

## 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 13:08:10
Data source version	SCIA-OL/3.01-R
Processing scope for products	03NOV2004 00:00:00 to 04NOV2004 00:00:00
Start time of first product within scope	02NOV2004 23:52:32
Stop time of last product within scope	04NOV2004 00:16:26
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__2PRDPA20041102_235232_000033252031_00417_13998_0487.N1</a>	02NOV2004 23:52:32	03NOV2004 00:47:58	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20041103_013308_000033812031_00418_13999_0519.N1</a>	03NOV2004 01:33:08	03NOV2004 02:29:30	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20041103_031345_000033252031_00419_14000_0575.N1</a>	03NOV2004 03:13:45	03NOV2004 04:09:10	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20041103_045421_000033812031_00420_14001_4813.N1</a>	03NOV2004 04:54:21	03NOV2004 05:50:42	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20041103_063457_000033252031_00421_14002_0576.N1</a>	03NOV2004 06:34:57	03NOV2004 07:30:23	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20041103_081534_000033812031_00422_14003_0610.N1</a>	03NOV2004 08:15:34	03NOV2004 09:11:55	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20041103_095610_000033252031_00423_14004_0537.N1</a>	03NOV2004 09:56:10	03NOV2004 10:51:35	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20041103_113646_000033812031_00424_14005_0531.N1</a>	03NOV2004 11:36:46	03NOV2004 12:33:08	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20041103_131927_000032012031_00425_14006_0597.N1</a>	03NOV2004 13:19:27	03NOV2004 14:12:48	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20041103_145759_000033812031_00426_14007_0475.N1</a>	03NOV2004 14:57:59	03NOV2004 15:54:20	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20041103_163835_000033252031_00427_14008_0526.N1</a>	03NOV2004 16:38:35	03NOV2004 17:34:01	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20041103_181904_000033732031_00428_14009_0563.N1</a>	03NOV2004 18:19:04	03NOV2004 19:15:17	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20041103_200008_000033252031_00429_14010_0564.N1</a>	03NOV2004 20:00:08	03NOV2004 20:55:34	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20041103_214024_000033812031_00430_14011_0569.N1</a>	03NOV2004 21:40:24	03NOV2004 22:36:46	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20041103_232100_000033252031_00431_14012_0535.N1</a>	03NOV2004 23:21:00	04NOV2004 00:16:26	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: 152128

Total number of cloud data DSRs with good quality flag (=0): 152128 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	152128	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	152128	0.17065	0.12500	0.12500	0.25000	0.060185	s
CL_FRAC	152128	0.44712	0.43803	0.0000	1.0000	0.28238	-
CL_FRAC_ERR	152128	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	152128	5.4607	4.0000	4.0000	8.0000	1.9259	
PMD_READ_CL[0]	152128	0.30846	0.0000	0.0000	8.0000	1.2382	-
PMD_READ_CL[1]	152128	0.38328	0.0000	0.0000	8.0000	1.3607	-
CL_TOP_HEIGHT	130171	4.4373	3.4047	0.0000	17.000	3.8931	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	130171	51.566	37.591	0.0000	101.00	39.488	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	152128	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	152128	11001000	11000100	11000000	11100000	2925.4	flags
AERO_ABSO_IND	152128	0.60508	0.31924	-4.4322	12.291	1.0119	
AERO_IND_DIAG	152128	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	152128	01011000	00000000	00000000	11000000	24499.	flags

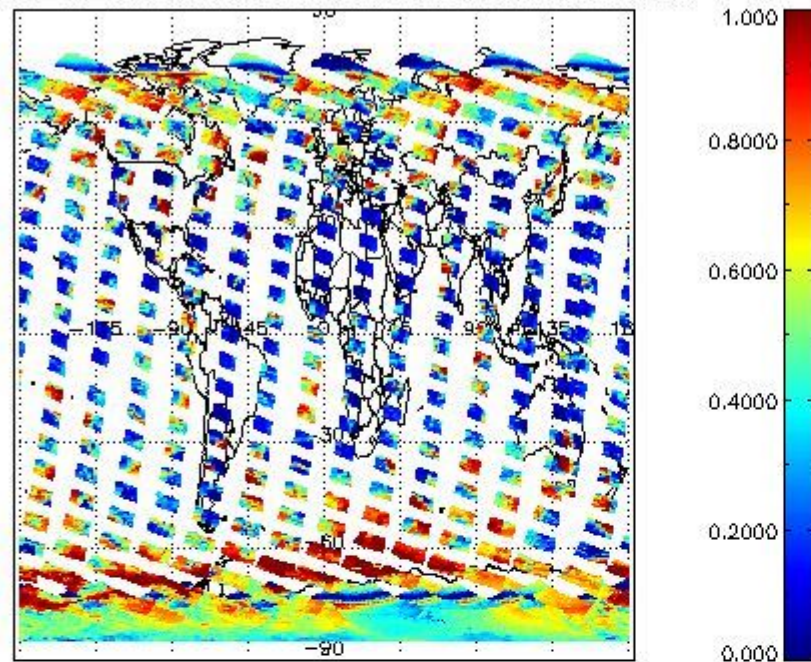
### Time and geolocation plots:

Plots are available for the following parameters:

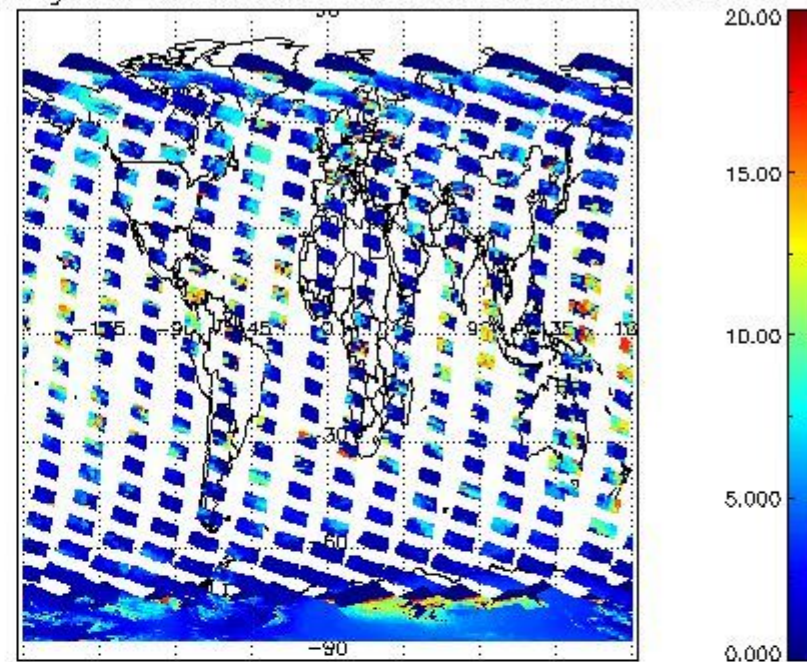
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



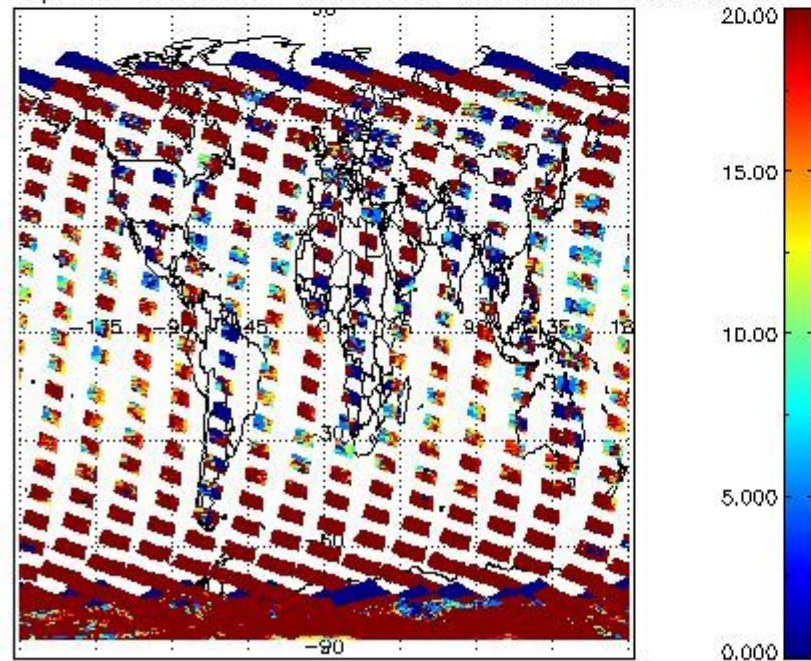
cLfrac for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



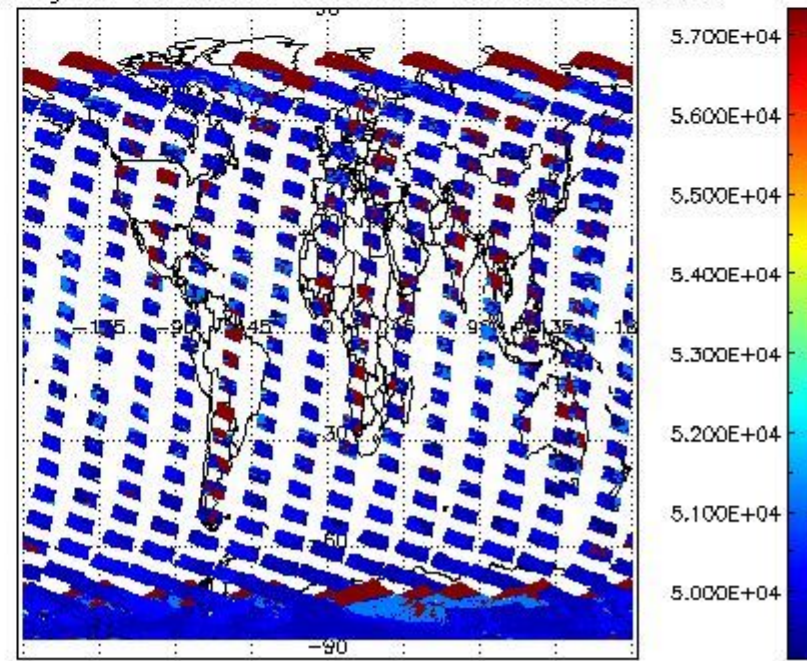
cL\_top\_height for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



