

## 2. SCIAMACHY Daily Report for level 2 products

### [2.1. General Info](#)

### [2.2 Product Quality Indicators](#)

### [2.3 ADF monitoring](#)

#### 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	1.4 (06-11-2007)
Time of report generation	04APR2008 06:03:30
Data source version	SCIA-OL/3.01-R
Processing scope for products	12MAR2008 00:00:00 to 13MAR2008 00:00:00
Start time of first product within scope	11MAR2008 23:49:55
Stop time of last product within scope	13MAR2008 00:12:41
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.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	SCI_OL__2PRDPA20080311_234955_000032692066_00417_31533_4492.N1	11MAR2008 23:49:55	12MAR2008 00:44:25	0	GOOD
1	SCI_OL__2PRDPA20080312_012922_000033252066_00418_31534_4494.N1	12MAR2008 01:29:22	12MAR2008 02:24:47	0	GOOD
2	SCI_OL__2PRDPA20080312_031106_000032692066_00419_31535_4498.N1	12MAR2008 03:11:06	12MAR2008 04:05:35	0	GOOD
3	SCI_OL__2PRDPA20080312_045033_000033252066_00420_31536_4499.N1	12MAR2008 04:50:33	12MAR2008 05:45:58	0	GOOD
4	SCI_OL__2PRDPA20080312_063217_000032692066_00421_31537_4501.N1	12MAR2008 06:32:17	12MAR2008 07:26:47	0	GOOD
5	SCI_OL__2PRDPA20080312_081144_000033252066_00422_31538_4503.N1	12MAR2008 08:11:44	12MAR2008 09:07:09	0	GOOD
6	SCI_OL__2PRDPA20080312_095328_000032692066_00423_31539_4546.N1	12MAR2008 09:53:28	12MAR2008 10:47:57	0	GOOD
7	SCI_OL__2PRDPA20080312_113255_000033252066_00424_31540_4555.N1	12MAR2008 11:32:55	12MAR2008 12:28:20	0	GOOD
8	SCI_OL__2PRDPA20080312_131439_000032692066_00425_31541_4558.N1	12MAR2008 13:14:39	12MAR2008 14:09:08	0	GOOD
9	SCI_OL__2PRDPA20080312_145405_000033252066_00426_31542_4567.N1	12MAR2008 14:54:05	12MAR2008 15:49:31	0	GOOD
10	SCI_OL__2PRDPA20080312_163550_000032692066_00427_31543_4570.N1	12MAR2008 16:35:50	12MAR2008 17:30:19	0	GOOD
11	SCI_OL__2PRDPA20080312_181446_000033812066_00428_31544_4572.N1	12MAR2008 18:14:46	12MAR2008 19:11:08	0	GOOD
12	SCI_OL__2PRDPA20080312_195522_000033252066_00429_31545_4628.N1	12MAR2008 19:55:22	12MAR2008 20:50:47	0	GOOD
13	SCI_OL__2PRDPA20080312_213627_000033252066_00430_31546_4576.N1	12MAR2008 21:36:27	12MAR2008 22:31:53	0	GOOD
14	SCI_OL__2PRDPA20080312_231811_000032692066_00431_31547_4577.N1	12MAR2008 23:18:11	13MAR2008 00:12:41	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: 144933

Total number of cloud data DSRs with good quality flag (=0): 144933 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	144933	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	144933	0.17366	0.12500	0.12500	0.25000	0.060949	s
SURFACE_PRES	144933	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	144933	0.39461	0.35586	0.0000	1.0000	0.29065	-

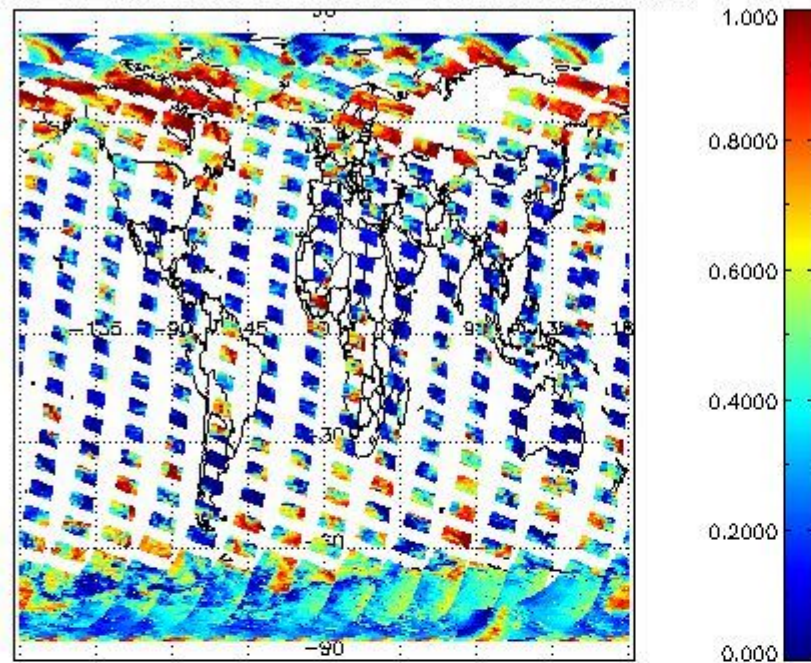
CL_FRAC_ERR	144933	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	144933	5.5571	4.0000	4.0000	8.0000	1.9504	
PMD_READ_CL[0]	144933	0.24024	0.0000	0.0000	8.0000	1.0713	-
PMD_READ_CL[1]	144933	0.84039	0.0000	0.0000	8.0000	2.0462	-
CL_TOP_HEIGHT	120098	3.8254	2.1045	0.0000	17.000	3.9634	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	120098	57.655	53.572	0.0000	101.00	40.397	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	144933	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	144933	11001010	11000100	11000000	11100000	3258.5	flags
AERO_ABSO_IND	144933	2.9288	3.4153	-1.6792	13.957	1.9655	
AERO_IND_DIAG	144933	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	144933	01011011	00000000	00000000	11000000	24554.	flags

Time and geolocation plots:

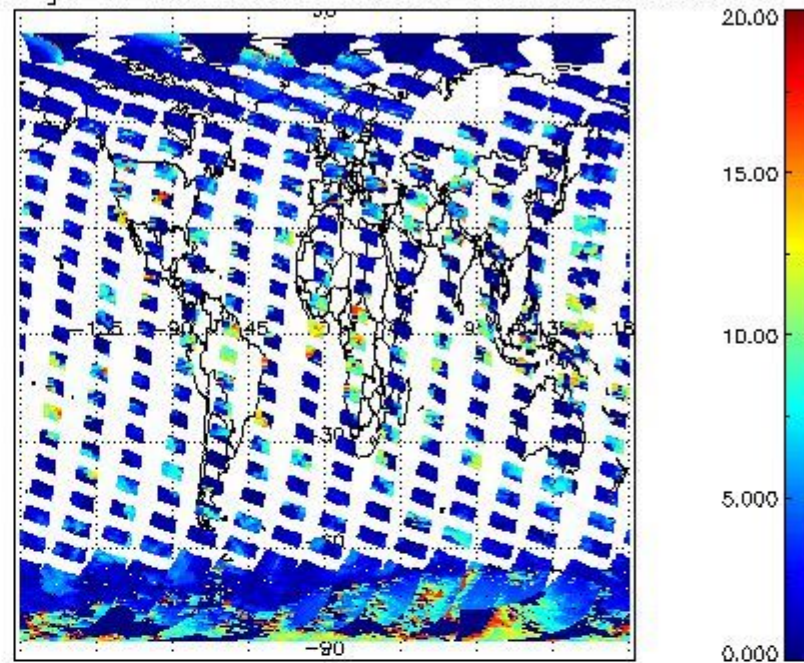
Plots are available for the following parameters:

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

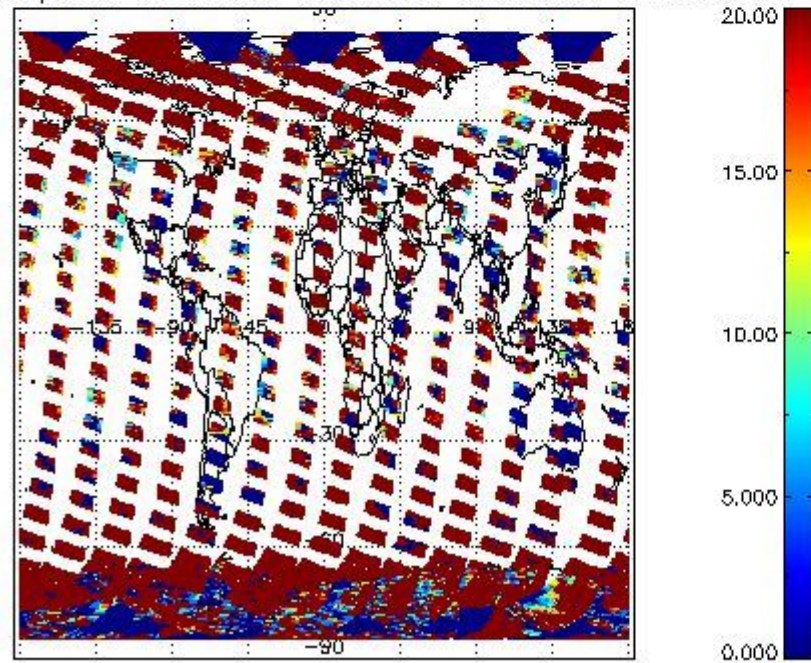
cLfrac for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



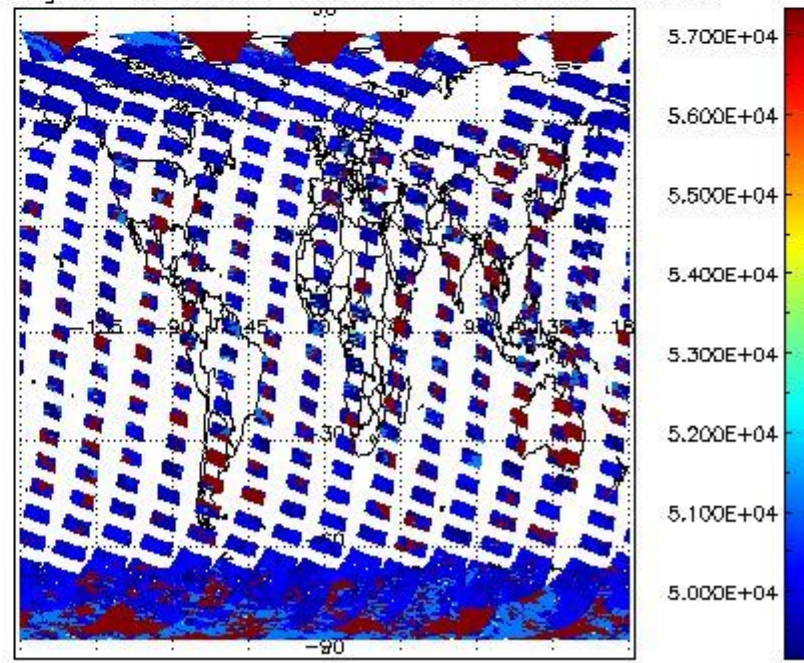
cLtop\_height for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



