

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	09APR2008 06:02:17
Data source version	SCIA-OL/3.01-R
Processing scope for products	17MAR2008 00:00:00 to 18MAR2008 00:00:00
Start time of first product within scope	16MAR2008 22:49:49
Stop time of last product within scope	18MAR2008 00:51:36
Total number of level 2 products	13
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__2PRDPA20080316_224949_000032442066_00488_31604_4844.N1	16MAR2008 22:49:49	16MAR2008 23:43:53	0	GOOD
1	SCI_OL__2PRDPA20080317_003024_000032442066_00489_31605_4826.N1	17MAR2008 00:30:24	17MAR2008 01:24:28	0	GOOD
2	SCI_OL__2PRDPA20080317_071246_000032442066_00493_31609_4917.N1	17MAR2008 07:12:46	17MAR2008 08:06:50	0	GOOD
3	SCI_OL__2PRDPA20080317_085321_000032442066_00494_31610_4918.N1	17MAR2008 08:53:21	17MAR2008 09:47:26	0	GOOD
4	SCI_OL__2PRDPA20080317_103357_000032442066_00495_31611_4919.N1	17MAR2008 10:33:57	17MAR2008 11:28:01	0	GOOD
5	SCI_OL__2PRDPA20080317_121432_000032442066_00496_31612_4819.N1	17MAR2008 12:14:32	17MAR2008 13:08:37	0	GOOD
6	SCI_OL__2PRDPA20080317_135508_000032442066_00497_31613_4820.N1	17MAR2008 13:55:08	17MAR2008 14:49:12	0	GOOD
7	SCI_OL__2PRDPA20080317_153543_000032442066_00498_31614_4789.N1	17MAR2008 15:35:43	17MAR2008 16:29:48	0	GOOD
8	SCI_OL__2PRDPA20080317_171623_000032442066_00499_31615_4850.N1	17MAR2008 17:16:23	17MAR2008 18:10:27	0	GOOD
9	SCI_OL__2PRDPA20080317_185719_000031752066_00500_31616_4796.N1	17MAR2008 18:57:19	17MAR2008 19:50:15	0	GOOD
10	SCI_OL__2PRDPA20080317_203730_000031752066_00501_31617_4797.N1	17MAR2008 20:37:30	17MAR2008 21:30:26	0	GOOD
11	SCI_OL__2PRDPA20080317_221805_000031752067_00001_31618_4798.N1	17MAR2008 22:18:05	17MAR2008 23:11:01	0	GOOD
12	SCI_OL__2PRDPA20080317_235841_000031752067_00002_31619_4801.N1	17MAR2008 23:58:41	18MAR2008 00:51:36	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: 100620

Total number of cloud data DSRs with good quality flag (=0): 100620 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	100620	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	100620	0.17442	0.12500	0.12500	0.25000	0.061116	s
SURFACE_PRES	100620	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	100620	0.40094	0.36681	0.0000	1.0000	0.29865	-
CL_FRAC_ERR	100620	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	100620	5.5814	4.0000	4.0000	8.0000	1.9557	

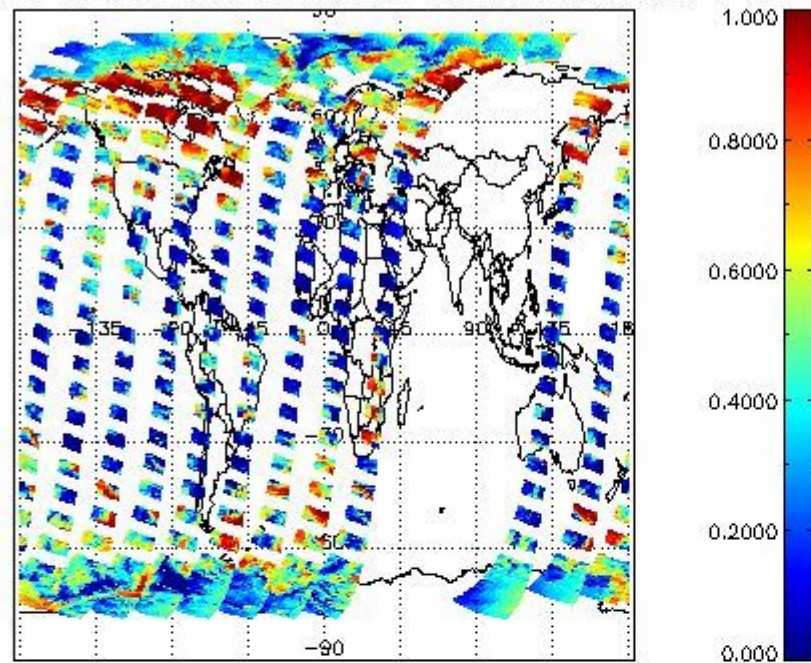
PMD_READ_CL[0]	100620	0.25806	0.0000	0.0000	8.0000	1.0455	-
PMD_READ_CL[1]	100620	0.95589	0.0000	0.0000	8.0000	2.1638	-
CL_TOP_HEIGHT	90321	2.9851	1.6412	0.0000	17.000	3.1992	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	90321	61.040	66.749	0.0000	101.00	40.142	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	100620	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	100620	11001000	11000100	11000000	11100000	2956.3	flags
AERO_ABSO_IND	100620	3.3650	3.7043	-1.3127	14.560	1.8176	
AERO_IND_DIAG	100620	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	100620	01100001	11000000	00000000	11000000	24574.	flags

Time and geolocation plots:

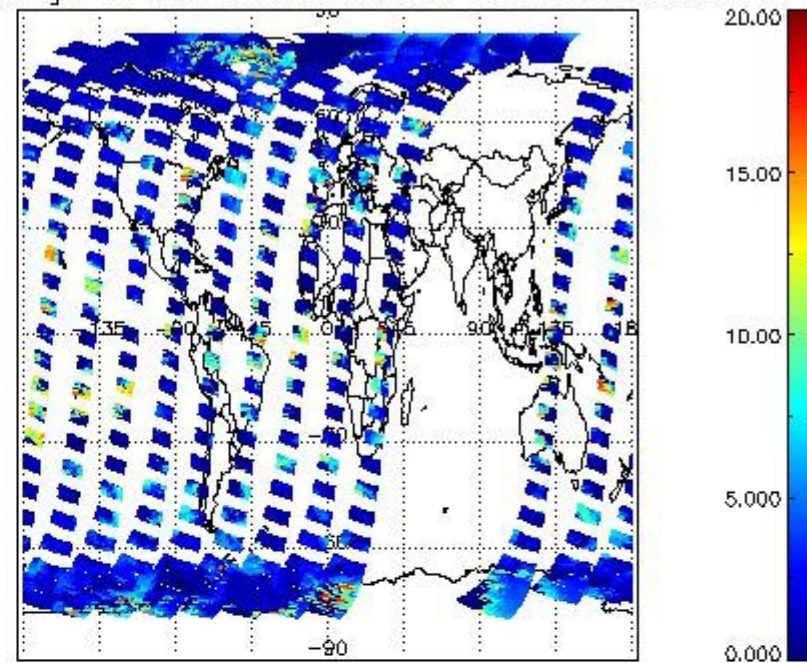
Plots are available for the following parameters:

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

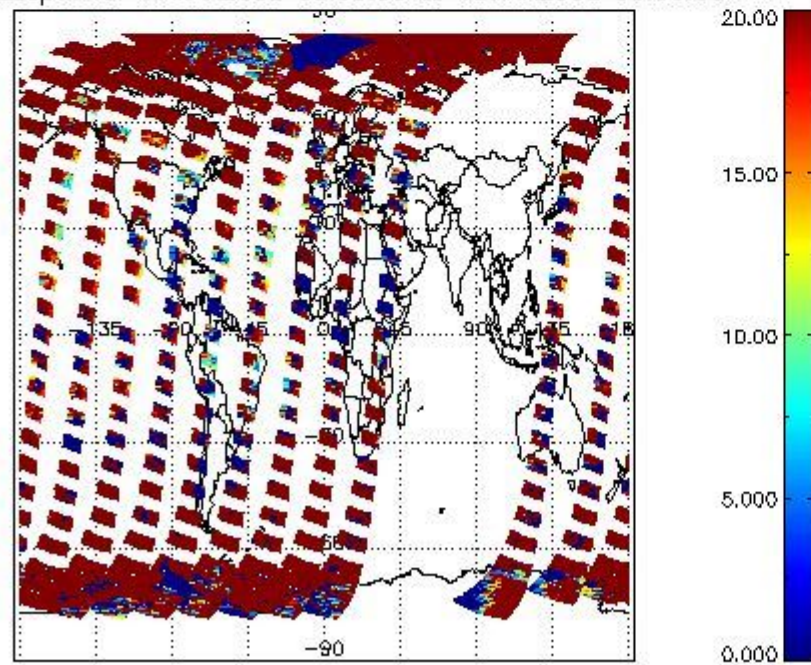
cLfrac for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



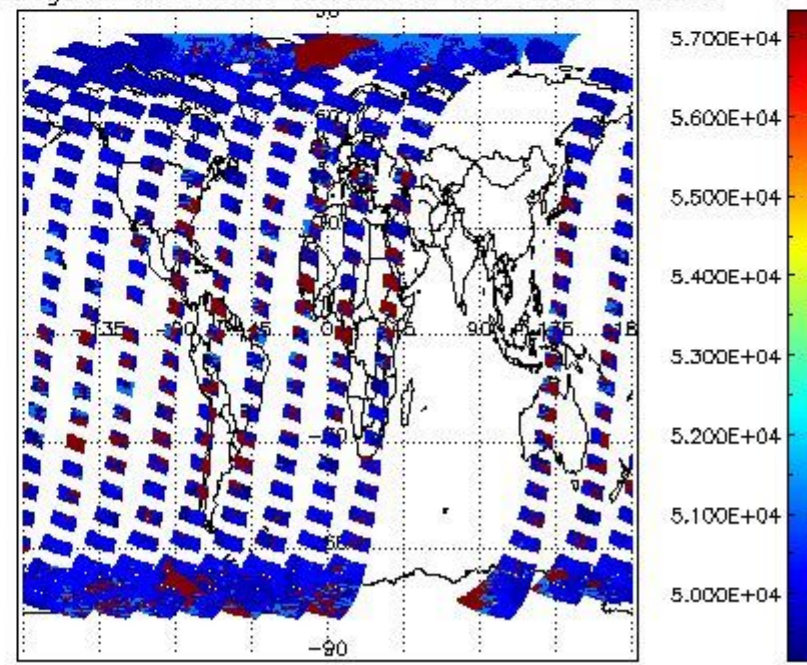
cLtop_height for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



