

## 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	03SEP2008 11:38:05
Data source version	SCIA-OL/3.01-R
Processing scope for products	18AUG2004 00:00:00 to 19AUG2004 00:00:00
Start time of first product within scope	18AUG2004 00:03:36
Stop time of last product within scope	19AUG2004 00:27:30
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__2PRDPA20040818_000336_000033252029_00317_12896_9446.N1</a>	18AUG2004 00:03:36	18AUG2004 00:59:01	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040818_014412_000033812029_00318_12897_9506.N1</a>	18AUG2004 01:44:12	18AUG2004 02:40:34	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040818_032449_000033252029_00319_12898_9466.N1</a>	18AUG2004 03:24:49	18AUG2004 04:20:14	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040818_050525_000033812029_00320_12899_9577.N1</a>	18AUG2004 05:05:25	18AUG2004 06:01:46	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040818_064601_000033252029_00321_12900_9339.N1</a>	18AUG2004 06:46:01	18AUG2004 07:41:27	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040818_082638_000033812029_00322_12901_9295.N1</a>	18AUG2004 08:26:38	18AUG2004 09:22:59	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040818_100714_000033252029_00323_12902_9551.N1</a>	18AUG2004 10:07:14	18AUG2004 11:02:40	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040818_114750_000033812029_00324_12903_9569.N1</a>	18AUG2004 11:47:50	18AUG2004 12:44:12	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040818_132827_000033252029_00325_12904_9252.N1</a>	18AUG2004 13:28:27	18AUG2004 14:23:52	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040818_150903_000033812029_00326_12905_9409.N1</a>	18AUG2004 15:09:03	18AUG2004 16:05:24	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040818_164939_000033252029_00327_12906_9534.N1</a>	18AUG2004 16:49:39	18AUG2004 17:45:05	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040818_183010_000033762029_00328_12907_9477.N1</a>	18AUG2004 18:30:10	18AUG2004 19:26:26	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040818_201111_000033252029_00329_12908_9379.N1</a>	18AUG2004 20:11:11	18AUG2004 21:06:37	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20040818_215129_000033812029_00330_12909_9397.N1</a>	18AUG2004 21:51:29	18AUG2004 22:47:50	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20040818_233205_000033252029_00331_12910_9642.N1</a>	18AUG2004 23:32:05	19AUG2004 00:27:30	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: 151325

Total number of cloud data DSRs with good quality flag (=0): 151325 (100.0 %)

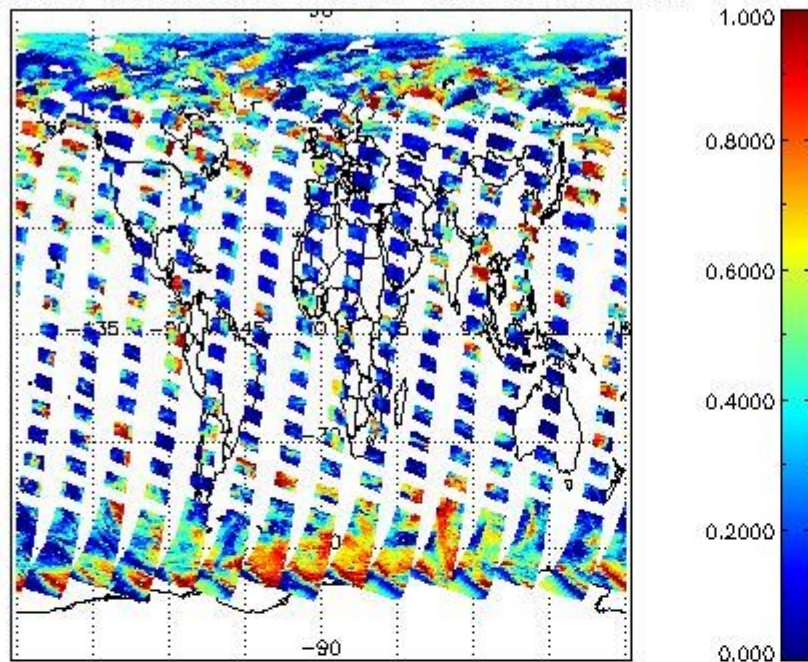
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	151325	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	151325	0.16968	0.12500	0.12500	0.25000	0.059905	s
CL_FRAC	151325	0.35862	0.31402	0.0000	1.0000	0.28243	-
CL_FRAC_ERR	151325	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	151325	5.4296	4.0000	4.0000	8.0000	1.9170	
PMD_READ_CL[0]	151325	0.22282	0.0000	0.0000	8.0000	1.0845	-
PMD_READ_CL[1]	151325	0.87661	0.0000	0.0000	8.0000	1.9123	-
CL_TOP_HEIGHT	130355	3.5742	1.9600	0.0000	17.000	3.7086	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	130355	60.806	86.812	0.0000	101.00	42.370	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	151325	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	151325	11001010	11000100	11000000	11100000	3224.5	flags
AERO_ABSO_IND	151325	0.77268	0.57024	-4.2719	14.855	1.0424	
AERO_IND_DIAG	151325	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	151325	01010110	00000000	00000000	11000000	24464.	flags

### Time and geolocation plots:

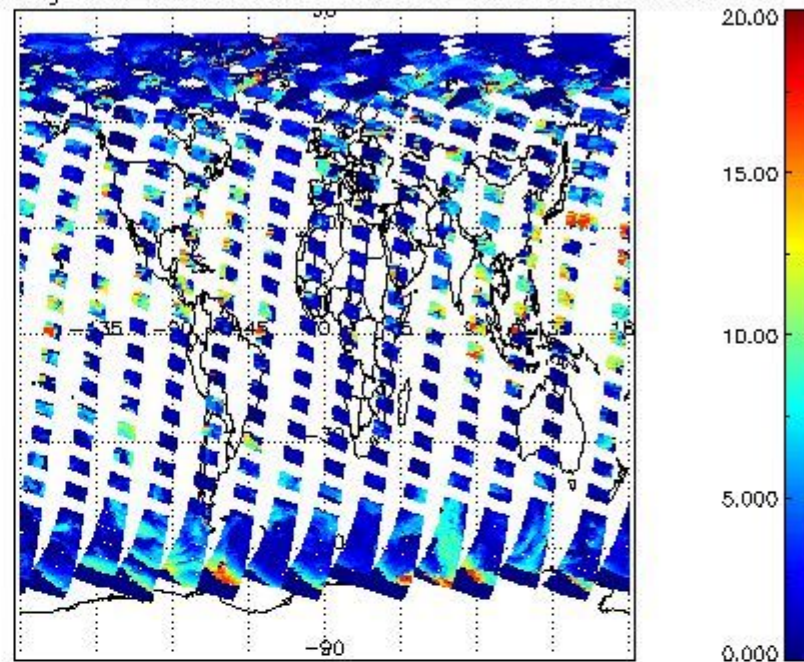
Plots are available for the following parameters:

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

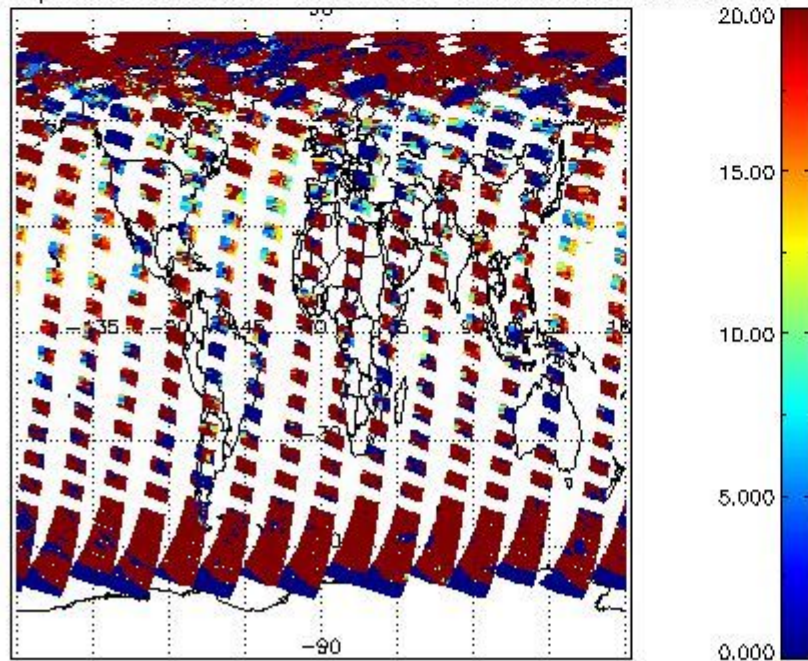
cL\_frac for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



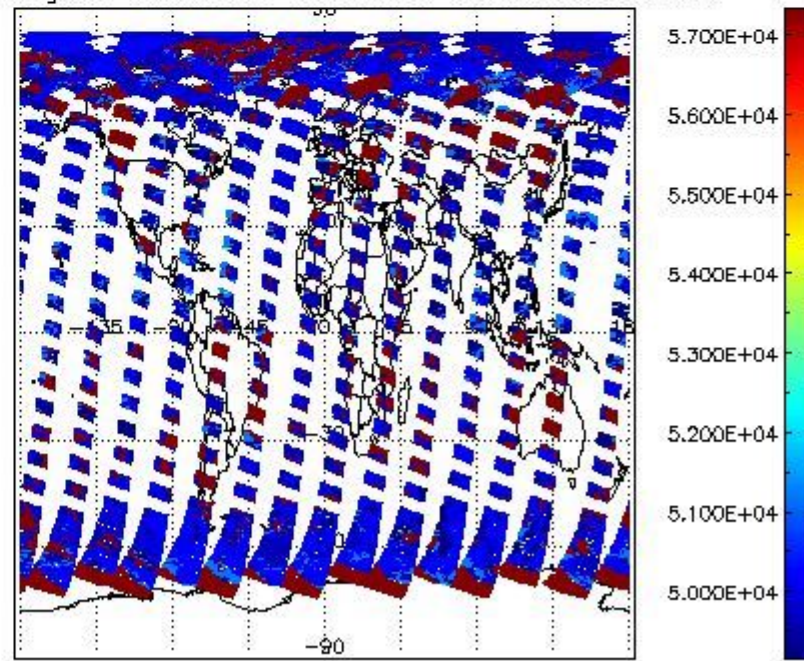
cL\_top\_height for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



