

## 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	10APR2008 06:03:24
Data source version	SCIA-OL/3.01-R
Processing scope for products	18MAR2008 00:00:00 to 19MAR2008 00:00:00
Start time of first product within scope	17MAR2008 23:58:41
Stop time of last product within scope	19MAR2008 00:23:24
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__2PRDPA20080317_235841_000031752067_00002_31619_4801.N1	17MAR2008 23:58:41	18MAR2008 00:51:36	0	GOOD
1	SCI_OL__2PRDPA20080318_013916_000031752067_00003_31620_4802.N1	18MAR2008 01:39:16	18MAR2008 02:32:12	0	GOOD
2	SCI_OL__2PRDPA20080318_031952_000031752067_00004_31621_4803.N1	18MAR2008 03:19:52	18MAR2008 04:12:47	0	GOOD
3	SCI_OL__2PRDPA20080318_050027_000031752067_00005_31622_4825.N1	18MAR2008 05:00:27	18MAR2008 05:53:23	0	GOOD
4	SCI_OL__2PRDPA20080318_064103_000031752067_00006_31623_4811.N1	18MAR2008 06:41:03	18MAR2008 07:33:58	0	GOOD
5	SCI_OL__2PRDPA20080318_082138_000031072067_00007_31624_4827.N1	18MAR2008 08:21:38	18MAR2008 09:13:25	0	GOOD
6	SCI_OL__2PRDPA20080318_100214_000031072067_00008_31625_4813.N1	18MAR2008 10:02:14	18MAR2008 10:54:01	0	GOOD
7	SCI_OL__2PRDPA20080318_114249_000031072067_00009_31626_4808.N1	18MAR2008 11:42:49	18MAR2008 12:34:36	0	GOOD
8	SCI_OL__2PRDPA20080318_132324_000031072067_00010_31627_4787.N1	18MAR2008 13:23:24	18MAR2008 14:15:12	0	GOOD
9	SCI_OL__2PRDPA20080318_150400_000031072067_00011_31628_4804.N1	18MAR2008 15:04:00	18MAR2008 15:55:47	0	GOOD
10	SCI_OL__2PRDPA20080318_164435_000031072067_00012_31629_4814.N1	18MAR2008 16:44:35	18MAR2008 17:36:23	0	GOOD
11	SCI_OL__2PRDPA20080318_182535_000033282067_00013_31630_4821.N1	18MAR2008 18:25:35	18MAR2008 19:21:04	0	GOOD
12	SCI_OL__2PRDPA20080318_200611_000033792067_00014_31631_4845.N1	18MAR2008 20:06:11	18MAR2008 21:02:30	0	GOOD
13	SCI_OL__2PRDPA20080318_214622_000033952067_00015_31632_4848.N1	18MAR2008 21:46:22	18MAR2008 22:42:57	0	GOOD
14	SCI_OL__2PRDPA20080318_232657_000033872067_00016_31633_4849.N1	18MAR2008 23:26:57	19MAR2008 00:23:24	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: 121177

Total number of cloud data DSRs with good quality flag (=0): 121177 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	121177	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	121177	0.17973	0.12500	0.12500	0.25000	0.062016	s
SURFACE_PRES	121177	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	121177	0.41969	0.38614	0.0000	1.0000	0.31087	-

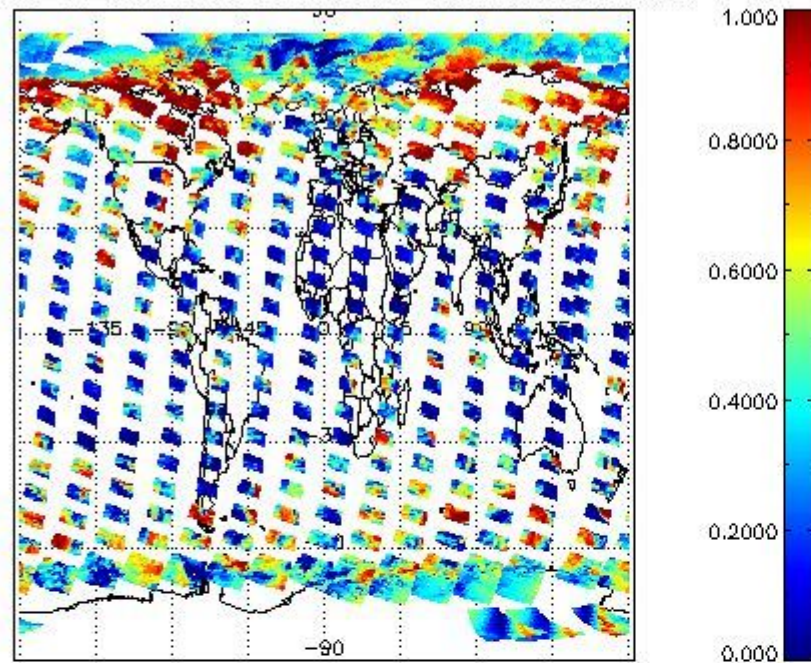
CL_FRAC_ERR	121177	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	121177	5.7514	4.0000	4.0000	8.0000	1.9845	
PMD_READ_CL[0]	121177	0.32058	0.0000	0.0000	8.0000	1.1867	-
PMD_READ_CL[1]	121177	0.98471	0.0000	0.0000	8.0000	2.2071	-
CL_TOP_HEIGHT	109411	3.1878	1.6410	0.0000	17.000	3.3867	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	109411	59.145	57.026	0.0000	101.00	39.966	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	121177	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	121177	11001000	11000100	11000000	11100000	2963.8	flags
AERO_ABSO_IND	121177	3.5804	3.8171	-1.1574	12.708	1.6619	
AERO_IND_DIAG	121177	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	121177	01101001	11000000	00000000	11000000	24444.	flags

Time and geolocation plots:

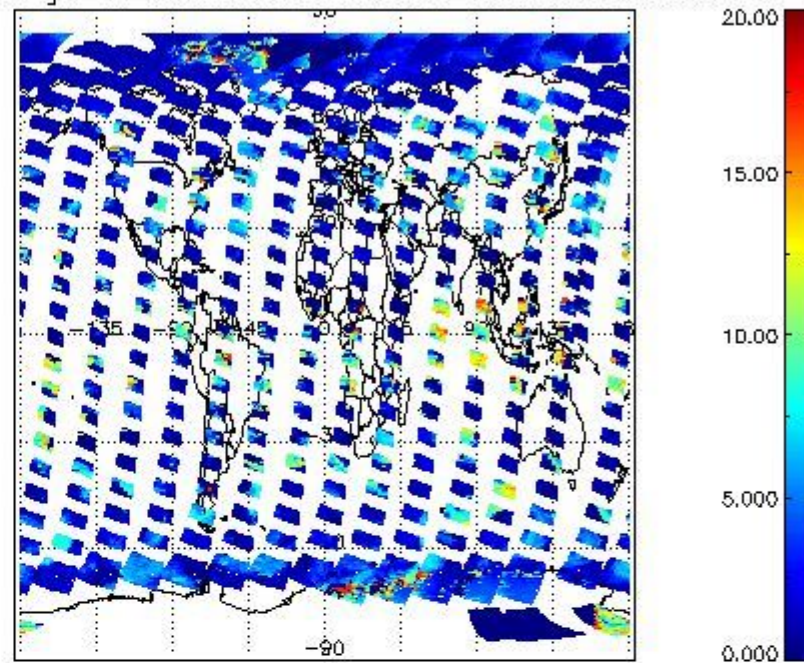
Plots are available for the following parameters:

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

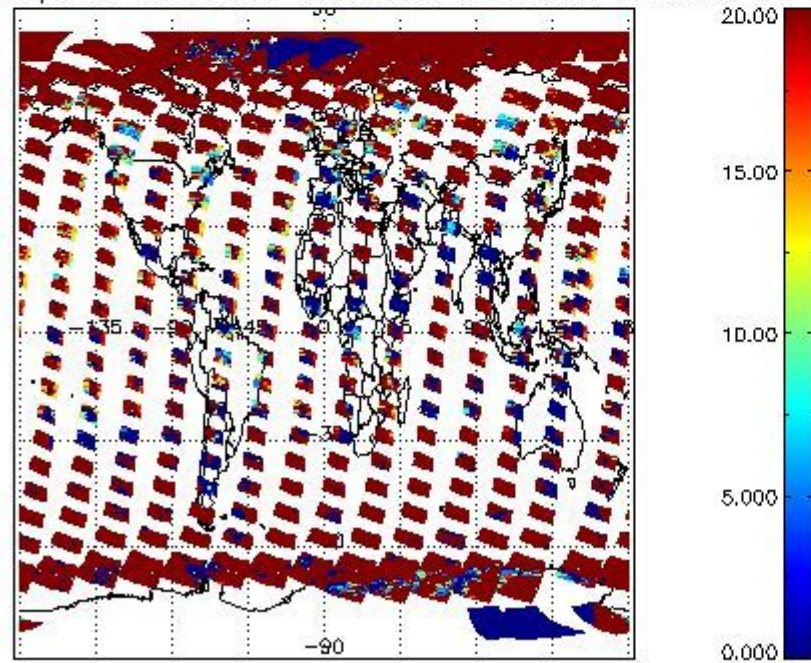
cLfrac for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



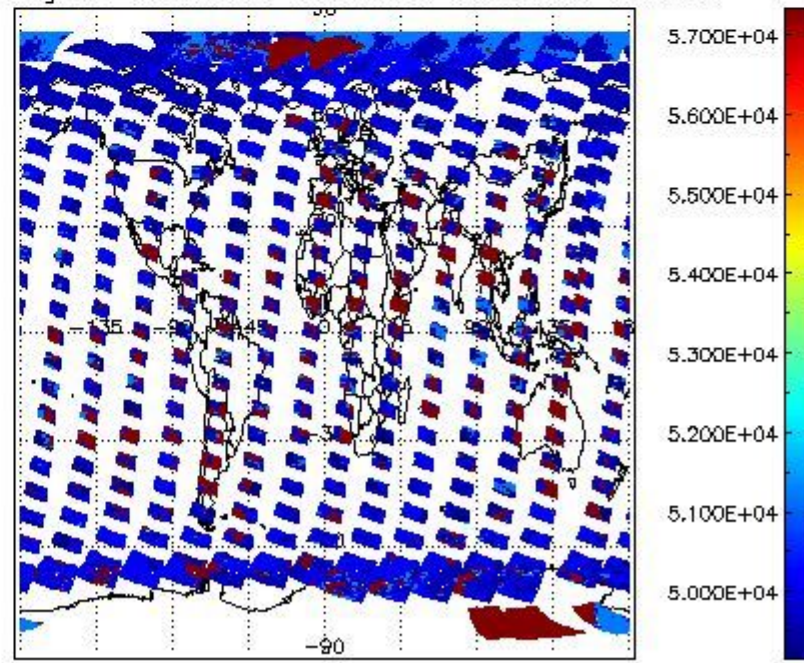
cLtop\_height for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



