

## 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	19NOV2008 16:24:03
Data source version	SCIA-OL/3.01-R
Processing scope for products	13NOV2004 00:00:00 to 14NOV2004 00:00:00
Start time of first product within scope	13NOV2004 08:02:02
Stop time of last product within scope	13NOV2004 19:01:58
Total number of level 2 products	7
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__2PRDPA20041113_080202_000033252032_00064_14146_0478.N1</a>	13NOV2004 08:02:02	13NOV2004 08:57:27	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20041113_094238_000033812032_00065_14147_0604.N1</a>	13NOV2004 09:42:38	13NOV2004 10:39:00	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20041113_112314_000033252032_00066_14148_0500.N1</a>	13NOV2004 11:23:14	13NOV2004 12:18:40	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20041113_130351_000033812032_00067_14149_0498.N1</a>	13NOV2004 13:03:51	13NOV2004 14:00:12	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20041113_144427_000033252032_00068_14150_0461.N1</a>	13NOV2004 14:44:27	13NOV2004 15:39:52	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20041113_162503_000033812032_00069_14151_0581.N1</a>	13NOV2004 16:25:03	13NOV2004 17:21:25	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20041113_180532_000033862032_00070_14152_0543.N1</a>	13NOV2004 18:05:32	13NOV2004 19:01:58	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: 73580

Total number of cloud data DSRs with good quality flag (=0): 73580 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	73580	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	73580	0.16961	0.12500	0.12500	0.25000	0.059886	s

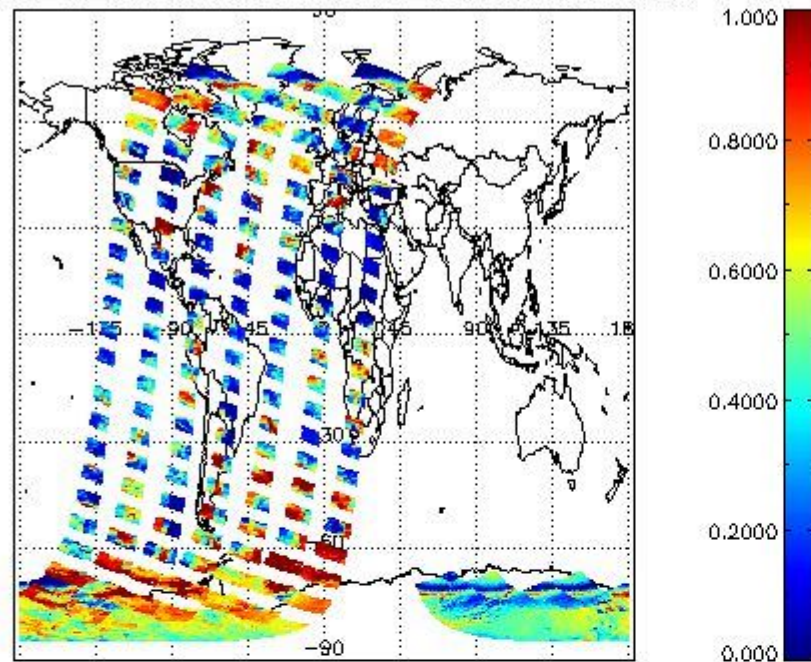
CL_FRAC	73580	0.45449	0.44995	0.0000	1.0000	0.28612	-
CL_FRAC_ERR	73580	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	73580	5.4276	4.0000	4.0000	8.0000	1.9163	
PMD_READ_CL[0]	73580	0.40694	0.0000	0.0000	8.0000	1.4752	-
PMD_READ_CL[1]	73580	0.40519	0.0000	0.0000	8.0000	1.3609	-
CL_TOP_HEIGHT	62844	4.6836	3.2234	0.0000	17.000	4.2633	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	62844	52.529	39.507	0.0000	101.00	39.524	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	73580	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	73580	11001000	11000100	11000000	11100000	2995.1	flags
AERO_ABSO_IND	73580	0.55646	0.21861	-4.7177	6.4528	0.96530	
AERO_IND_DIAG	73580	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	73580	01010110	00000000	00000000	11000000	24467.	flags

### Time and geolocation plots:

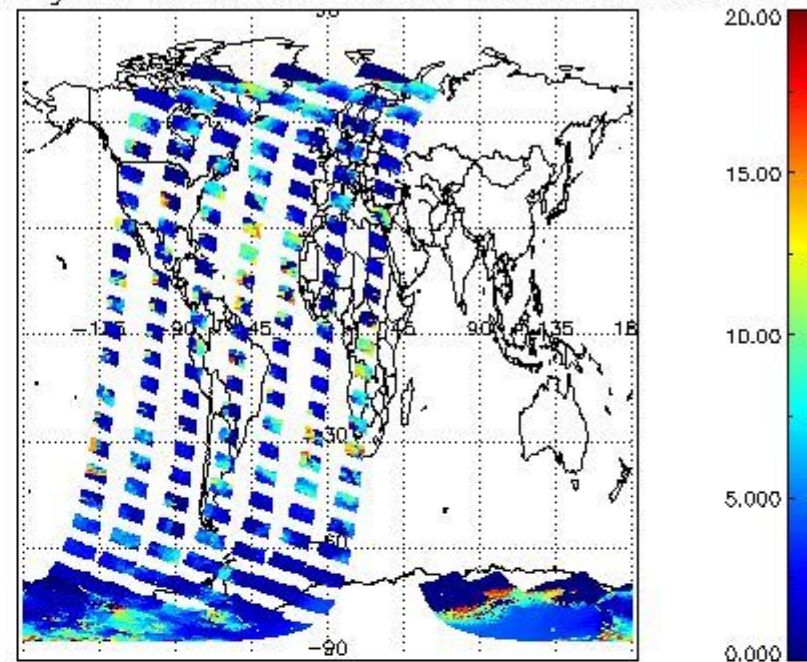
Plots are available for the following parameters:

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

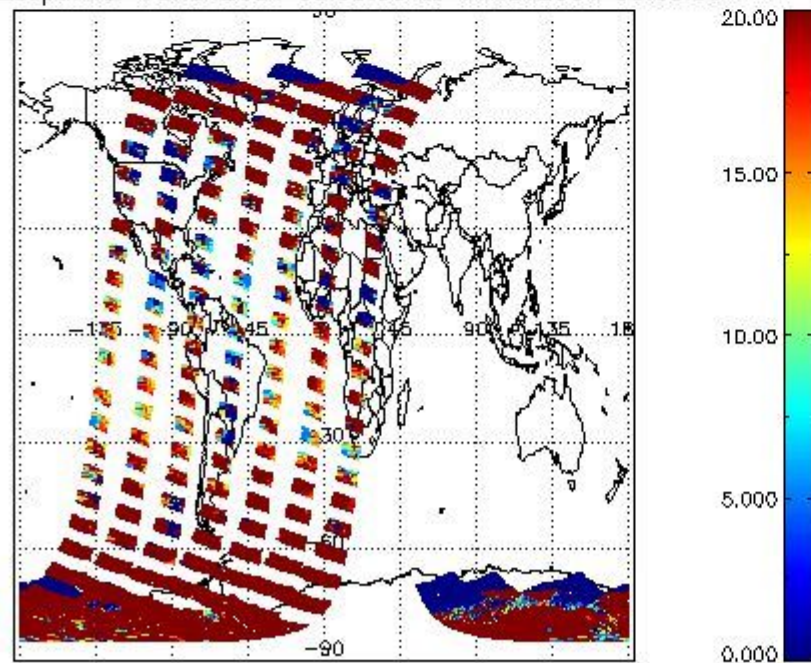
cLfrac for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



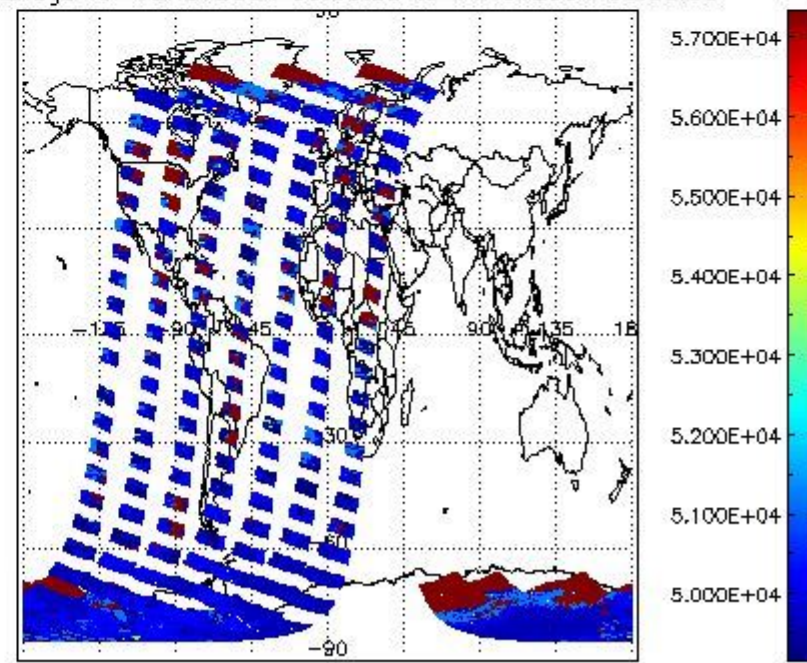
cL\_top\_height for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