cL\_opt\_depth for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



cloud\_flags for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



## 2.2.2 Nadir

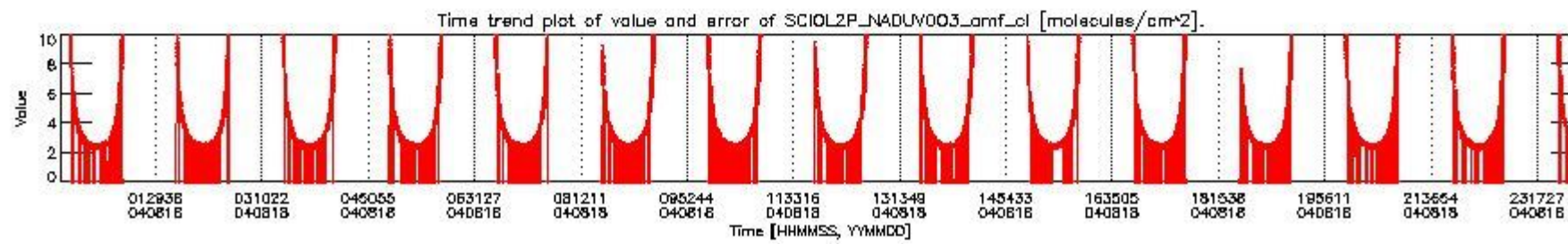
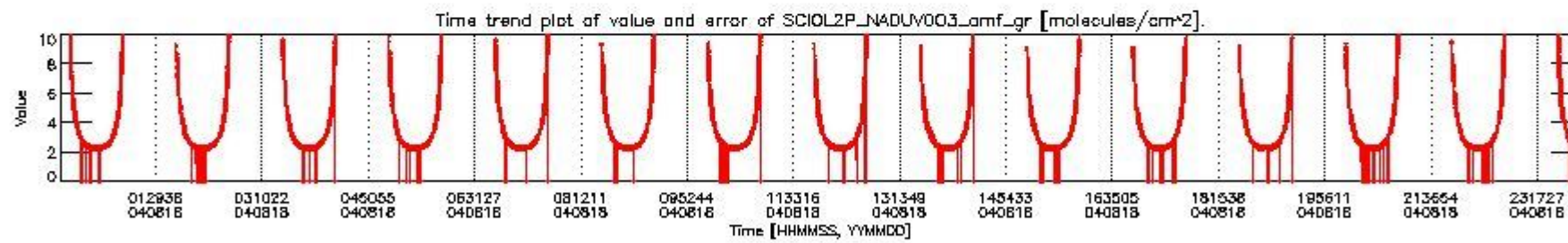
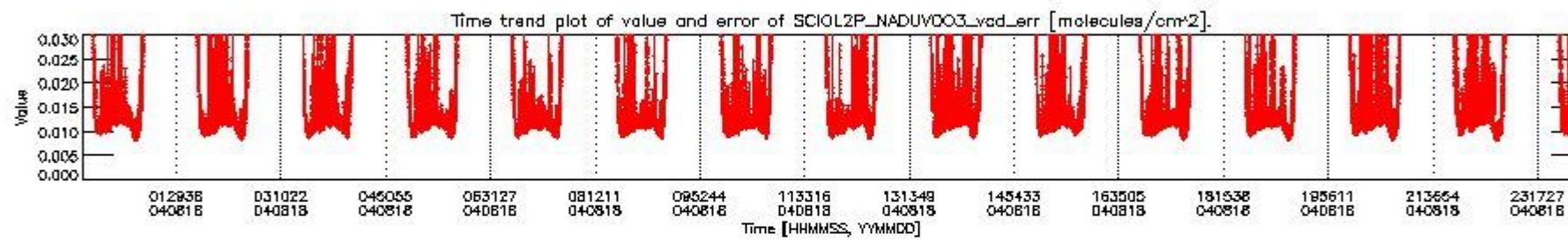
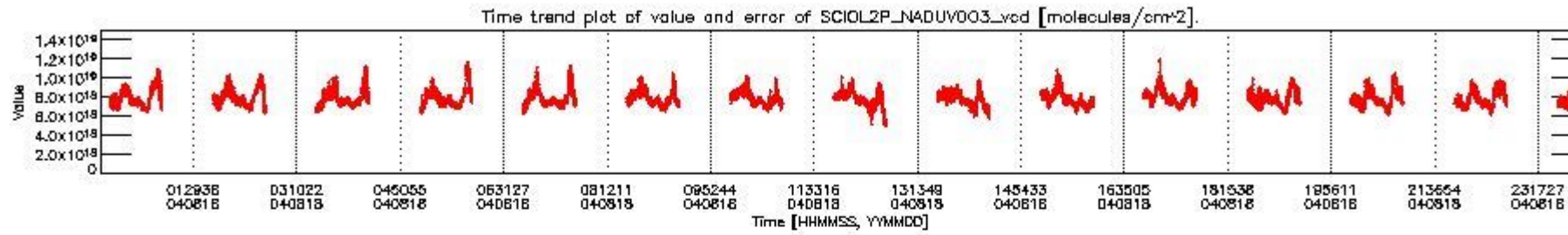
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

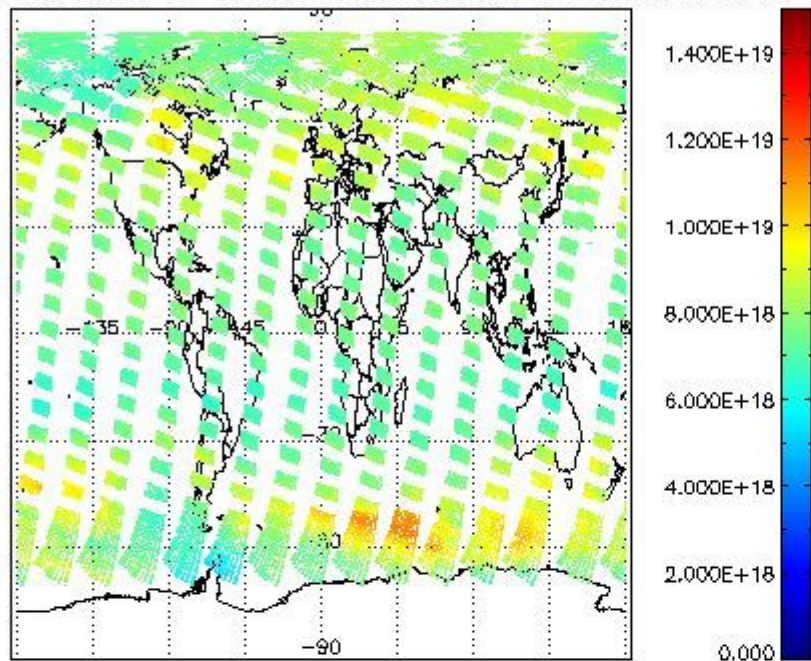
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

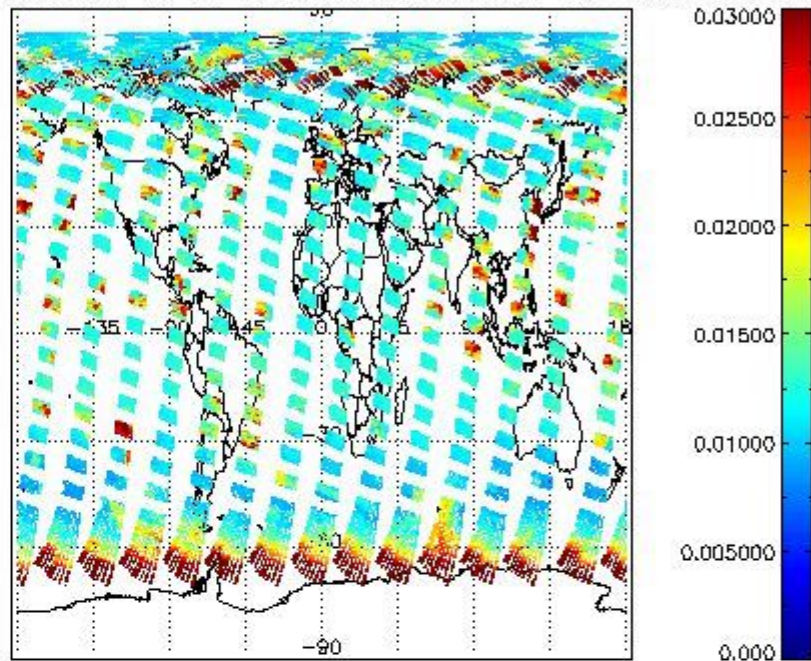
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



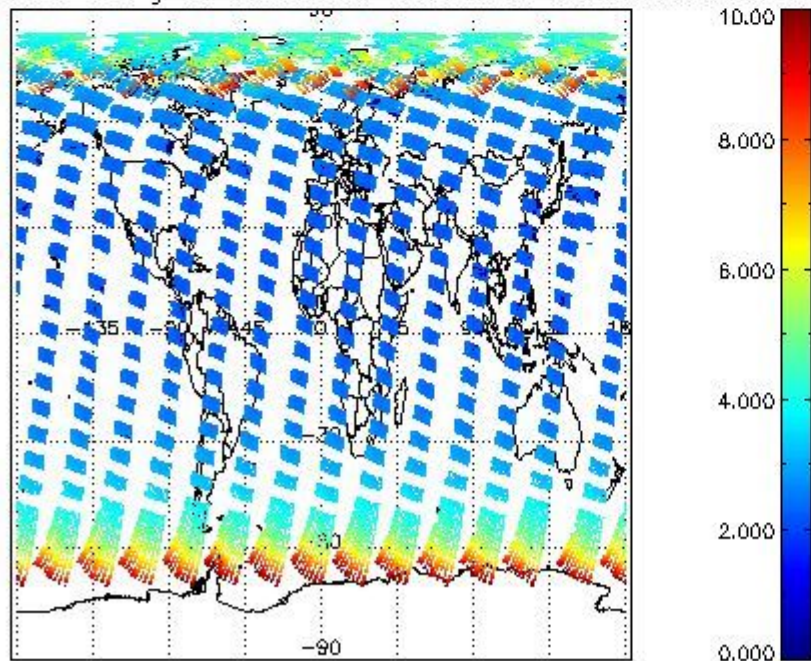
SCIOL2P\_NADUV003\_vcd for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



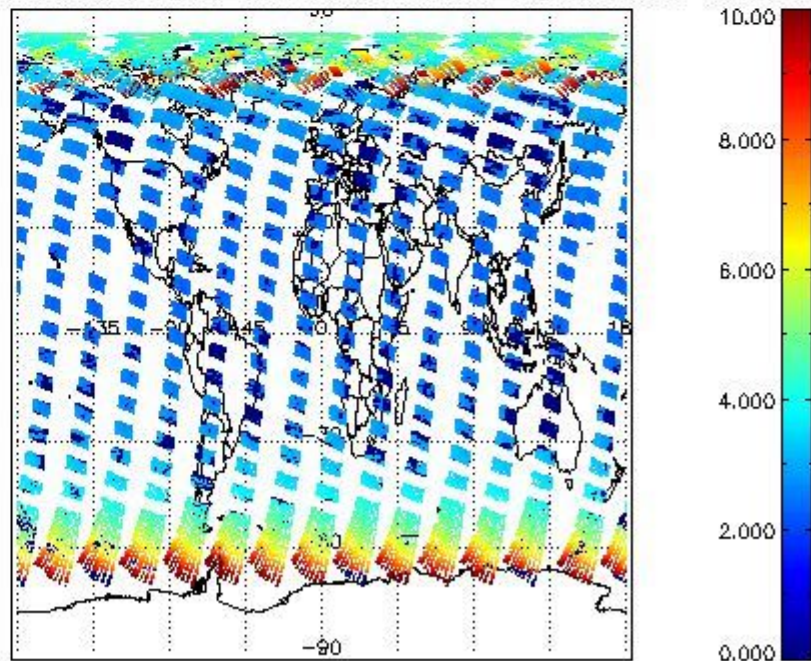
SCIOL2P\_NADUV003\_vcd\_err for 18AUG2004 00:00:00 to 19AUG2004 00:00:00

