

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	21APR2008 06:03:27
Data source version	SCIA-OL/3.01-R
Processing scope for products	29MAR2008 00:00:00 to 30MAR2008 00:00:00
Start time of first product within scope	28MAR2008 23:16:36
Stop time of last product within scope	29MAR2008 23:36:10
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__2PRDPA20080328_231636_000030762067_00159_31776_5786.N1	28MAR2008 23:16:36	29MAR2008 00:07:53	0	GOOD
1	SCI_OL__2PRDPA20080329_005207_000033942067_00160_31777_5789.N1	29MAR2008 00:52:07	29MAR2008 01:48:41	0	GOOD
2	SCI_OL__2PRDPA20080329_023242_000033812067_00161_31778_5791.N1	29MAR2008 02:32:42	29MAR2008 03:29:04	0	GOOD
3	SCI_OL__2PRDPA20080329_041318_000033942067_00162_31779_5793.N1	29MAR2008 04:13:18	29MAR2008 05:09:52	0	GOOD
4	SCI_OL__2PRDPA20080329_055354_000033812067_00163_31780_5794.N1	29MAR2008 05:53:54	29MAR2008 06:50:15	0	GOOD
5	SCI_OL__2PRDPA20080329_073429_000033942067_00164_31781_5797.N1	29MAR2008 07:34:29	29MAR2008 08:31:03	0	GOOD
6	SCI_OL__2PRDPA20080329_091505_000033812067_00165_31782_5798.N1	29MAR2008 09:15:05	29MAR2008 10:11:26	0	GOOD
7	SCI_OL__2PRDPA20080329_105540_000033942067_00166_31783_5801.N1	29MAR2008 10:55:40	29MAR2008 11:52:14	0	GOOD
8	SCI_OL__2PRDPA20080329_123615_000033812067_00167_31784_5802.N1	29MAR2008 12:36:15	29MAR2008 13:32:37	0	GOOD
9	SCI_OL__2PRDPA20080329_141651_000033942067_00168_31785_5804.N1	29MAR2008 14:16:51	29MAR2008 15:13:25	0	GOOD
10	SCI_OL__2PRDPA20080329_155727_000033812067_00169_31786_5806.N1	29MAR2008 15:57:27	29MAR2008 16:53:48	0	GOOD
11	SCI_OL__2PRDPA20080329_173824_000033252067_00170_31787_5808.N1	29MAR2008 17:38:24	29MAR2008 18:33:50	0	GOOD
12	SCI_OL__2PRDPA20080329_191900_000033122067_00171_31788_5811.N1	29MAR2008 19:19:00	29MAR2008 20:14:13	0	GOOD
13	SCI_OL__2PRDPA20080329_205913_000033942067_00172_31789_5812.N1	29MAR2008 20:59:13	29MAR2008 21:55:47	0	GOOD
14	SCI_OL__2PRDPA20080329_223949_000033812067_00173_31790_5814.N1	29MAR2008 22:39:49	29MAR2008 23:36:10	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: 145391

Total number of cloud data DSRs with good quality flag (=0): 145391 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	145391	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	145391	0.17038	0.12500	0.12500	0.25000	0.060109	s
SURFACE_PRES	145391	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	145391	0.37568	0.33575	0.0000	1.0000	0.29431	-

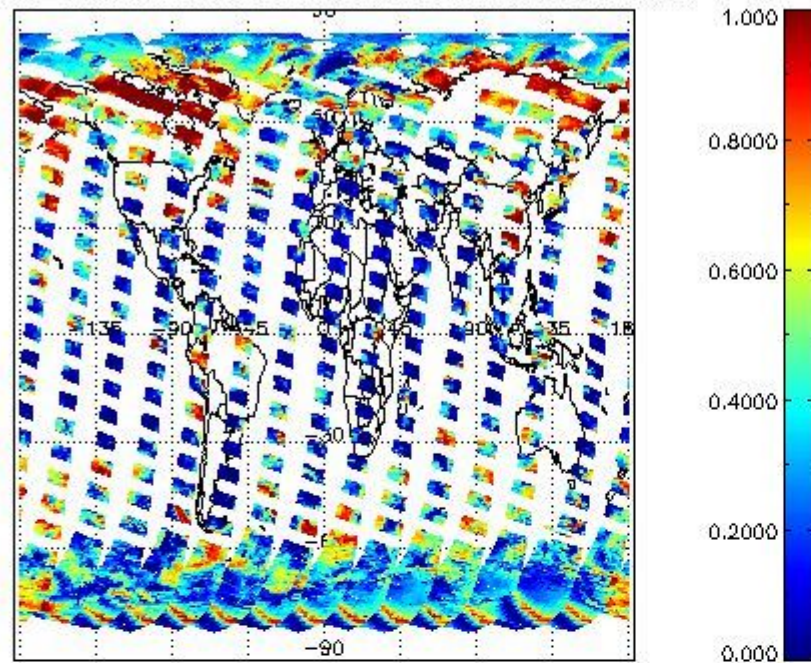
CL_FRAC_ERR	145391	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	145391	5.4521	4.0000	4.0000	8.0000	1.9235	
PMD_READ_CL[0]	145391	0.26762	0.0000	0.0000	8.0000	1.1388	-
PMD_READ_CL[1]	145391	1.0908	0.0000	0.0000	8.0000	2.2765	-
CL_TOP_HEIGHT	121483	3.1800	1.5832	0.0000	17.000	3.4917	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	121483	61.561	81.170	0.0000	101.00	41.692	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	145391	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	145391	11001011	11000100	11000000	11100000	3376.4	flags
AERO_ABSO_IND	145391	3.0106	3.5780	-1.4051	14.815	2.0889	
AERO_IND_DIAG	145391	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	145391	01010111	00000000	00000000	11000000	24474.	flags

Time and geolocation plots:

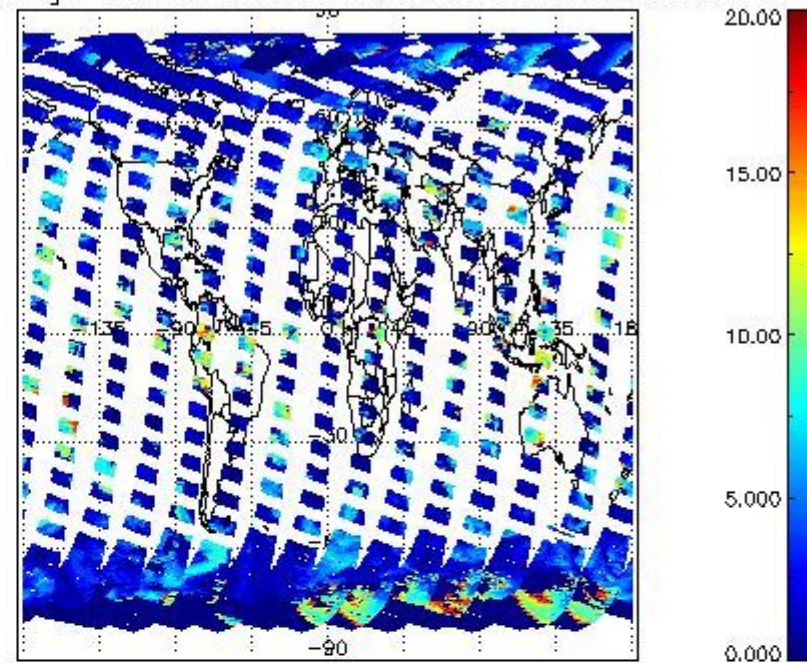
Plots are available for the following parameters:

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

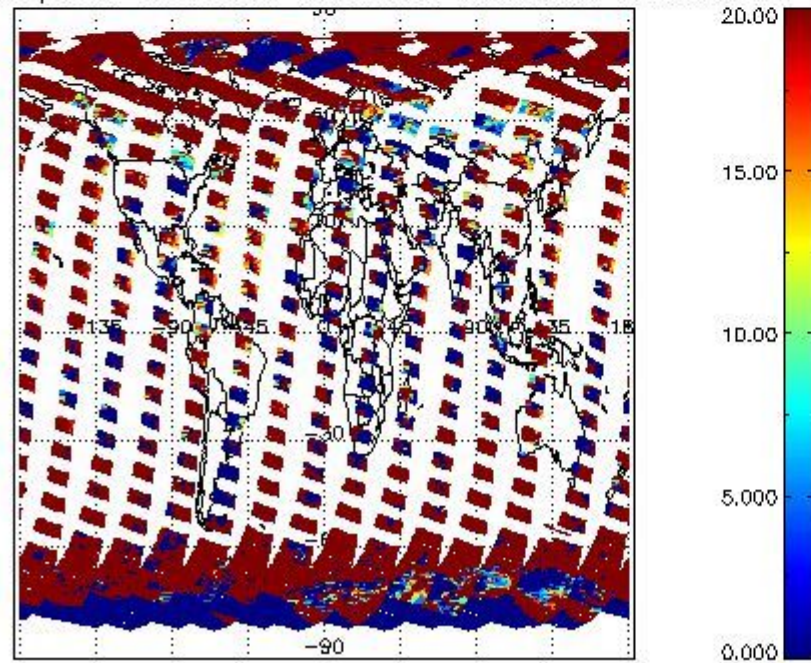
cLfrac for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



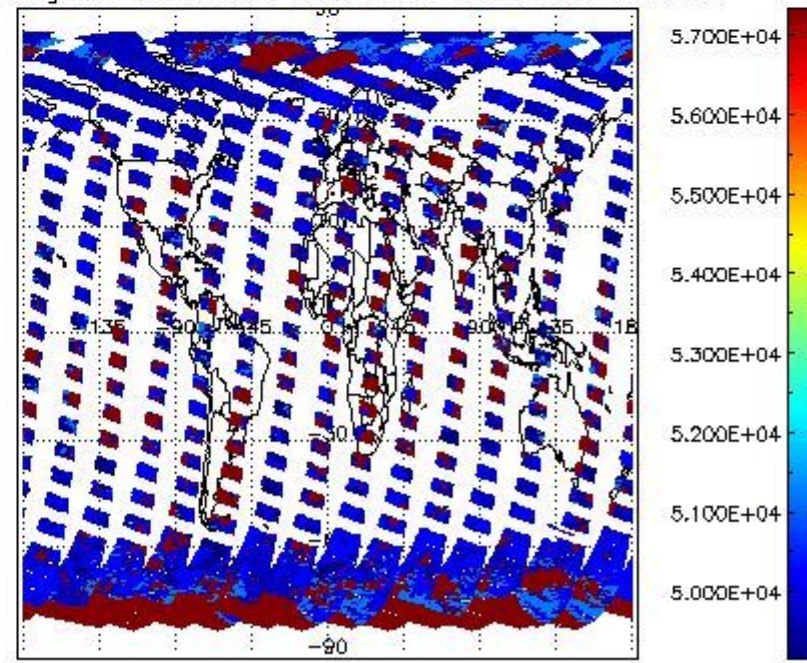
cLtop_height for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



