

## 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 11:10:43
Data source version	SCIA-OL/3.01-R
Processing scope for products	04MAR2004 00:00:00 to 05MAR2004 00:00:00
Start time of first product within scope	03MAR2004 23:18:12
Stop time of last product within scope	04MAR2004 23:42:00
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__2PRDPA20040303_231812_000030422024_00431_10505_6416.N1</a>	03MAR2004 23:18:12	04MAR2004 00:08:55	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040304_005847_000030422024_00432_10506_6441.N1</a>	04MAR2004 00:58:47	04MAR2004 01:49:30	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040304_023923_000030422024_00433_10507_6446.N1</a>	04MAR2004 02:39:23	04MAR2004 03:30:06	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040304_041958_000030422024_00434_10508_6471.N1</a>	04MAR2004 04:19:58	04MAR2004 05:10:41	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040304_060034_000030422024_00435_10509_6419.N1</a>	04MAR2004 06:00:34	04MAR2004 06:51:17	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040304_074109_000030422024_00436_10510_6418.N1</a>	04MAR2004 07:41:09	04MAR2004 08:31:52	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040304_092145_000030422024_00437_10511_6438.N1</a>	04MAR2004 09:21:45	04MAR2004 10:12:27	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040304_110220_000030422024_00438_10512_6434.N1</a>	04MAR2004 11:02:20	04MAR2004 11:53:03	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040304_124256_000033732024_00439_10513_6468.N1</a>	04MAR2004 12:42:56	04MAR2004 13:39:09	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040304_142331_000033662024_00440_10514_6466.N1</a>	04MAR2004 14:23:31	04MAR2004 15:19:38	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040304_160406_000033602024_00441_10515_6483.N1</a>	04MAR2004 16:04:06	04MAR2004 17:00:07	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040304_174407_000033312024_00442_10516_6476.N1</a>	04MAR2004 17:44:07	04MAR2004 18:39:38	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040304_192449_000033752024_00443_10517_6459.N1</a>	04MAR2004 19:24:49	04MAR2004 20:21:04	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20040304_210553_000033392024_00444_10518_6473.N1</a>	04MAR2004 21:05:53	04MAR2004 22:01:32	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20040304_224628_000033312024_00445_10519_6496.N1</a>	04MAR2004 22:46:28	04MAR2004 23:42:00	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: 102150

Total number of cloud data DSRs with good quality flag (=0): 102150 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	102150	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	102150	0.20707	0.25000	0.12500	0.50000	0.069604	s
CL_FRAC	102150	0.47209	0.45036	0.0000	1.0000	0.30088	-
CL_FRAC_ERR	102150	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	102150	6.6263	8.0000	4.0000	16.000	2.2273	
PMD_READ_CL[0]	102150	0.44805	0.0000	0.0000	16.000	1.4845	-
PMD_READ_CL[1]	102150	0.36273	0.0000	0.0000	16.000	1.4635	-
CL_TOP_HEIGHT	94666	3.7159	1.9230	0.0000	17.000	3.8235	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	94666	48.342	33.392	0.0000	101.00	38.262	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	102150	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	102150	11000101	11000010	11000000	11100000	2314.5	flags
AERO_ABSO_IND	102150	0.82563	0.67159	-4.7409	13.813	1.2361	
AERO_IND_DIAG	102150	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	102150	01110100	11000000	00000000	11000000	24010.	flags

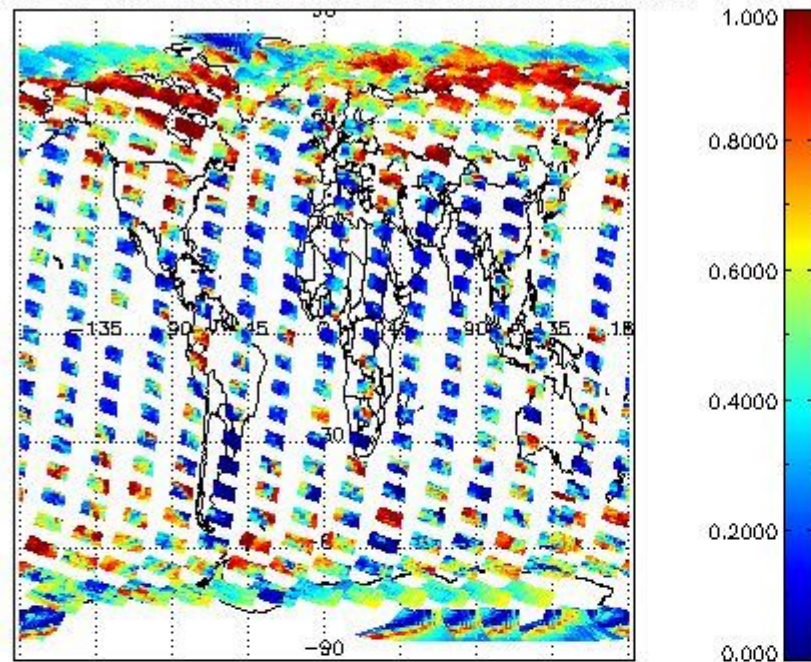
### Time and geolocation plots:

Plots are available for the following parameters:

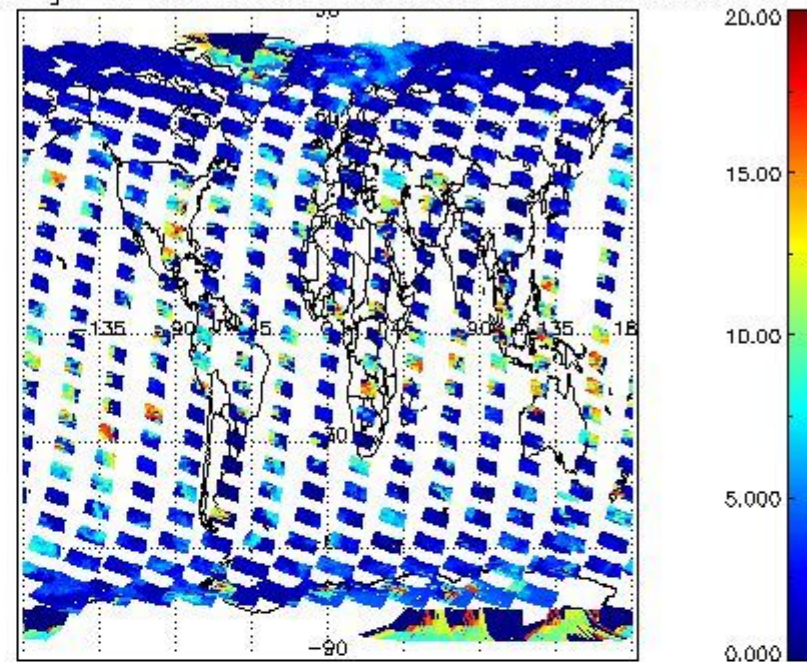
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



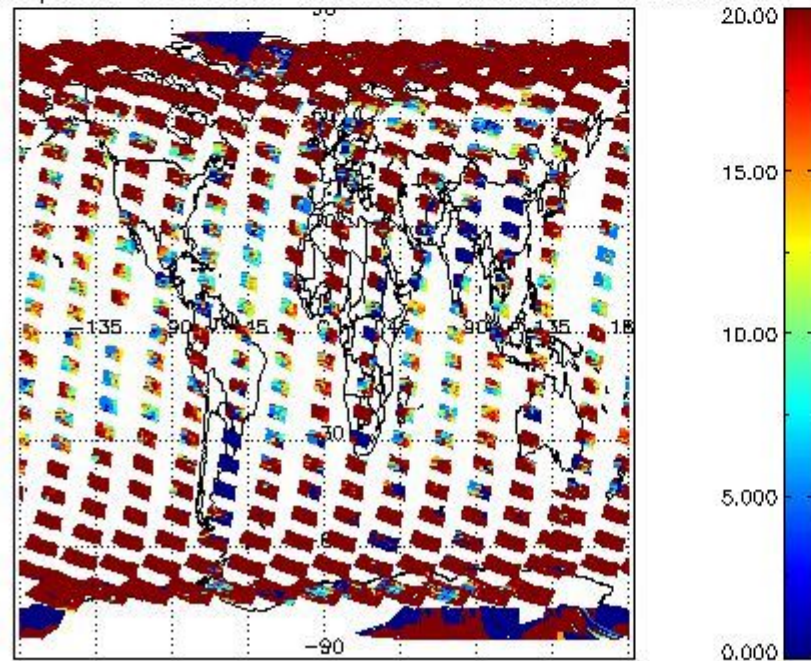
cL\_frac for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



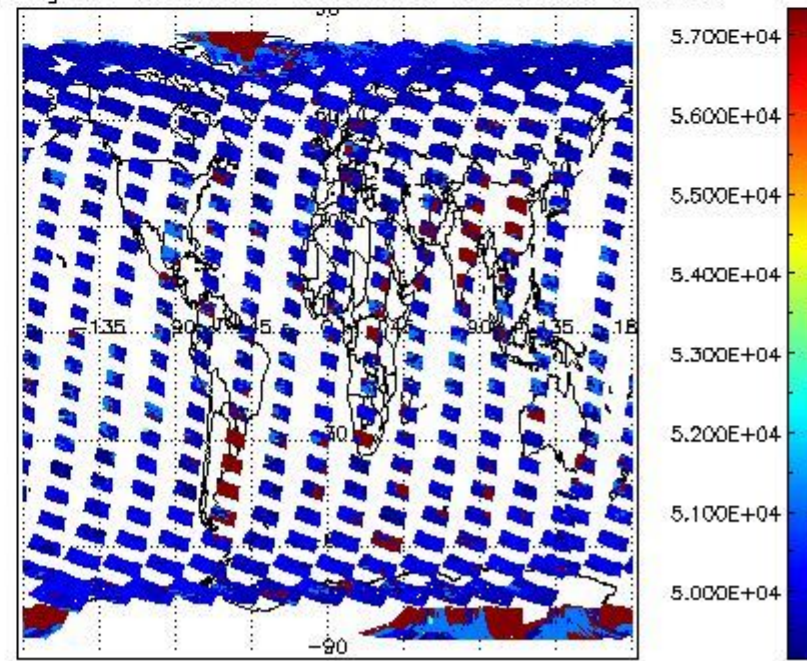
cL\_top\_height for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