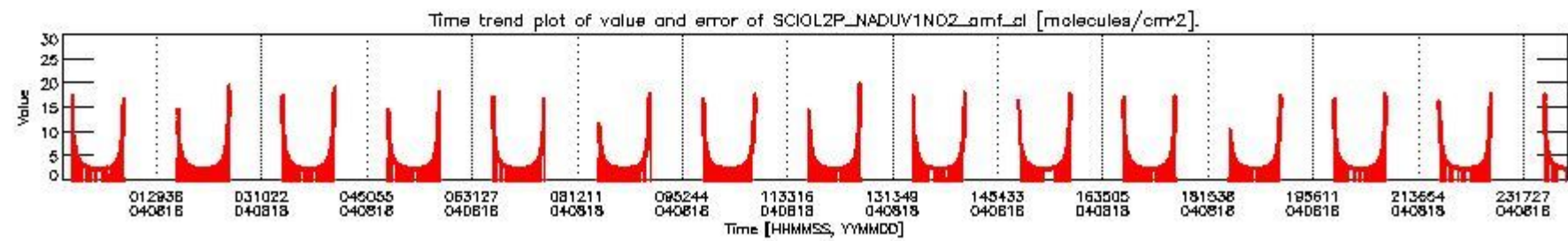
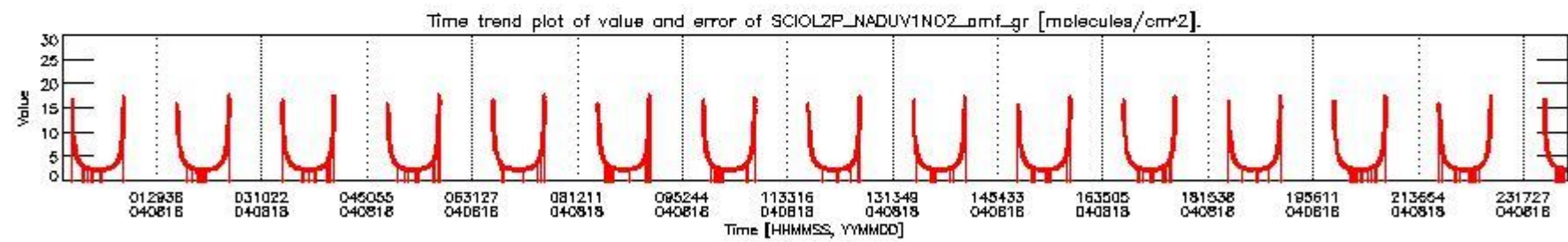
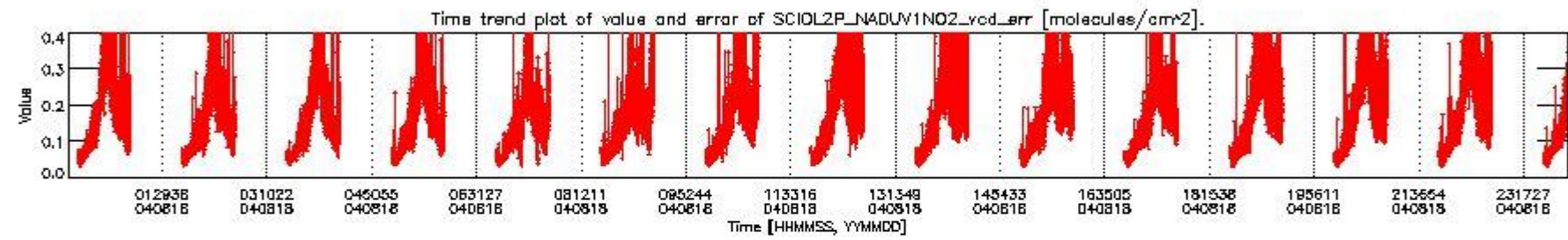
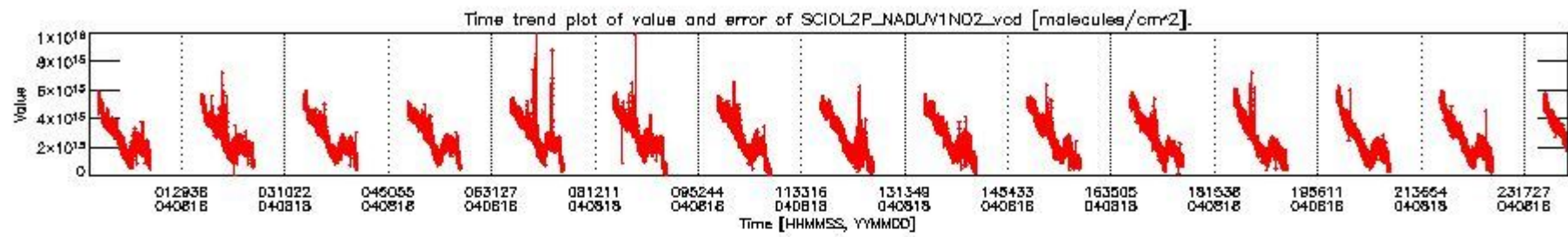


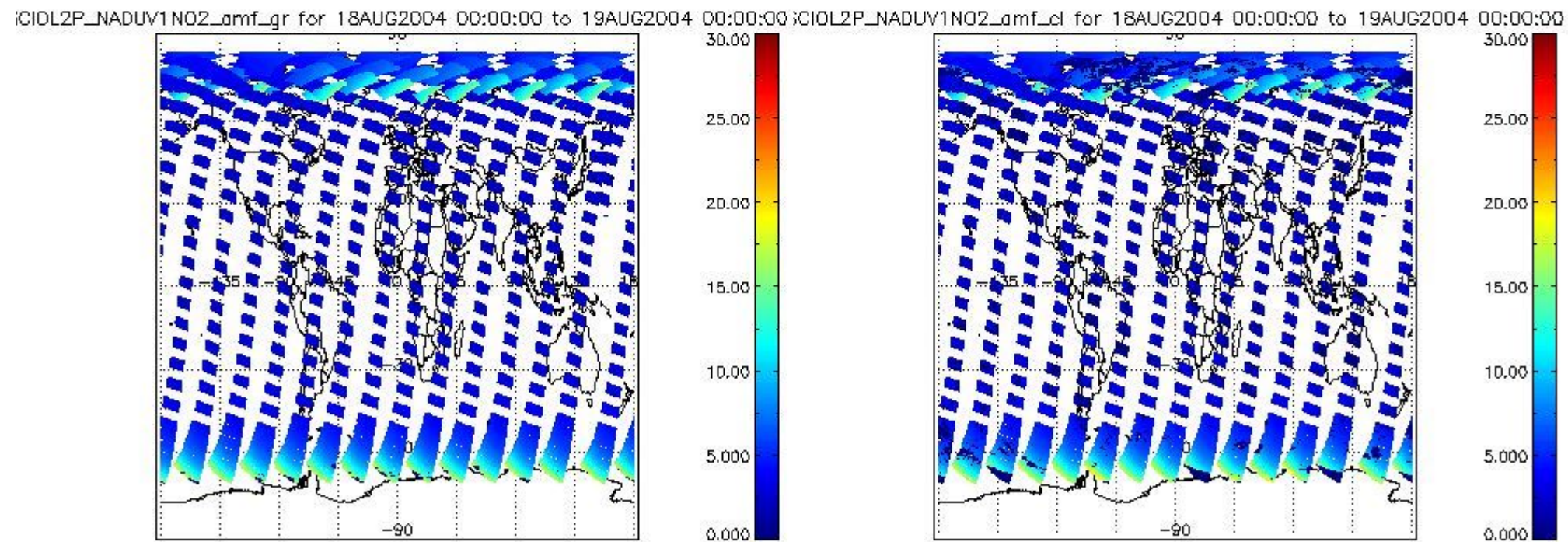
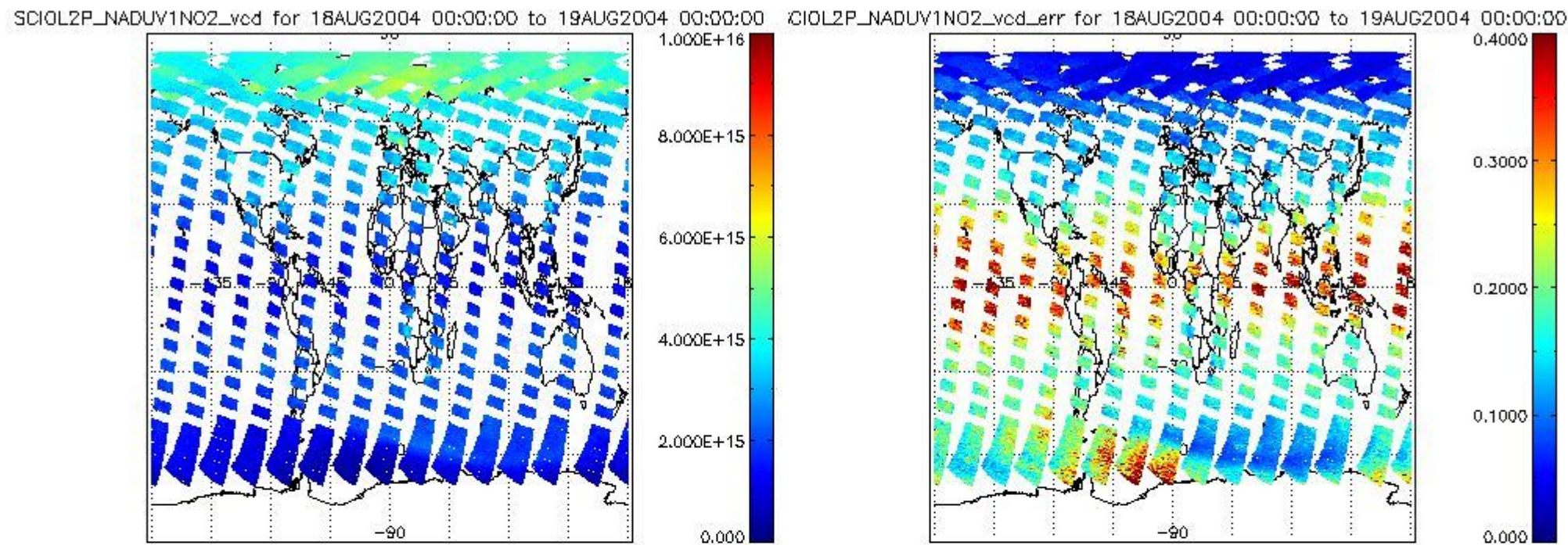
SCIOL2P\_NADUV003\_amf\_gr for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 18AUG2004 00:00:00 to 19AUG2004 00:00:00







