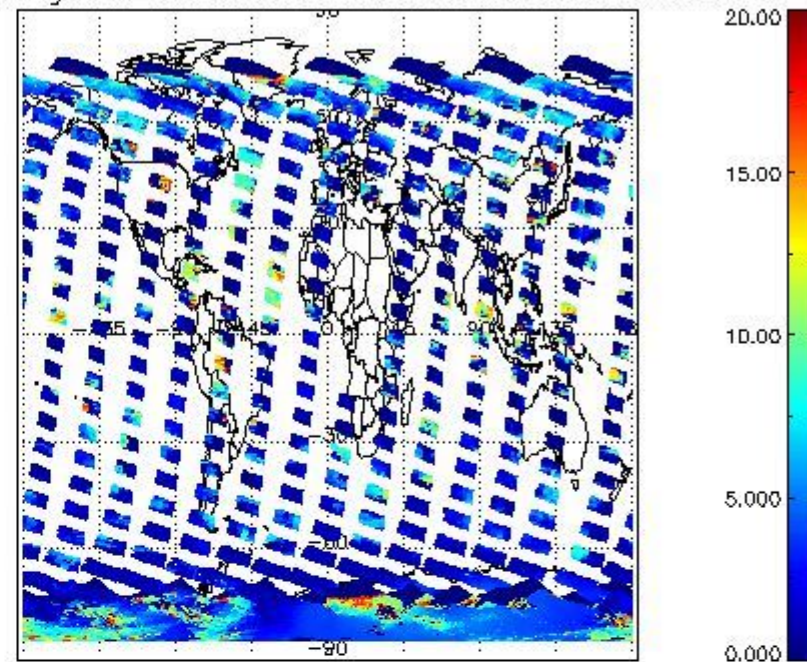
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



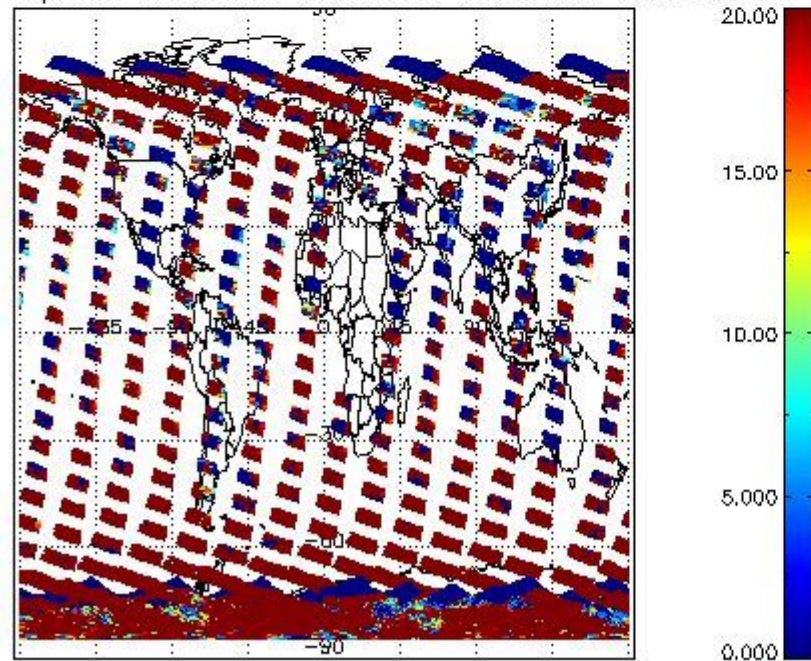
cLfrac for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



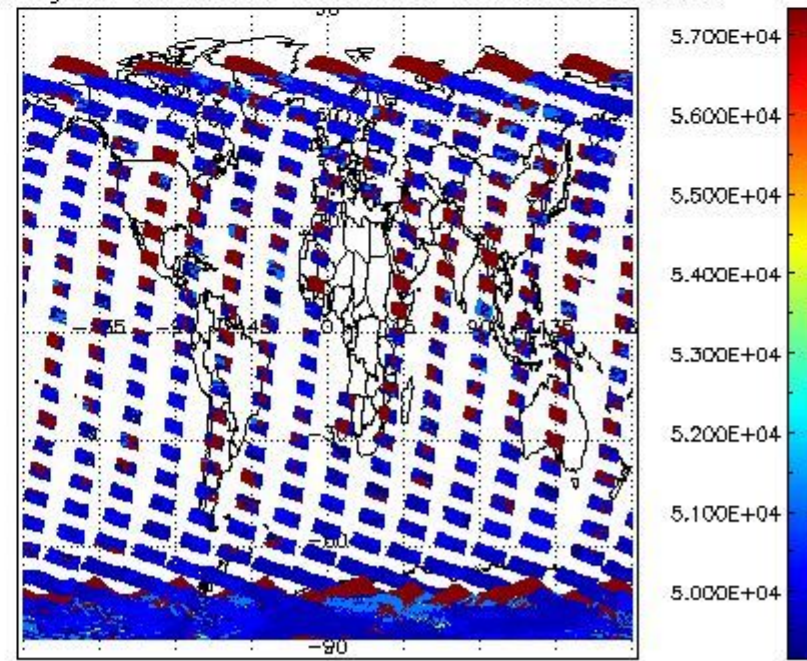
cL\_top\_height for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



cLopt\_depth for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



cloud\_flags for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



## 2.2.2 Nadir

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

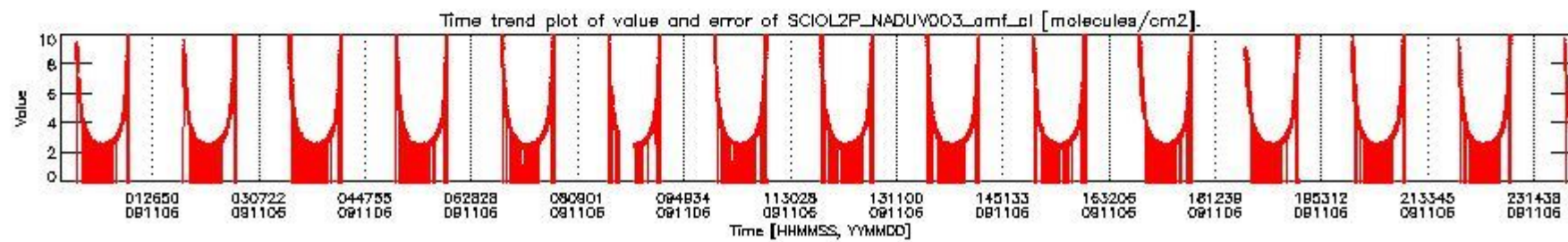
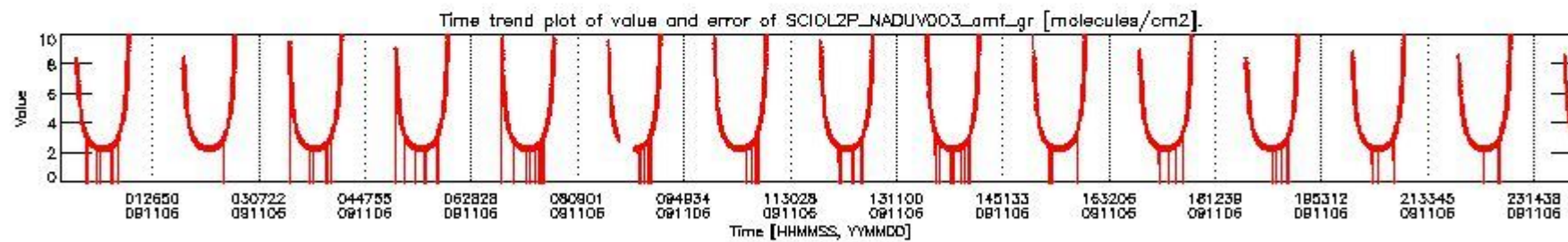
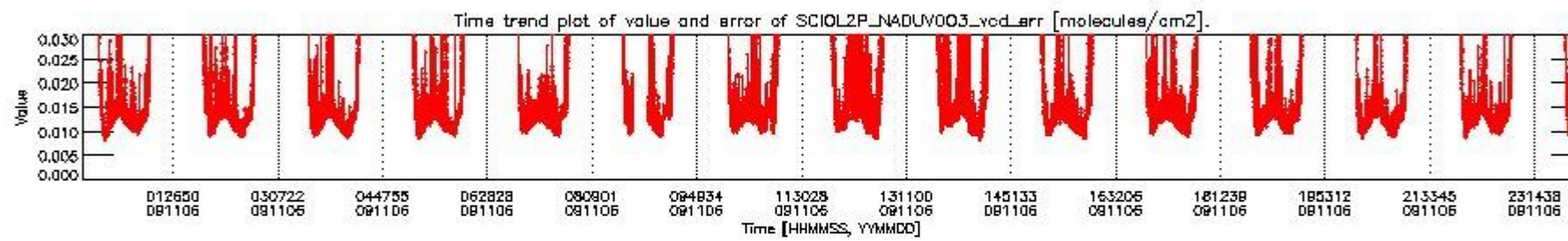
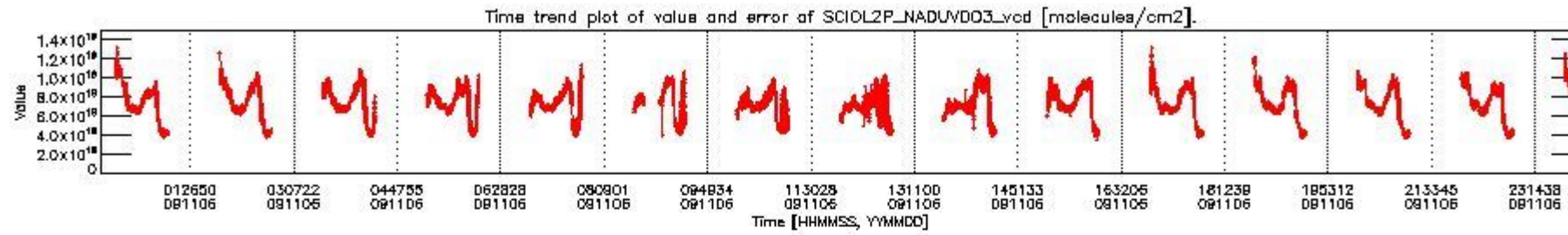
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



