

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	1.5 (01-07-2008)
Time of report generation	04AUG2008 11:08:07
Data source version	SCIA-OL/3.01-R
Processing scope for products	21FEB2004 00:00:00 to 22FEB2004 00:00:00
Start time of first product within scope	20FEB2004 22:56:34
Stop time of last product within scope	22FEB2004 01:00:47
Total number of level 2 products	16
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__2PRDPA20040220_225634_000033772024_00259_10333_6796.N1	20FEB2004 22:56:34	20FEB2004 23:52:51	0	GOOD
1	SCI_OL__2PRDPA20040221_003833_000032372024_00260_10334_6683.N1	21FEB2004 00:38:33	21FEB2004 01:32:30	0	GOOD
2	SCI_OL__2PRDPA20040221_021745_000033772024_00261_10335_6837.N1	21FEB2004 02:17:45	21FEB2004 03:14:02	0	GOOD
3	SCI_OL__2PRDPA20040221_035944_000032372024_00262_10336_6880.N1	21FEB2004 03:59:44	21FEB2004 04:53:41	0	GOOD
4	SCI_OL__2PRDPA20040221_053856_000033772024_00263_10337_6702.N1	21FEB2004 05:38:56	21FEB2004 06:35:13	0	GOOD
5	SCI_OL__2PRDPA20040221_072055_000032372024_00264_10338_6866.N1	21FEB2004 07:20:55	21FEB2004 08:14:52	0	GOOD
6	SCI_OL__2PRDPA20040221_090007_000033772024_00265_10339_6855.N1	21FEB2004 09:00:07	21FEB2004 09:56:24	0	GOOD
7	SCI_OL__2PRDPA20040221_104205_000032372024_00266_10340_6670.N1	21FEB2004 10:42:05	21FEB2004 11:36:03	0	GOOD
8	SCI_OL__2PRDPA20040221_122117_000033772024_00267_10341_6787.N1	21FEB2004 12:21:17	21FEB2004 13:17:34	0	GOOD
9	SCI_OL__2PRDPA20040221_140316_000032372024_00268_10342_6655.N1	21FEB2004 14:03:16	21FEB2004 14:57:14	0	GOOD
10	SCI_OL__2PRDPA20040221_154228_000033772024_00269_10343_6849.N1	21FEB2004 15:42:28	21FEB2004 16:38:45	0	GOOD
11	SCI_OL__2PRDPA20040221_172314_000033352024_00270_10344_6862.N1	21FEB2004 17:23:14	21FEB2004 18:18:49	0	GOOD
12	SCI_OL__2PRDPA20040221_190312_000033492024_00271_10345_6777.N1	21FEB2004 19:03:12	21FEB2004 19:59:01	0	GOOD
13	SCI_OL__2PRDPA20040221_204538_000032372024_00272_10346_6887.N1	21FEB2004 20:45:38	21FEB2004 21:39:36	0	GOOD
14	SCI_OL__2PRDPA20040221_222450_000033772024_00273_10347_6717.N1	21FEB2004 22:24:50	21FEB2004 23:21:07	0	GOOD
15	SCI_OL__2PRDPA20040222_000649_000032372024_00274_10348_6876.N1	22FEB2004 00:06:49	22FEB2004 01:00:47	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: 113460

Total number of cloud data DSRs with good quality flag (=0): 113460 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	113460	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	113460	0.21964	0.25000	0.12500	1.0000	0.098061	s
CL_FRAC	113460	0.45830	0.43891	0.0000	1.0000	0.28196	-

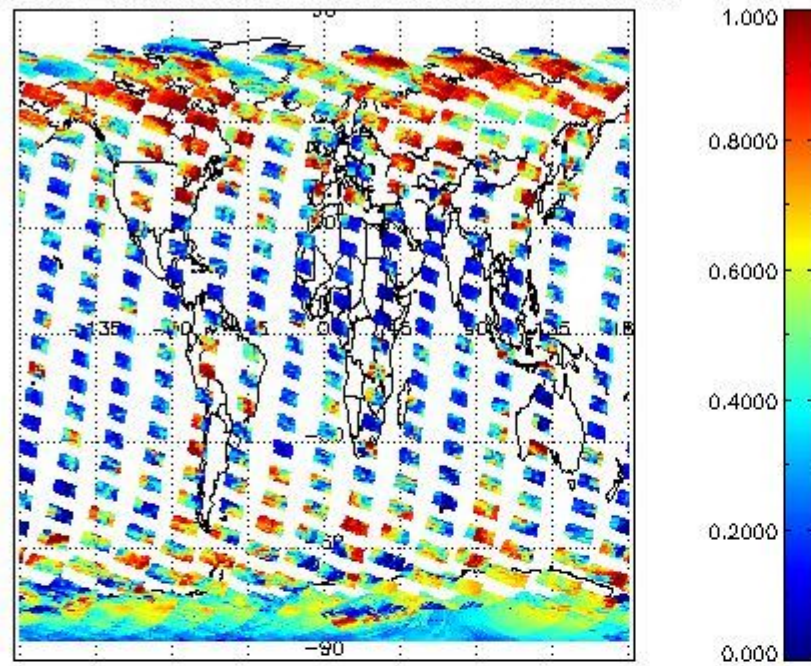
CL_FRAC_ERR	113460	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	113460	7.0284	8.0000	4.0000	32.000	3.1380	
PMD_READ_CL[0]	113460	0.32809	0.0000	0.0000	21.000	1.2971	-
PMD_READ_CL[1]	113460	0.30056	0.0000	0.0000	32.000	1.4734	-
CL_TOP_HEIGHT	103729	4.0281	2.3670	0.0000	17.000	3.8573	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	103729	47.514	32.531	0.0000	101.00	38.267	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	113460	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	113460	11000110	11000010	11000000	11100000	2333.5	flags
AERO_ABSO_IND	113460	0.93691	0.72896	-4.3030	11.087	1.2238	
AERO_IND_DIAG	113460	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	113460	01101000	11000000	00000000	11000000	24481.	flags

Time and geolocation plots:

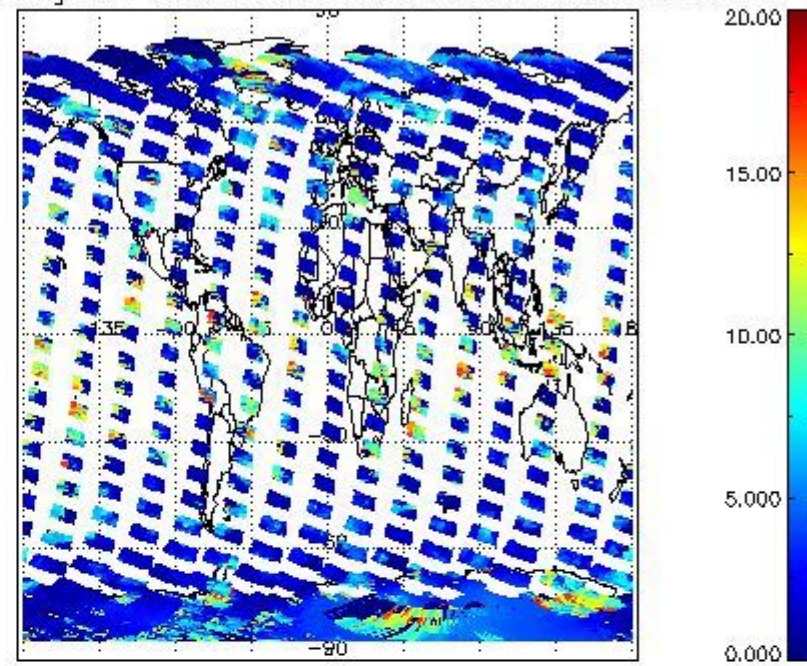
Plots are available for the following parameters:

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

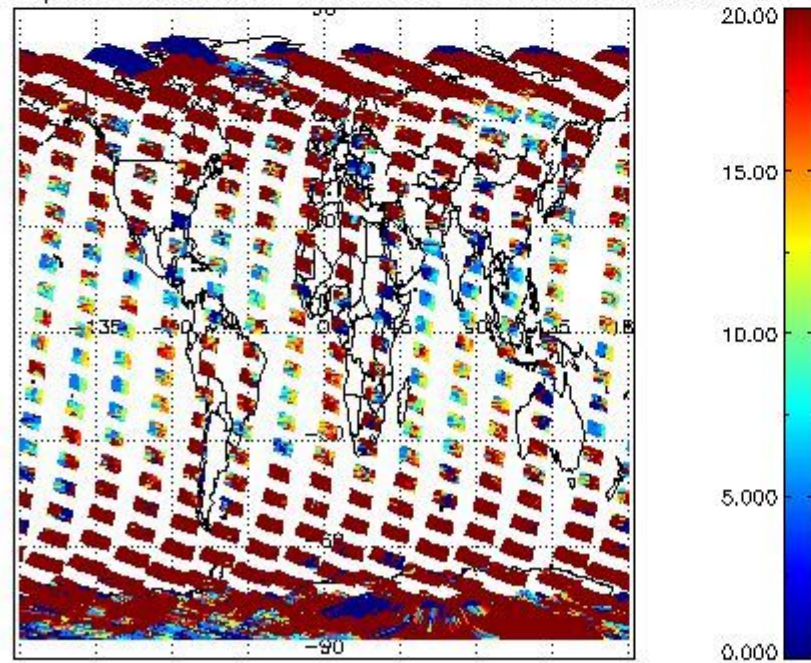
cLfrac for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



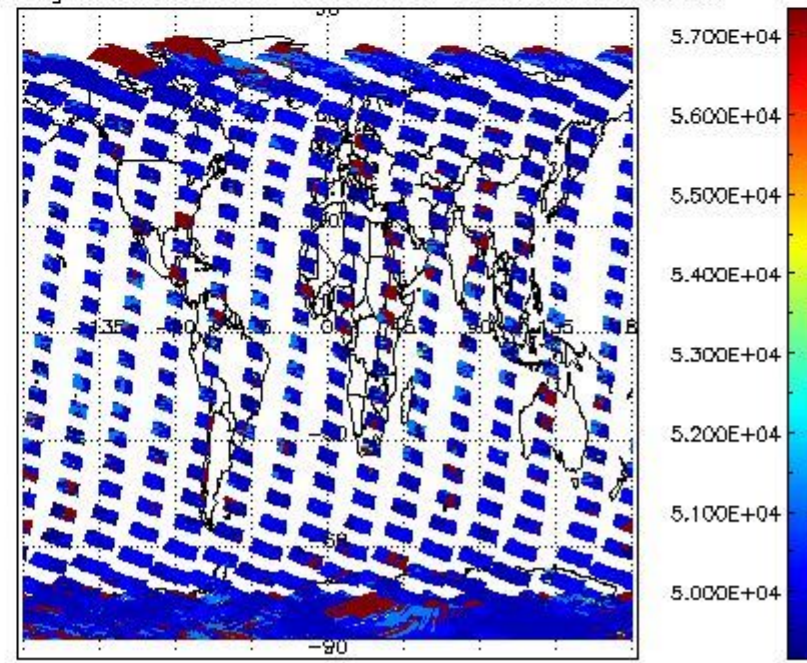
cL_top_height for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