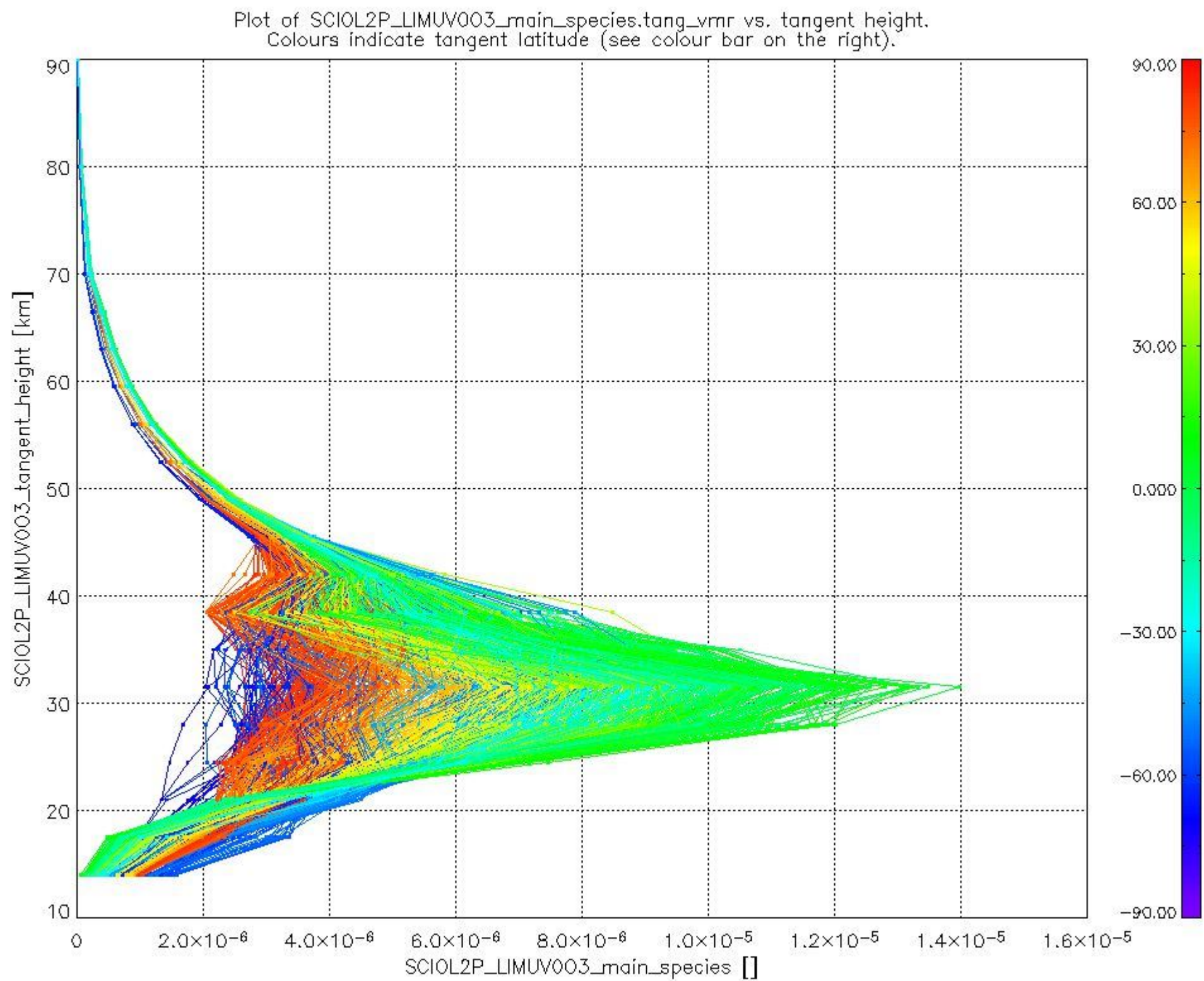
### 2.2.3 Limb

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:

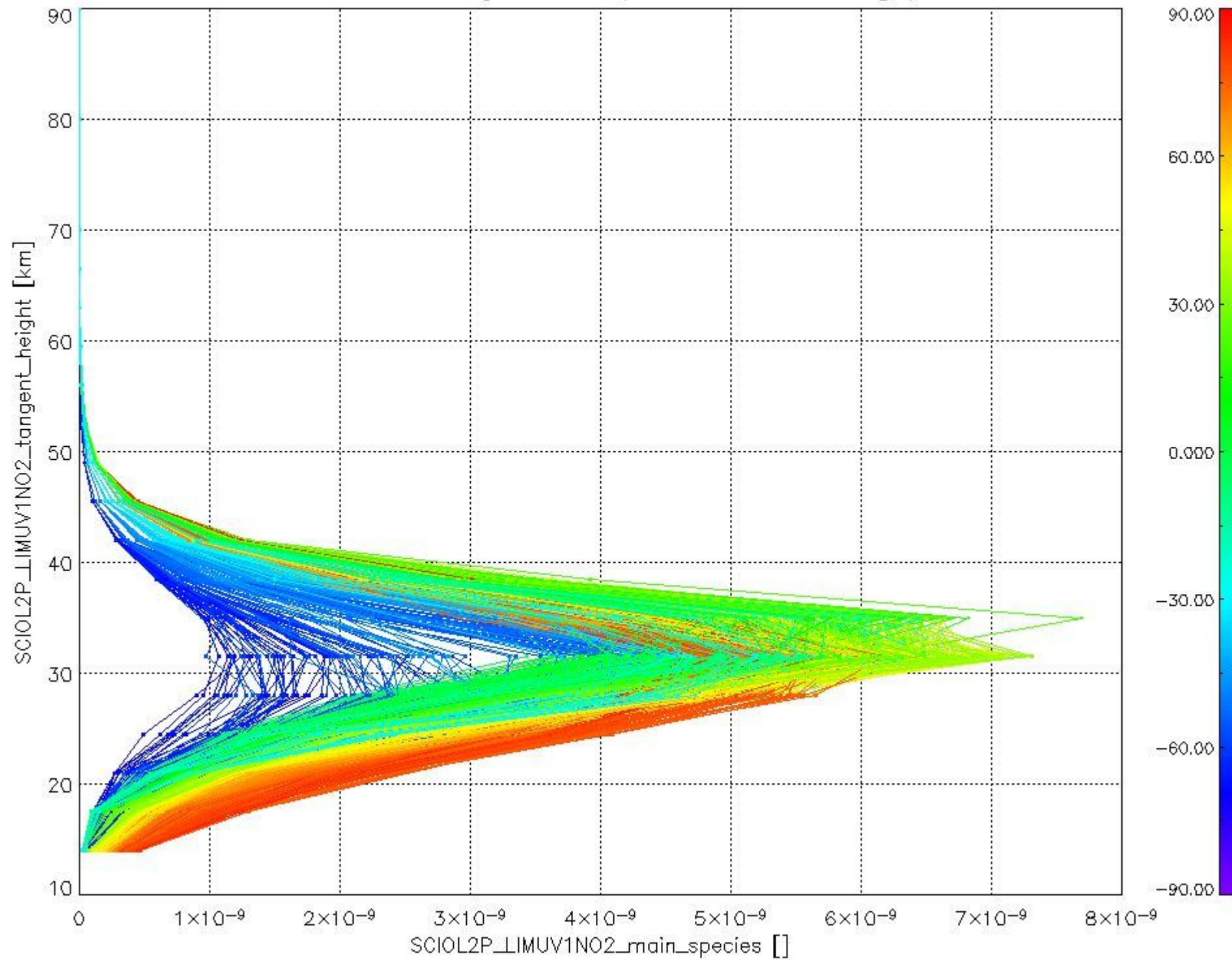
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





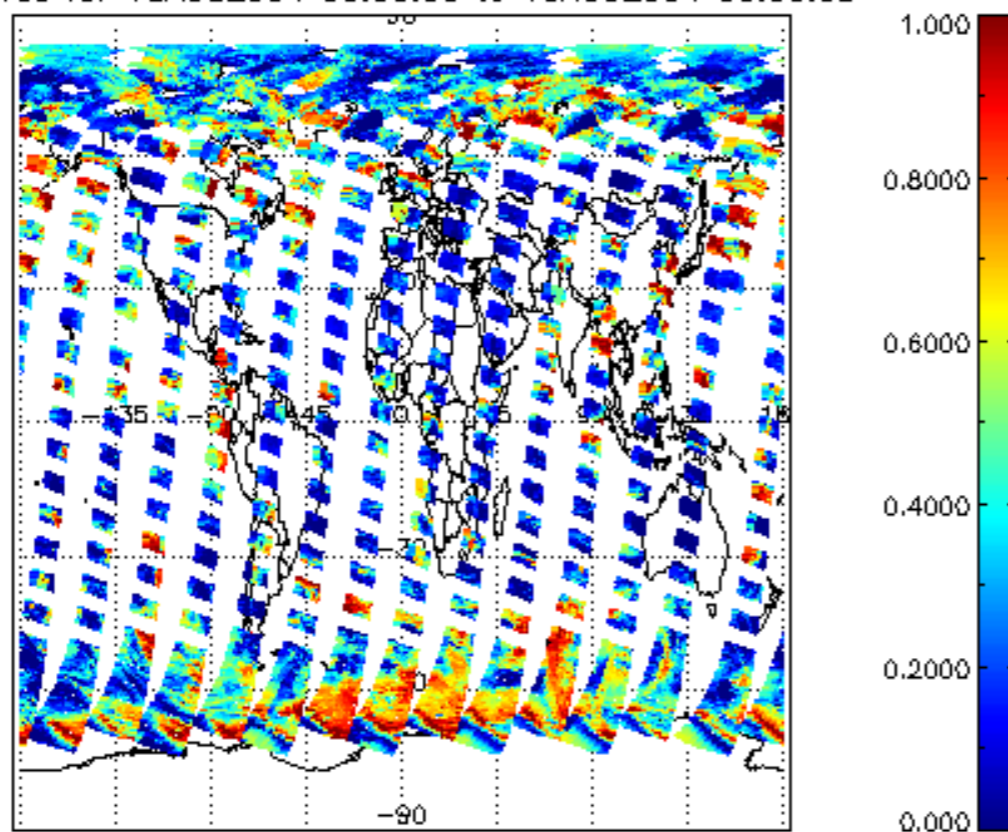
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