cLopt\_depth for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



cloud\_flags for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



### 2.2.2 Nadir

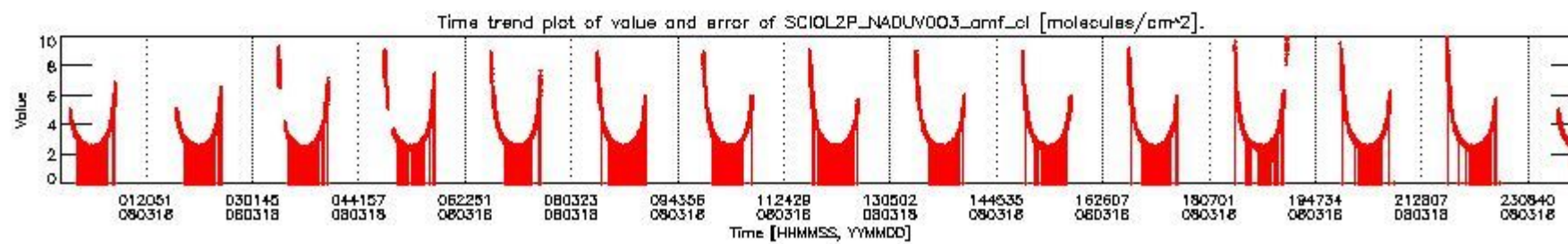
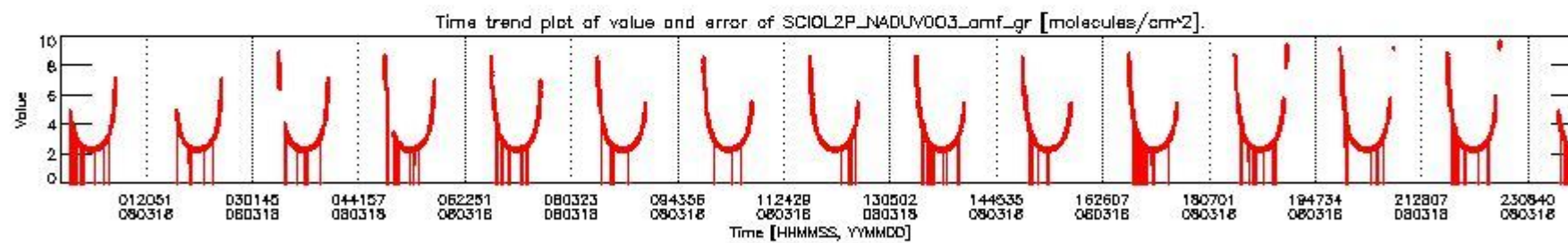
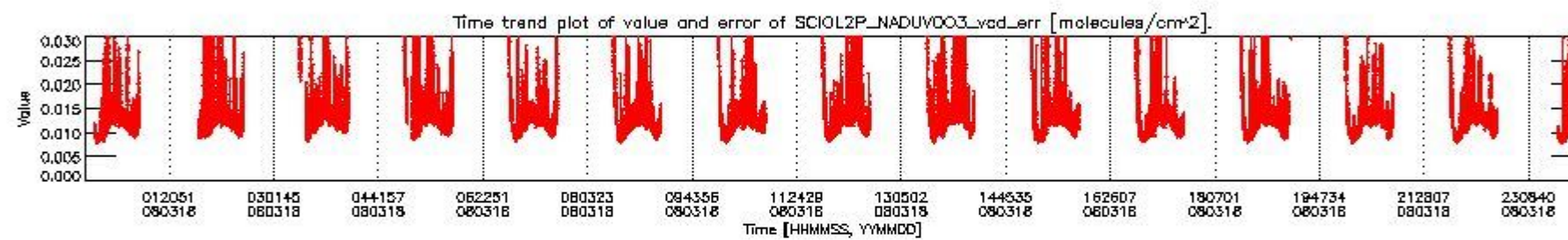
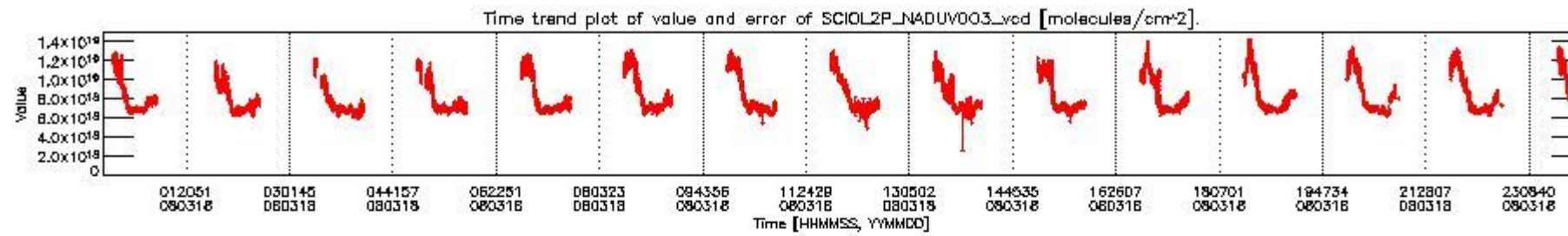
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

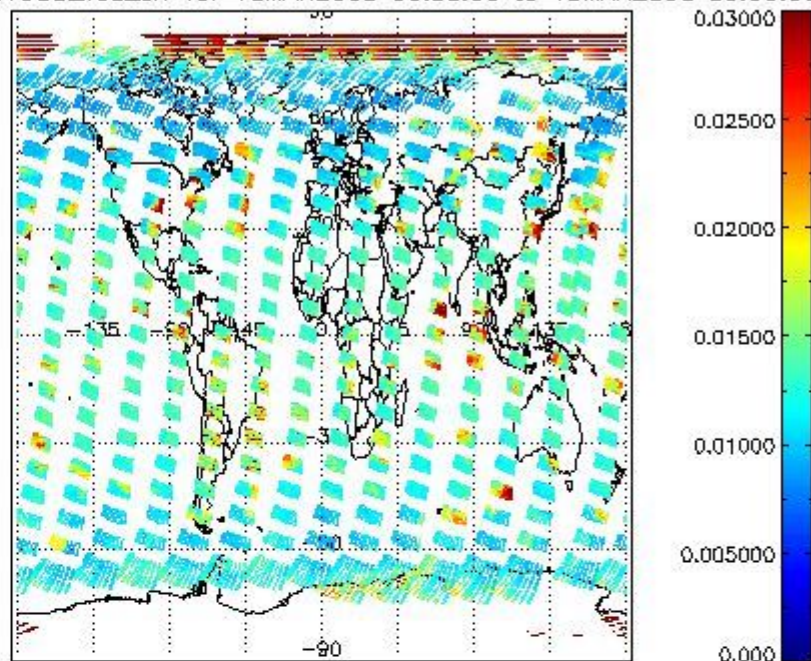
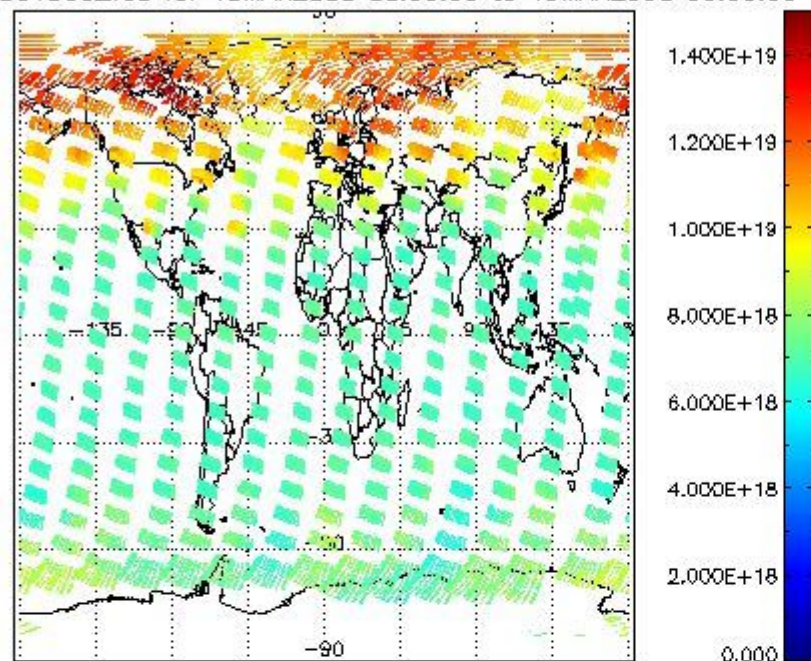
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

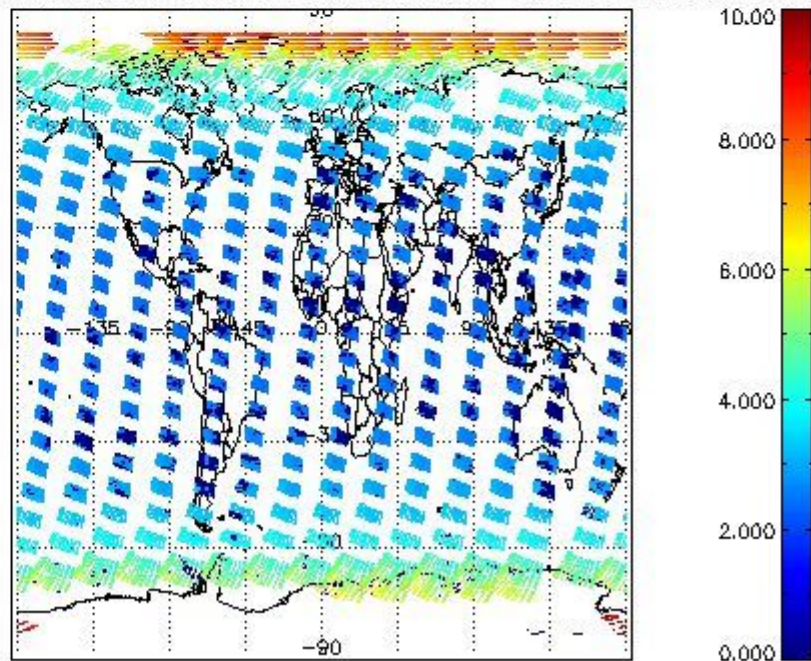
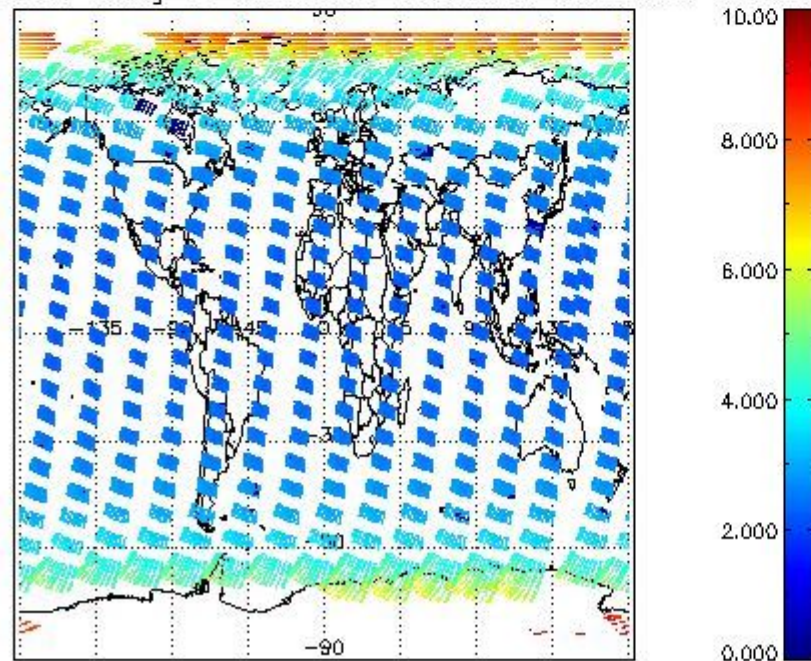
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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