cLopt_depth for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



cloud_flags for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



2.2.2 Nadir

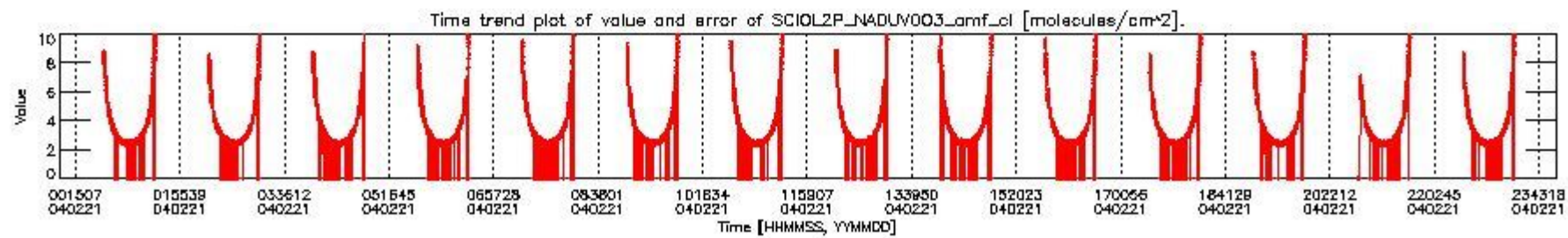
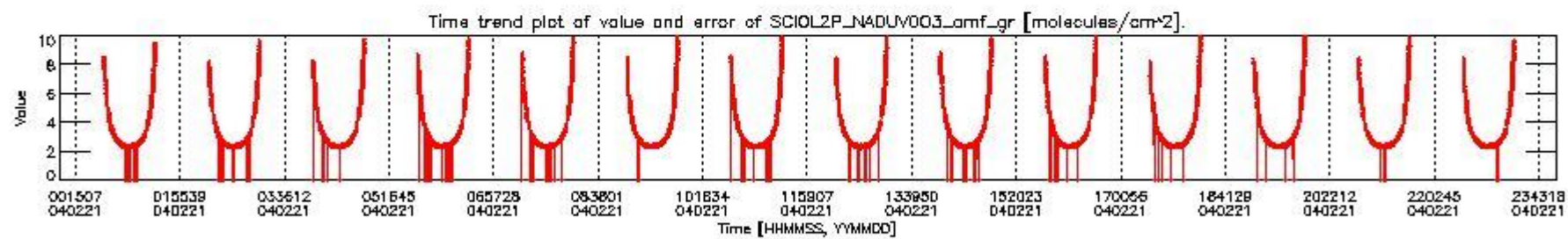
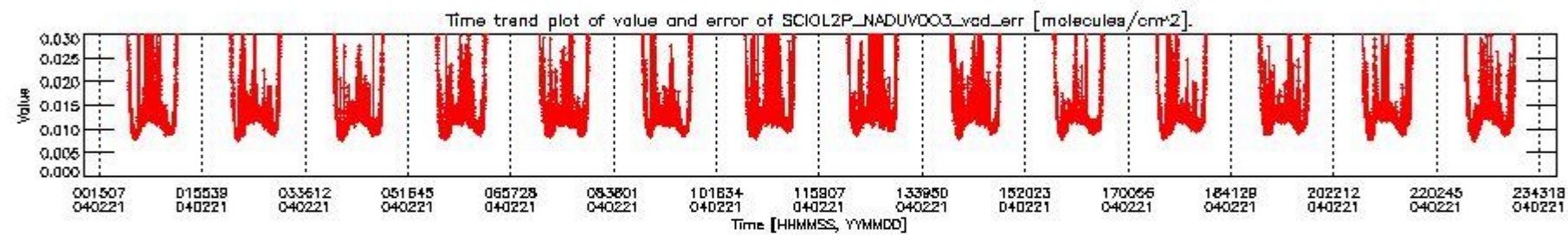
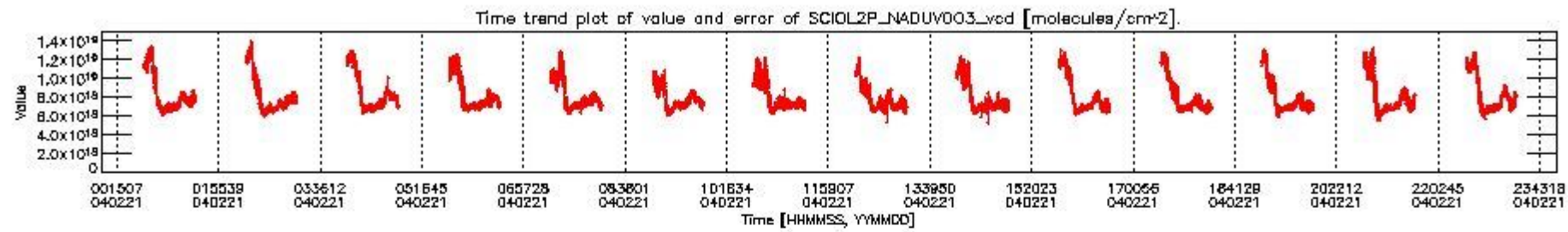
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

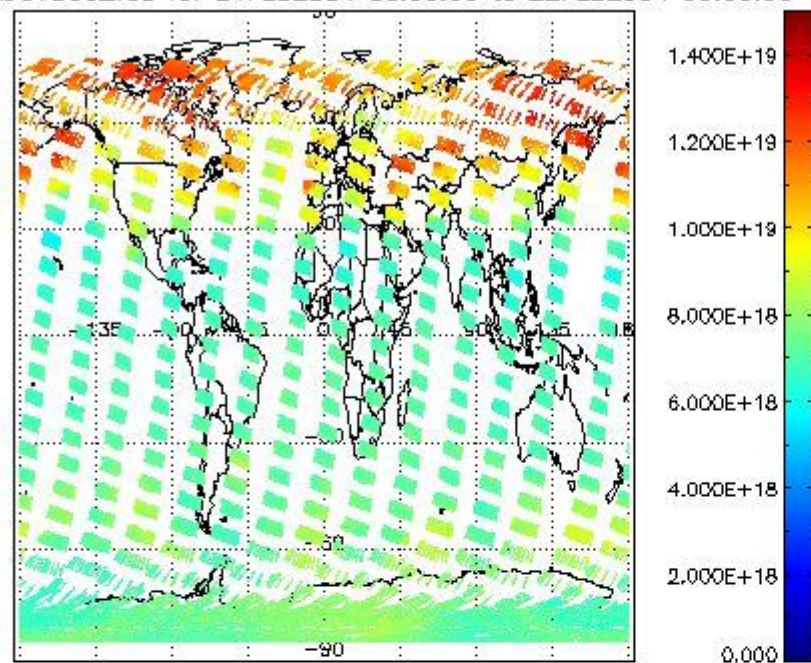
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

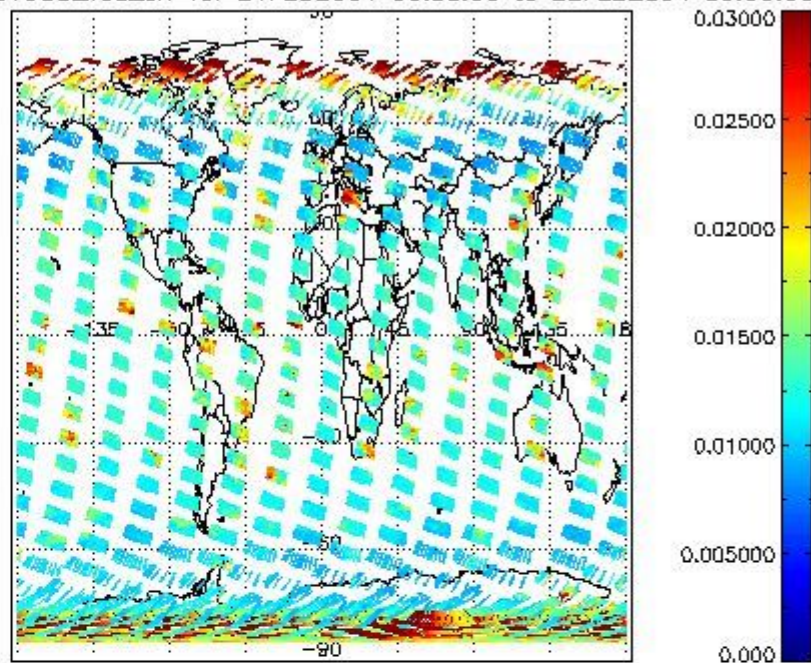
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



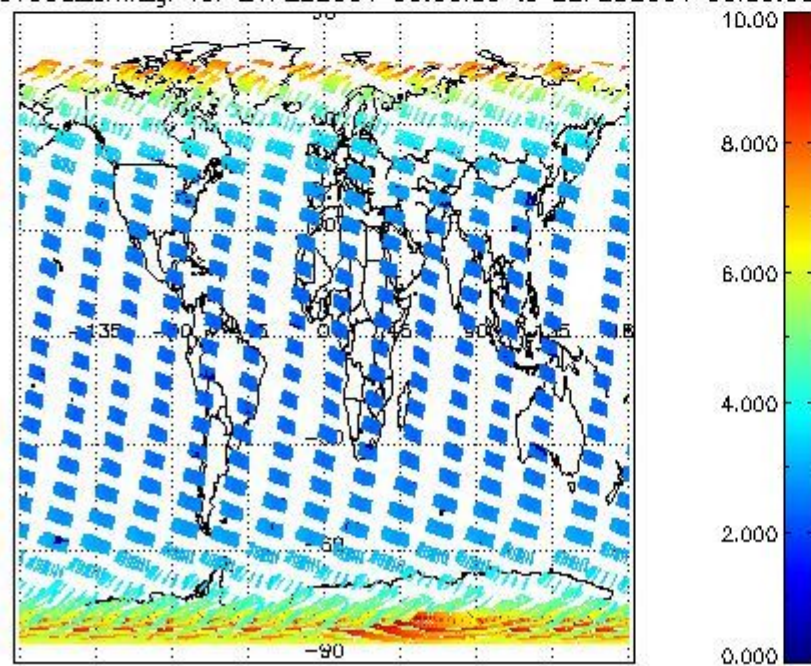
SCIOL2P_NADUV003_vcd for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



