

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 10:10:00
Data source version	SCIA-OL/3.01-R
Processing scope for products	22OCT2002 00:00:00 to 23OCT2002 00:00:00
Start time of first product within scope	21OCT2002 23:02:27
Stop time of last product within scope	22OCT2002 21:46:05
Total number of level 2 products	10
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__2PRDPA20021021_230227_000033242010_00302_03362_1108.N1	21OCT2002 23:02:27	21OCT2002 23:57:51	0	GOOD
1	SCI_OL__2PRDPA20021022_073000_000030522010_00307_03367_1349.N1	22OCT2002 07:30:00	22OCT2002 08:20:53	0	GOOD
2	SCI_OL__2PRDPA20021022_090605_000033242010_00308_03368_1373.N1	22OCT2002 09:06:05	22OCT2002 10:01:29	0	GOOD
3	SCI_OL__2PRDPA20021022_104642_000033242010_00309_03369_1344.N1	22OCT2002 10:46:42	22OCT2002 11:42:06	0	GOOD
4	SCI_OL__2PRDPA20021022_122718_000033242010_00310_03370_1280.N1	22OCT2002 12:27:18	22OCT2002 13:22:42	0	GOOD
5	SCI_OL__2PRDPA20021022_140754_000033242010_00311_03371_1313.N1	22OCT2002 14:07:54	22OCT2002 15:03:19	0	GOOD
6	SCI_OL__2PRDPA20021022_154831_000033242010_00312_03372_1410.N1	22OCT2002 15:48:31	22OCT2002 16:43:55	0	GOOD
7	SCI_OL__2PRDPA20021022_172907_000033242010_00313_03373_1242.N1	22OCT2002 17:29:07	22OCT2002 18:24:32	0	GOOD
8	SCI_OL__2PRDPA20021022_190912_000033672010_00314_03374_1216.N1	22OCT2002 19:09:12	22OCT2002 20:05:19	0	GOOD
9	SCI_OL__2PRDPA20021022_204938_000033862010_00315_03375_1231.N1	22OCT2002 20:49:38	22OCT2002 21:46:05	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: 70100

Total number of cloud data DSRs with good quality flag (=0): 70100 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	70100	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	70100	0.21562	0.25000	0.12500	1.0000	0.081525	s
SURFACE_PRES	70100	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	70100	0.43523	0.40612	0.0000	1.0000	0.29947	-
CL_FRAC_ERR	70100	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	70100	6.8999	8.0000	4.0000	32.000	2.6088	
PMD_READ_CL[0]	70100	0.39237	0.0000	0.0000	17.000	1.3457	-
PMD_READ_CL[1]	70100	0.48290	0.0000	0.0000	30.000	1.6116	-
CL_TOP_HEIGHT	62206	4.1423	2.0960	0.0000	17.000	4.2242	km

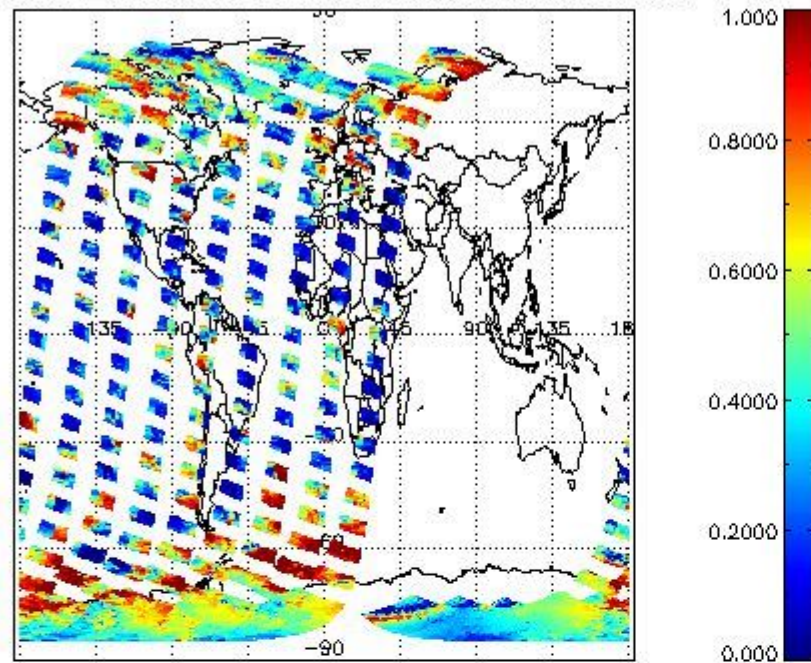
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	62206	48.071	33.799	0.0000	101.00	38.013	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	70100	11100000	11100000	11100000	11100000	0.0000	flags. Bit definition = 0: low or high cloud; 1: ice or water cloud; 2: thick or thin cloud; 3-15: not used
CLOUD_FLAGS	70100	11000111	11000100	11000000	11100000	2703.6	flags
AERO_ABSO_IND	70100	0.31123	0.15625	-4.1657	8.0092	0.89892	
AERO_IND_DIAG	70100	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	70100	01101000	11000000	00000000	11000000	24468.	flags

Time and geolocation plots:

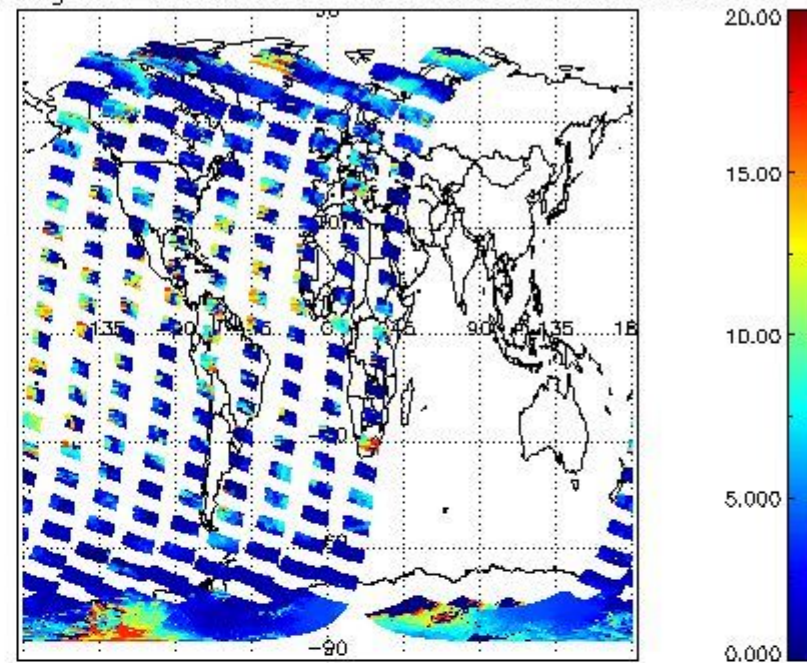
Plots are available for the following parameters:

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

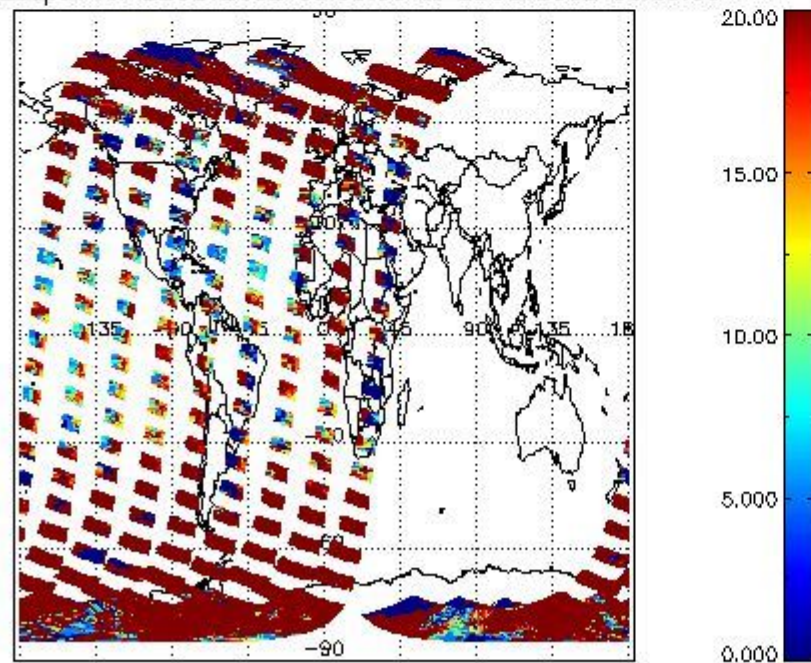
cLfrac for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



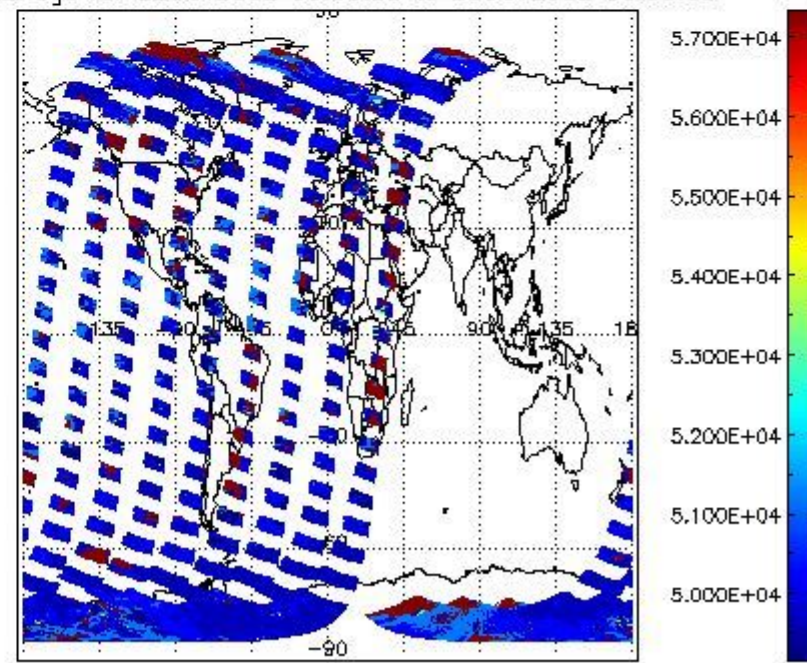
cL_top_height for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



