

## 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	22DEC2008 18:00:05
Data source version	SCIA-OL/3.01-R
Processing scope for products	26NOV2008 00:00:00 to 27NOV2008 00:00:00
Start time of first product within scope	25NOV2008 23:13:49
Stop time of last product within scope	27NOV2008 01:18:17
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__2PRDPA20081125_231349_000033812074_00116_35240_5238.N1</a>	25NOV2008 23:13:49	26NOV2008 00:10:10	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20081126_005425_000033252074_00117_35241_5239.N1</a>	26NOV2008 00:54:25	26NOV2008 01:49:50	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20081126_023501_000033812074_00118_35242_5240.N1</a>	26NOV2008 02:35:01	26NOV2008 03:31:22	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20081126_041537_000033252074_00119_35243_5241.N1</a>	26NOV2008 04:15:37	26NOV2008 05:11:03	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20081126_055613_000033812074_00120_35244_5244.N1</a>	26NOV2008 05:56:13	26NOV2008 06:52:35	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20081126_073649_000033252074_00121_35245_5242.N1</a>	26NOV2008 07:36:49	26NOV2008 08:32:15	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20081126_091726_000033812074_00122_35246_5243.N1</a>	26NOV2008 09:17:26	26NOV2008 10:13:47	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20081126_105802_000033252074_00123_35247_5245.N1</a>	26NOV2008 10:58:02	26NOV2008 11:53:27	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20081126_123838_000033812074_00124_35248_4664.N1</a>	26NOV2008 12:38:38	26NOV2008 13:34:59	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20081126_141914_000033252074_00125_35249_4680.N1</a>	26NOV2008 14:19:14	26NOV2008 15:14:39	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20081126_155950_000033812074_00126_35250_4697.N1</a>	26NOV2008 15:59:50	26NOV2008 16:56:12	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20081126_174048_000033252074_00127_35251_4701.N1</a>	26NOV2008 17:40:48	26NOV2008 18:36:13	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20081126_192124_000033122074_00128_35252_4705.N1</a>	26NOV2008 19:21:24	26NOV2008 20:16:37	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20081126_224215_000033812074_00129_35253_4711.N1</a>	26NOV2008 22:42:15	26NOV2008 23:38:36	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20081127_002251_000033252074_00131_35255_4717.N1</a>	27NOV2008 00:22:51	27NOV2008 01:18:17	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: 140291

Total number of cloud data DSRs with good quality flag (=0): 140291 (100.0 %)

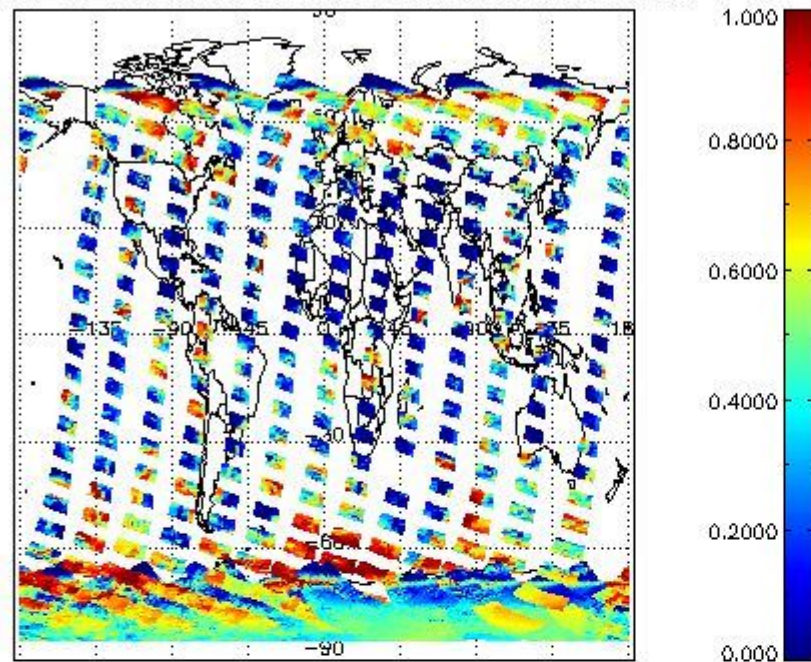
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	140291	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	140291	0.16832	0.12500	0.12500	0.25000	0.059485	s
CL_FRAC	140291	0.39506	0.40218	0.0000	1.0000	0.28007	-
CL_FRAC_ERR	140291	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	140291	5.3863	4.0000	4.0000	8.0000	1.9035	
PMD_READ_CL[0]	140291	0.20356	0.0000	0.0000	8.0000	1.0225	-
PMD_READ_CL[1]	140291	0.95313	0.0000	0.0000	8.0000	2.1250	-
CL_TOP_HEIGHT	121347	3.8217	3.0070	0.0000	17.000	3.5621	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	121347	55.219	46.706	0.0000	101.00	41.093	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	140291	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	140291	11001010	11000100	11000000	11100000	3258.5	flags
AERO_ABSO_IND	140291	3.0904	3.3959	-0.93129	17.296	2.2743	
AERO_IND_DIAG	140291	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	140291	01010101	00000000	00000000	11000000	24415.	flags

### Time and geolocation plots:

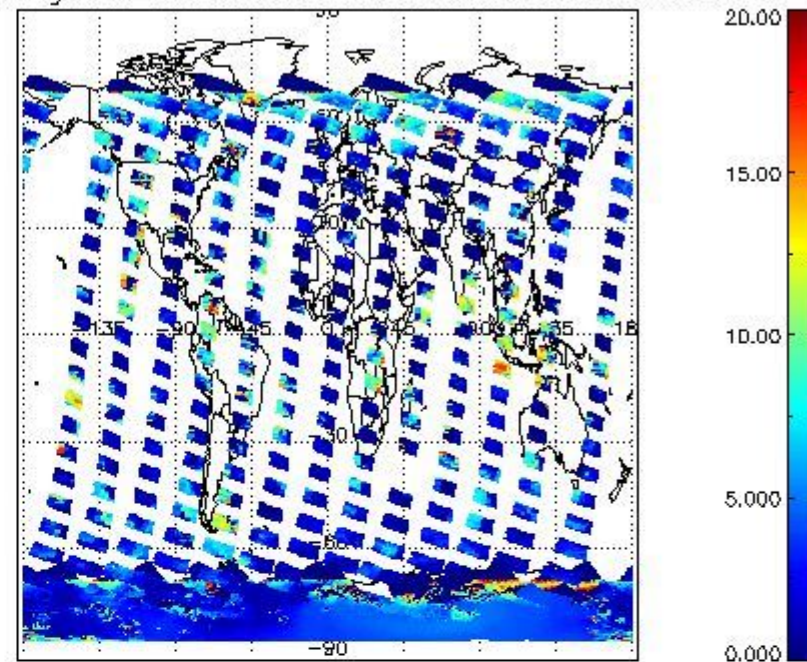
Plots are available for the following parameters:

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

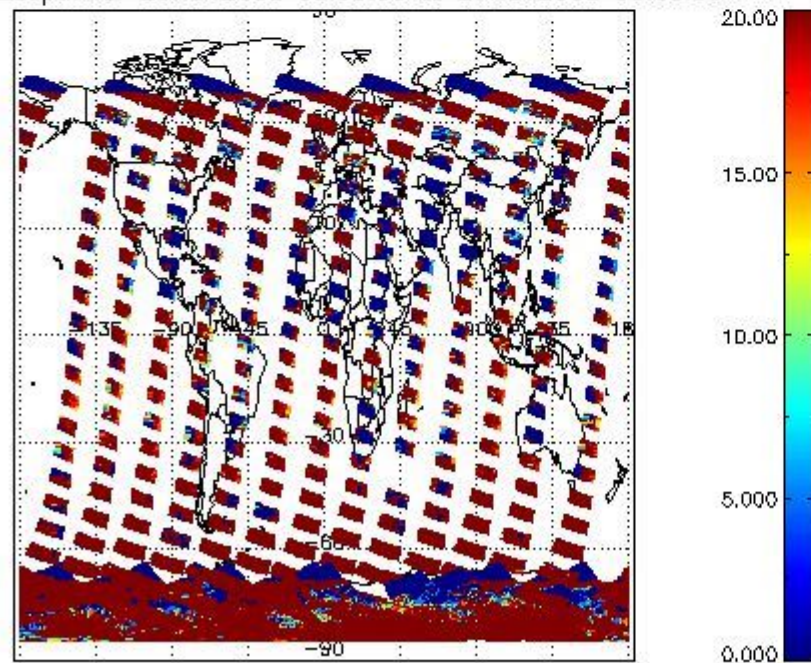
cLfrac for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



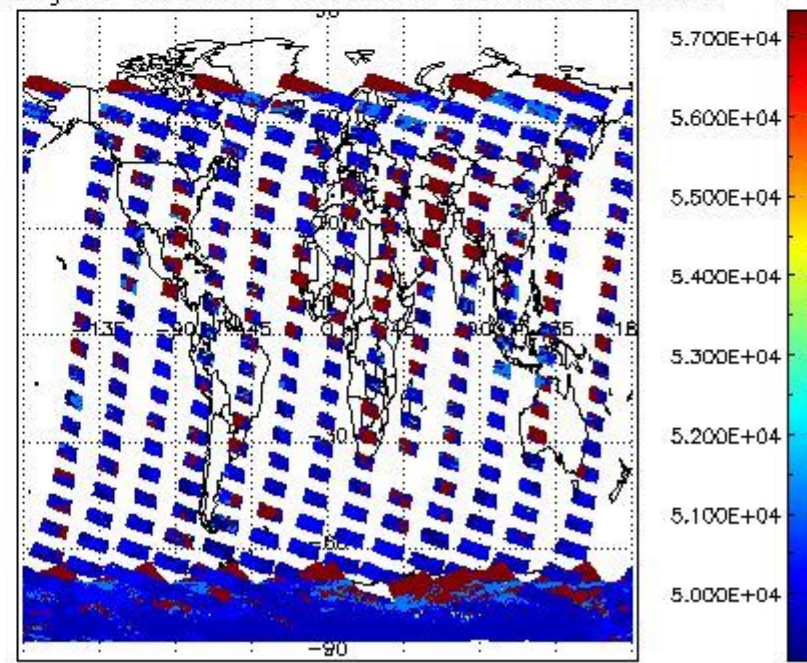
cL\_top\_height for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



