

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	14JUN2008 10:05:18
Data source version	SCIA-OL/3.01-R
Processing scope for products	21OCT2002 00:00:00 to 22OCT2002 00:00:00
Start time of first product within scope	20OCT2002 23:38:03
Stop time of last product within scope	21OCT2002 23:57:51
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__2PRDPA20021020_233803_000030812010_00288_03348_1213.N1	20OCT2002 23:38:03	21OCT2002 00:29:25	0	GOOD
1	SCI_OL__2PRDPA20021021_025509_000033242010_00290_03350_1121.N1	21OCT2002 02:55:09	21OCT2002 03:50:34	0	GOOD
2	SCI_OL__2PRDPA20021021_043546_000033242010_00291_03351_1336.N1	21OCT2002 04:35:46	21OCT2002 05:31:10	0	GOOD
3	SCI_OL__2PRDPA20021021_075659_000033242010_00293_03353_1214.N1	21OCT2002 07:56:59	21OCT2002 08:52:23	0	GOOD
4	SCI_OL__2PRDPA20021021_093735_000033242010_00294_03354_1379.N1	21OCT2002 09:37:35	21OCT2002 10:32:59	0	GOOD
5	SCI_OL__2PRDPA20021021_111812_000033242010_00295_03355_1204.N1	21OCT2002 11:18:12	21OCT2002 12:13:36	0	GOOD
6	SCI_OL__2PRDPA20021021_125848_000033242010_00296_03356_1046.N1	21OCT2002 12:58:48	21OCT2002 13:54:12	0	GOOD
7	SCI_OL__2PRDPA20021021_143924_000033242010_00297_03357_1136.N1	21OCT2002 14:39:24	21OCT2002 15:34:49	0	GOOD
8	SCI_OL__2PRDPA20021021_162001_000033242010_00298_03358_1052.N1	21OCT2002 16:20:01	21OCT2002 17:15:25	0	GOOD
9	SCI_OL__2PRDPA20021021_180037_000033242010_00299_03359_1384.N1	21OCT2002 18:00:37	21OCT2002 18:56:02	0	GOOD
10	SCI_OL__2PRDPA20021021_194042_000033432010_00300_03360_1127.N1	21OCT2002 19:40:42	21OCT2002 20:36:26	0	GOOD
11	SCI_OL__2PRDPA20021021_221204_00003302010_00301_03361_1212.N1	21OCT2002 22:12:04	21OCT2002 22:17:35	0	GOOD
12	SCI_OL__2PRDPA20021021_230227_000033242010_00302_03362_1108.N1	21OCT2002 23:02:27	21OCT2002 23:57:51	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: 92106

Total number of cloud data DSRs with good quality flag (=0): 92106 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	92106	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	92106	0.22107	0.25000	0.12500	1.0000	0.079253	s
SURFACE_PRES	92106	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	92106	0.44576	0.42384	0.0000	1.0000	0.29599	-
CL_FRAC_ERR	92106	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	92106	7.0741	8.0000	4.0000	32.000	2.5361	

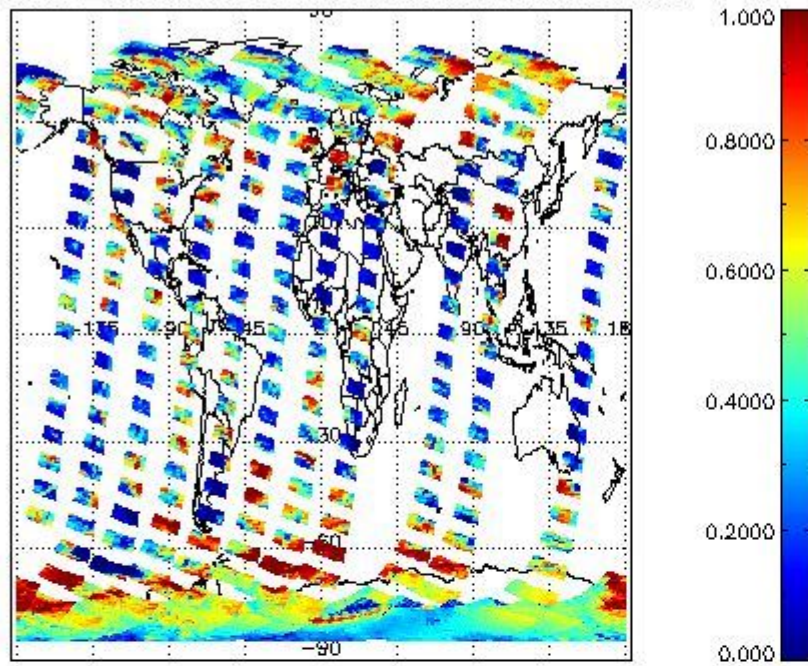
PMD_READ_CL[0]	92106	0.43509	0.0000	0.0000	19.000	1.4714	-
PMD_READ_CL[1]	92106	0.48970	0.0000	0.0000	32.000	1.6905	-
CL_TOP_HEIGHT	83763	4.4359	2.8323	0.0000	17.000	4.2042	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	83763	47.324	31.663	0.0000	101.00	38.268	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	92106	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	92106	11000111	11000100	11000000	11100000	2594.0	flags
AERO_ABSO_IND	92106	0.33409	0.11421	-5.0164	12.864	0.95326	
AERO_IND_DIAG	92106	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	92106	01100001	11000000	00000000	11000000	24571.	flags

Time and geolocation plots:

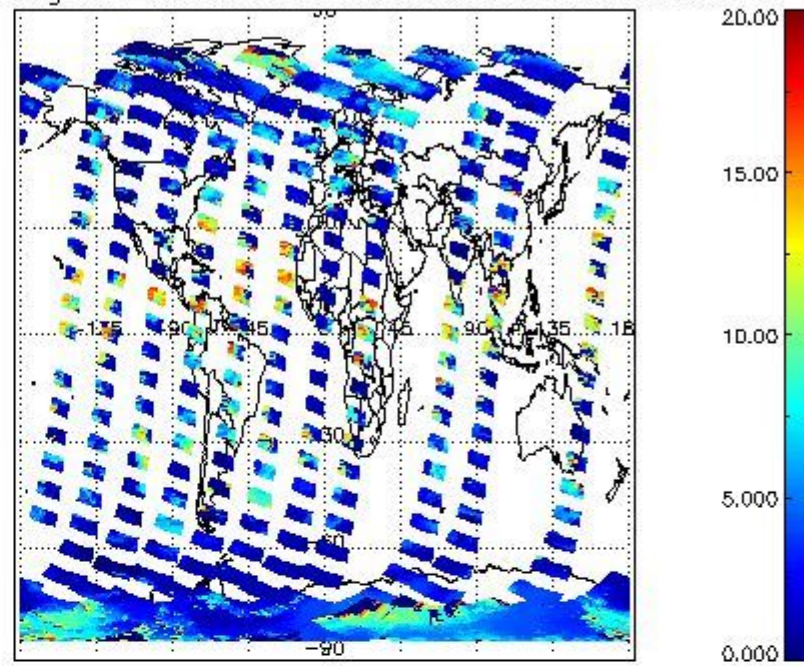
Plots are available for the following parameters:

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

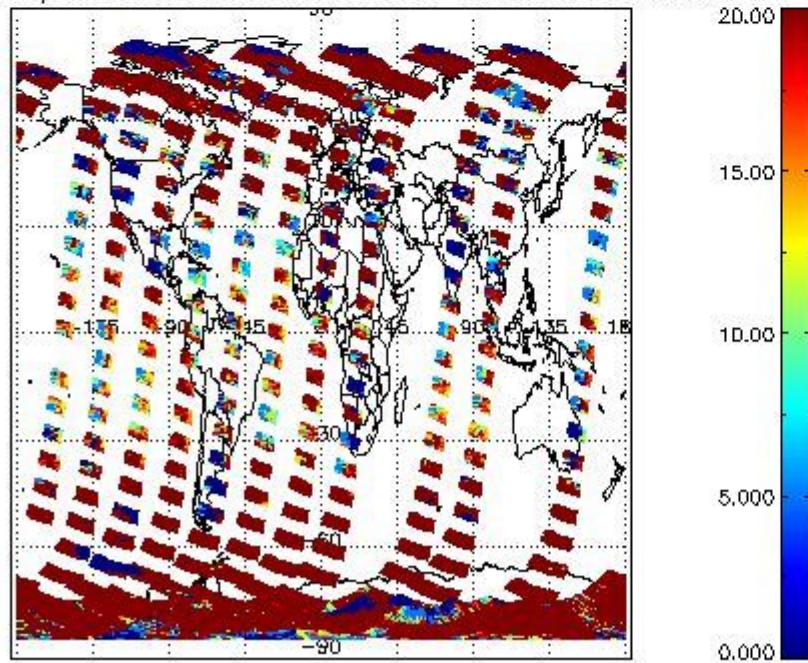
cLfrac for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



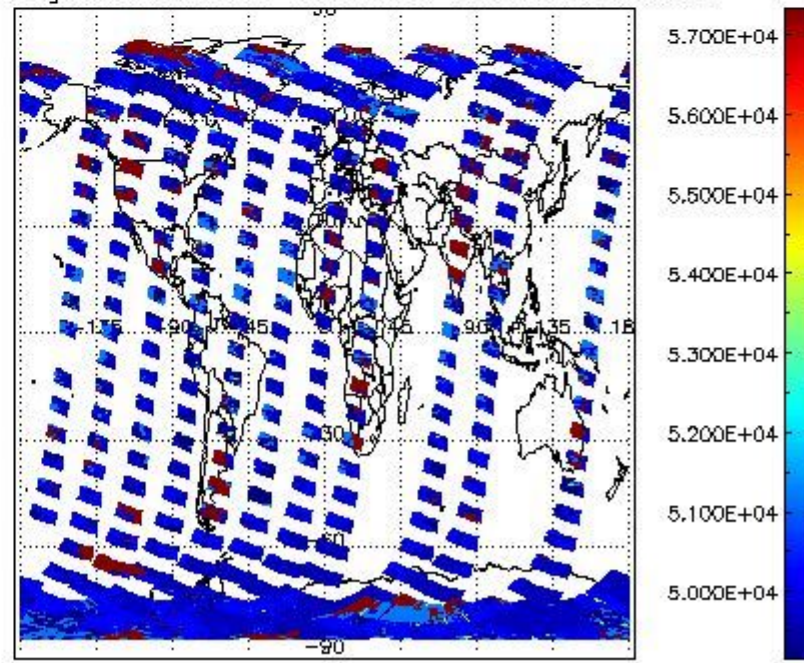
cL_top_height for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