cLopt_depth for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



cloud_flags for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



2.2.2 Nadir

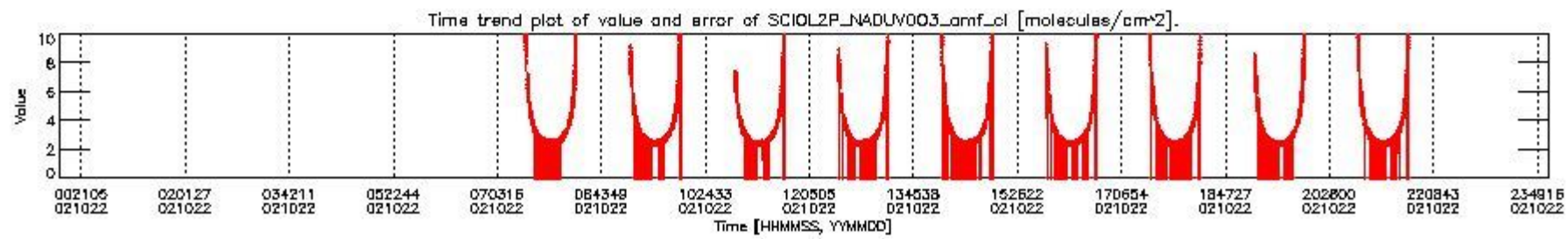
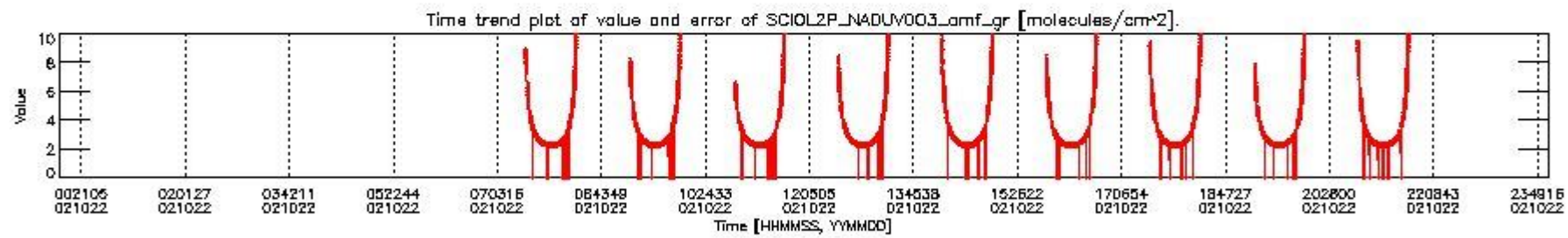
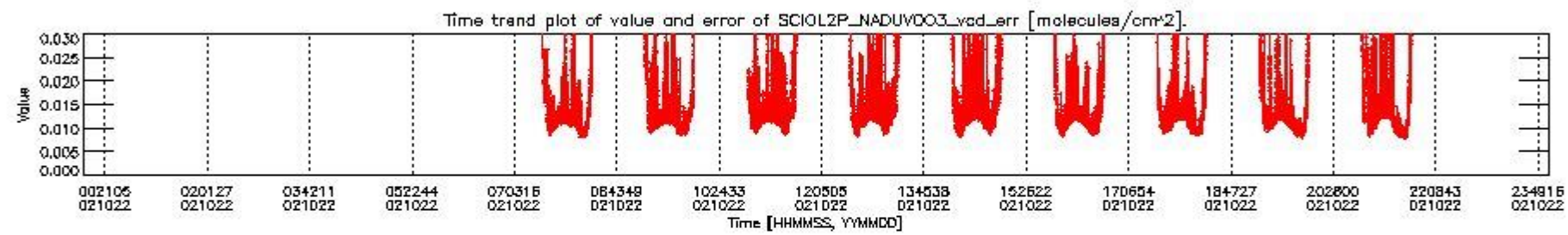
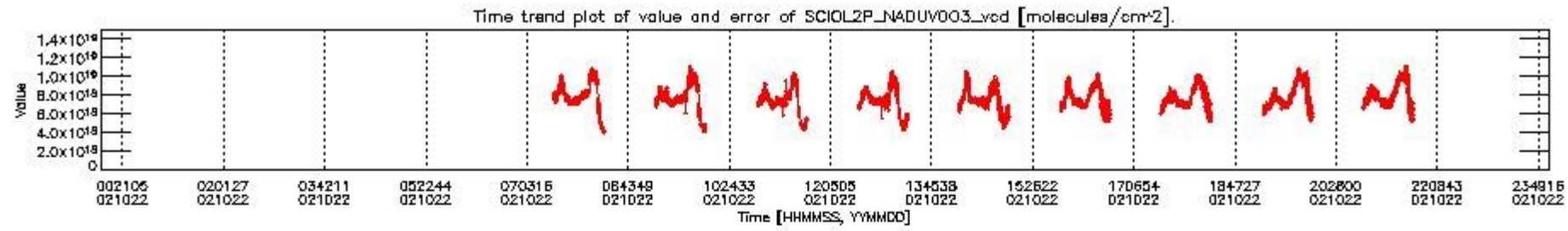
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

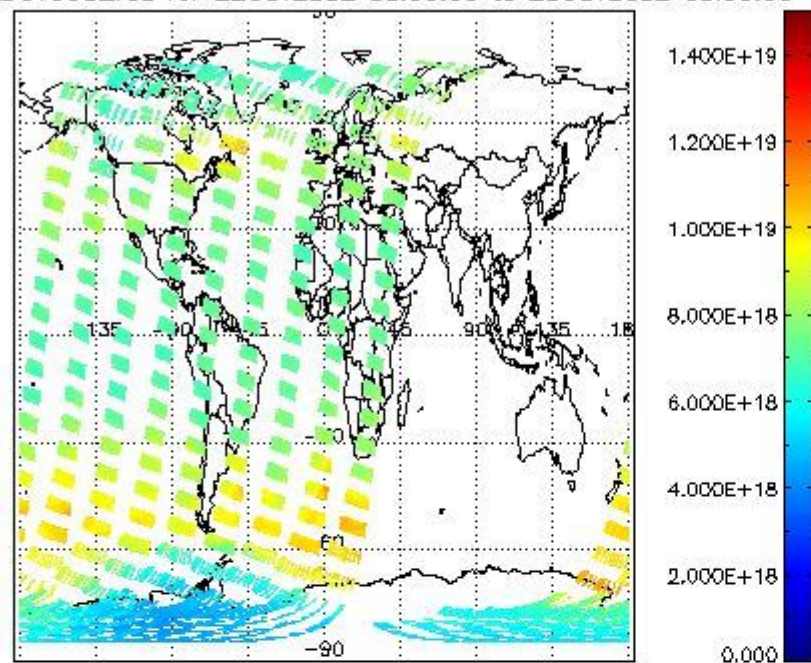
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

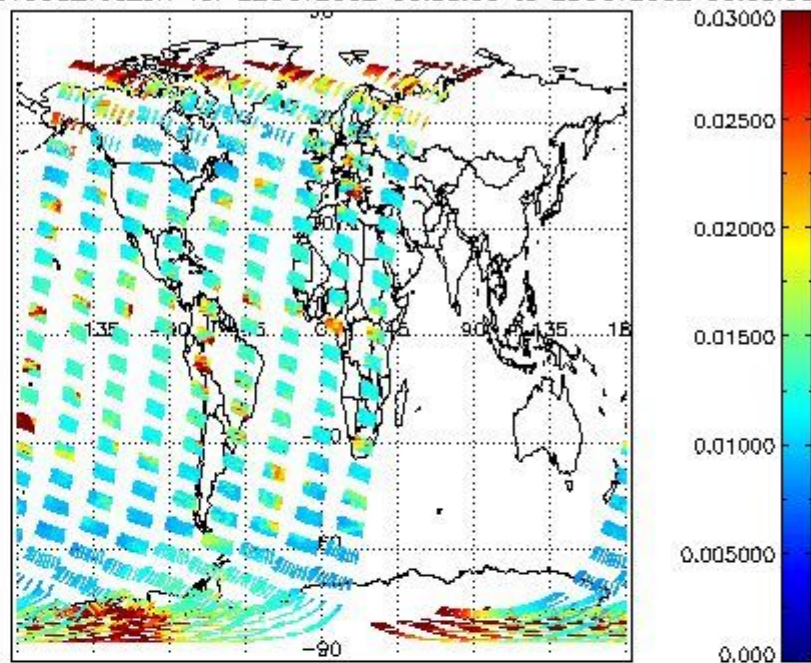
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



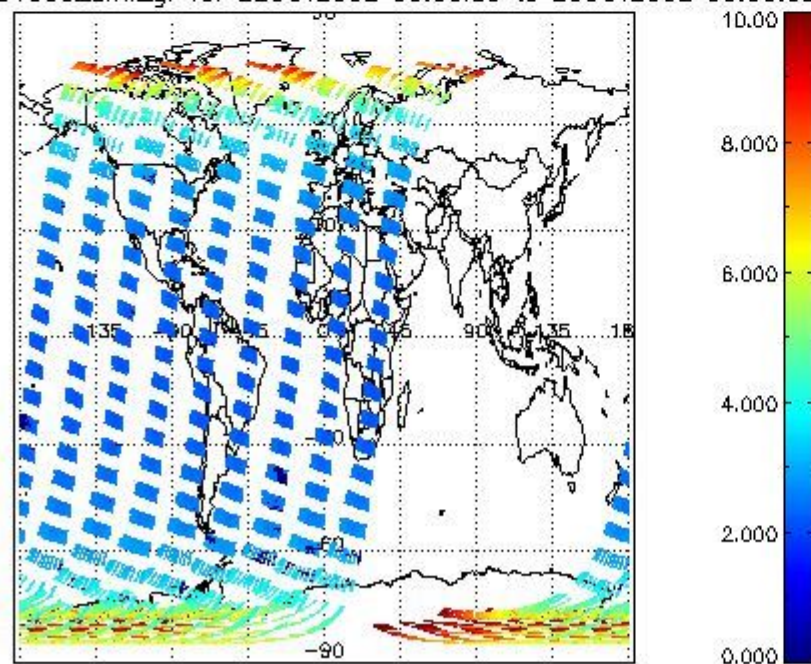
SCIOL2P_NADUV003_vcd for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



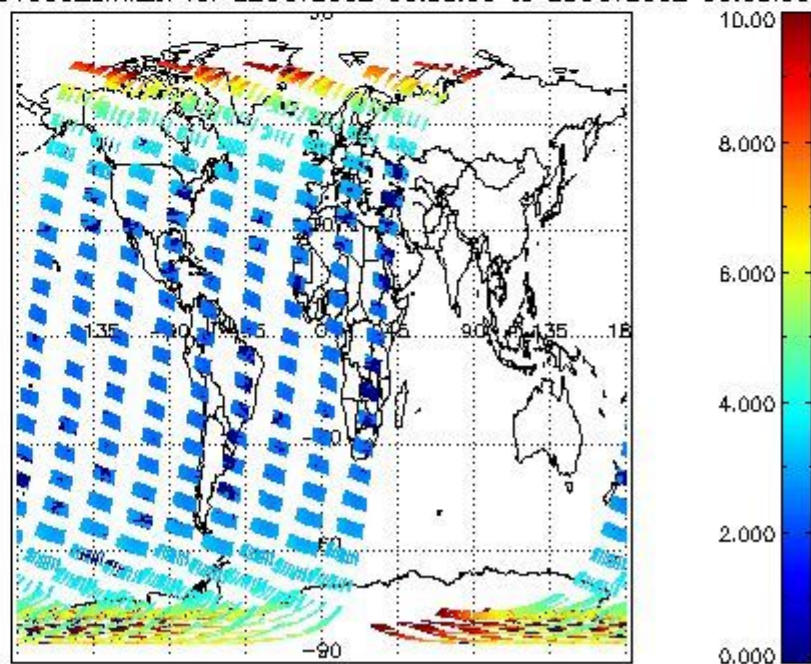
SCIOL2P_NADUV003_vcd_err for 22OCT2002 00:00:00 to 23OCT2002 00:00:00

