

## 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	26NOV2009 03:04:15
Data source version	SCIA-OL/3.01-R
Processing scope for products	08NOV2009 00:00:00 to 09NOV2009 00:00:00
Start time of first product within scope	07NOV2009 23:06:41
Stop time of last product within scope	09NOV2009 01:12:07
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__2PRDPA20091107_230641_000033252084_00073_40207_5225.N1</a>	07NOV2009 23:06:41	08NOV2009 00:02:06	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20091108_004717_000033812084_00074_40208_5226.N1</a>	08NOV2009 00:47:17	08NOV2009 01:43:39	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20091108_022753_000033252084_00075_40209_5227.N1</a>	08NOV2009 02:27:53	08NOV2009 03:23:19	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20091108_040830_000033812084_00076_40210_5228.N1</a>	08NOV2009 04:08:30	08NOV2009 05:04:51	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20091108_054906_000033252084_00077_40211_5229.N1</a>	08NOV2009 05:49:06	08NOV2009 06:44:32	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20091108_072942_000033812084_00078_40212_5230.N1</a>	08NOV2009 07:29:42	08NOV2009 08:26:04	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20091108_091019_000032562084_00079_40213_5231.N1</a>	08NOV2009 09:10:19	08NOV2009 10:04:36	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20091108_105055_000033812084_00080_40214_5232.N1</a>	08NOV2009 10:50:55	08NOV2009 11:47:16	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20091108_123131_000033252084_00081_40215_5233.N1</a>	08NOV2009 12:31:31	08NOV2009 13:26:57	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20091108_141207_000033812084_00082_40216_5234.N1</a>	08NOV2009 14:12:07	08NOV2009 15:08:29	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20091108_155244_000033252084_00083_40217_5235.N1</a>	08NOV2009 15:52:44	08NOV2009 16:48:09	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20091108_173341_000033122084_00084_40218_5236.N1</a>	08NOV2009 17:33:41	08NOV2009 18:28:53	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20091108_191417_000033252084_00085_40219_5237.N1</a>	08NOV2009 19:14:17	08NOV2009 20:09:42	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20091108_205433_000033812084_00086_40220_5238.N1</a>	08NOV2009 20:54:33	08NOV2009 21:50:54	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20091108_223509_000033252084_00087_40221_5239.N1</a>	08NOV2009 22:35:09	08NOV2009 23:30:35	0	GOOD
15	<a href="#">SCI_OL__2PRDPA20091109_001545_000033812084_00088_40222_5240.N1</a>	09NOV2009 00:15:45	09NOV2009 01:12:07	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: 142427

Total number of cloud data DSRs with good quality flag (=0): 142427 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	142427	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	142427	0.16881	0.12500	0.12500	0.25000	0.059641	s
CL_FRAC	142427	0.39431	0.39362	0.0000	1.0000	0.28152	-
CL_FRAC_ERR	142427	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	142427	5.4020	4.0000	4.0000	8.0000	1.9085	
PMD_READ_CL[0]	142427	0.19409	0.0000	0.0000	8.0000	0.98248	-
PMD_READ_CL[1]	142427	1.1492	0.0000	0.0000	8.0000	2.3828	-
CL_TOP_HEIGHT	120771	3.7918	2.8014	0.0000	17.000	3.7037	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	120771	57.313	55.101	0.0000	101.00	40.872	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	142427	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	142427	11001011	11000100	11000000	11100000	3355.9	flags
AERO_ABSO_IND	142427	3.9308	4.5652	0.0000	15.565	2.7295	
AERO_IND_DIAG	142427	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	142427	01010101	00000000	00000000	11000000	24428.	flags

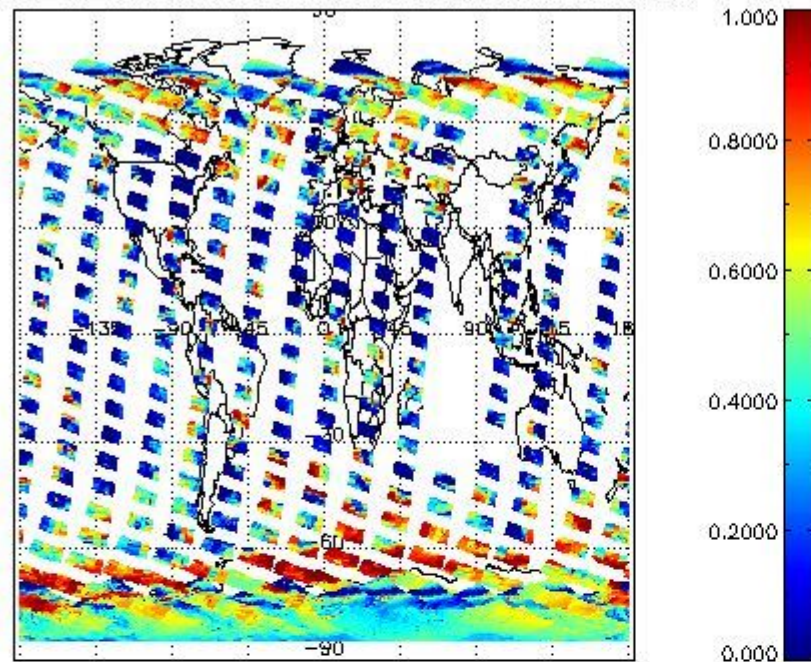
### Time and geolocation plots:

Plots are available for the following parameters:

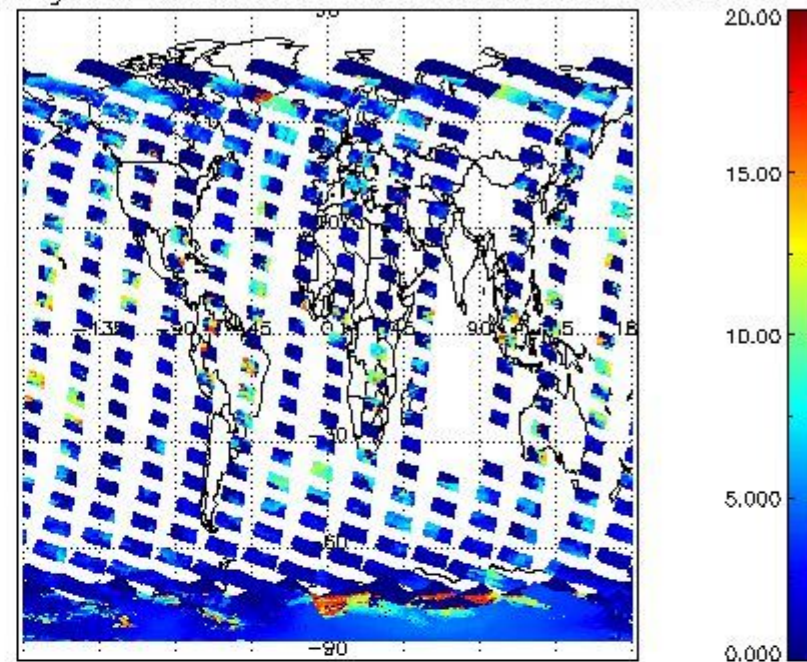
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



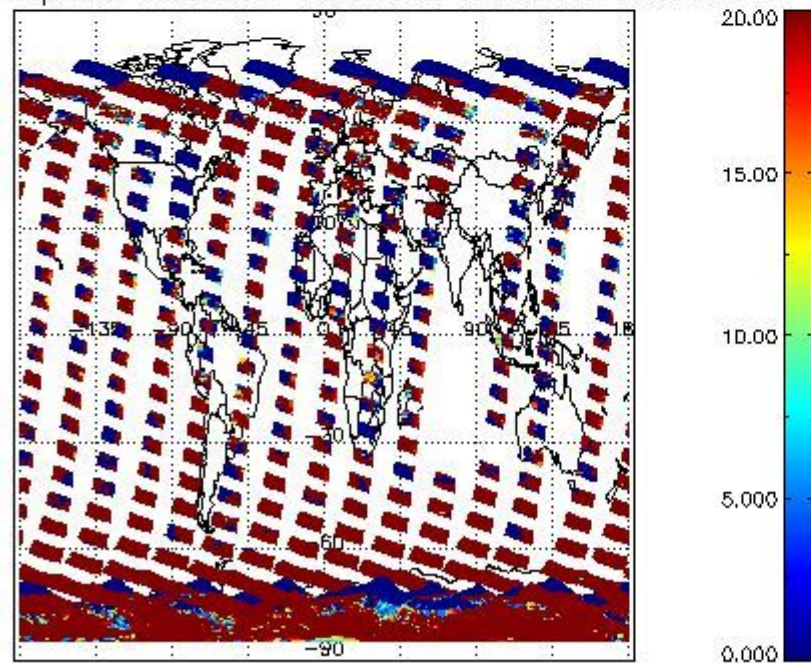
cLfrac for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



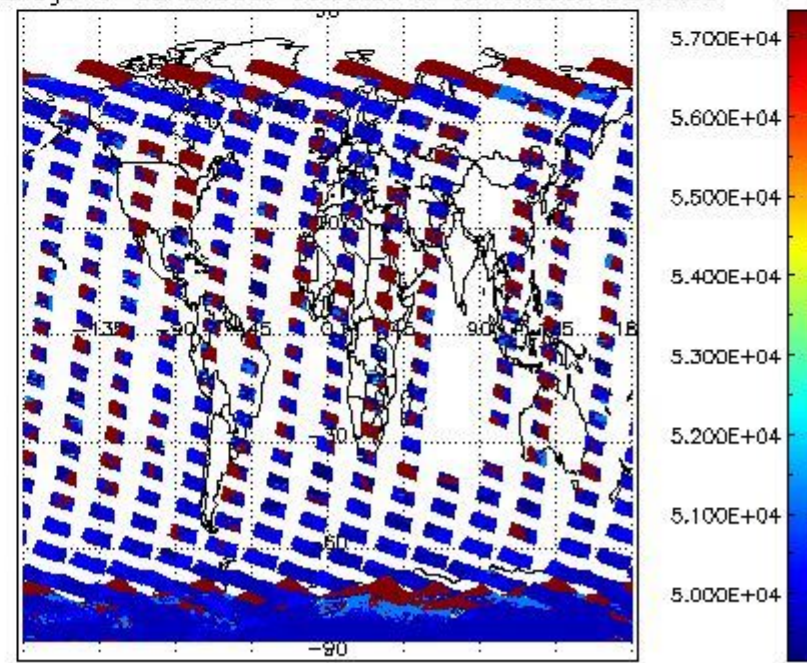
cL\_top\_height for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