cLopt_depth for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



cloud_flags for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



2.2.2 Nadir

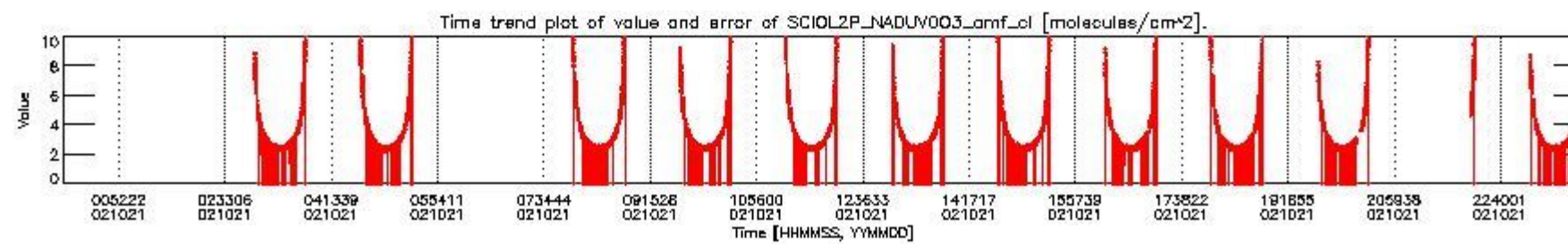
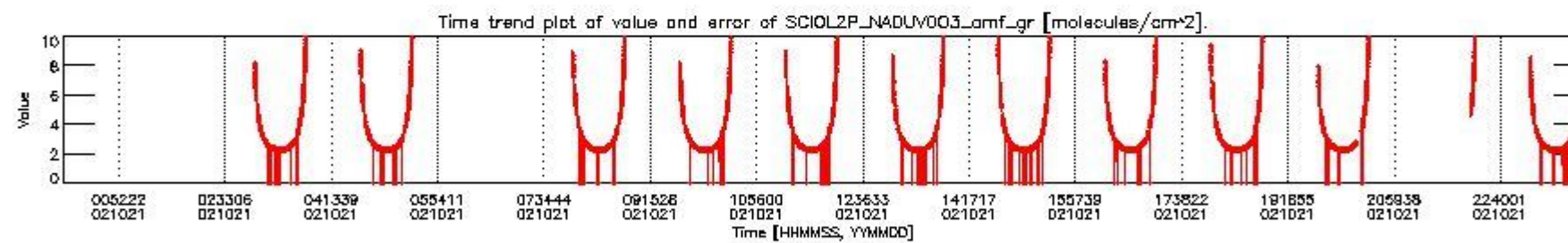
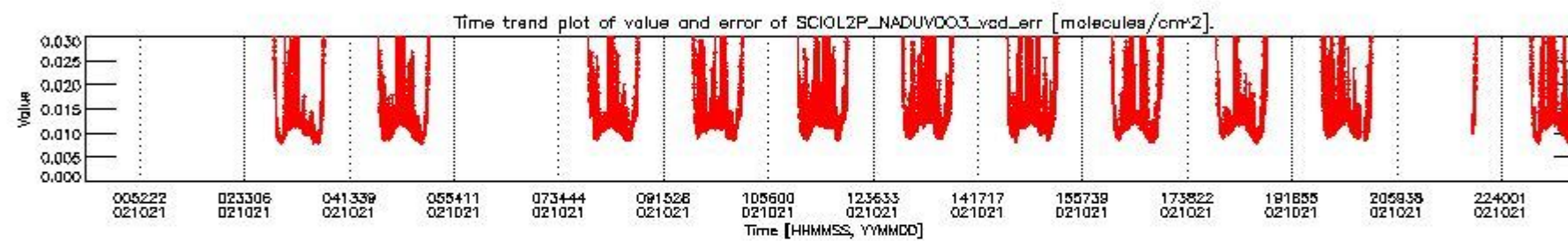
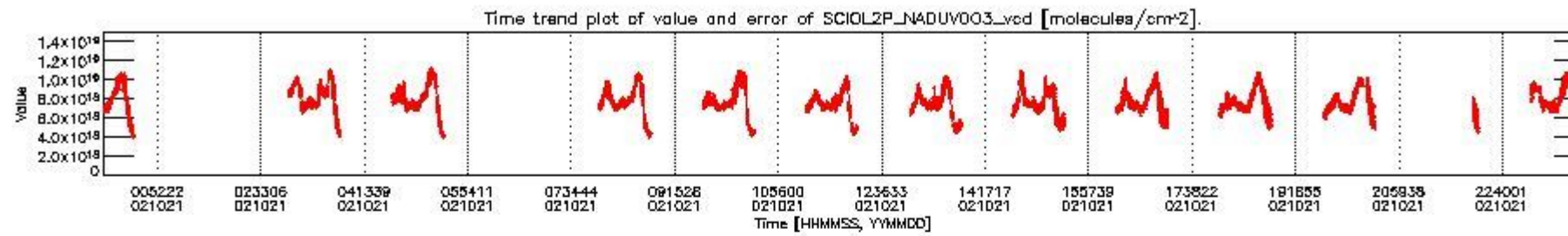
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

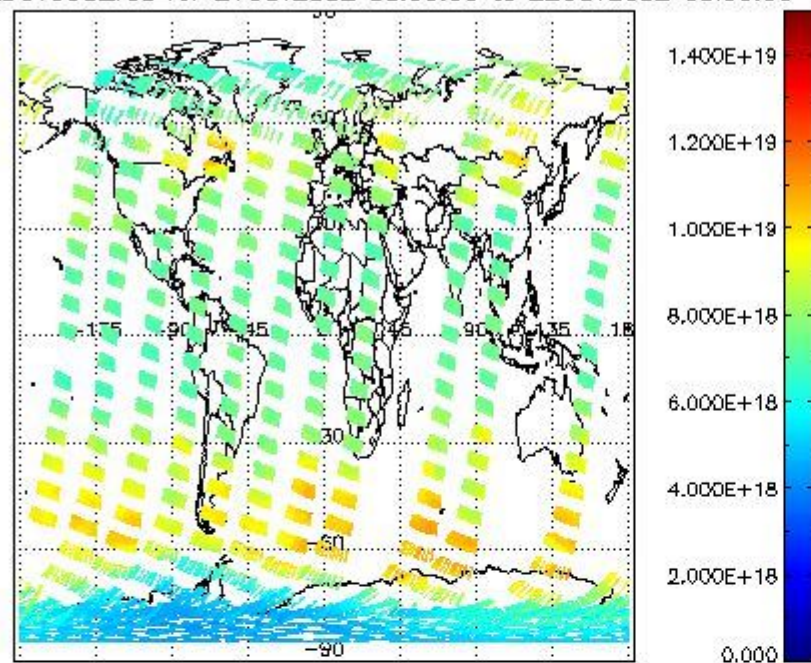
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

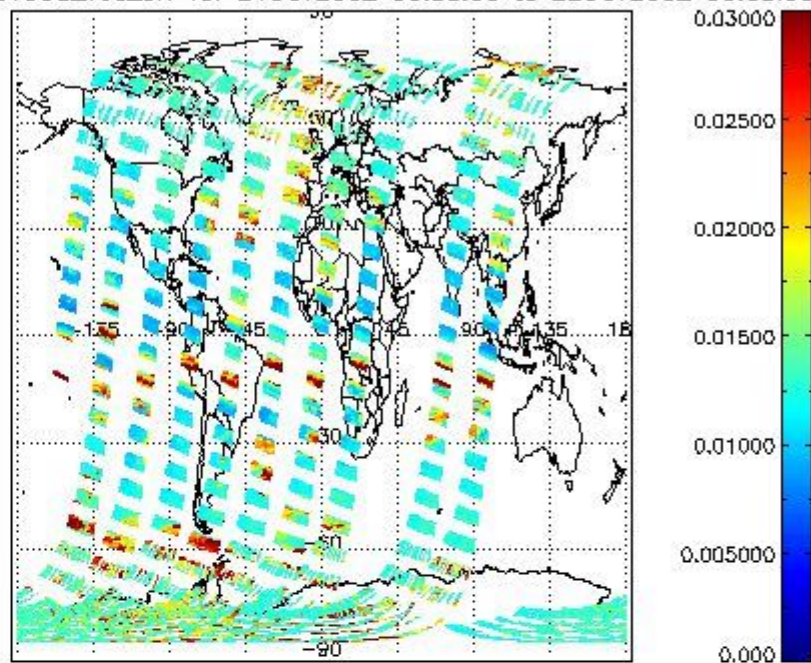
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



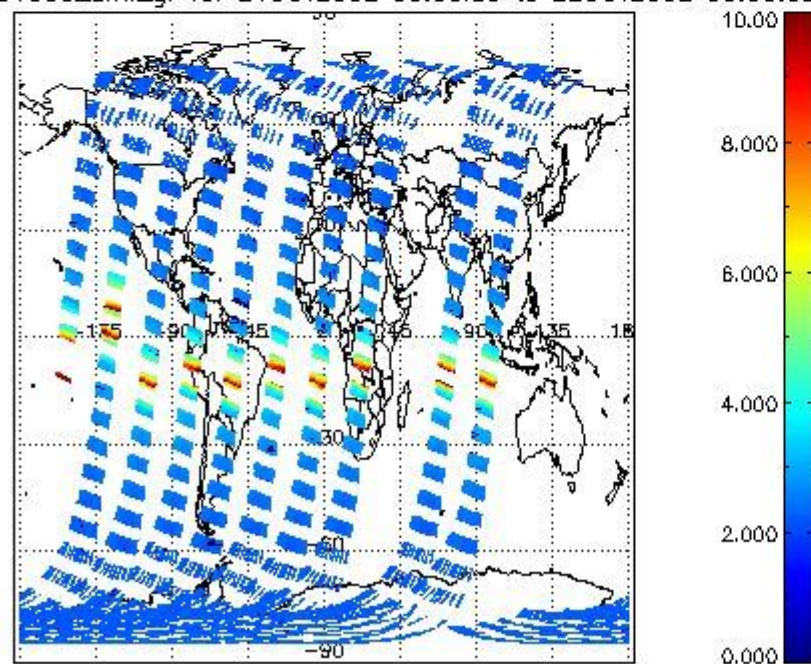
SCIOL2P_NADUV003_vcd for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



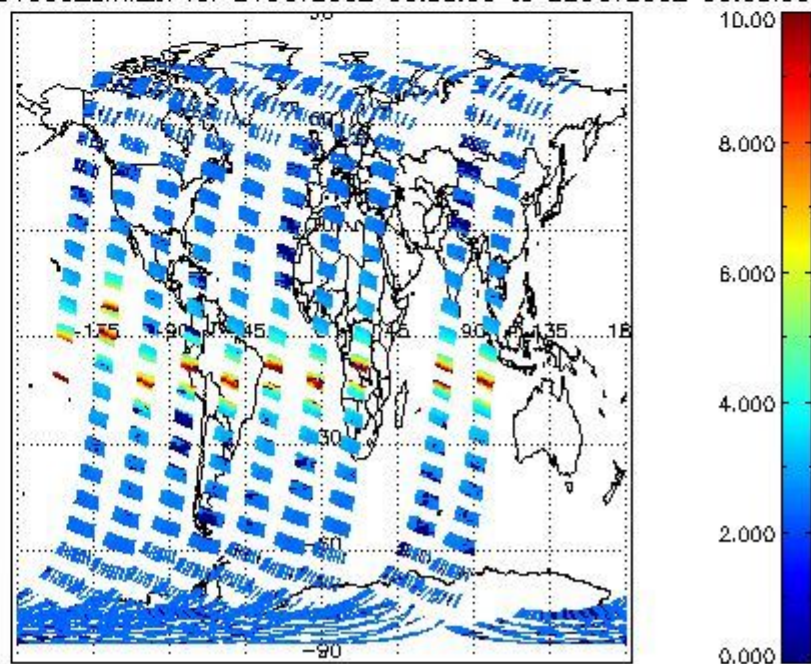
SCIOL2P_NADUV003_vcd_err for 21OCT2002 00:00:00 to 22OCT2002 00:00:00