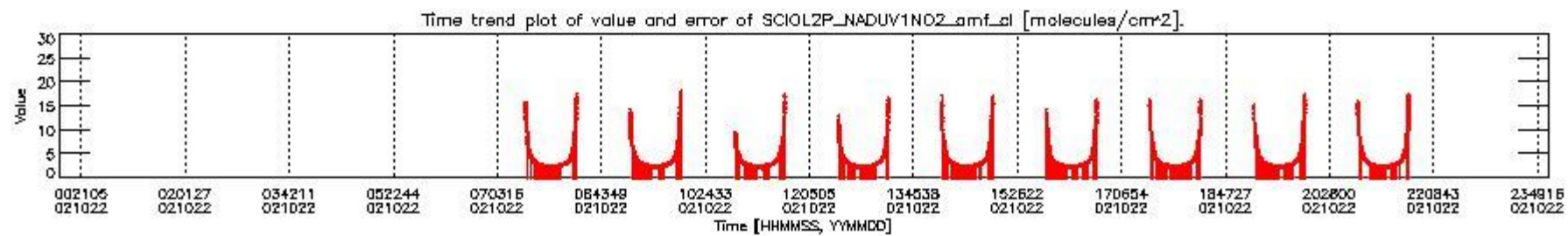
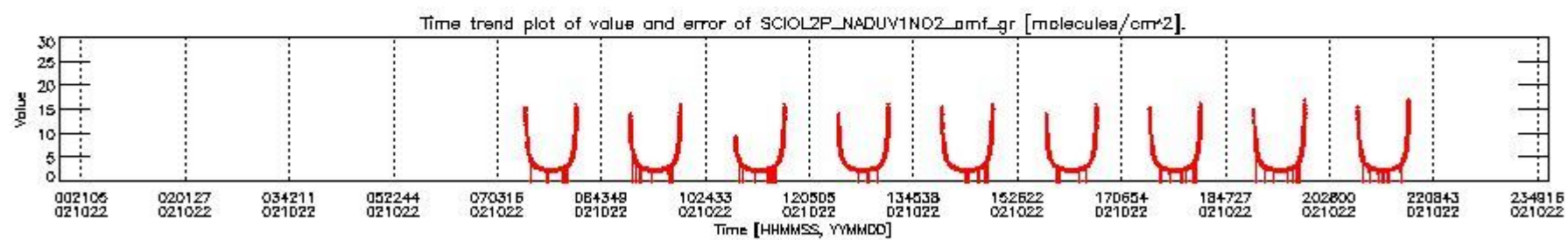
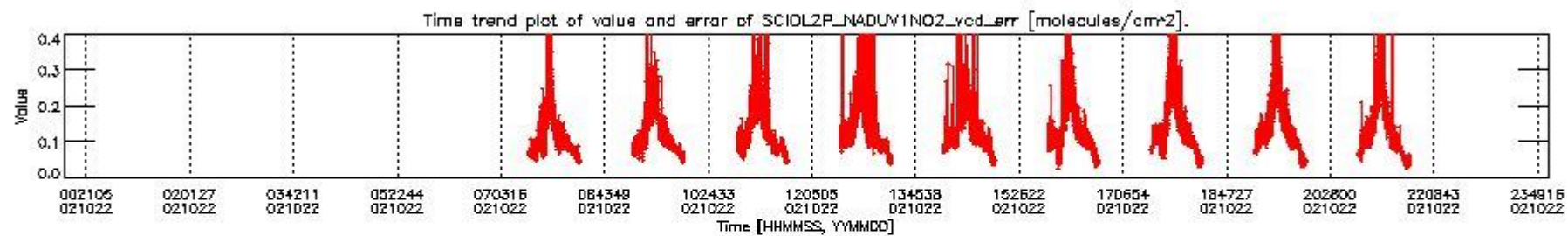
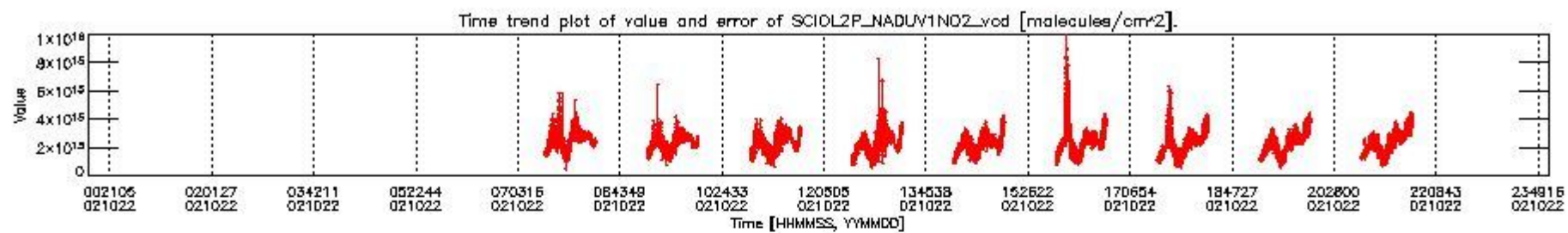


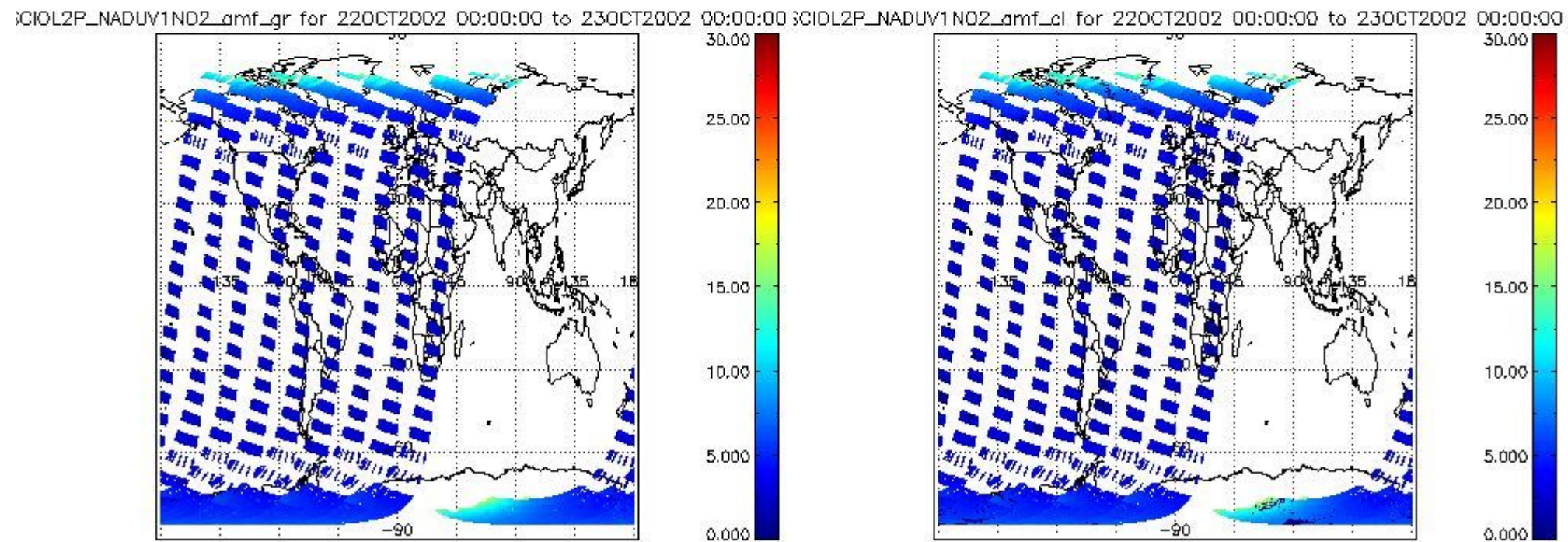
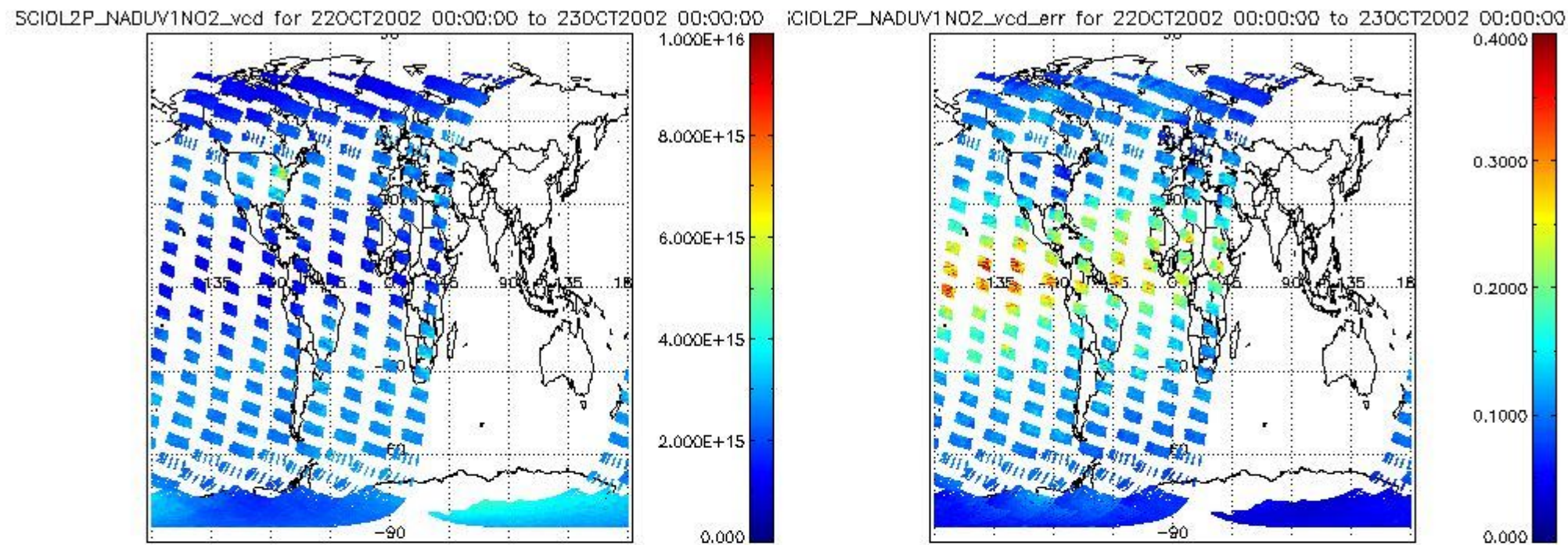
SCIOL2P_NADUV003_amf_gr for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



