

## 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	20SEP2008 13:09:51
Data source version	SCIA-OL/3.01-R
Processing scope for products	06NOV2004 00:00:00 to 07NOV2004 00:00:00
Start time of first product within scope	05NOV2004 23:58:33
Stop time of last product within scope	07NOV2004 00:23:23
Total number of level 2 products	14
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__2PRDPA20041105_235833_000033812031_00460_14041_0452.N1</a>	05NOV2004 23:58:33	06NOV2004 00:54:55	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20041106_013910_000033252031_00461_14042_0584.N1</a>	06NOV2004 01:39:10	06NOV2004 02:34:35	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20041106_031946_000033812031_00462_14043_0549.N1</a>	06NOV2004 03:19:46	06NOV2004 04:16:07	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20041106_050022_000033252031_00463_14044_0510.N1</a>	06NOV2004 05:00:22	06NOV2004 05:55:48	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20041106_064059_000033812031_00464_14045_0583.N1</a>	06NOV2004 06:40:59	06NOV2004 07:37:20	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20041106_082135_000033252031_00465_14046_0544.N1</a>	06NOV2004 08:21:35	06NOV2004 09:17:00	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20041106_100211_000033812031_00466_14047_0508.N1</a>	06NOV2004 10:02:11	06NOV2004 10:58:33	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20041106_114247_000033252031_00467_14048_0481.N1</a>	06NOV2004 11:42:47	06NOV2004 12:38:13	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20041106_132324_000033812031_00468_14049_0532.N1</a>	06NOV2004 13:23:24	06NOV2004 14:19:45	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20041106_150400_000033252031_00469_14050_0443.N1</a>	06NOV2004 15:04:00	06NOV2004 15:59:25	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20041106_182505_000033852031_00471_14052_0596.N1</a>	06NOV2004 18:25:05	06NOV2004 19:21:31	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20041106_200609_000033122031_00472_14053_0437.N1</a>	06NOV2004 20:06:09	06NOV2004 21:01:22	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20041106_214625_000033252031_00473_14054_0435.N1</a>	06NOV2004 21:46:25	06NOV2004 22:41:51	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20041106_232701_000033812031_00474_14055_0512.N1</a>	06NOV2004 23:27:01	07NOV2004 00:23:23	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: 141440

Total number of cloud data DSRs with good quality flag (=0): 141440 (100.0 %)

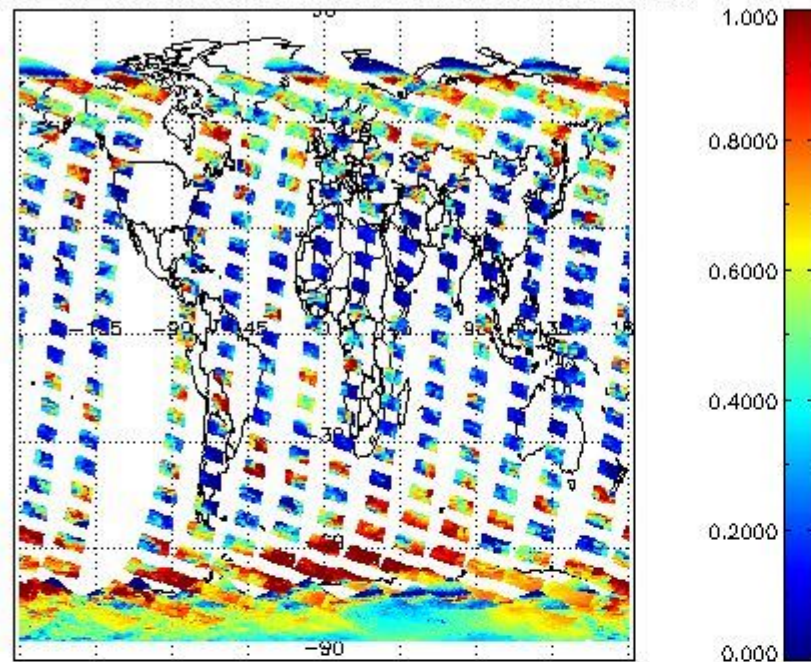
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	141440	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	141440	0.17004	0.12500	0.12500	0.25000	0.060011	s
CL_FRAC	141440	0.45132	0.44403	0.0000	1.0000	0.27828	-
CL_FRAC_ERR	141440	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	141440	5.4412	4.0000	4.0000	8.0000	1.9203	
PMD_READ_CL[0]	141440	0.32881	0.0000	0.0000	8.0000	1.2817	-
PMD_READ_CL[1]	141440	0.36659	0.0000	0.0000	8.0000	1.3386	-
CL_TOP_HEIGHT	120977	4.2874	3.2069	0.0000	17.000	3.7976	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	120977	51.578	37.355	0.0000	101.00	39.455	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	141440	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	141440	11001000	11000100	11000000	11100000	2920.1	flags
AERO_ABSO_IND	141440	0.61657	0.32506	-3.9485	12.371	1.0332	
AERO_IND_DIAG	141440	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	141440	01010111	00000000	00000000	11000000	24481.	flags

### Time and geolocation plots:

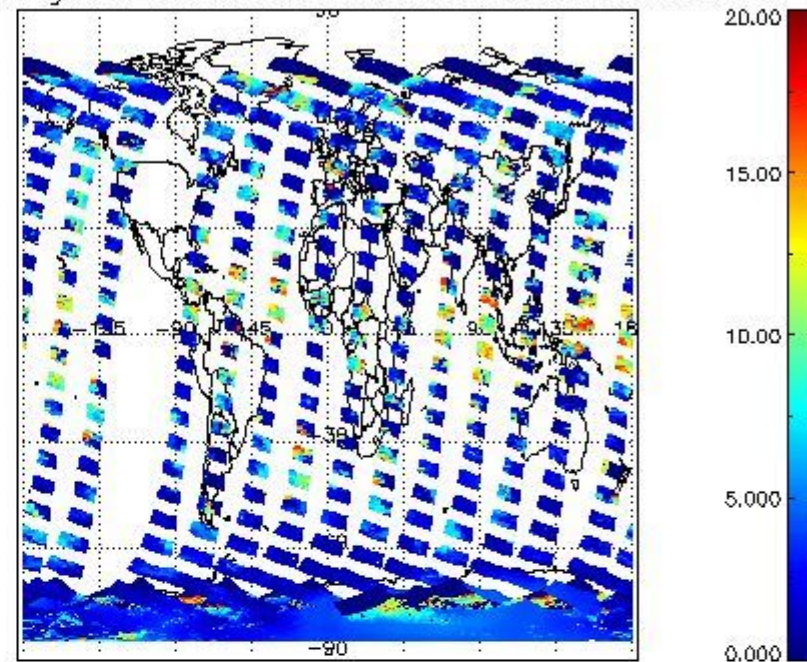
Plots are available for the following parameters:

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

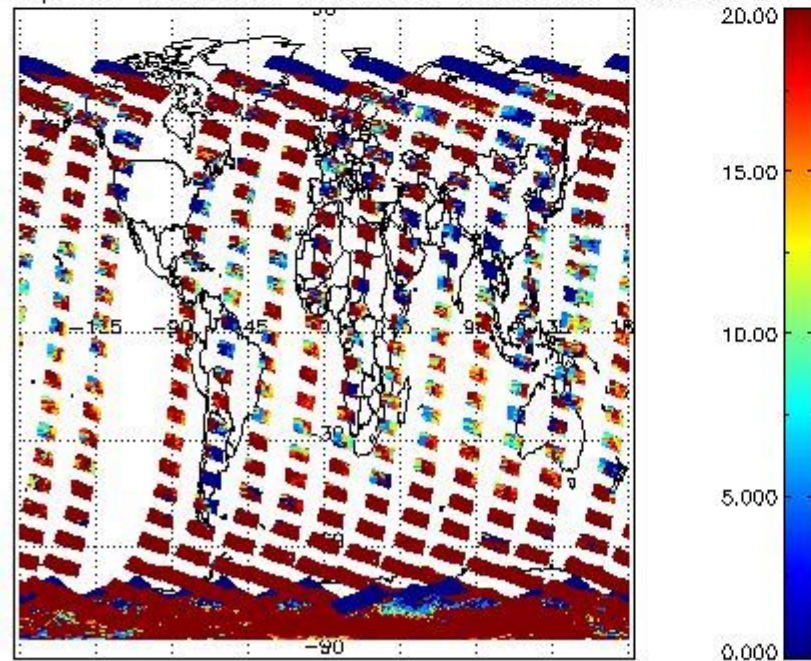
cLfrac for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



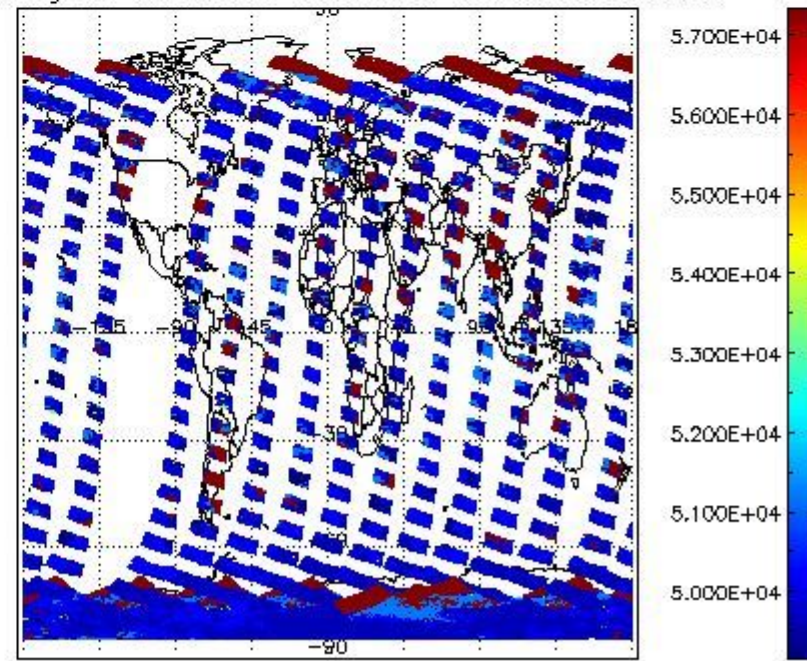
cL\_top\_height for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