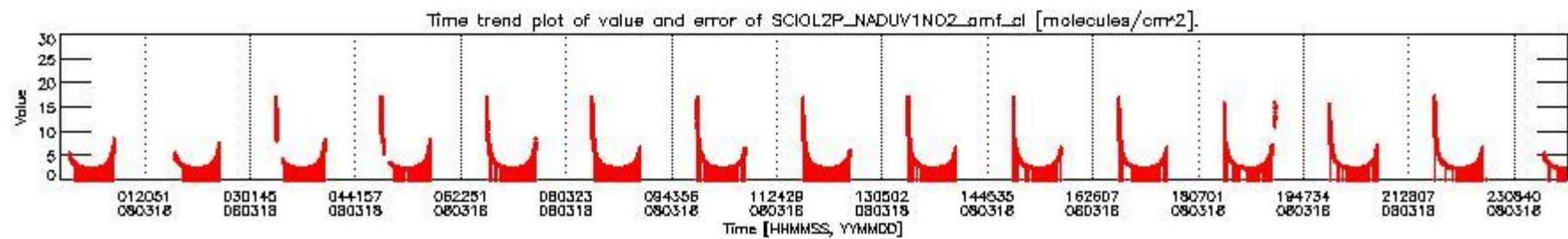
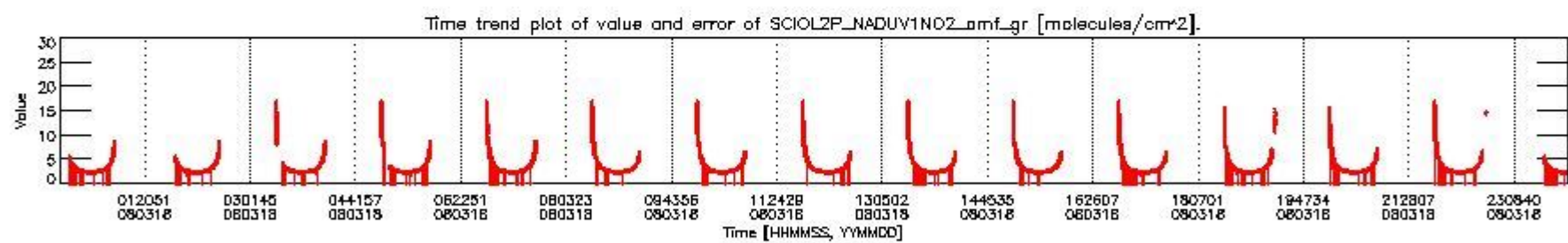
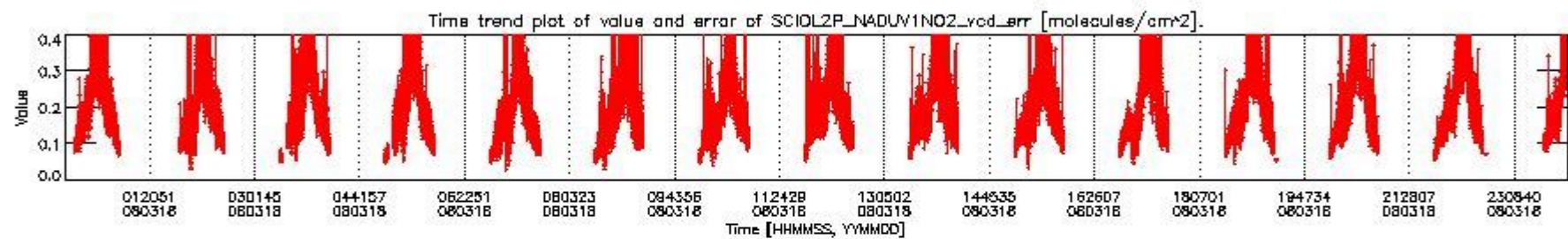
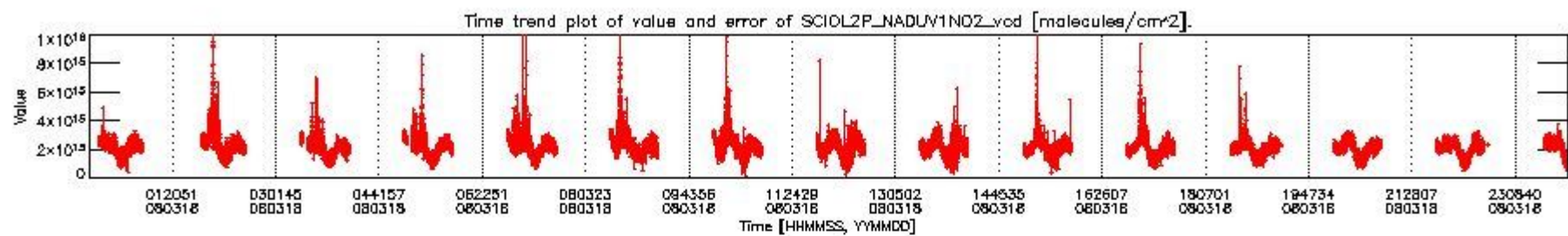


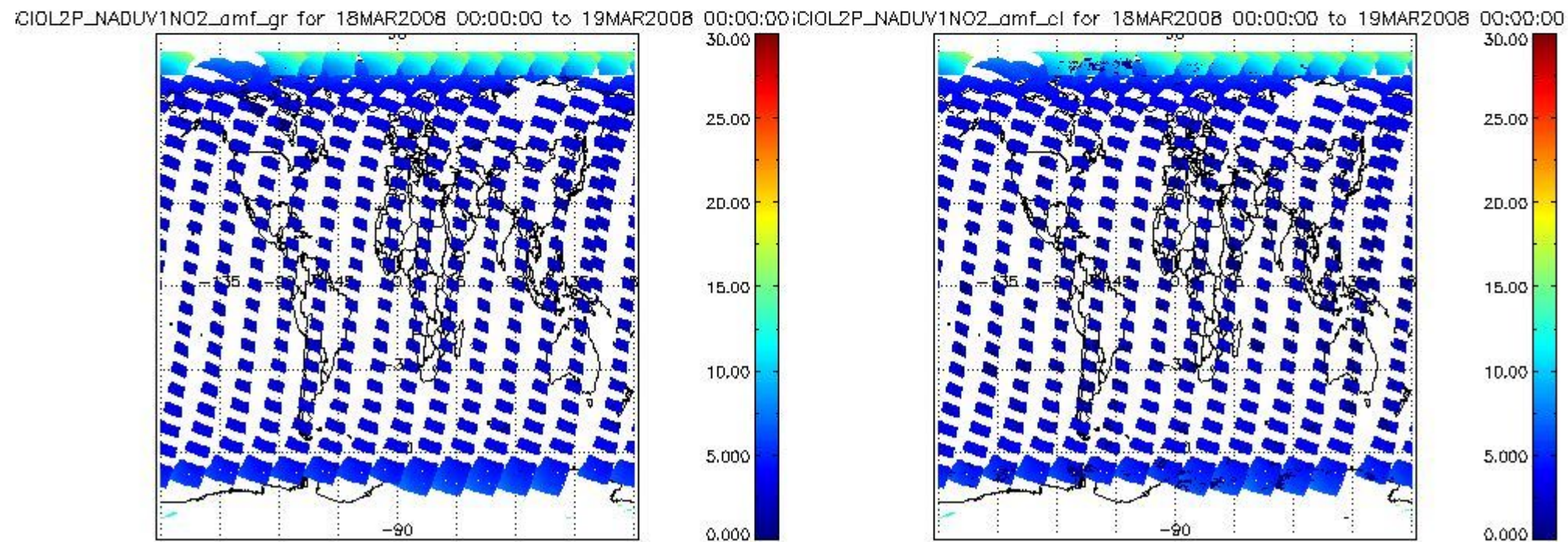
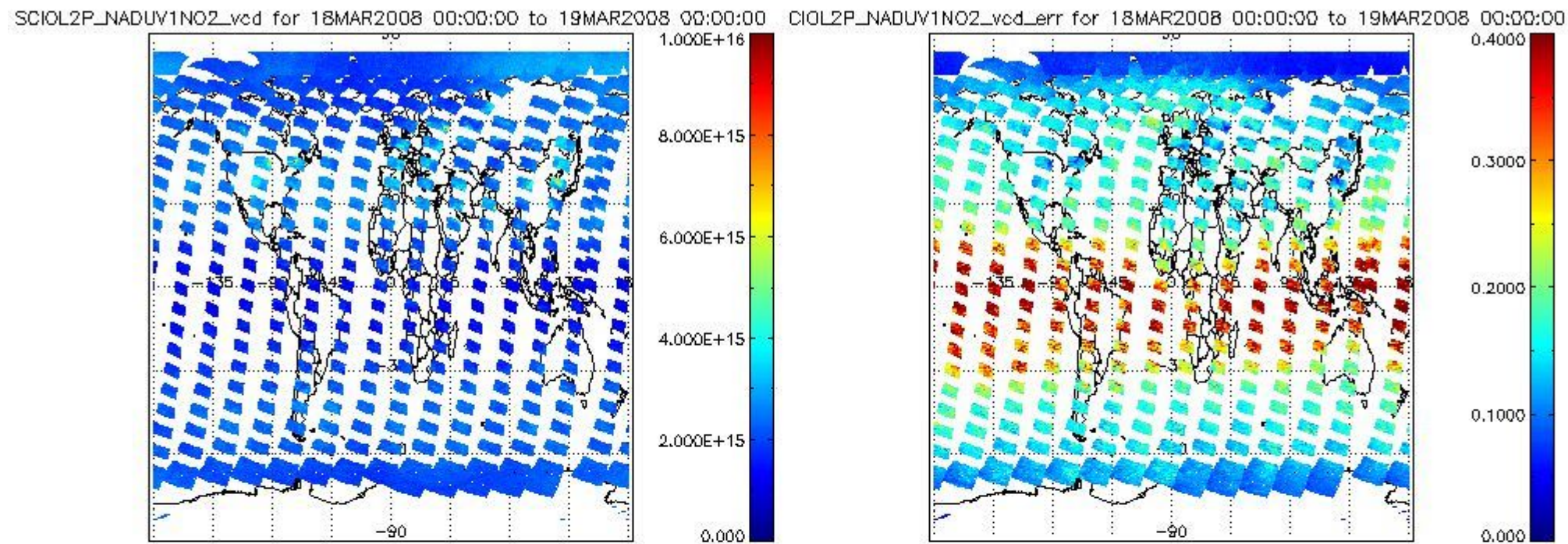
SCIOL2P\_NADUV003\_vcd for 18MAR2008 00:00:00 to 19MAR2008 00:00:00    SCIOL2P\_NADUV003\_vcd\_err for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