cLopt\_depth for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



cloud\_flags for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



## 2.2.2 Nadir

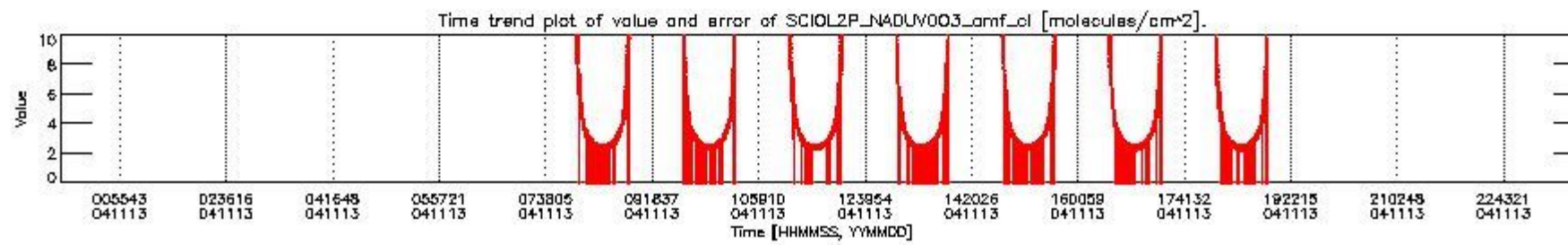
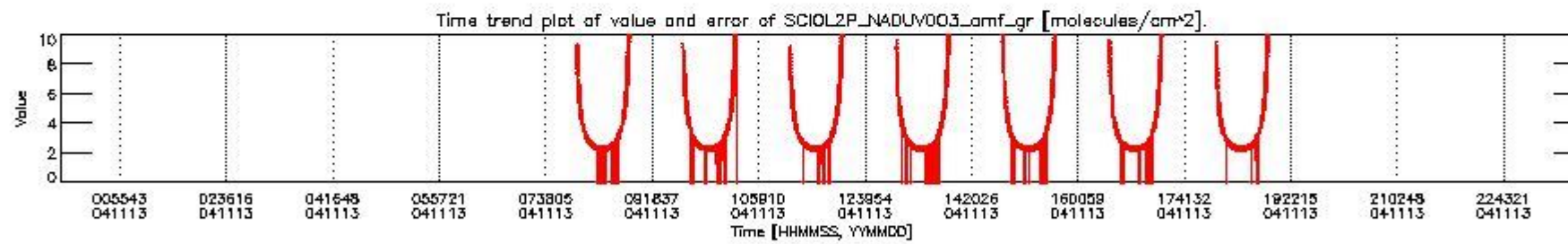
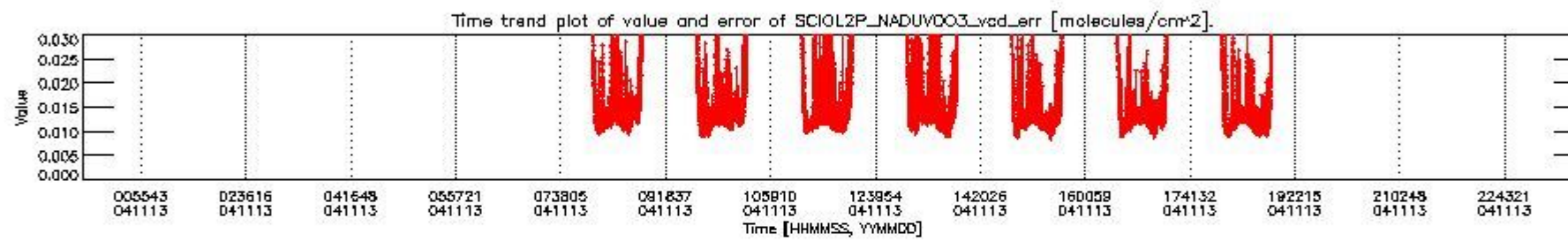
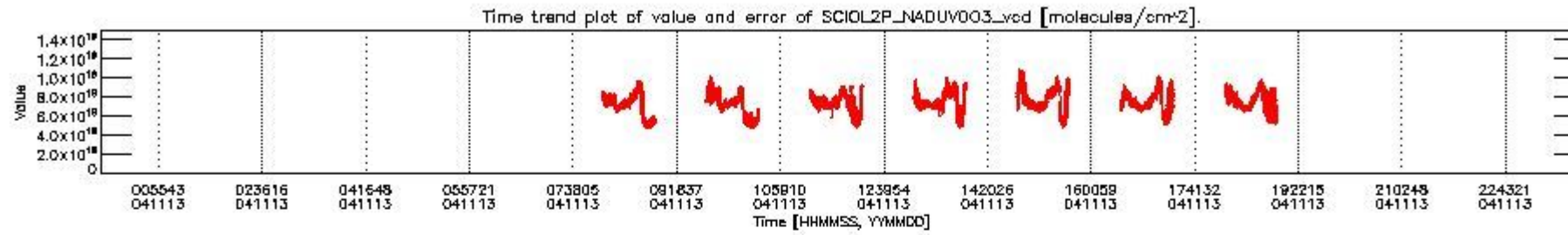
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

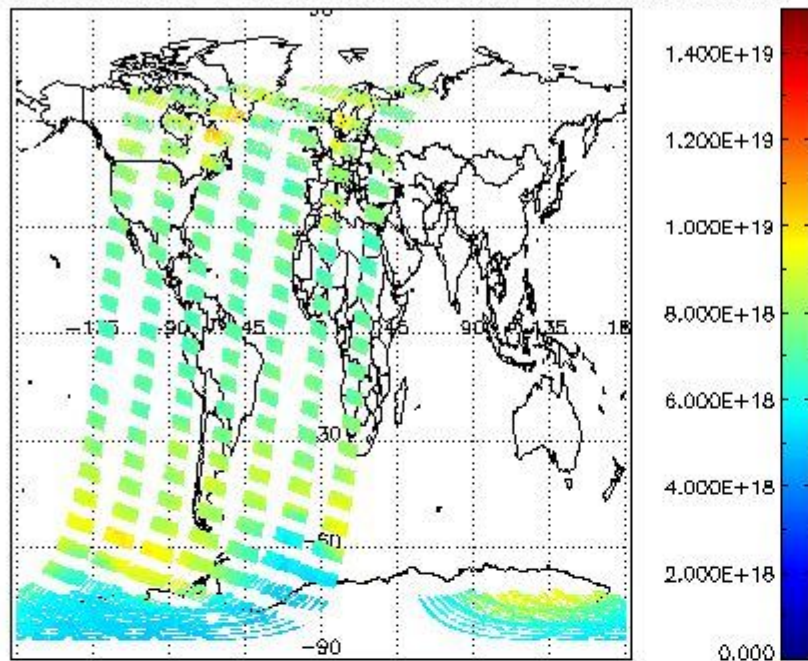
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

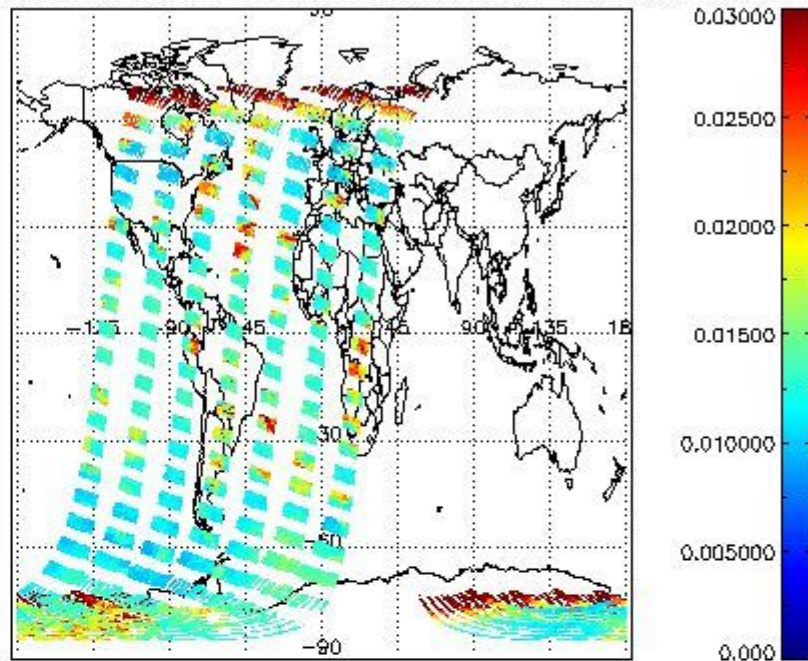
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



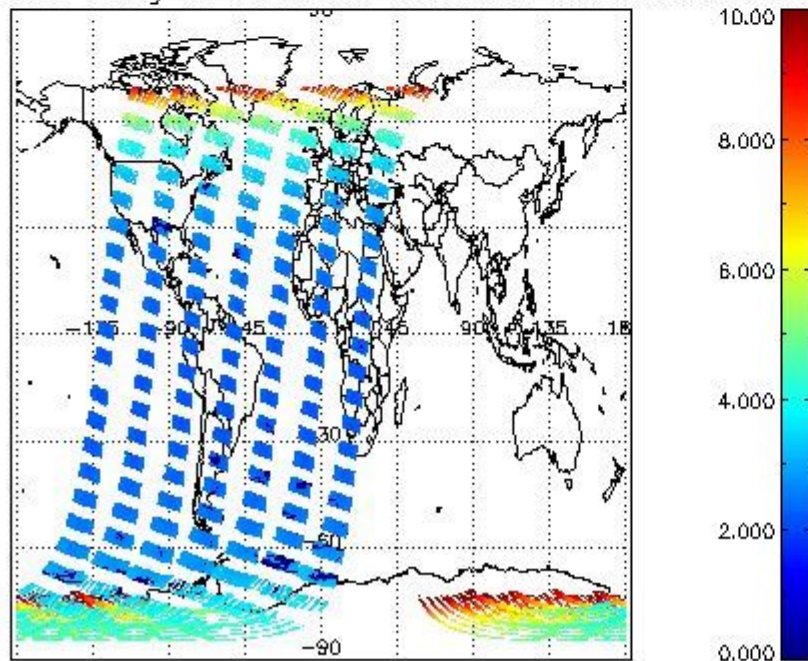
SCIOL2P\_NADUV003\_vcd for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



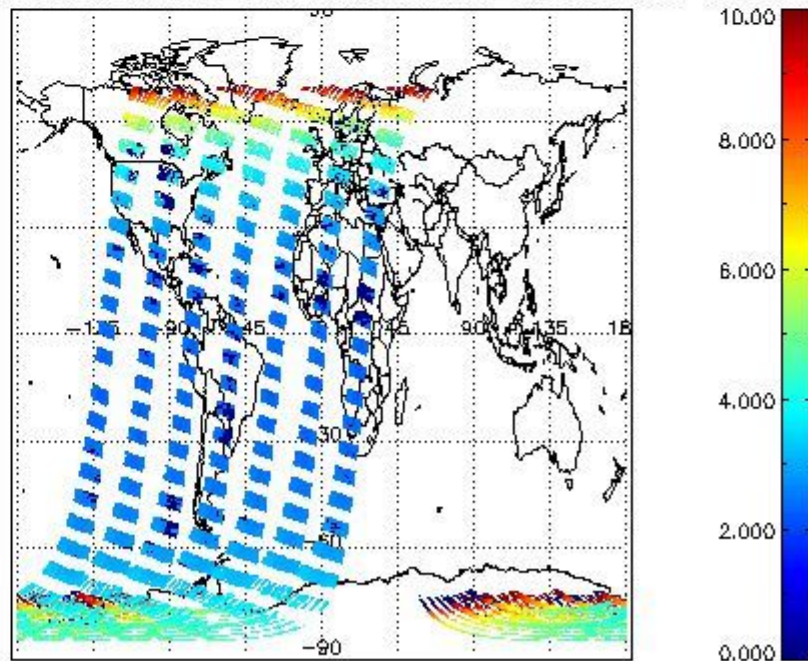
SCIOL2P\_NADUV003\_vcd\_err for 13NOV2004 00:00:00 to 14NOV2004 00:00:00