SCIOL2P_NADUV003_amf_sl for 22OCT2002 00:00:00 to 23OCT2002 00:00:00







2.2.3 Limb

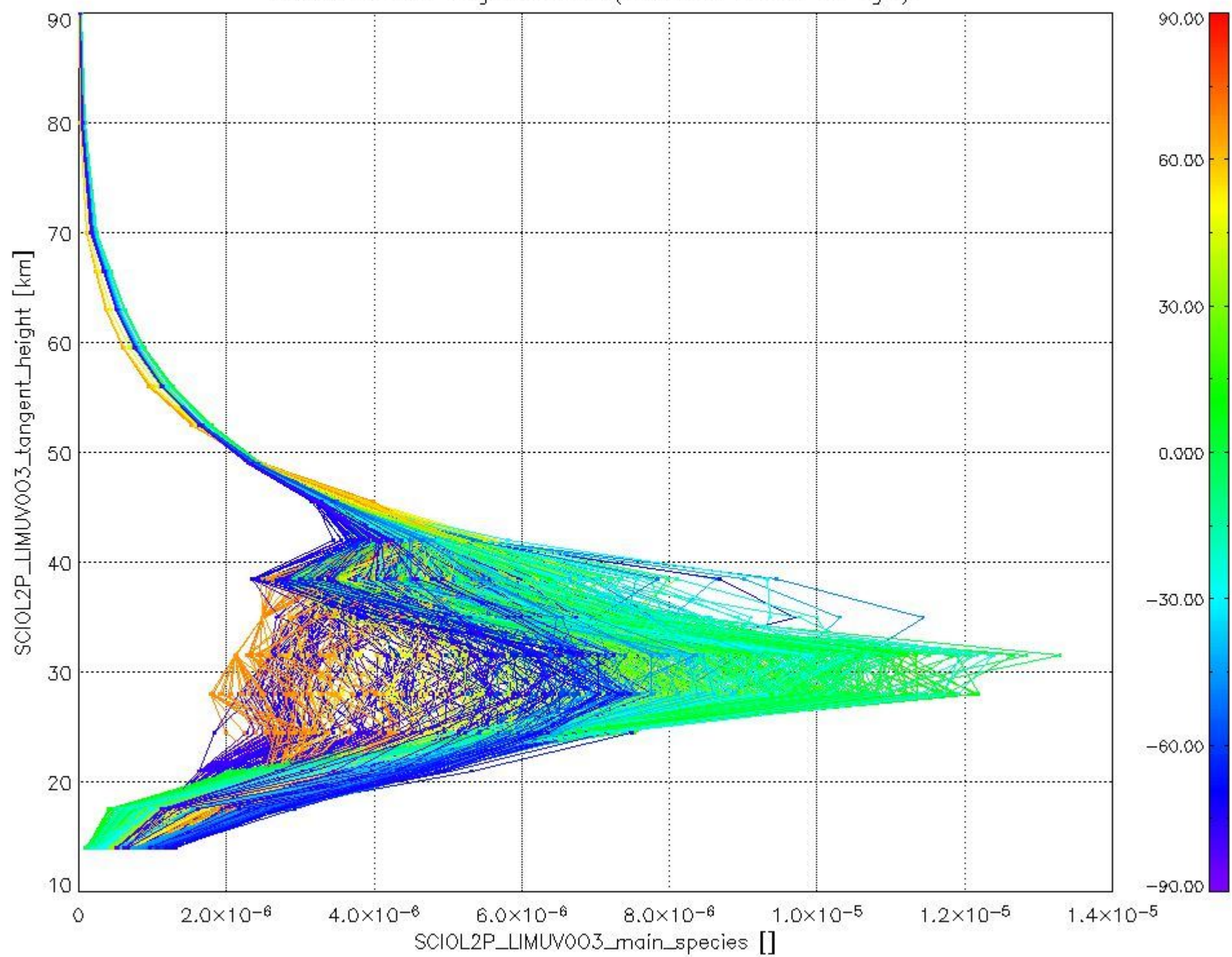
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

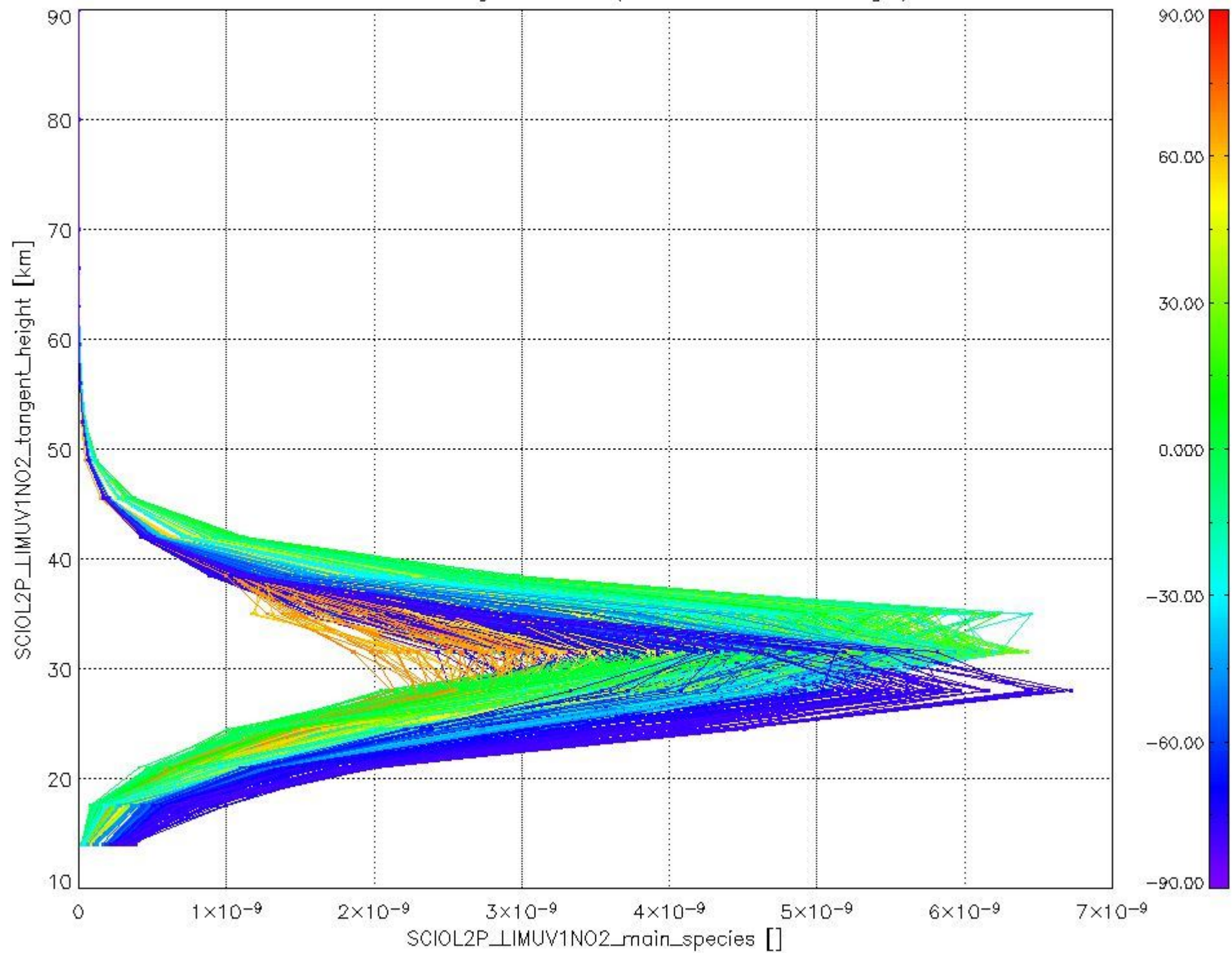
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



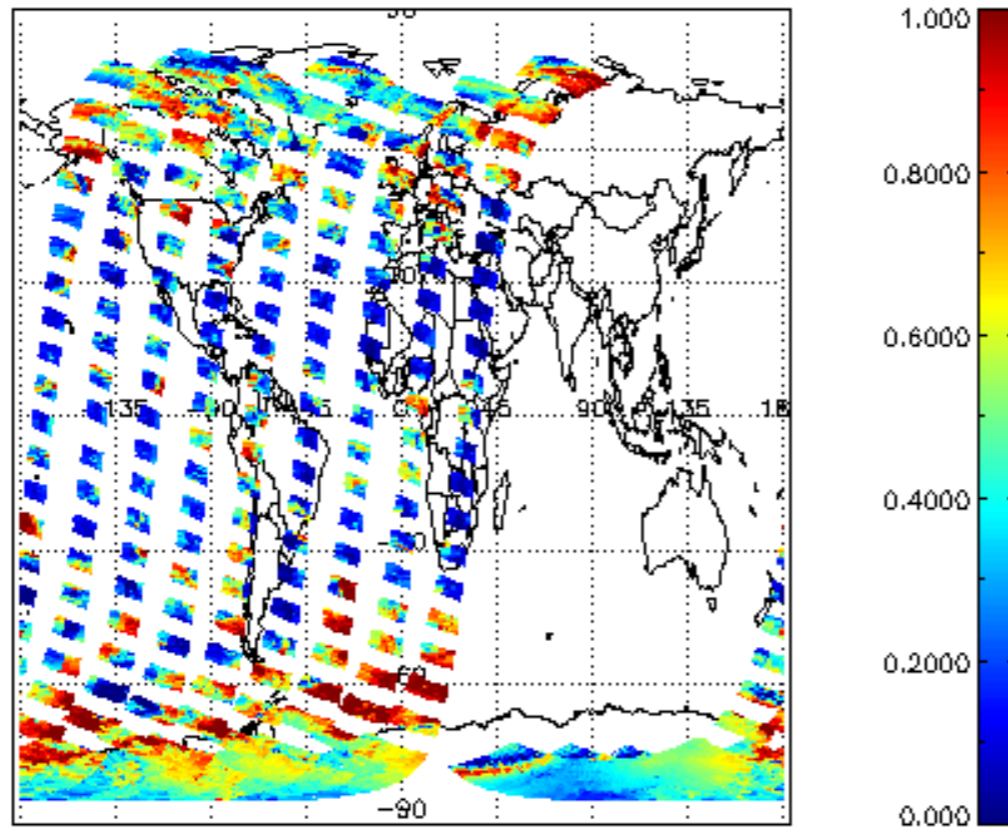
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