cLopt\_depth for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



cloud\_flags for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



## 2.2.2 Nadir

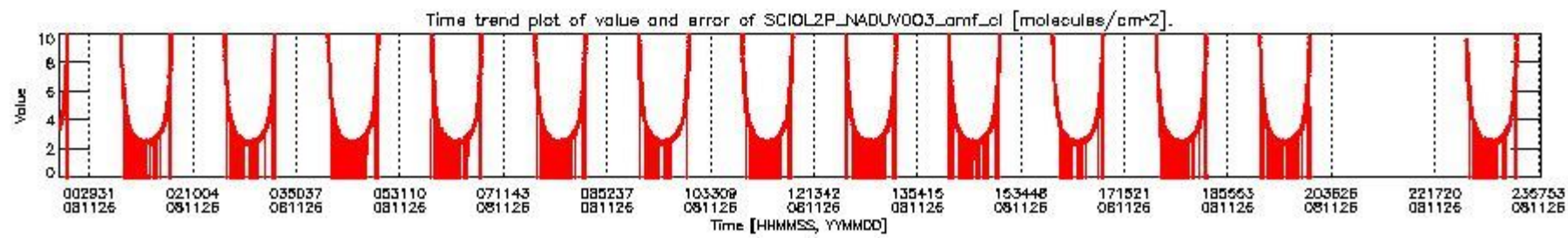
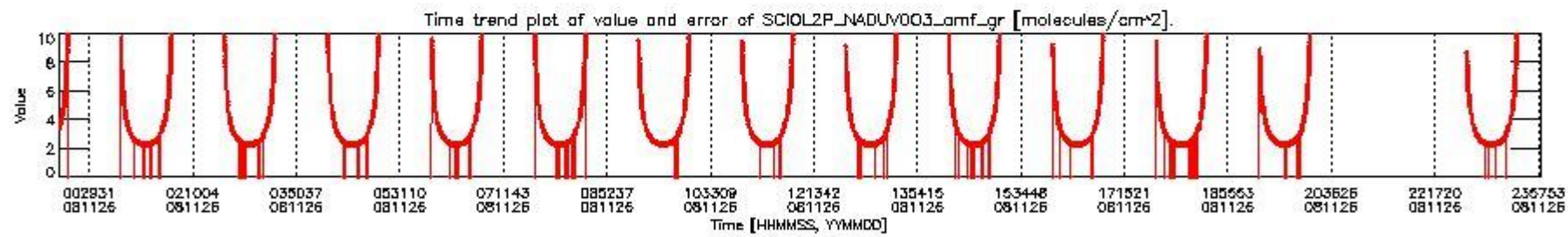
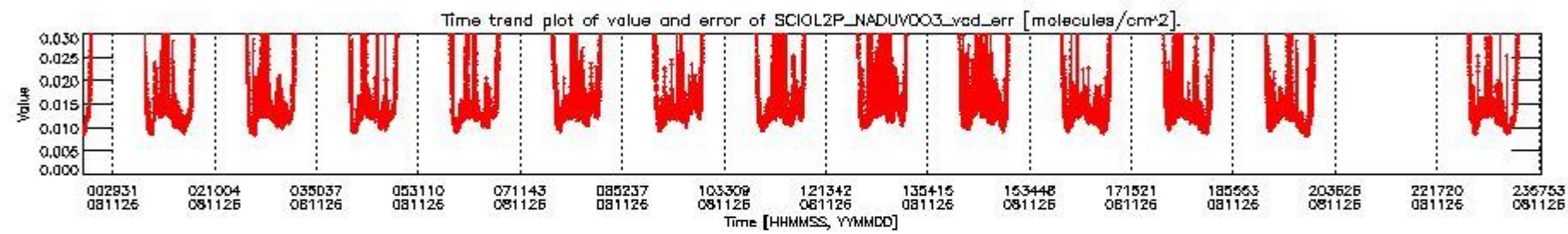
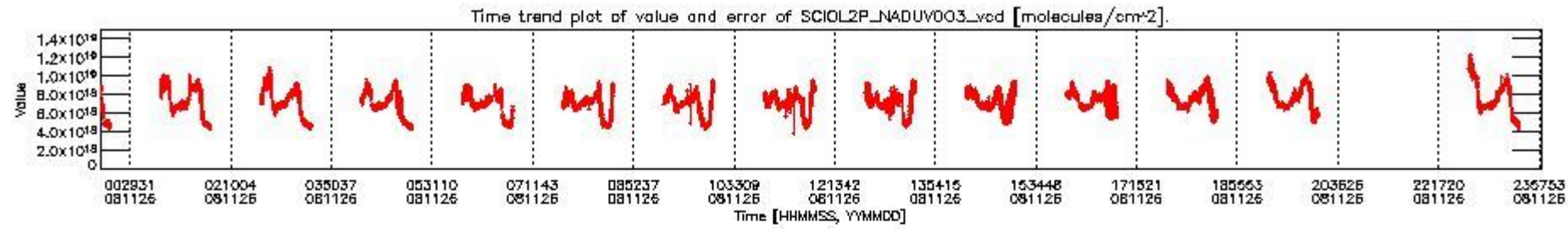
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

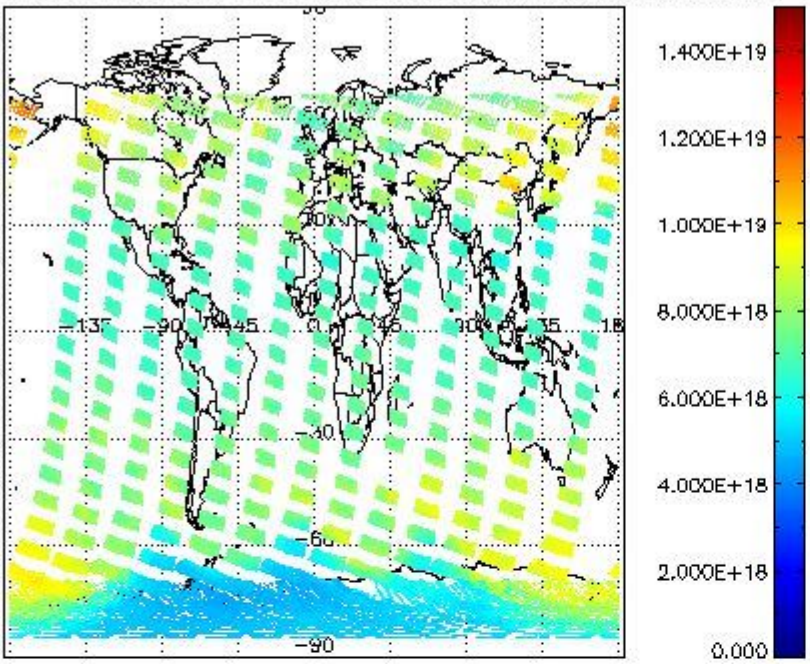
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

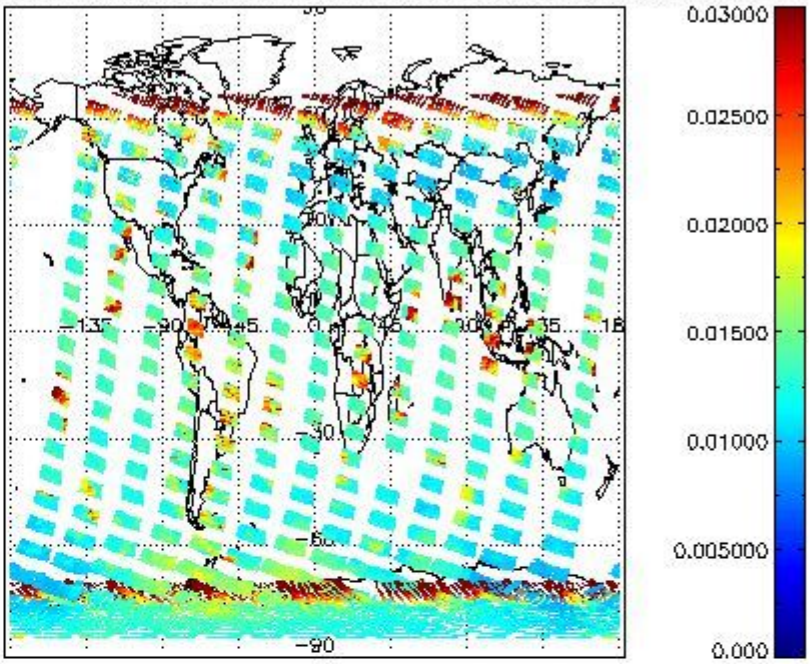
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



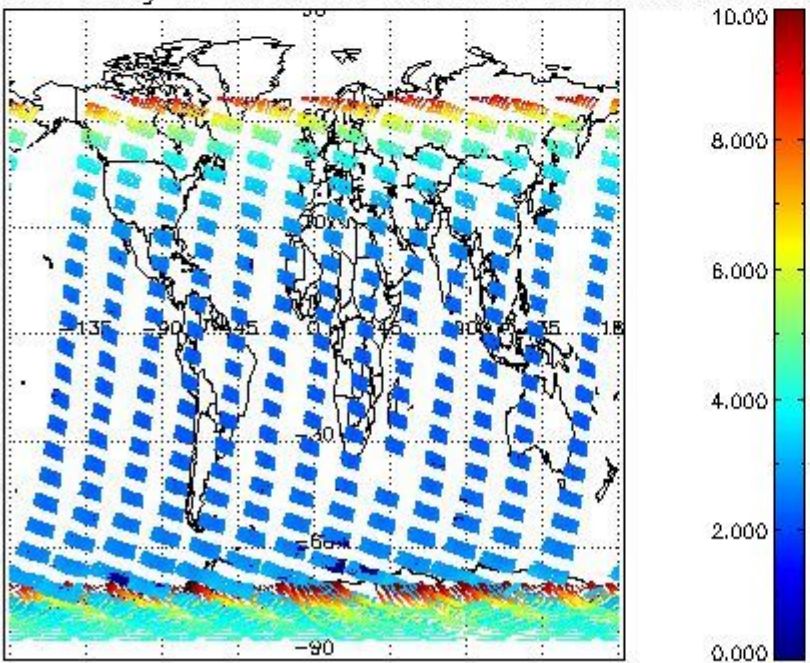
SCIOL2P\_NADUV003\_vcd for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



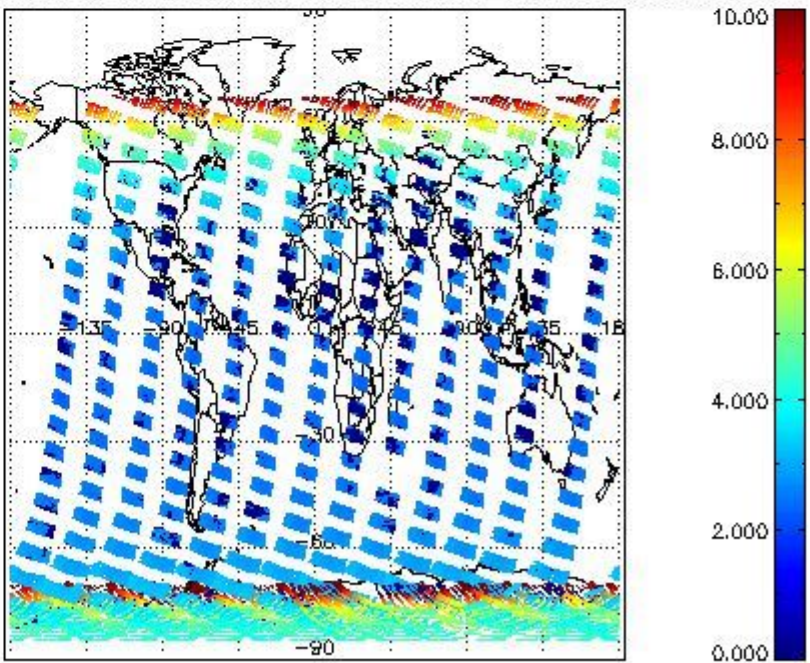
SCIOL2P\_NADUV003\_vcd\_err for 26NOV2008 00:00:00 to 27NOV2008 00:00:00