cLopt\_depth for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



cloud\_flags for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



### 2.2.2 Nadir

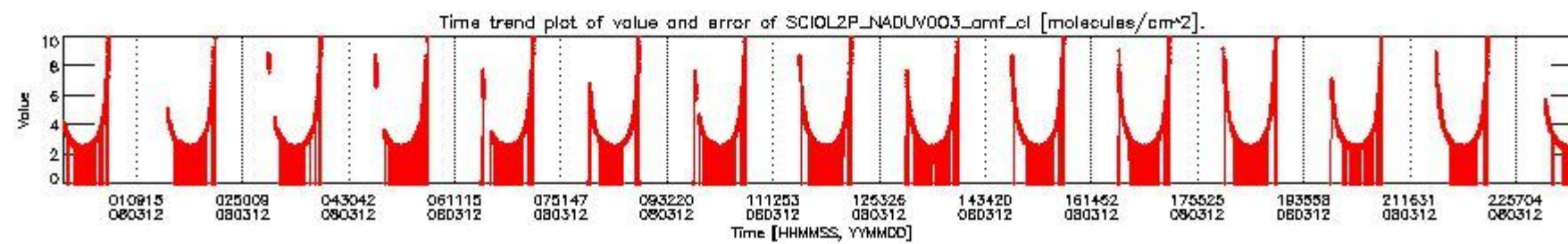
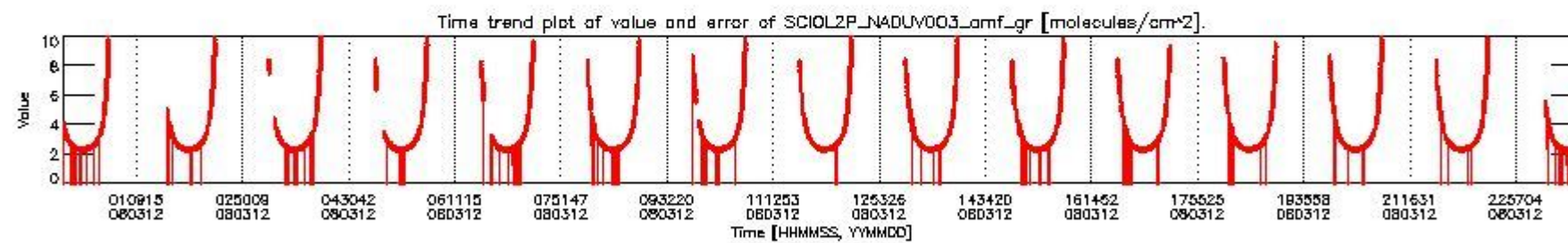
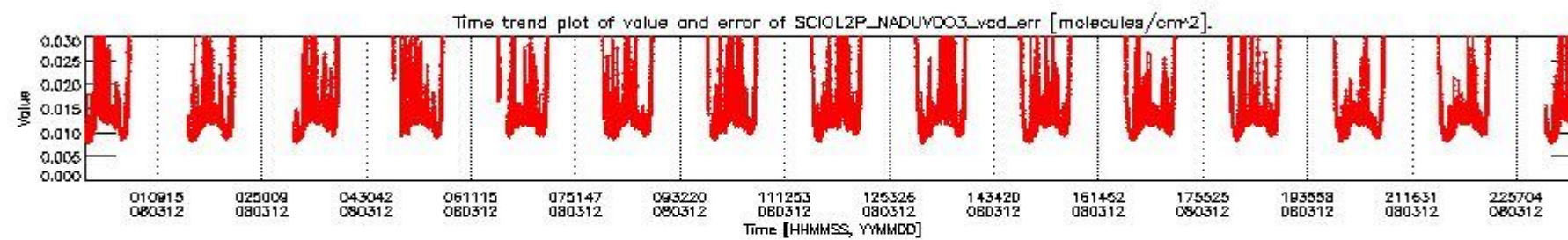
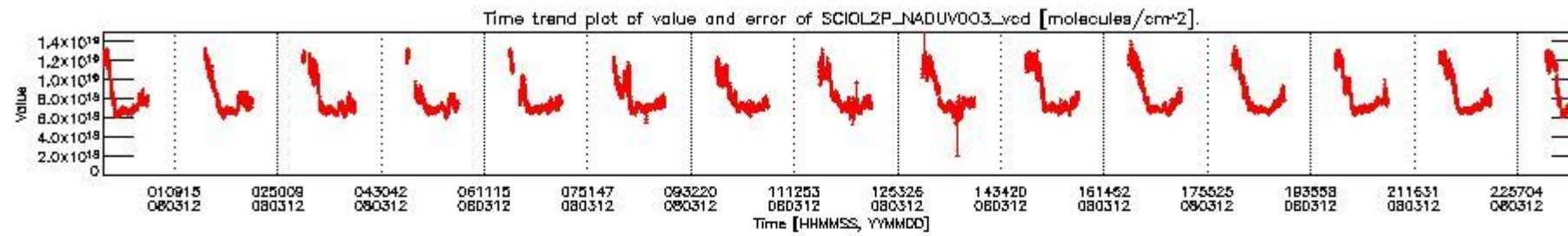
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

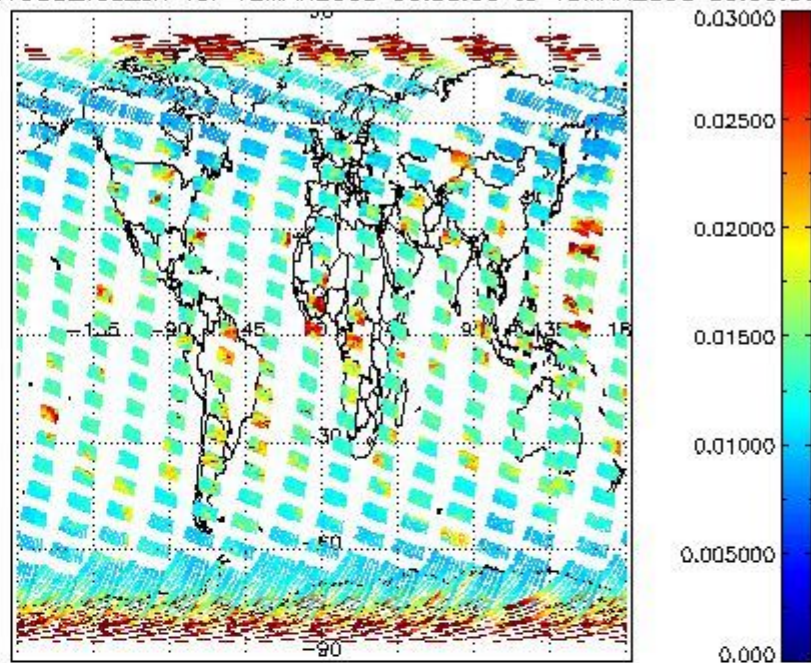
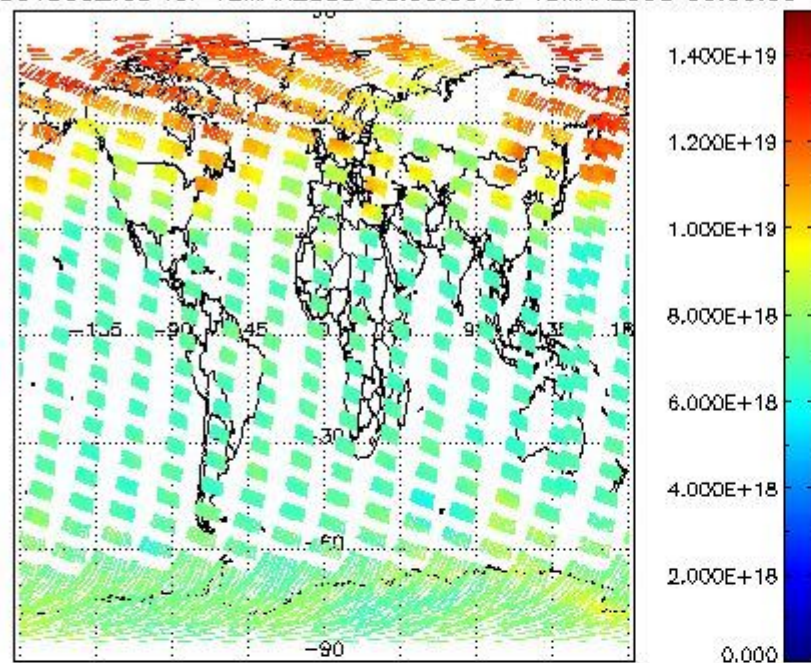
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

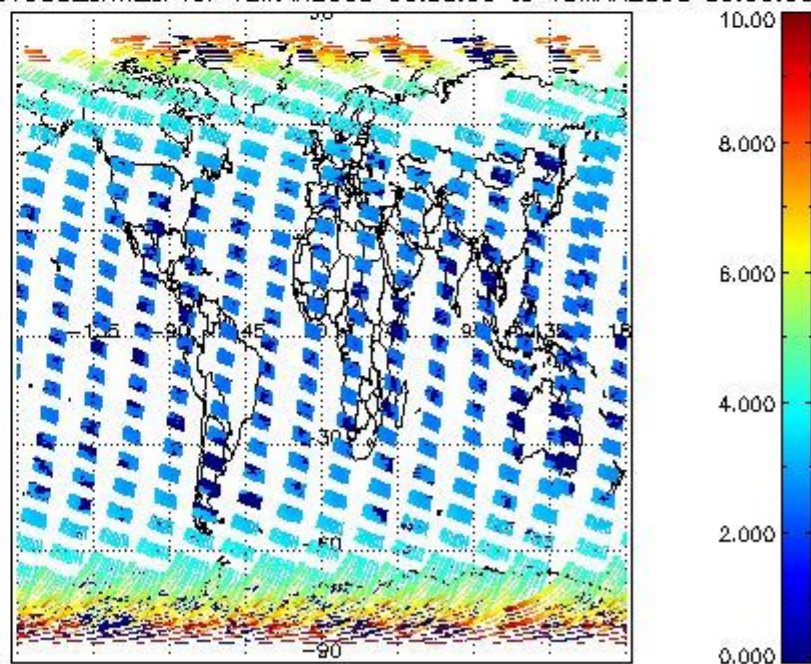
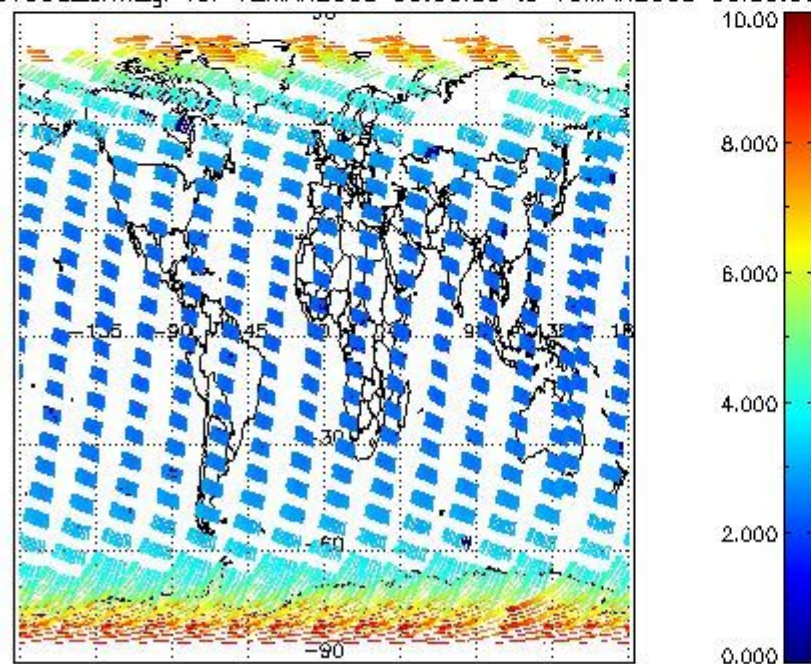
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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

