

## 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	07AUG2008 16:46:23
Data source version	SCIA-OL/3.01-R
Processing scope for products	11MAR2004 00:00:00 to 12MAR2004 00:00:00
Start time of first product within scope	10MAR2004 22:58:42
Stop time of last product within scope	11MAR2004 23:20:56
Total number of level 2 products	11
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__2PRDPA20040310_225842_000032372025_00030_10605_6960.N1</a>	10MAR2004 22:58:42	10MAR2004 23:52:40	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040311_003754_000032932025_00031_10606_7104.N1</a>	11MAR2004 00:37:54	11MAR2004 01:32:47	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040311_021953_000032372025_00032_10607_7053.N1</a>	11MAR2004 02:19:53	11MAR2004 03:13:50	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040311_035905_000032932025_00033_10608_7027.N1</a>	11MAR2004 03:59:05	11MAR2004 04:53:58	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040311_054104_000032372025_00034_10609_7174.N1</a>	11MAR2004 05:41:04	11MAR2004 06:35:01	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040311_072016_000032932025_00035_10610_6918.N1</a>	11MAR2004 07:20:16	11MAR2004 08:15:09	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040311_090215_000032372025_00036_10611_6907.N1</a>	11MAR2004 09:02:15	11MAR2004 09:56:12	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040311_140237_000032932025_00039_10614_7026.N1</a>	11MAR2004 14:02:37	11MAR2004 14:57:31	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040311_154437_000032372025_00040_10615_7014.N1</a>	11MAR2004 15:44:37	11MAR2004 16:38:34	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040311_204500_000032932025_00043_10618_7052.N1</a>	11MAR2004 20:45:00	11MAR2004 21:39:53	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040311_222659_000032372025_00044_10619_7161.N1</a>	11MAR2004 22:26:59	11MAR2004 23:20:56	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: 79700

Total number of cloud data DSRs with good quality flag (=0): 79700 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	79700	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	79700	0.21550	0.25000	0.12500	0.50000	0.081844	s
CL_FRAC	79700	0.46334	0.43375	0.0000	1.0000	0.29784	-
CL_FRAC_ERR	79700	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	79700	6.8959	8.0000	4.0000	16.000	2.6190	
PMD_READ_CL[0]	79700	0.39271	0.0000	0.0000	14.000	1.3606	-
PMD_READ_CL[1]	79700	0.35019	0.0000	0.0000	16.000	1.3371	-
CL_TOP_HEIGHT	72998	4.0452	2.2110	0.0000	17.000	4.0040	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	72998	50.269	36.453	0.0000	101.00	38.433	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	79700	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	79700	11000110	11000100	11000000	11100000	2402.9	flags
AERO_ABSO_IND	79700	0.85915	0.70174	-4.1161	14.709	1.2306	
AERO_IND_DIAG	79700	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	79700	01101010	11000000	00000000	11000000	24440.	flags

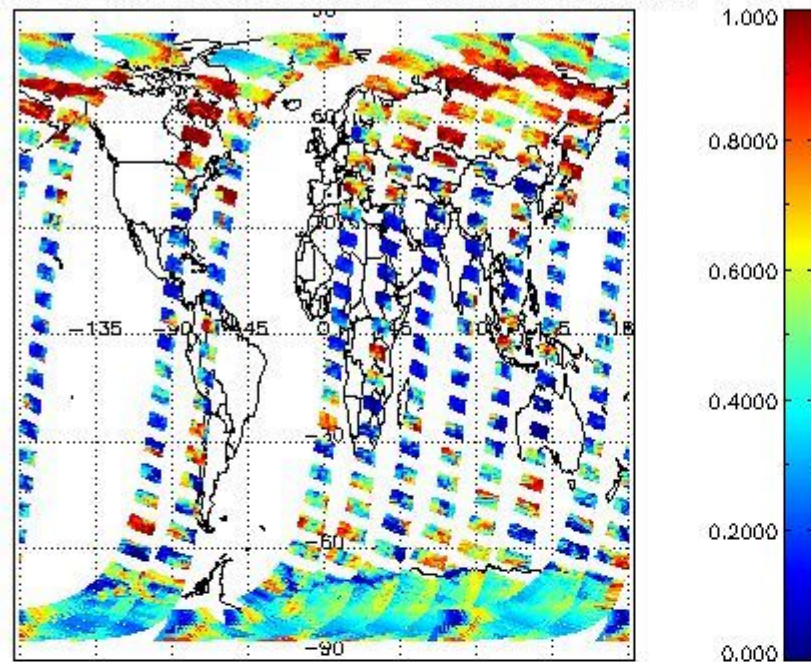
### Time and geolocation plots:

Plots are available for the following parameters:

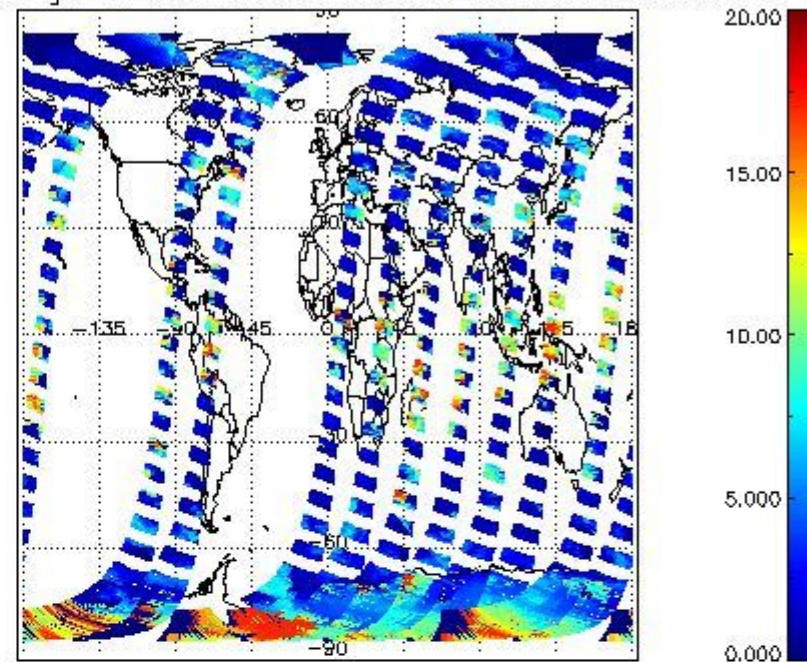
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



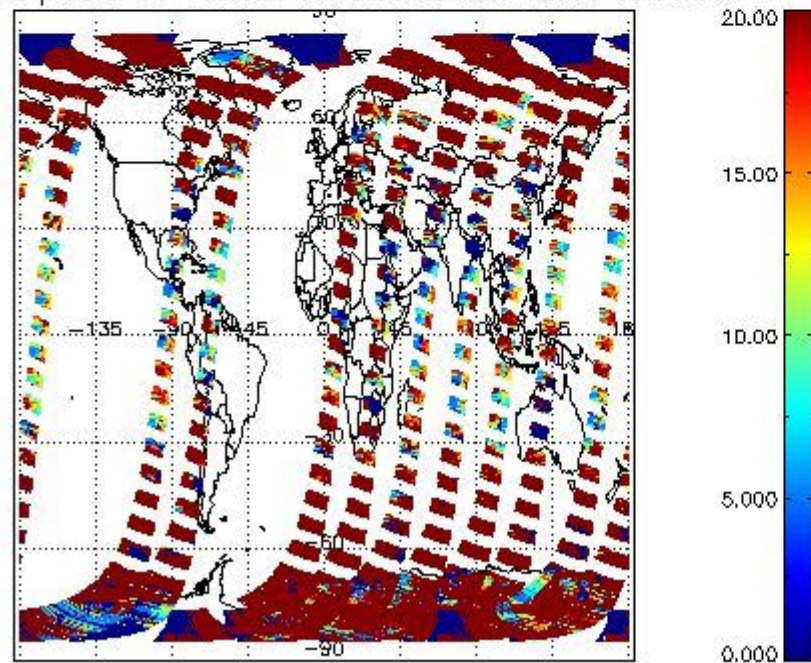
cL\_frac for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



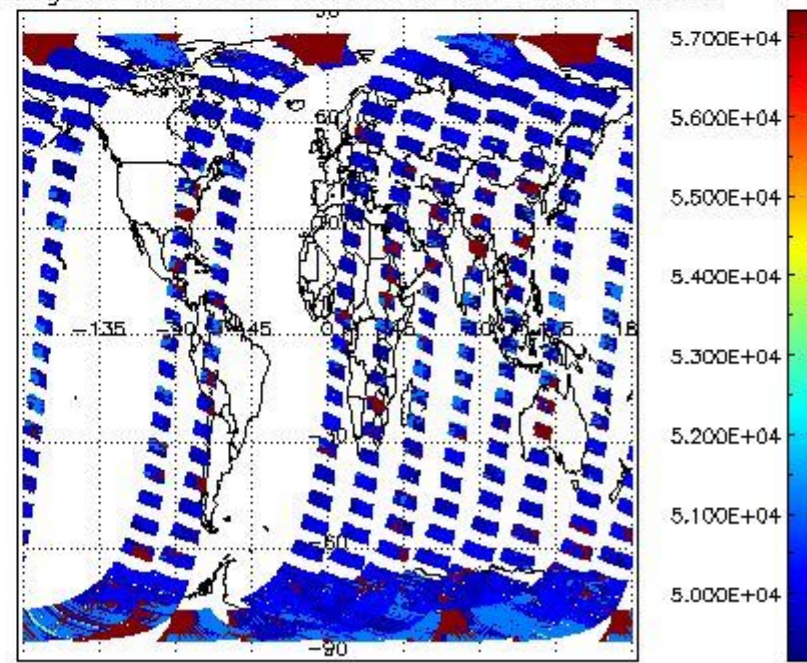
cL\_top\_height for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