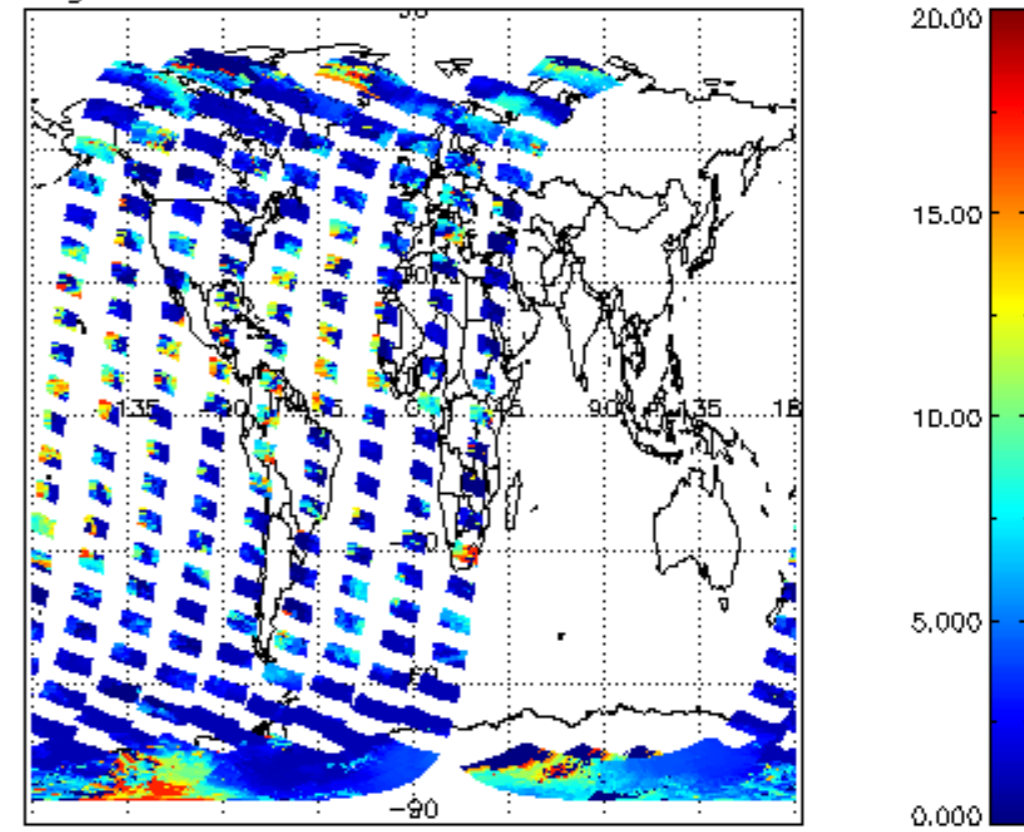
2.3 ADF monitoring

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

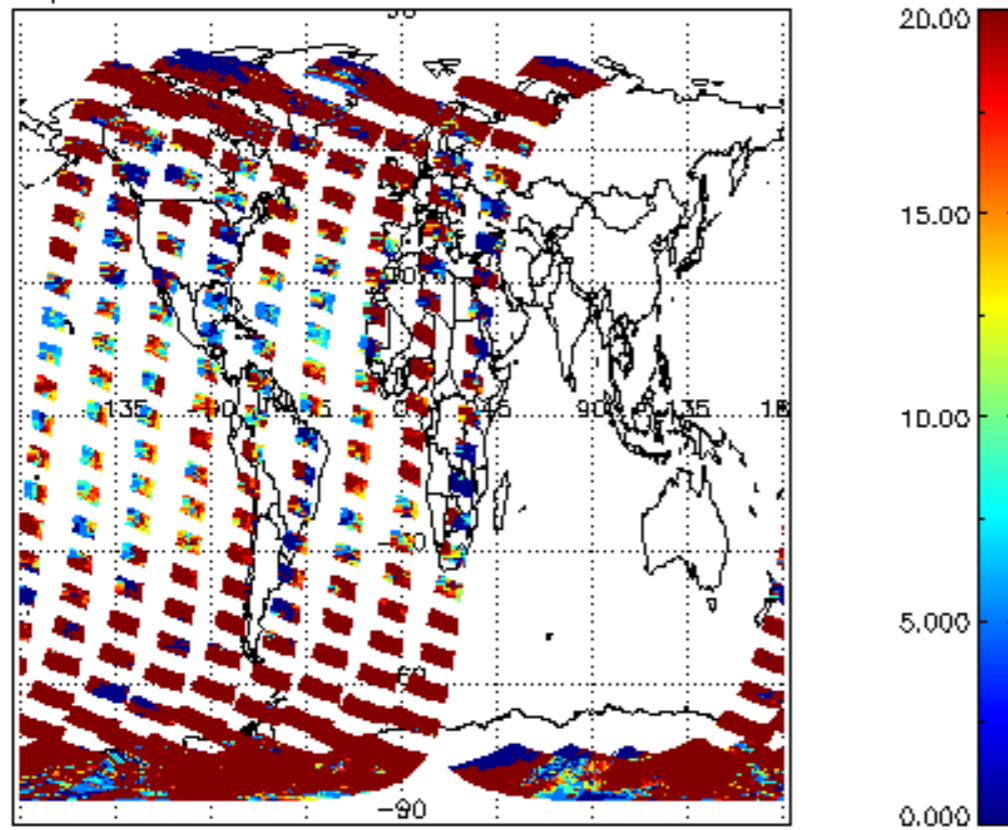
cl_frac for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



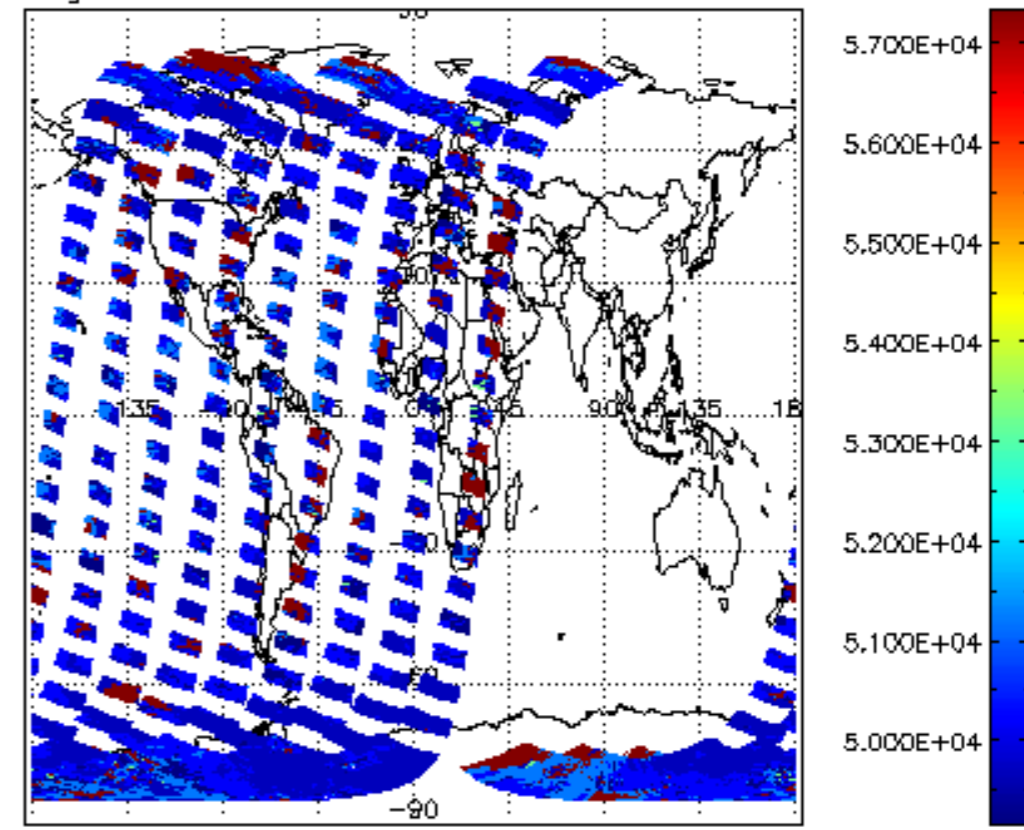
cl_top_height for 22OCT2002 00:00:00 to 23OCT2002 00:00:00

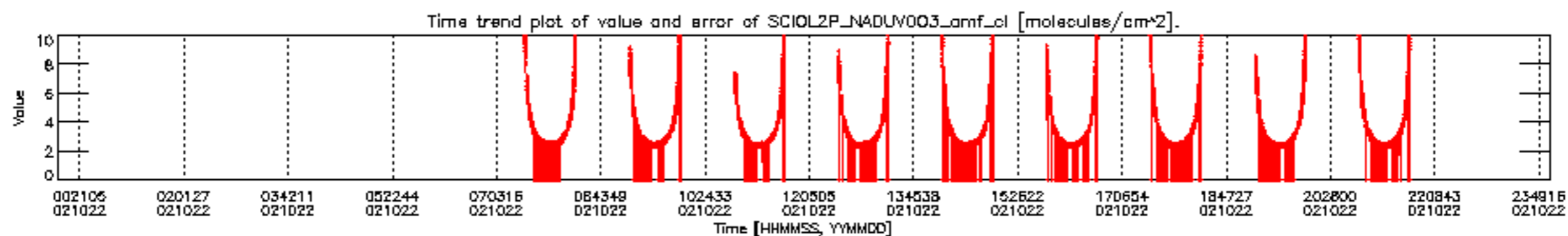
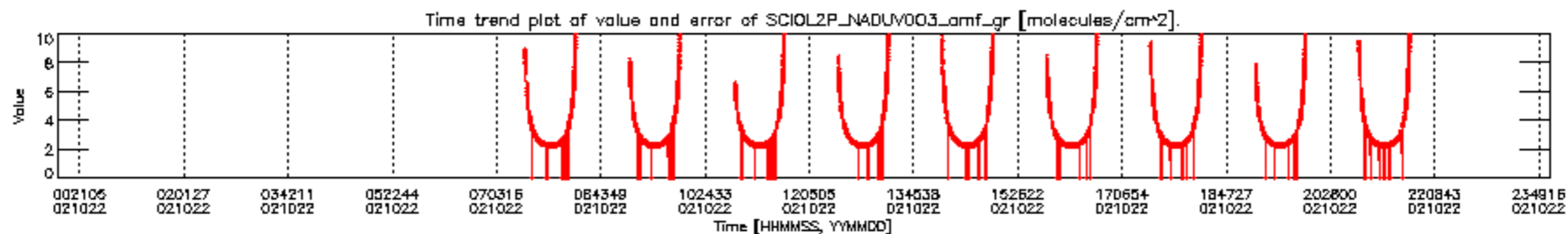
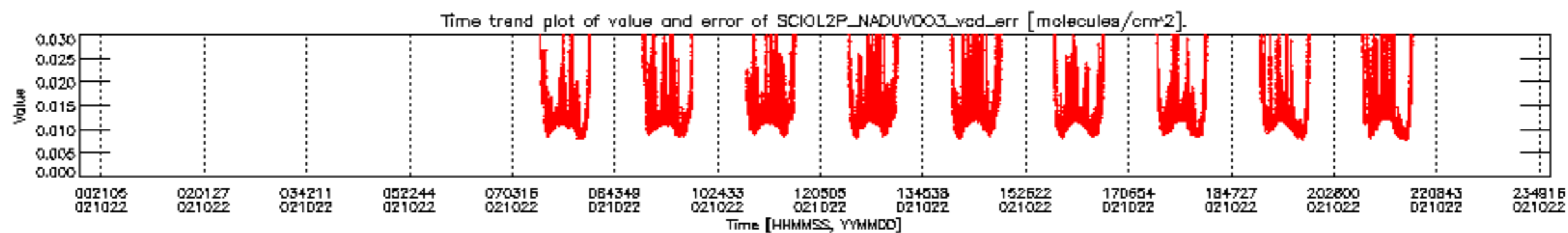
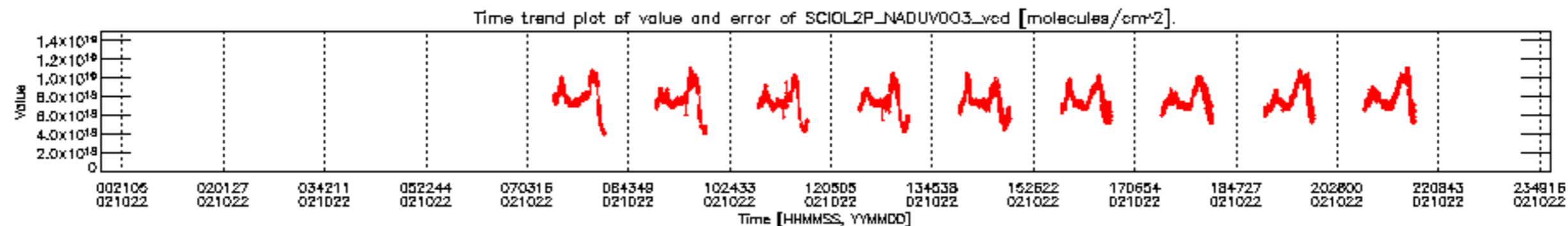