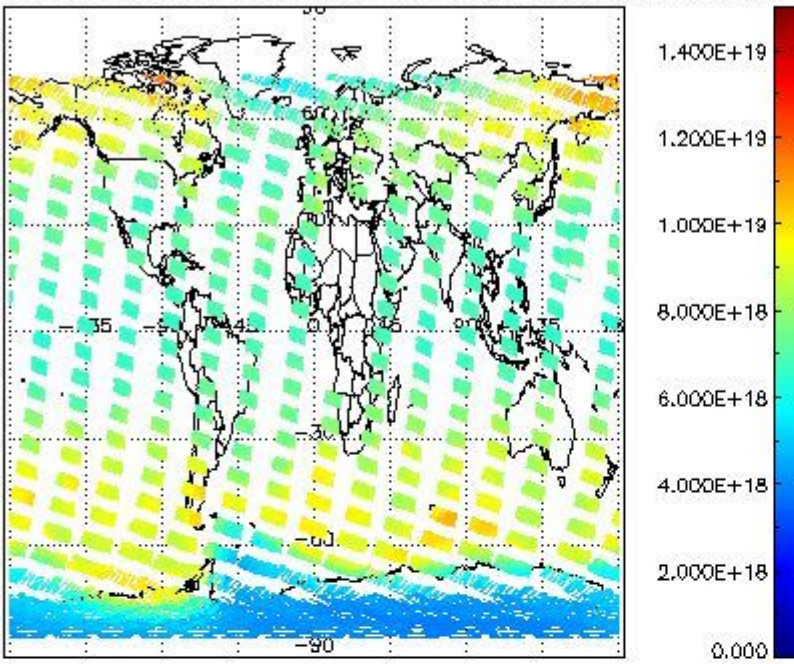
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

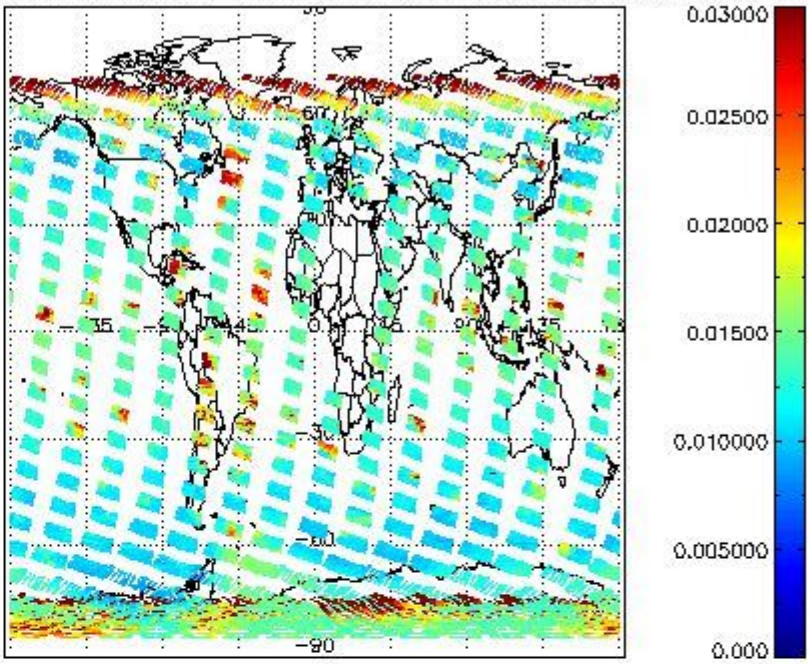




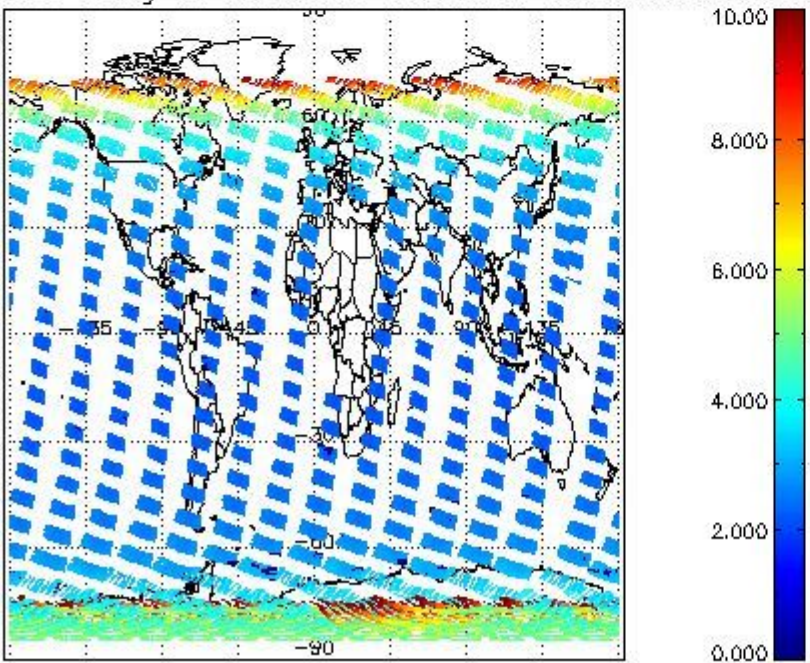
SCIOL2P\_NADUV003\_vcd for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



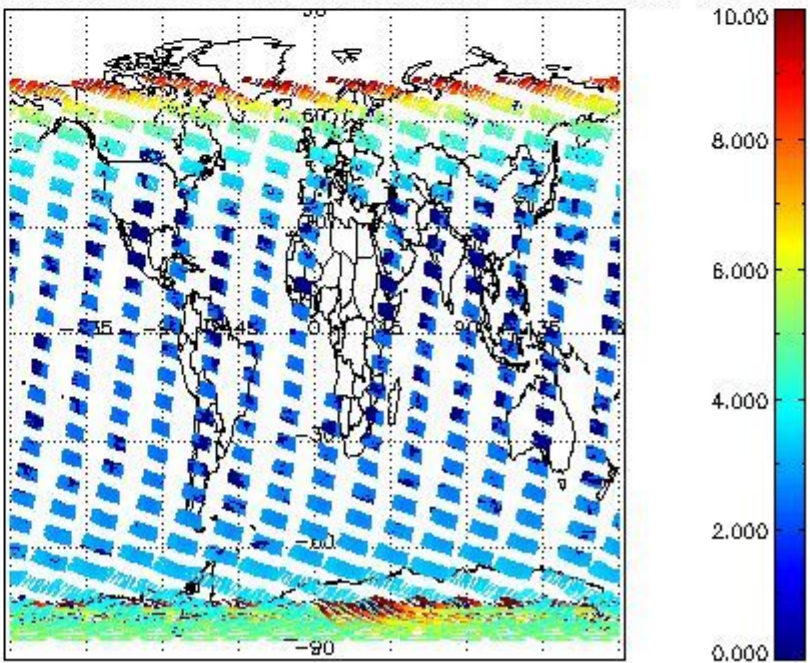
SCIOL2P\_NADUV003\_vcd\_err for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



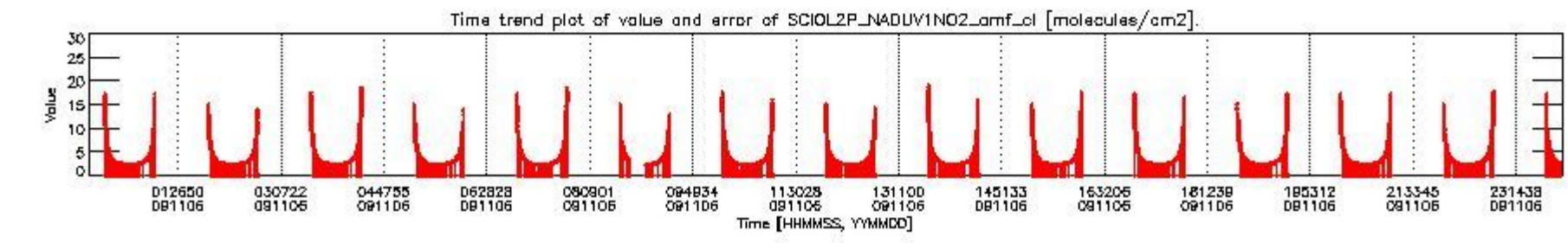
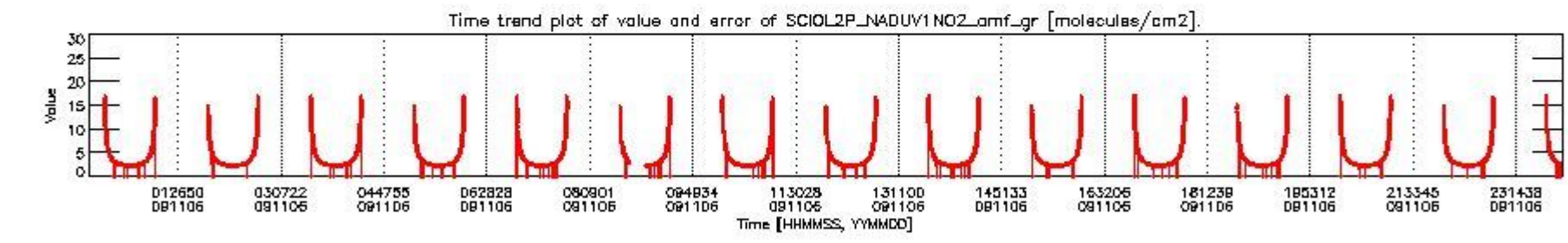
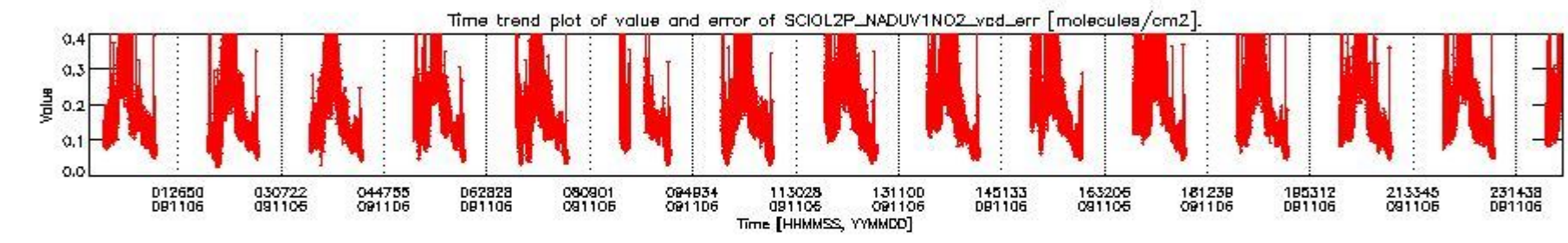
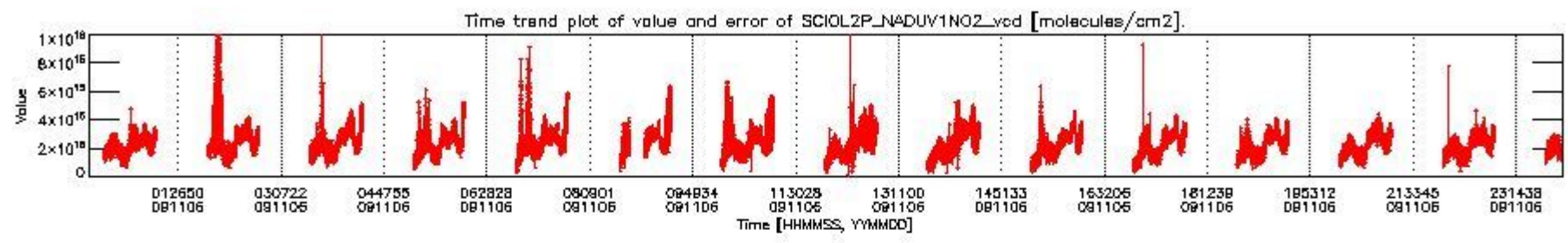
SCIOL2P\_NADUV003\_amf\_gr for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