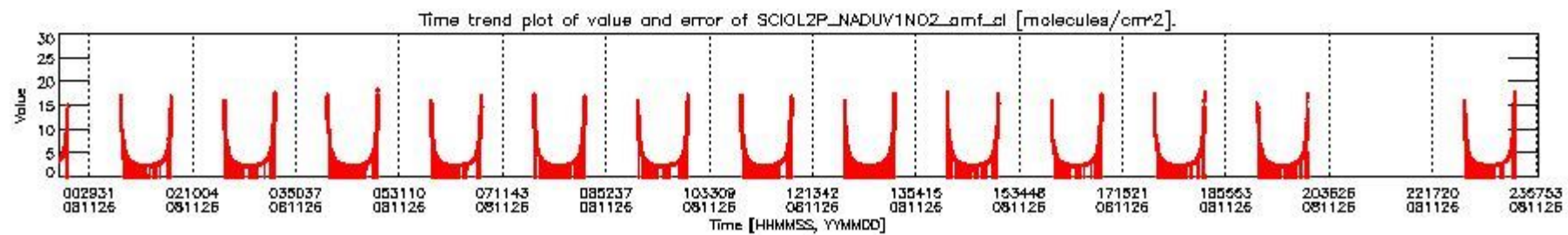
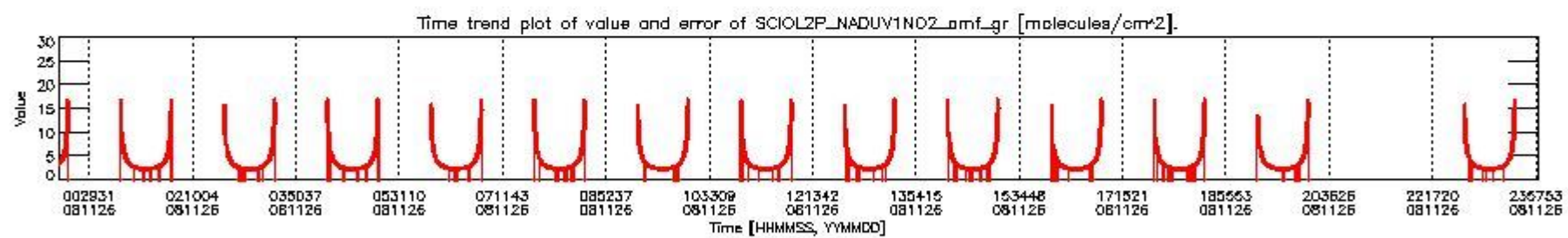
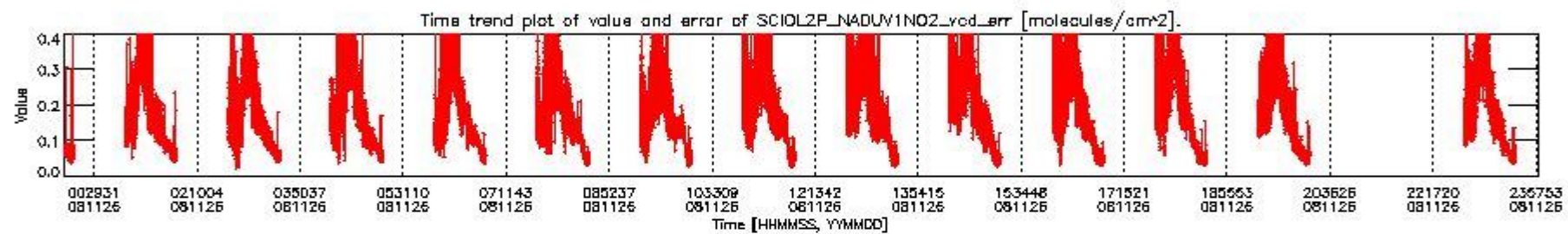
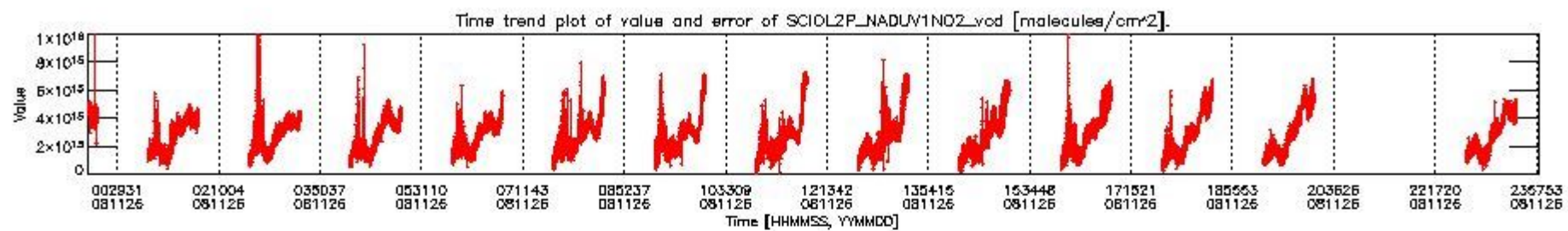


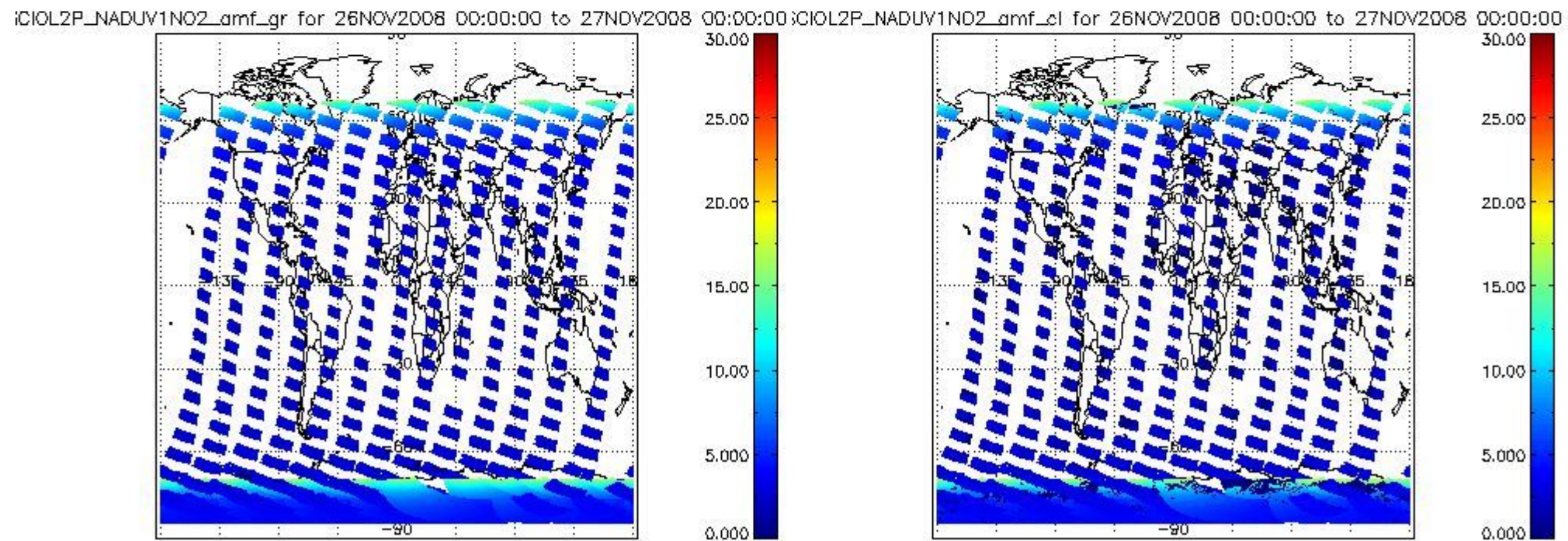
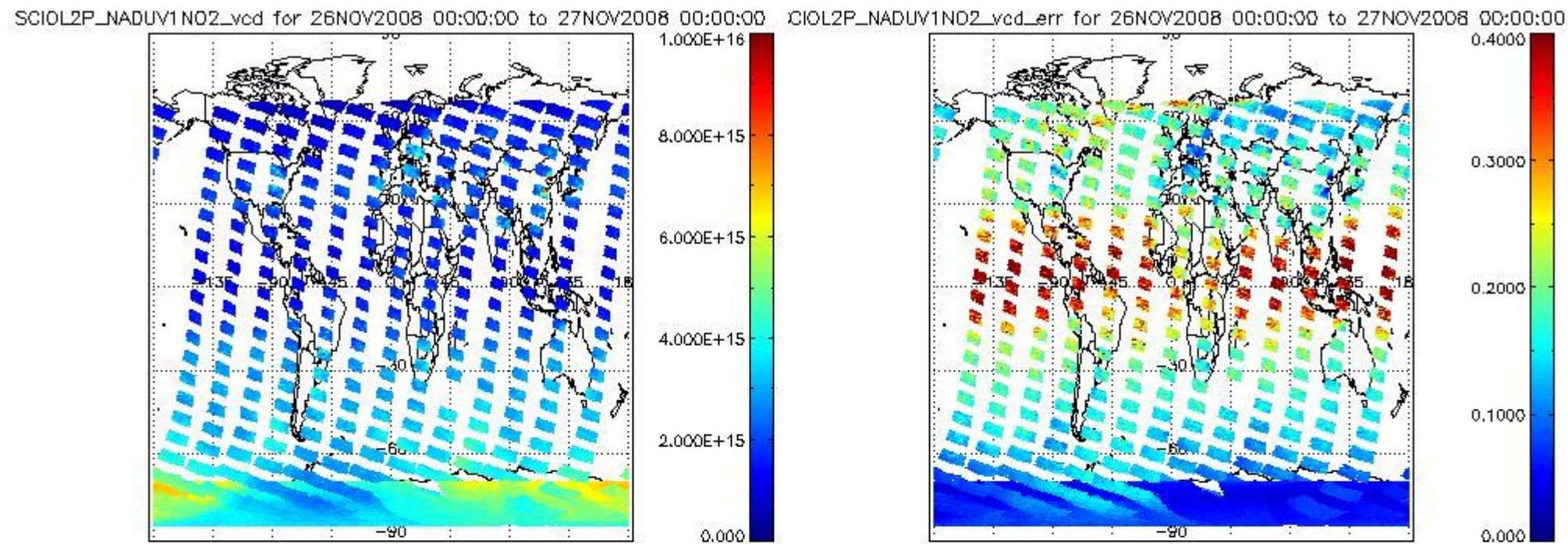
SCIOL2P\_NADUV003\_amf\_gr for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 26NOV2008 00:00:00 to 27NOV2008 00:00:00