cLopt\_depth for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



cloud\_flags for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



## 2.2.2 Nadir

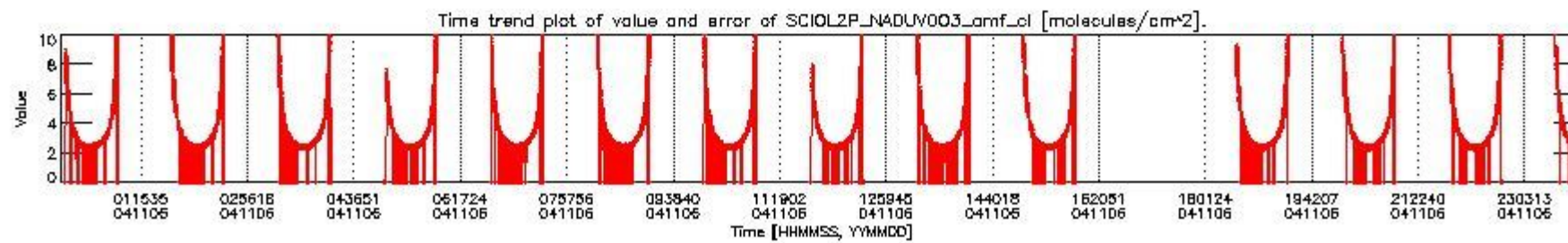
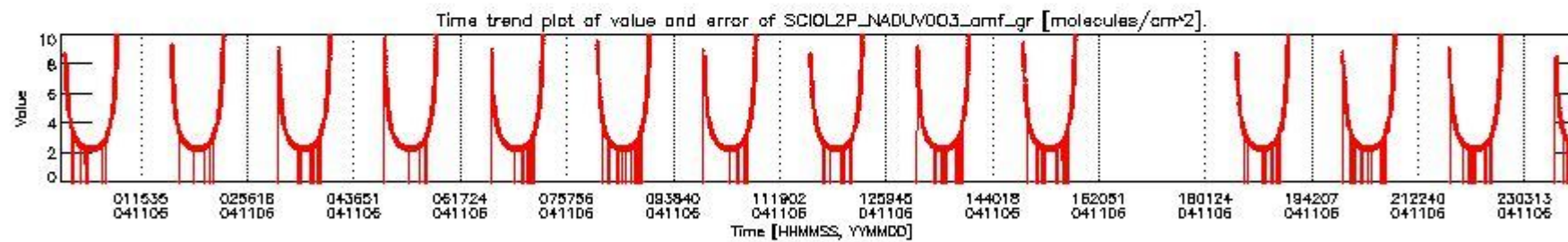
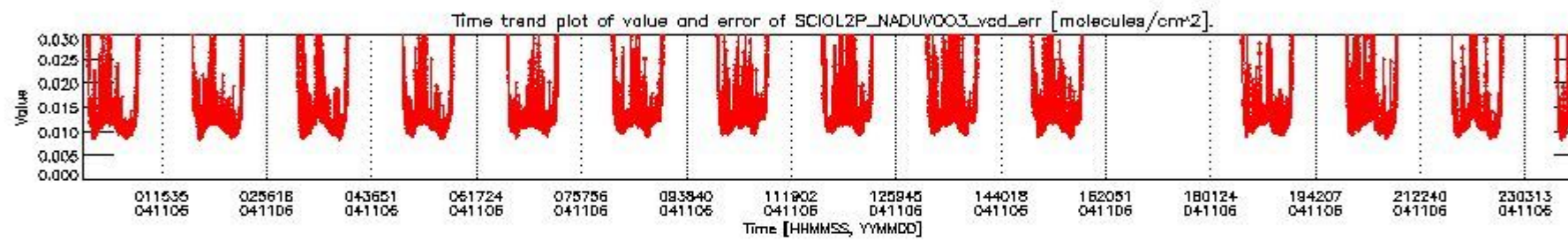
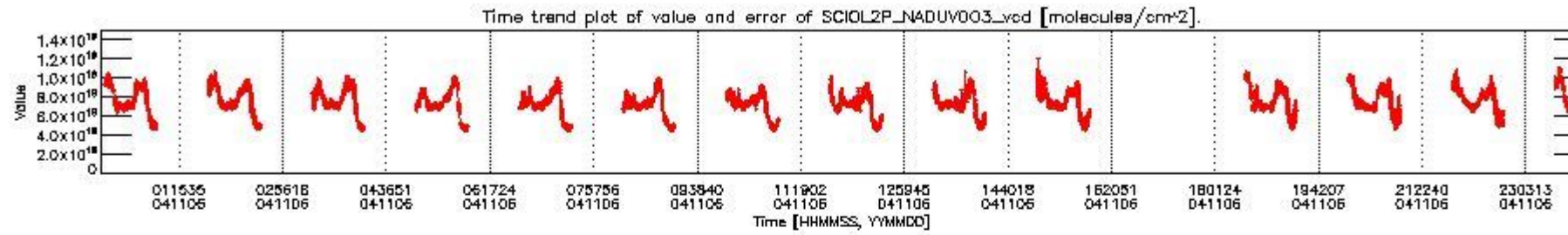
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

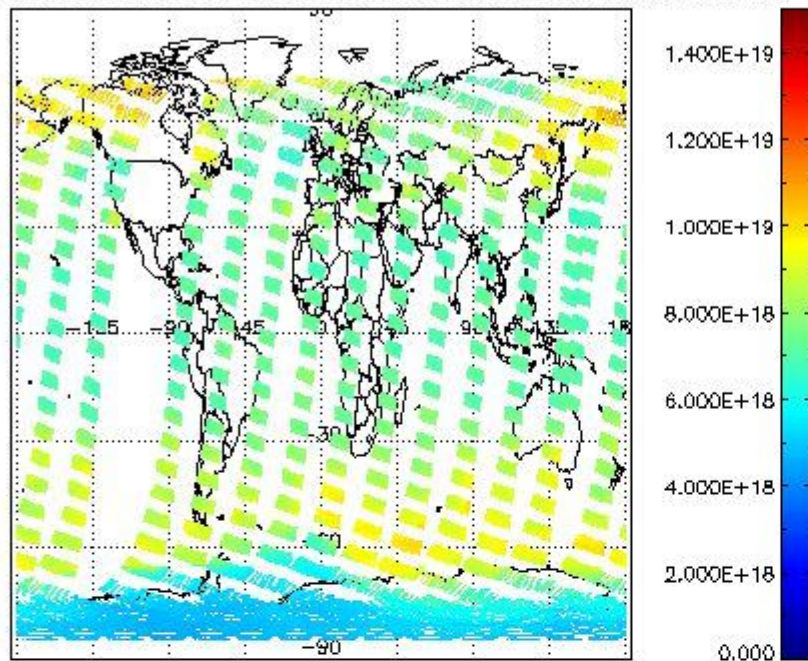
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

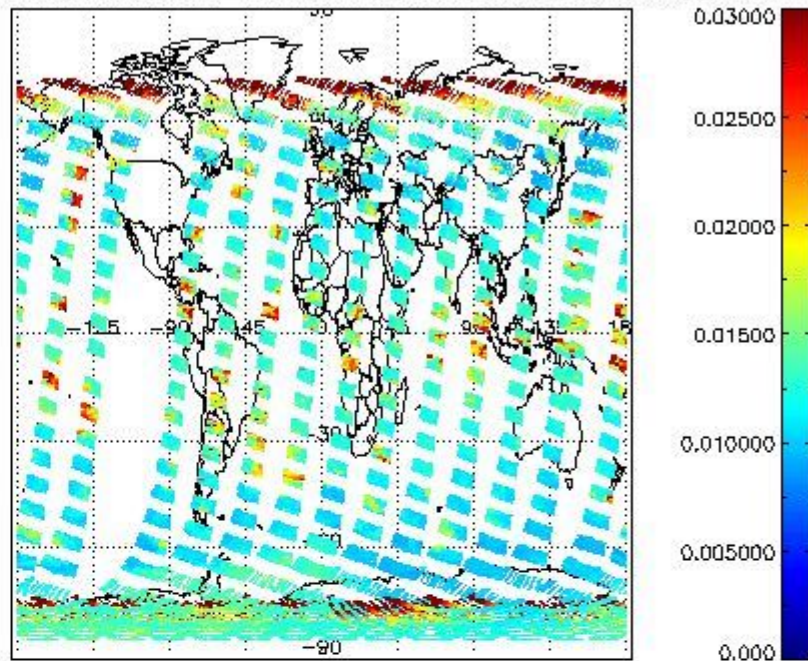
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



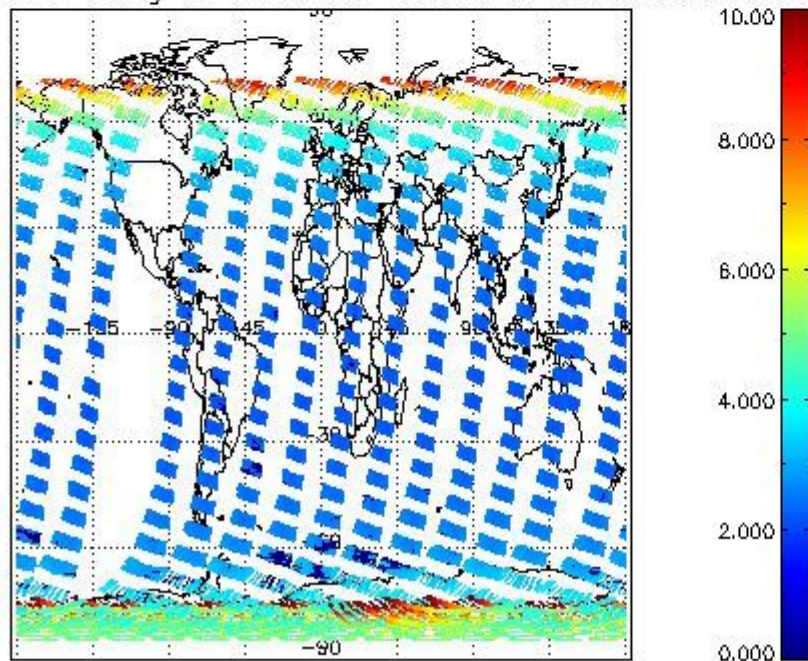
SCIOL2P\_NADUV003\_vcd for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



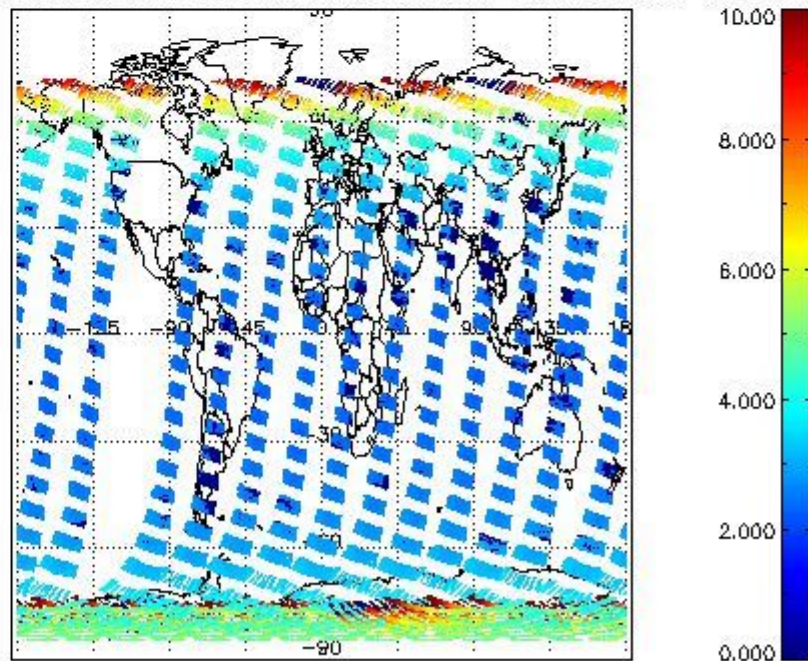
SCIOL2P\_NADUV003\_vcd\_err for 06NOV2004 00:00:00 to 07NOV2004 00:00:00