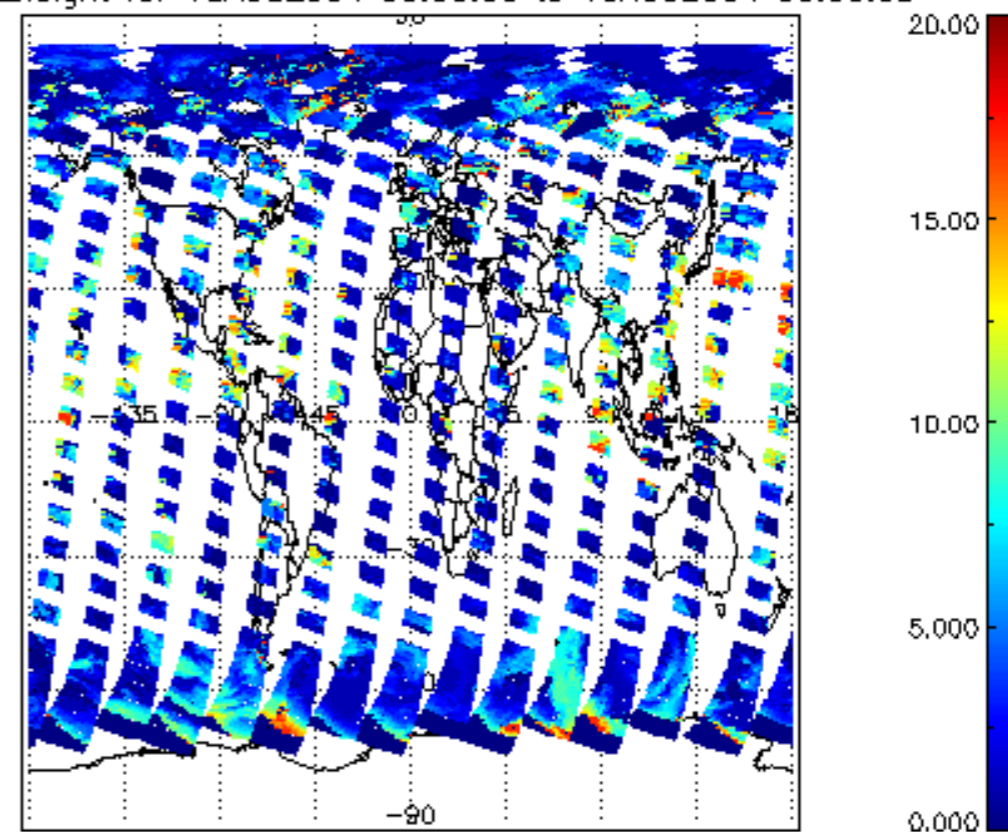
### 2.3 ADF monitoring

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

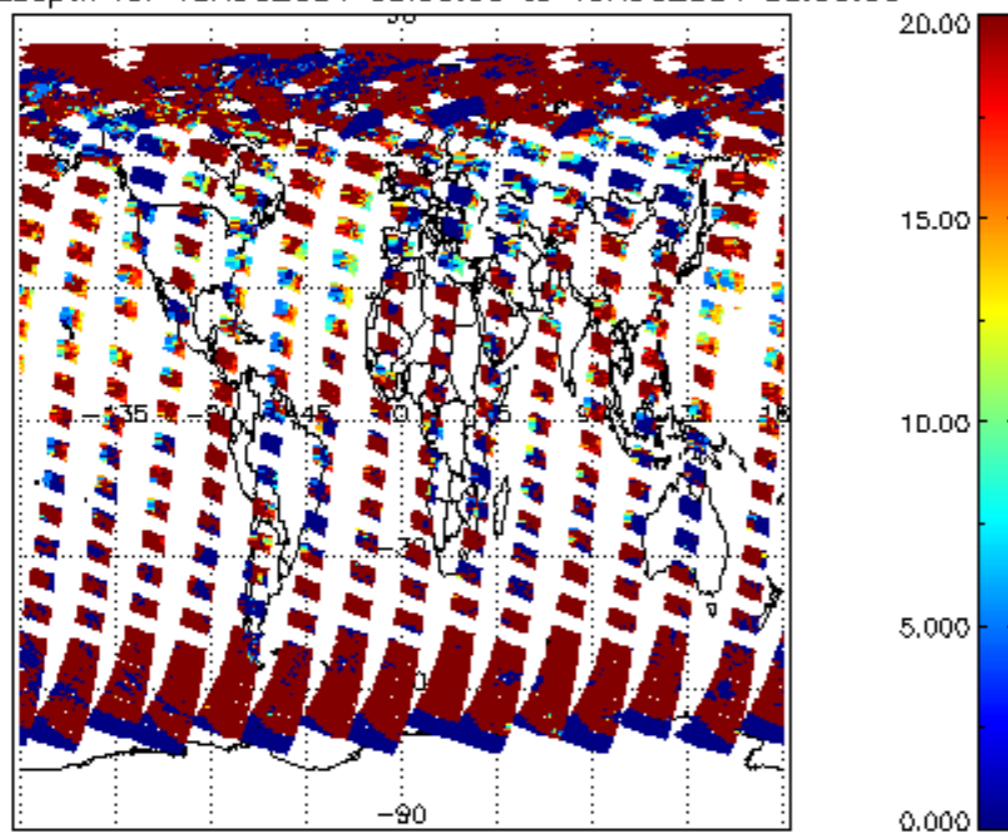
cL\_frac for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



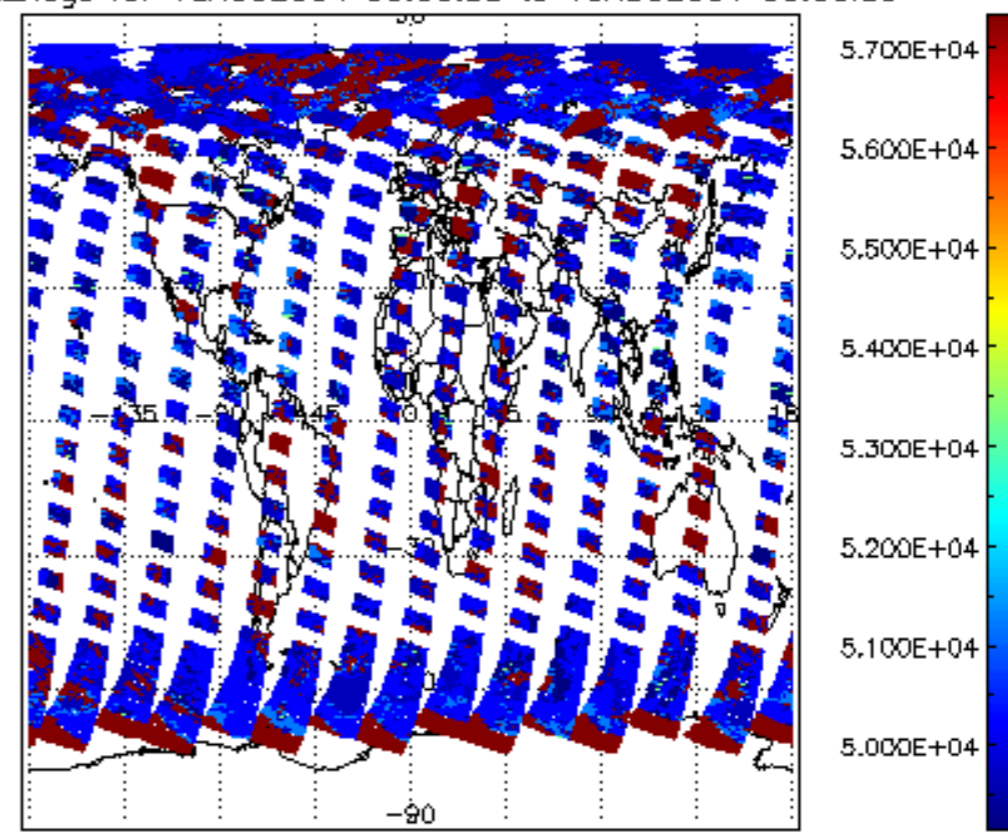
cL\_top\_height for 18AUG2004 00:00:00 to 19AUG2004 00:00:00

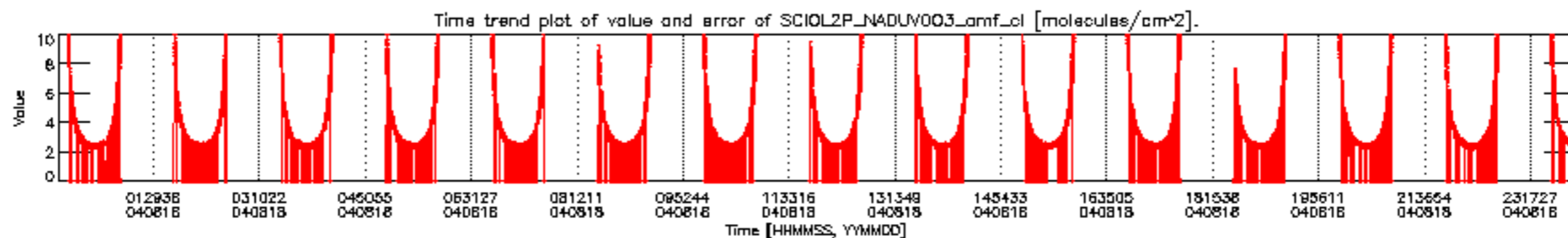
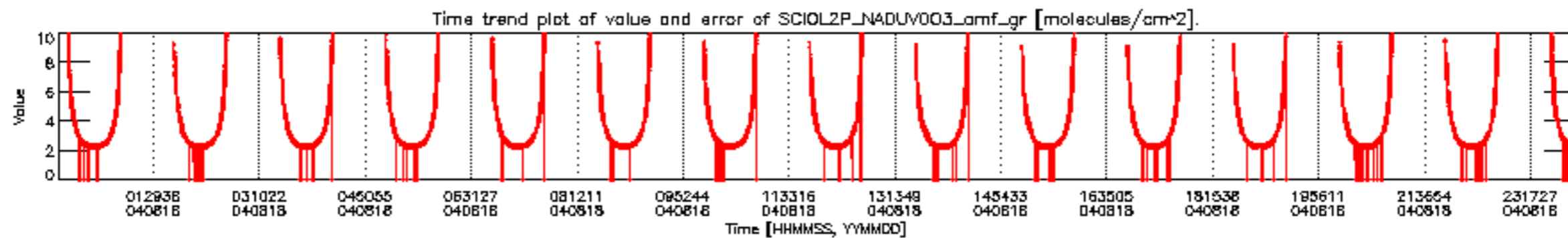
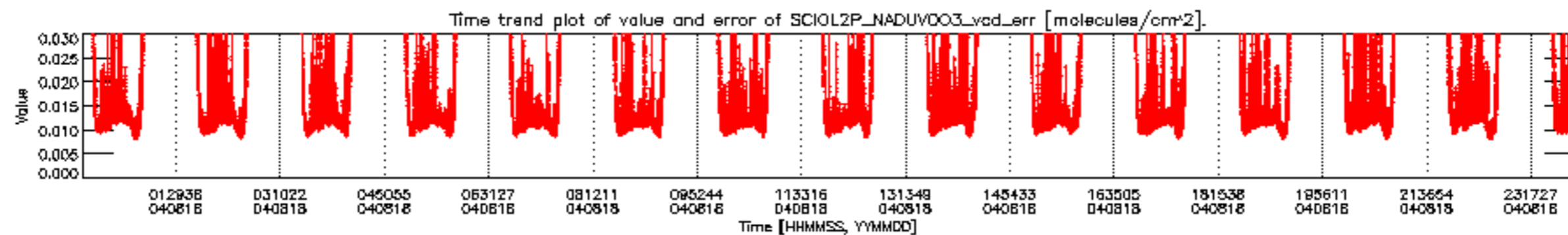
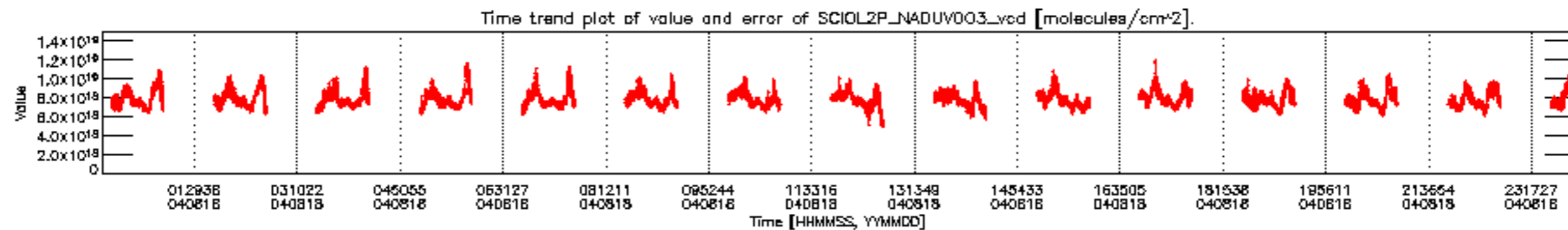


