

## 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	19AUG2008 08:05:01
Data source version	SCIA-OL/3.01-R
Processing scope for products	16MAY2004 00:00:00 to 17MAY2004 00:00:00
Start time of first product within scope	15MAY2004 23:16:16
Stop time of last product within scope	16MAY2004 23:40:25
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__2PRDPA20040515_231616_000033492026_00474_11550_7782.N1</a>	15MAY2004 23:16:16	16MAY2004 00:12:05	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040516_005651_000032932026_00475_11551_7763.N1</a>	16MAY2004 00:56:51	16MAY2004 01:51:45	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040516_023727_000033492026_00476_11552_7802.N1</a>	16MAY2004 02:37:27	16MAY2004 03:33:16	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040516_041803_000032932026_00477_11553_7724.N1</a>	16MAY2004 04:18:03	16MAY2004 05:12:56	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040516_055839_000033492026_00478_11554_7752.N1</a>	16MAY2004 05:58:39	16MAY2004 06:54:28	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040516_073914_000032932026_00479_11555_7821.N1</a>	16MAY2004 07:39:14	16MAY2004 08:34:08	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040516_091950_000033492026_00480_11556_7773.N1</a>	16MAY2004 09:19:50	16MAY2004 10:15:39	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040516_110026_000032932026_00481_11557_7710.N1</a>	16MAY2004 11:00:26	16MAY2004 11:55:19	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040516_124101_000033492026_00482_11558_7767.N1</a>	16MAY2004 12:41:01	16MAY2004 13:36:51	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040516_142137_000032932026_00483_11559_7747.N1</a>	16MAY2004 14:21:37	16MAY2004 15:16:30	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040516_160213_000033492026_00484_11560_7816.N1</a>	16MAY2004 16:02:13	16MAY2004 16:58:02	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20040516_174233_000033782026_00485_11561_7794.N1</a>	16MAY2004 17:42:33	16MAY2004 18:38:52	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20040516_192244_000034052026_00486_11562_7731.N1</a>	16MAY2004 19:22:44	16MAY2004 20:19:29	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20040516_210400_000032932026_00487_11563_7787.N1</a>	16MAY2004 21:04:00	16MAY2004 21:58:53	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20040516_224435_000033492026_00488_11564_7761.N1</a>	16MAY2004 22:44:35	16MAY2004 23:40:25	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: 114280

Total number of cloud data DSRs with good quality flag (=0): 114280 (100.0 %)

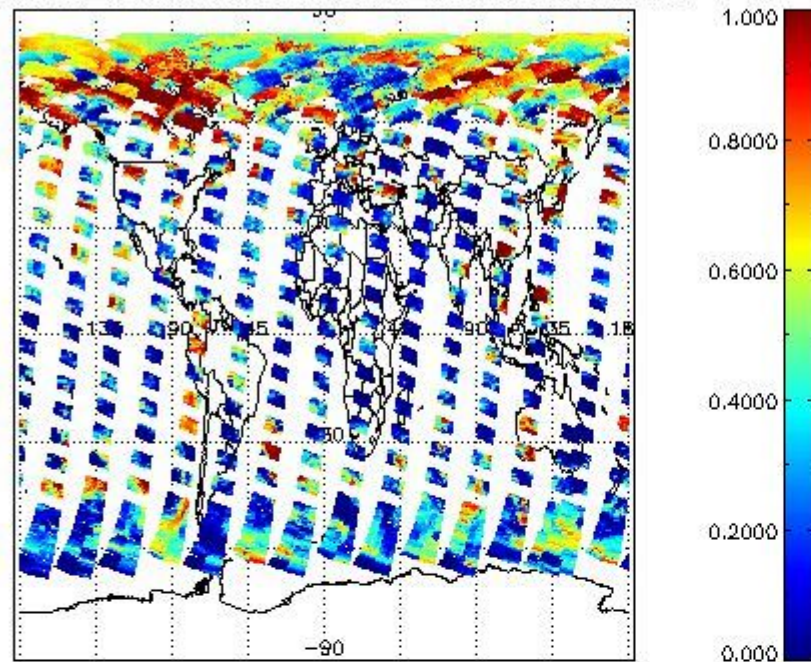
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	114280	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	114280	0.21793	0.25000	0.12500	1.0000	0.087407	s
CL_FRAC	114280	0.40218	0.37284	0.0000	1.0000	0.32149	-
CL_FRAC_ERR	114280	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	114280	6.9737	8.0000	4.0000	32.000	2.7970	
PMD_READ_CL[0]	114280	0.52505	0.0000	0.0000	16.000	1.7155	-
PMD_READ_CL[1]	114280	1.4048	0.0000	0.0000	32.000	2.8259	-
CL_TOP_HEIGHT	104331	3.1474	1.2340	0.0000	17.000	3.6306	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	104331	56.668	53.051	0.0000	101.00	42.110	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	114280	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	114280	11001001	11000010	11000000	11100000	3154.8	flags
AERO_ABSO_IND	114280	0.77089	0.75437	-4.2634	12.793	1.0826	
AERO_IND_DIAG	114280	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	114280	01101000	11000000	00000000	11000000	24483.	flags

### Time and geolocation plots:

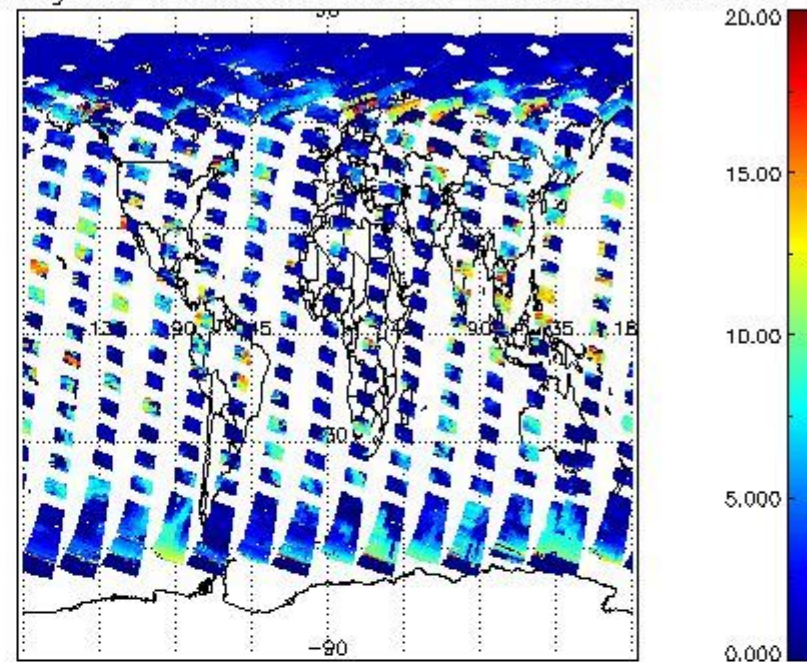
Plots are available for the following parameters:

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

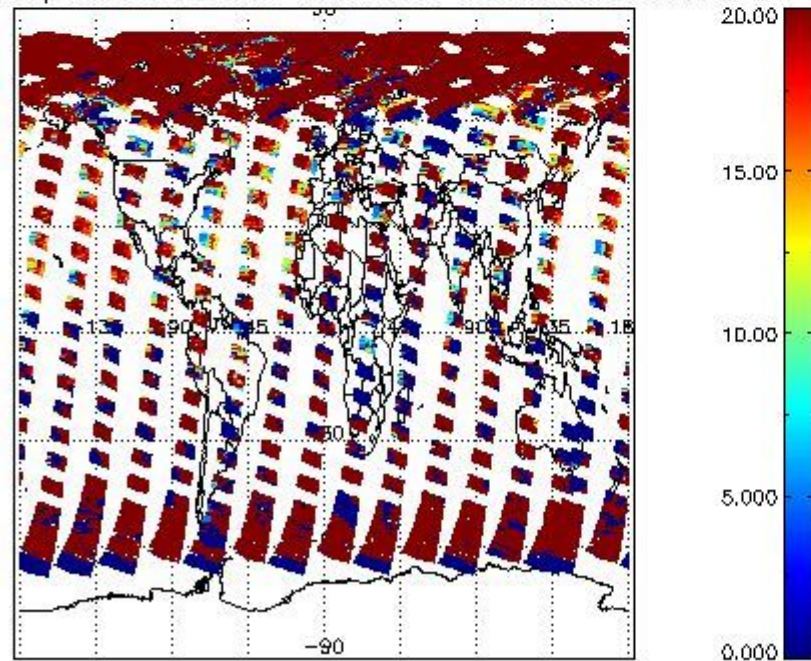
cL\_frac for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



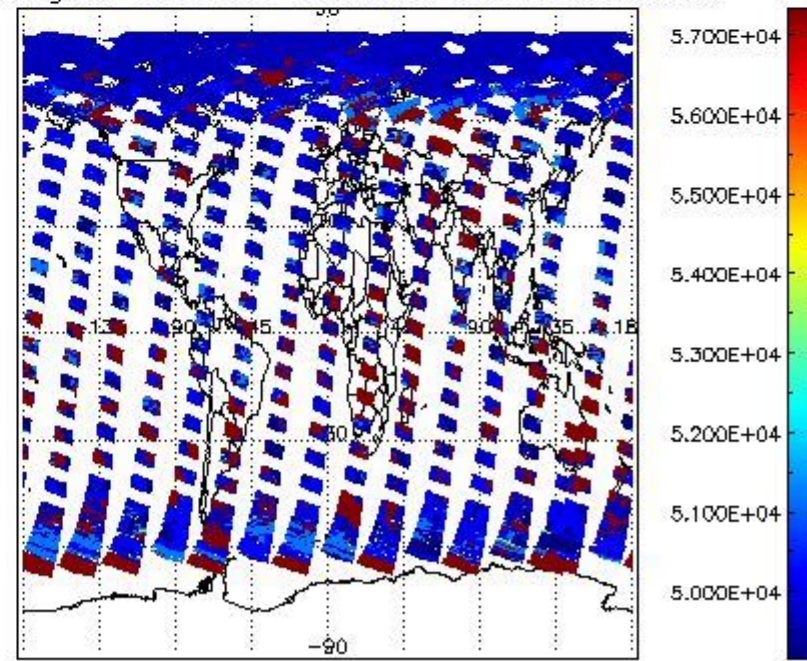
cL\_top\_height for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