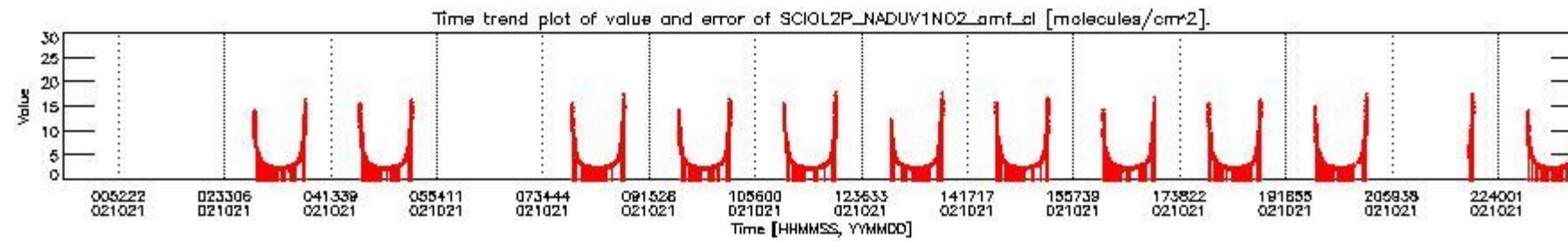
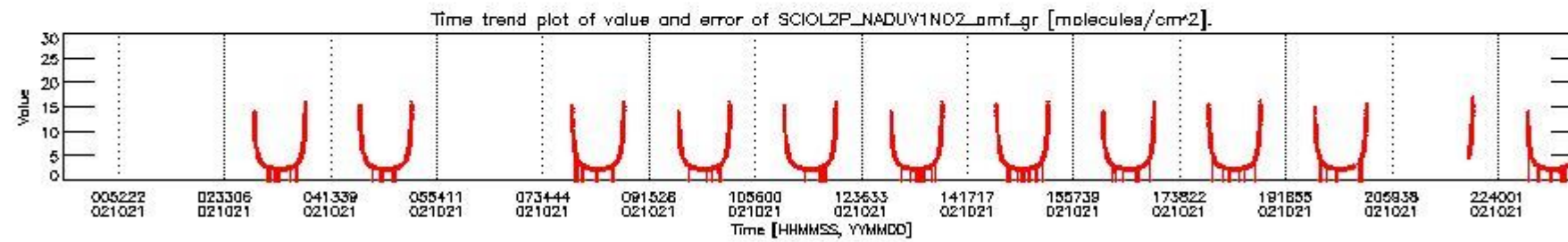
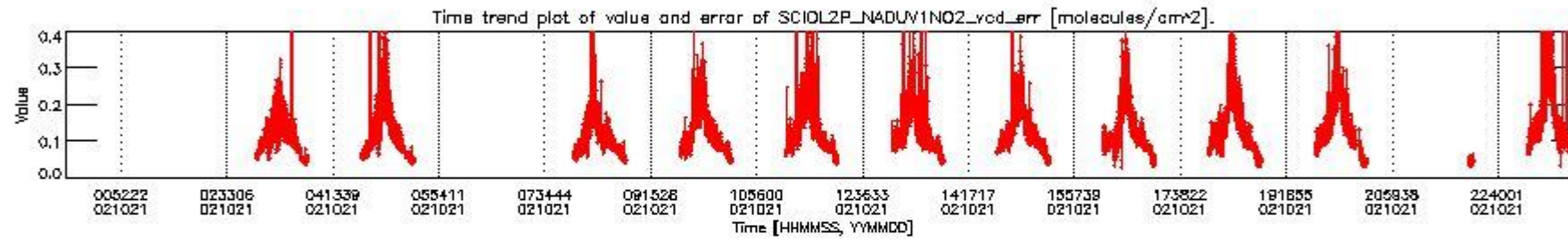
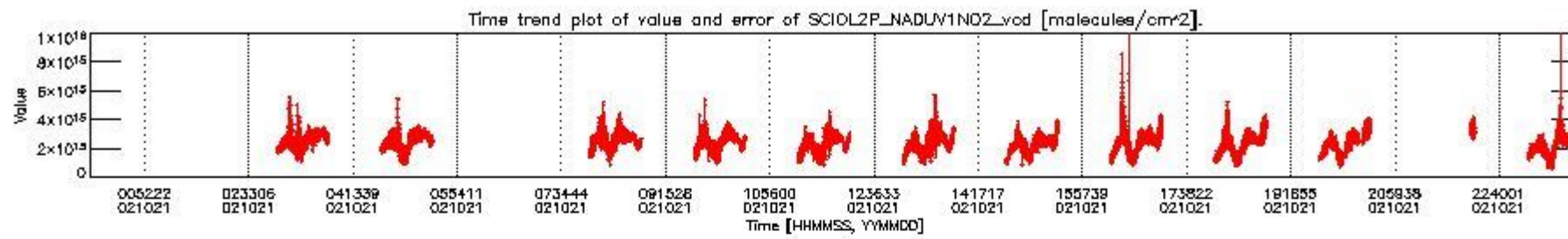


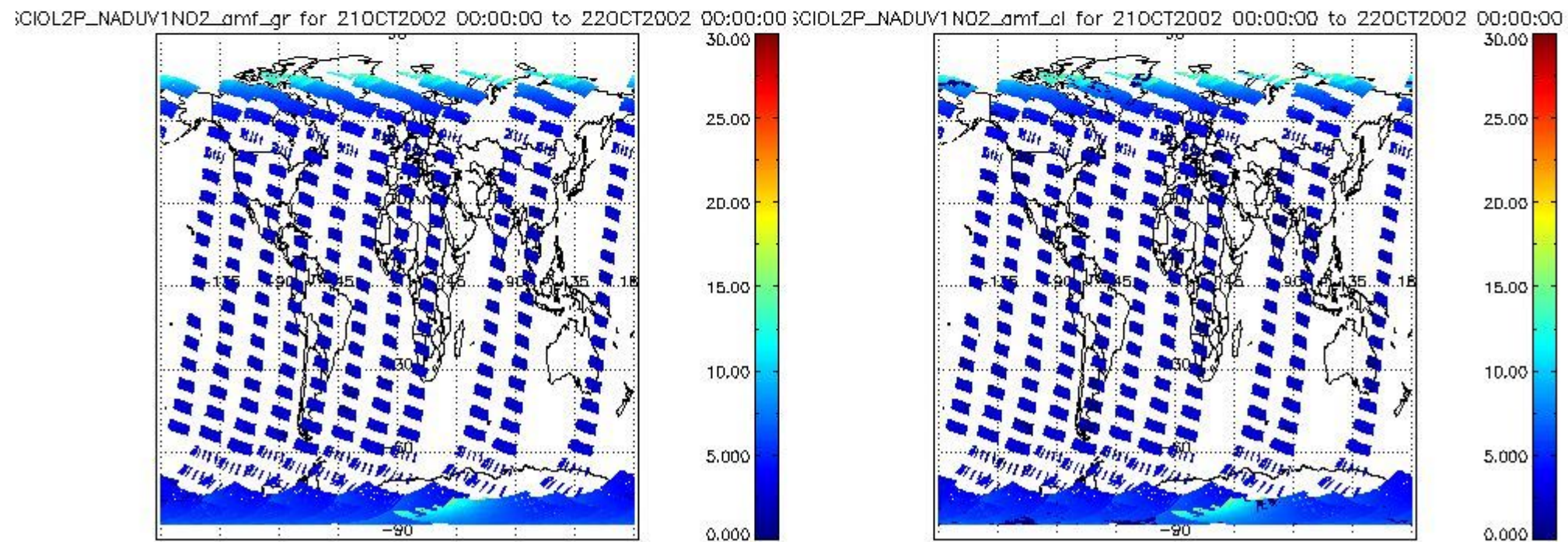
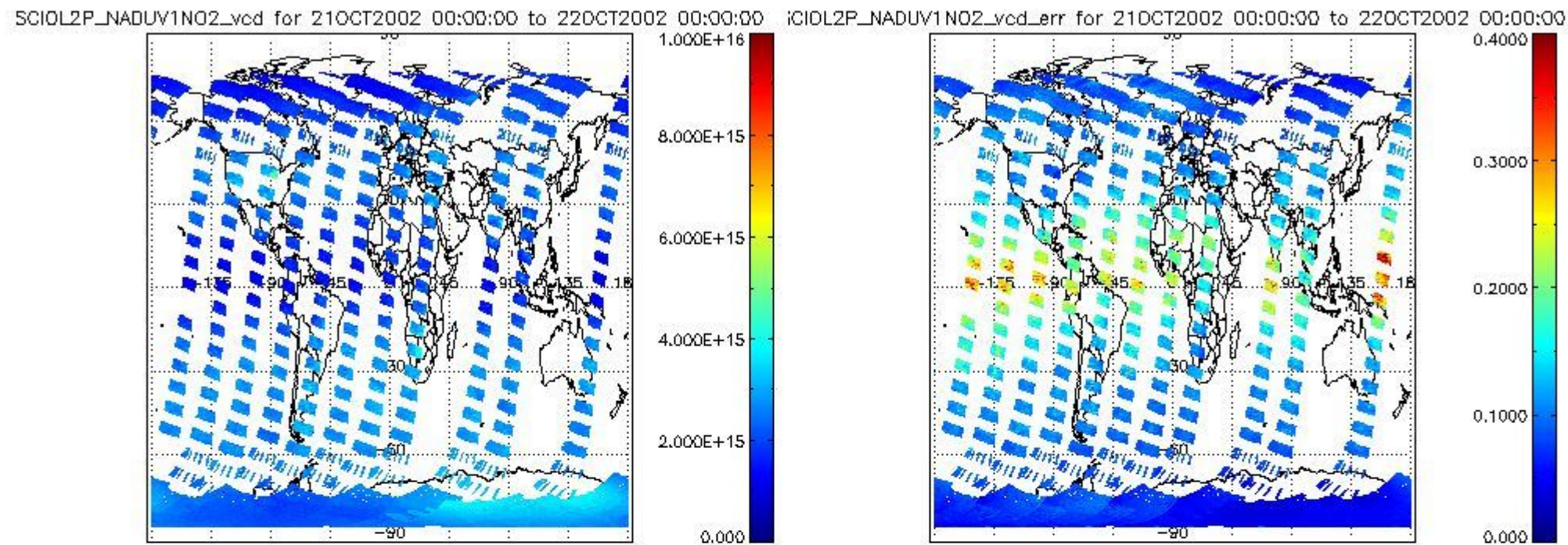
SCIOL2P_NADUV003_amf_gr for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