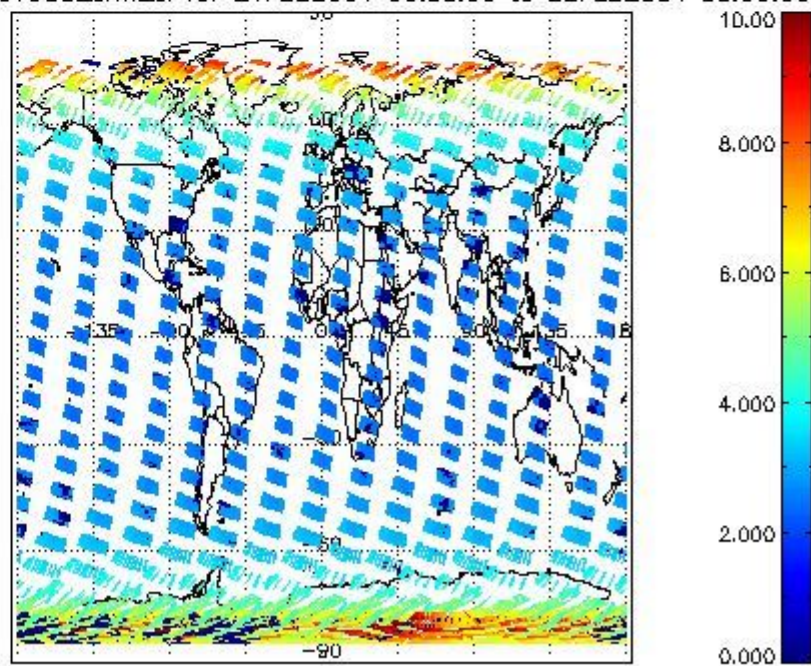
SCIOL2P_NADUV003_vcd_err for 21FEB2004 00:00:00 to 22FEB2004 00:00:00

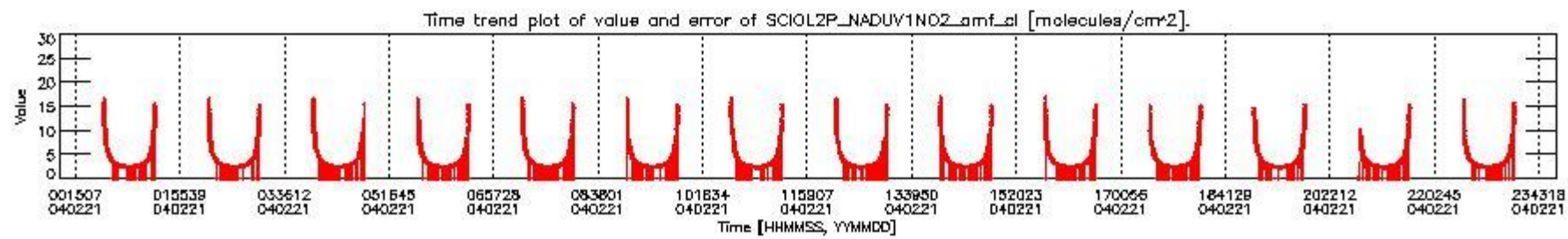
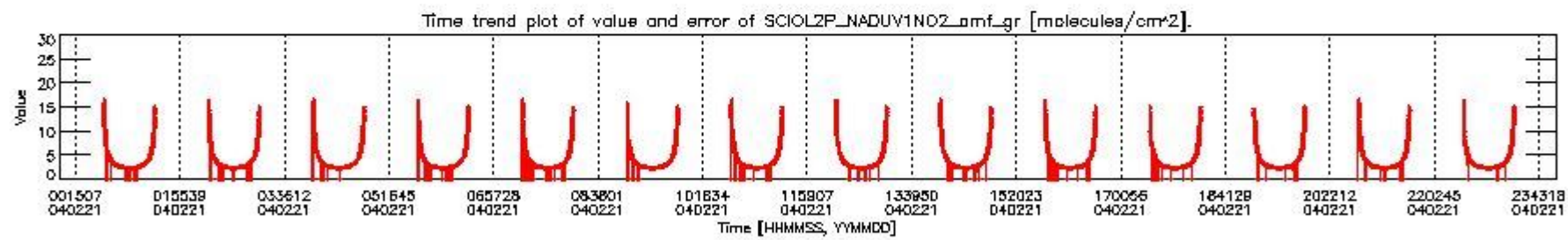
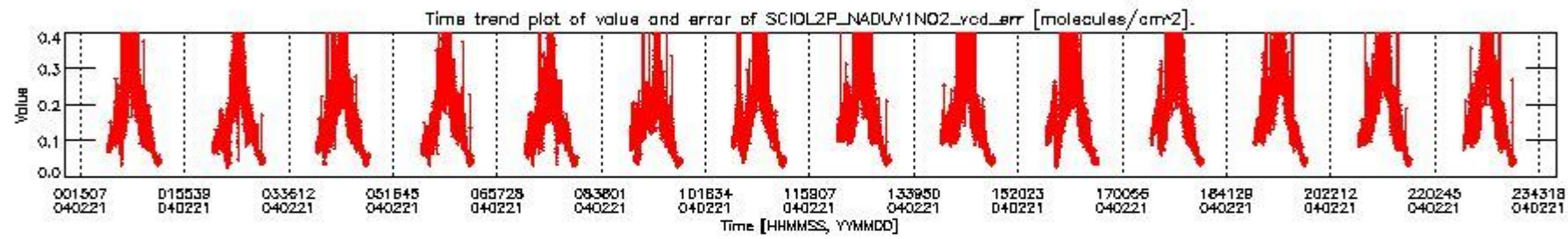
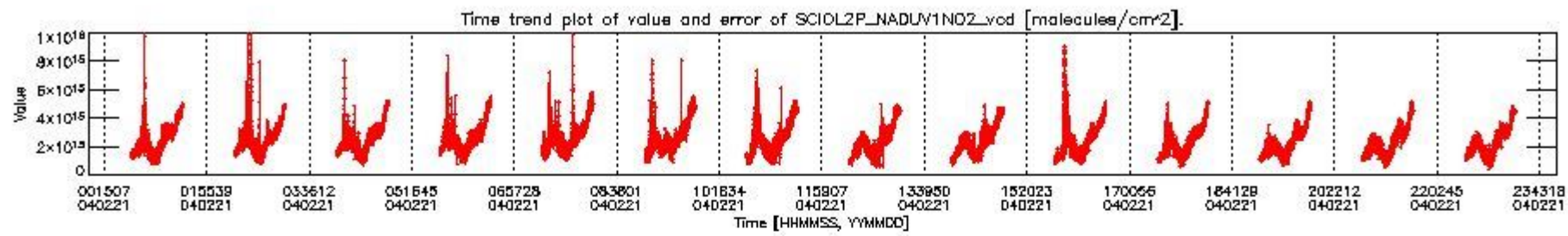


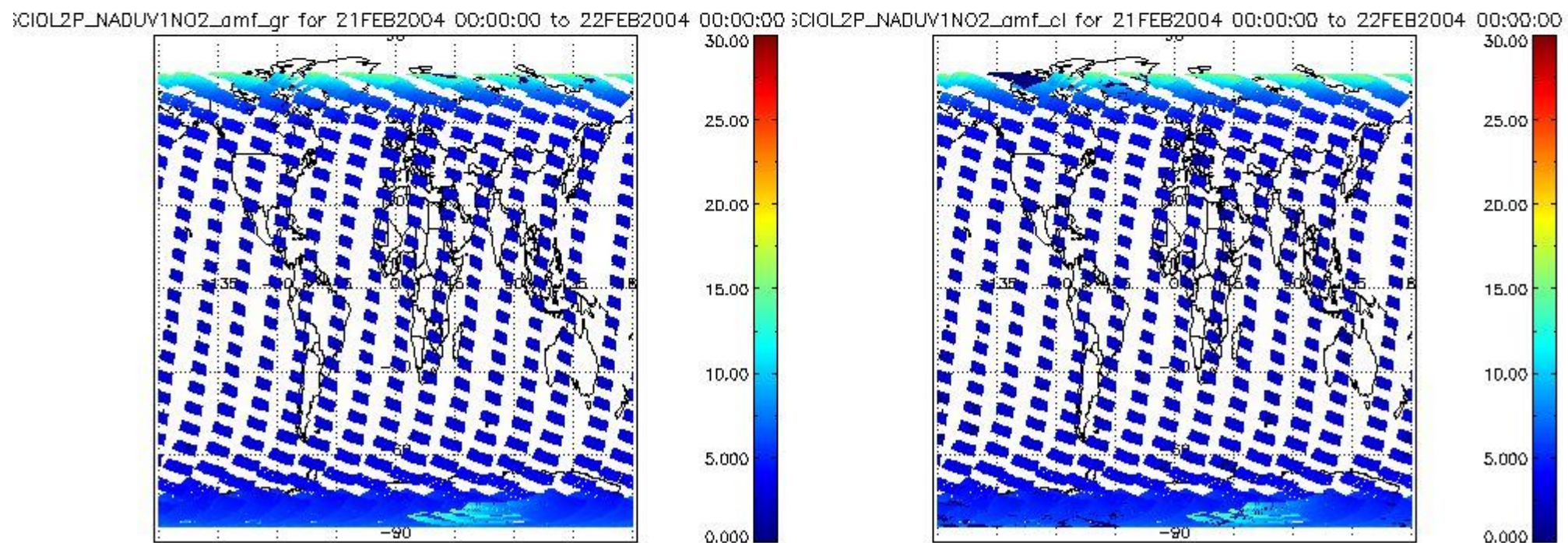
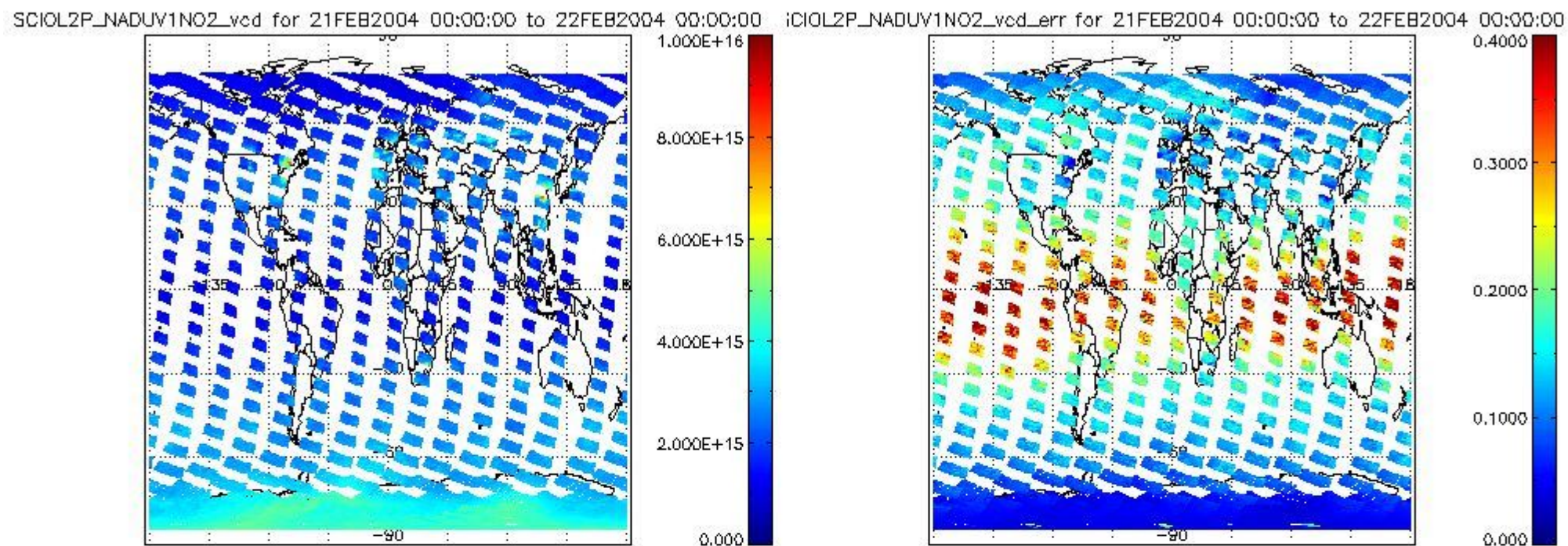
SCIOL2P_NADUV003_amf_gr for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