cL\_opt\_depth for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



cloud\_flags for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



## 2.2.2 Nadir

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

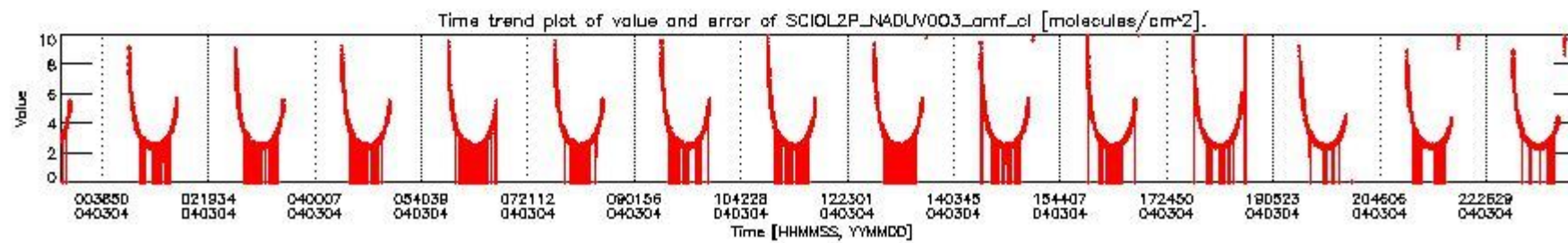
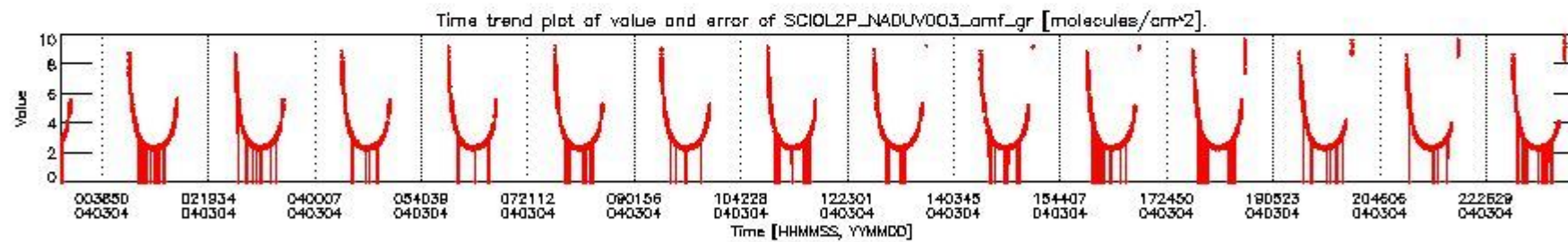
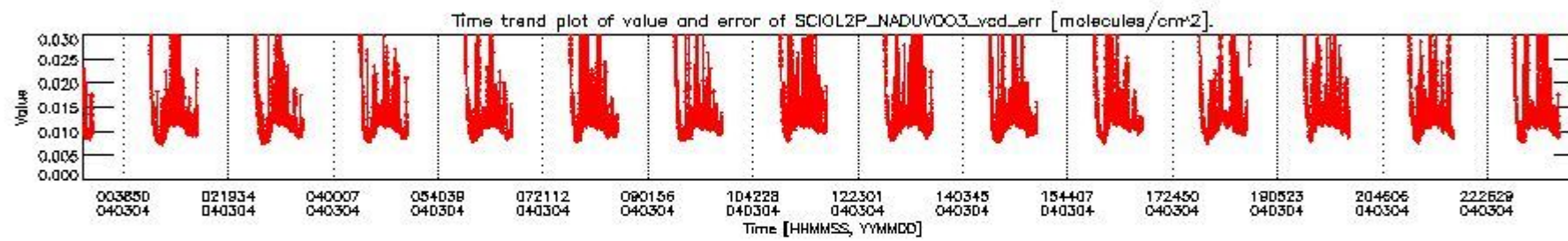
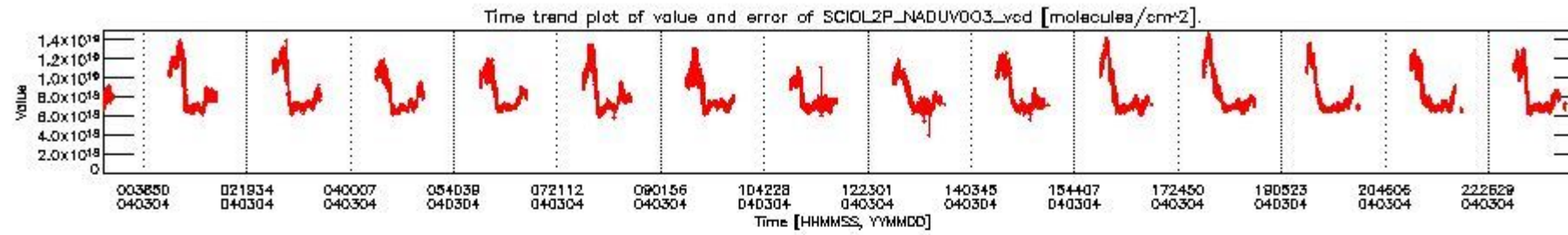
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



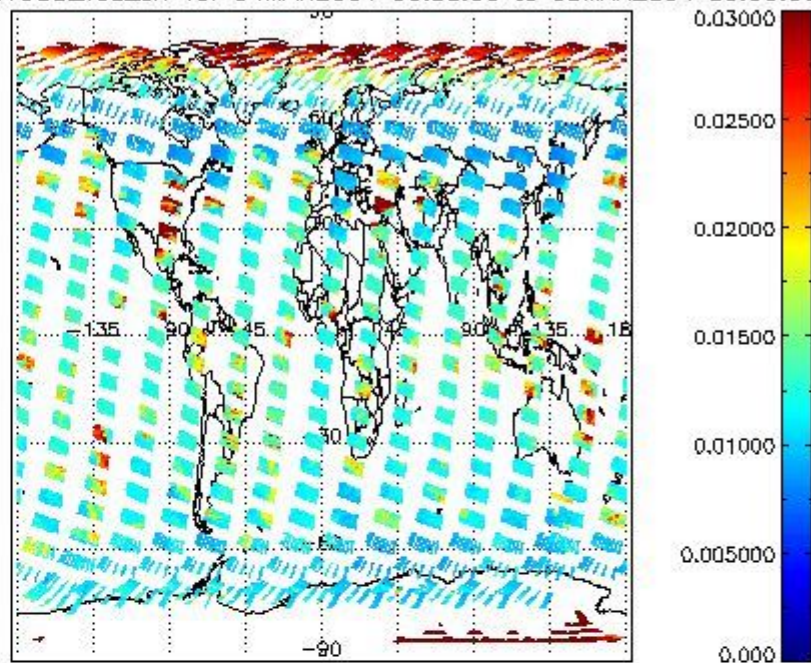
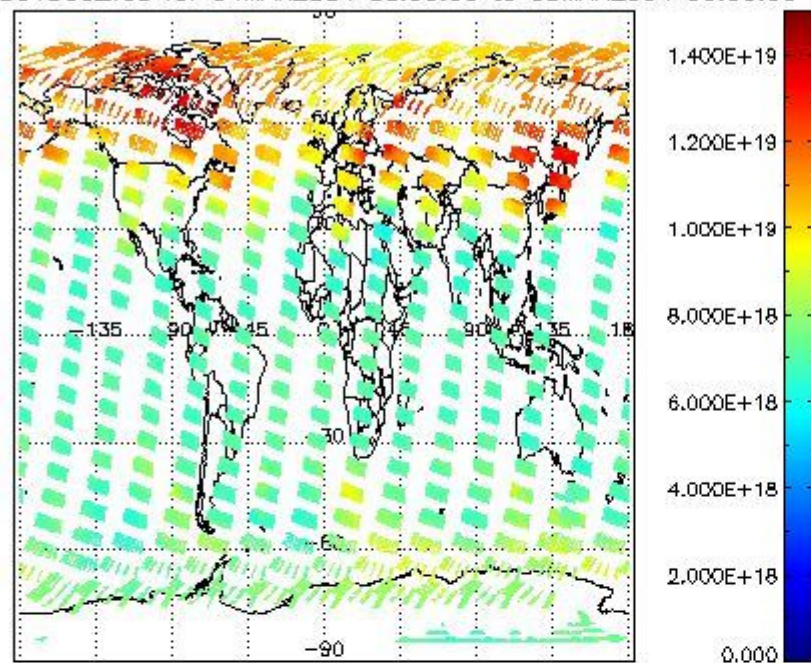
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

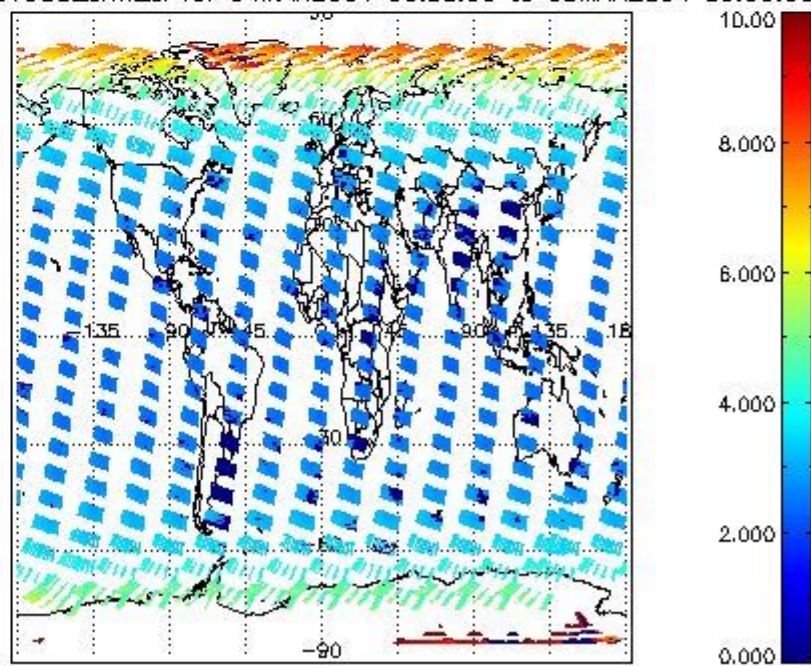
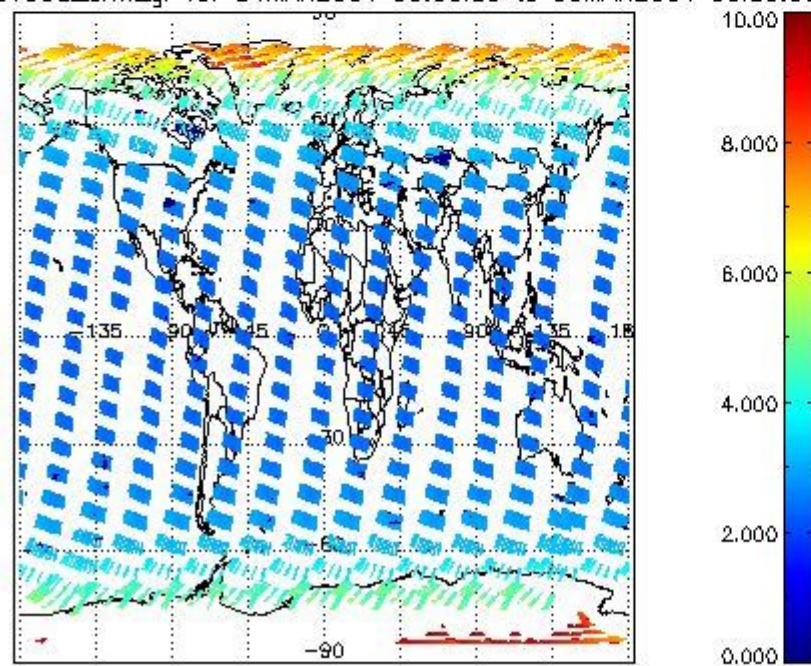