SCIOL2P_NADUV003_amf_sl for 21OCT2002 00:00:00 to 22OCT2002 00:00:00







2.2.3 Limb

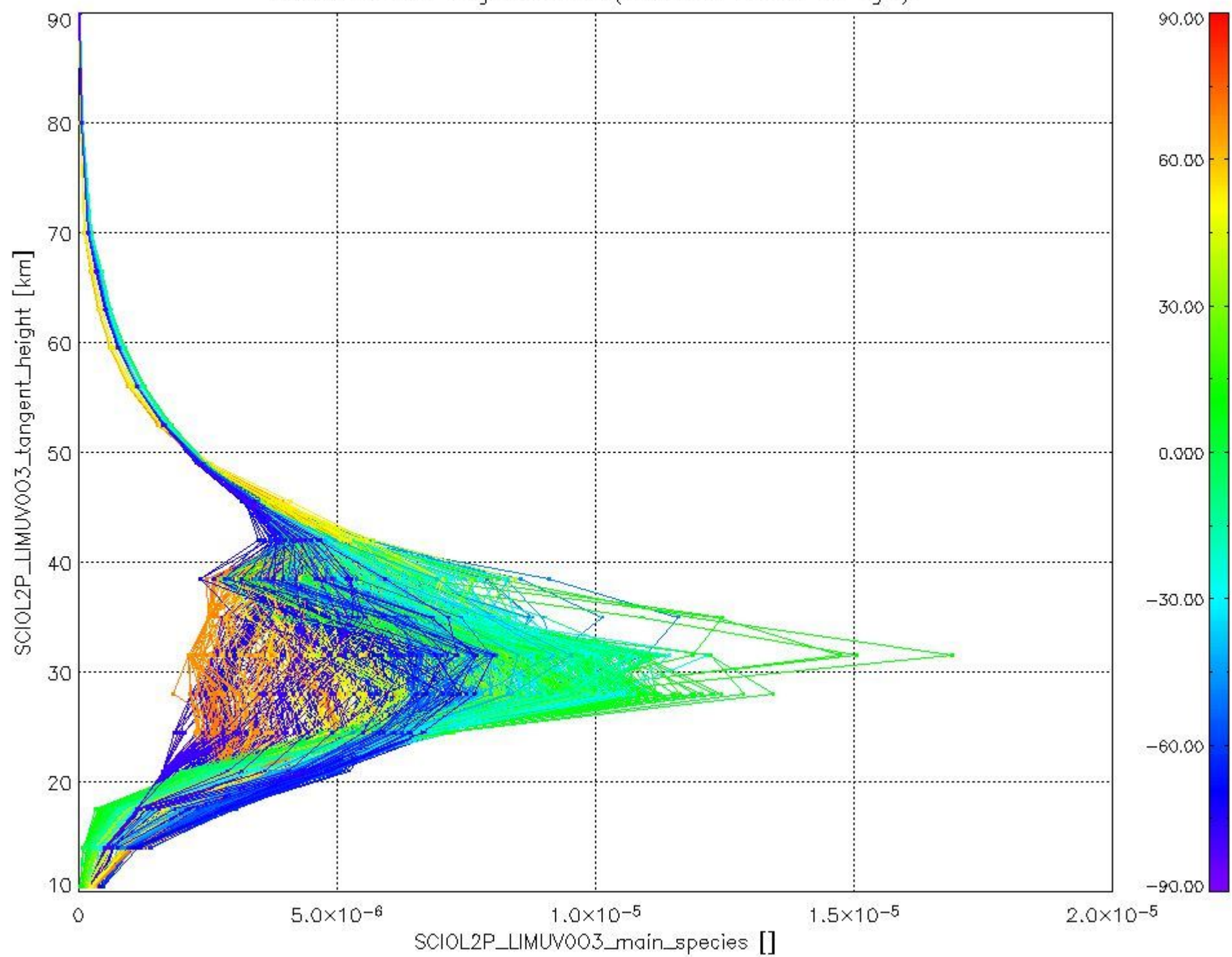
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

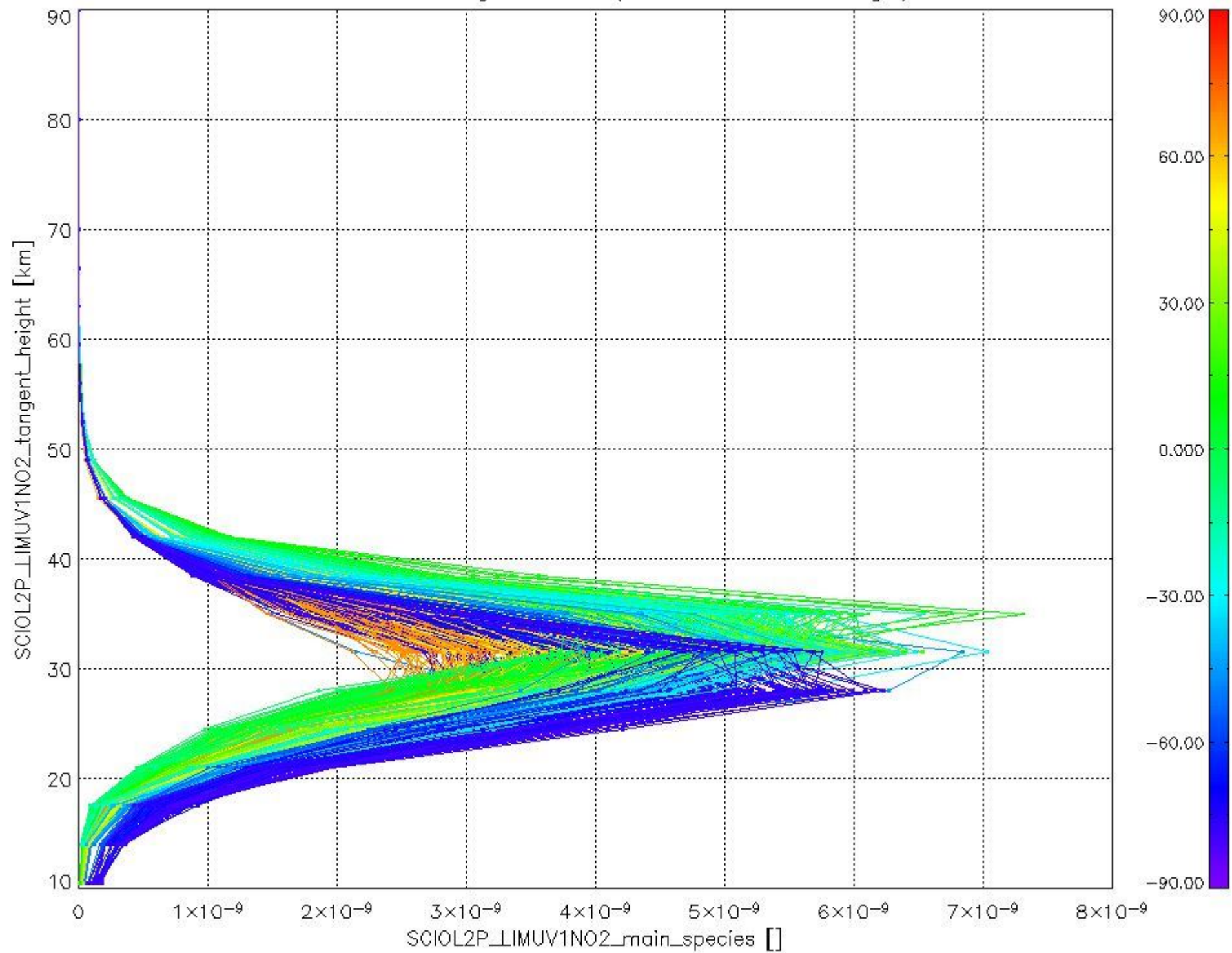
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



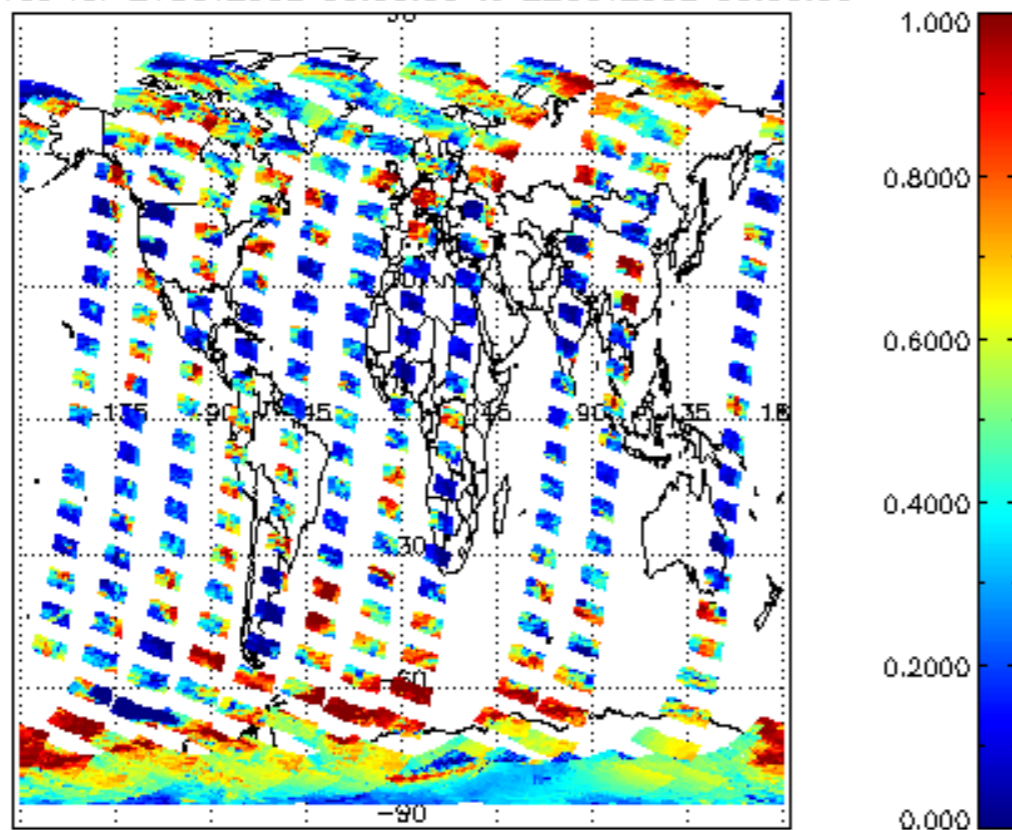
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