cL\_opt\_depth for 18AUG2004 00:00:00 to 19AUG2004 00:00:00

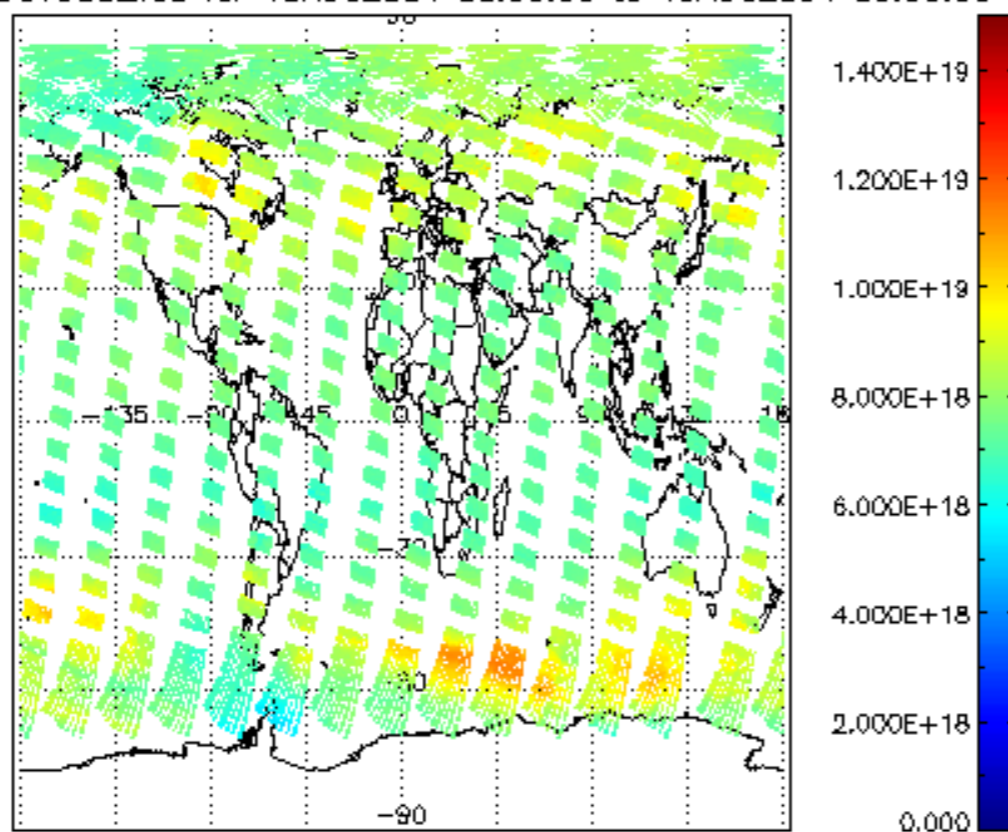


cloud\_flags for 18AUG2004 00:00:00 to 19AUG2004 00:00:00

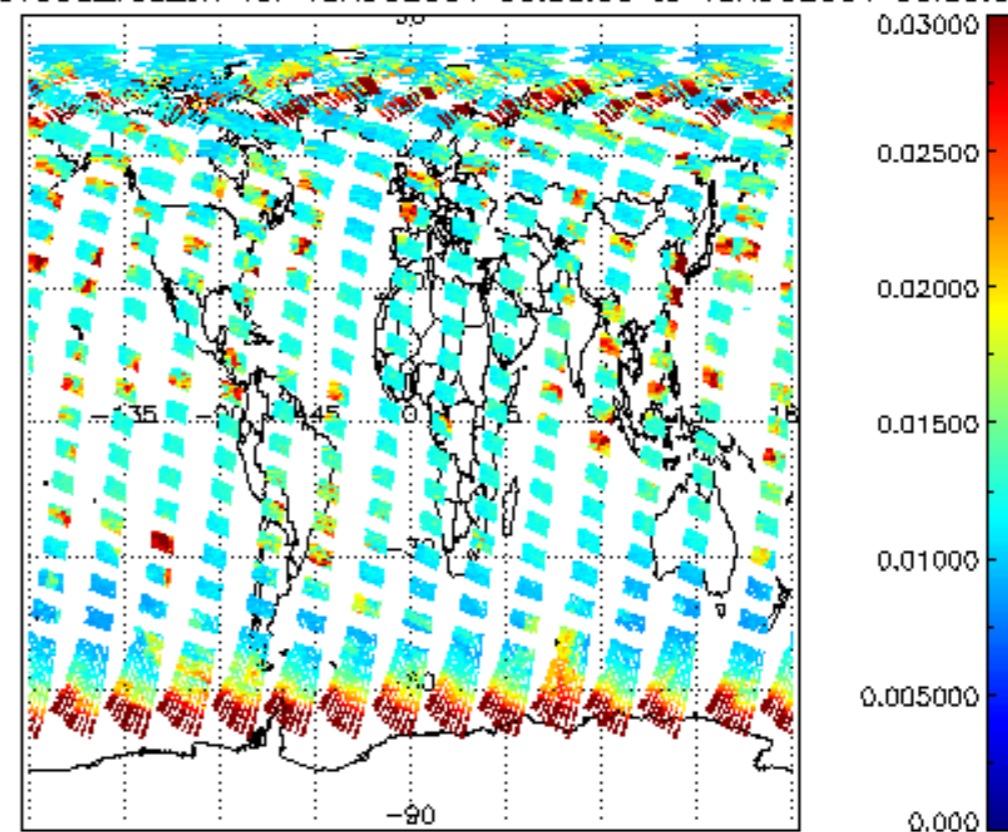




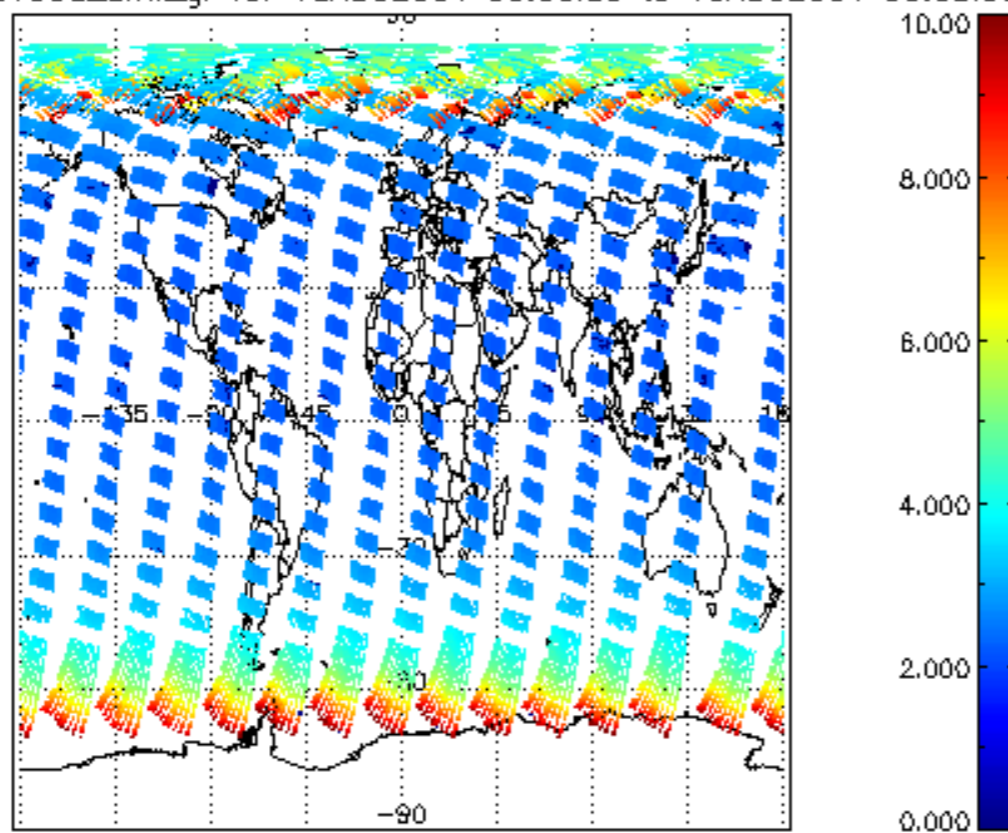
SCIOL2P\_NADUV003\_vcd for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