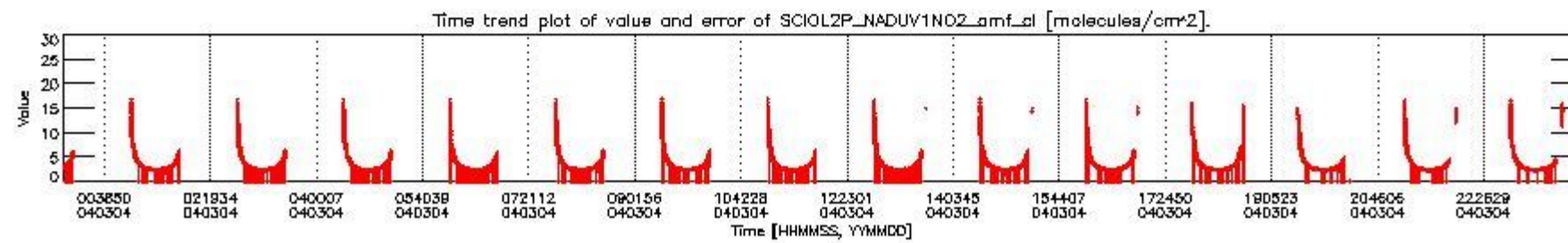
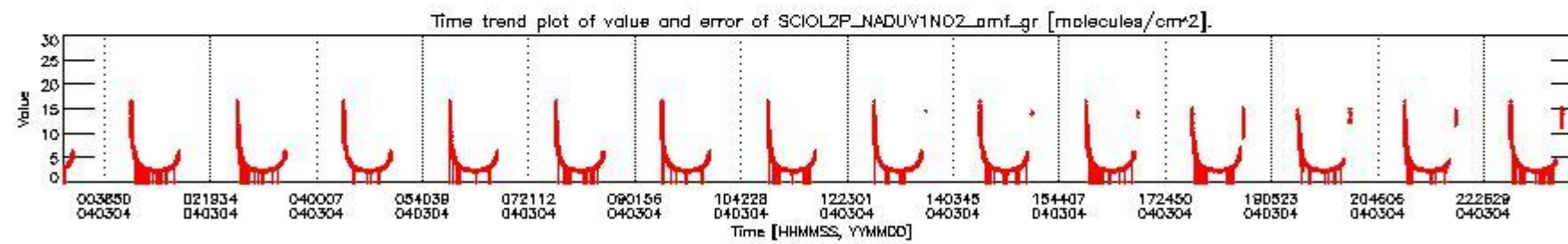
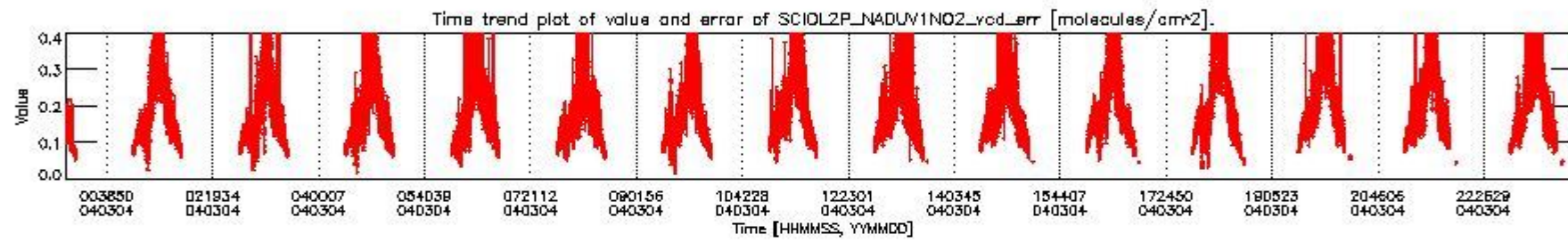
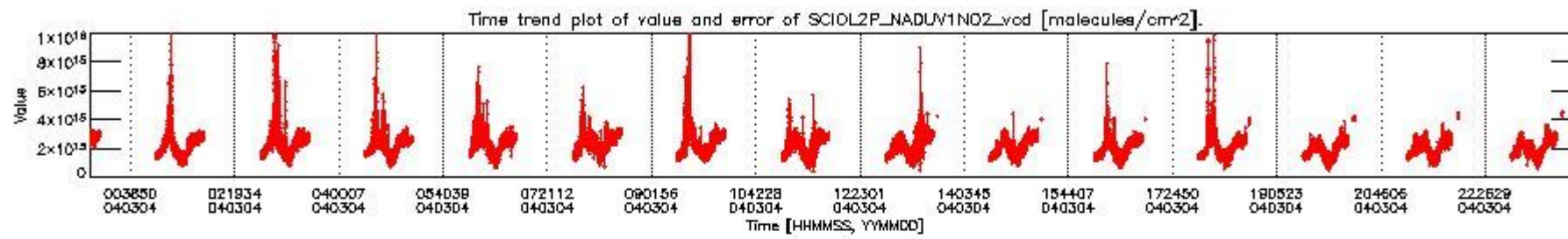
SCIOL2P\_NADUV003\_vcd for 04MAR2004 00:00:00 to 05MAR2004 00:00:00    SCIOL2P\_NADUV003\_vcd\_err for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



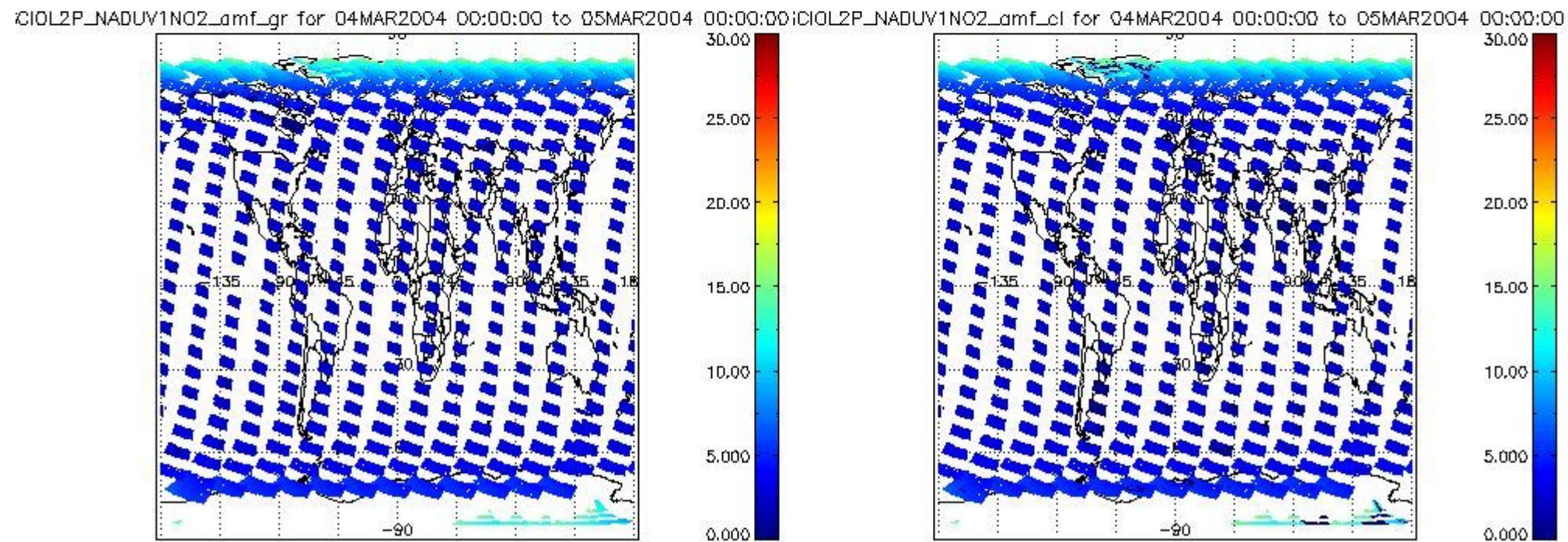
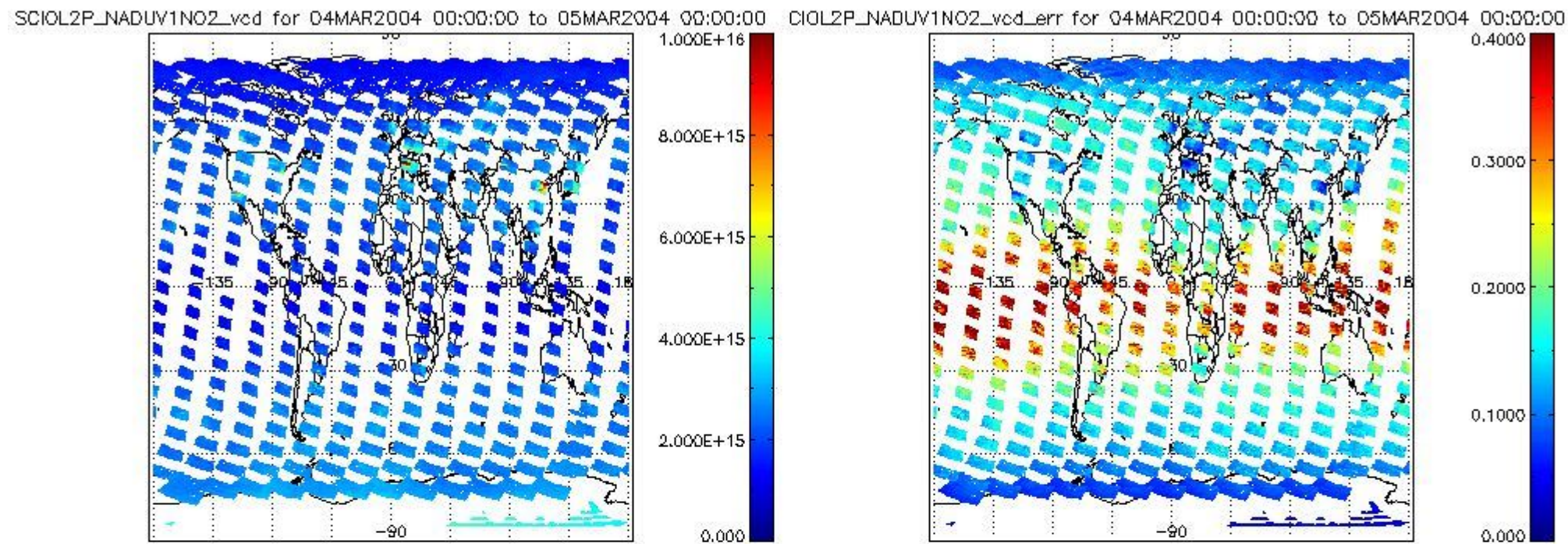
SCIOL2P\_NADUV003\_amf\_gr for 04MAR2004 00:00:00 to 05MAR2004 00:00:00    SCIOL2P\_NADUV003\_amf\_cl for 04MAR2004 00:00:00 to 05MAR2004 00:00:00