cLopt_depth for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



cloud_flags for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



2.2.2 Nadir

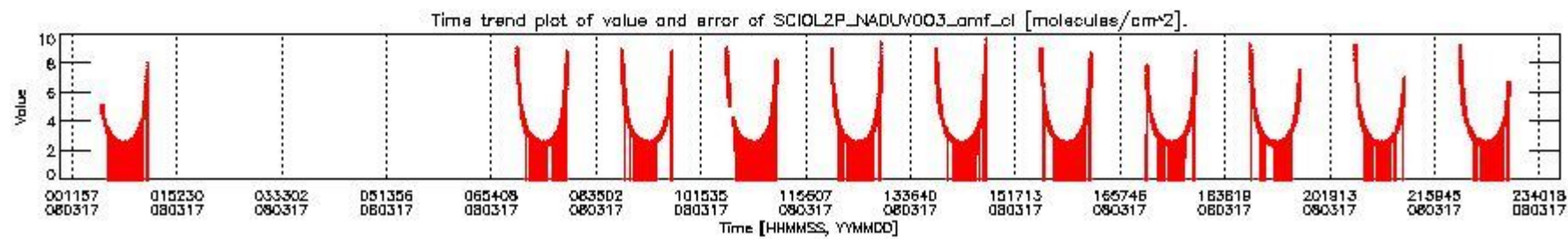
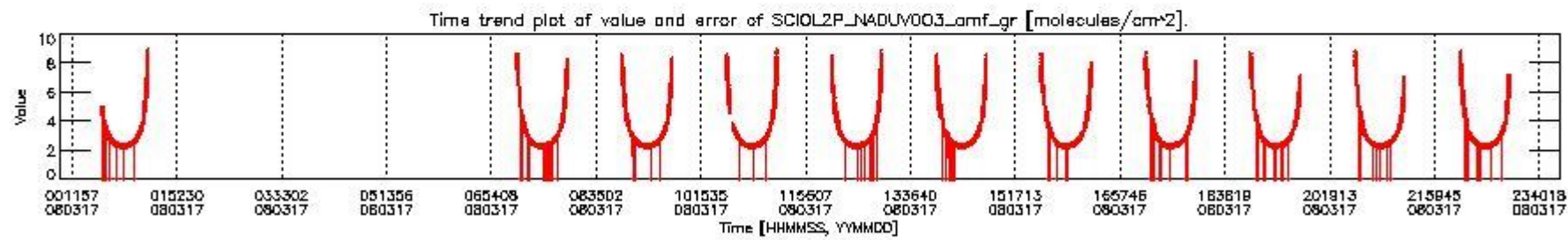
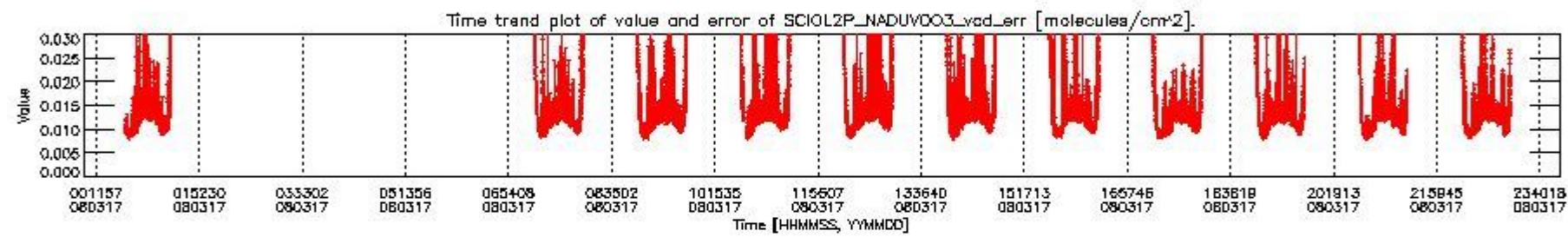
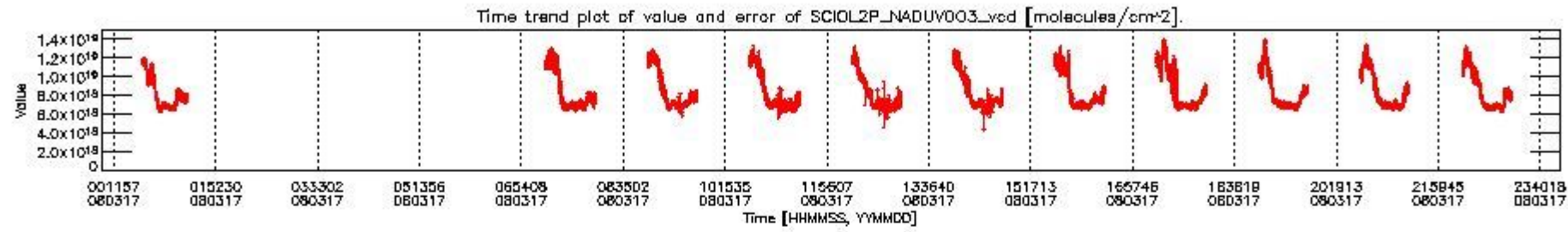
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

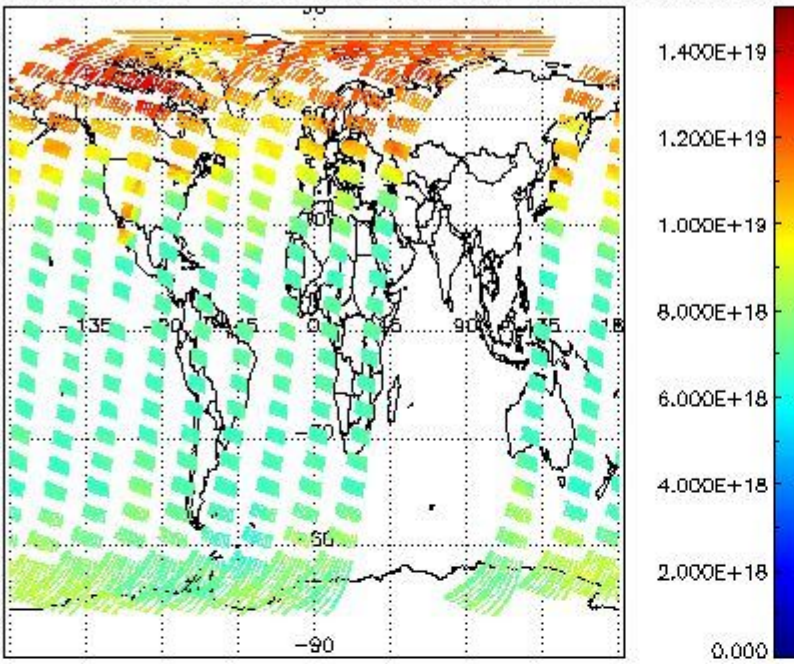
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

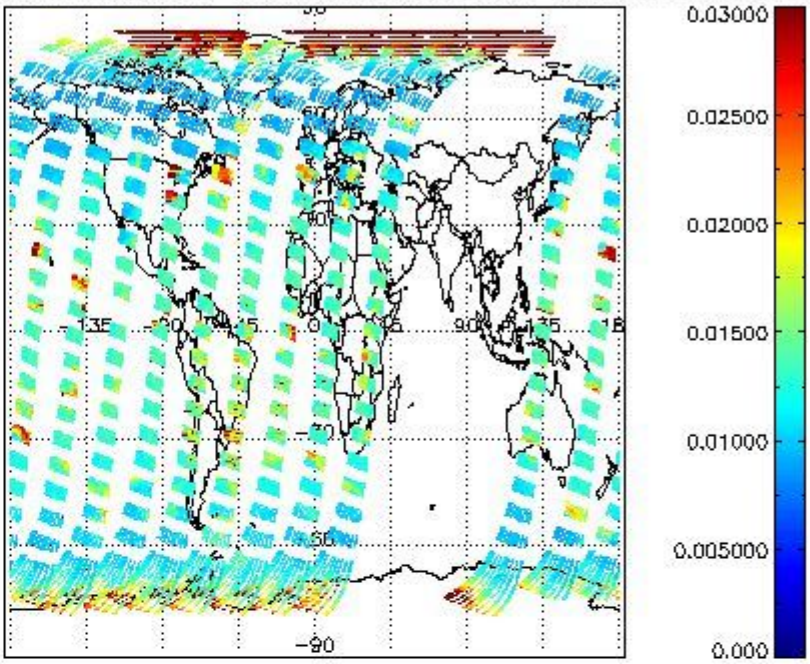
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



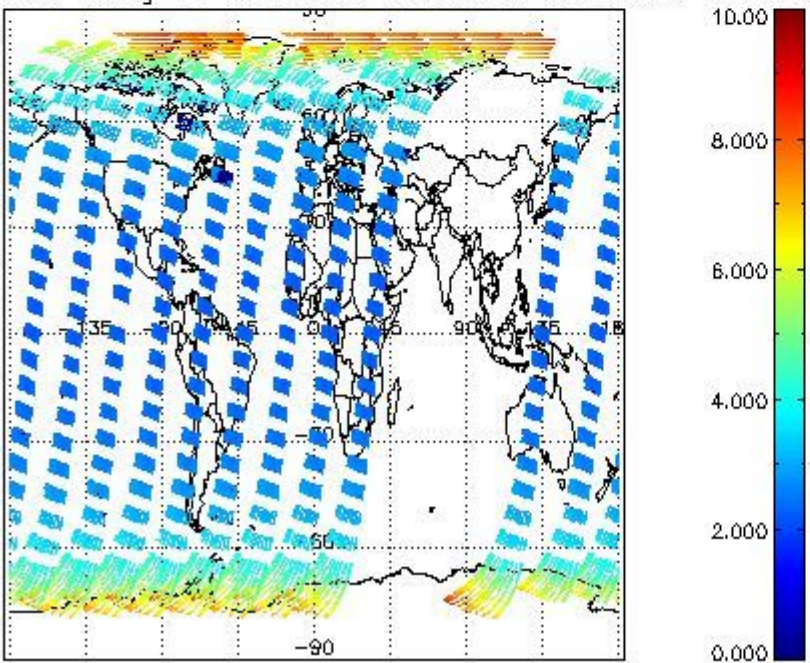
SCIOL2P_NADUV003_vcd for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



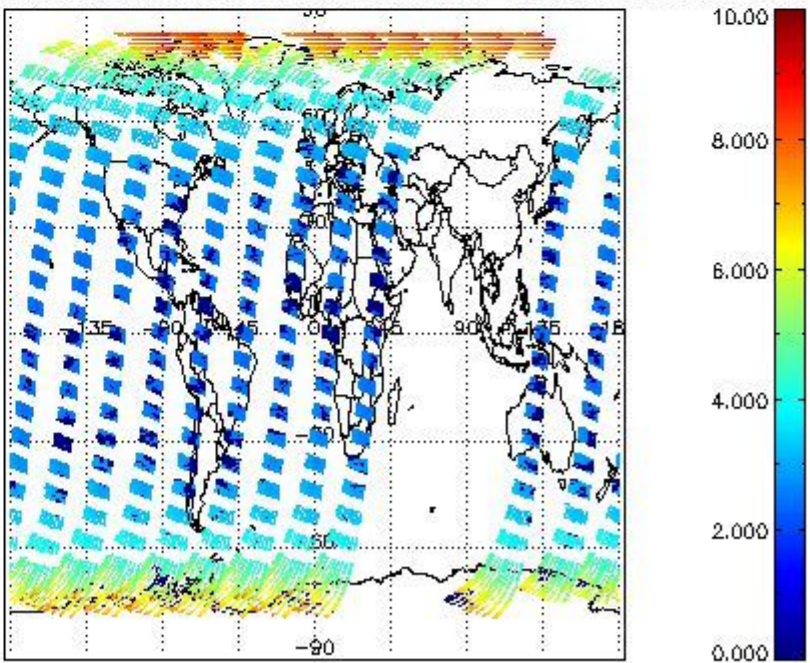
SCIOL2P_NADUV003_vcd_err for 17MAR2008 00:00:00 to 18MAR2008 00:00:00