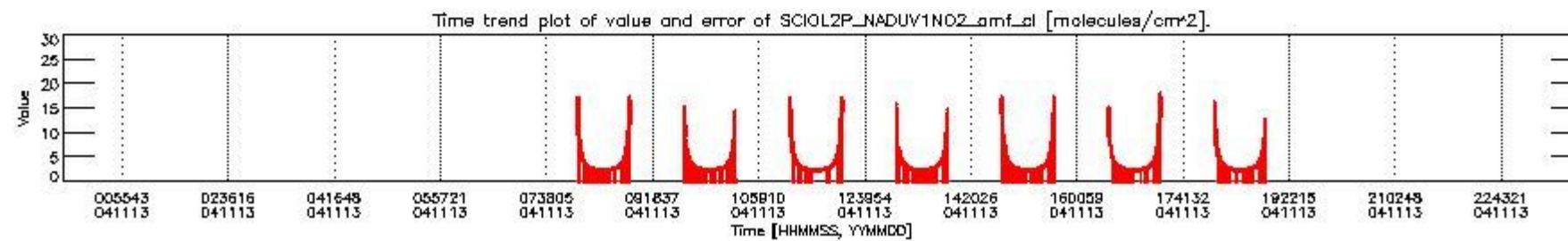
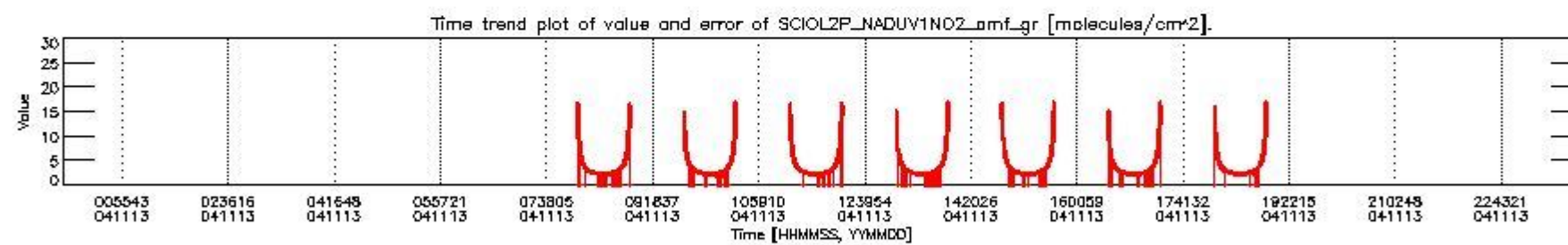
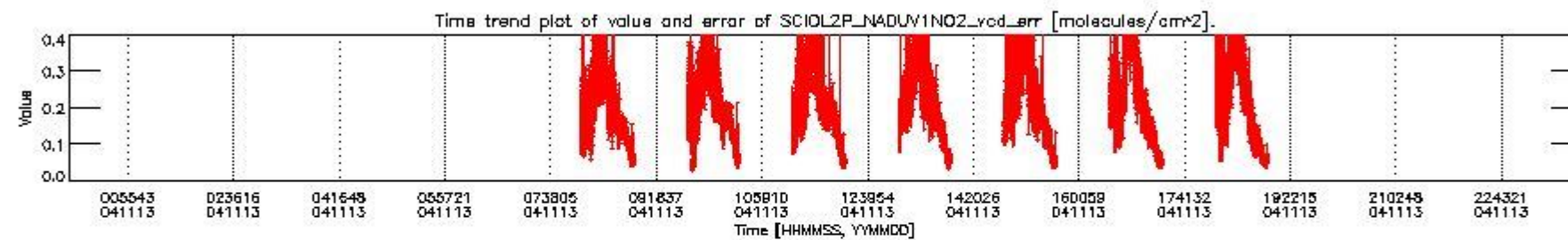
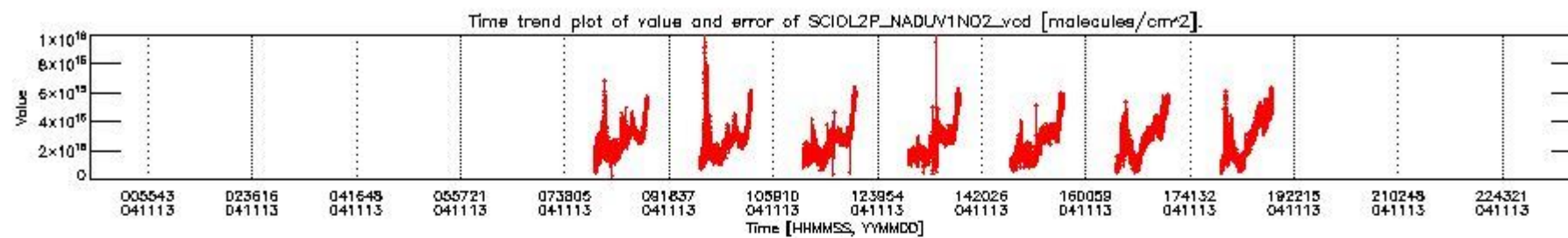


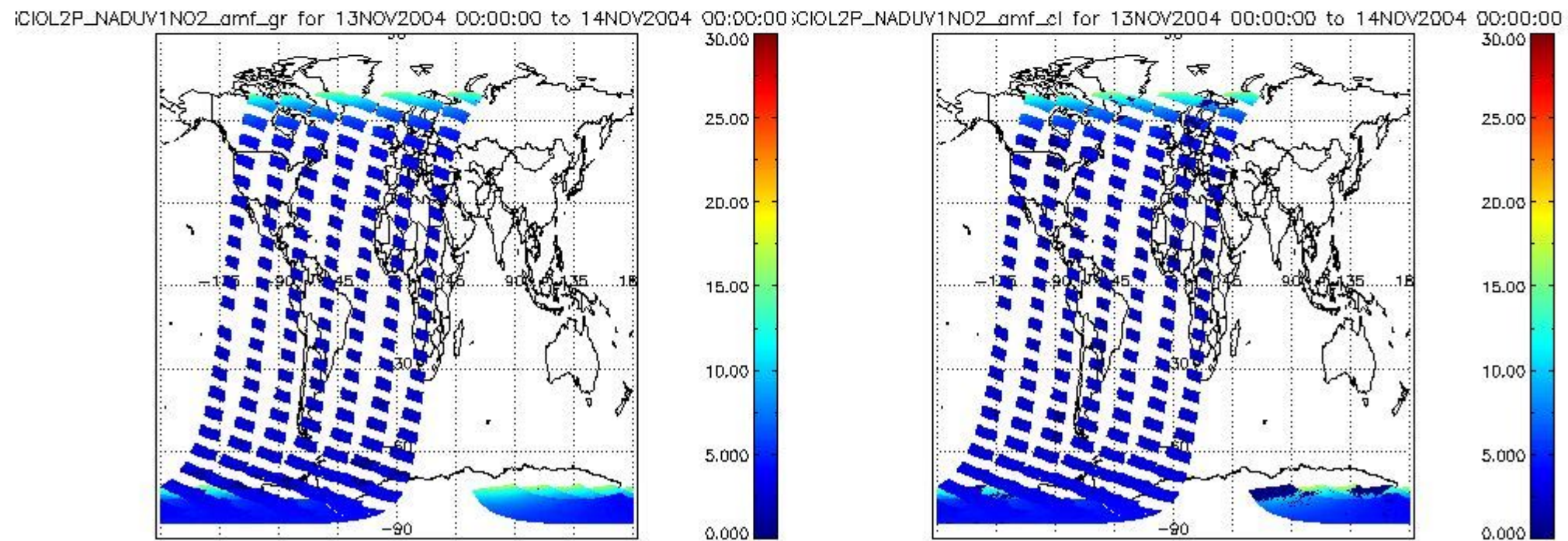
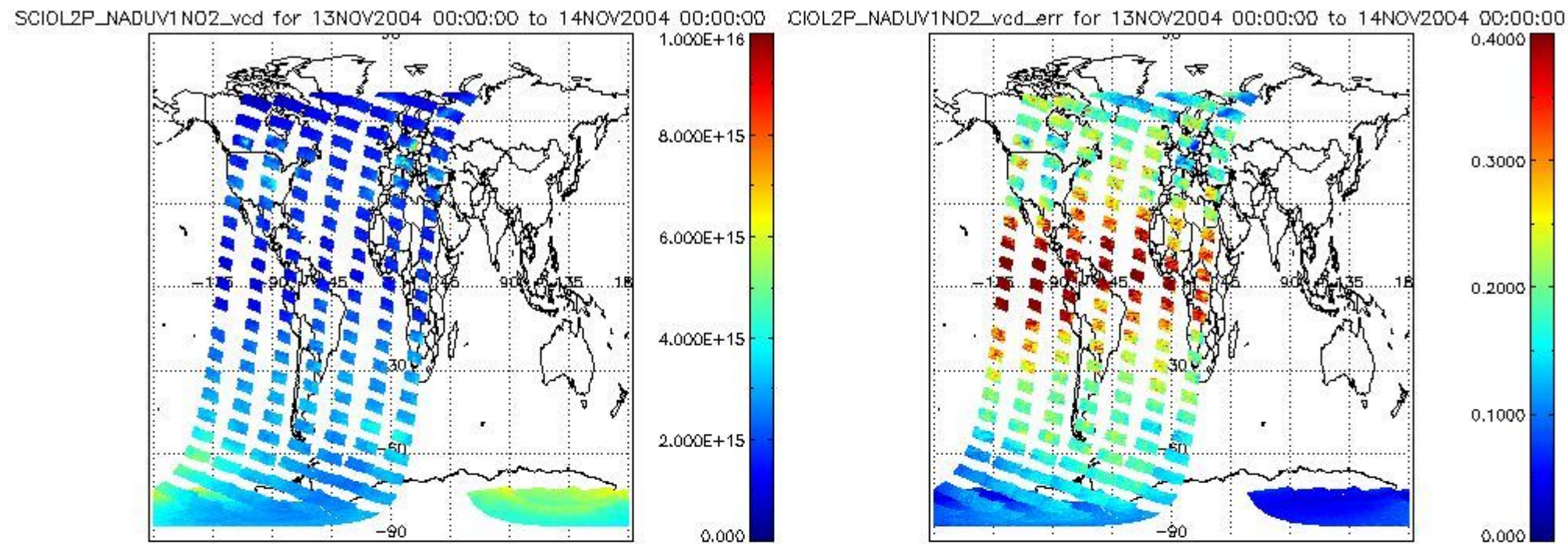
SCIOL2P\_NADUV003\_amf\_gr for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 13NOV2004 00:00:00 to 14NOV2004 00:00:00