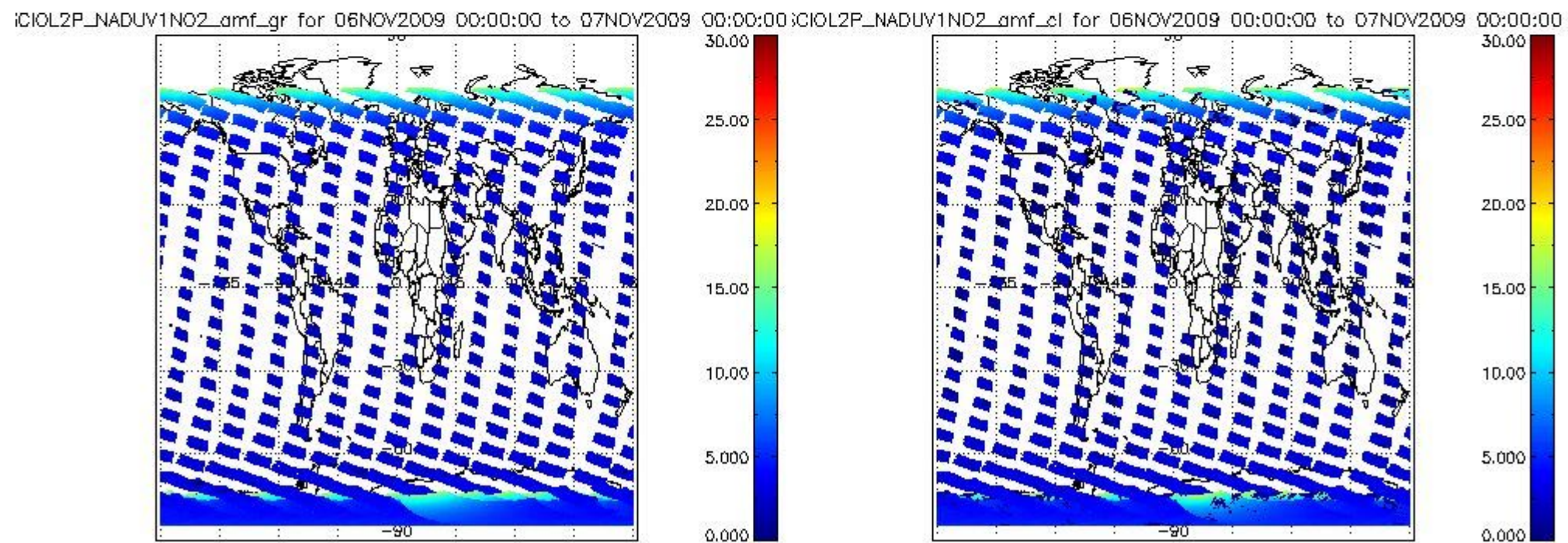
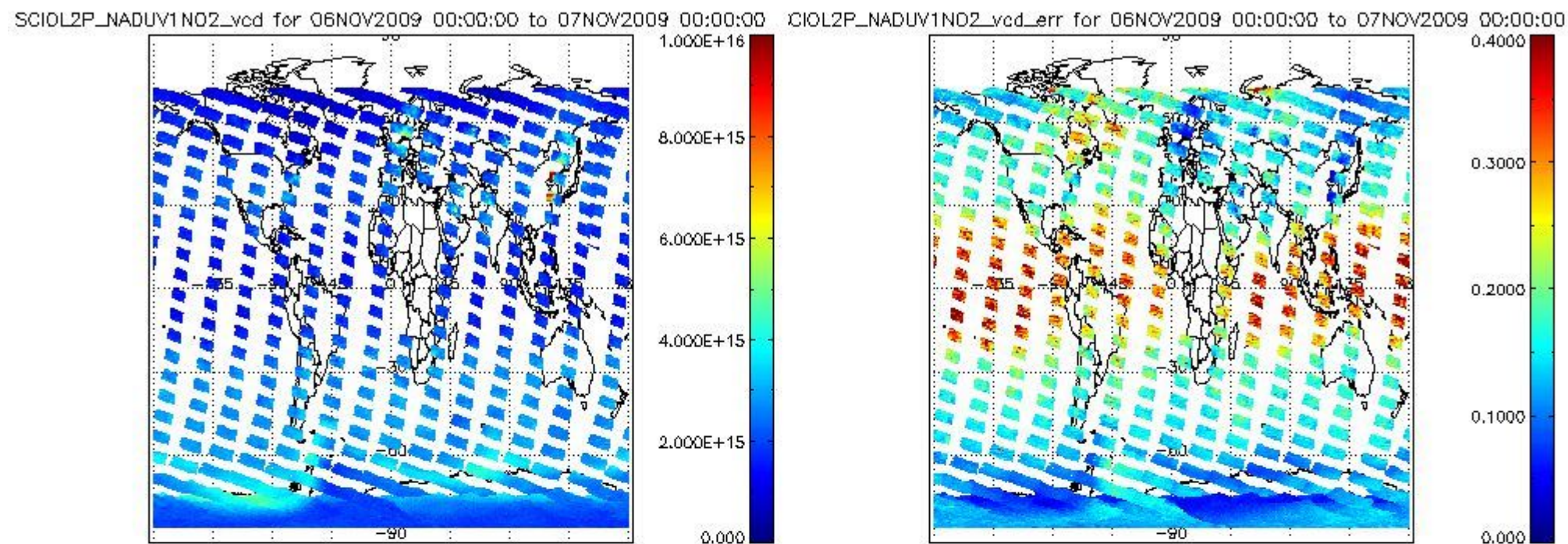
SCIOL2P\_NADUV003\_amf\_cl for 06NOV2009 00:00:00 to 07NOV2009 00:00:00











### 2.2.3 Limb

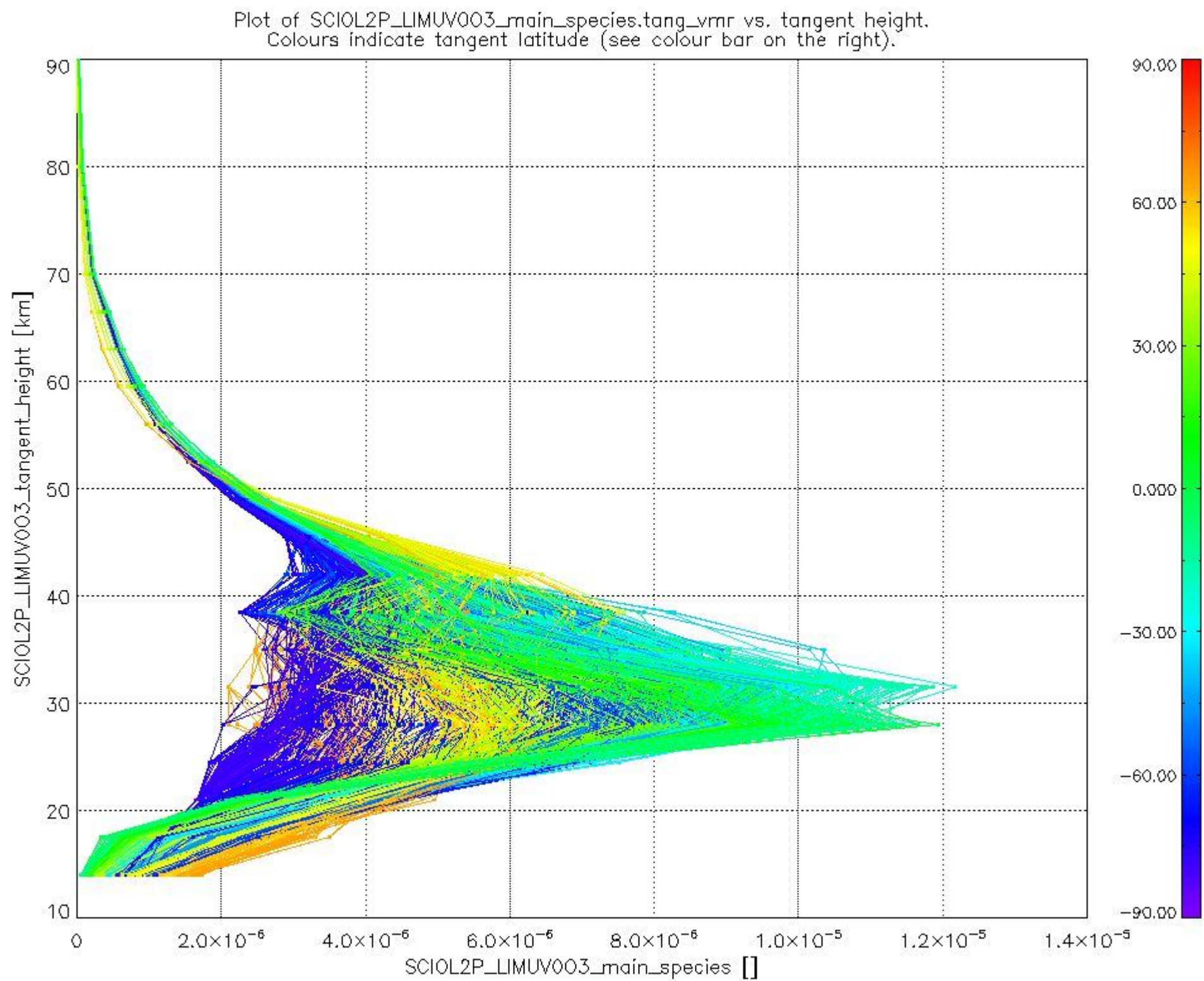
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