### 2.2.3 Limb

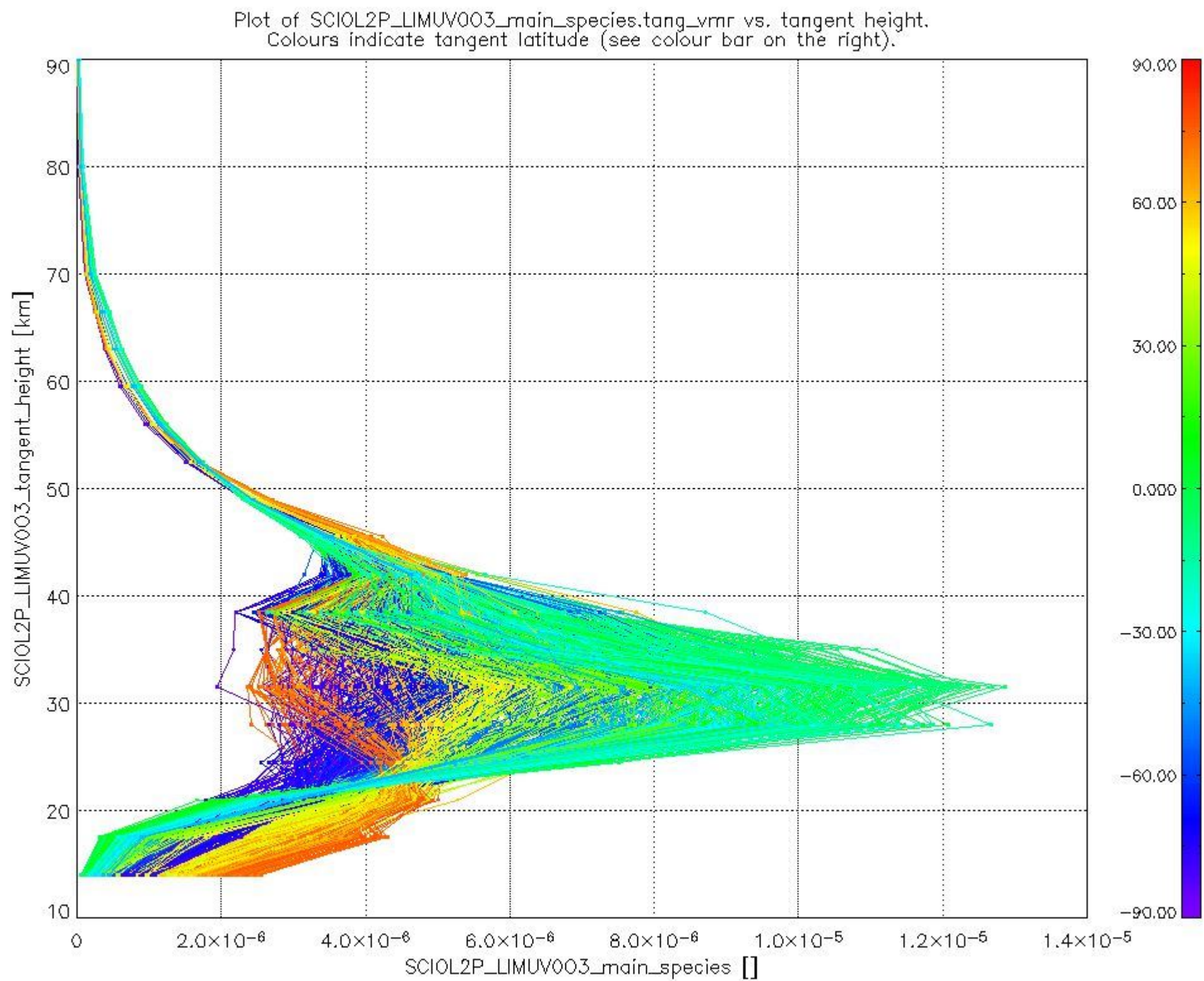
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

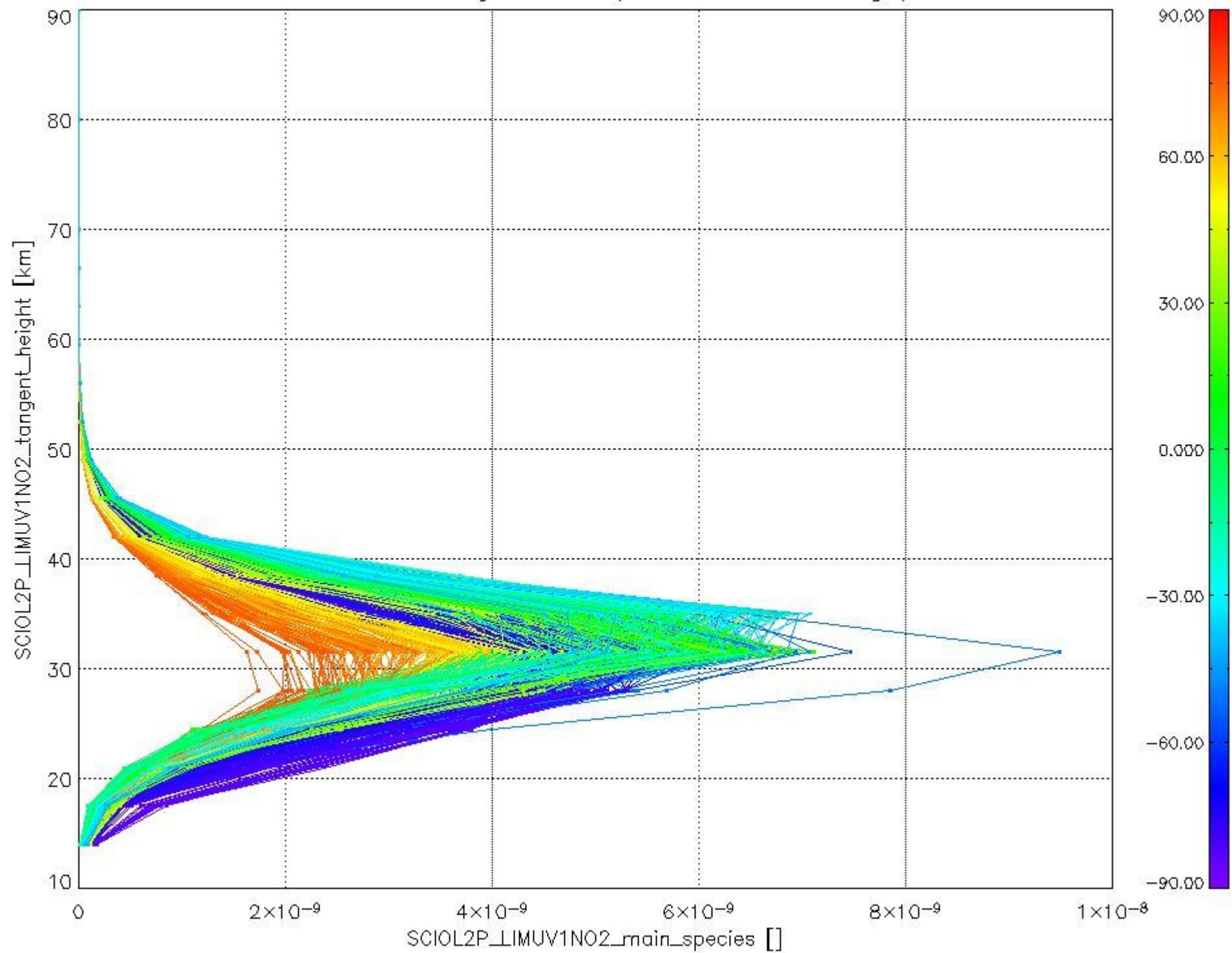


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





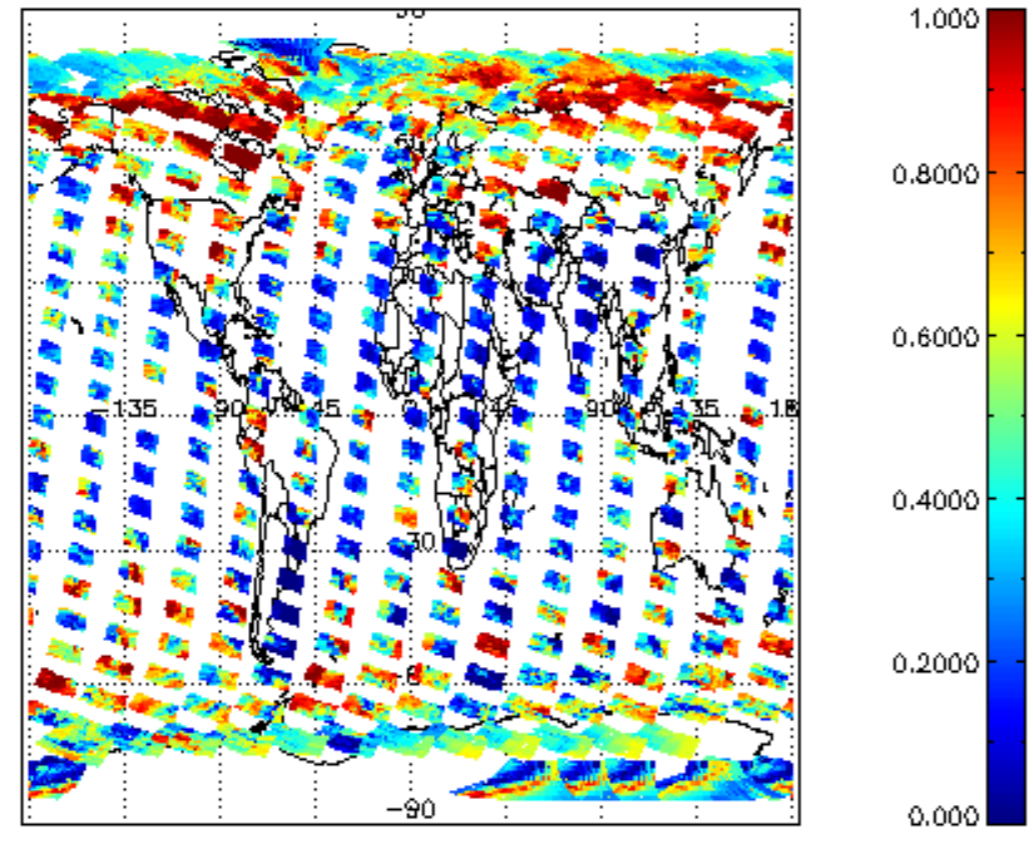
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