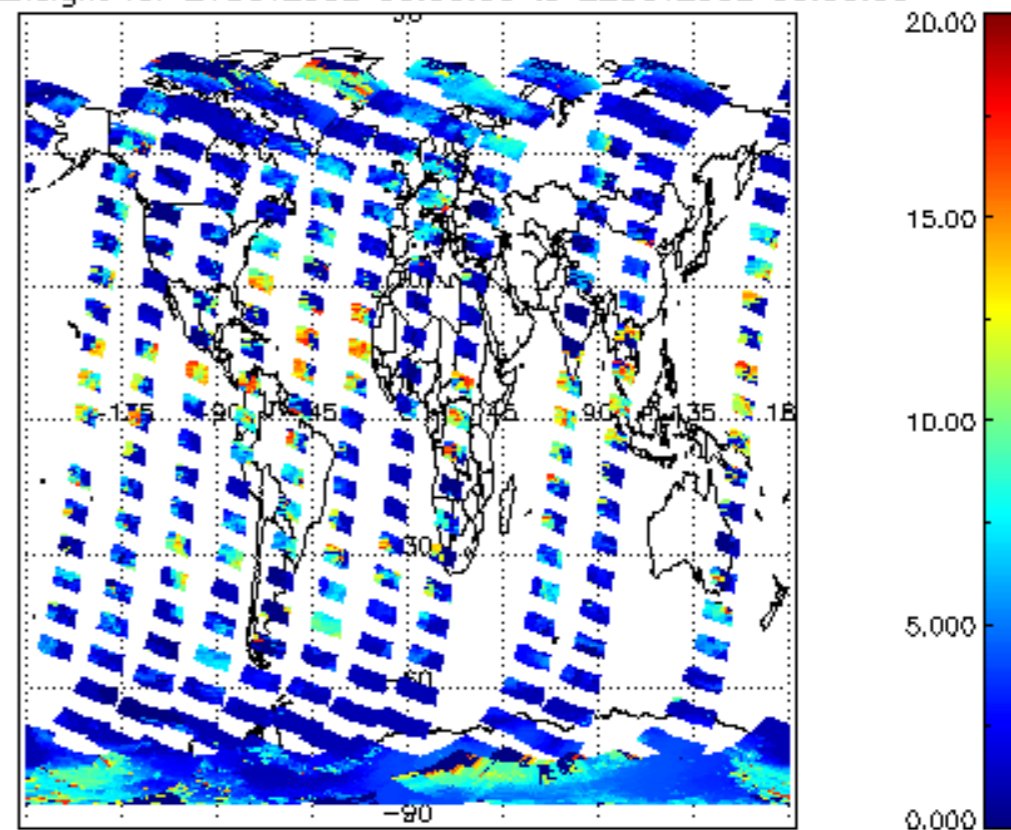
2.3 ADF monitoring

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

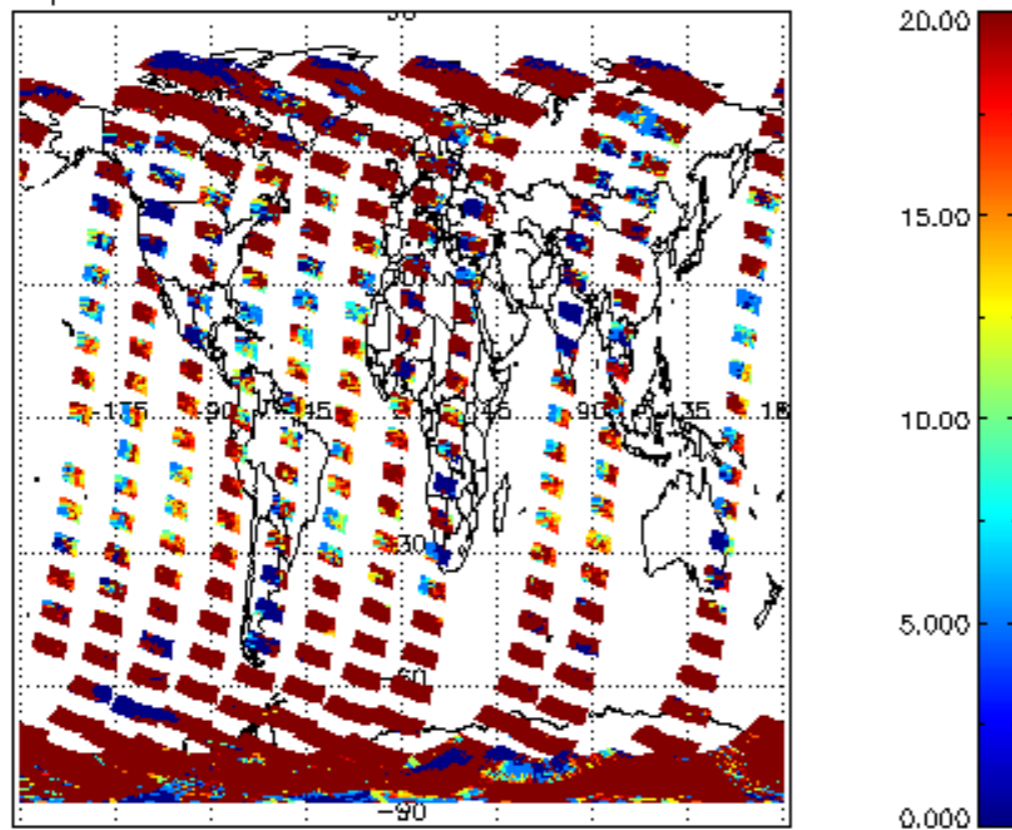
cl_frac for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



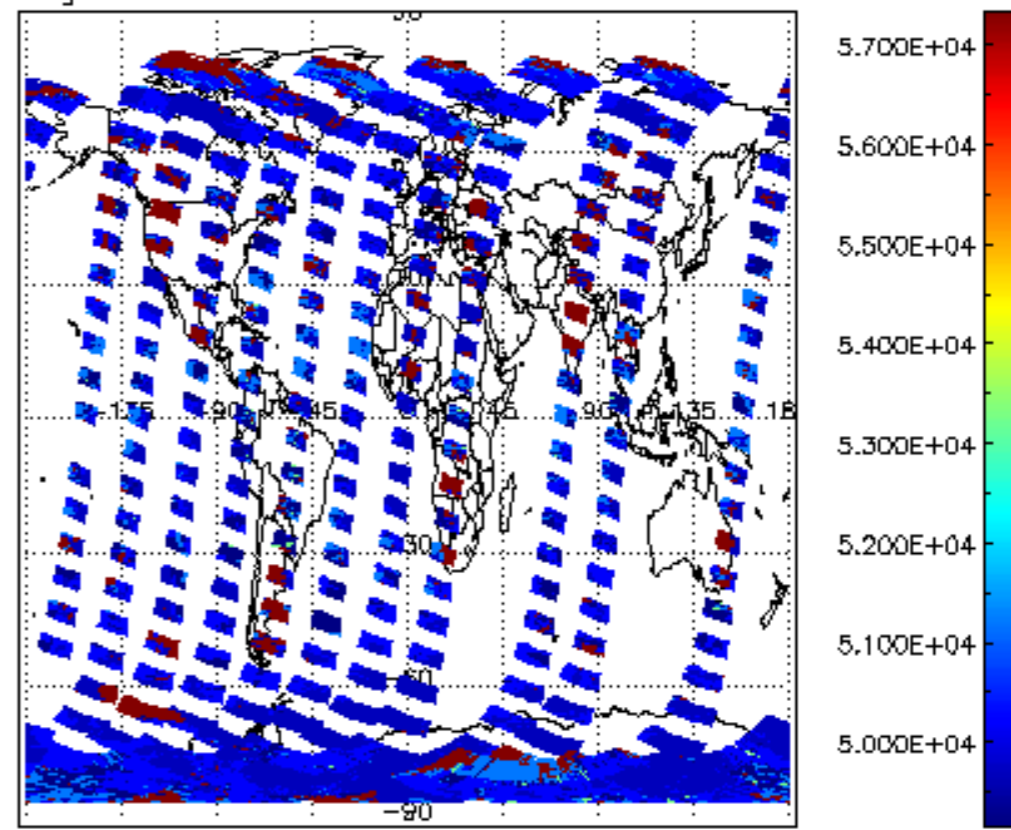
cl_top_height for 21OCT2002 00:00:00 to 22OCT2002 00:00:00

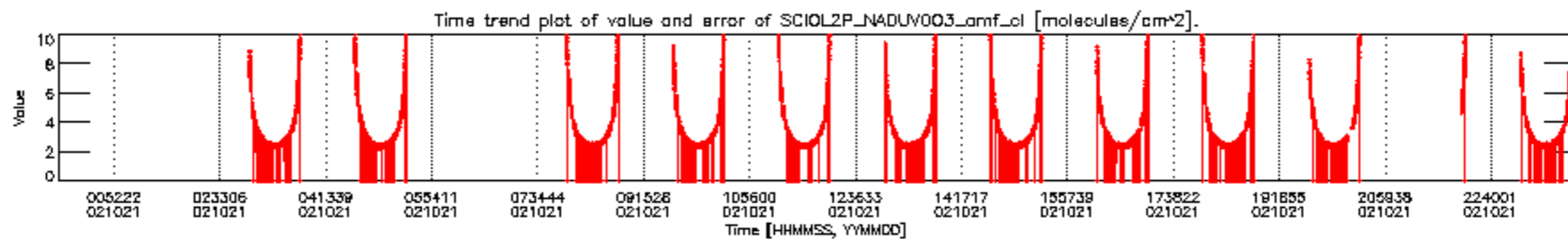
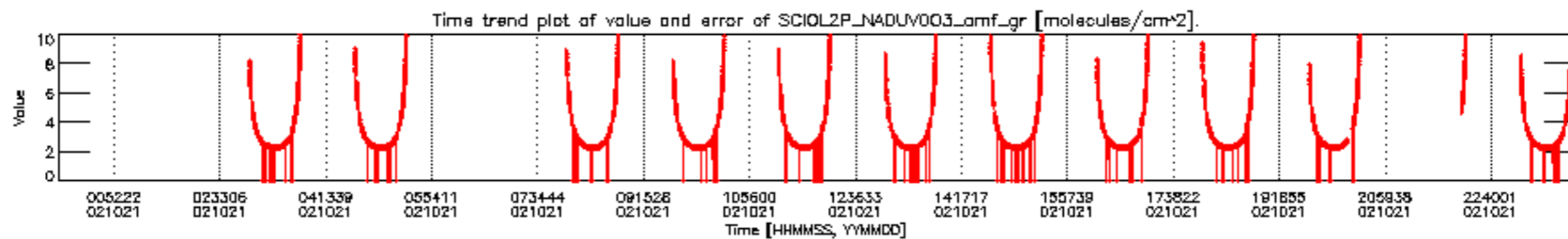
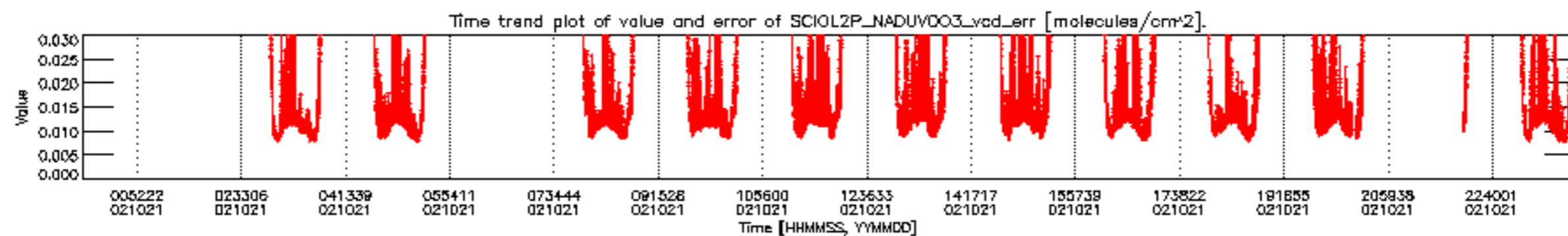
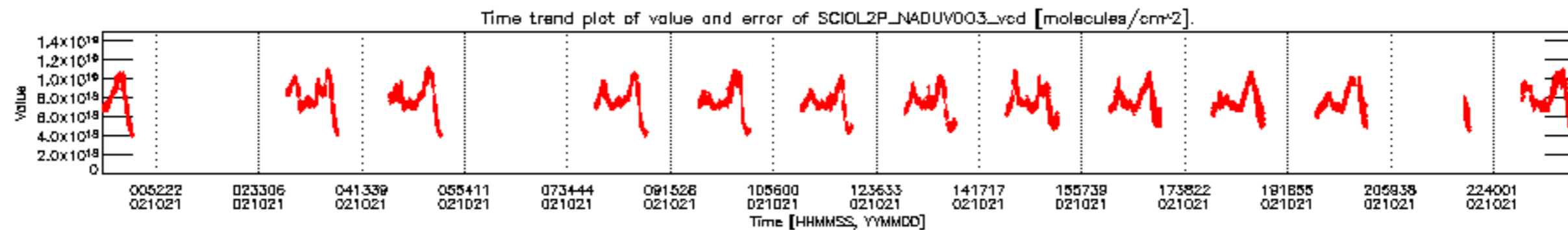