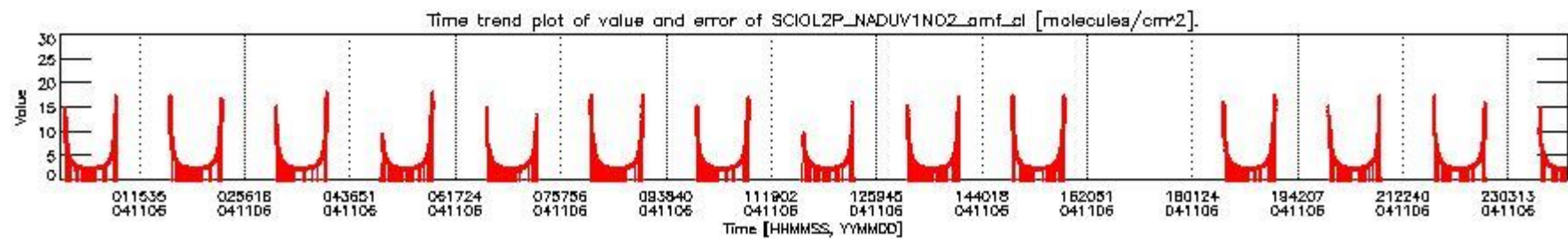
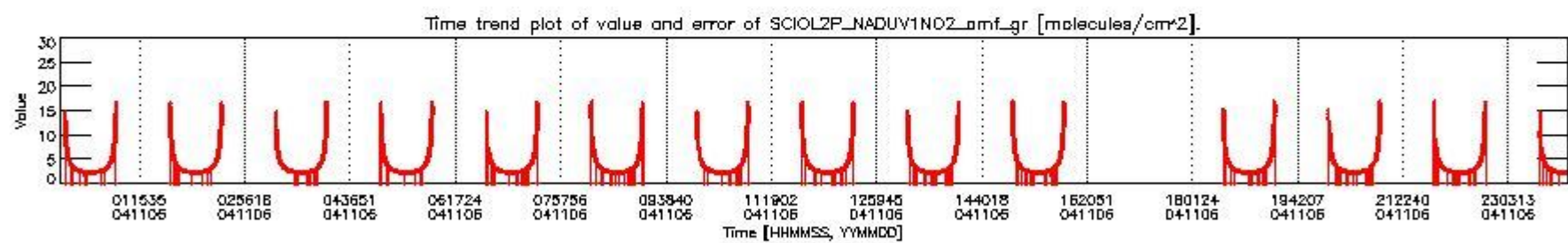
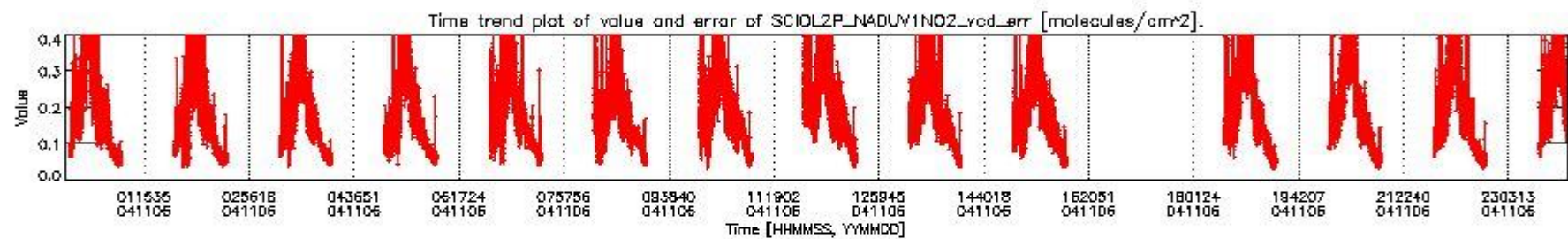
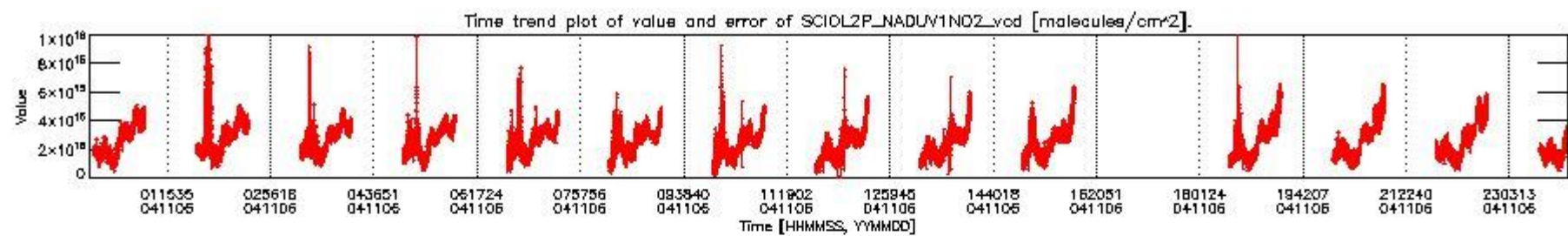


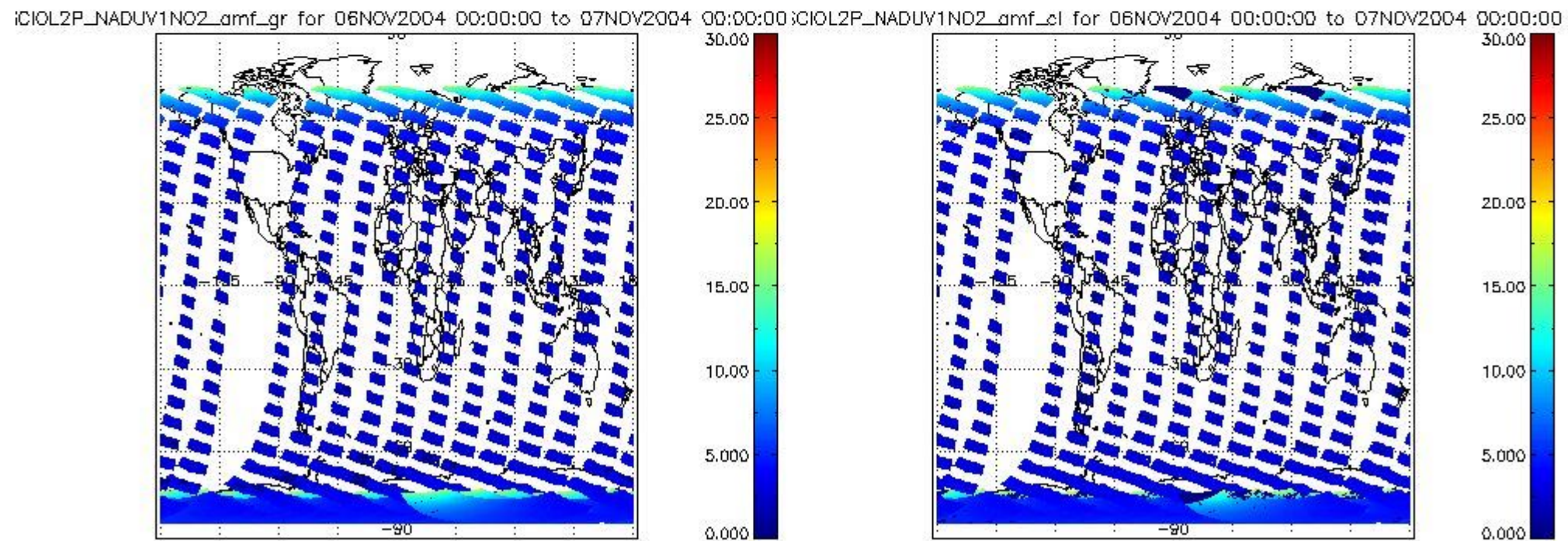
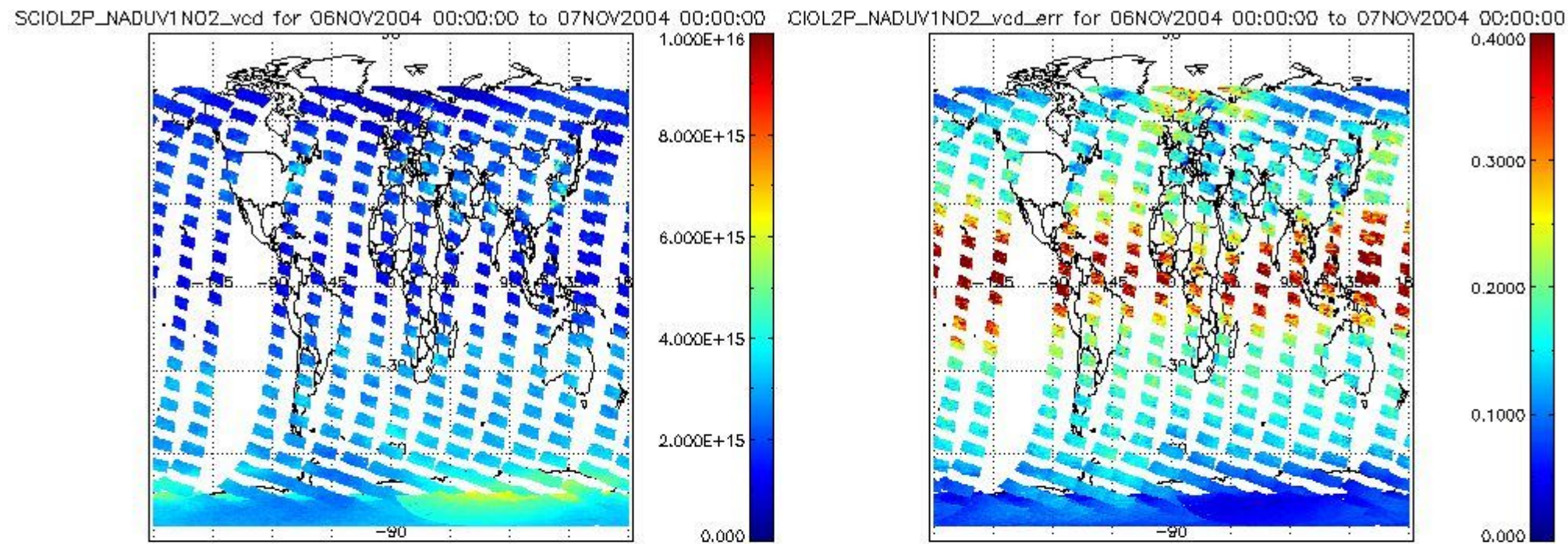
SCIOL2P\_NADUV003\_amf\_gr for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 06NOV2004 00:00:00 to 07NOV2004 00:00:00