SCIOL2P_NADUV003_amf_cl for 21FEB2004 00:00:00 to 22FEB2004 00:00:00







2.2.3 Limb

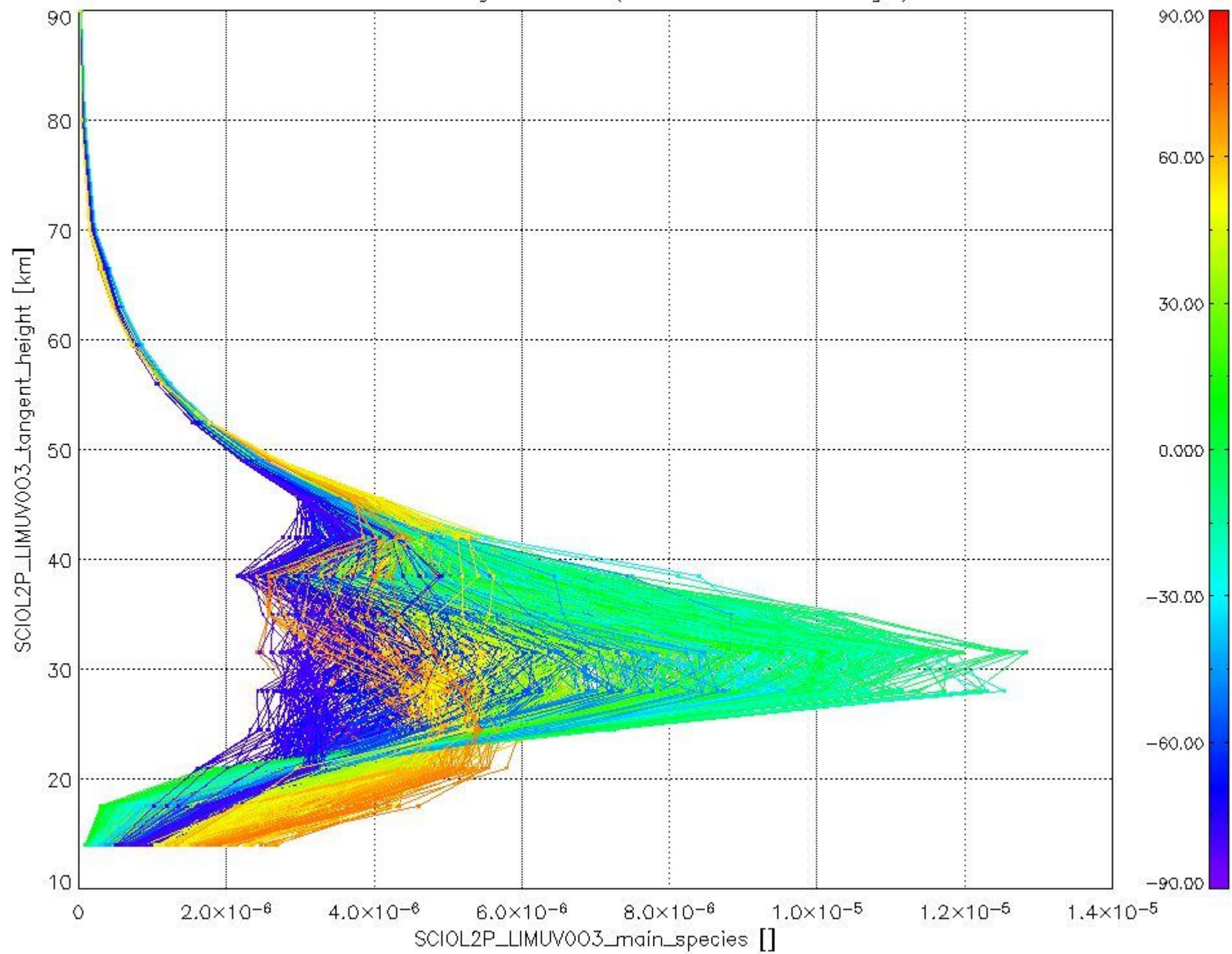
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

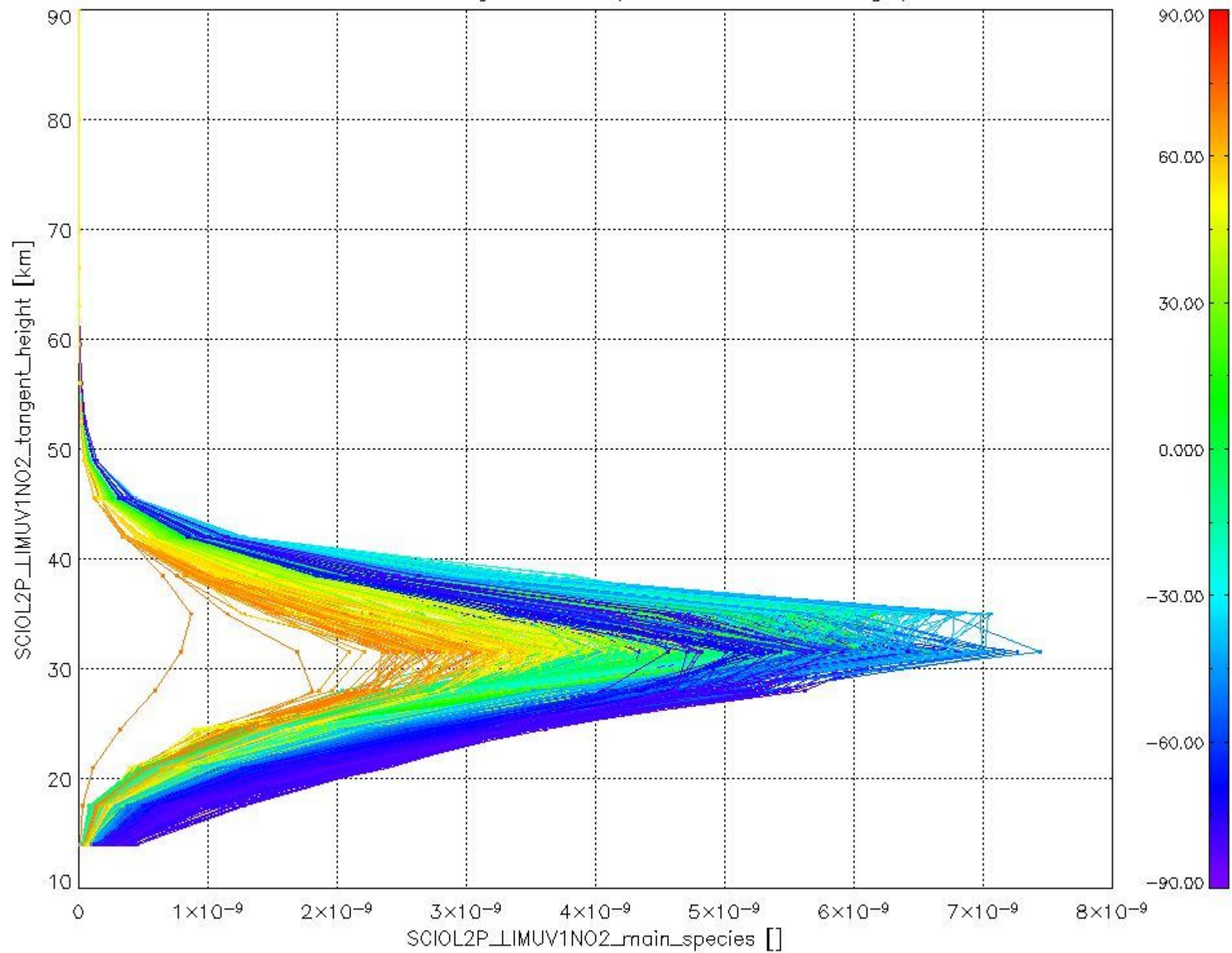
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



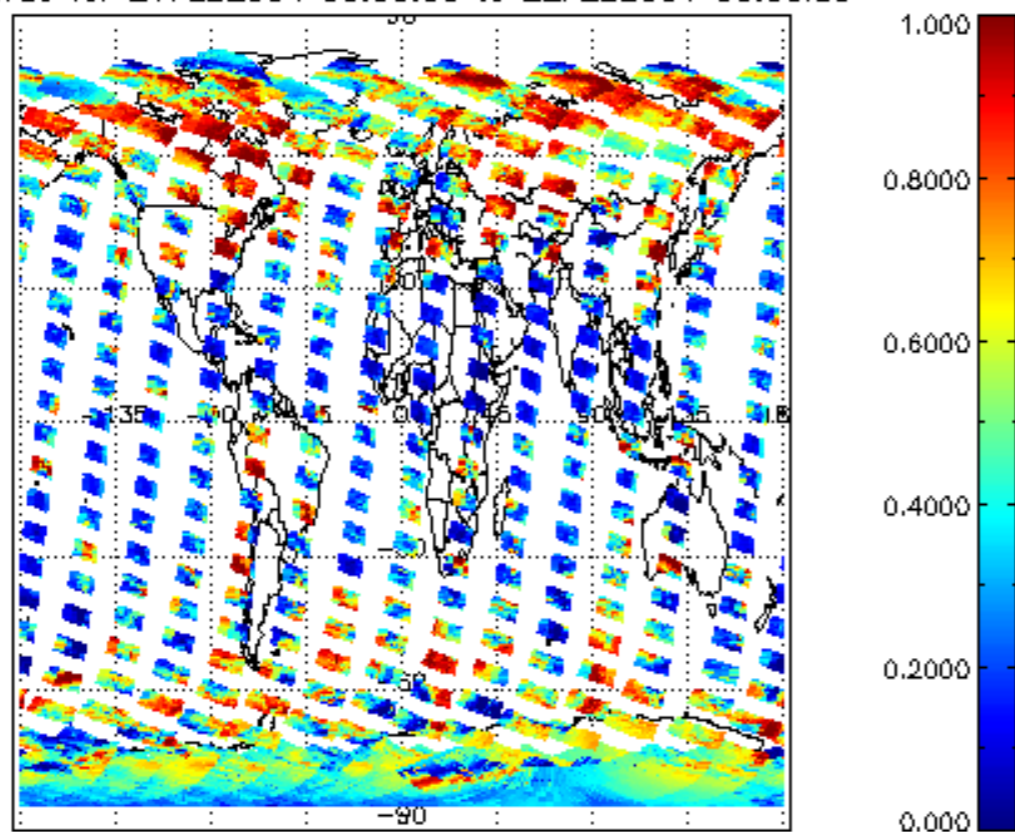
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



