

## 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	22AUG2008 18:01:04
Data source version	SCIA-OL/3.01-R
Processing scope for products	19JUN2004 00:00:00 to 20JUN2004 00:00:00
Start time of first product within scope	18JUN2004 23:46:36
Stop time of last product within scope	20JUN2004 00:10:24
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__2PRDPA20040618_234636_000033252027_00460_12037_8436.N1</a>	18JUN2004 23:46:36	19JUN2004 00:42:02	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20040619_012712_000033122027_00461_12038_8710.N1</a>	19JUN2004 01:27:12	19JUN2004 02:22:25	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20040619_062900_000033252027_00464_12041_8478.N1</a>	19JUN2004 06:29:00	19JUN2004 07:24:26	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20040619_080936_000033122027_00465_12042_8731.N1</a>	19JUN2004 08:09:36	19JUN2004 09:04:49	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20040619_095012_000033252027_00466_12043_8799.N1</a>	19JUN2004 09:50:12	19JUN2004 10:45:37	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20040619_113047_000033122027_00467_12044_8447.N1</a>	19JUN2004 11:30:47	19JUN2004 12:26:00	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20040619_131123_000033252027_00468_12045_8706.N1</a>	19JUN2004 13:11:23	19JUN2004 14:06:49	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20040619_145159_000033122027_00469_12046_8638.N1</a>	19JUN2004 14:51:59	19JUN2004 15:47:12	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20040619_163235_000033252027_00470_12047_8512.N1</a>	19JUN2004 16:32:35	19JUN2004 17:28:01	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20040619_181258_000033722027_00471_12048_8690.N1</a>	19JUN2004 18:12:58	19JUN2004 19:09:11	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20040619_231459_000033252027_00474_12051_8772.N1</a>	19JUN2004 23:14:59	20JUN2004 00:10:24	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: 106203

Total number of cloud data DSRs with good quality flag (=0): 106203 (100.0 %)

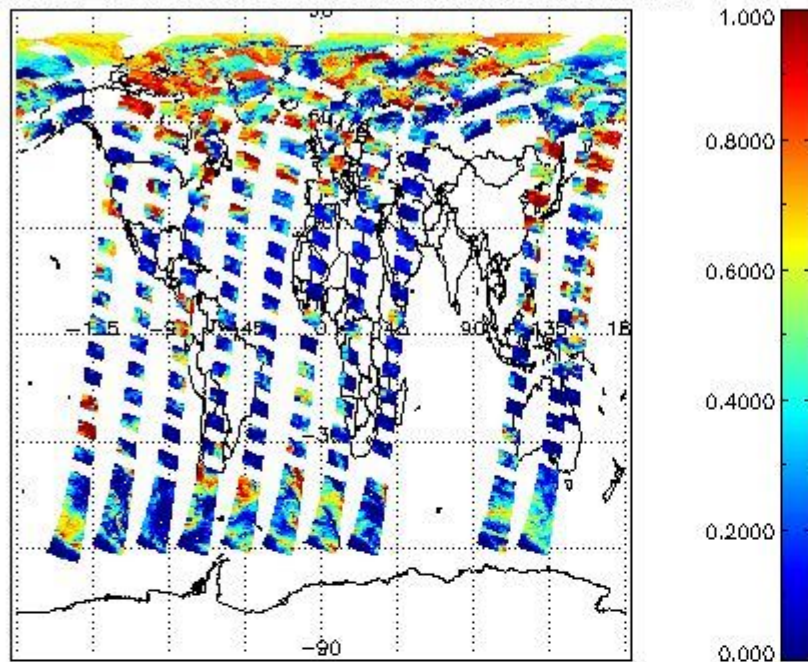
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	106203	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	106203	0.17350	0.12500	0.12500	0.25000	0.060912	s
CL_FRAC	106203	0.35789	0.30565	0.0000	1.0000	0.30562	-
CL_FRAC_ERR	106203	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	106203	5.5520	4.0000	4.0000	8.0000	1.9492	
PMD_READ_CL[0]	106203	0.34171	0.0000	0.0000	8.0000	1.3708	-
PMD_READ_CL[1]	106203	1.1972	0.0000	0.0000	8.0000	2.1880	-
CL_TOP_HEIGHT	94064	3.6634	1.6010	0.0000	17.000	4.0669	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	94064	57.974	65.359	0.0000	101.00	43.694	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	106203	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	106203	11001011	11000100	11000000	11100000	3392.0	flags
AERO_ABSO_IND	106203	0.20313	0.0000	-5.0378	7.9994	0.95451	
AERO_IND_DIAG	106203	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	106203	01011100	00000000	00000000	11000000	24559.	flags

### Time and geolocation plots:

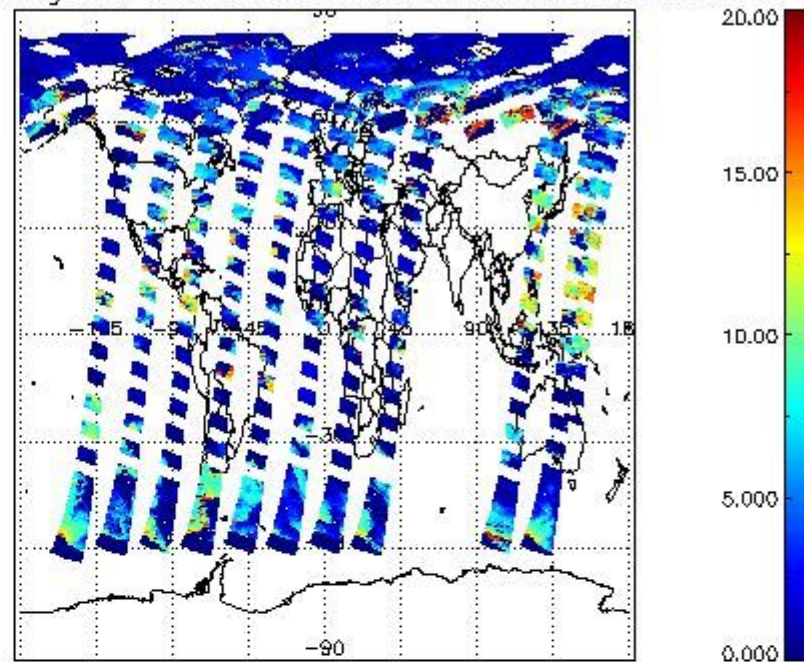
Plots are available for the following parameters:

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

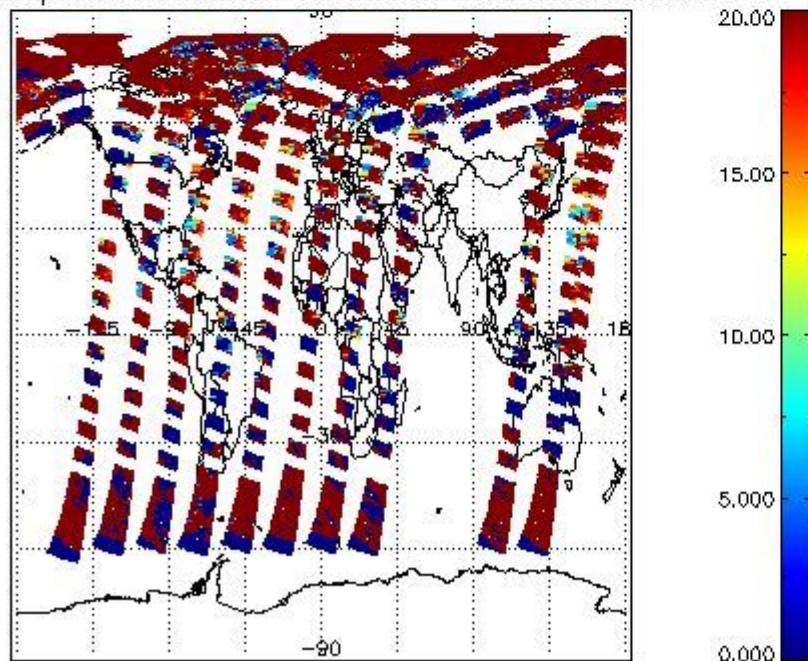
cL\_frac for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



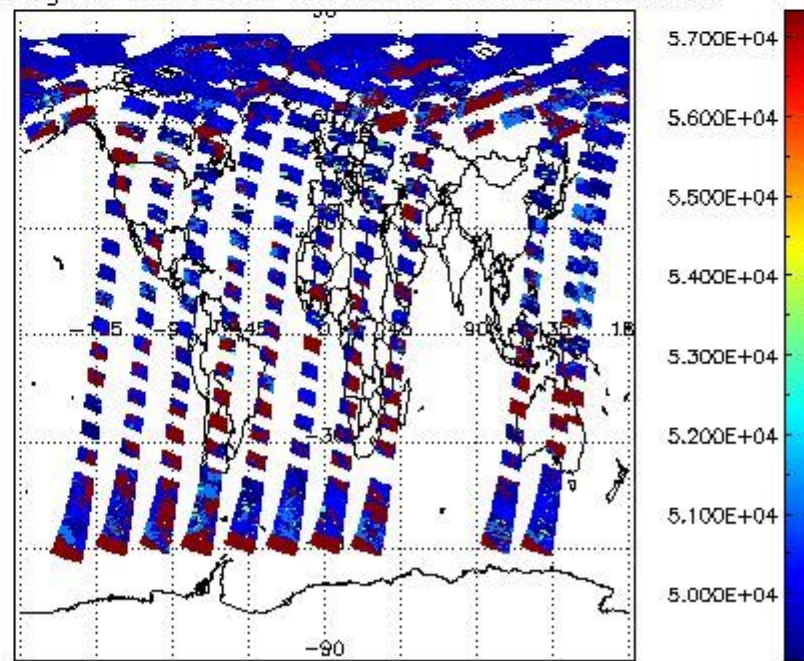
cL\_top\_height for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



