

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	04APR2008 11:33:39
Data source version	SCIA-OL/3.01-R
Processing scope for products	15FEB2008 00:00:00 to 16FEB2008 00:00:00
Start time of first product within scope	15FEB2008 00:08:58
Stop time of last product within scope	16FEB2008 00:29:14
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__2PRDPA20080215_000858_000031882066_00045_31161_3189.N1	15FEB2008 00:08:58	15FEB2008 01:02:06	0	GOOD
1	SCI_OL__2PRDPA20080215_014933_000031882066_00046_31162_3191.N1	15FEB2008 01:49:33	15FEB2008 02:42:41	0	GOOD
2	SCI_OL__2PRDPA20080215_033008_000031882066_00047_31163_3193.N1	15FEB2008 03:30:08	15FEB2008 04:23:17	0	GOOD
3	SCI_OL__2PRDPA20080215_051044_000031882066_00048_31164_3195.N1	15FEB2008 05:10:44	15FEB2008 06:03:52	0	GOOD
4	SCI_OL__2PRDPA20080215_065119_00003012066_00049_31165_3198.N1	15FEB2008 06:51:19	15FEB2008 06:56:21	0	GOOD
5	SCI_OL__2PRDPA20080215_083904_000027592066_00050_31166_3199.N1	15FEB2008 08:39:04	15FEB2008 09:25:03	0	GOOD
6	SCI_OL__2PRDPA20080215_101230_000031882066_00051_31167_3207.N1	15FEB2008 10:12:30	15FEB2008 11:05:39	0	GOOD
7	SCI_OL__2PRDPA20080215_115306_000031882066_00052_31168_3213.N1	15FEB2008 11:53:06	15FEB2008 12:46:14	0	GOOD
8	SCI_OL__2PRDPA20080215_133341_000031192066_00053_31169_3215.N1	15FEB2008 13:33:41	15FEB2008 14:25:41	0	GOOD
9	SCI_OL__2PRDPA20080215_151417_000031192066_00054_31170_3217.N1	15FEB2008 15:14:17	15FEB2008 16:06:17	0	GOOD
10	SCI_OL__2PRDPA20080215_165452_000031192066_00055_31171_3218.N1	15FEB2008 16:54:52	15FEB2008 17:46:52	0	GOOD
11	SCI_OL__2PRDPA20080215_183501_000031752066_00056_31172_3220.N1	15FEB2008 18:35:01	15FEB2008 19:27:57	0	GOOD
12	SCI_OL__2PRDPA20080215_201536_000031752066_00057_31173_3222.N1	15FEB2008 20:15:36	15FEB2008 21:08:32	0	GOOD
13	SCI_OL__2PRDPA20080215_215639_000031192066_00058_31174_3225.N1	15FEB2008 21:56:39	15FEB2008 22:48:39	0	GOOD
14	SCI_OL__2PRDPA20080215_233714_000031192066_00059_31175_3227.N1	15FEB2008 23:37:14	16FEB2008 00:29:14	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: 121680

Total number of cloud data DSRs with good quality flag (=0): 121680 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	121680	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	121680	0.17468	0.12500	0.12500	0.25000	0.061171	s
SURFACE_PRES	121680	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	121680	0.43442	0.43050	0.0000	1.0000	0.28150	-

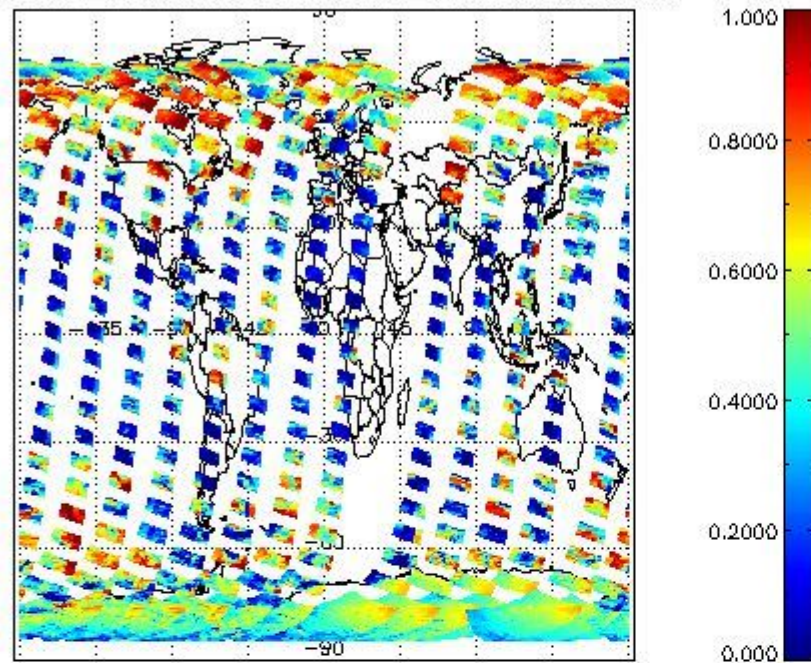
CL_FRAC_ERR	121680	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	121680	5.5897	4.0000	4.0000	8.0000	1.9575	
PMD_READ_CL[0]	121680	0.19107	0.0000	0.0000	8.0000	0.94140	-
PMD_READ_CL[1]	121680	0.62548	0.0000	0.0000	8.0000	1.8255	-
CL_TOP_HEIGHT	109724	3.9851	2.8497	0.0000	17.000	3.5979	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	109724	54.738	45.069	0.0000	101.00	39.446	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	121680	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	121680	11000111	11000100	11000000	11100000	2726.3	flags
AERO_ABSO_IND	121680	3.2065	3.3774	-1.0853	14.166	1.7680	
AERO_IND_DIAG	121680	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	121680	01100001	11000000	00000000	11000000	24571.	flags

Time and geolocation plots:

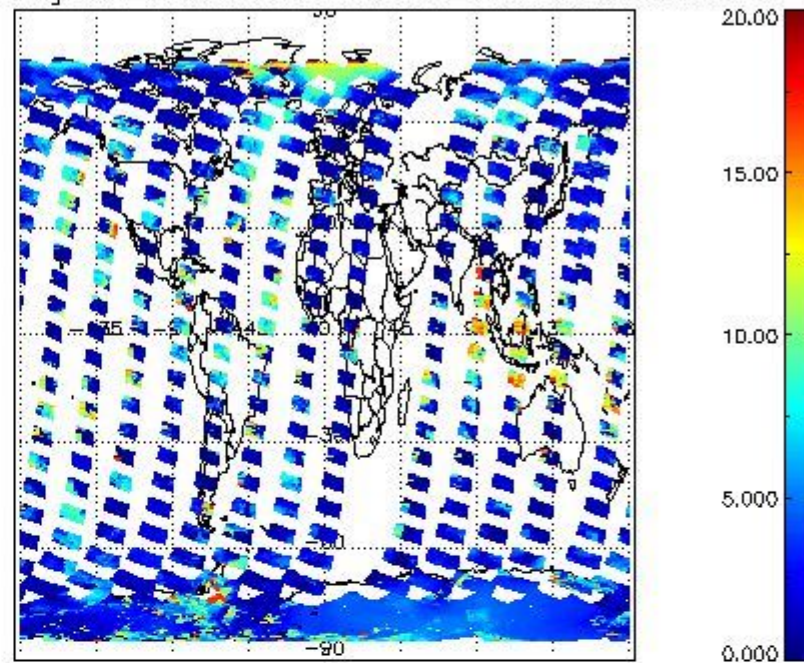
Plots are available for the following parameters:

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

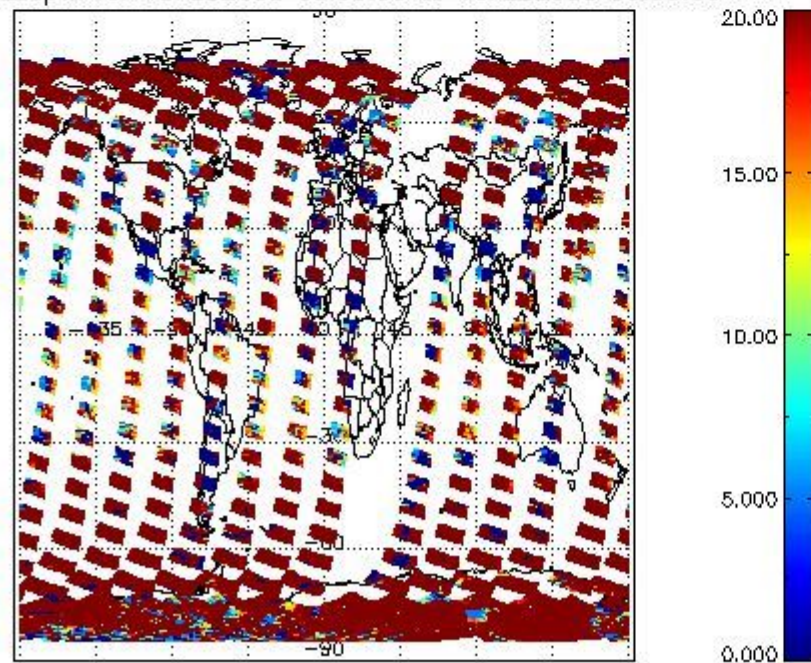
cLfrac for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