cLopt\_depth for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



cloud\_flags for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



## 2.2.2 Nadir

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

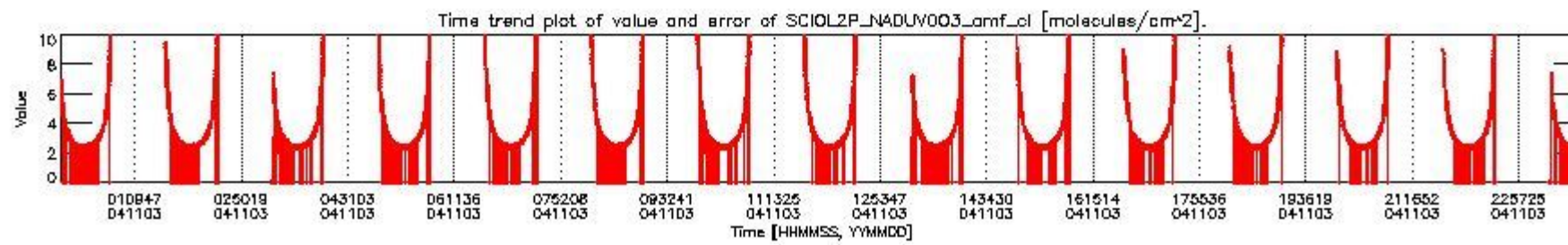
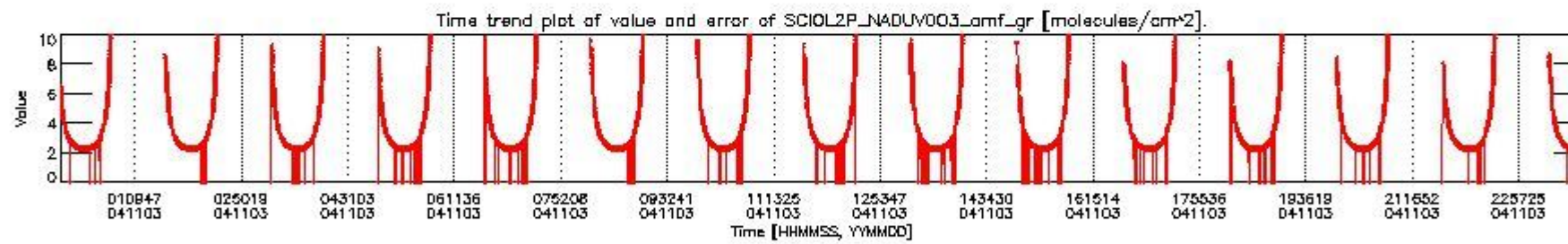
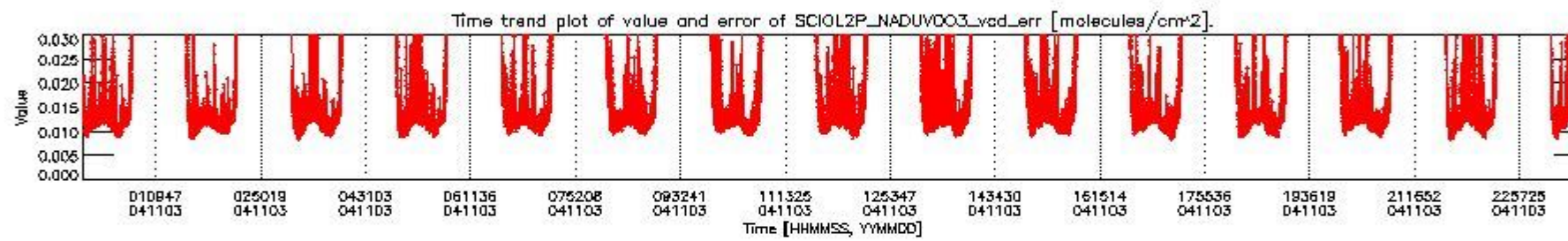
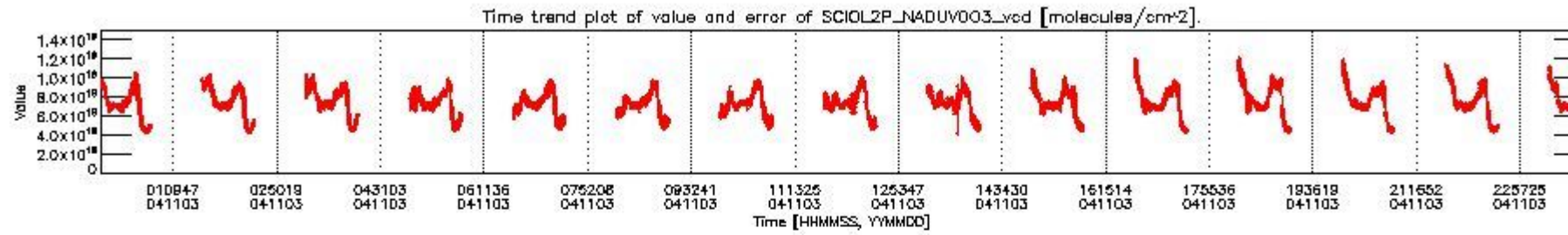
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



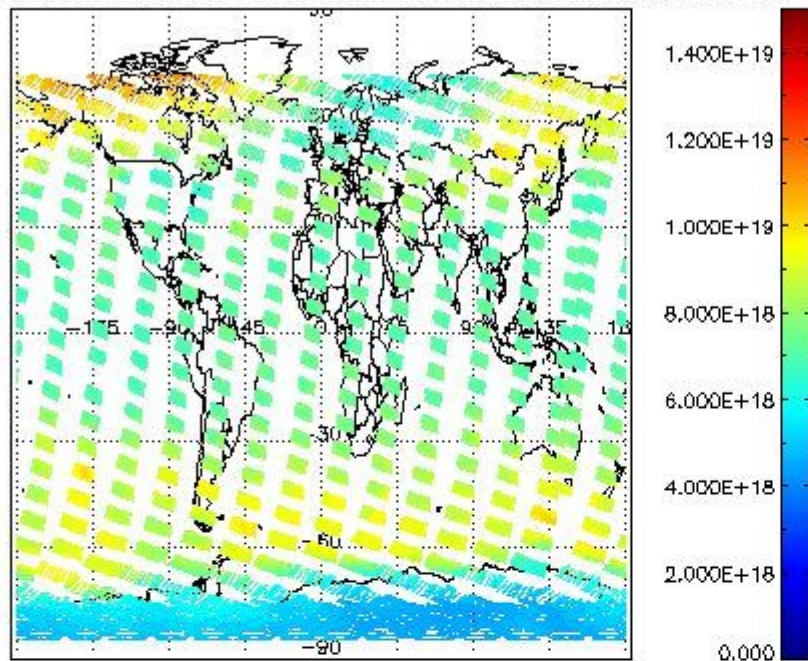
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

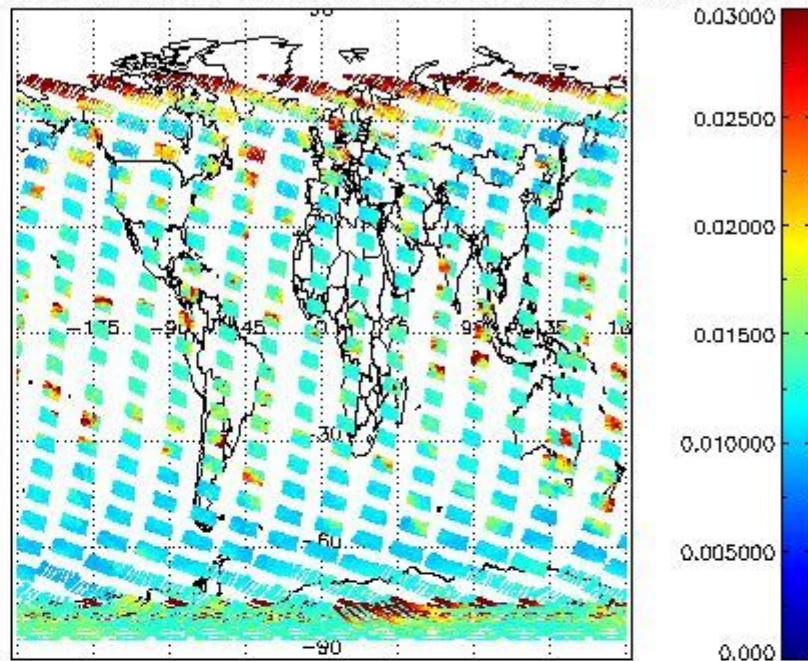




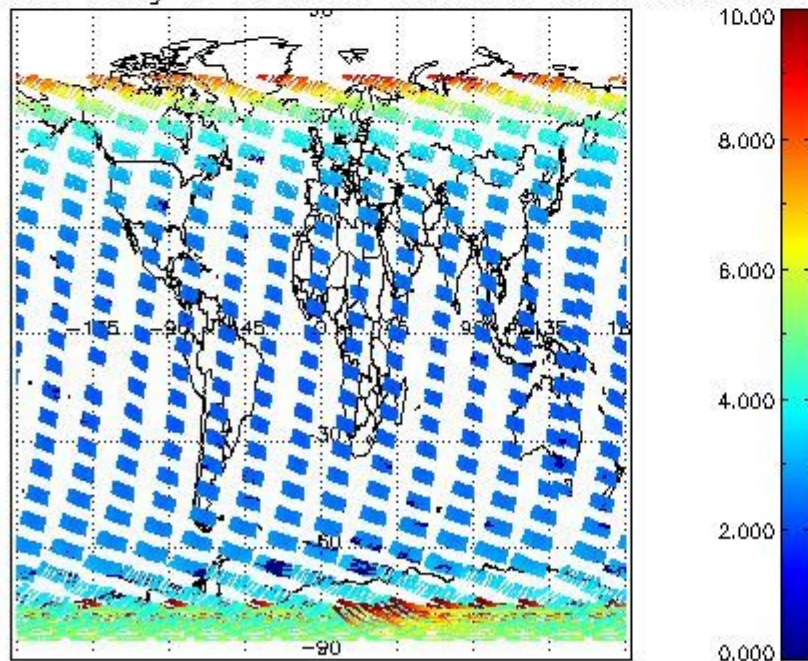
SCIOL2P\_NADUV003\_vcd for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



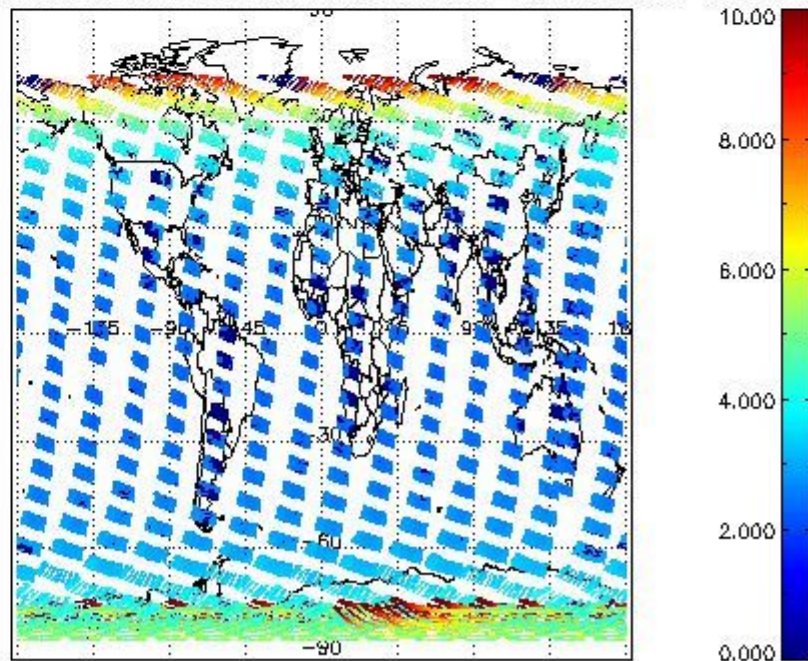
SCIOL2P\_NADUV003\_vcd\_err for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