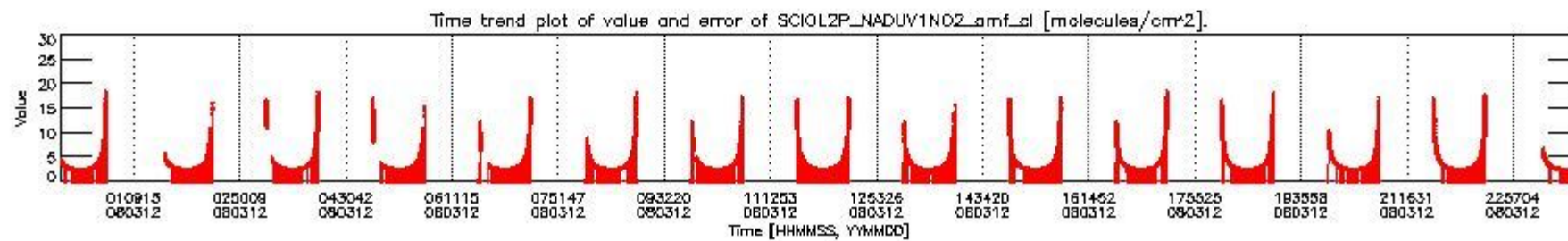
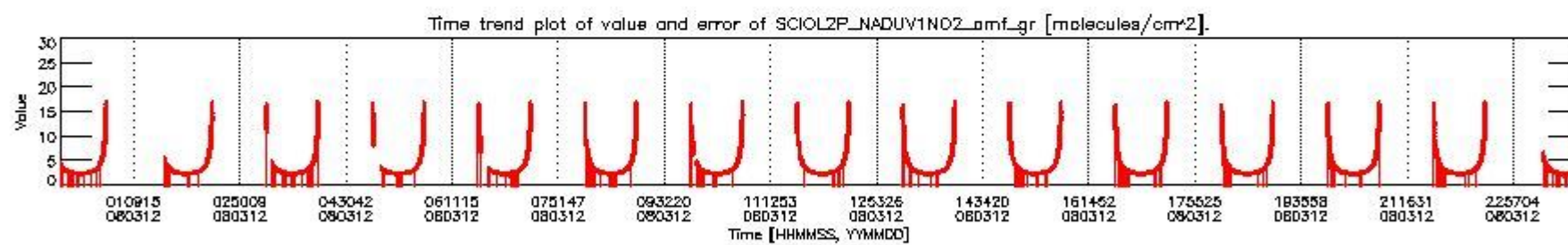
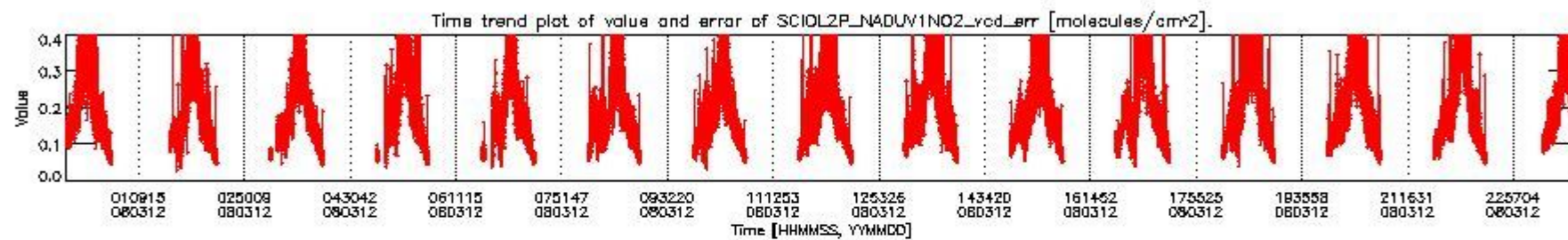
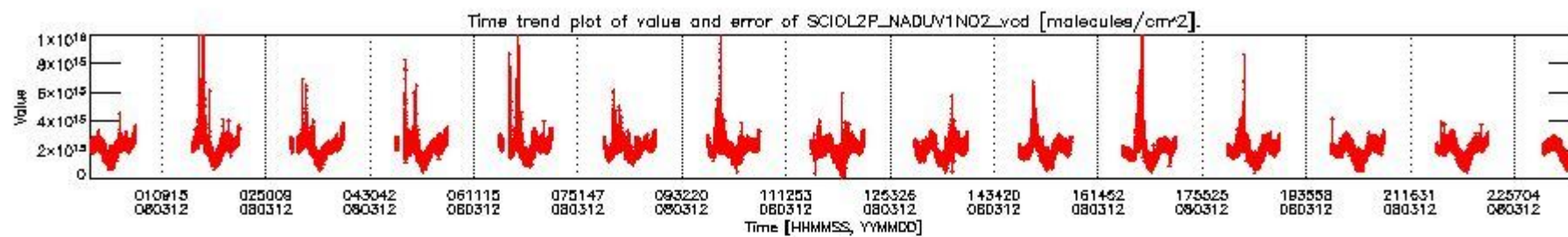


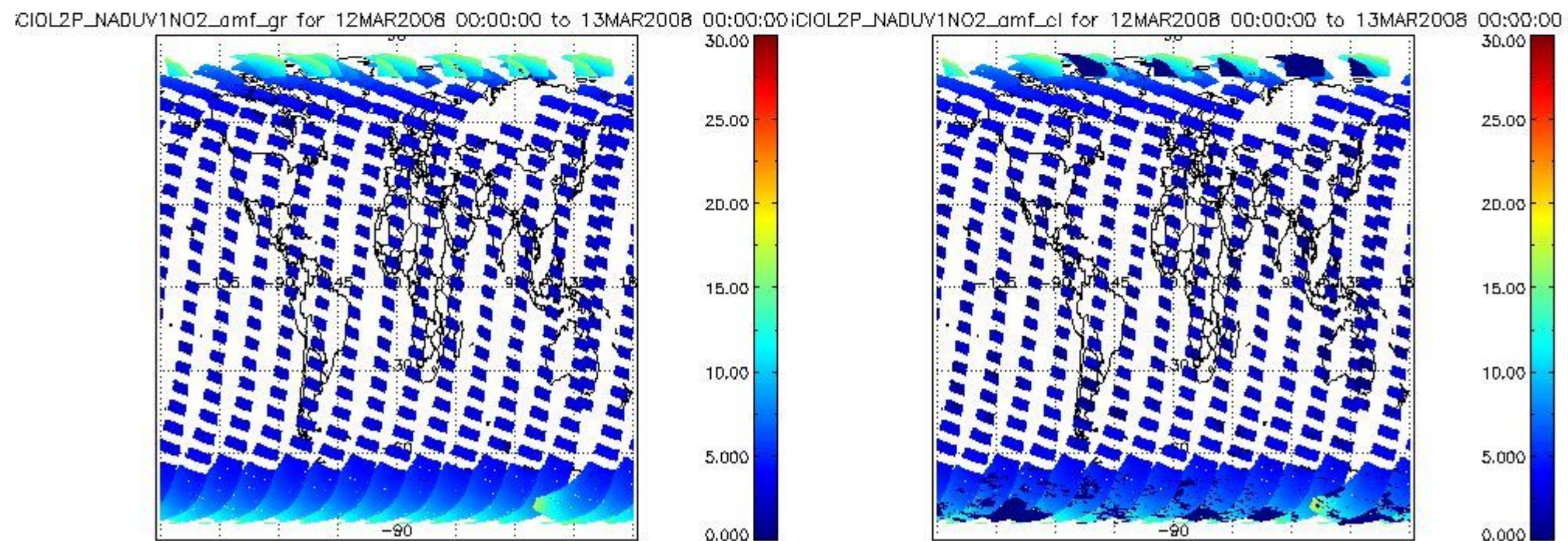
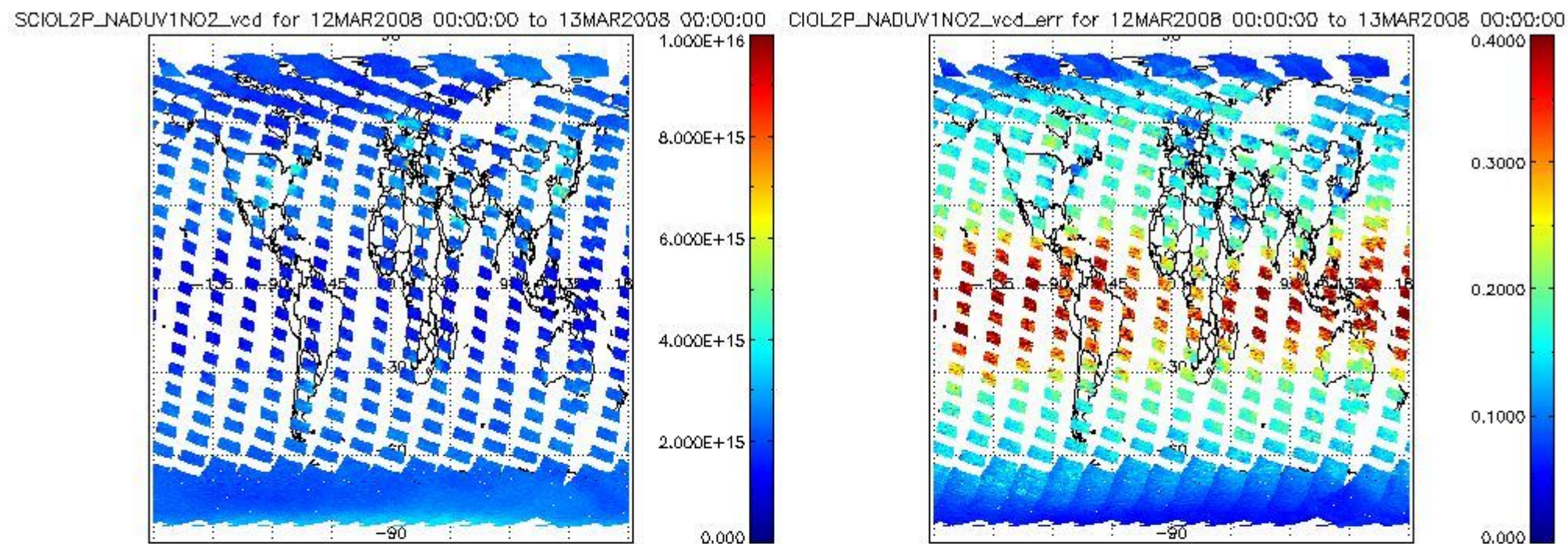
SCIOL2P\_NADUV003\_vcd for 12MAR2008 00:00:00 to 13MAR2008 00:00:00    SCIOL2P\_NADUV003\_vcd\_err for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 12MAR2008 00:00:00 to 13MAR2008 00:00:00    SCIOL2P\_NADUV003\_amf\_cl for 12MAR2008 00:00:00 to 13MAR2008 00:00:00