cL\_opt\_depth for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



cloud\_flags for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



## 2.2.2 Nadir

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

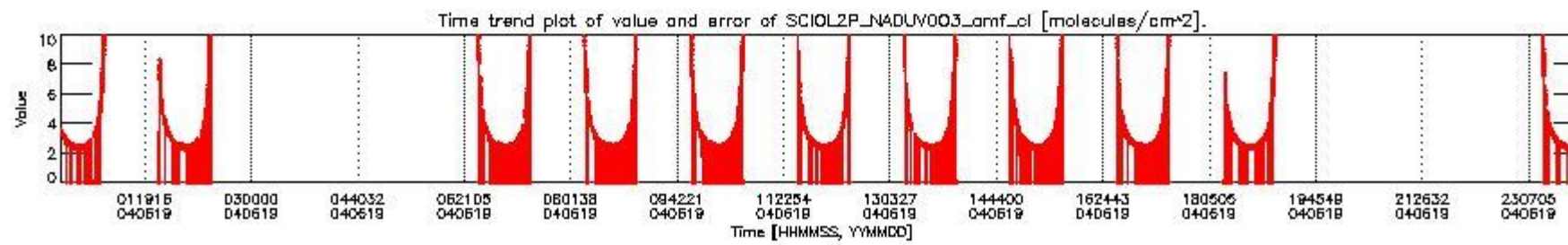
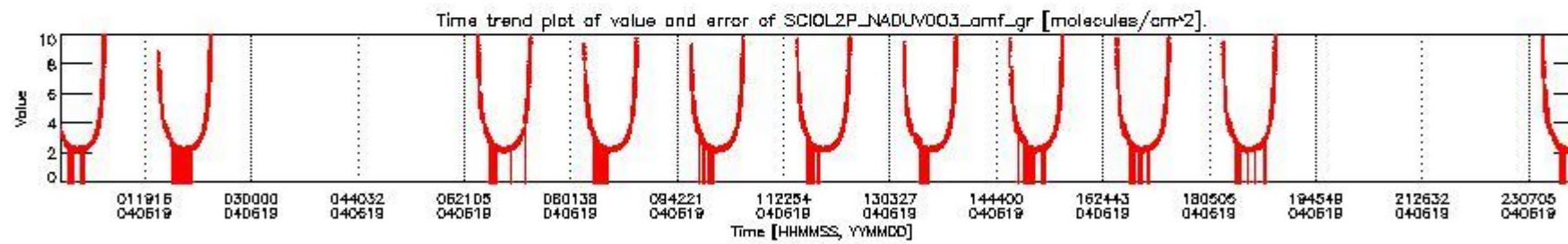
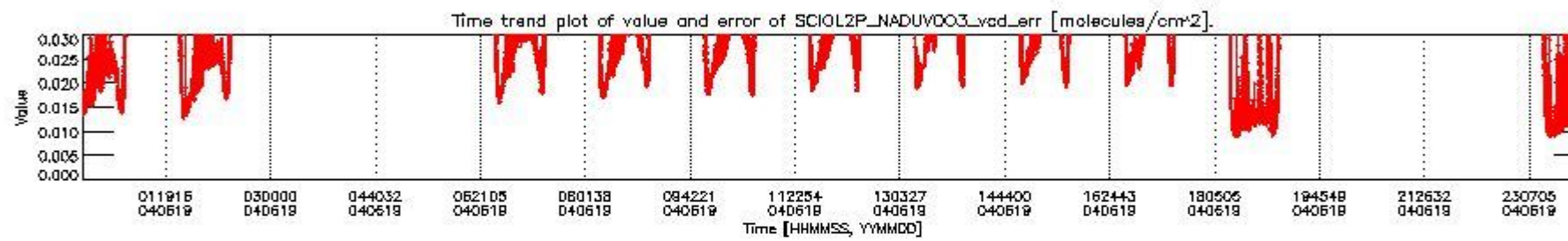
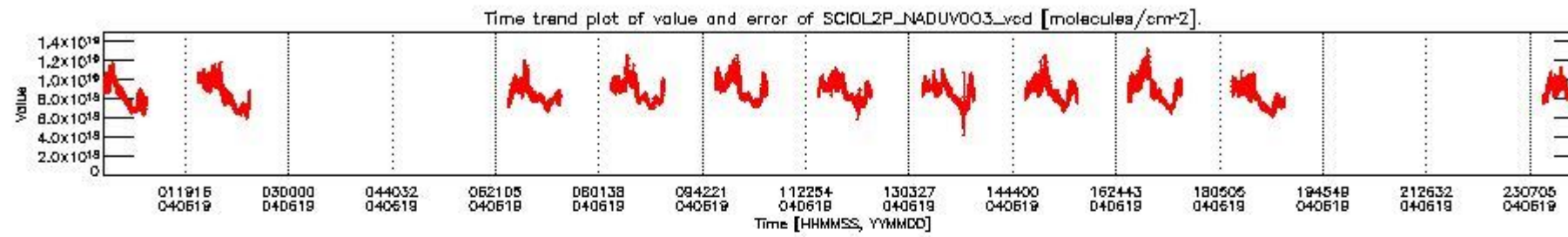
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



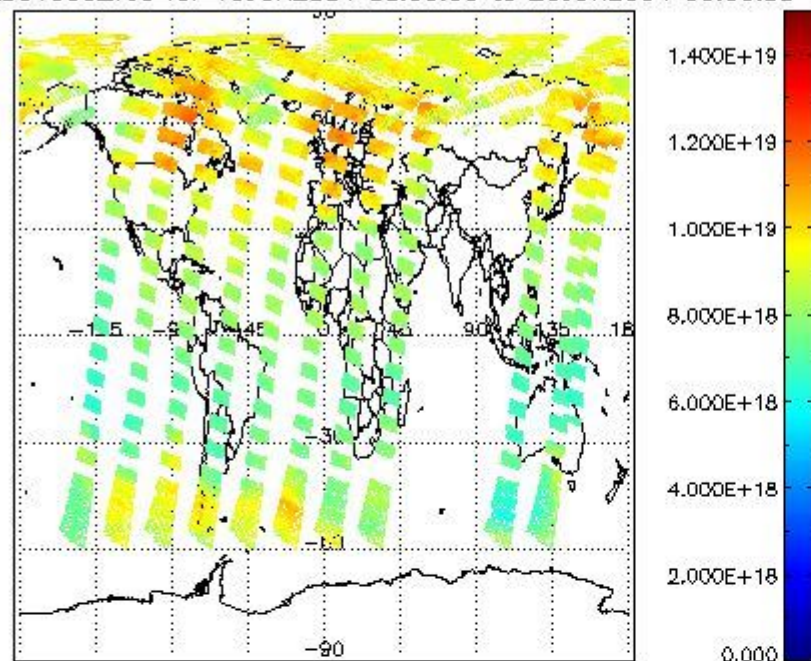
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

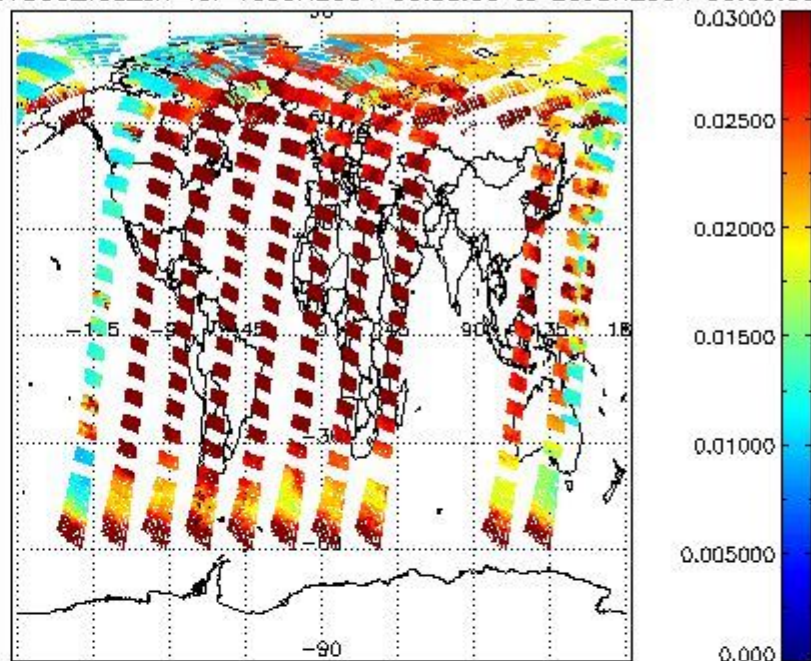




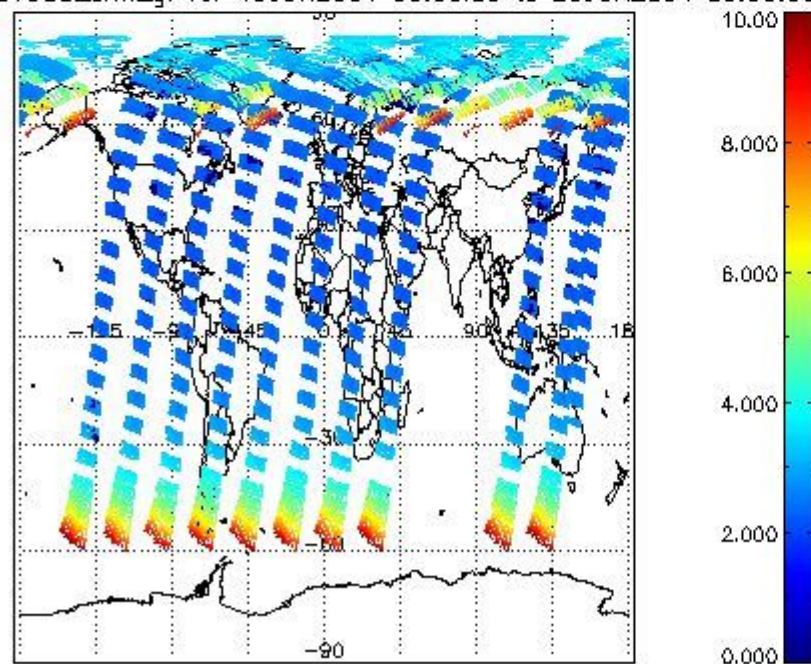
SCIOL2P\_NADUV003\_vcd for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



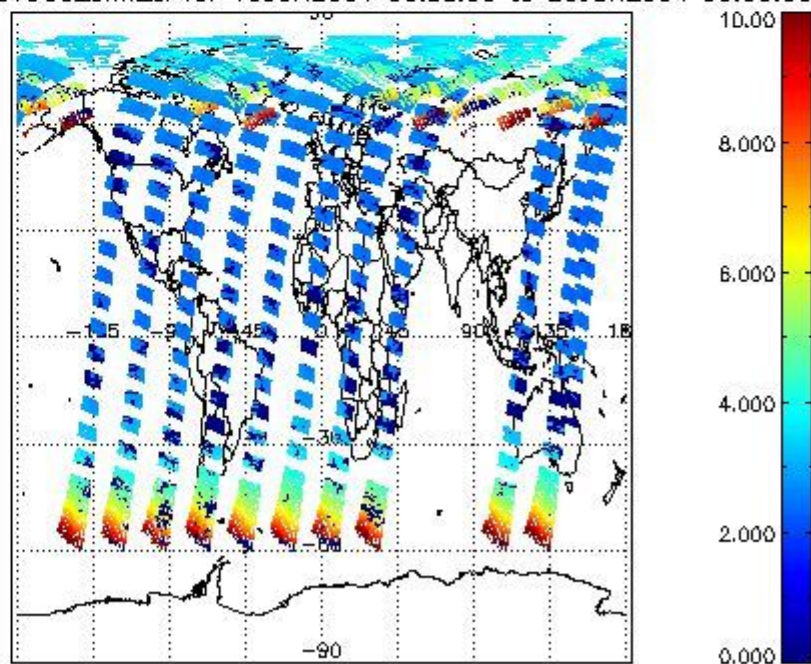
SCIOL2P\_NADUV003\_vcd\_err for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