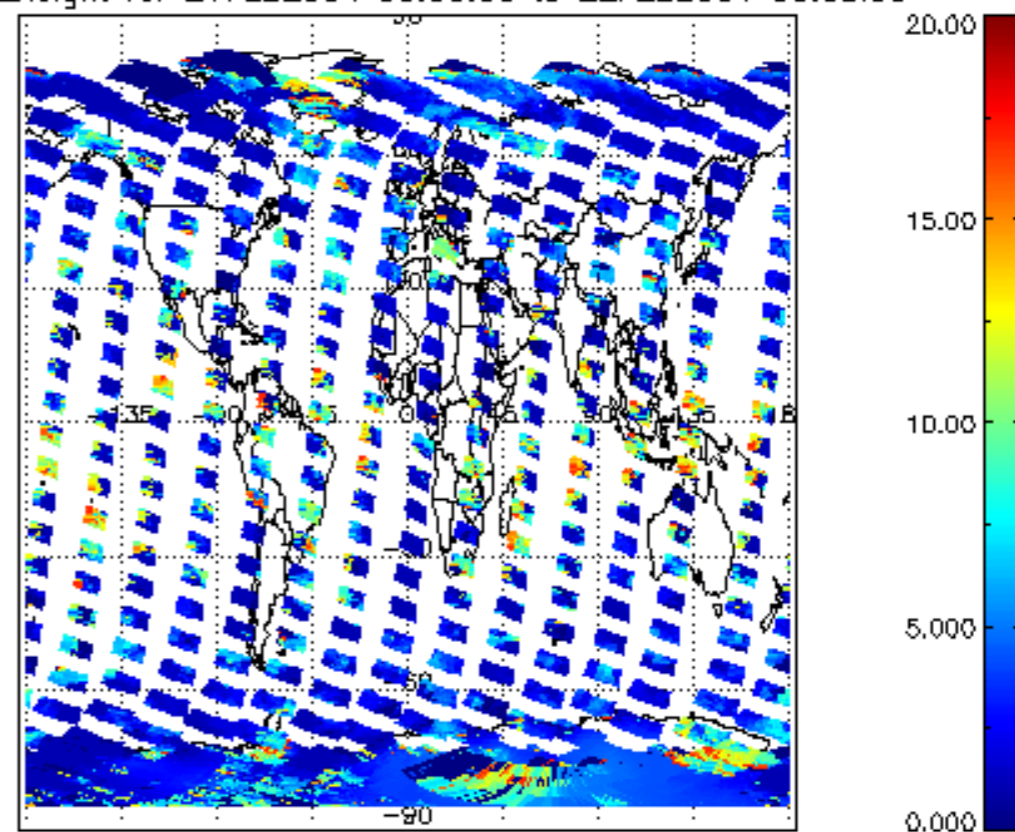
2.3 ADF monitoring

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

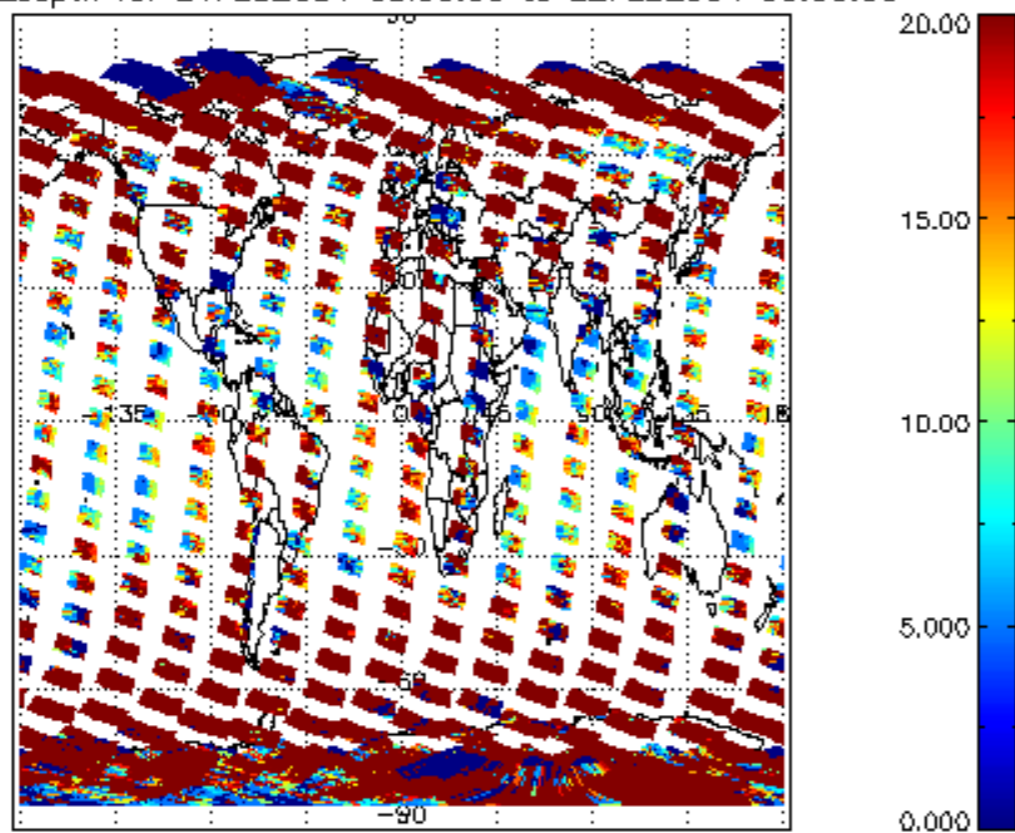
cl_frac for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



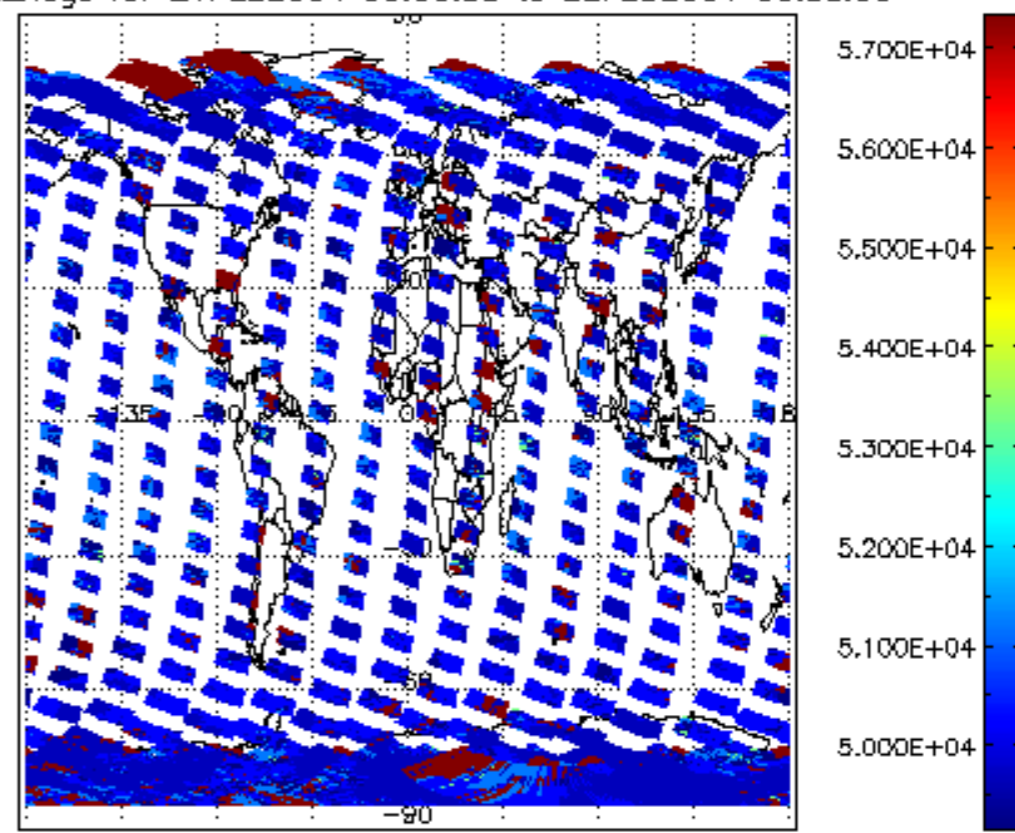
cl_top_height for 21FEB2004 00:00:00 to 22FEB2004 00:00:00

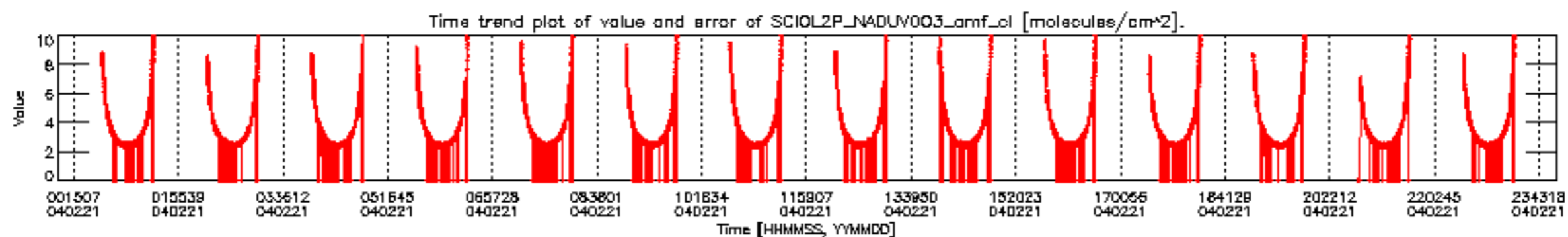
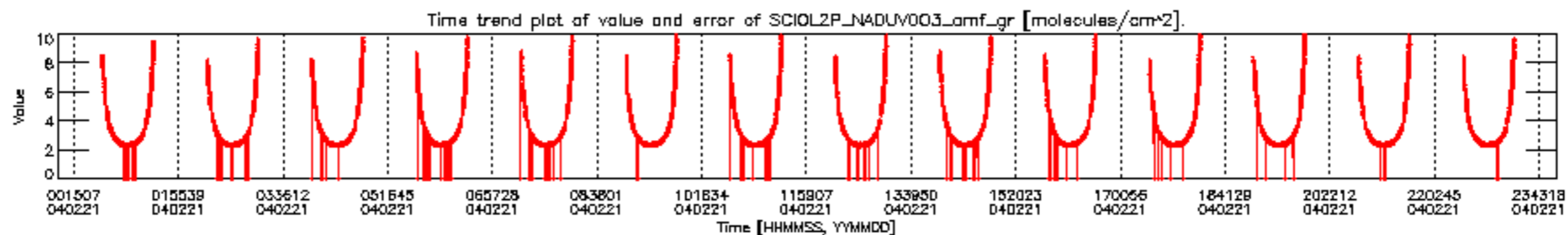
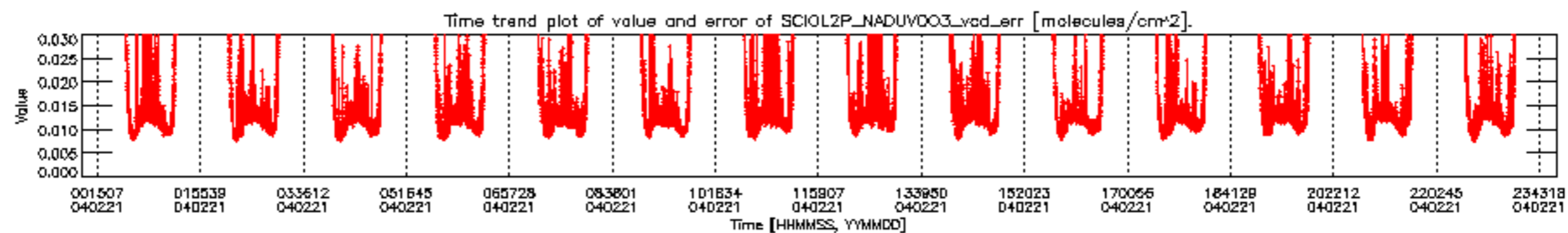
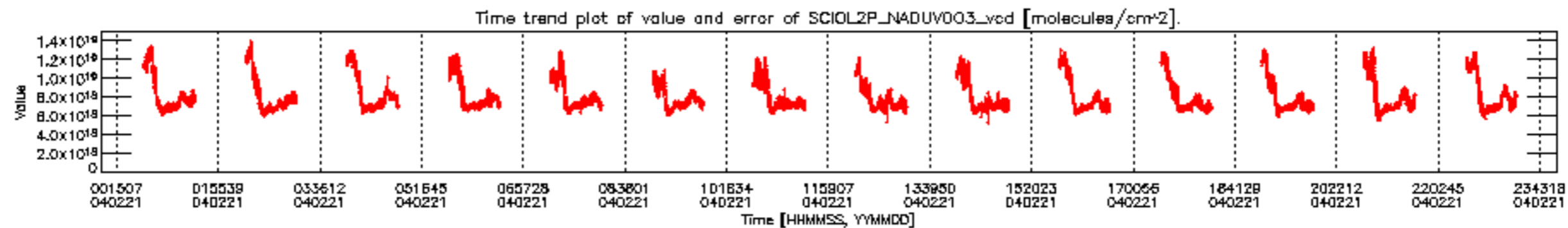