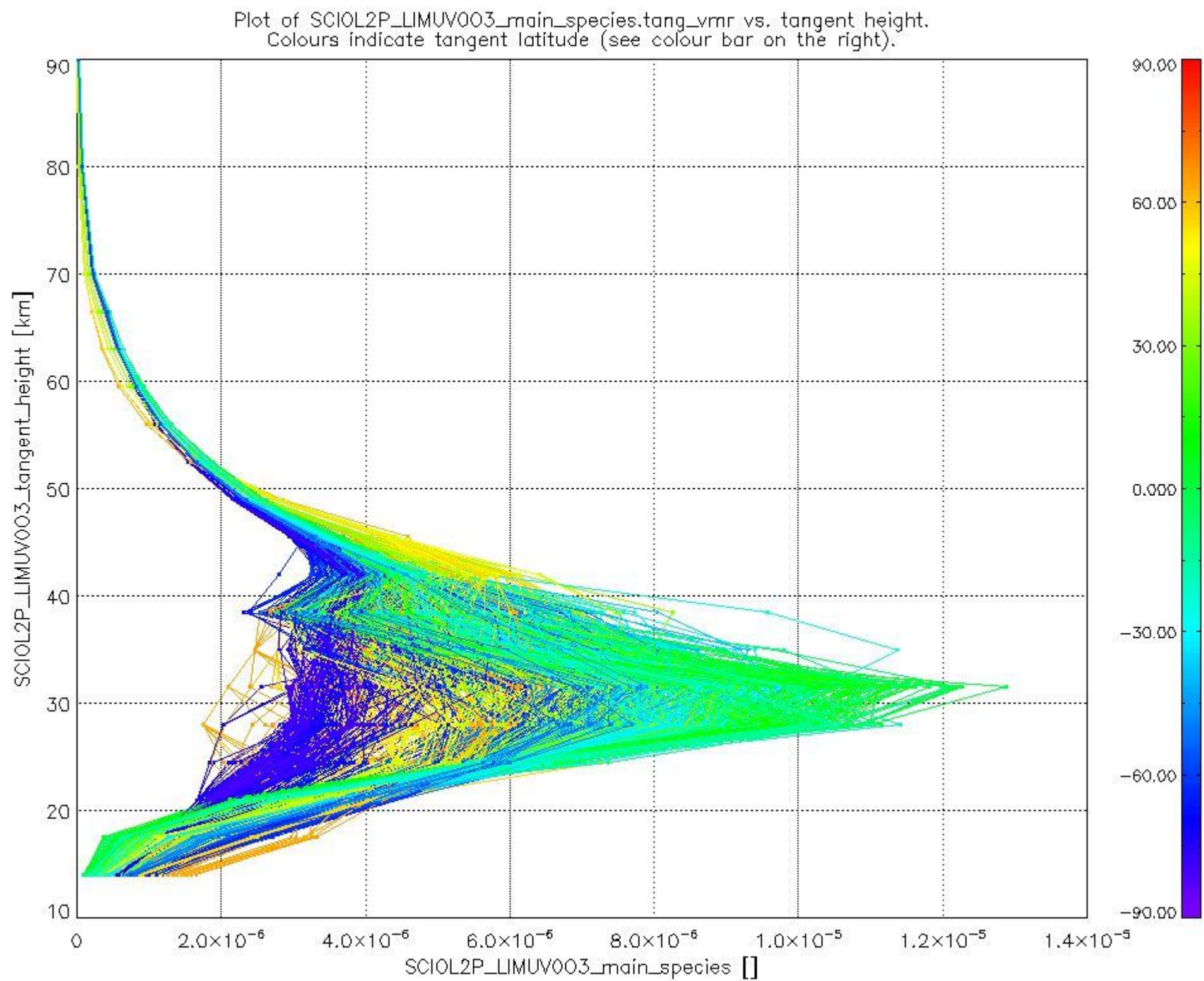
### 2.2.3 Limb

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:

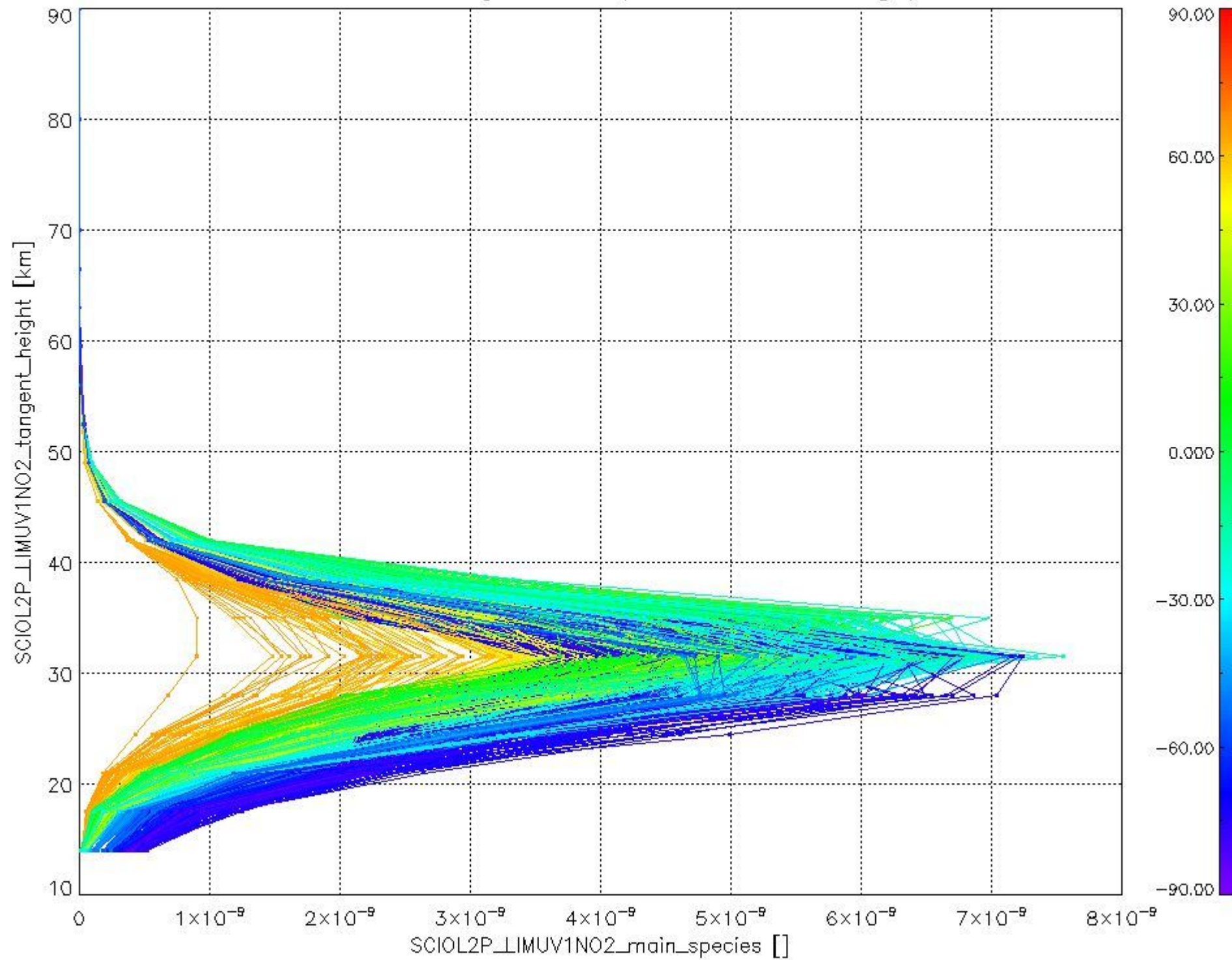
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





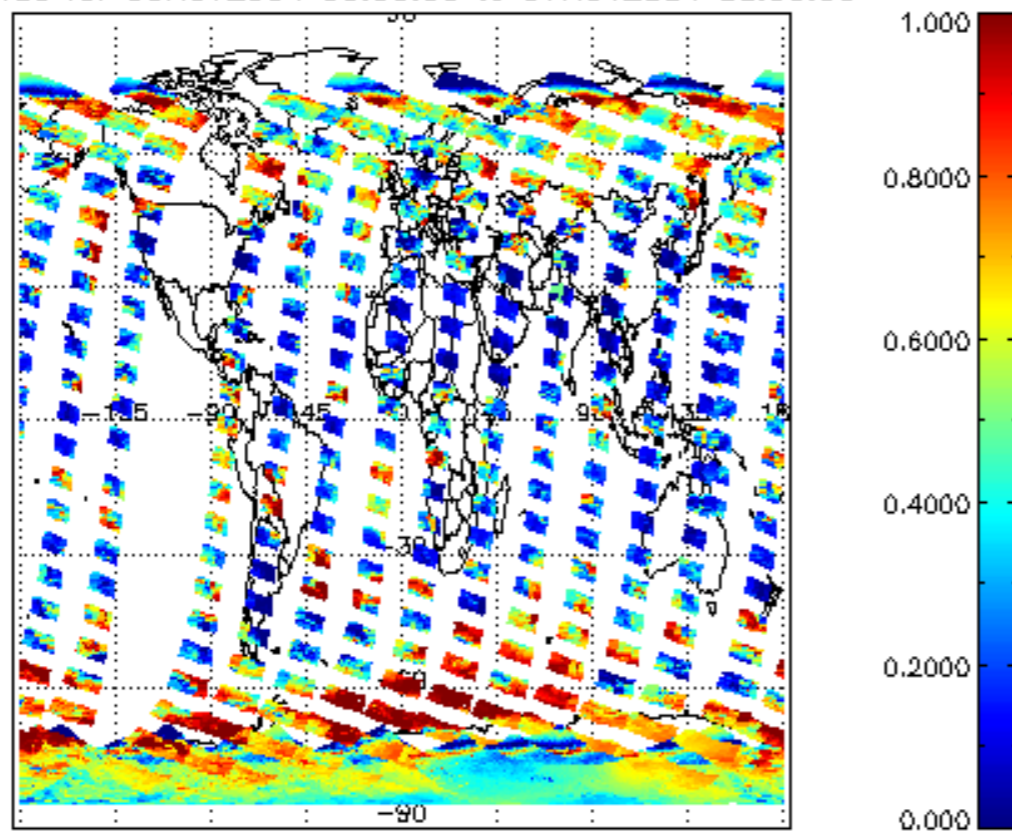
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