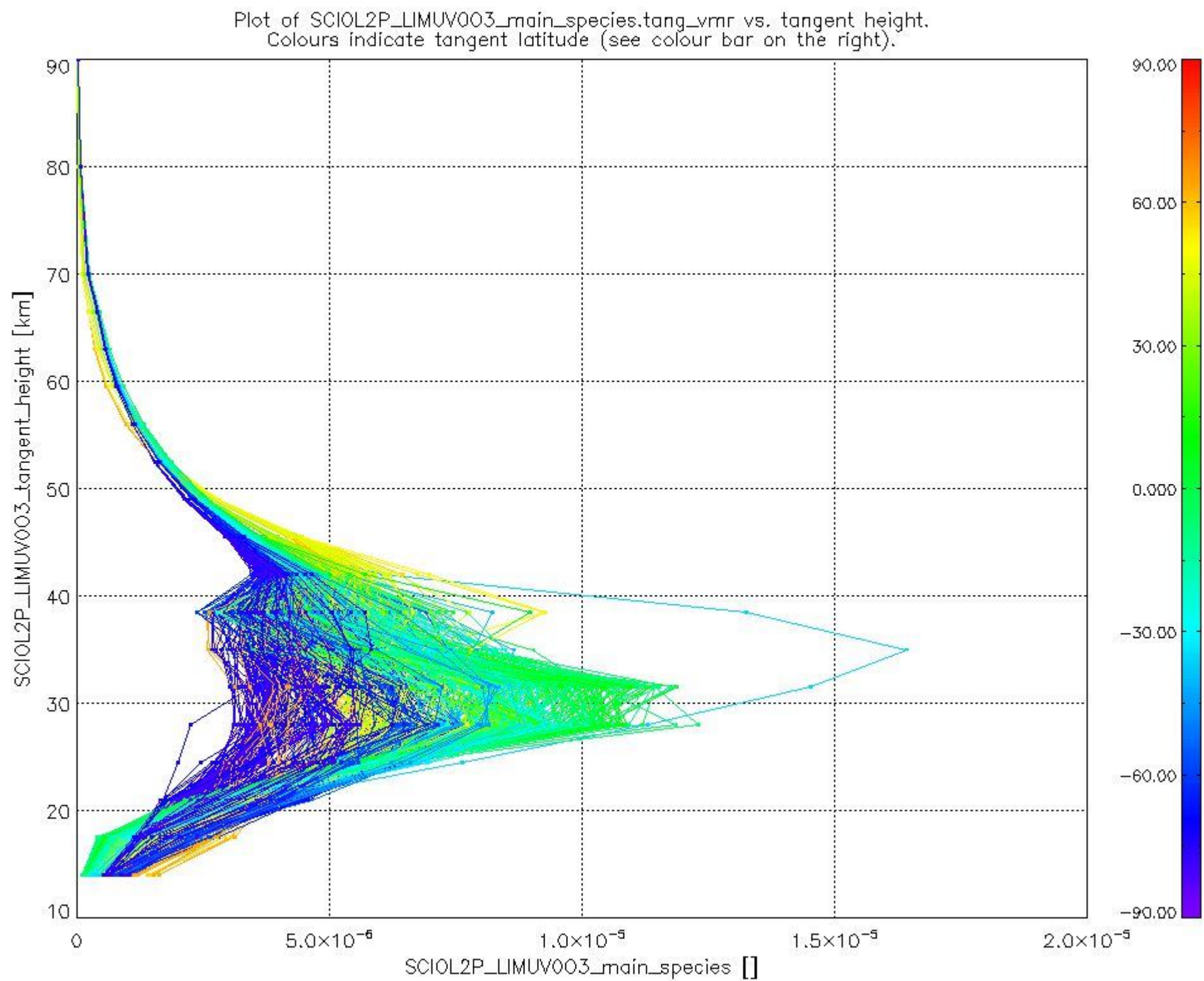
### 2.2.3 Limb

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:

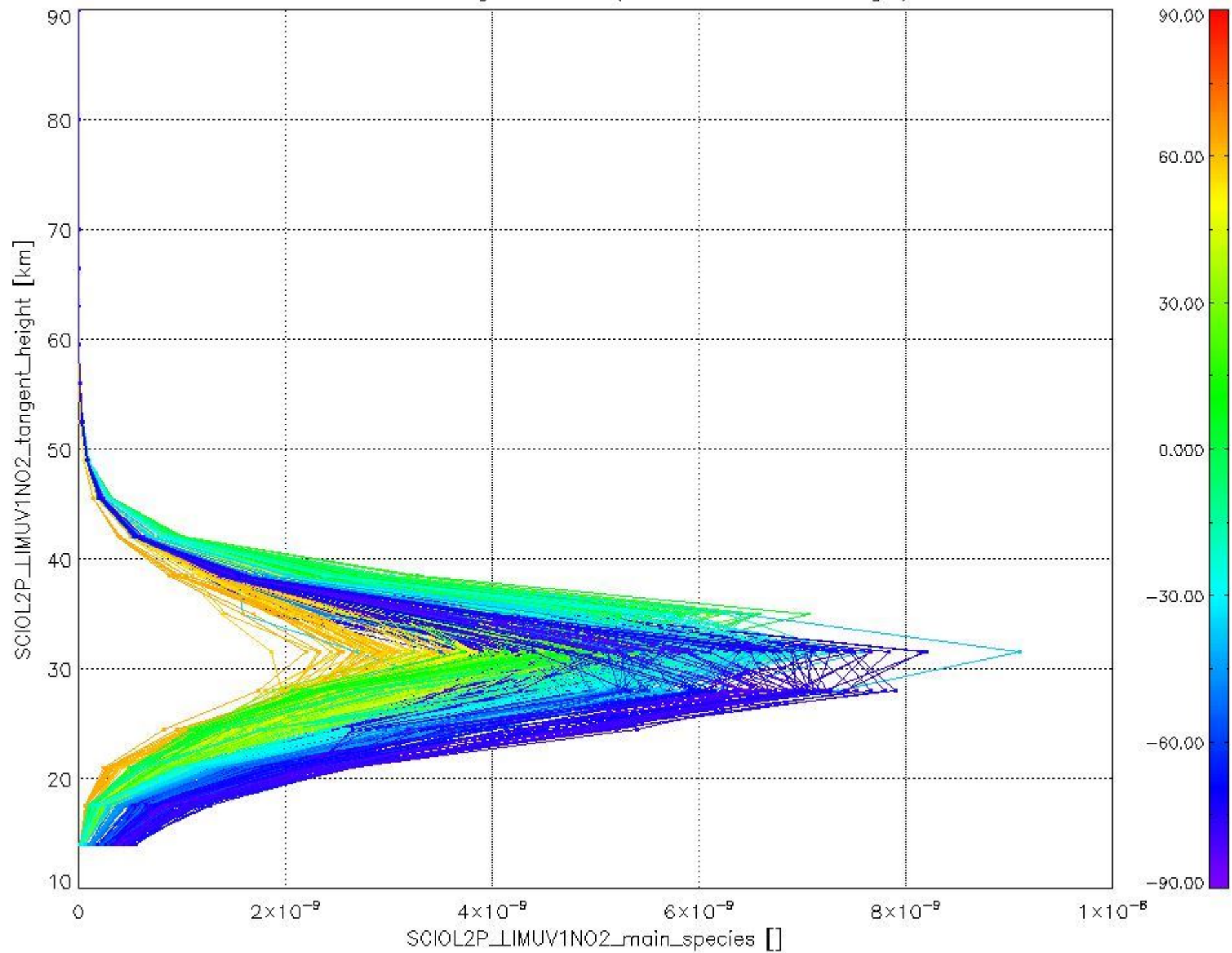
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





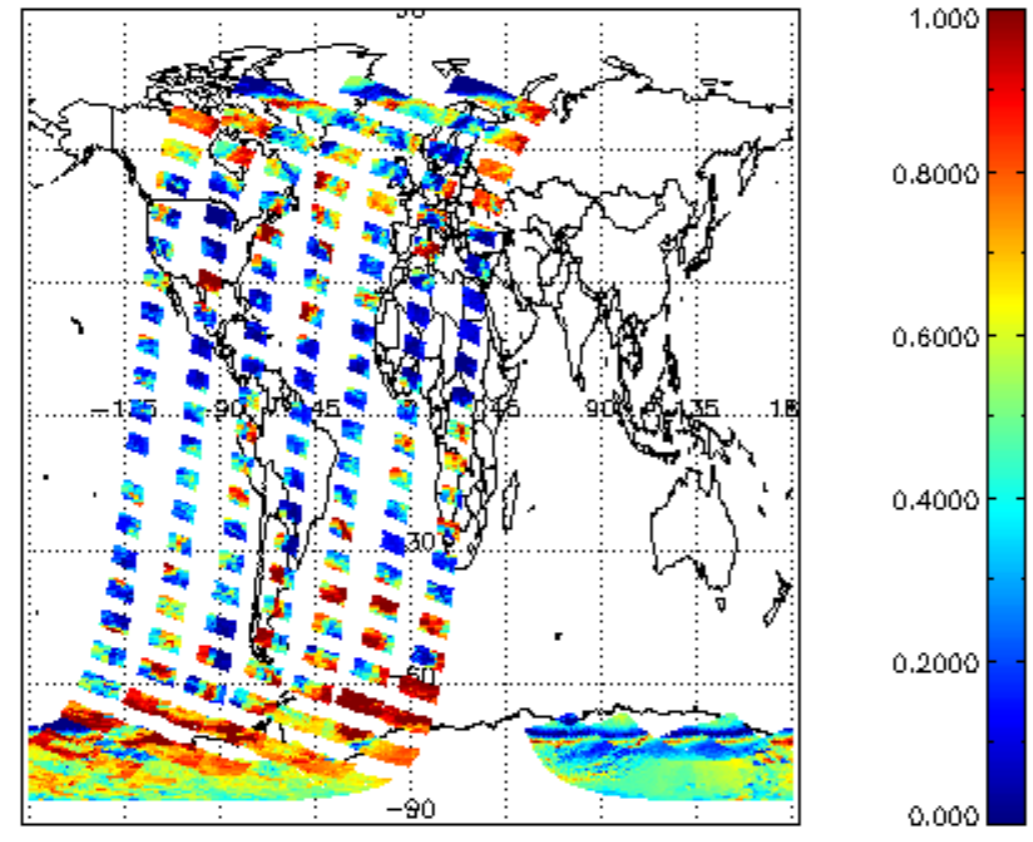
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