cl_opt_depth for 21FEB2004 00:00:00 to 22FEB2004 00:00:00

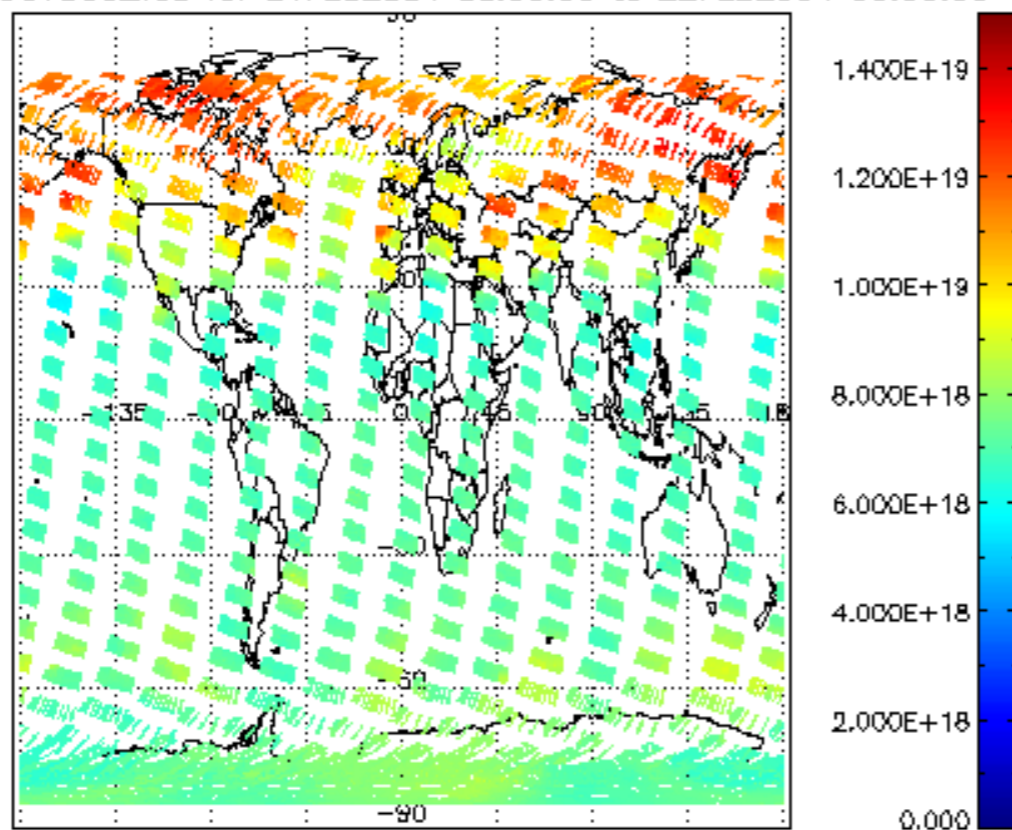


cloud_flags for 21FEB2004 00:00:00 to 22FEB2004 00:00:00

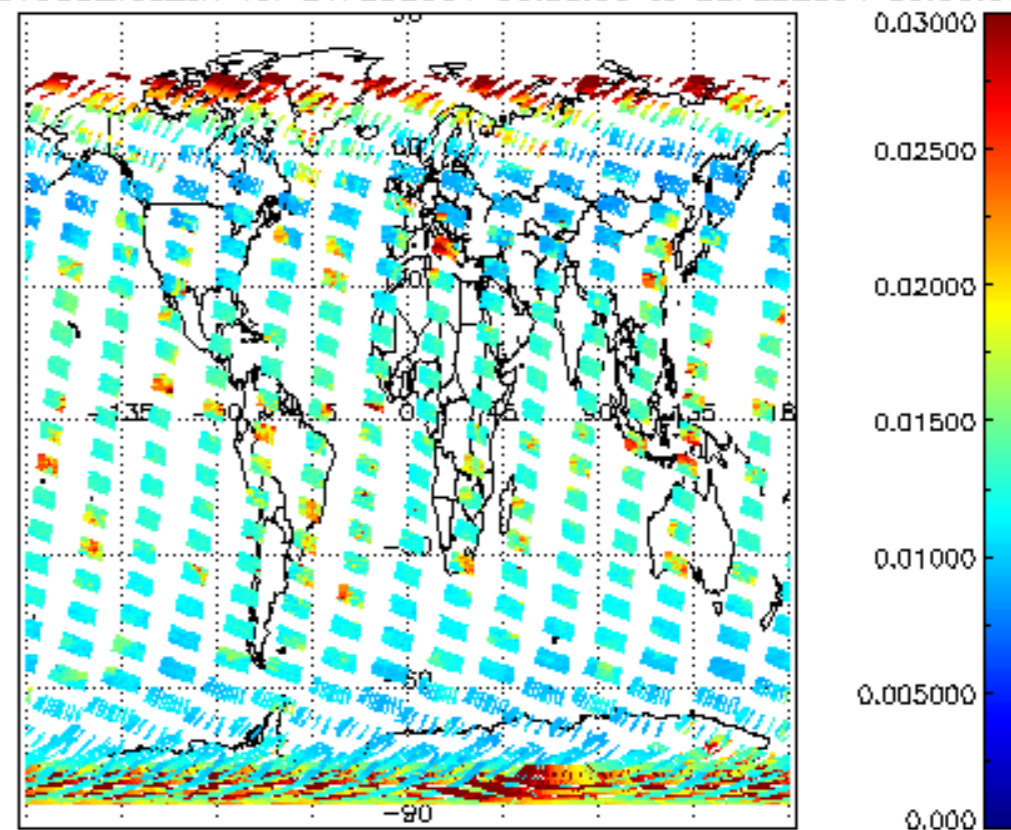




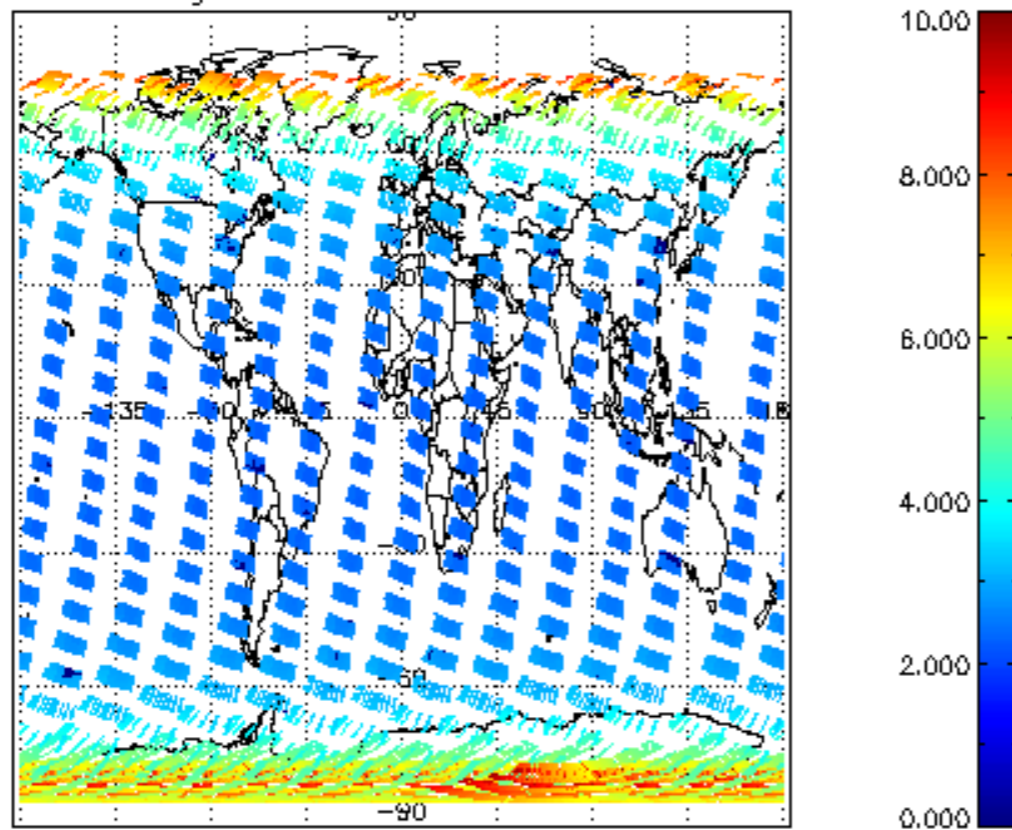
SCIOL2P_NADUV003_vcd for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