SCIOL2P\_NADUV003\_amf\_gr for 18MAR2008 00:00:00 to 19MAR2008 00:00:00    SCIOL2P\_NADUV003\_amf\_cl for 18MAR2008 00:00:00 to 19MAR2008 00:00:00







### 2.2.3 Limb

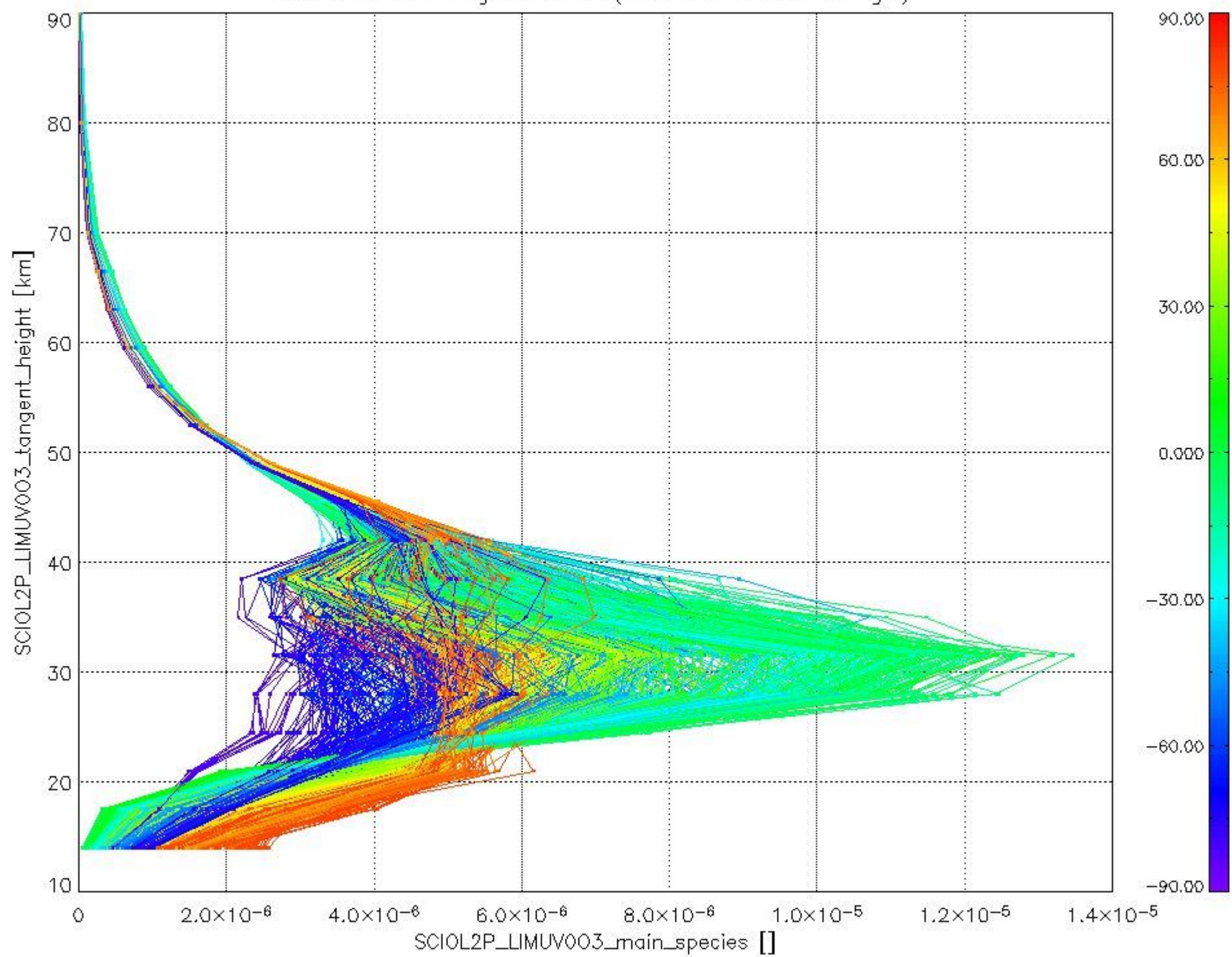
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

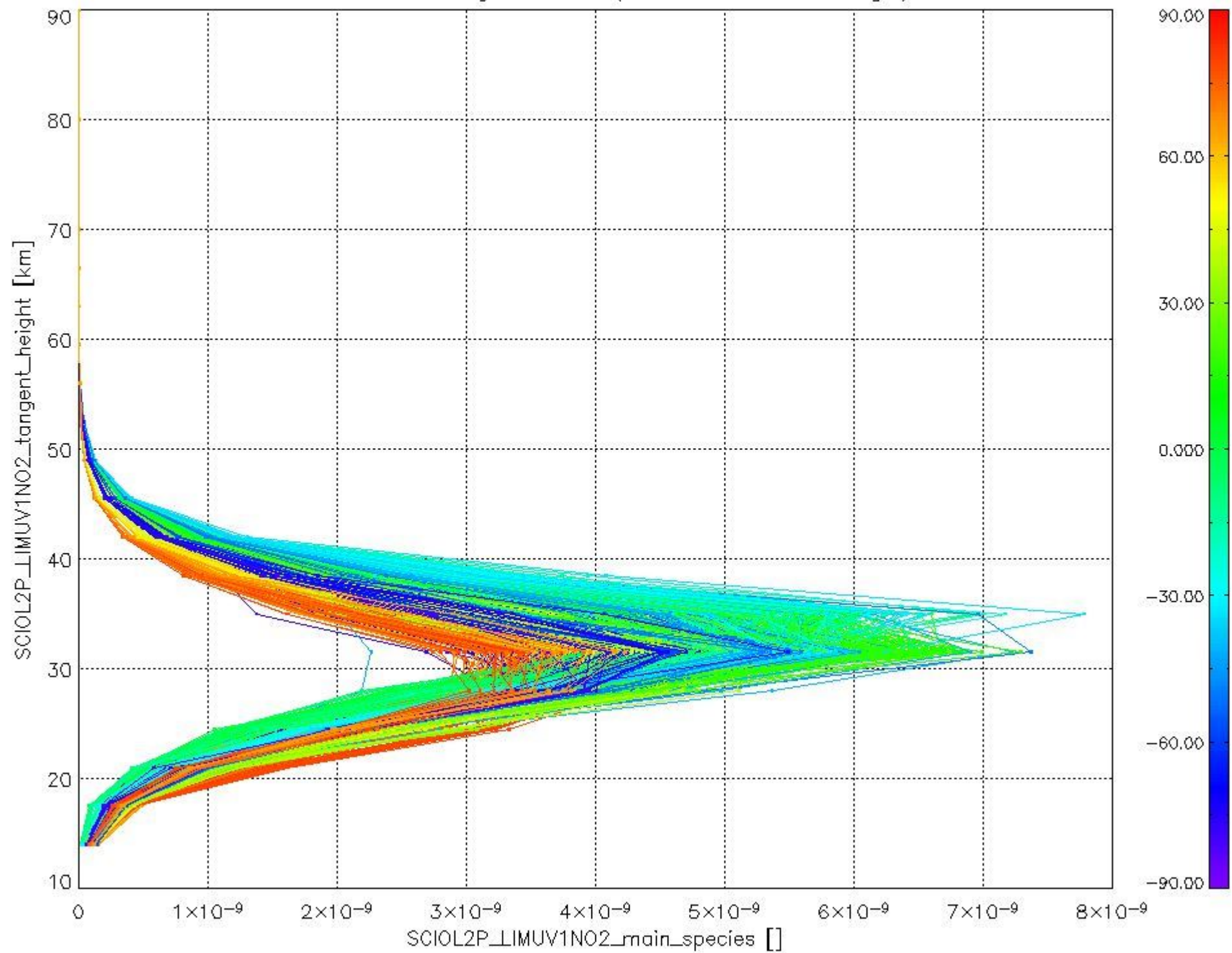
The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

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





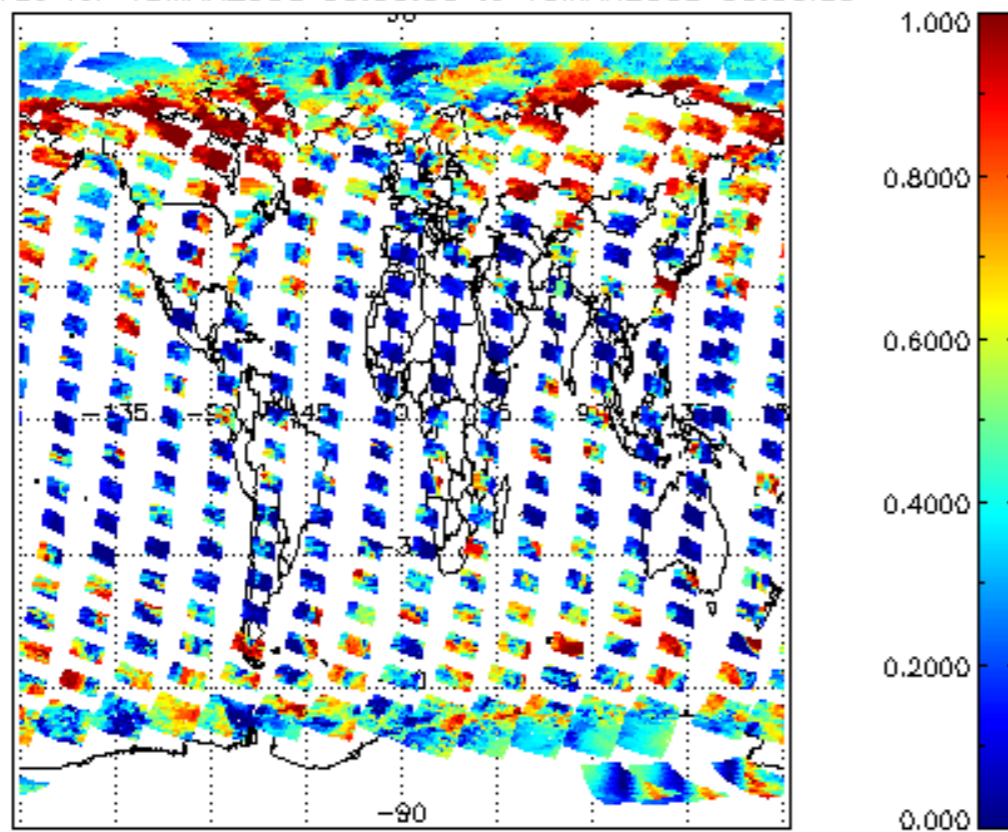
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