### 2.2.3 Limb

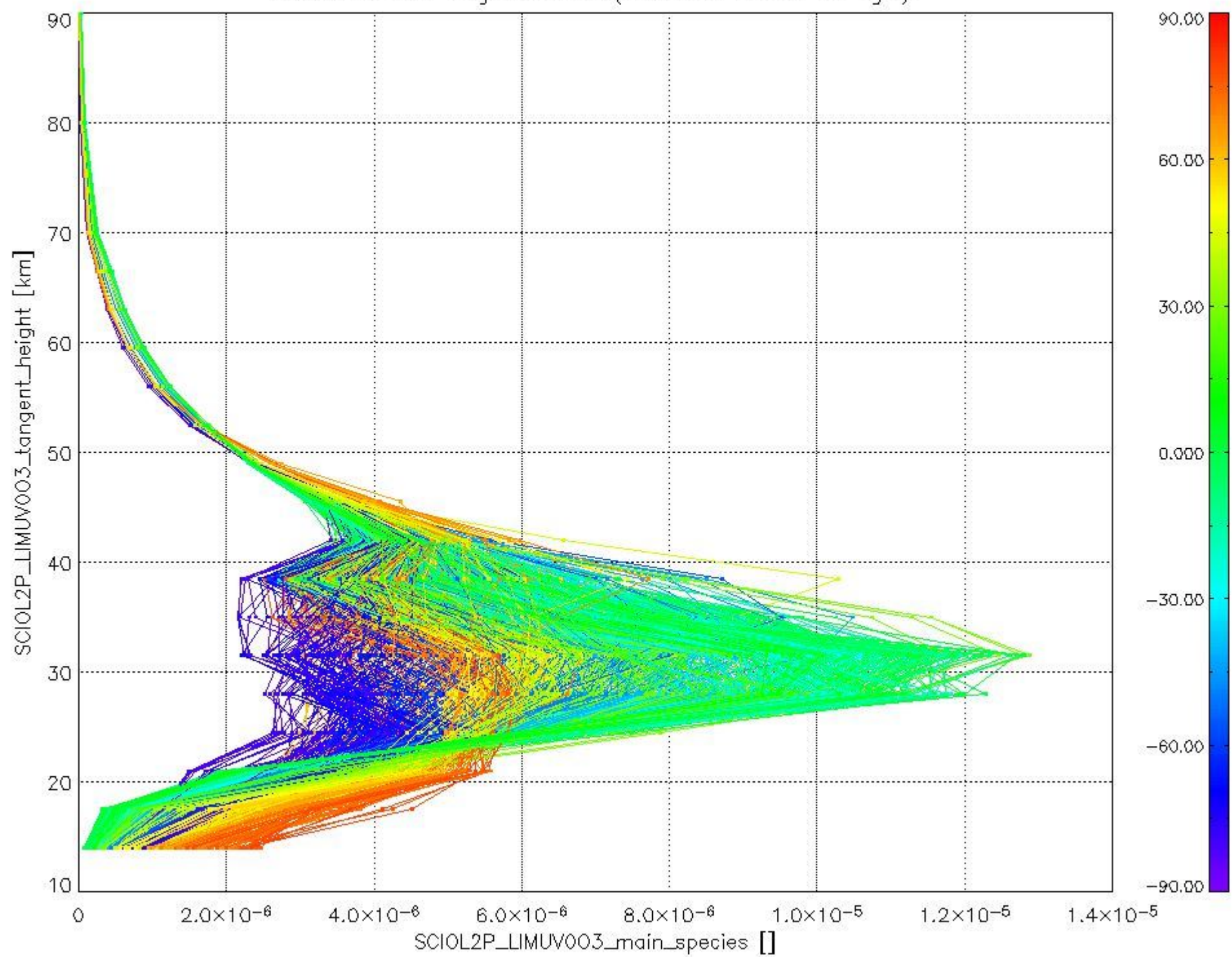
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

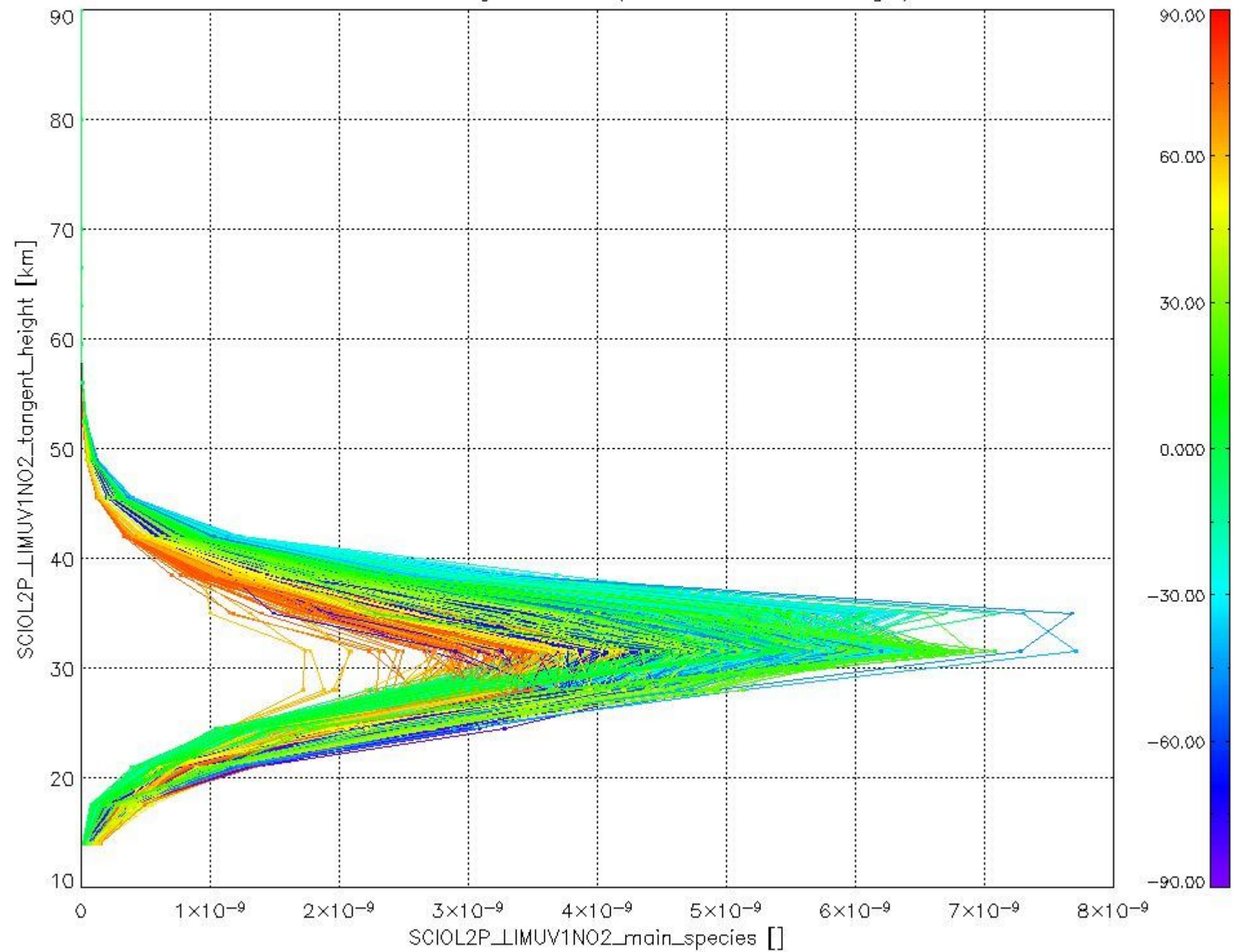
The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).





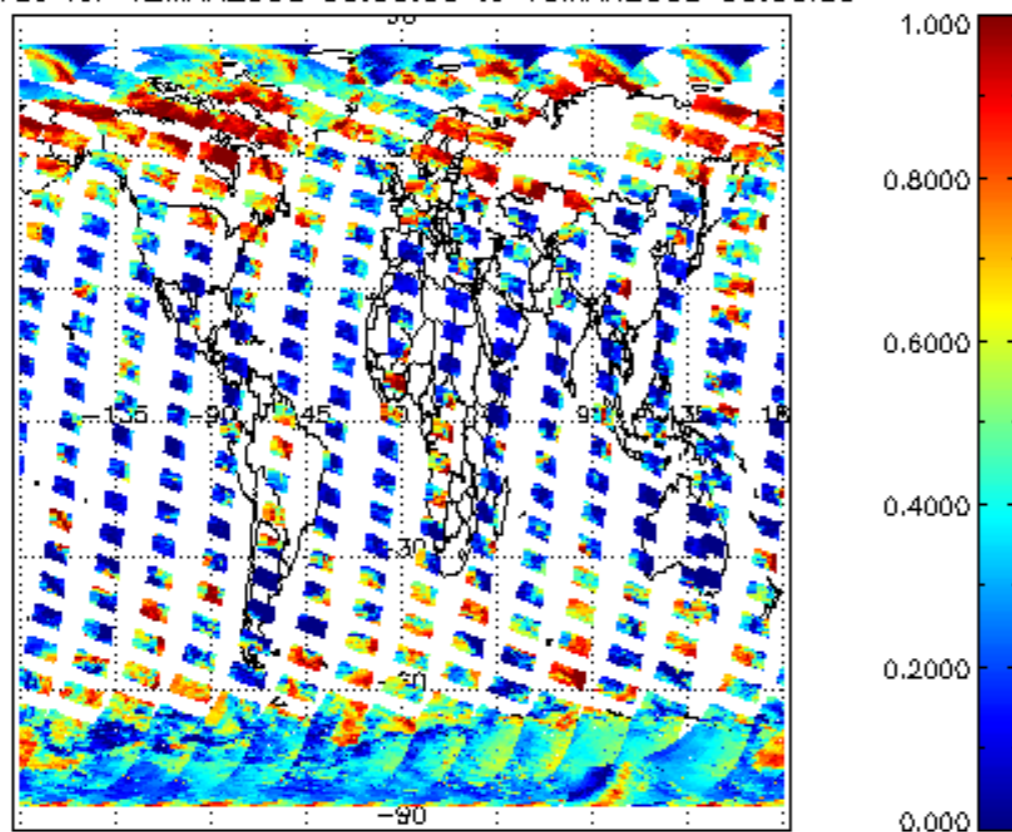
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