cLopt\_depth for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



cloud\_flags for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



## 2.2.2 Nadir

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

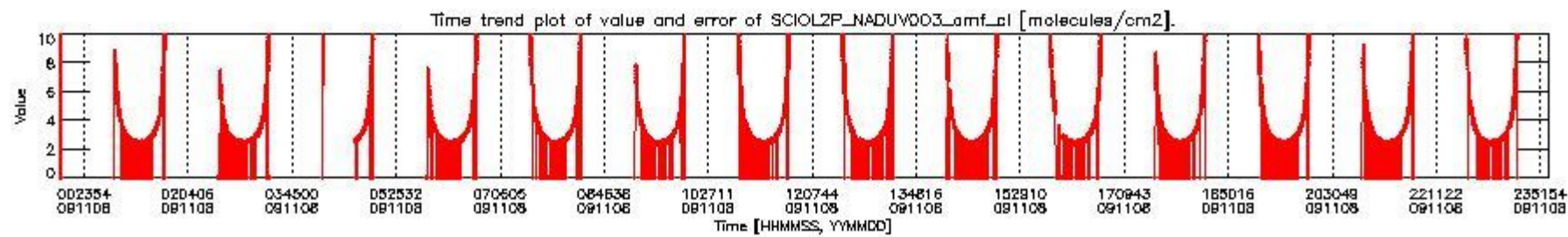
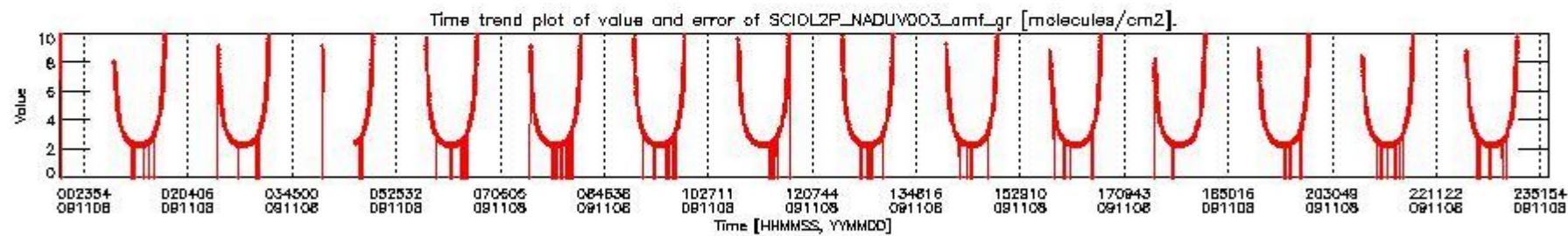
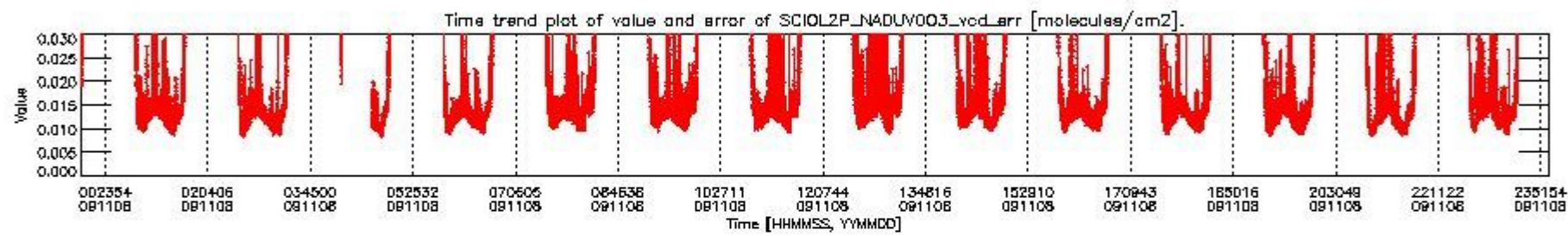
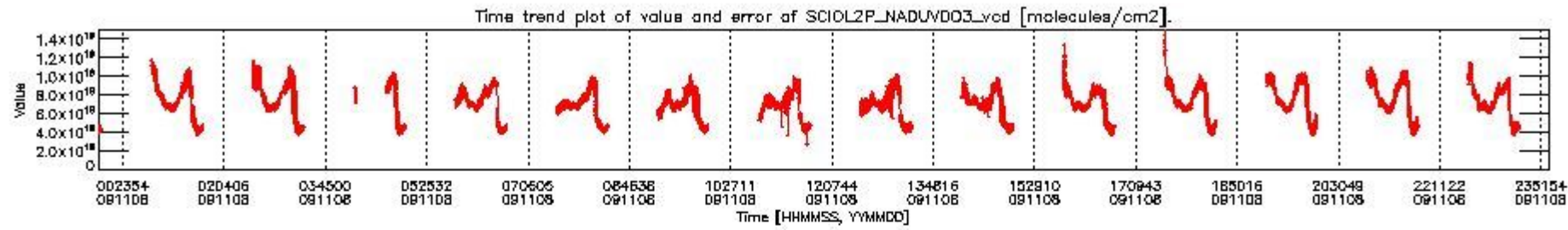
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



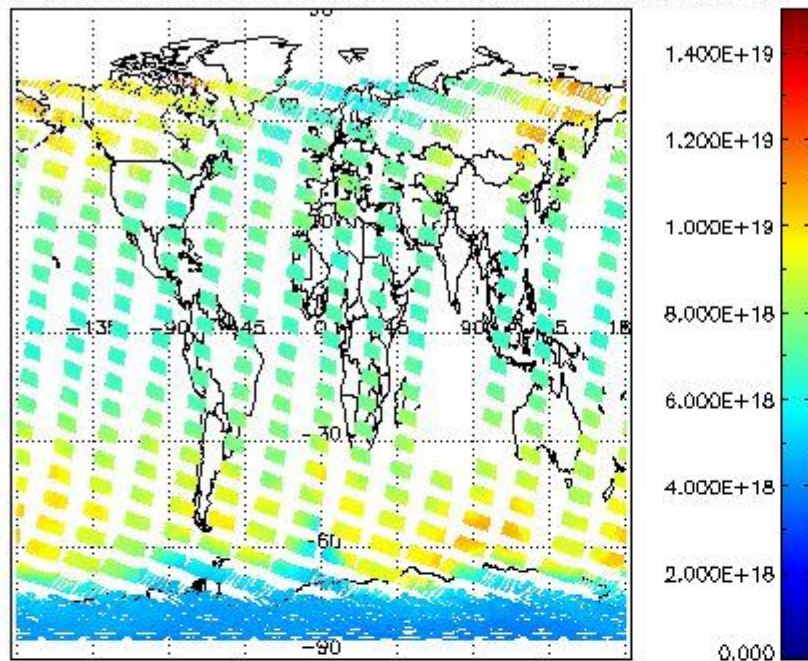
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

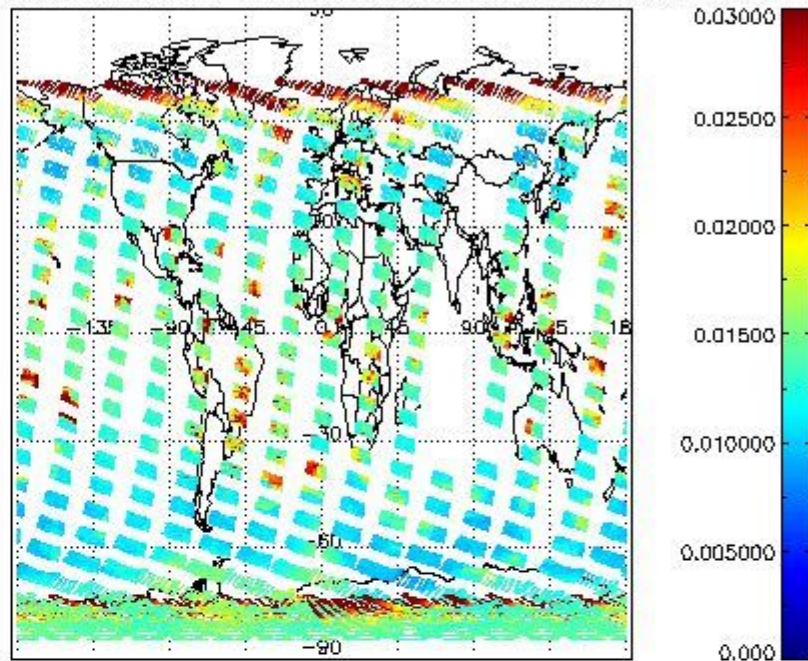




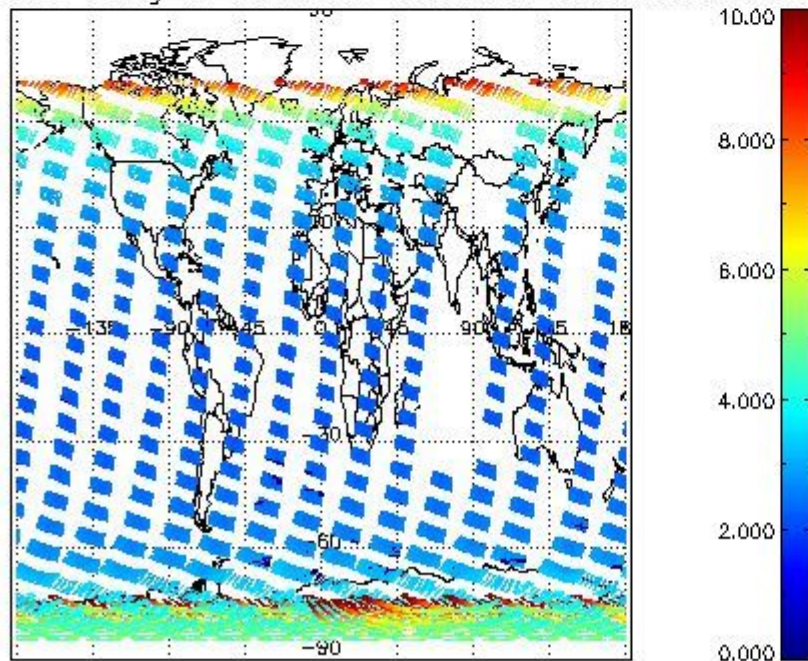
SCIOL2P\_NADUV003\_vcd for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



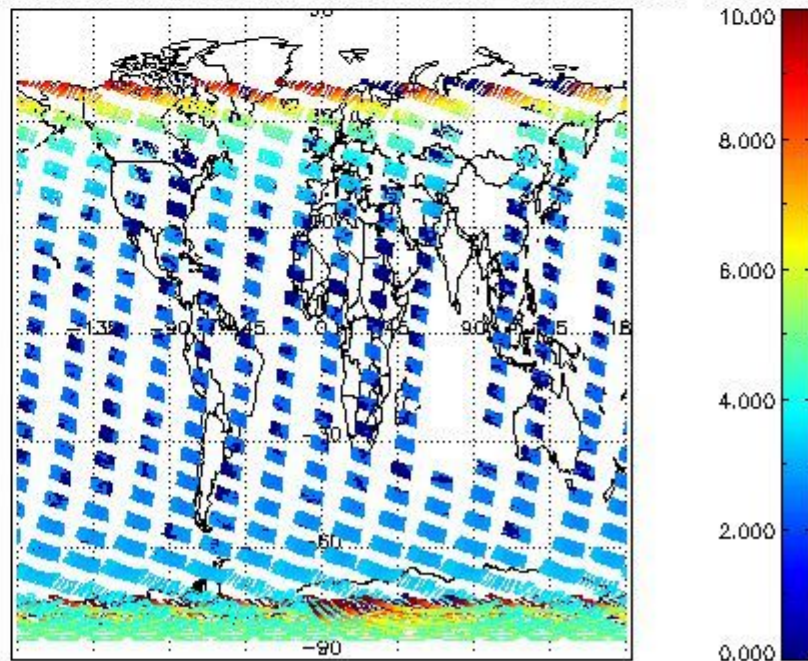
SCIOL2P\_NADUV003\_vcd\_err for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