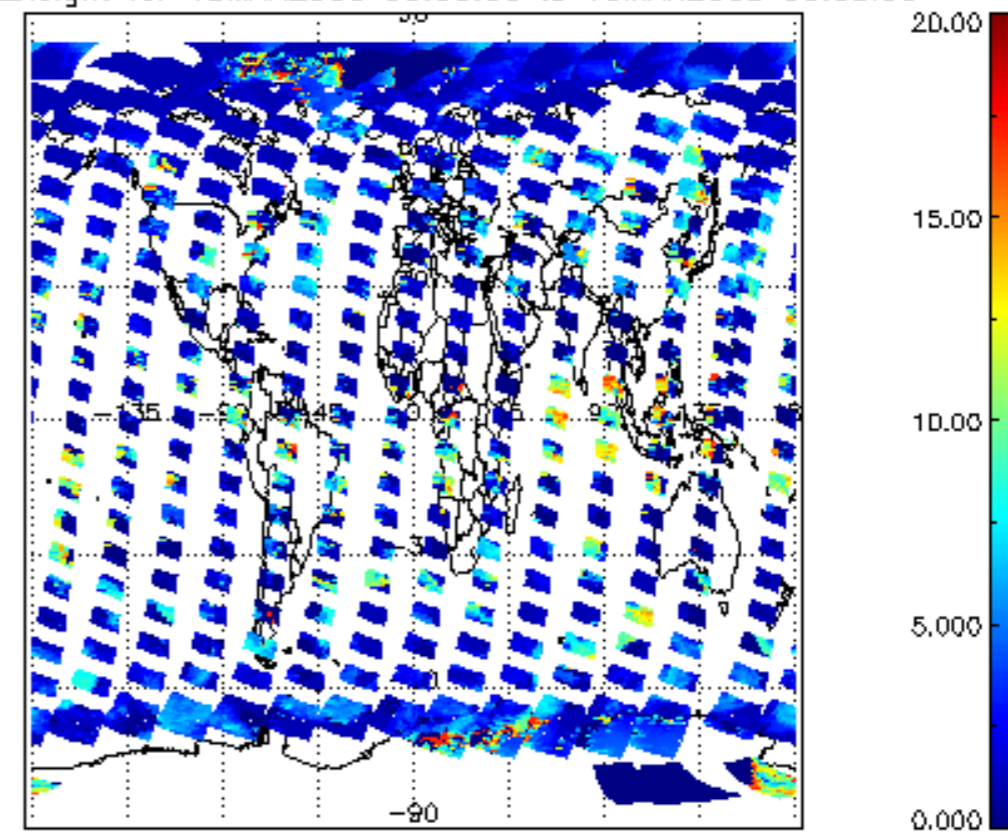
### 2.3 ADF monitoring

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

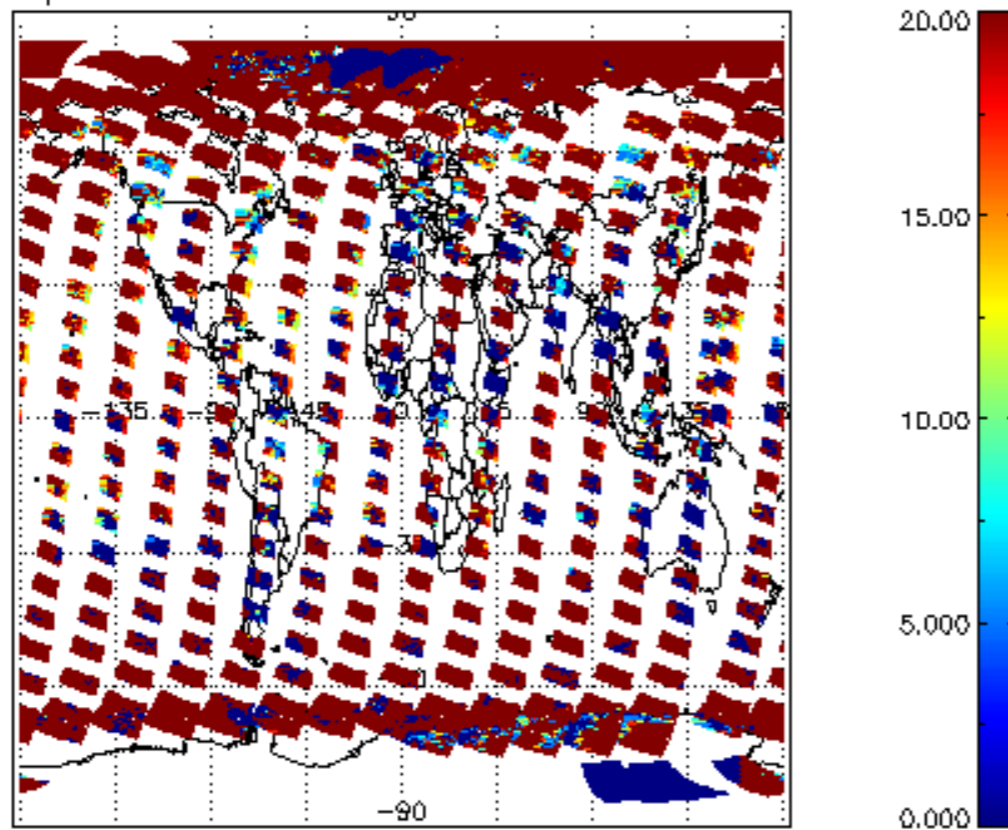
cL\_frac for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



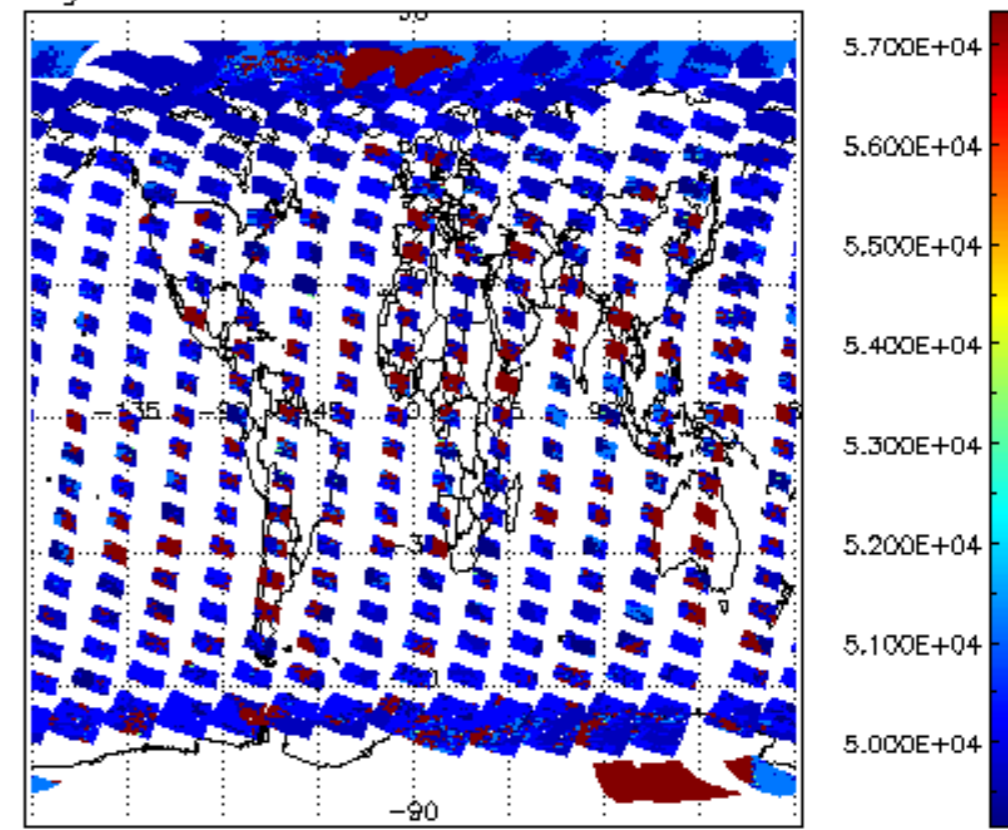
cL\_top\_height for 18MAR2008 00:00:00 to 19MAR2008 00:00:00

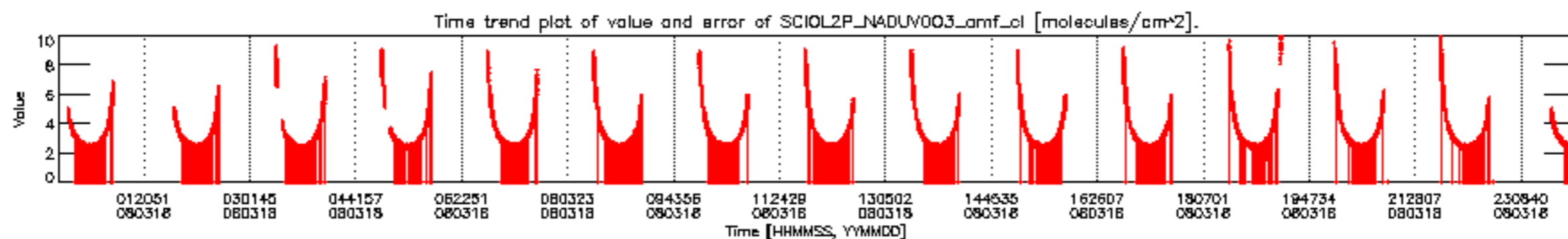
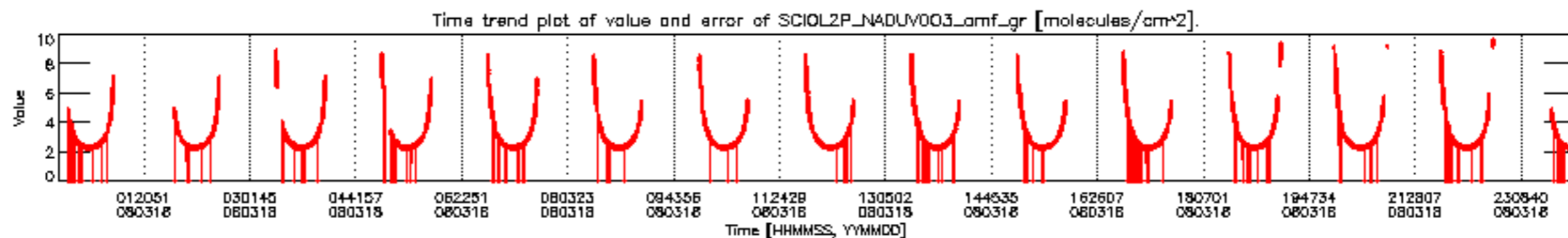
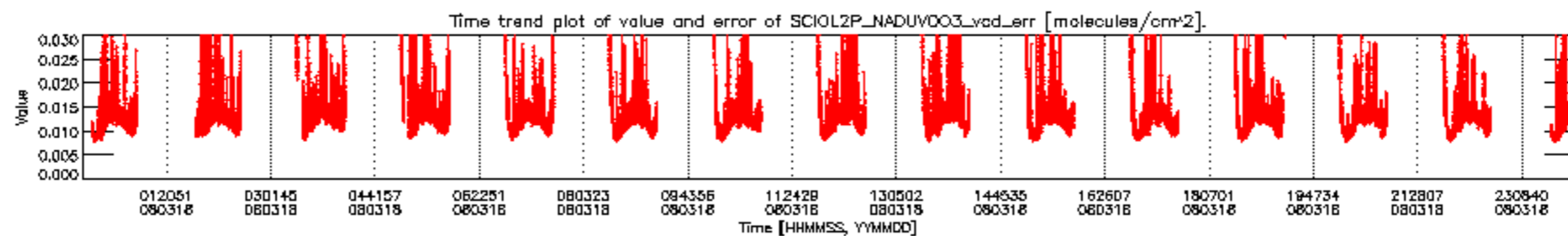
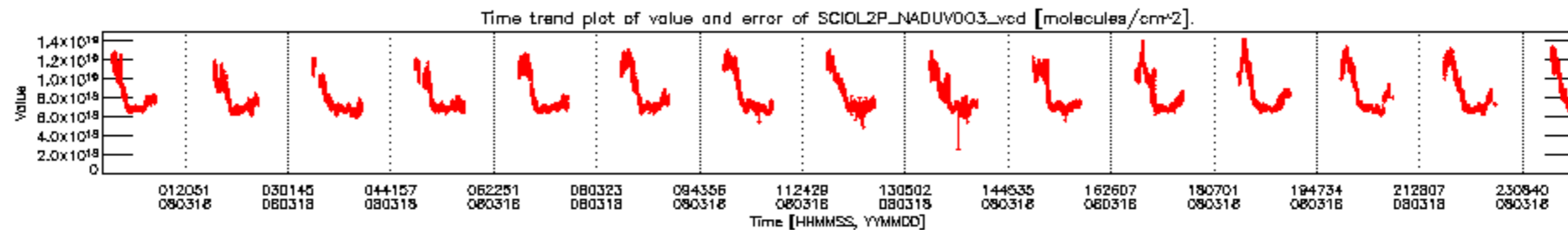