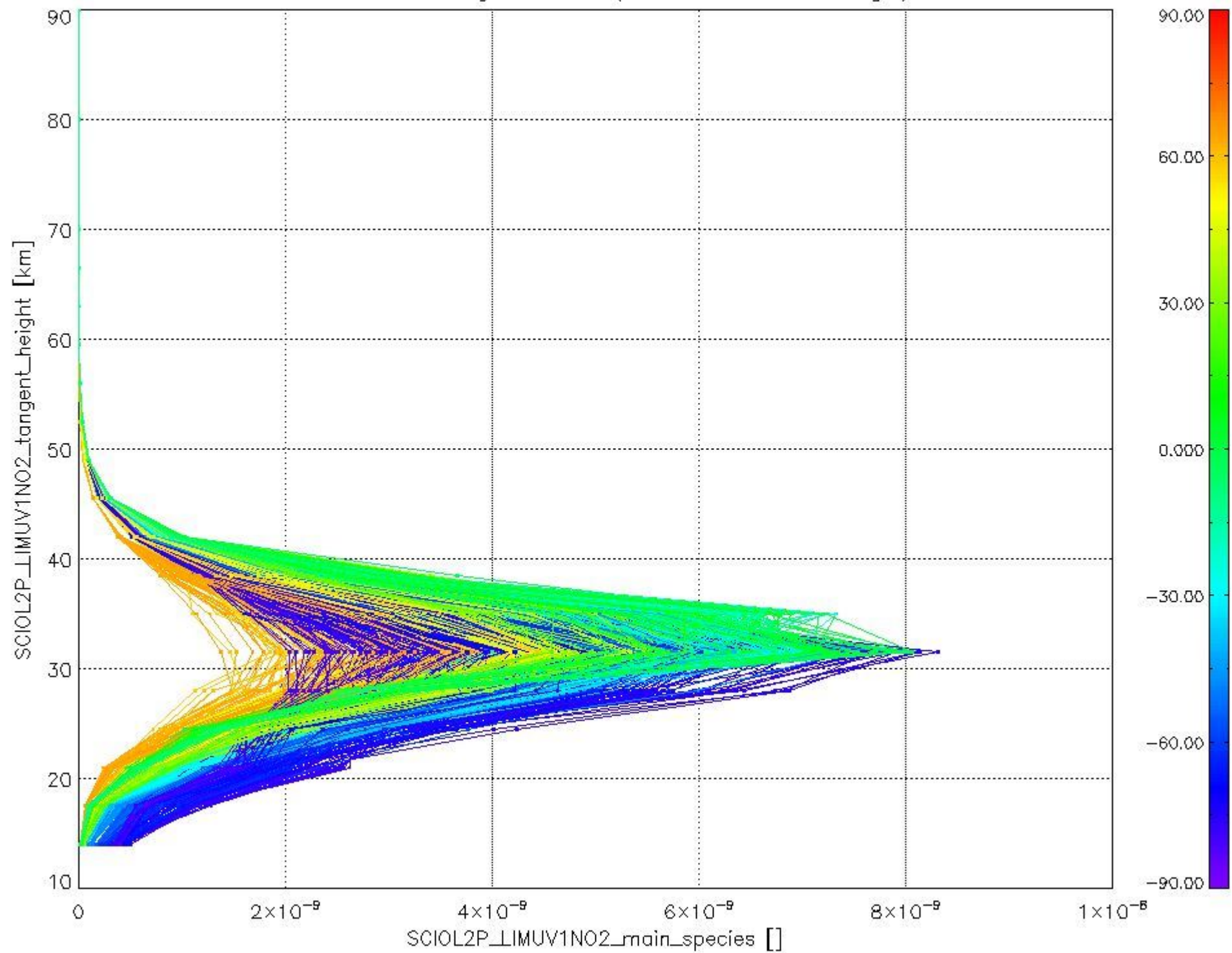


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





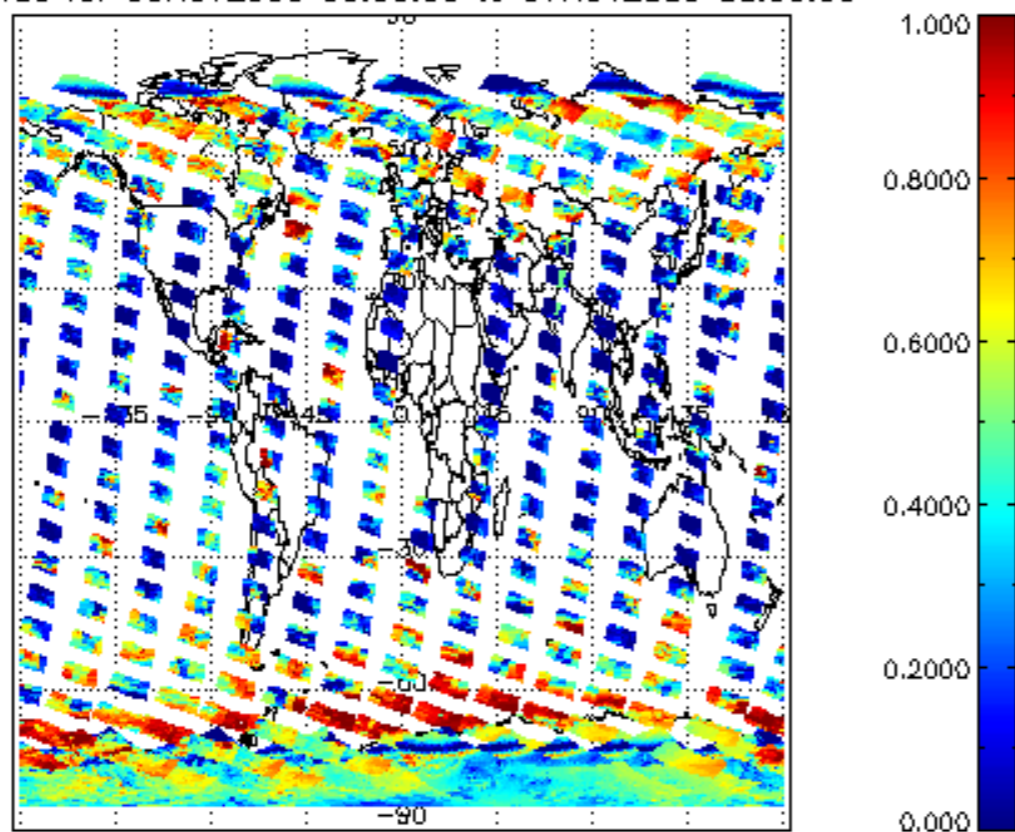
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