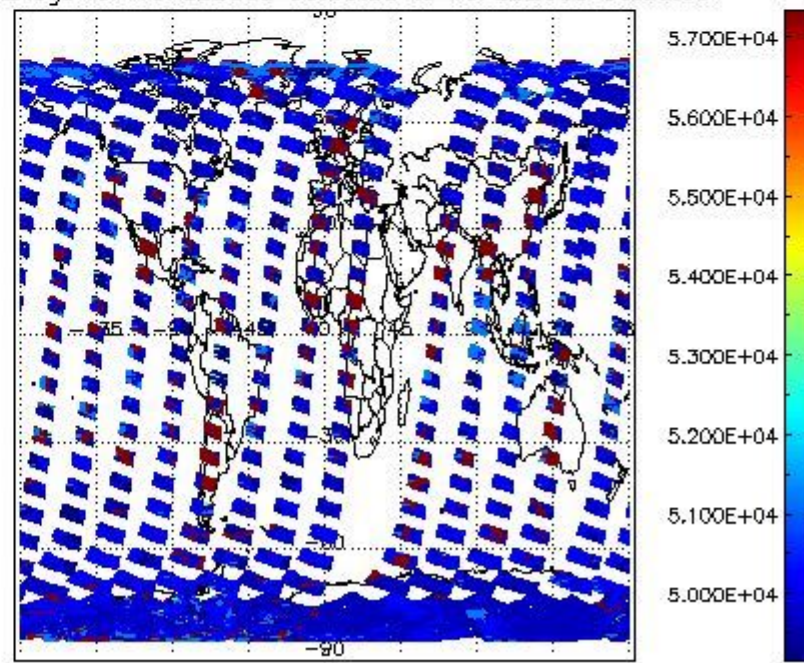
cL_top_height for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



cLopt_depth for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



cloud_flags for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



2.2.2 Nadir

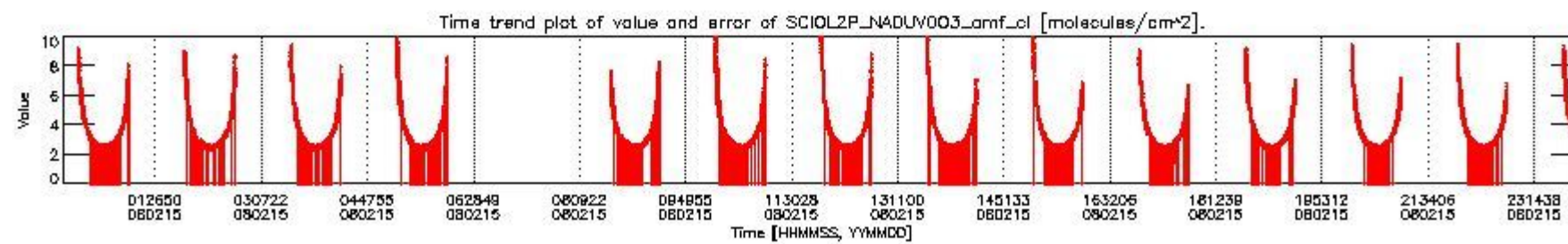
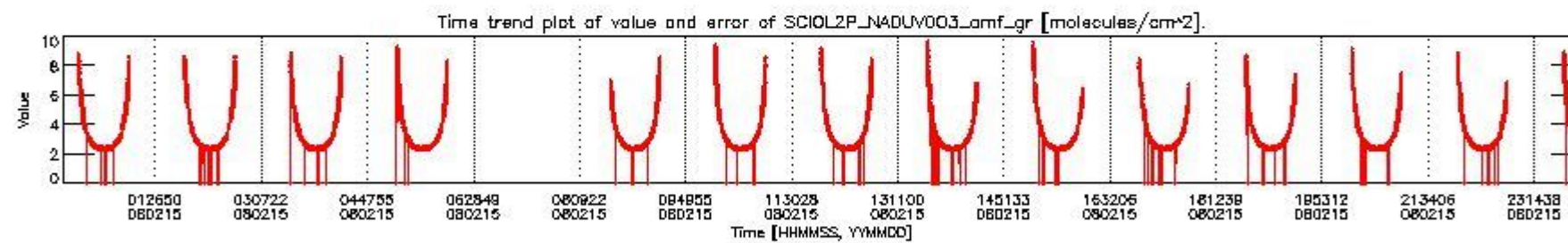
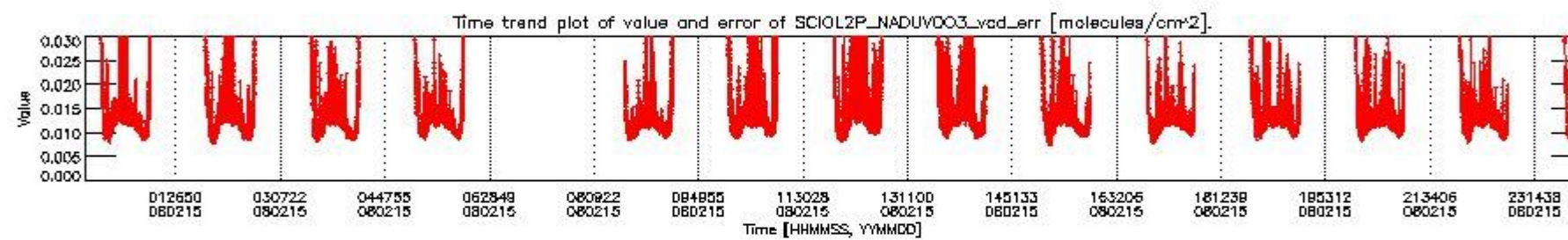
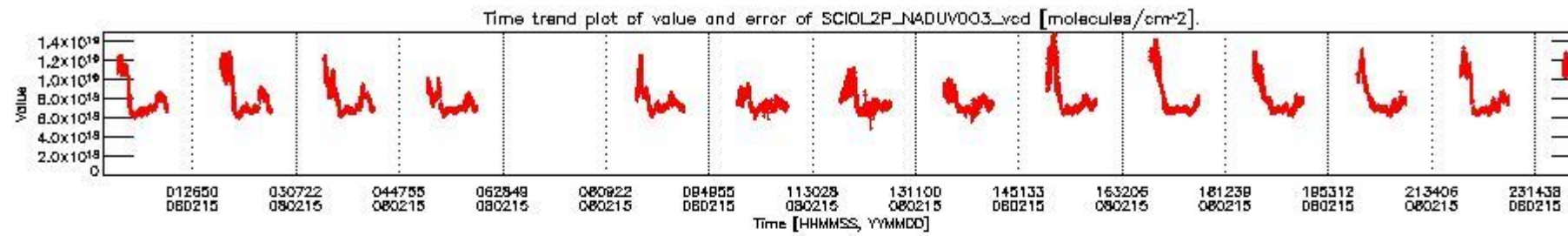
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

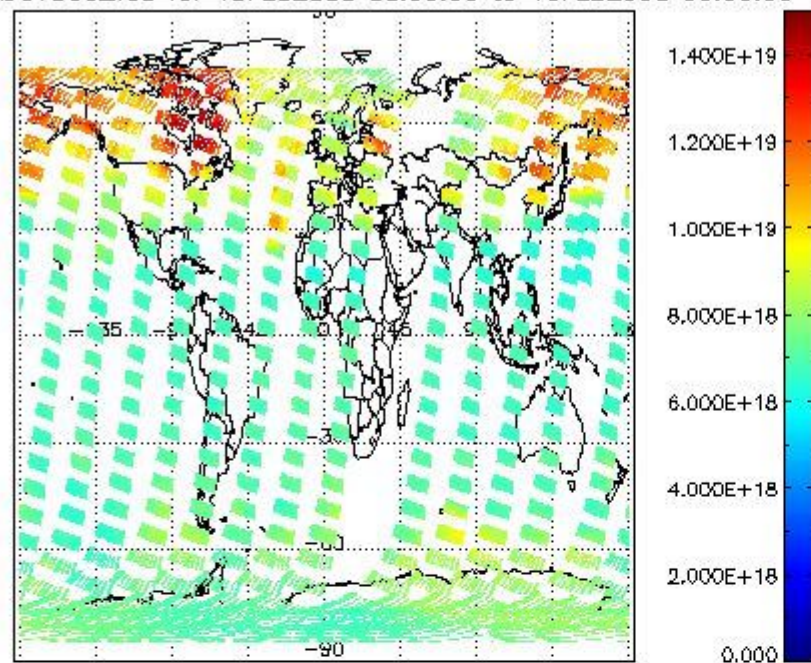
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

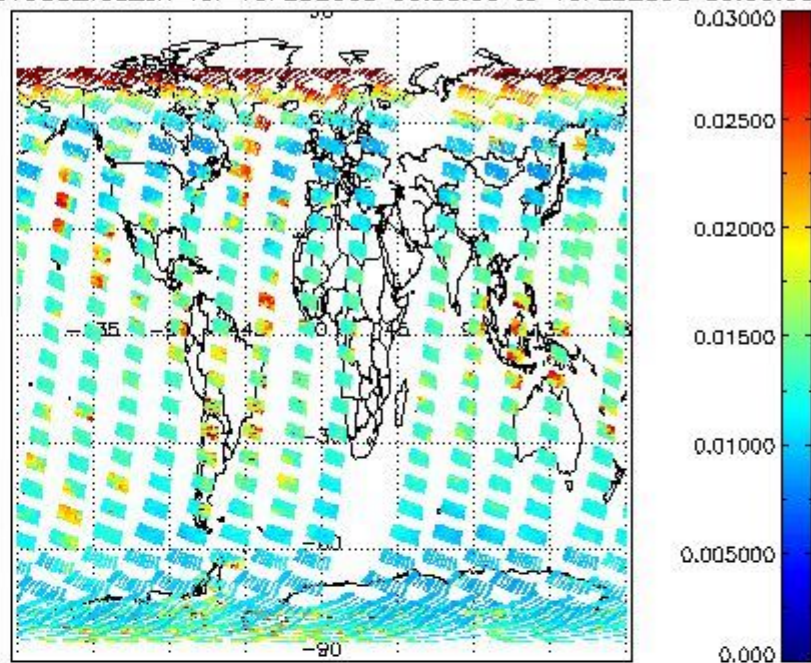
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing_start time as suggested by the product sensing_start time in the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