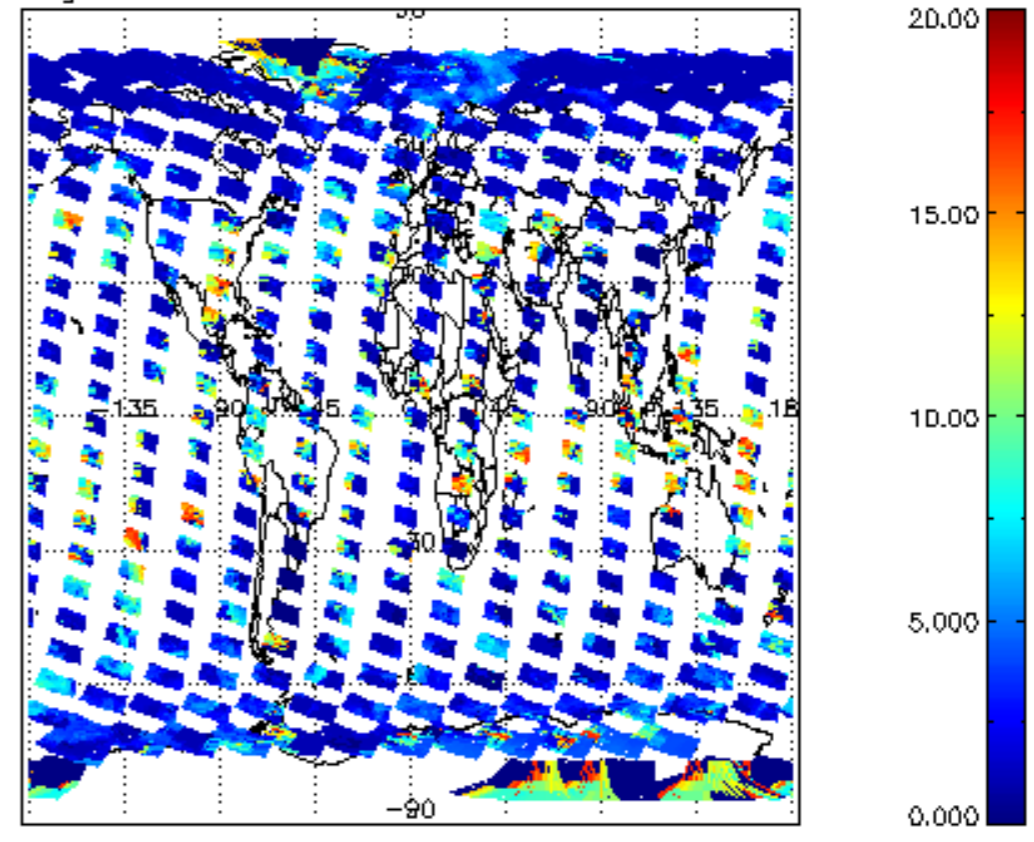
### 2.3 ADF monitoring

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

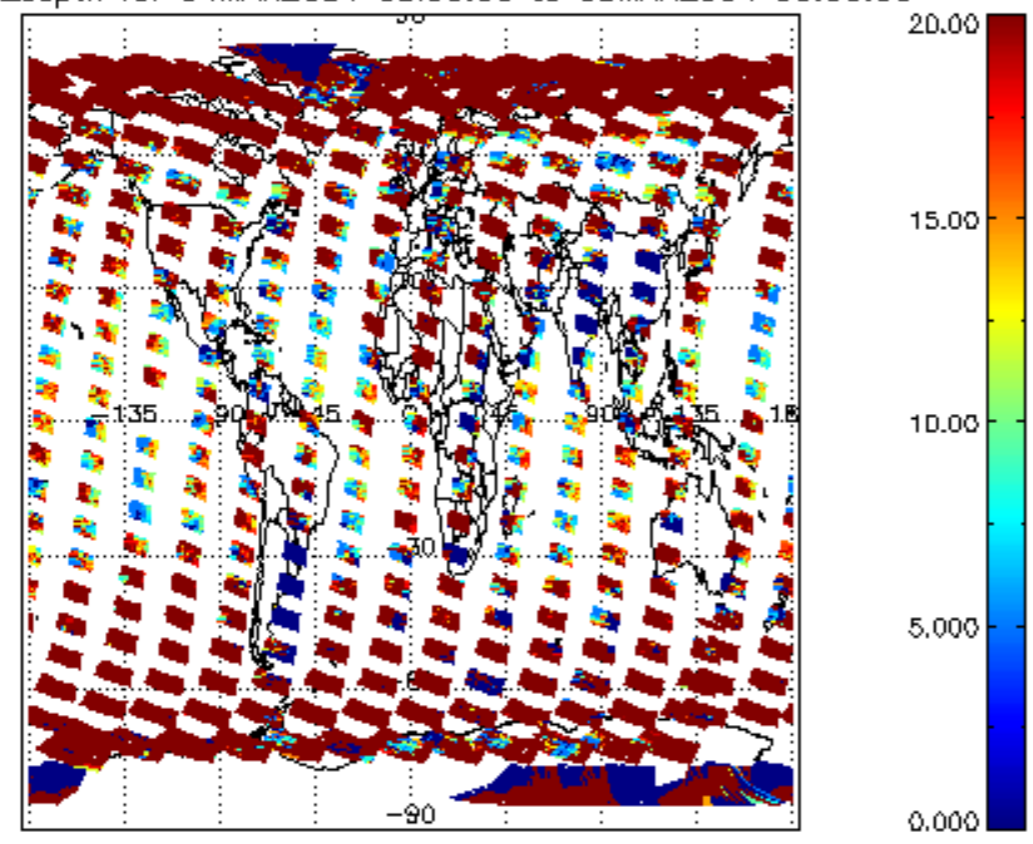
cL\_frac for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



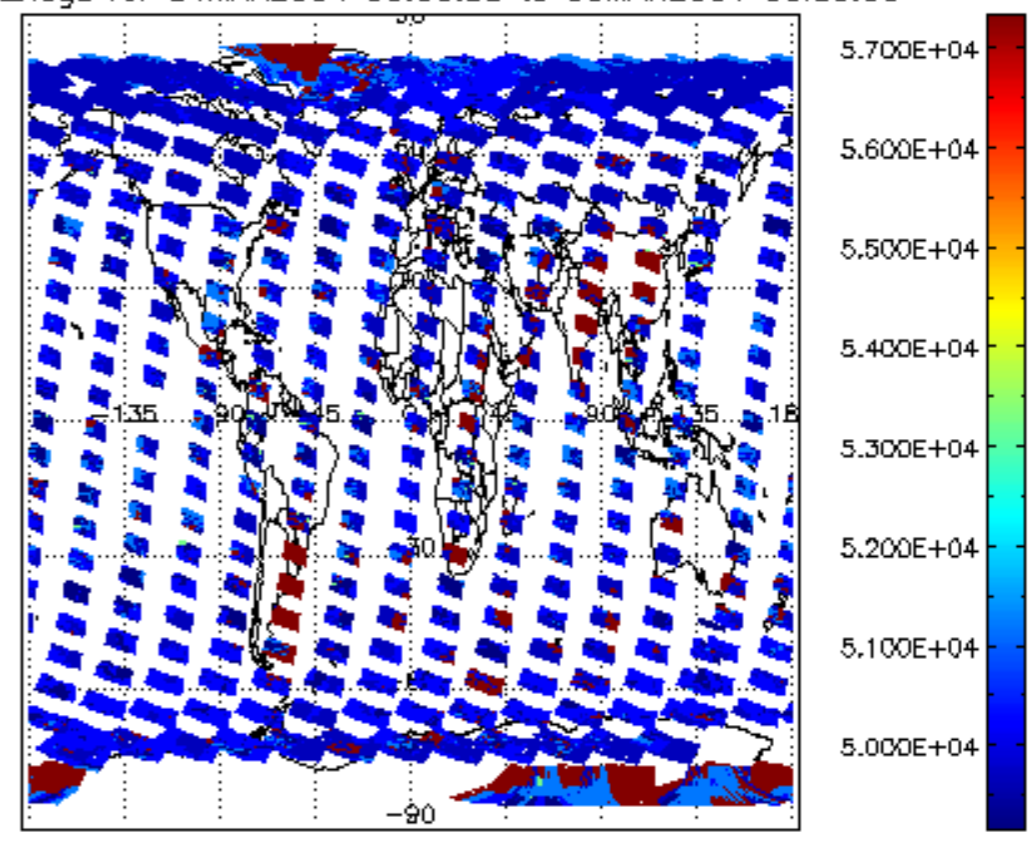
cL\_top\_height for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



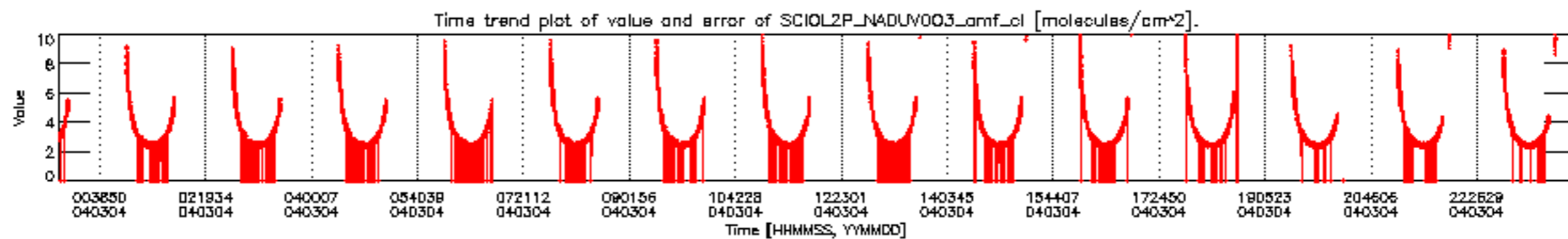
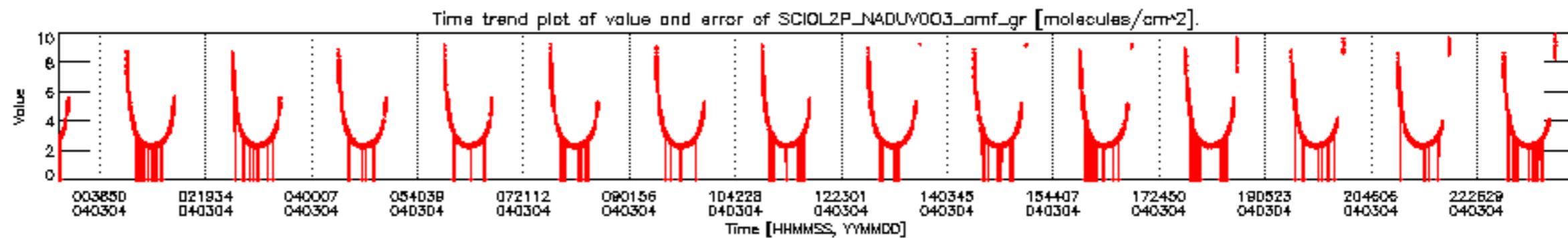
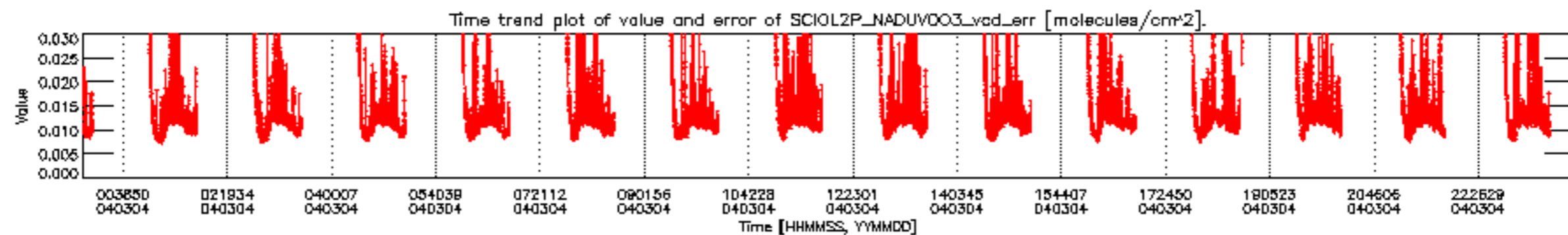
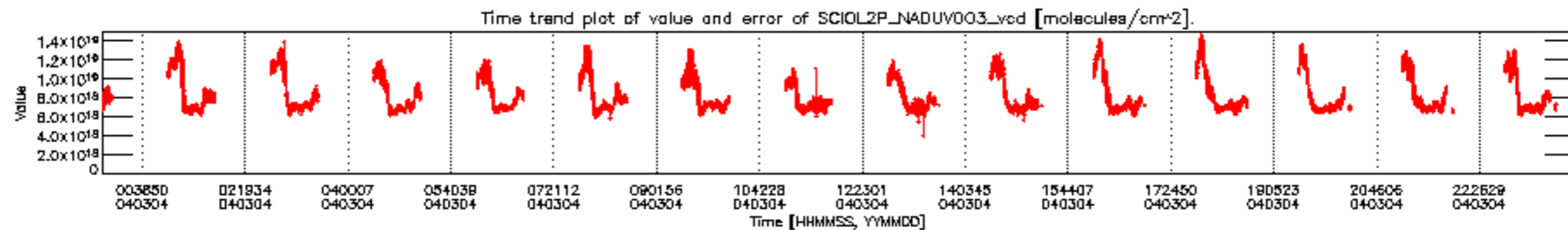
cL\_opt\_depth for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



