

## 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	01SEP2008 07:00:54
Data source version	SCIA-OL/3.01-R
Processing scope for products	01AUG2004 00:00:00 to 02AUG2004 00:00:00
Start time of first product within scope	31JUL2004 23:00:26
Stop time of last product within scope	01AUG2004 19:59:04
Total number of level 2 products	13
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__2PRDPA20040731_230026_000030812029_00073_12652_4039.N1</a>	31JUL2004 23:00:26	31JUL2004 23:51:47	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040801_004147_000030132029_00074_12653_9521.N1</a>	01AUG2004 00:41:47	01AUG2004 01:32:00	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040801_021718_000033252029_00075_12654_9250.N1</a>	01AUG2004 02:17:18	01AUG2004 03:12:44	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040801_035754_000033122029_00076_12655_9440.N1</a>	01AUG2004 03:57:54	01AUG2004 04:53:07	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040801_053831_000033252029_00077_12656_9382.N1</a>	01AUG2004 05:38:31	01AUG2004 06:33:56	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040801_071907_000033122029_00078_12657_9524.N1</a>	01AUG2004 07:19:07	01AUG2004 08:14:20	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040801_085943_000033252029_00079_12658_9301.N1</a>	01AUG2004 08:59:43	01AUG2004 09:55:09	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040801_104019_000033122029_00080_12659_9501.N1</a>	01AUG2004 10:40:19	01AUG2004 11:35:32	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040801_122056_000033252029_00081_12660_9469.N1</a>	01AUG2004 12:20:56	01AUG2004 13:16:21	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040801_140132_000033122029_00082_12661_9543.N1</a>	01AUG2004 14:01:32	01AUG2004 14:56:45	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040801_154208_000033252029_00083_12662_9277.N1</a>	01AUG2004 15:42:08	01AUG2004 16:37:34	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040801_172237_000033752029_00084_12663_9554.N1</a>	01AUG2004 17:22:37	01AUG2004 18:18:53	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040801_190338_000033252029_00085_12664_9615.N1</a>	01AUG2004 19:03:38	01AUG2004 19:59:04	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: 122980

Total number of cloud data DSRs with good quality flag (=0): 122980 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	122980	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	122980	0.17759	0.12500	0.12500	0.25000	0.061710	s
CL_FRAC	122980	0.32858	0.27029	0.0000	1.0000	0.28509	-
CL_FRAC_ERR	122980	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	122980	5.6829	4.0000	4.0000	8.0000	1.9747	
PMD_READ_CL[0]	122980	0.19259	0.0000	0.0000	8.0000	1.0082	-
PMD_READ_CL[1]	122980	1.1836	0.0000	0.0000	8.0000	2.2903	-
CL_TOP_HEIGHT	108041	3.5708	1.6186	0.0000	17.000	3.8544	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	108041	58.776	76.764	0.0000	101.00	43.694	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	122980	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	122980	11001010	11000100	11000000	11100000	3357.8	flags
AERO_ABSO_IND	122980	0.79158	0.60779	-4.1153	12.273	1.0857	
AERO_IND_DIAG	122980	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	122980	01011111	00000000	00000000	11000000	24576.	flags

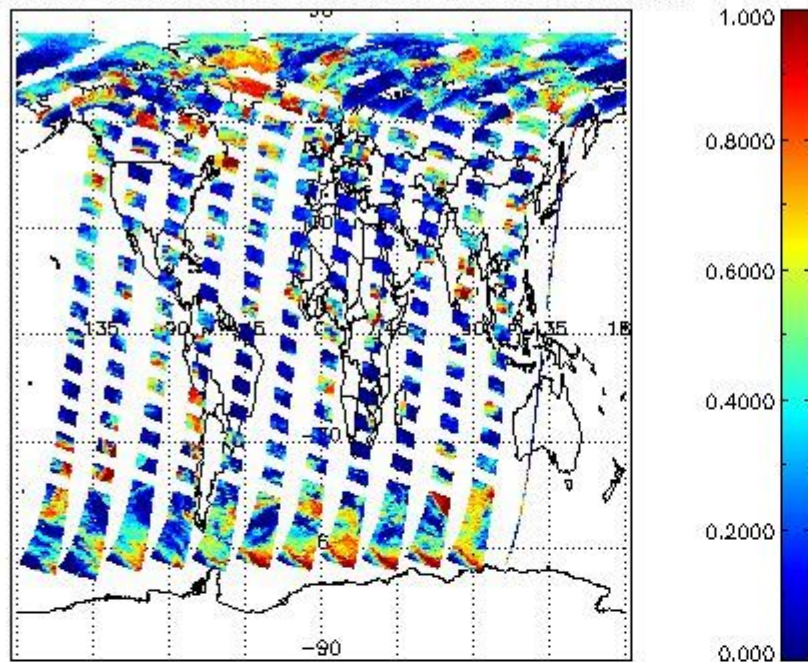
### Time and geolocation plots:

Plots are available for the following parameters:

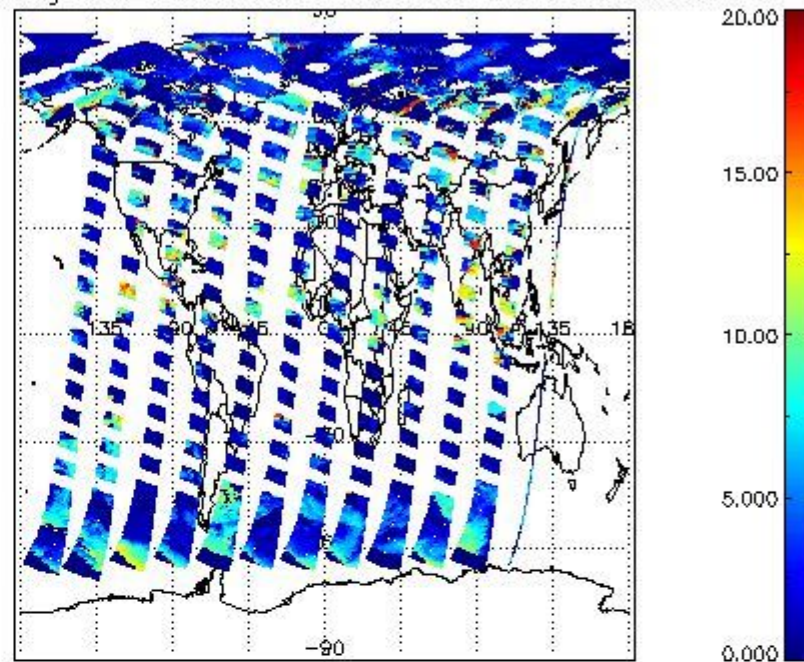
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



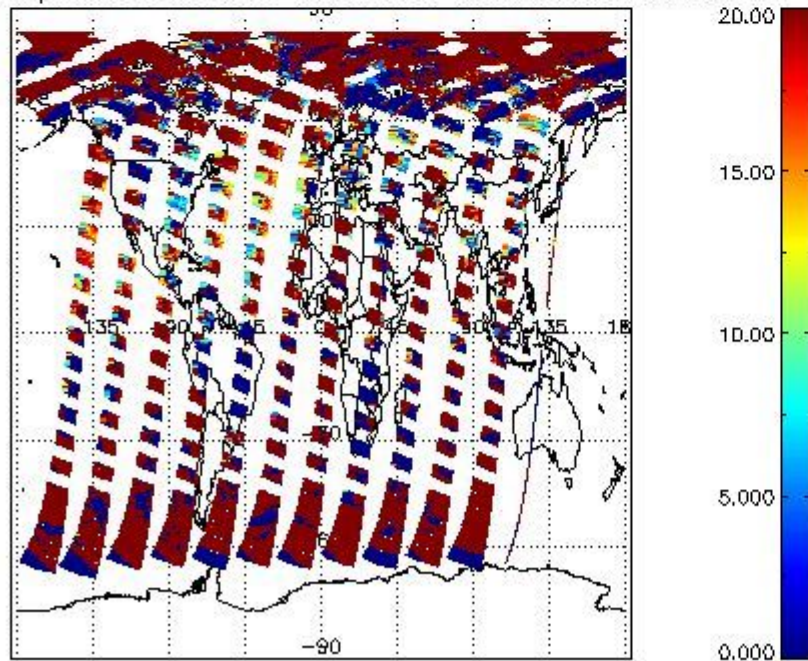
cL\_frac for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



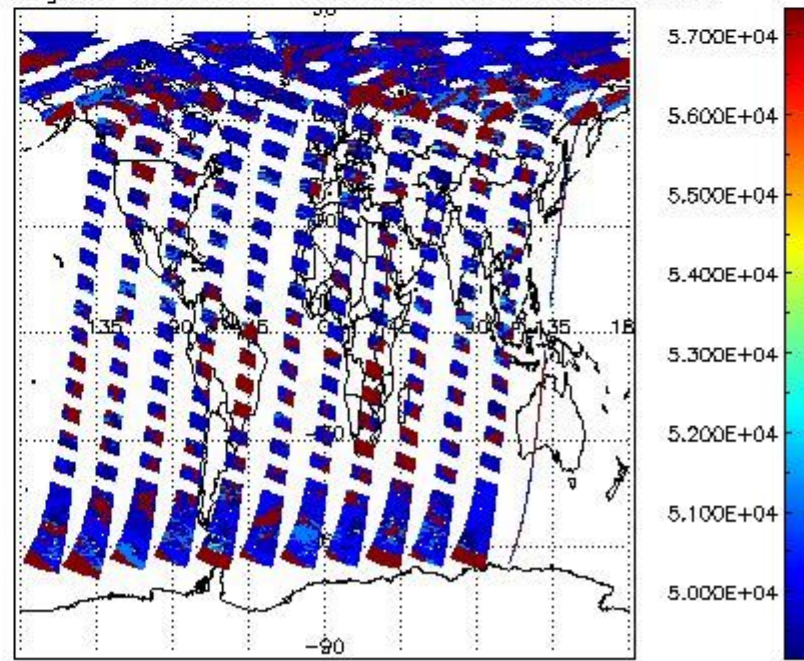
cL\_top\_height for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