cLopt_depth for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



cloud_flags for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



2.2.2 Nadir

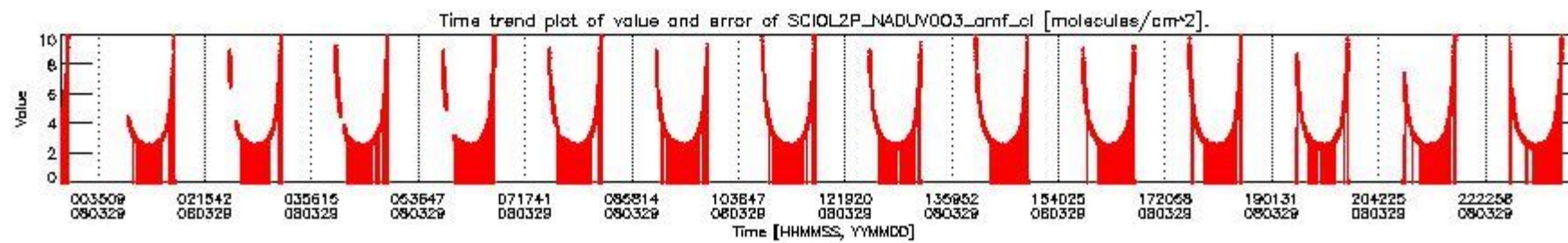
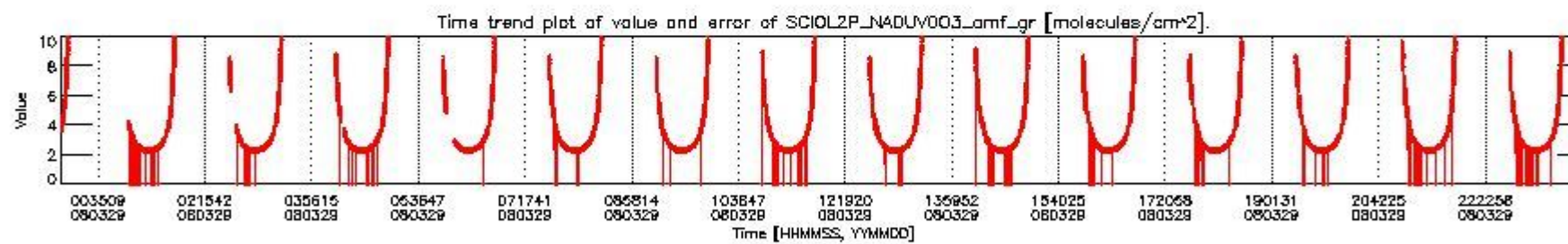
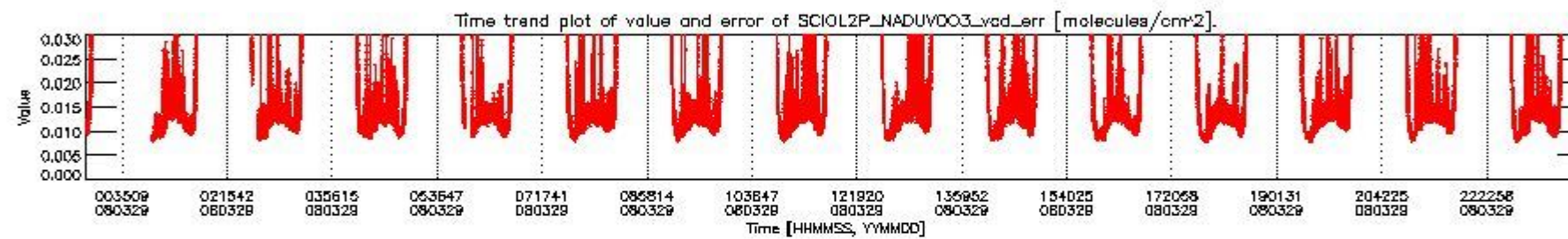
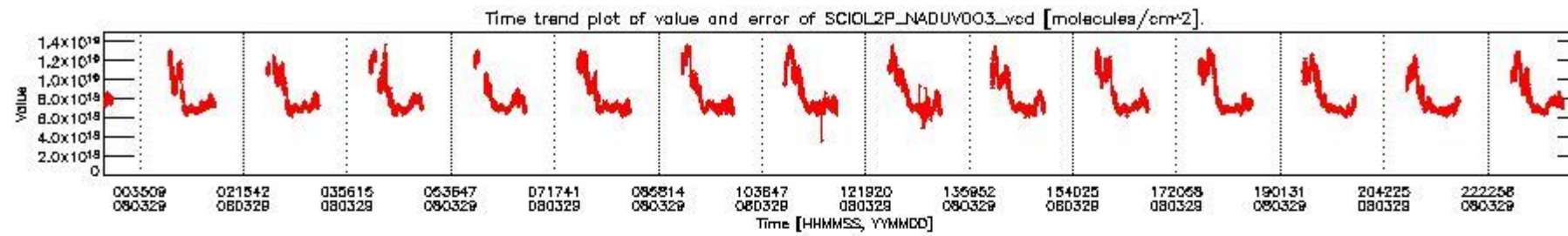
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

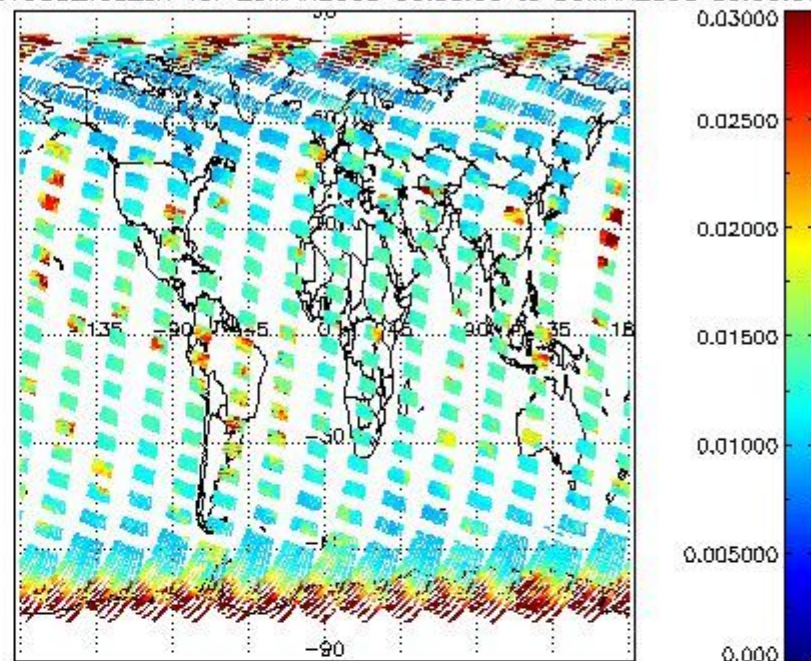
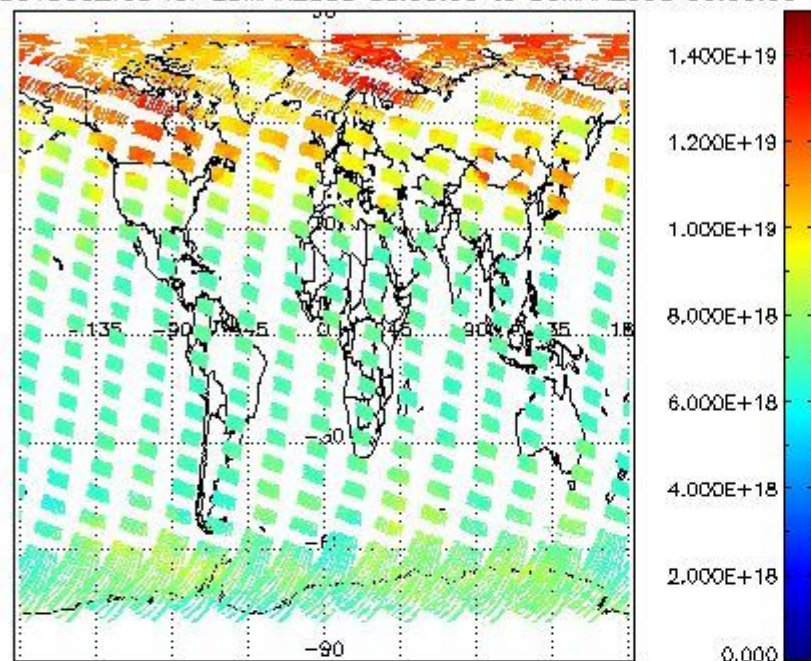
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

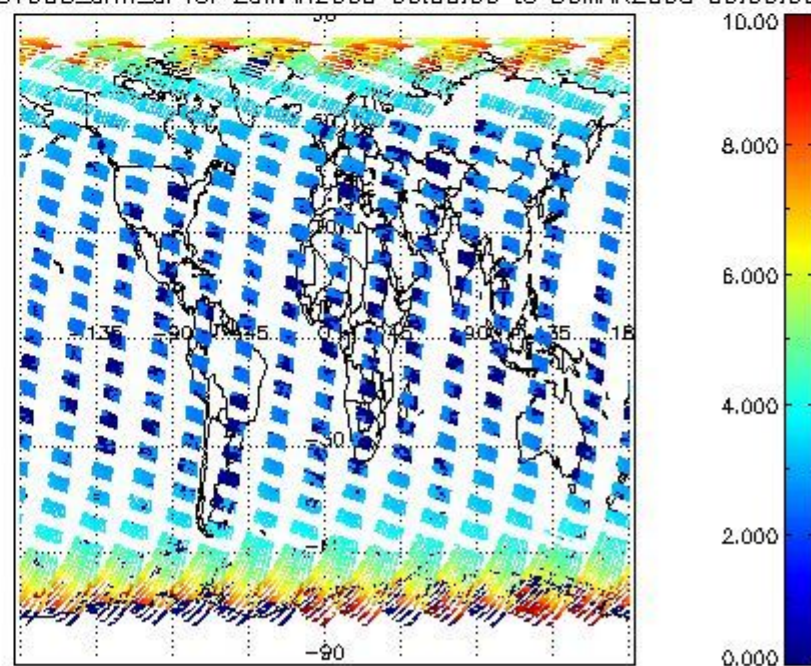
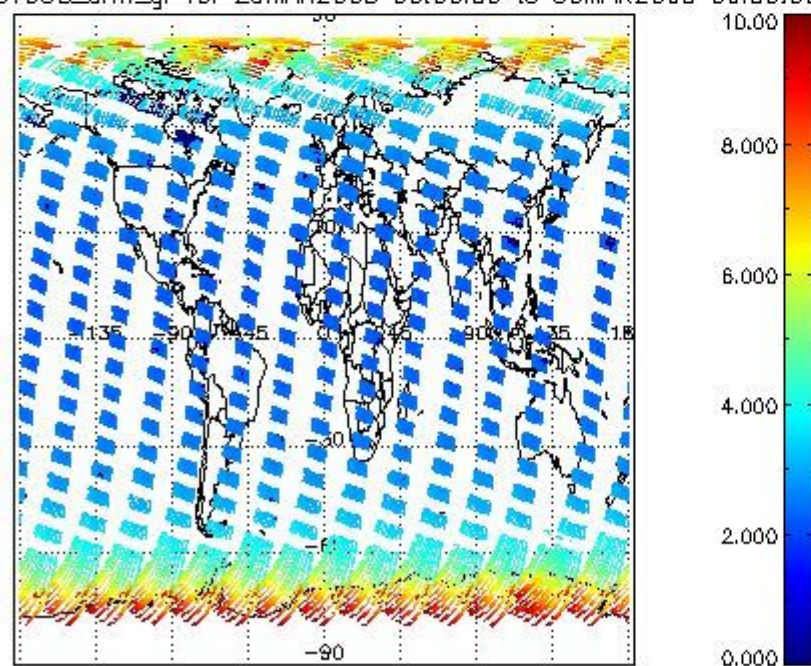
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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