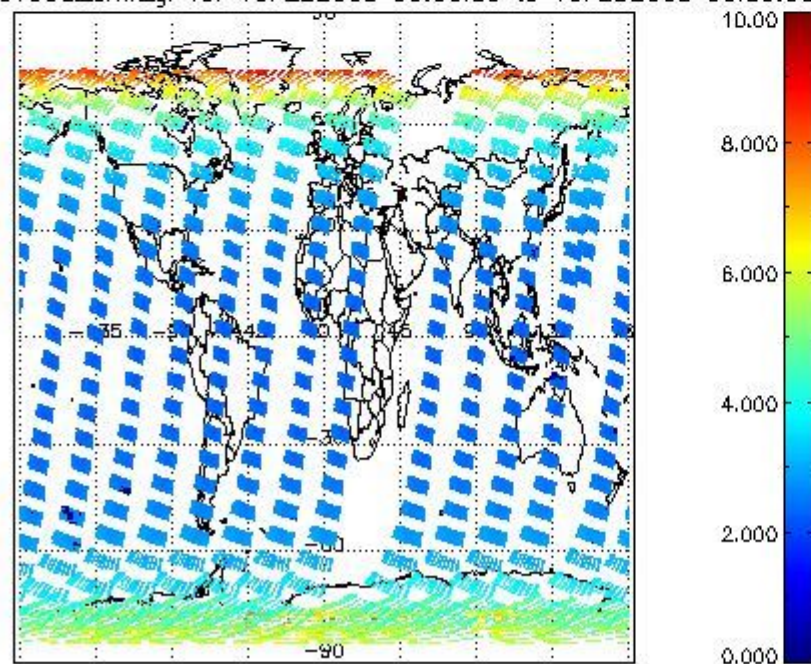
SCIOL2P_NADUV003_vcd for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



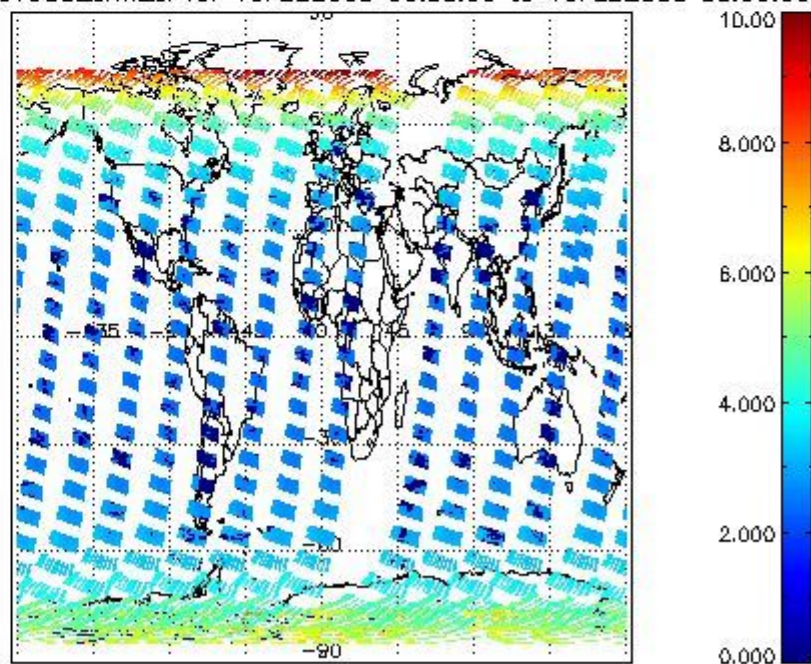
SCIOL2P_NADUV003_vcd_err for 15FEB2008 00:00:00 to 16FEB2008 00:00:00

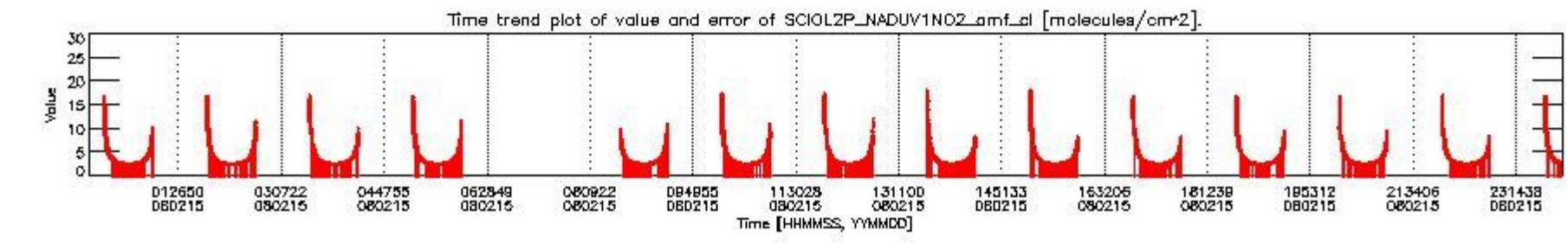
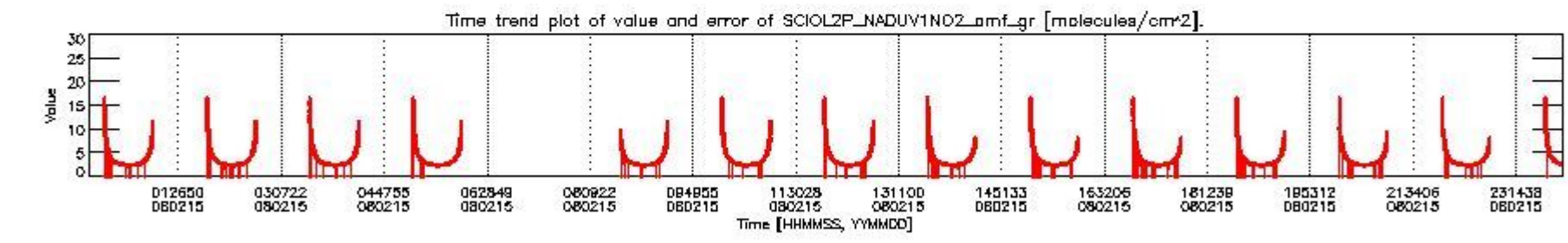
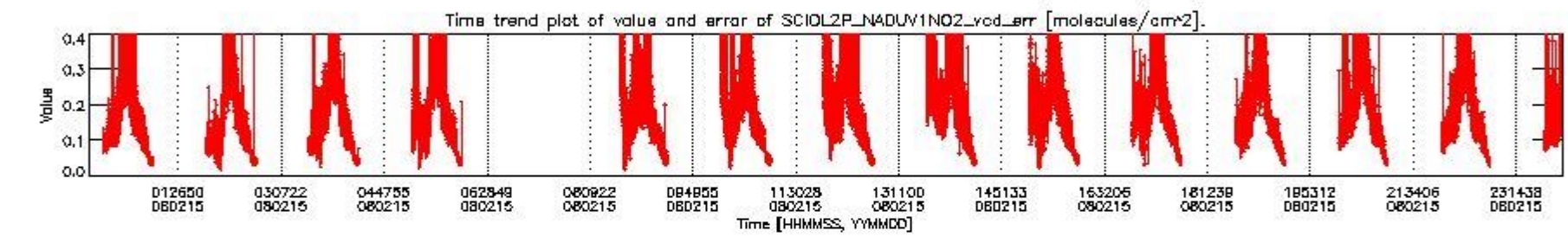
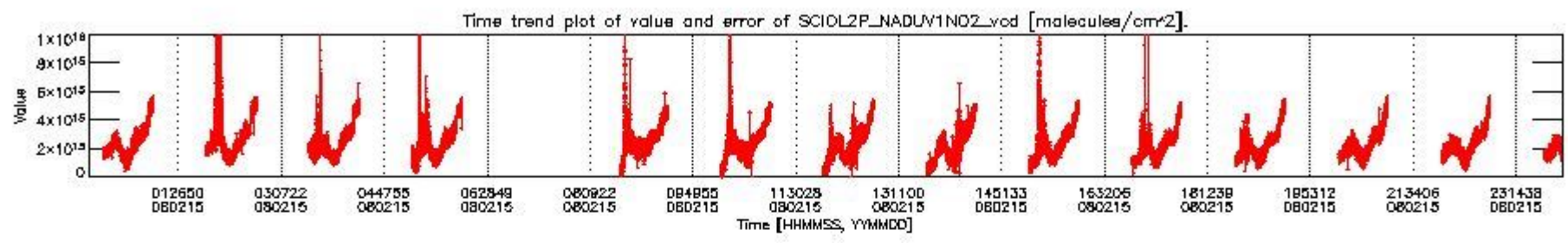