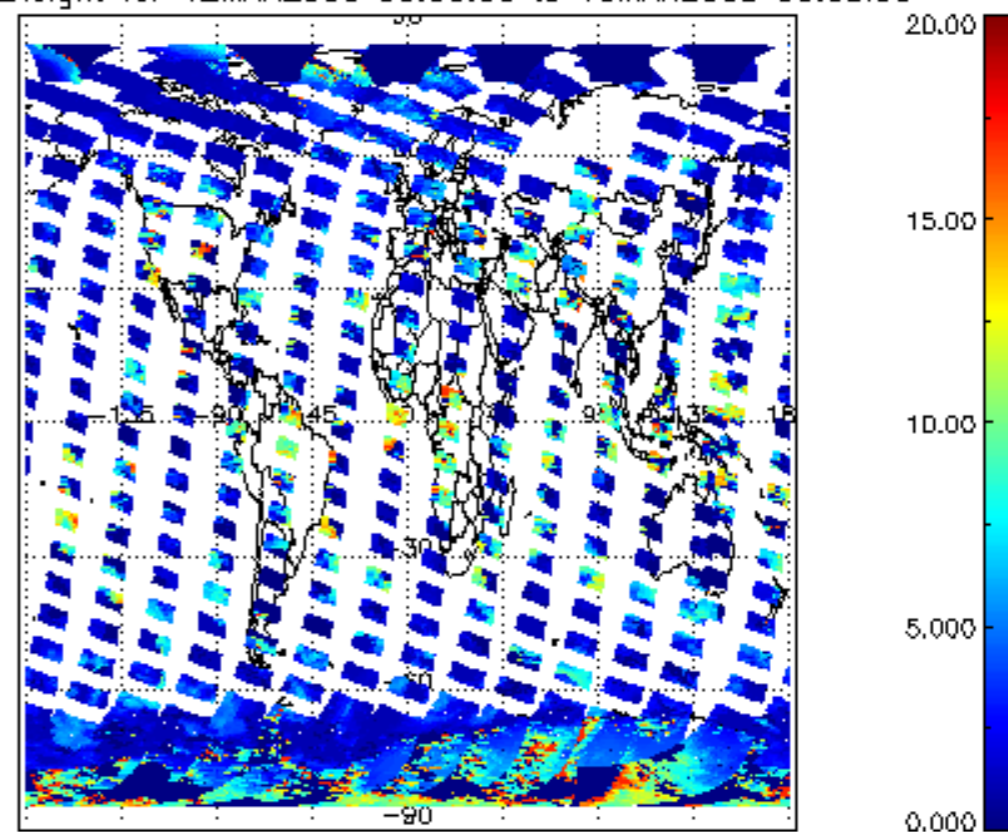
### 2.3 ADF monitoring

Number	ADF
	IN_ (INITIALISATION_FILE)
0	SCI_IN_AXNPDE20070629_092400_20070720_000000_20991231_235959
	ECF (ECMWF_FILE)
1	NOT USED

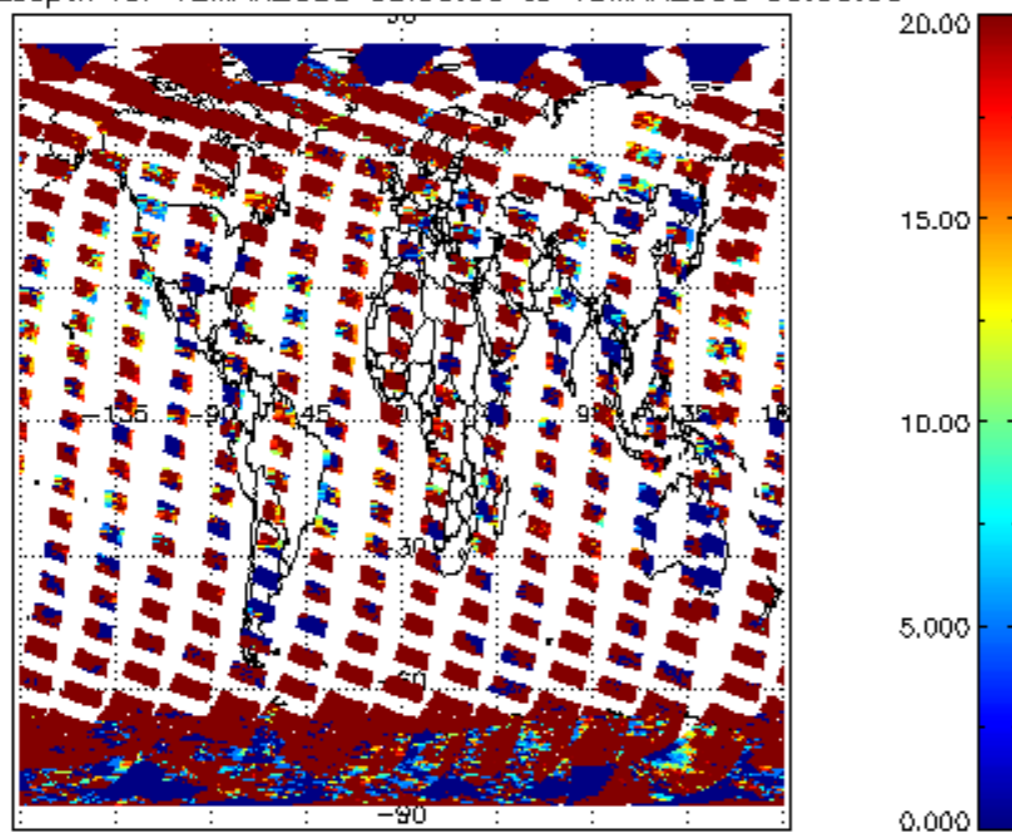
cL\_frac for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



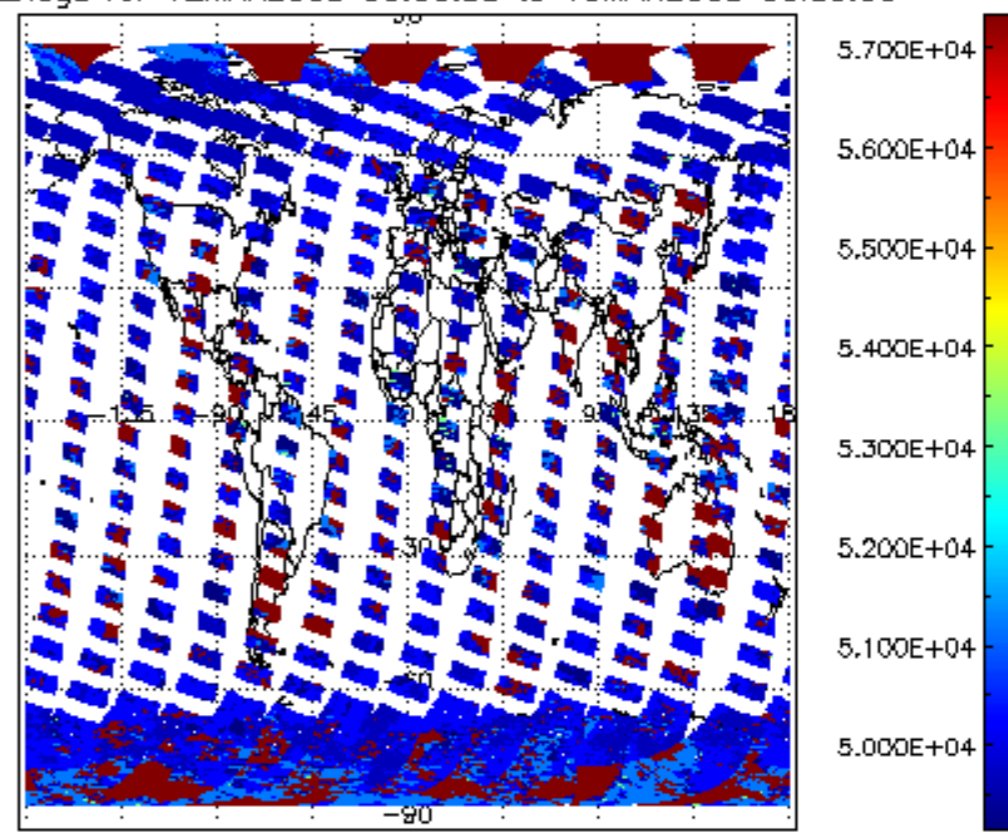
cL\_top\_height for 12MAR2008 00:00:00 to 13MAR2008 00:00:00

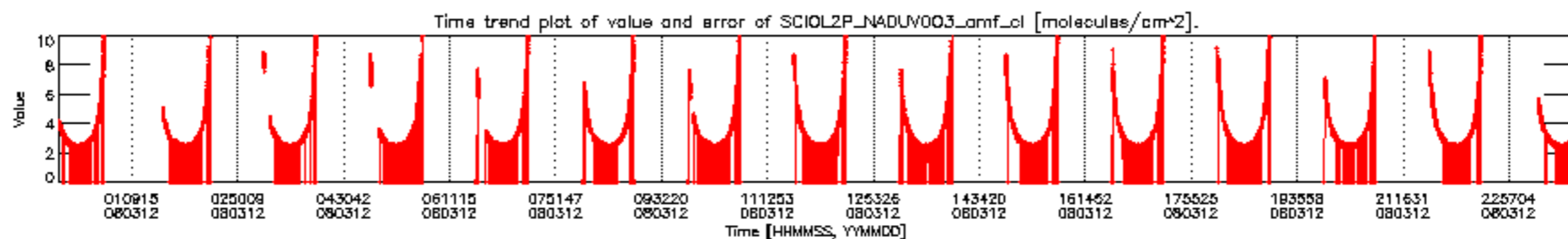
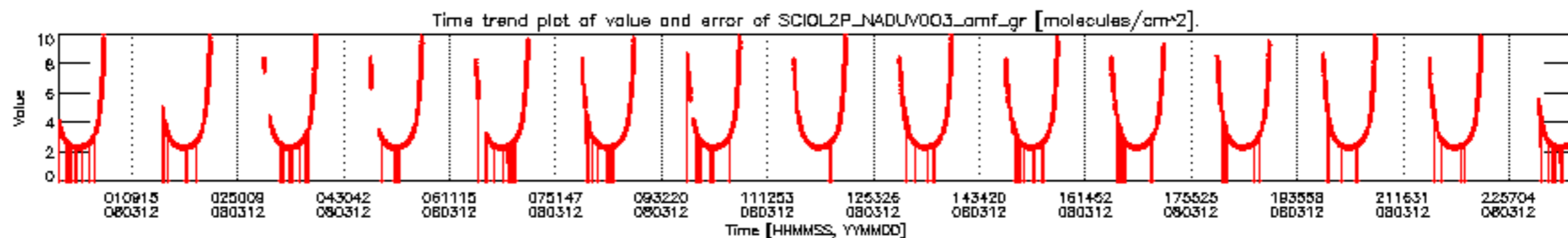
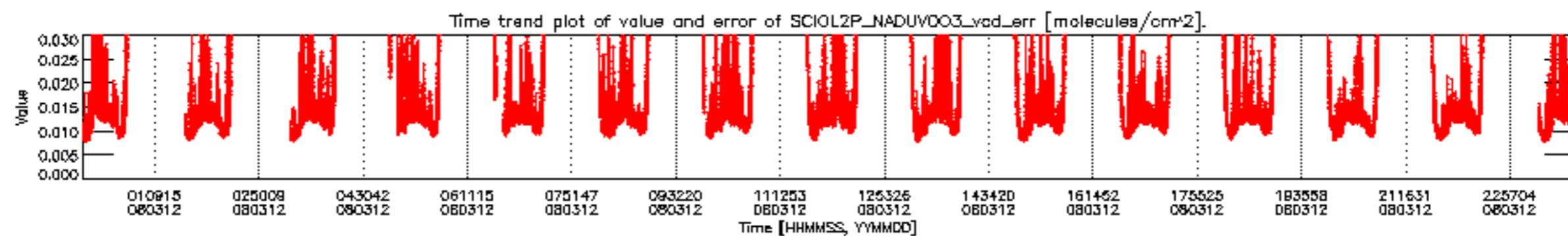
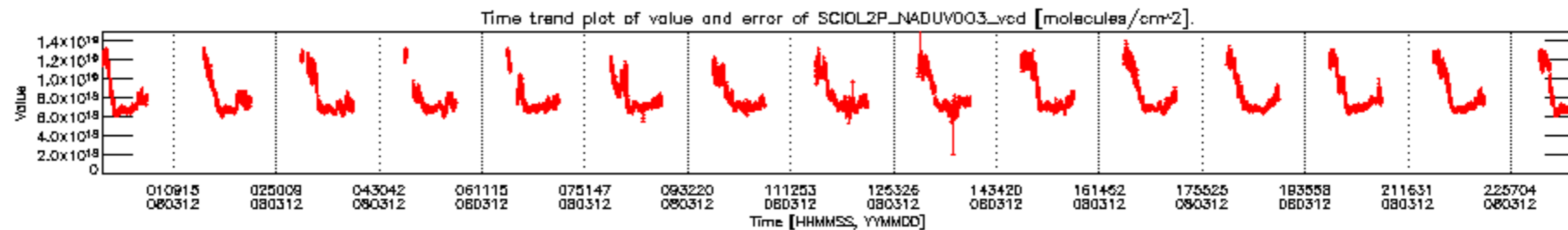