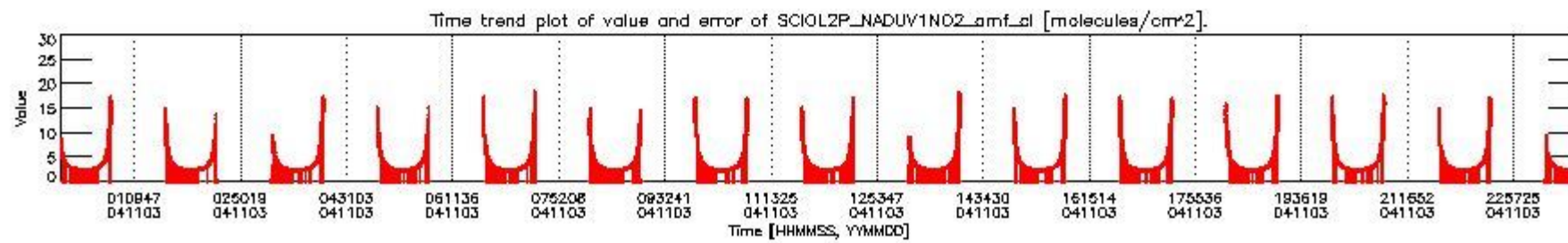
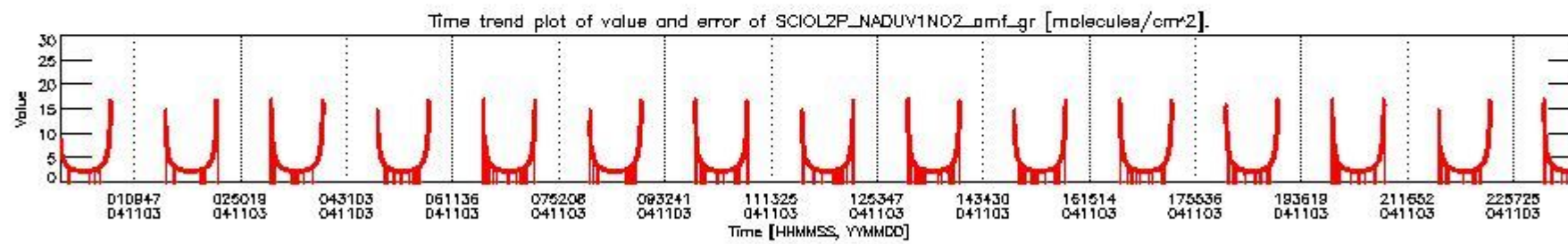
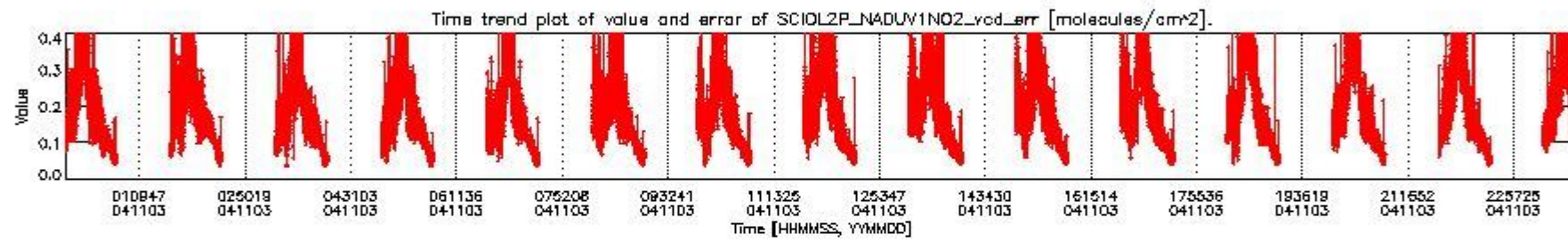
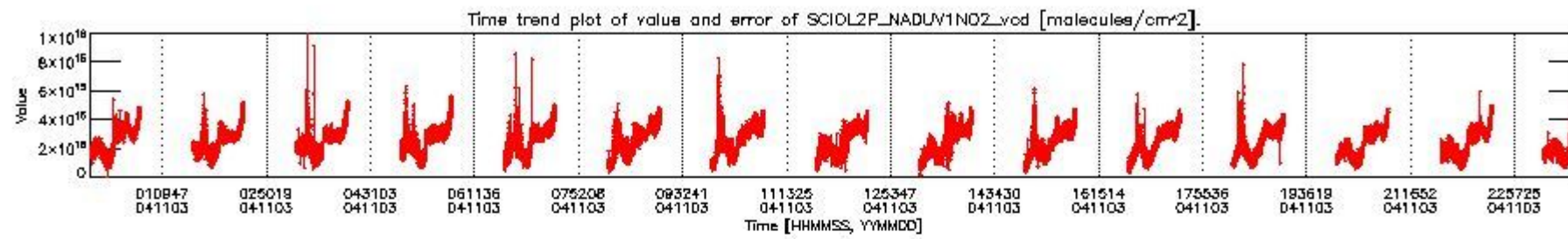
SCIOL2P\_NADUV003\_amf\_gr for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



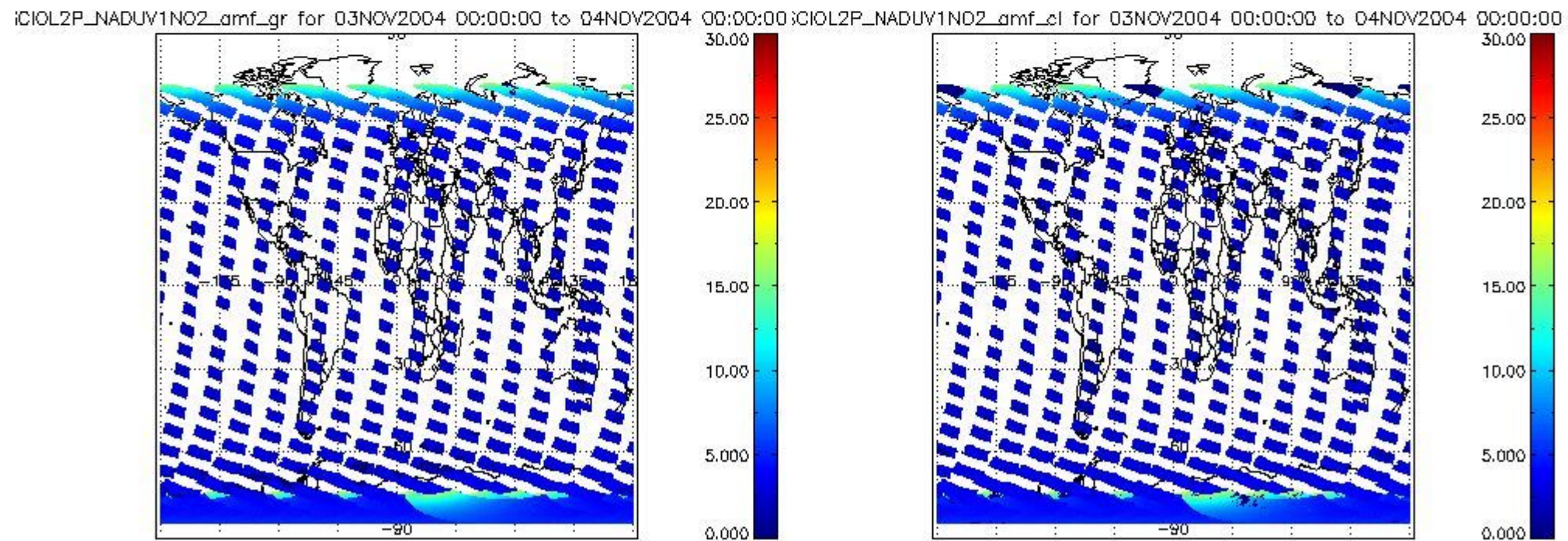
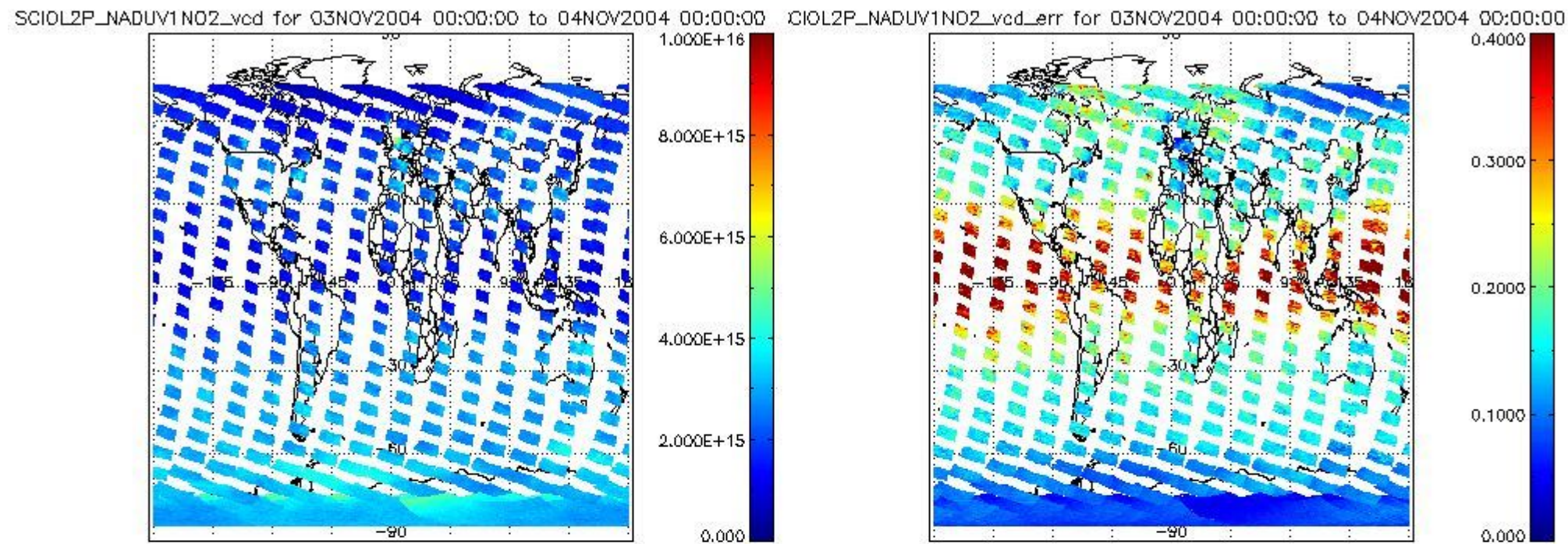
SCIOL2P\_NADUV003\_amf\_cl for 03NOV2004 00:00:00 to 04NOV2004 00:00:00