cl_opt_depth for 21OCT2002 00:00:00 to 22OCT2002 00:00:00

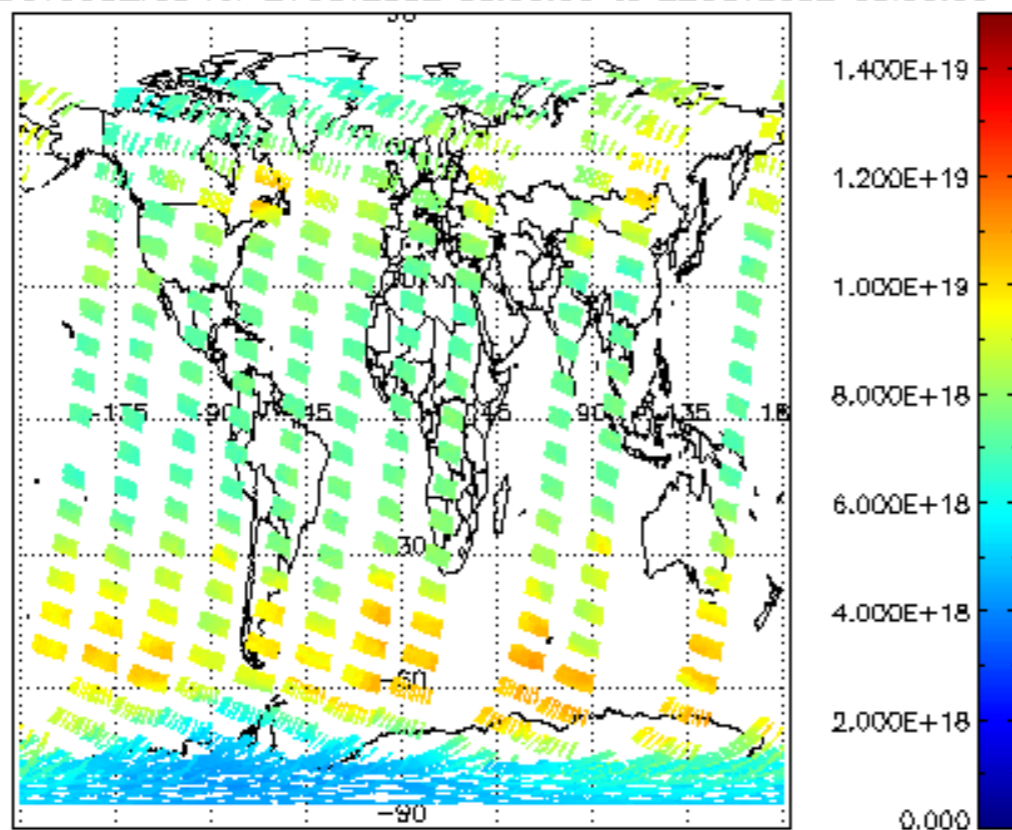


cloud_flags for 21OCT2002 00:00:00 to 22OCT2002 00:00:00

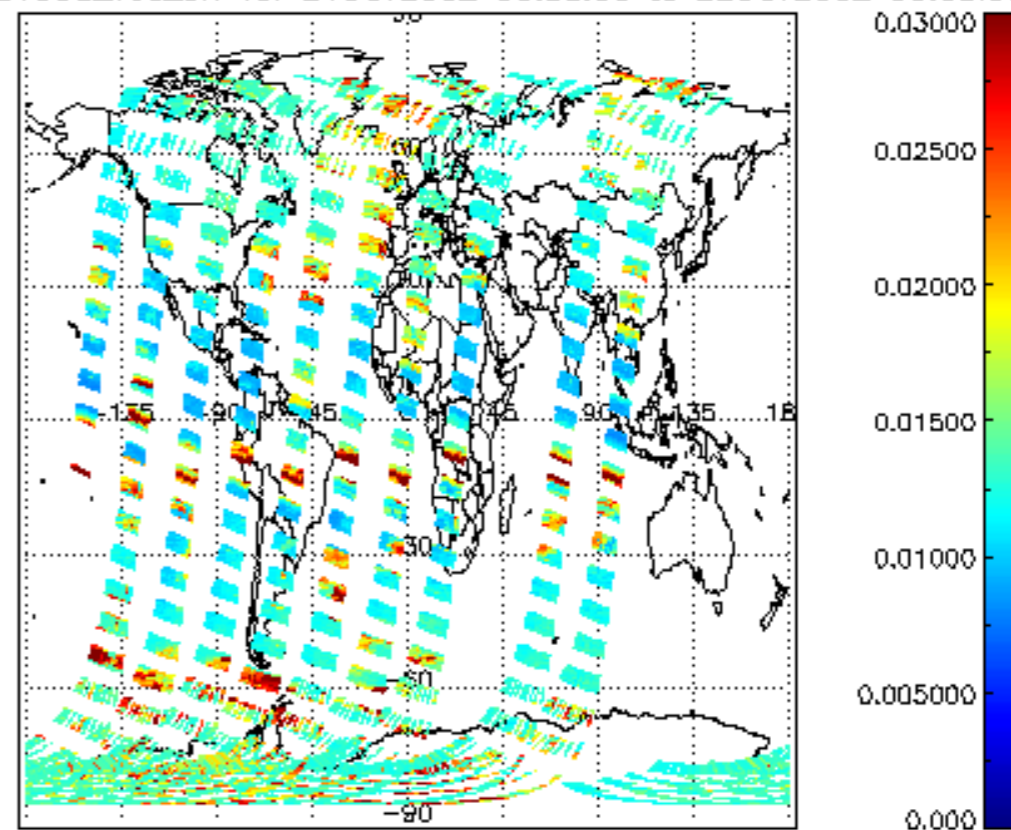




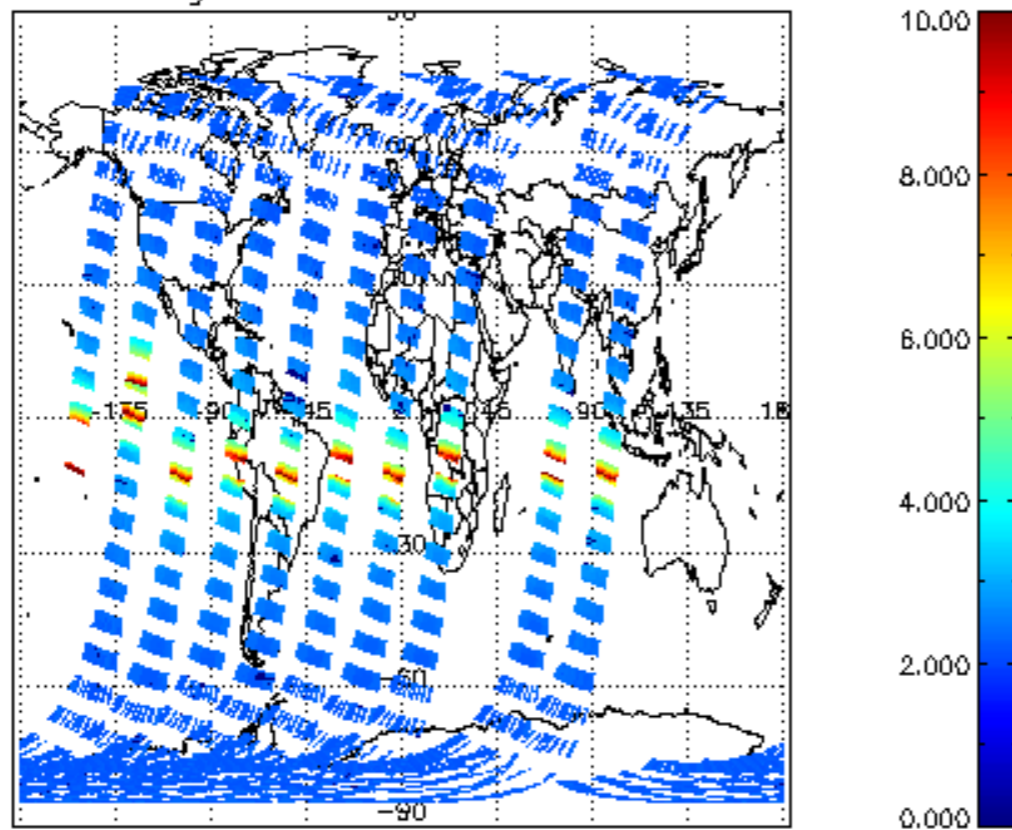
SCIOL2P_NADUV003_vcd for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



