

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	1.4 (06-11-2007)
Time of report generation	12APR2008 06:02:00
Data source version	SCIA-OL/3.01-R
Processing scope for products	20MAR2008 00:00:00 to 21MAR2008 00:00:00
Start time of first product within scope	19MAR2008 22:55:14
Stop time of last product within scope	21MAR2008 00:59:24
Total number of level 2 products	12
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__2PRDPA20080319_225514_000034012067_00030_31647_5028.N1	19MAR2008 22:55:14	19MAR2008 23:51:55	0	GOOD
1	SCI_OL__2PRDPA20080320_003549_000033912067_00031_31648_5029.N1	20MAR2008 00:35:49	20MAR2008 01:32:21	0	GOOD
2	SCI_OL__2PRDPA20080320_021625_000033822067_00032_31649_4968.N1	20MAR2008 02:16:25	20MAR2008 03:12:47	0	GOOD
3	SCI_OL__2PRDPA20080320_035700_000033722067_00033_31650_4987.N1	20MAR2008 03:57:00	20MAR2008 04:53:13	0	GOOD
4	SCI_OL__2PRDPA20080320_053736_000033622067_00034_31651_4988.N1	20MAR2008 05:37:36	20MAR2008 06:33:38	0	GOOD
5	SCI_OL__2PRDPA20080320_071811_000033522067_00035_31652_5018.N1	20MAR2008 07:18:11	20MAR2008 08:14:04	0	GOOD
6	SCI_OL__2PRDPA20080320_085847_000033422067_00036_31653_5019.N1	20MAR2008 08:58:47	20MAR2008 09:54:29	0	GOOD
7	SCI_OL__2PRDPA20080320_103922_000034002067_00037_31654_5030.N1	20MAR2008 10:39:22	20MAR2008 11:36:03	0	GOOD
8	SCI_OL__2PRDPA20080320_121958_000033902067_00038_31655_5160.N1	20MAR2008 12:19:58	20MAR2008 13:16:28	0	GOOD
9	SCI_OL__2PRDPA20080320_140033_000033792067_00039_31656_5161.N1	20MAR2008 14:00:33	20MAR2008 14:56:53	0	GOOD
10	SCI_OL__2PRDPA20080320_172213_000033652067_00041_31658_5212.N1	20MAR2008 17:22:13	20MAR2008 18:18:19	0	GOOD
11	SCI_OL__2PRDPA20080321_001345_000027382067_00045_31662_5216.N1	21MAR2008 00:13:45	21MAR2008 00:59:24	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: 83200

Total number of cloud data DSRs with good quality flag (=0): 83200 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	83200	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	83200	0.18047	0.12500	0.12500	0.25000	0.062104	s
SURFACE_PRES	83200	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	83200	0.38037	0.33479	0.0000	1.0000	0.29829	-
CL_FRAC_ERR	83200	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	83200	5.7750	4.0000	4.0000	8.0000	1.9873	
PMD_READ_CL[0]	83200	0.26013	0.0000	0.0000	8.0000	1.1059	-

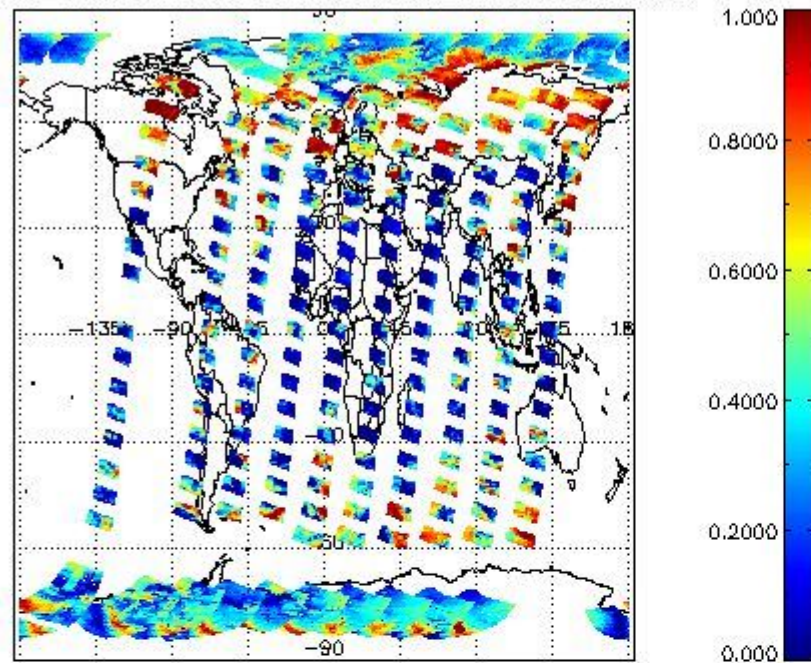
PMD_READ_CL[1]	83200	1.1453	0.0000	0.0000	8.0000	2.4141	-
CL_TOP_HEIGHT	70176	3.6374	1.8491	0.0000	17.000	3.9633	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	70176	55.951	49.486	0.0000	101.00	40.339	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	83200	11100000	11100000	11100000	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	83200	11001010	11000100	11000000	11100000	3288.8	flags
AERO_ABSO_IND	83200	2.9445	3.4534	-1.5585	14.346	2.1044	
AERO_IND_DIAG	83200	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	83200	01100010	11000000	00000000	11000000	24571.	flags

Time and geolocation plots:

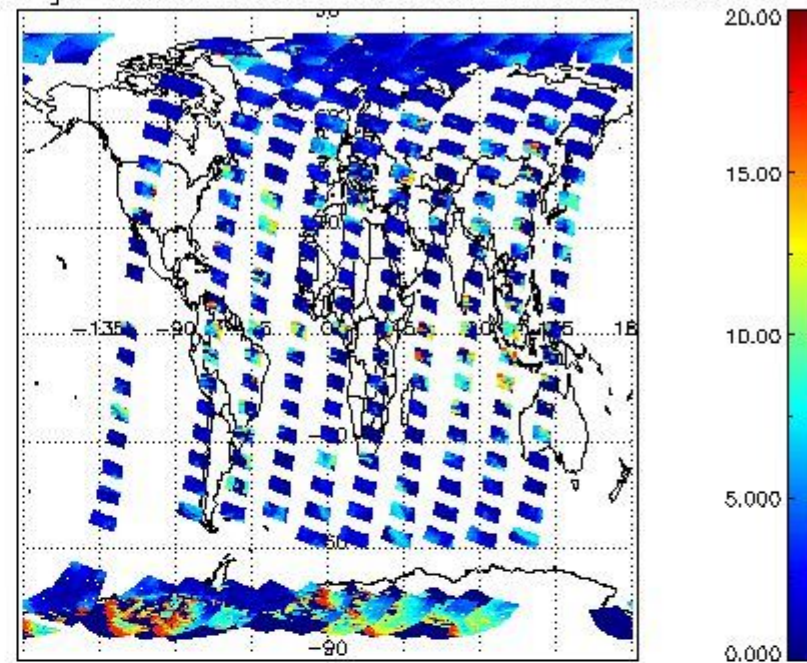
Plots are available for the following parameters:

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

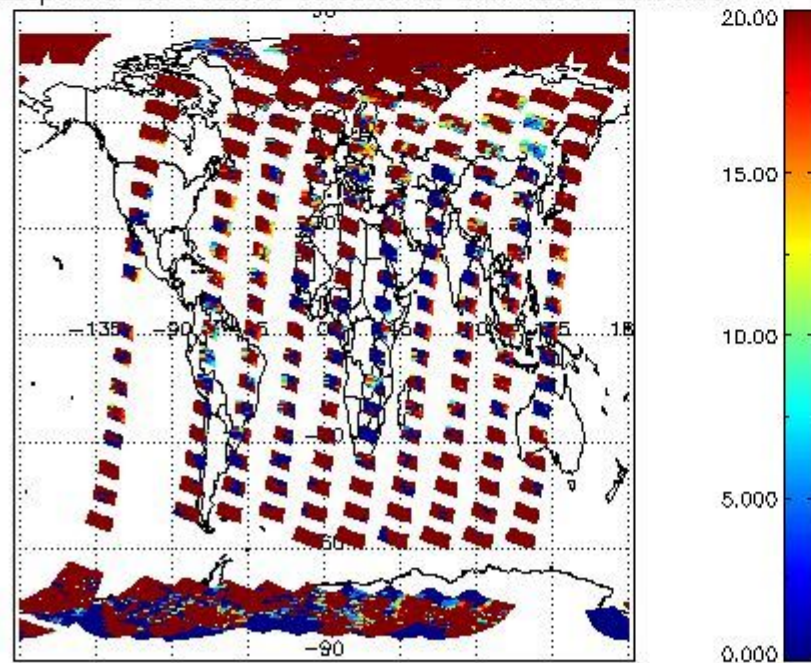
cLfrac for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



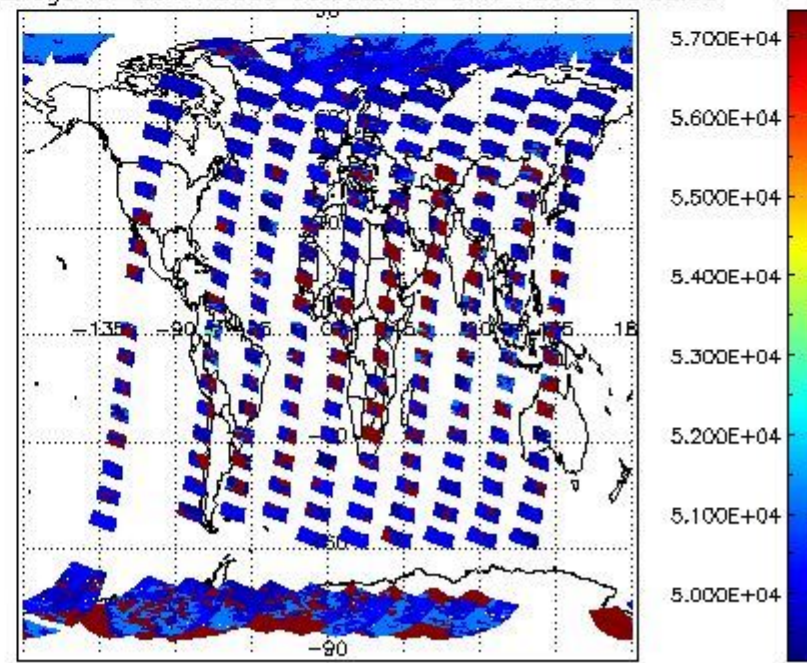
cLtop_height for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