cL\_opt\_depth for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



cloud\_flags for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



## 2.2.2 Nadir

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

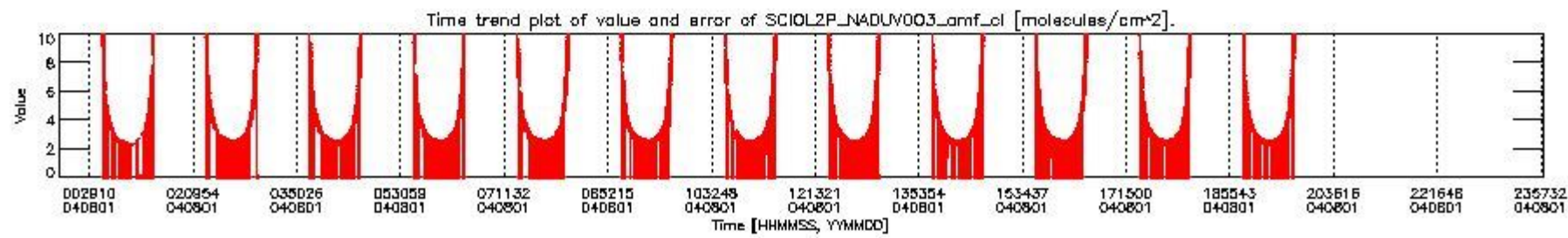
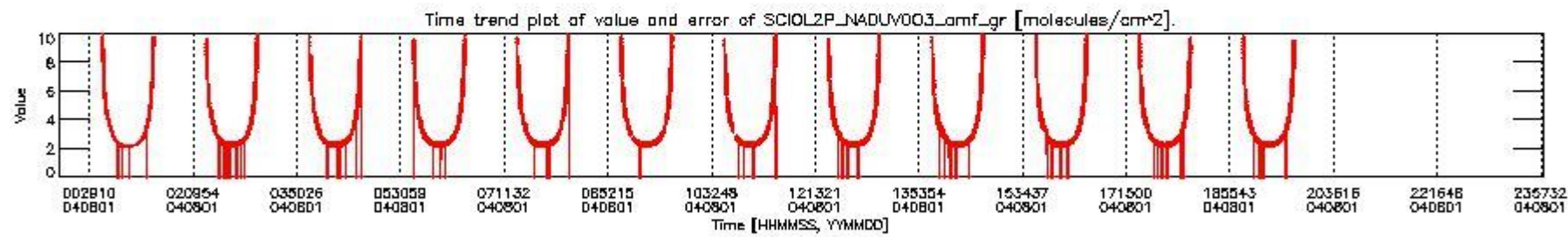
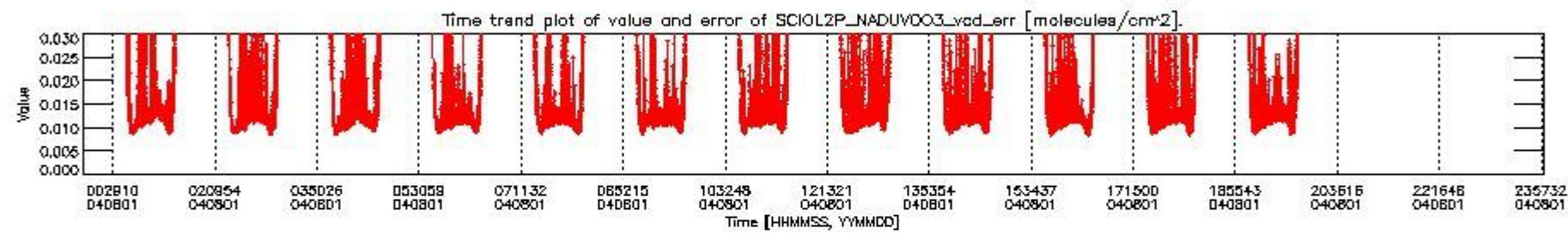
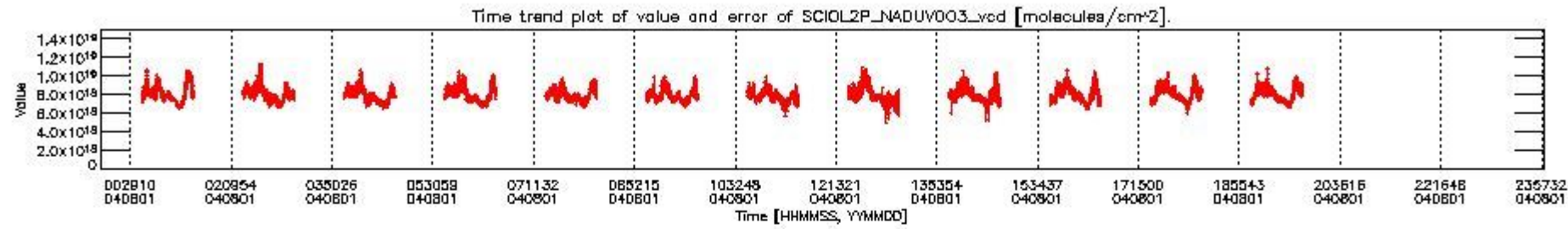
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



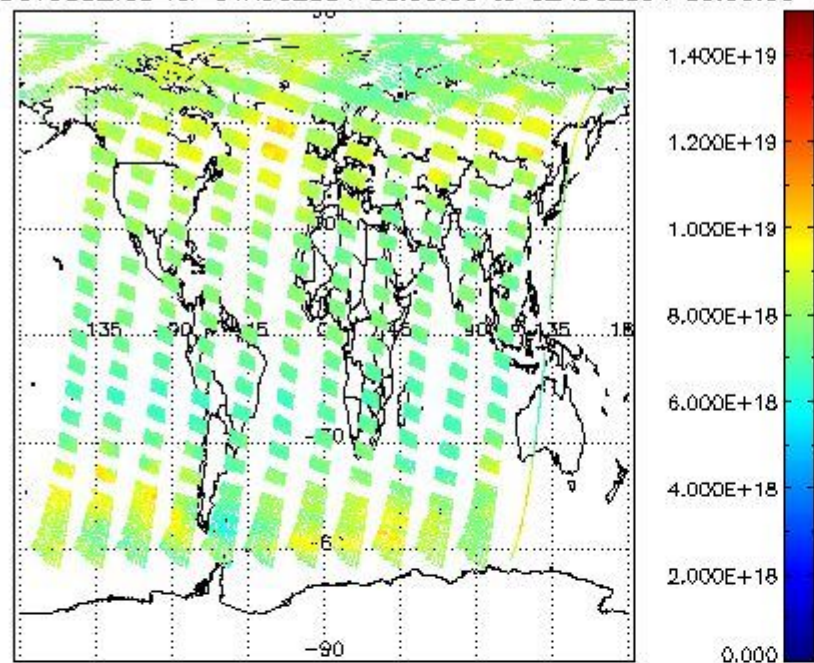
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

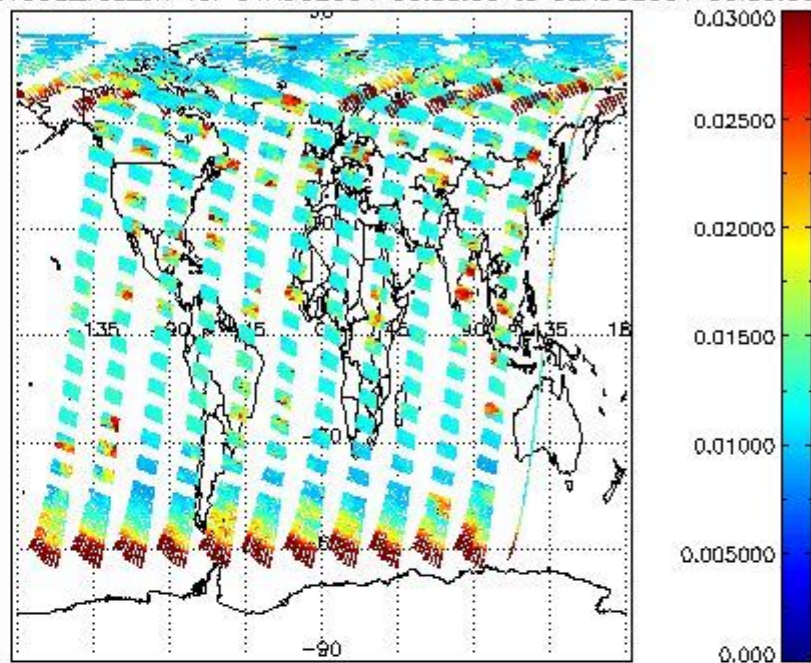




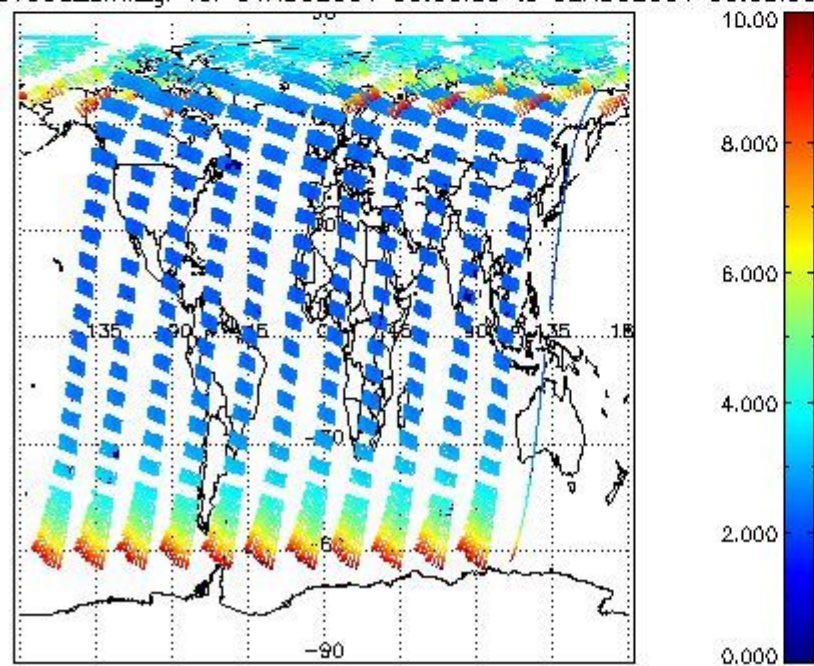
SCIOL2P\_NADUV003\_vcd for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



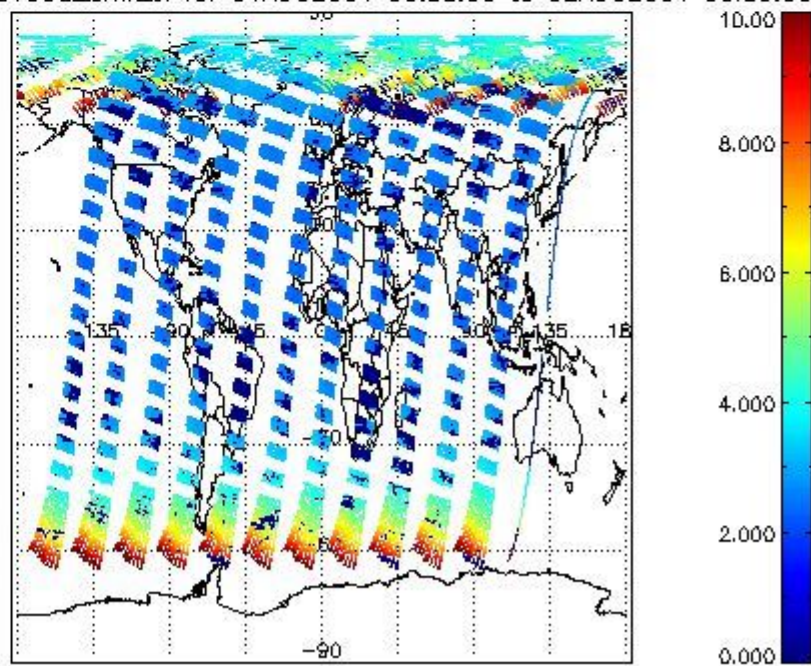
SCIOL2P\_NADUV003\_vcd\_err for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