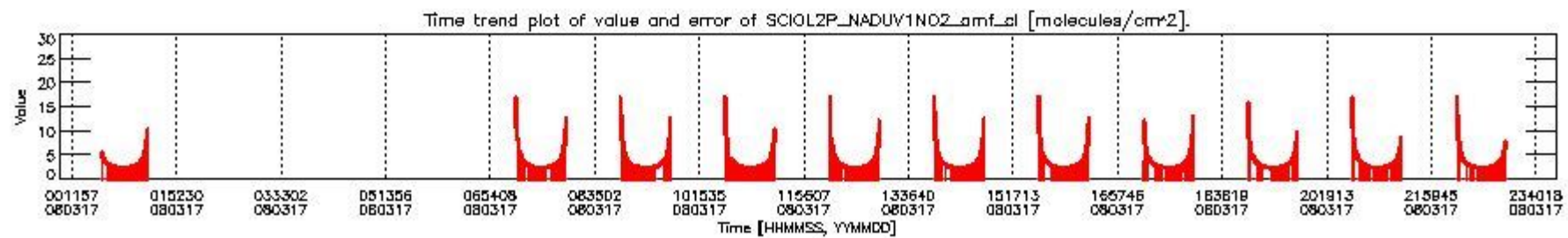
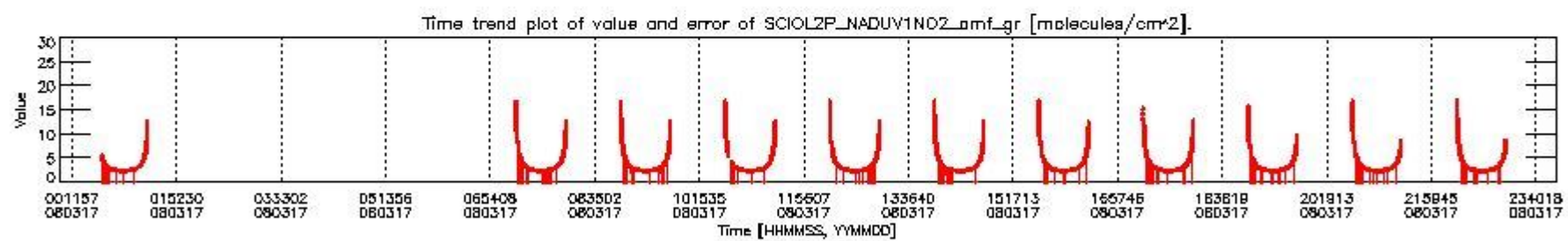
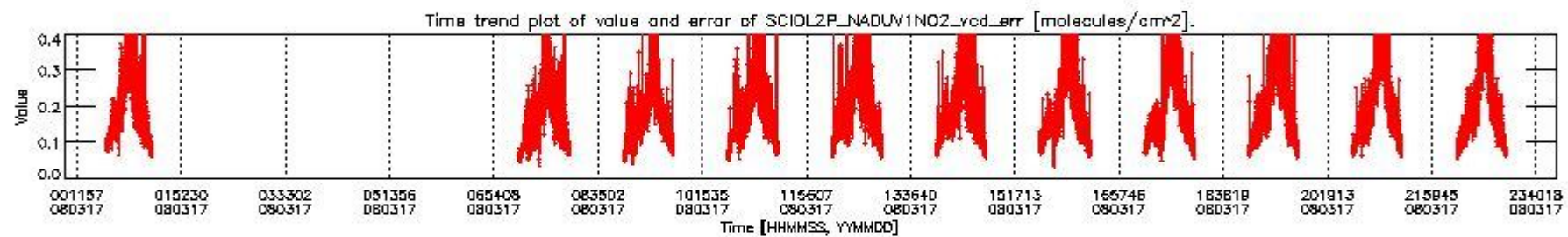
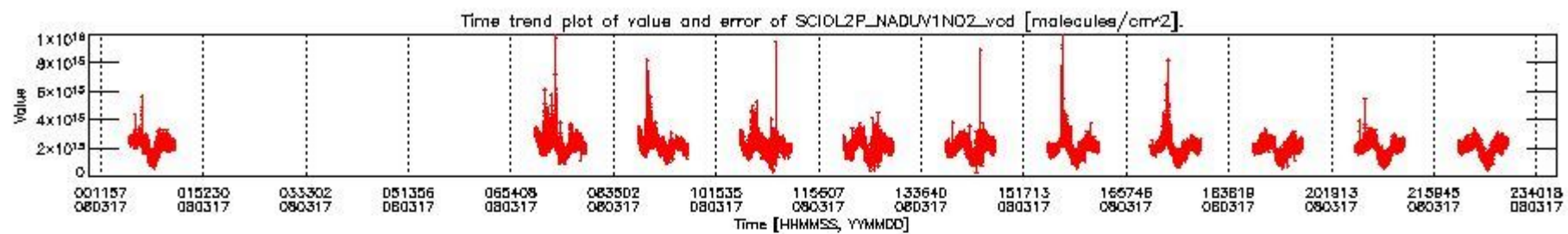


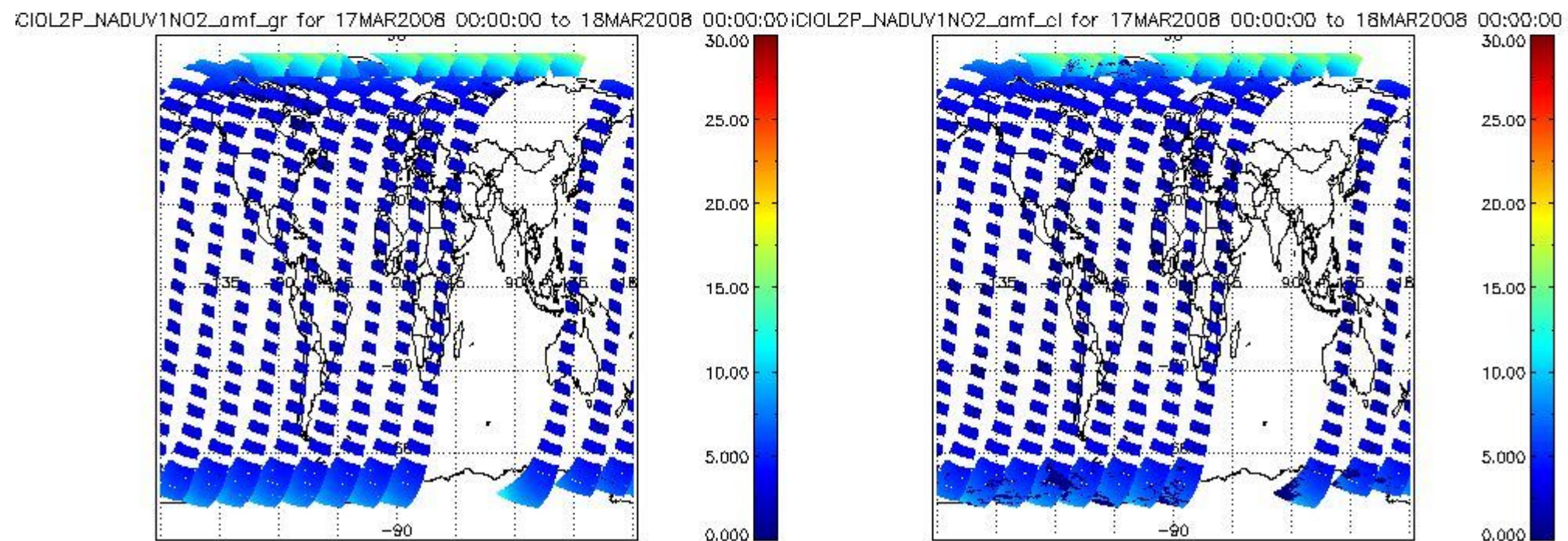
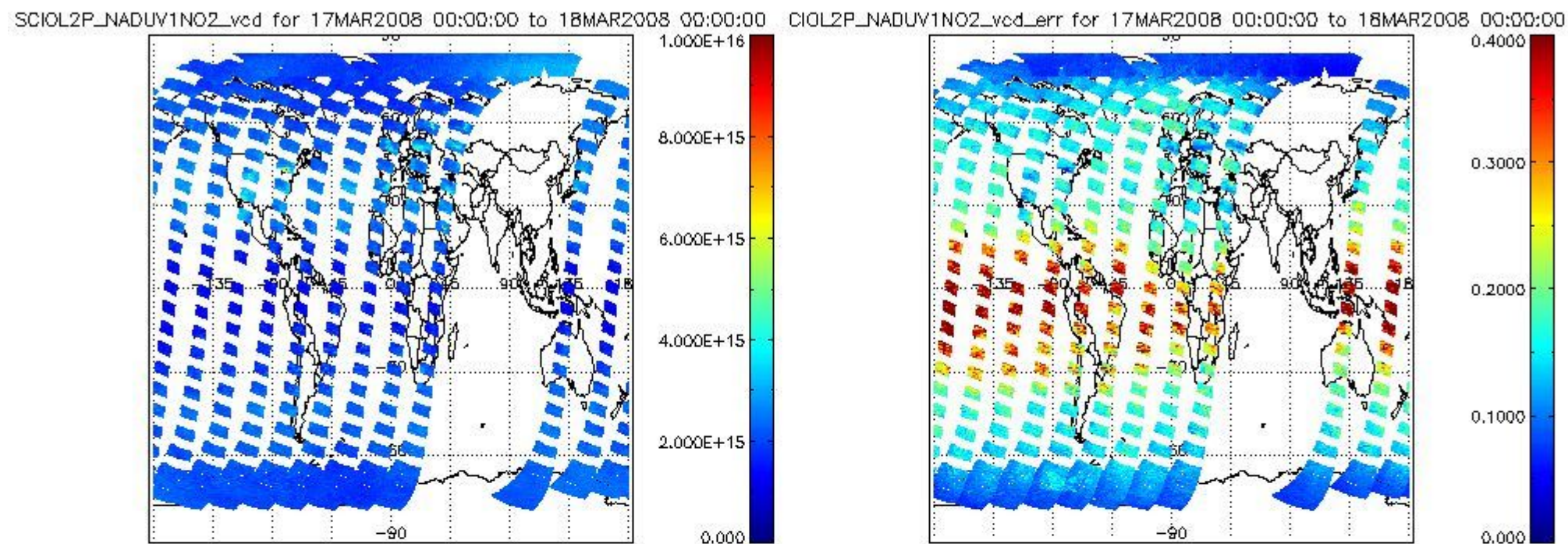
SCIOL2P_NADUV003_amf_gr for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