cL\_opt\_depth for 12MAR2008 00:00:00 to 13MAR2008 00:00:00

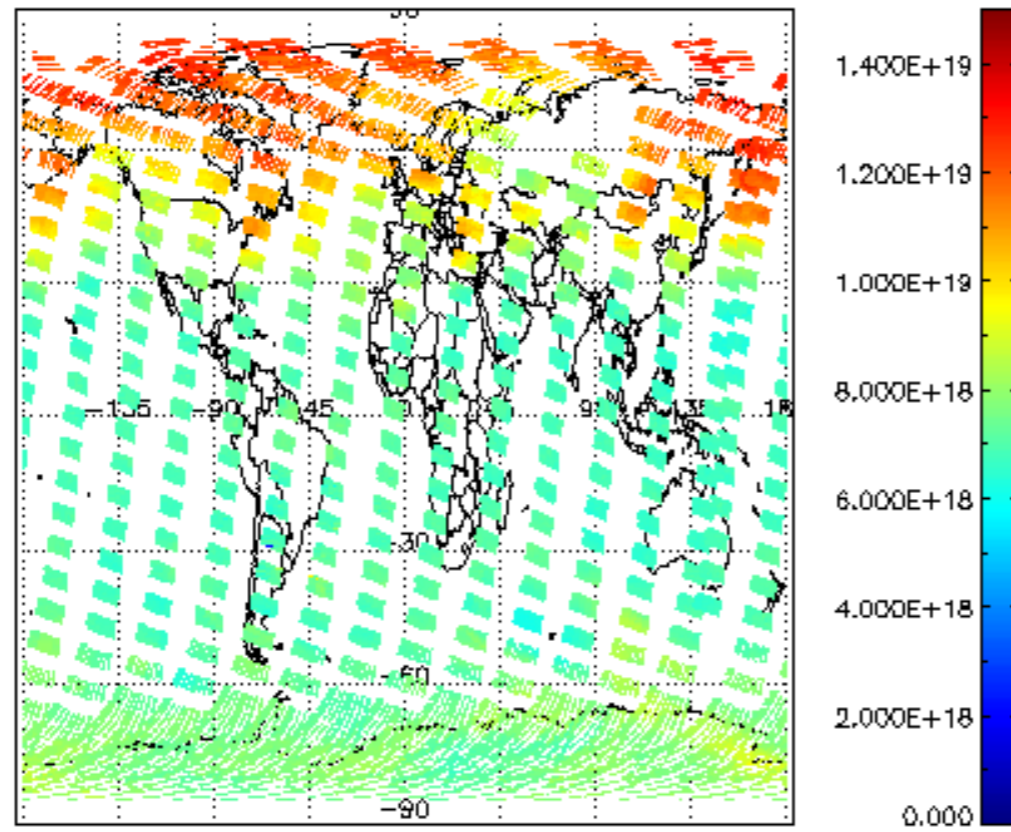


cloud\_flags for 12MAR2008 00:00:00 to 13MAR2008 00:00:00

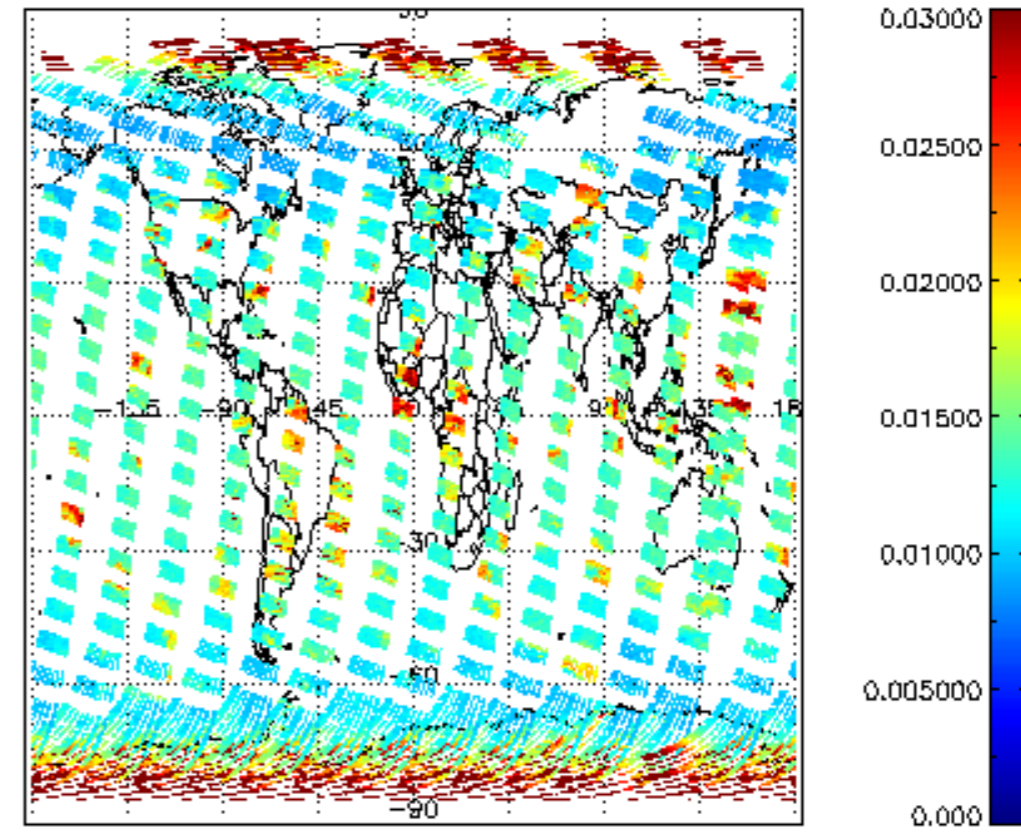




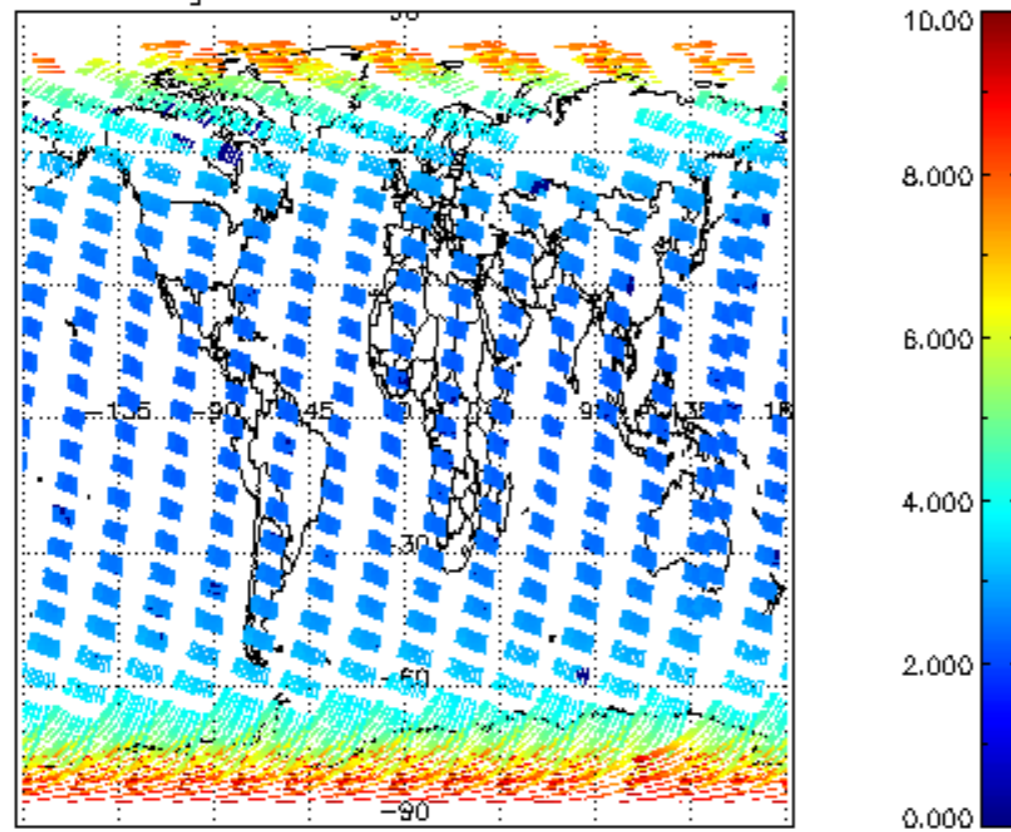
SCIOL2P\_NADUV003\_vcd for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