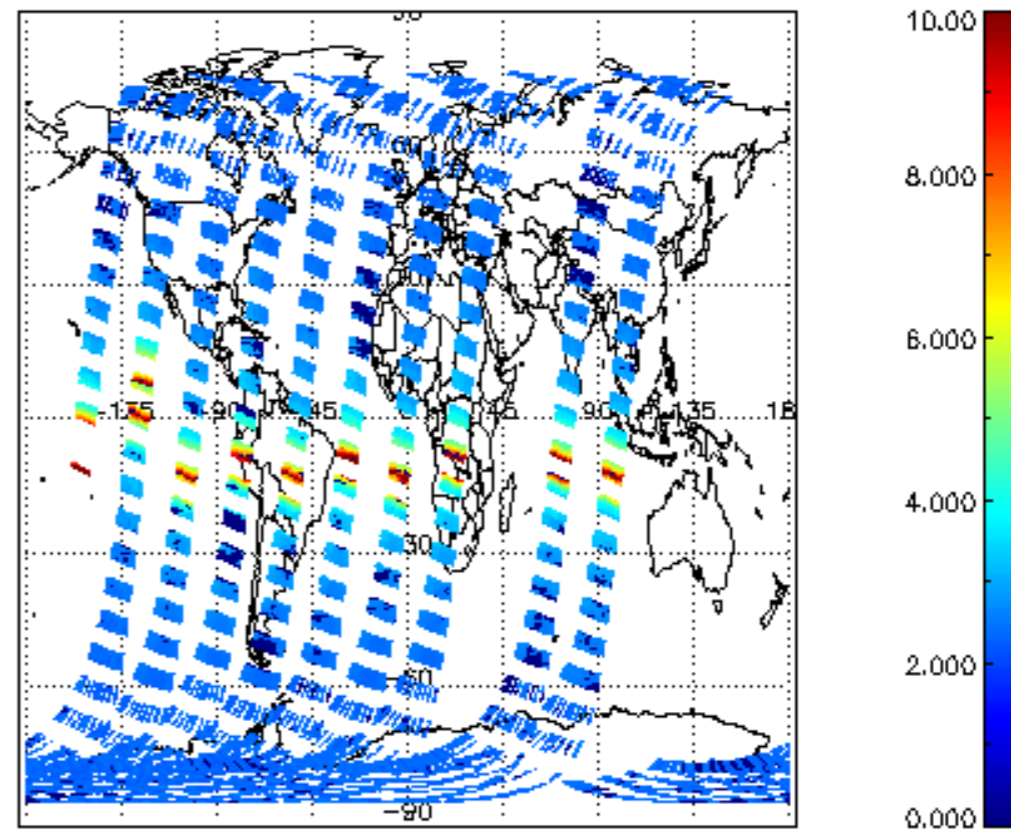
SCIOL2P_NADUV003_vcd_err for 21OCT2002 00:00:00 to 22OCT2002 00:00:00

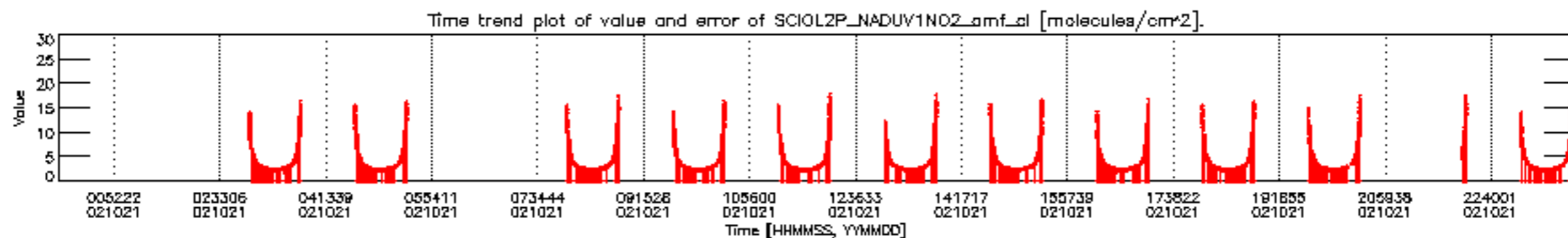
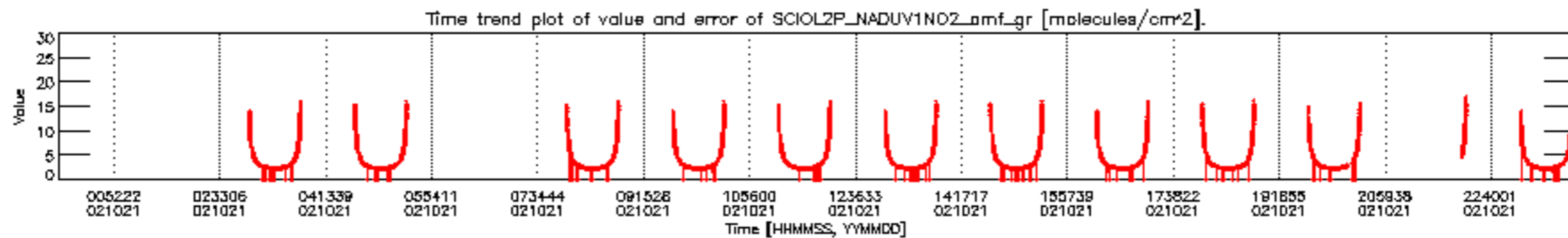
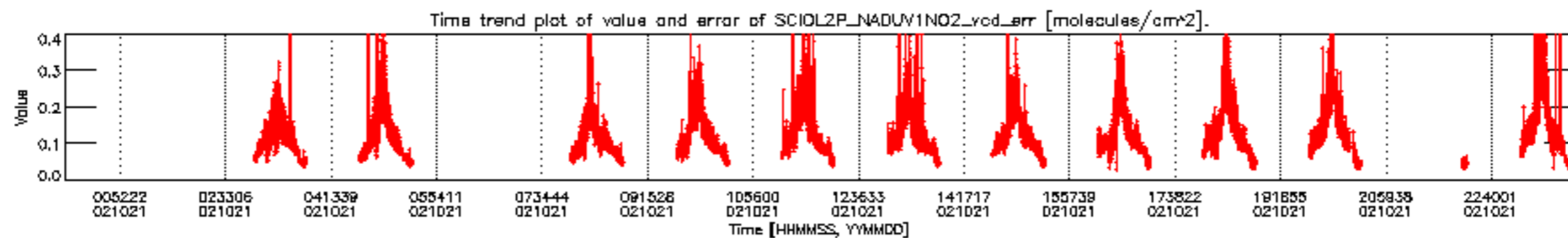
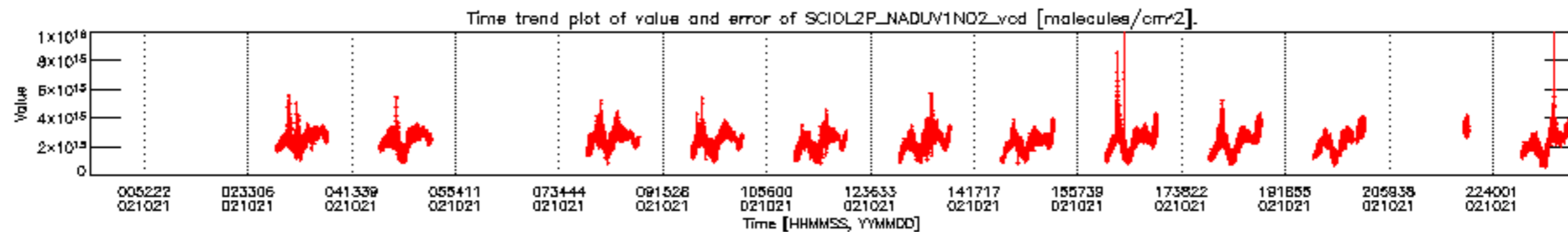