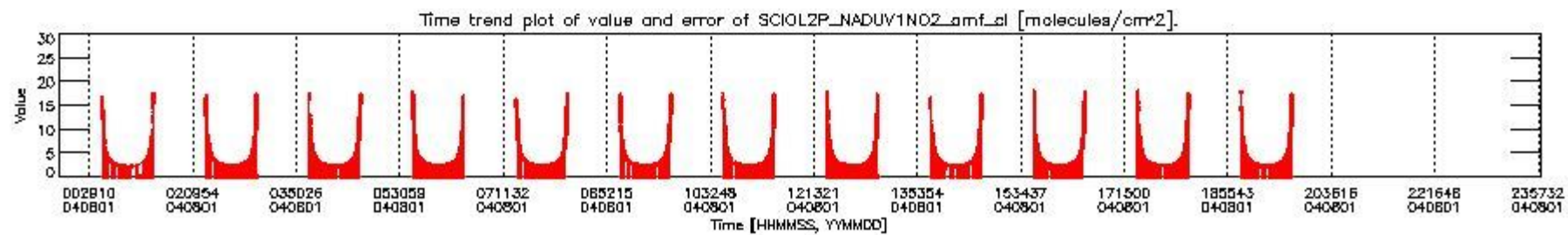
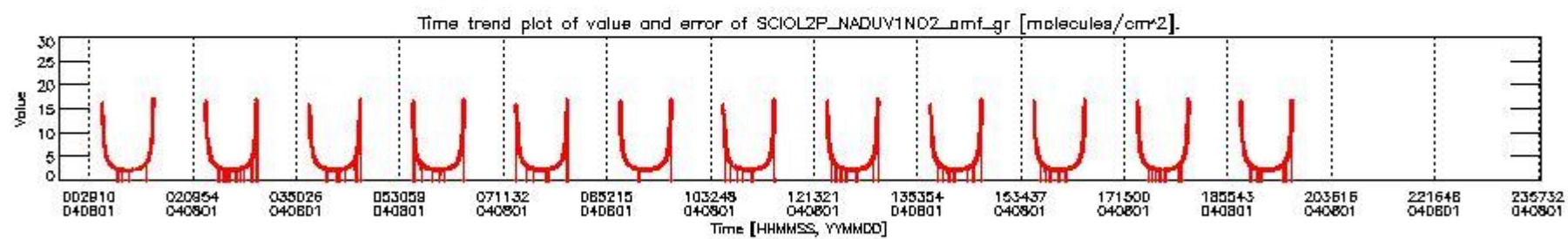
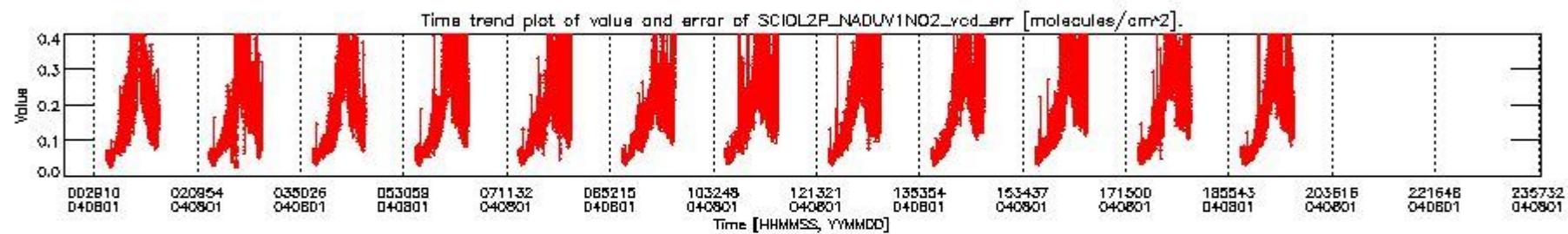
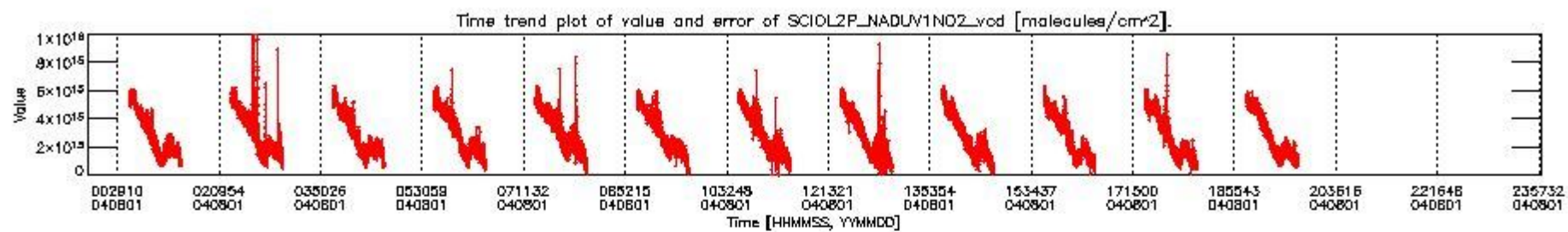
SCIOL2P\_NADUV003\_amf\_gr for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



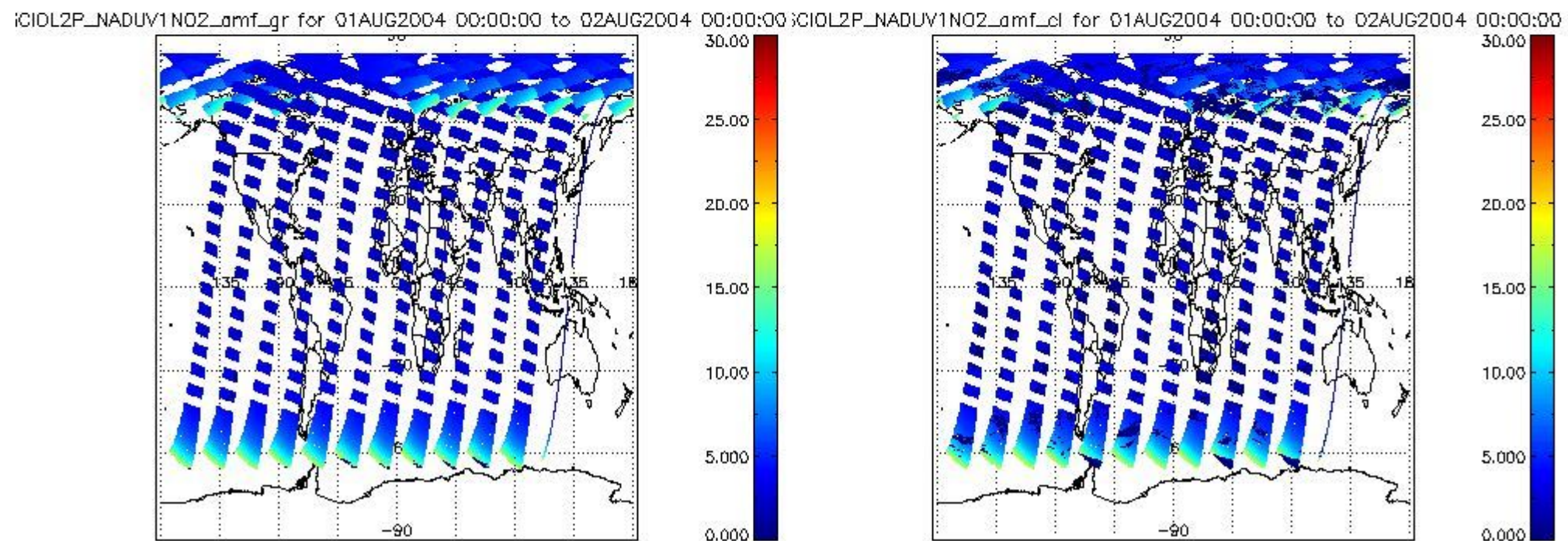
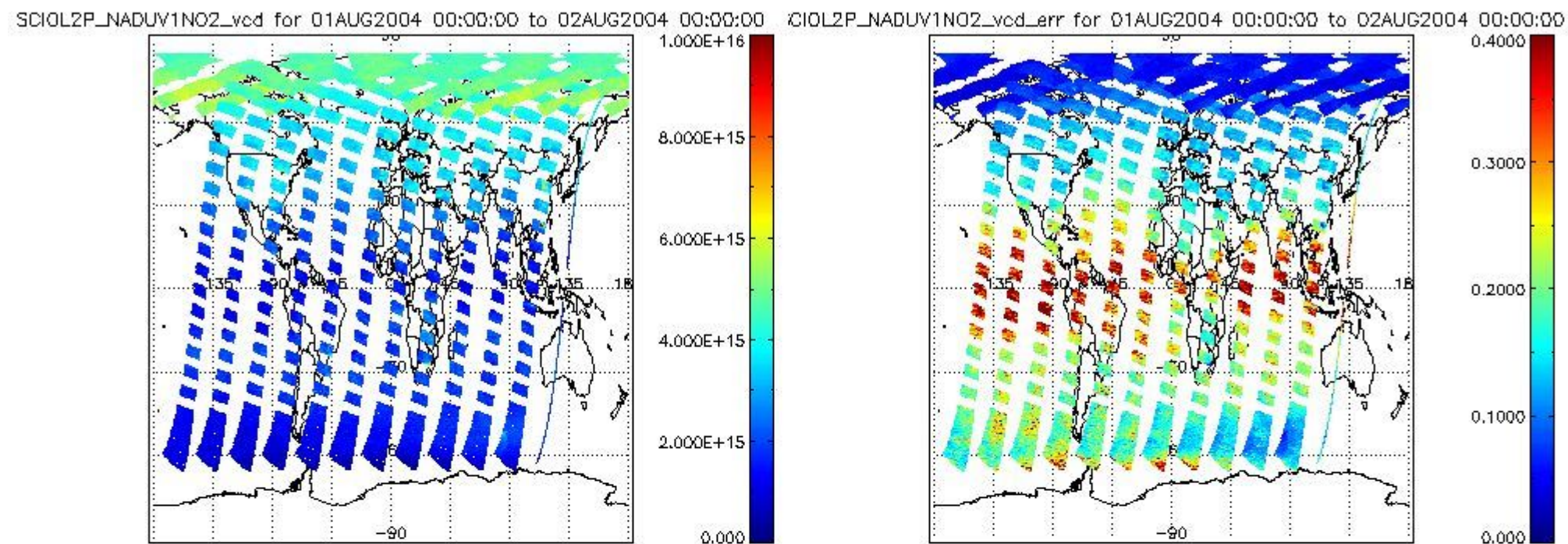
SCIOL2P\_NADUV003\_amf\_cl for 01AUG2004 00:00:00 to 02AUG2004 00:00:00