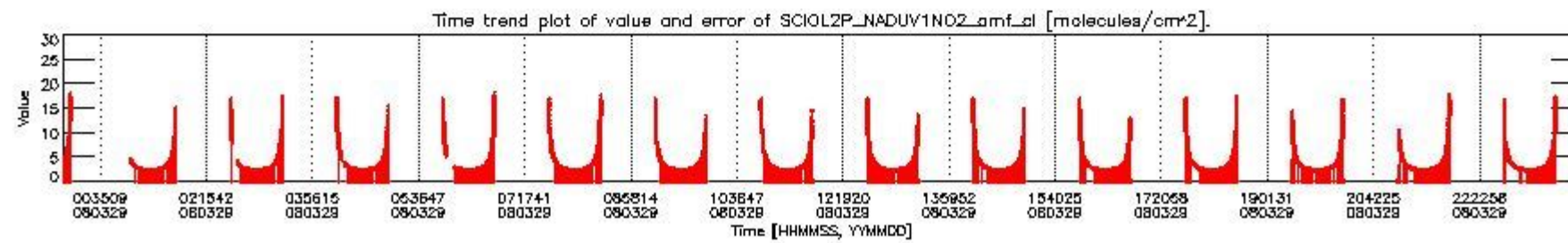
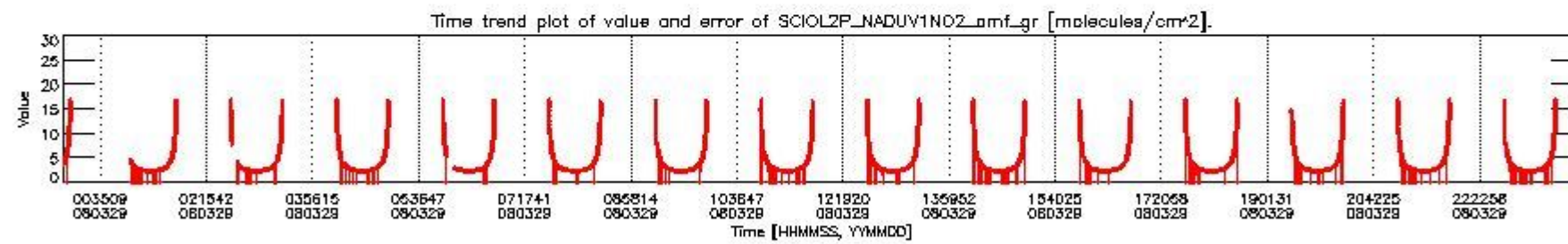
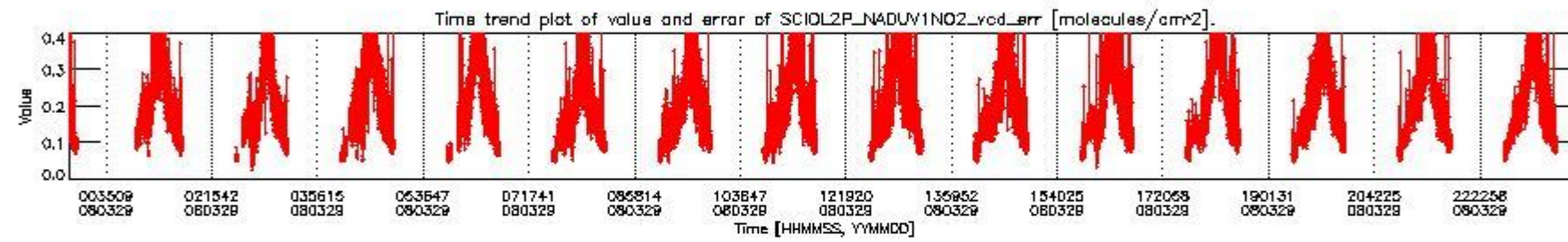
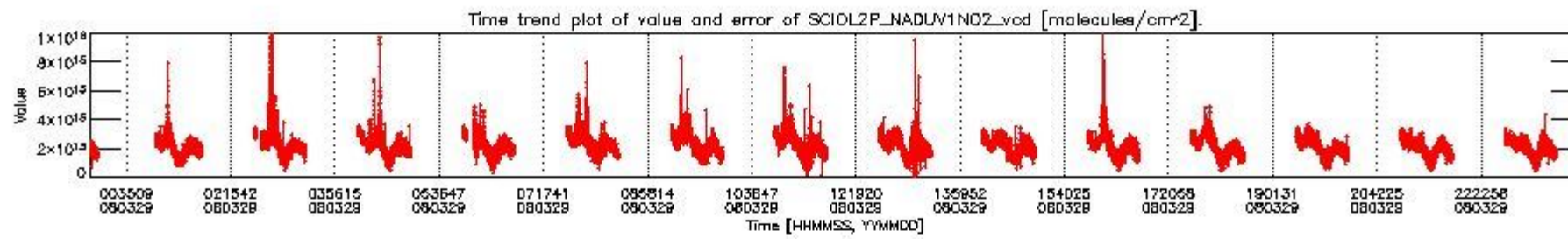


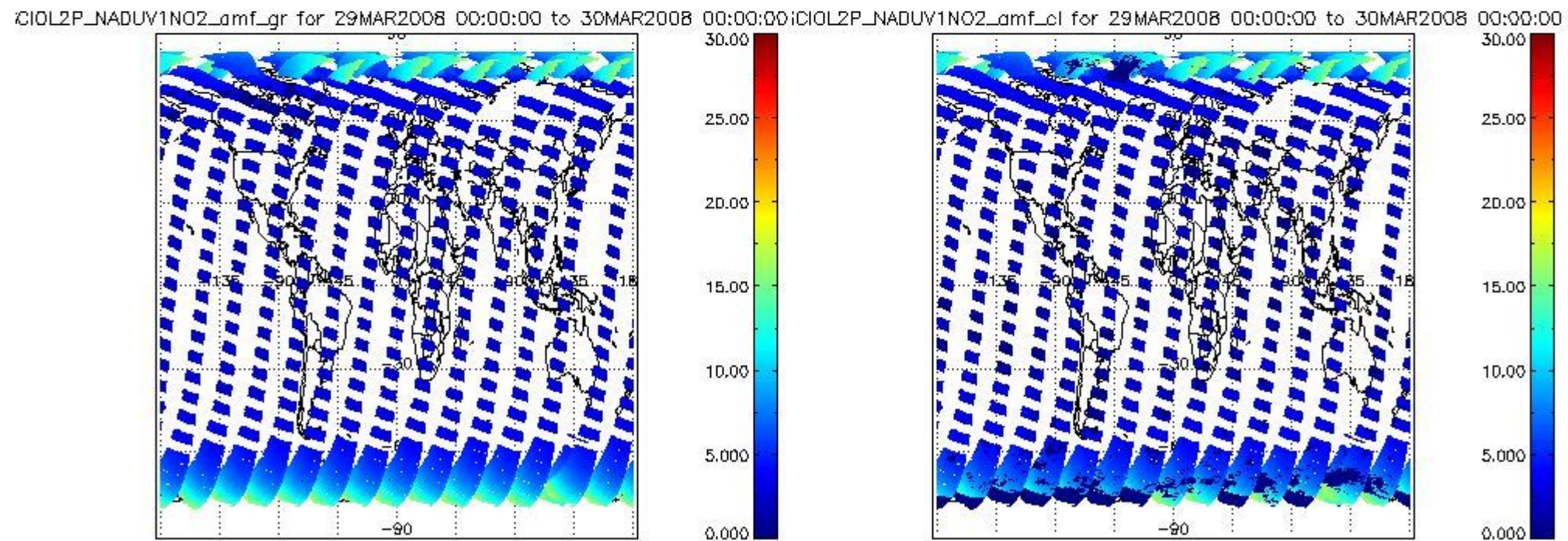
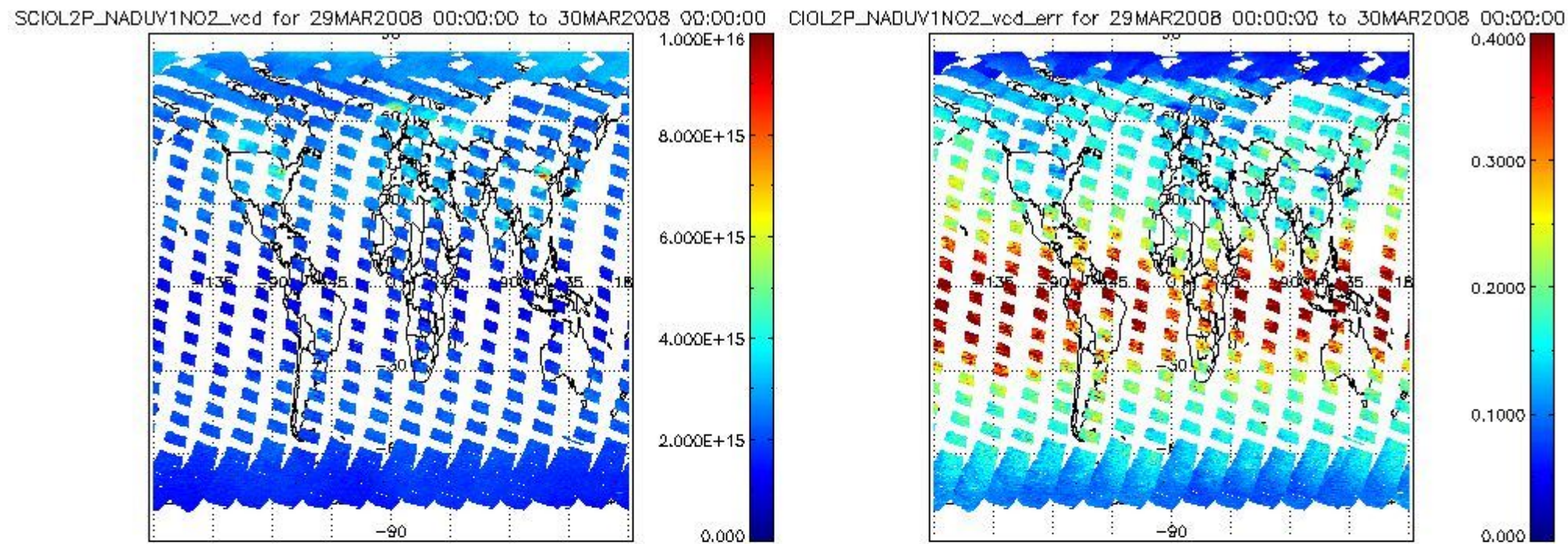
SCIOL2P_NADUV003_vcd for 29MAR2008 00:00:00 to 30MAR2008 00:00:00 SCIOL2P_NADUV003_vcd_err for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