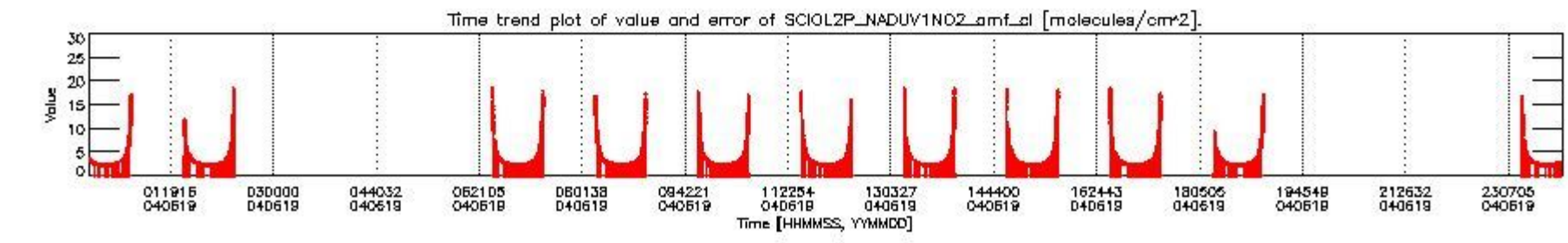
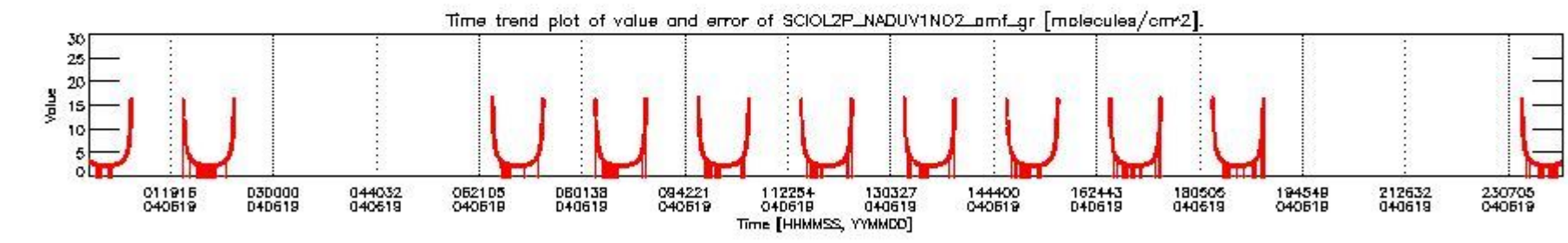
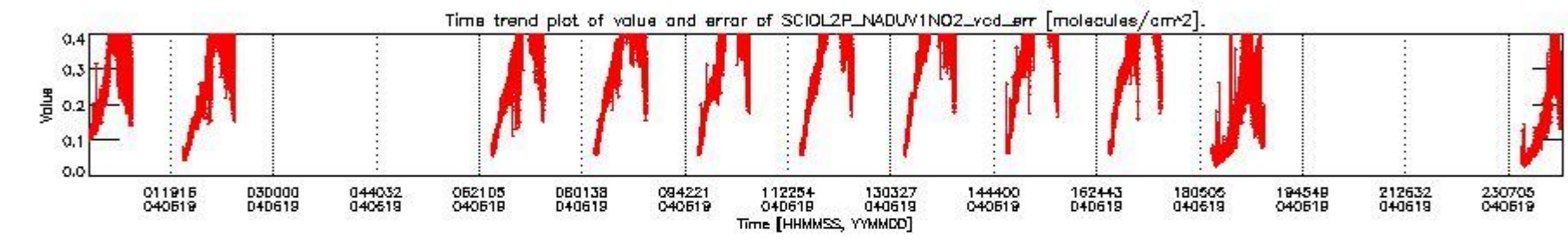
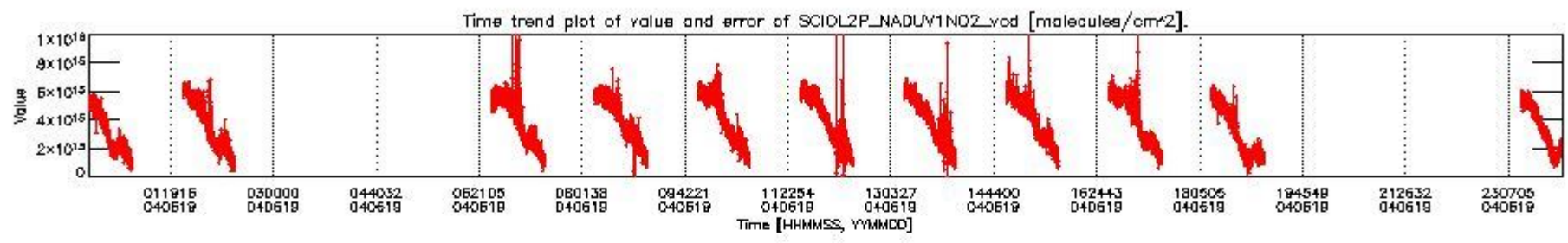
SCIOL2P\_NADUV003\_amf\_gr for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



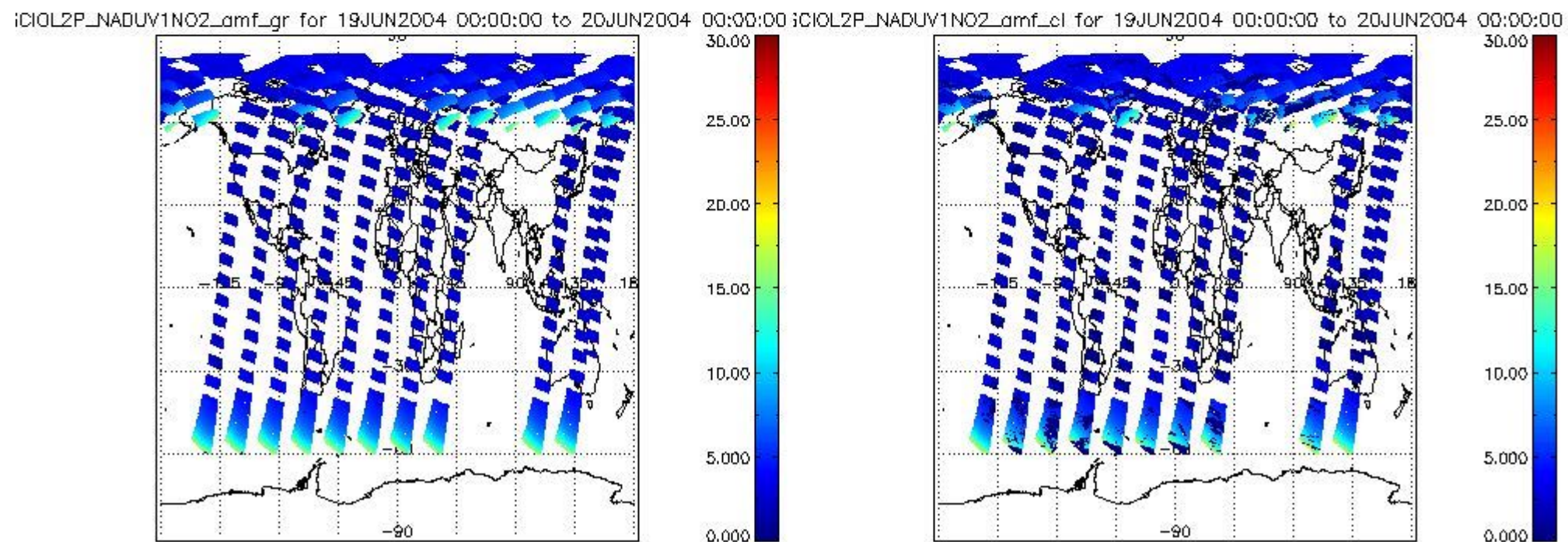
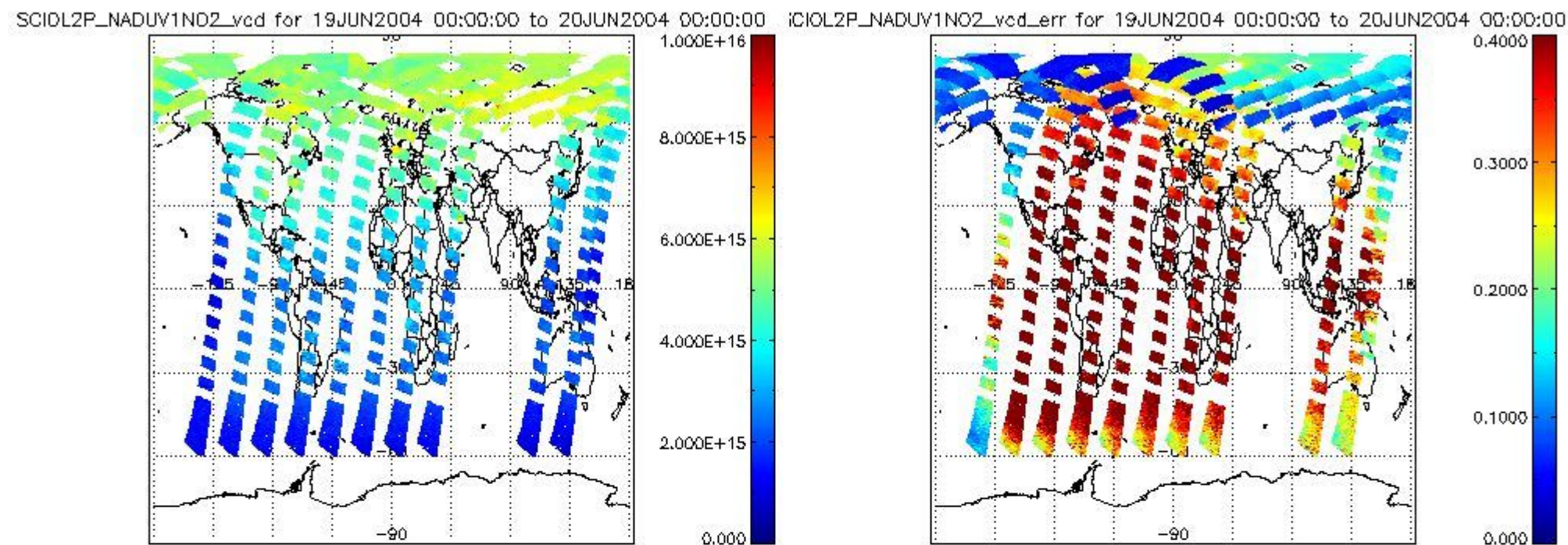
SCIOL2P\_NADUV003\_amf\_sl for 19JUN2004 00:00:00 to 20JUN2004 00:00:00