cL\_opt\_depth for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



cloud\_flags for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



## 2.2.2 Nadir

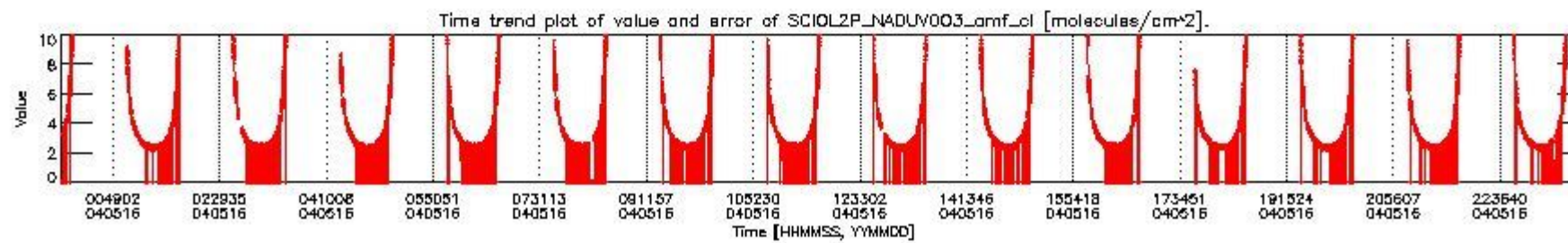
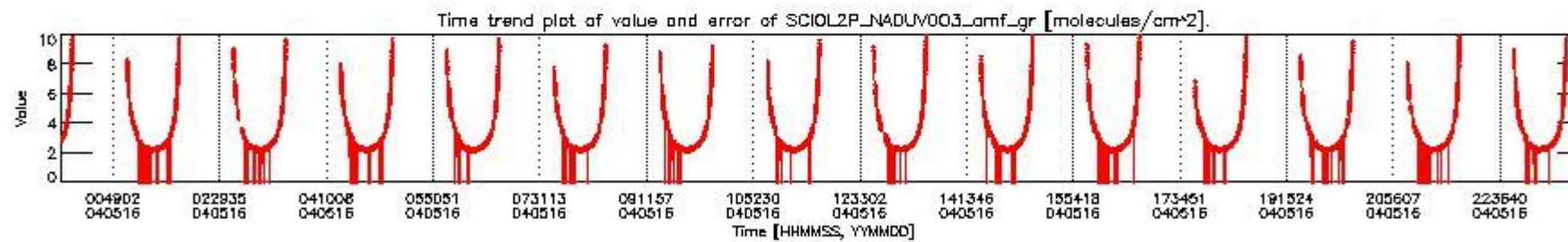
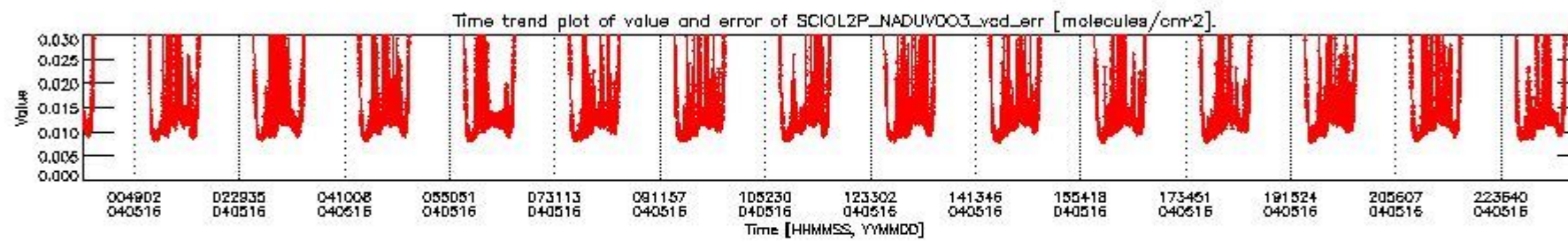
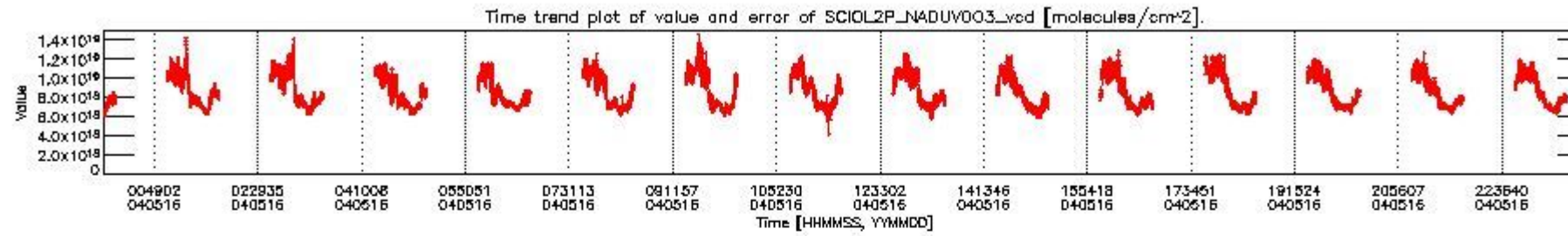
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

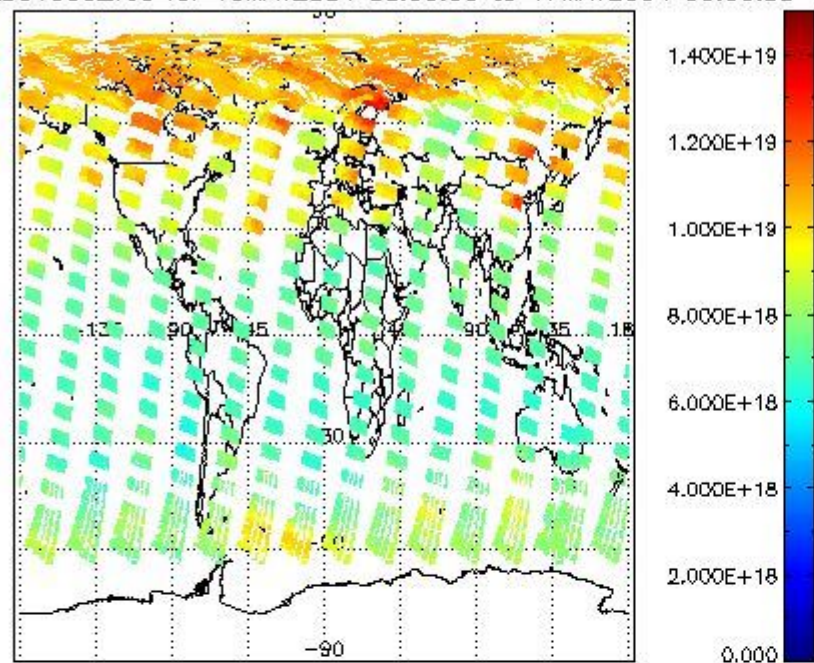
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

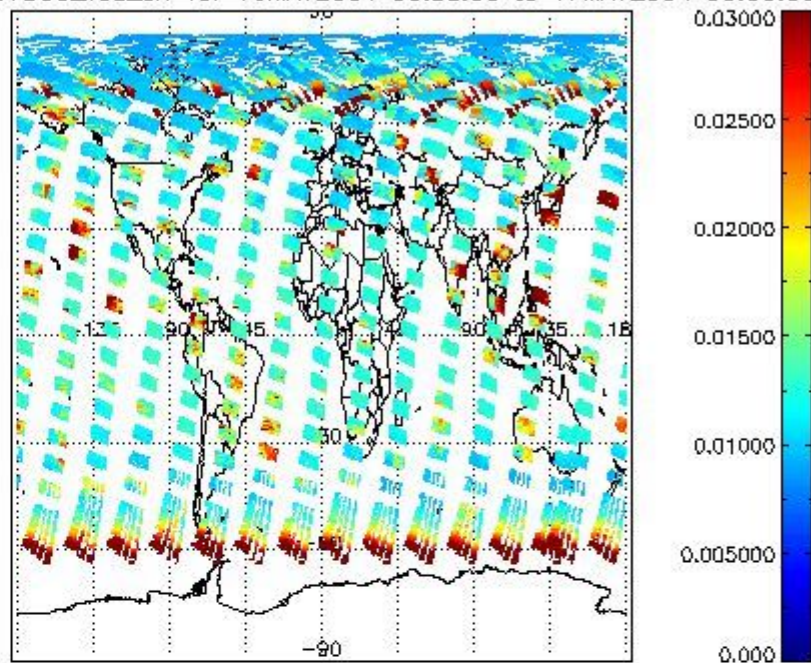
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



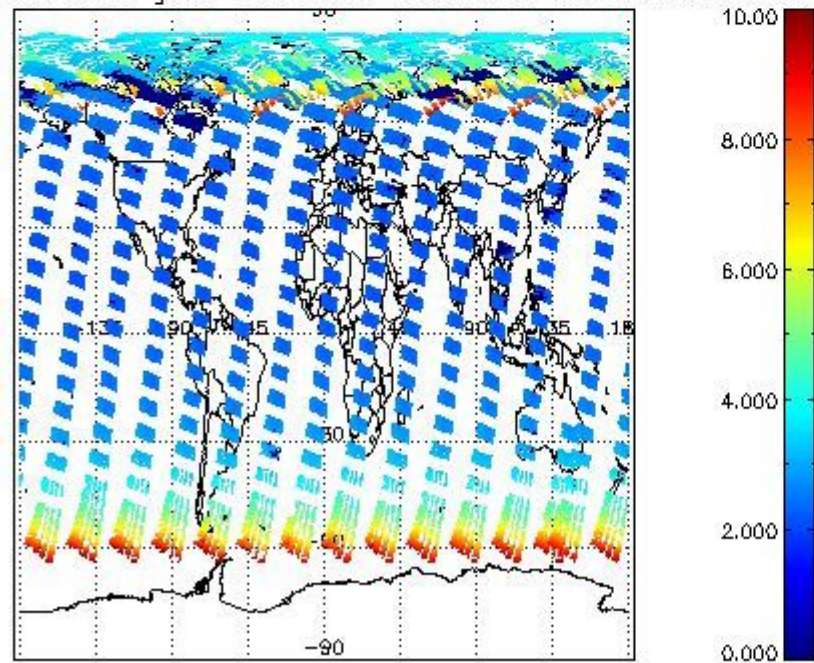
SCIOL2P\_NADUV003\_vcd for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



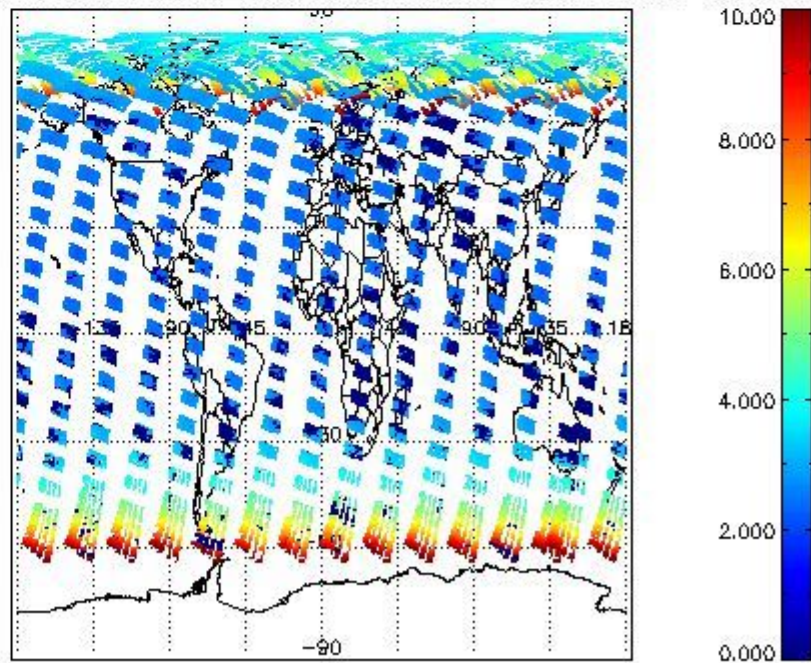
SCIOL2P\_NADUV003\_vcd\_err for 16MAY2004 00:00:00 to 17MAY2004 00:00:00