cL\_opt\_depth for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



cloud\_flags for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



## 2.2.2 Nadir

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

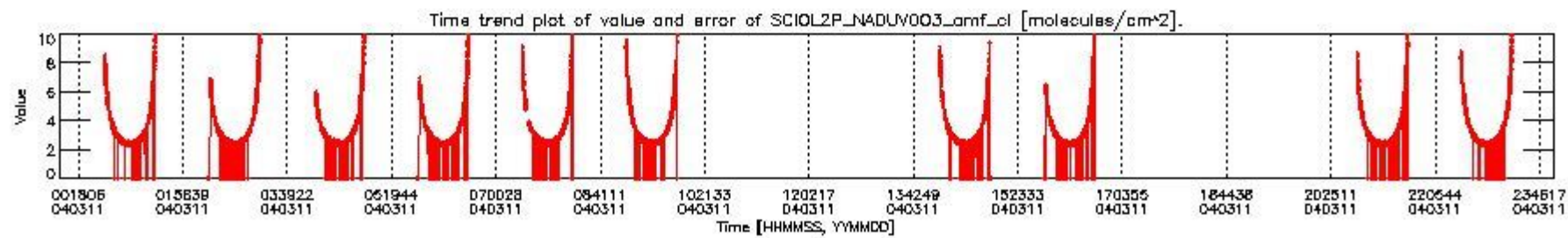
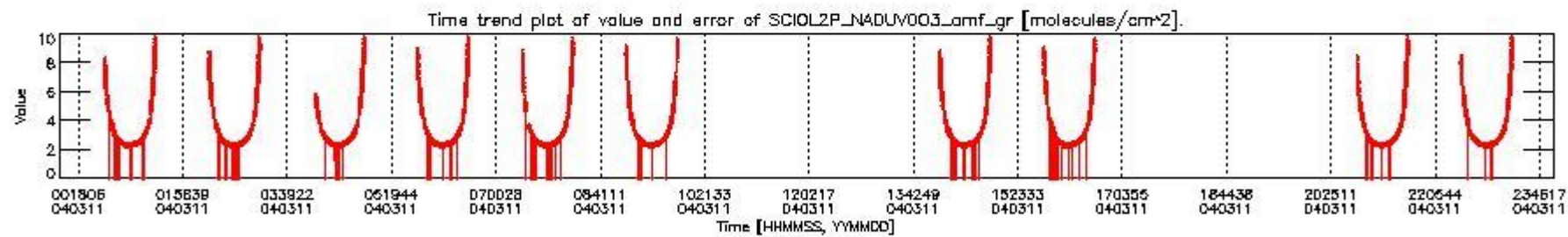
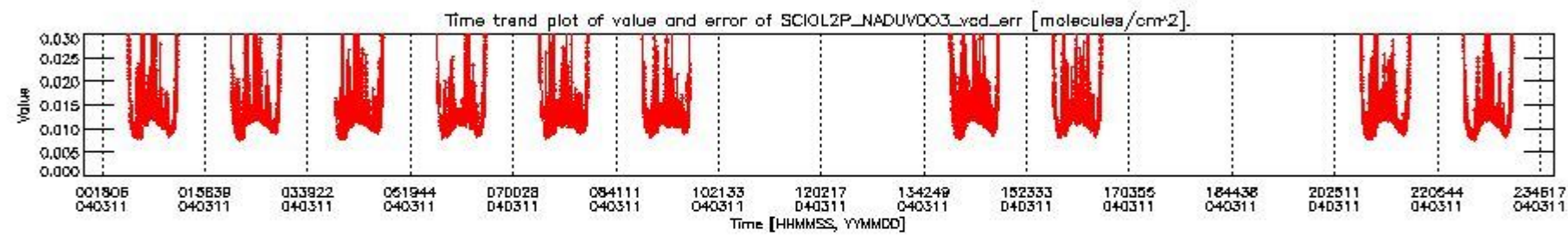
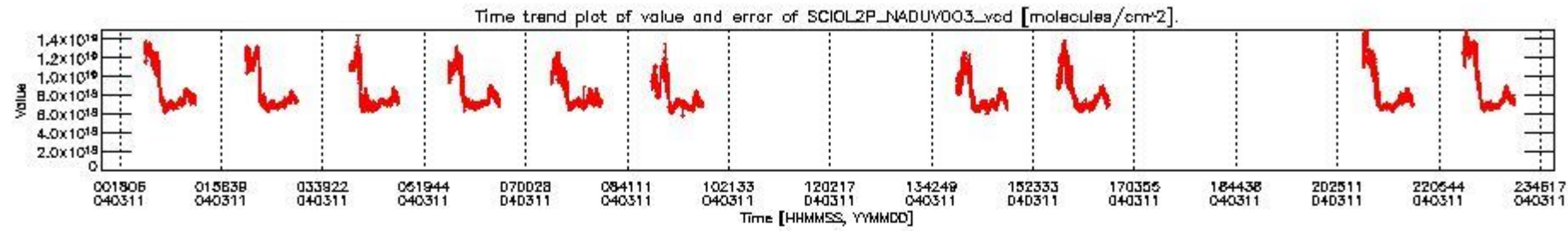
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



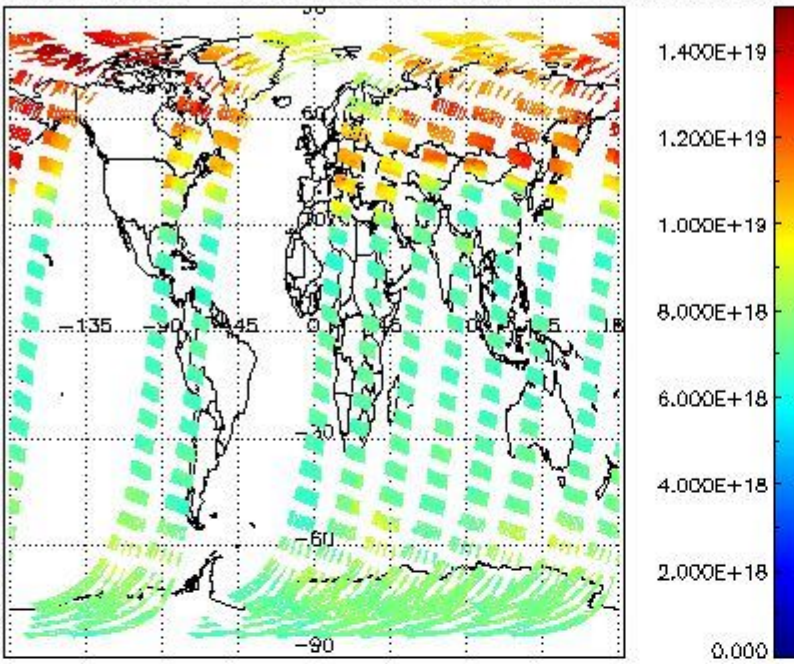
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

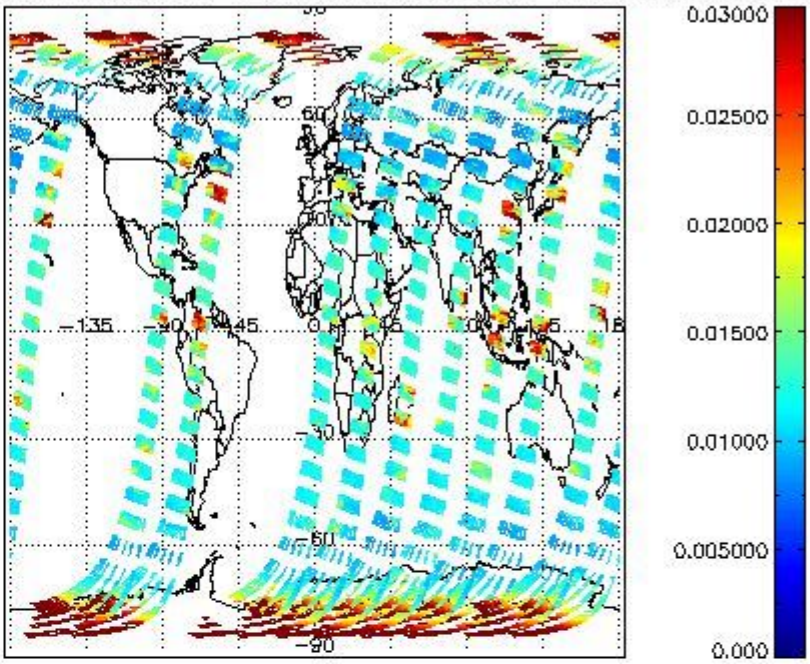




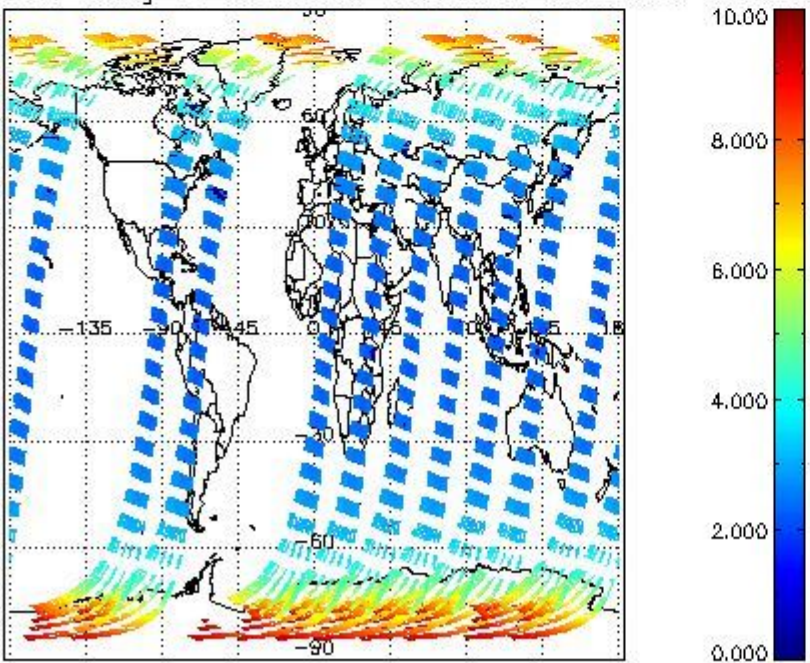
SCIOL2P\_NADUV003\_vcd for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



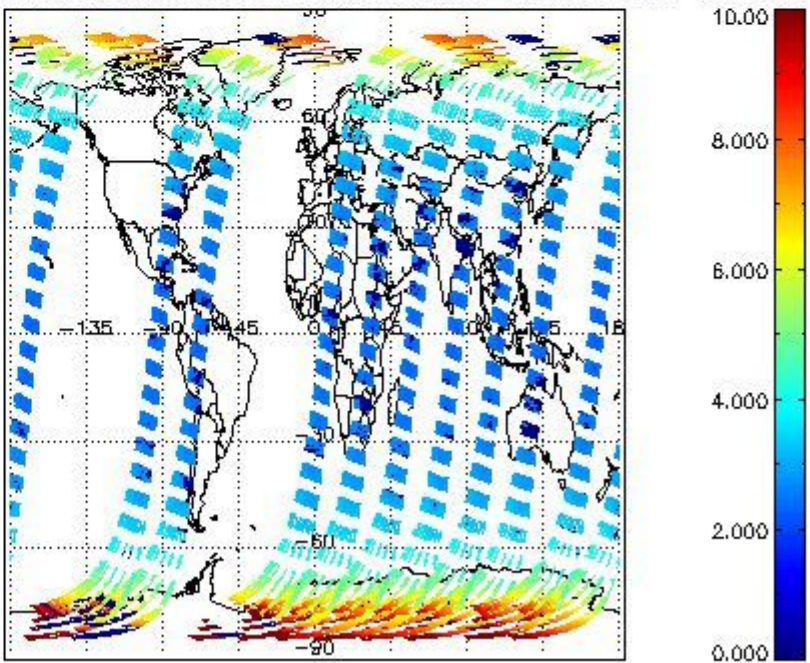
SCIOL2P\_NADUV003\_vcd\_err for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