cL\_opt\_depth for 18MAR2008 00:00:00 to 19MAR2008 00:00:00

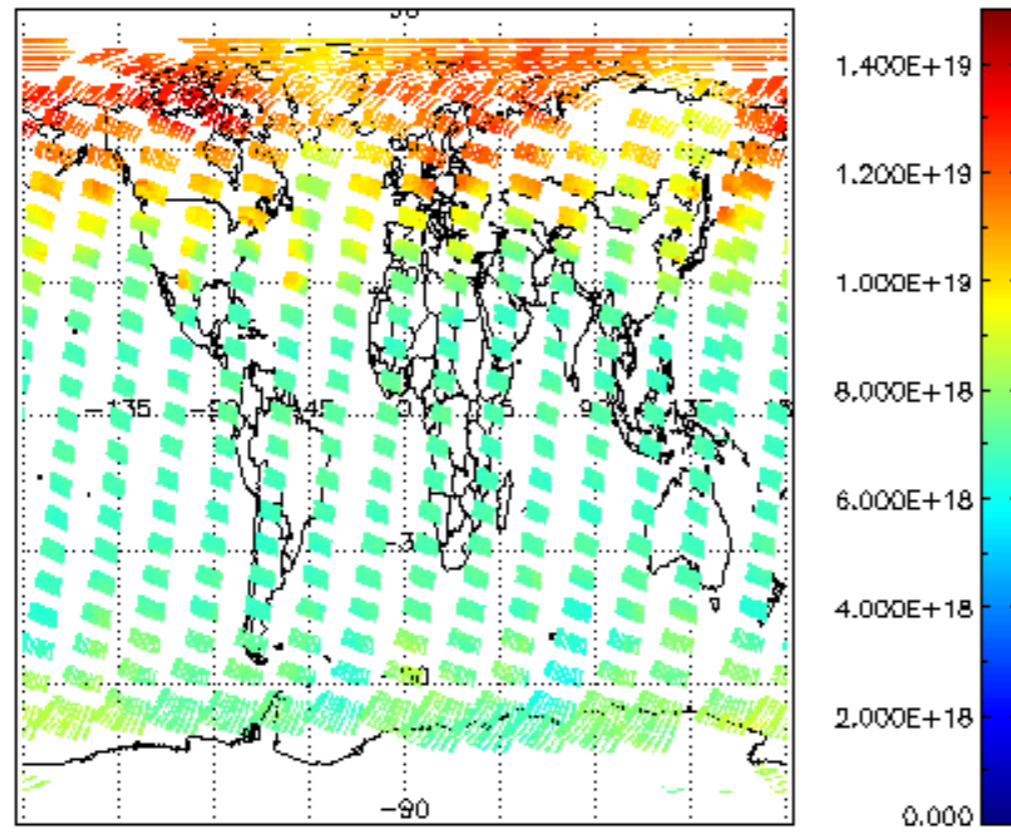


cloud\_flags for 18MAR2008 00:00:00 to 19MAR2008 00:00:00

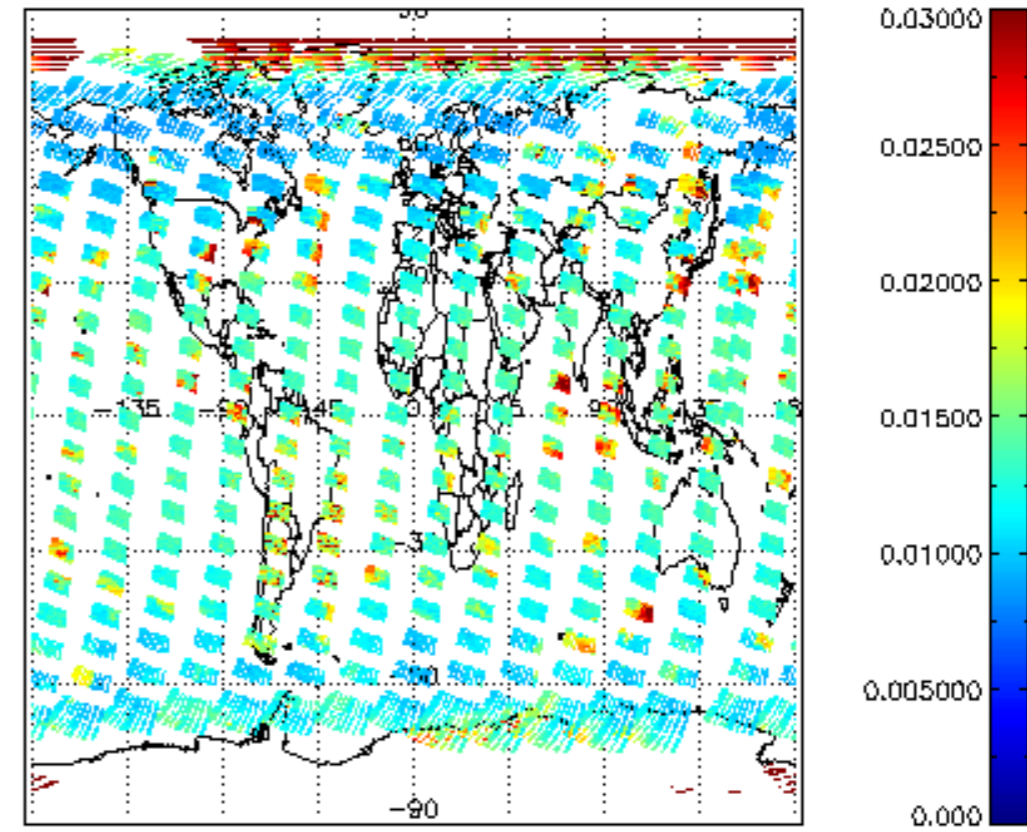




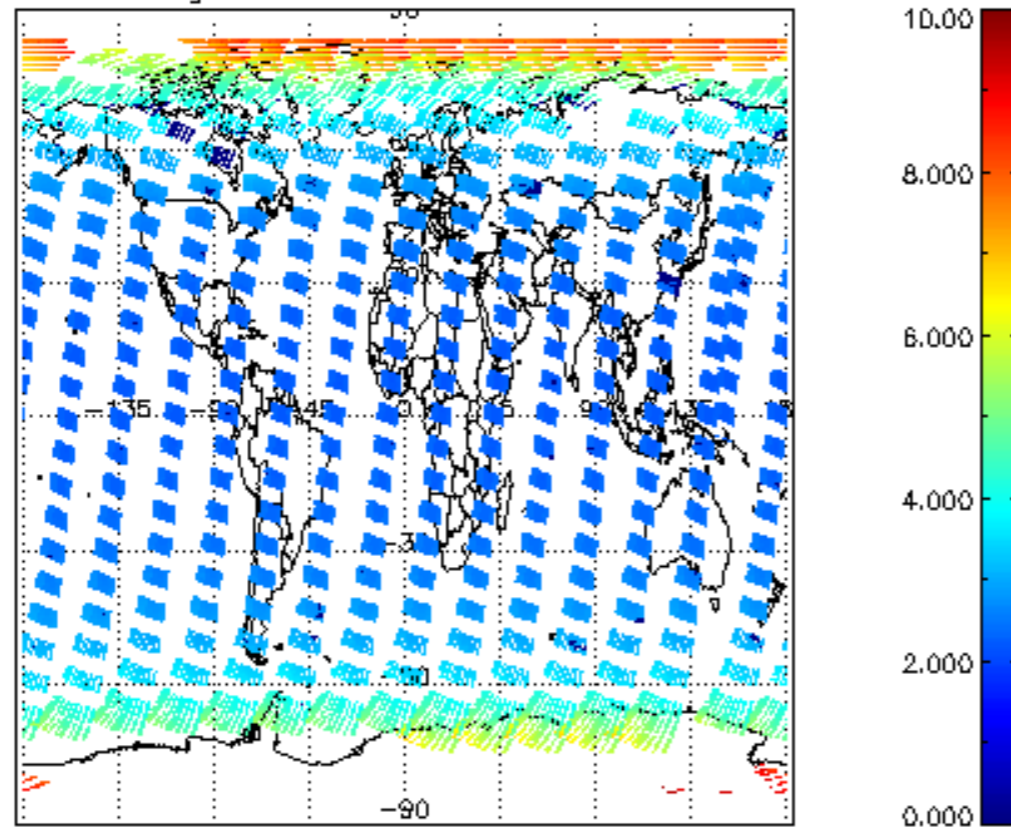
SCIOL2P\_NADUV003\_vcd for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