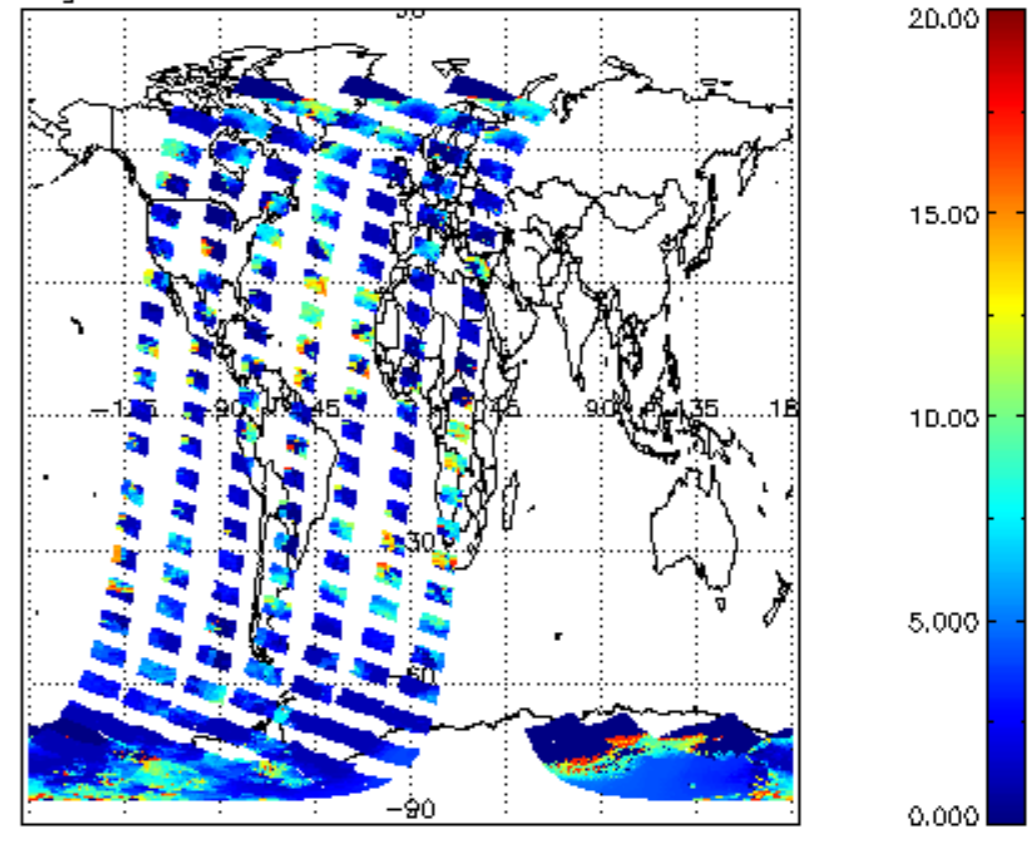
### 2.3 ADF monitoring

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

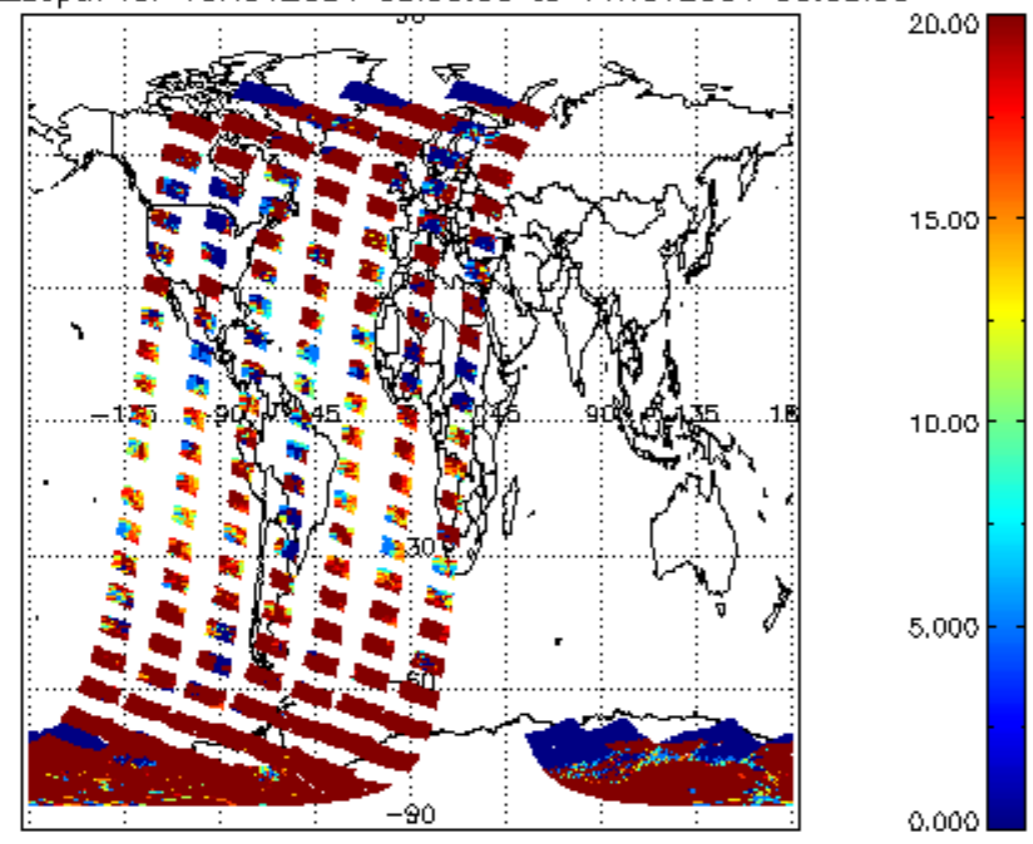
cLfrac for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



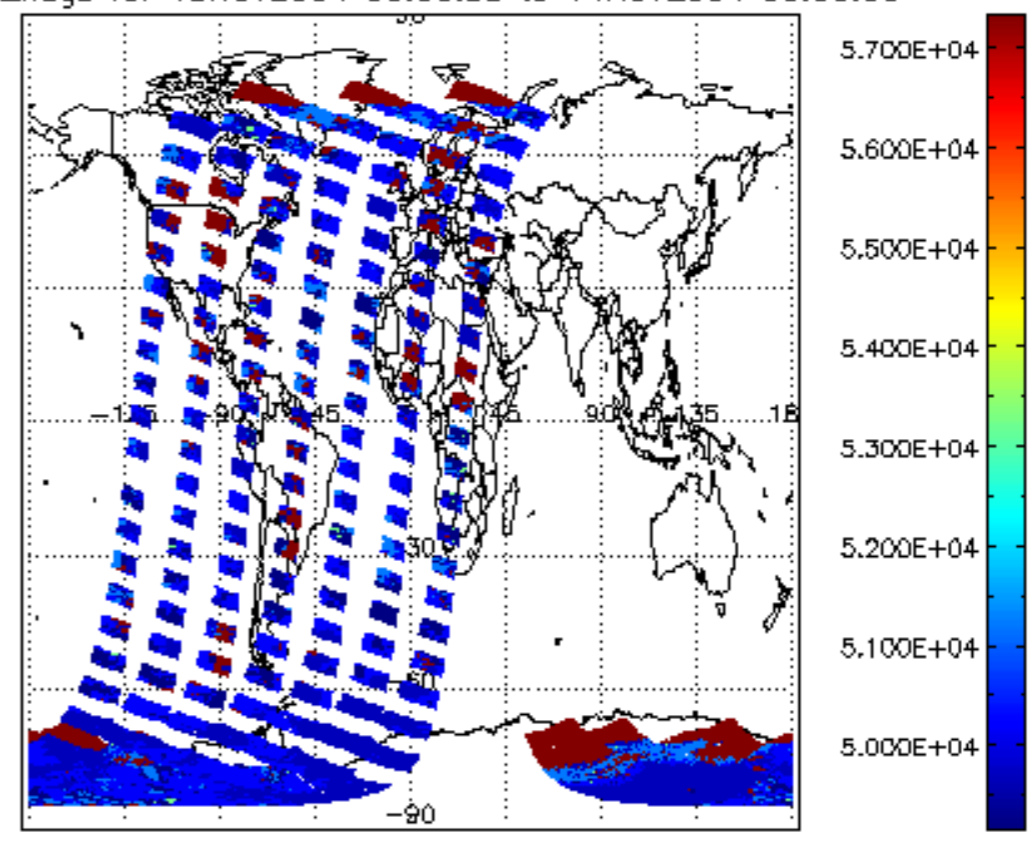
cL\_top\_height for 13NOV2004 00:00:00 to 14NOV2004 00:00:00

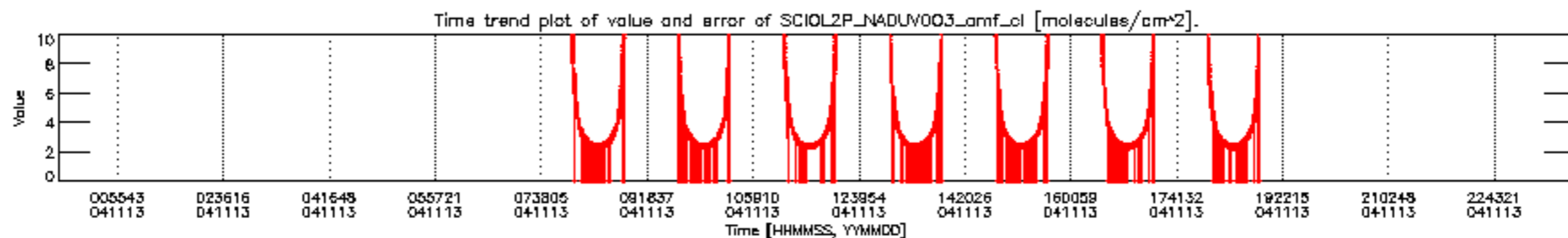
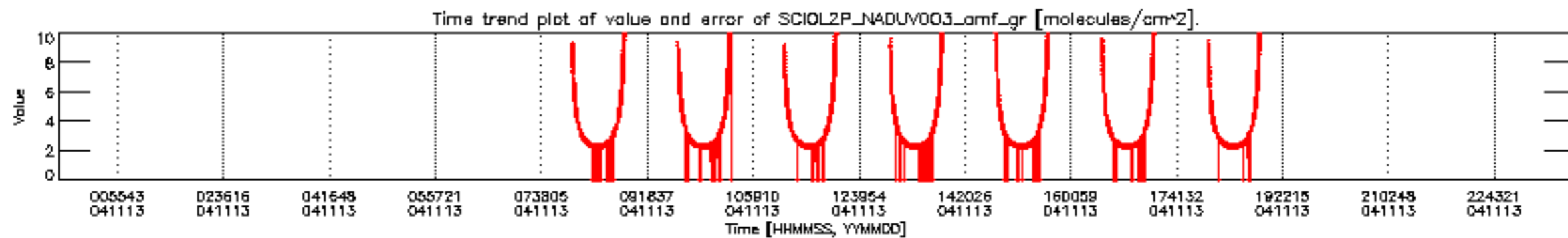
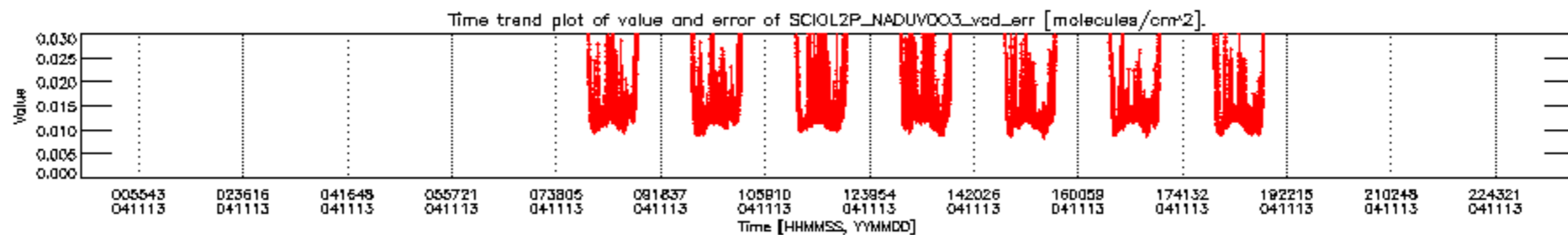
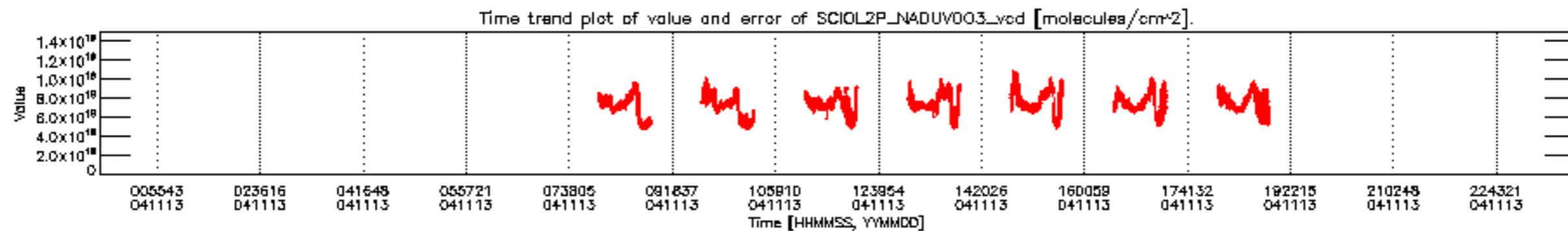