cLopt_depth for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



cloud_flags for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



2.2.2 Nadir

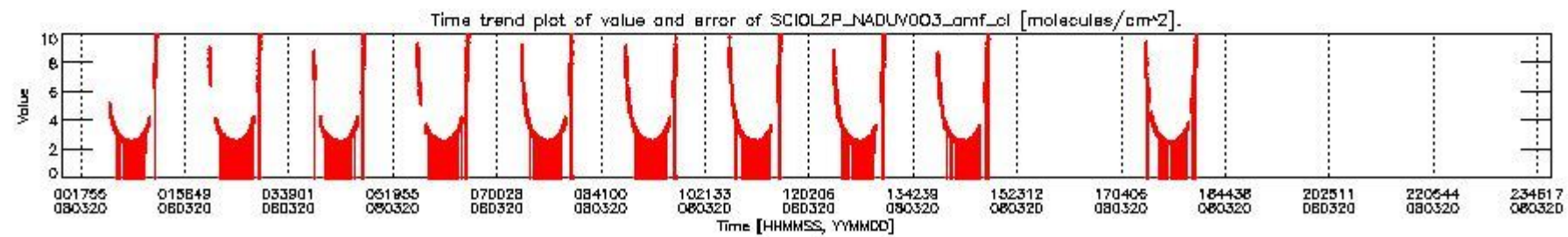
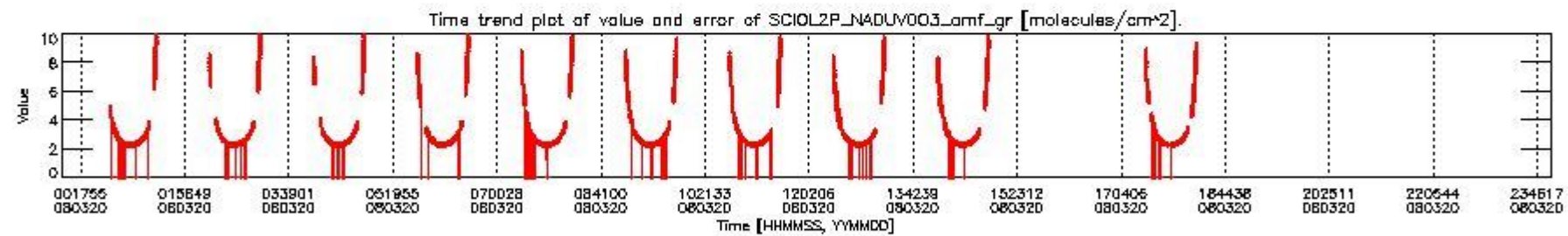
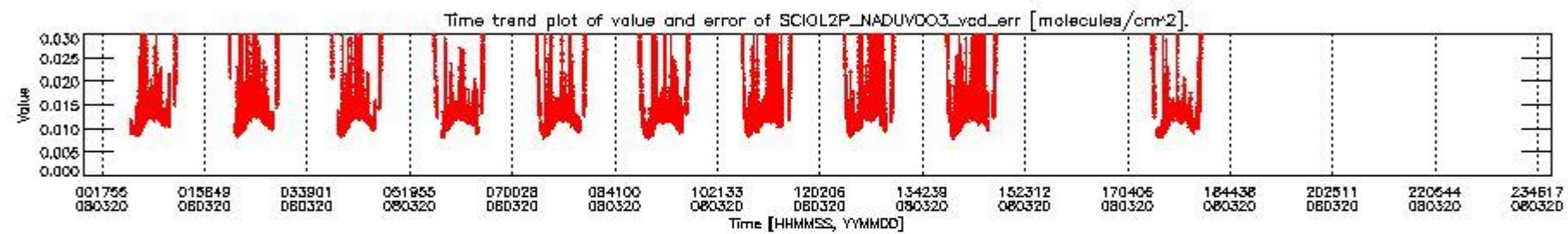
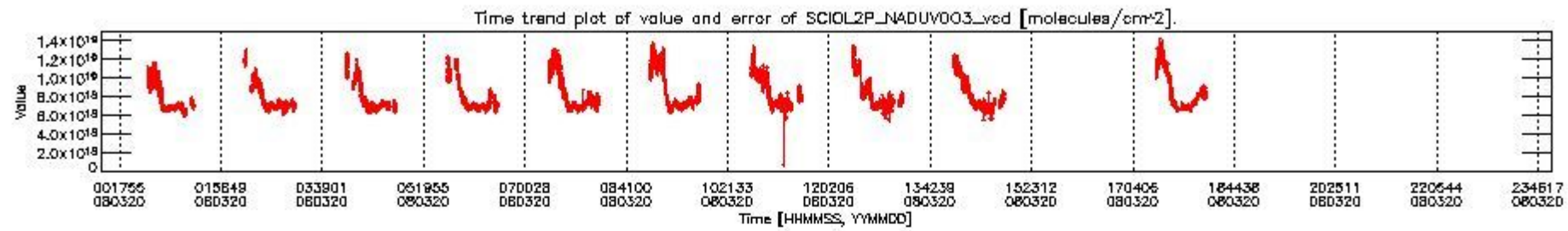
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

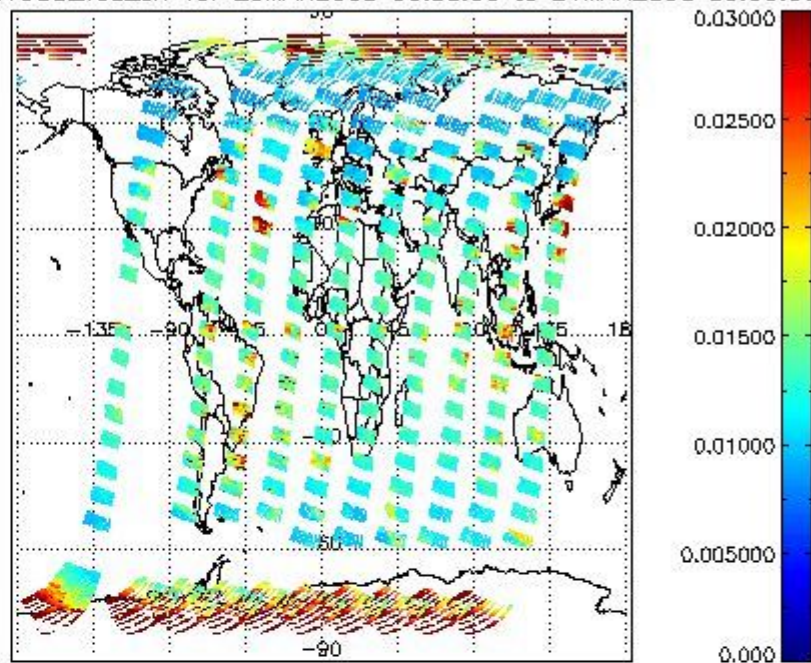
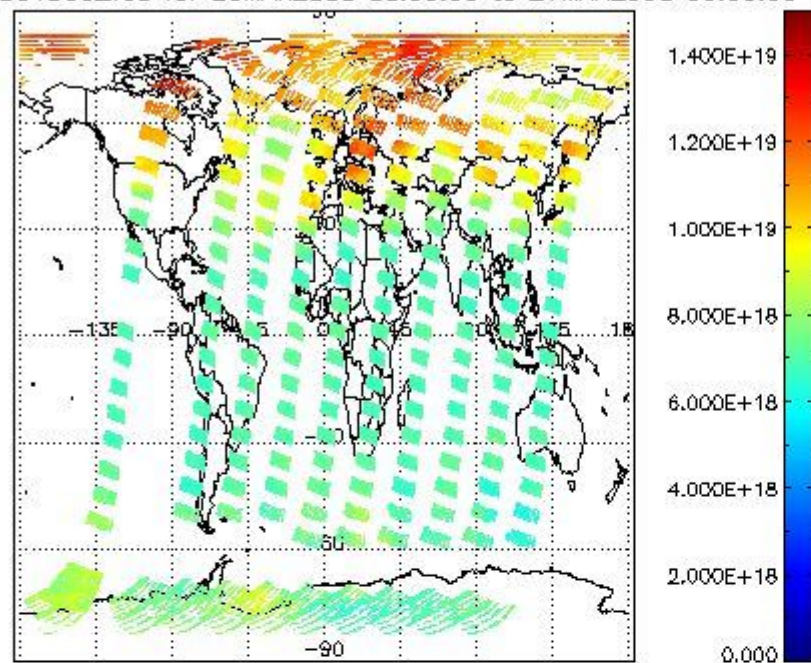
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

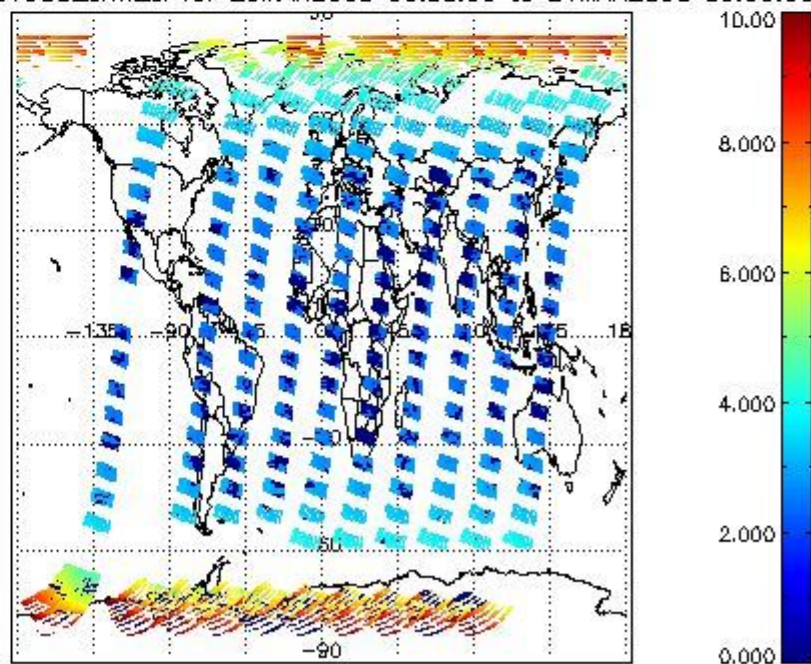
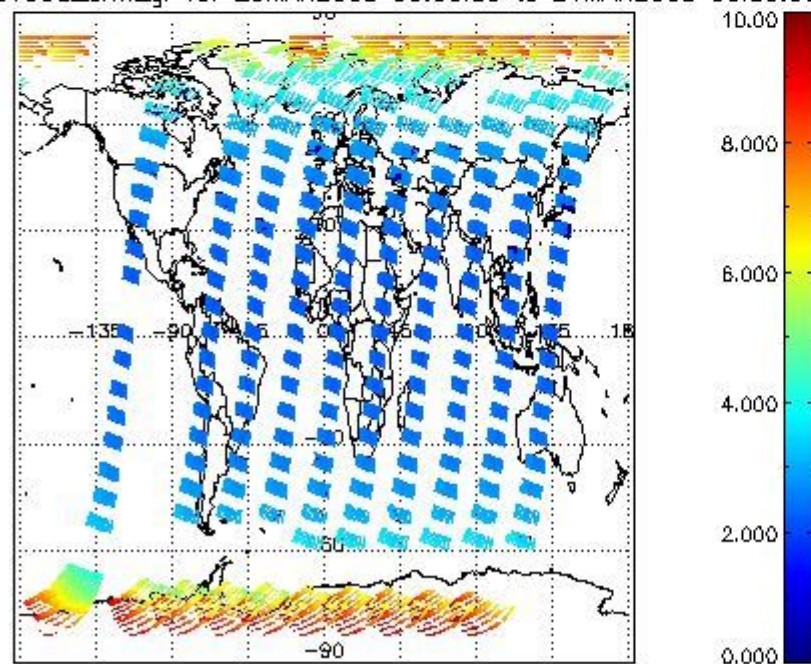
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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