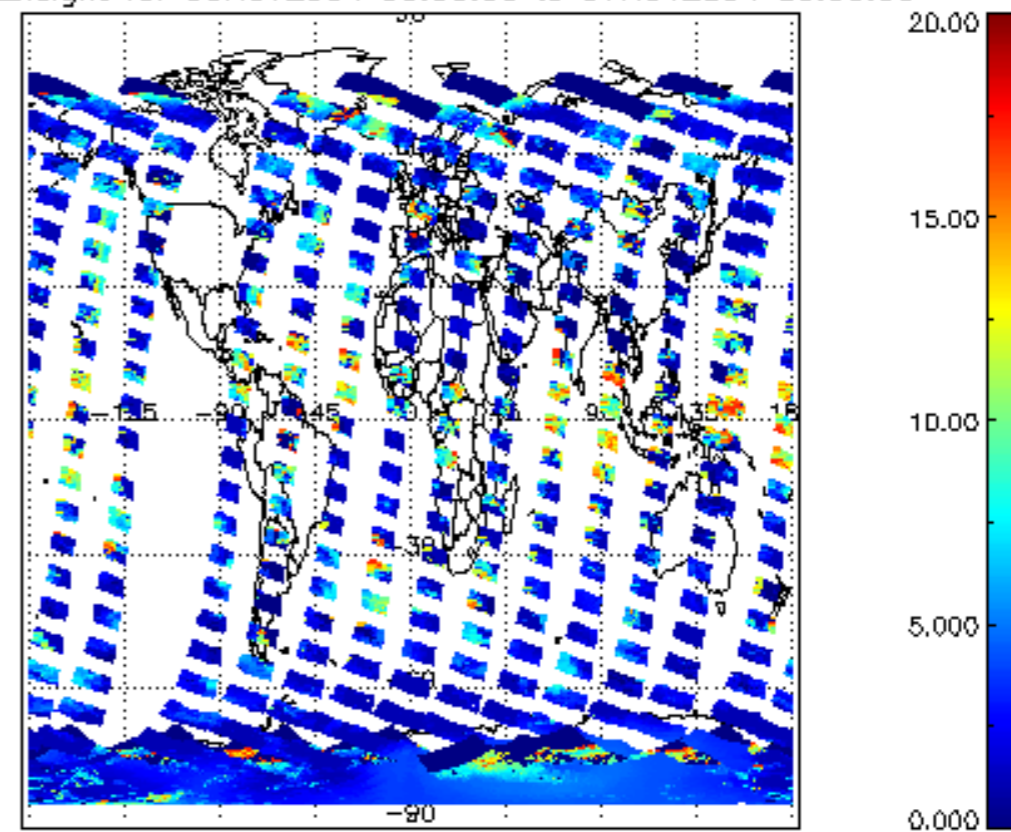
### 2.3 ADF monitoring

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

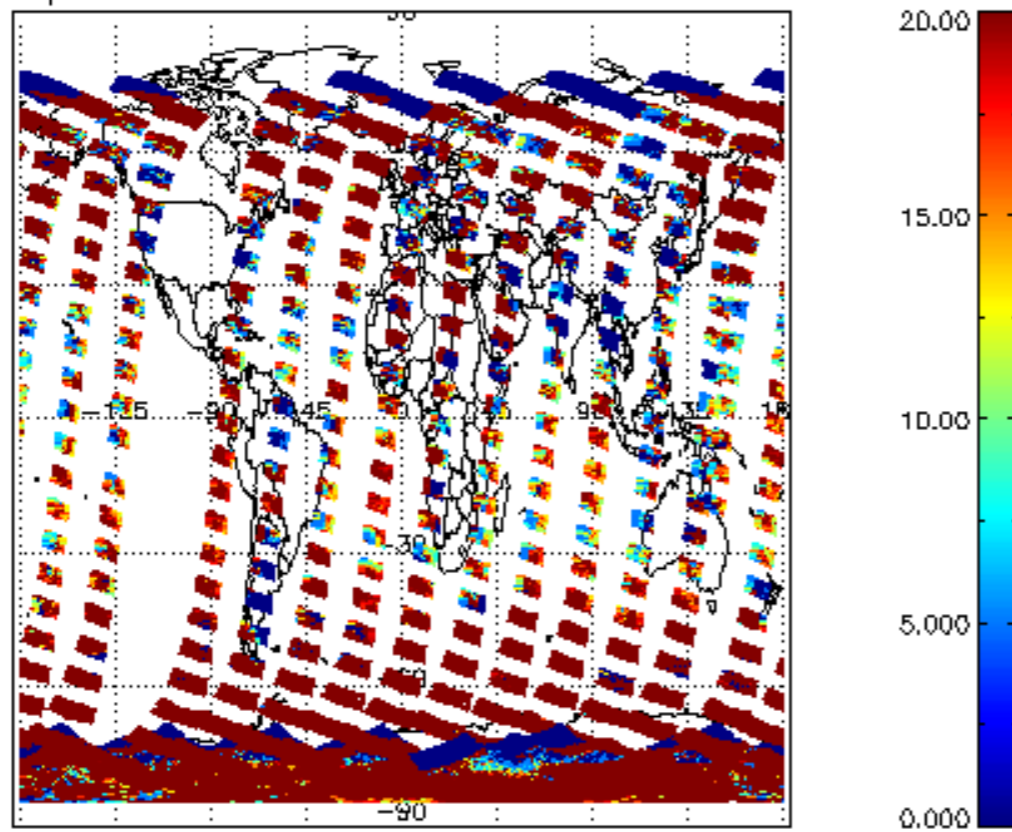
cLfrac for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



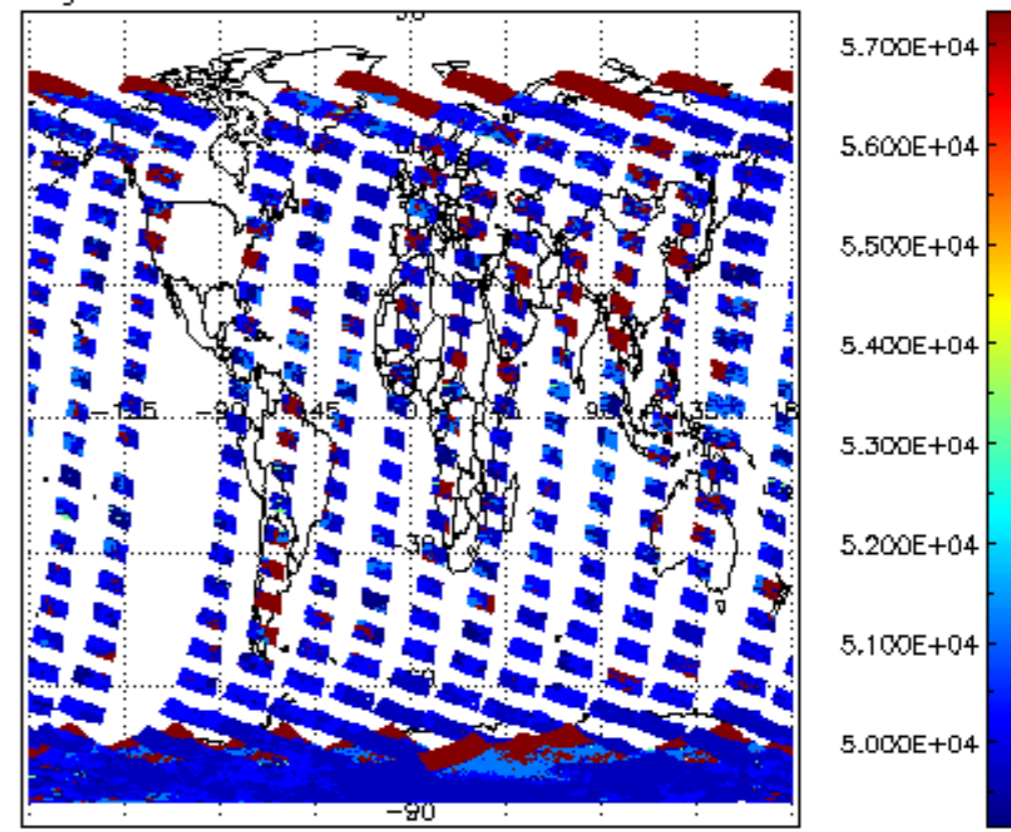
cL\_top\_height for 06NOV2004 00:00:00 to 07NOV2004 00:00:00

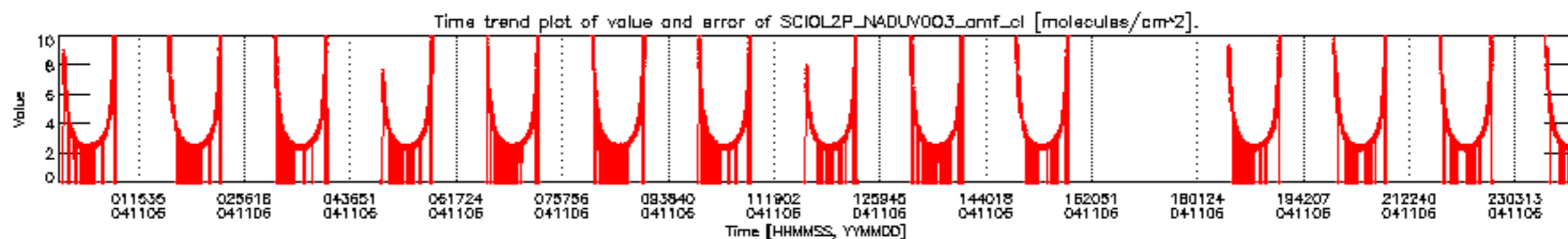
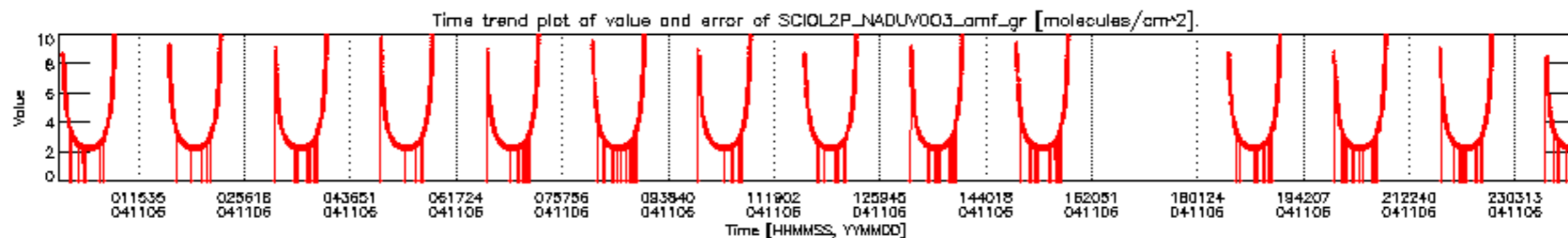
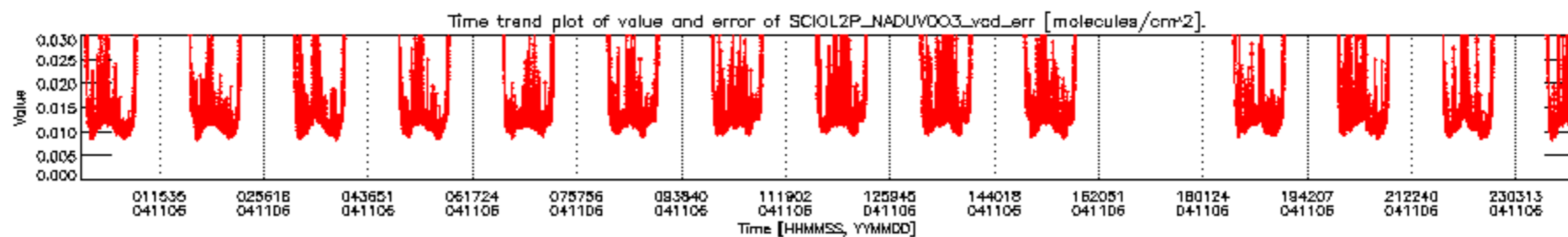
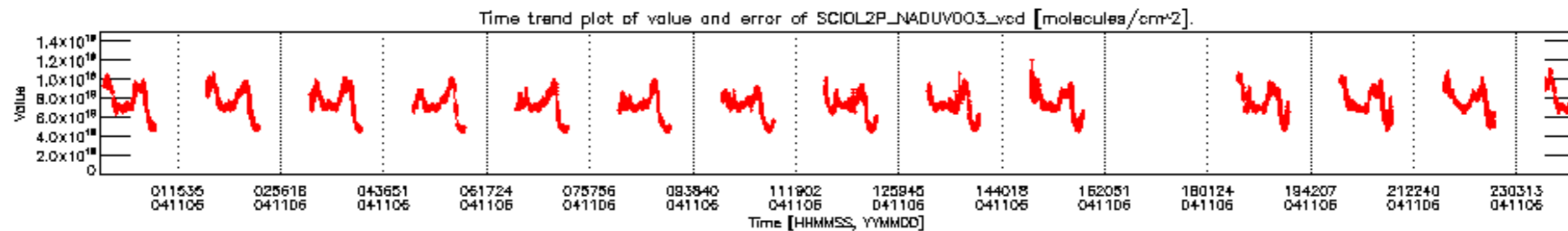