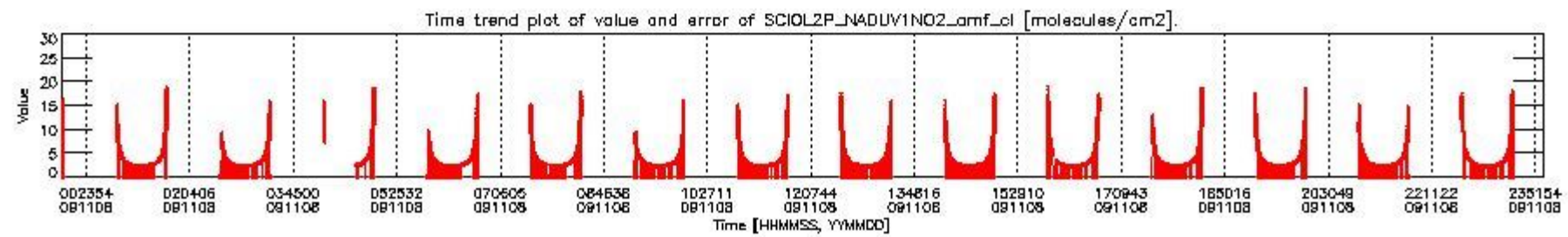
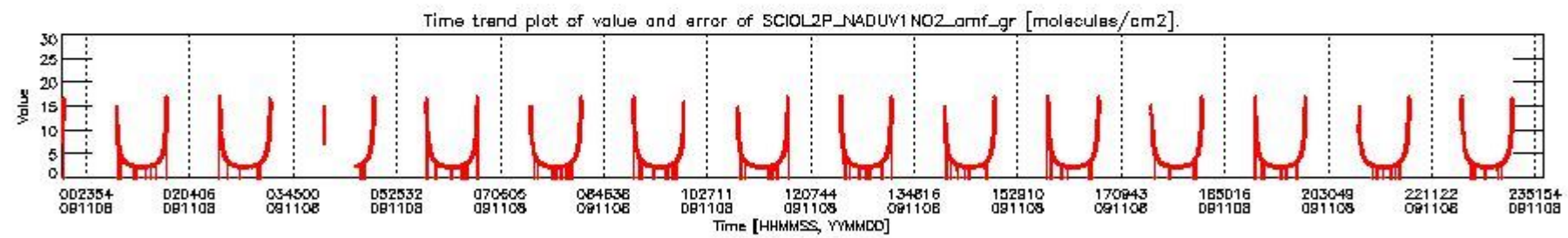
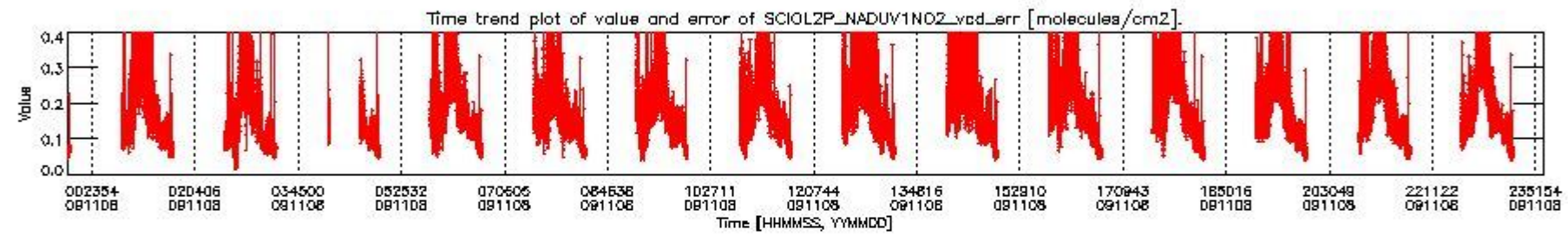
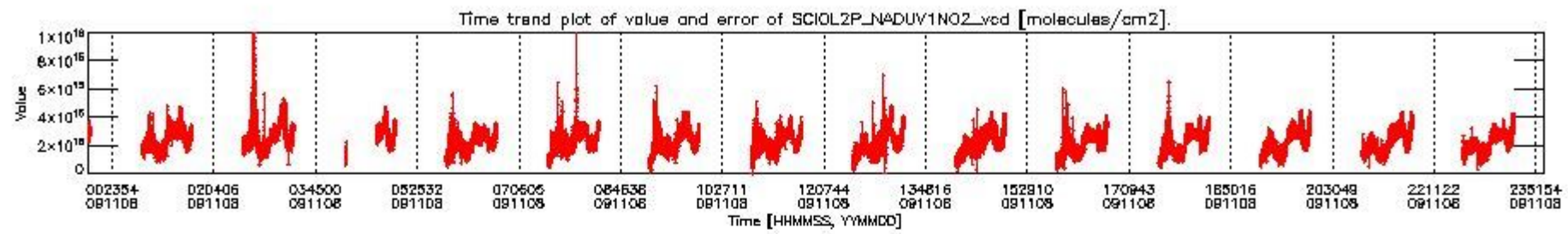
SCIOL2P\_NADUV003\_amf\_gr for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



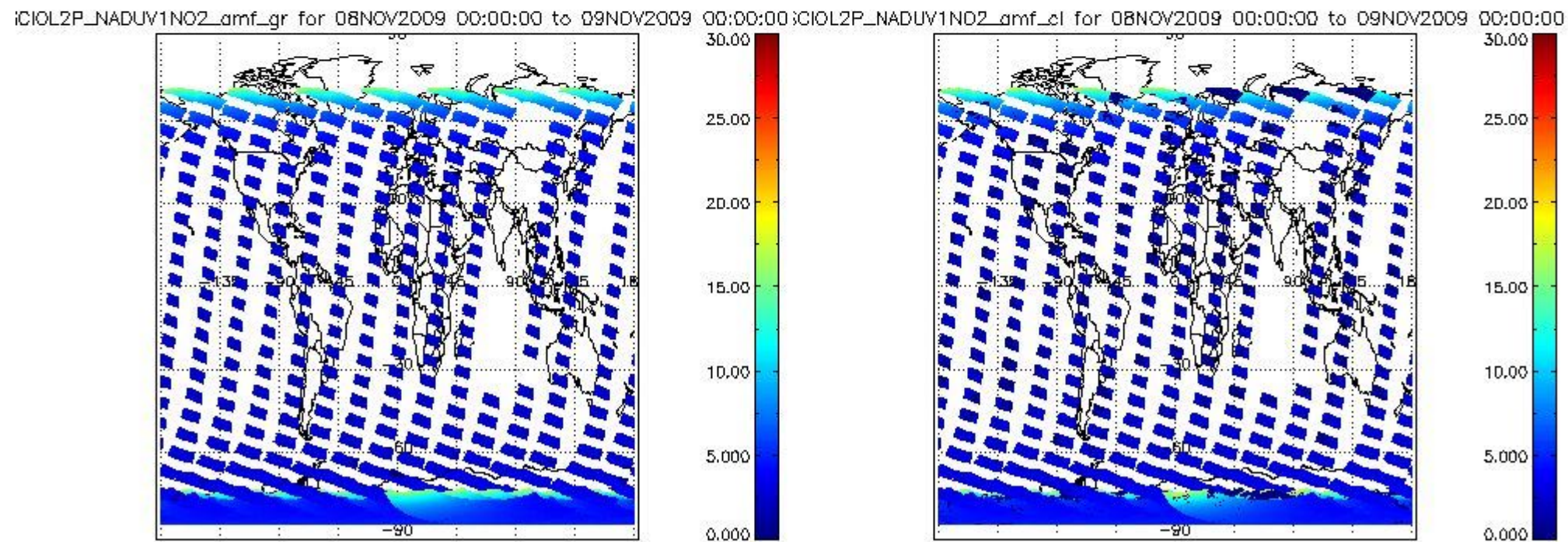
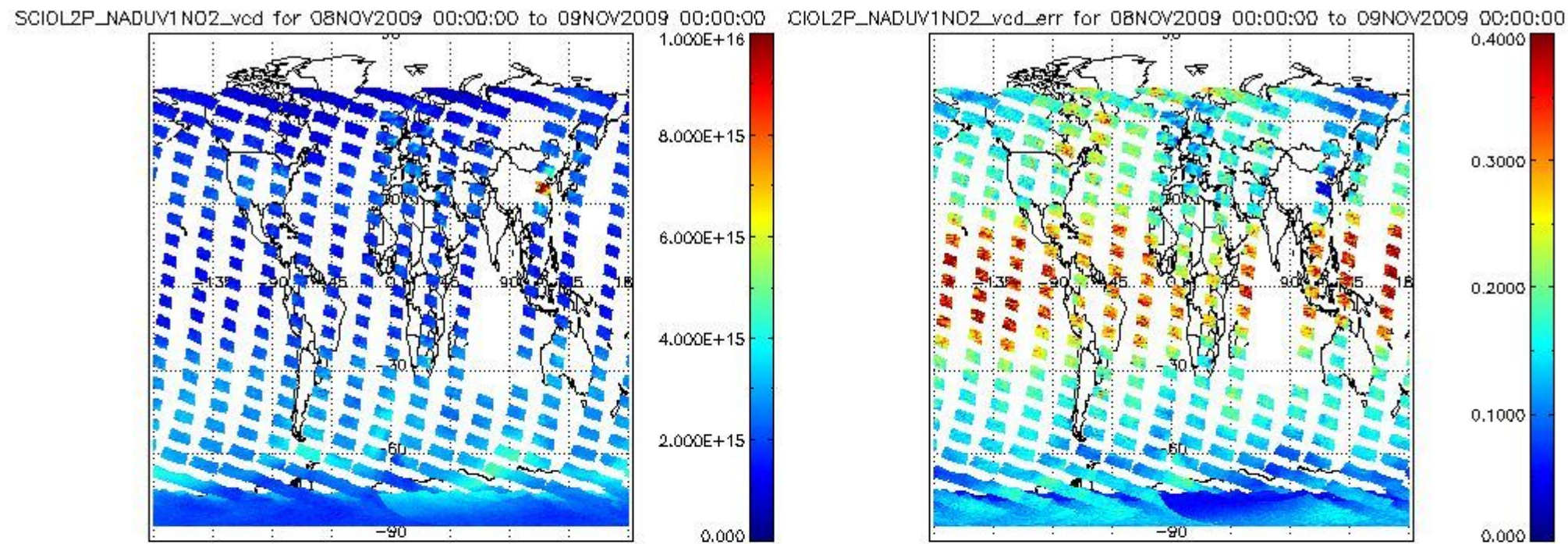
SCIOL2P\_NADUV003\_amf\_cl for 08NOV2009 00:00:00 to 09NOV2009 00:00:00