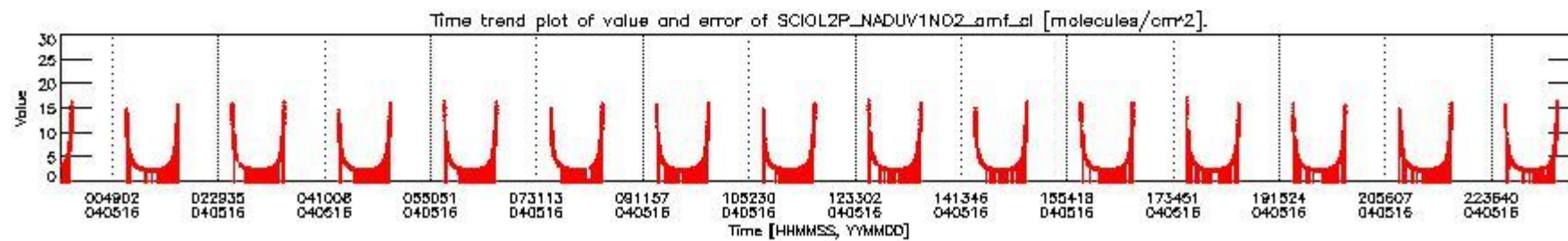
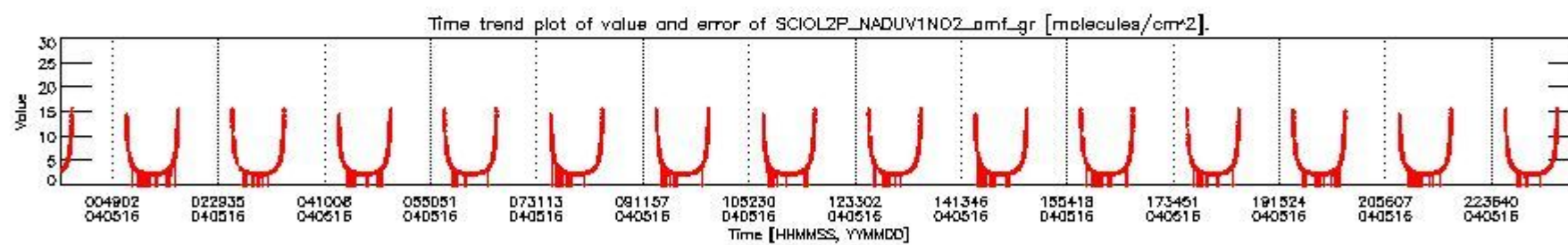
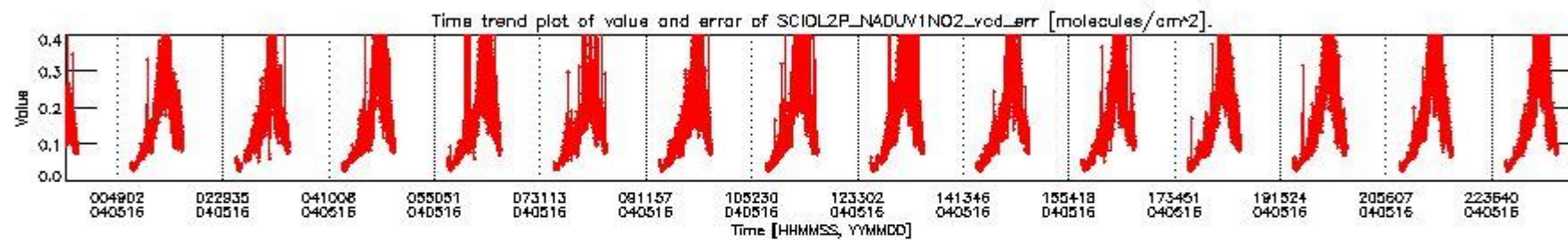
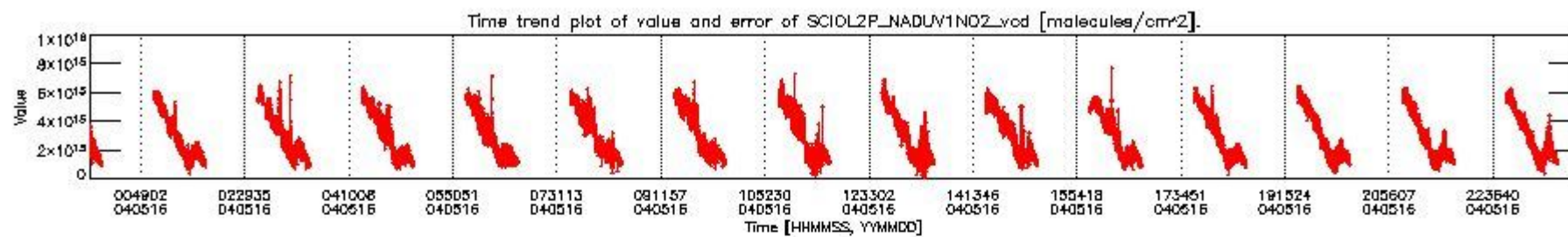


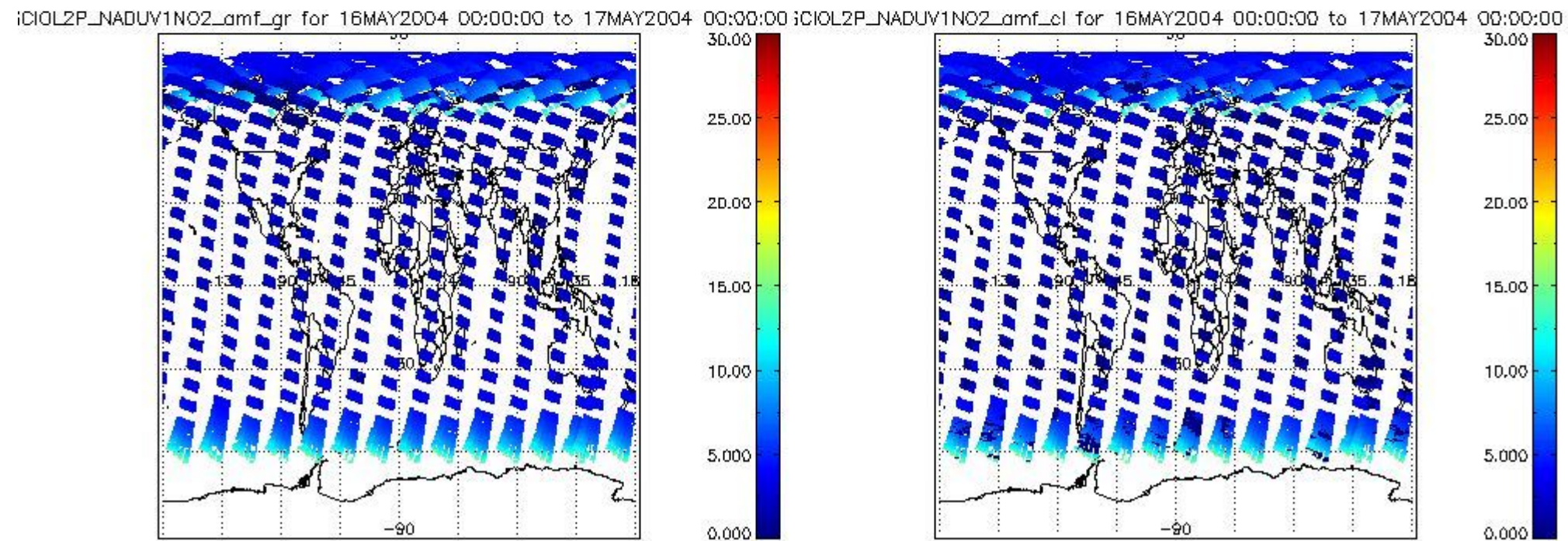
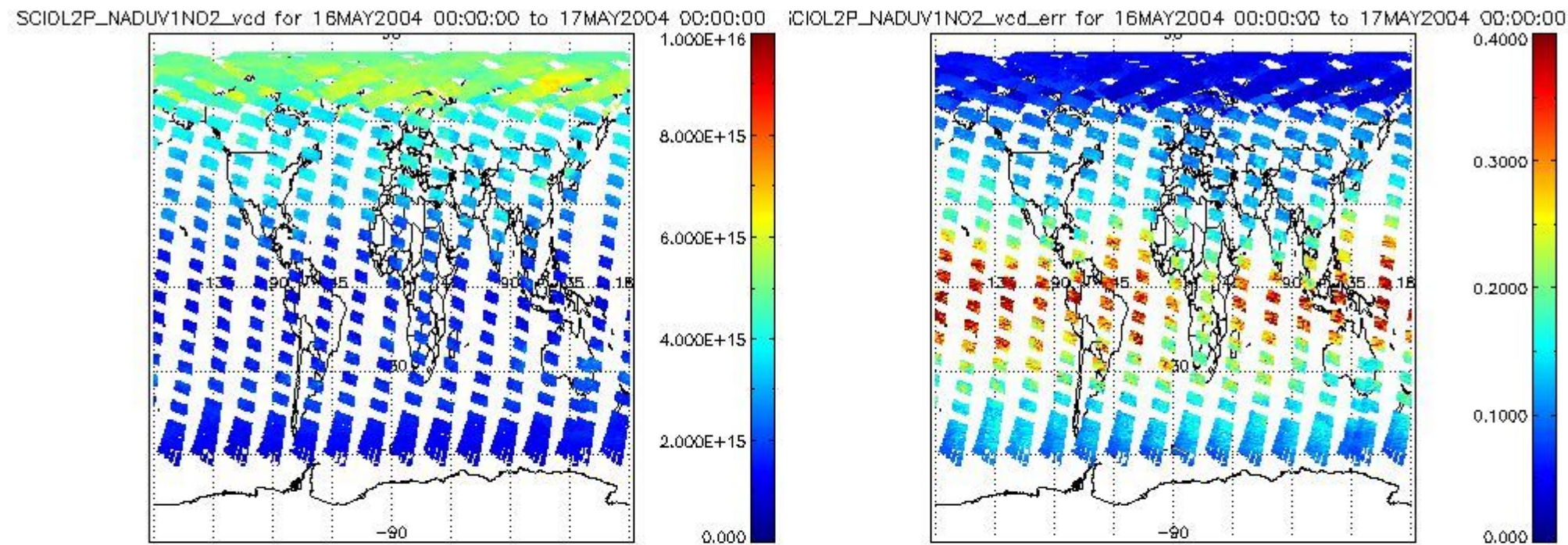
SCIOL2P\_NADUV003\_amf\_gr for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 16MAY2004 00:00:00 to 17MAY2004 00:00:00