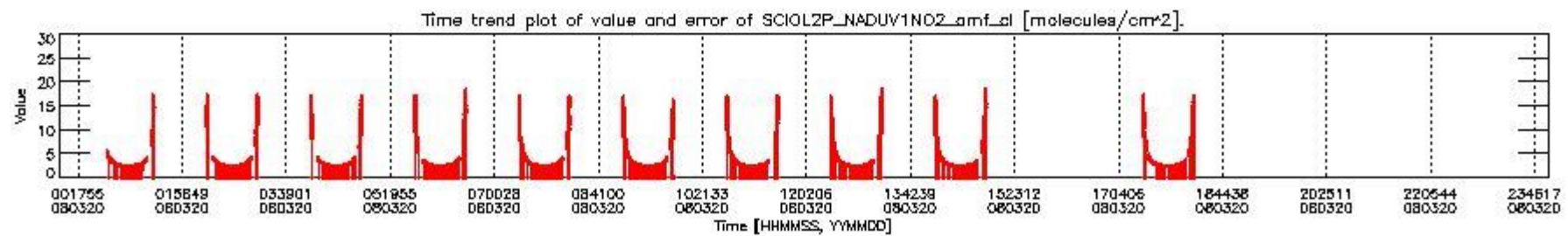
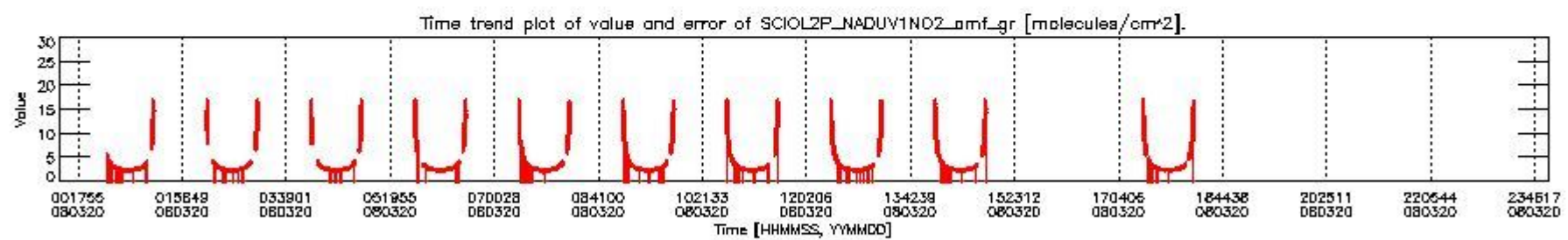
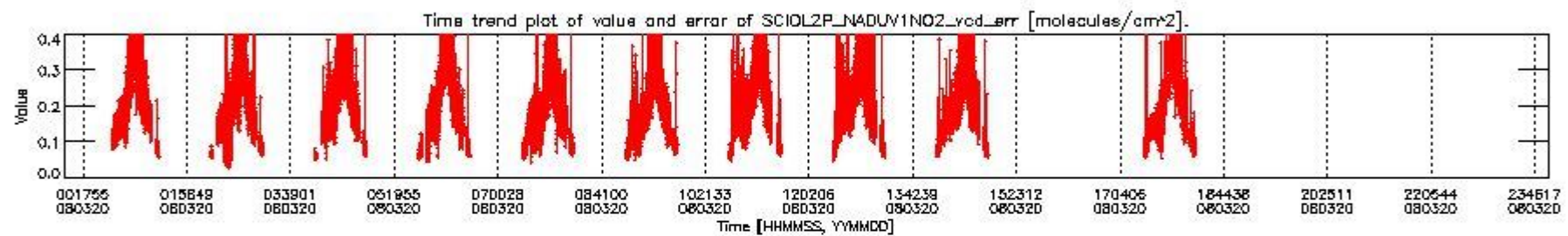
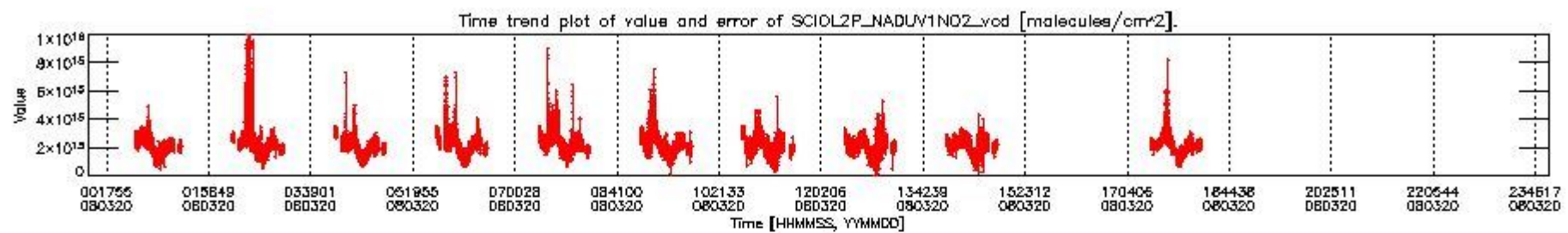


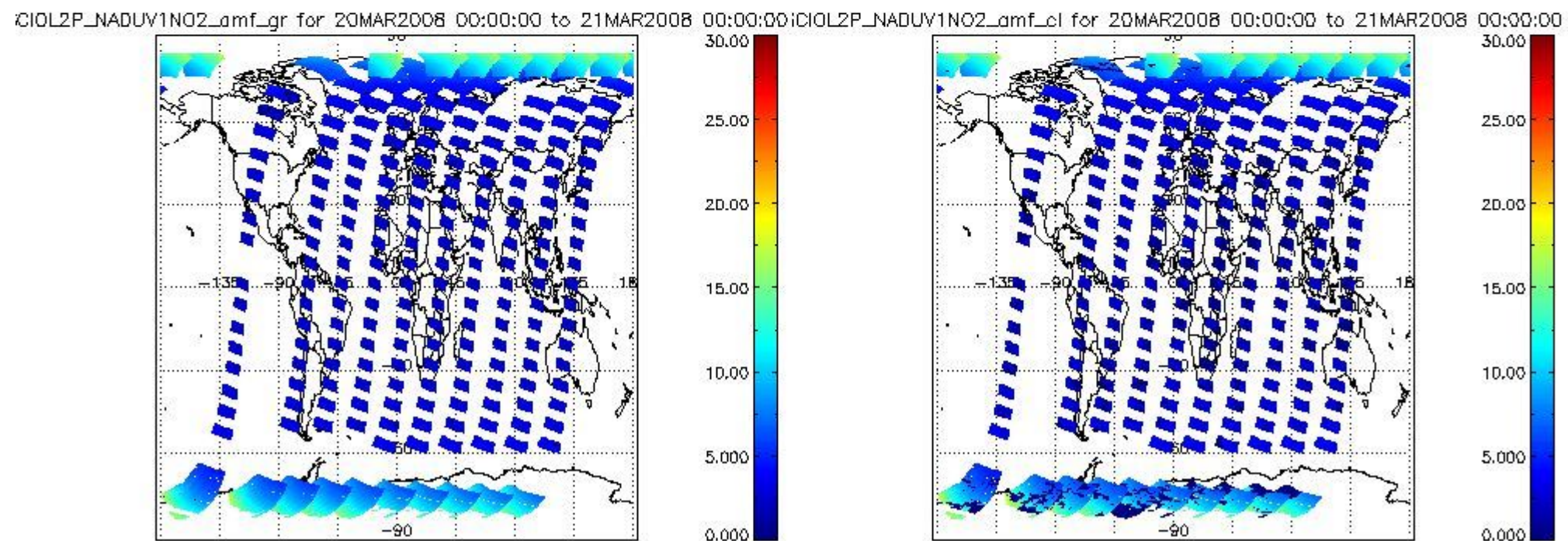
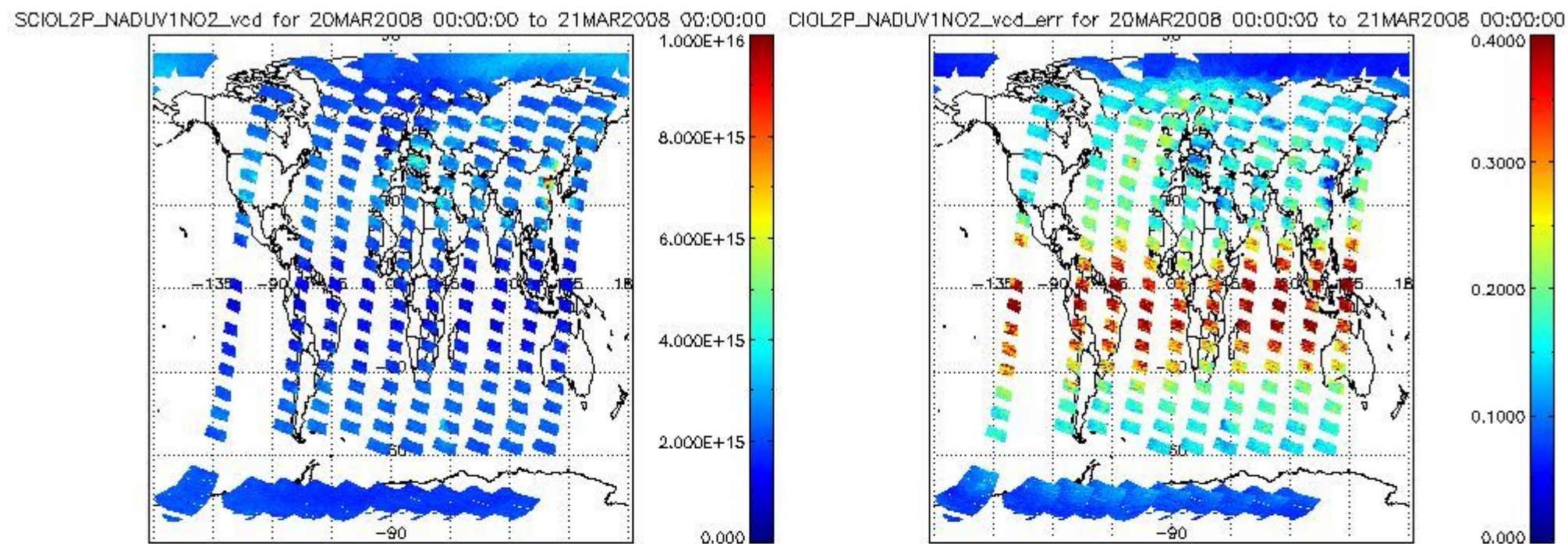
SCIOL2P_NADUV003_vcd for 20MAR2008 00:00:00 to 21MAR2008 00:00:00 SCIOL2P_NADUV003_vcd_err for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