SCIOL2P_NADUV003_amf_gr for 29MAR2008 00:00:00 to 30MAR2008 00:00:00 SCIOL2P_NADUV003_amf_cl for 29MAR2008 00:00:00 to 30MAR2008 00:00:00







2.2.3 Limb

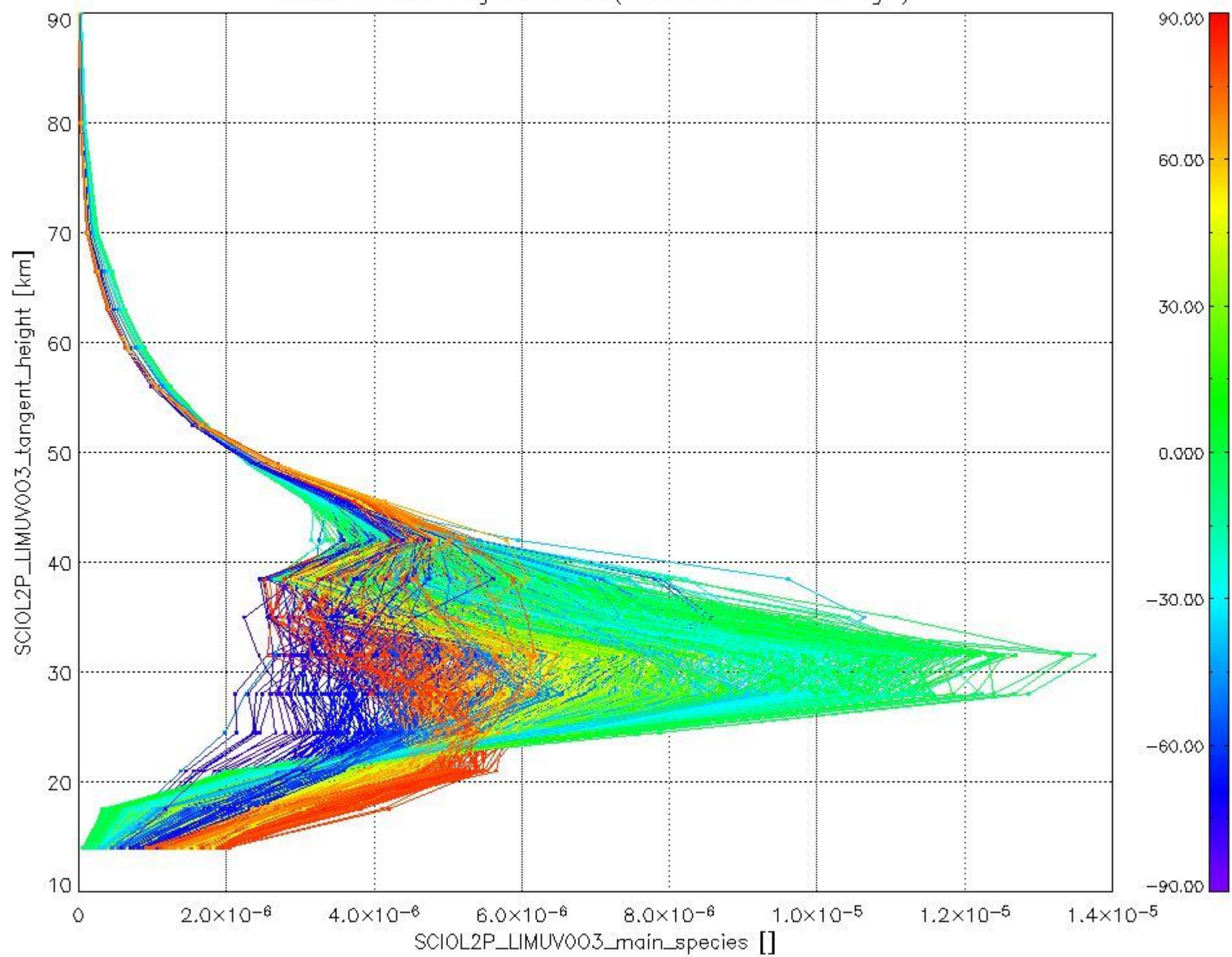
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

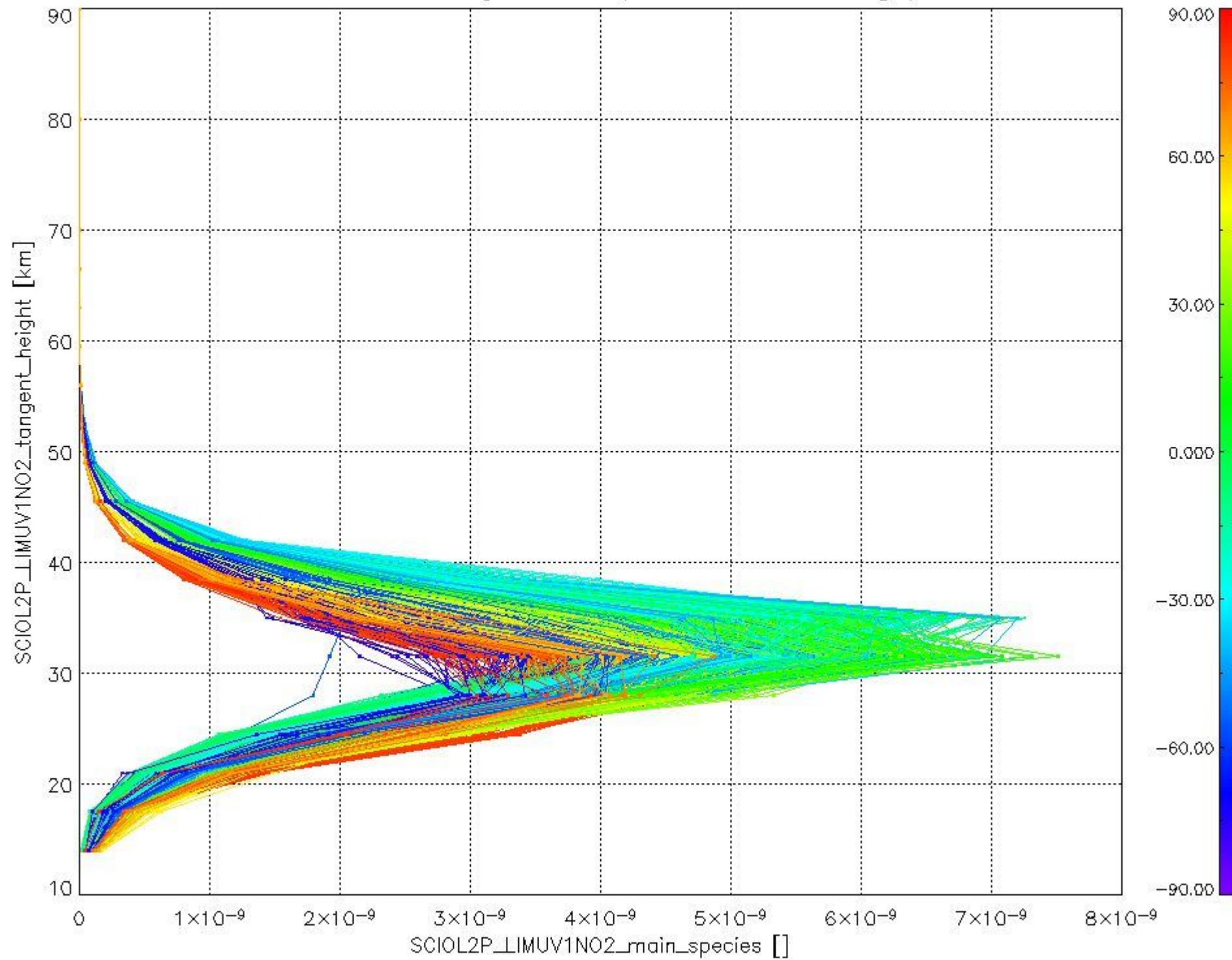
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



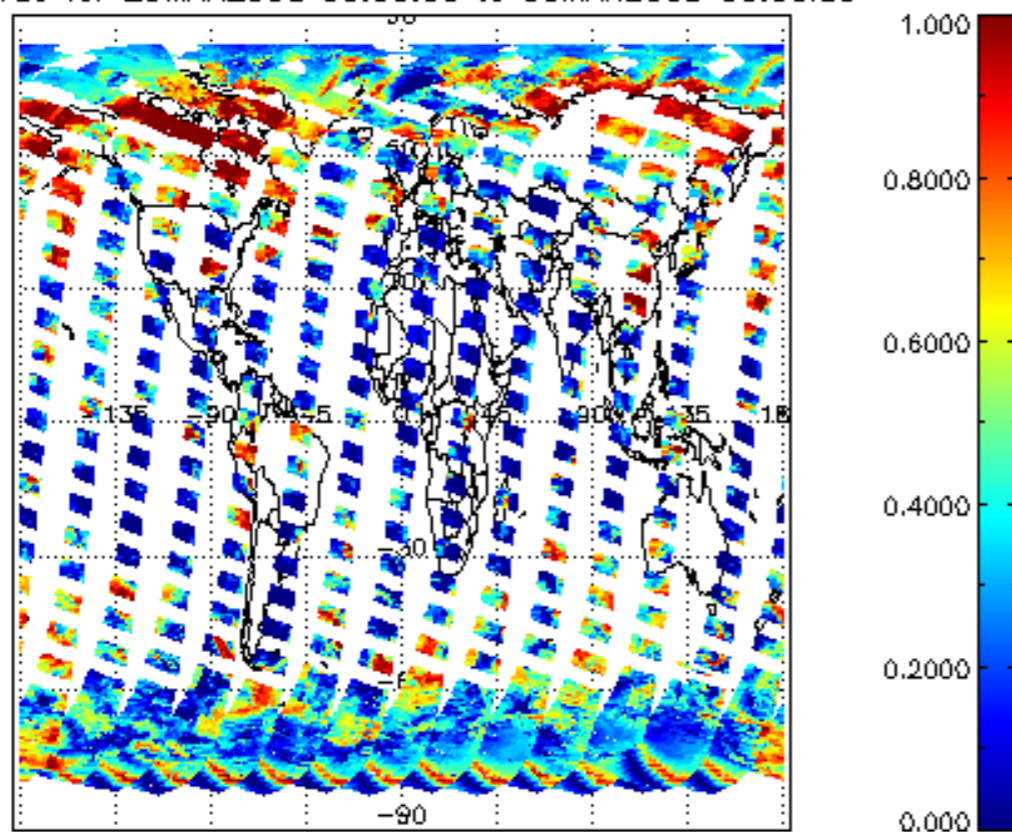
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