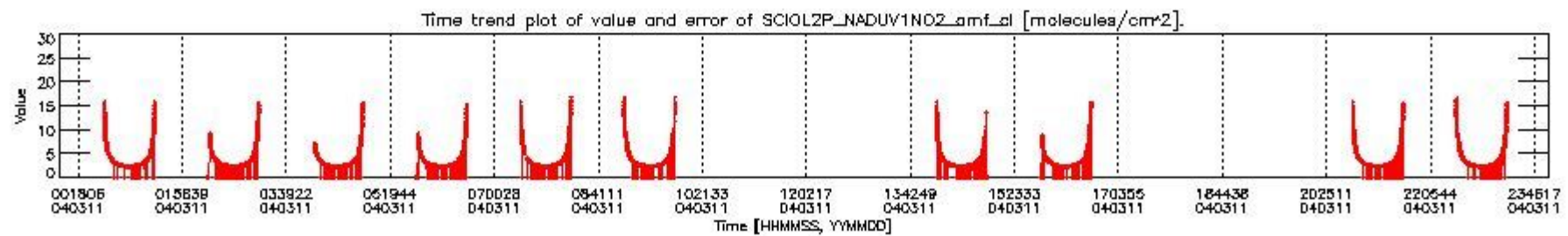
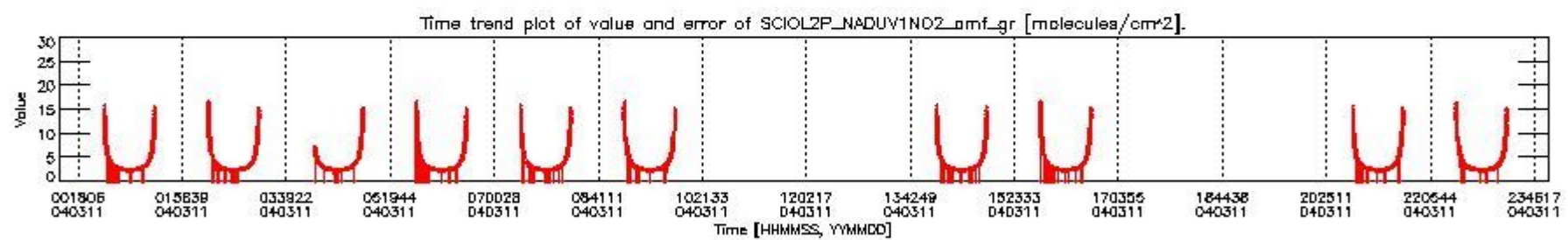
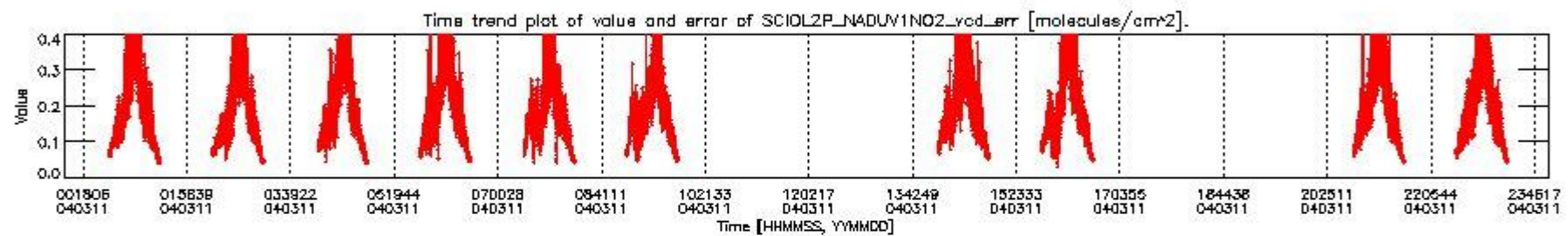
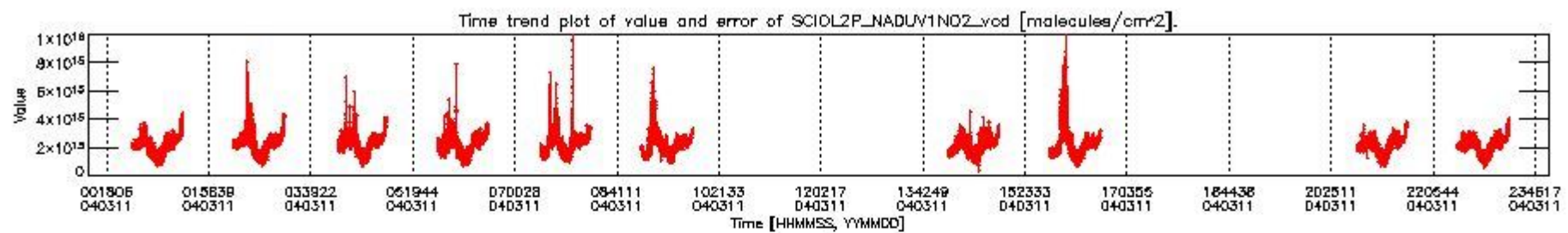
SCIOL2P\_NADUV003\_amf\_gr for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



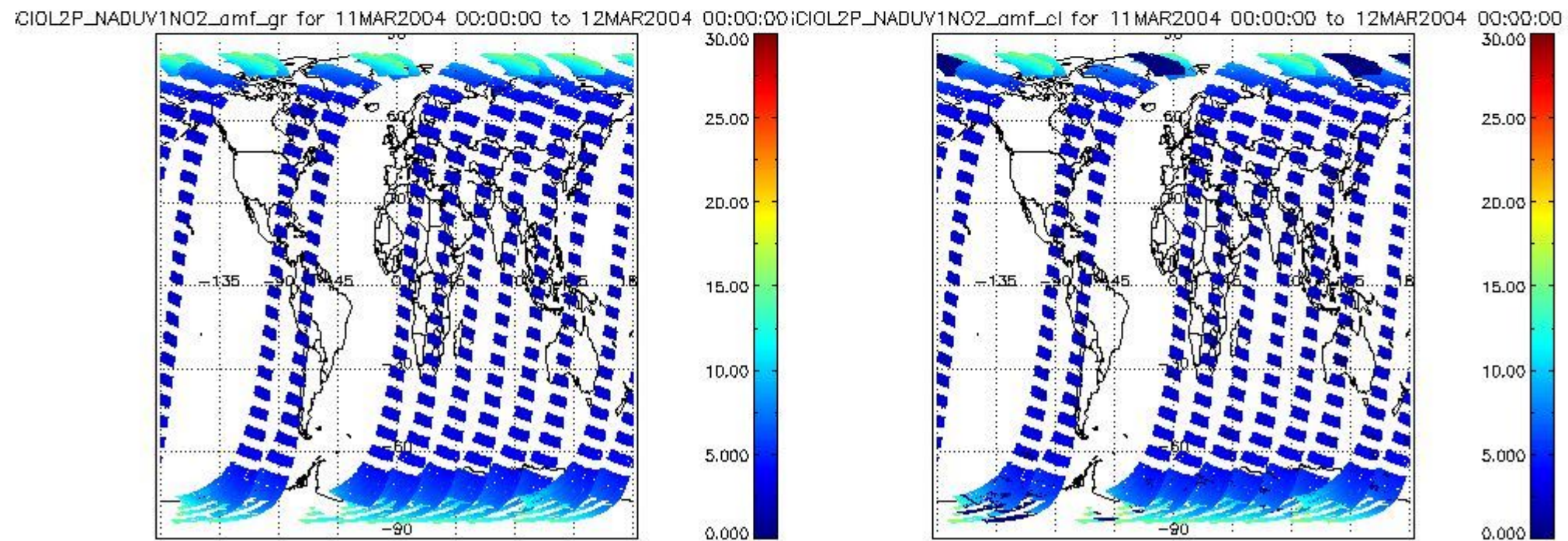
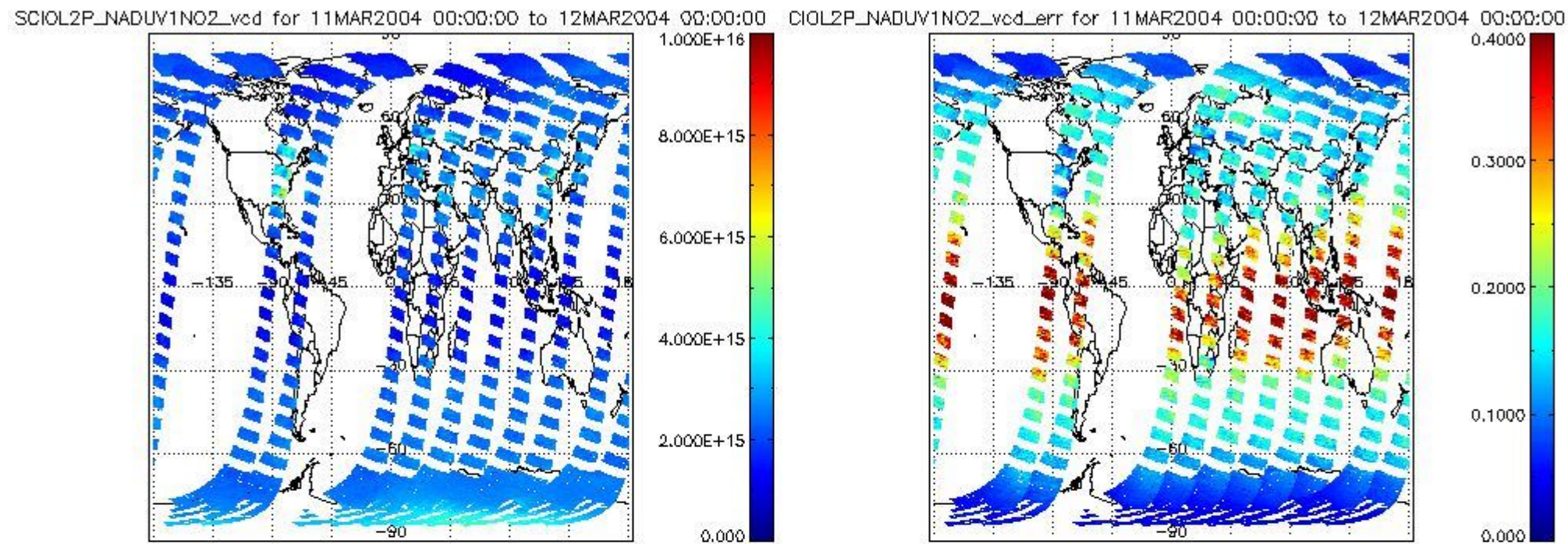
SCIOL2P\_NADUV003\_amf\_cl for 11MAR2004 00:00:00 to 12MAR2004 00:00:00