### 2.2.3 Limb

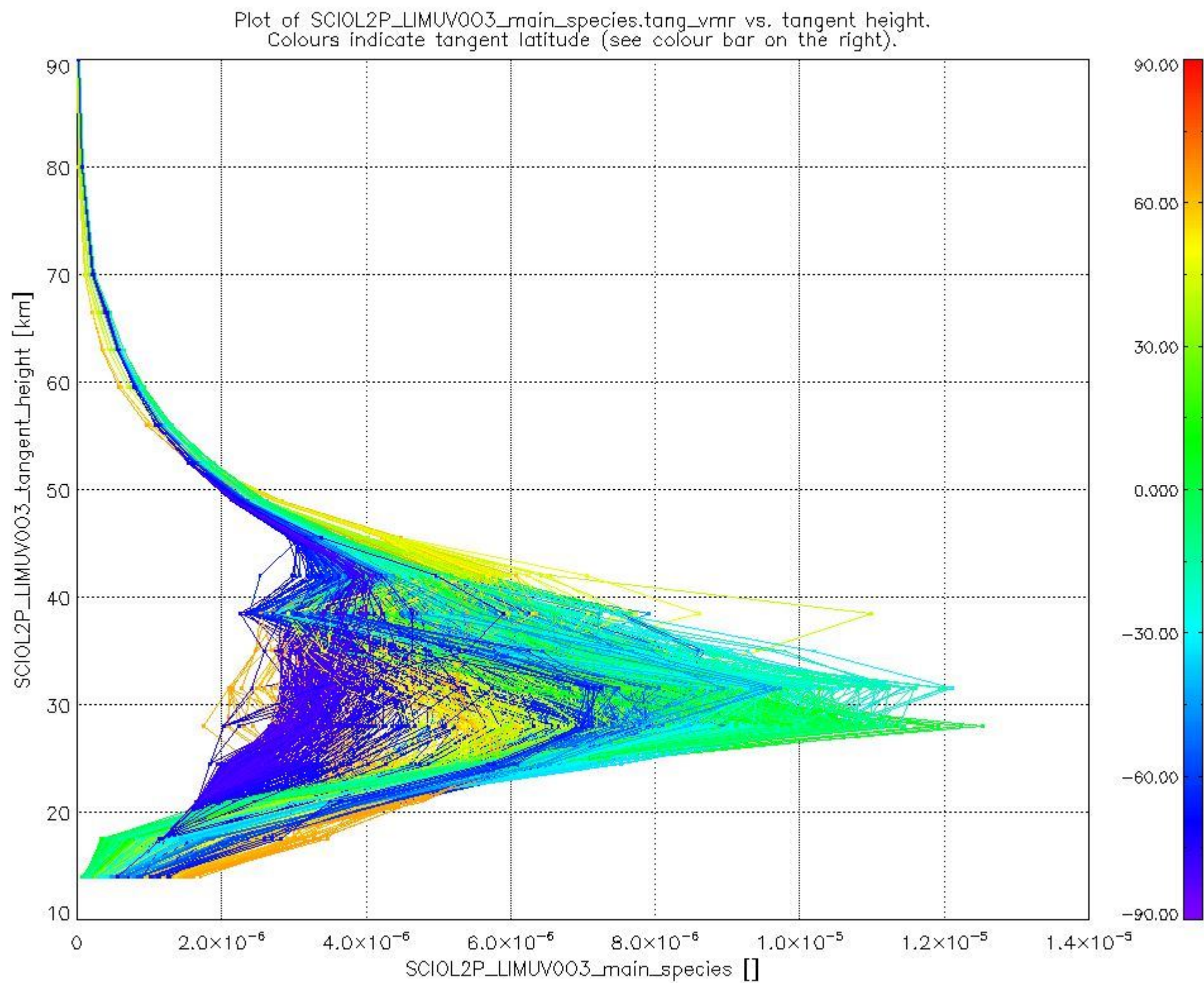
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

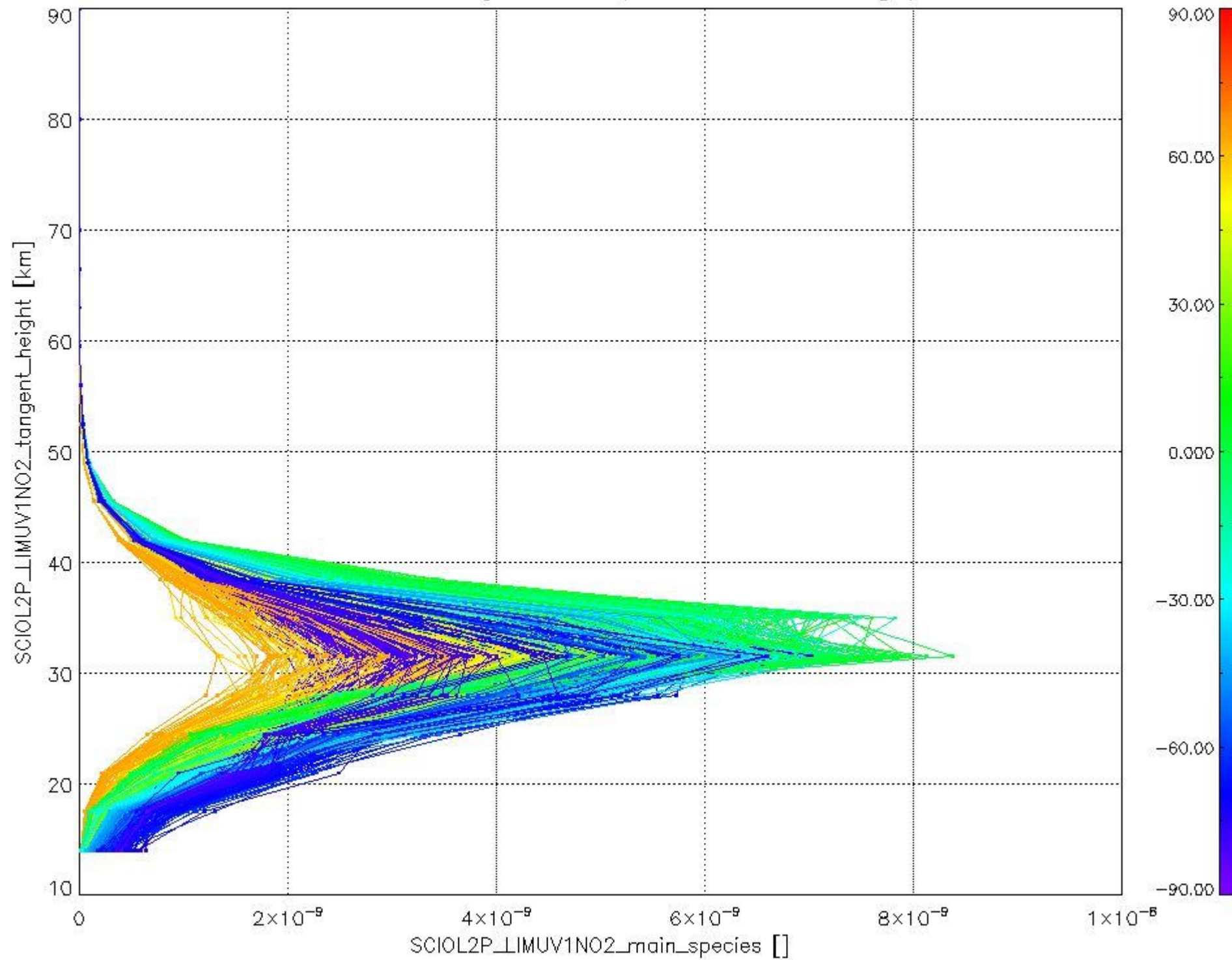


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





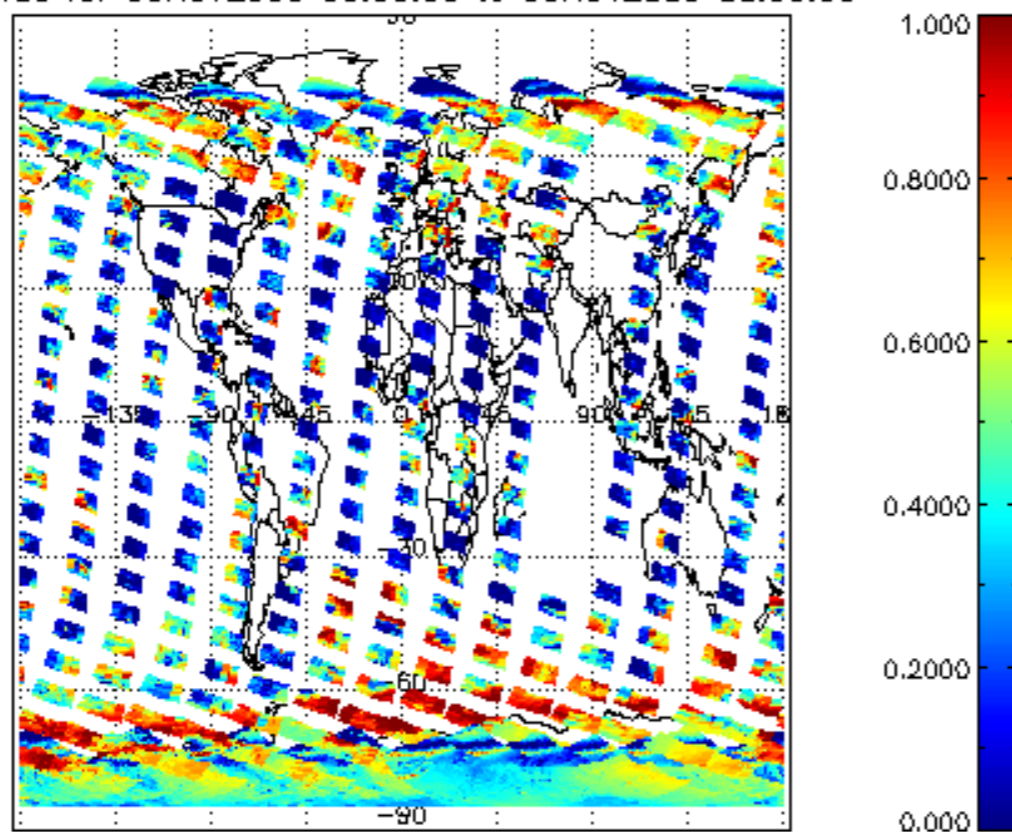
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