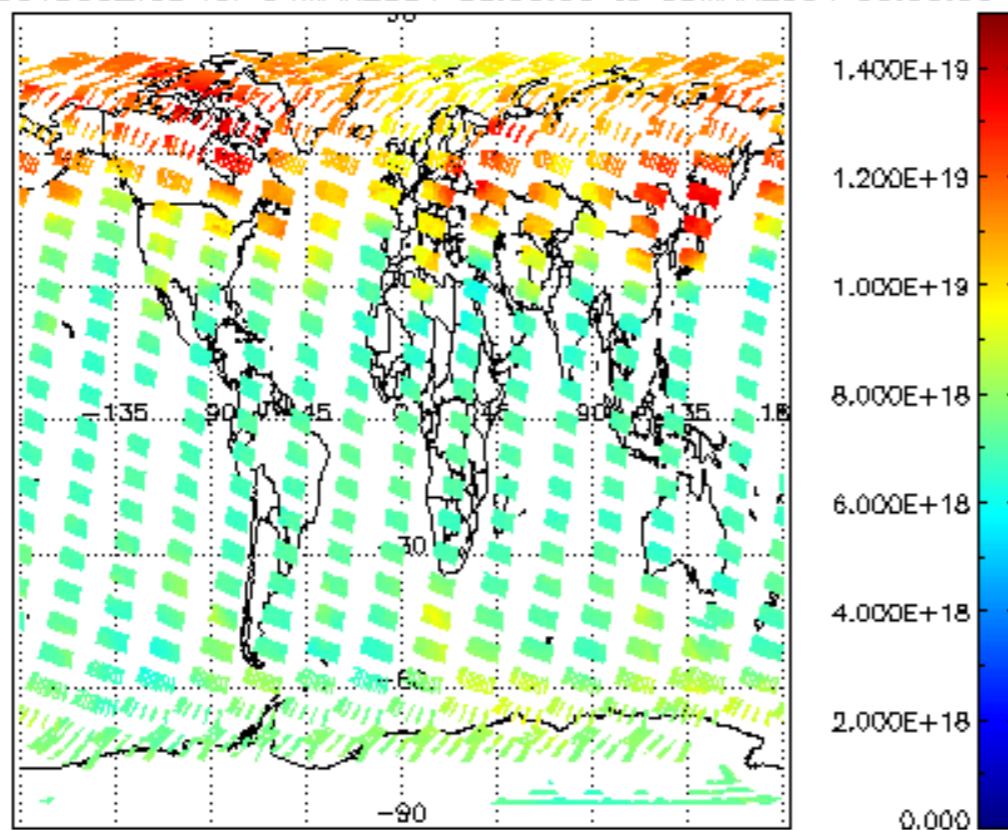
cloud\_flags for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



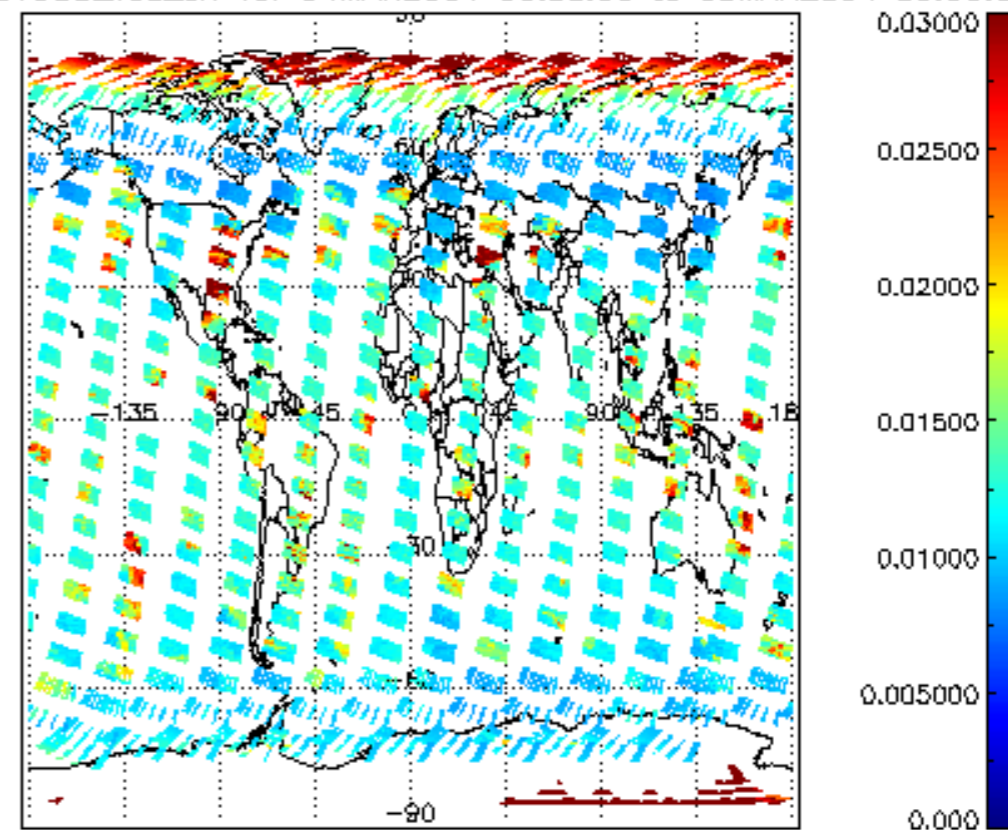




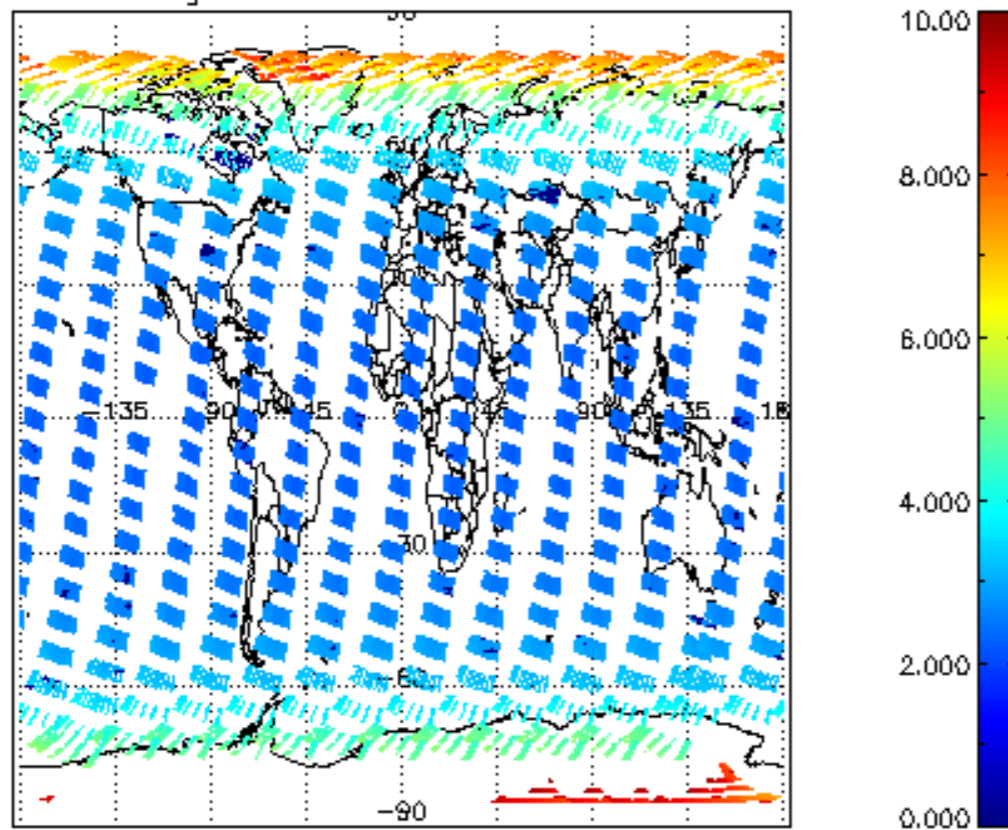
SCIOL2P\_NADUV003\_vcd for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