SCIOL2P_NADUV003_amf_gr for 21OCT2002 00:00:00 to 22OCT2002 00:00:00

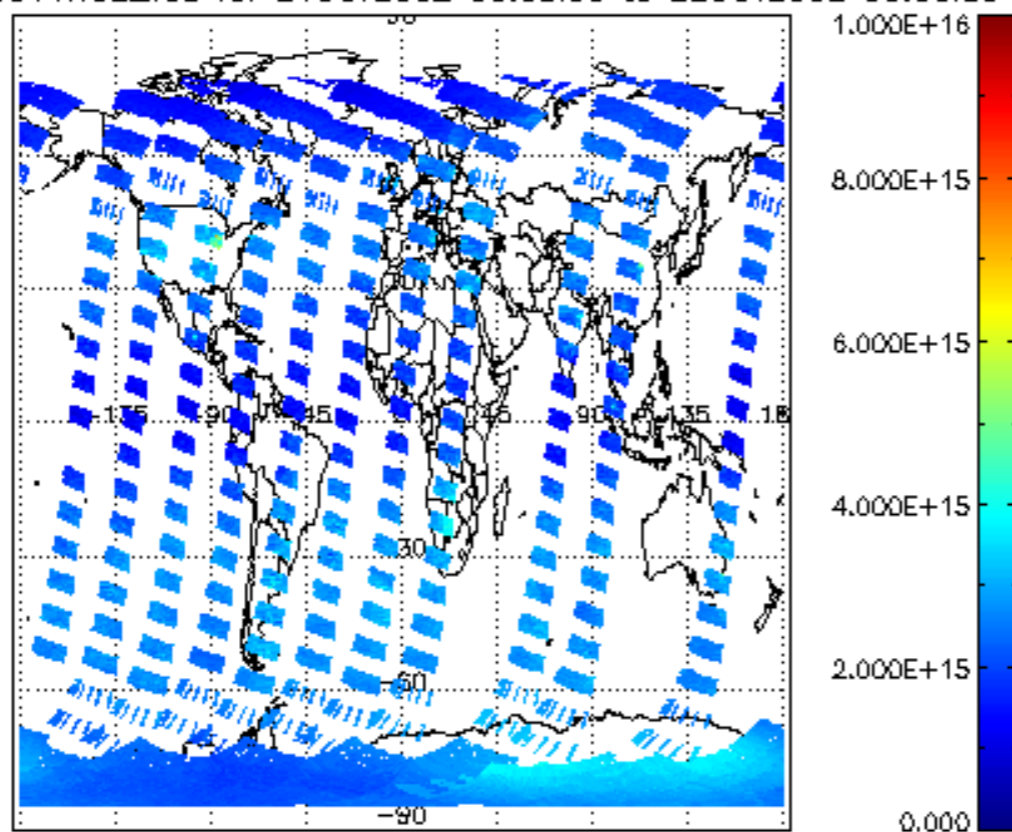


SCIOL2P_NADUV003_amf_sl for 21OCT2002 00:00:00 to 22OCT2002 00:00:00

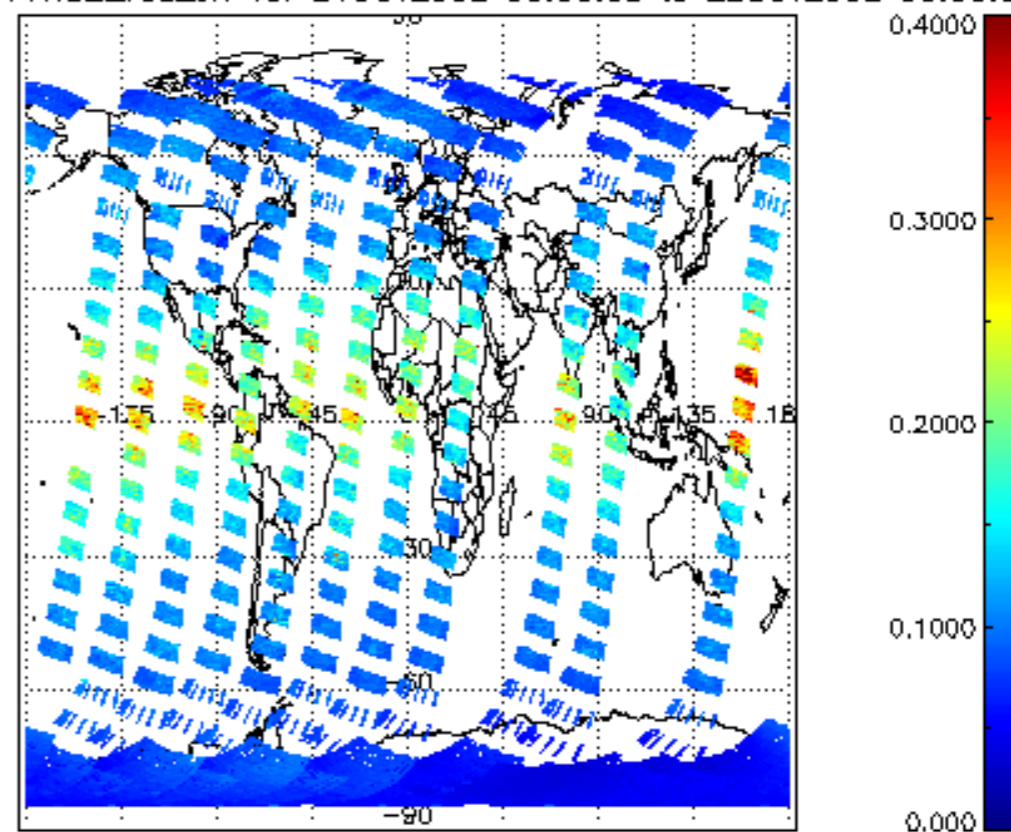




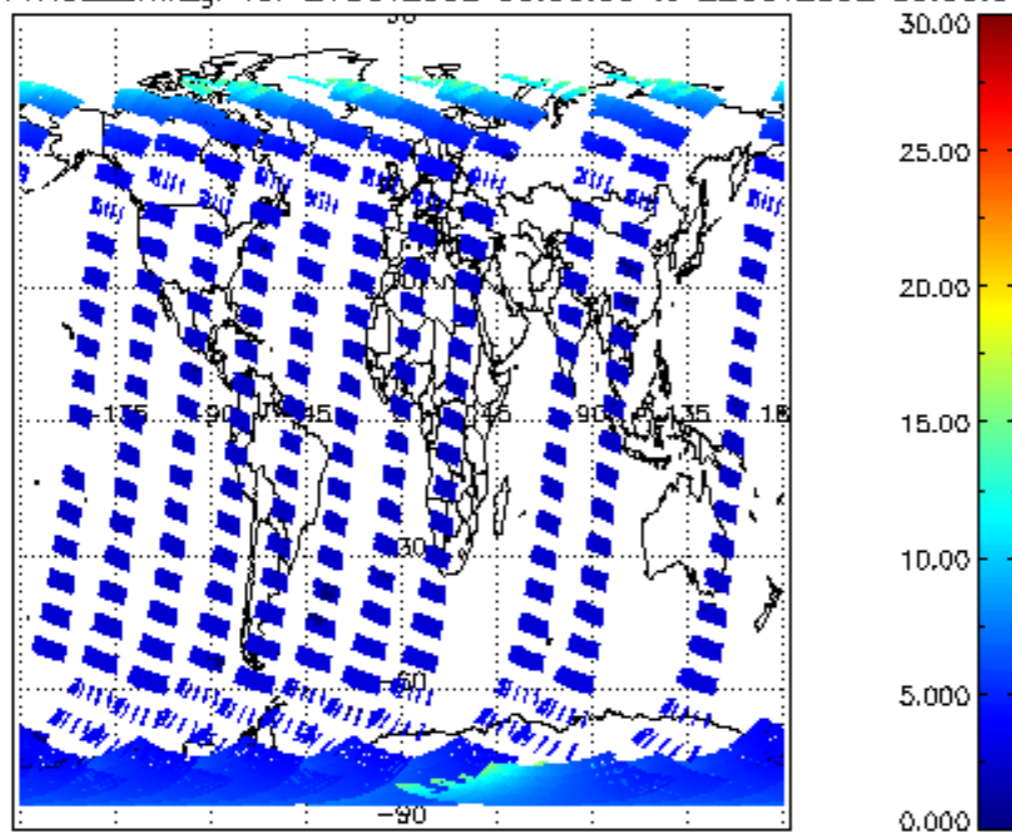
SCIOL2P_NADUV1NO2_vcd for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



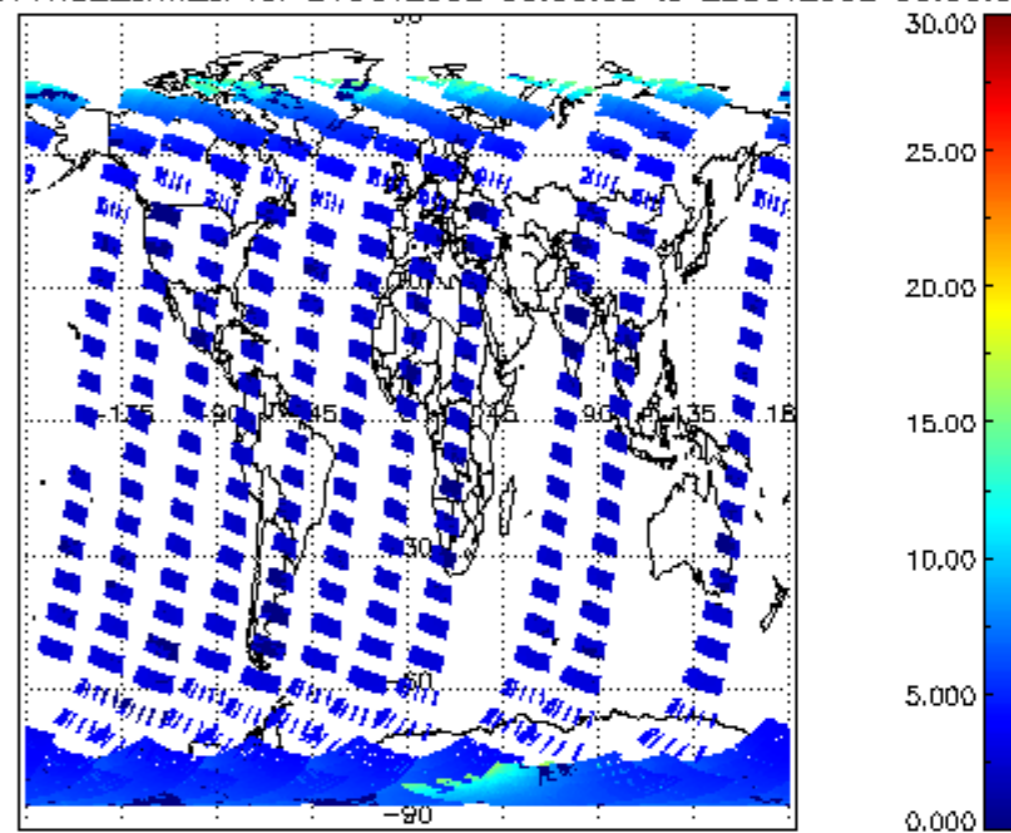
ICIOL2P_NADUV1NO2_vcd_err for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



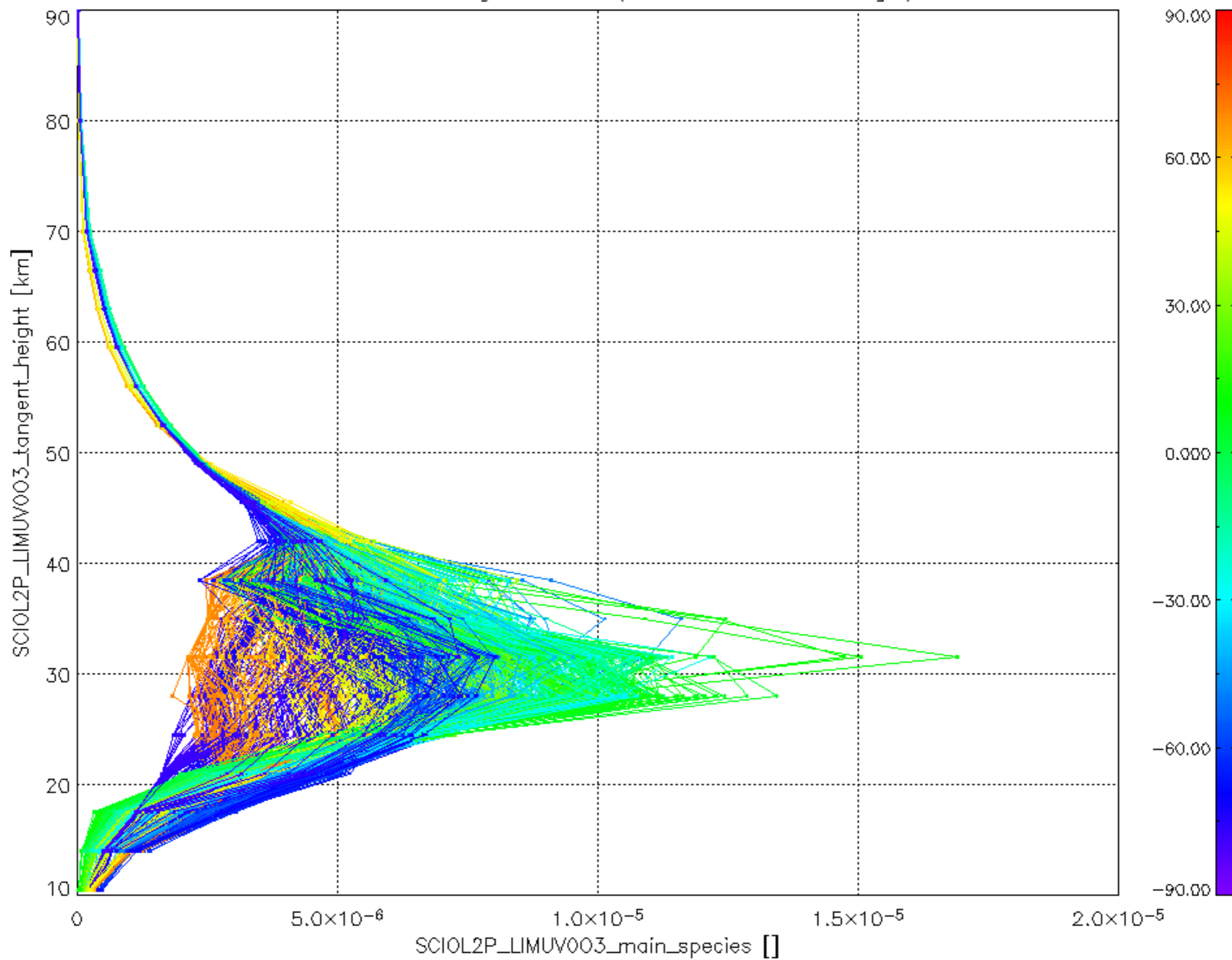
ICIOL2P_NADUV1NO2_amf_gr for 21OCT2002 00:00:00 to 22OCT2002 00:00:00



ICIOL2P_NADUV1NO2_amf_cl for 21OCT2002 00:00:00 to 22OCT2002 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).