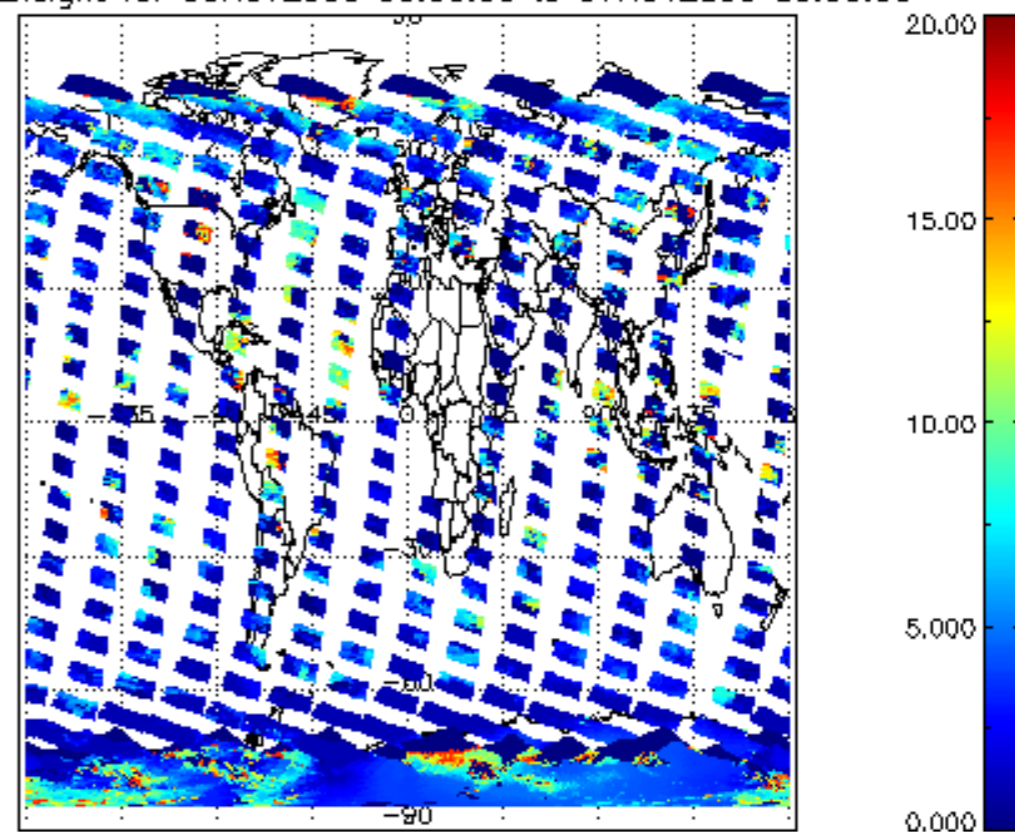
### 2.3 ADF monitoring

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

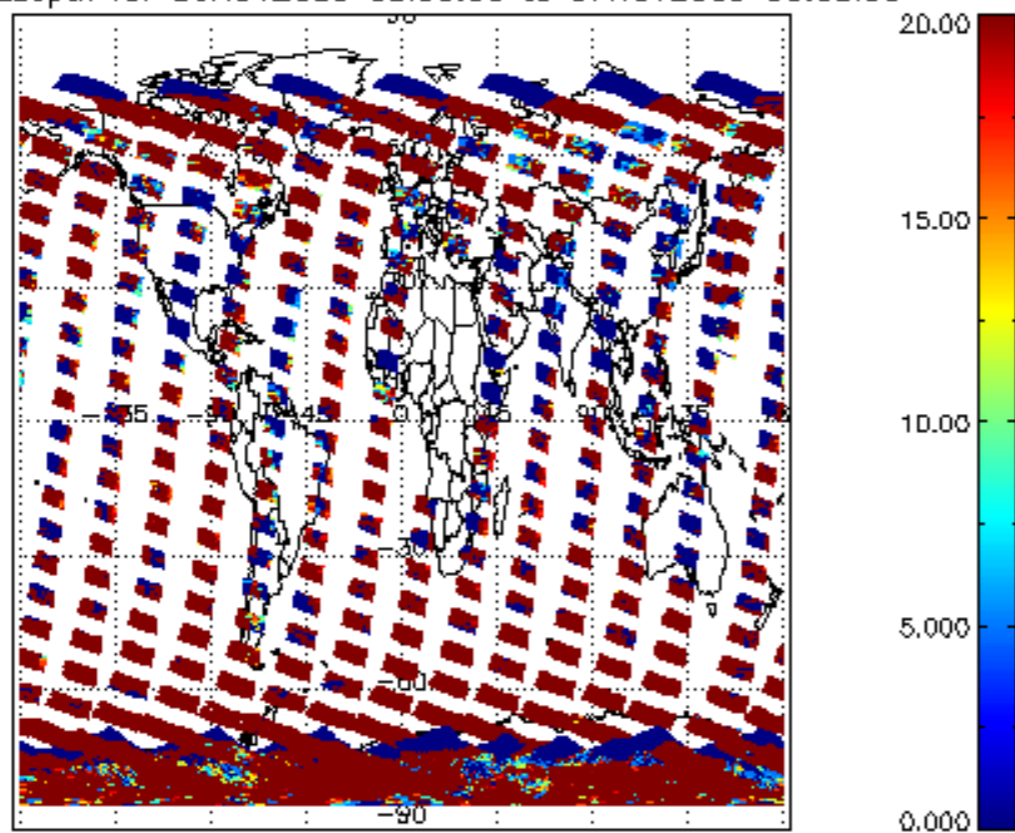
cLfrac for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



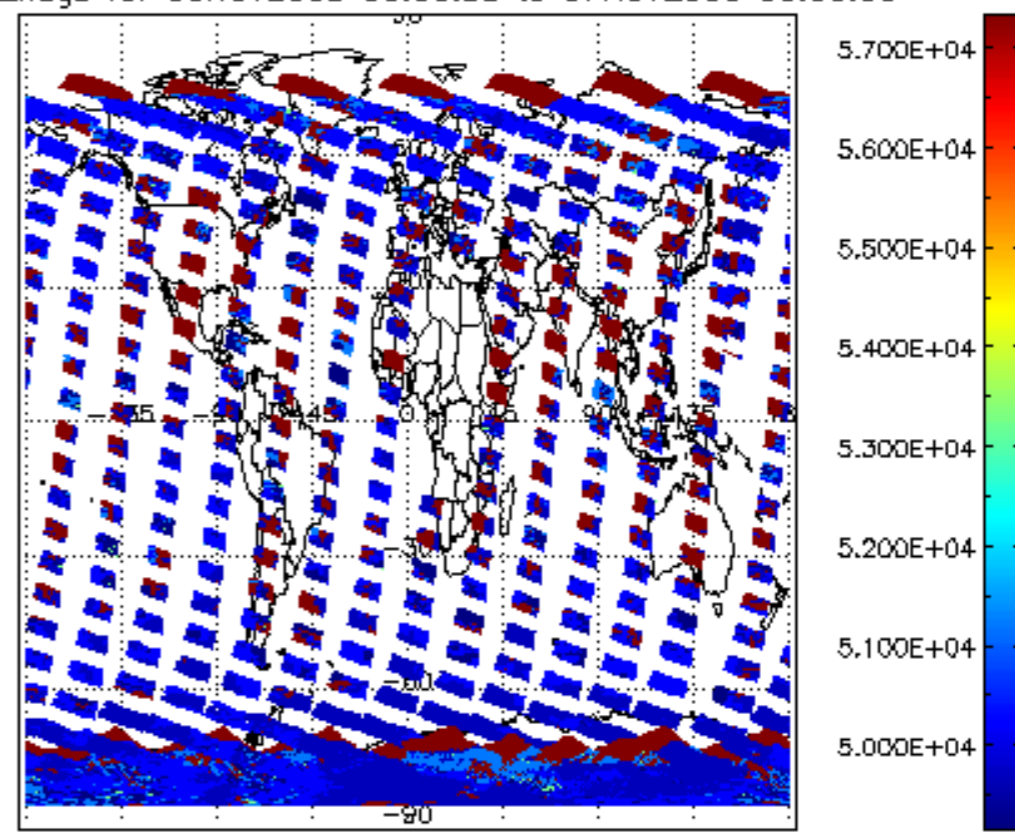
cL\_top\_height for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



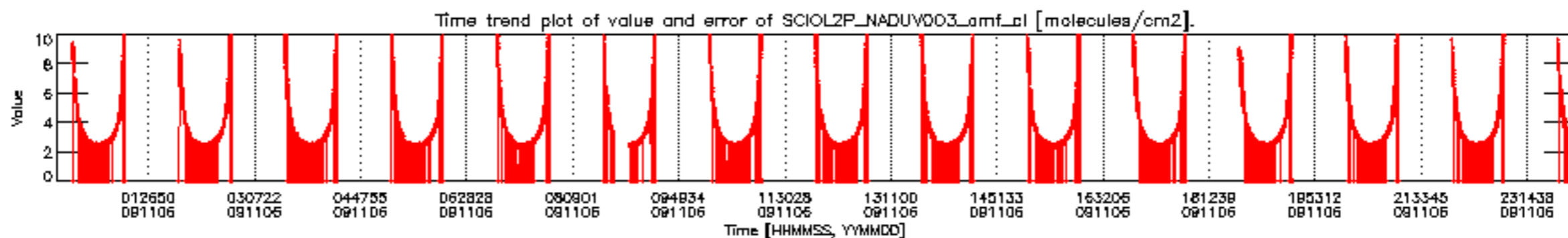
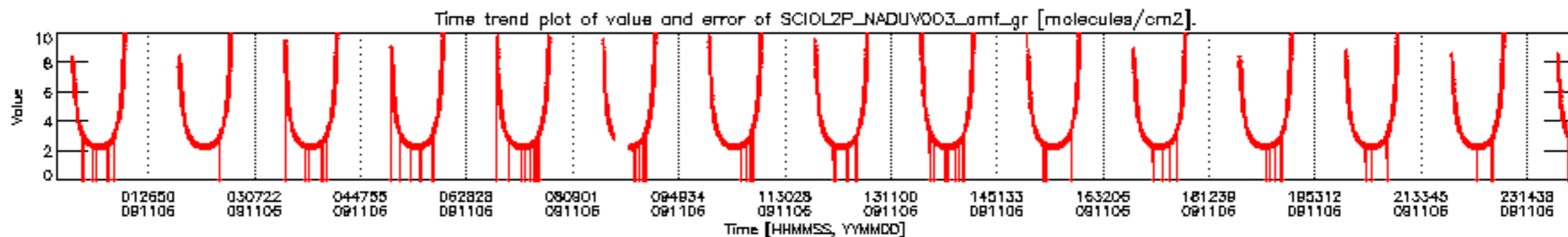
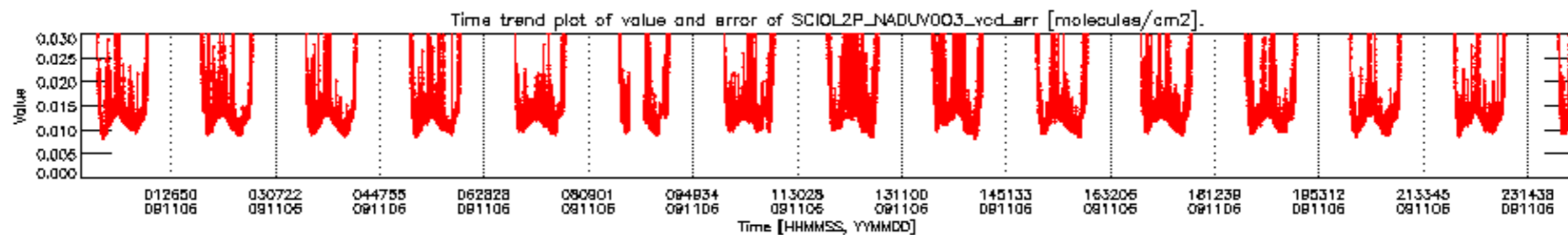
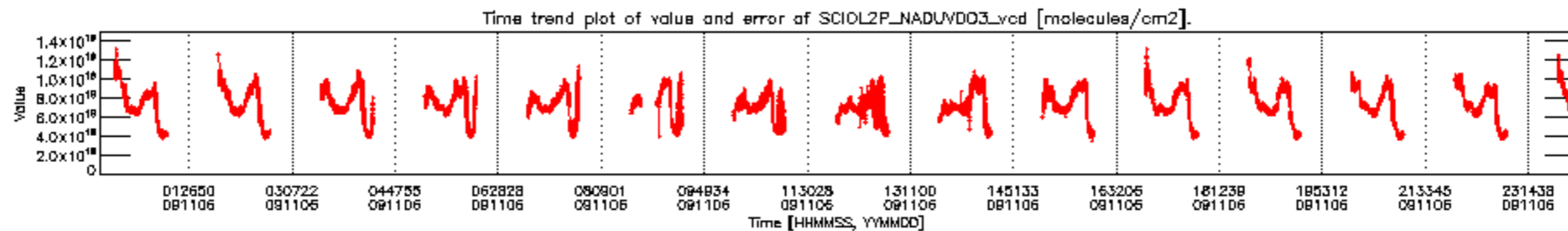
cL\_opt\_depth for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