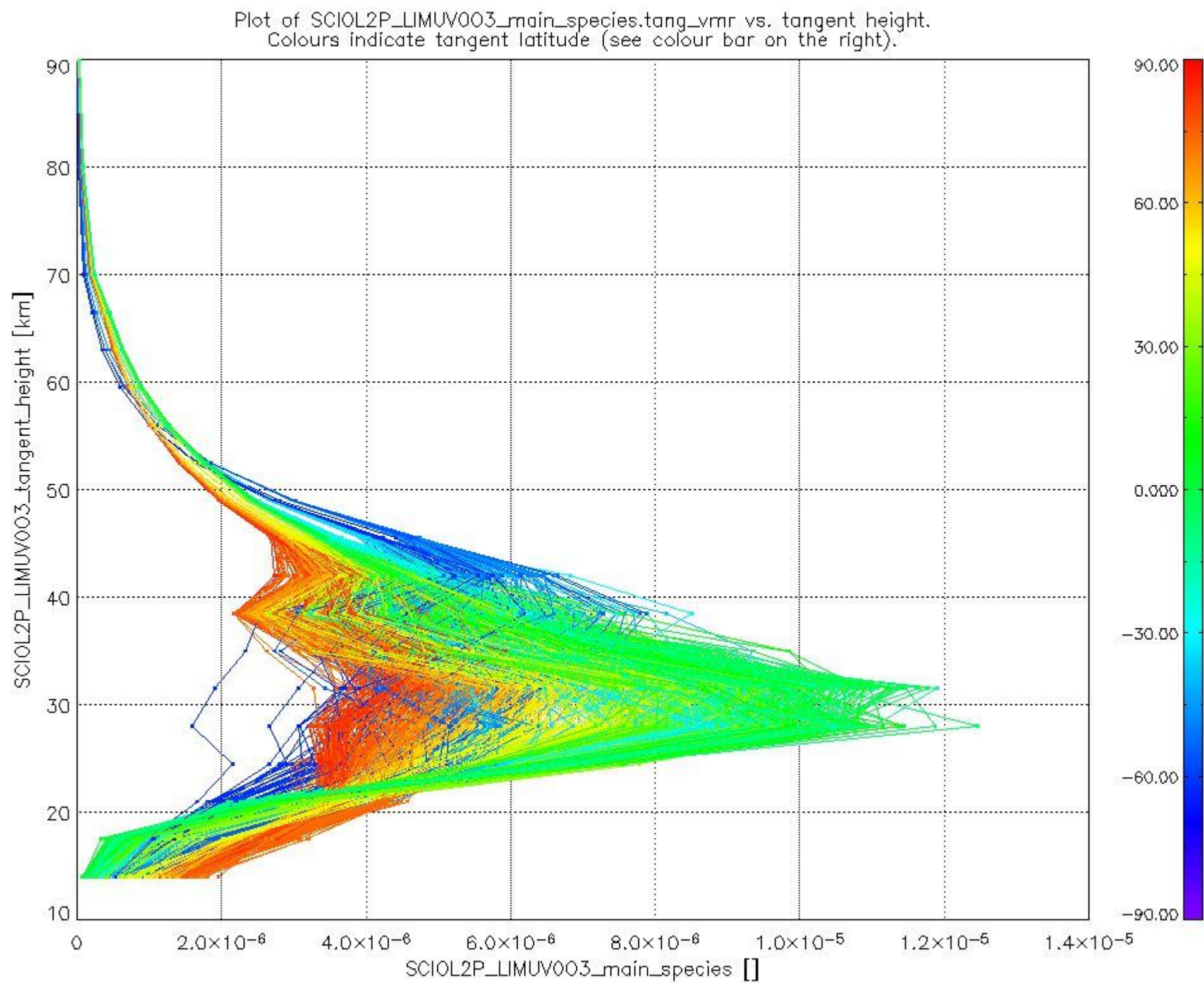
### 2.2.3 Limb

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:

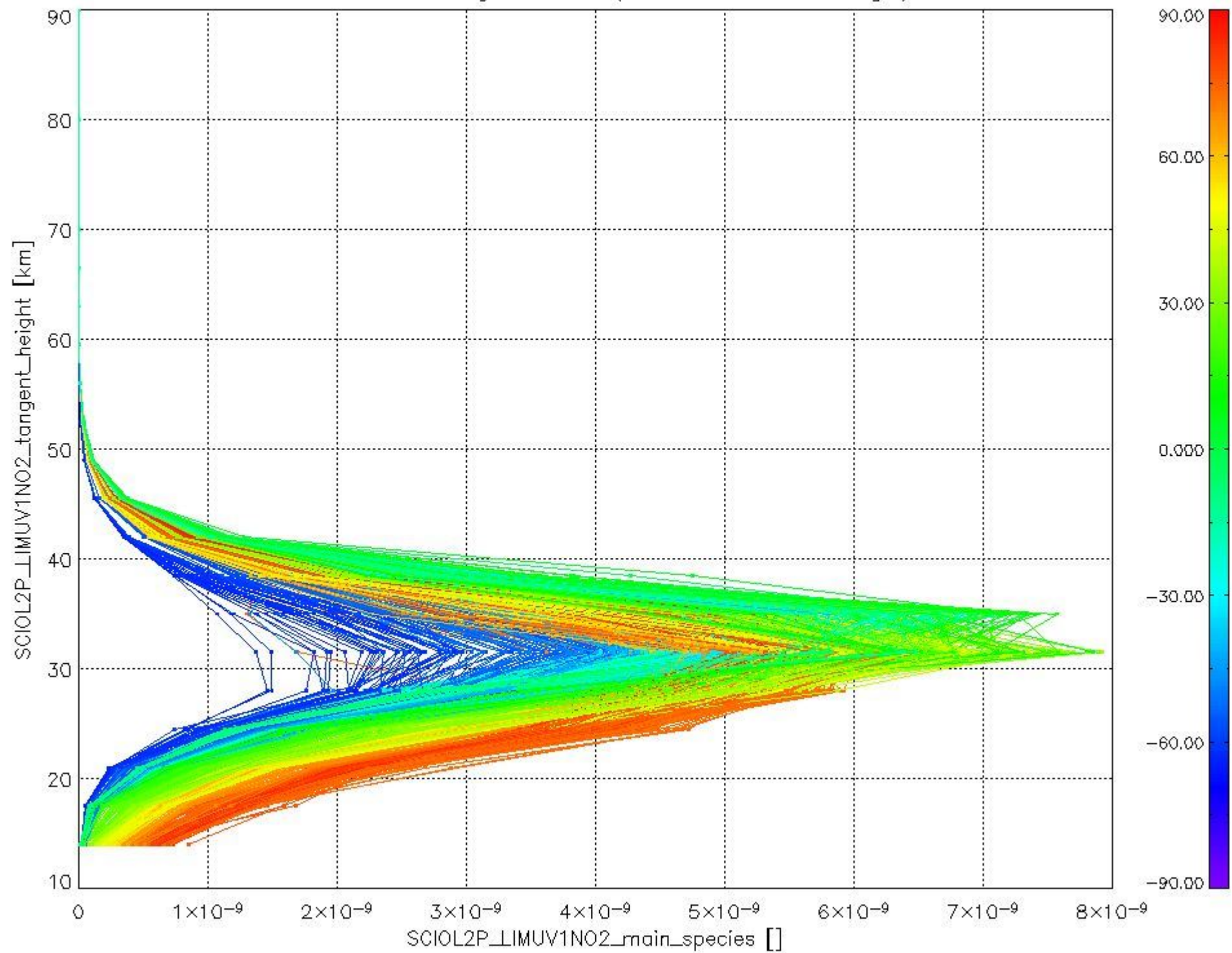
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





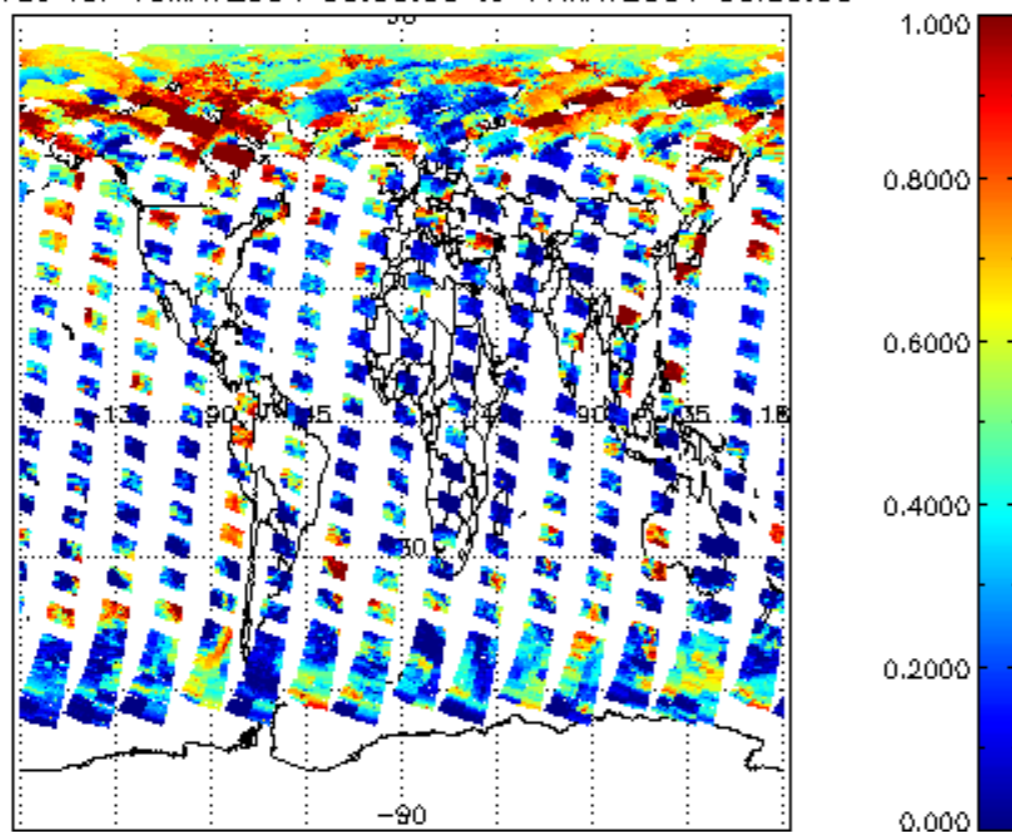
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