### 2.2.3 Limb

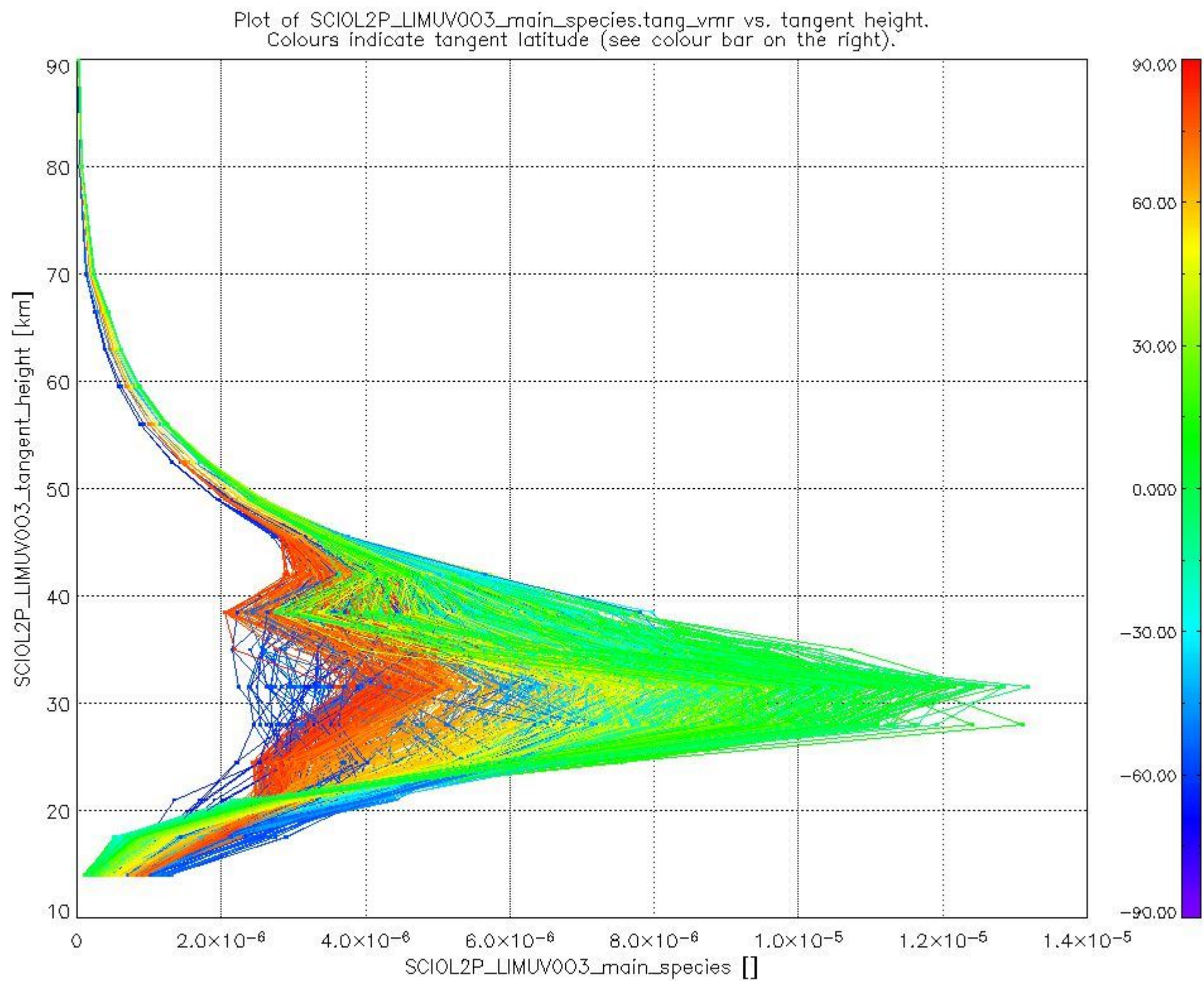
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

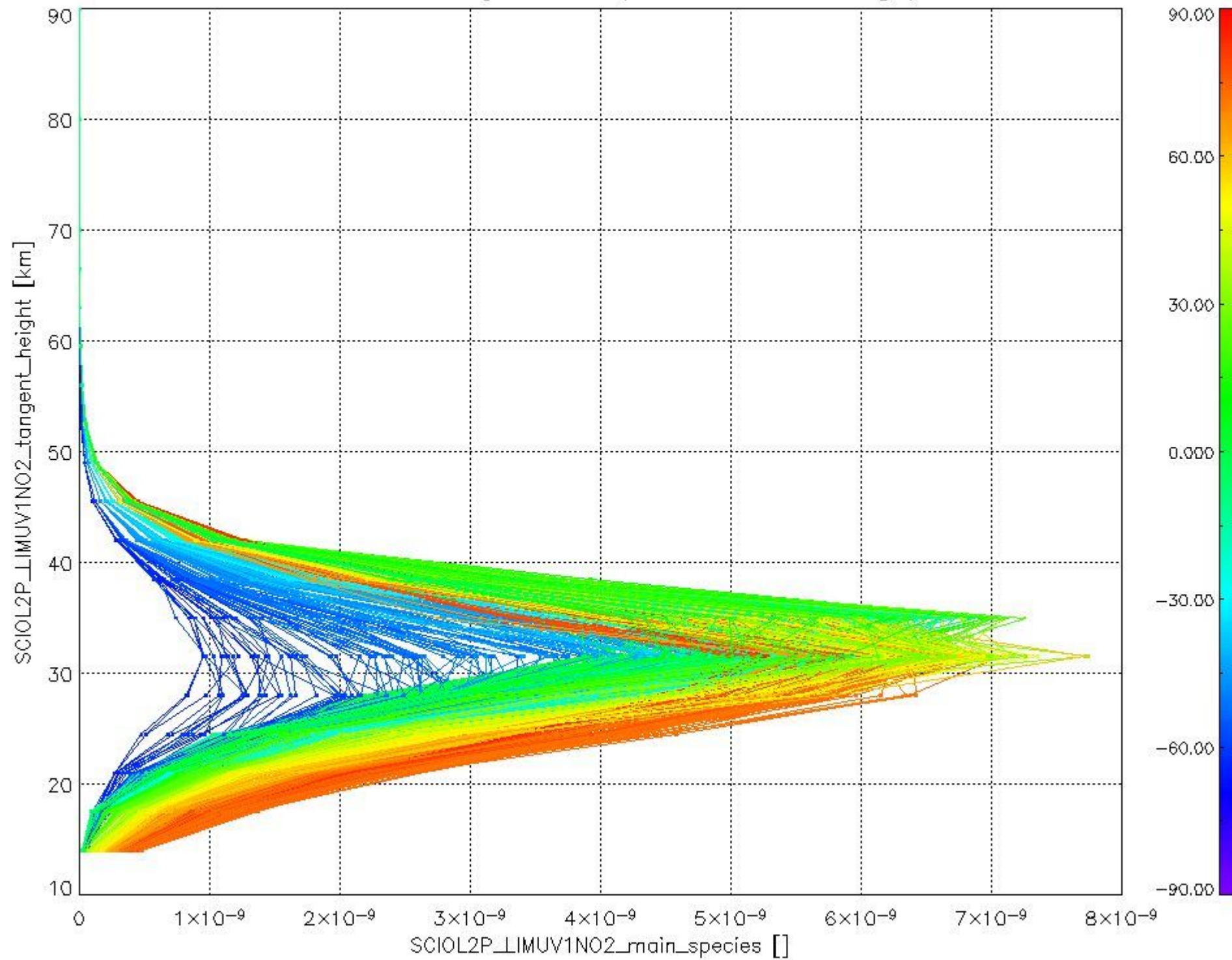


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





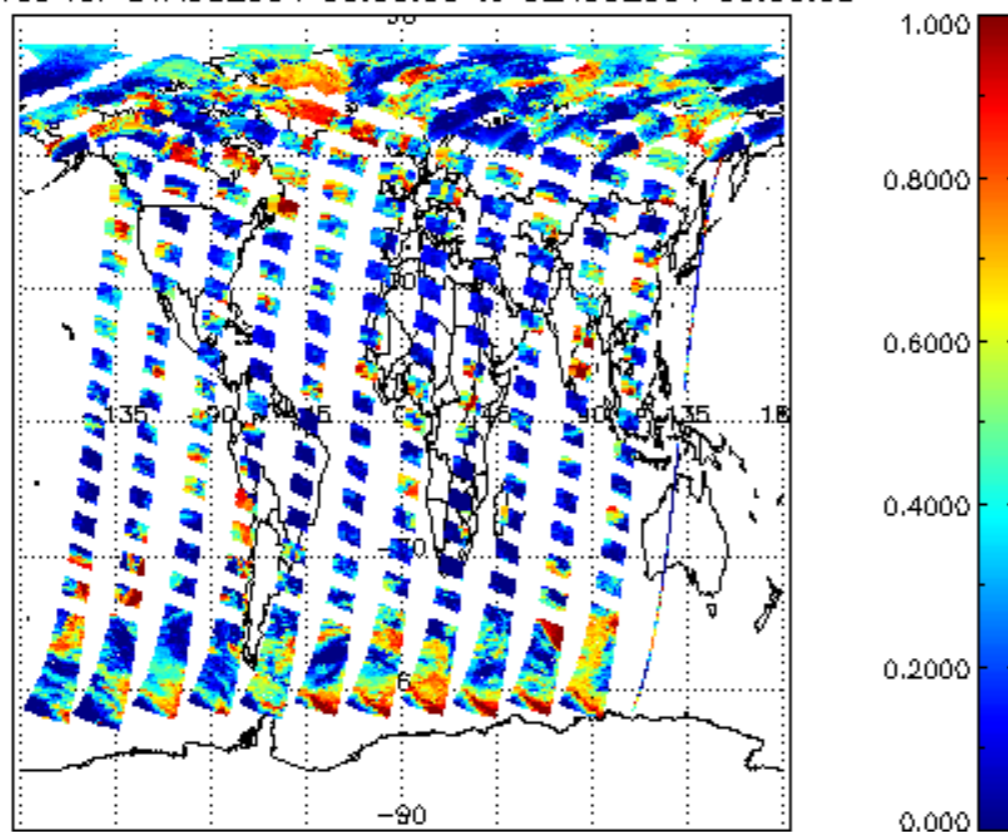
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