cL\_opt\_depth for 06NOV2004 00:00:00 to 07NOV2004 00:00:00

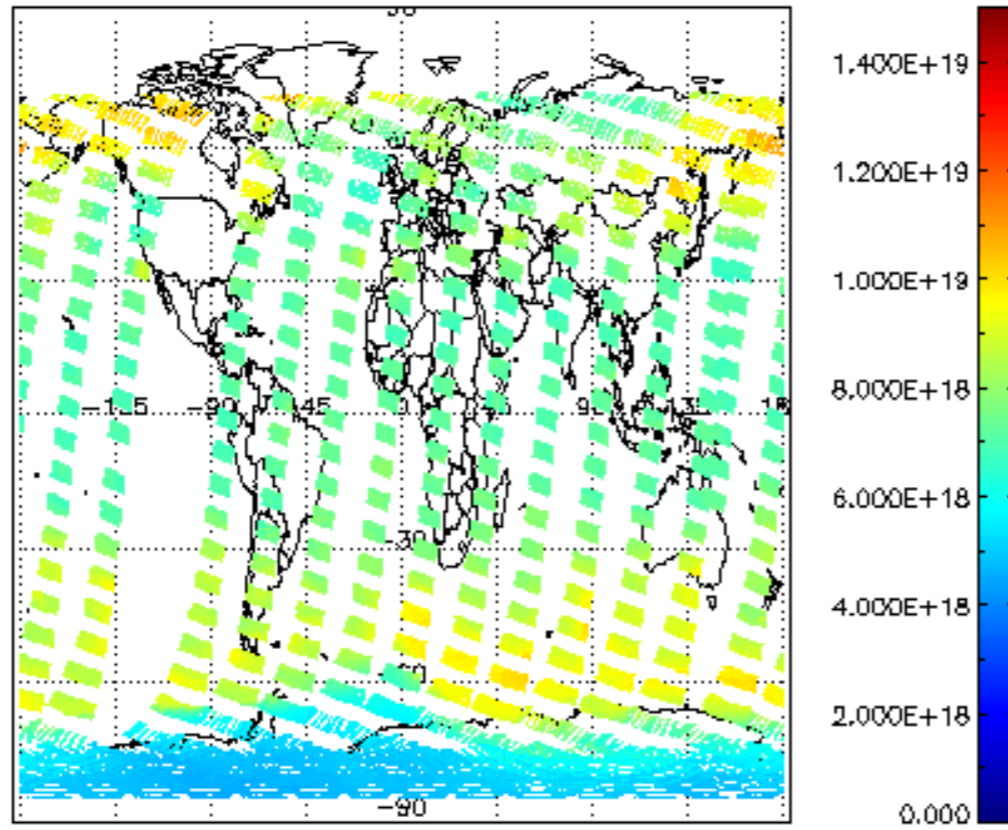


cloud\_flags for 06NOV2004 00:00:00 to 07NOV2004 00:00:00

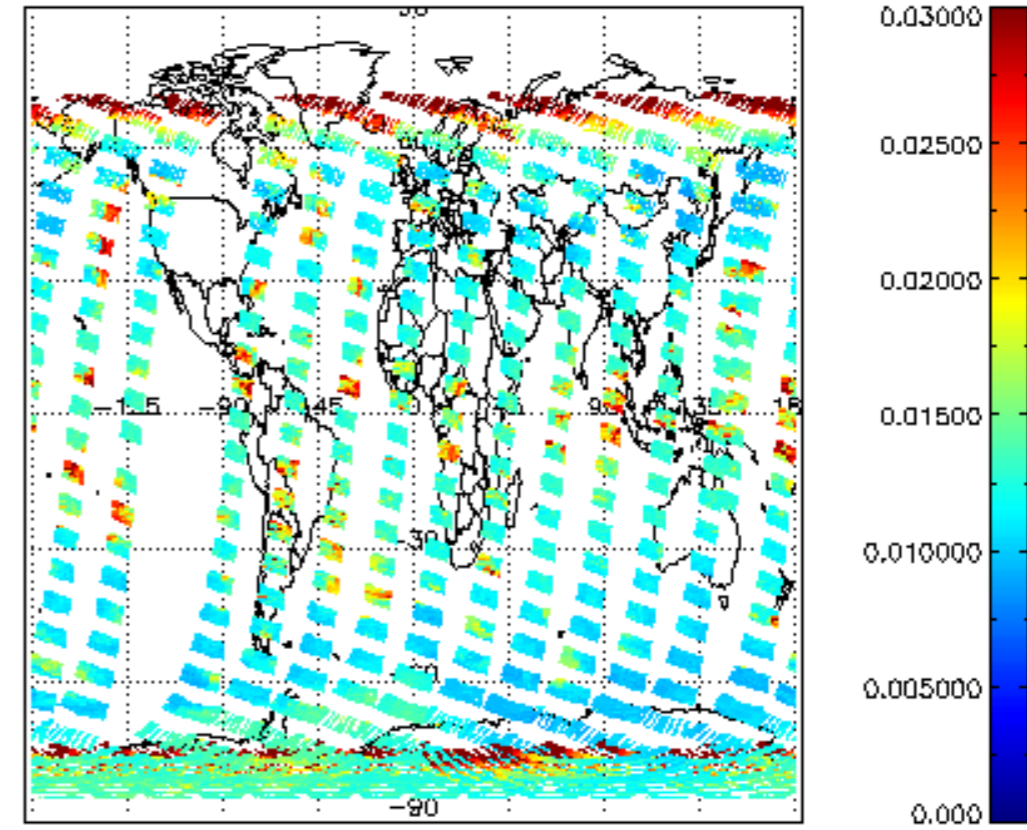




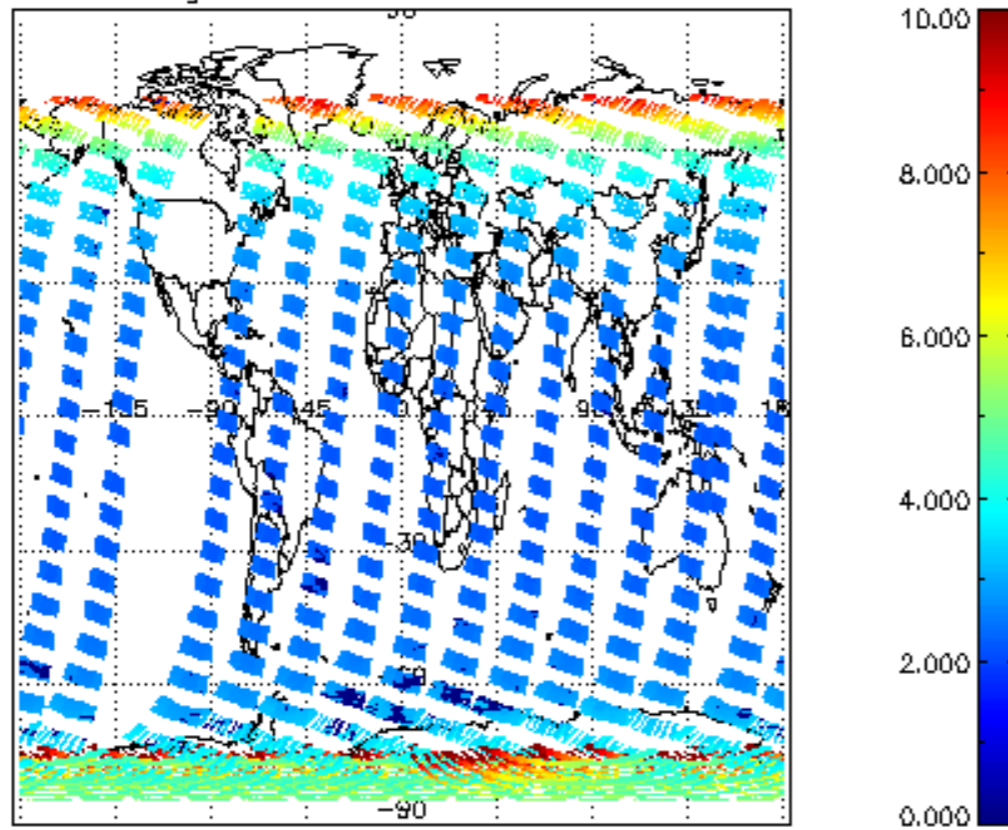
SCIOL2P\_NADUV003\_vcd for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