cl_opt_depth for 22OCT2002 00:00:00 to 23OCT2002 00:00:00

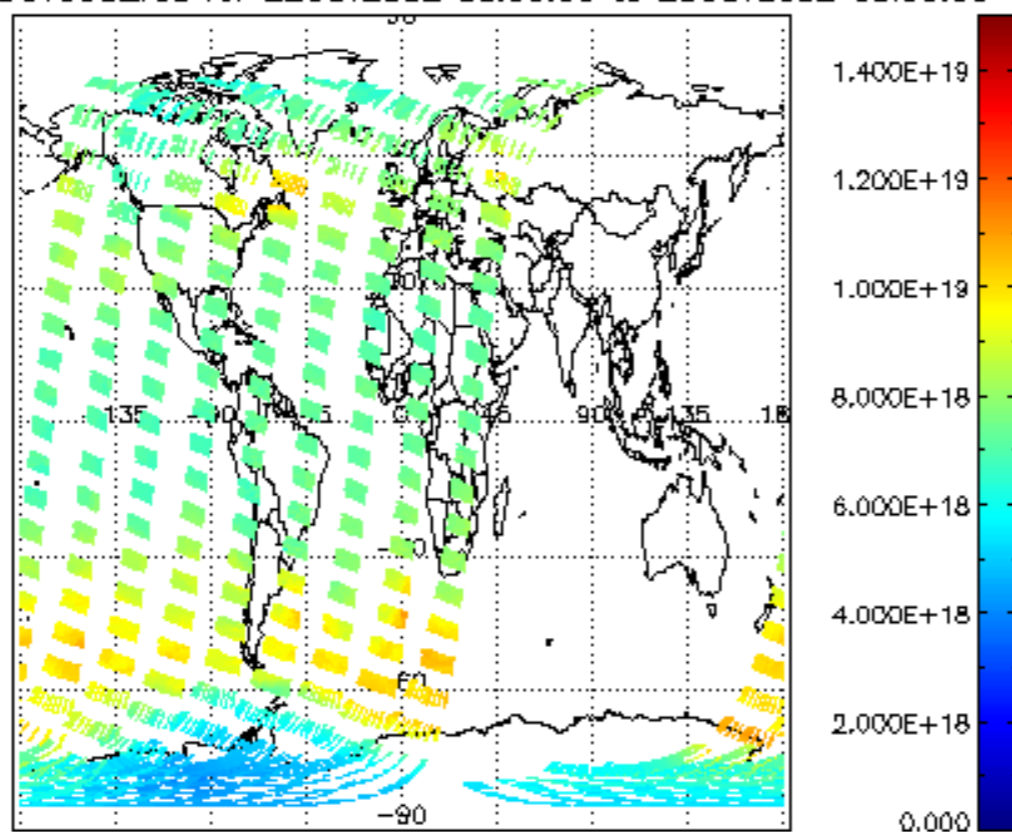


cloud_flags for 22OCT2002 00:00:00 to 23OCT2002 00:00:00

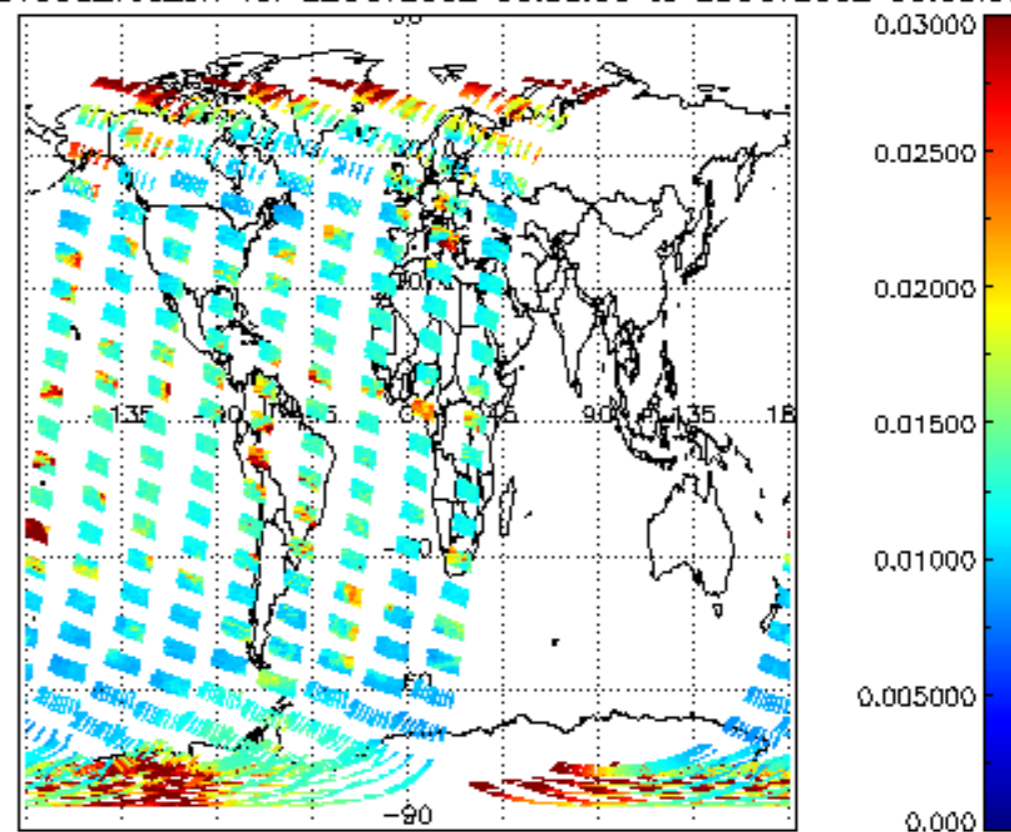




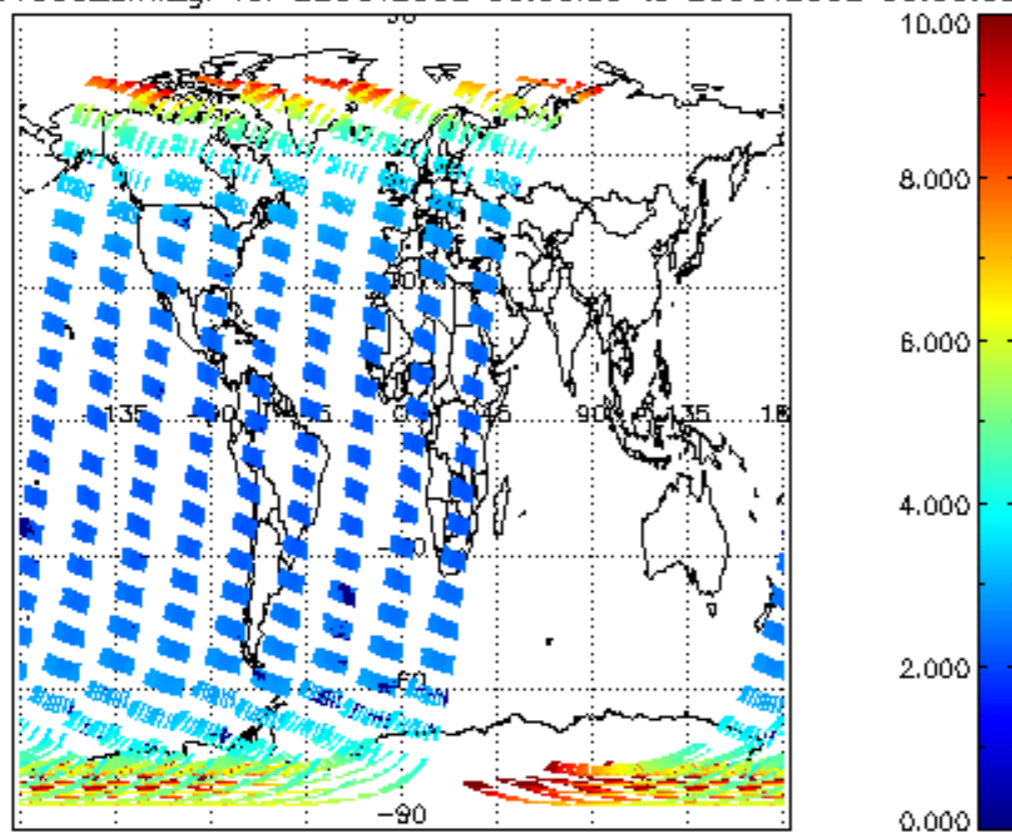
SCIOL2P_NADUV003_vcd for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