### 2.2.3 Limb

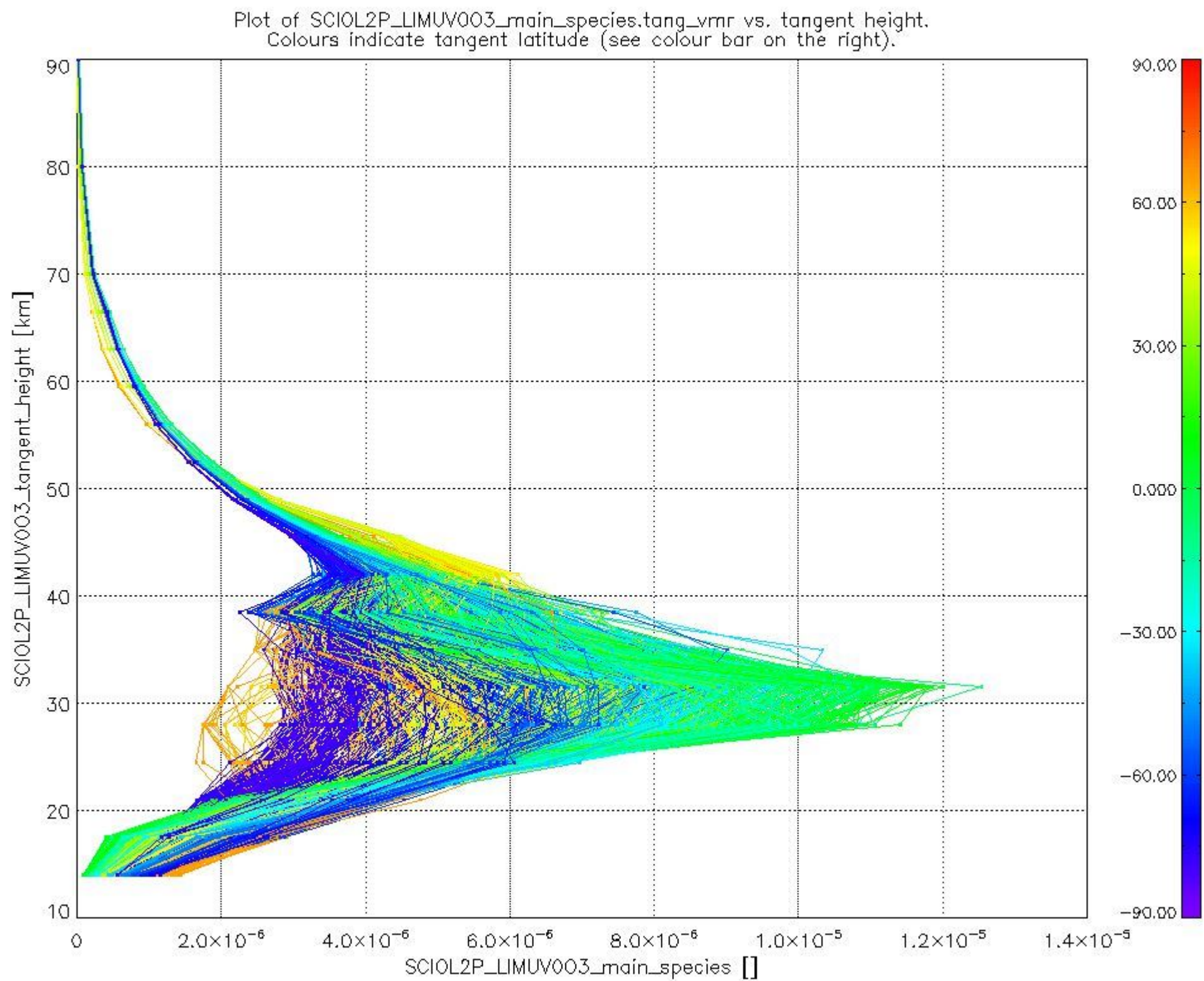
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

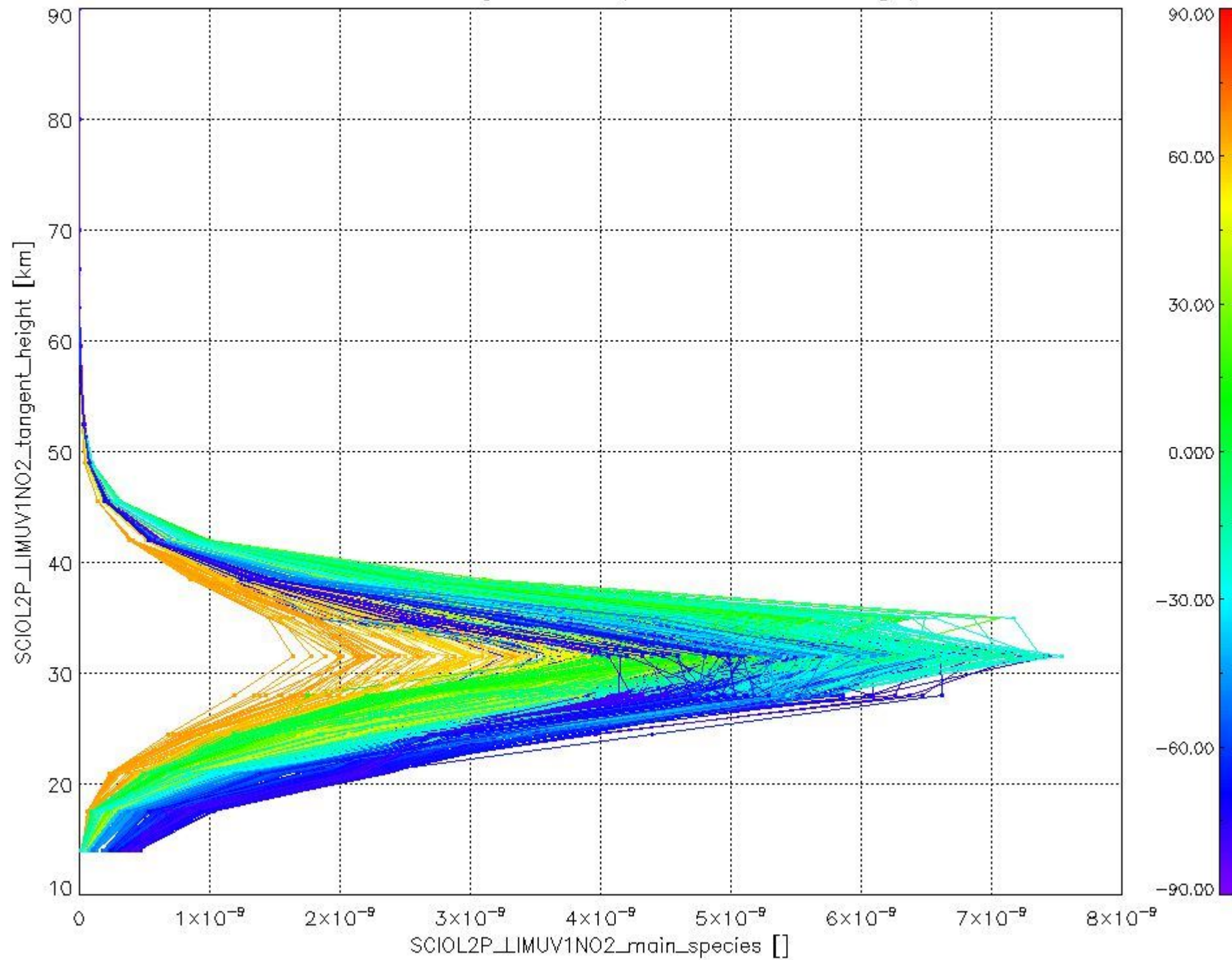


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





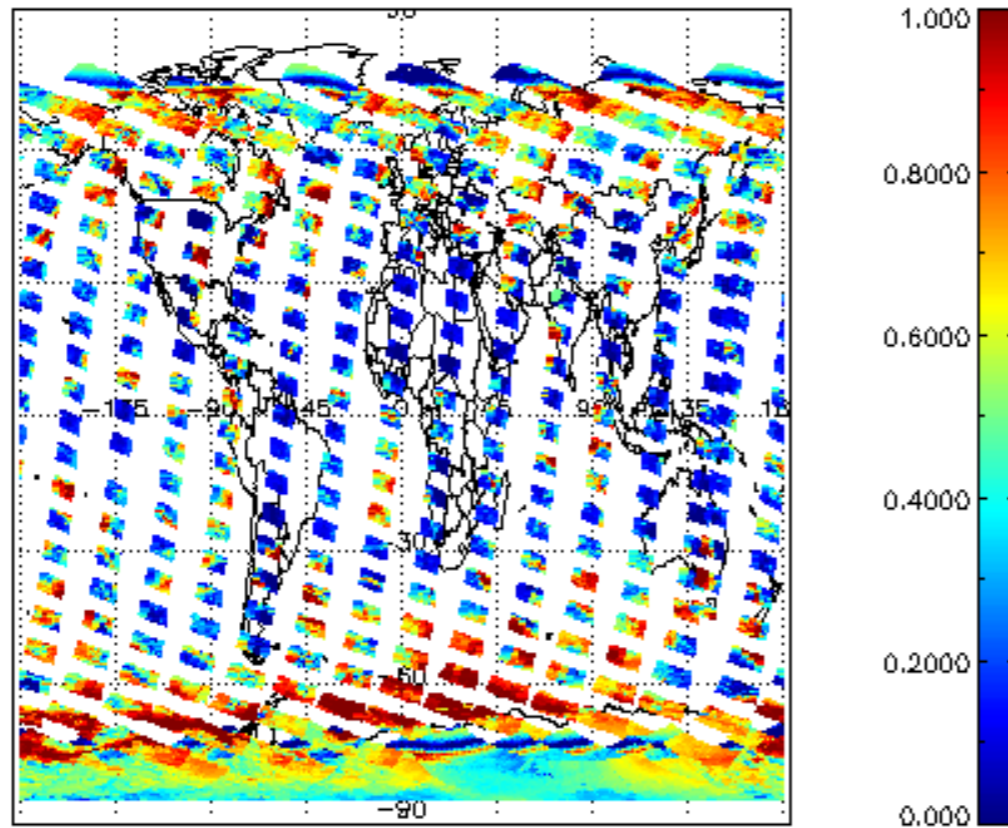
Plot of SCIO2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