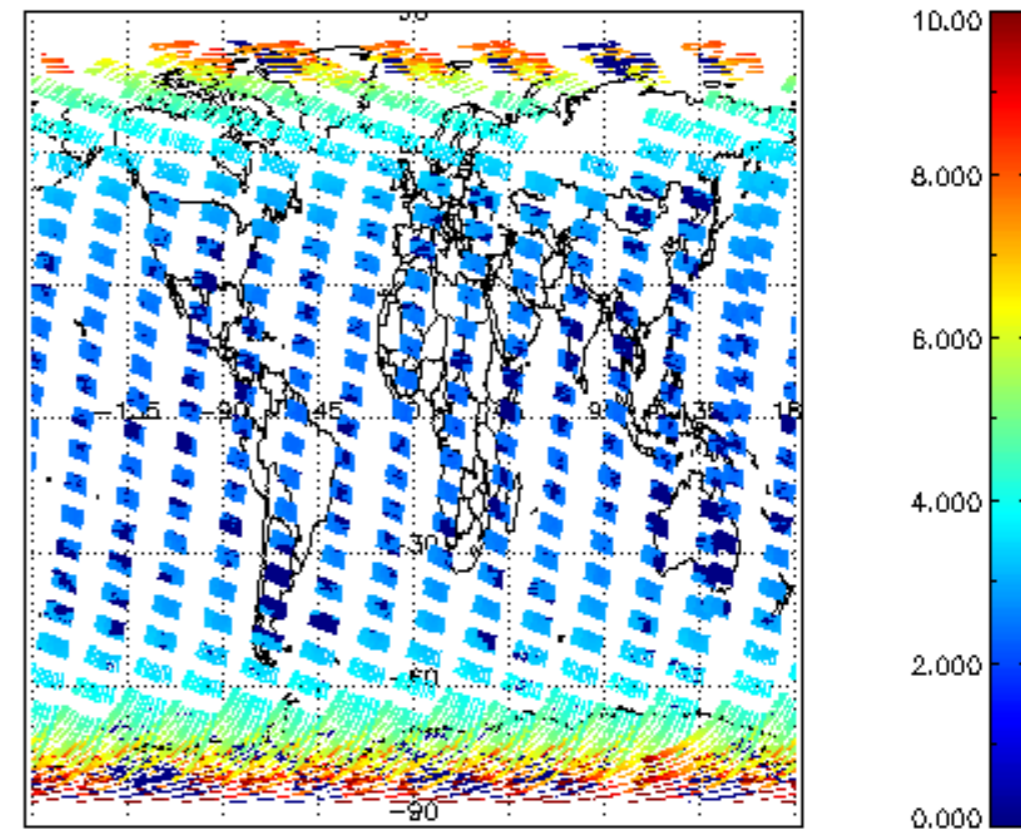
SCIOL2P\_NADUV003\_vcd\_err for 12MAR2008 00:00:00 to 13MAR2008 00:00:00

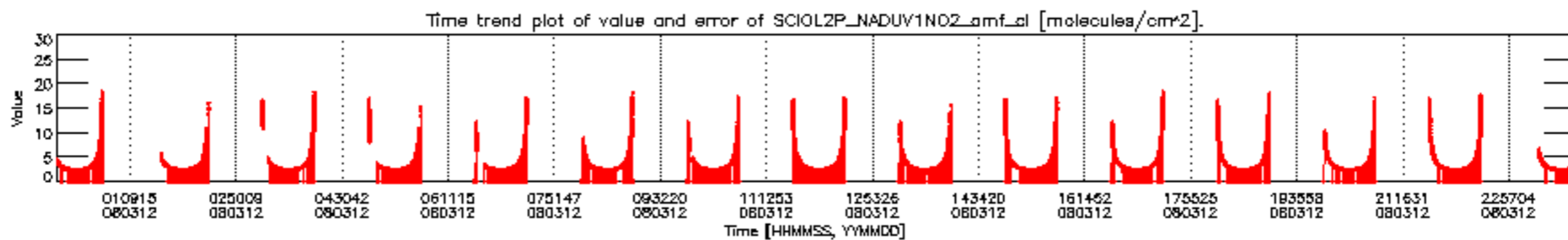
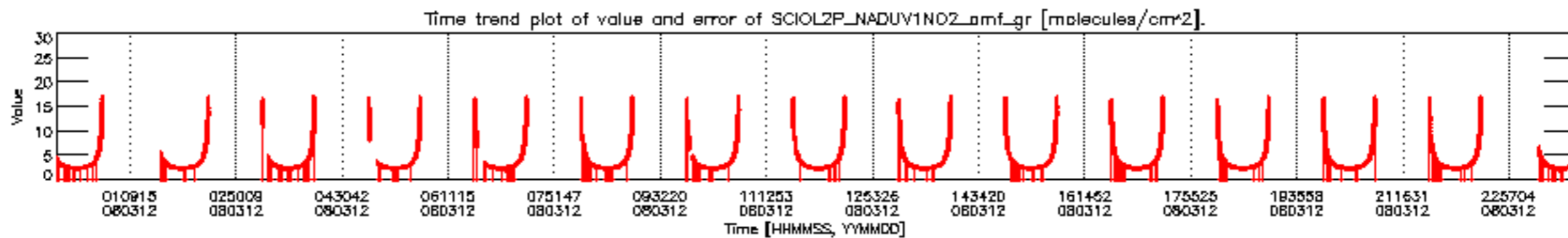
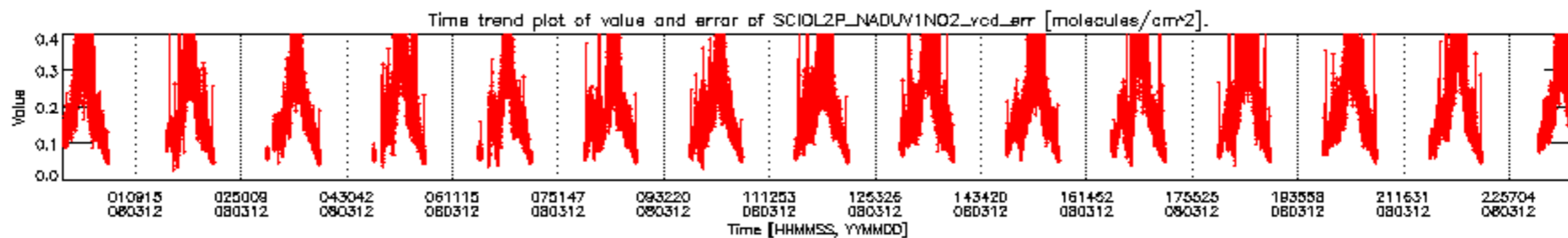
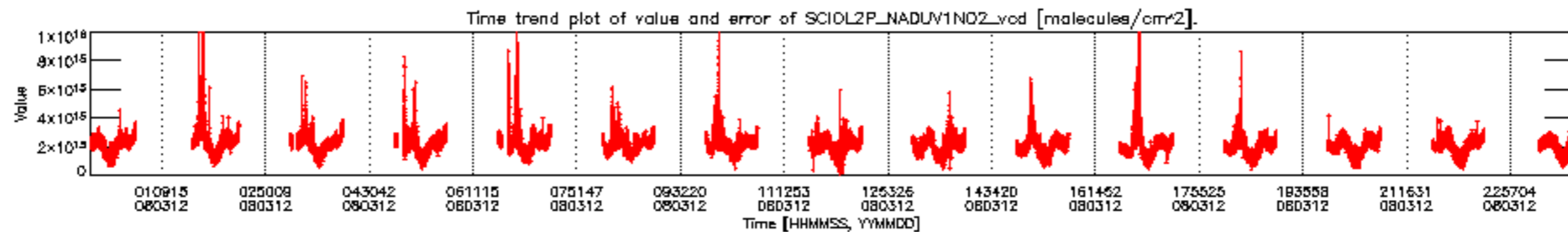