cL\_opt\_depth for 13NOV2004 00:00:00 to 14NOV2004 00:00:00

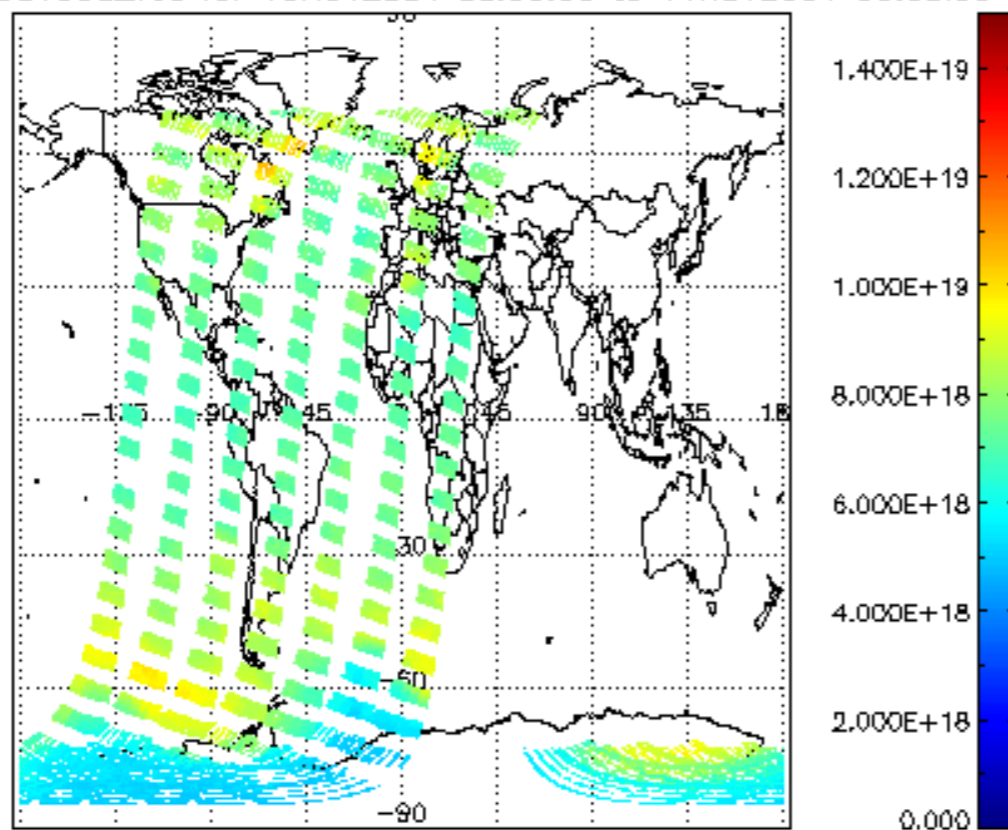


cloud\_flags for 13NOV2004 00:00:00 to 14NOV2004 00:00:00

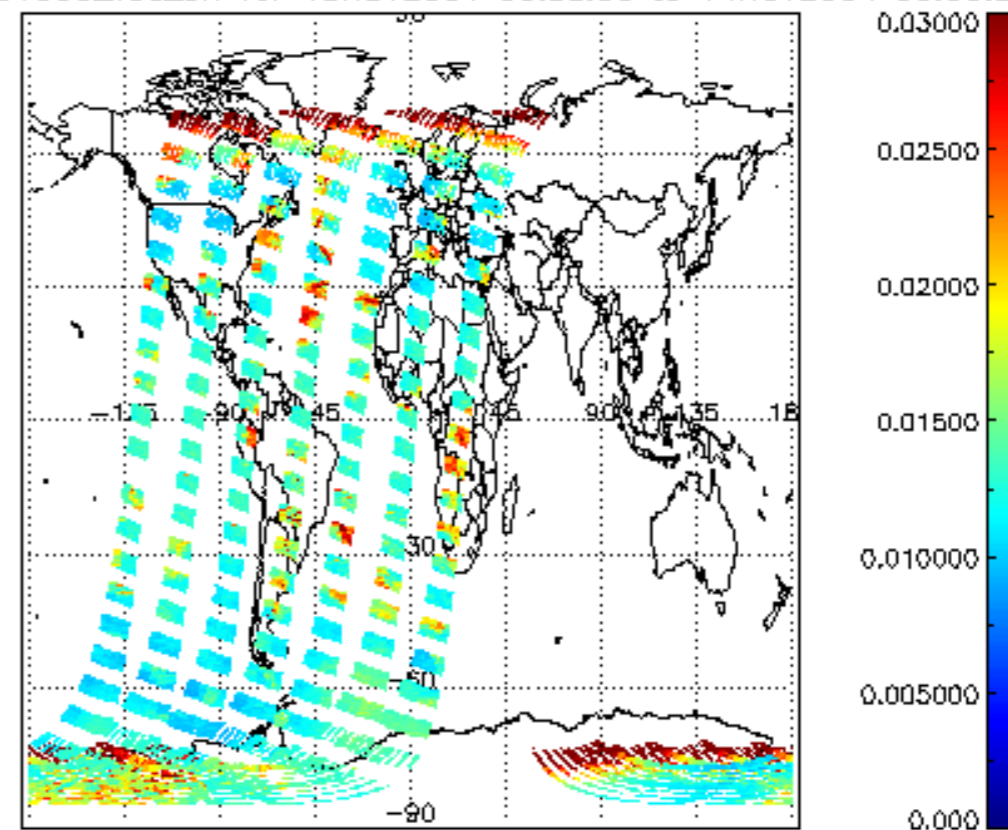




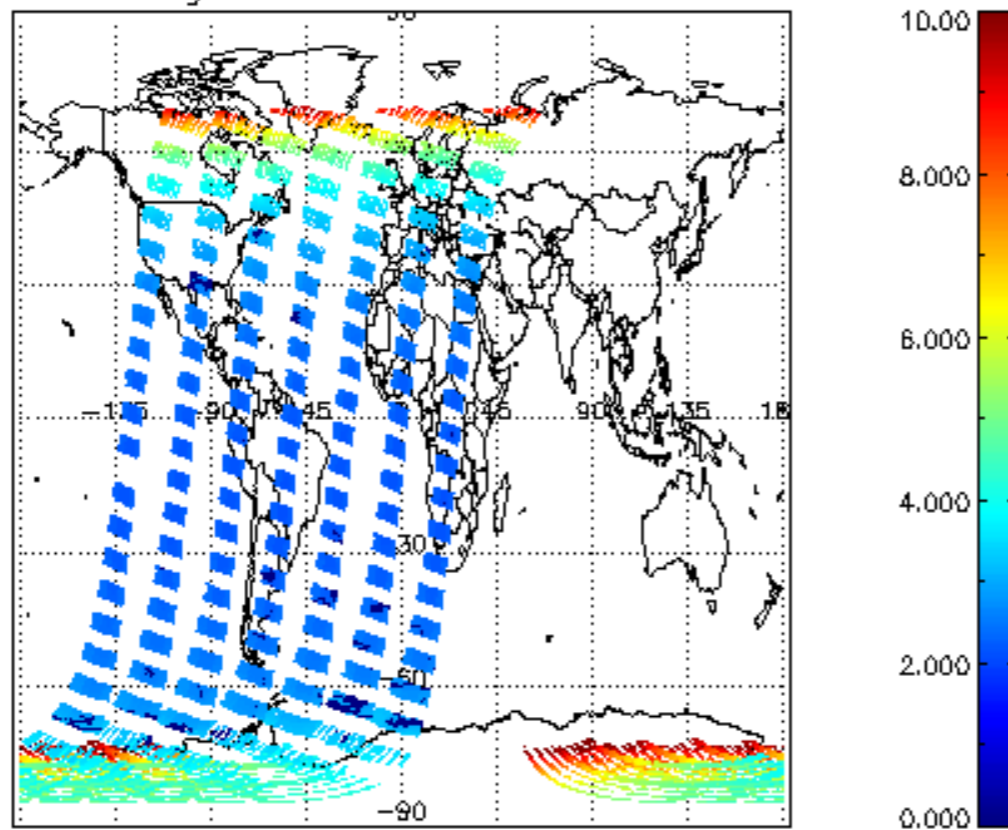
SCIOL2P\_NADUV003\_vcd for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