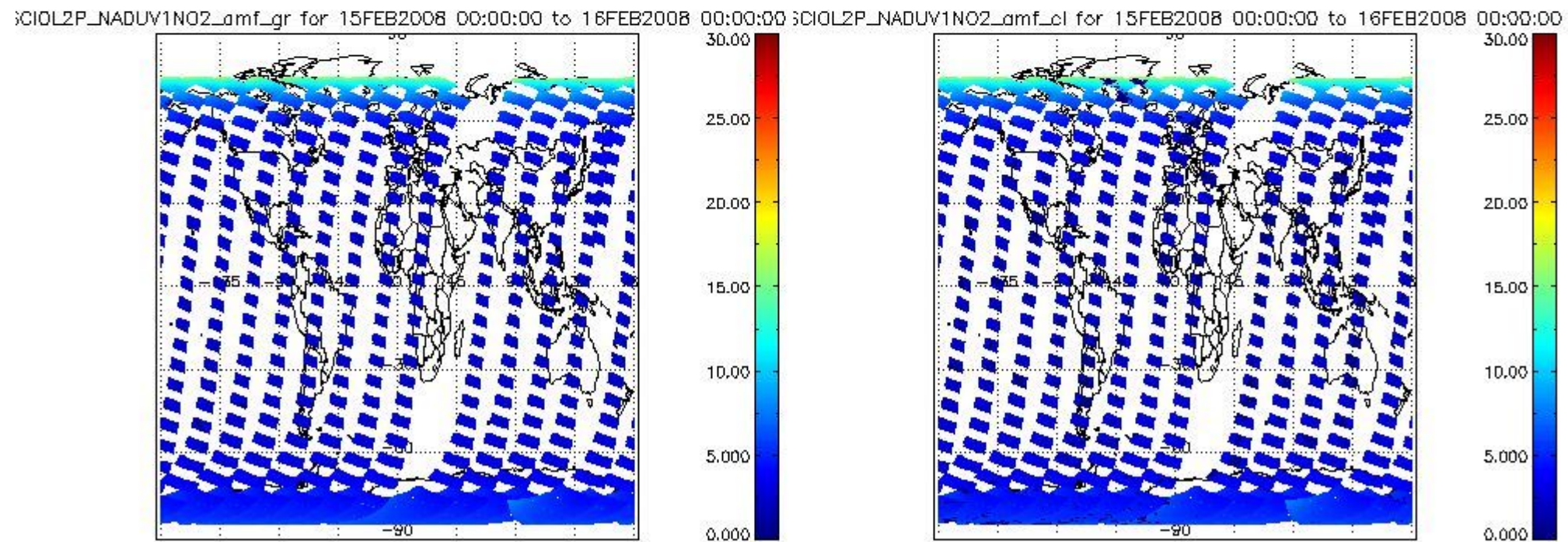
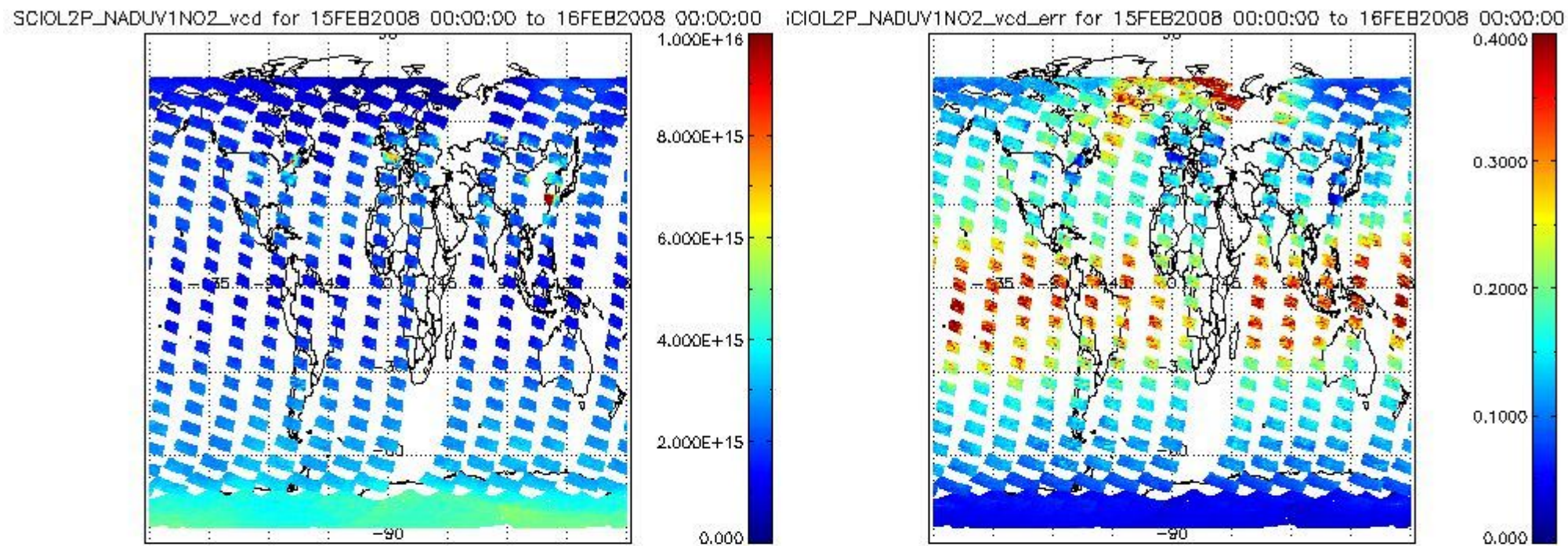
SCIOL2P_NADUV003_amf_gr for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



SCIOL2P_NADUV003_amf_cl for 15FEB2008 00:00:00 to 16FEB2008 00:00:00







2.2.3 Limb

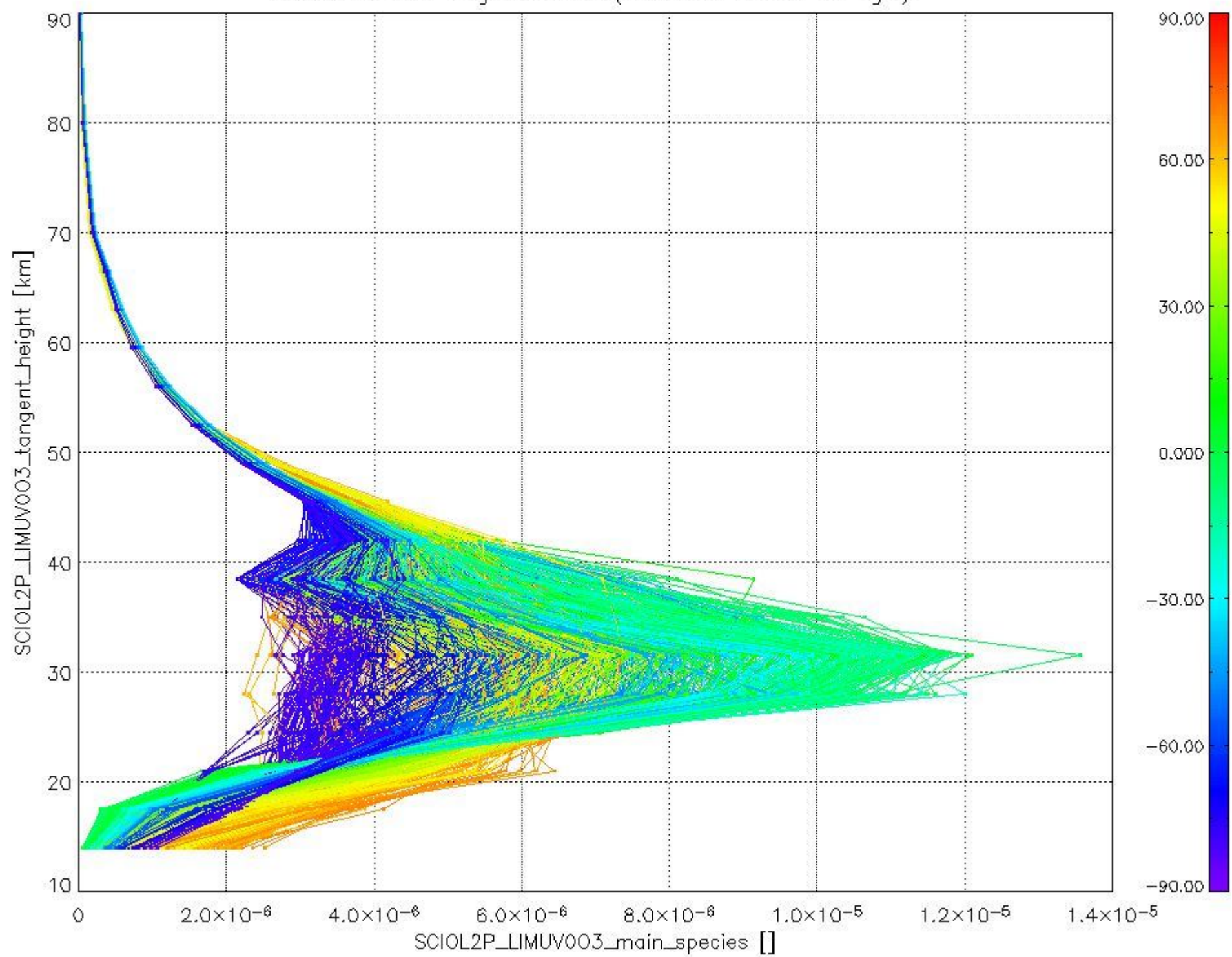
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