### 2.2.3 Limb

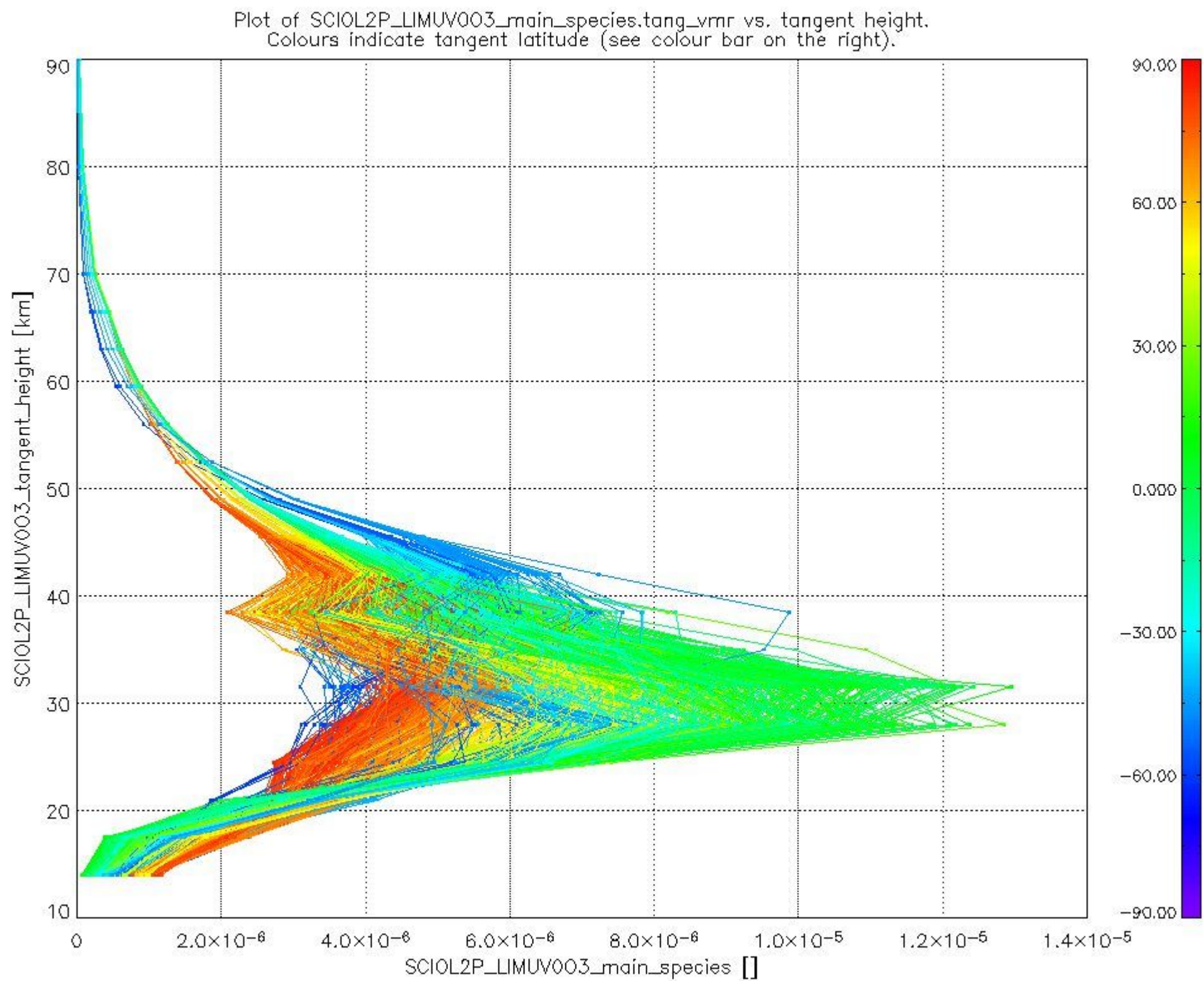
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

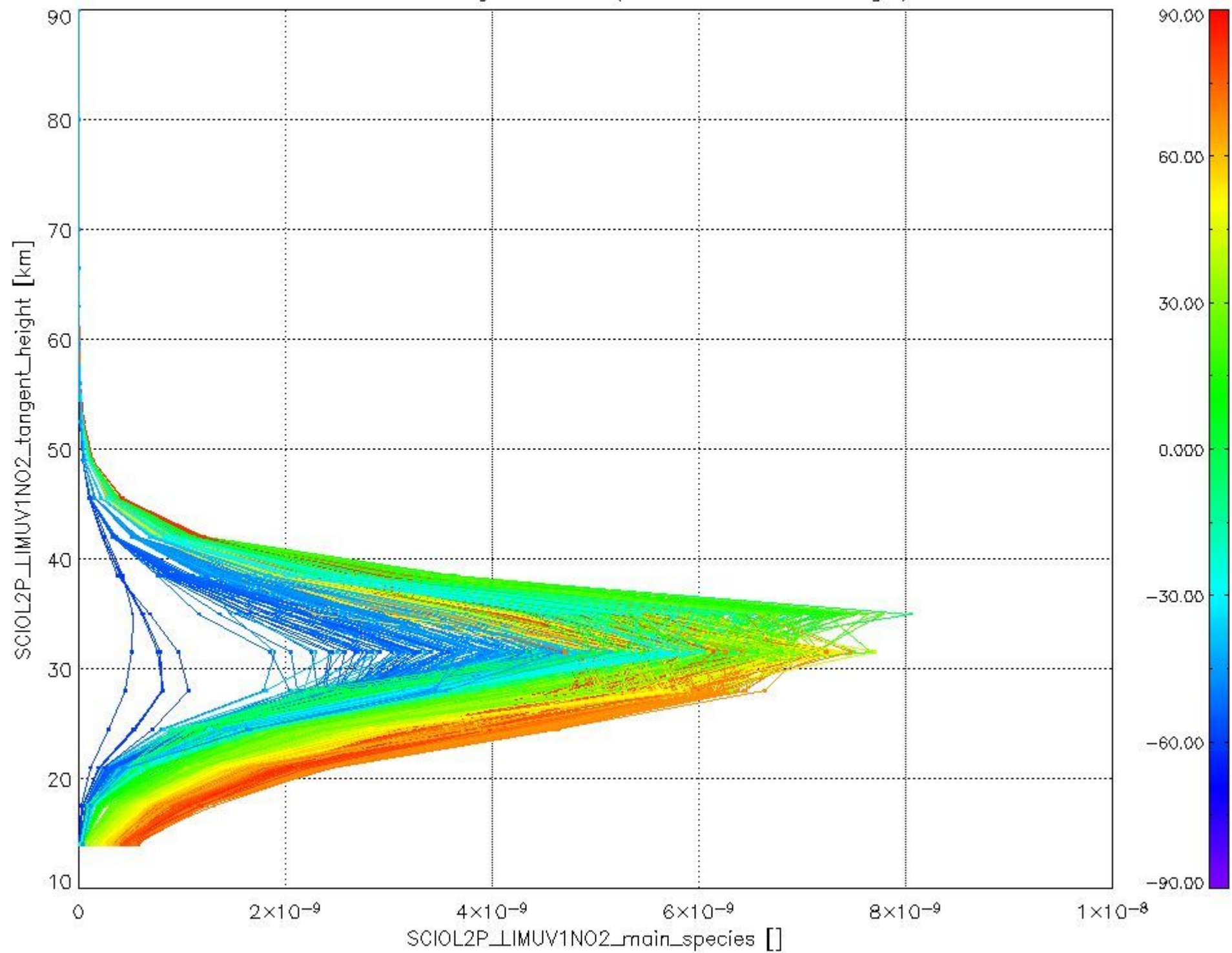


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





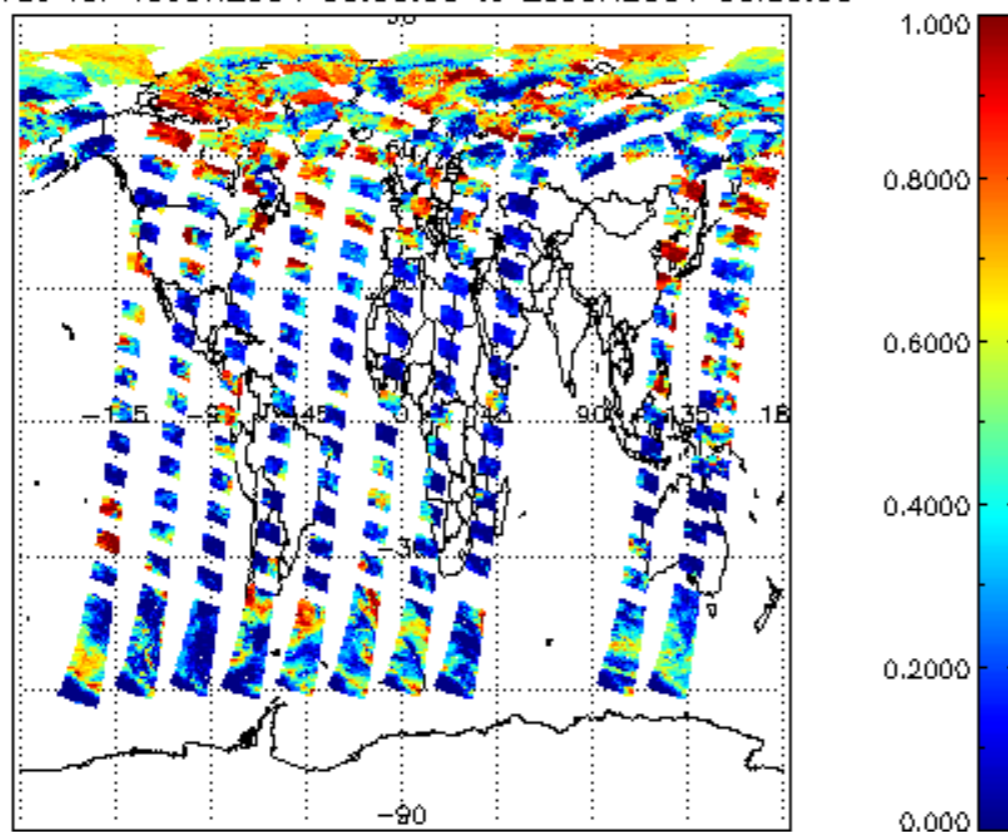
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