SCIOL2P_NADUV003_amf_cl for 17MAR2008 00:00:00 to 18MAR2008 00:00:00







2.2.3 Limb

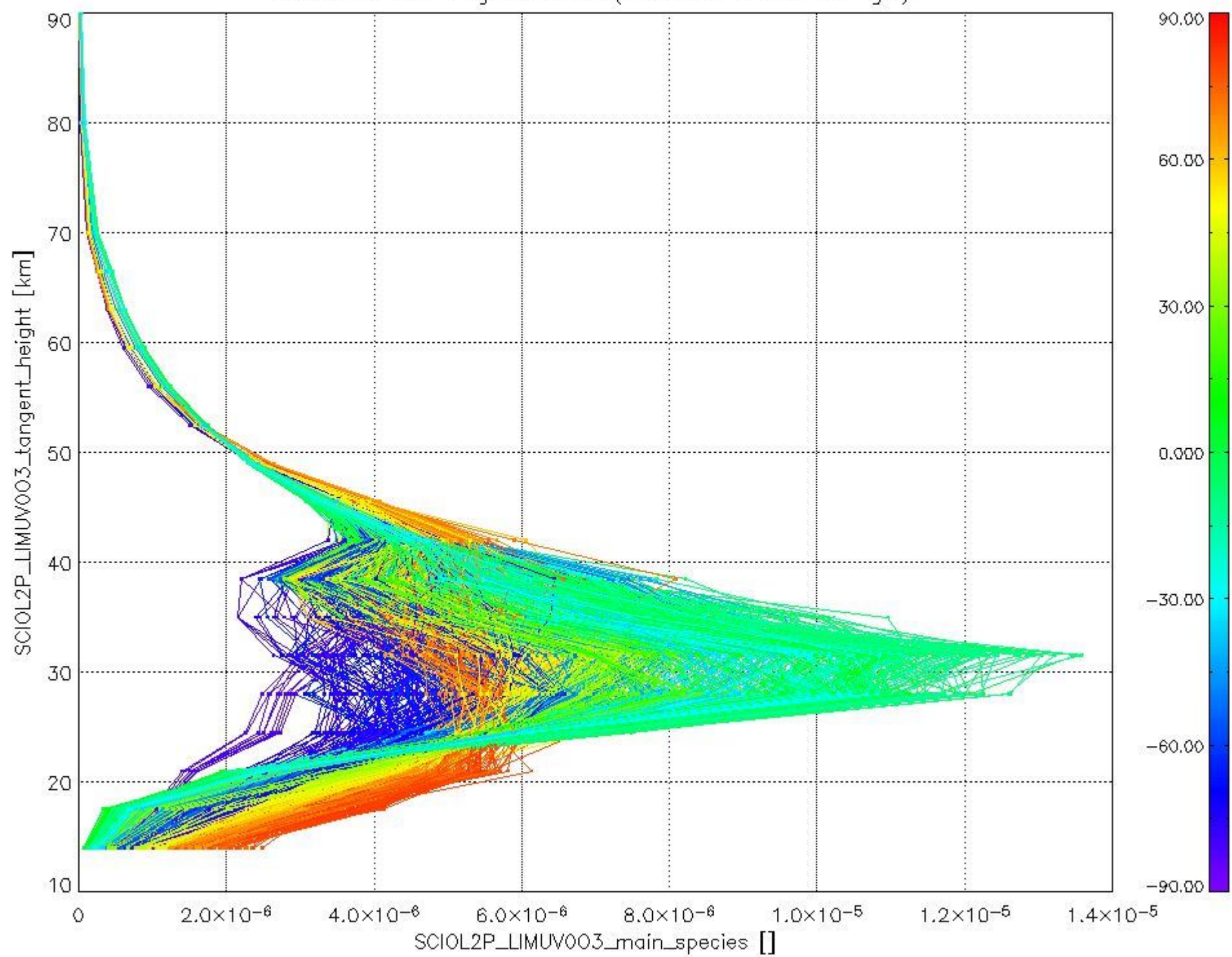
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

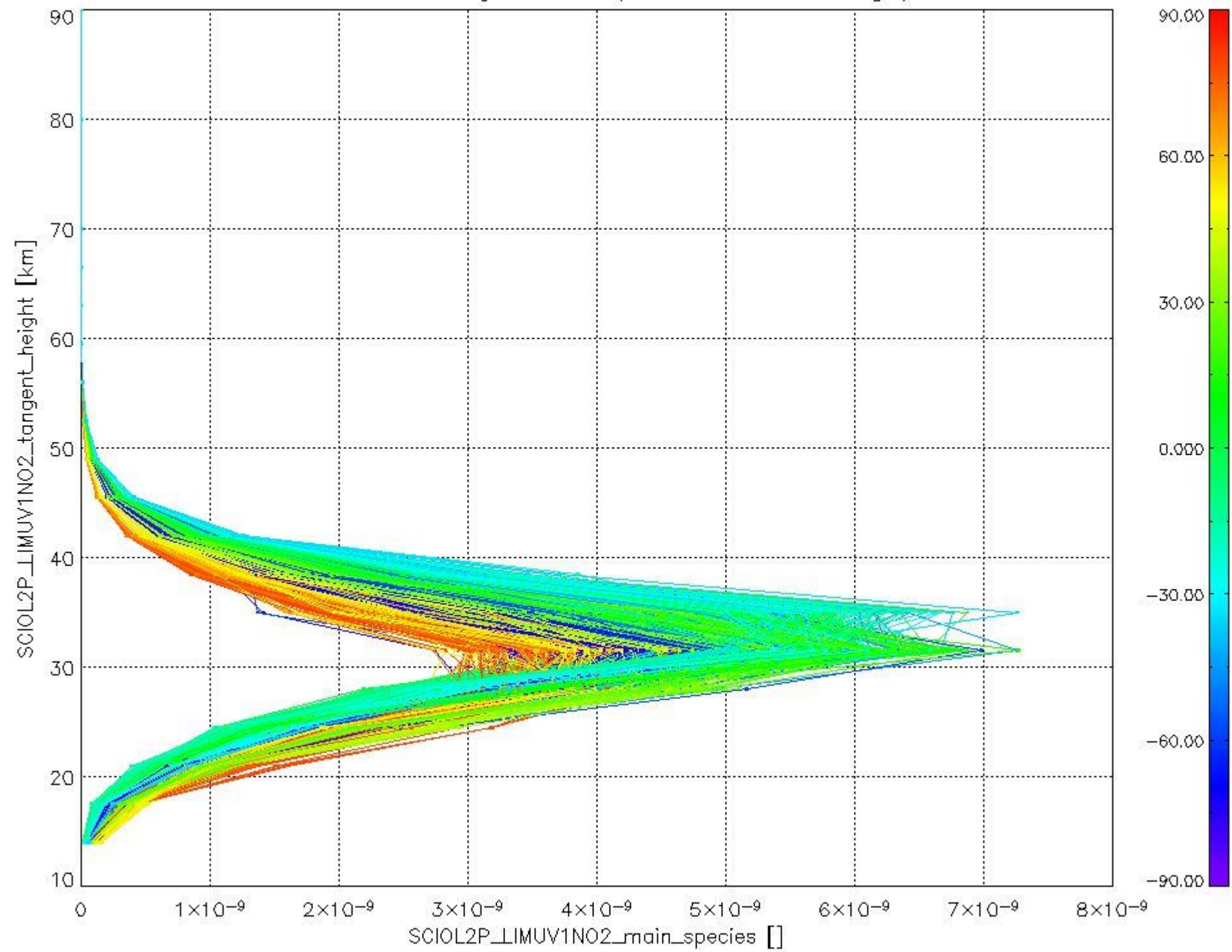
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



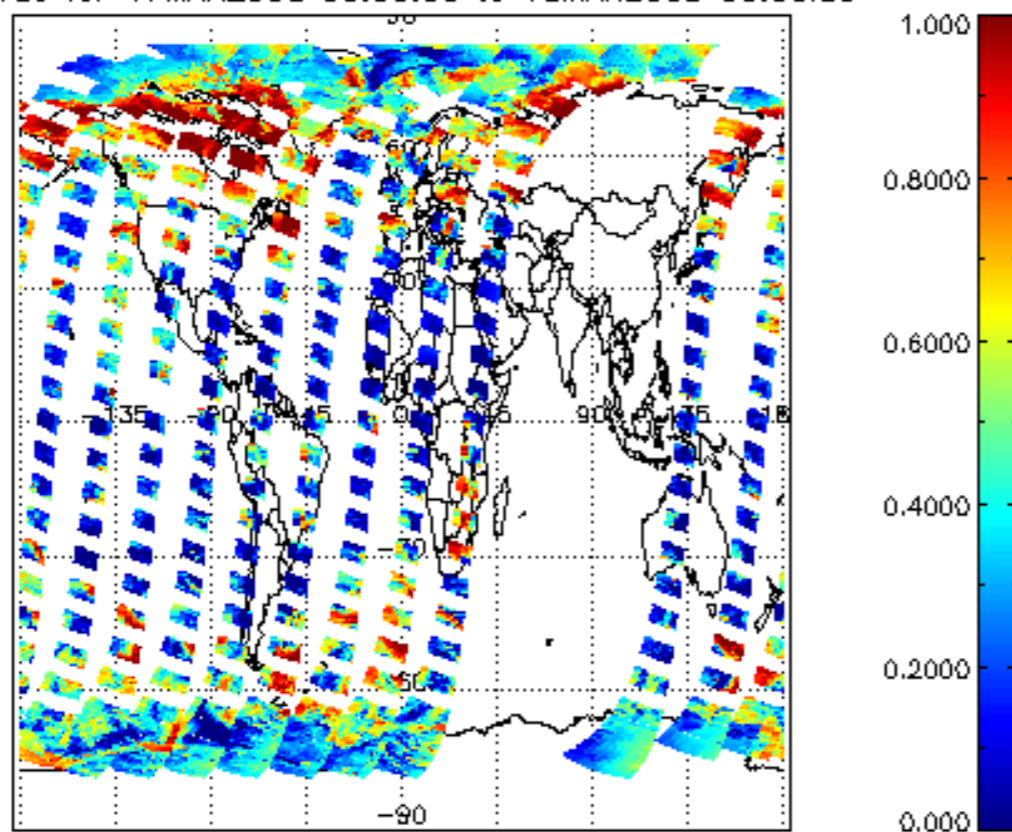
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