SCIOL2P_NADUV003_amf_gr for 20MAR2008 00:00:00 to 21MAR2008 00:00:00 SCIOL2P_NADUV003_amf_cl for 20MAR2008 00:00:00 to 21MAR2008 00:00:00







2.2.3 Limb

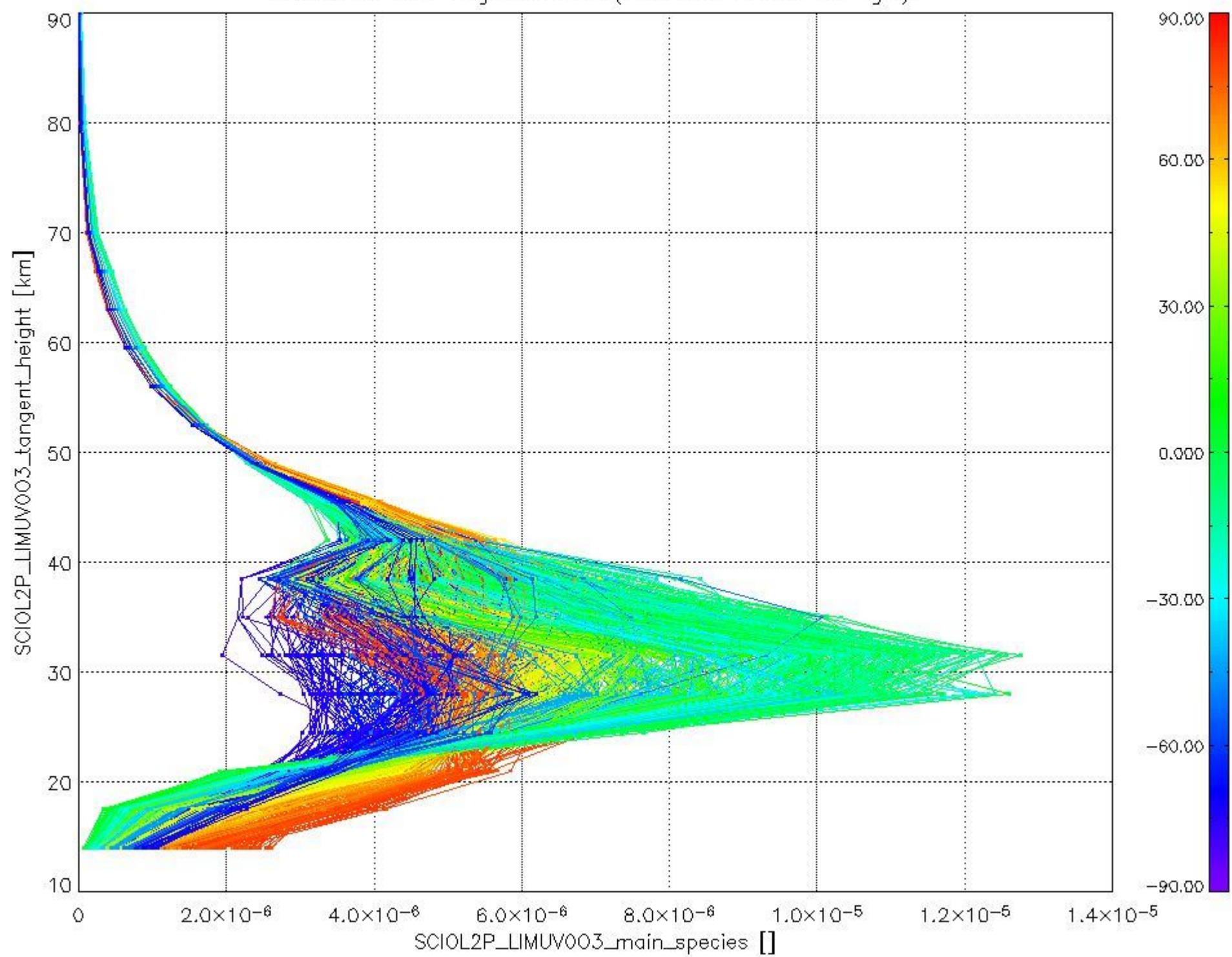
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

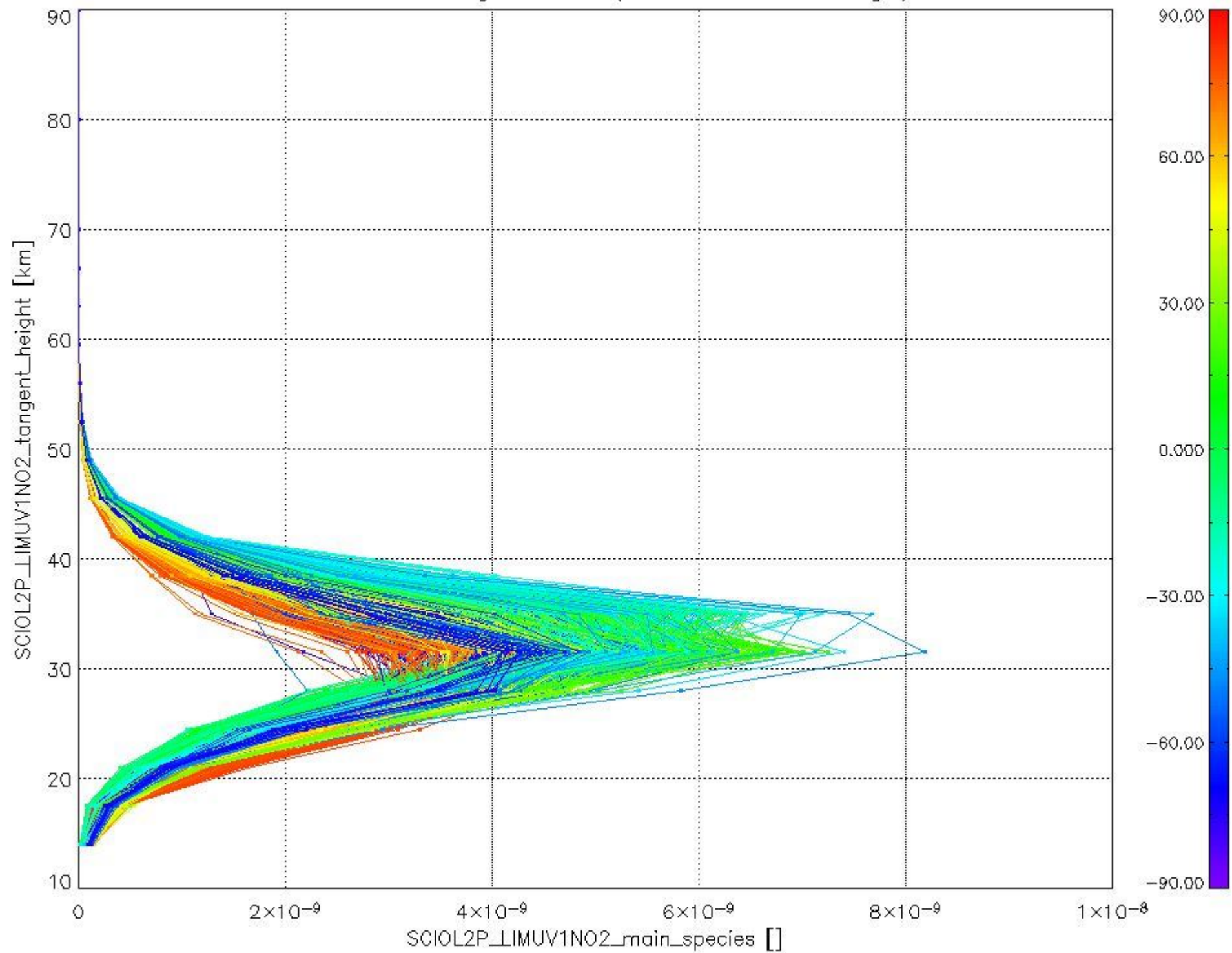
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



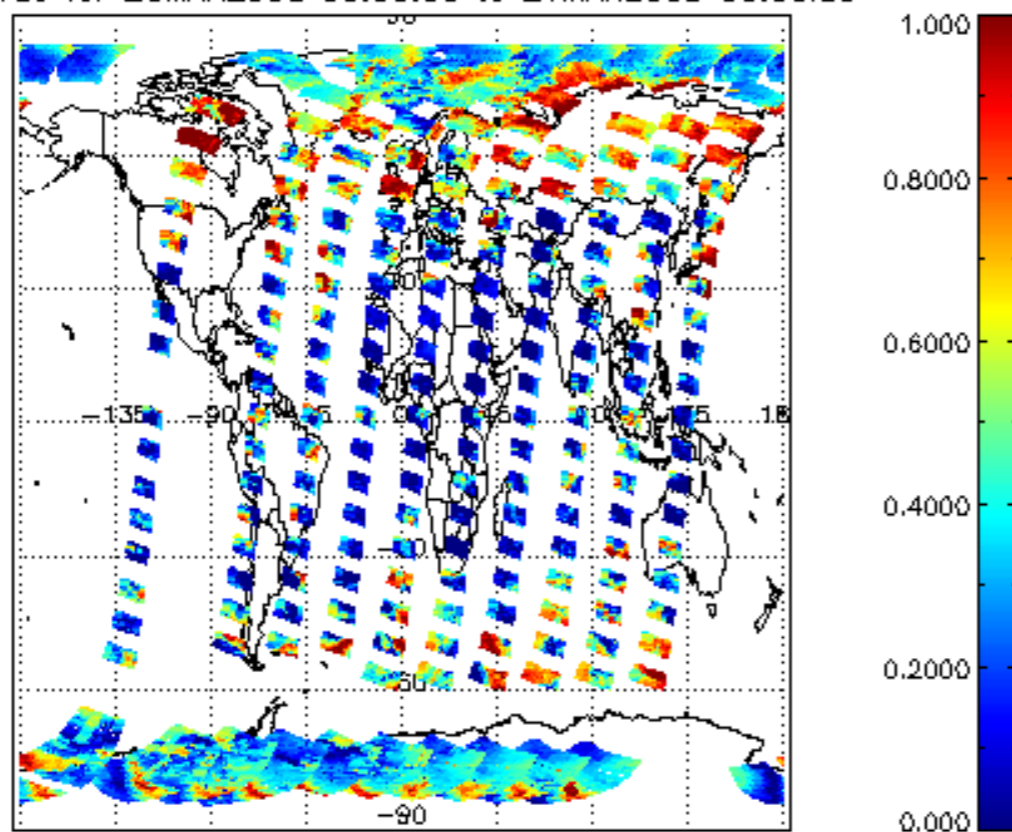
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