SCIOL2P\_NADUV003\_amf\_gr for 12MAR2008 00:00:00 to 13MAR2008 00:00:00

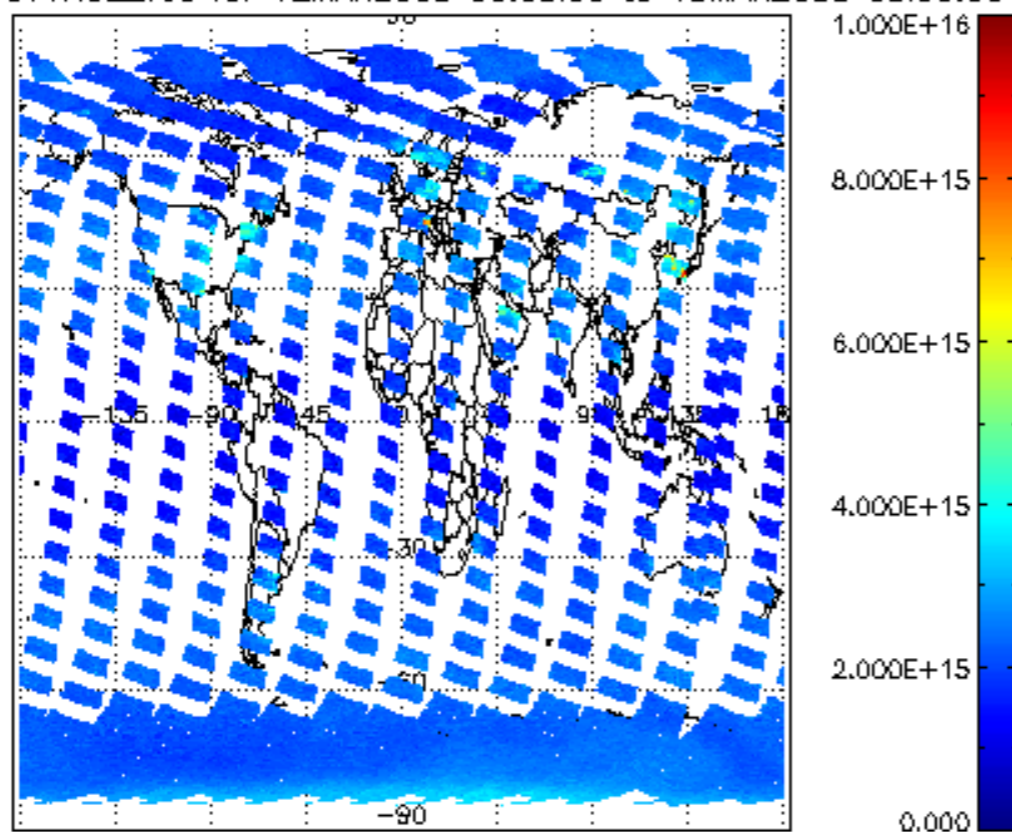


SCIOL2P\_NADUV003\_amf\_cl for 12MAR2008 00:00:00 to 13MAR2008 00:00:00

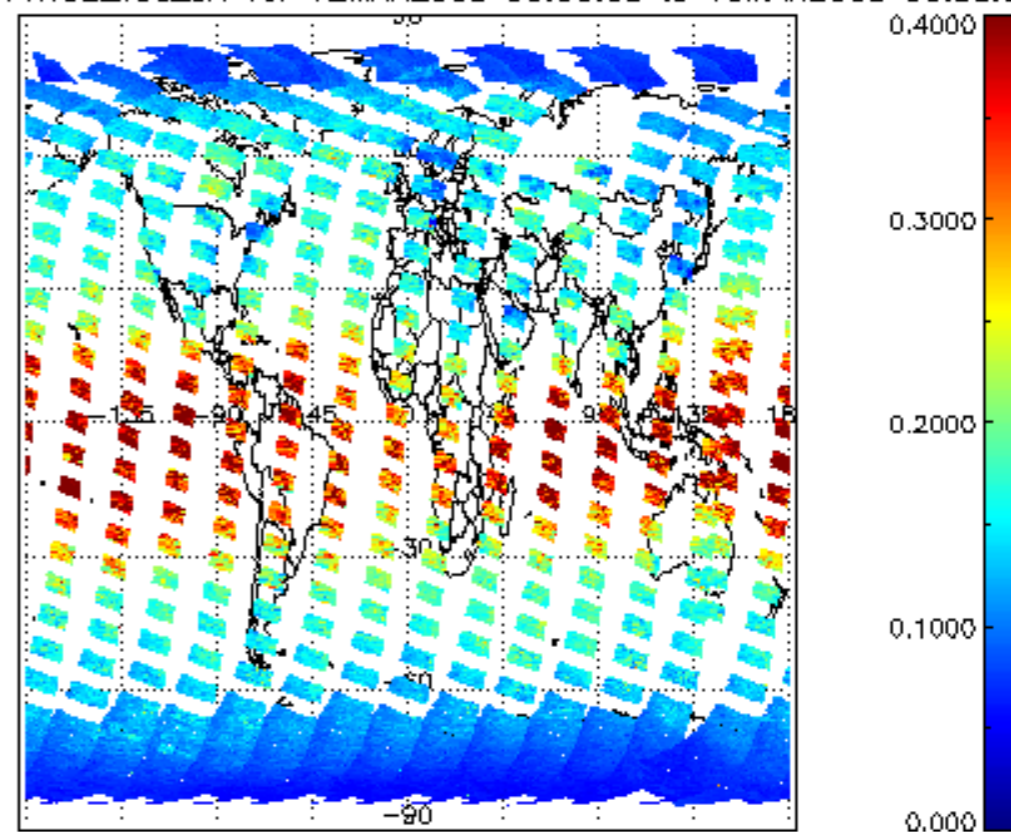




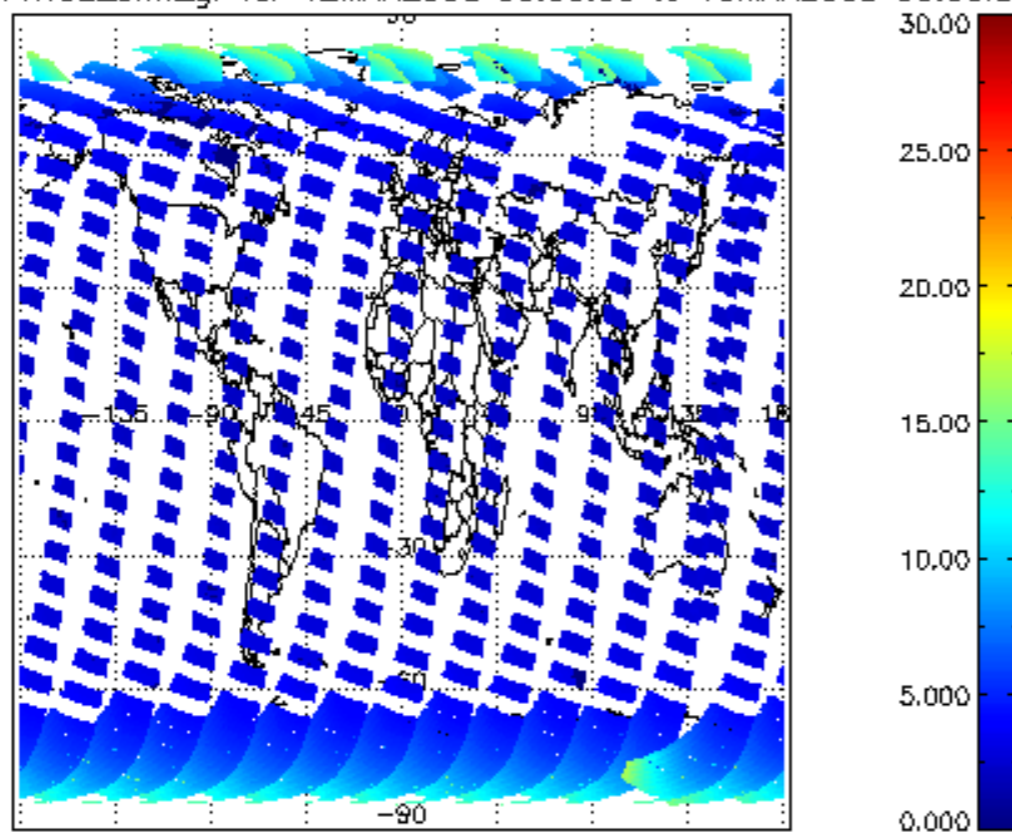
SCIOL2P\_NADUV1NO2\_vcd for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



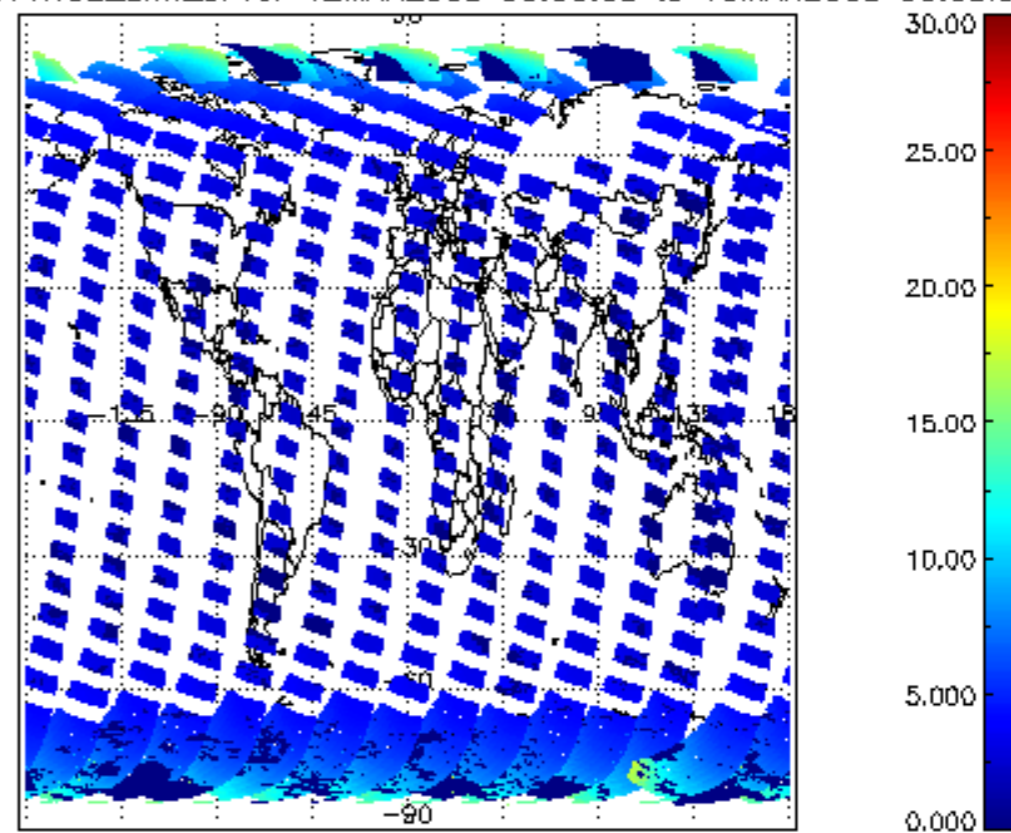
SCIOL2P\_NADUV1NO2\_vcd\_err for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



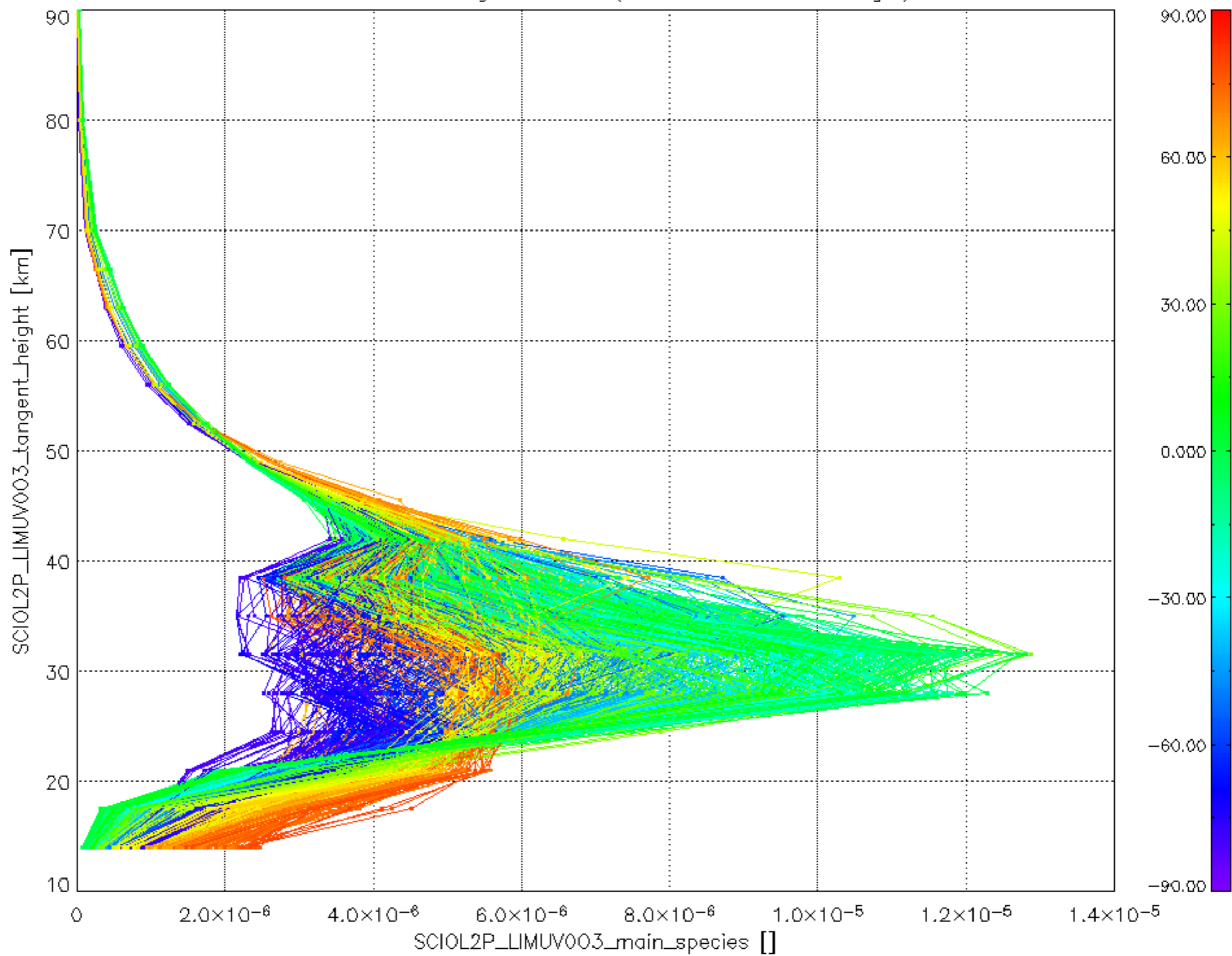
SCIOL2P\_NADUV1NO2\_amf\_gr for 12MAR2008 00:00:00 to 13MAR2008 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 12MAR2008 00:00:00 to 13MAR2008 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).