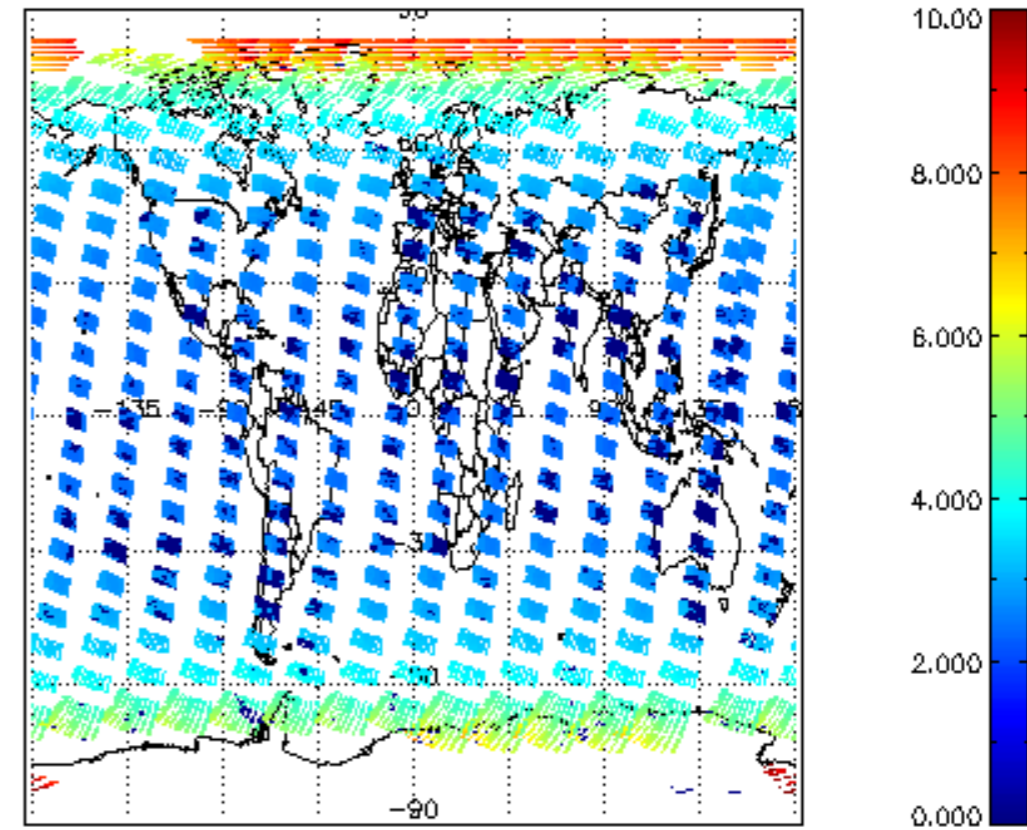
SCIOL2P\_NADUV003\_vcd\_err for 18MAR2008 00:00:00 to 19MAR2008 00:00:00

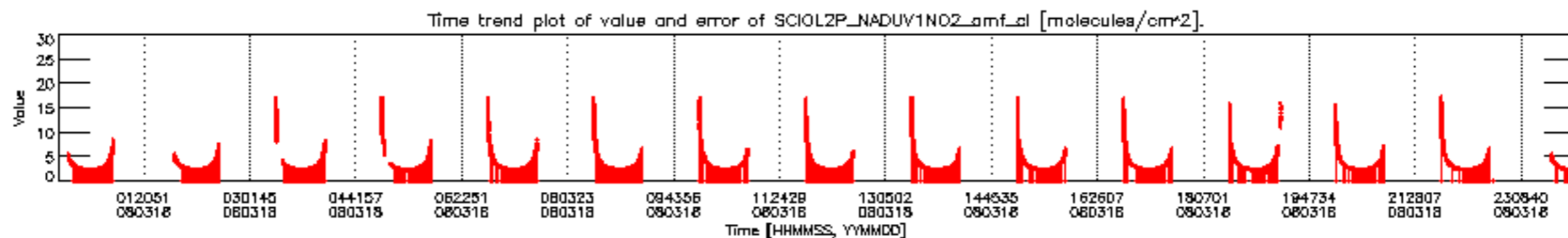
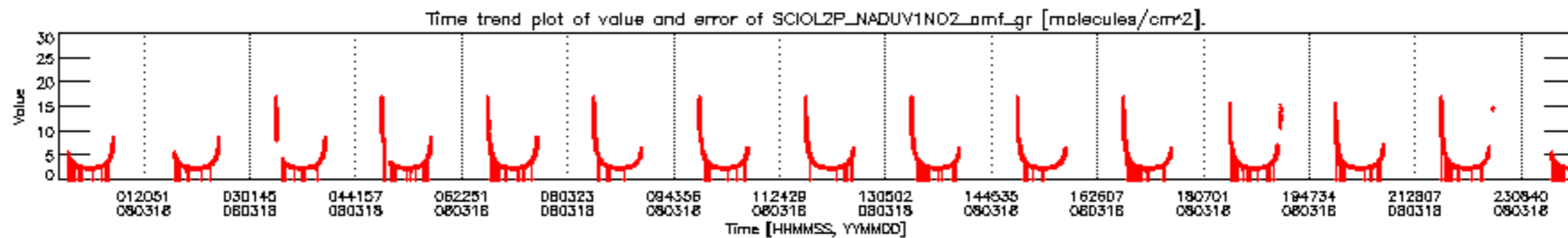
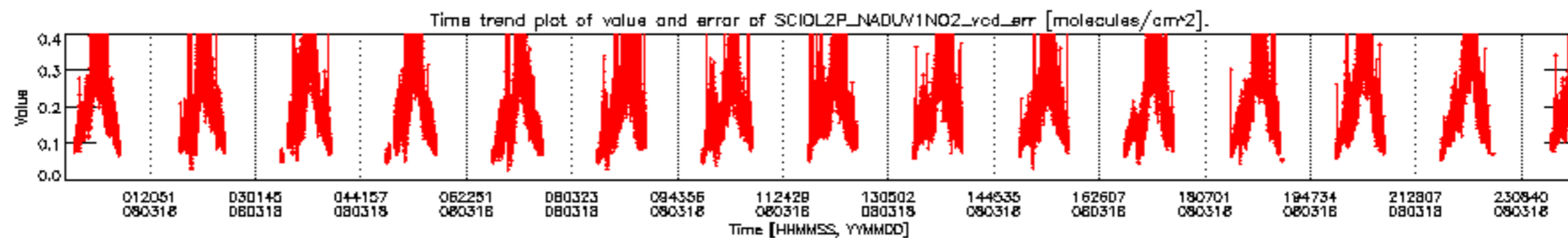
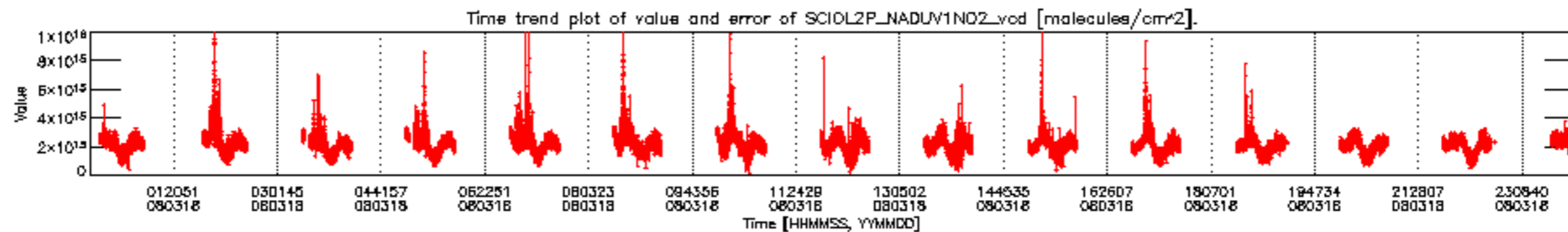