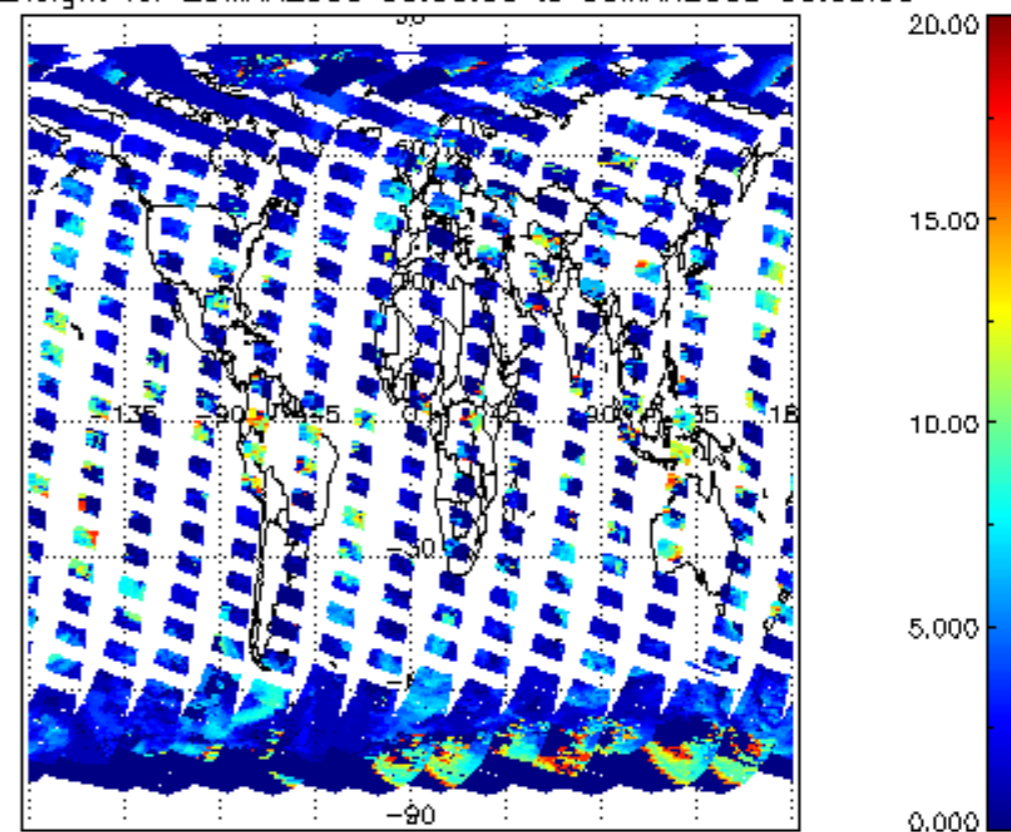
2.3 ADF monitoring

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

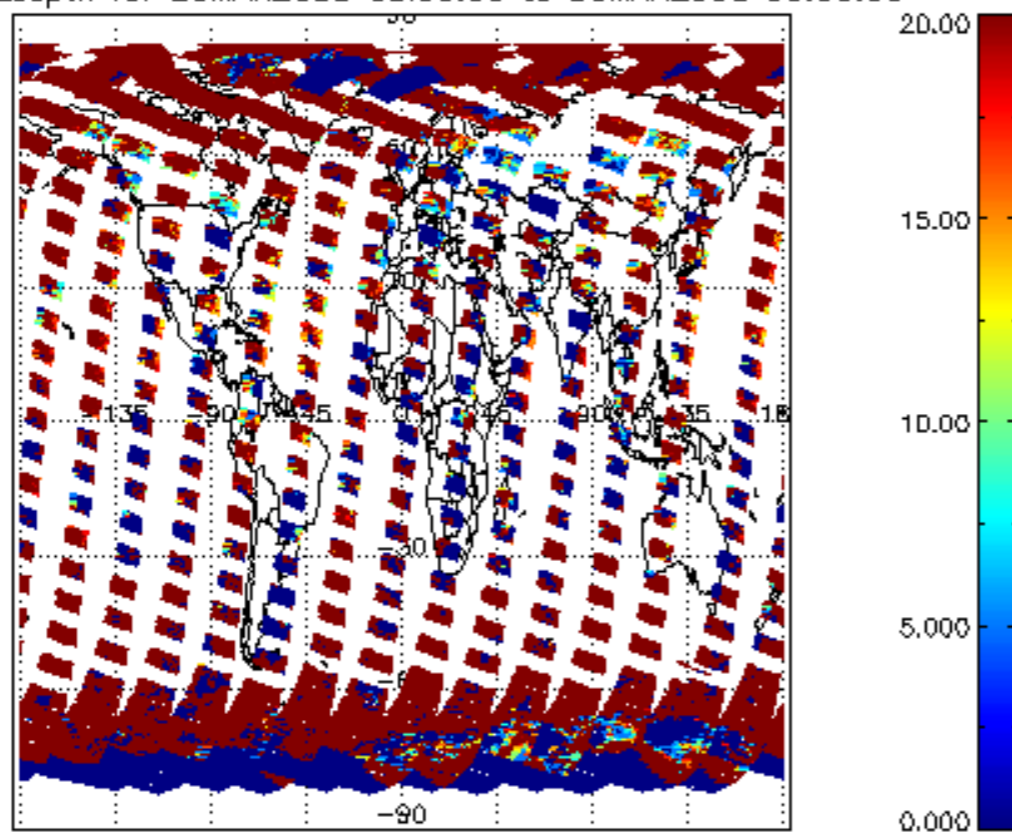
cL_frac for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



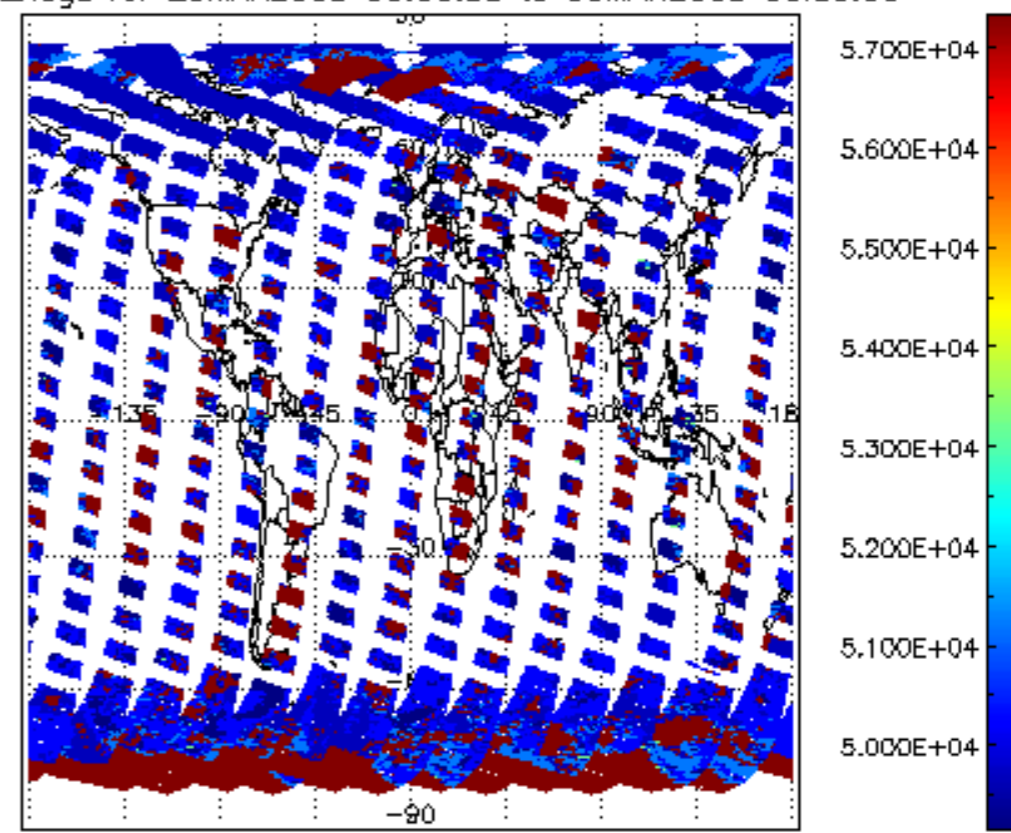
cL_top_height for 29MAR2008 00:00:00 to 30MAR2008 00:00:00

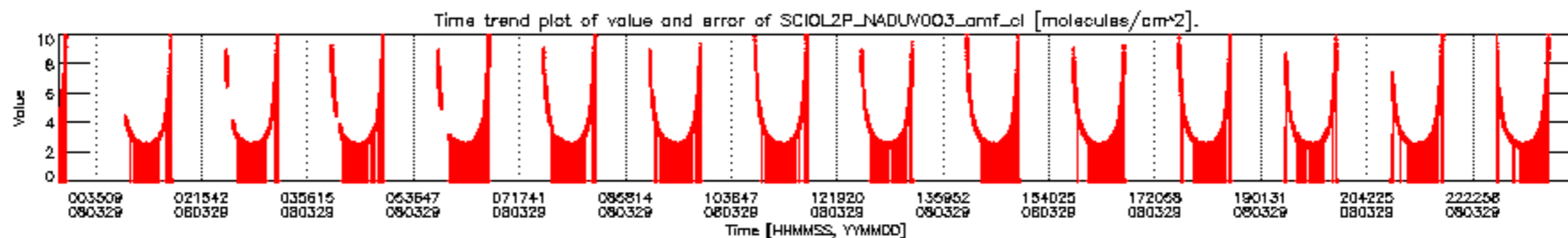
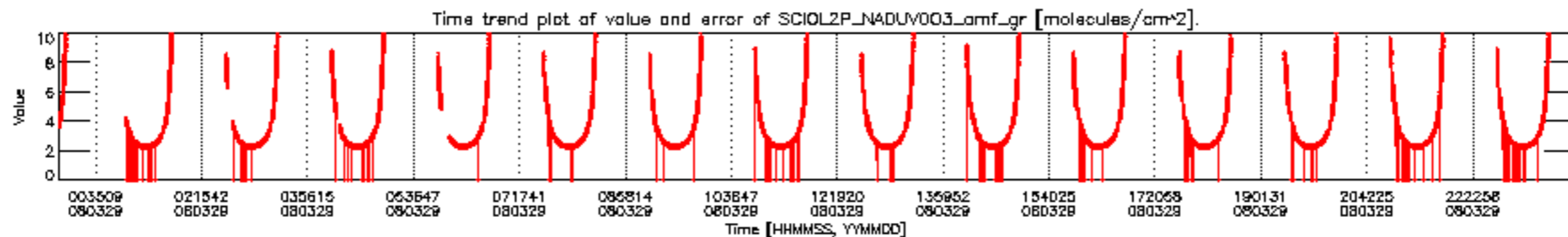
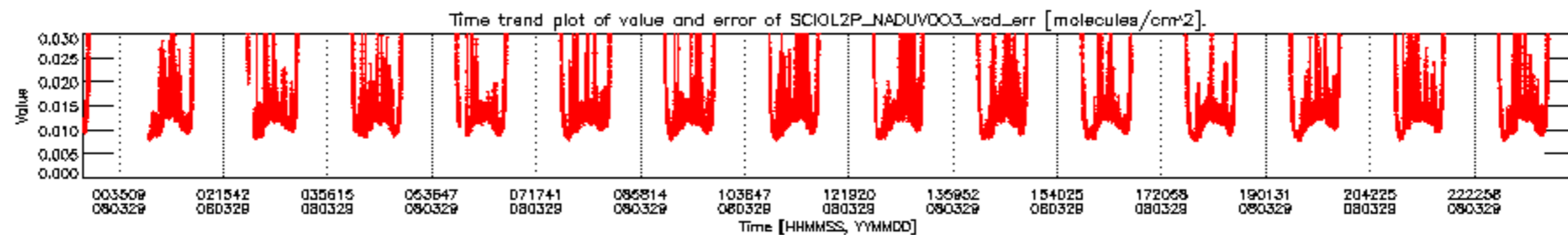
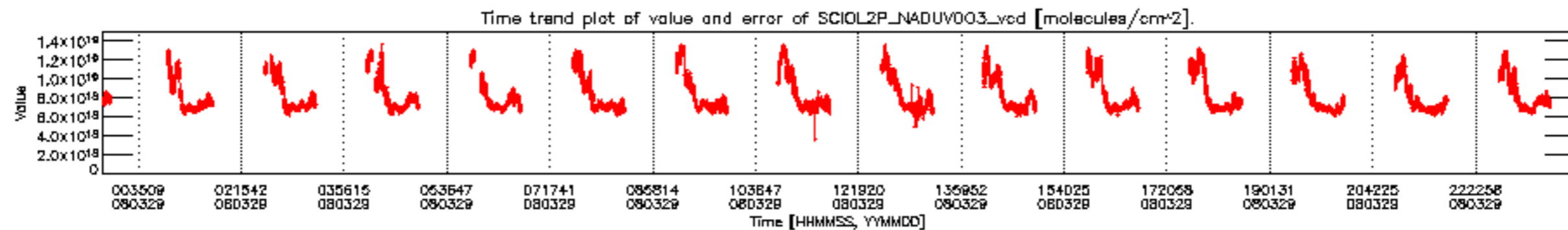