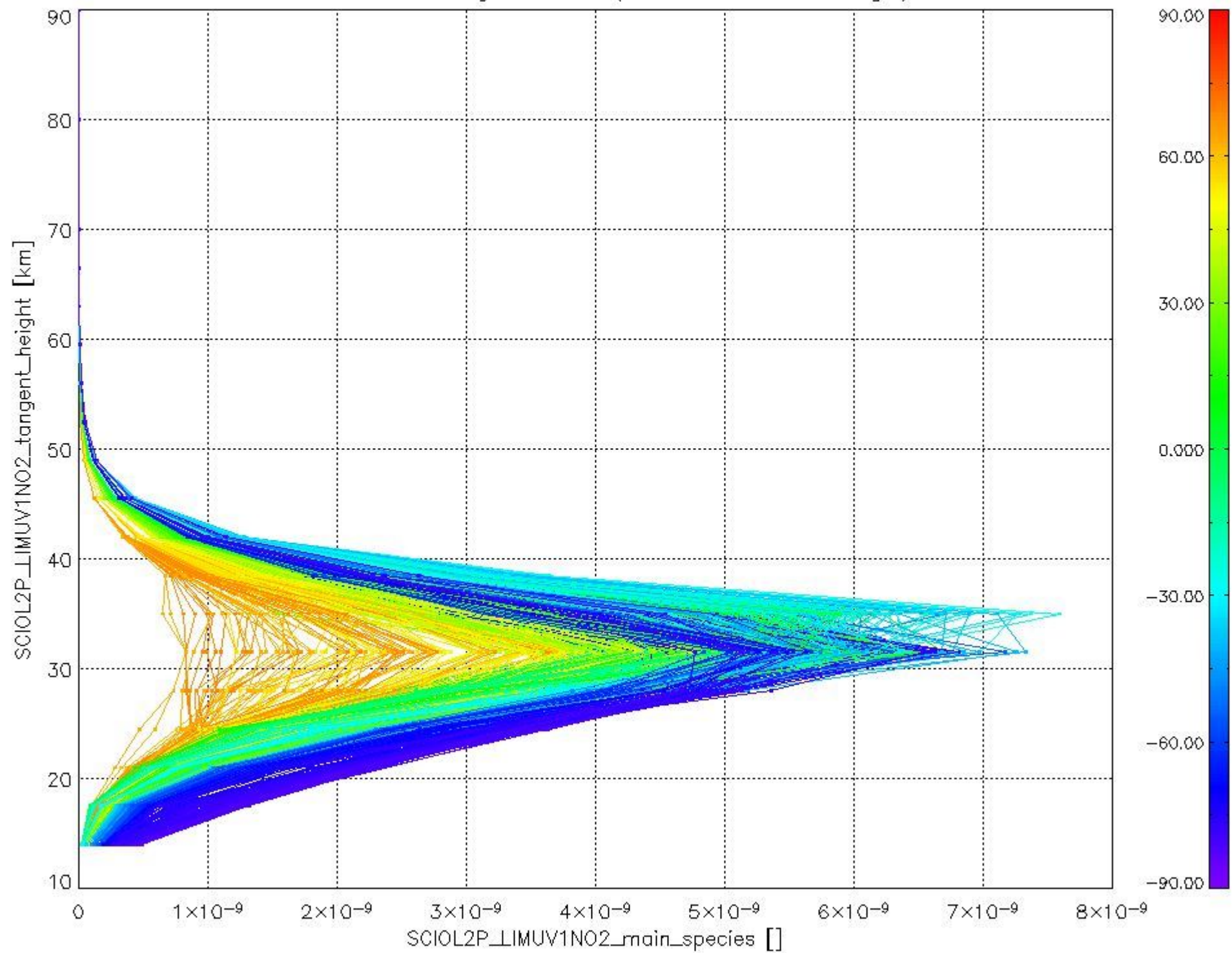
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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).



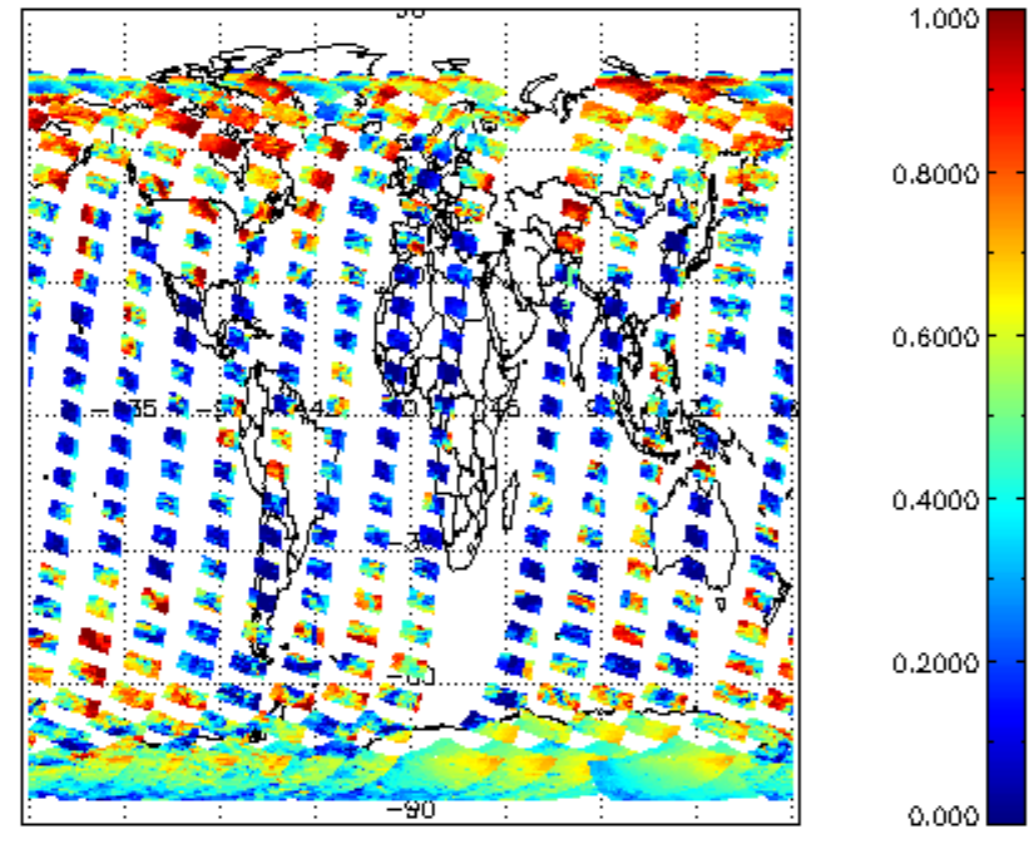
Plot of SCIOL2P_LIMUV1NO2_main_species.tang_vmr vs. tangent height.
Colours indicate tangent latitude (see colour bar on the right).