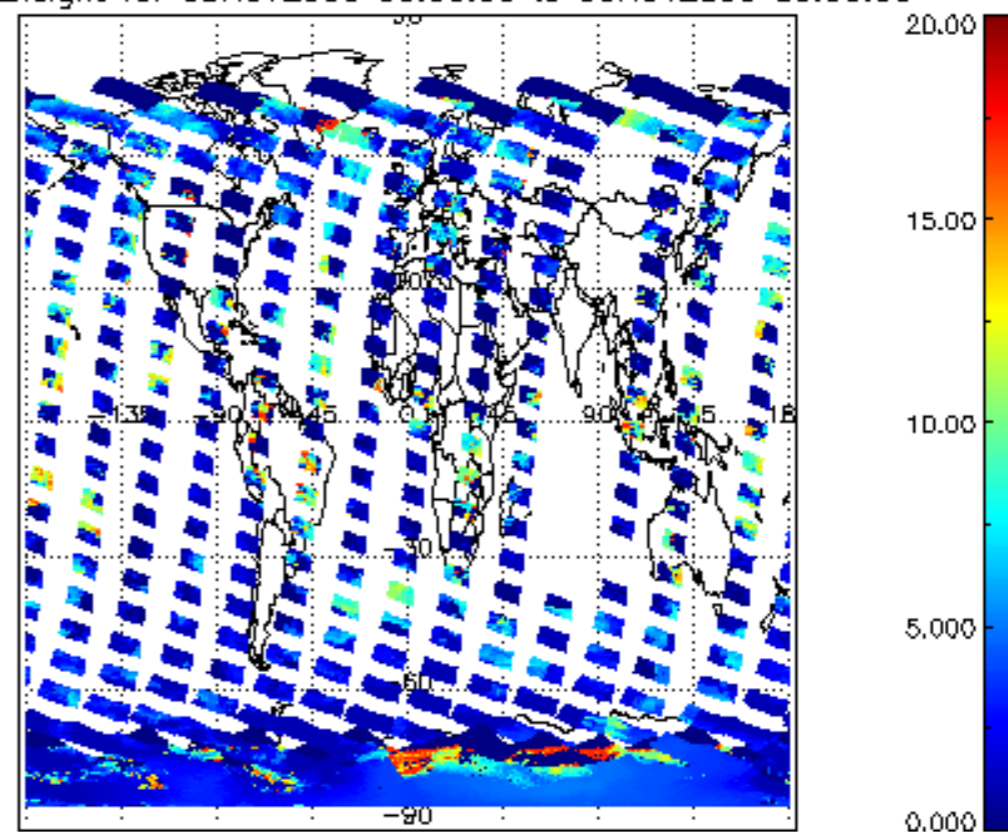
### 2.3 ADF monitoring

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

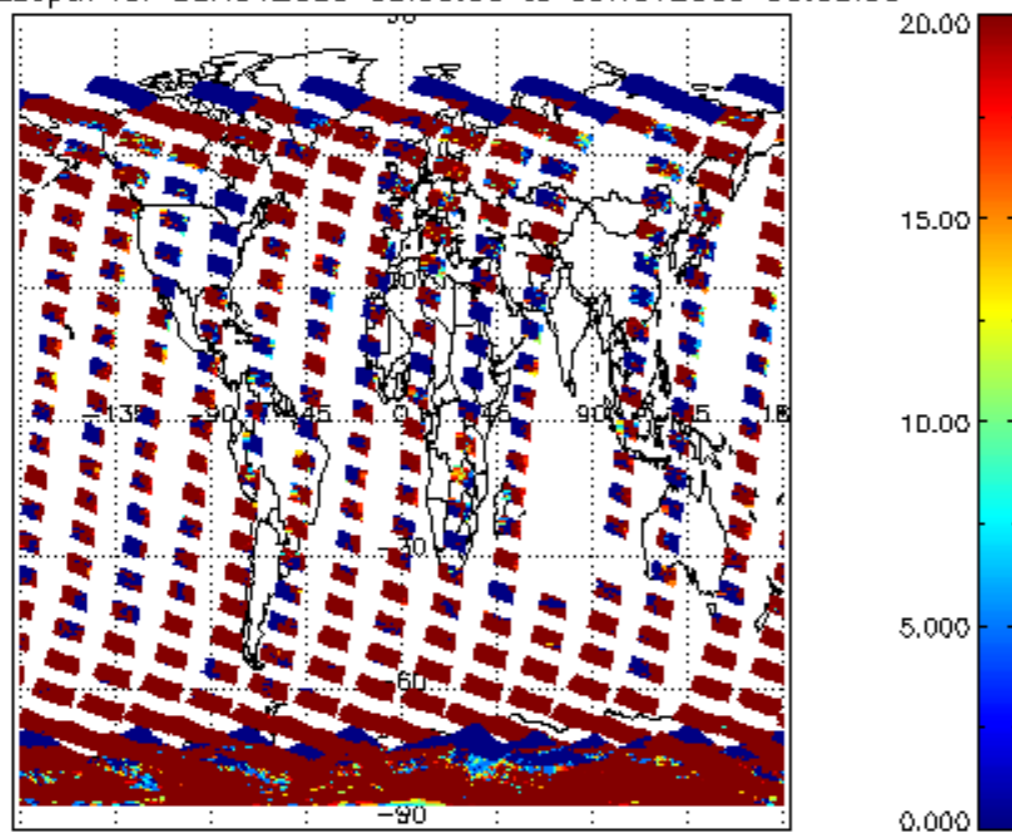
cLfrac for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



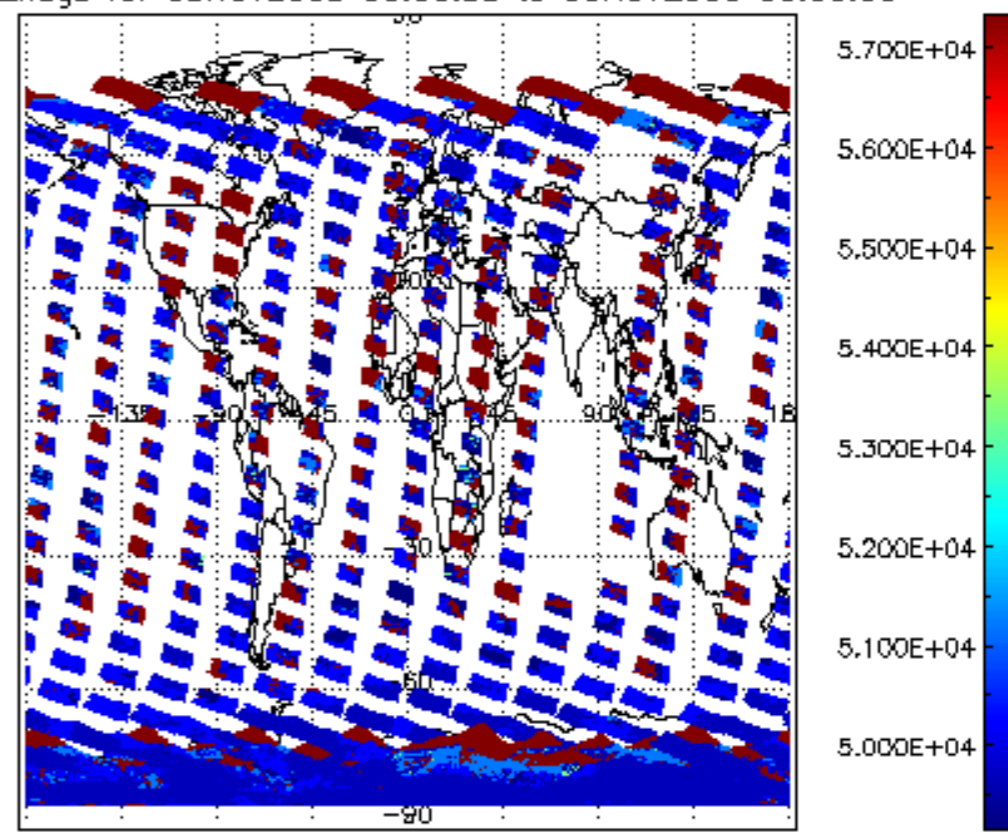
cl\_top\_height for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



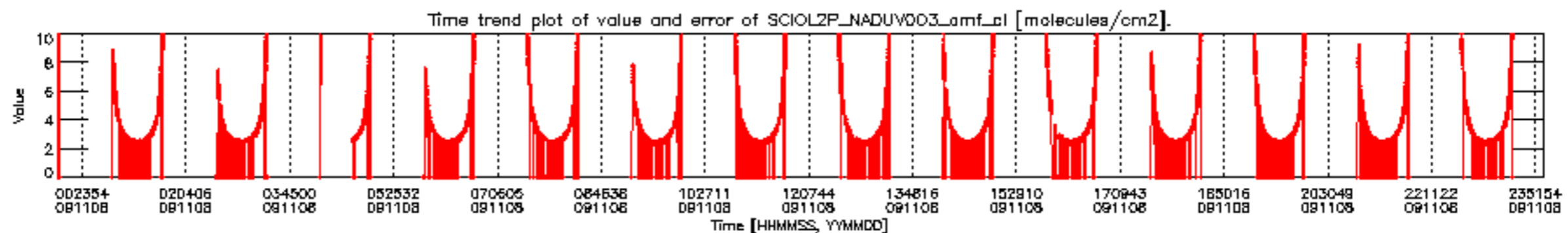
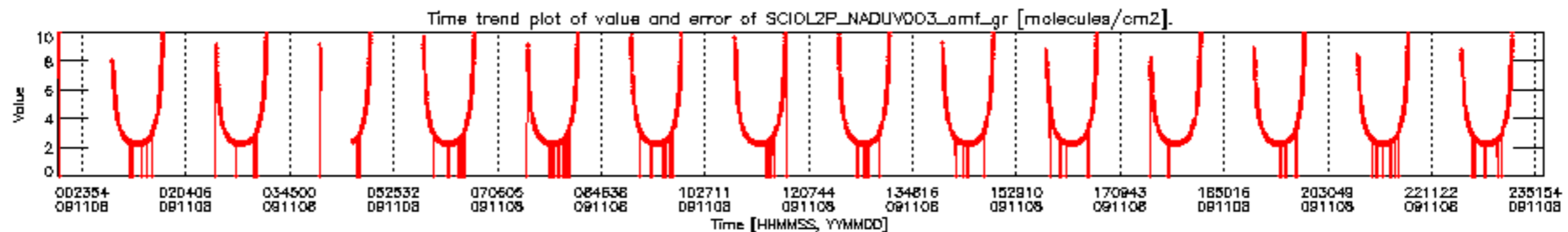
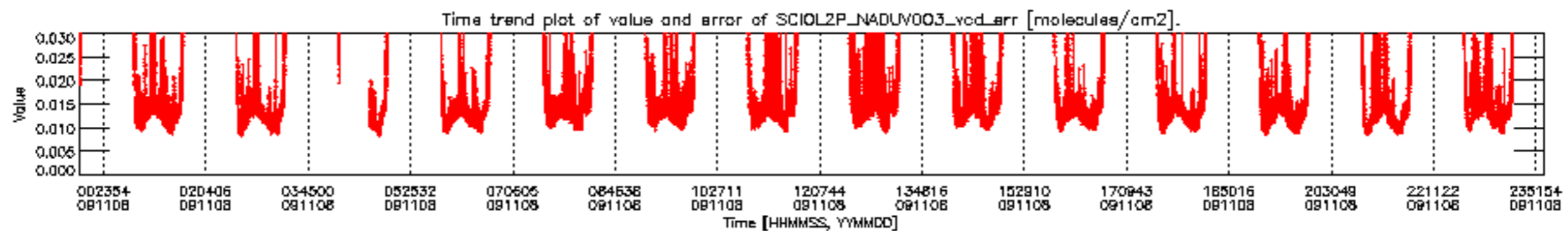
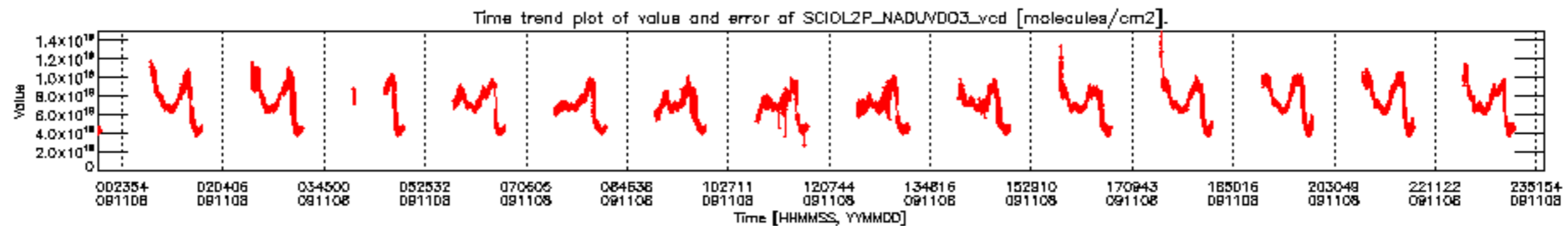
cl\_opt\_depth for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