cL_opt_depth for 29MAR2008 00:00:00 to 30MAR2008 00:00:00

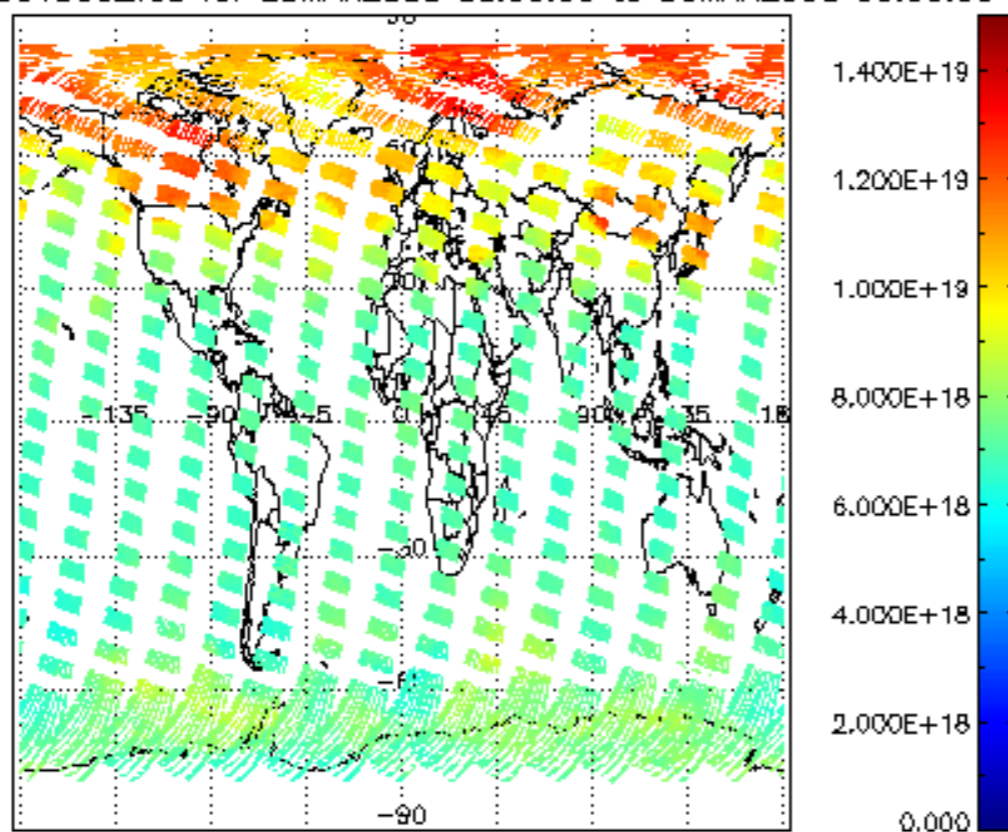


cloud_flags for 29MAR2008 00:00:00 to 30MAR2008 00:00:00

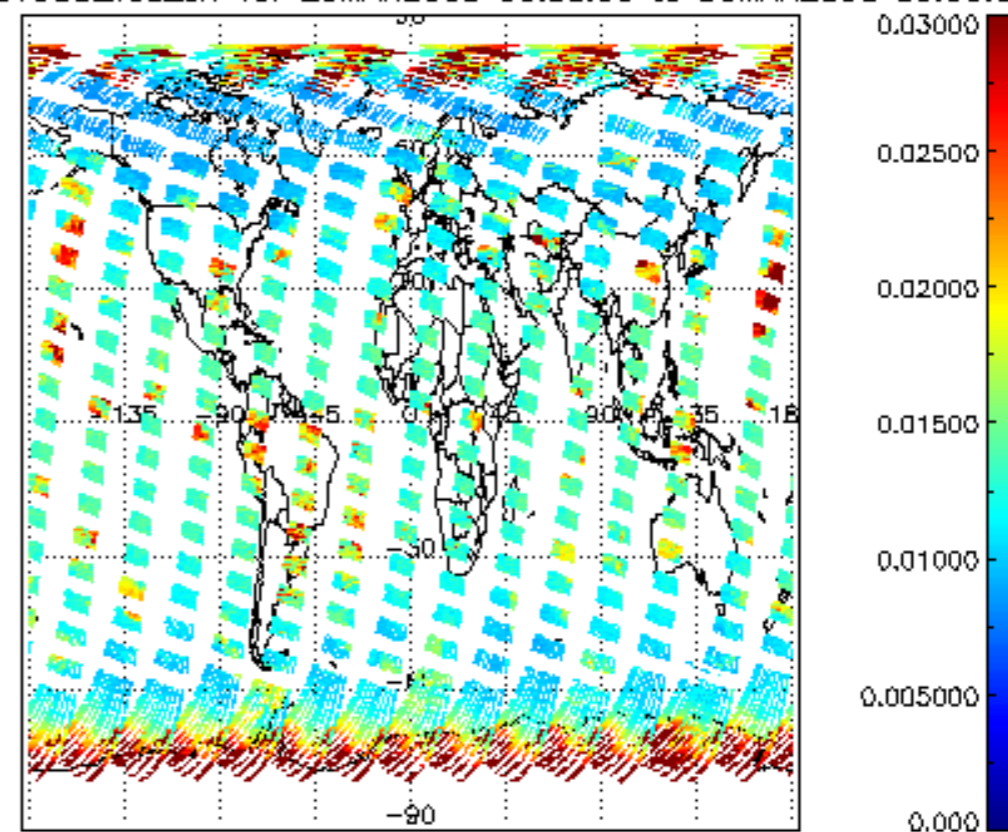




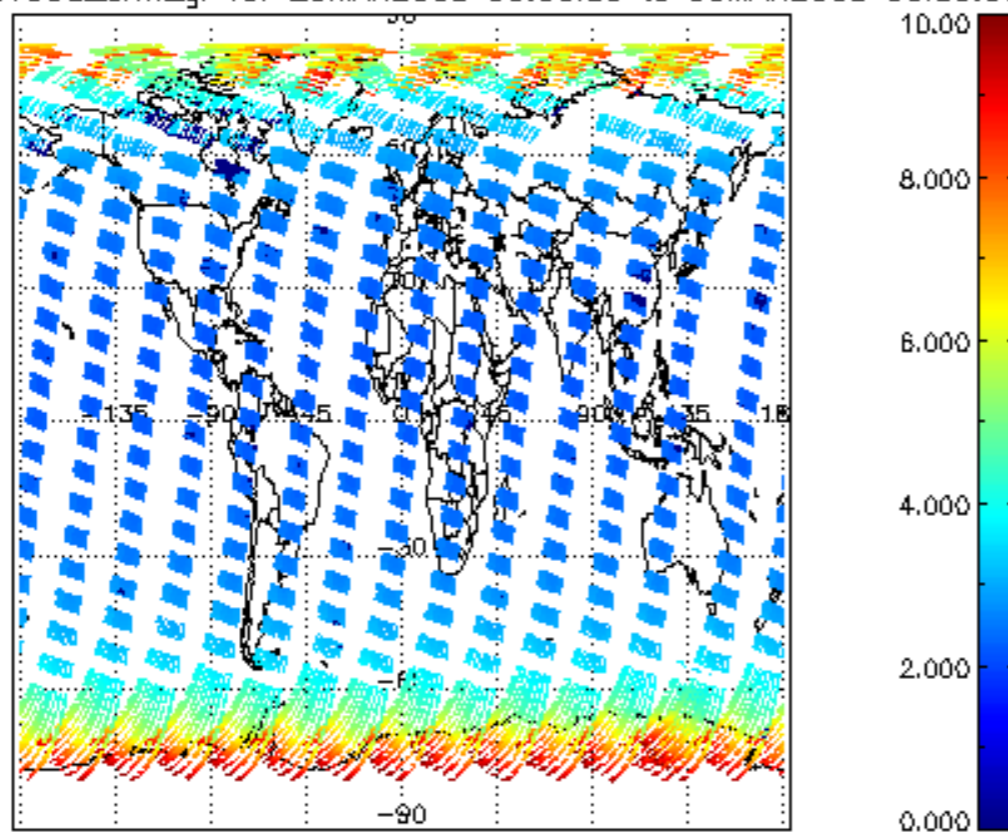
SCIOL2P_NADUV003_vcd for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