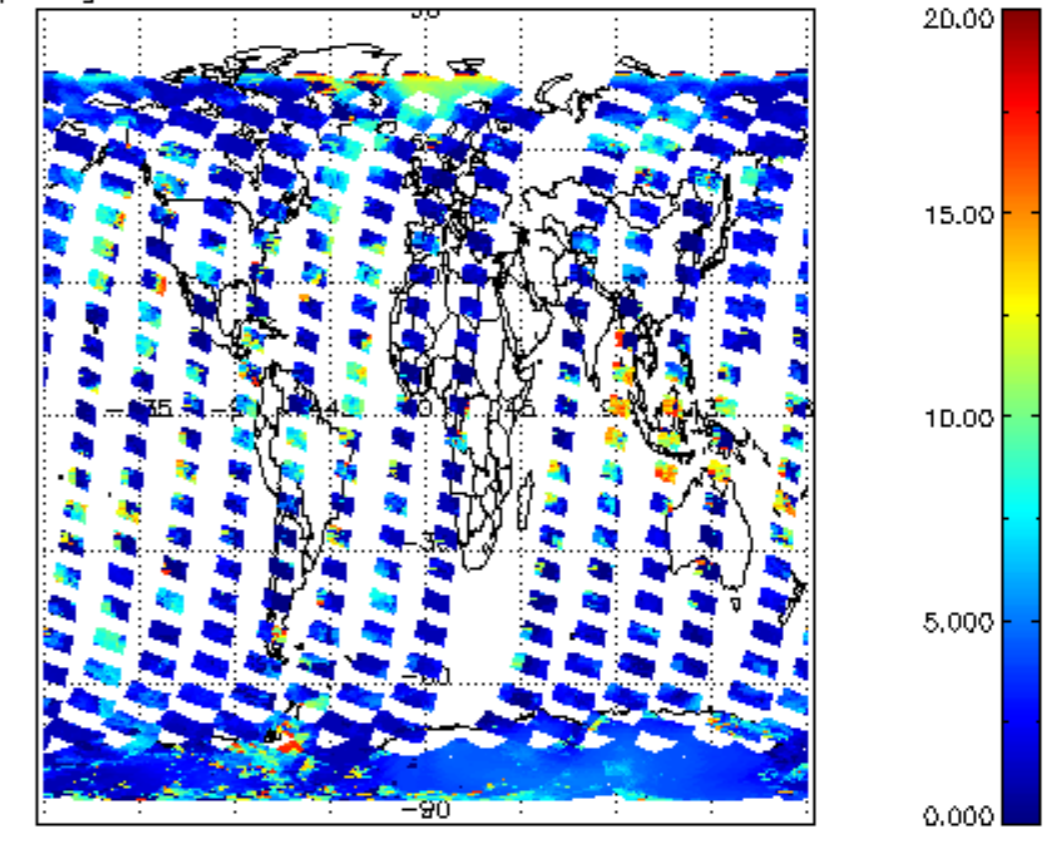
2.3 ADF monitoring

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

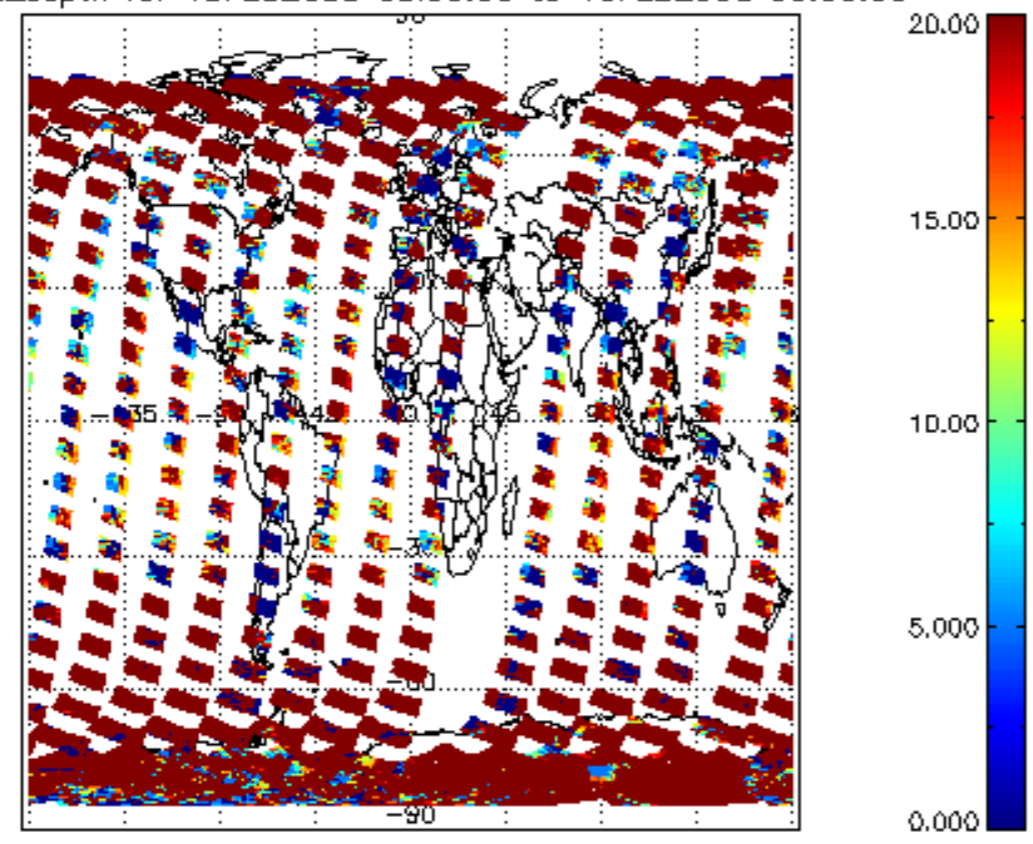
cL_frac for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



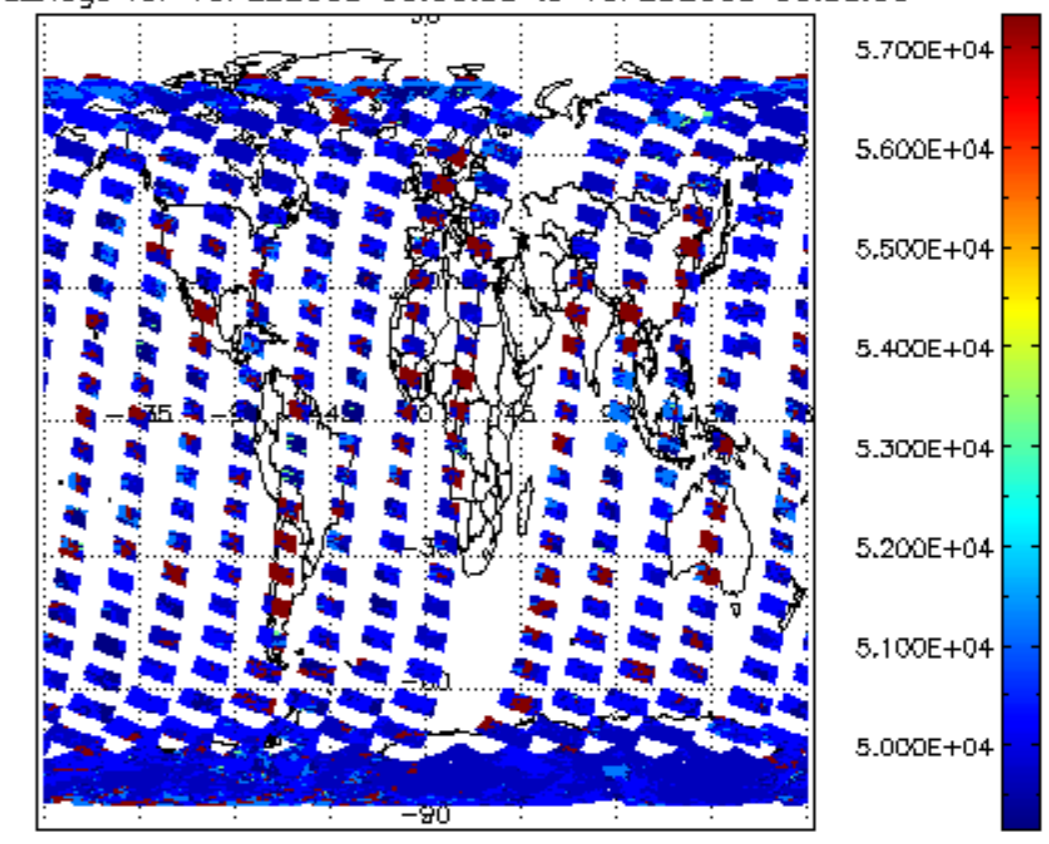
cL_top_height for 15FEB2008 00:00:00 to 16FEB2008 00:00:00

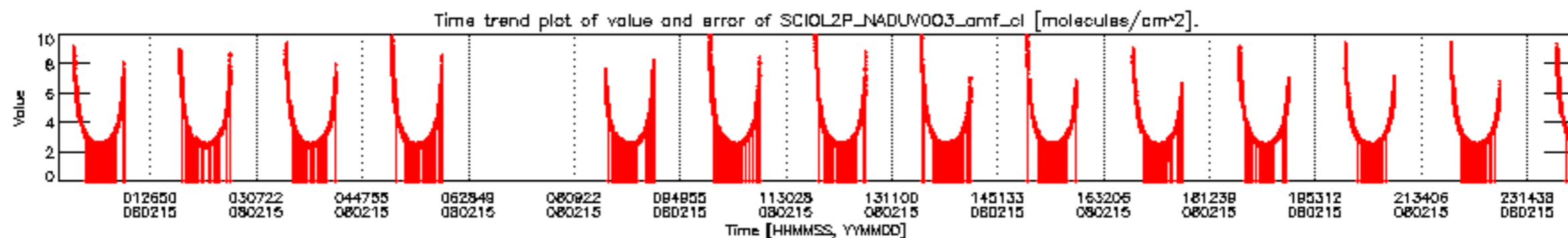
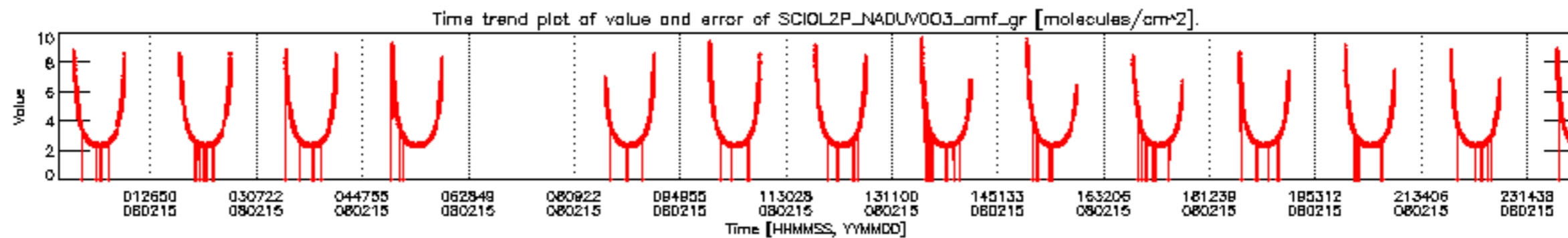
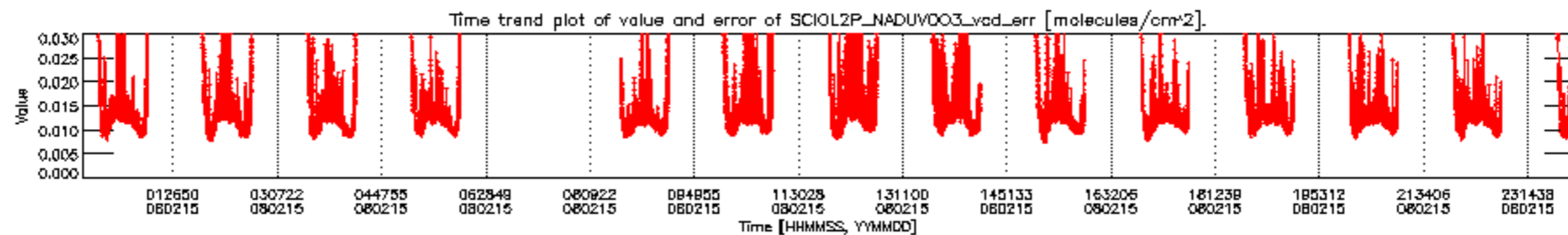
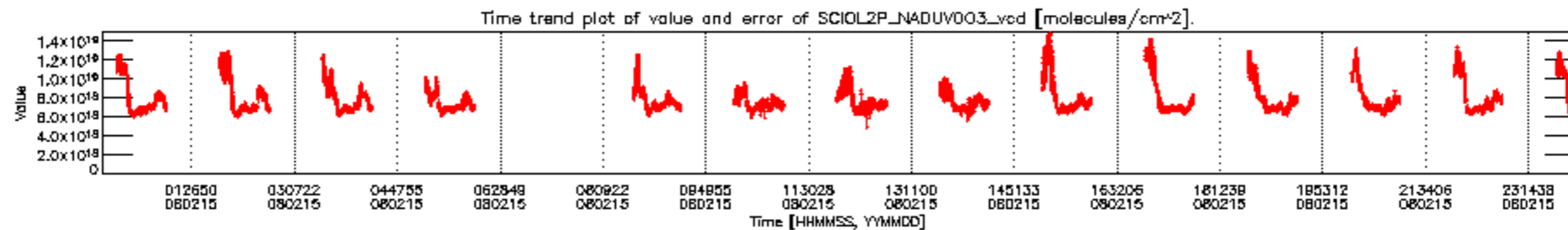