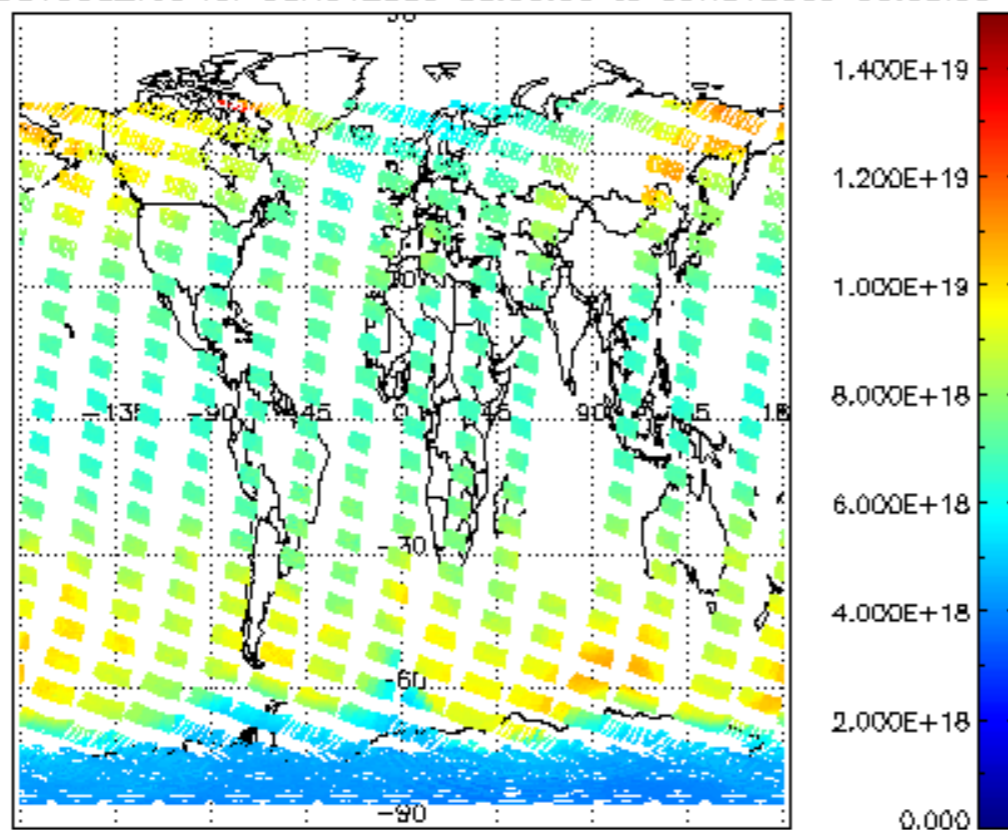
cloud\_flags for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



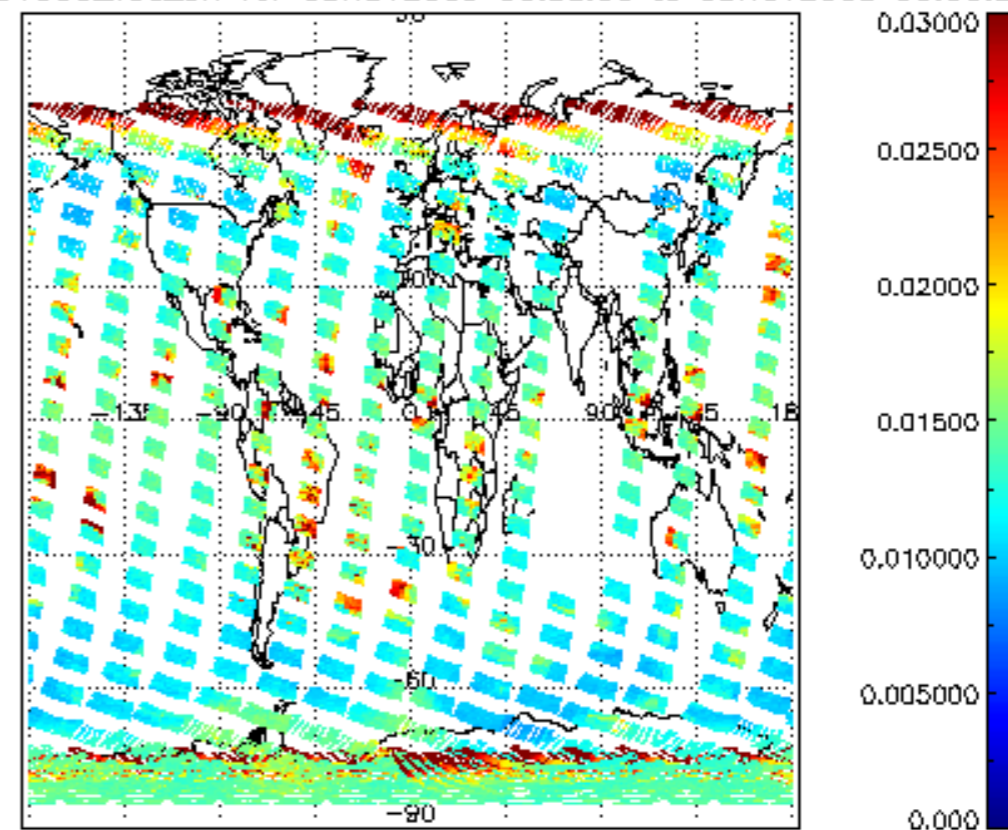




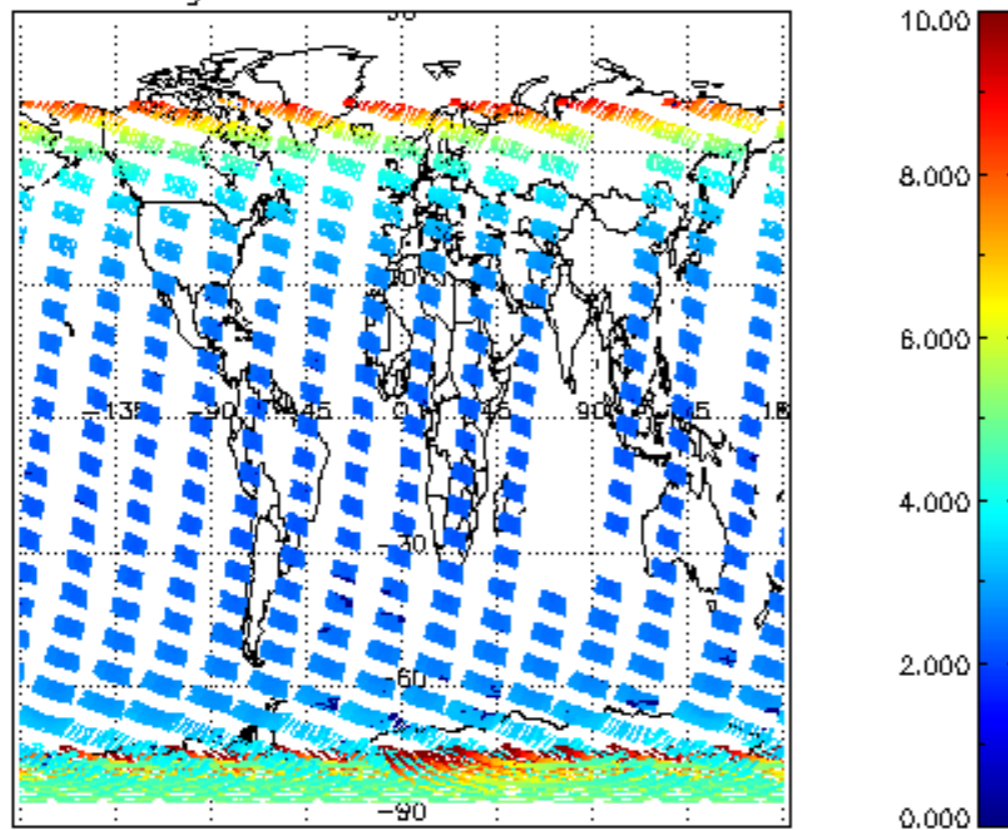
SCIOL2P\_NADUV003\_vcd for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