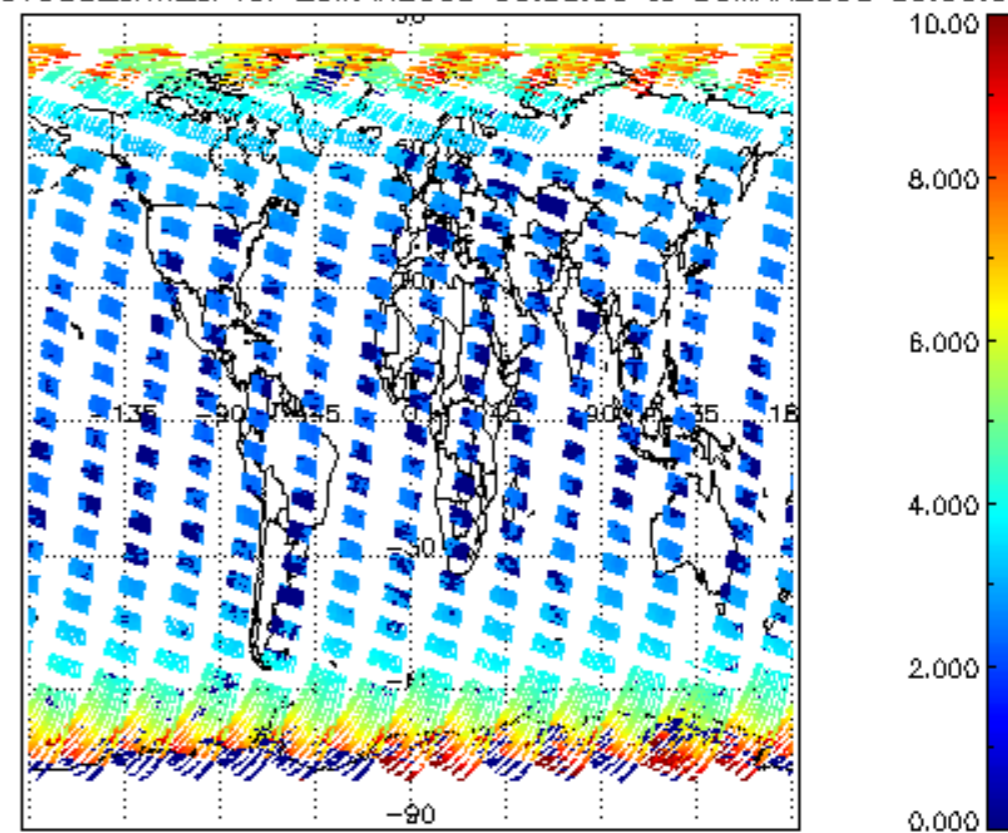
SCIOL2P_NADUV003_vcd_err for 29MAR2008 00:00:00 to 30MAR2008 00:00:00

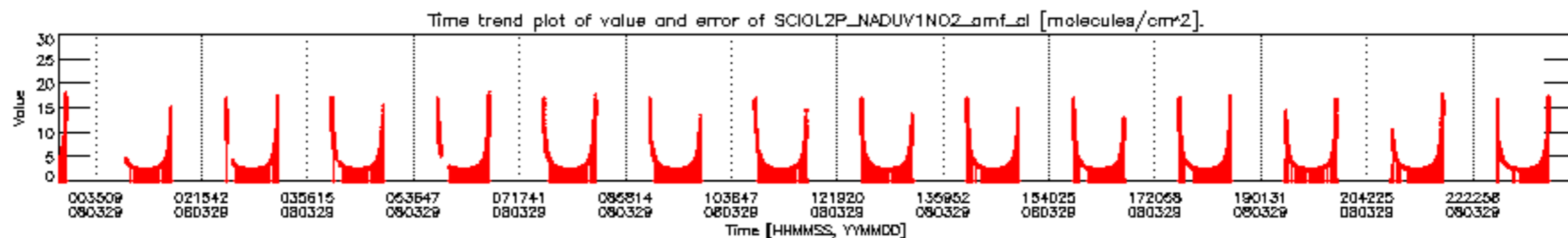
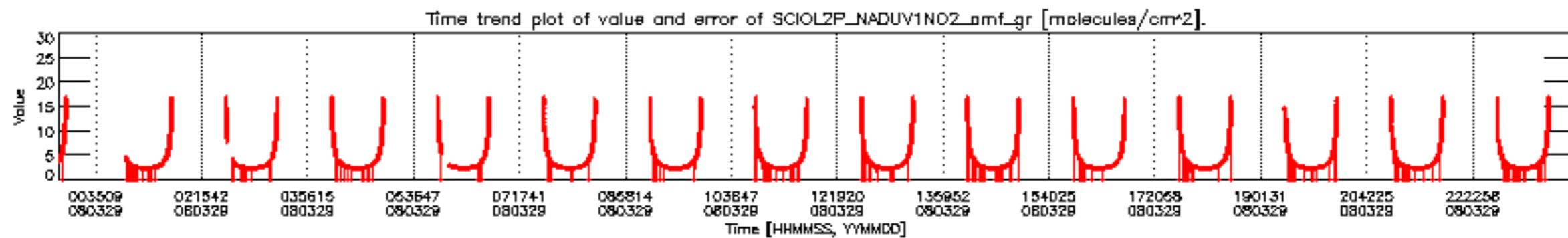
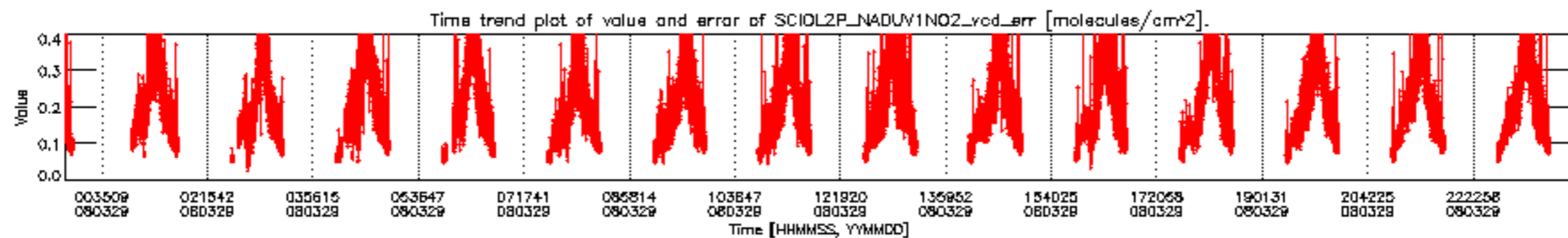
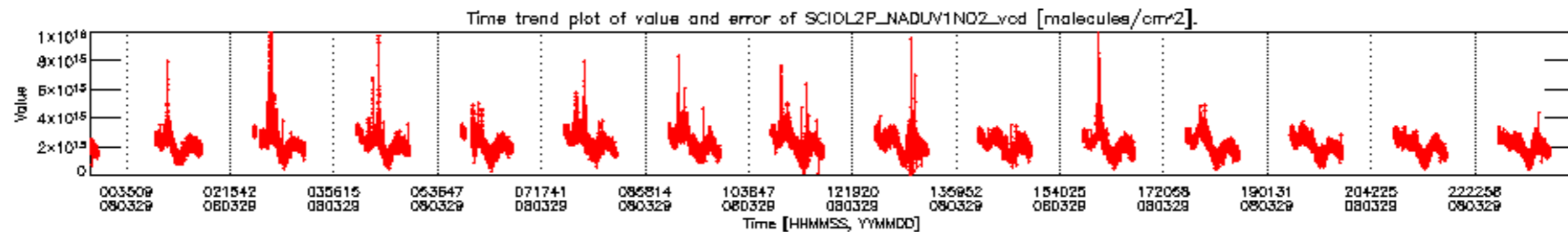