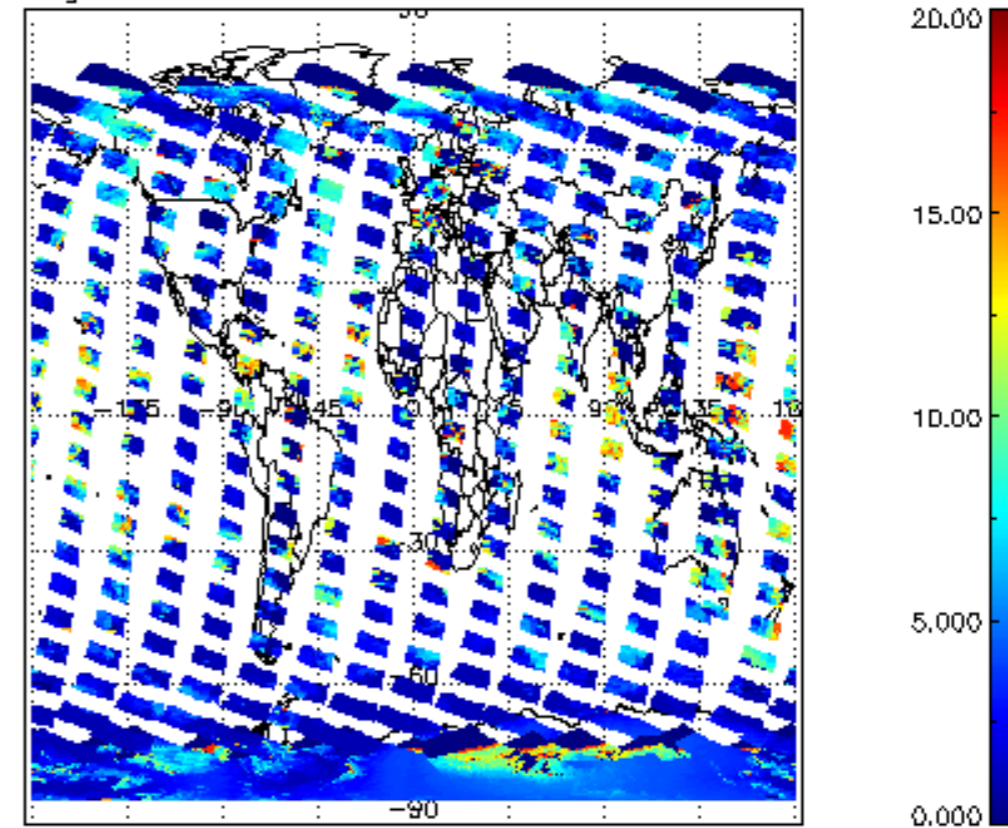
### 2.3 ADF monitoring

Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN_AXNPDE20070629_092400_20070720_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED

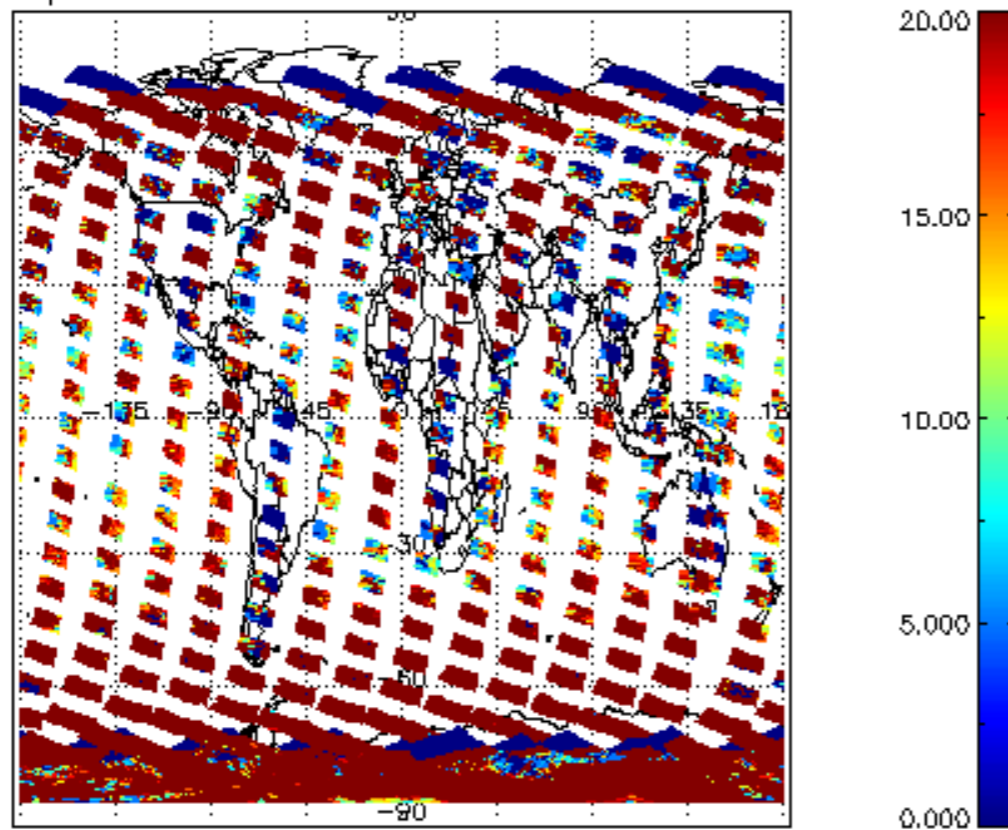
cLfrac for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



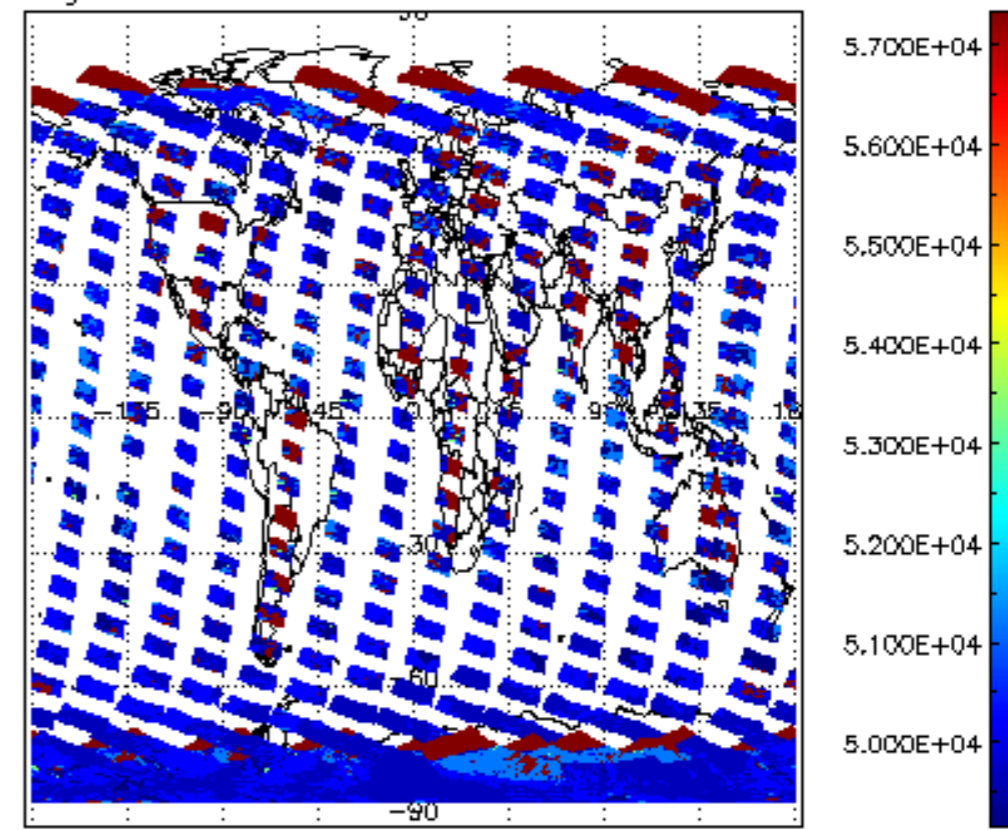
cL\_top\_height for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



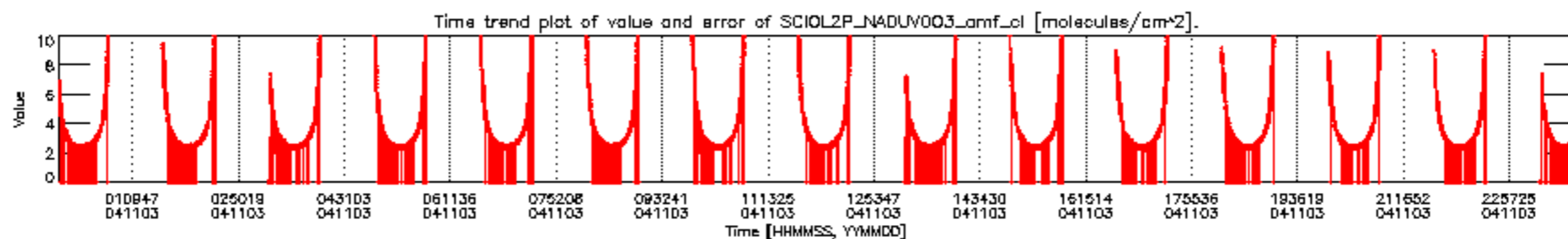
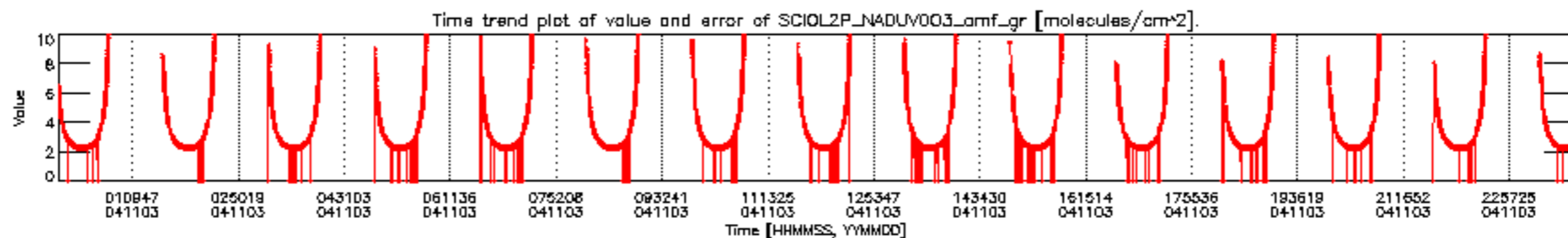
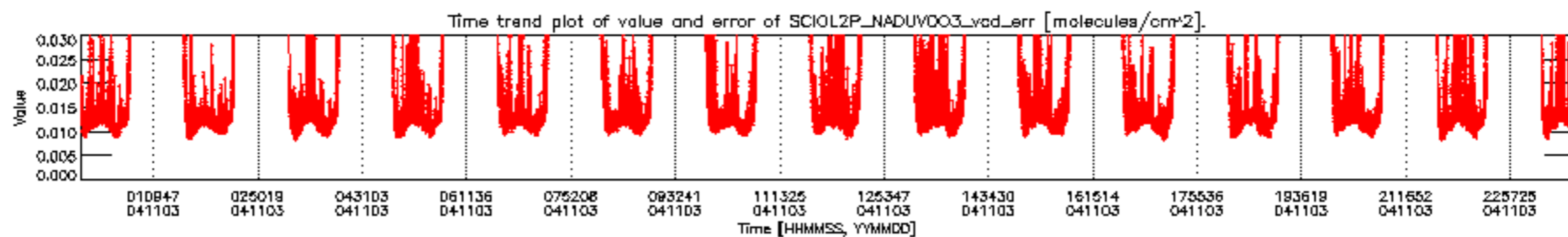
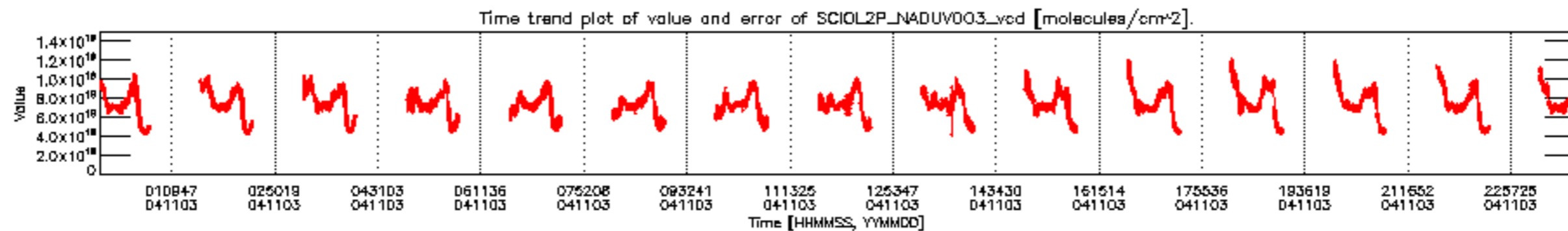
cL\_opt\_depth for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