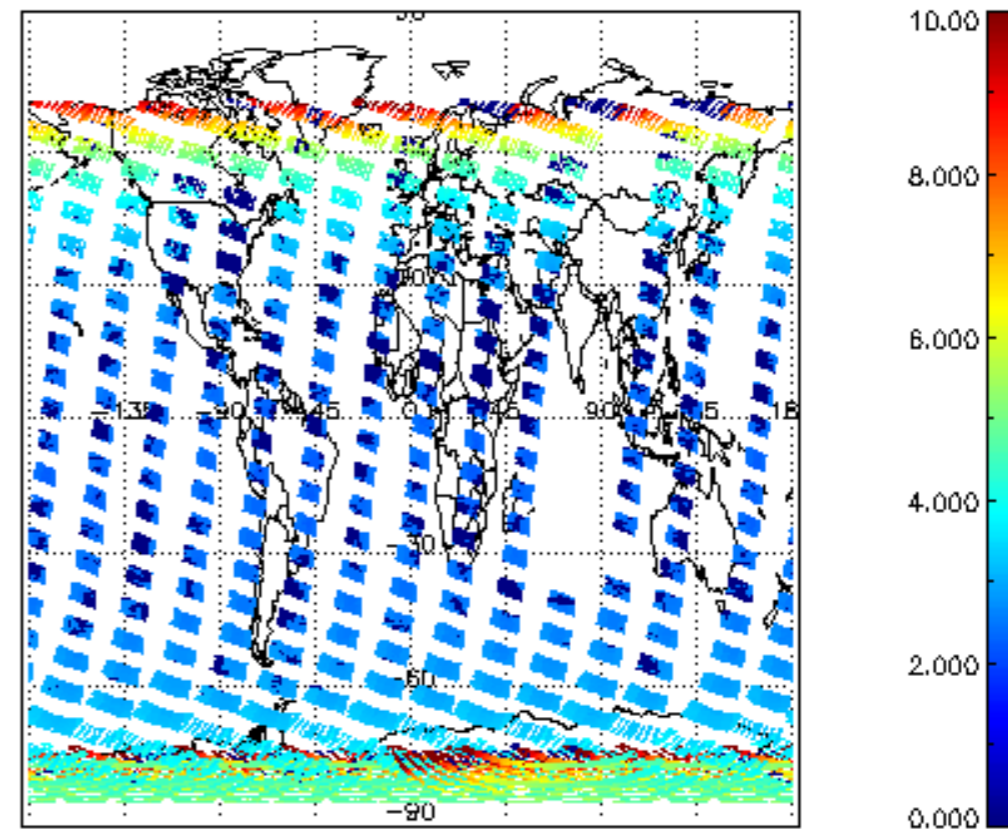
SCIOL2P\_NADUV003\_vcd\_err for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



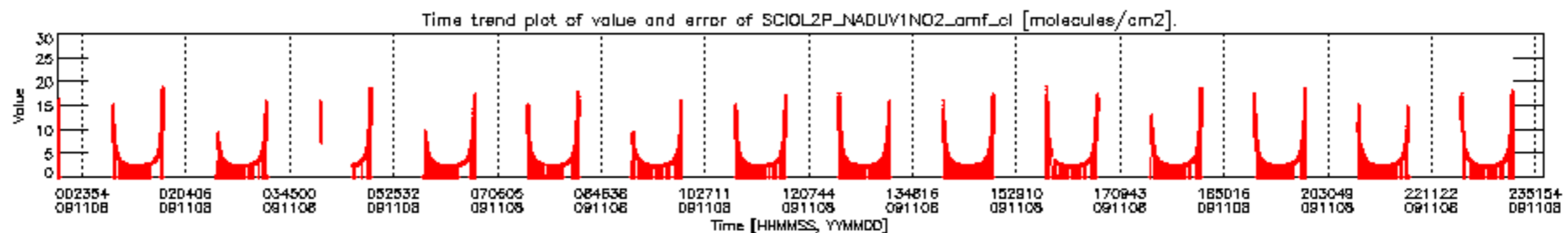
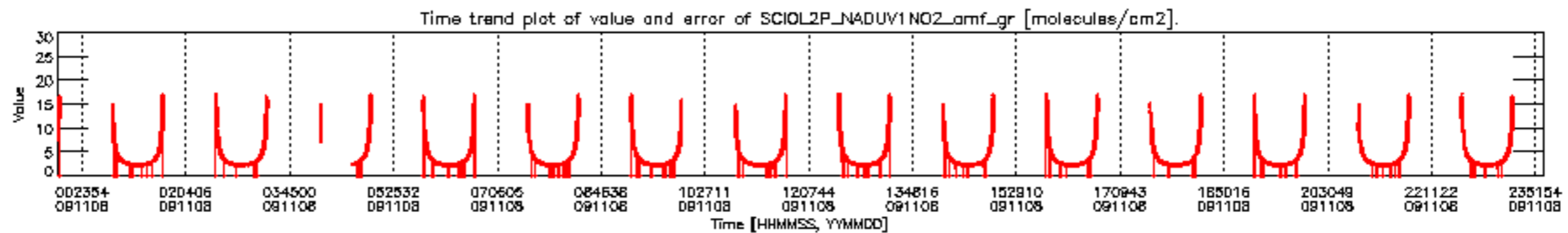
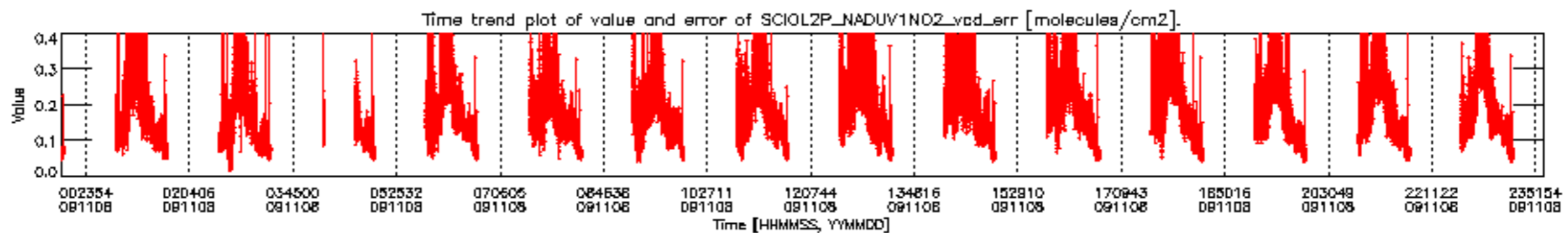
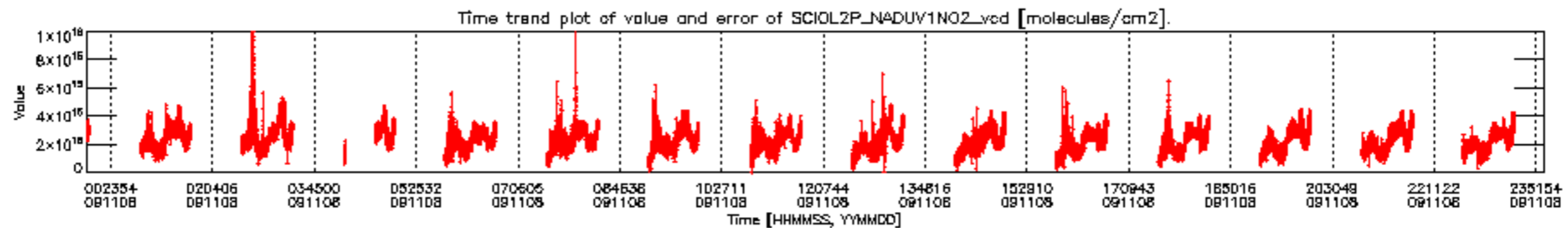
SCIOL2P\_NADUV003\_amf\_gr for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



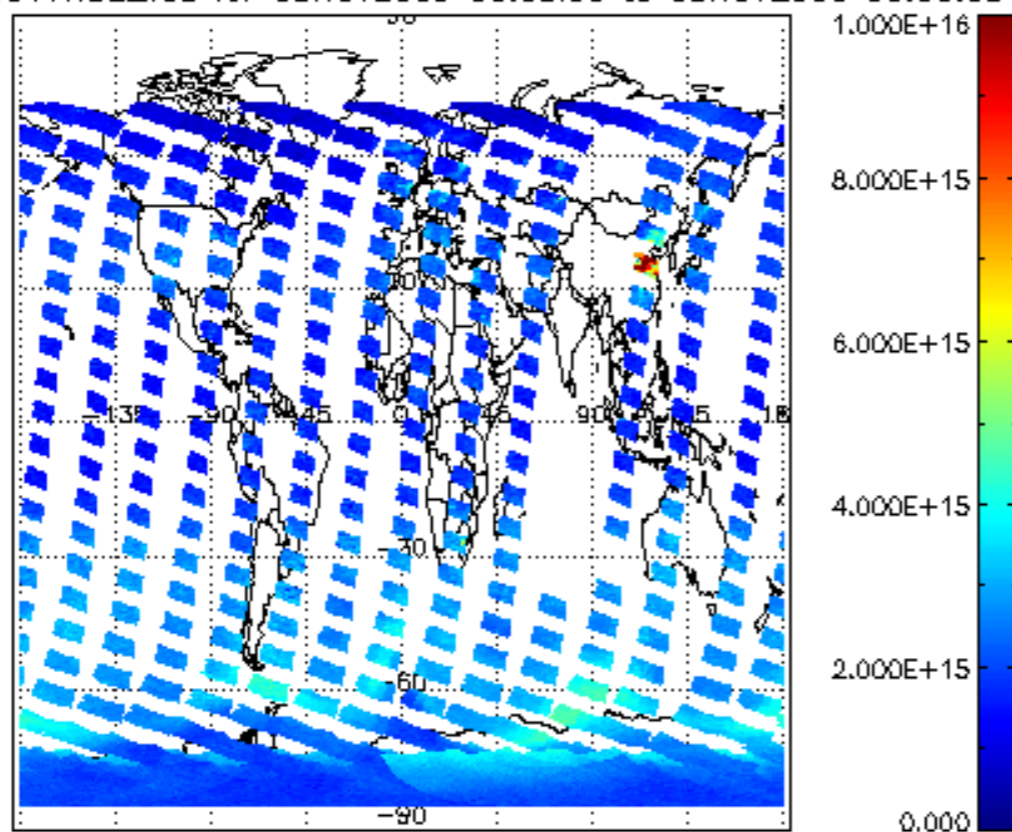
SCIOL2P\_NADUV003\_amf\_cl for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