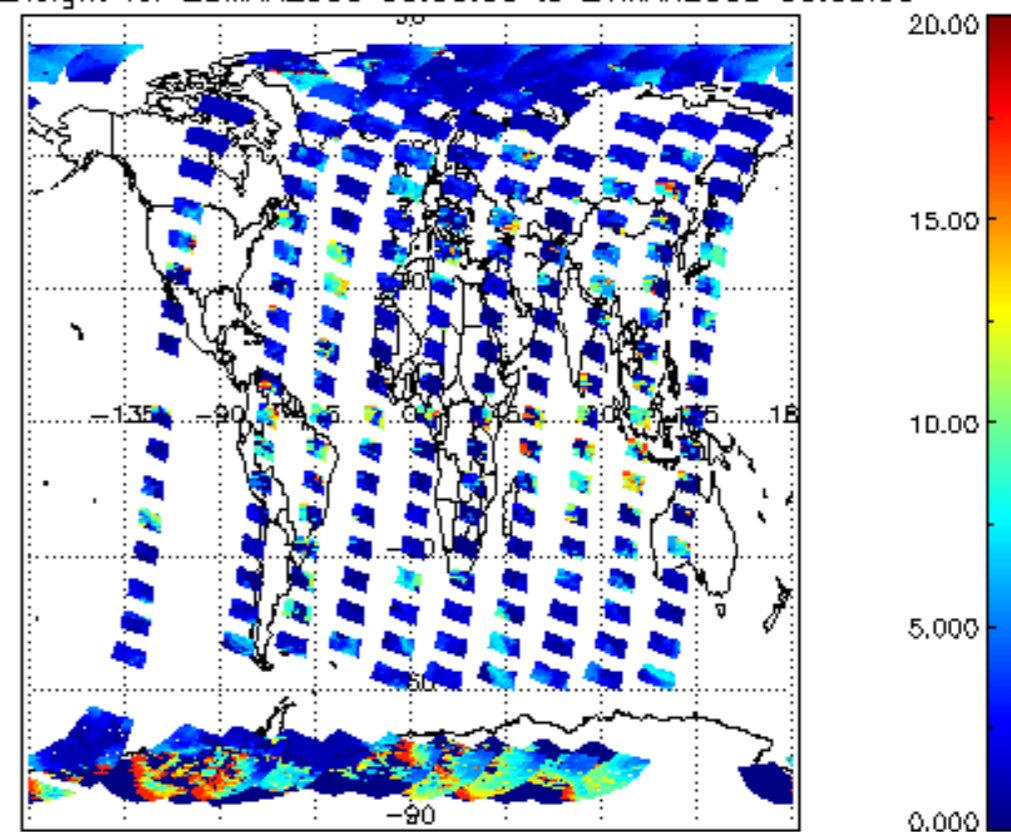
2.3 ADF monitoring

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

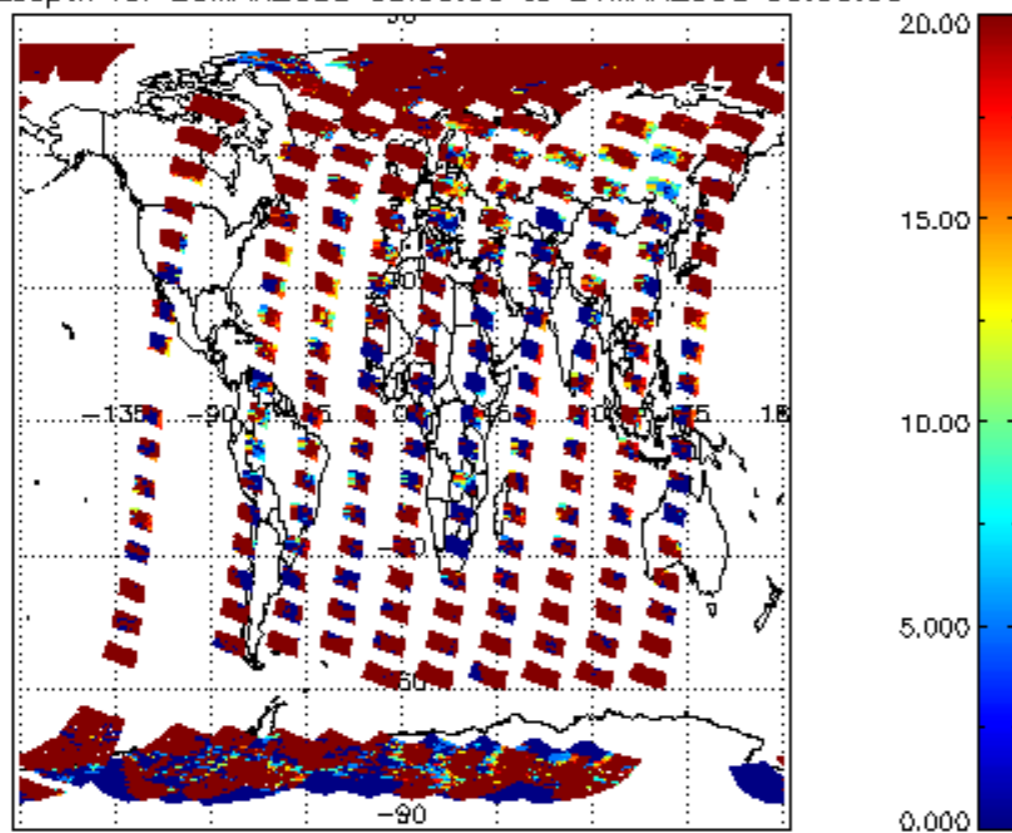
cL_frac for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



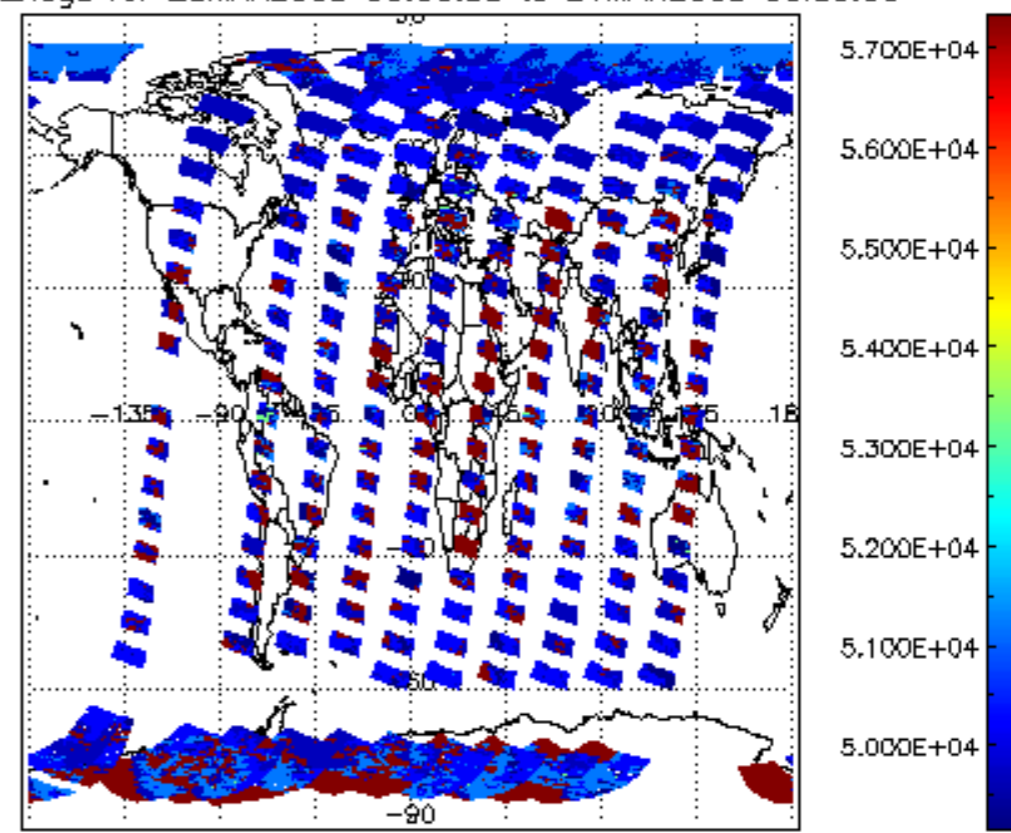
cL_top_height for 20MAR2008 00:00:00 to 21MAR2008 00:00:00

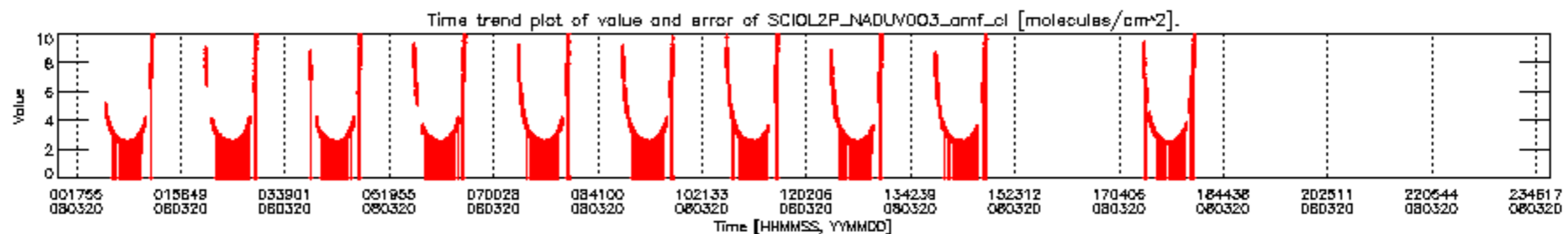
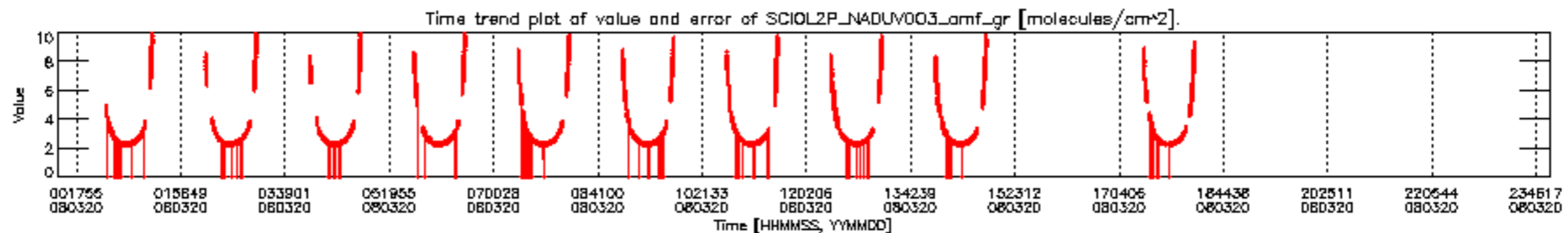
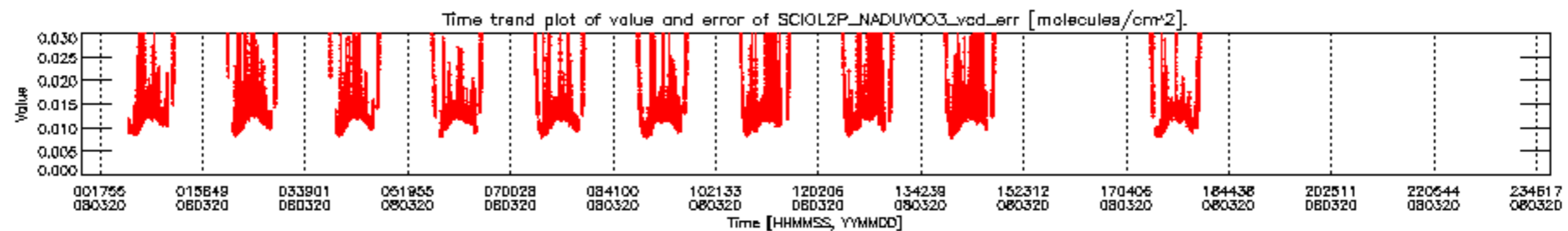
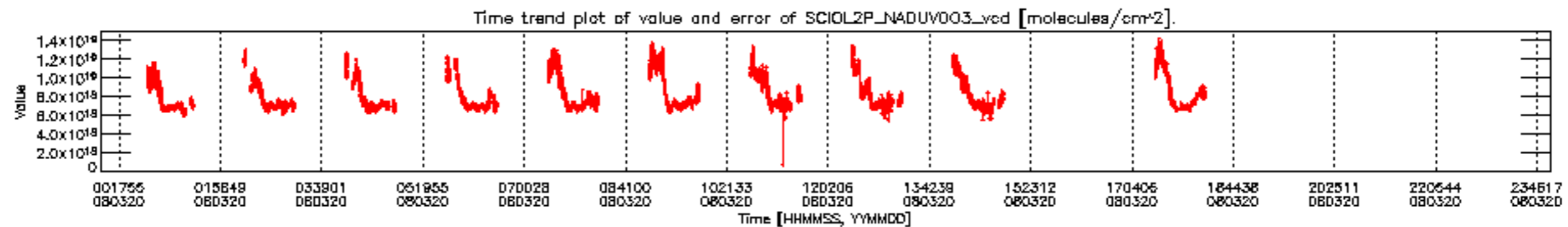