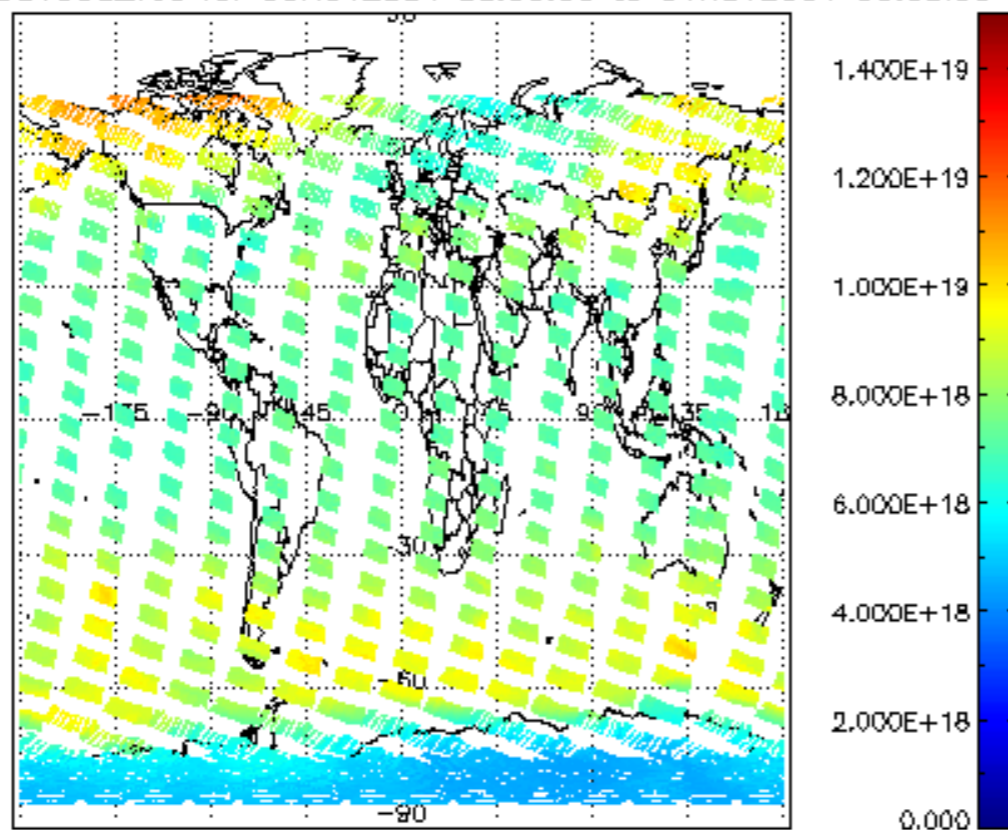
cloud\_flags for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



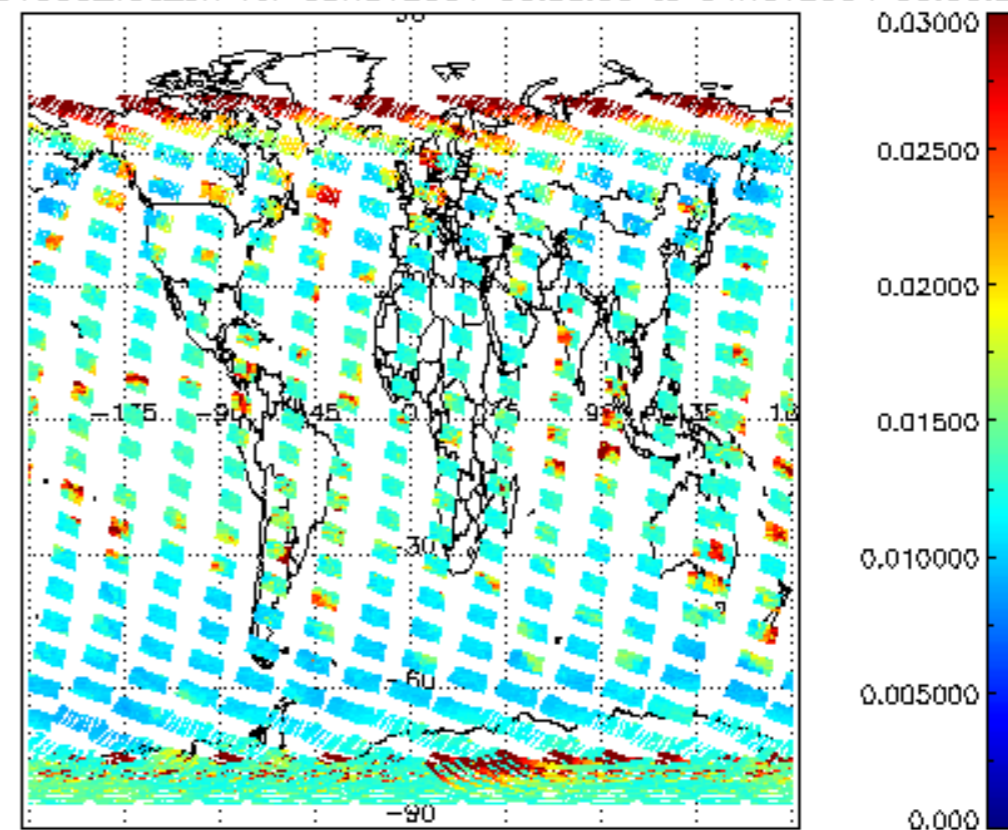




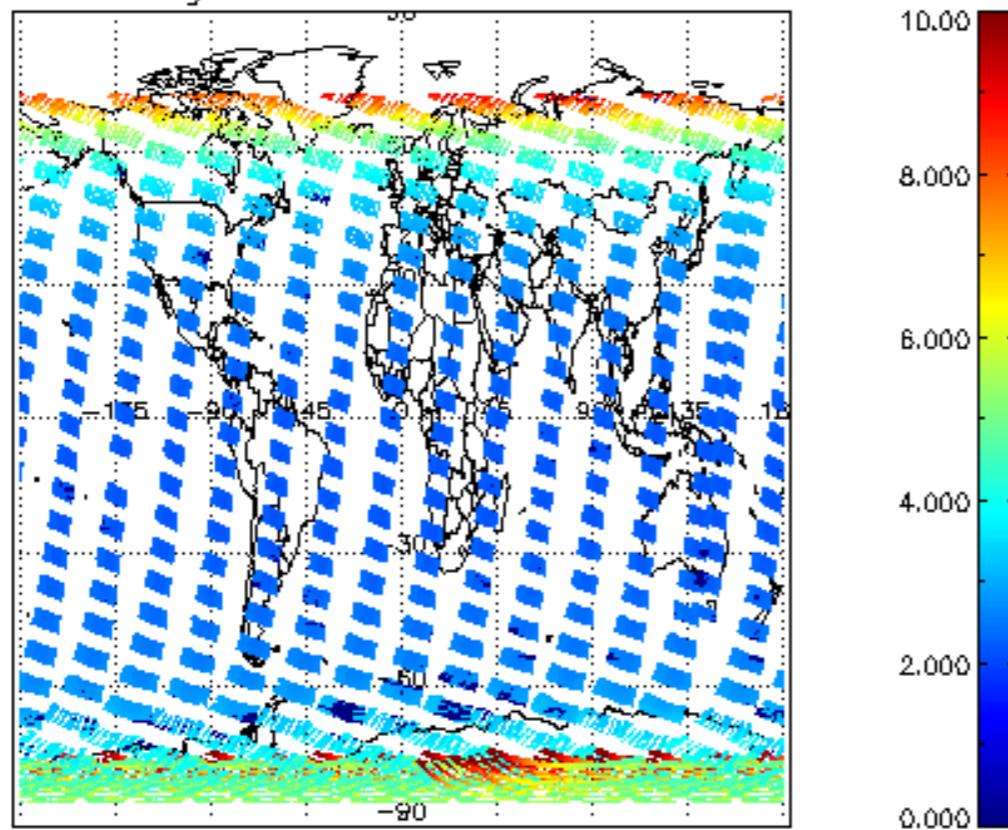
SCIOL2P\_NADUV003\_vcd for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