### 2.2.3 Limb

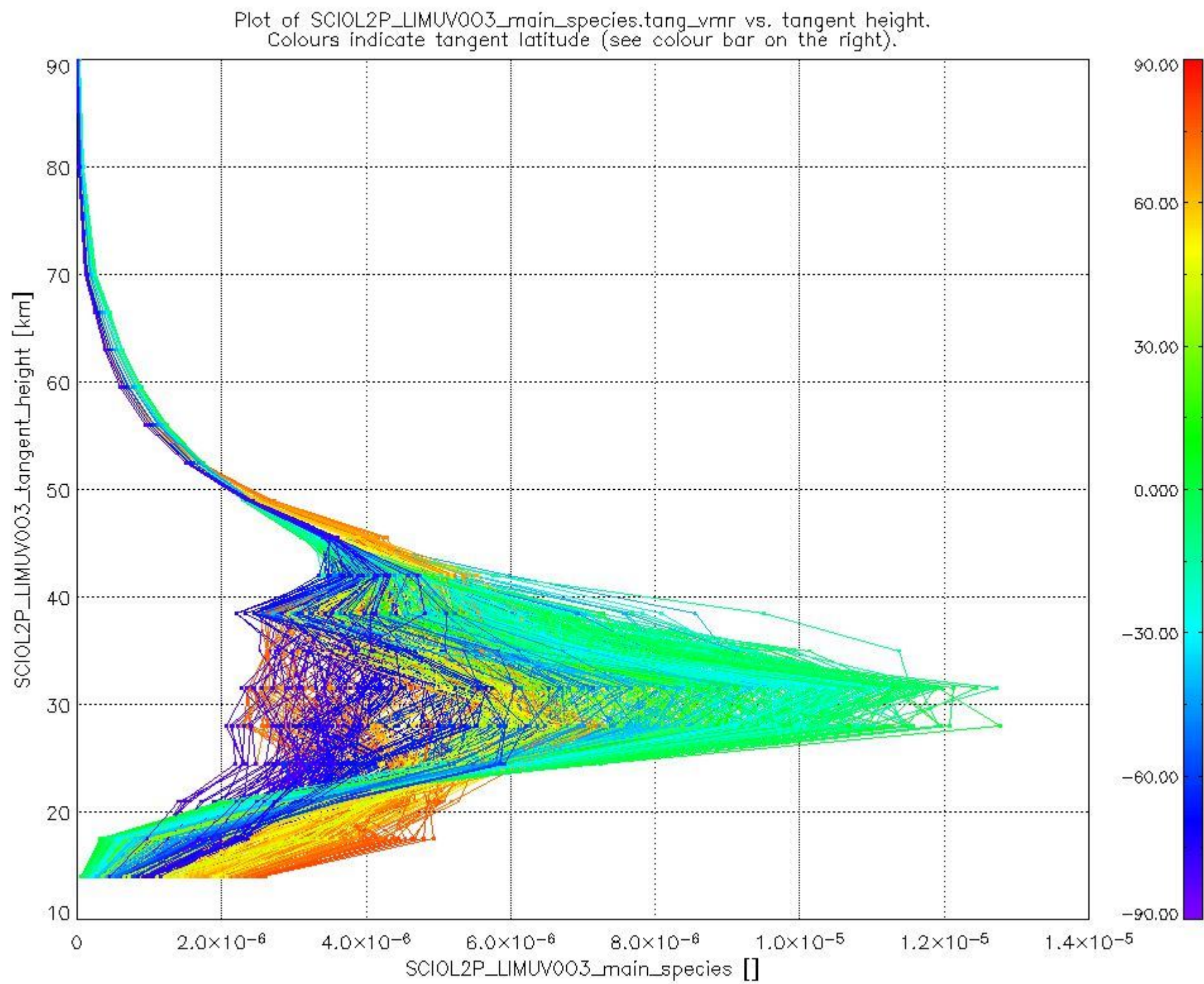
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

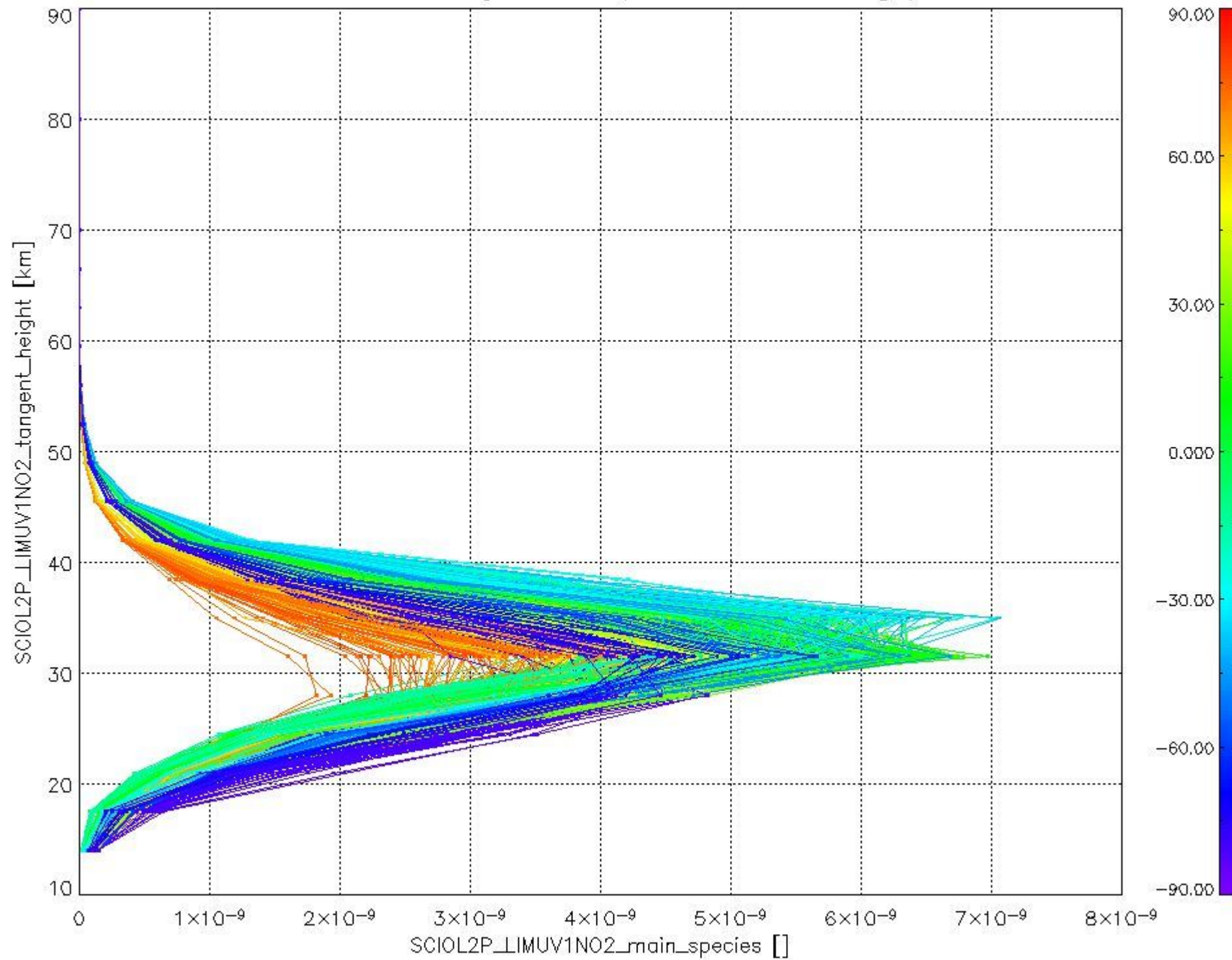


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





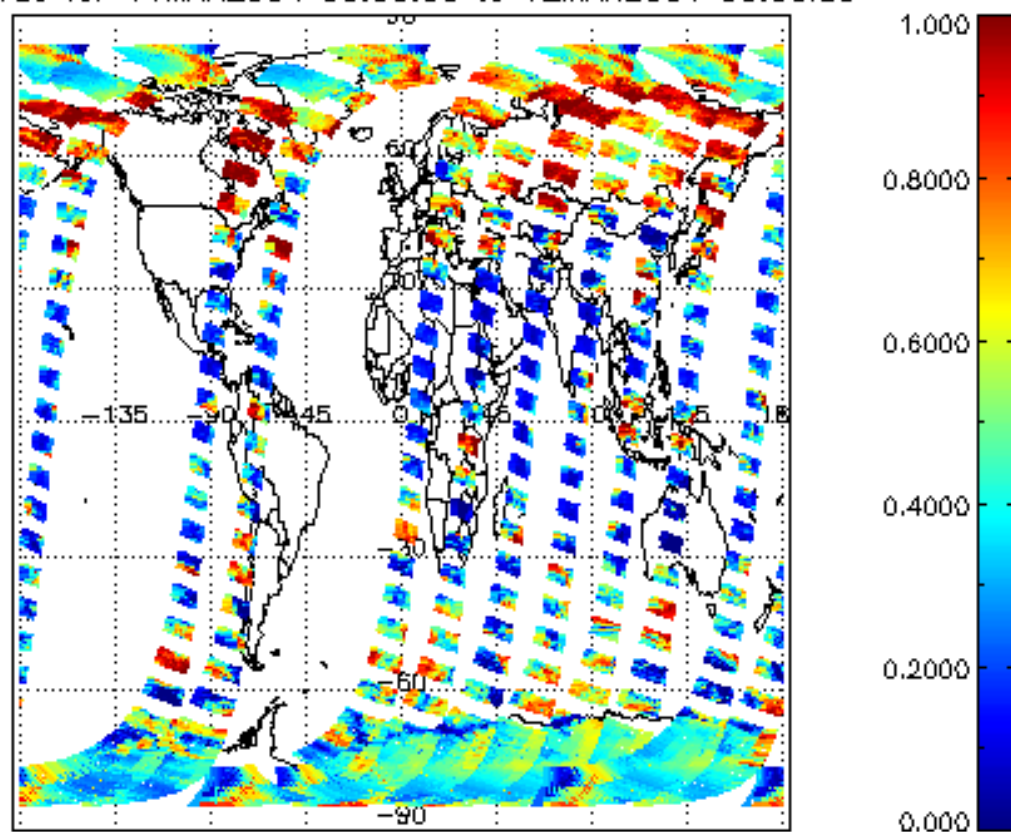
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