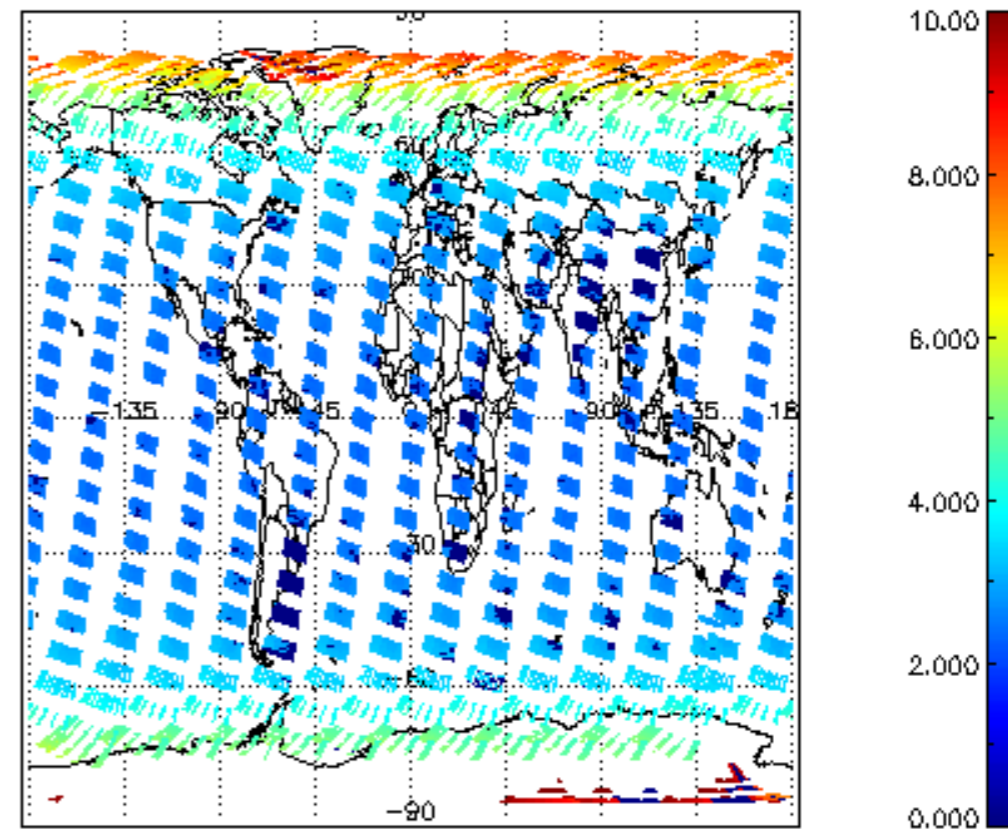
SCIOL2P\_NADUV003\_vcd\_err for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



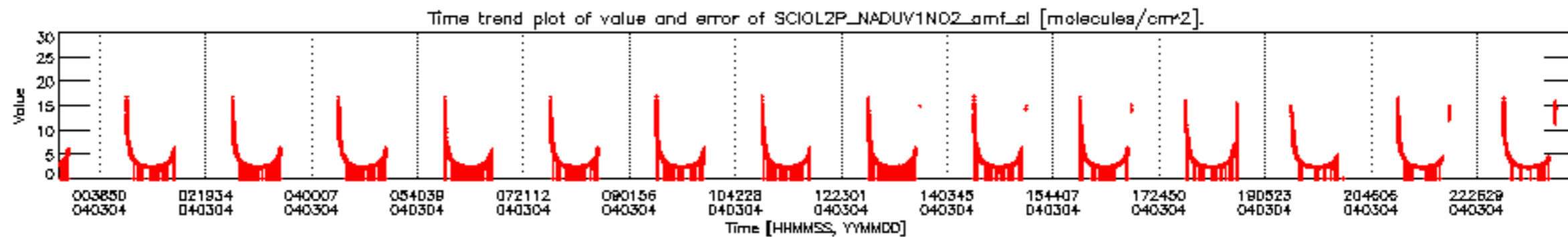
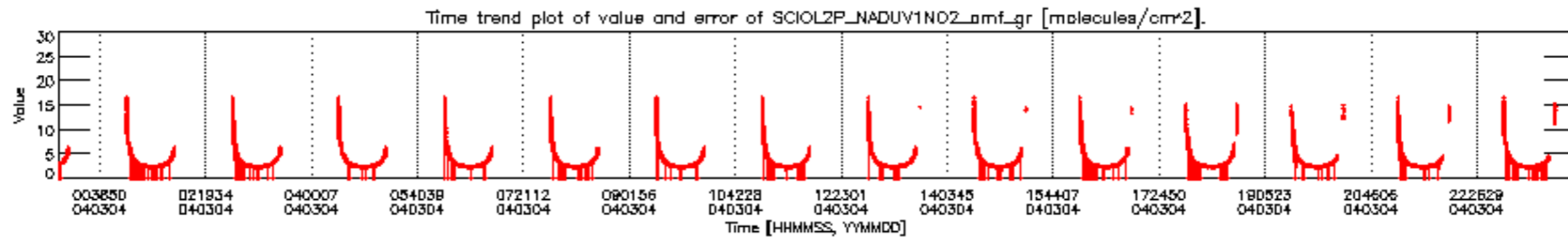
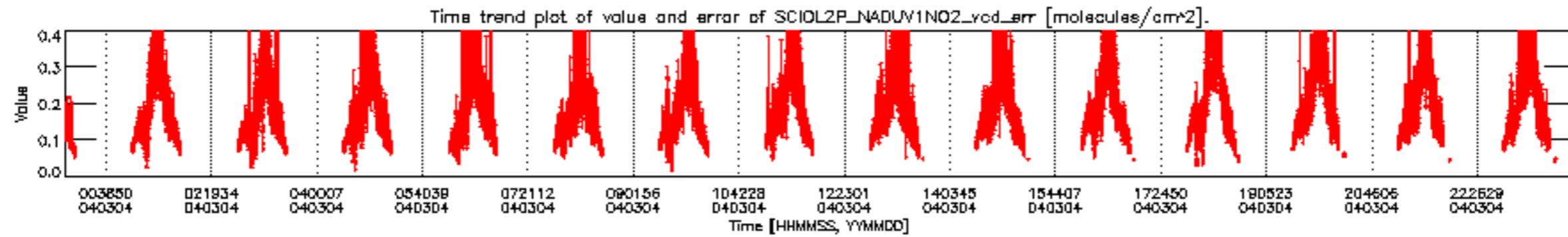
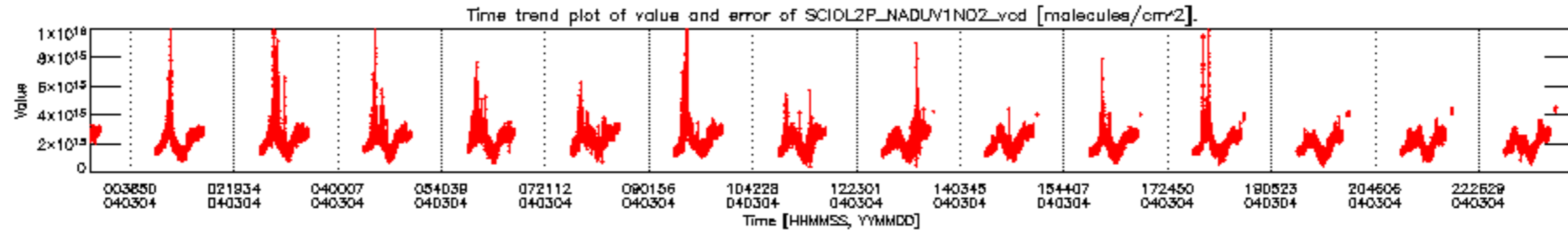
SCIOL2P\_NADUV003\_amf\_gr for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



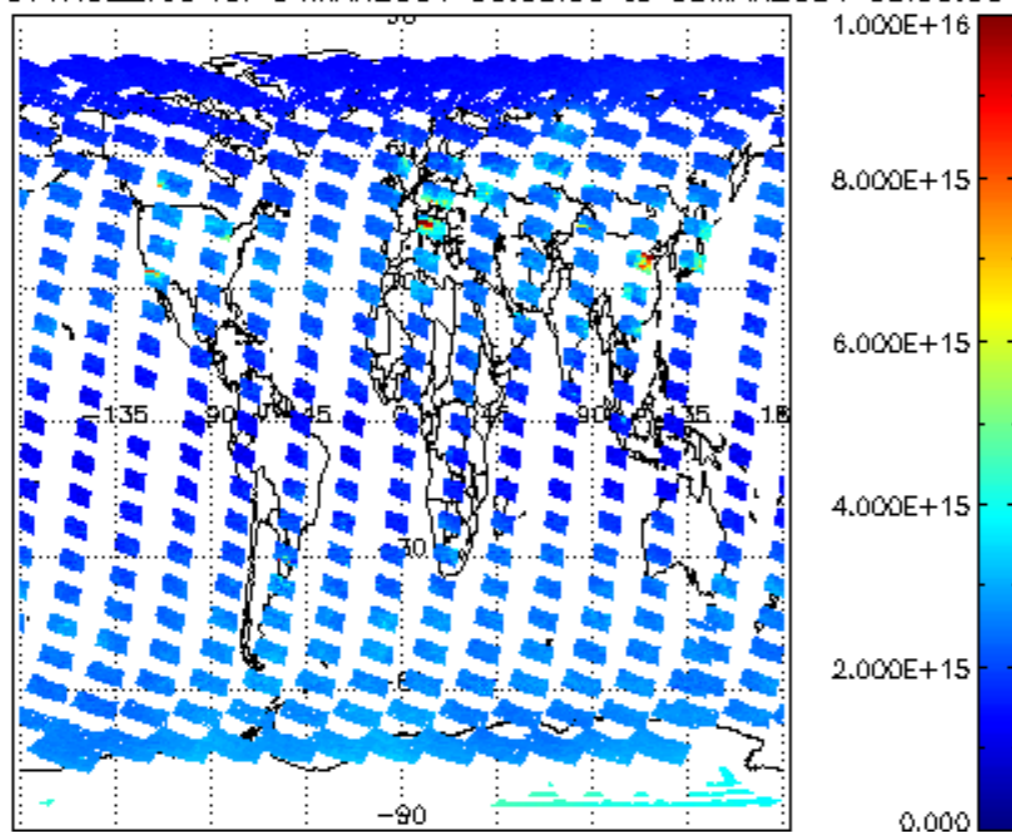
SCIOL2P\_NADUV003\_amf\_cl for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