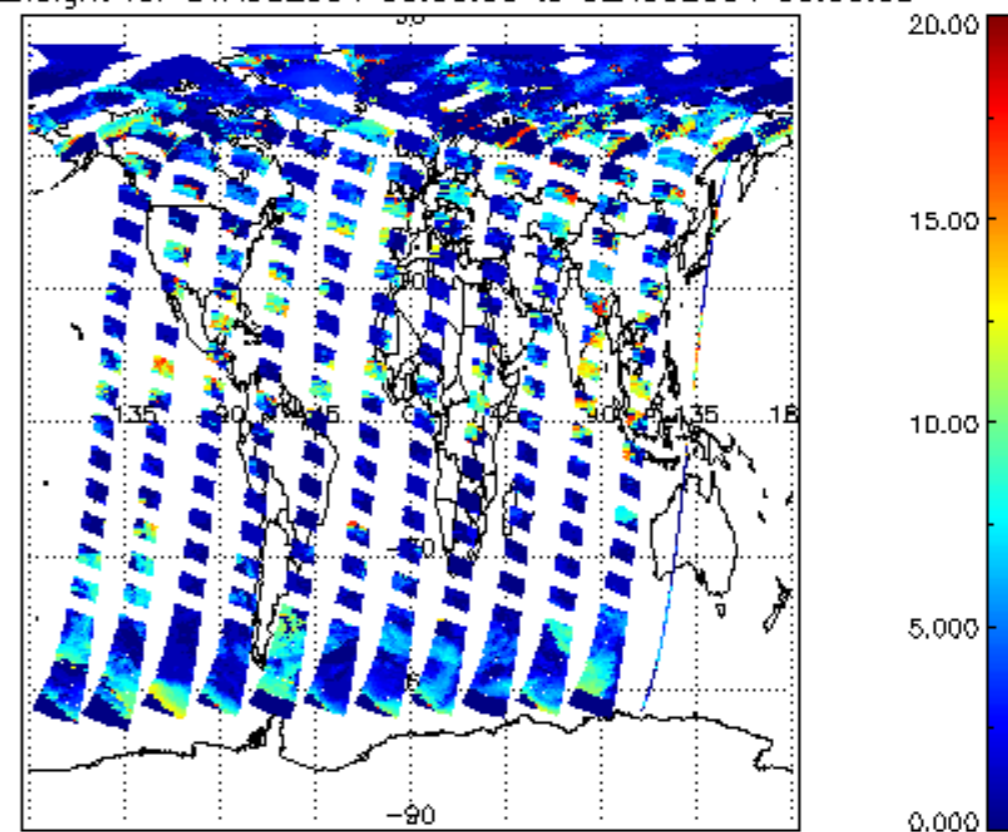
### 2.3 ADF monitoring

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

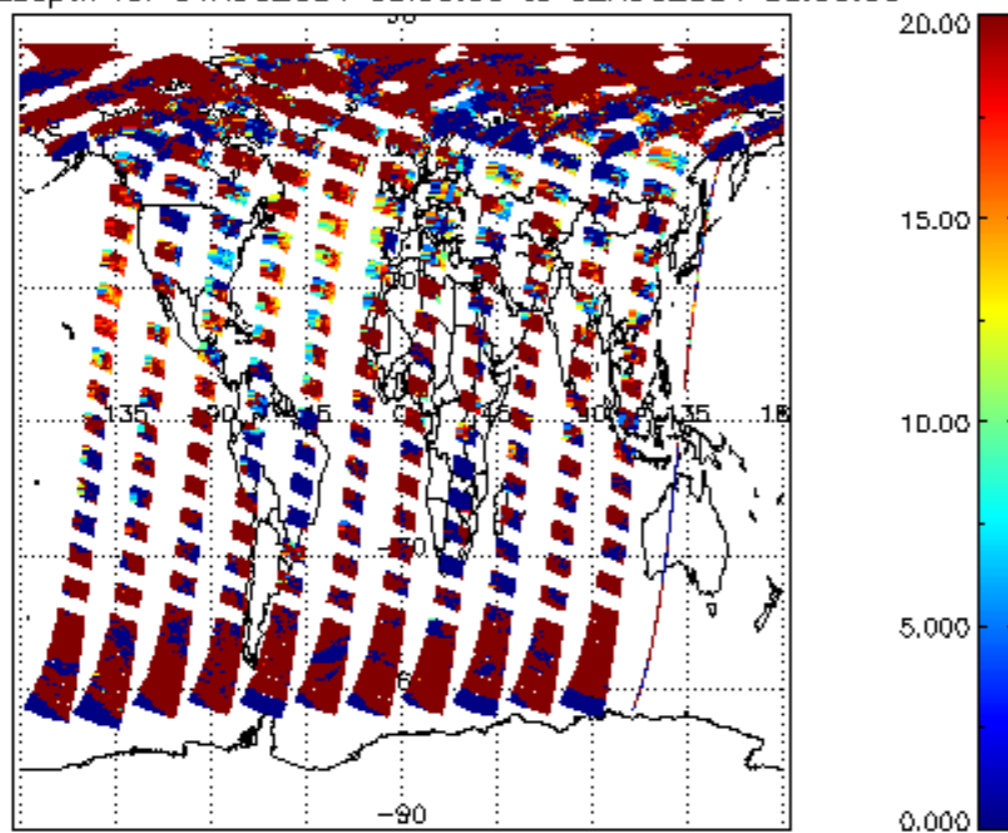
cL\_frac for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



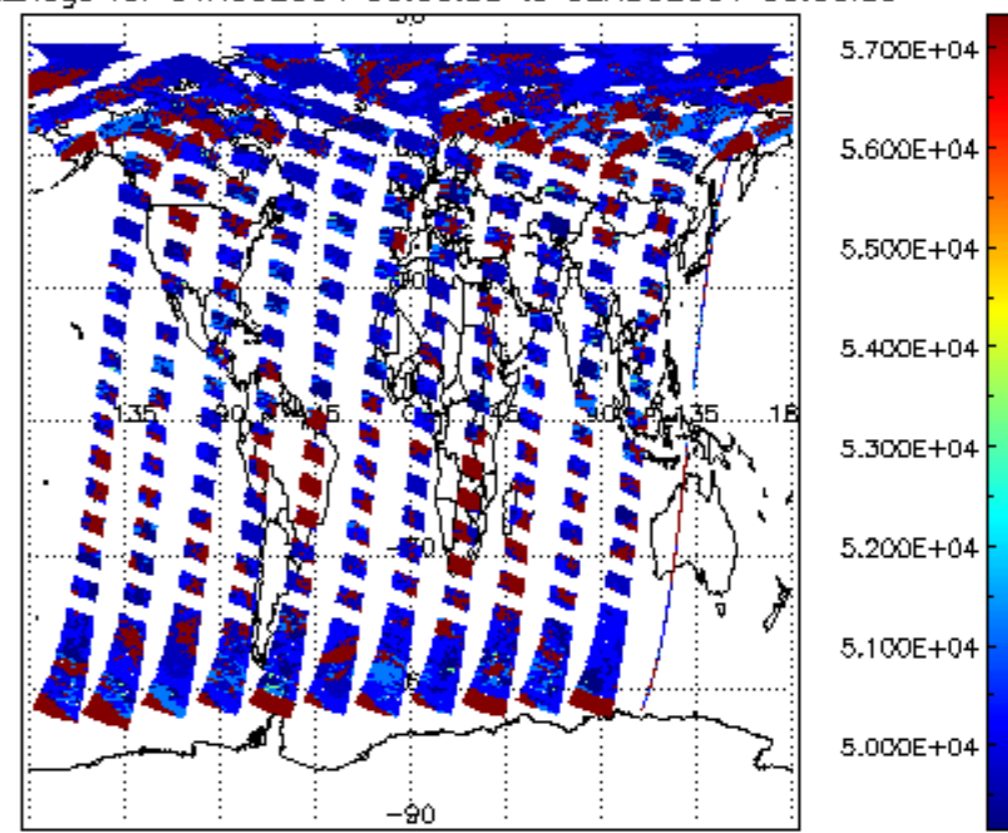
cL\_top\_height for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



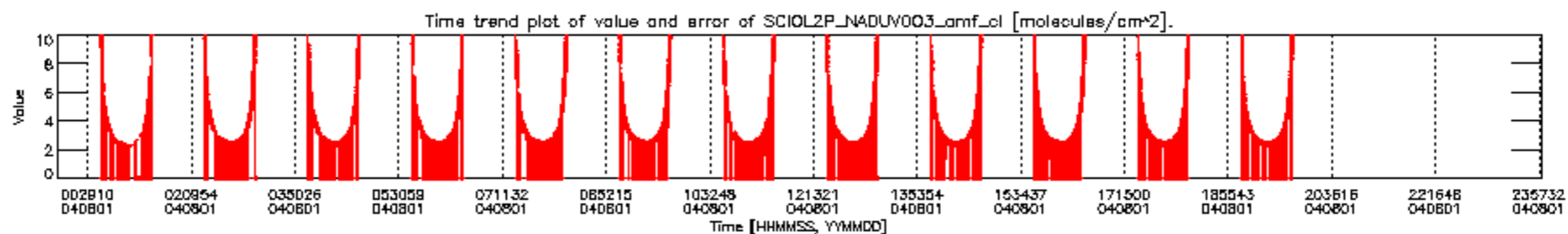
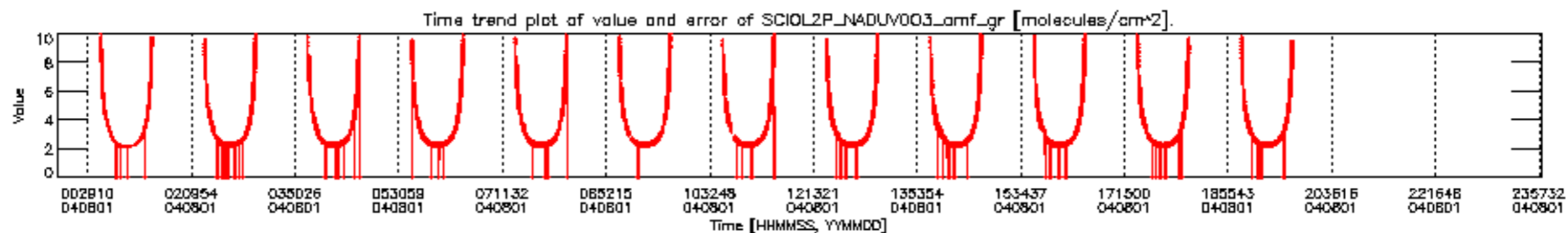
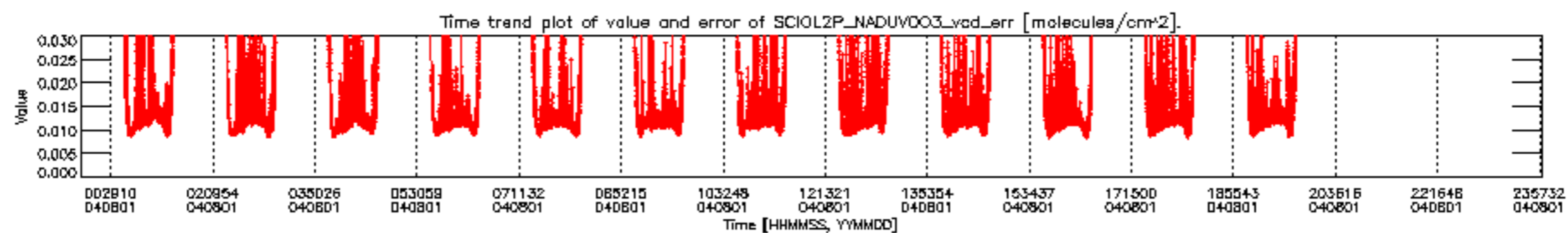
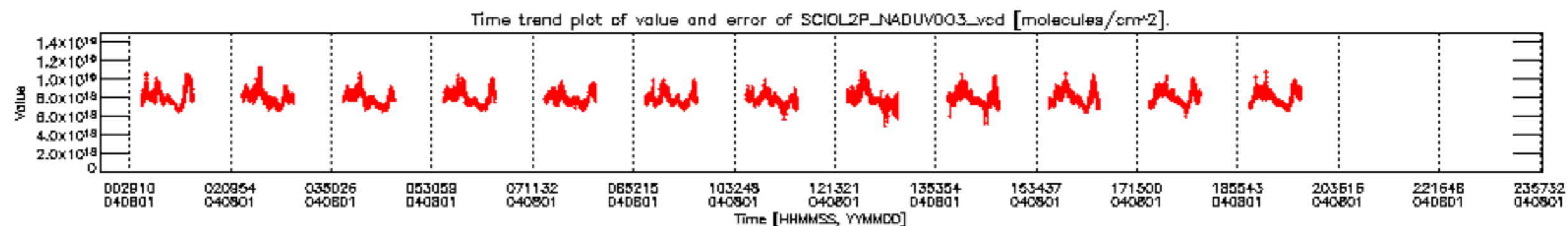
cL\_opt\_depth for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