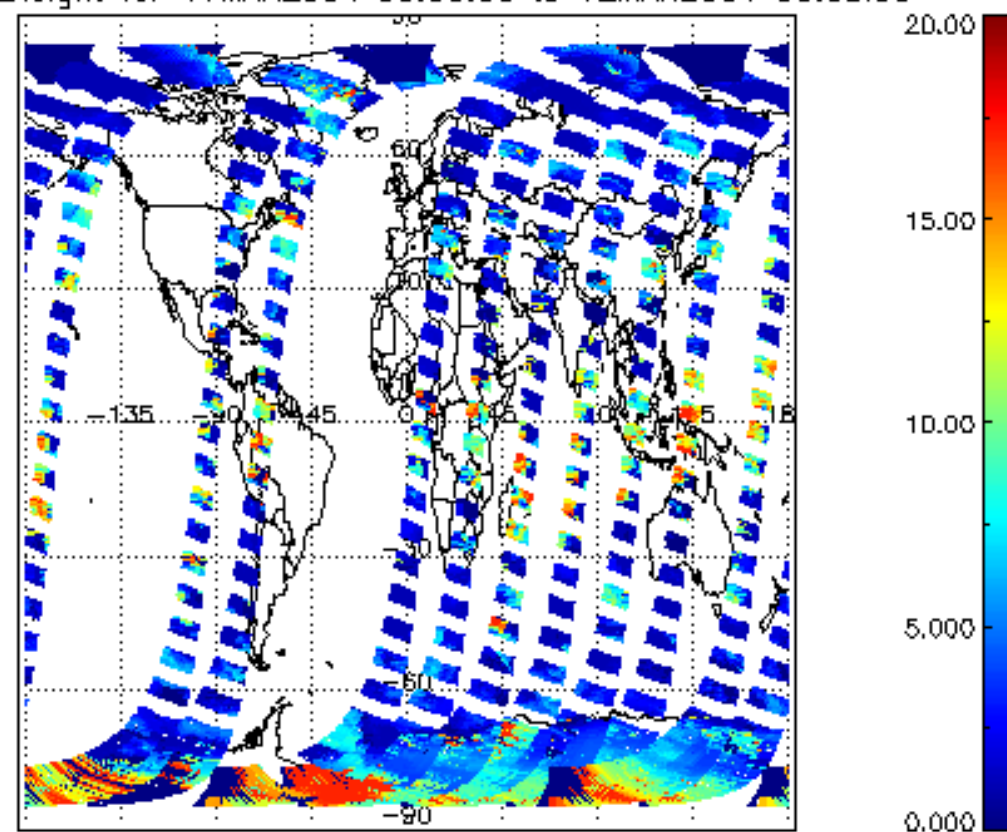
### 2.3 ADF monitoring

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

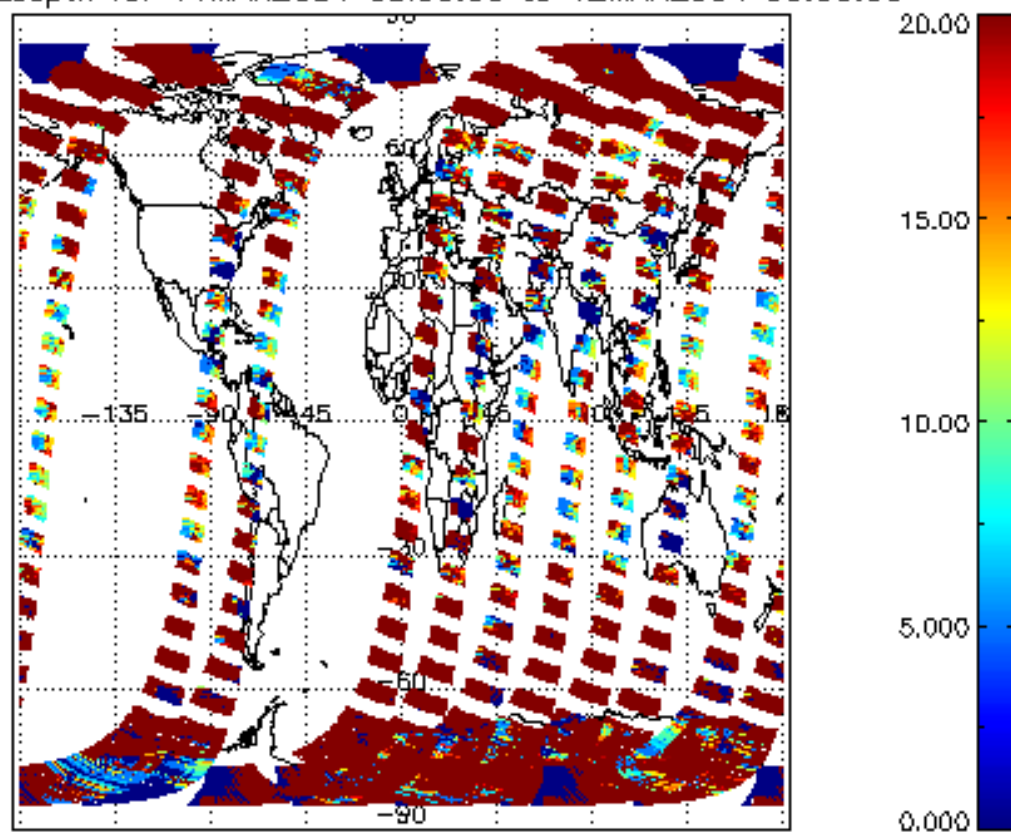
cL\_frac for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



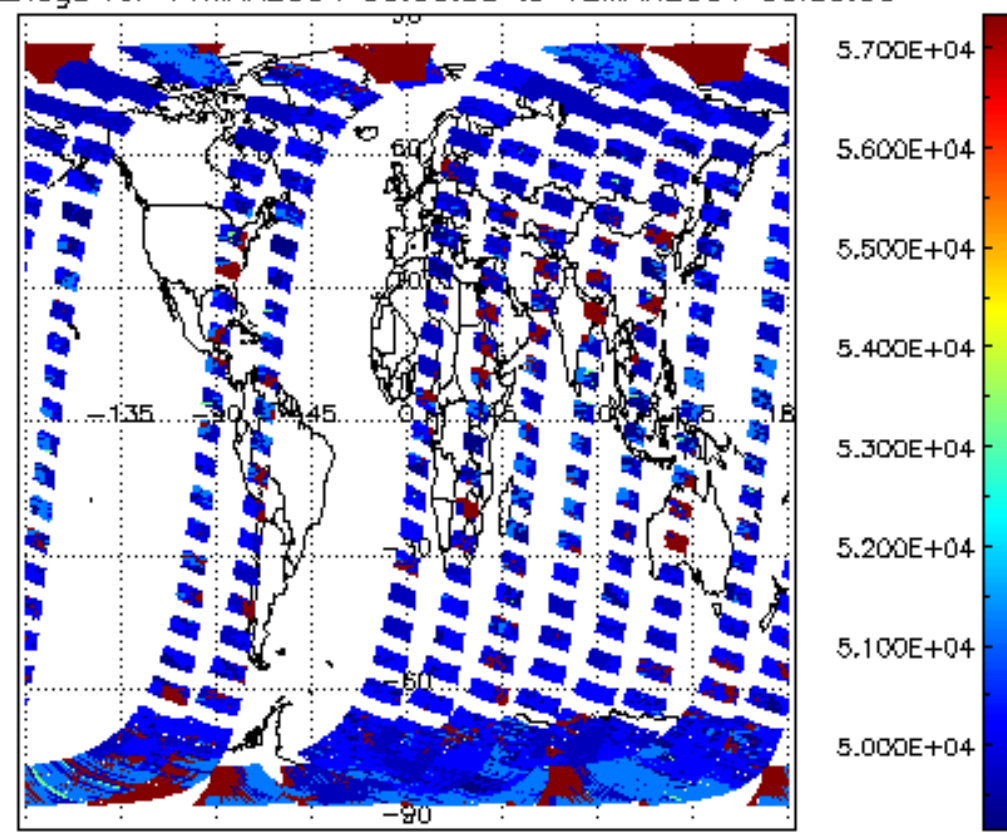
cL\_top\_height for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



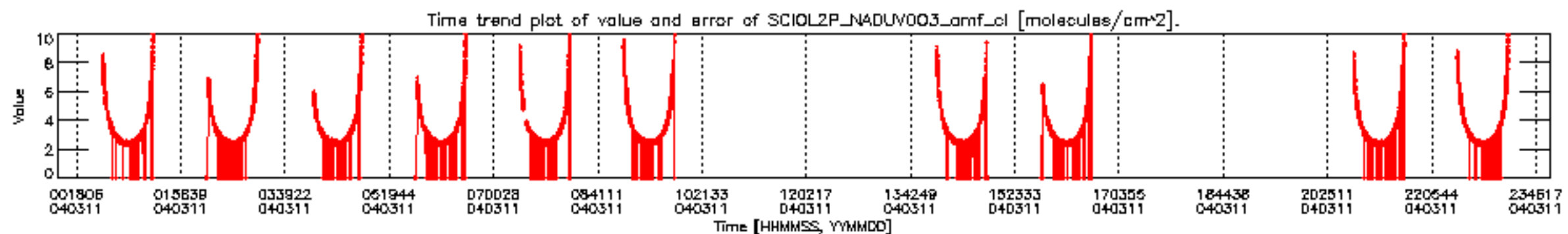
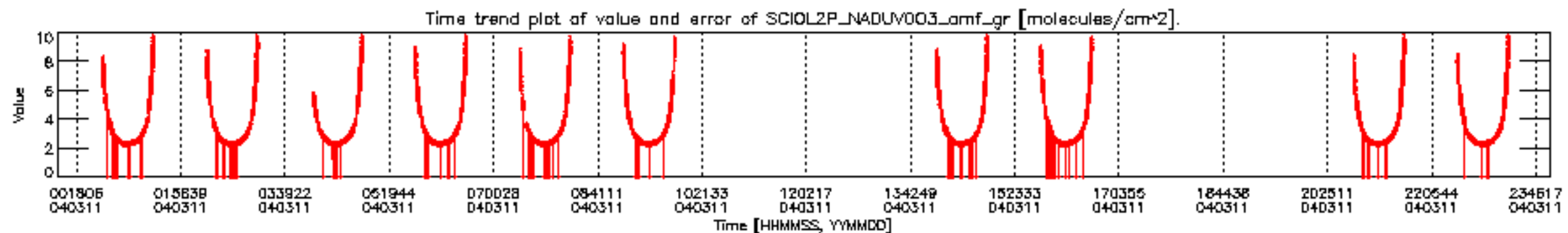
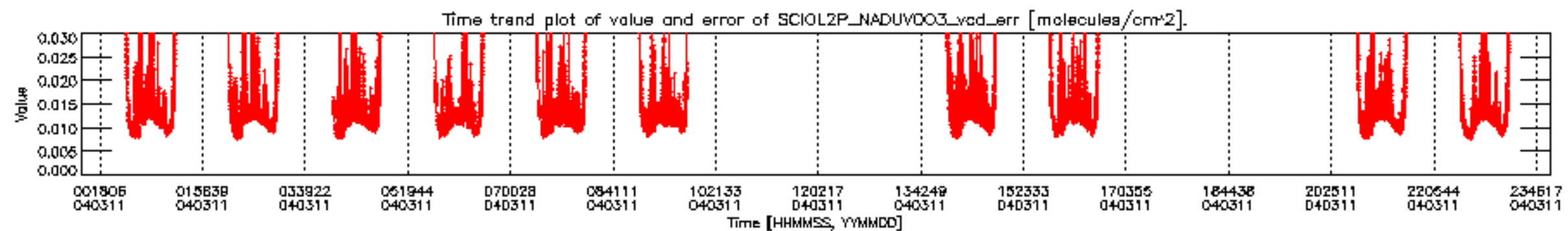
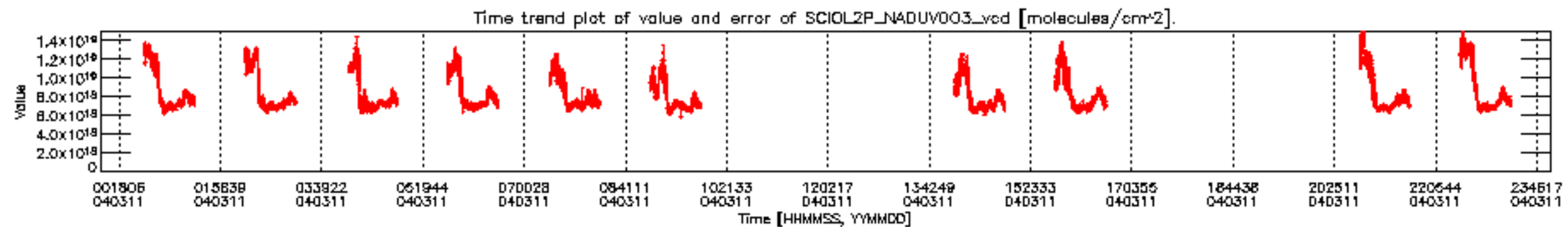
cL\_opt\_depth for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