cL_opt_depth for 20MAR2008 00:00:00 to 21MAR2008 00:00:00

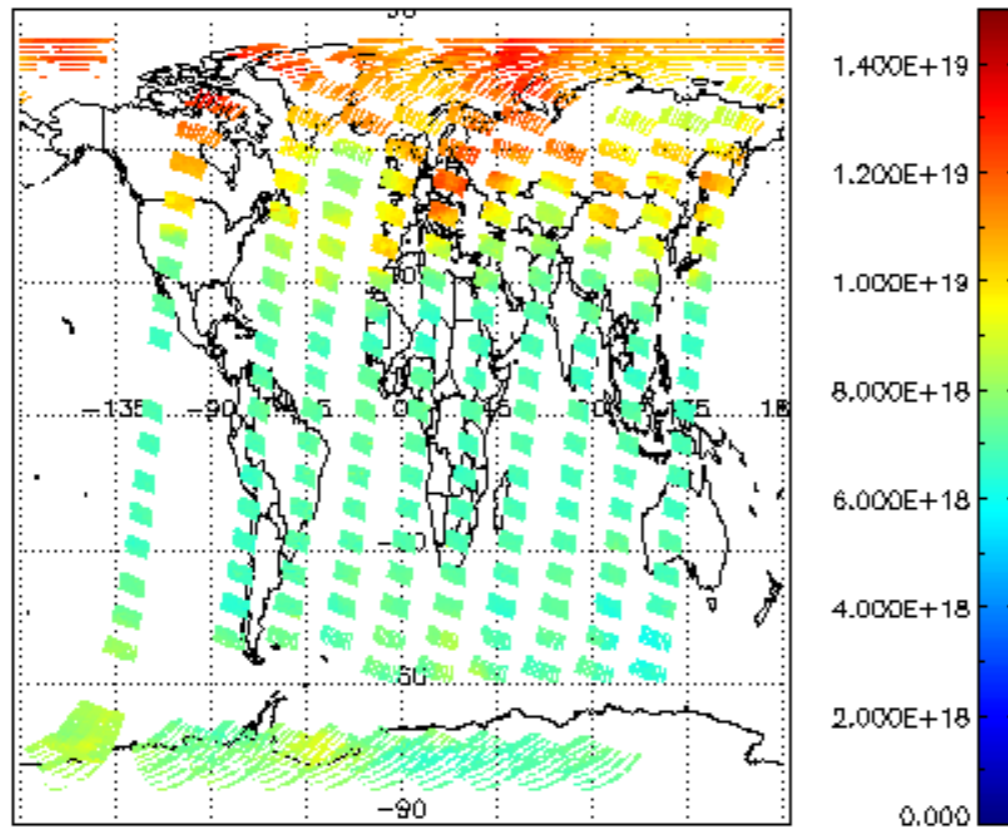


cloud_flags for 20MAR2008 00:00:00 to 21MAR2008 00:00:00

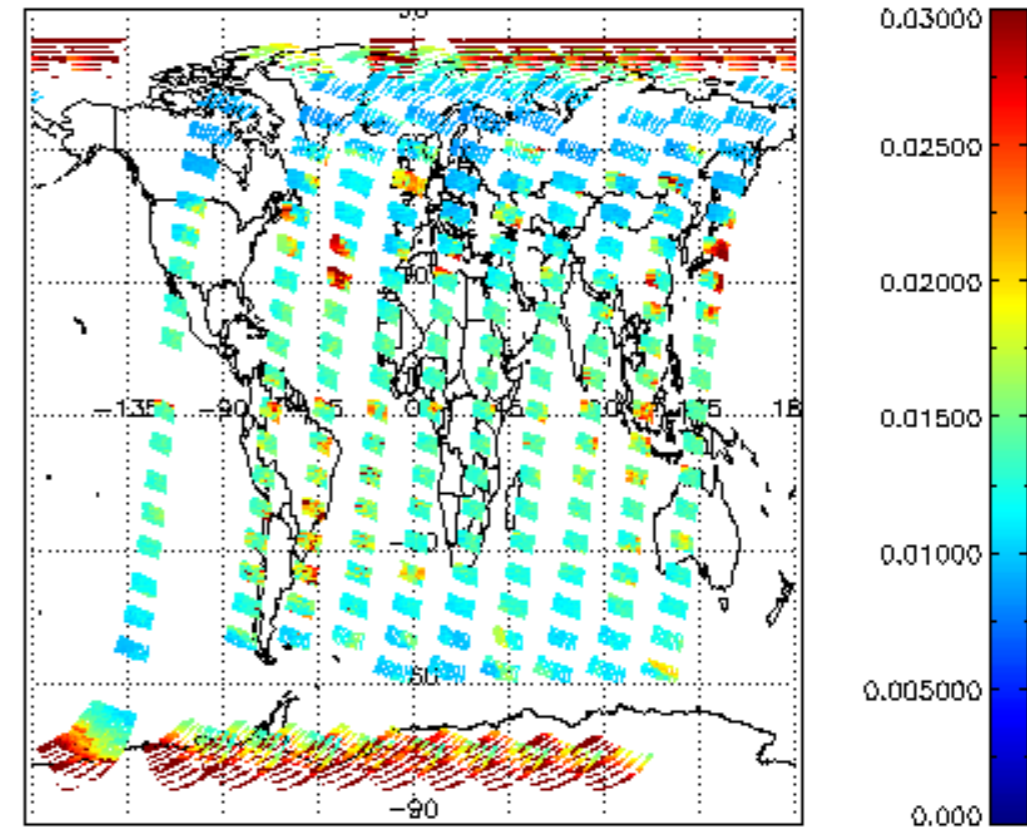




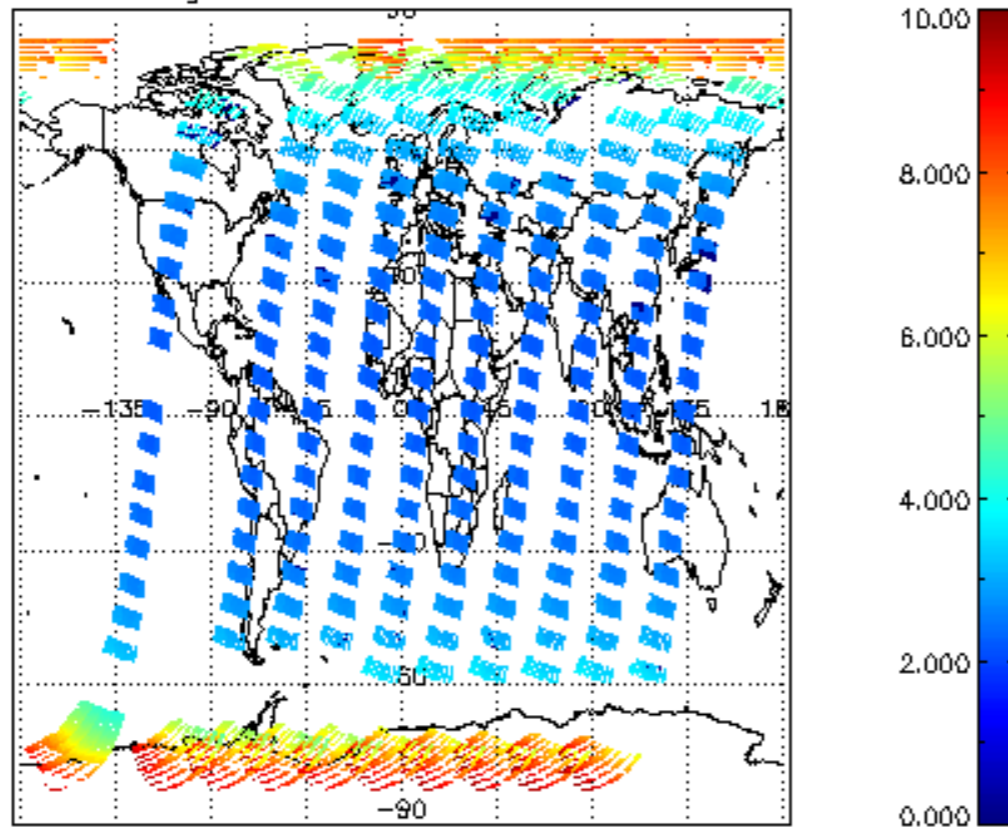
SCIOL2P_NADUV003_vcd for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