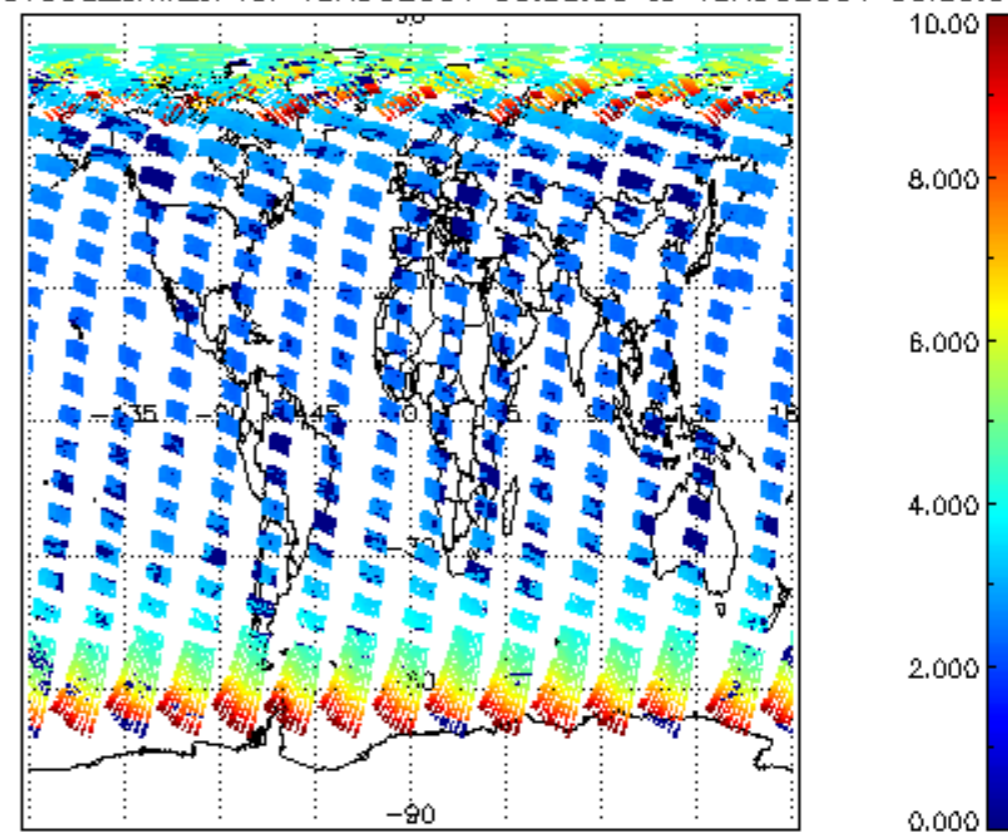
SCIOL2P\_NADUV003\_vcd\_err for 18AUG2004 00:00:00 to 19AUG2004 00:00:00

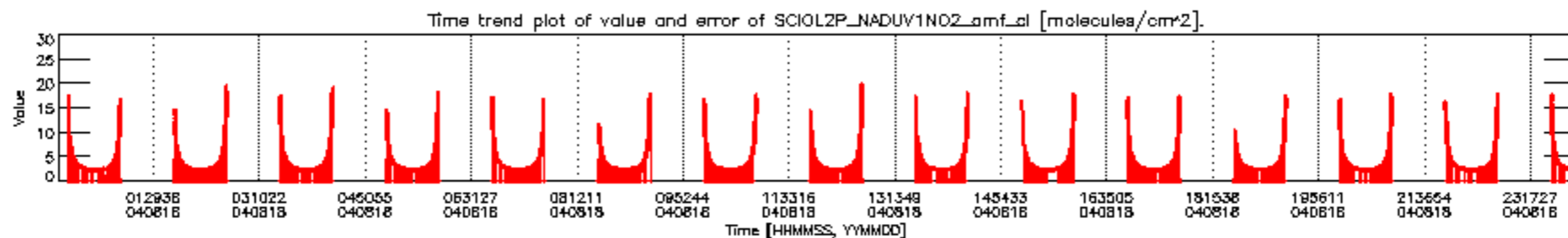
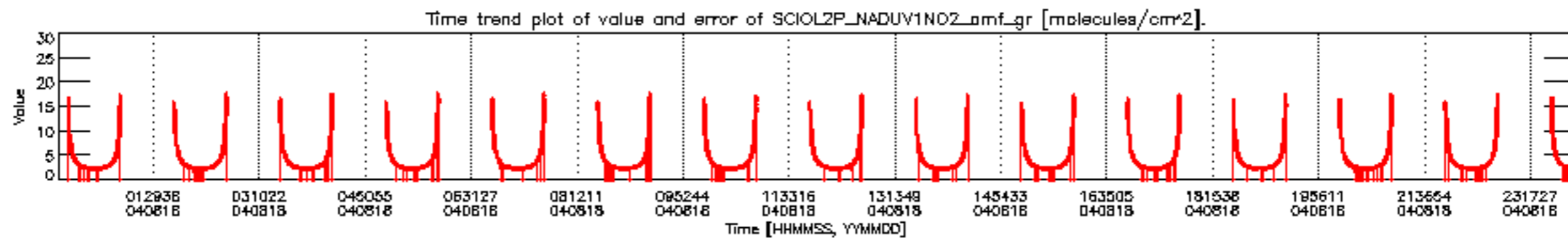
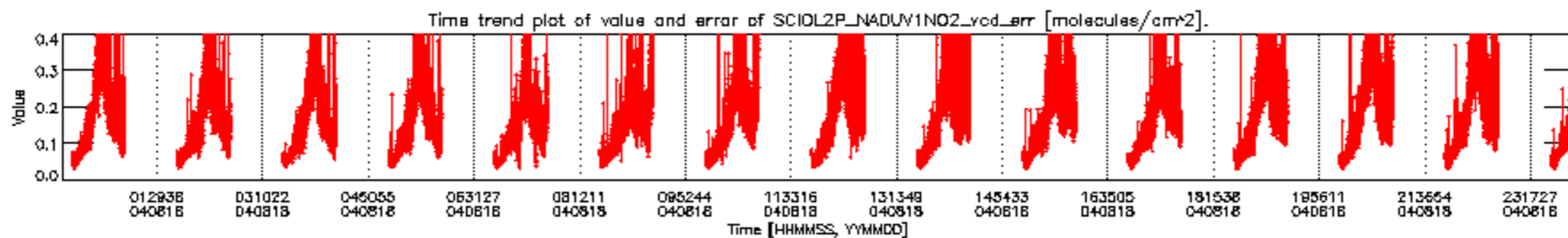
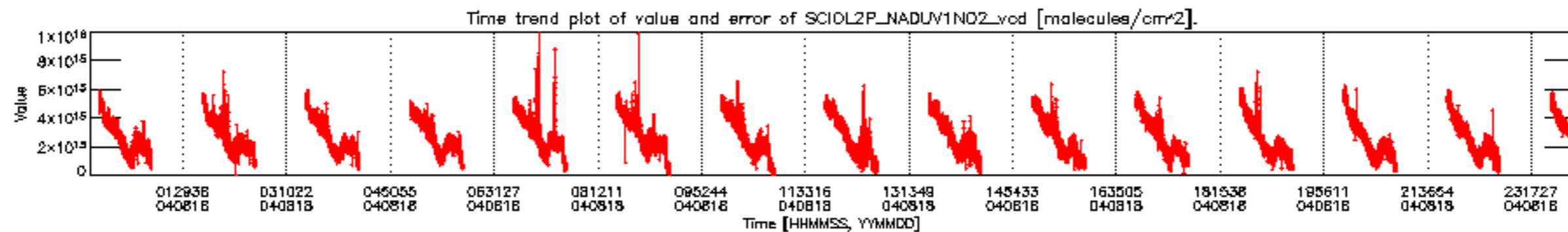