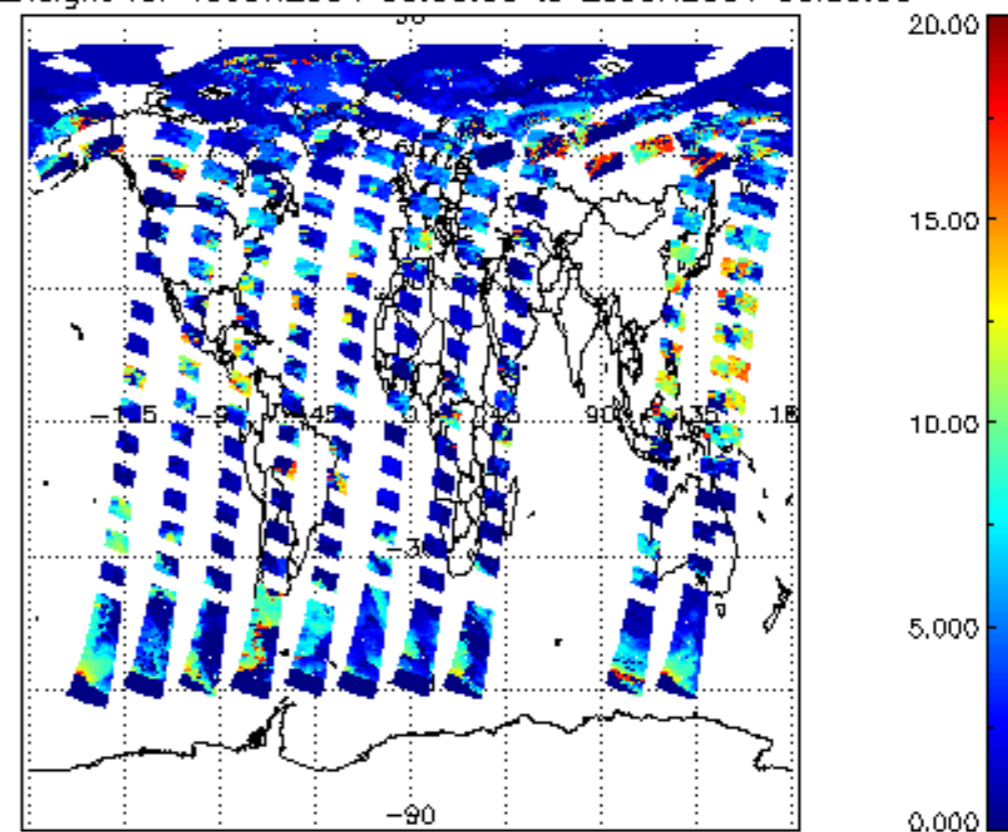
### 2.3 ADF monitoring

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

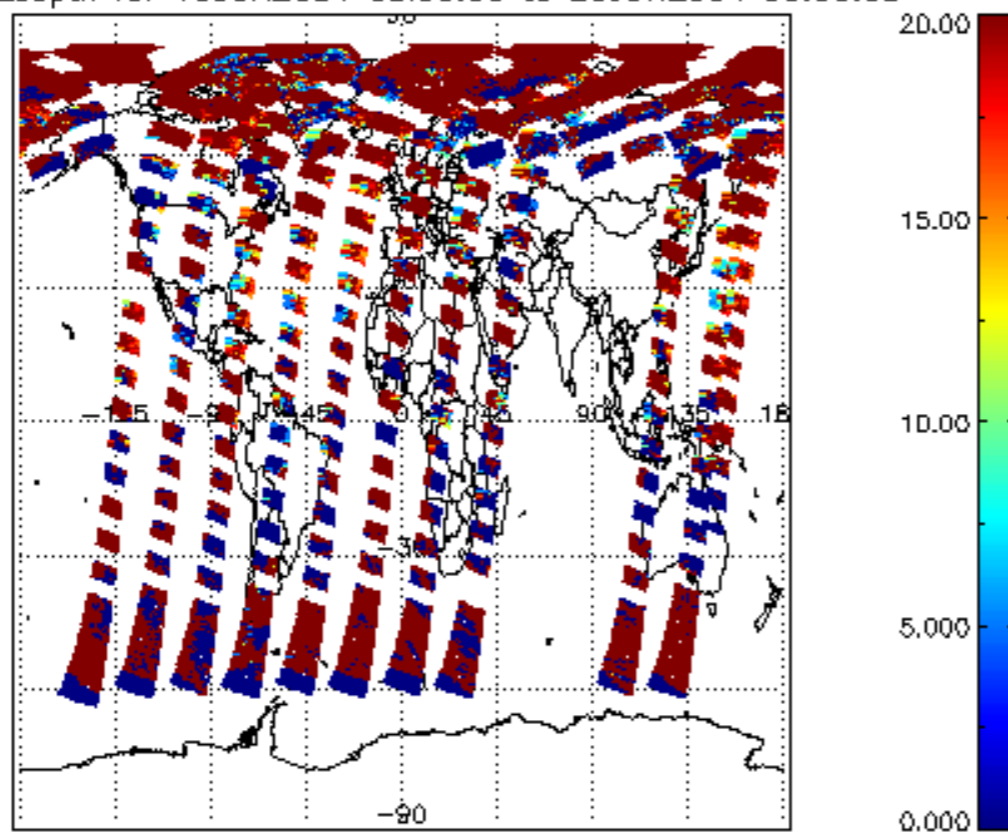
cl\_frac for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



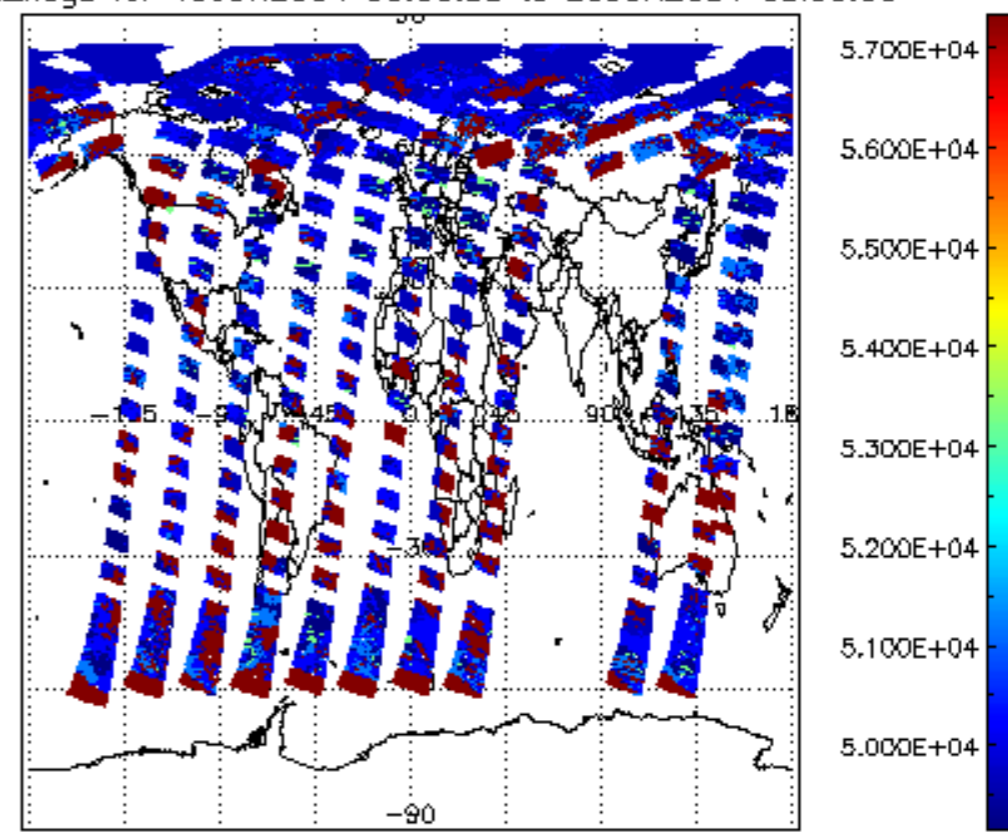
cl\_top\_height for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



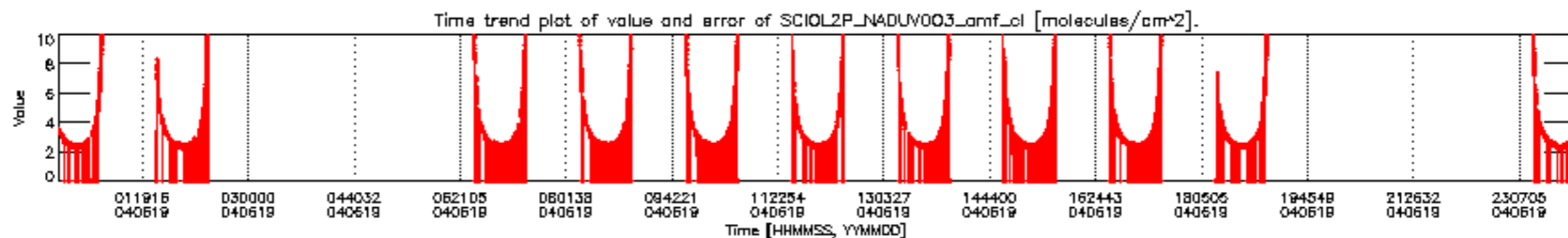
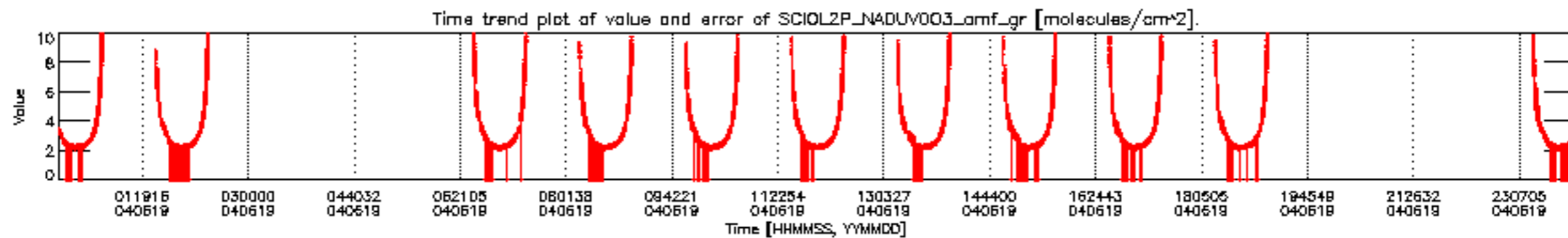
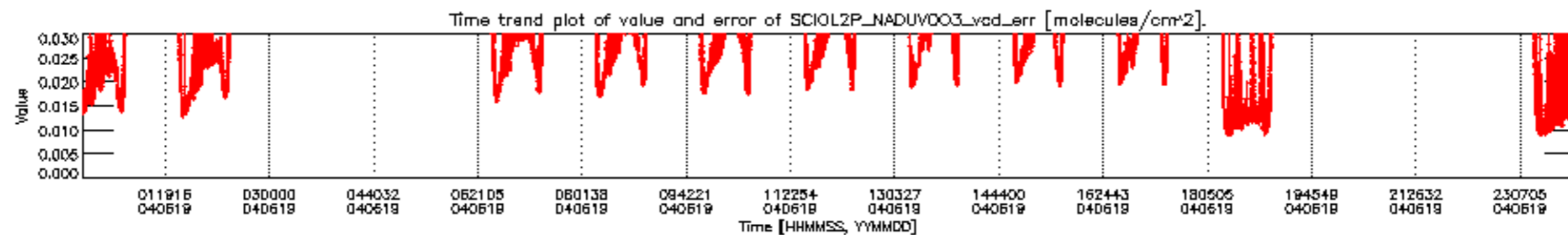
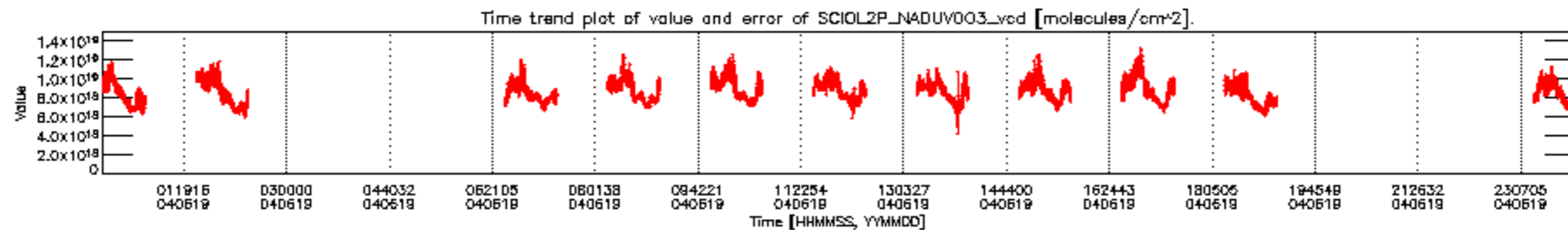
cl\_opt\_depth for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