cL_opt_depth for 15FEB2008 00:00:00 to 16FEB2008 00:00:00

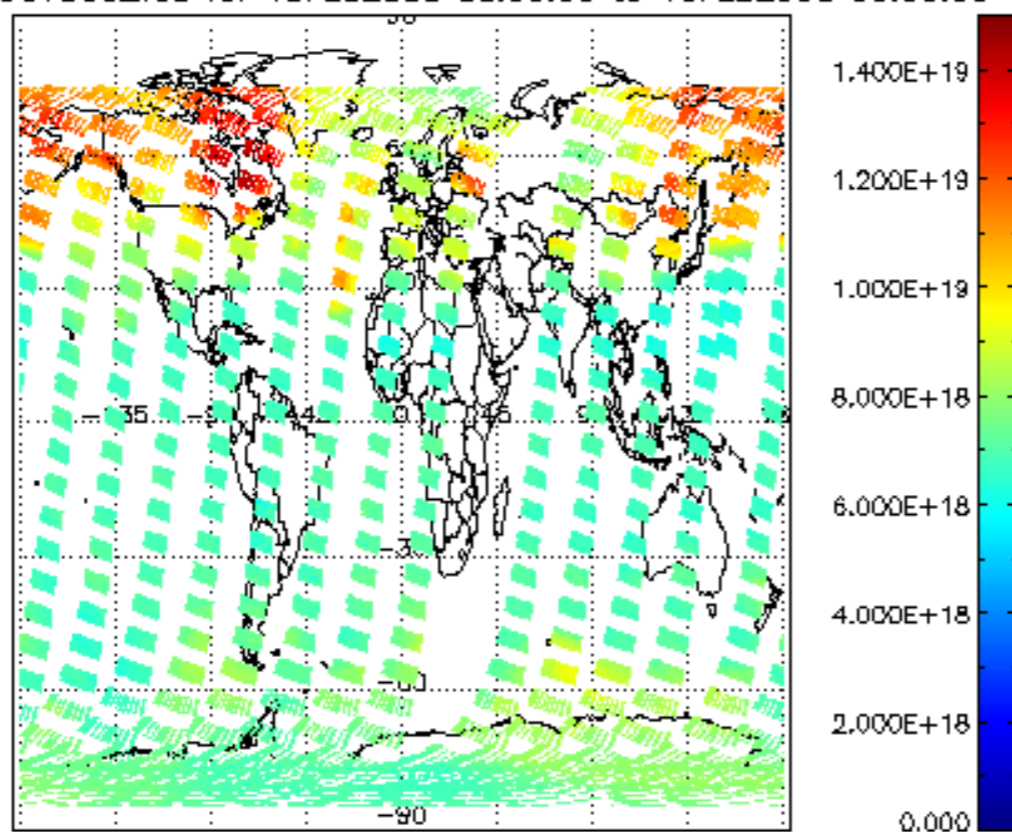


cloud_flags for 15FEB2008 00:00:00 to 16FEB2008 00:00:00

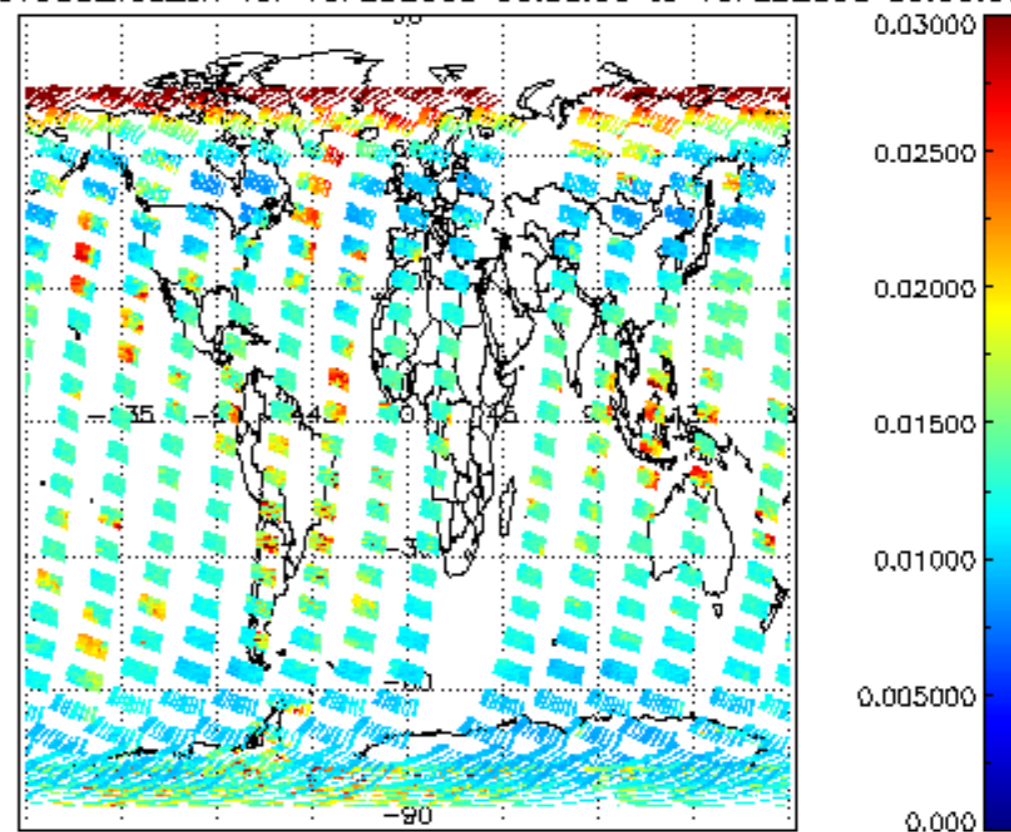




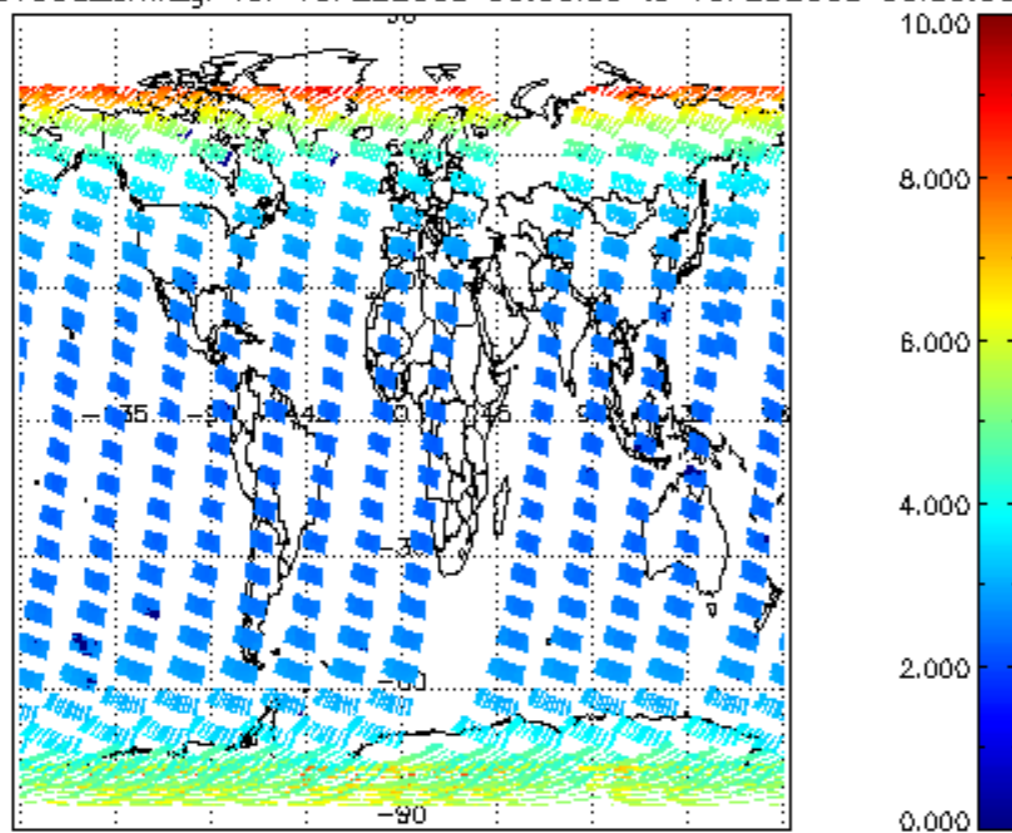
SCIOL2P_NADUV003_vcd for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