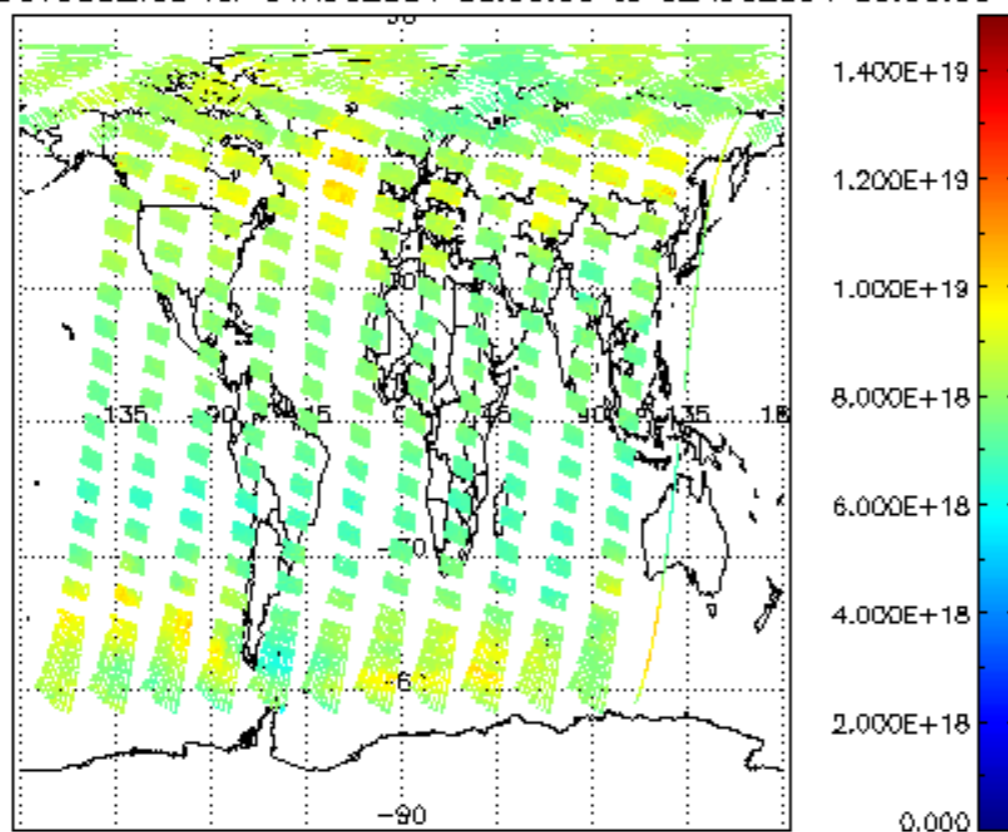
cloud\_flags for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



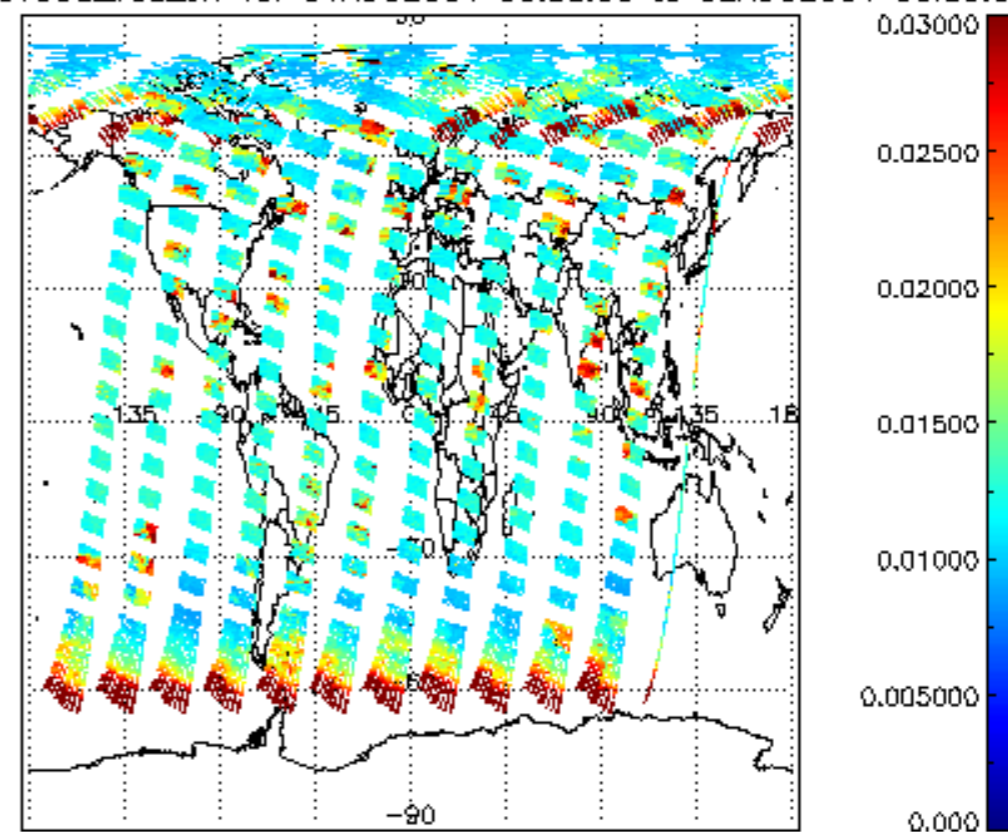




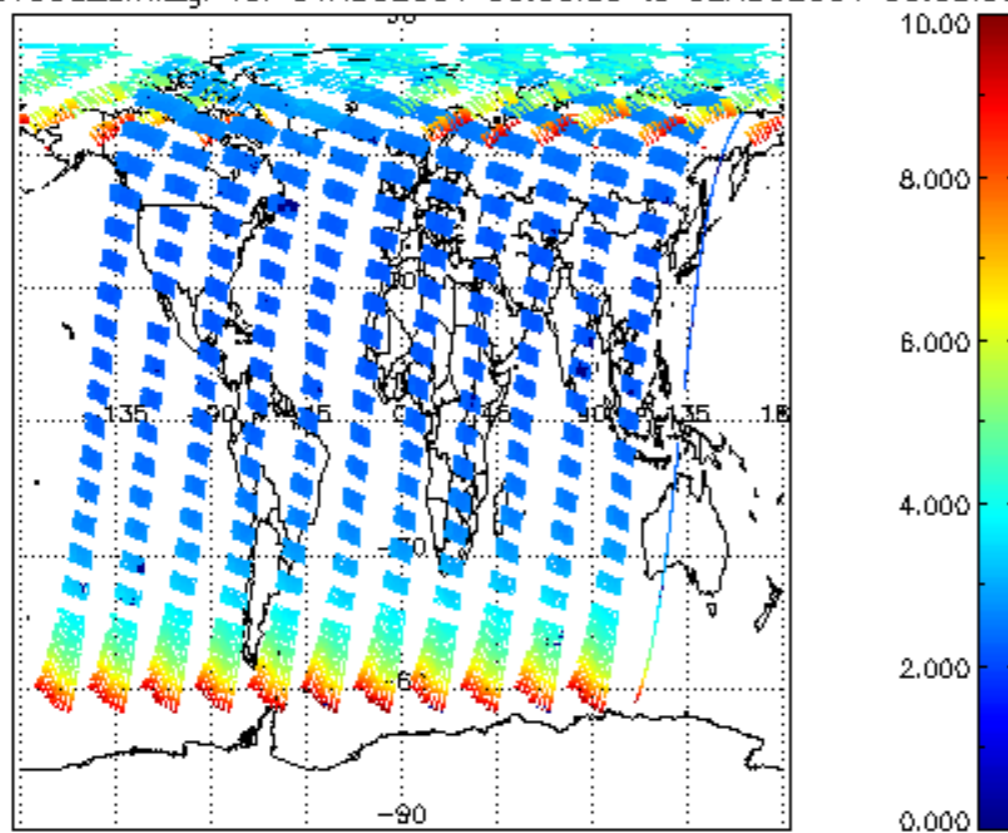
SCIOL2P\_NADUV003\_vcd for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