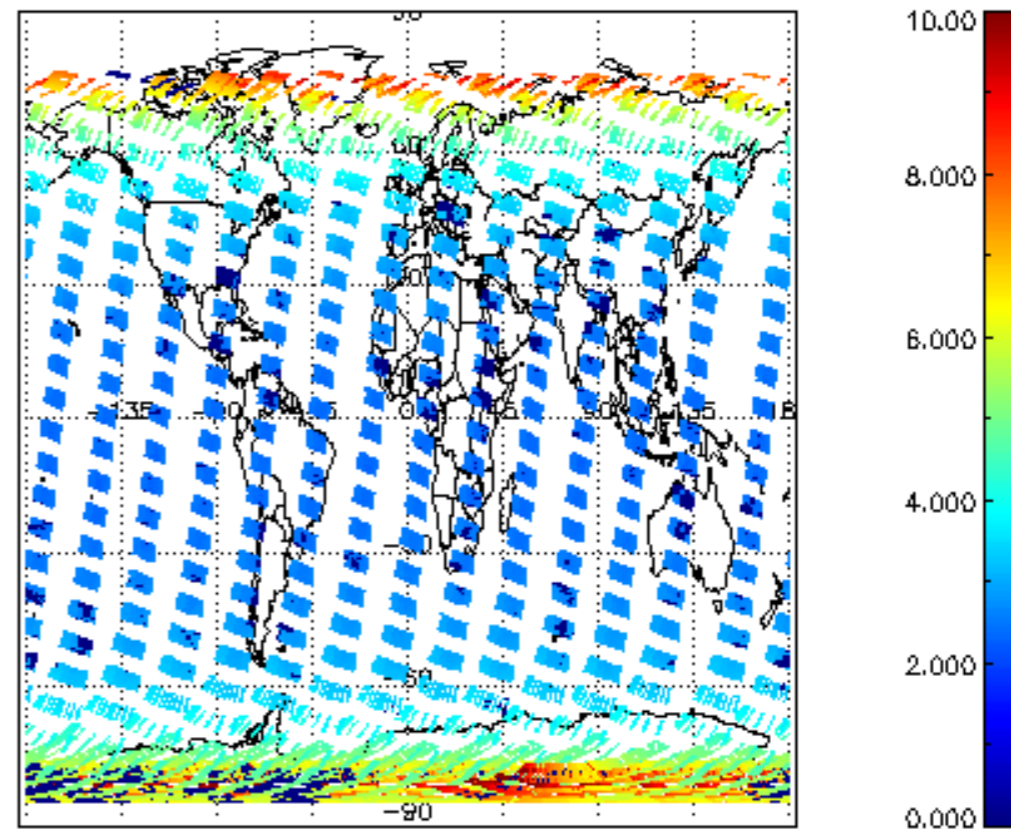
SCIOL2P_NADUV003_vcd_err for 21FEB2004 00:00:00 to 22FEB2004 00:00:00

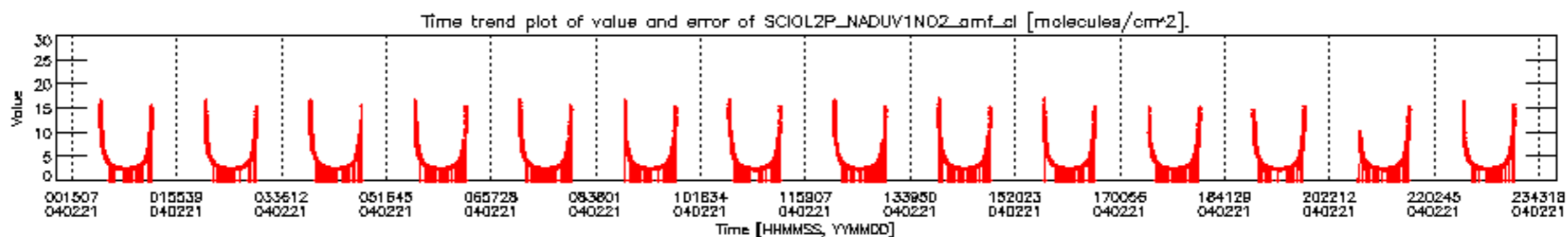
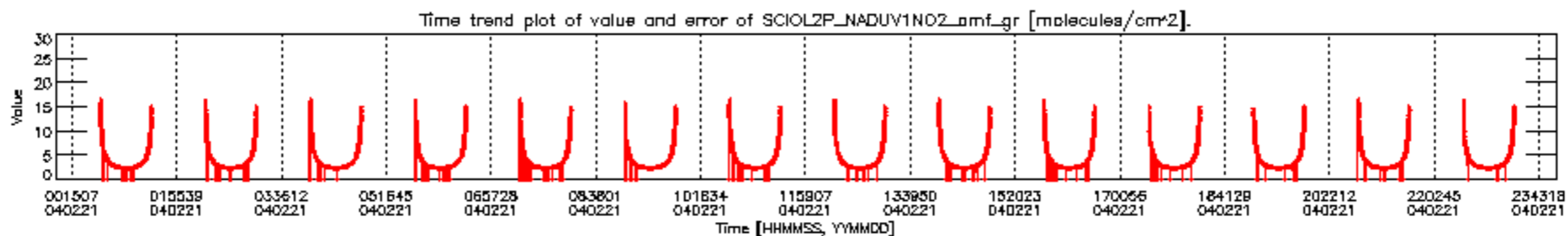
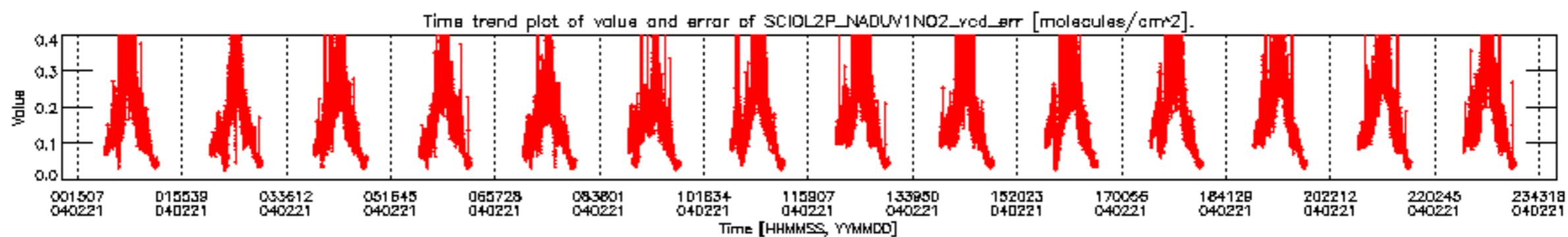
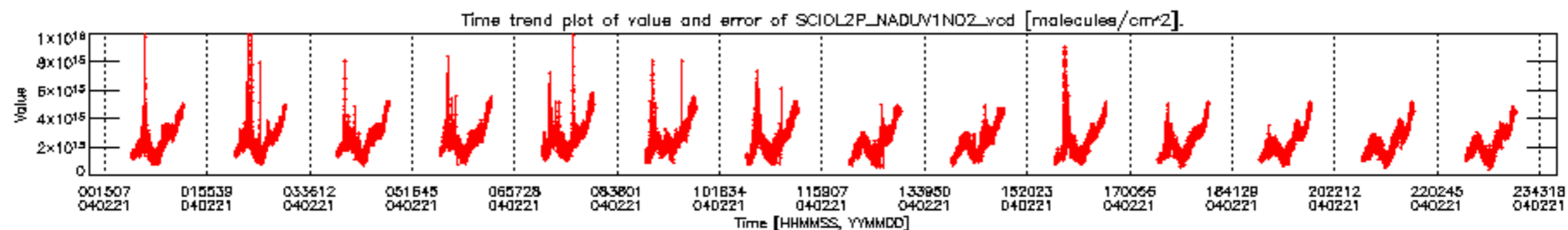