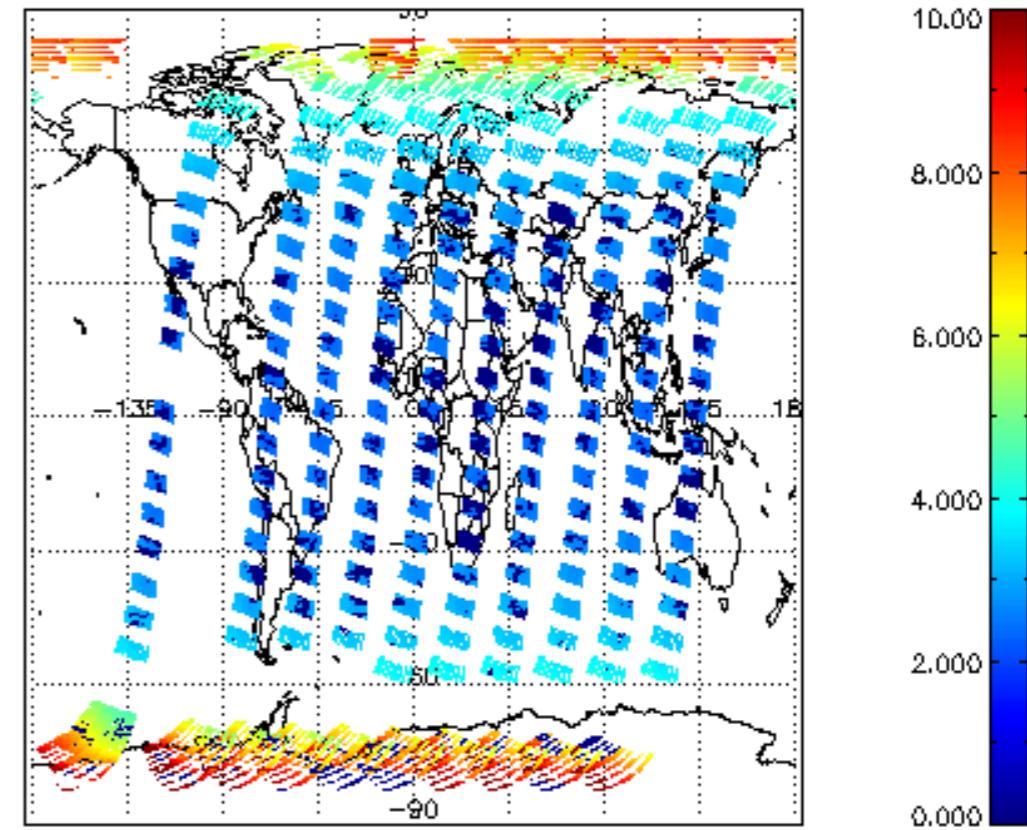
SCIOL2P_NADUV003_vcd_err for 20MAR2008 00:00:00 to 21MAR2008 00:00:00

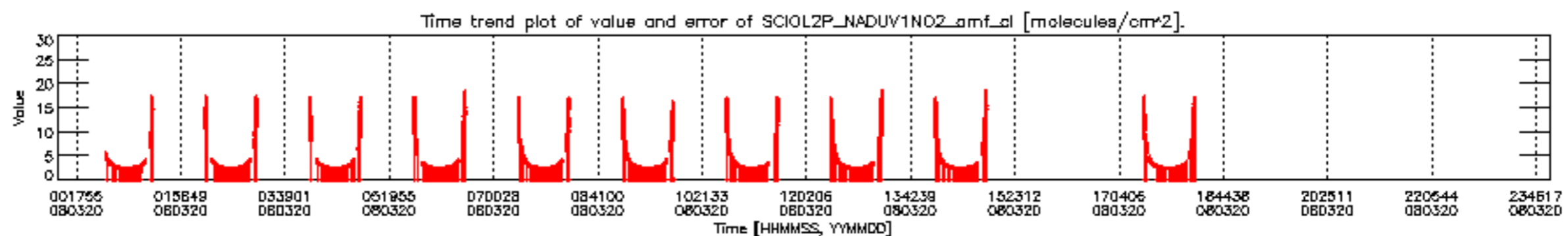
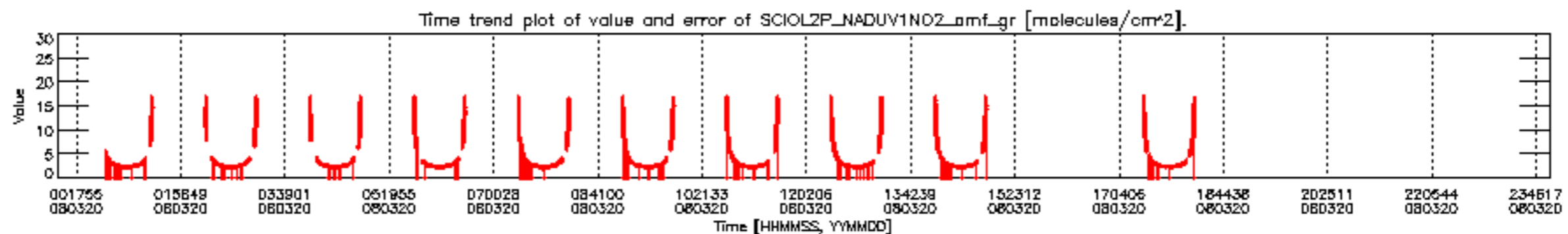
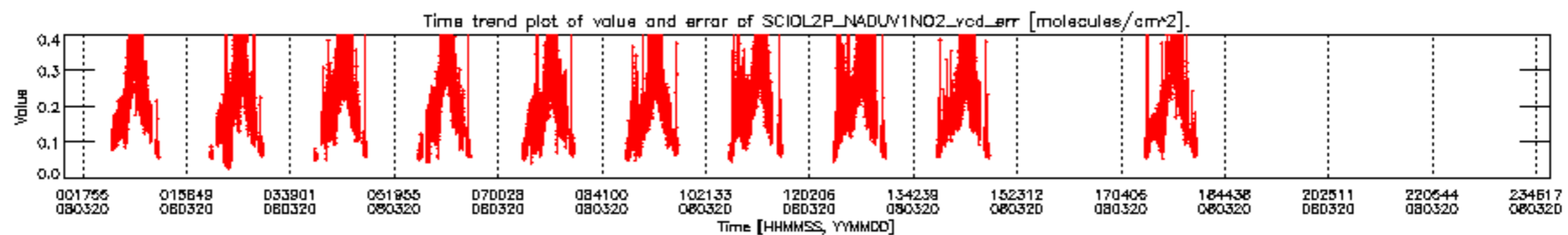
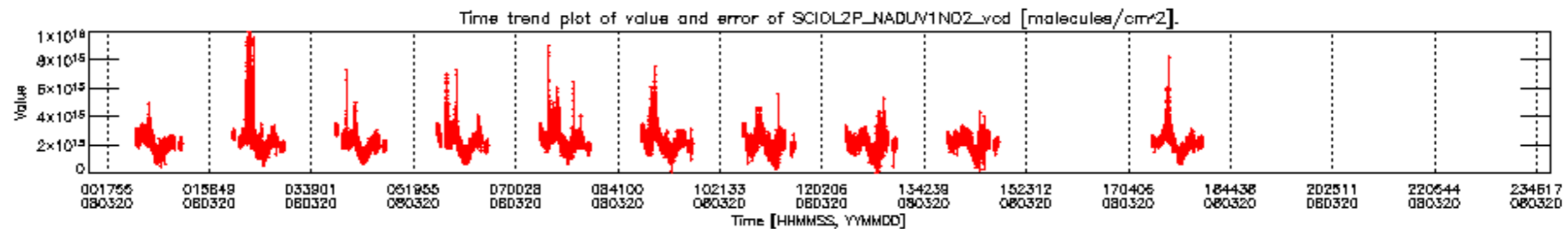