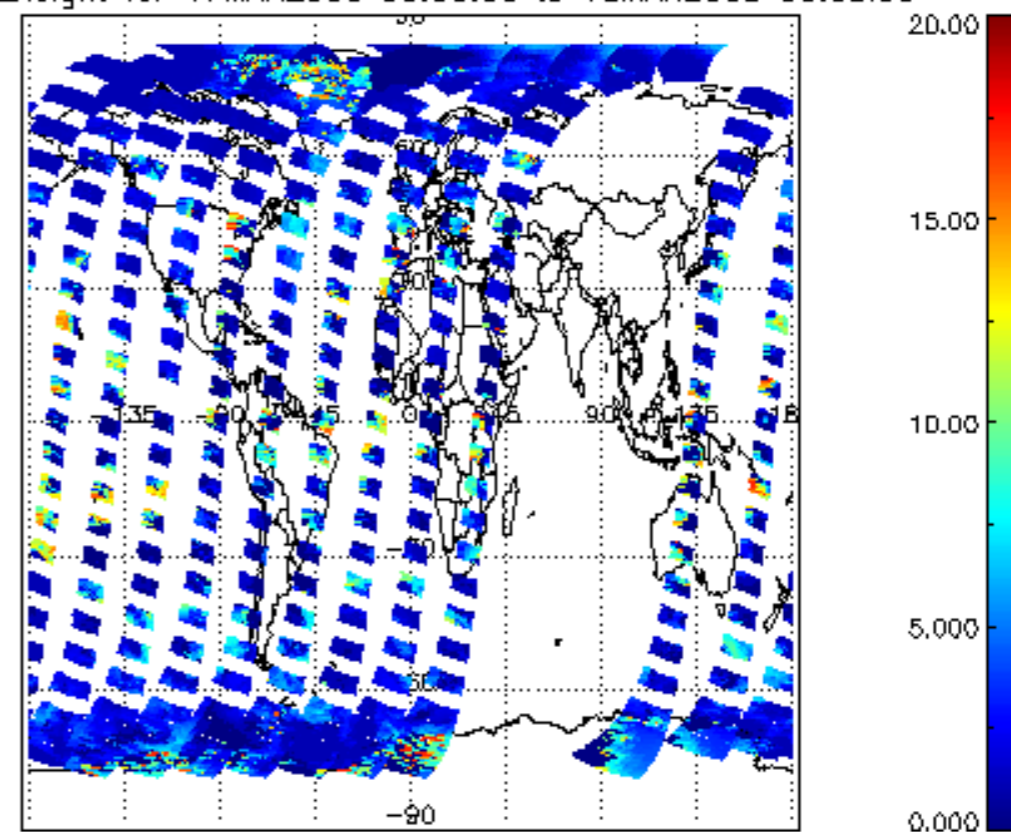
2.3 ADF monitoring

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

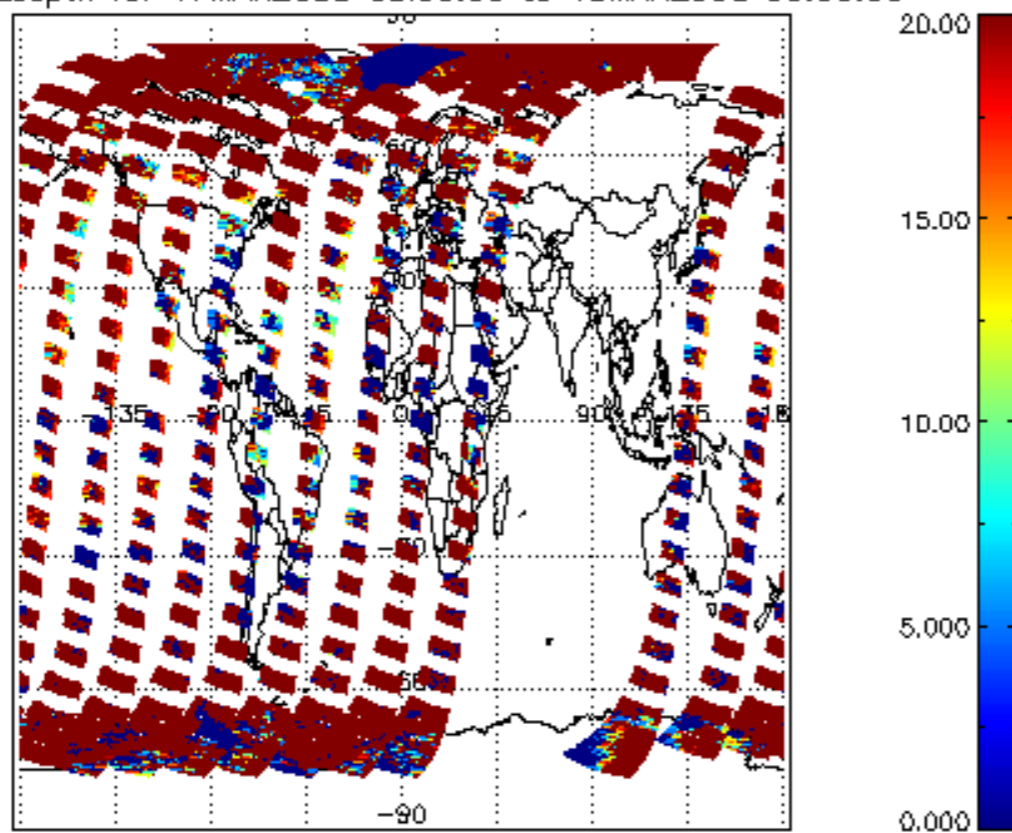
cL_frac for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



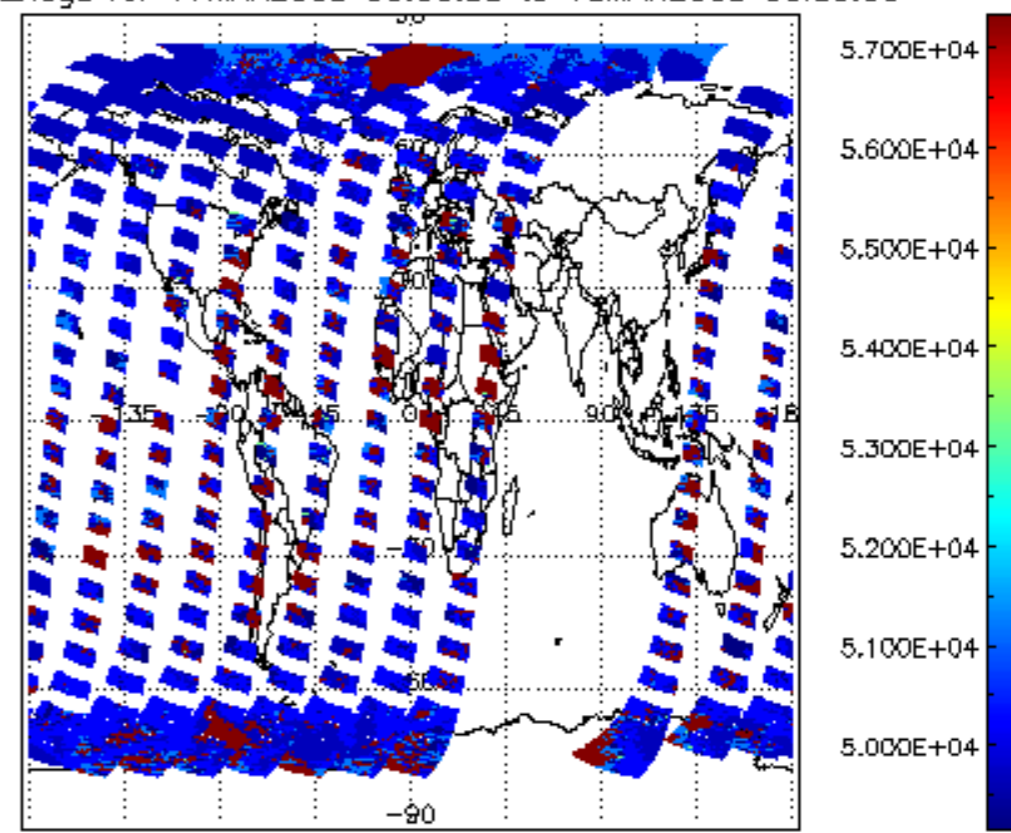
cL_top_height for 17MAR2008 00:00:00 to 18MAR2008 00:00:00

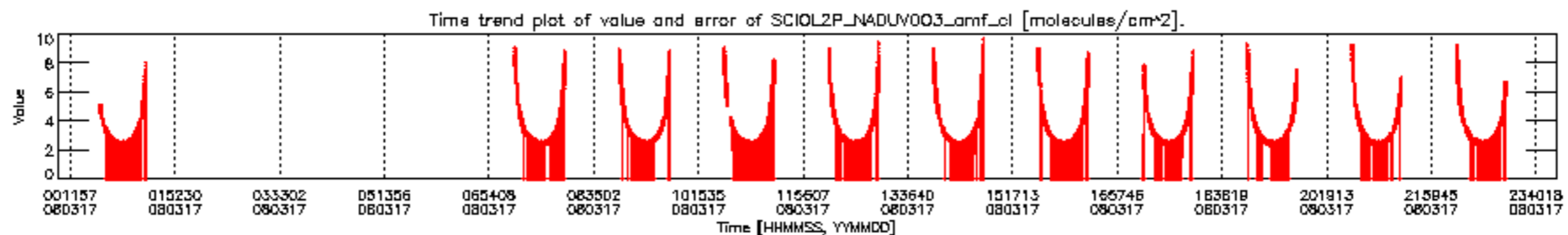
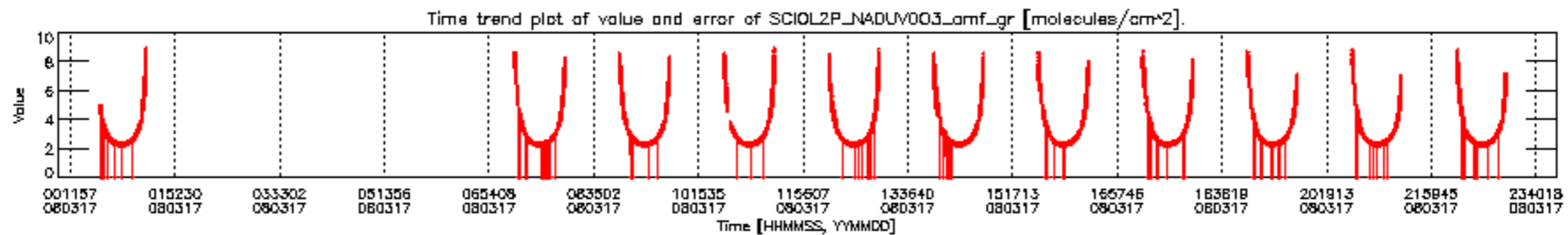
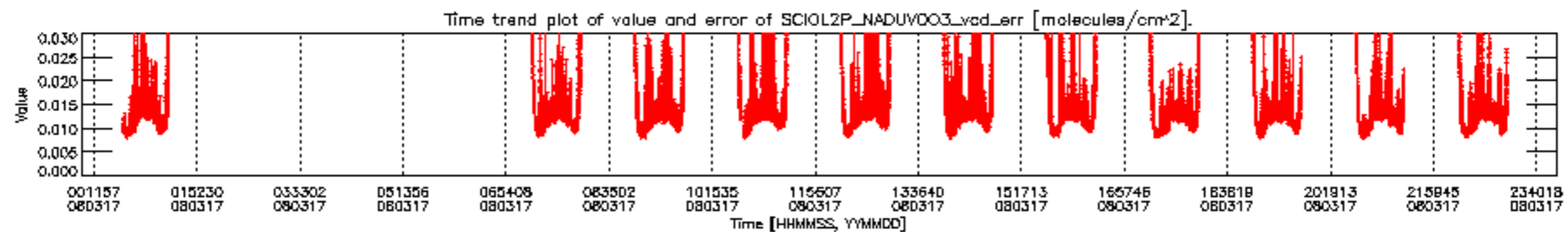
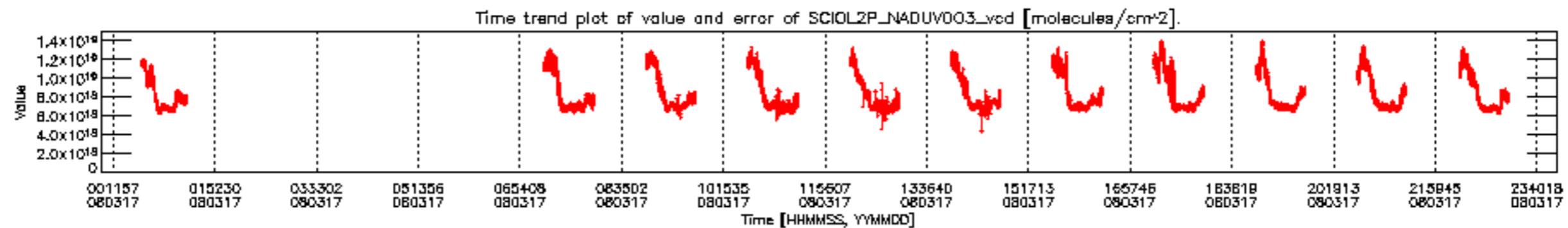