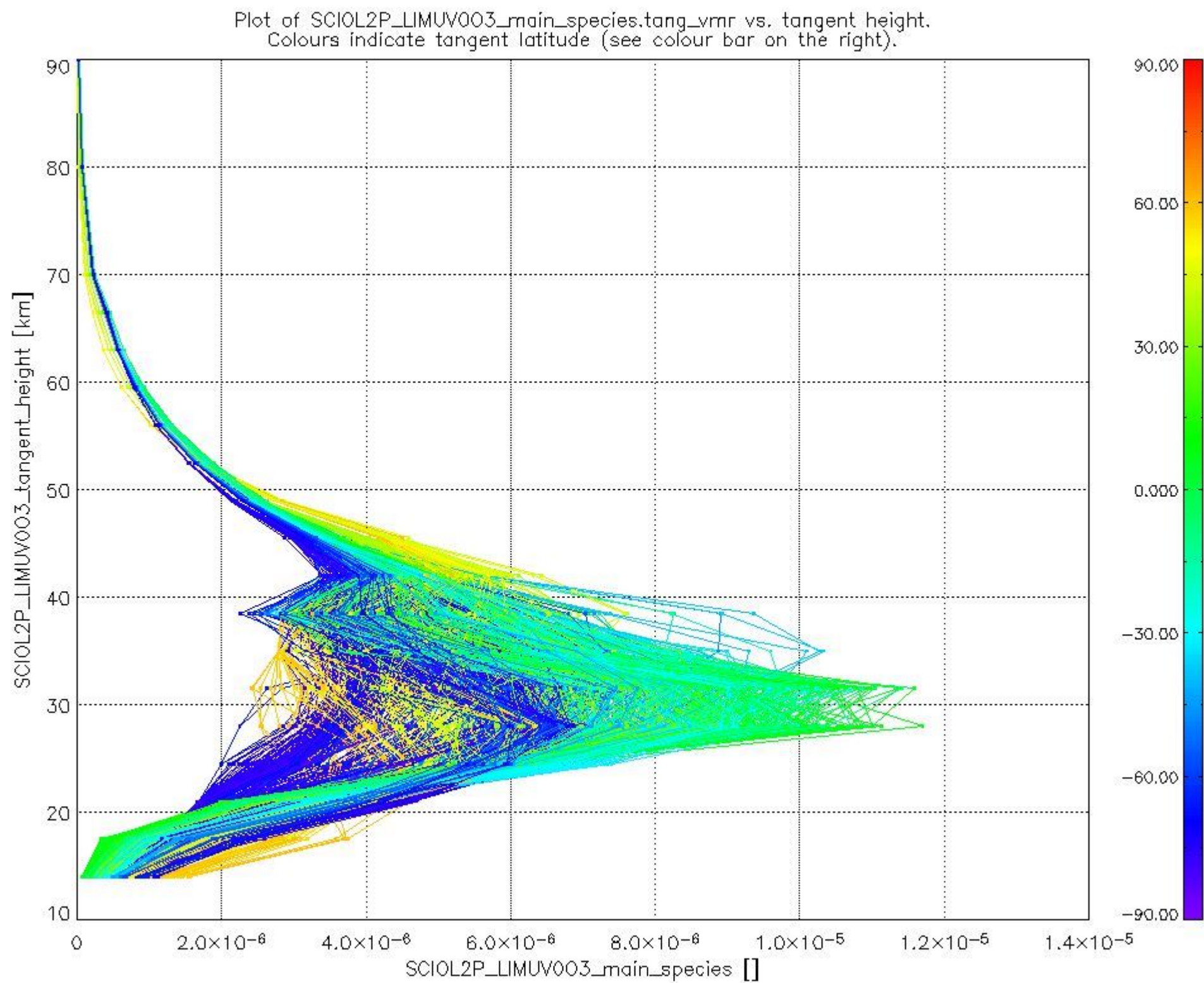
### 2.2.3 Limb

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:

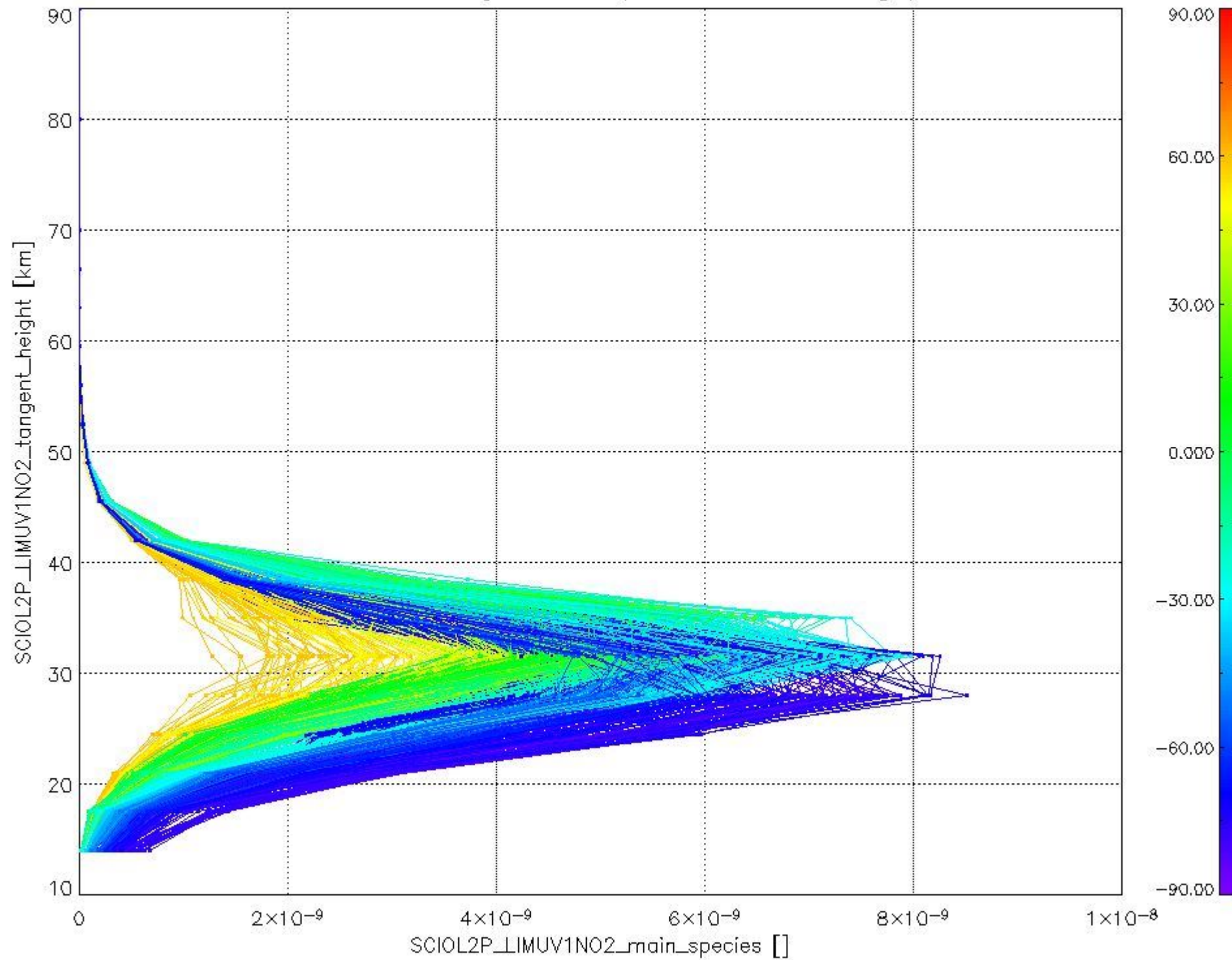
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





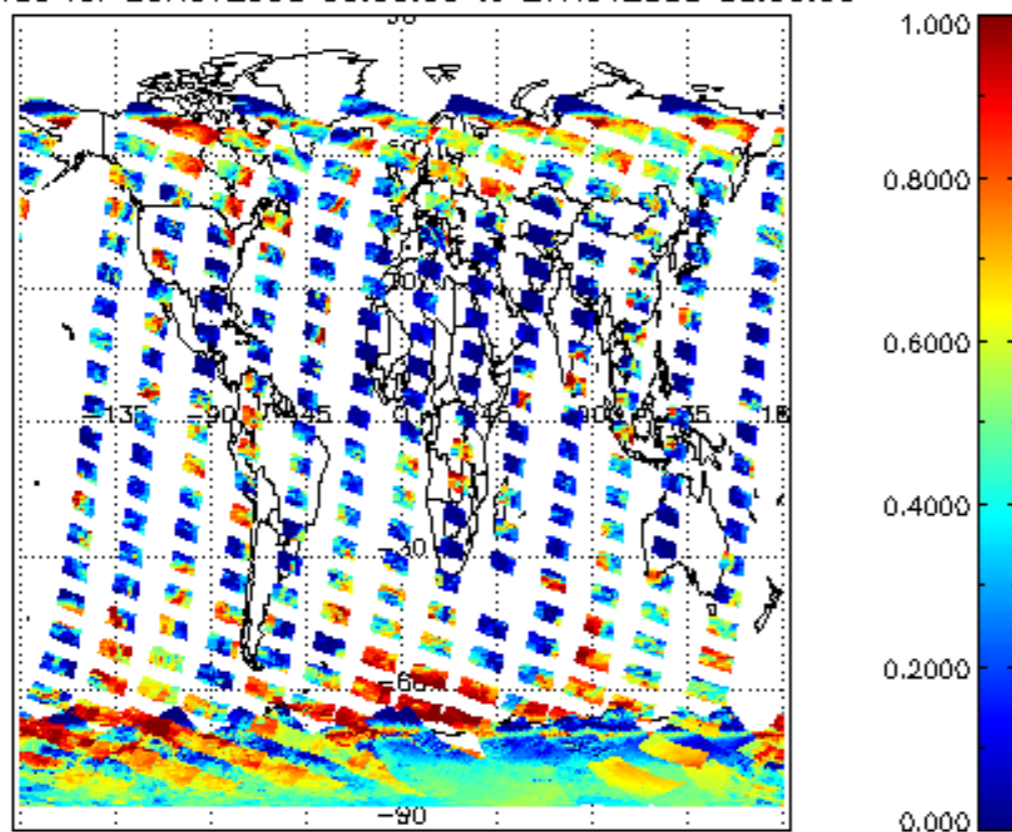
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