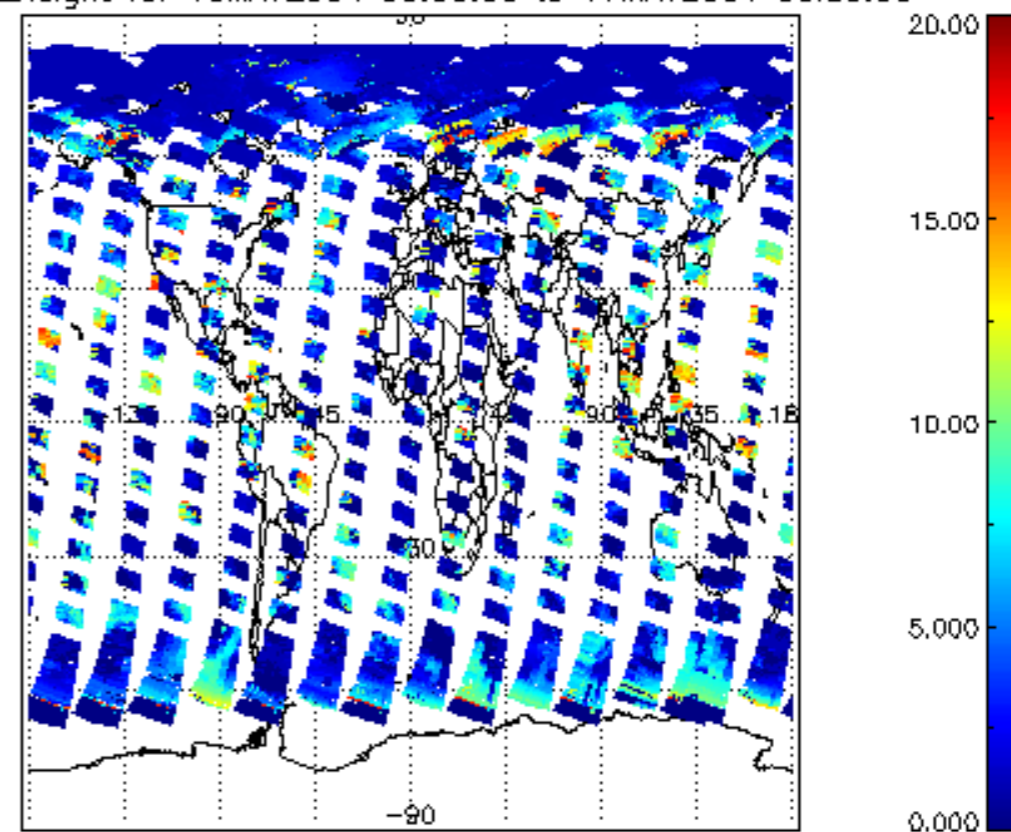
### 2.3 ADF monitoring

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

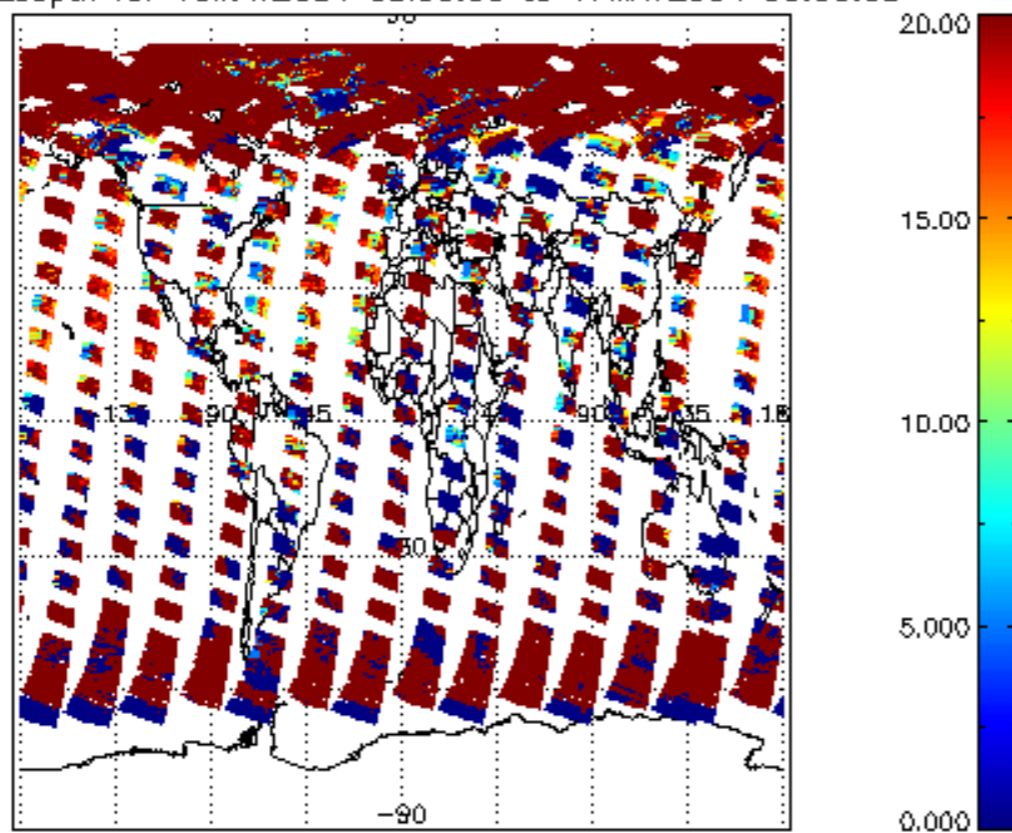
cl\_frac for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



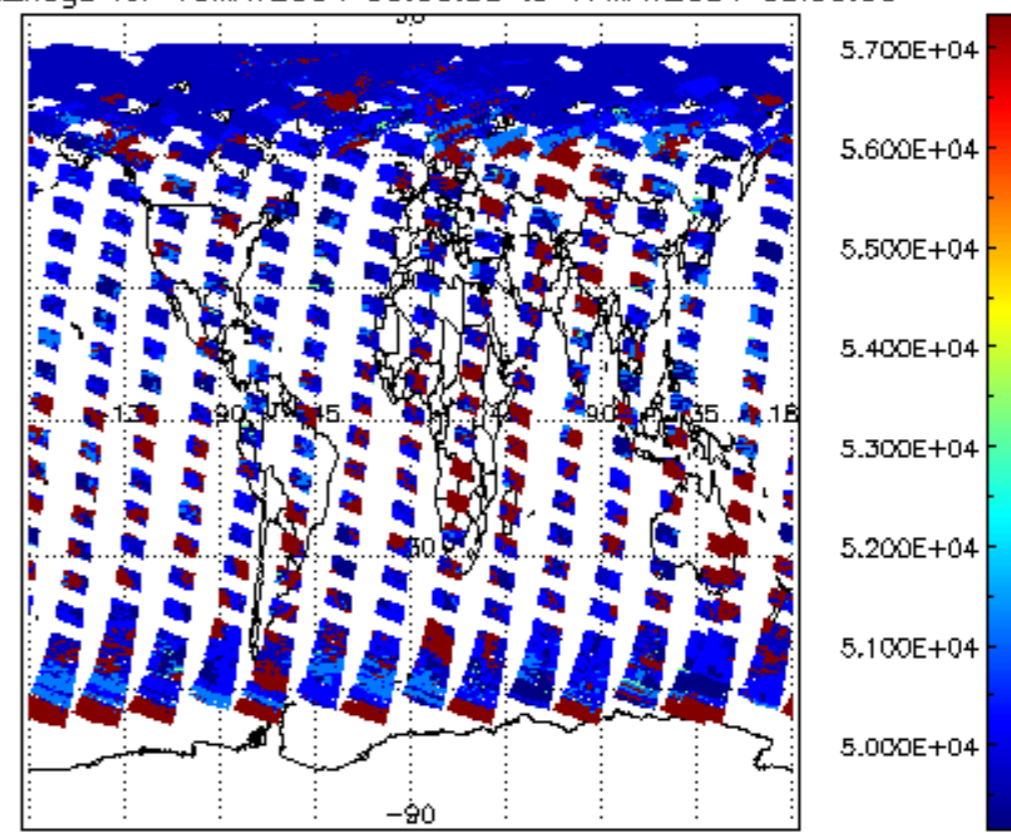
cl\_top\_height for 16MAY2004 00:00:00 to 17MAY2004 00:00:00

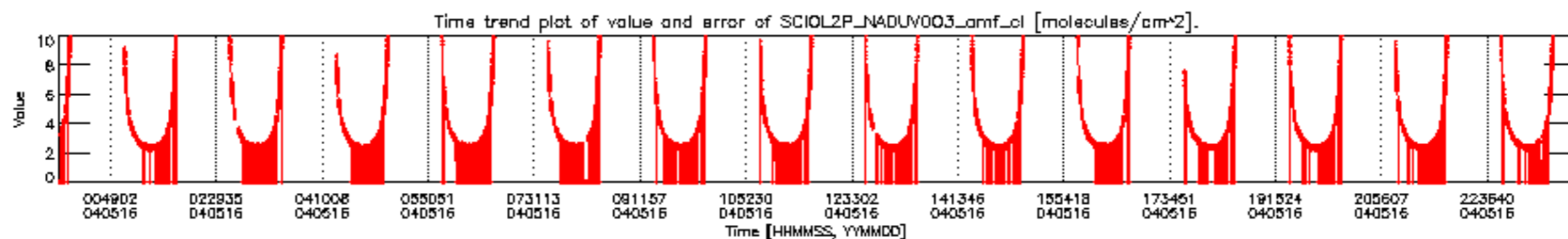
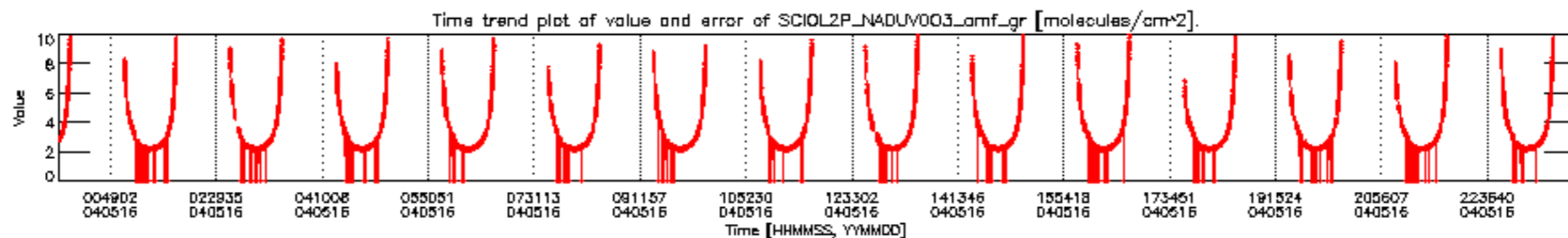
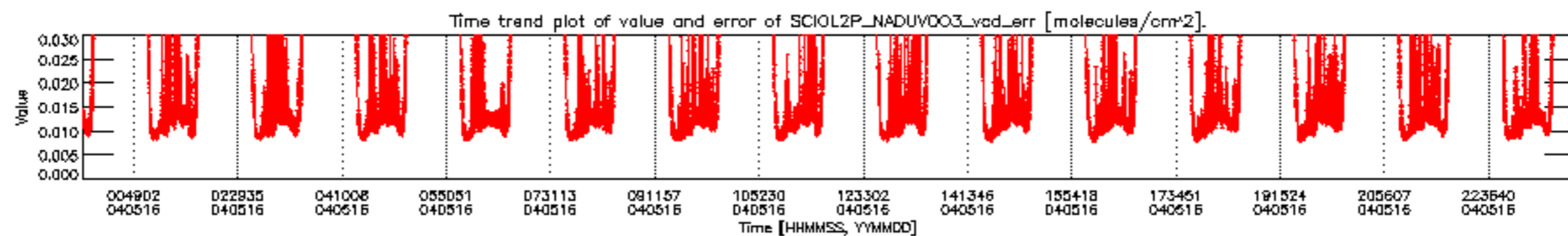
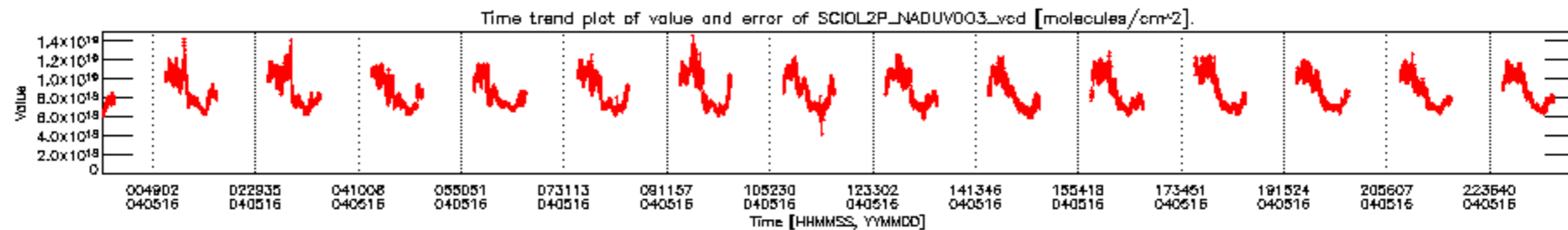