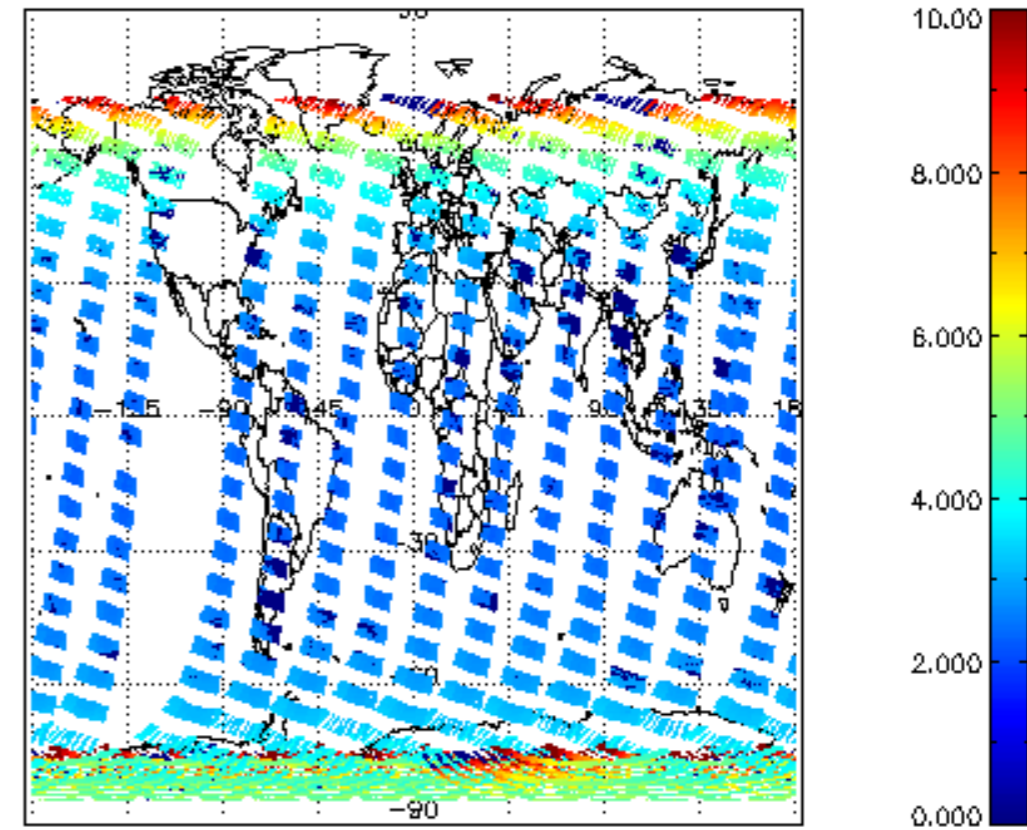
SCIOL2P\_NADUV003\_vcd\_err for 06NOV2004 00:00:00 to 07NOV2004 00:00:00

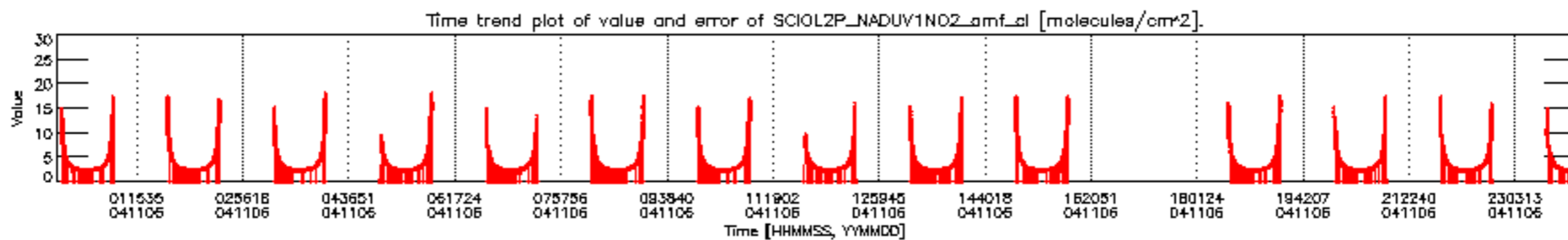
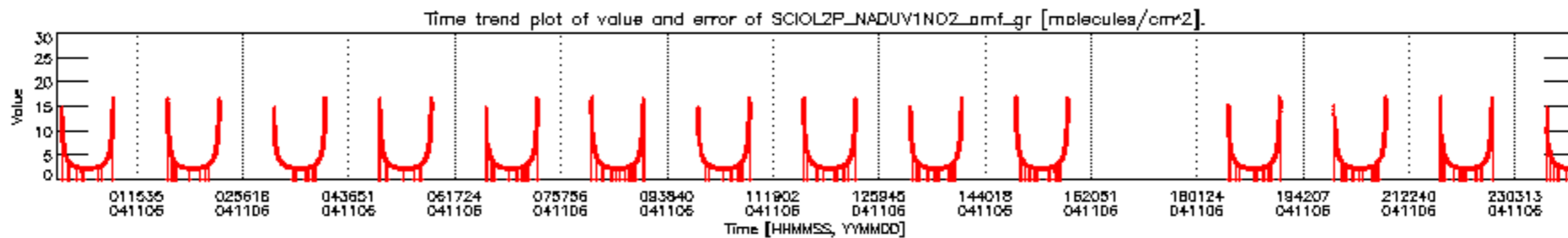
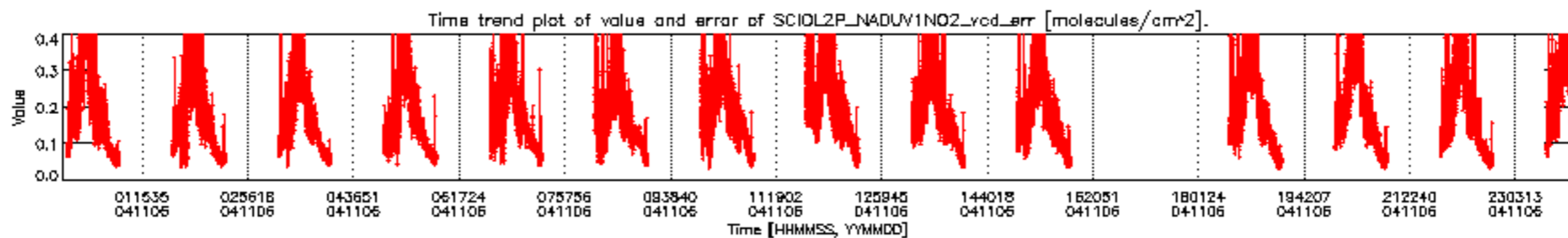
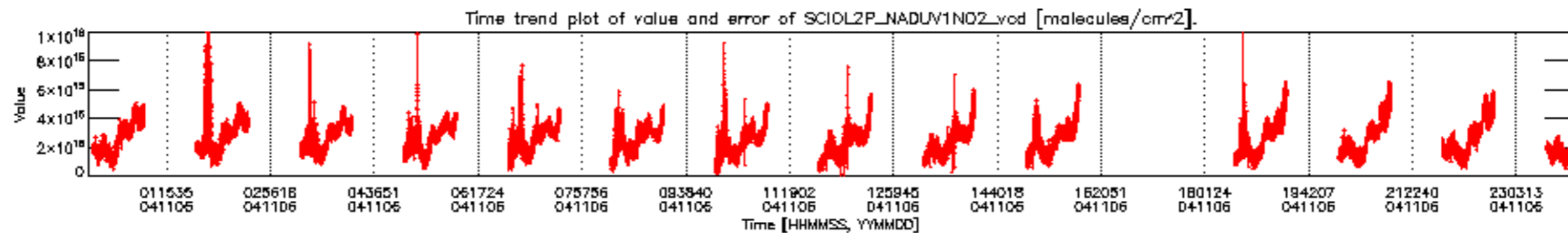