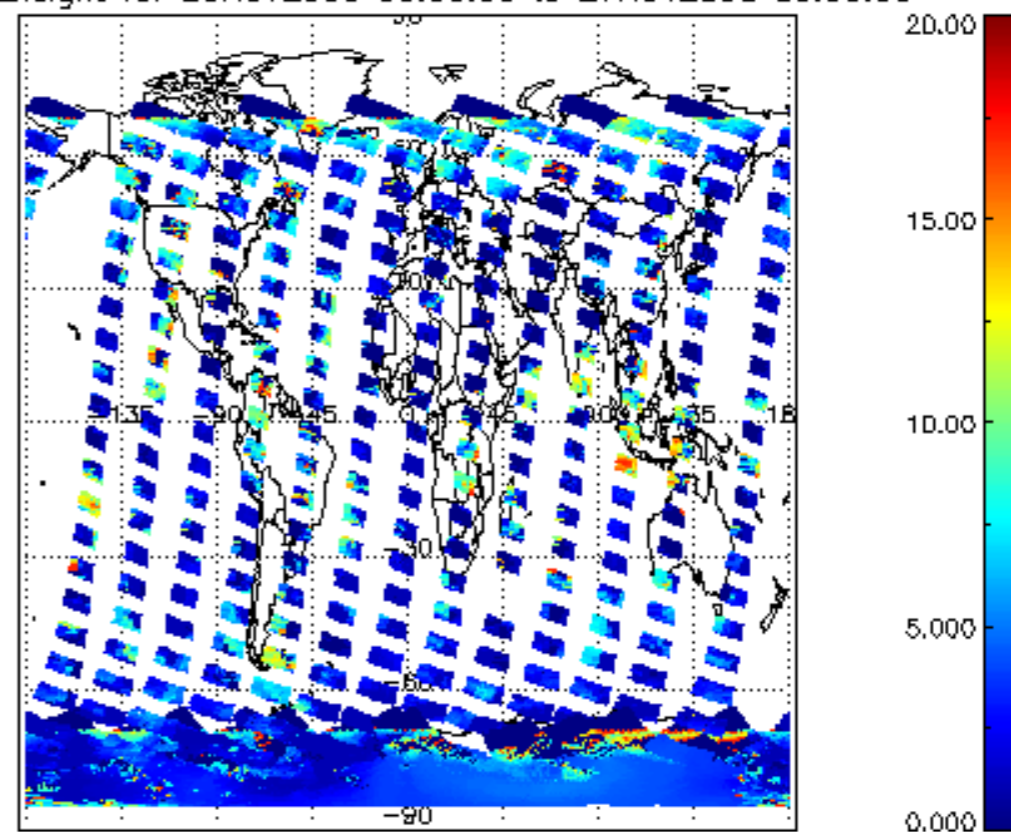
### 2.3 ADF monitoring

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

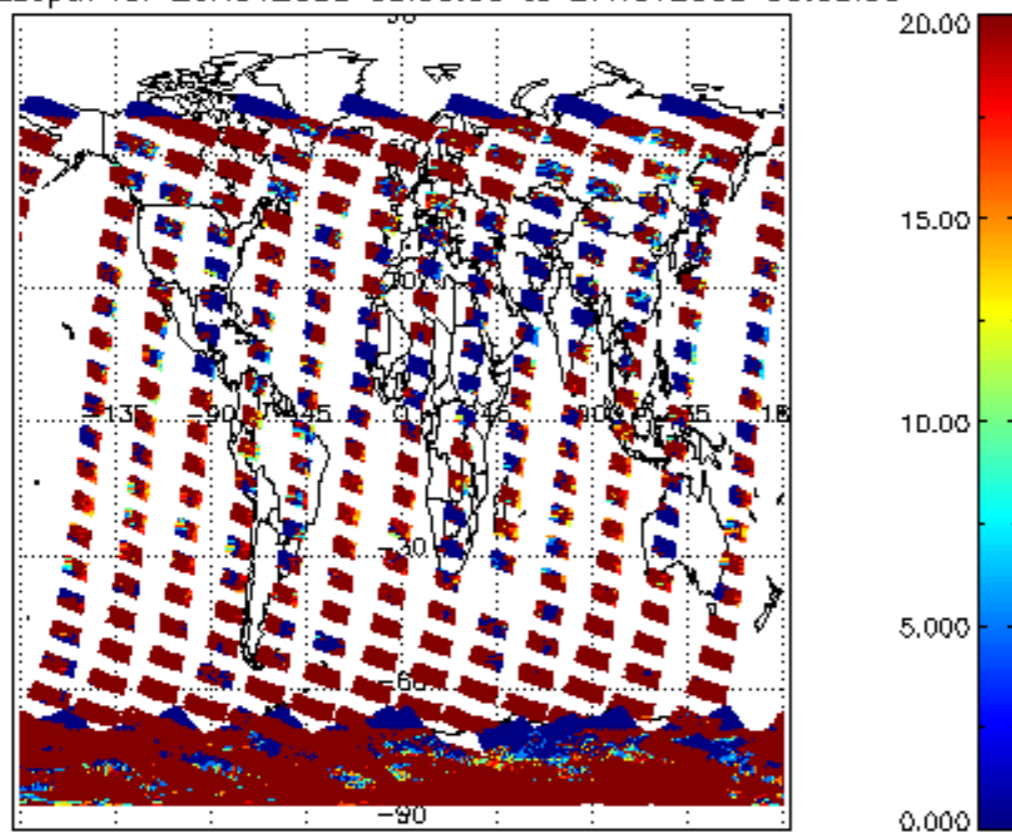
cLfrac for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



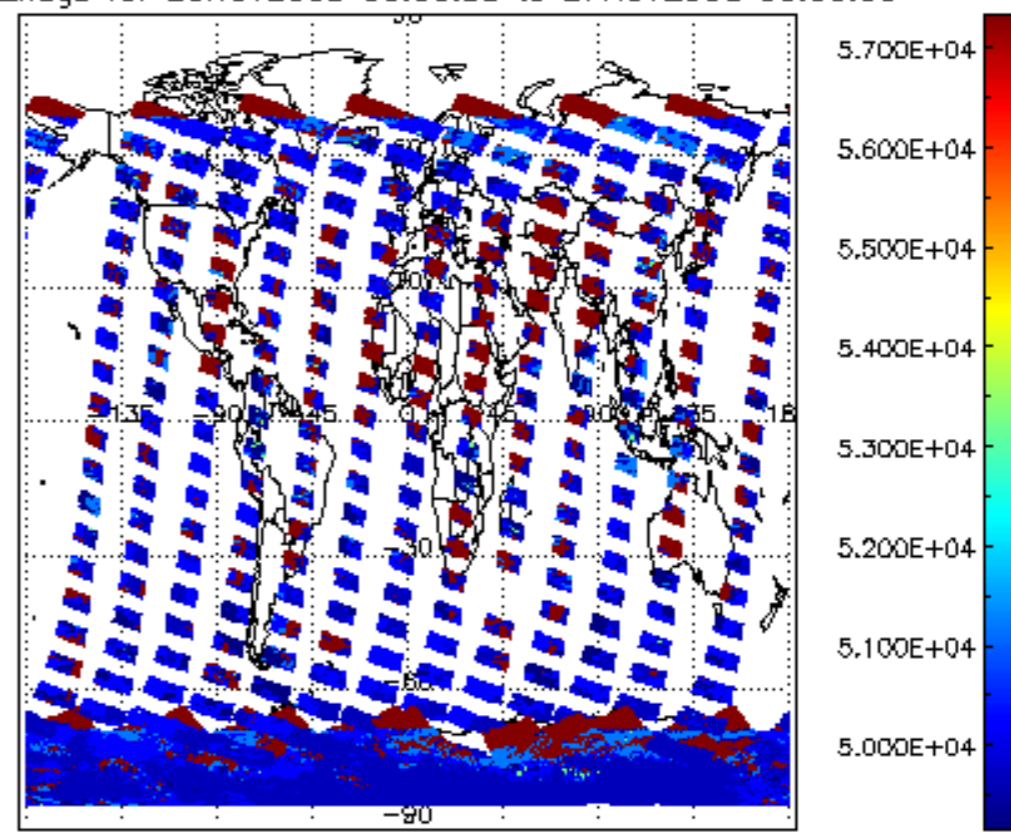
cL\_top\_height for 26NOV2008 00:00:00 to 27NOV2008 00:00:00

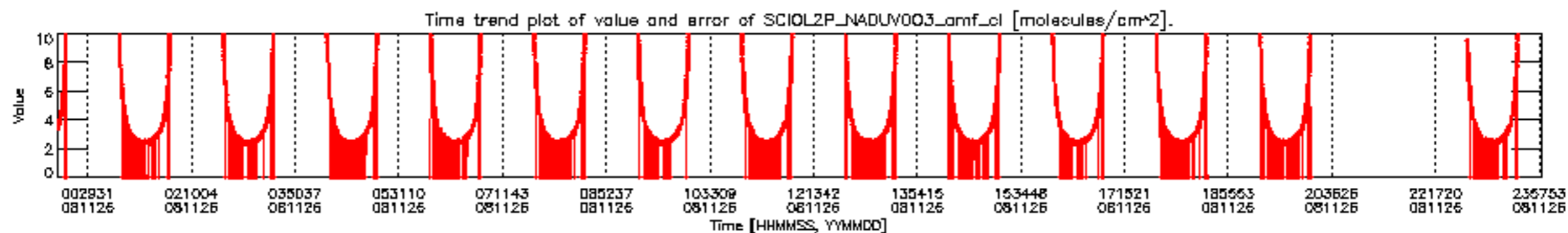
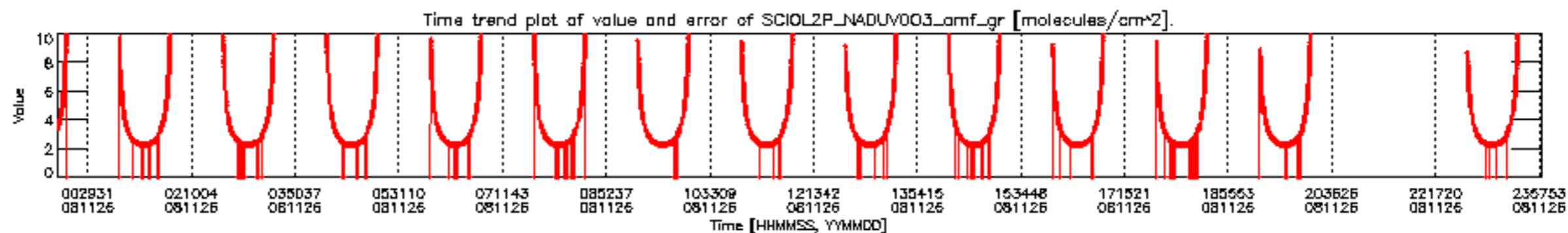
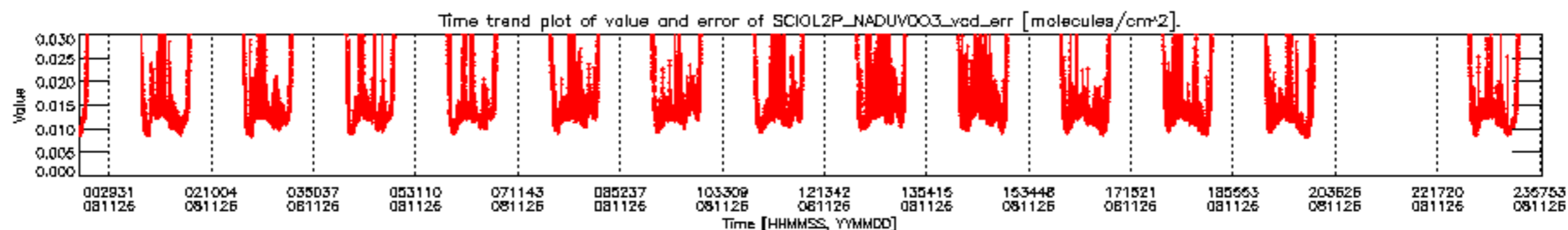
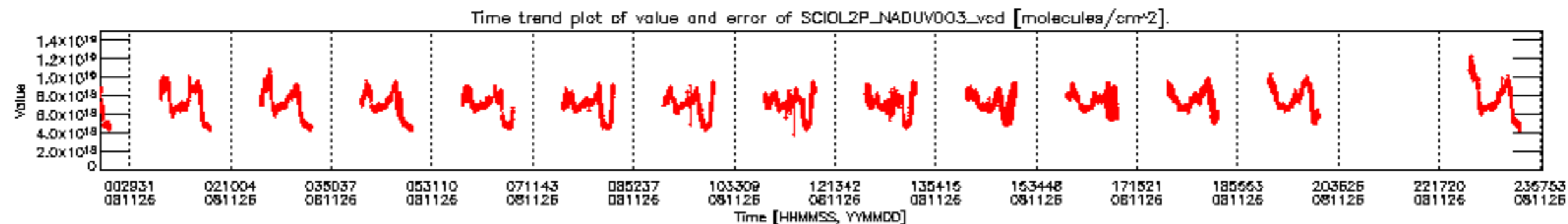