cl\_opt\_depth for 16MAY2004 00:00:00 to 17MAY2004 00:00:00

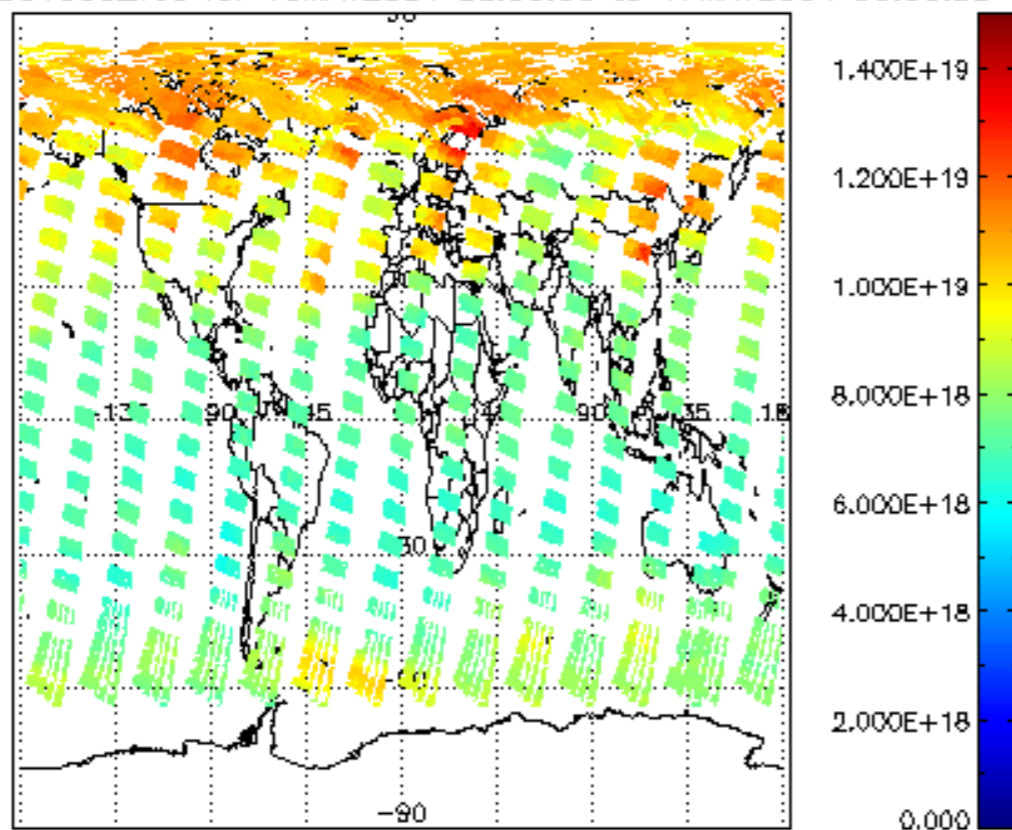


cloud\_flags for 16MAY2004 00:00:00 to 17MAY2004 00:00:00

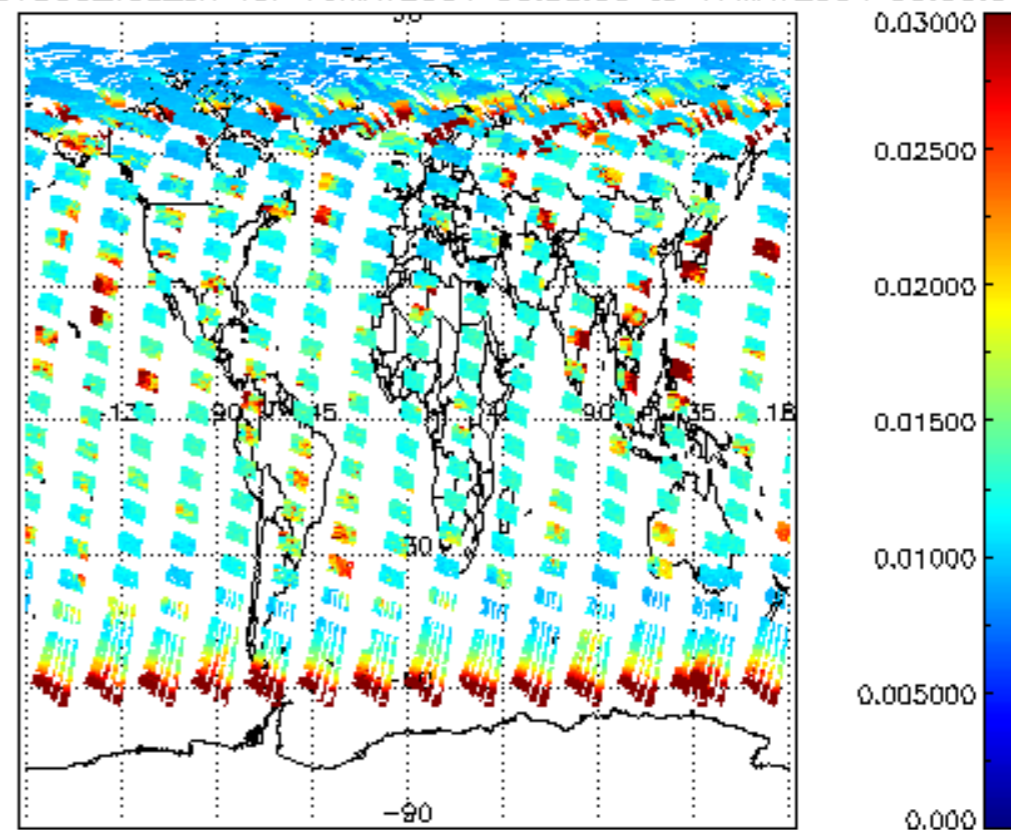




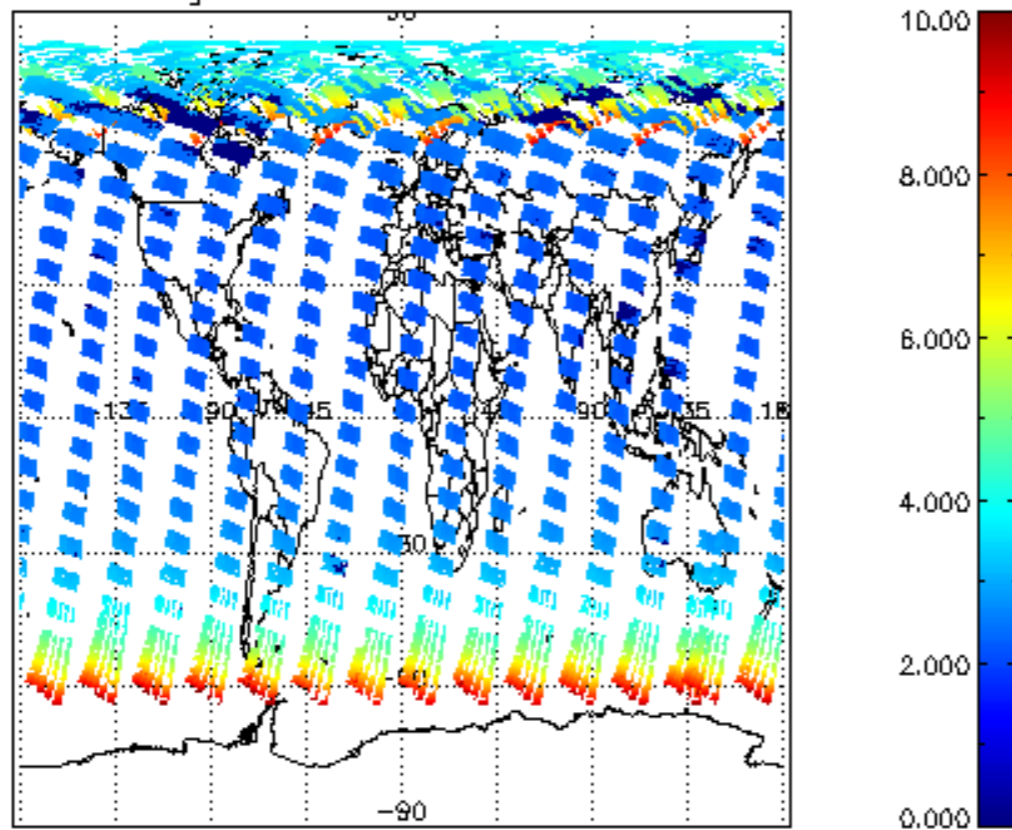
SCIOL2P\_NADUV003\_vcd for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