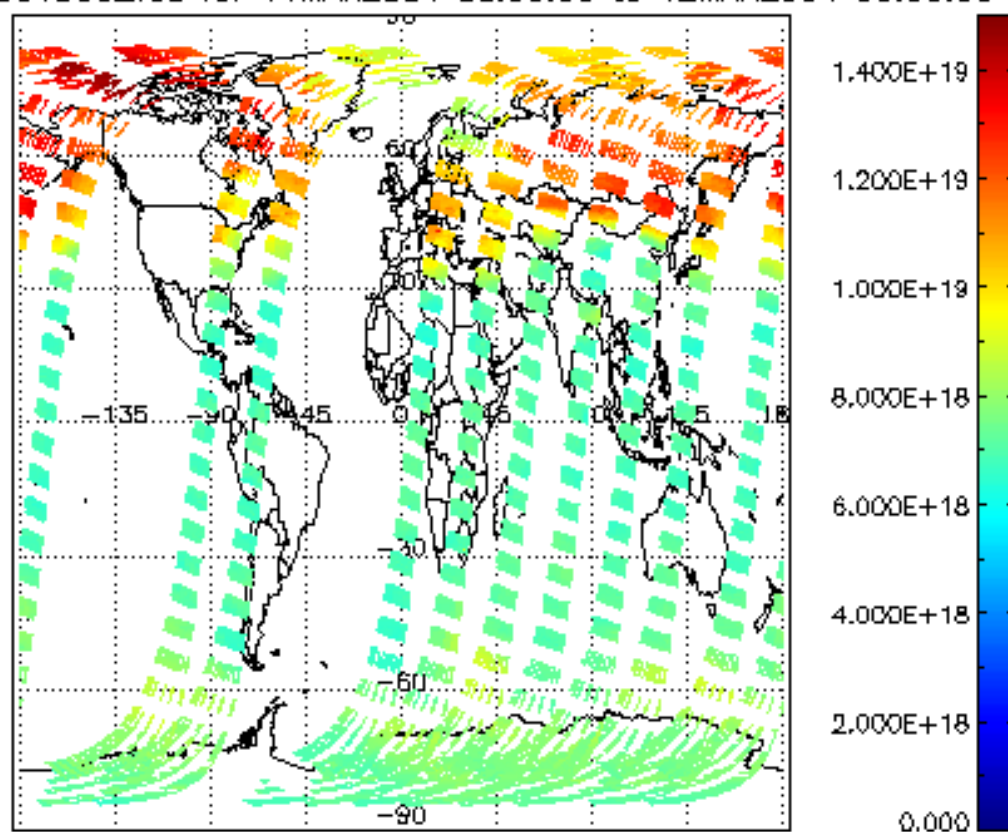
cloud\_flags for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



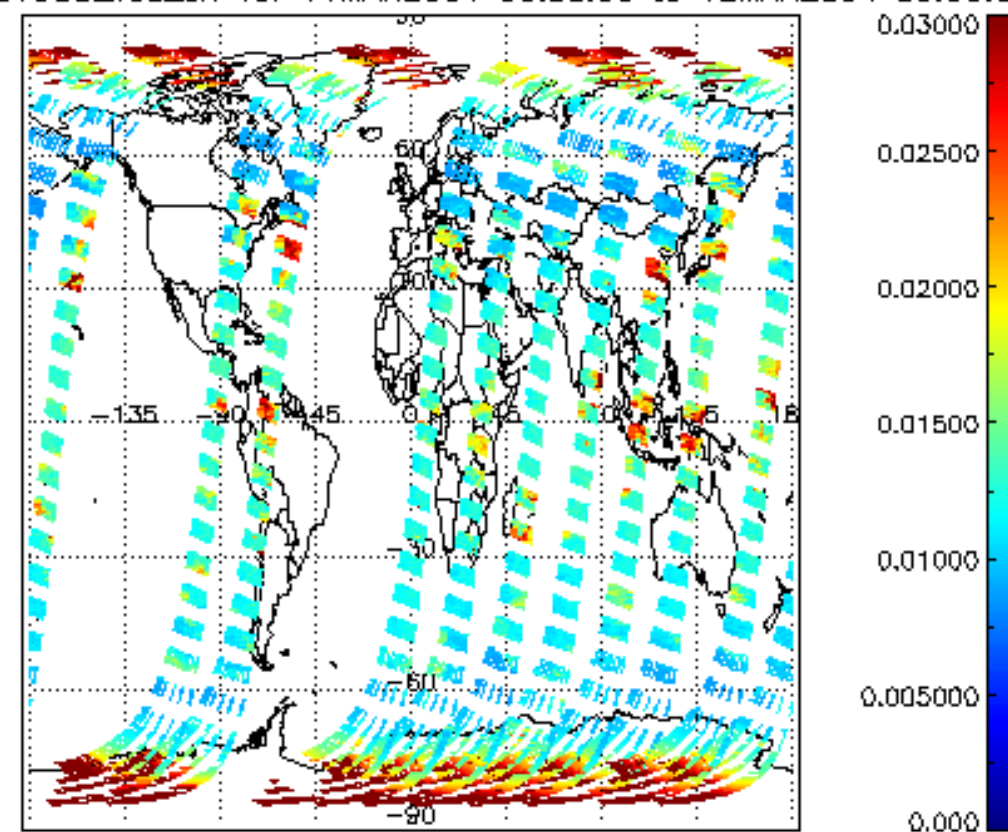




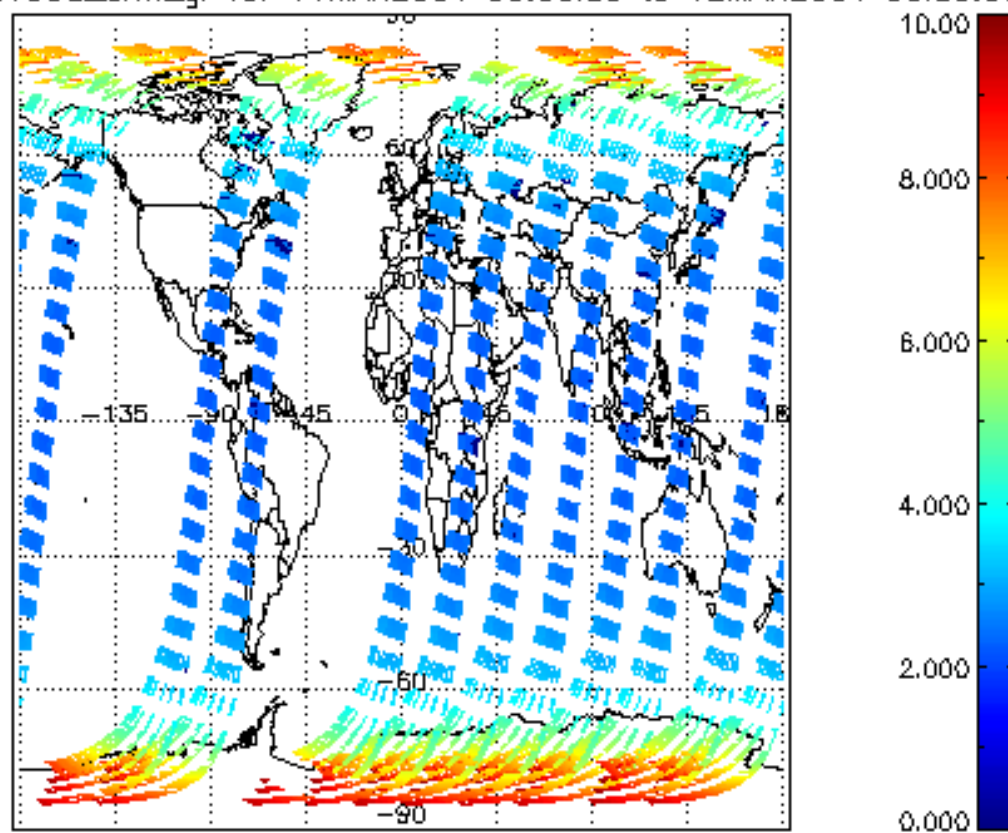
SCIOL2P\_NADUV003\_vcd for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