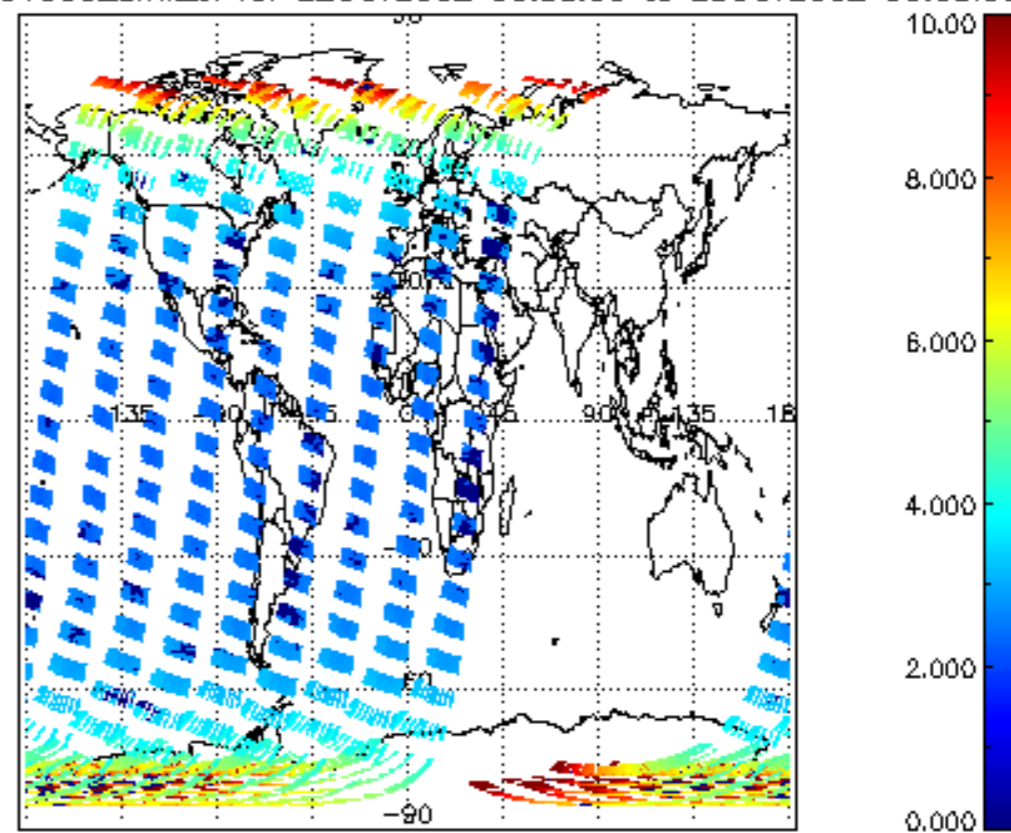
SCIOL2P_NADUV003_vcd_err for 22OCT2002 00:00:00 to 23OCT2002 00:00:00

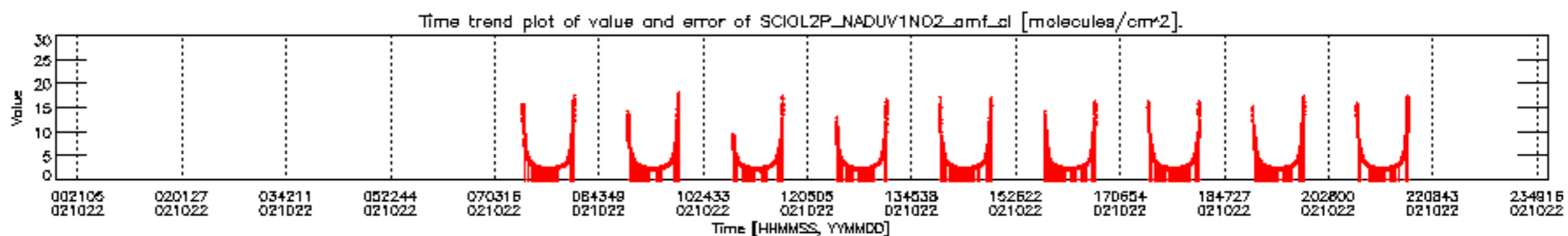
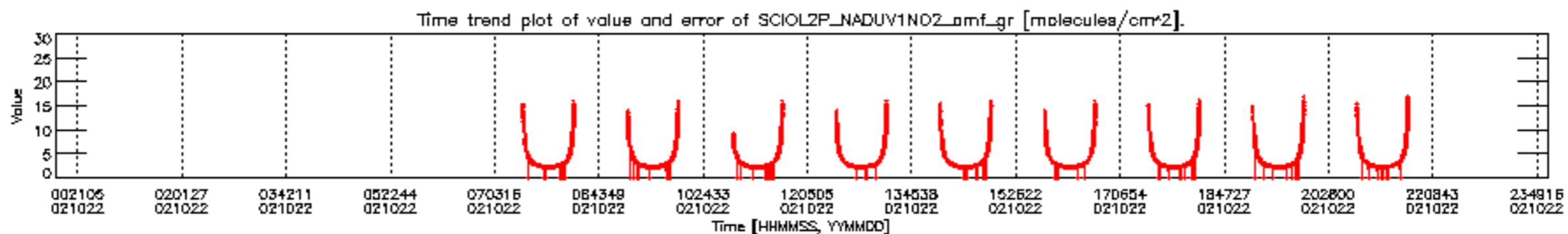
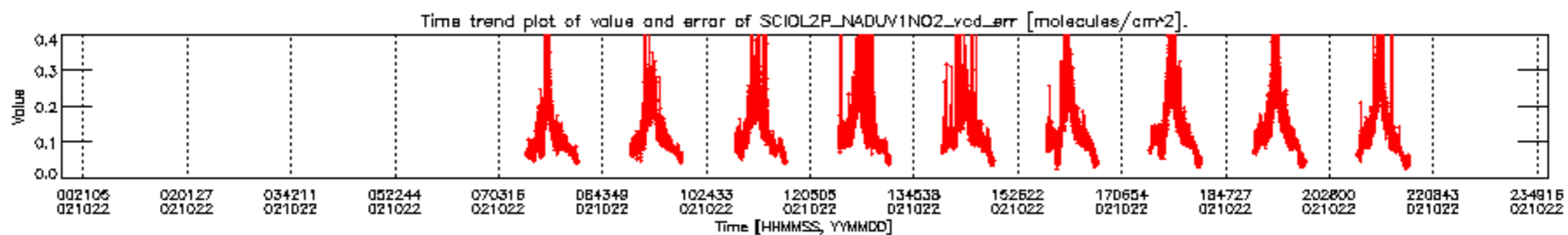
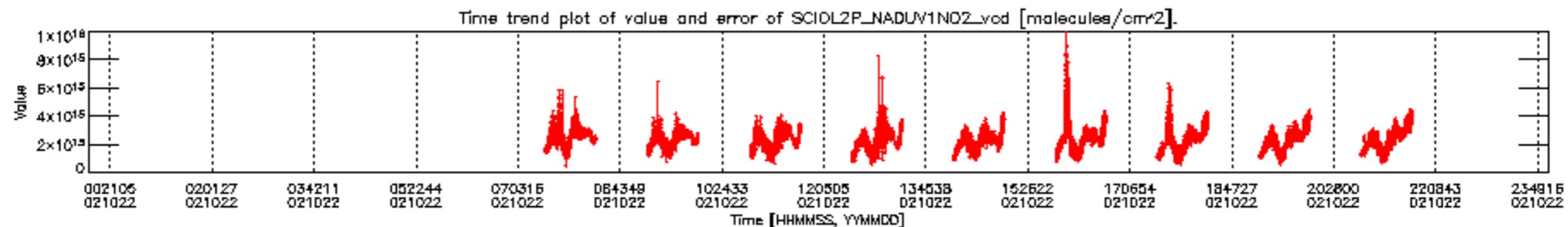