cL\_opt\_depth for 26NOV2008 00:00:00 to 27NOV2008 00:00:00

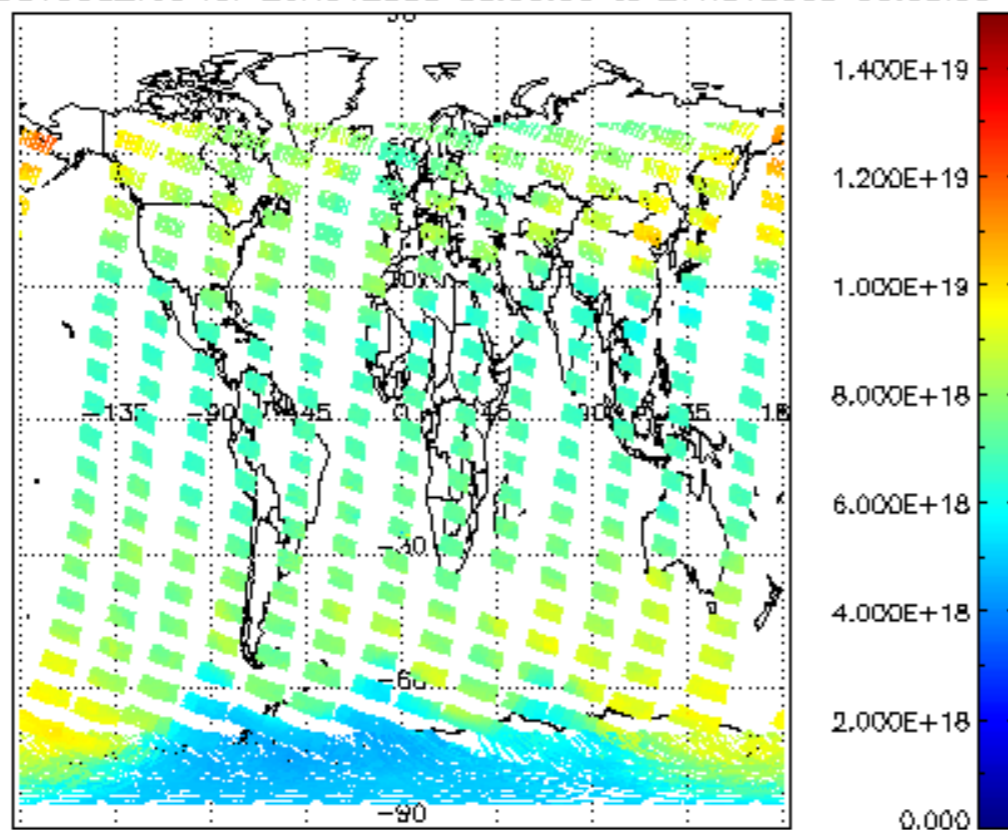


cloud\_flags for 26NOV2008 00:00:00 to 27NOV2008 00:00:00

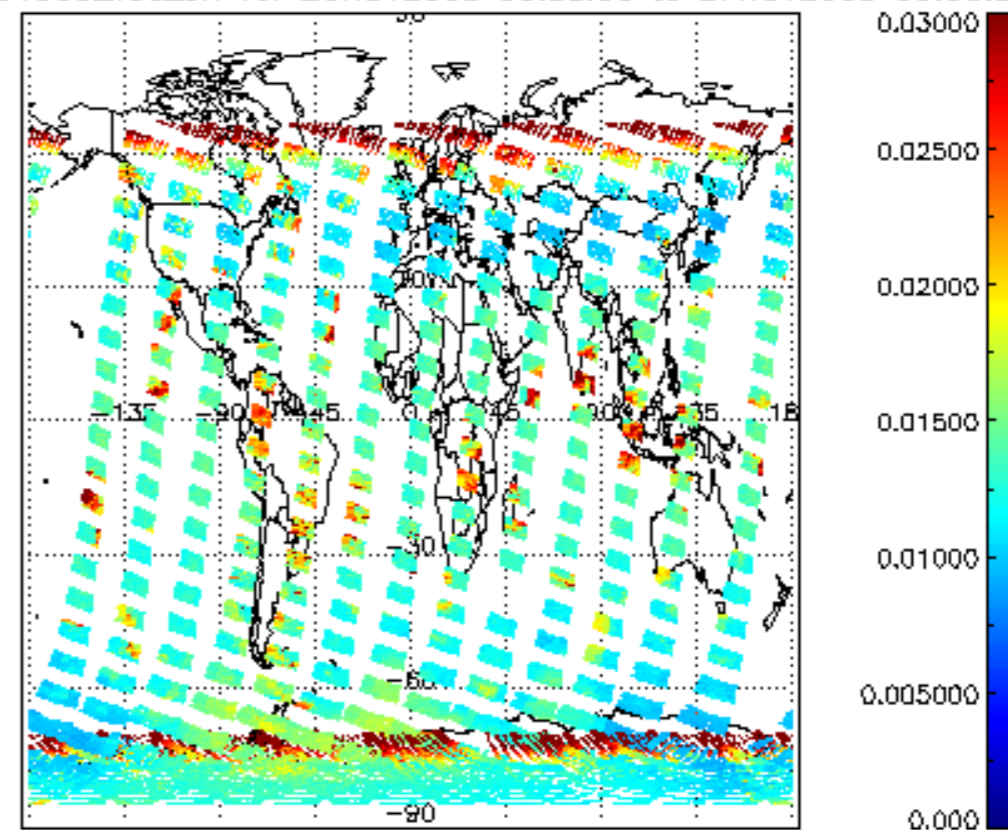




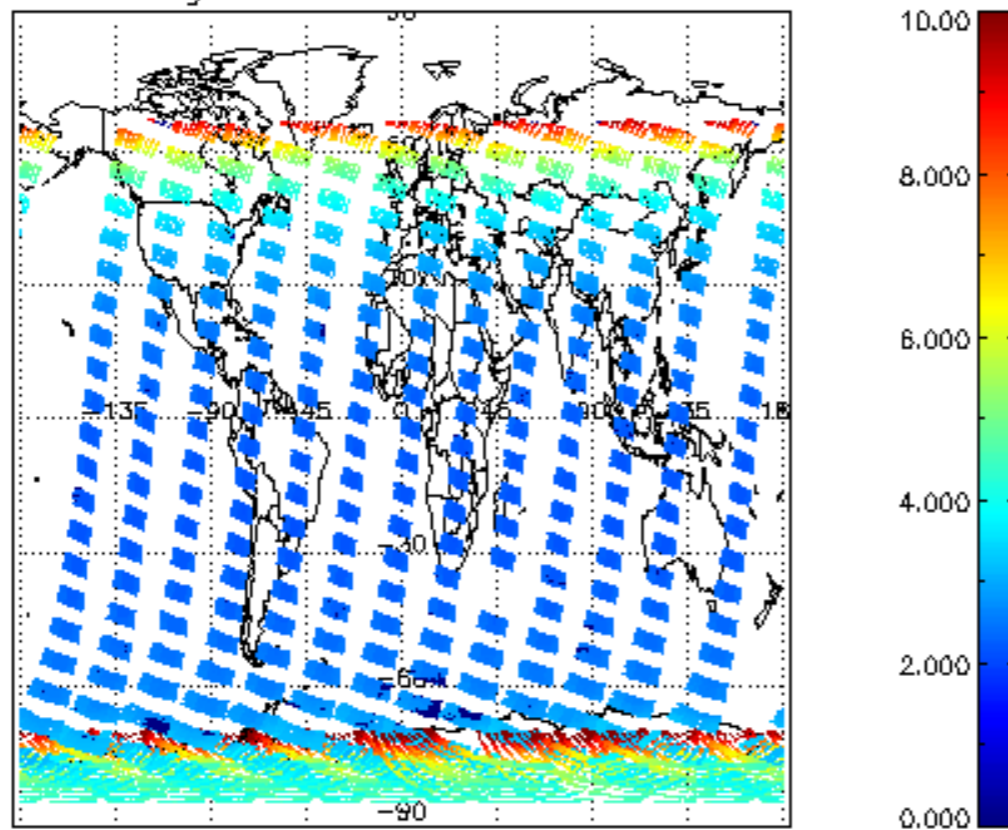
SCIOL2P\_NADUV003\_vcd for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