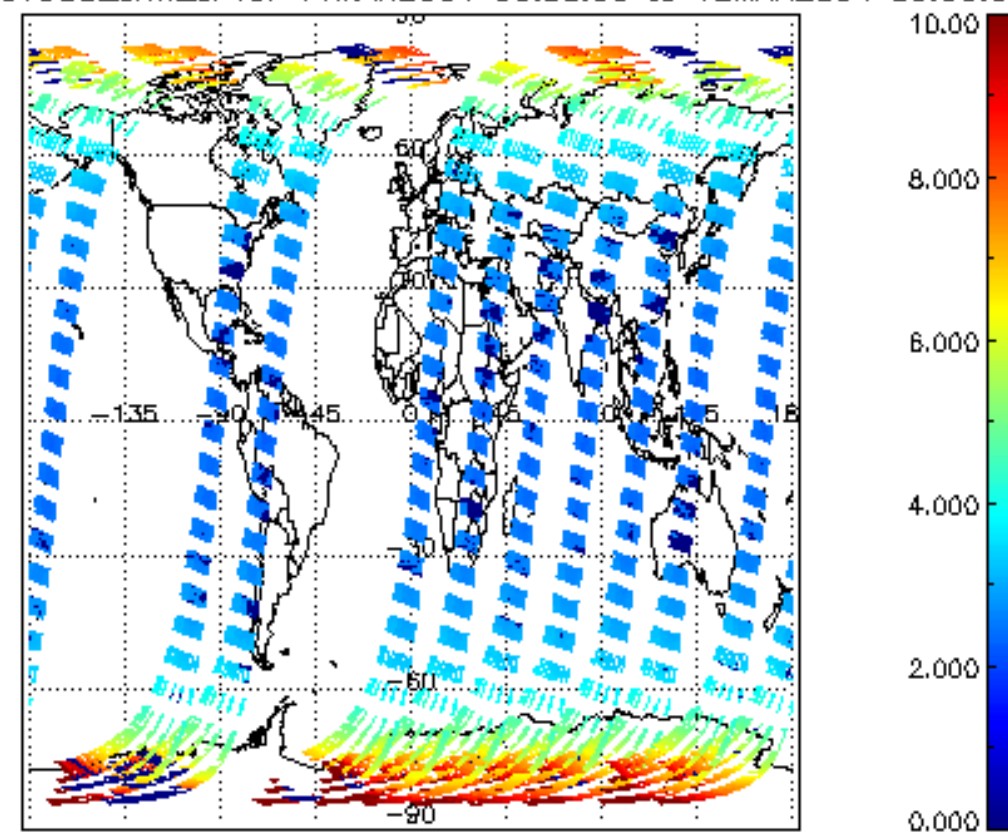
SCIOL2P\_NADUV003\_vcd\_err for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



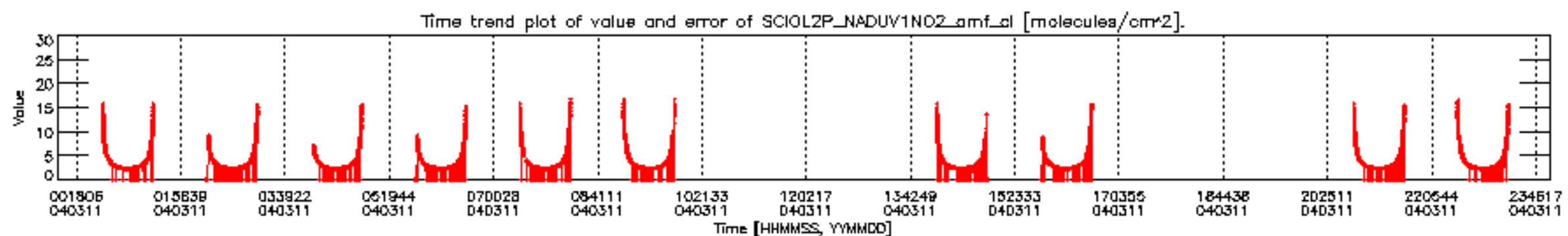
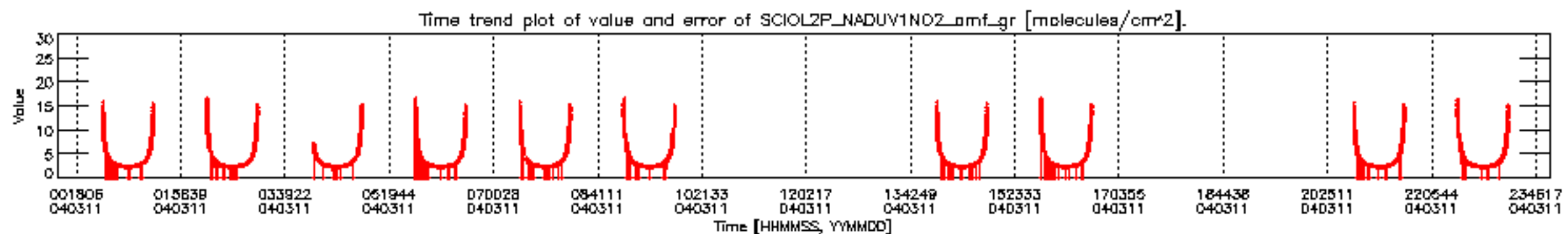
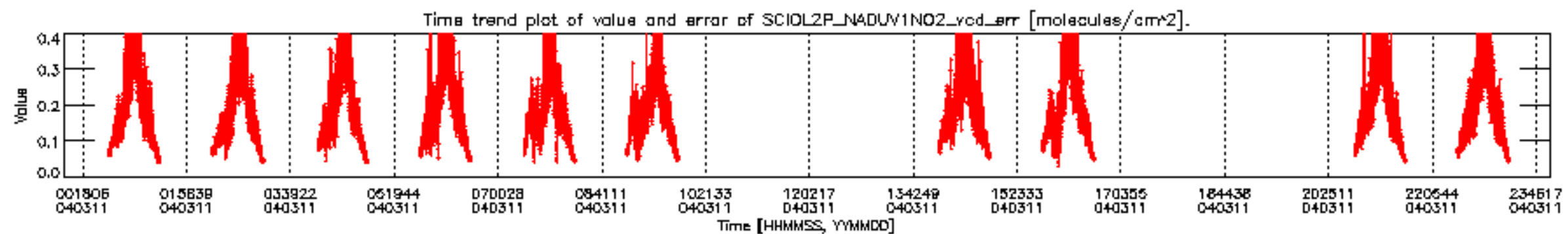
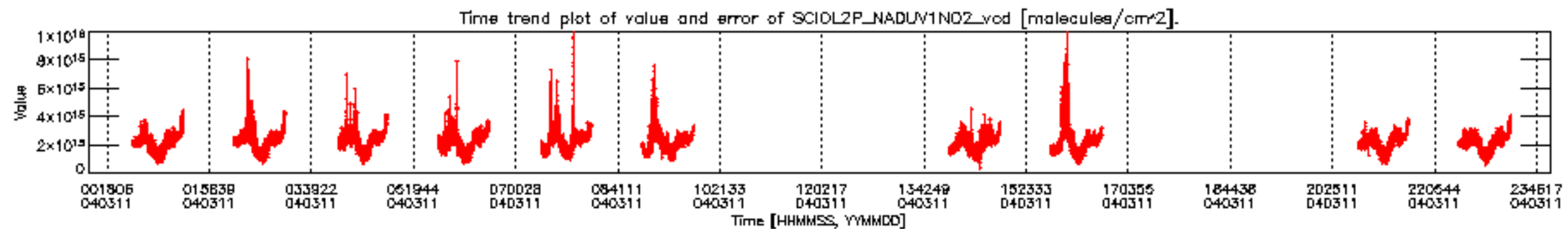
SCIOL2P\_NADUV003\_amf\_gr for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



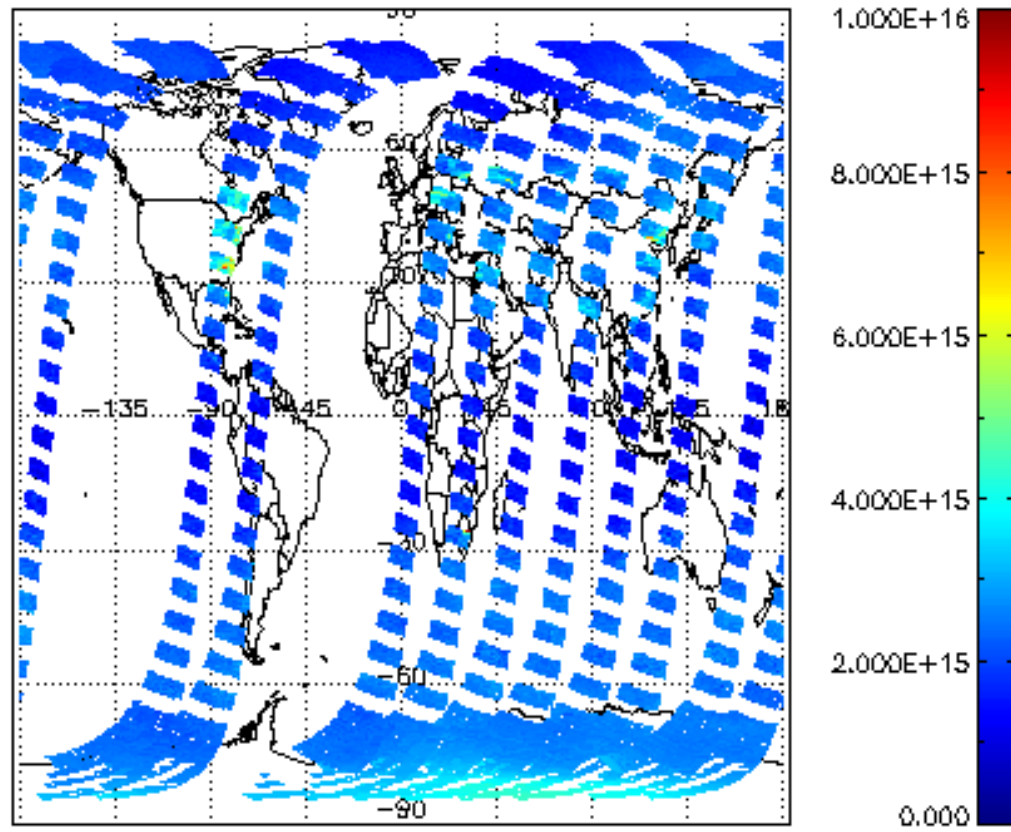
SCIOL2P\_NADUV003\_amf\_cl for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