SCIOL2P_NADUV003_amf_gr for 21FEB2004 00:00:00 to 22FEB2004 00:00:00

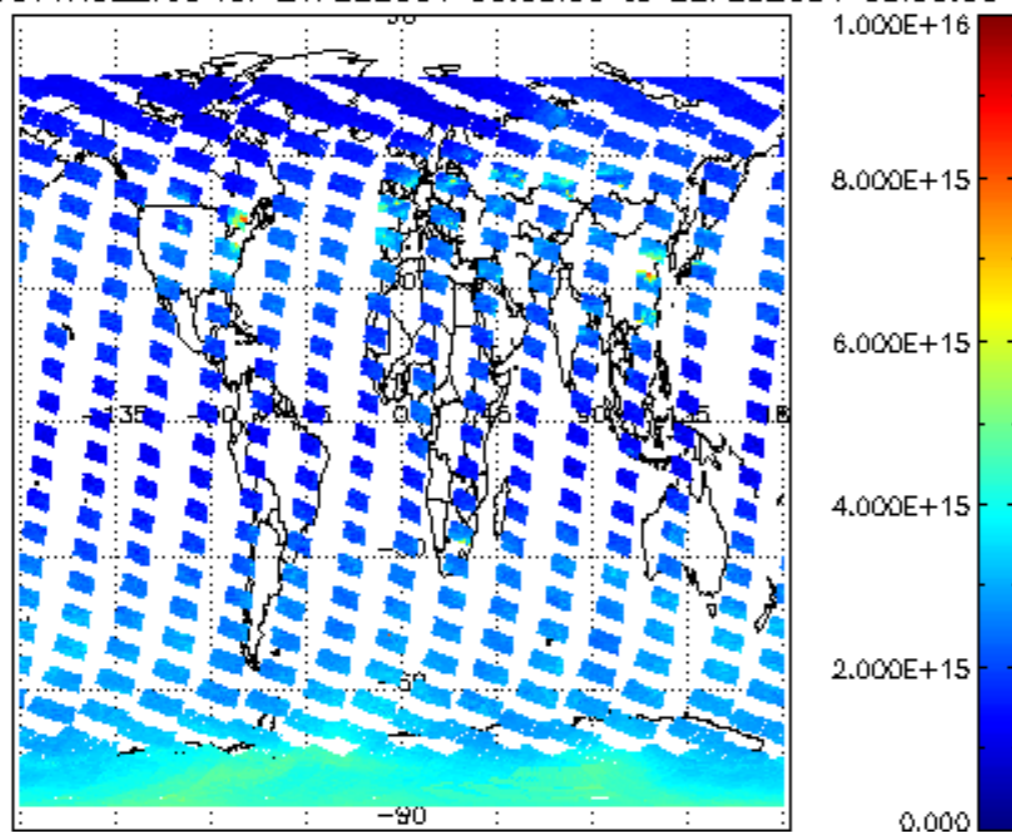


SCIOL2P_NADUV003_amf_cl for 21FEB2004 00:00:00 to 22FEB2004 00:00:00

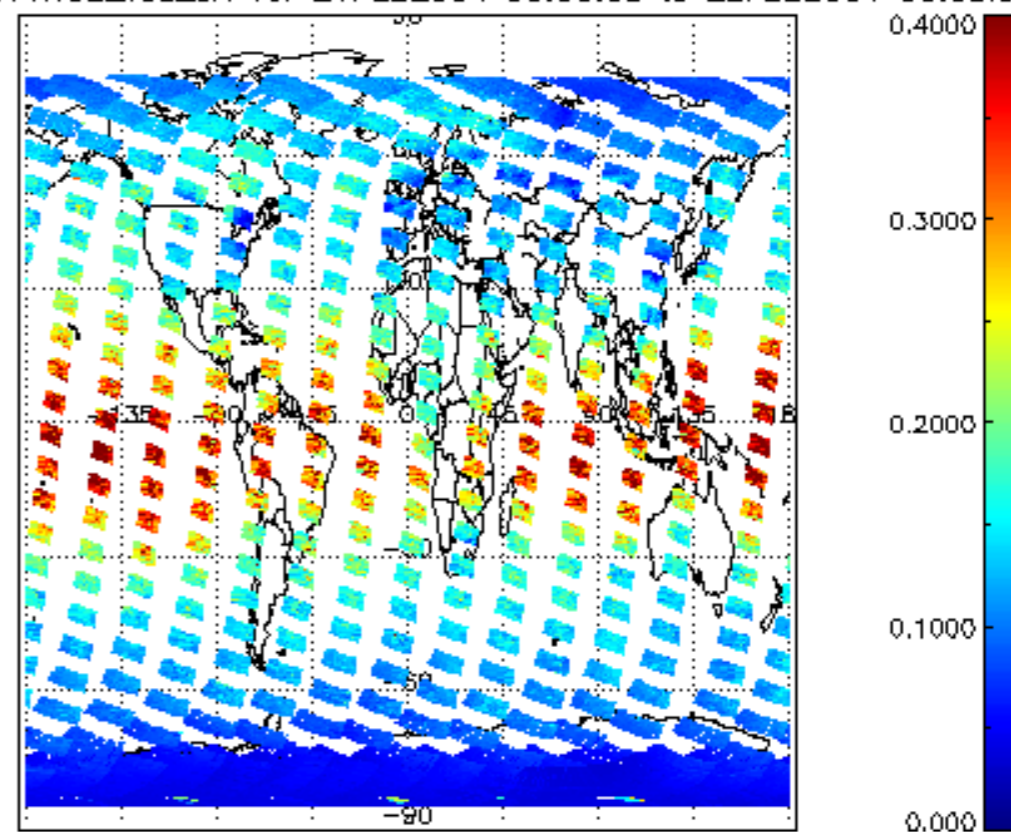




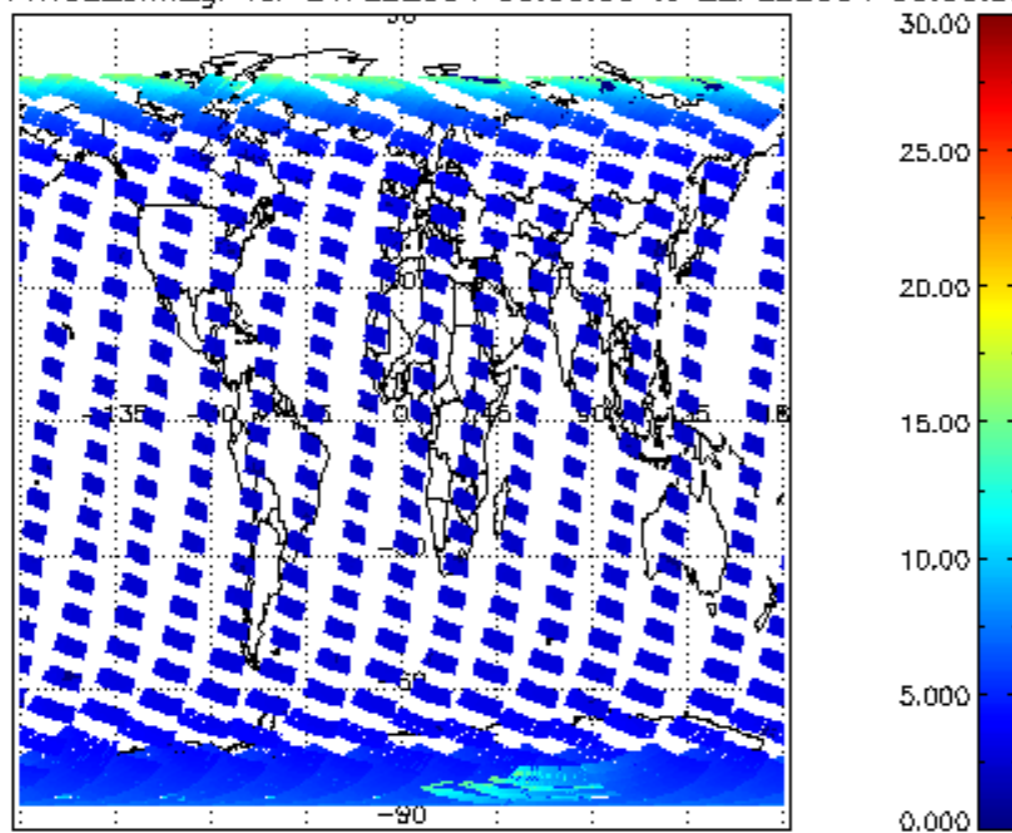
SCIOL2P_NADUV1NO2_vcd for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



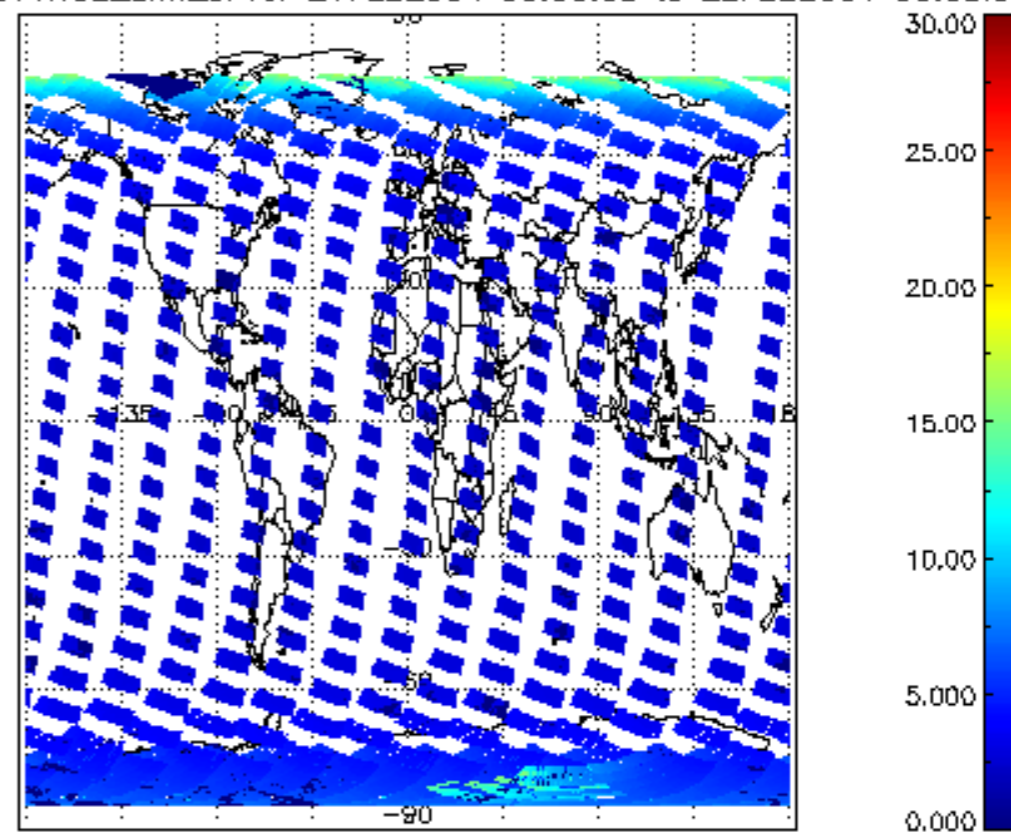
SCIOL2P_NADUV1NO2_vcd_err for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



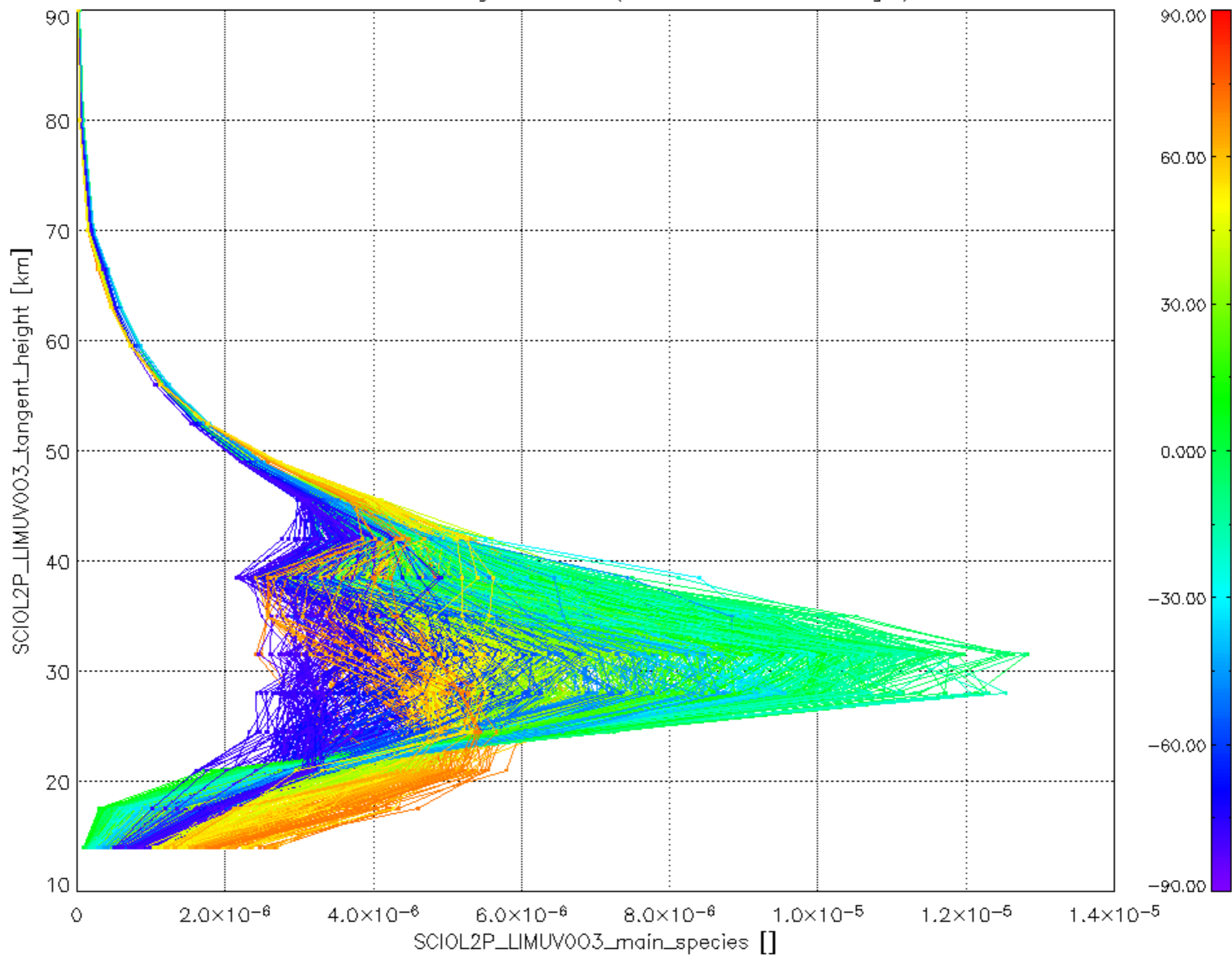
SCIOL2P_NADUV1NO2_amf_gr for 21FEB2004 00:00:00 to 22FEB2004 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 21FEB2004 00:00:00 to 22FEB2004 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).