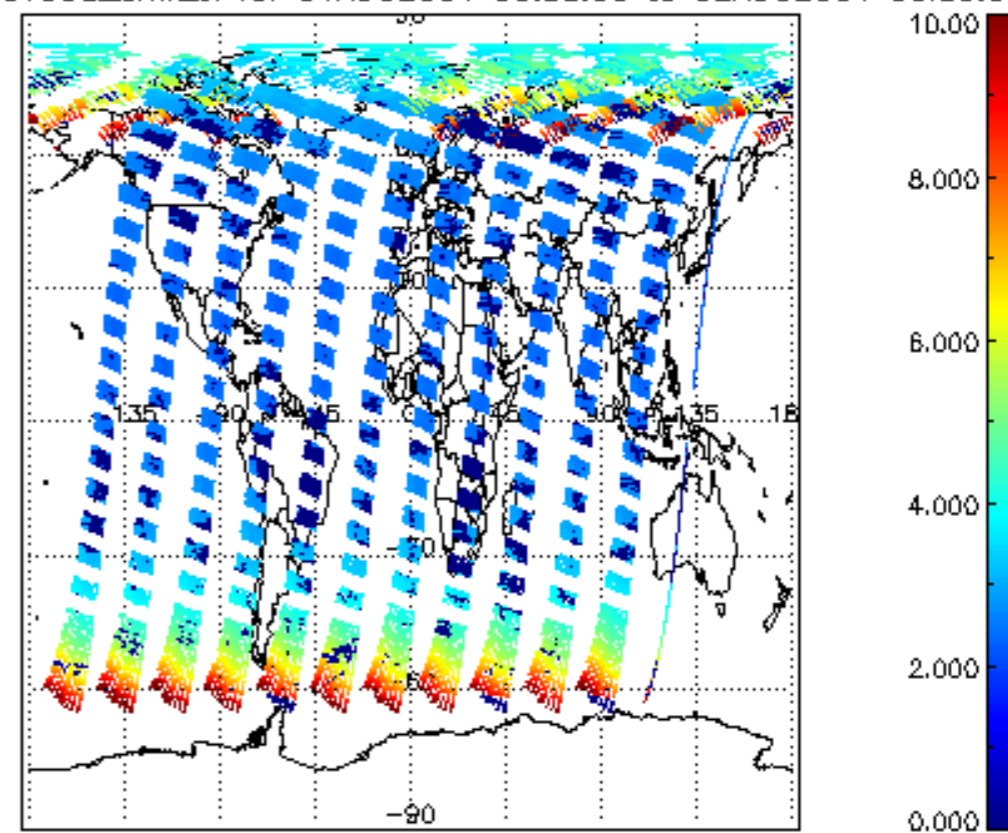
SCIOL2P\_NADUV003\_vcd\_err for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



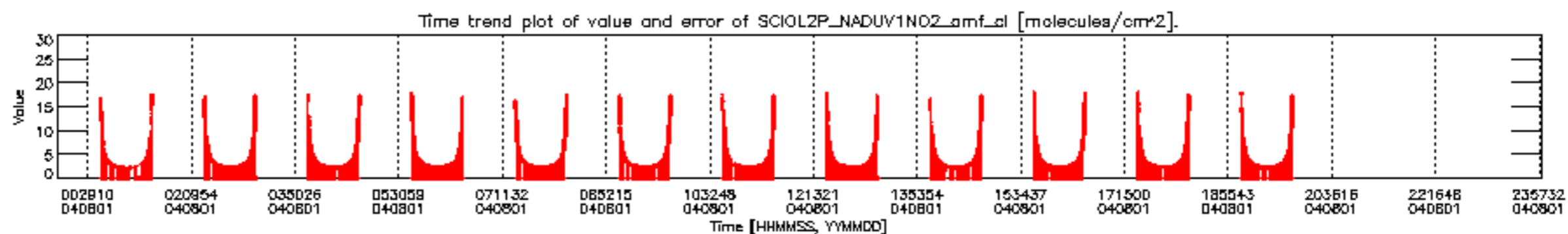
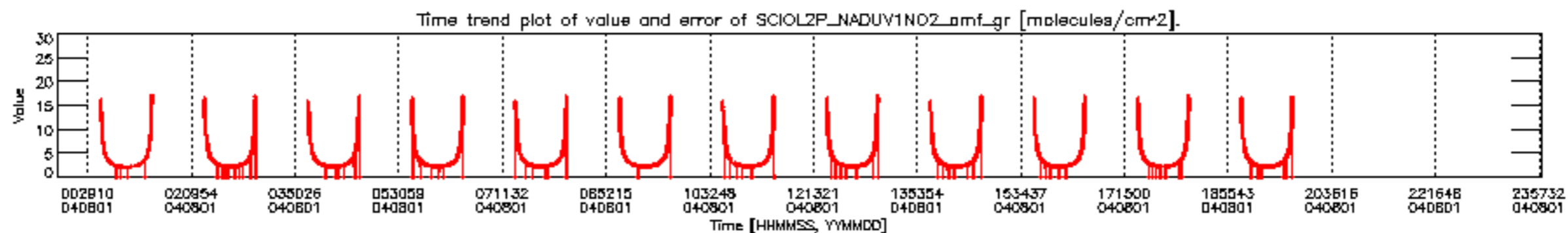
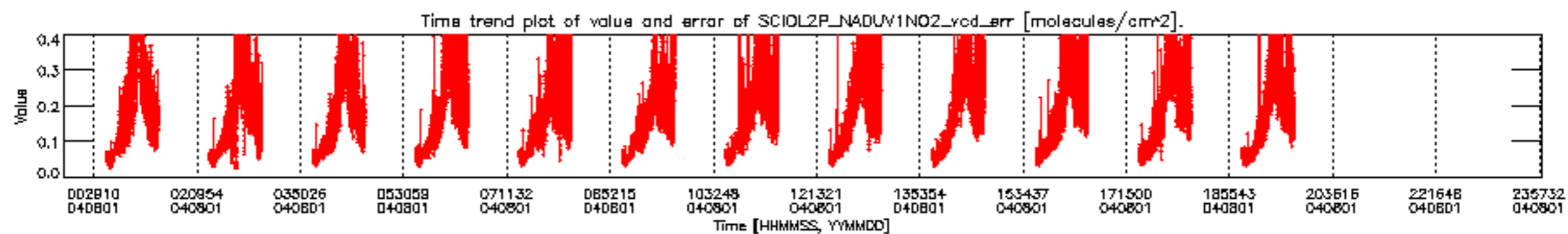
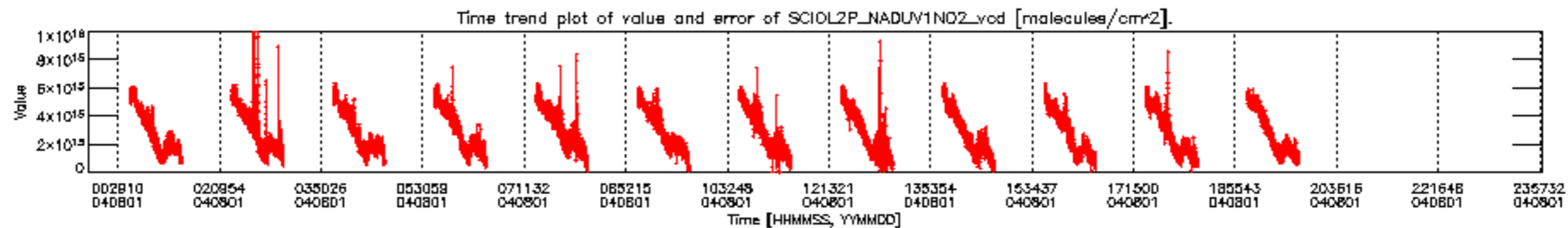
SCIOL2P\_NADUV003\_amf\_gr for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



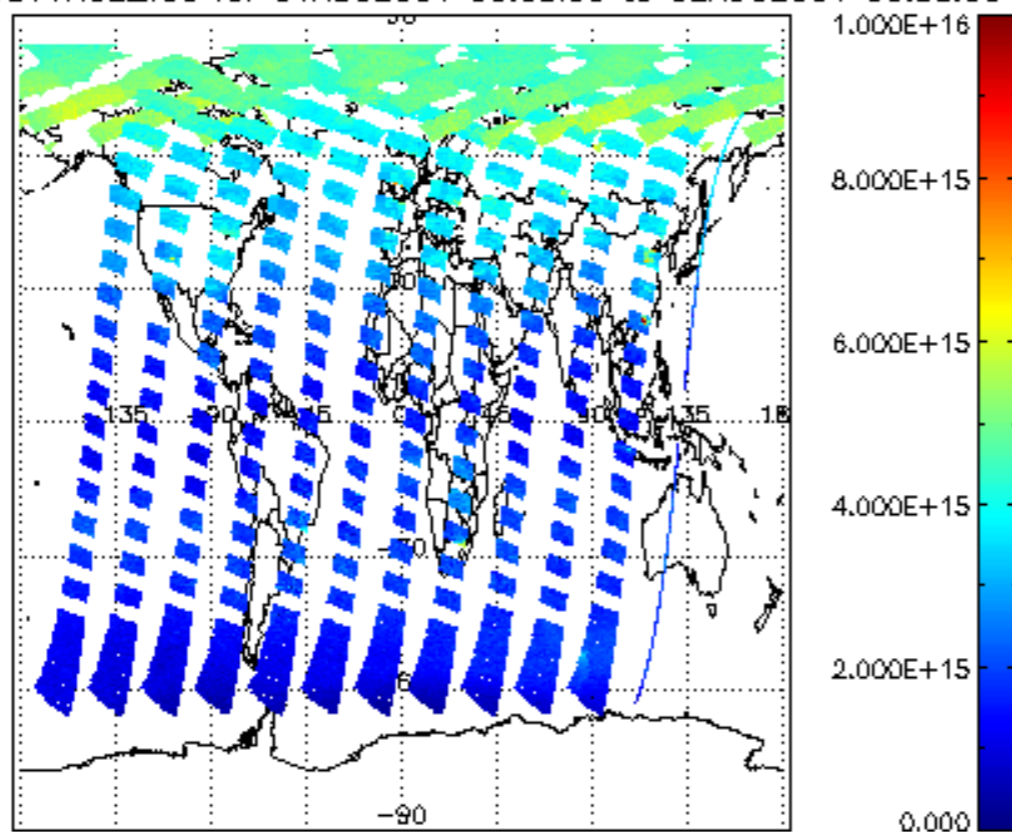
SCIOL2P\_NADUV003\_amf\_cl for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