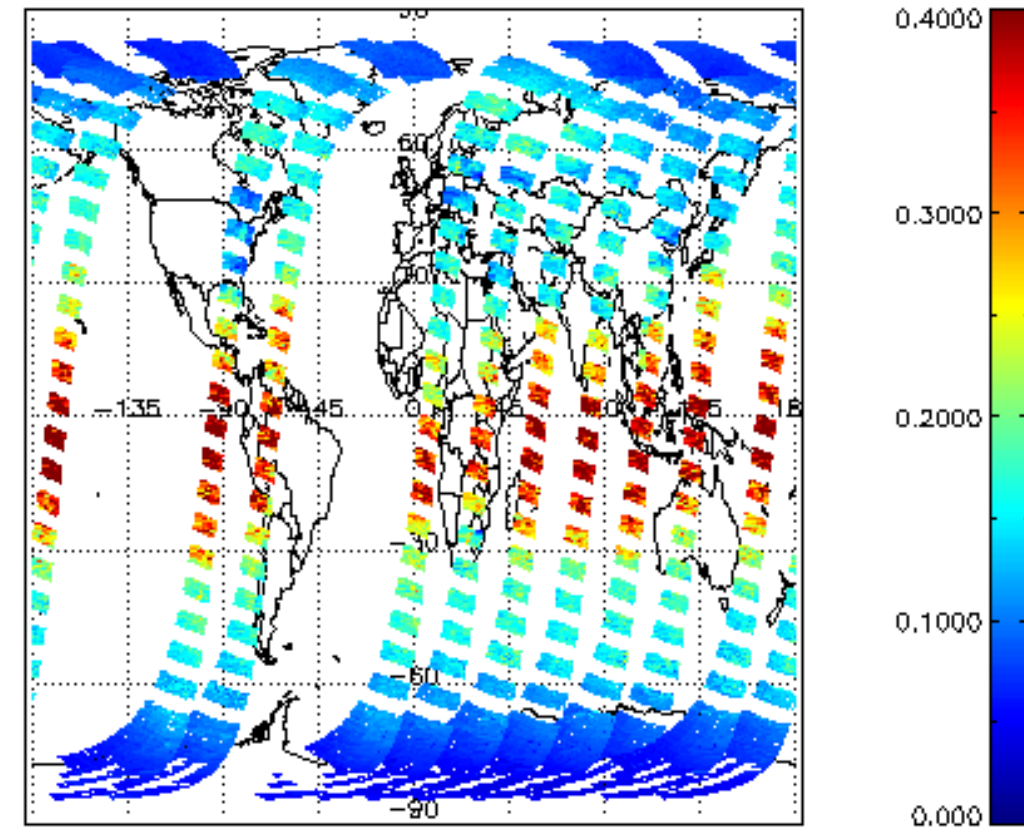




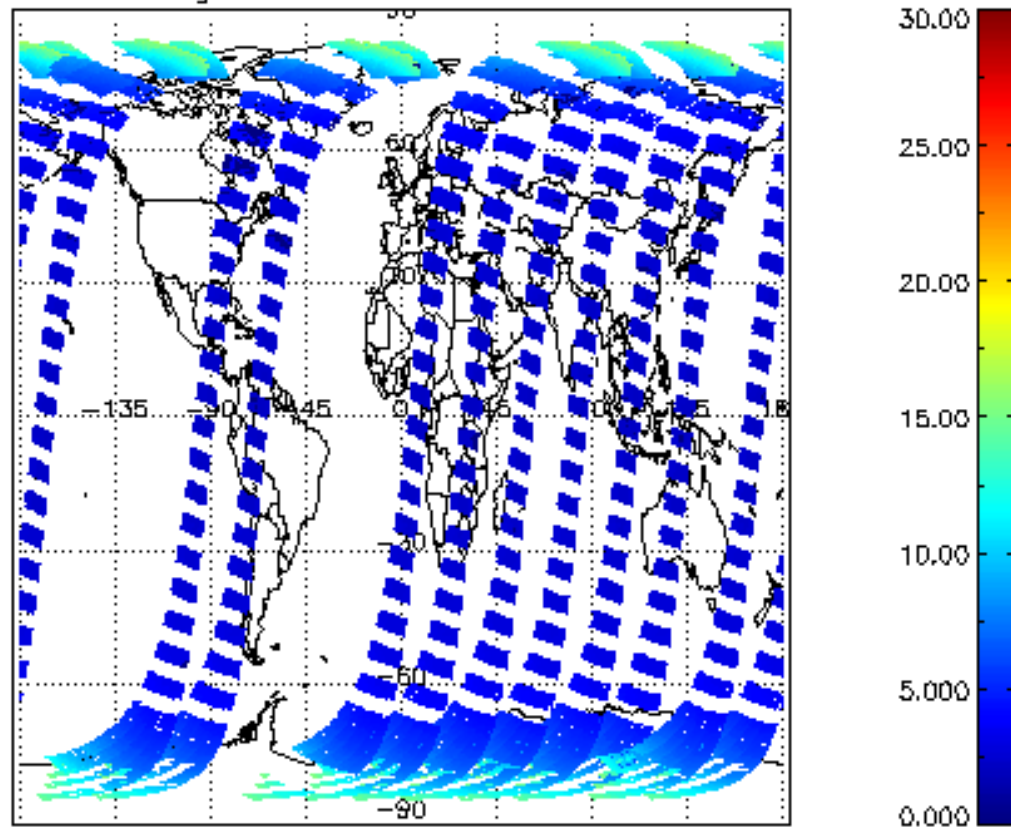
SCIOL2P\_NADUV1NO2\_vcd for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



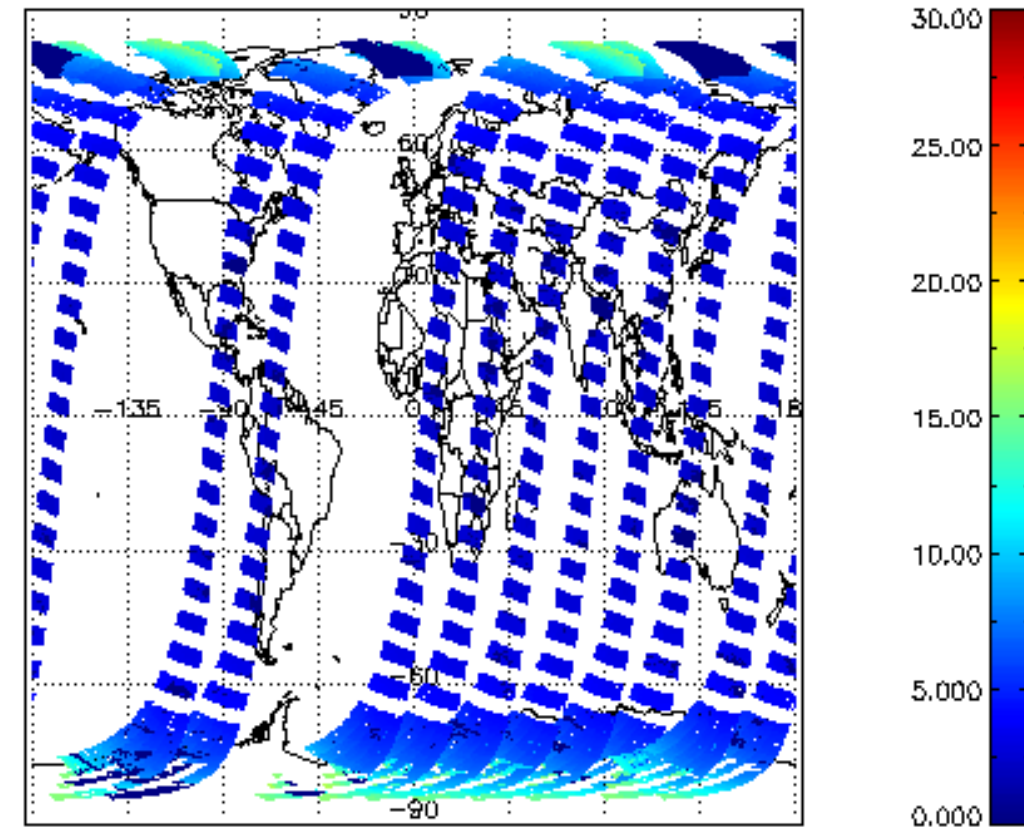
SCIOL2P\_NADUV1NO2\_vcd\_err for 11MAR2004 00:00:00 to 12MAR2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 11MAR2004 00:00:00 to 12MAR2004 00:00:00

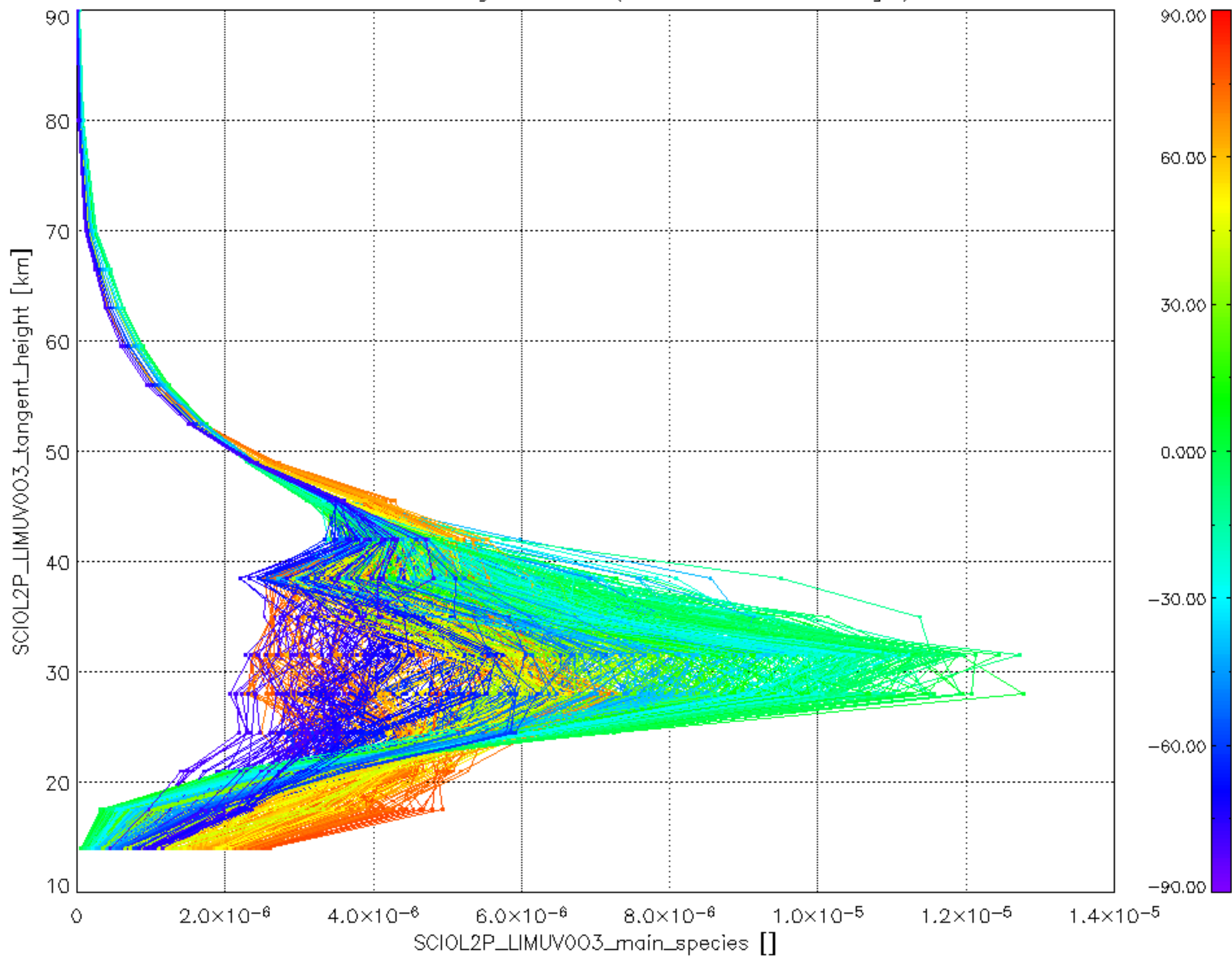


SCIOL2P\_NADUV1NO2\_amf\_cl for 11MAR2004 00:00:00 to 12MAR2004 00:00:00





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).