SCIOL2P_NADUV003_amf_gr for 20MAR2008 00:00:00 to 21MAR2008 00:00:00

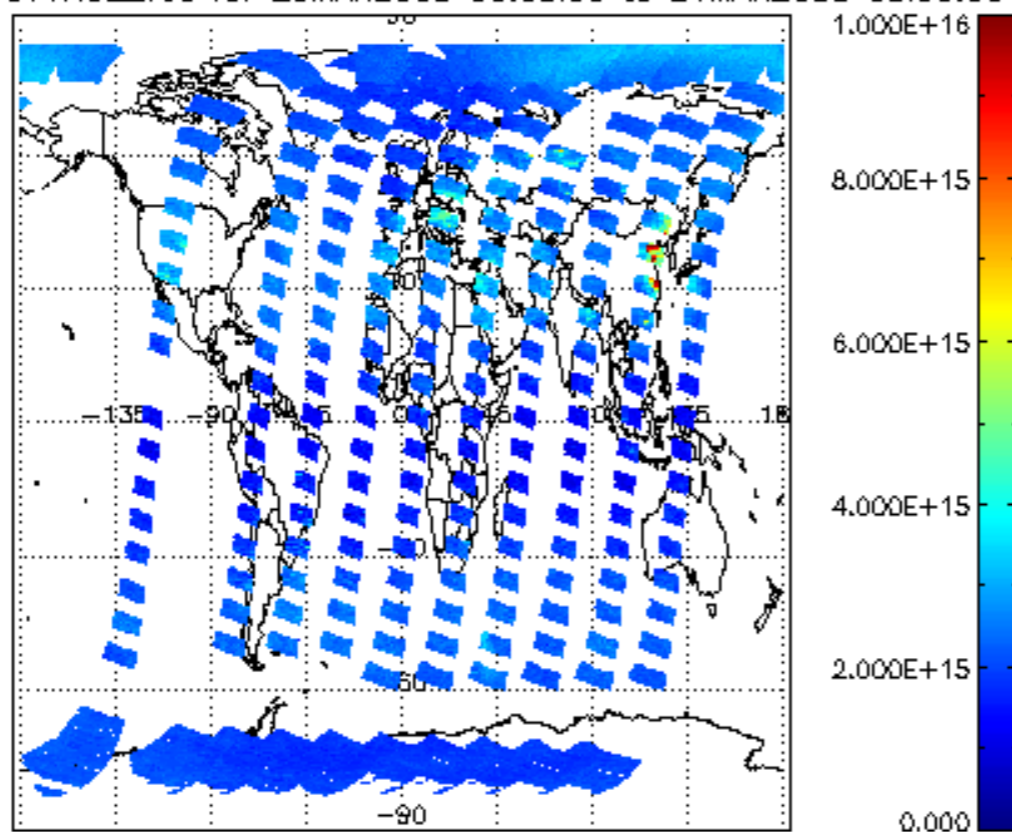


SCIOL2P_NADUV003_amf_cl for 20MAR2008 00:00:00 to 21MAR2008 00:00:00

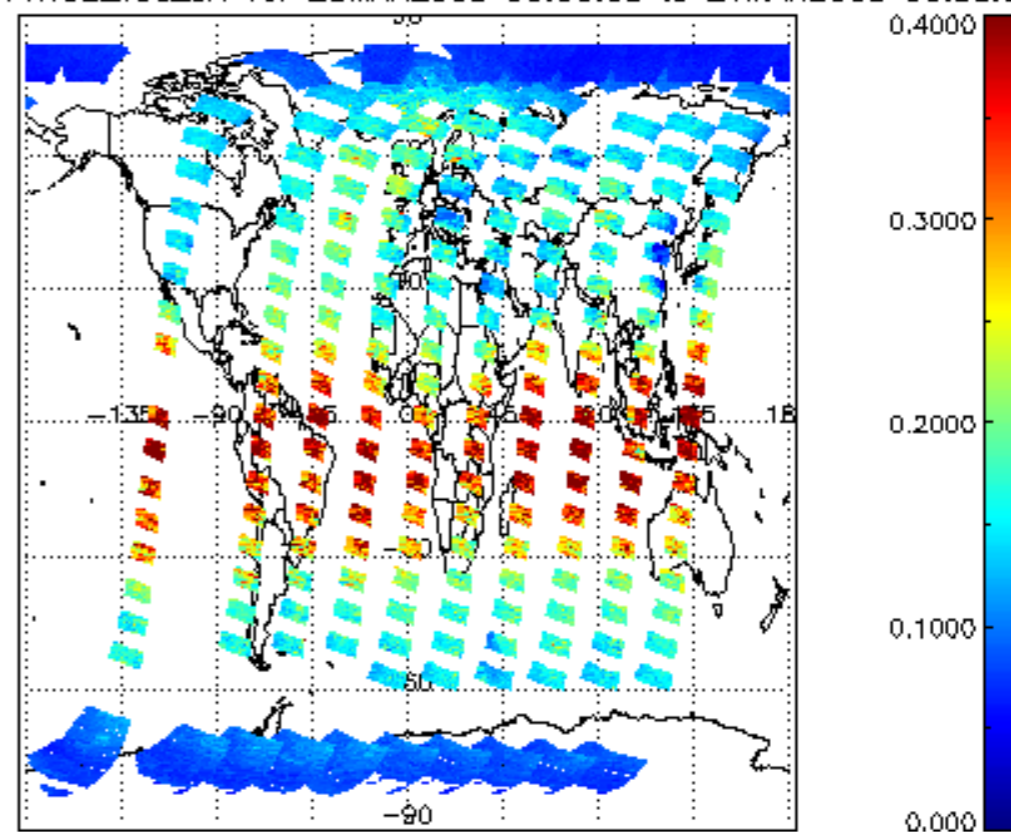




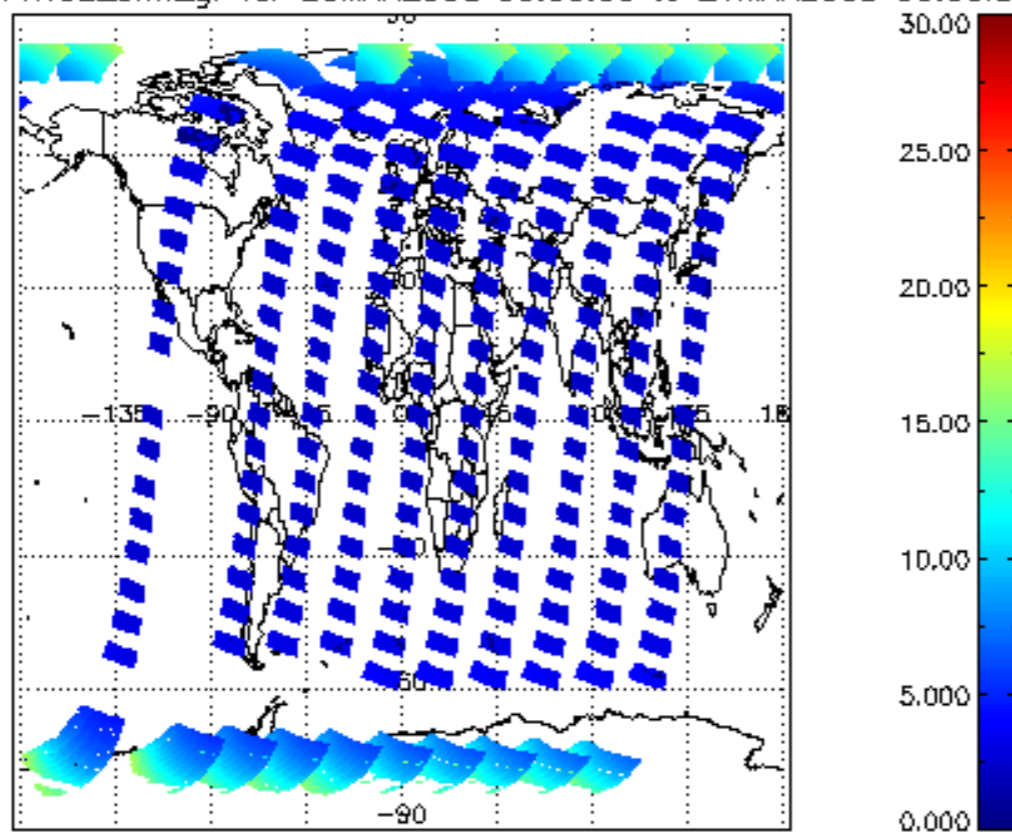
SCIOL2P_NADUV1NO2_vcd for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



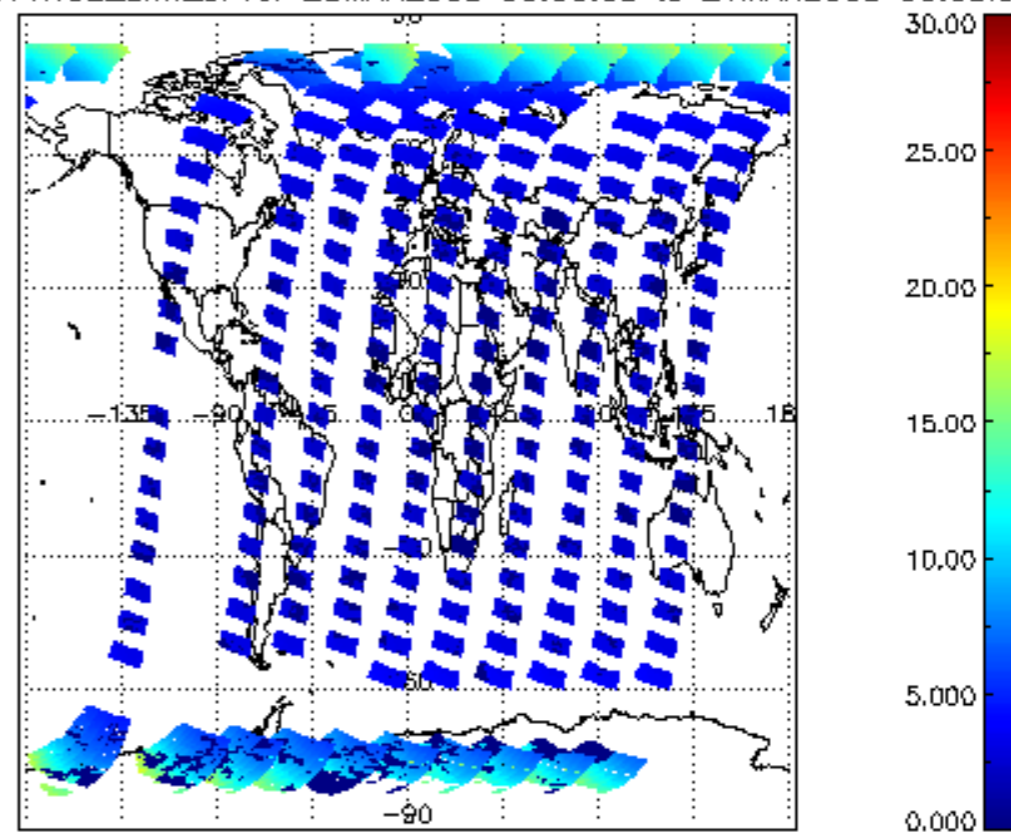
SCIOL2P_NADUV1NO2_vcd_err for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



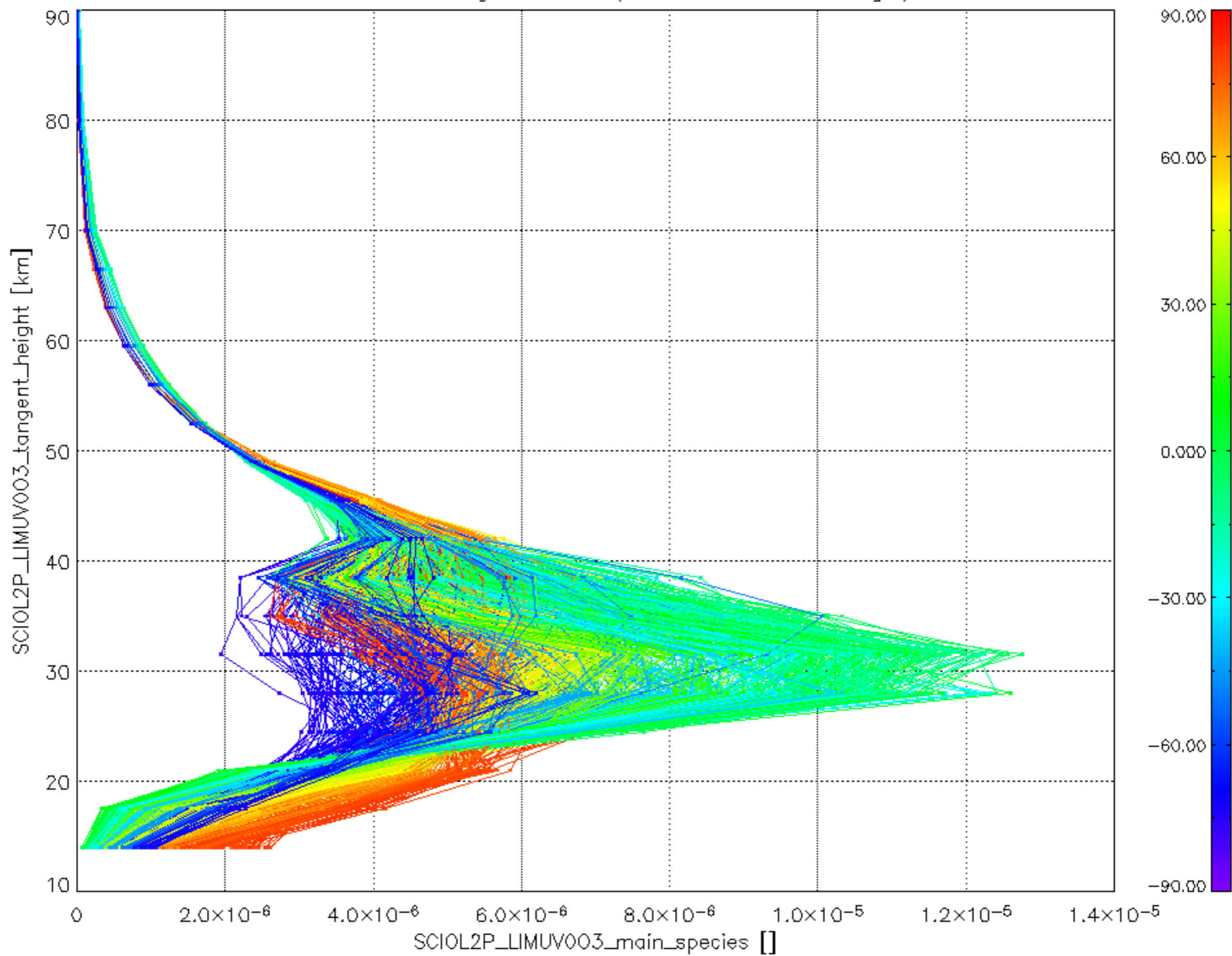
SCIOL2P_NADUV1NO2_amf_gr for 20MAR2008 00:00:00 to 21MAR2008 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 20MAR2008 00:00:00 to 21MAR2008 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).