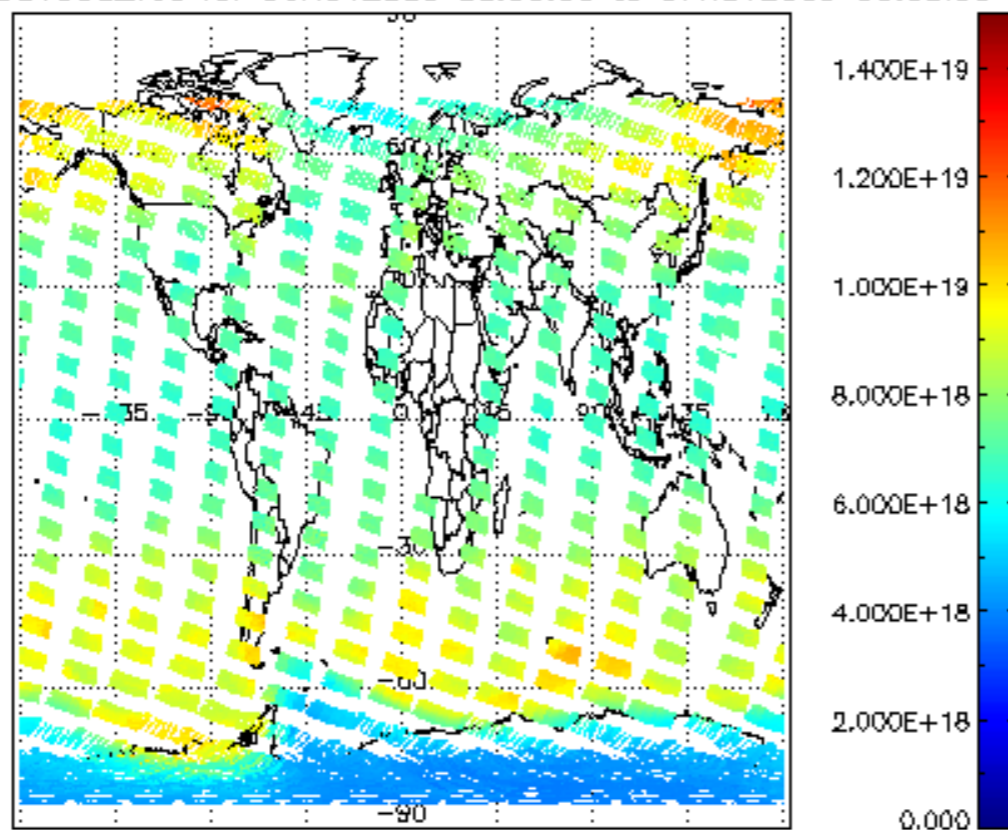
cloud\_flags for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



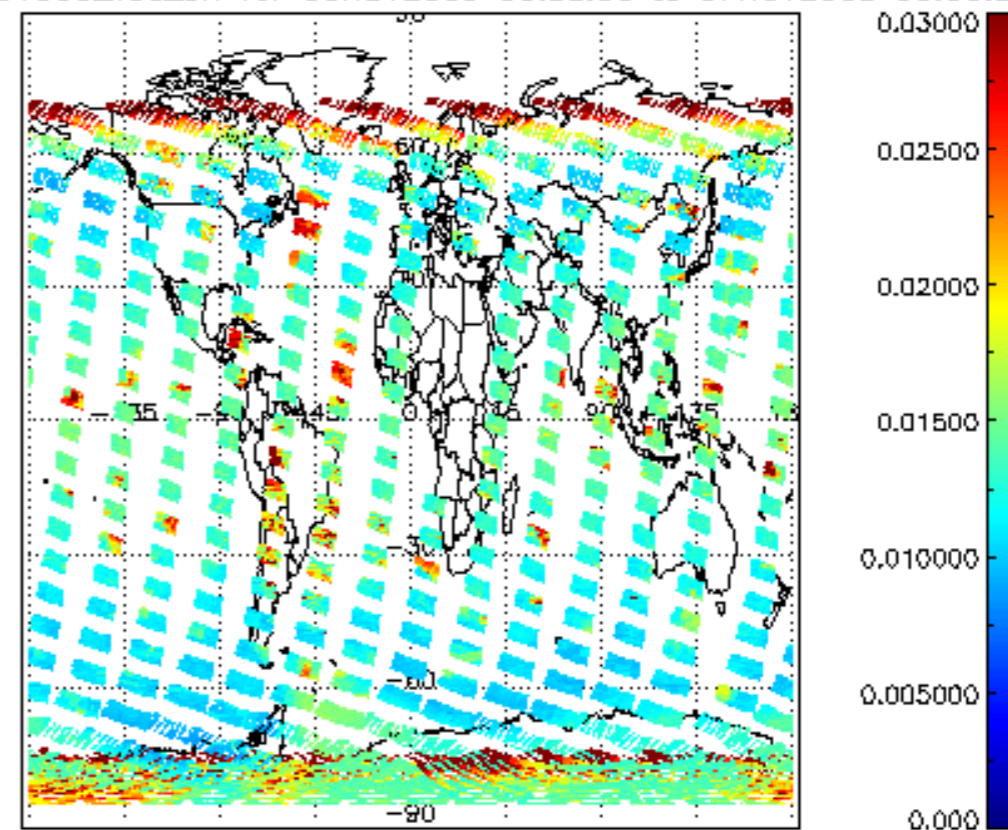




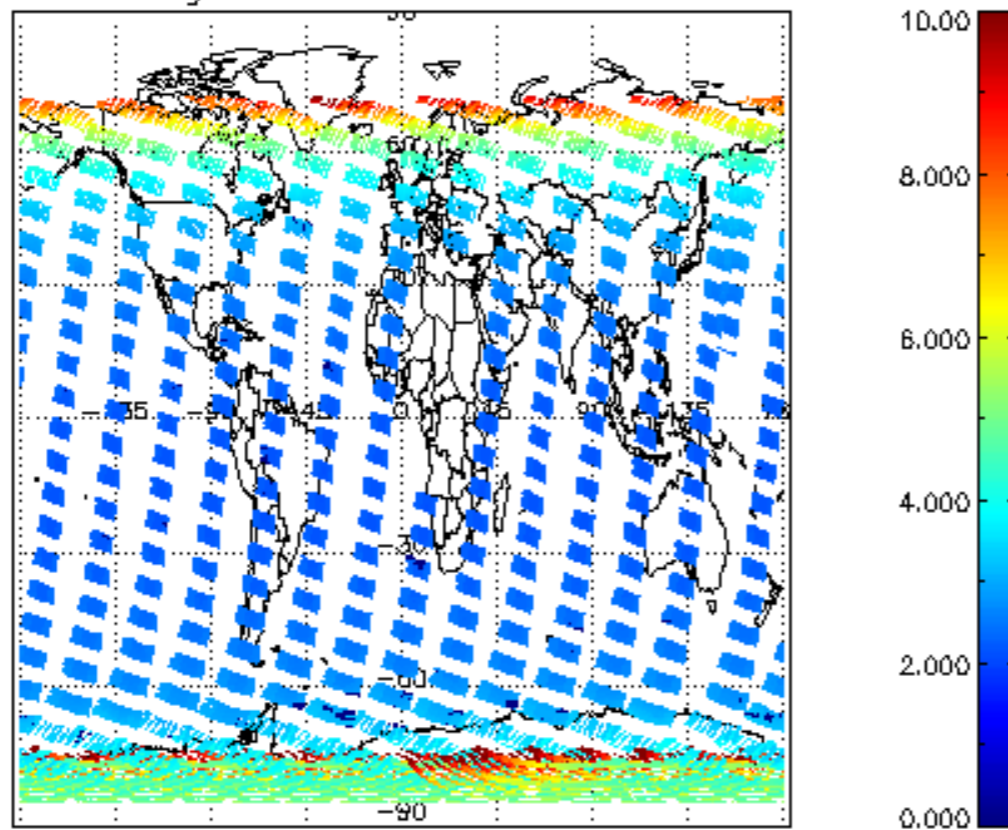
SCIOL2P\_NADUV003\_vcd for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



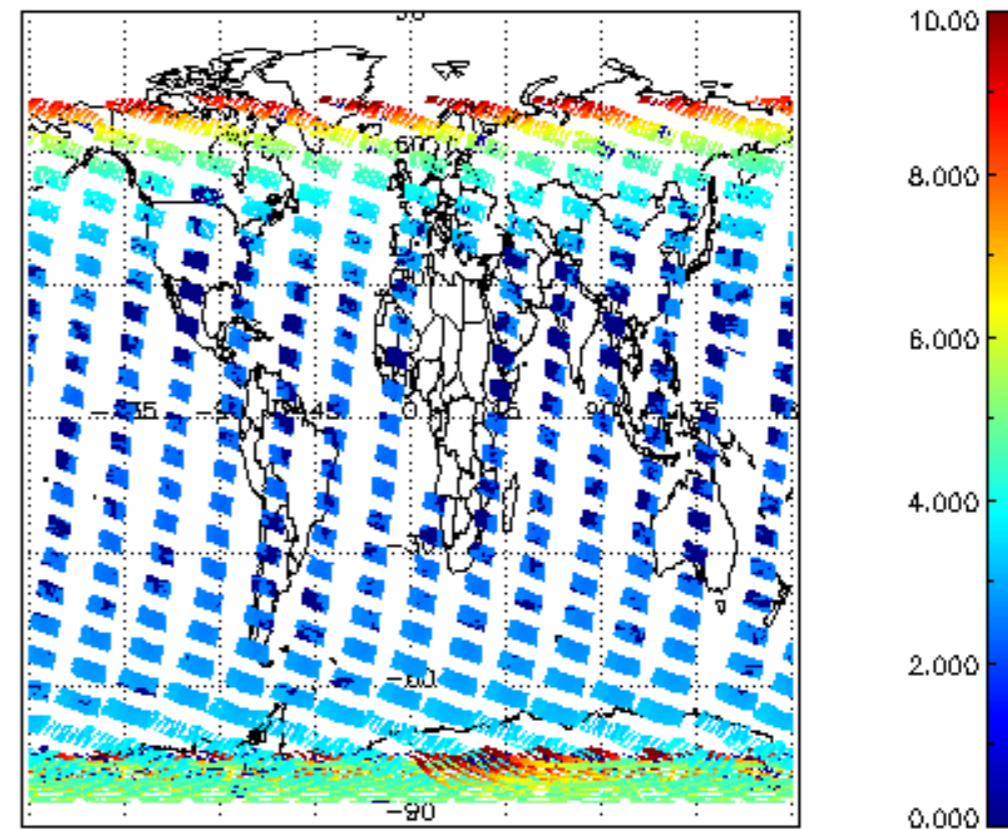
SCIOL2P\_NADUV003\_vcd\_err for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