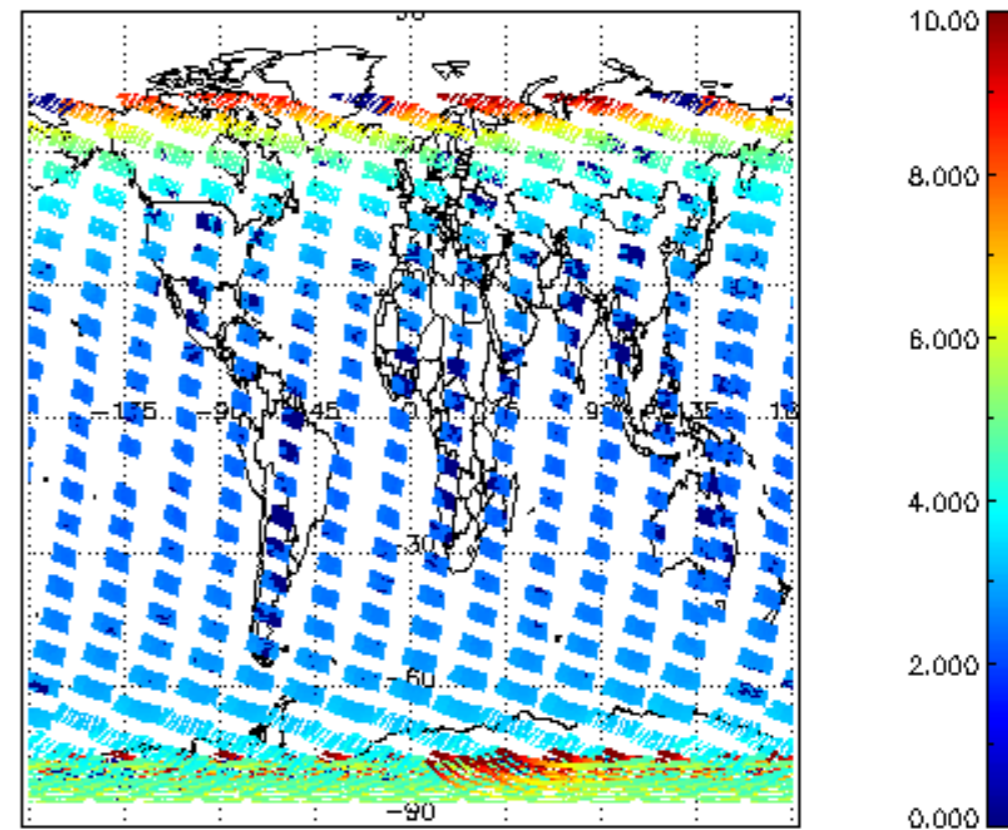
SCIOL2P\_NADUV003\_vcd\_err for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



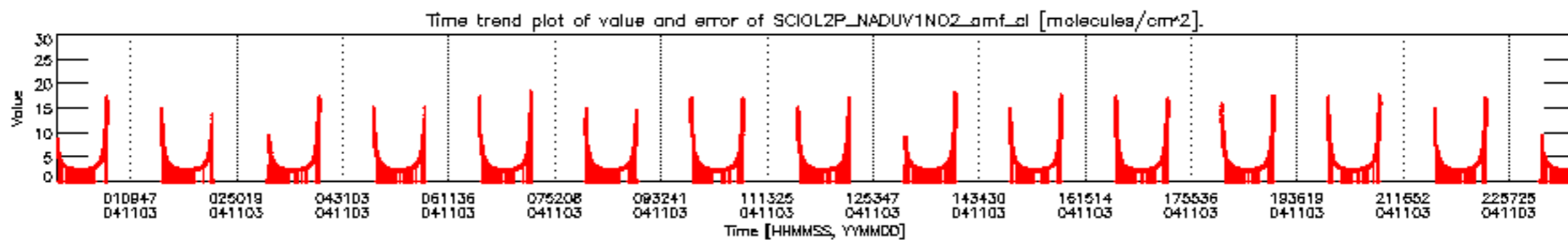
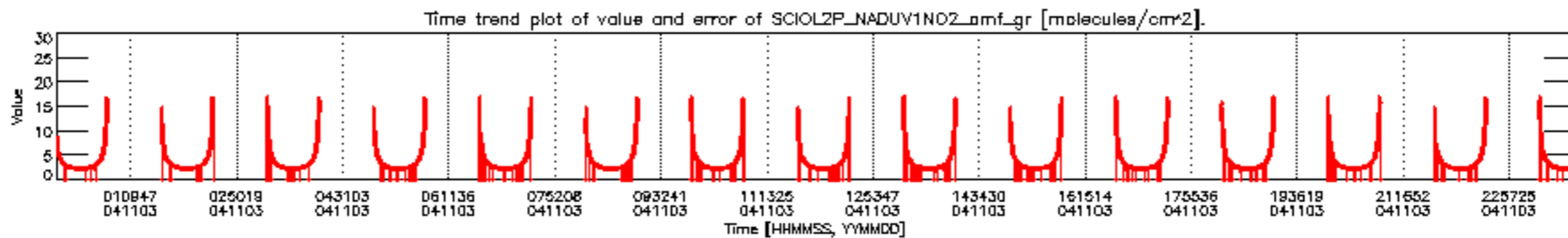
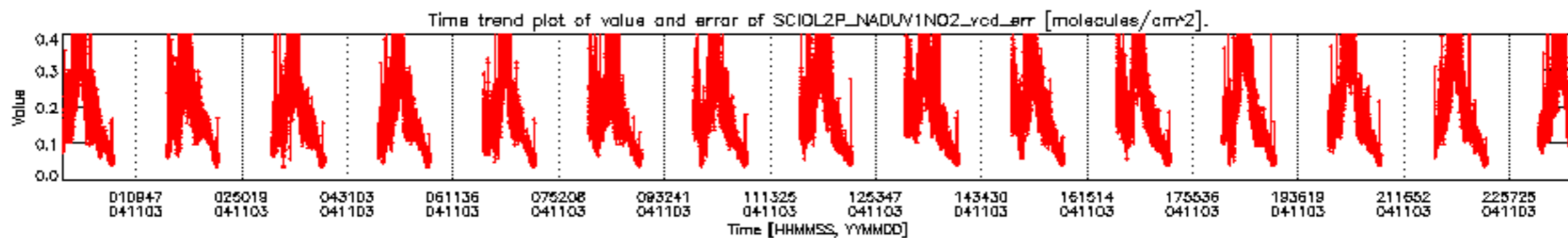
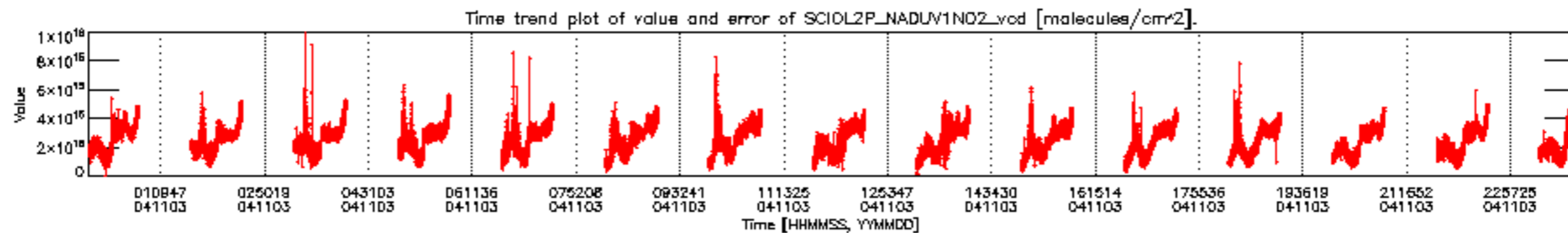
SCIOL2P\_NADUV003\_amf\_gr for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



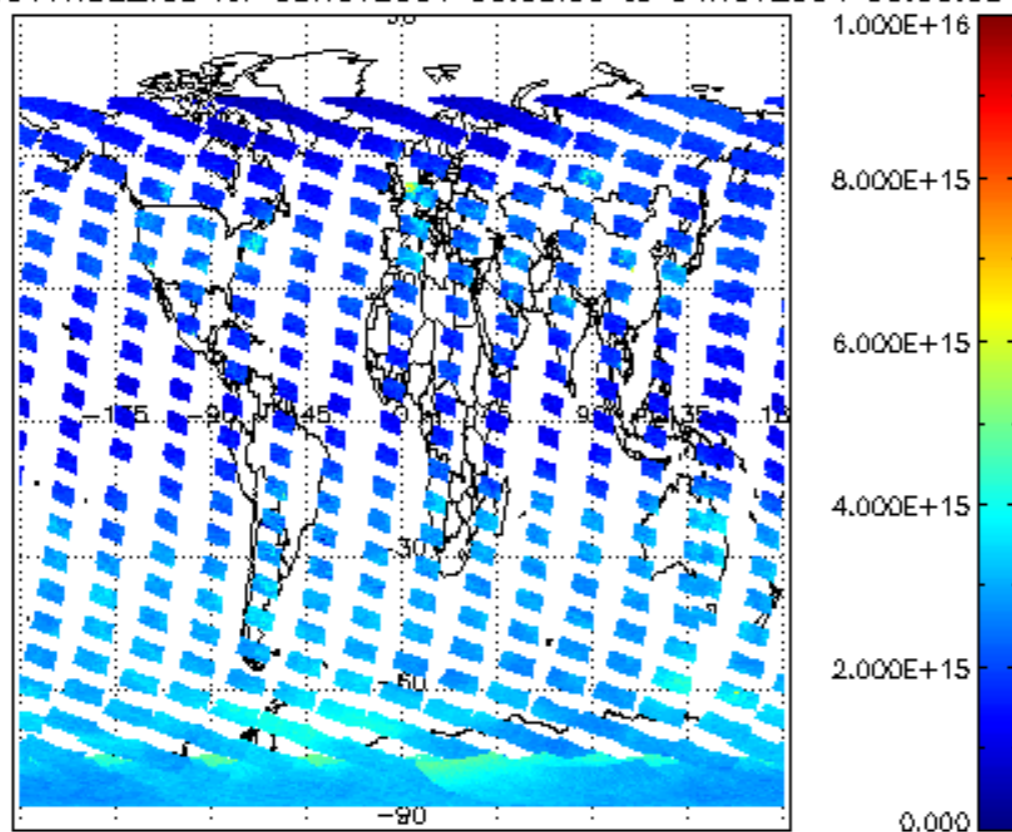
SCIOL2P\_NADUV003\_amf\_cl for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