cL_opt_depth for 17MAR2008 00:00:00 to 18MAR2008 00:00:00

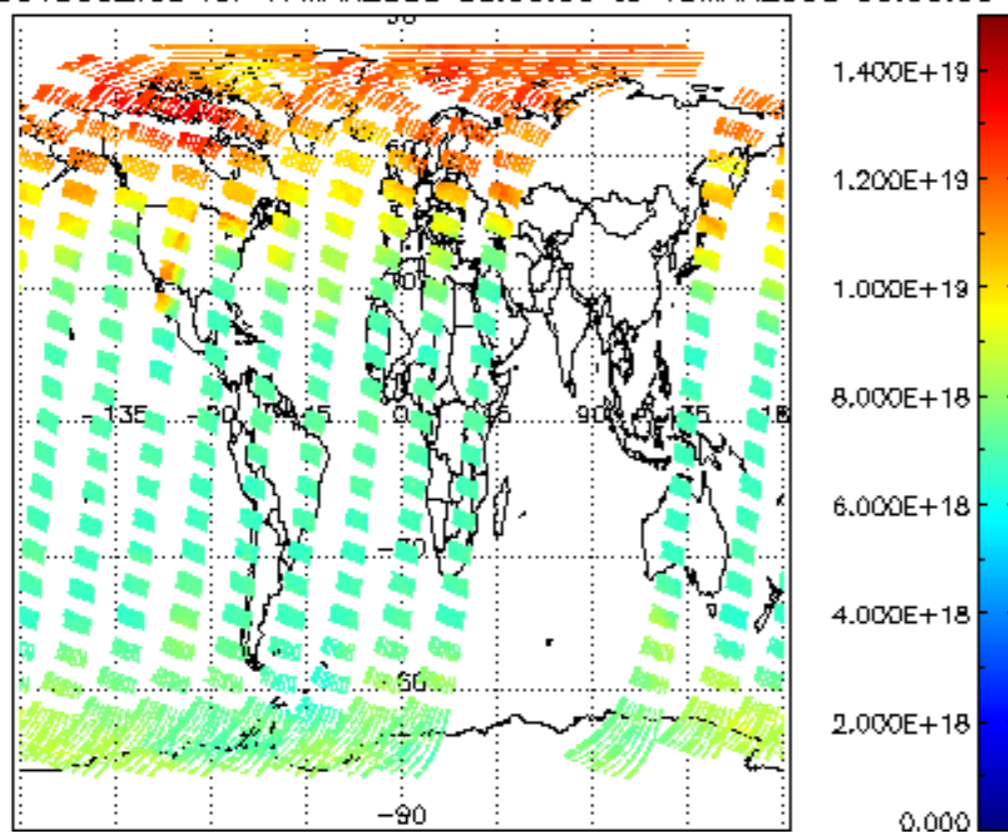


cloud_flags for 17MAR2008 00:00:00 to 18MAR2008 00:00:00

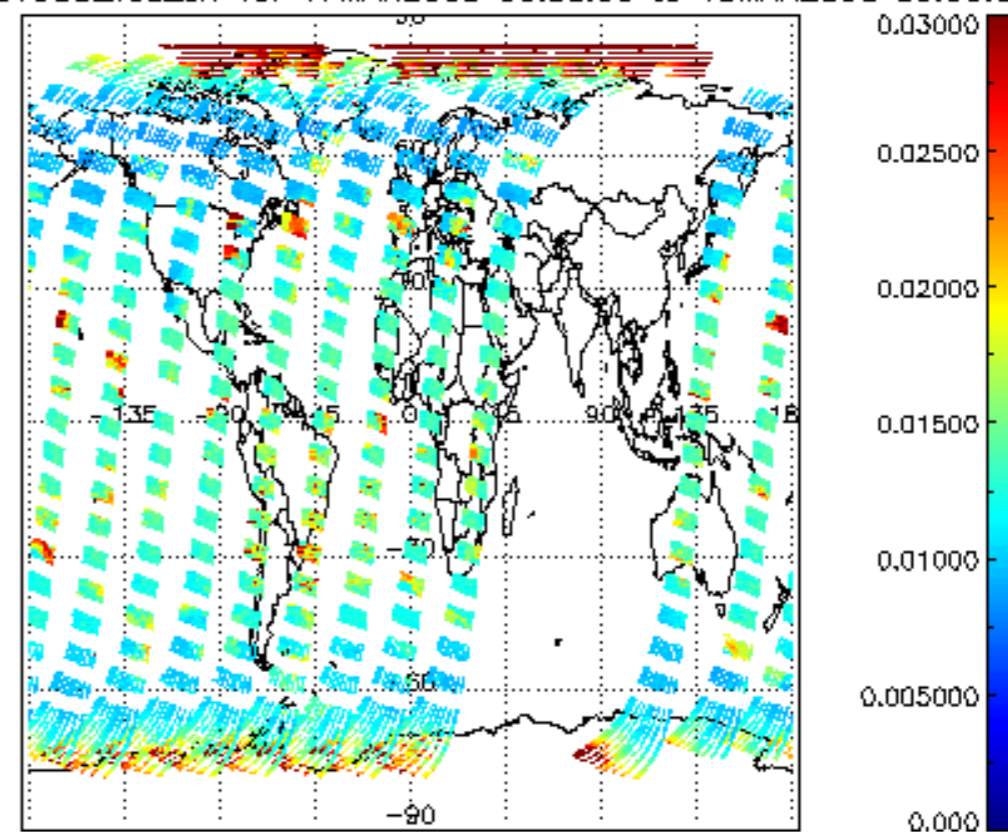




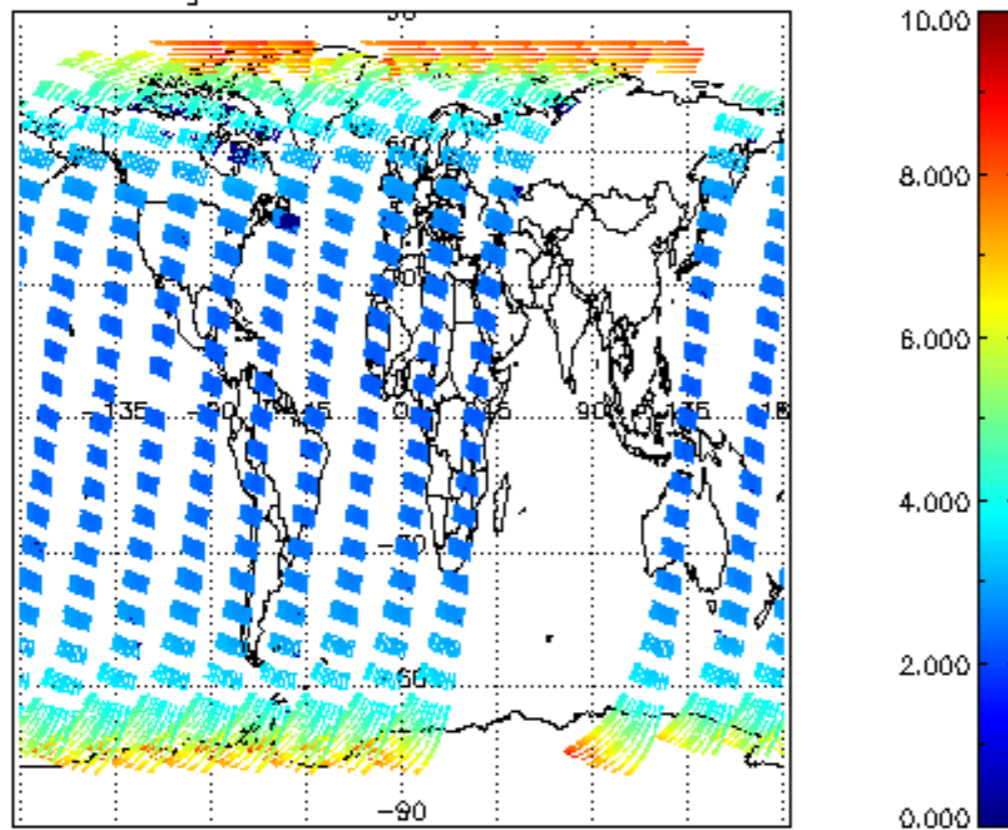
SCIOL2P_NADUV003_vcd for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