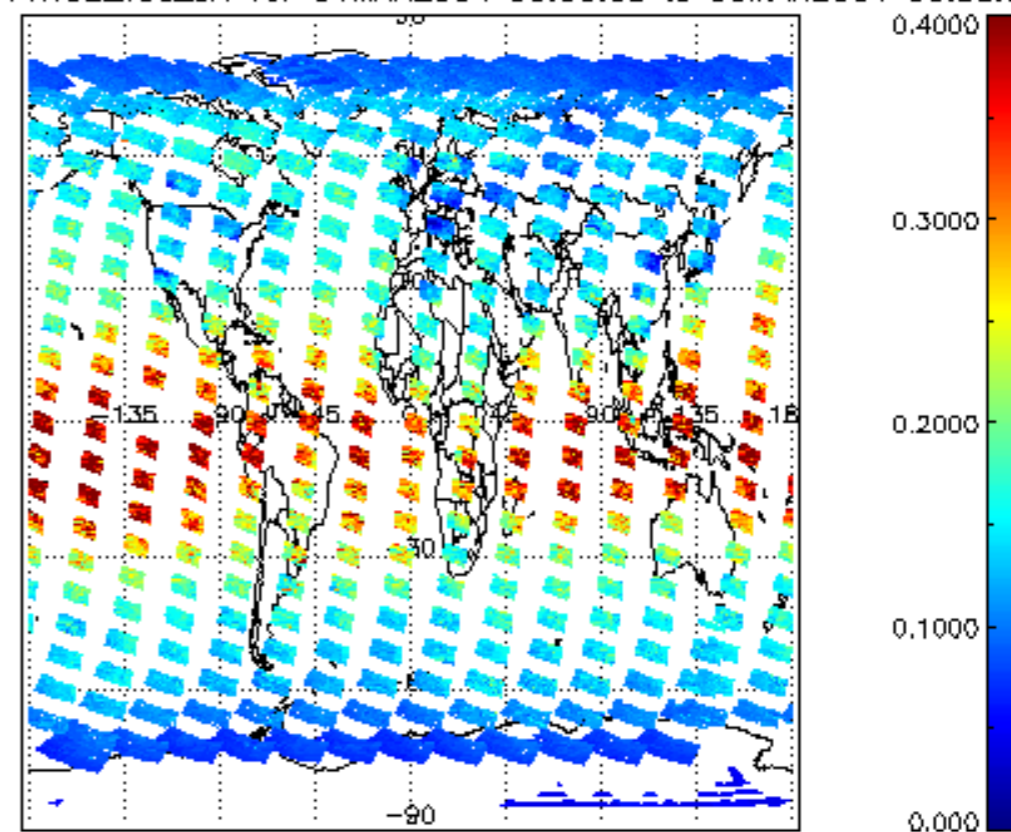




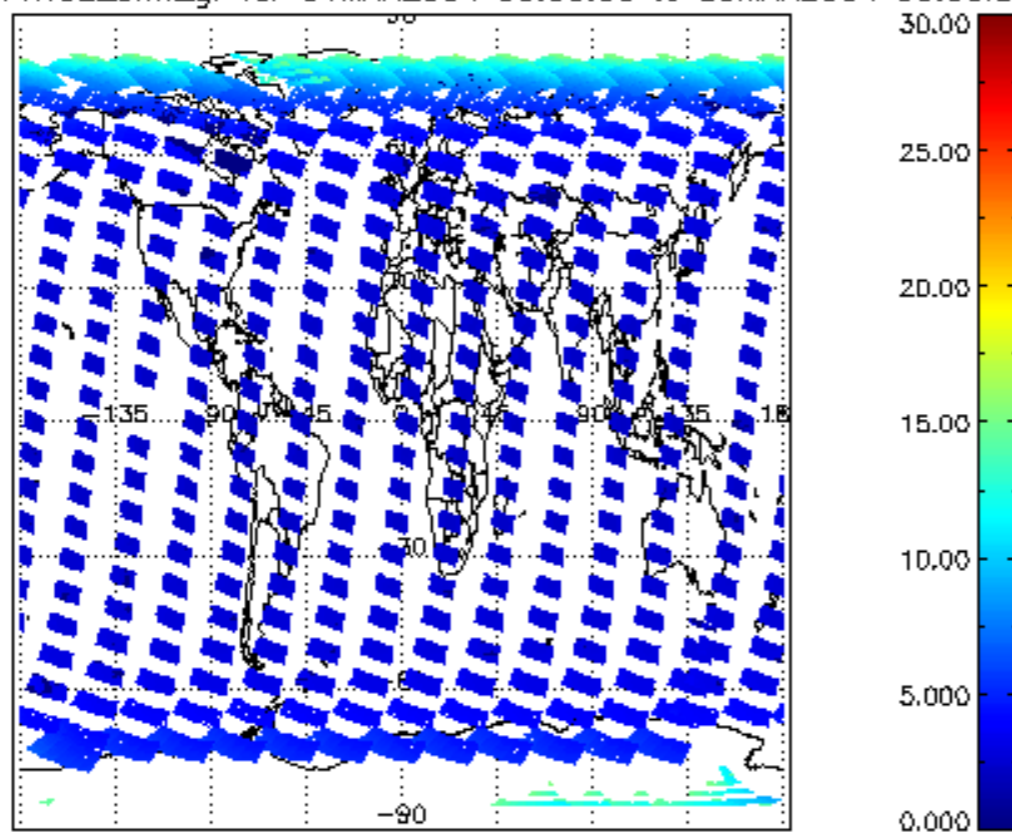
SCIOL2P\_NADUV1NO2\_vcd for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



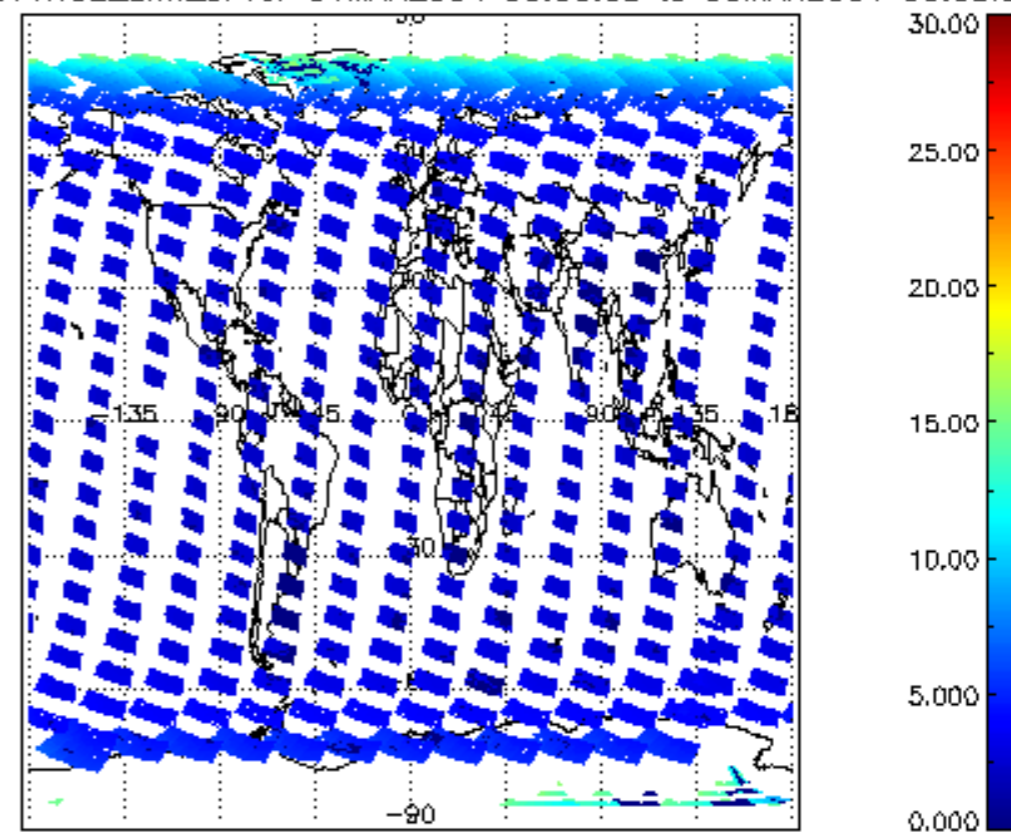
SCIOL2P\_NADUV1NO2\_vcd\_err for 04MAR2004 00:00:00 to 05MAR2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 04MAR2004 00:00:00 to 05MAR2004 00:00:00

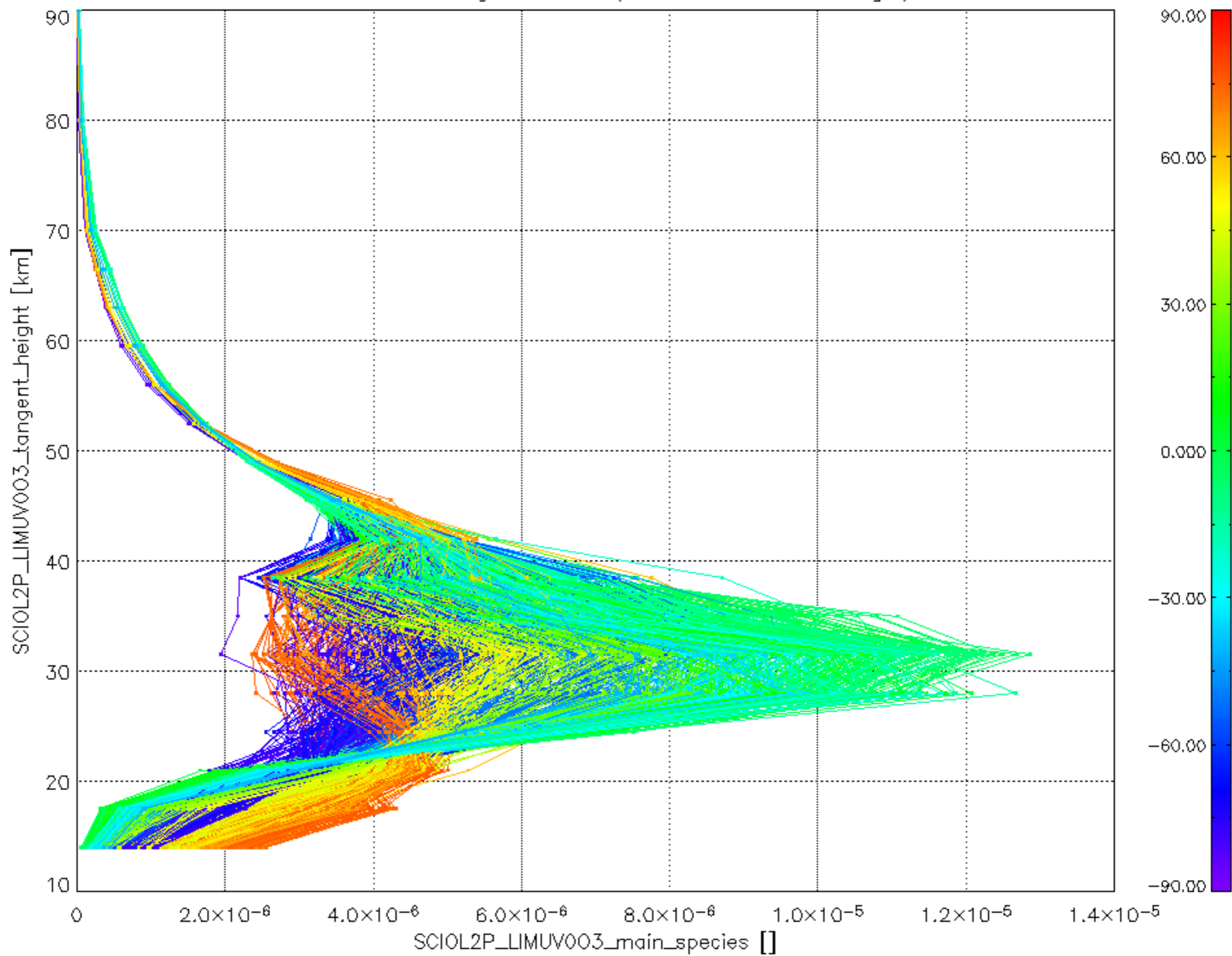


SCIOL2P\_NADUV1NO2\_amf\_cl for 04MAR2004 00:00:00 to 05MAR2004 00:00:00





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).