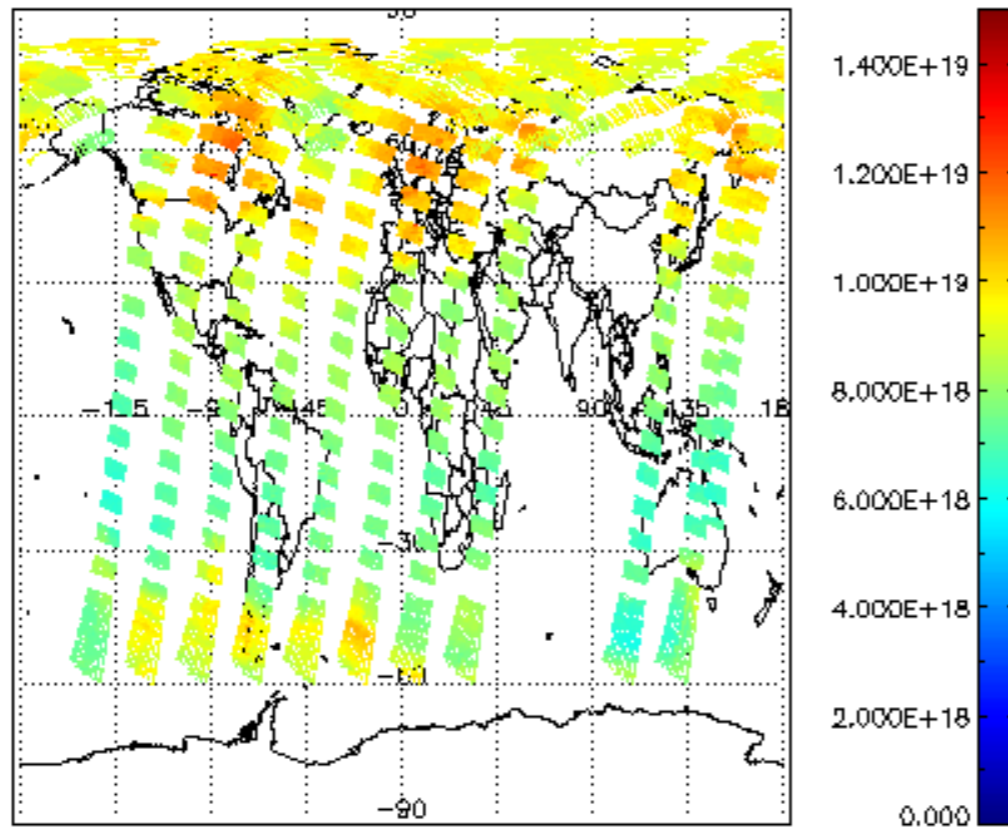
cloud\_flags for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



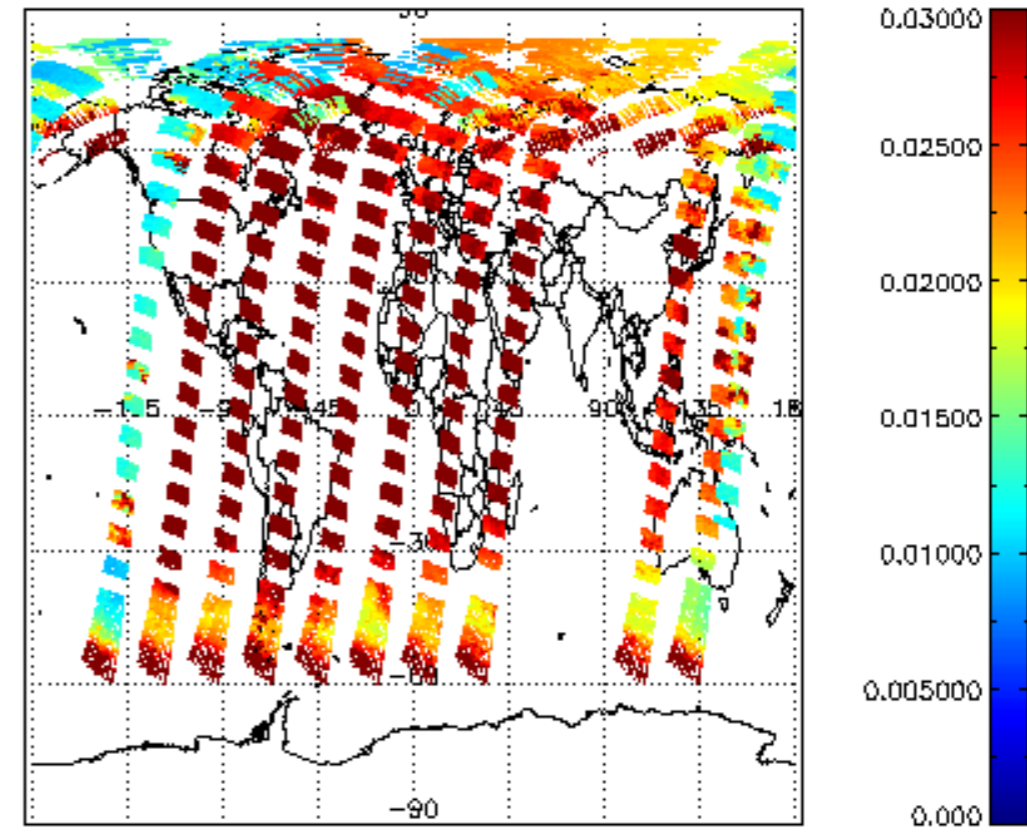




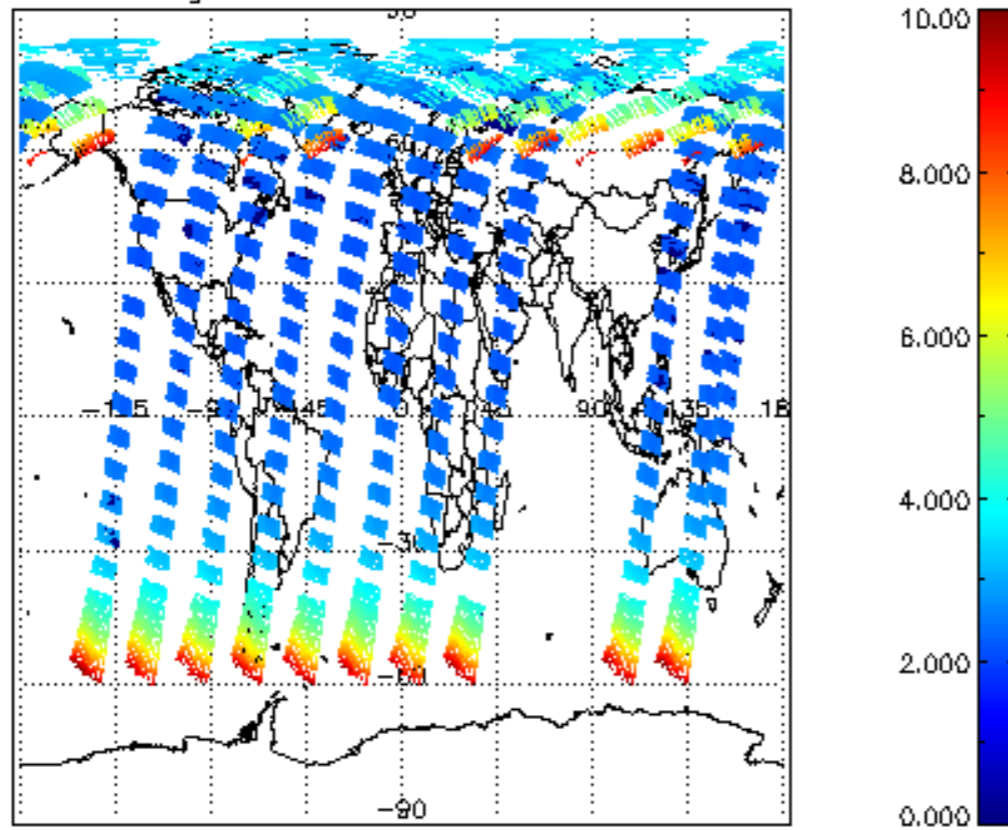
SCIOL2P\_NADUV003\_vcd for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