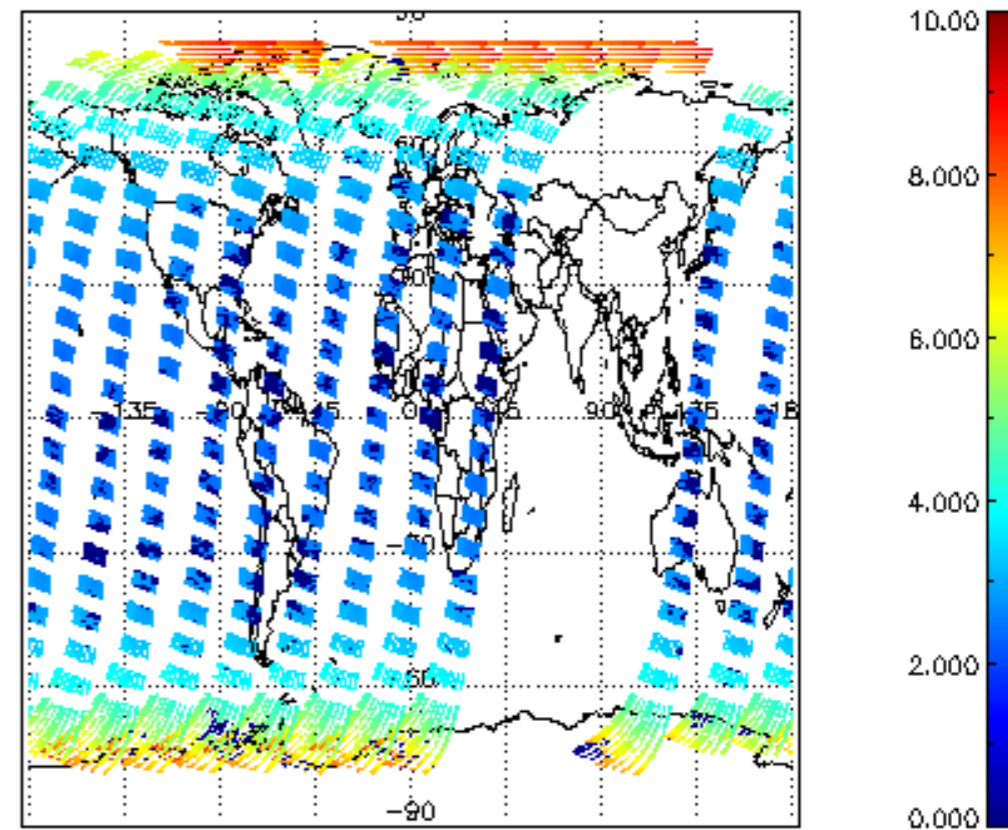
SCIOL2P_NADUV003_vcd_err for 17MAR2008 00:00:00 to 18MAR2008 00:00:00

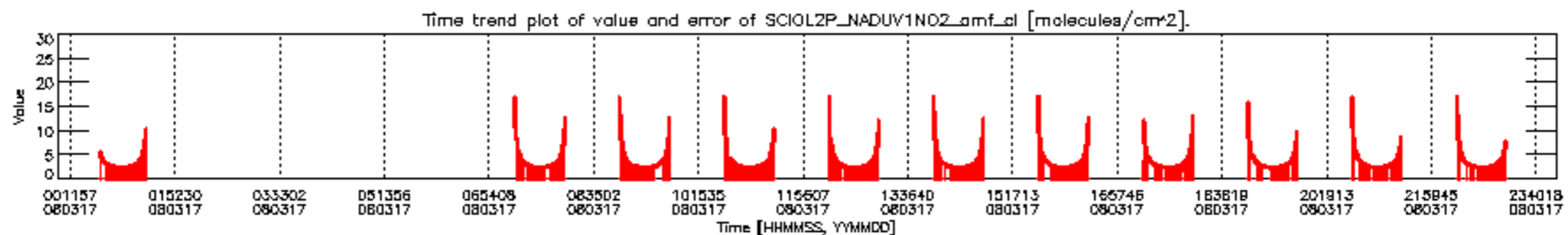
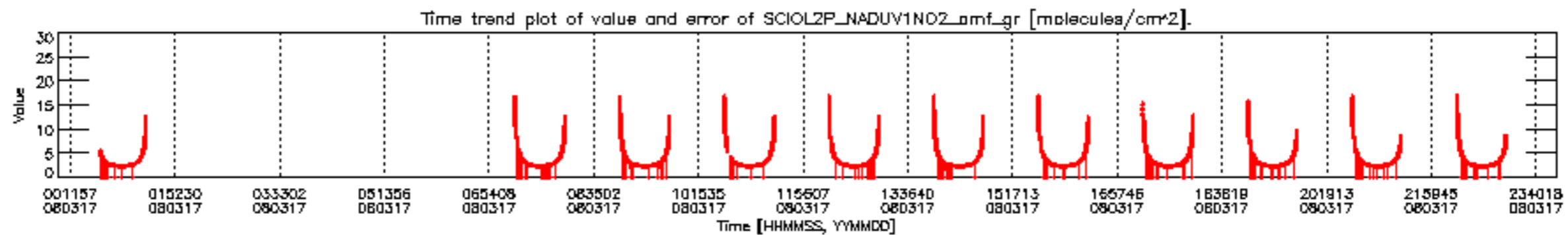
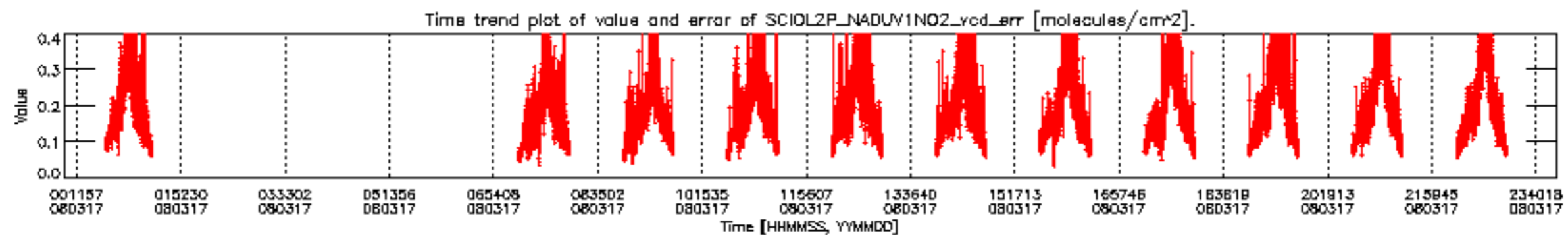
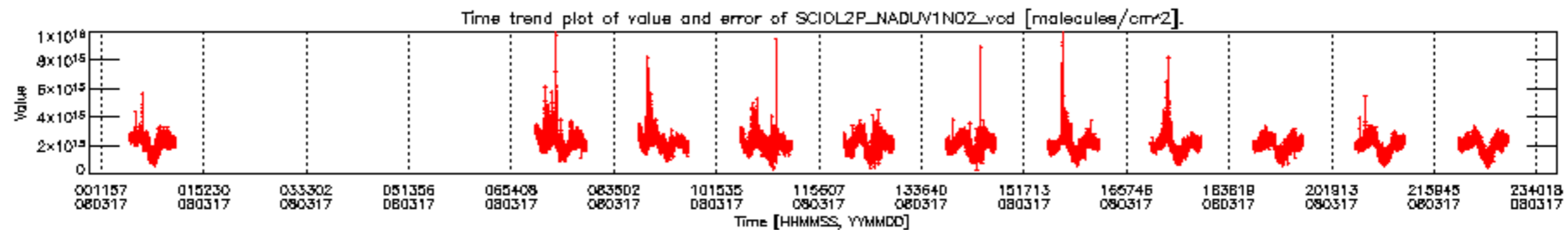