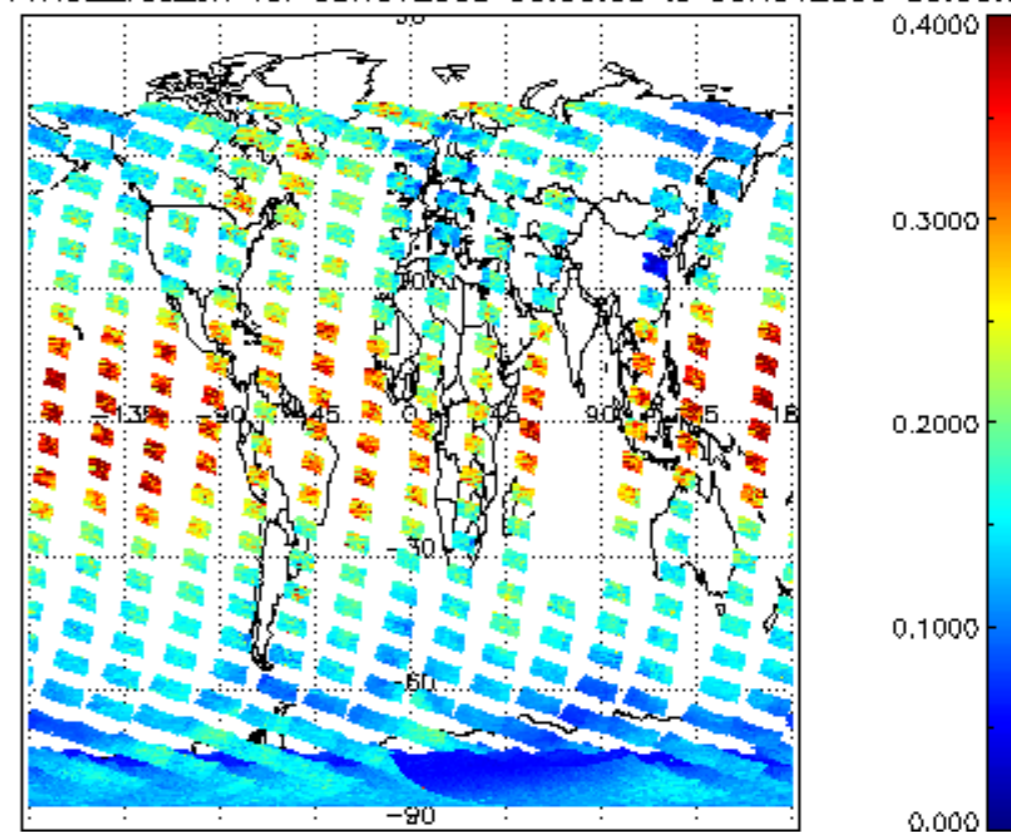




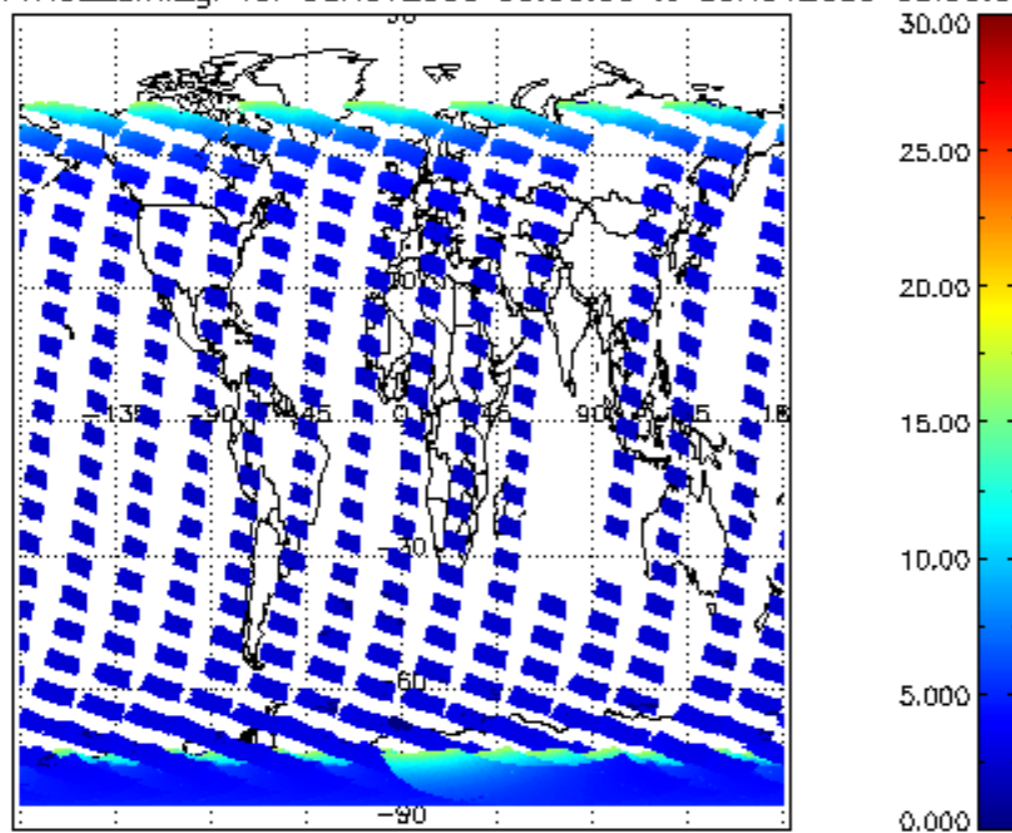
SCIOL2P\_NADUV1NO2\_vcd for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



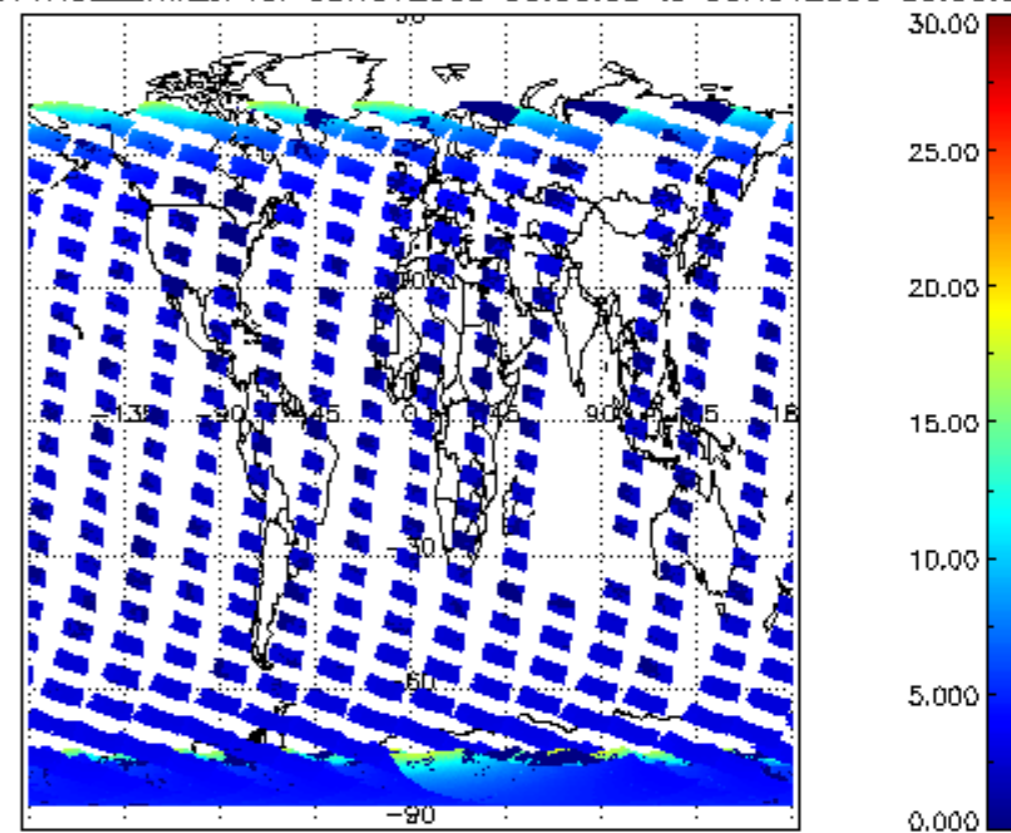
SCIOL2P\_NADUV1NO2\_vcd\_err for 08NOV2009 00:00:00 to 09NOV2009 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 08NOV2009 00:00:00 to 09NOV2009 00:00:00

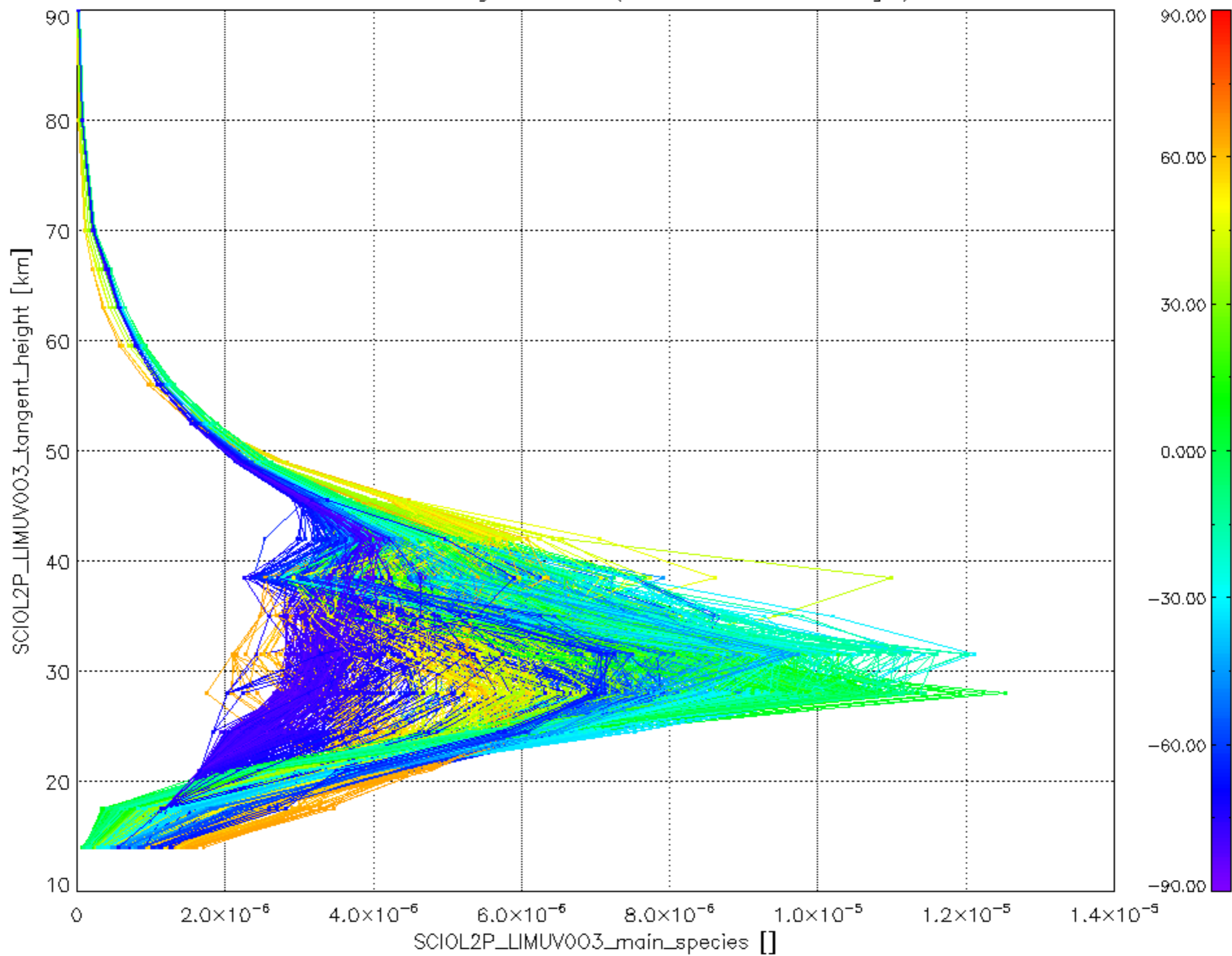


SCIOL2P\_NADUV1NO2\_amf\_cl for 08NOV2009 00:00:00 to 09NOV2009 00:00:00





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).