SCIOL2P_NADUV003_amf_gr for 22OCT2002 00:00:00 to 23OCT2002 00:00:00

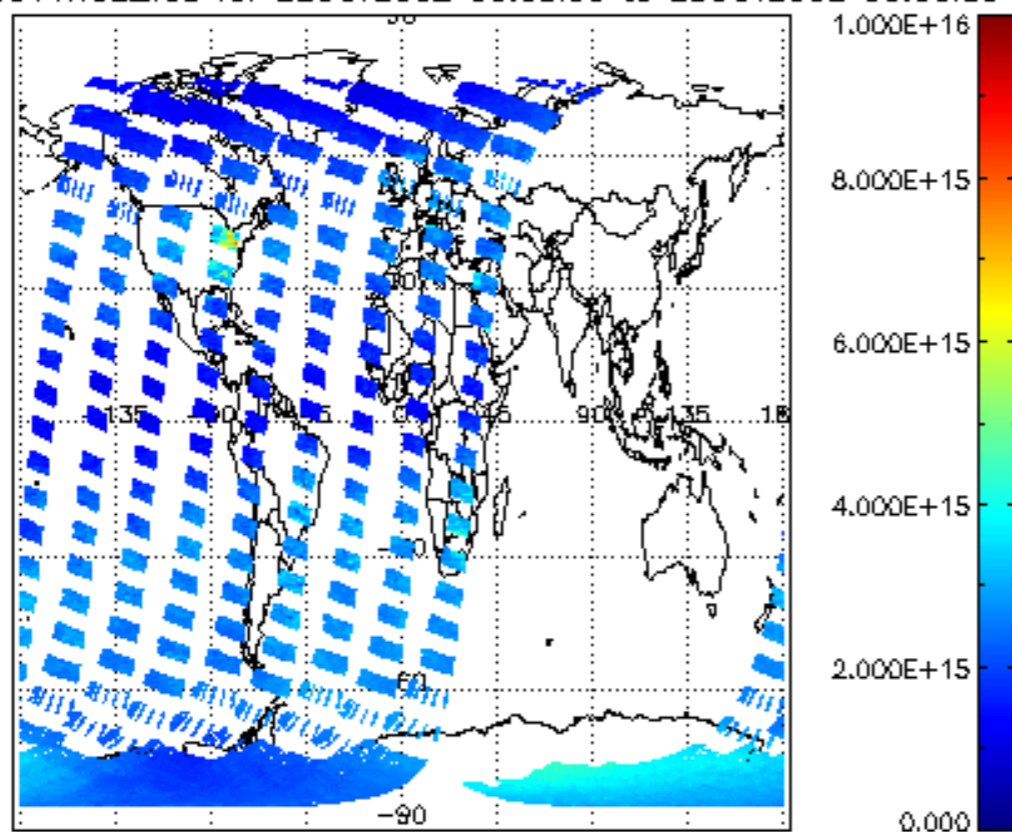


SCIOL2P_NADUV003_amf_el for 22OCT2002 00:00:00 to 23OCT2002 00:00:00

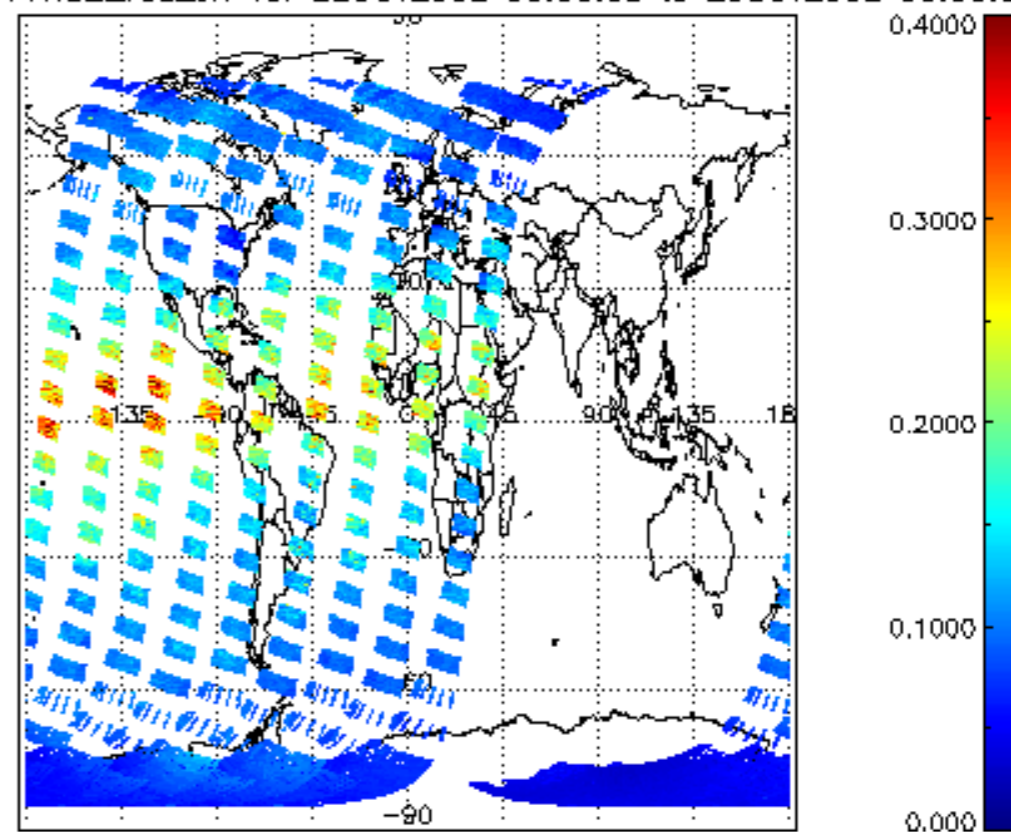




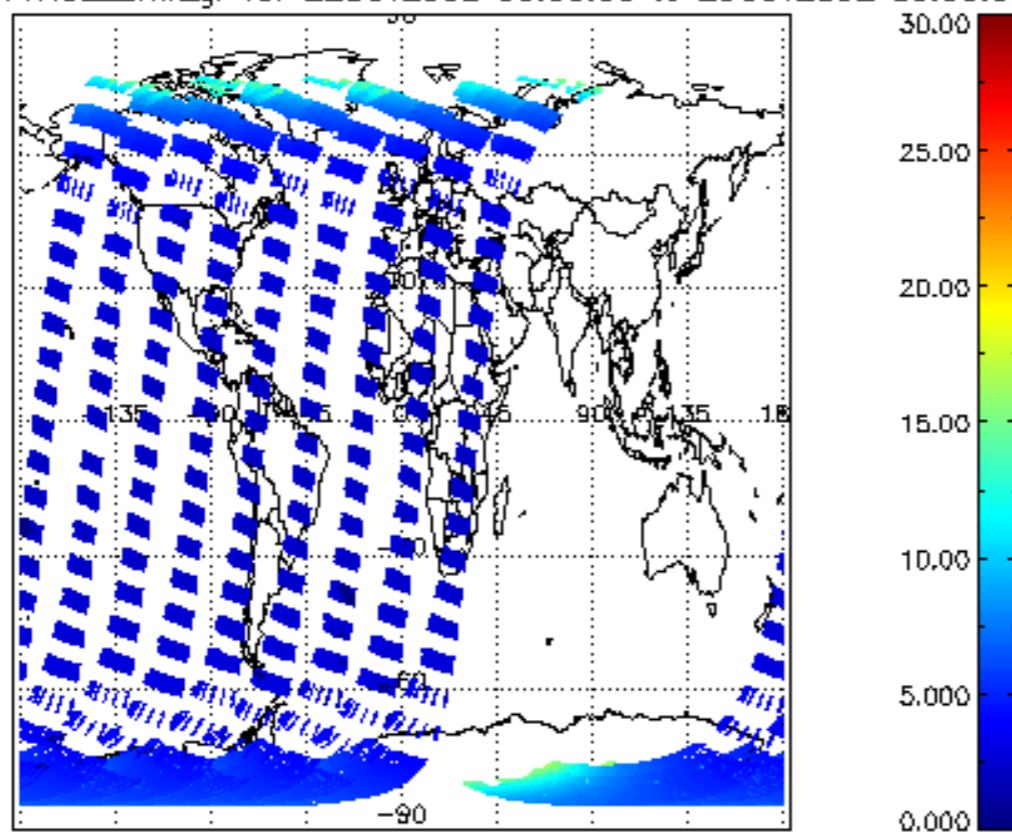
SCIOL2P_NADUV1NO2_vcd for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



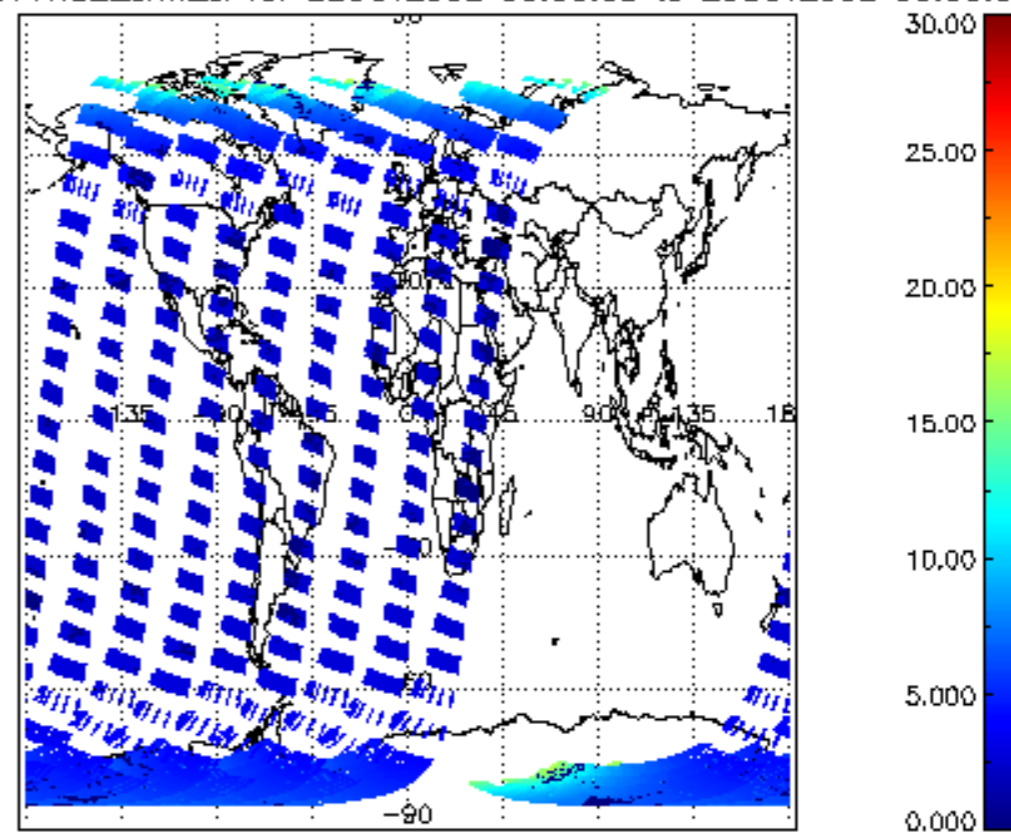
iCIOL2P_NADUV1NO2_vcd_err for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



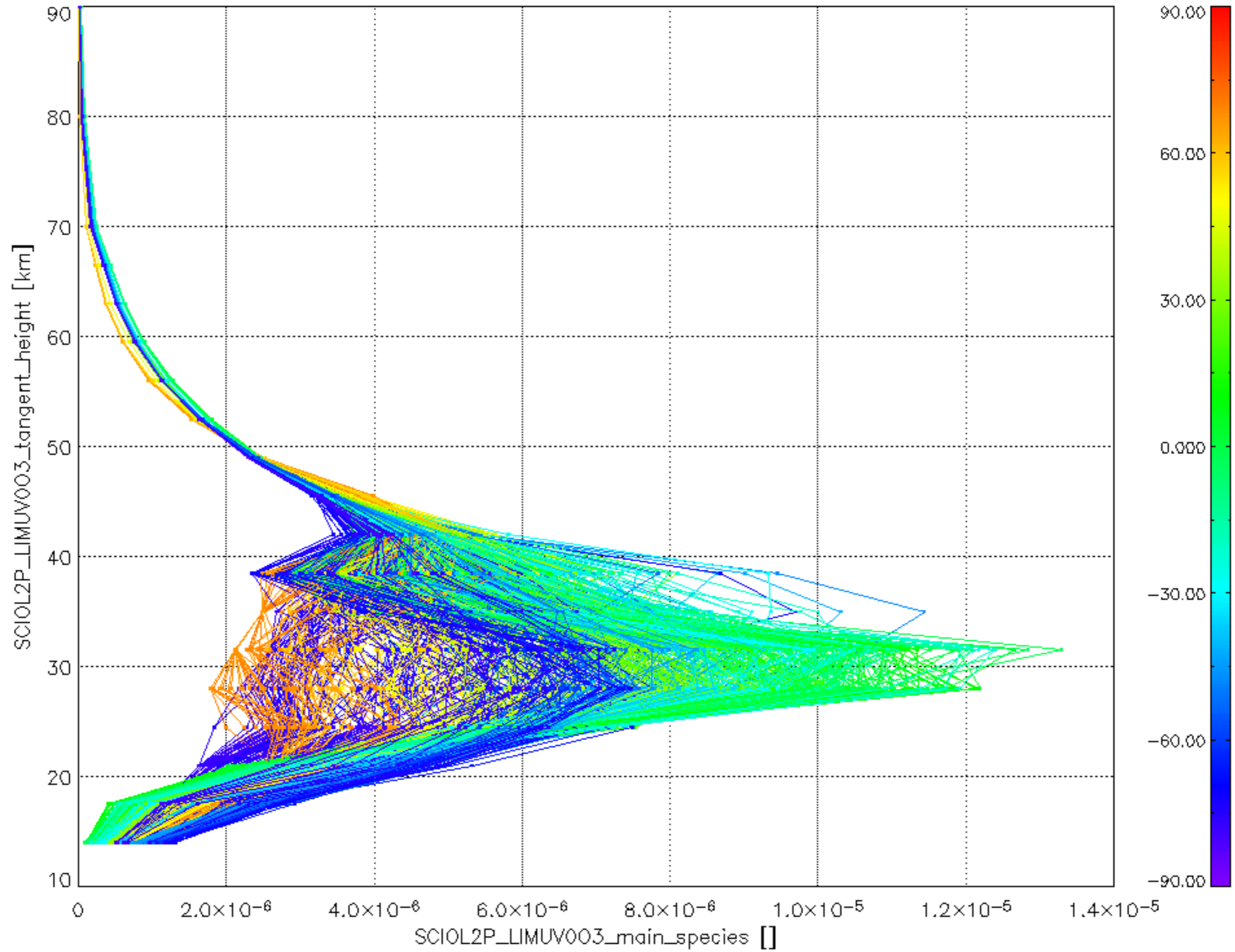
iCIOL2P_NADUV1NO2_amf_gr for 22OCT2002 00:00:00 to 23OCT2002 00:00:00



iCIOL2P_NADUV1NO2_amf_cl for 22OCT2002 00:00:00 to 23OCT2002 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).