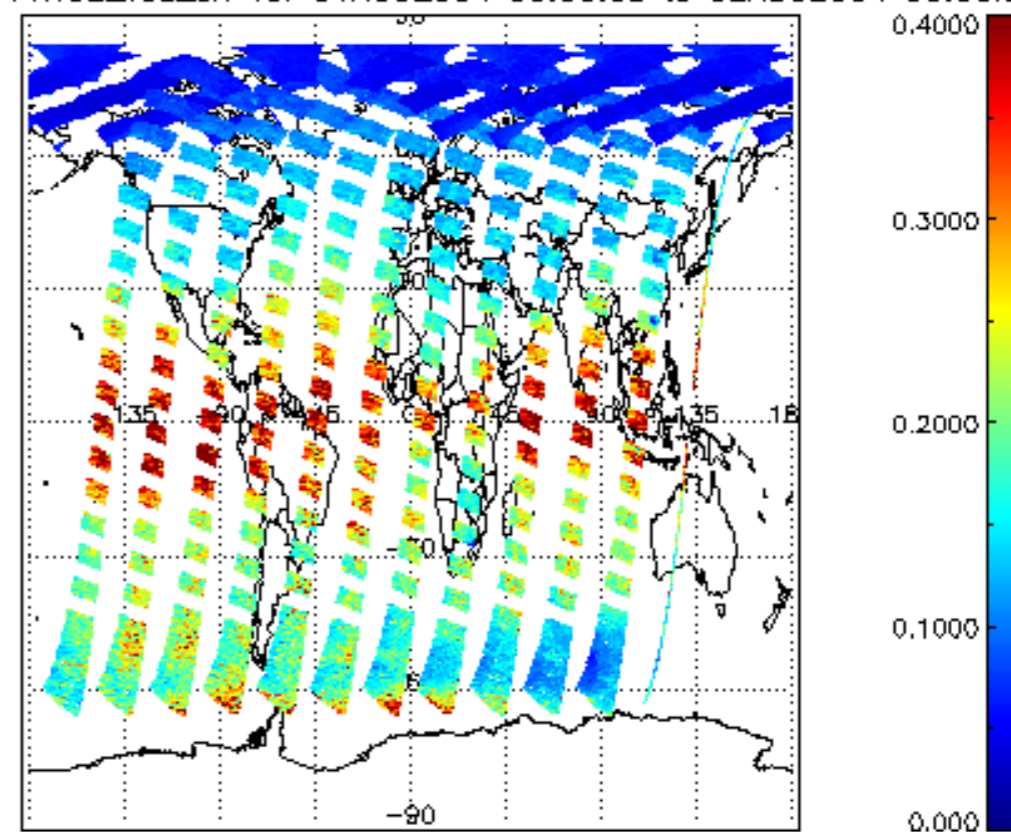




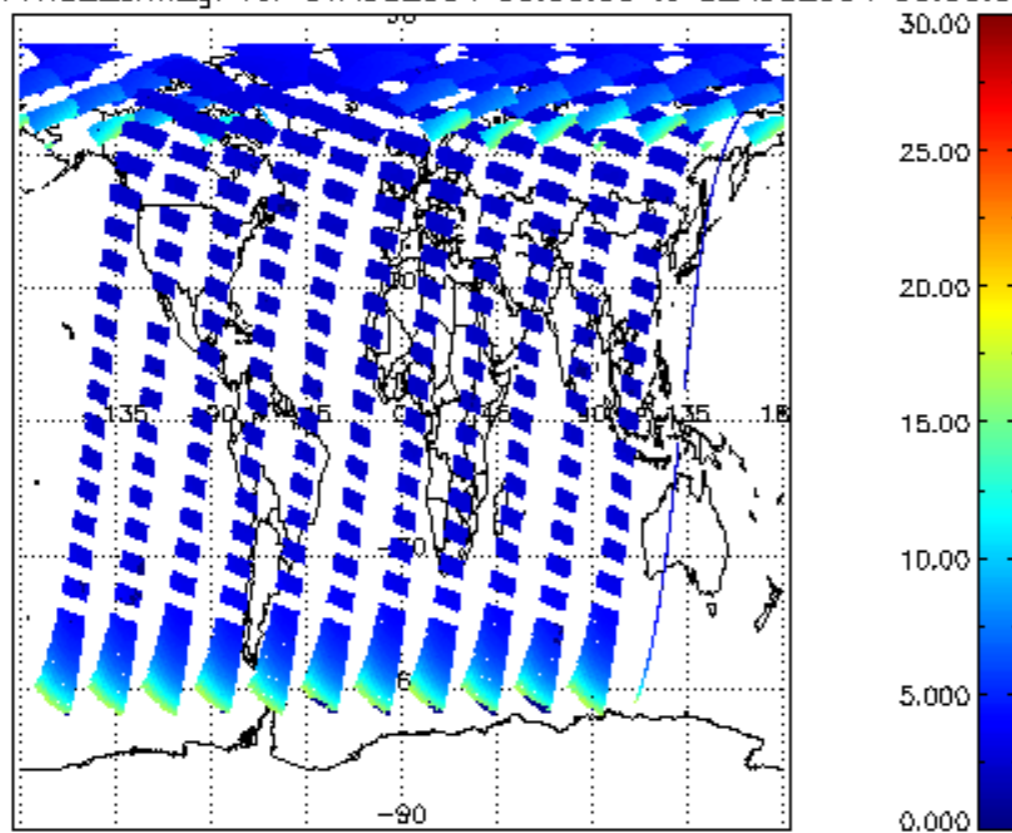
SCIOL2P\_NADUV1NO2\_vcd for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



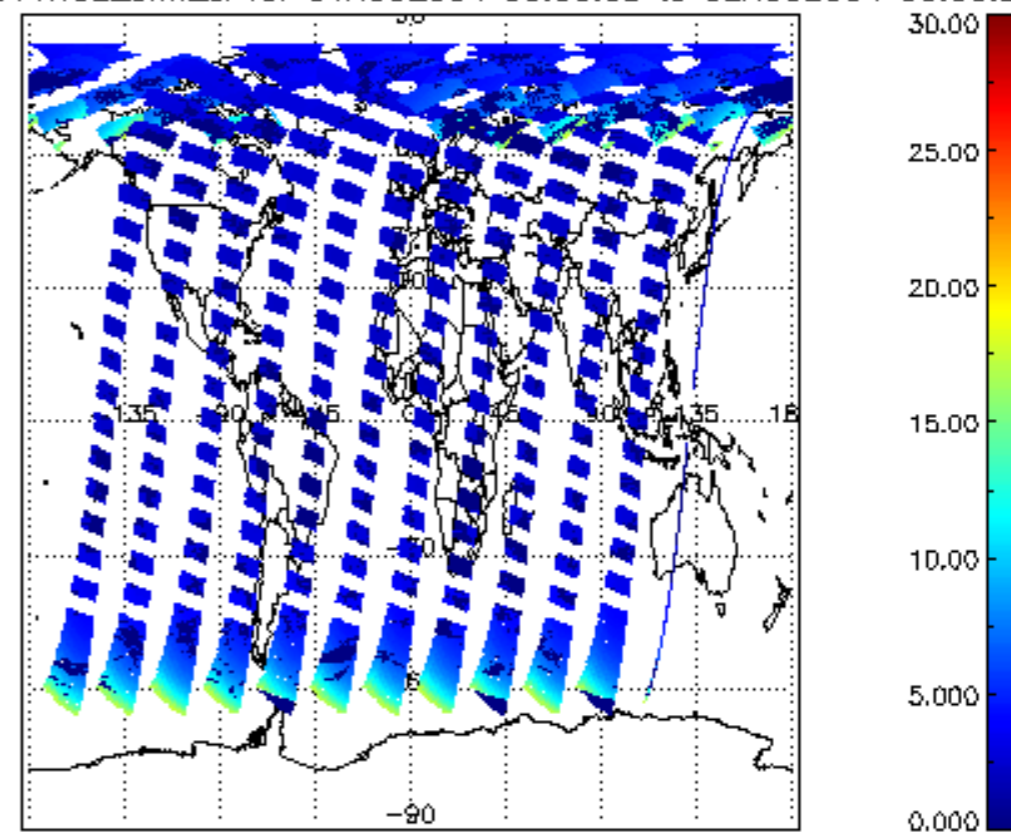
SCIOL2P\_NADUV1NO2\_vcd\_err for 01AUG2004 00:00:00 to 02AUG2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 01AUG2004 00:00:00 to 02AUG2004 00:00:00

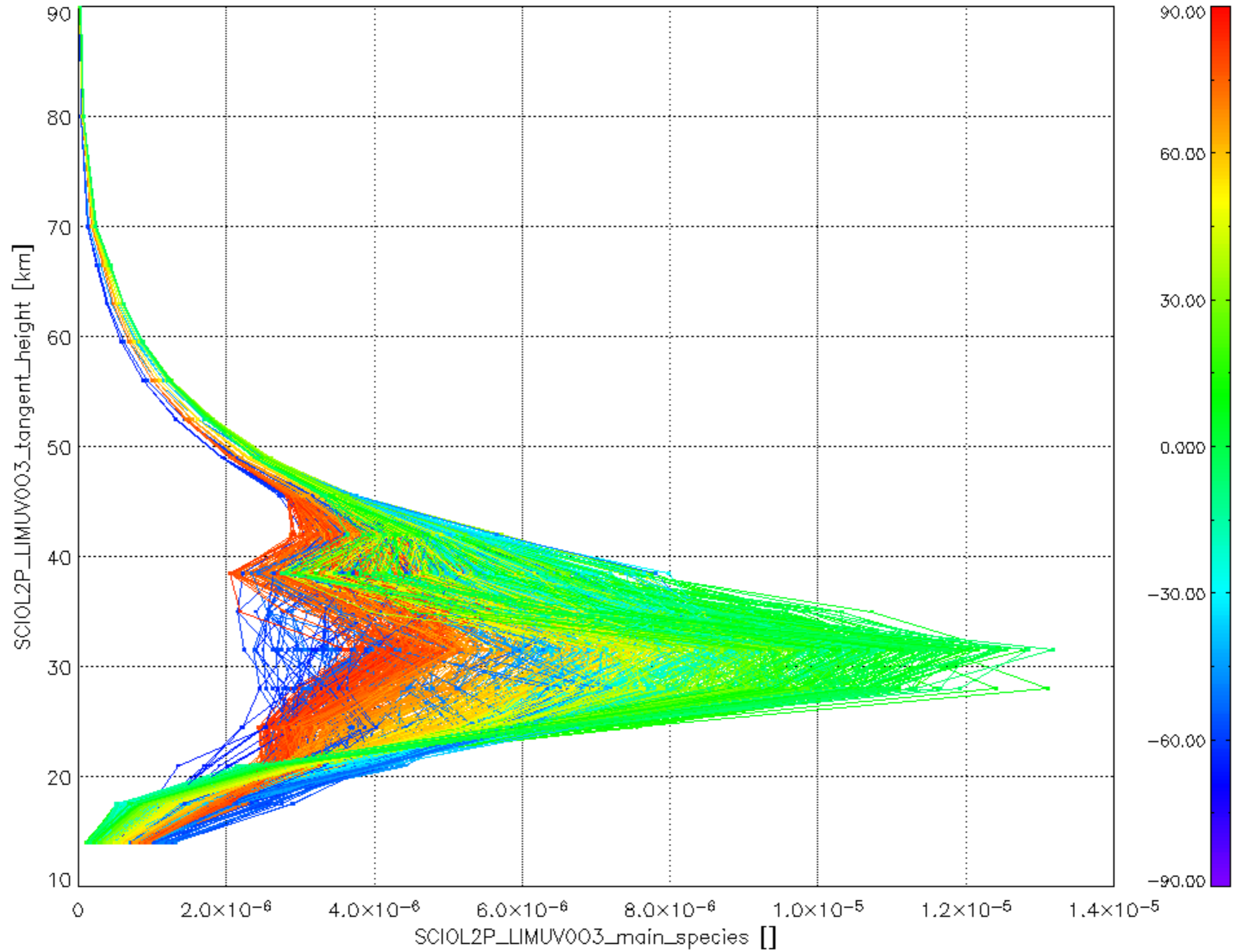


SCIOL2P\_NADUV1NO2\_amf\_cl for 01AUG2004 00:00:00 to 02AUG2004 00:00:00





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).