SCIOL2P_NADUV003_amf_gr for 29MAR2008 00:00:00 to 30MAR2008 00:00:00

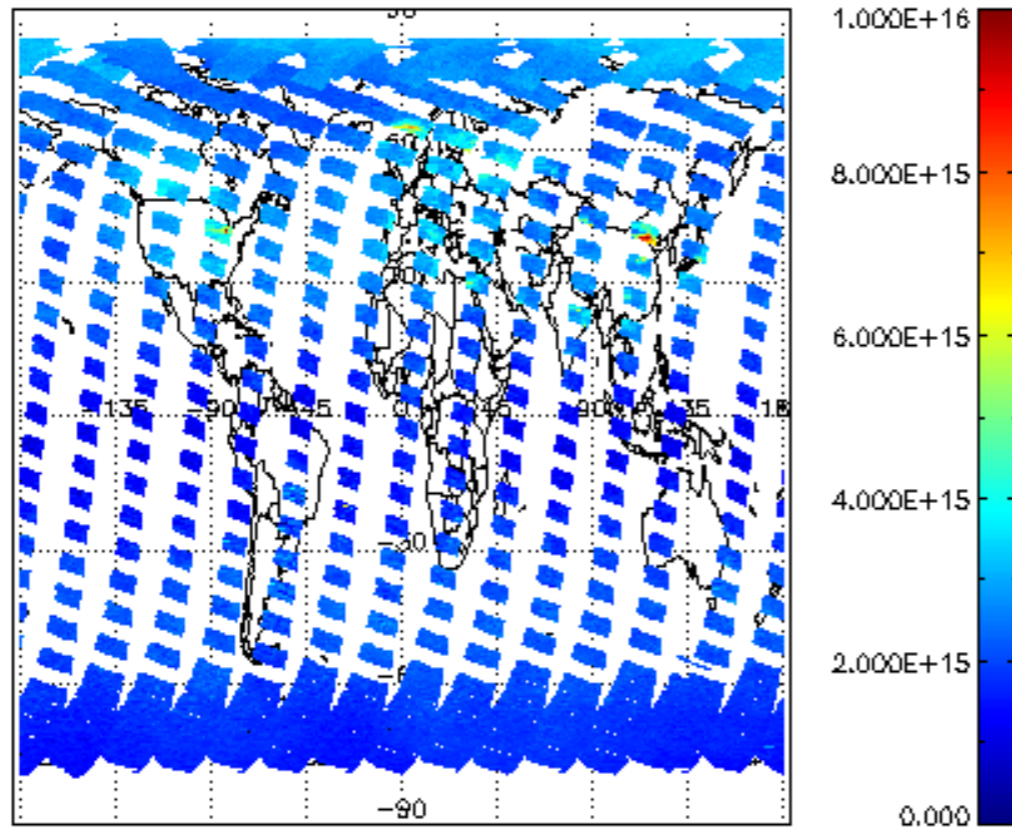


SCIOL2P_NADUV003_amf_cl for 29MAR2008 00:00:00 to 30MAR2008 00:00:00

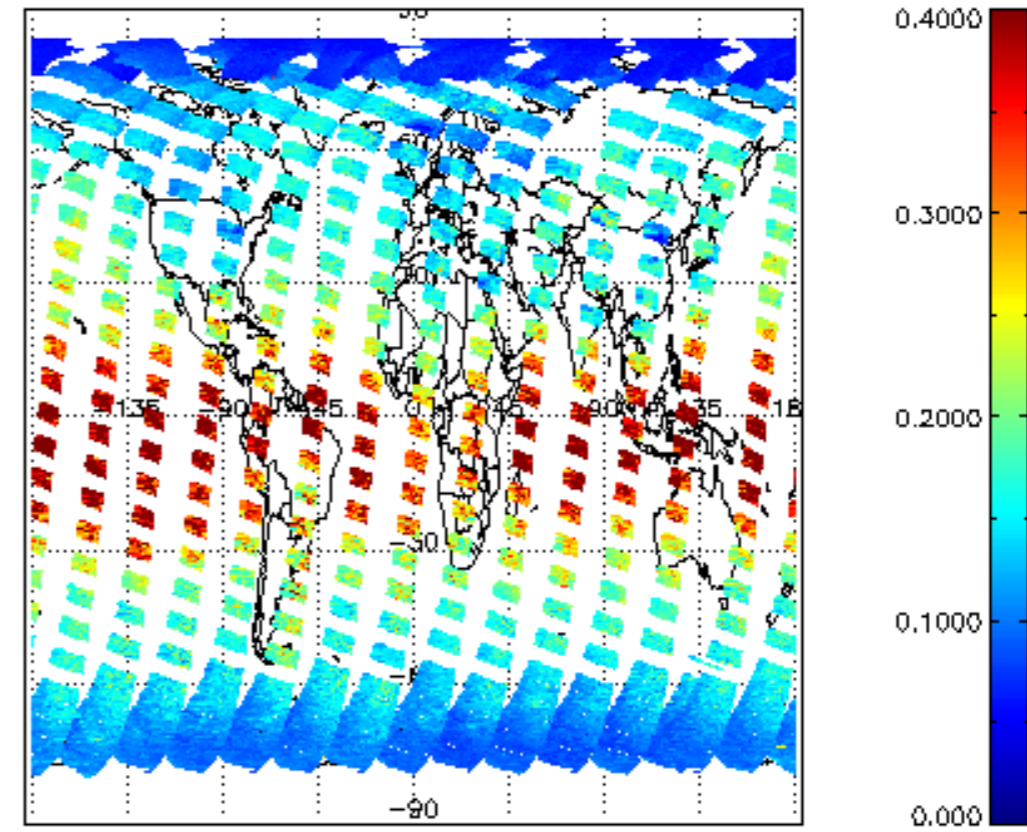




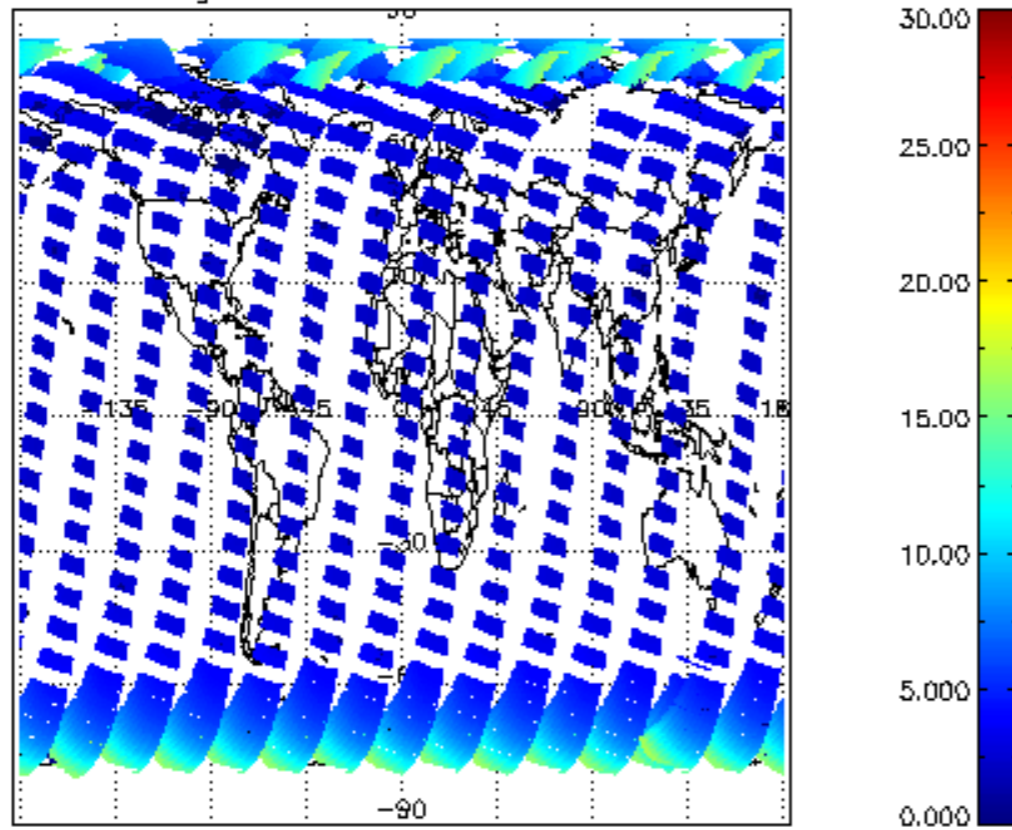
SCIOL2P_NADUV1NO2_vcd for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



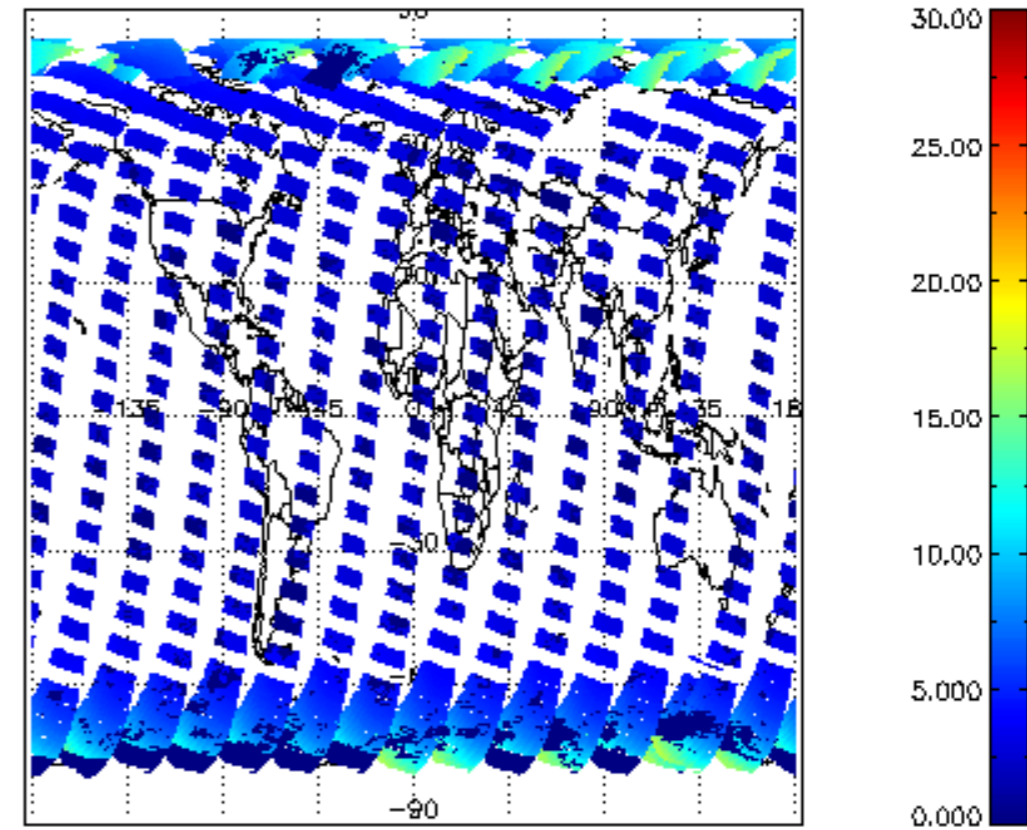
SCIOL2P_NADUV1NO2_vcd_err for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



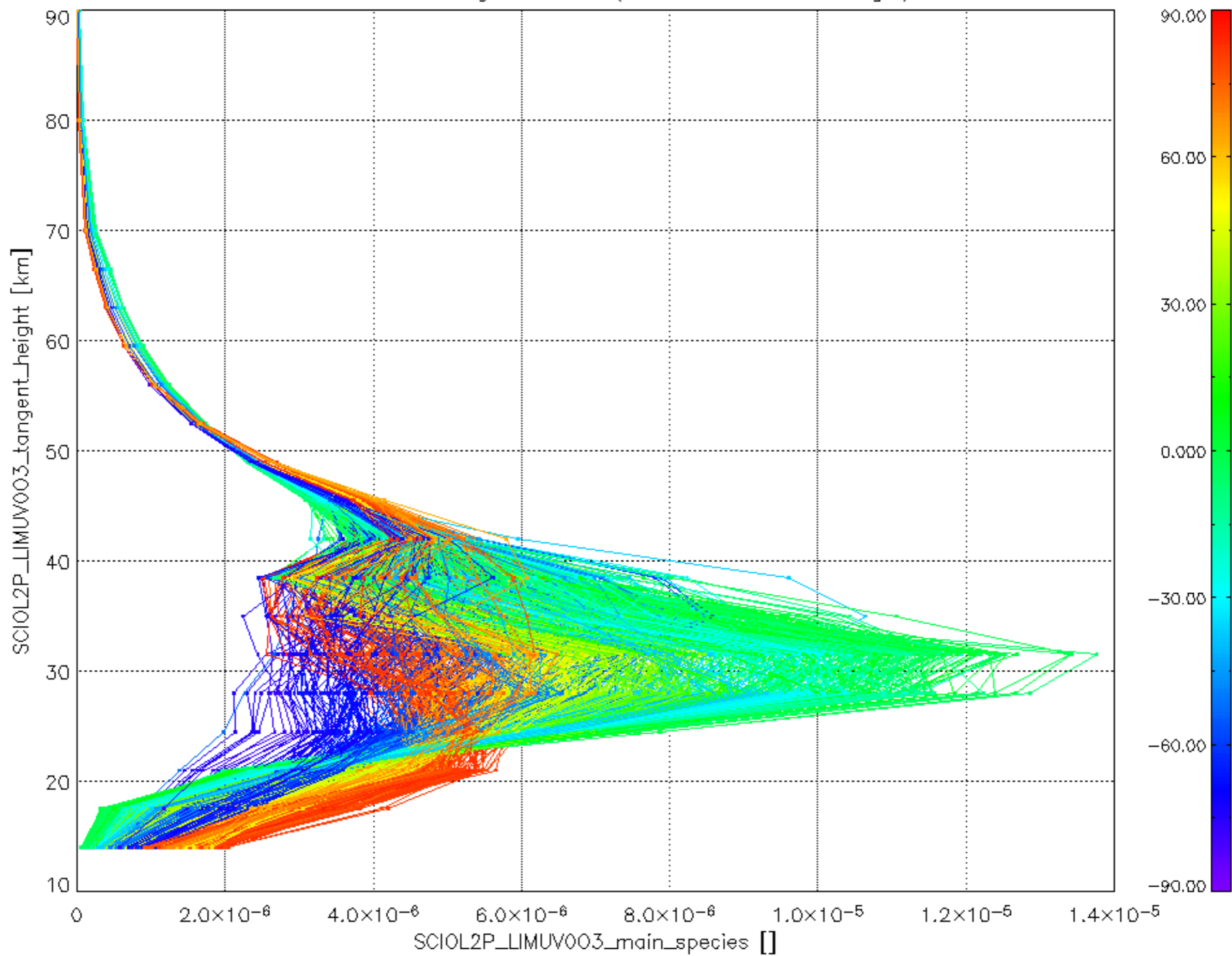
SCIOL2P_NADUV1NO2_amf_gr for 29MAR2008 00:00:00 to 30MAR2008 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 29MAR2008 00:00:00 to 30MAR2008 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).