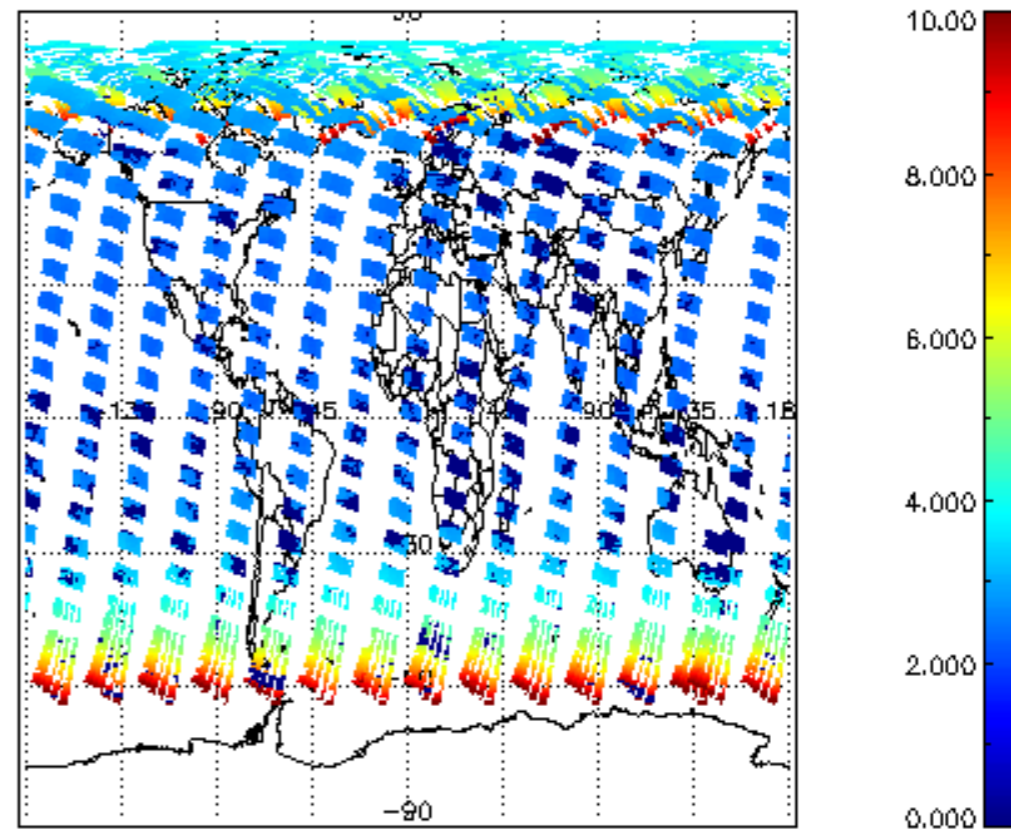
SCIOL2P\_NADUV003\_vcd\_err for 16MAY2004 00:00:00 to 17MAY2004 00:00:00

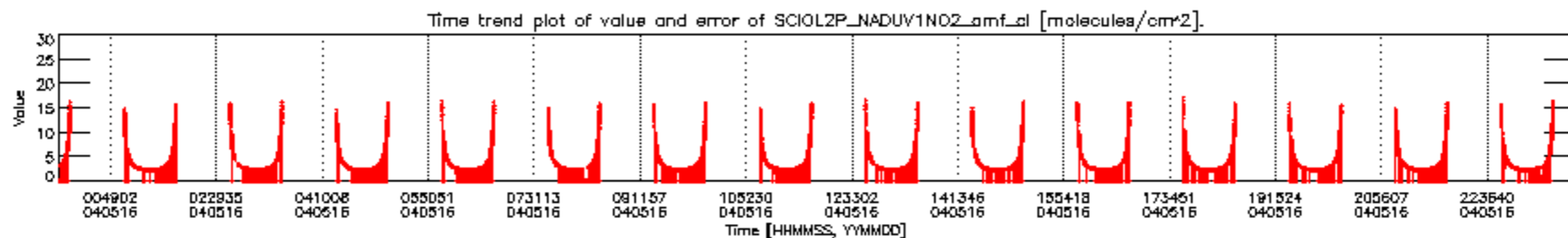
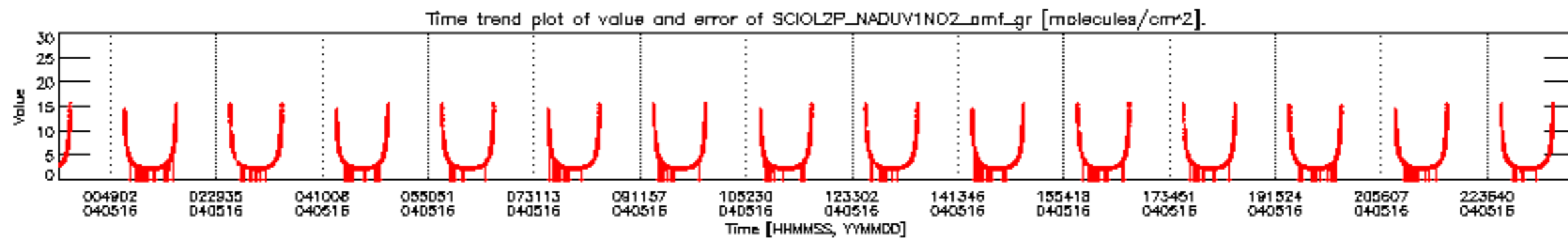
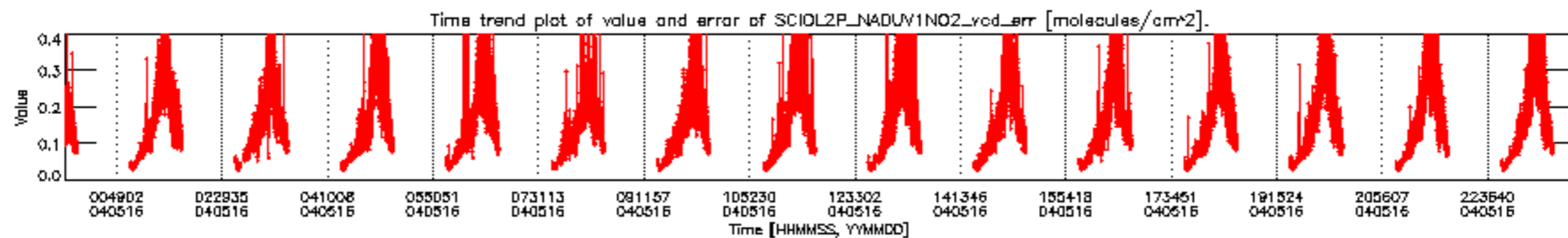
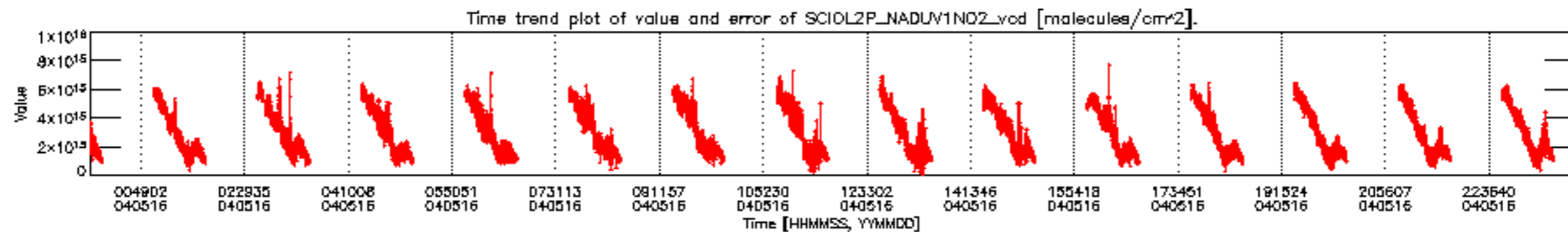