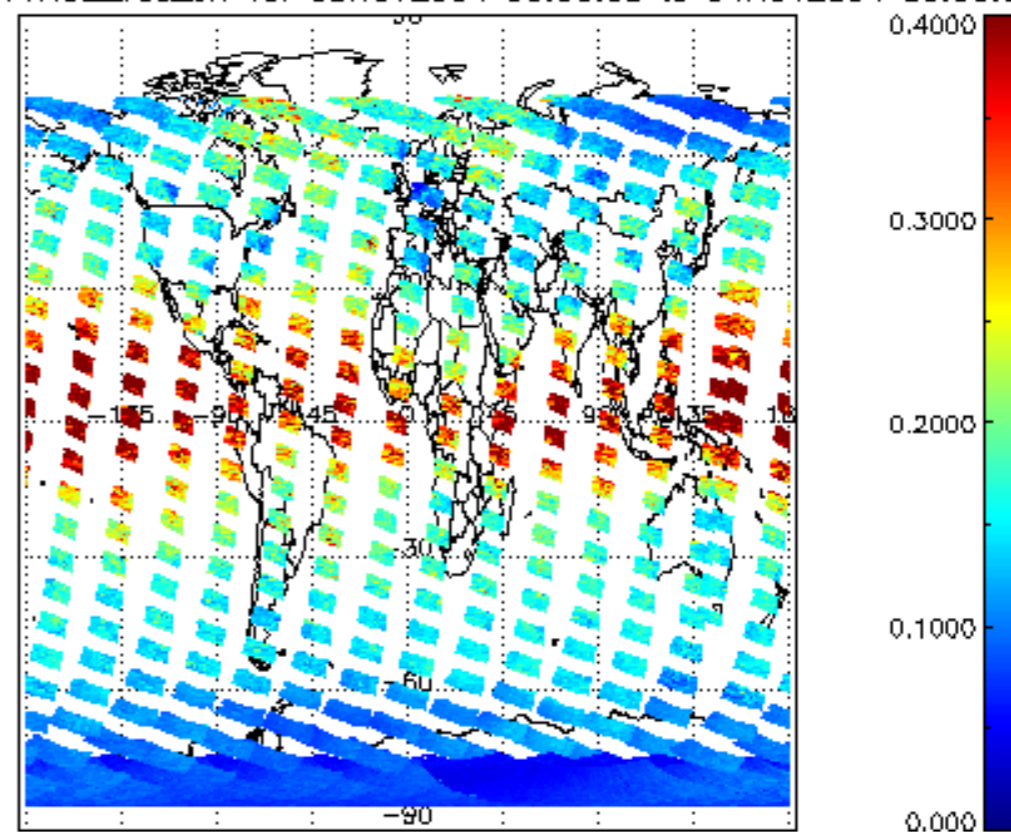




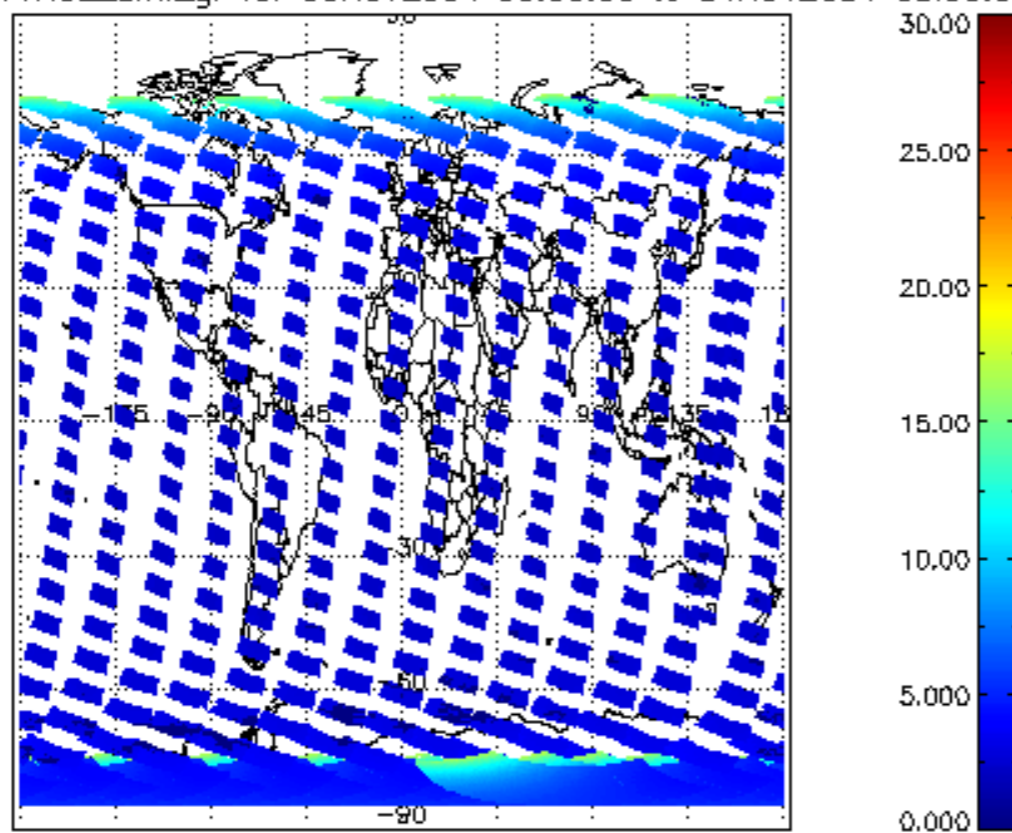
SCIOL2P\_NADUV1NO2\_vcd for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



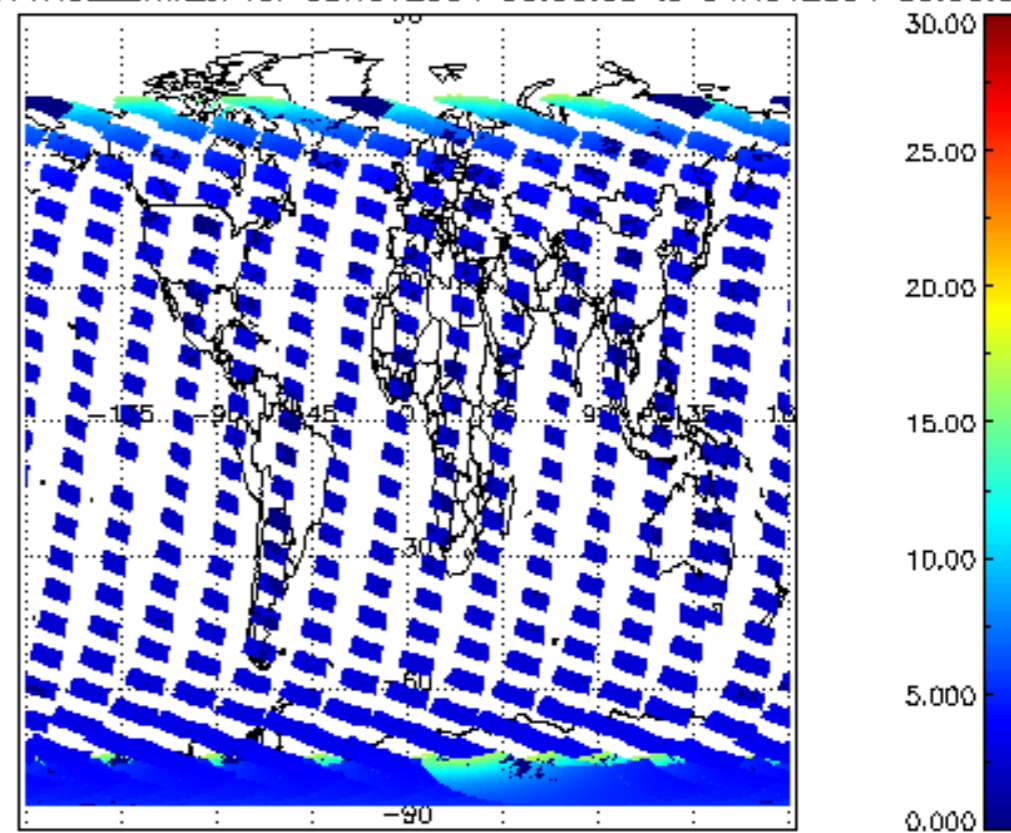
SCIOL2P\_NADUV1NO2\_vcd\_err for 03NOV2004 00:00:00 to 04NOV2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 03NOV2004 00:00:00 to 04NOV2004 00:00:00

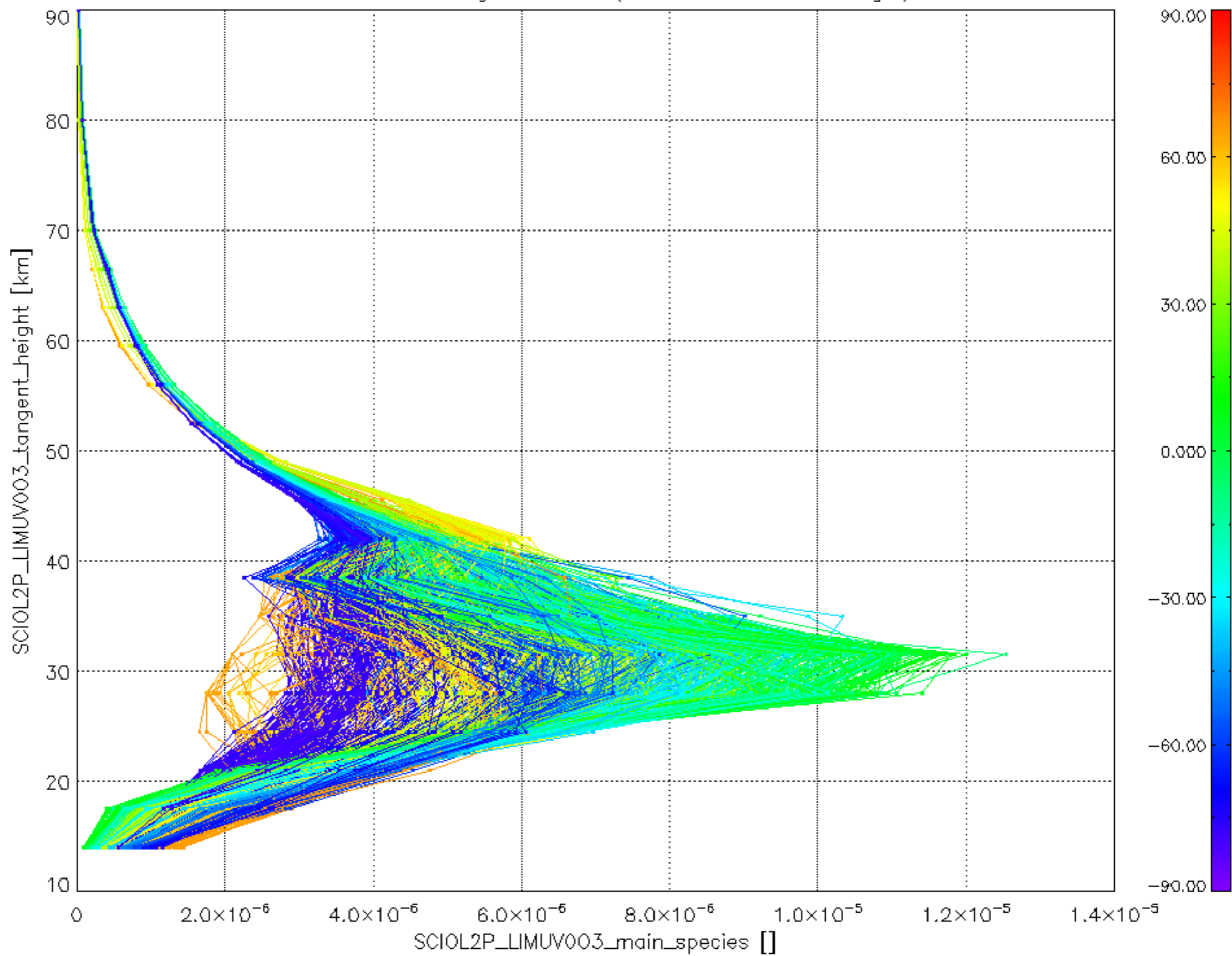


SCIOL2P\_NADUV1NO2\_amf\_cl for 03NOV2004 00:00:00 to 04NOV2004 00:00:00





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).