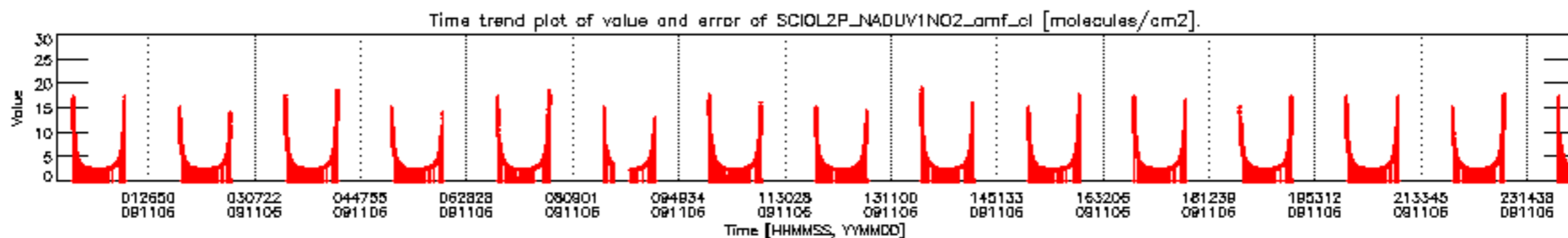
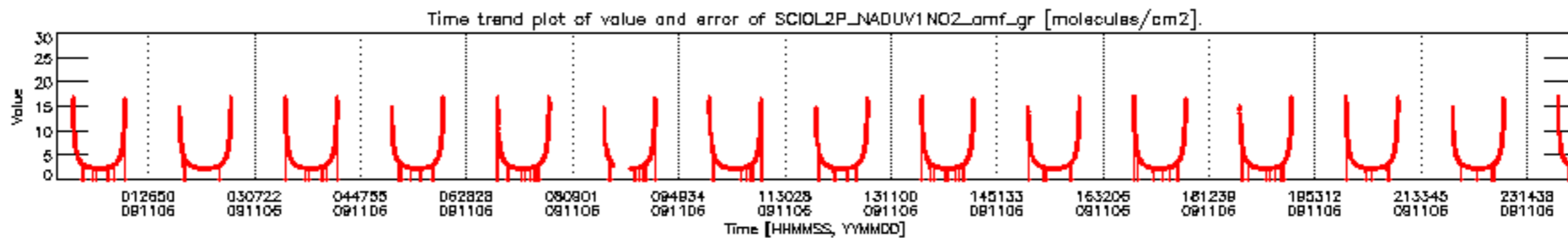
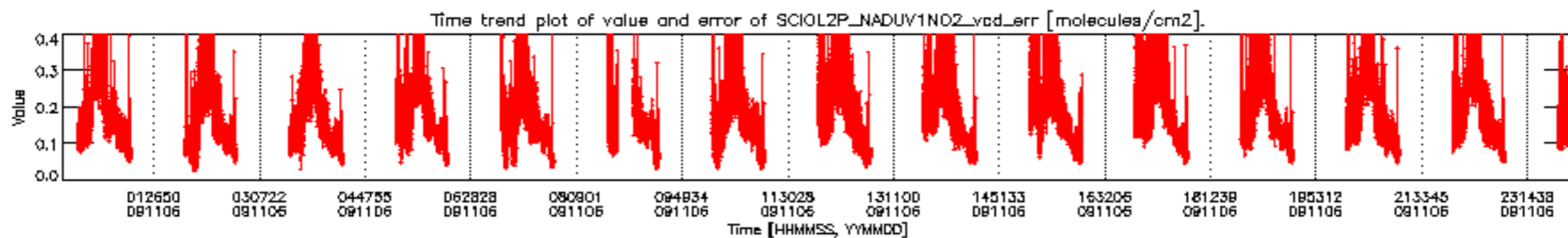
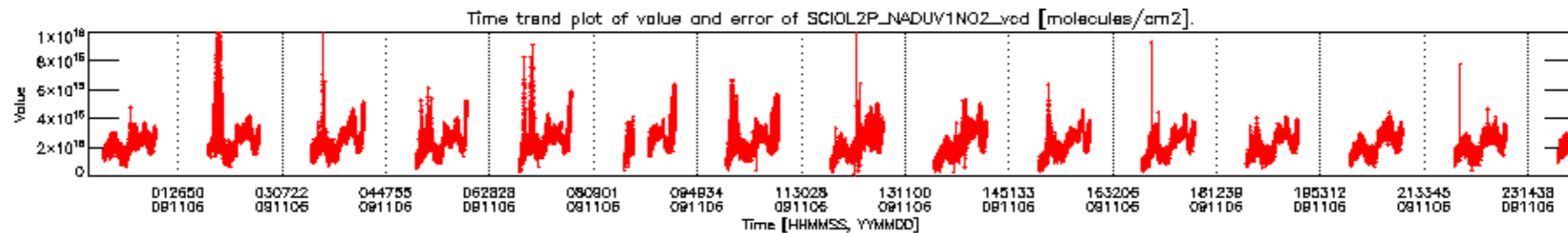
SCIOL2P\_NADUV003\_amf\_gr for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



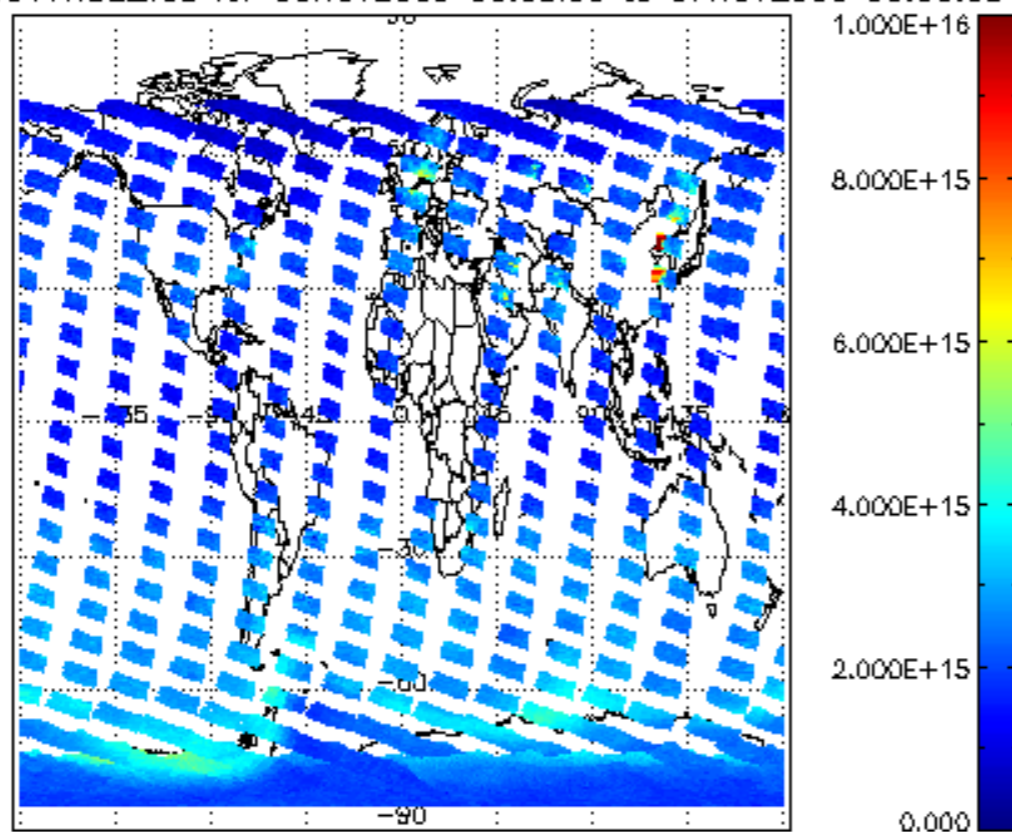
SCIOL2P\_NADUV003\_amf\_cl for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