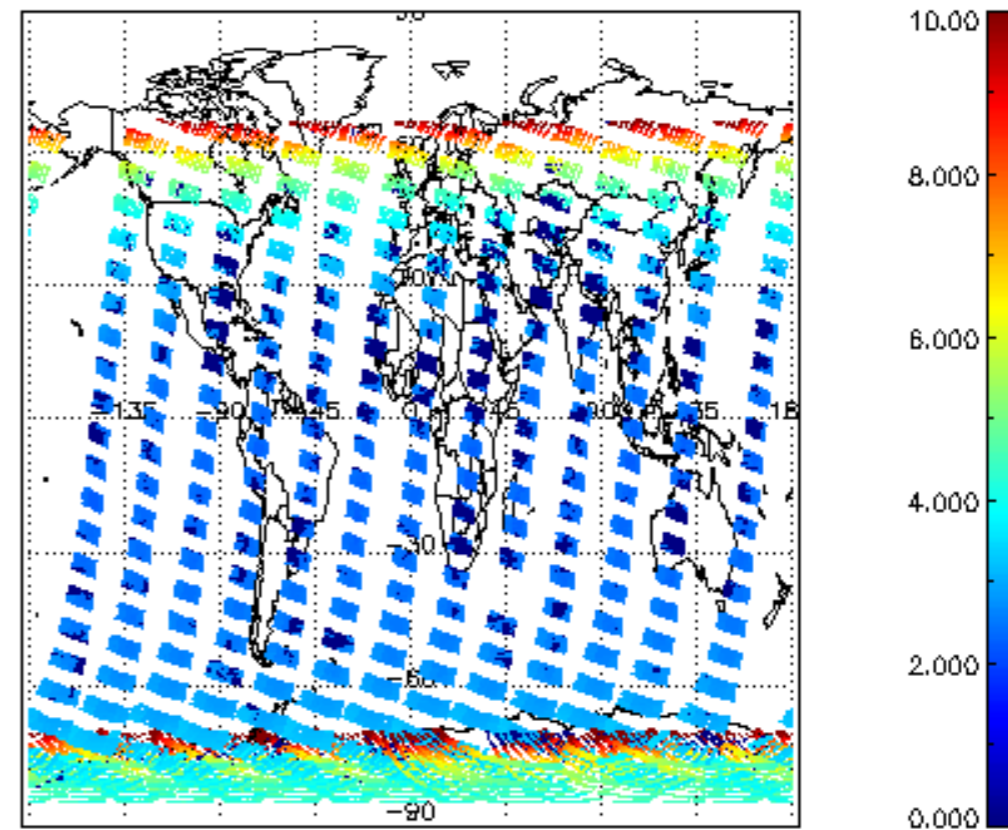
SCIOL2P\_NADUV003\_vcd\_err for 26NOV2008 00:00:00 to 27NOV2008 00:00:00

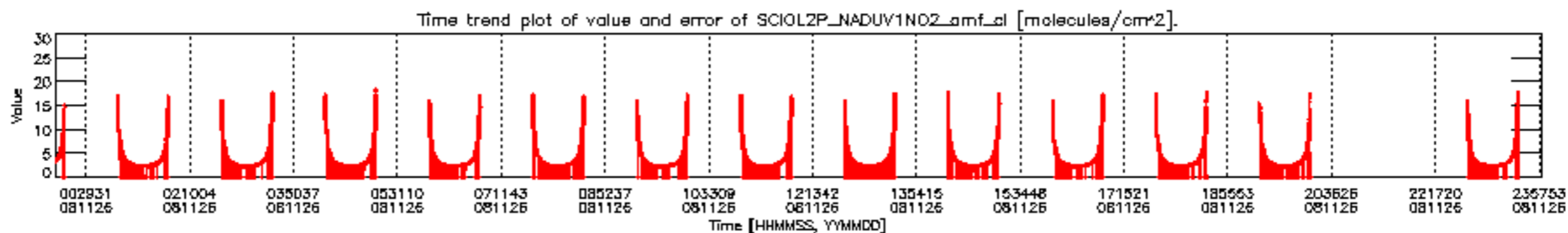
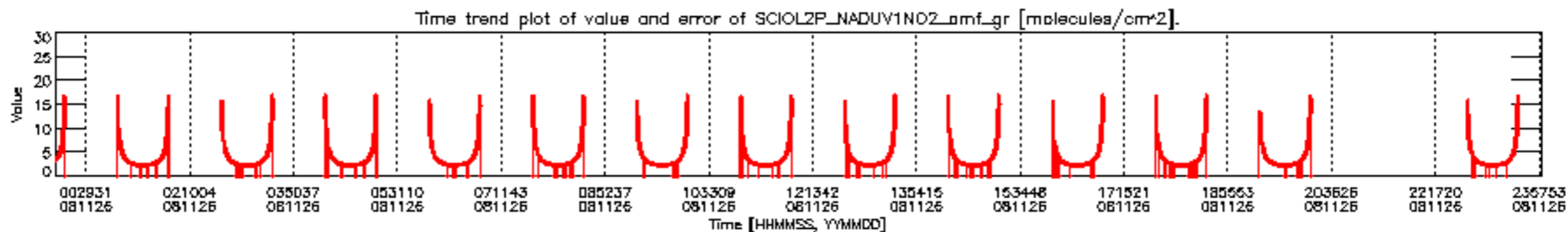
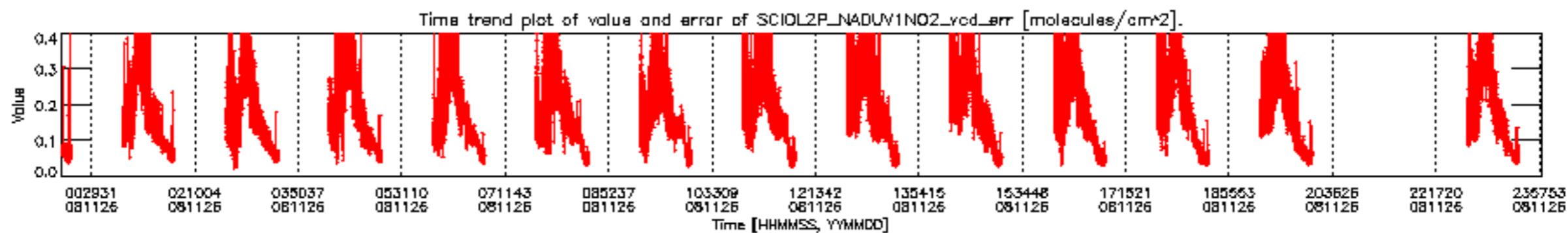
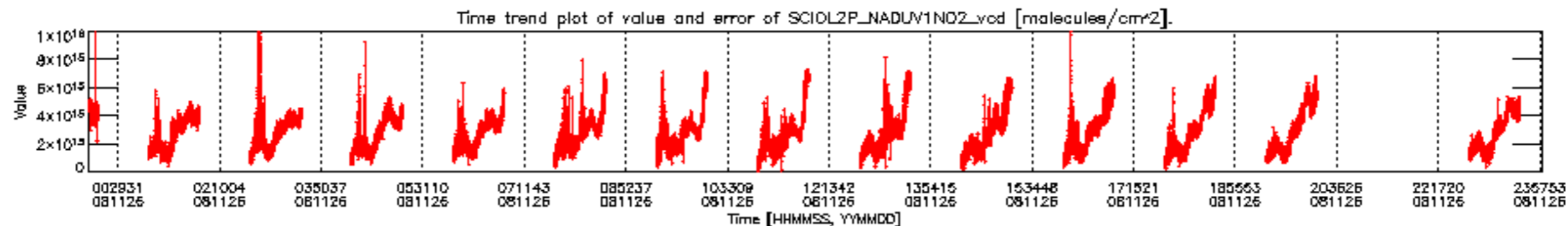