SCIOL2P\_NADUV003\_amf\_gr for 06NOV2004 00:00:00 to 07NOV2004 00:00:00

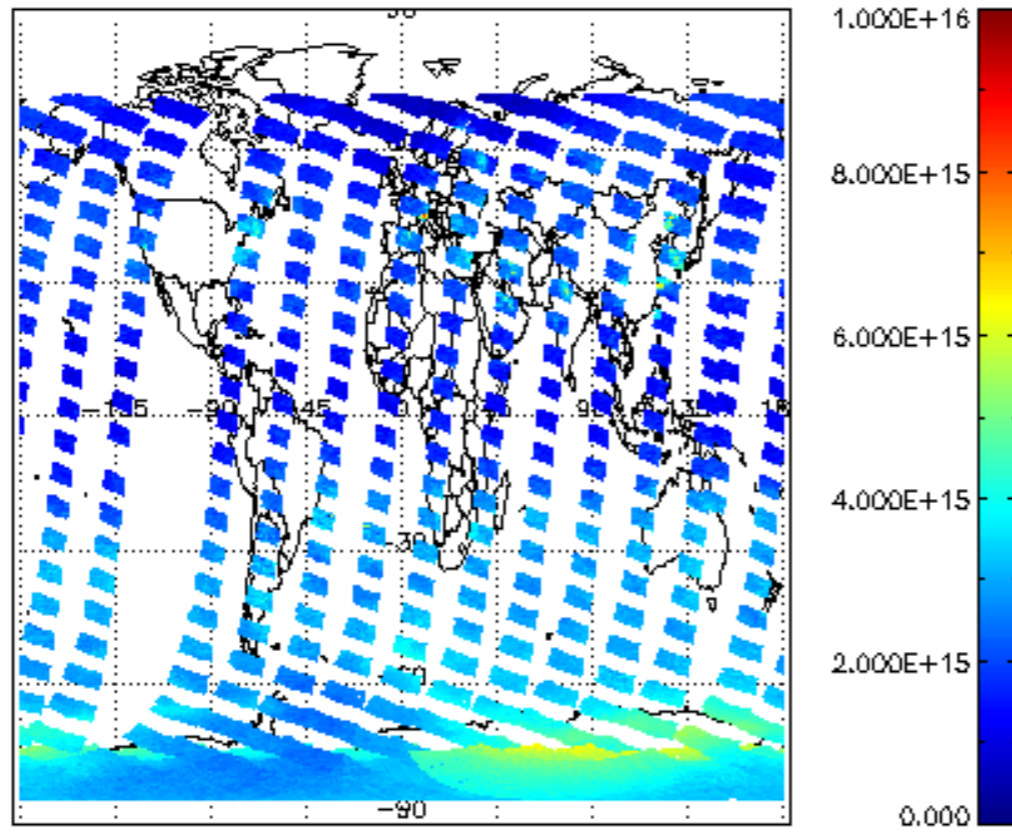


SCIOL2P\_NADUV003\_amf\_cl for 06NOV2004 00:00:00 to 07NOV2004 00:00:00

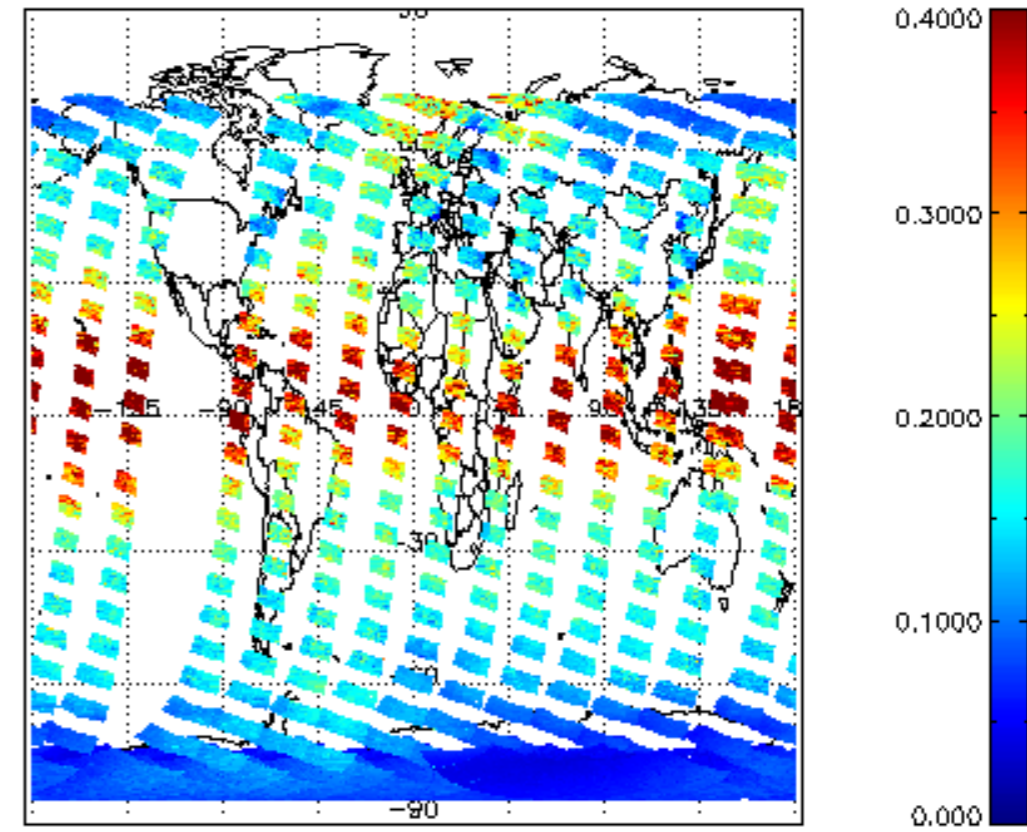




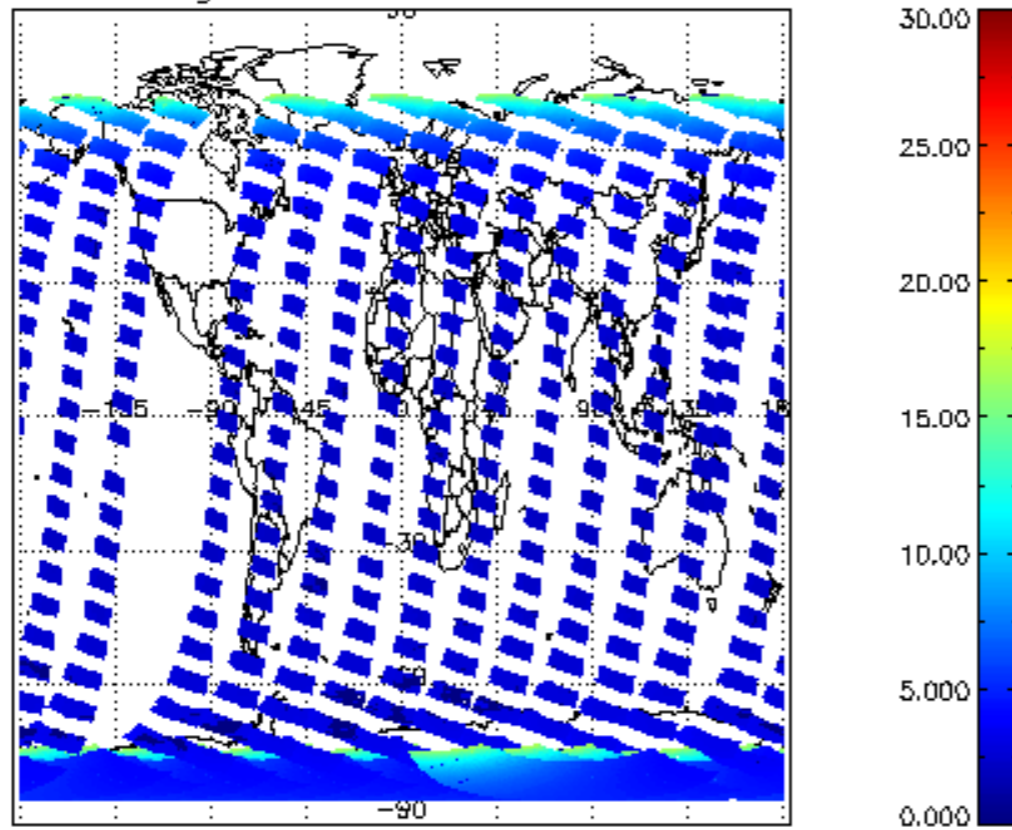
SCIOL2P\_NADUV1NO2\_vcd for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



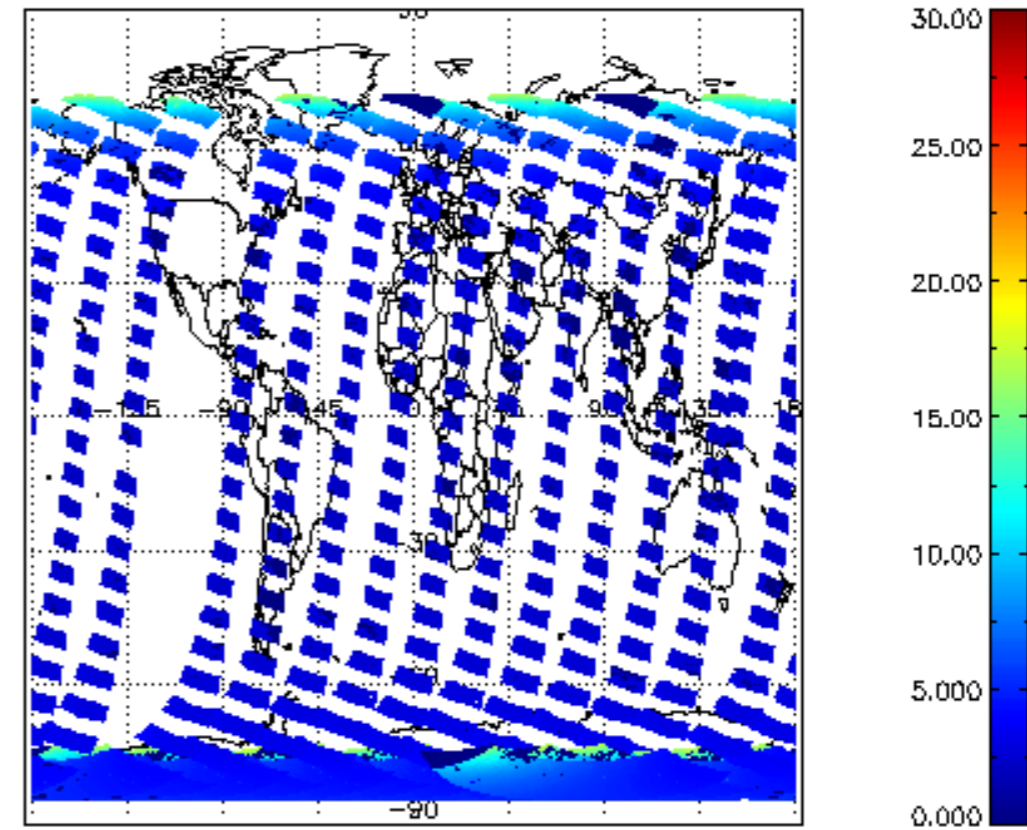
SCIOL2P\_NADUV1NO2\_vcd\_err for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



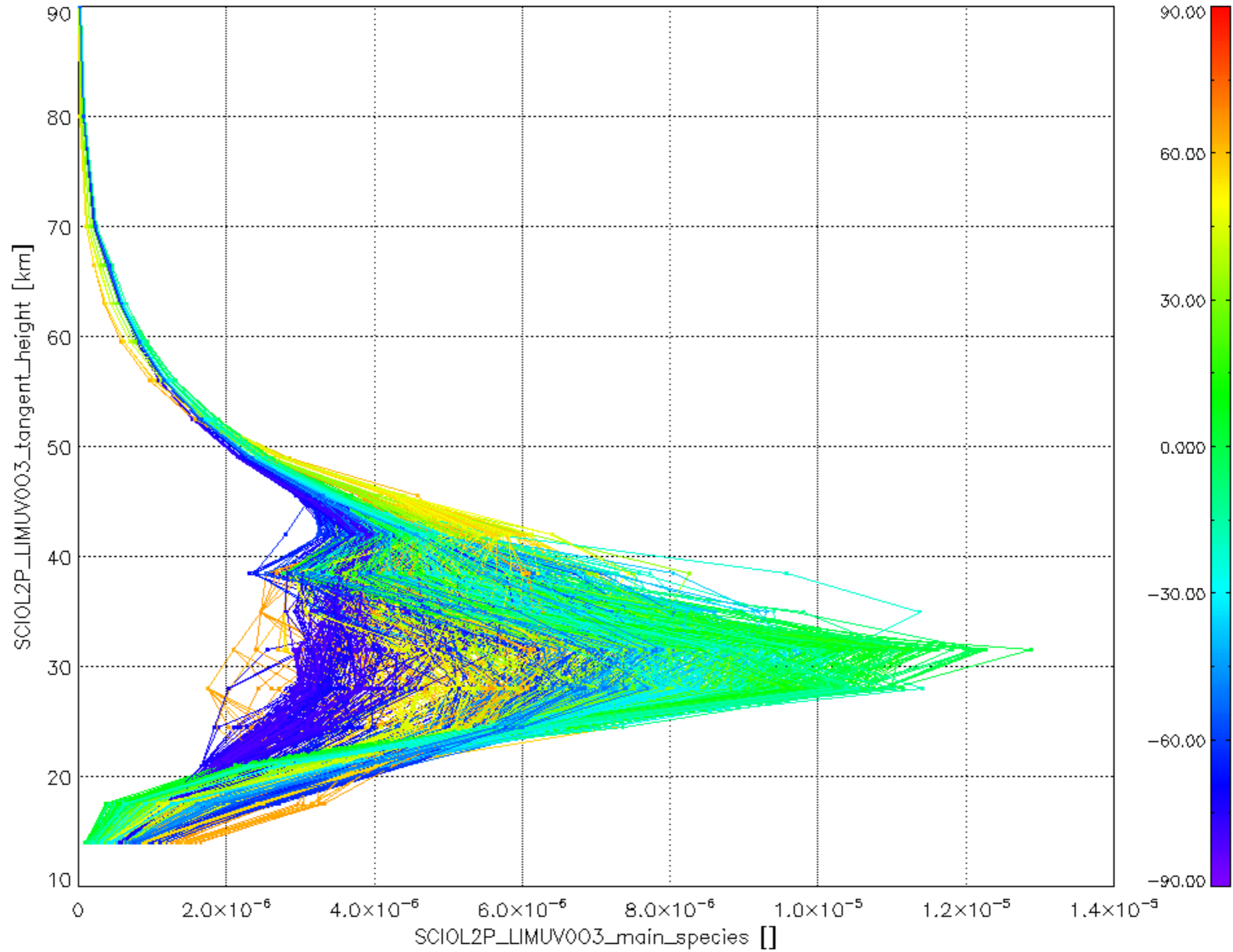
SCIOL2P\_NADUV1NO2\_amf\_gr for 06NOV2004 00:00:00 to 07NOV2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 06NOV2004 00:00:00 to 07NOV2004 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\_LIMUV1N02\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).