SCIOL2P_NADUV003_amf_gr for 17MAR2008 00:00:00 to 18MAR2008 00:00:00

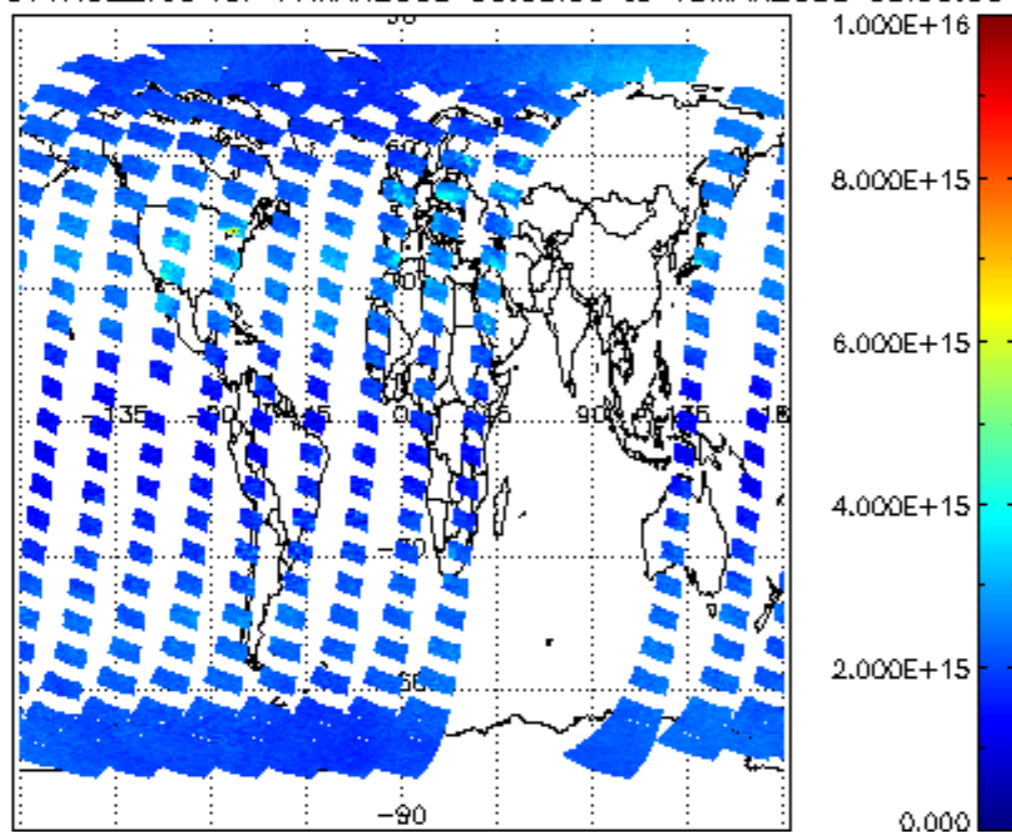


SCIOL2P_NADUV003_amf_cl for 17MAR2008 00:00:00 to 18MAR2008 00:00:00

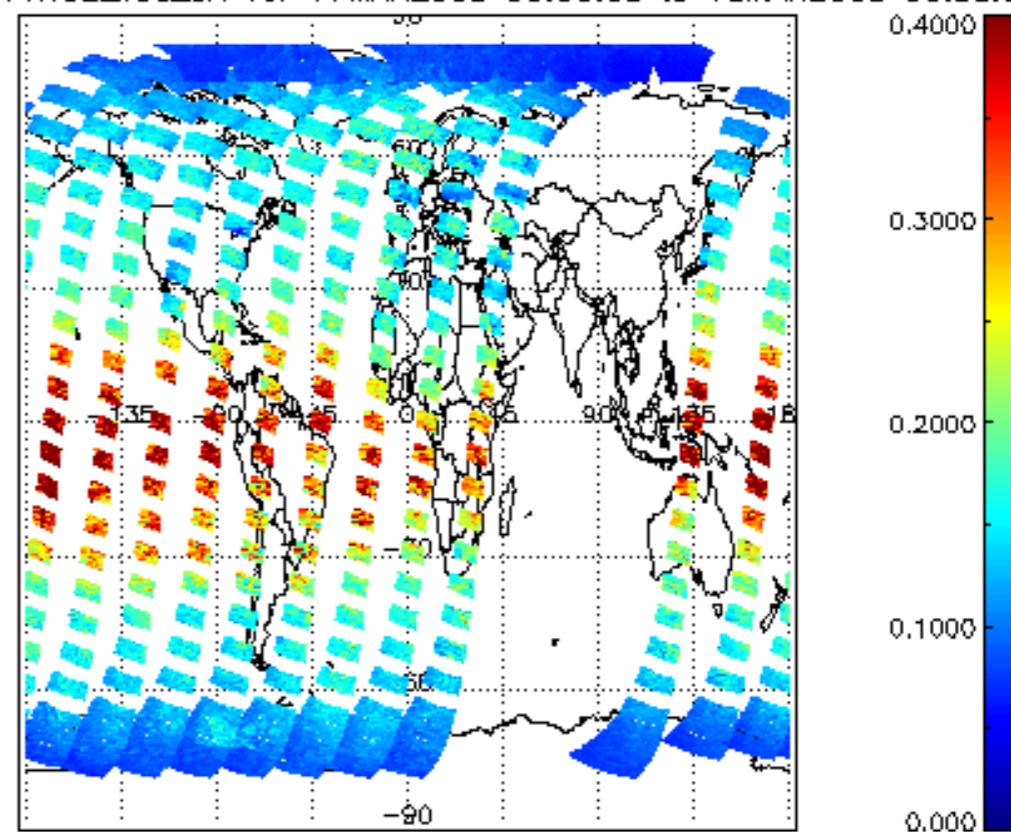




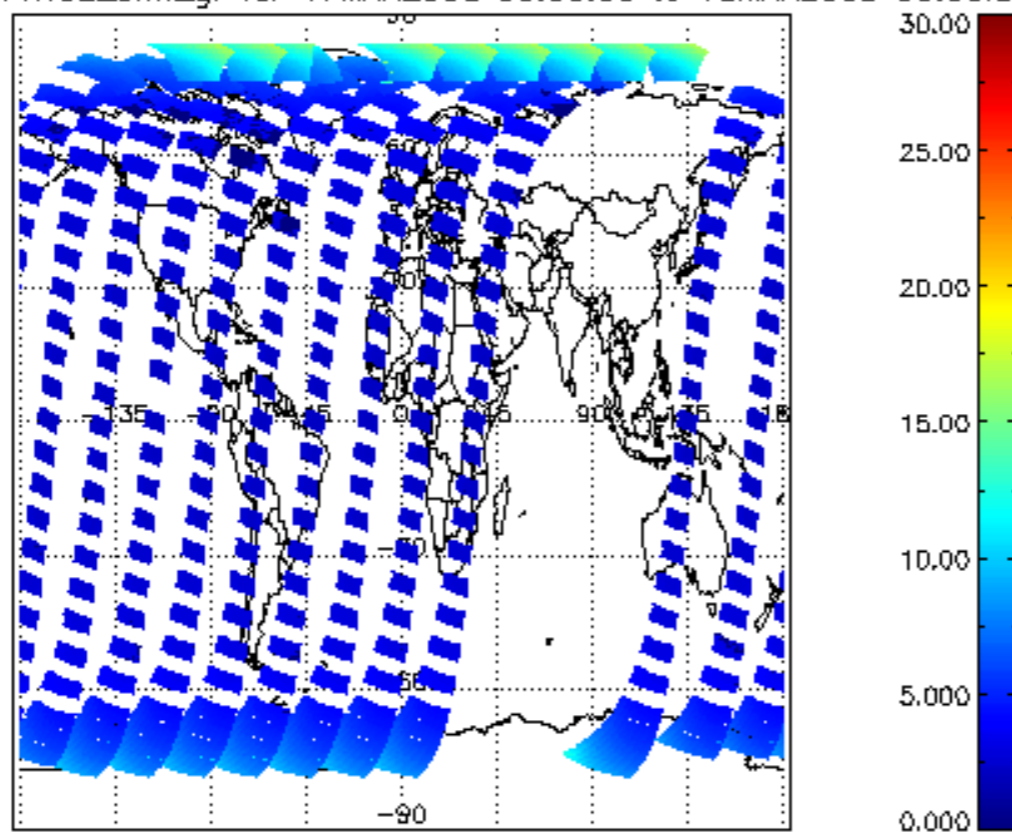
SCIOL2P_NADUV1NO2_vcd for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



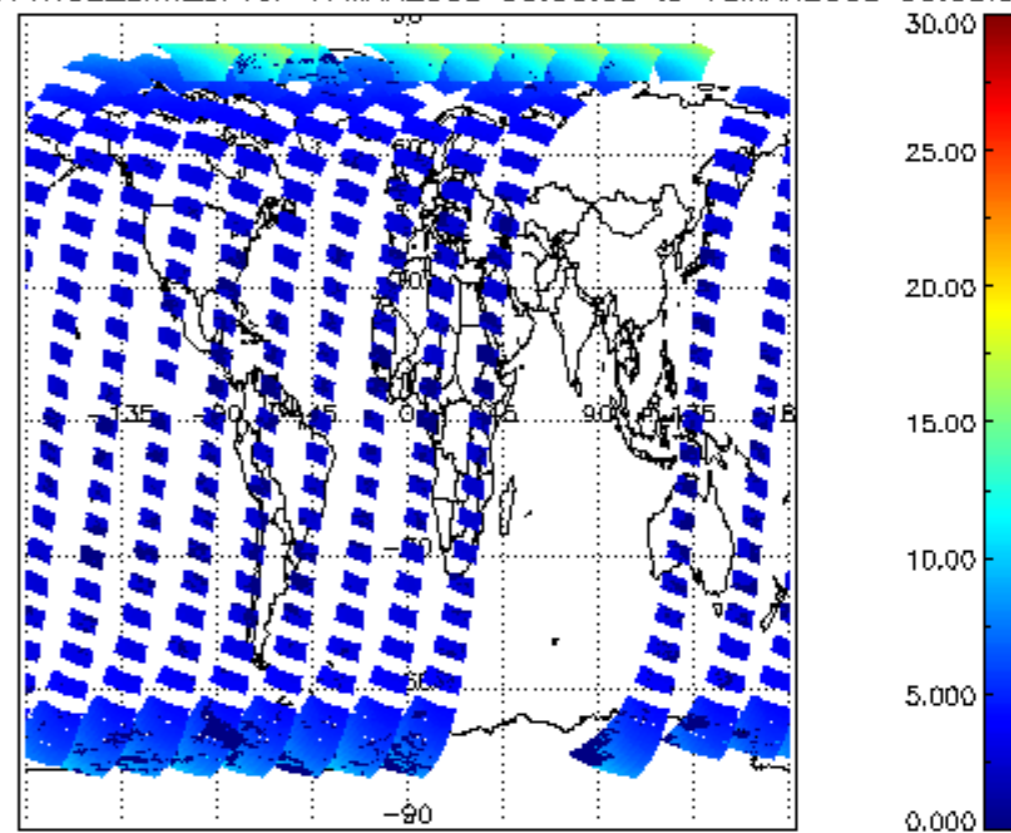
CIOL2P_NADUV1NO2_vcd_err for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



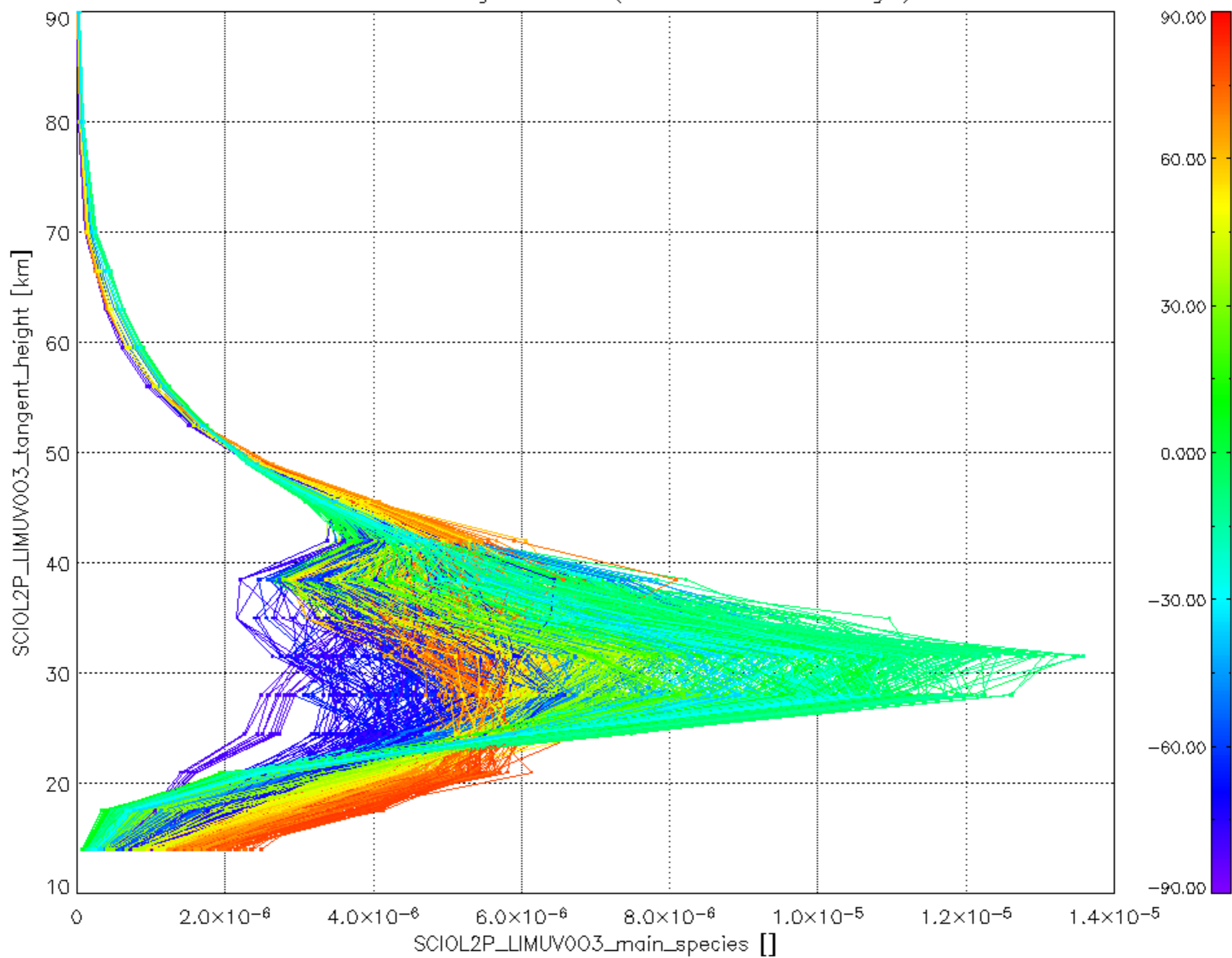
CIOL2P_NADUV1NO2_amf_gr for 17MAR2008 00:00:00 to 18MAR2008 00:00:00



CIOL2P_NADUV1NO2_amf_cl for 17MAR2008 00:00:00 to 18MAR2008 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).