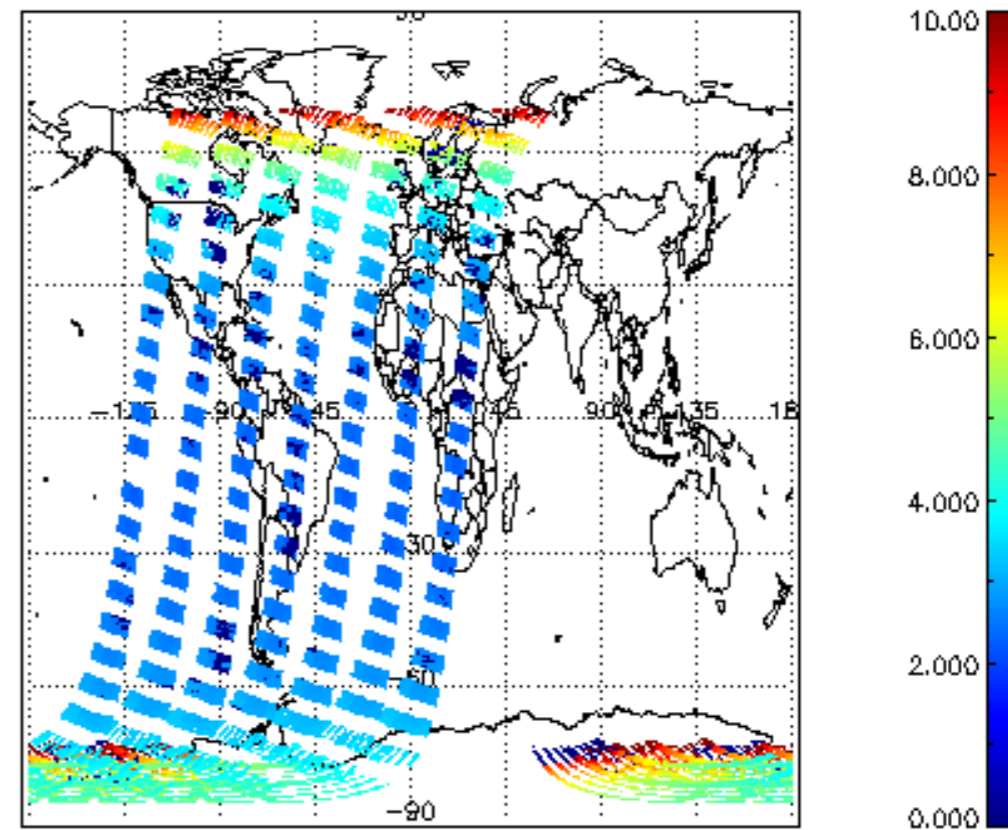
SCIOL2P\_NADUV003\_vcd\_err for 13NOV2004 00:00:00 to 14NOV2004 00:00:00

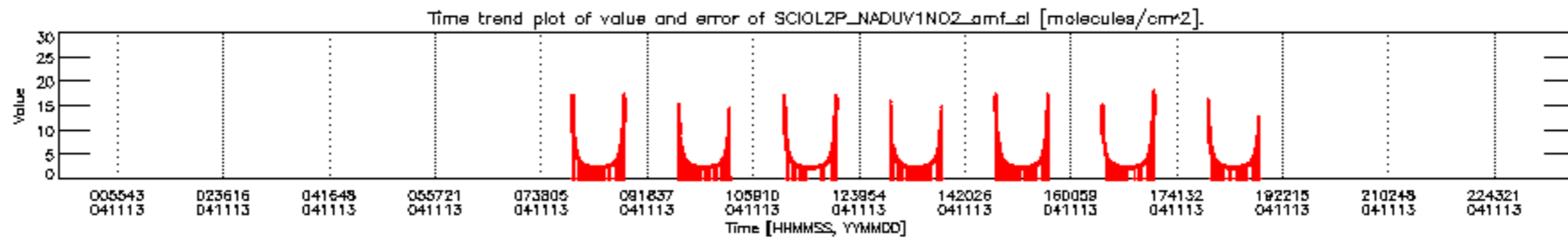
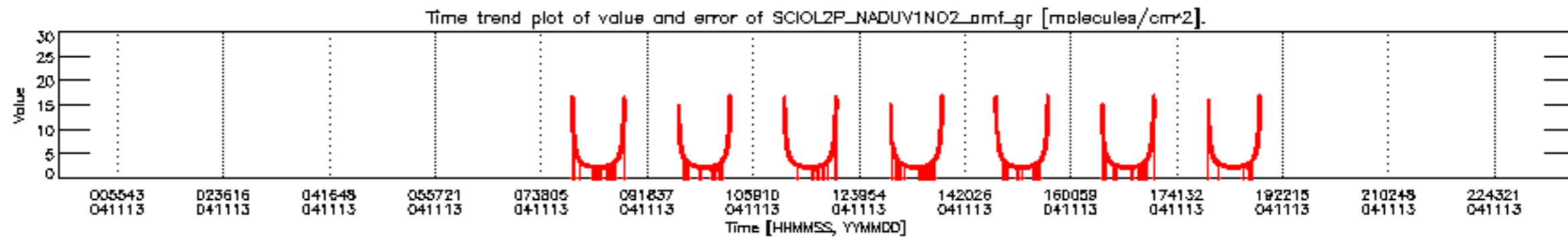
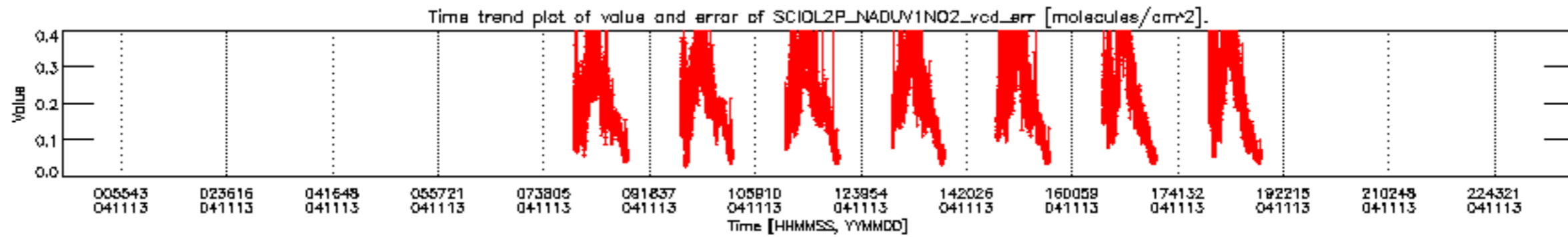
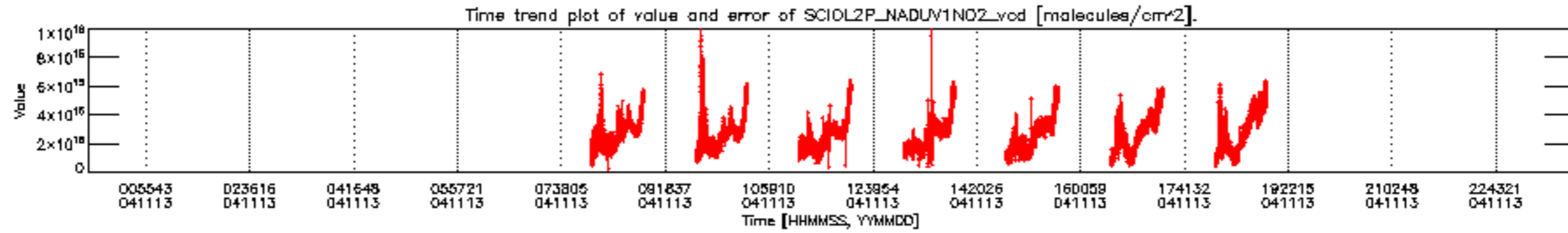