SCIOL2P\_NADUV003\_amf\_gr for 16MAY2004 00:00:00 to 17MAY2004 00:00:00

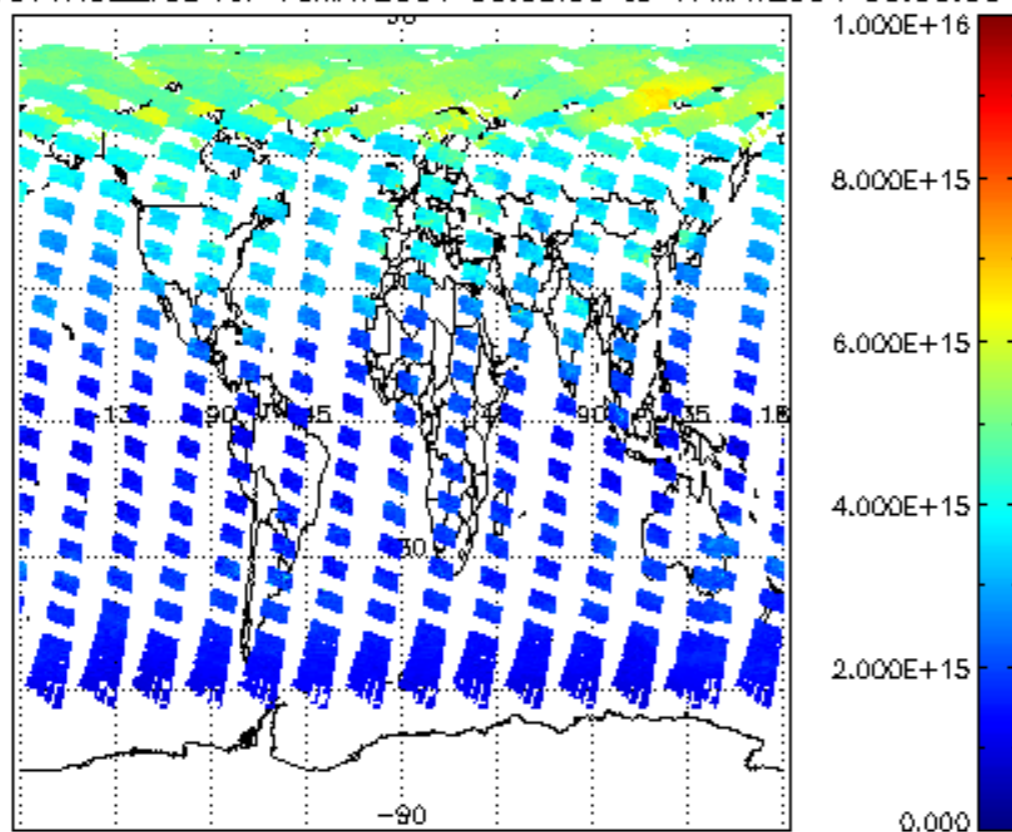


SCIOL2P\_NADUV003\_amf\_cl for 16MAY2004 00:00:00 to 17MAY2004 00:00:00

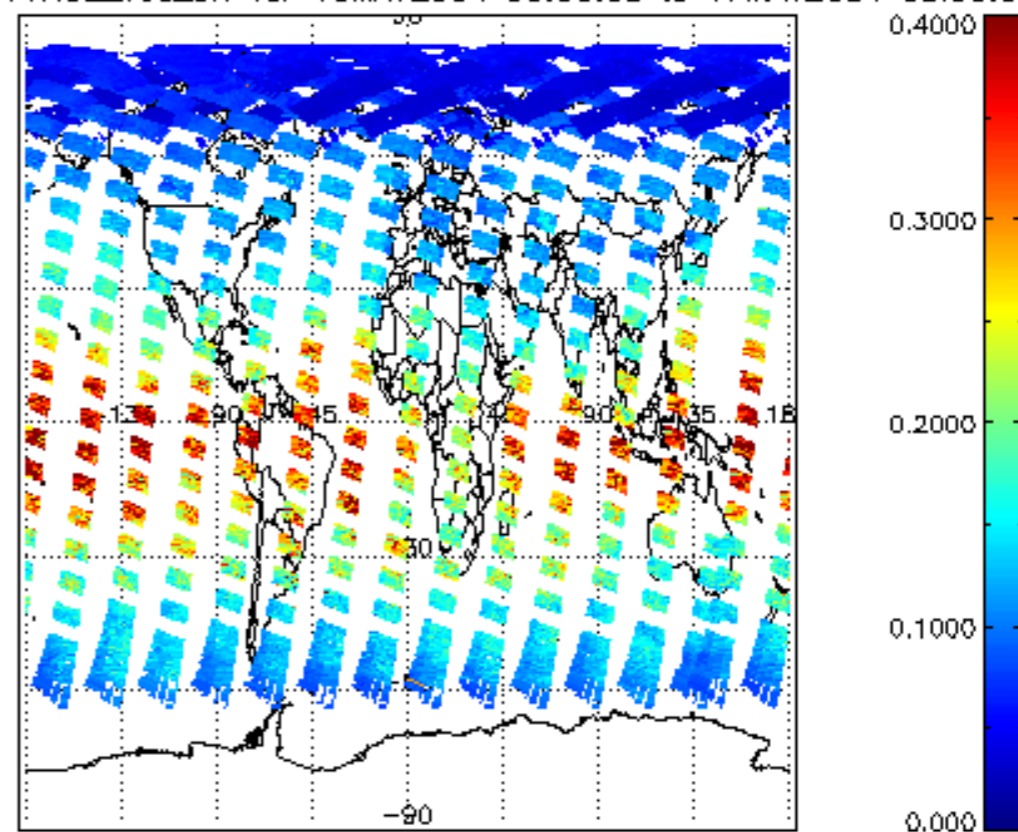




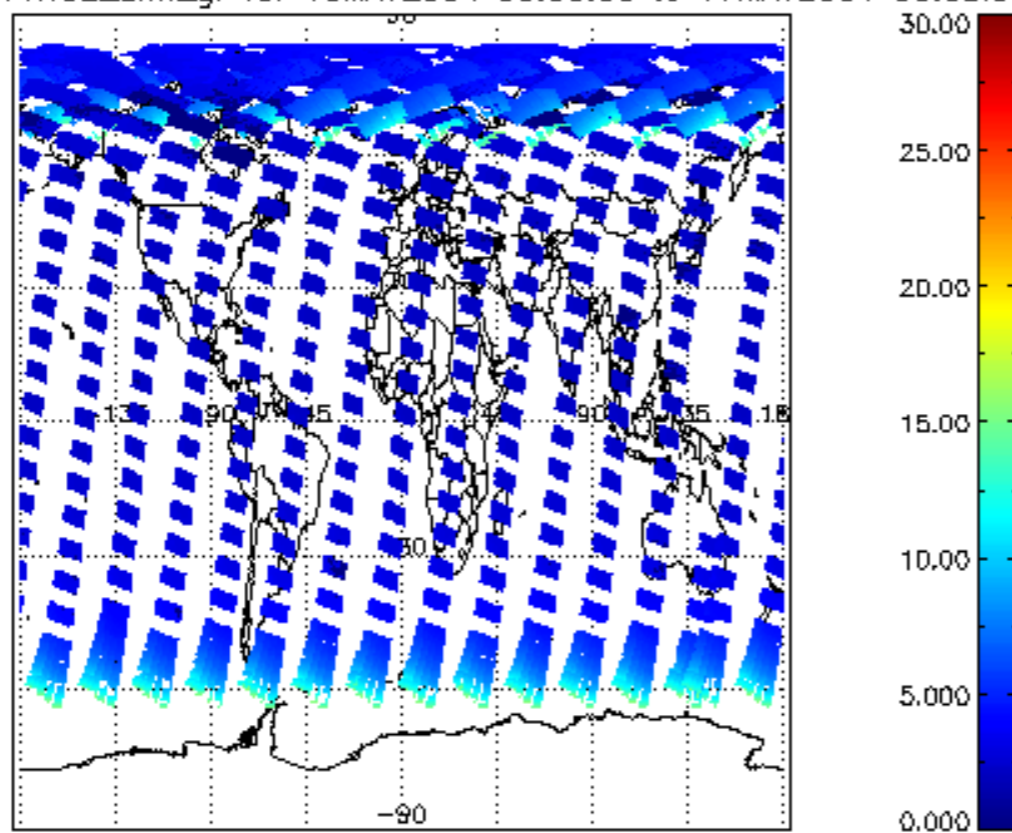
SCIOL2P\_NADUV1NO2\_vcd for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



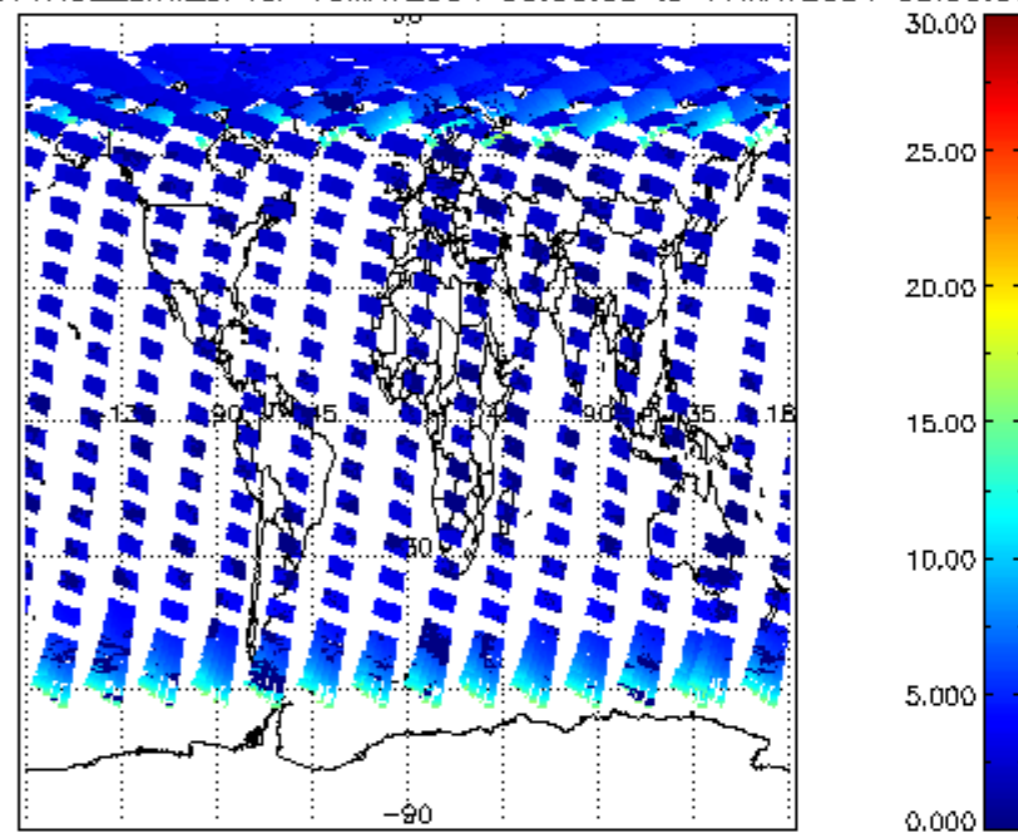
iCIOL2P\_NADUV1NO2\_vcd\_err for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



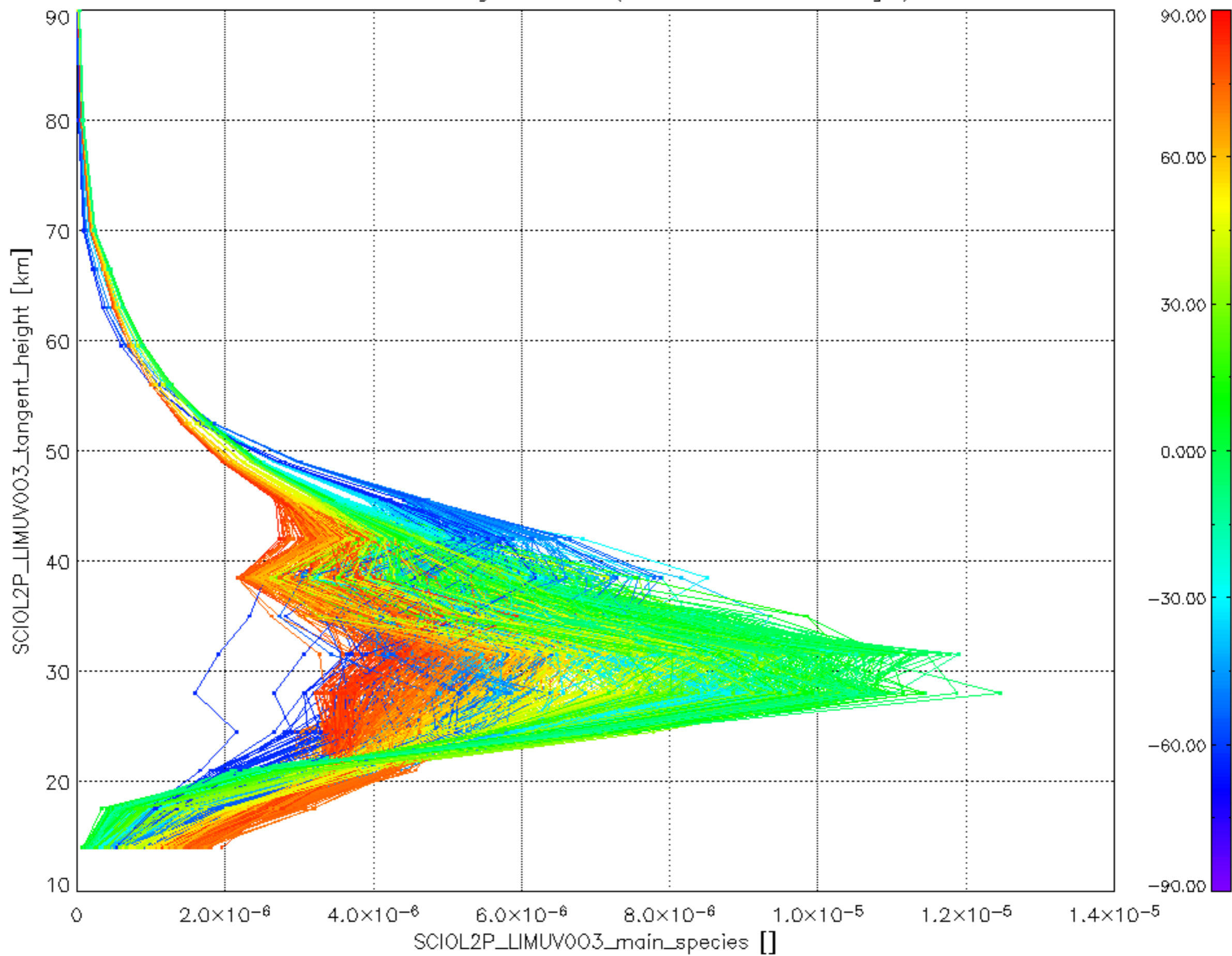
iCIOL2P\_NADUV1NO2\_amf\_gr for 16MAY2004 00:00:00 to 17MAY2004 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_cl for 16MAY2004 00:00:00 to 17MAY2004 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).