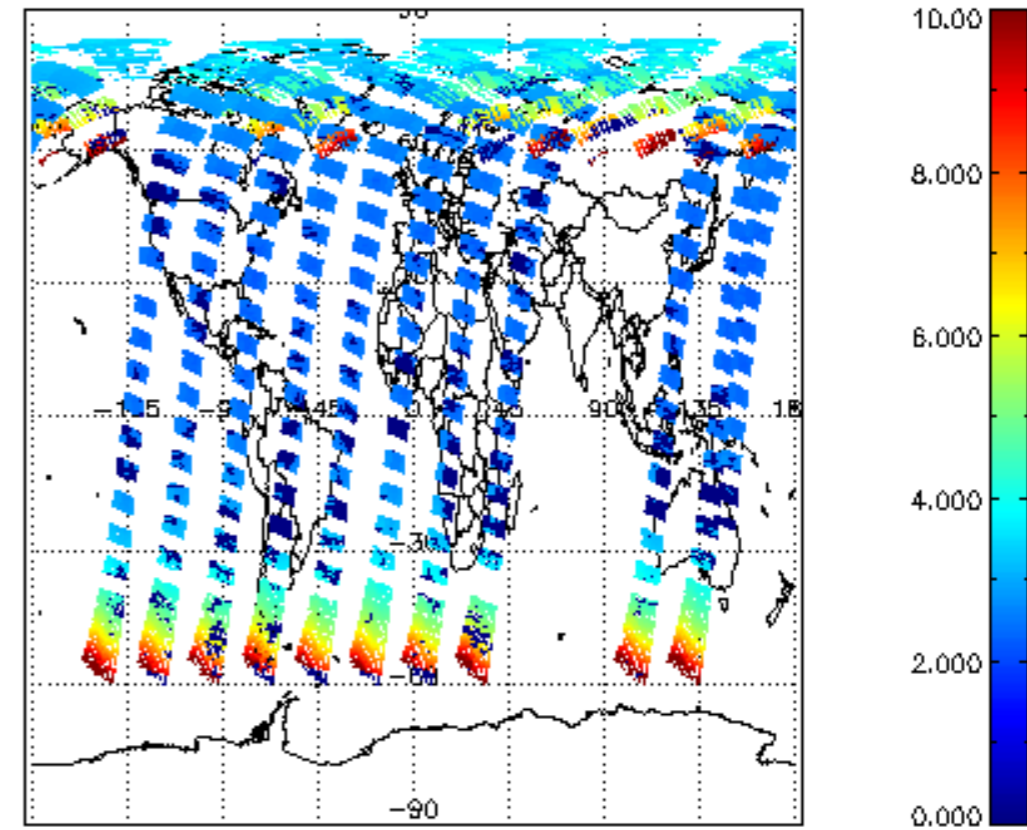
SCIOL2P\_NADUV003\_vcd\_err for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



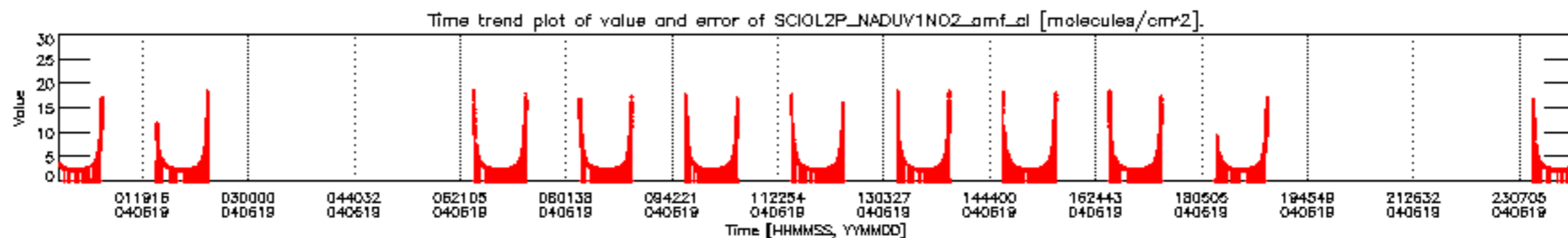
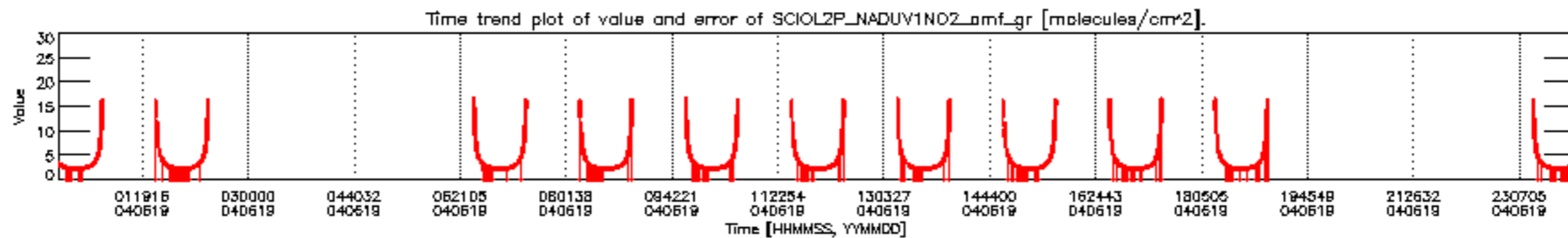
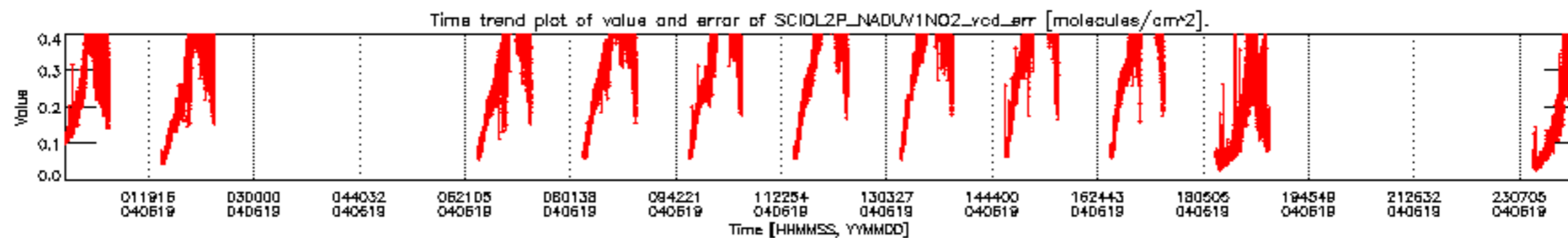
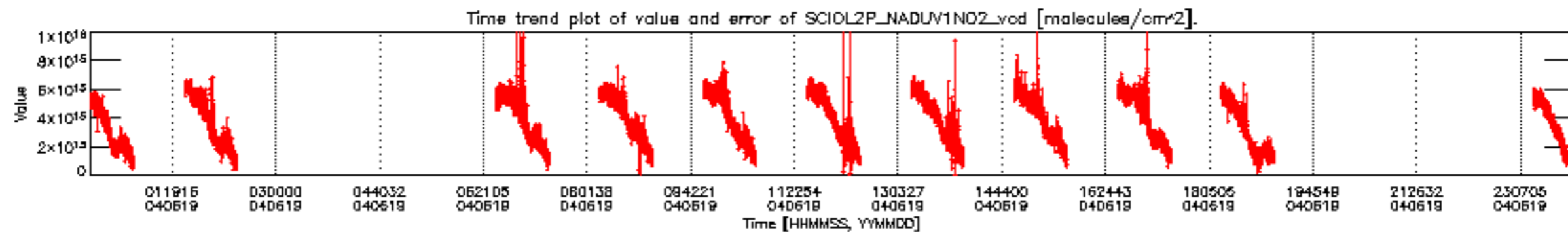
SCIOL2P\_NADUV003\_amf\_gr for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



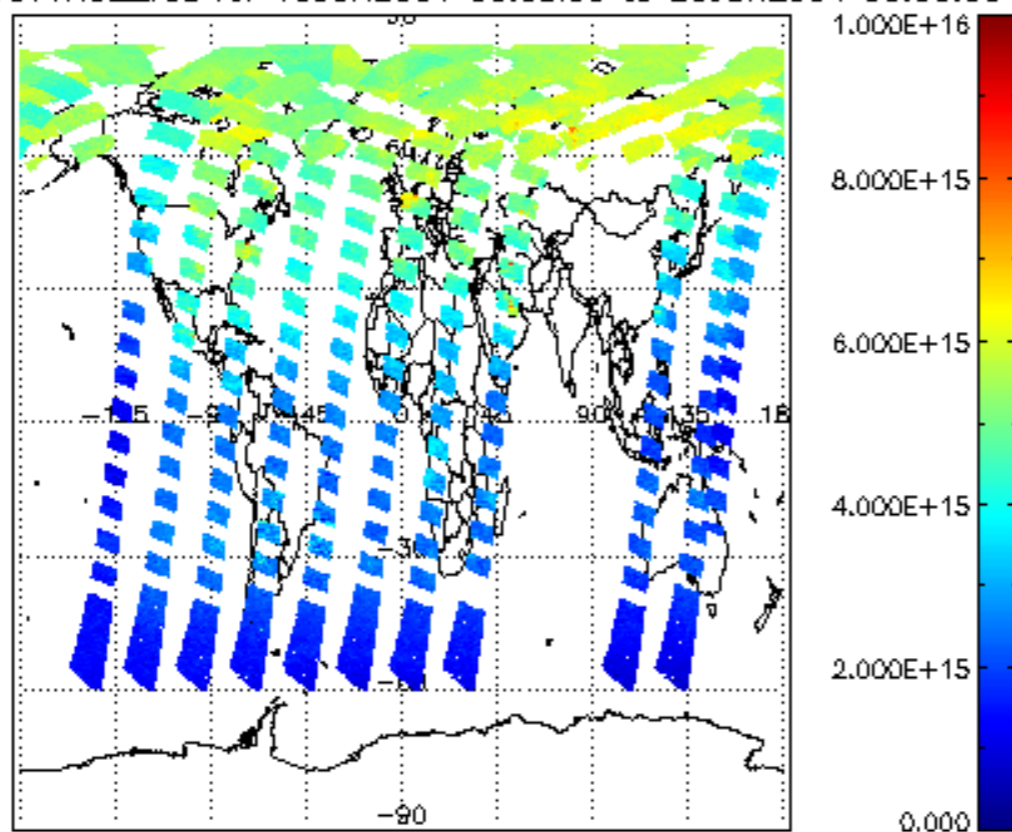
SCIOL2P\_NADUV003\_amf\_cl for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