SCIOL2P\_NADUV003\_amf\_gr for 13NOV2004 00:00:00 to 14NOV2004 00:00:00

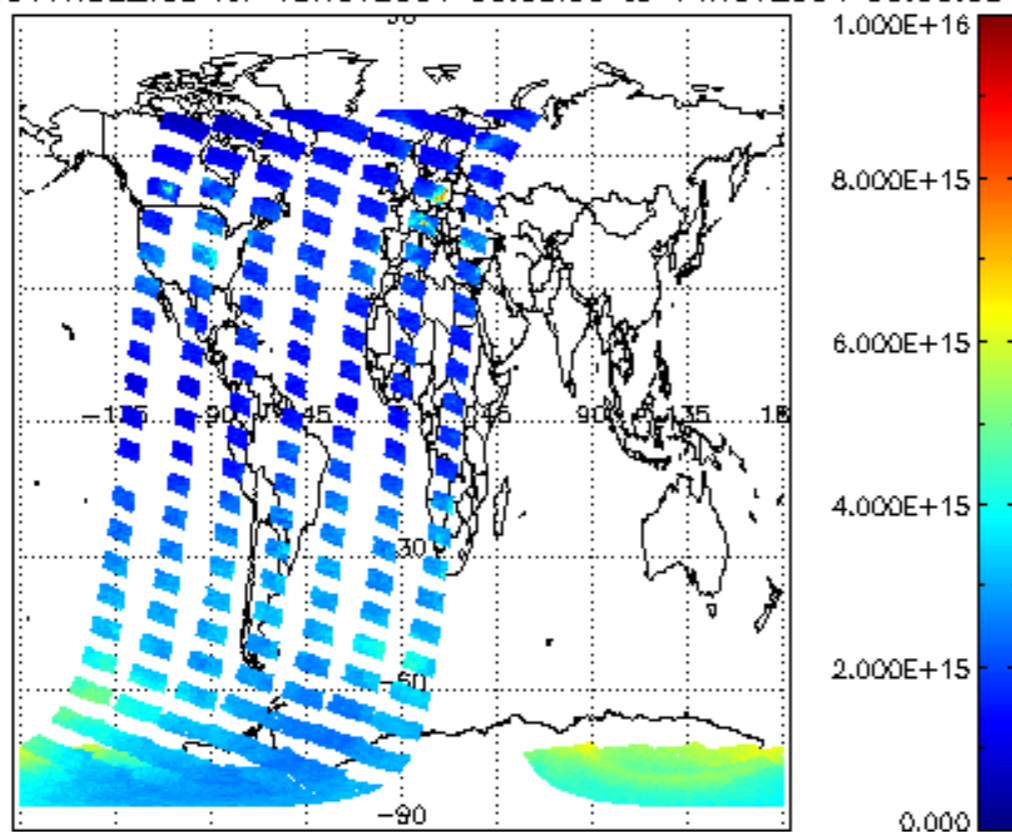


SCIOL2P\_NADUV003\_amf\_cl for 13NOV2004 00:00:00 to 14NOV2004 00:00:00

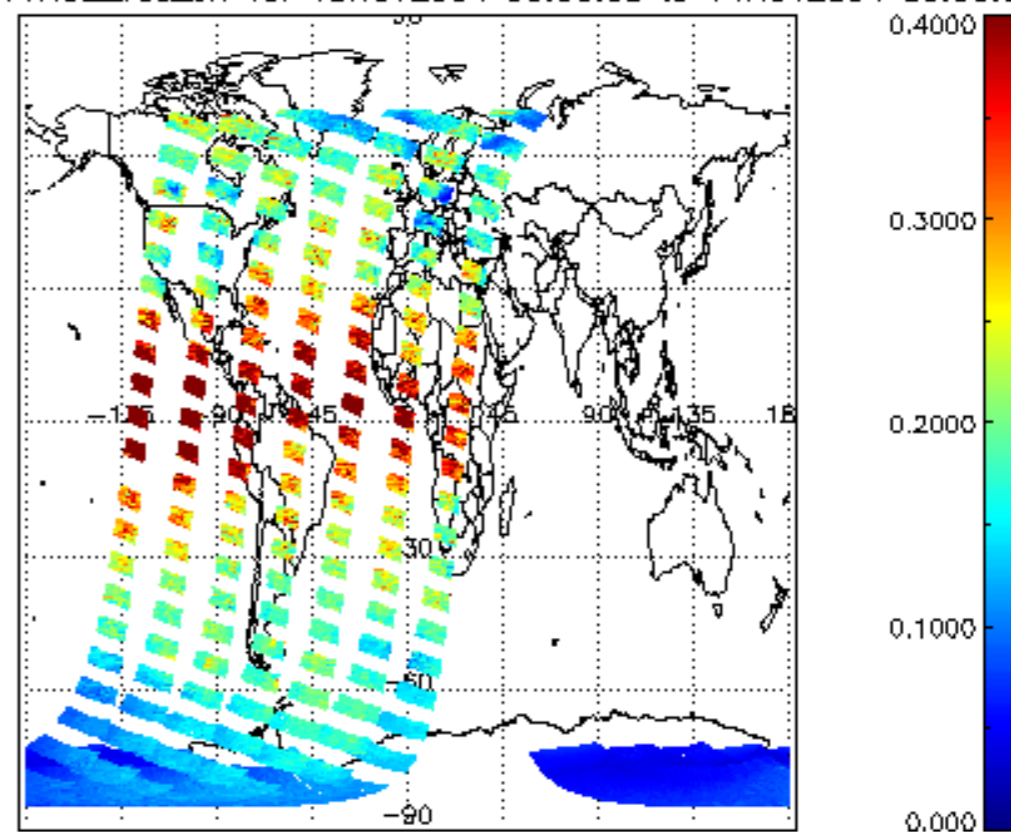




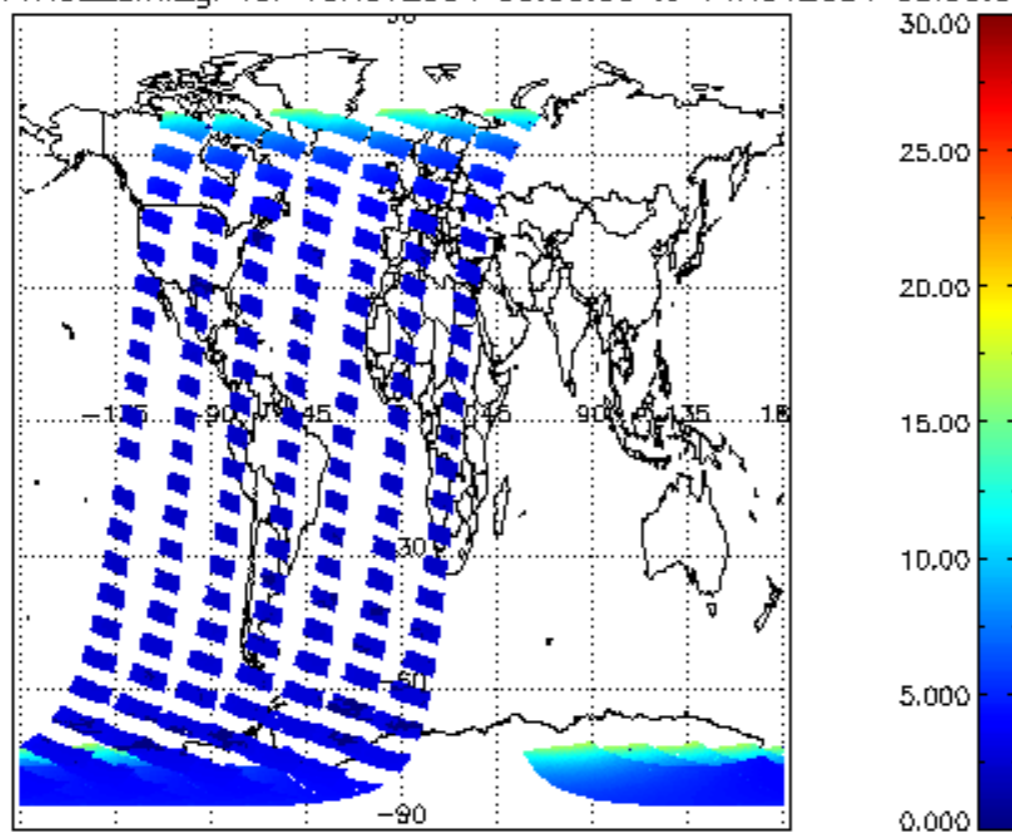
SCIOL2P\_NADUV1NO2\_vcd for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



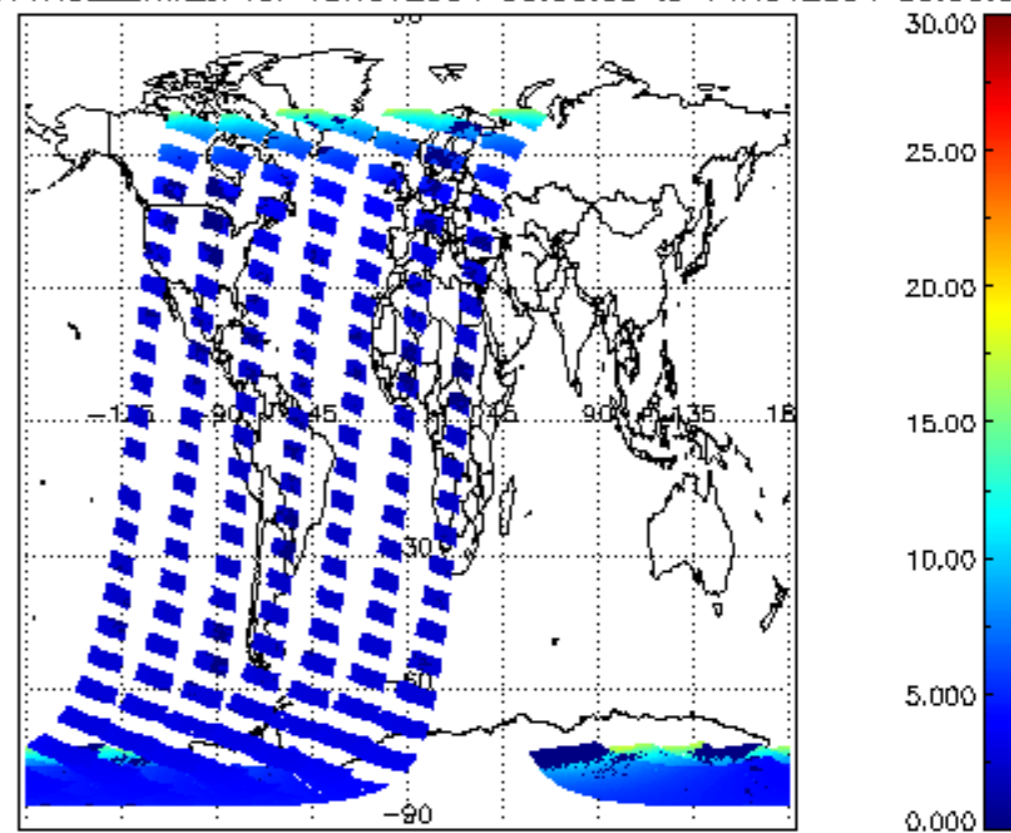
SCIOL2P\_NADUV1NO2\_vcd\_err for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



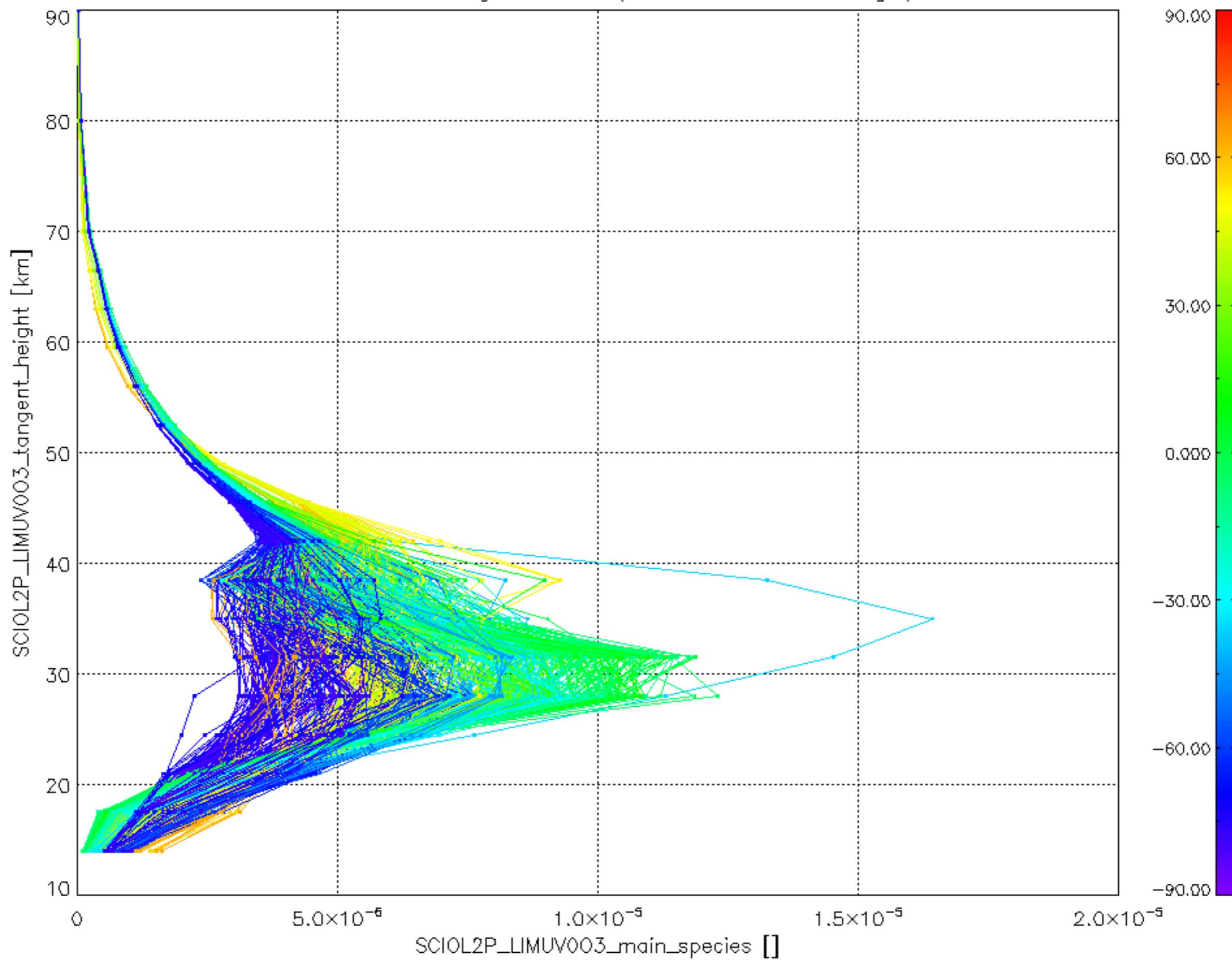
SCIOL2P\_NADUV1NO2\_amf\_gr for 13NOV2004 00:00:00 to 14NOV2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 13NOV2004 00:00:00 to 14NOV2004 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).