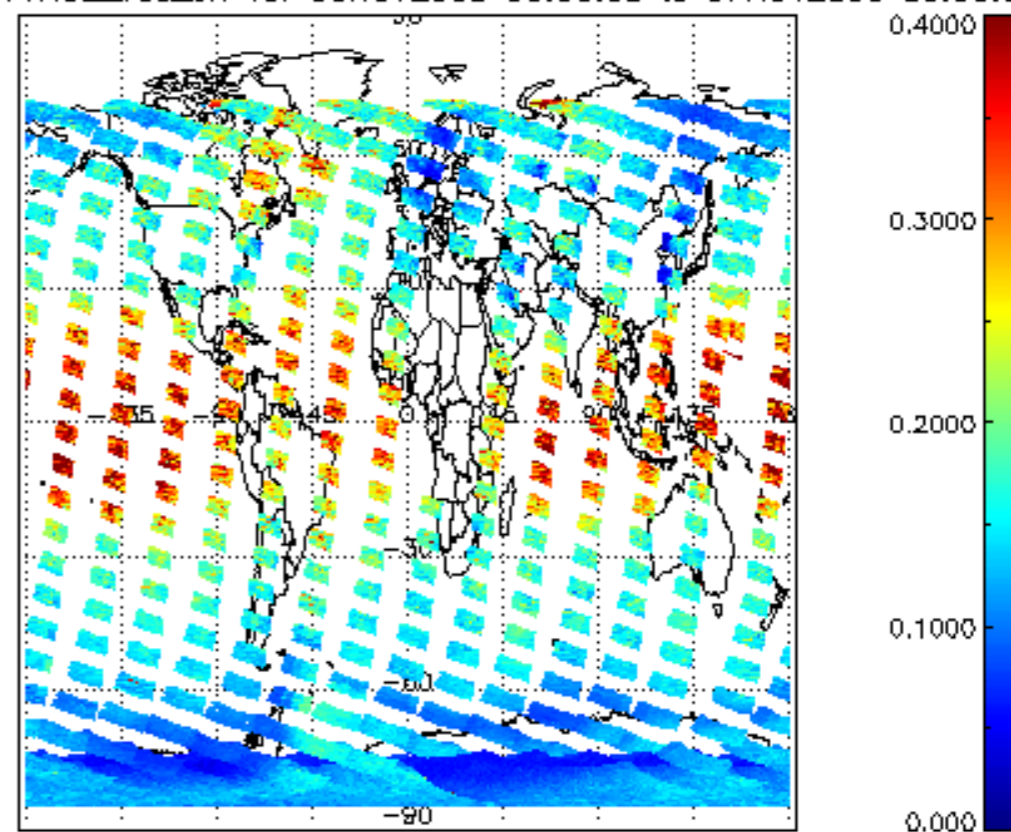




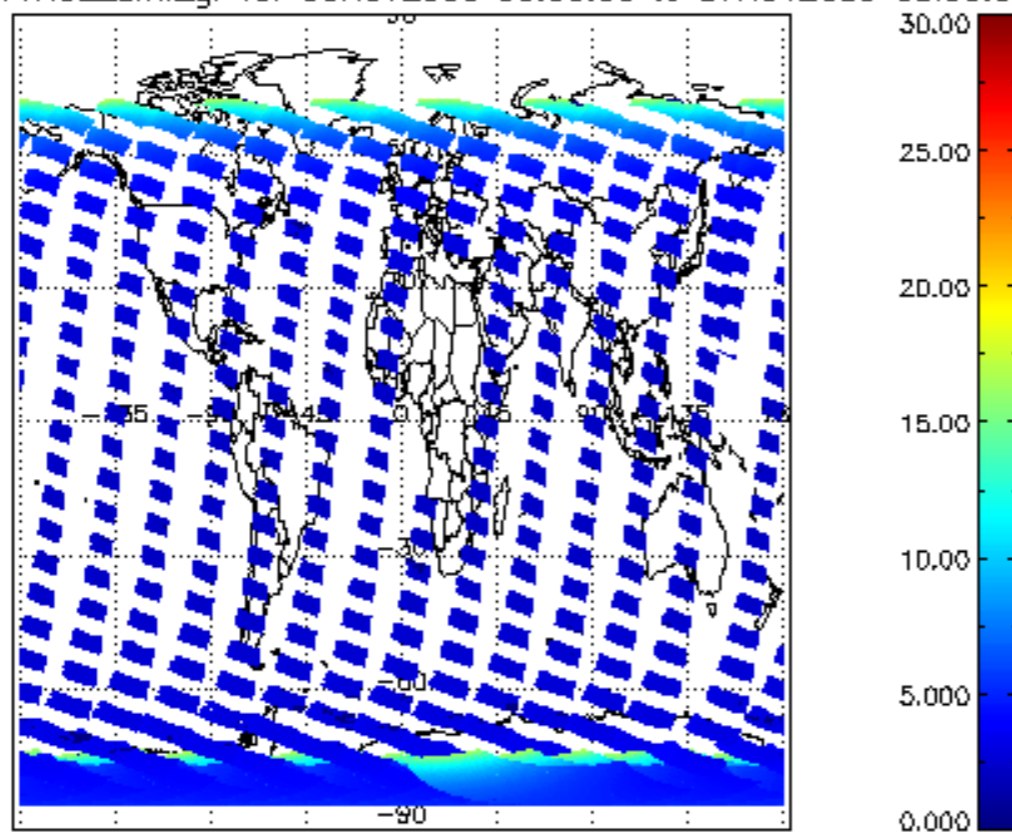
SCIOL2P\_NADUV1NO2\_vcd for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



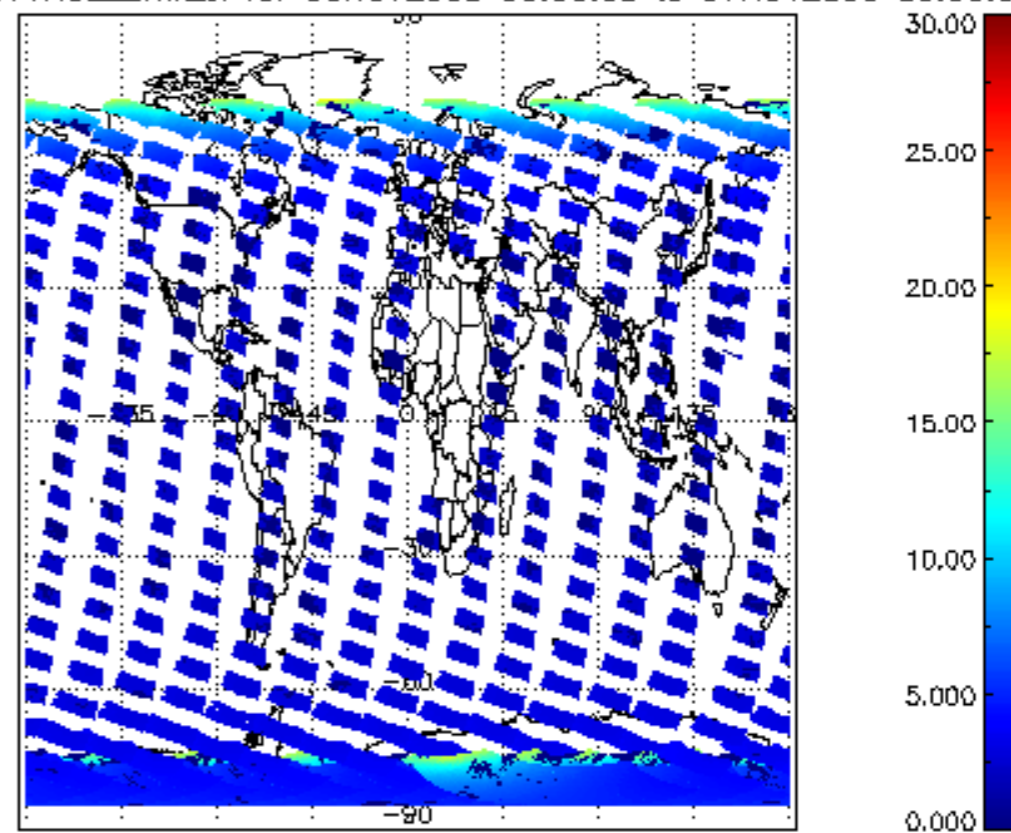
SCIOL2P\_NADUV1NO2\_vcd\_err for 06NOV2009 00:00:00 to 07NOV2009 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 06NOV2009 00:00:00 to 07NOV2009 00:00:00

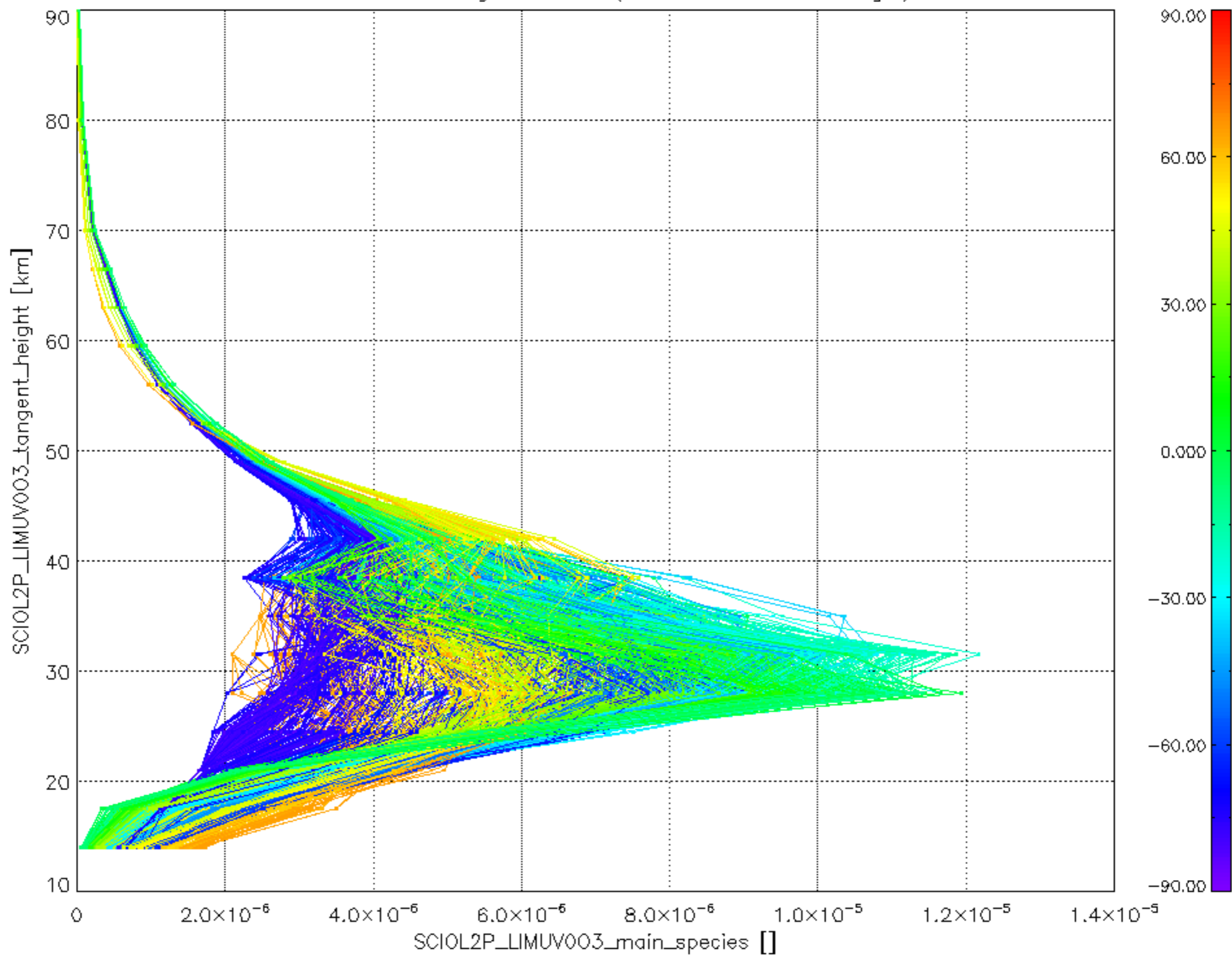


SCIOL2P\_NADUV1NO2\_amf\_cl for 06NOV2009 00:00:00 to 07NOV2009 00:00:00





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).