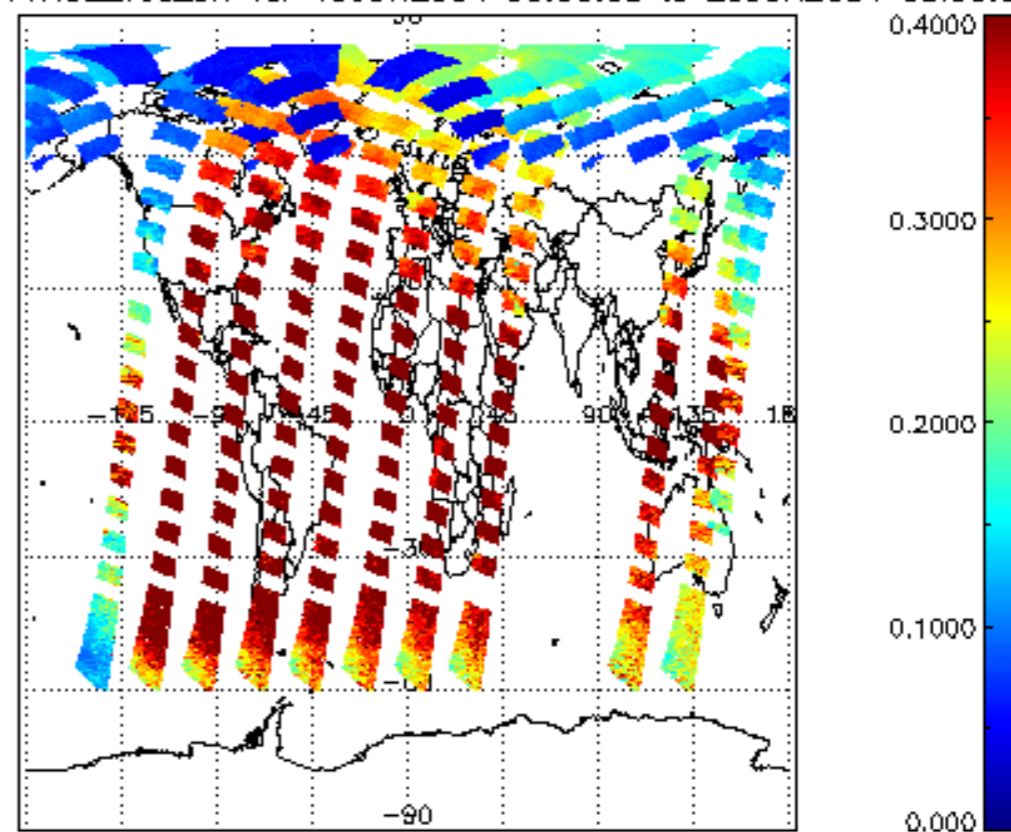




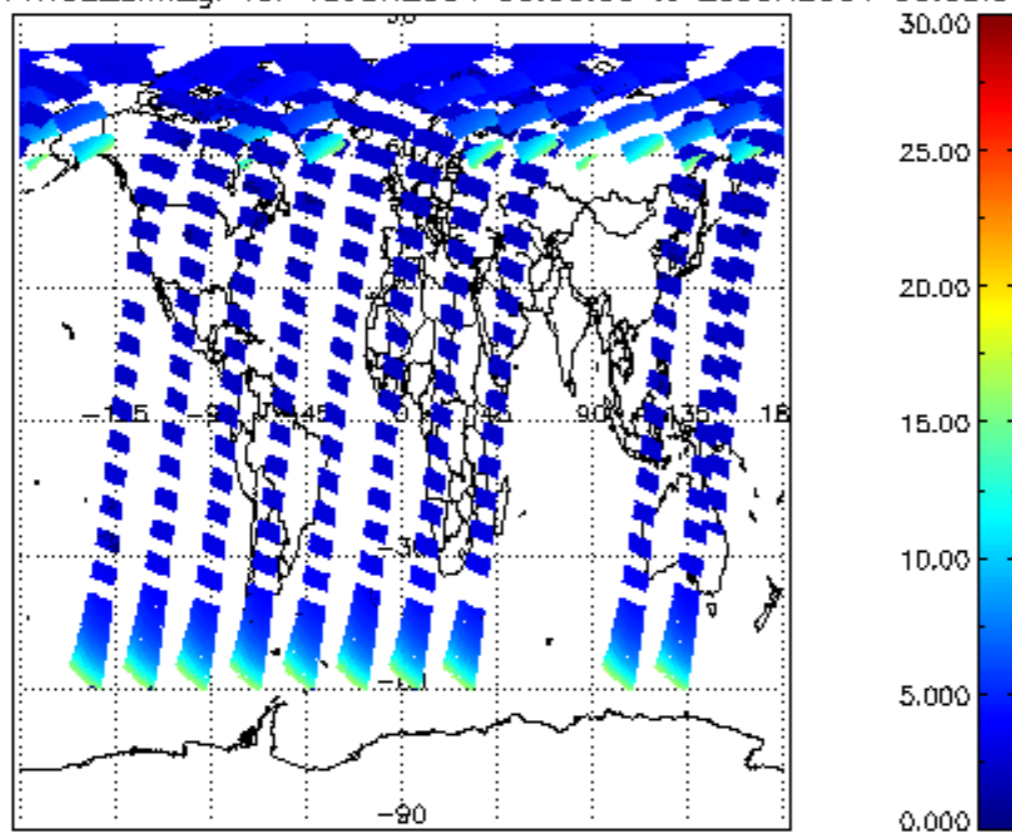
SCIOL2P\_NADUV1NO2\_vcd for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



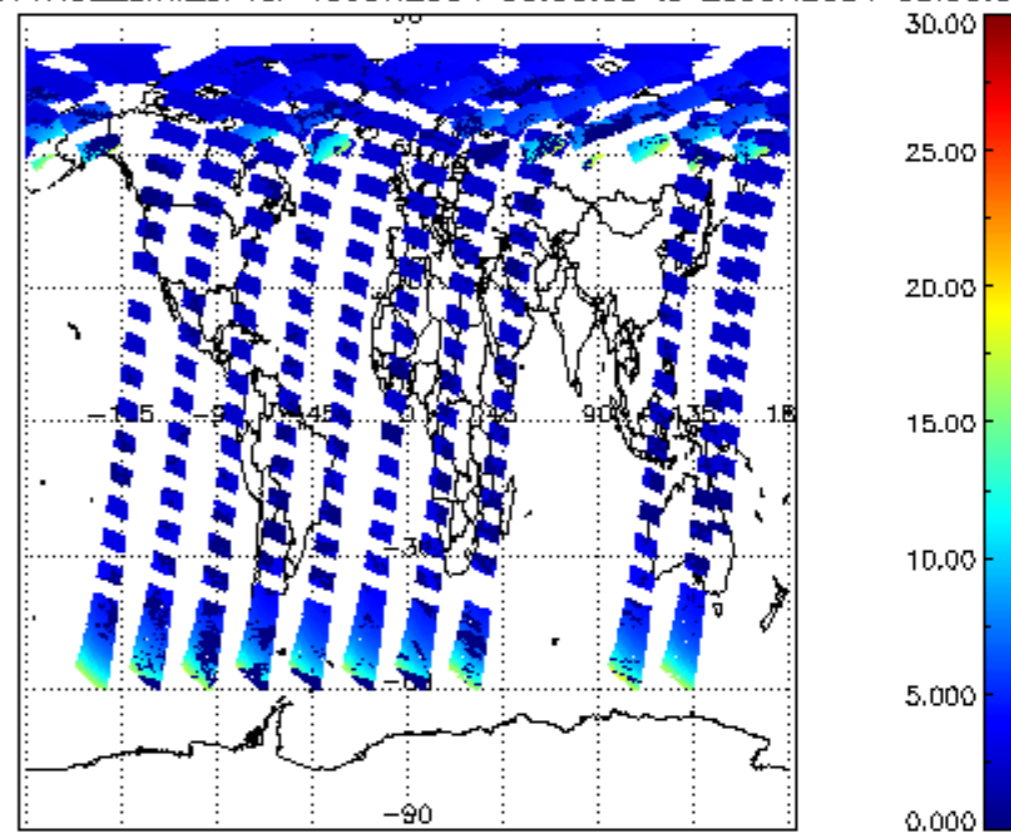
iCIOL2P\_NADUV1NO2\_vcd\_err for 19JUN2004 00:00:00 to 20JUN2004 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_gr for 19JUN2004 00:00:00 to 20JUN2004 00:00:00

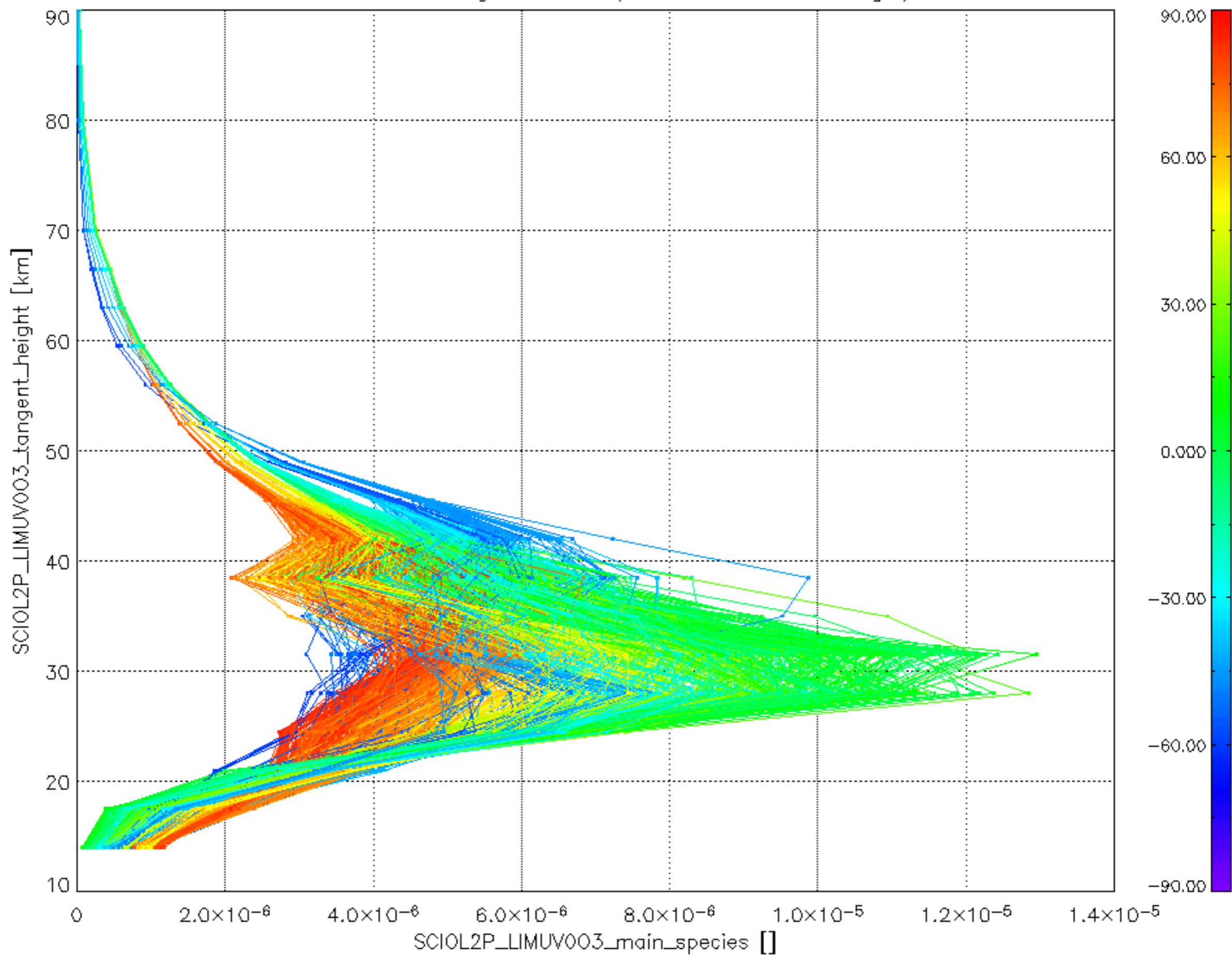


iCIOL2P\_NADUV1NO2\_amf\_cl for 19JUN2004 00:00:00 to 20JUN2004 00:00:00





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).