SCIOL2P\_NADUV003\_amf\_gr for 18AUG2004 00:00:00 to 19AUG2004 00:00:00

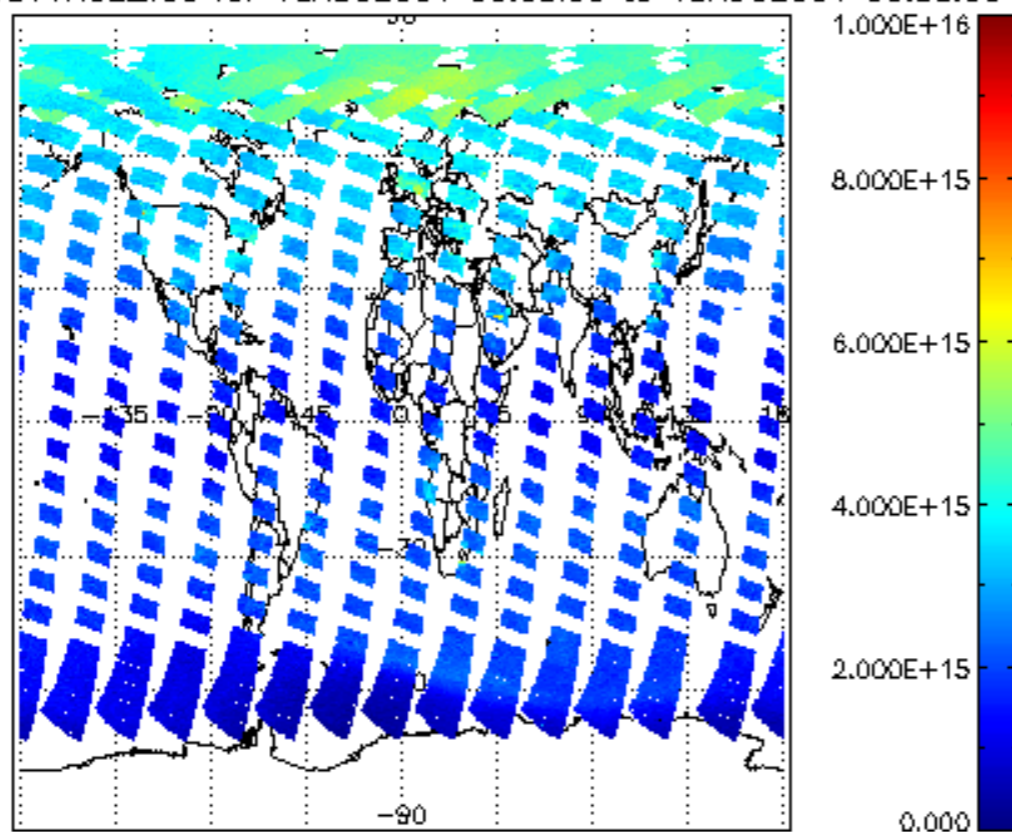


SCIOL2P\_NADUV003\_amf\_cl for 18AUG2004 00:00:00 to 19AUG2004 00:00:00

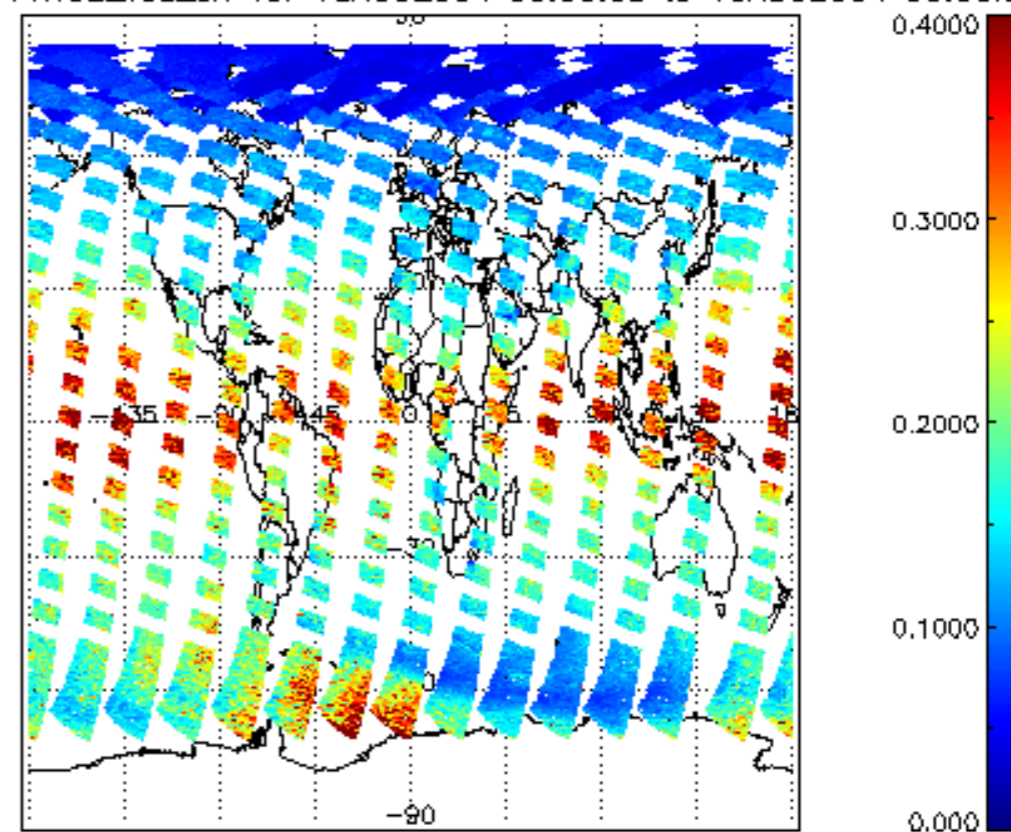




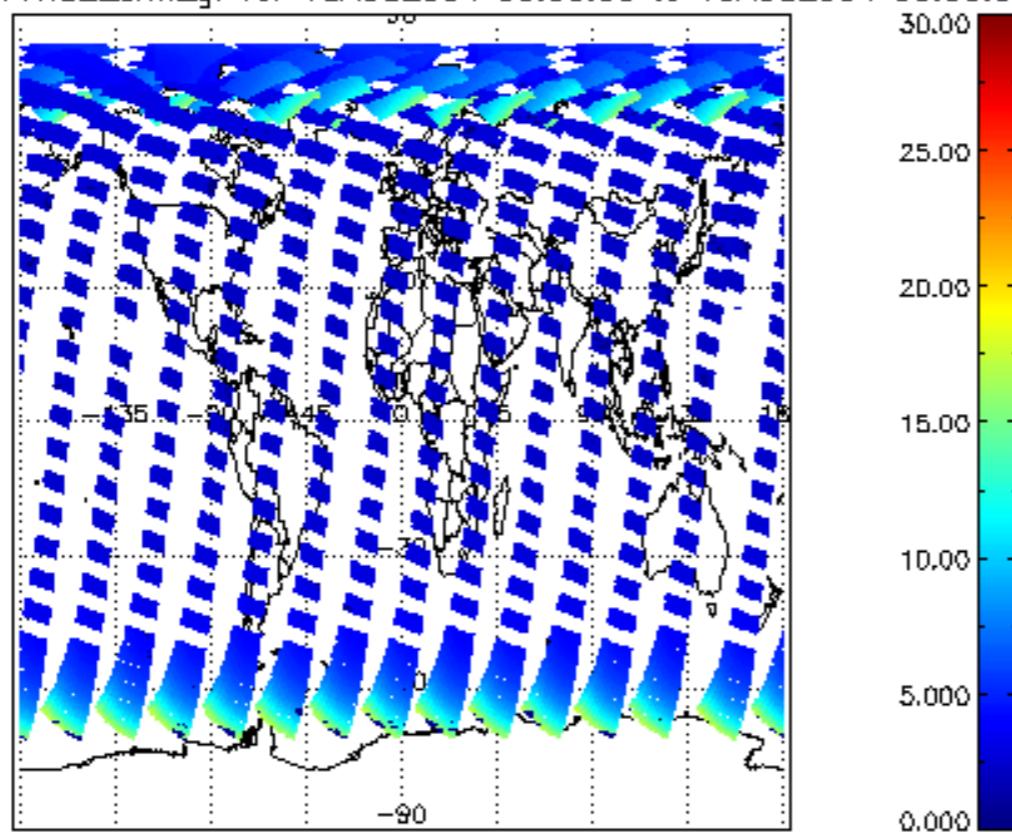
SCIOL2P\_NADUV1NO2\_vcd for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



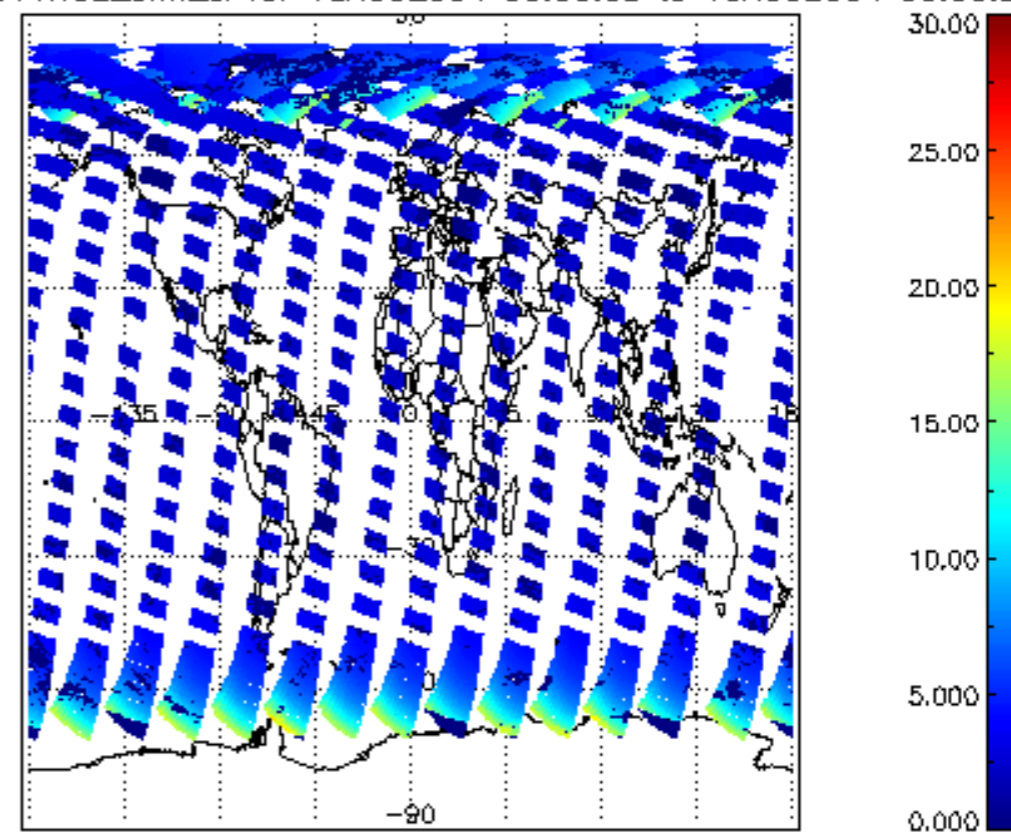
SCIOL2P\_NADUV1NO2\_vcd\_err for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



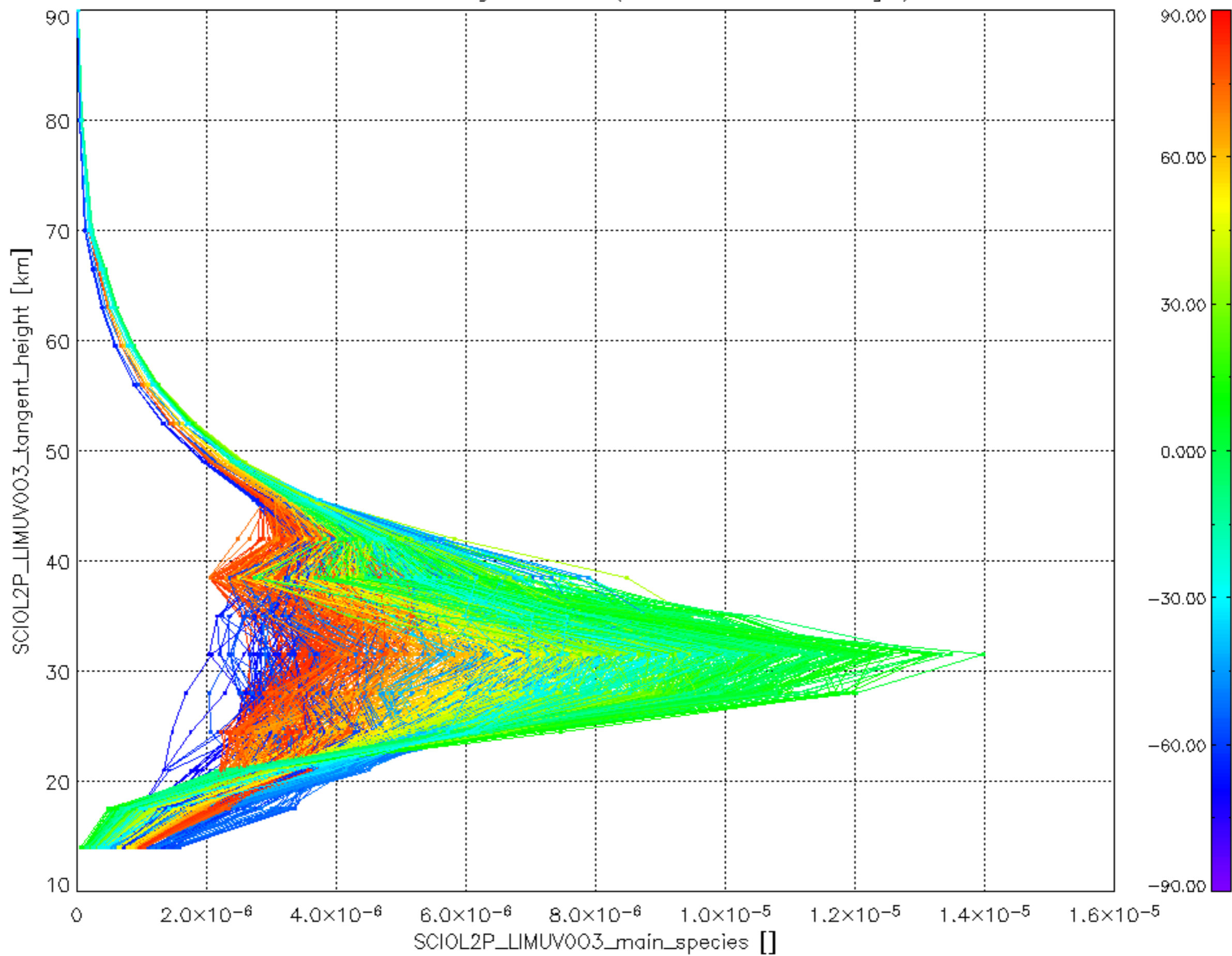
SCIOL2P\_NADUV1NO2\_amf\_gr for 18AUG2004 00:00:00 to 19AUG2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 18AUG2004 00:00:00 to 19AUG2004 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).