SCIOL2P\_NADUV003\_amf\_gr for 26NOV2008 00:00:00 to 27NOV2008 00:00:00

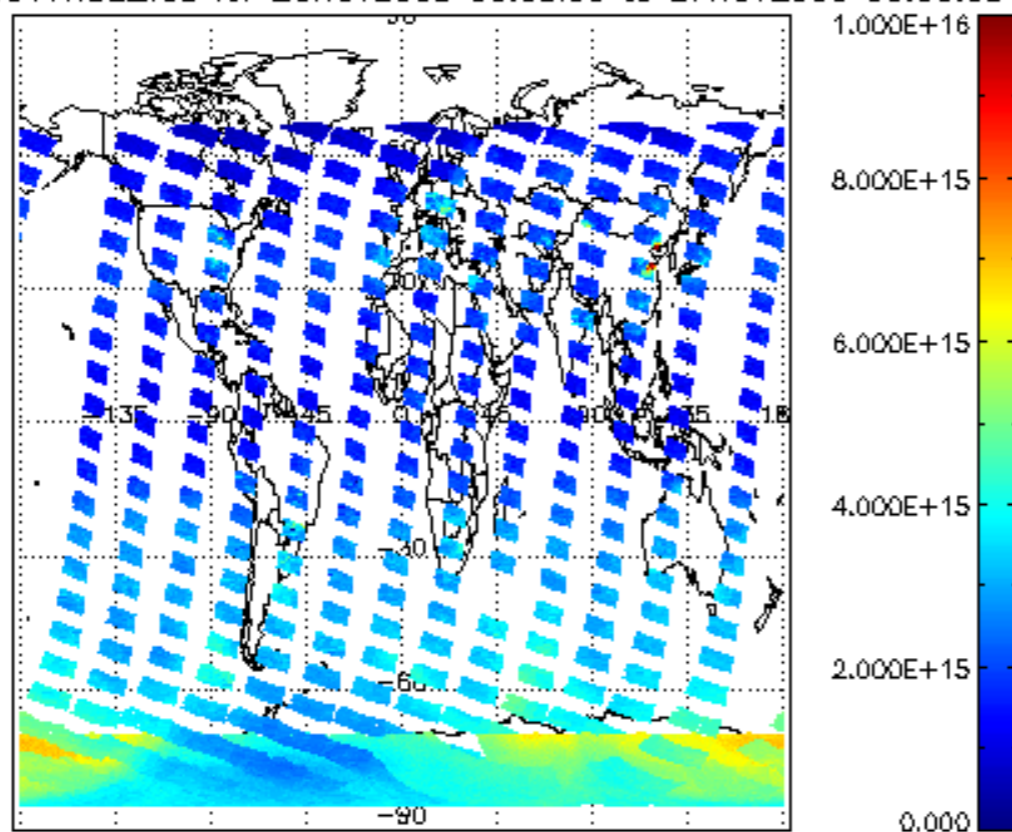


SCIOL2P\_NADUV003\_amf\_cl for 26NOV2008 00:00:00 to 27NOV2008 00:00:00

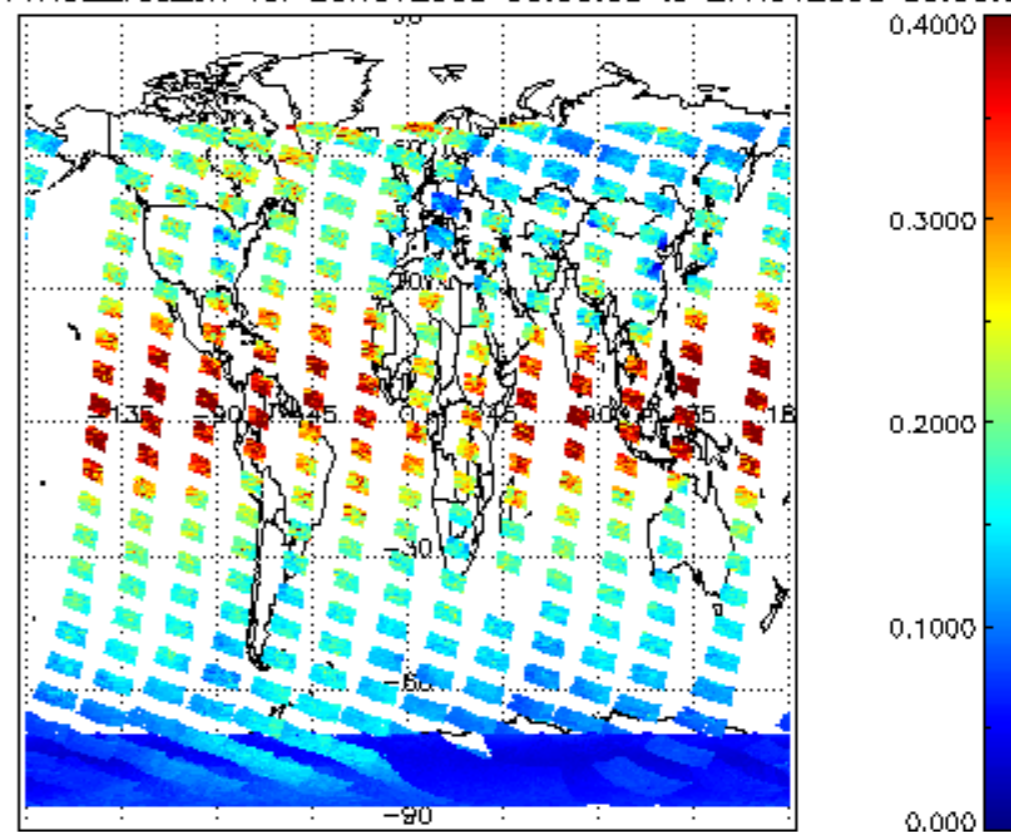




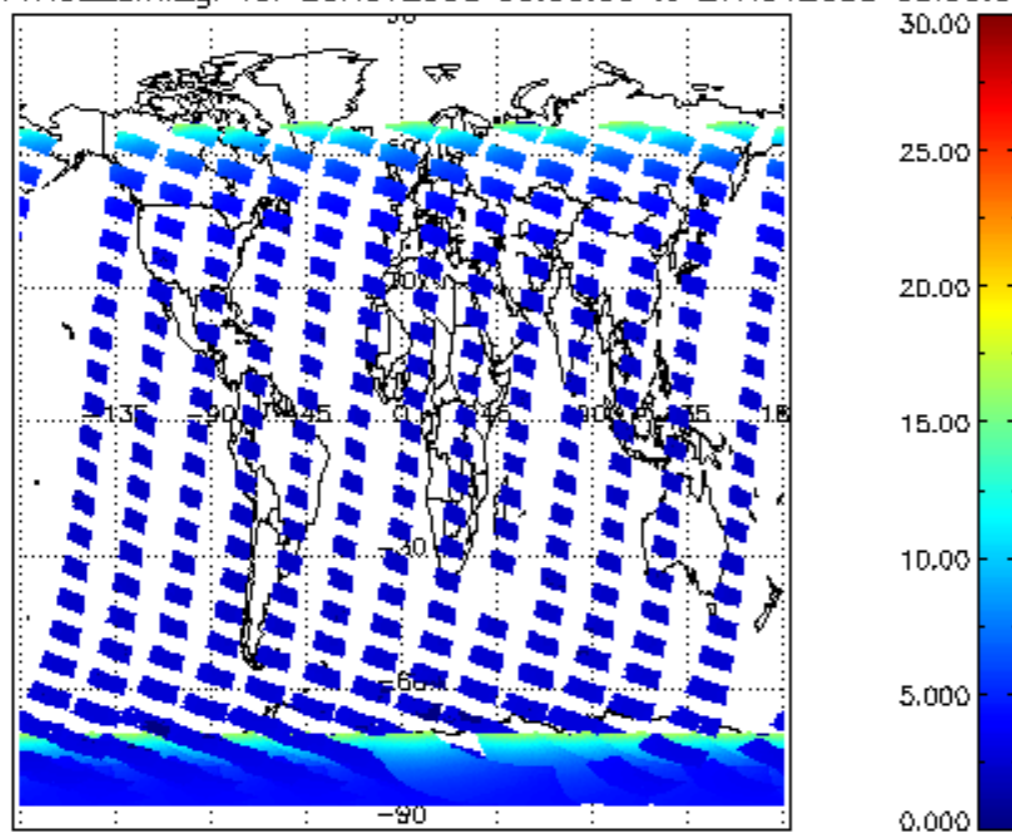
SCIOL2P\_NADUV1NO2\_vcd for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



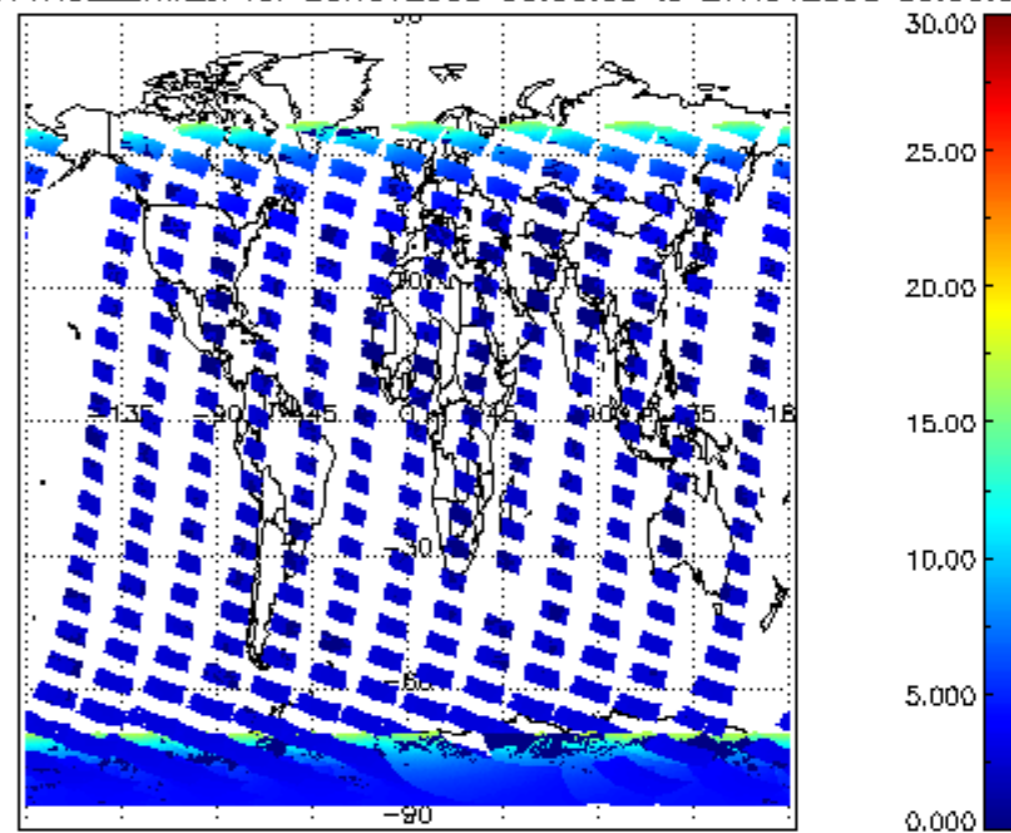
SCIOL2P\_NADUV1NO2\_vcd\_err for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



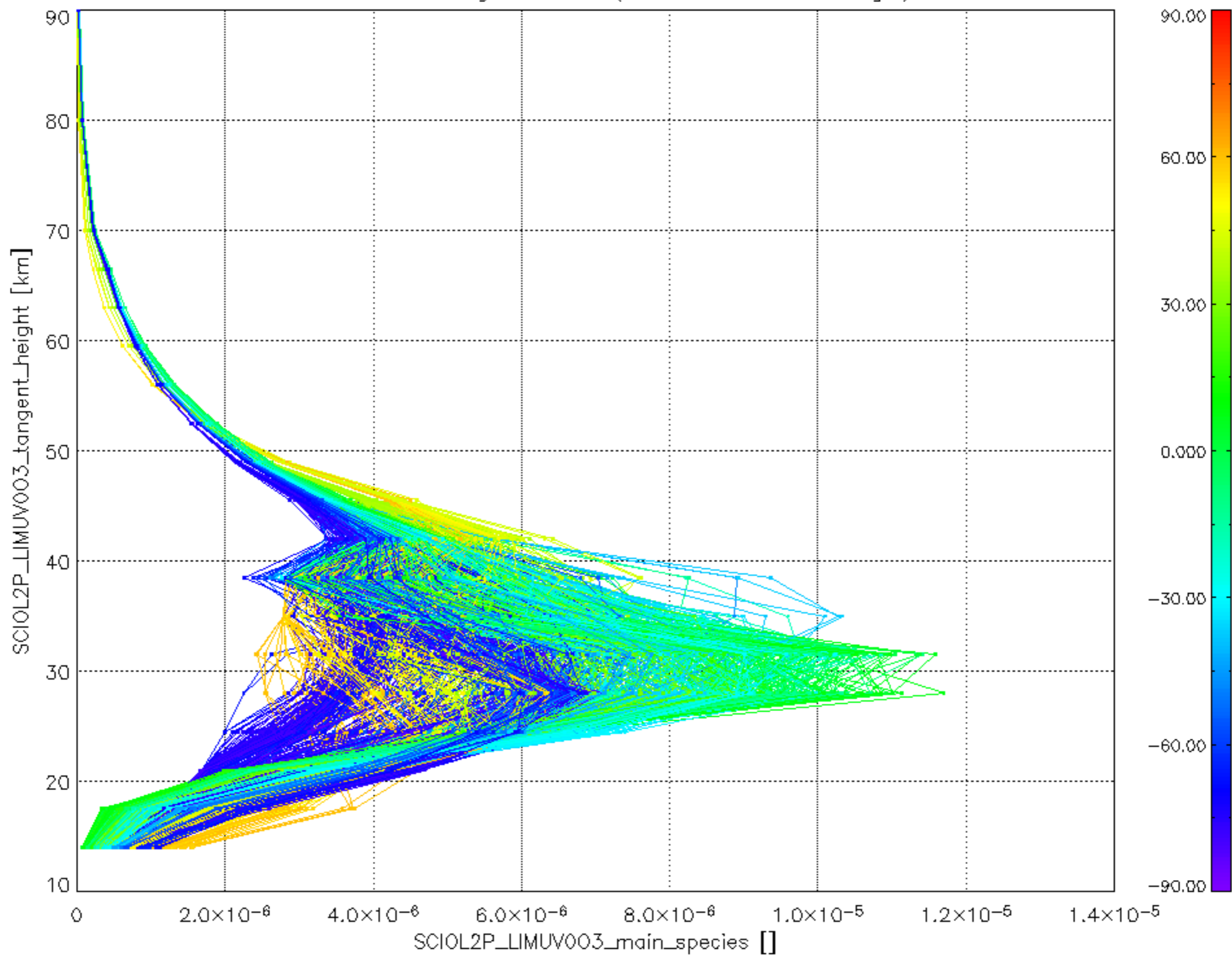
SCIOL2P\_NADUV1NO2\_amf\_gr for 26NOV2008 00:00:00 to 27NOV2008 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 26NOV2008 00:00:00 to 27NOV2008 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).