SCIOL2P\_NADUV003\_amf\_gr for 18MAR2008 00:00:00 to 19MAR2008 00:00:00

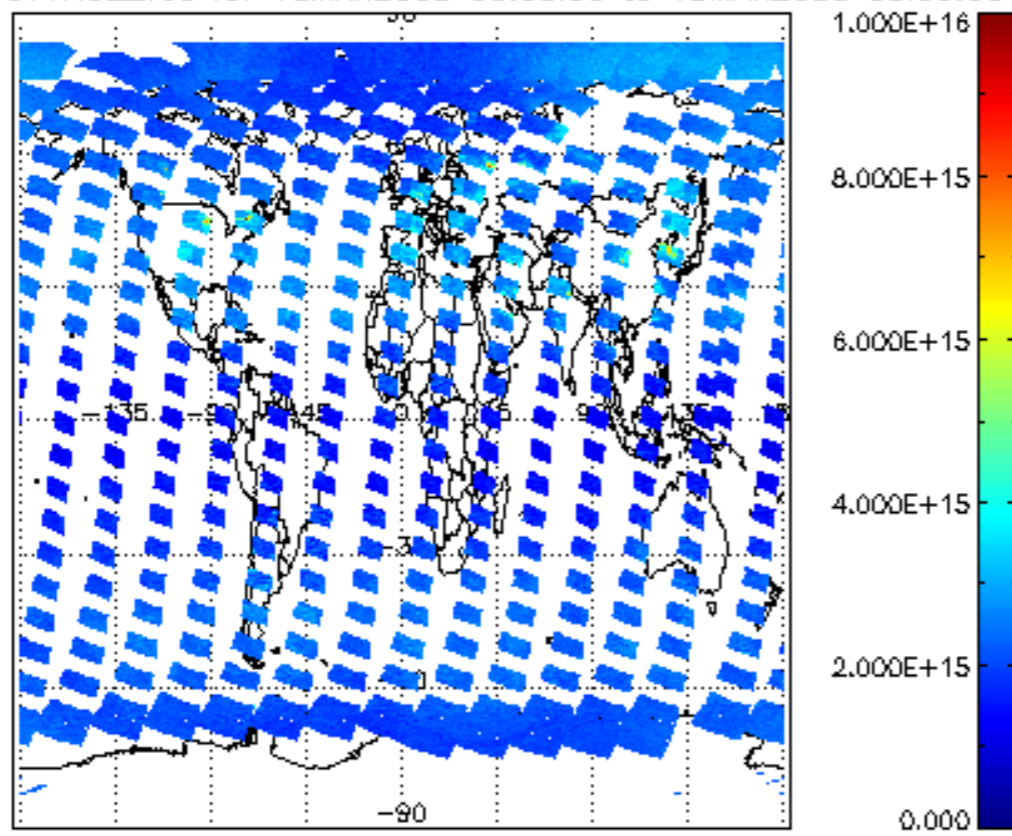


SCIOL2P\_NADUV003\_amf\_cl for 18MAR2008 00:00:00 to 19MAR2008 00:00:00

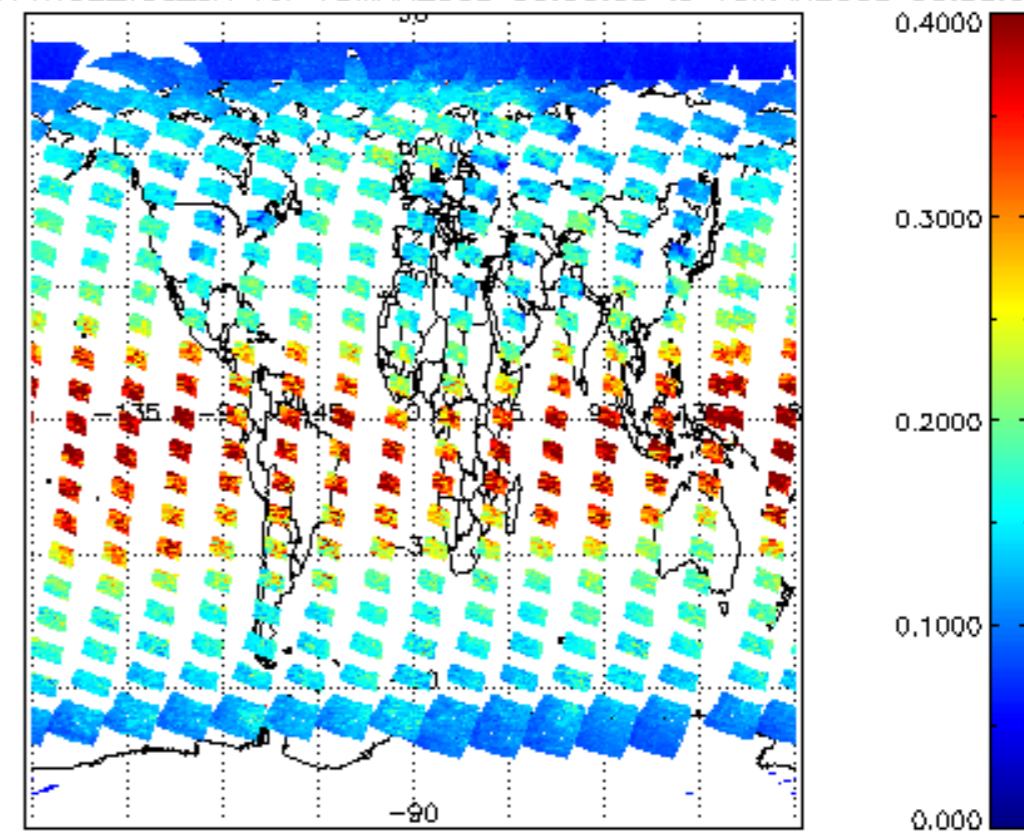




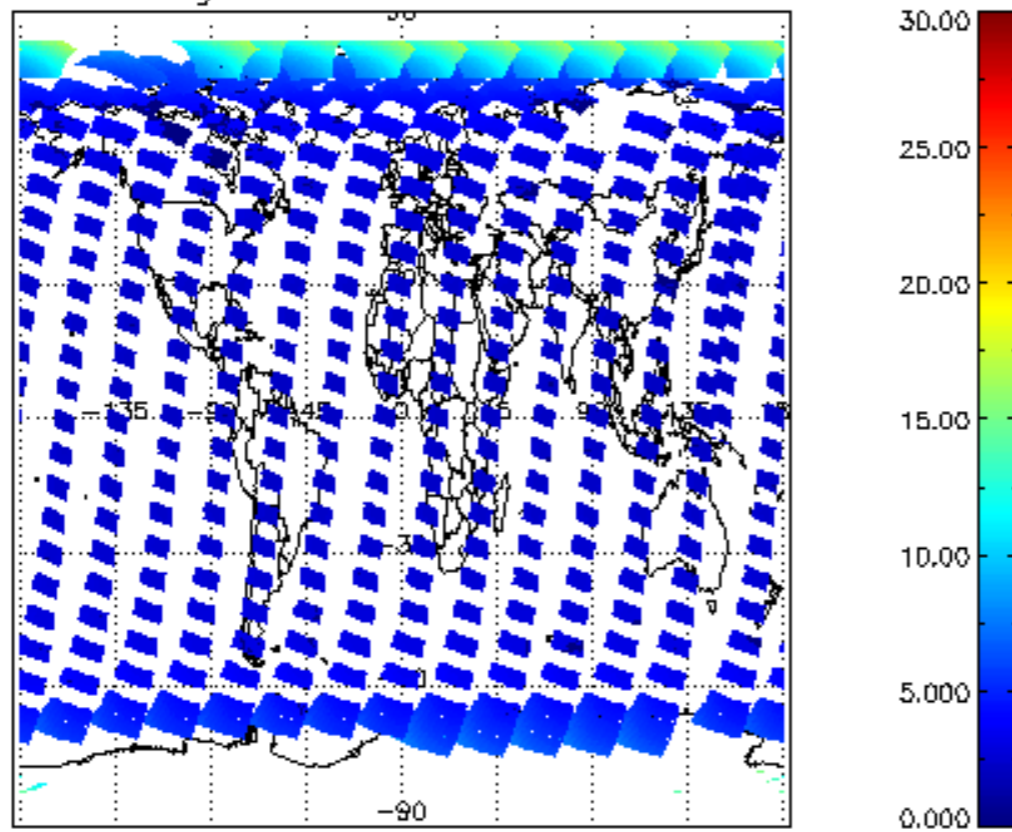
SCIOL2P\_NADUV1NO2\_vcd for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



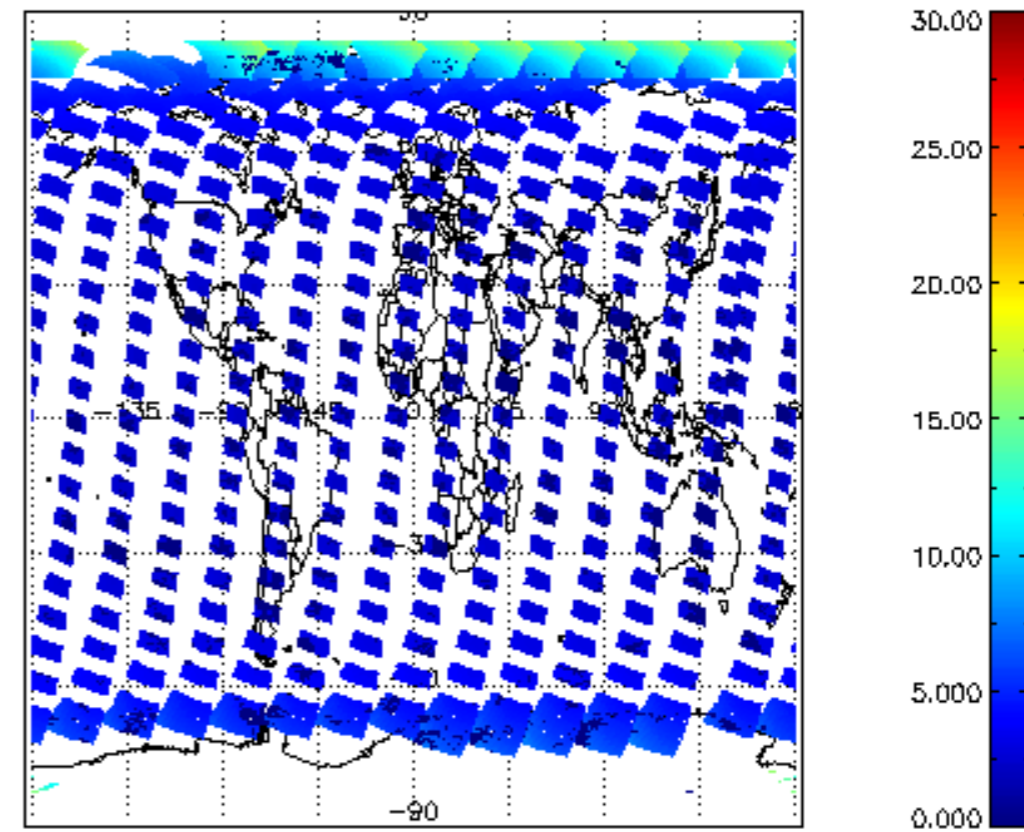
SCIOL2P\_NADUV1NO2\_vcd\_err for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



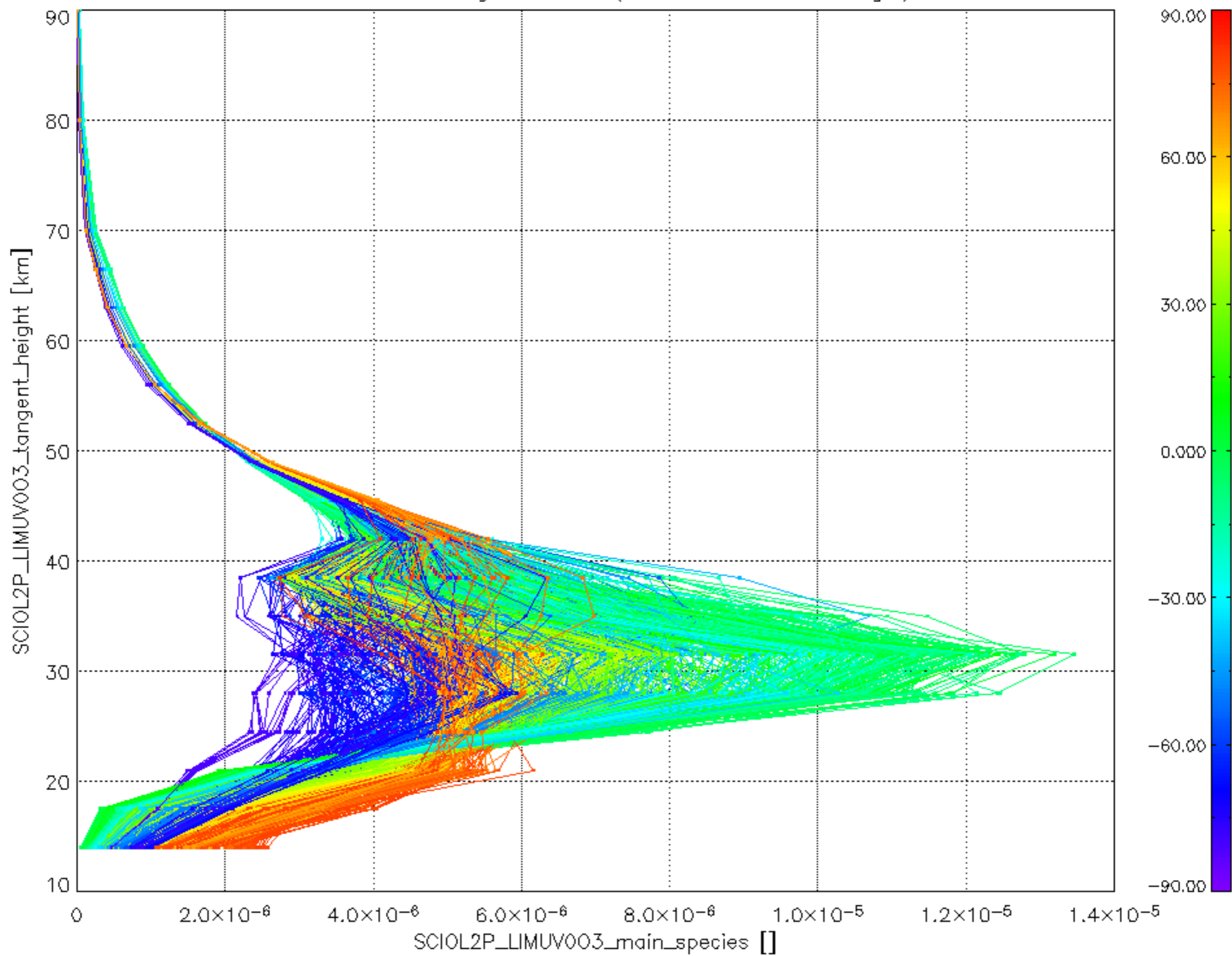
SCIOL2P\_NADUV1NO2\_amf\_gr for 18MAR2008 00:00:00 to 19MAR2008 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 18MAR2008 00:00:00 to 19MAR2008 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).