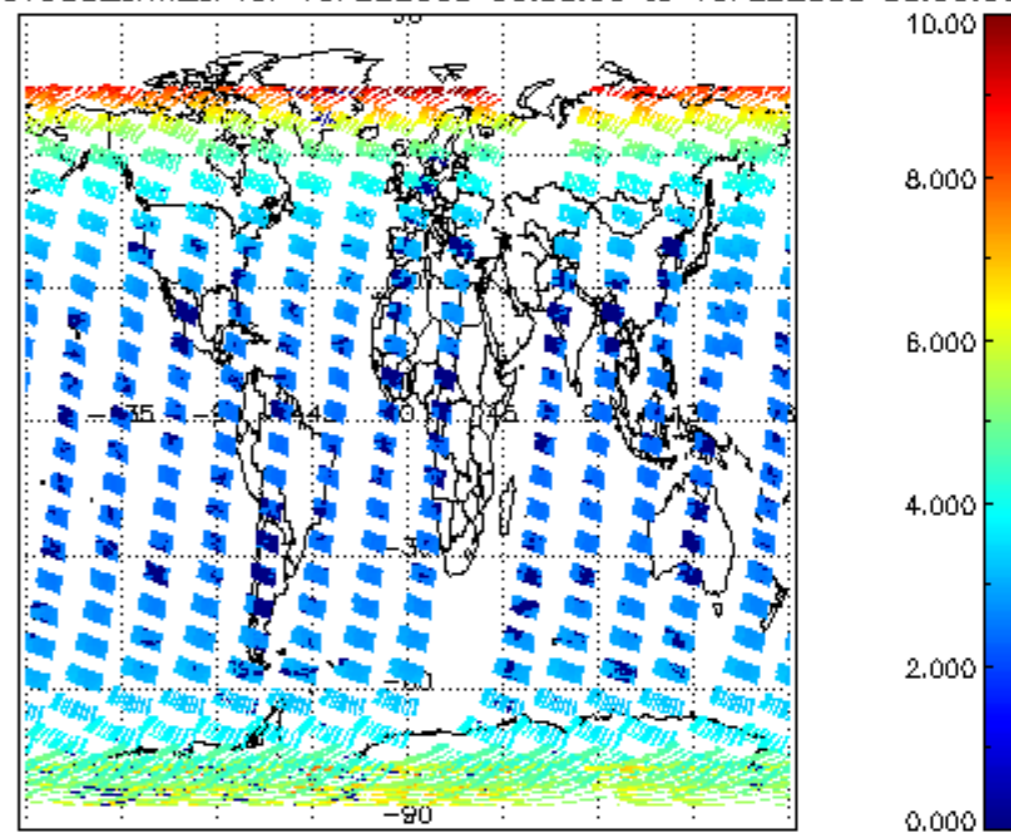
SCIOL2P_NADUV003_vcd_err for 15FEB2008 00:00:00 to 16FEB2008 00:00:00

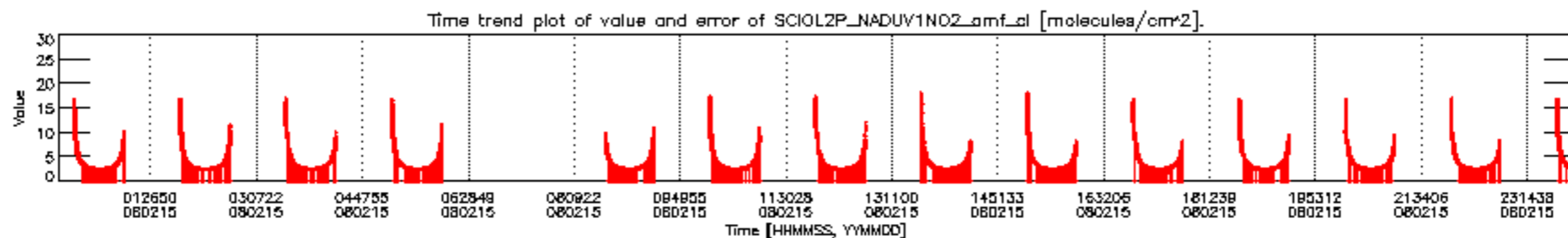
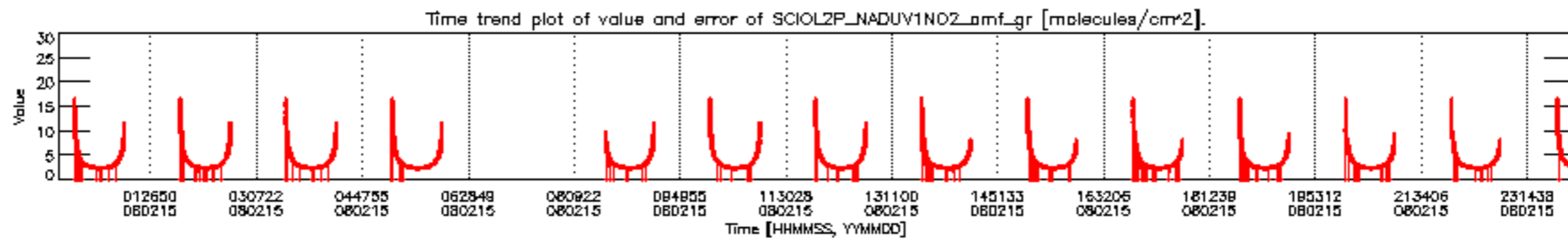
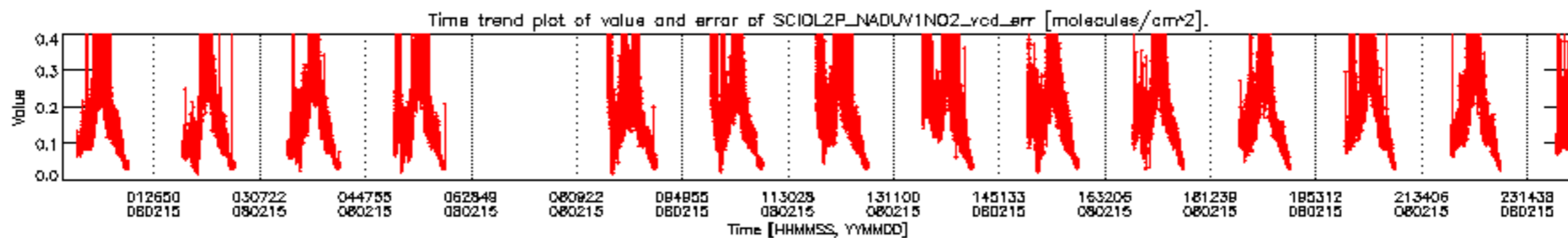
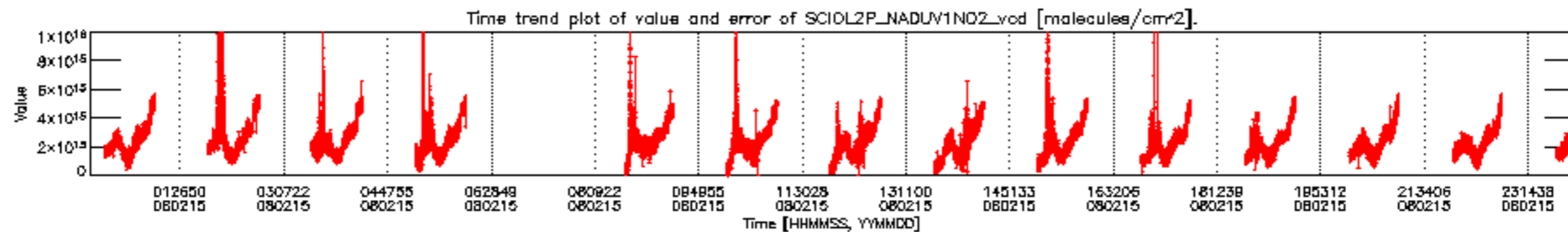


SCIOL2P_NADUV003_amf_gr for 15FEB2008 00:00:00 to 16FEB2008 00:00:00

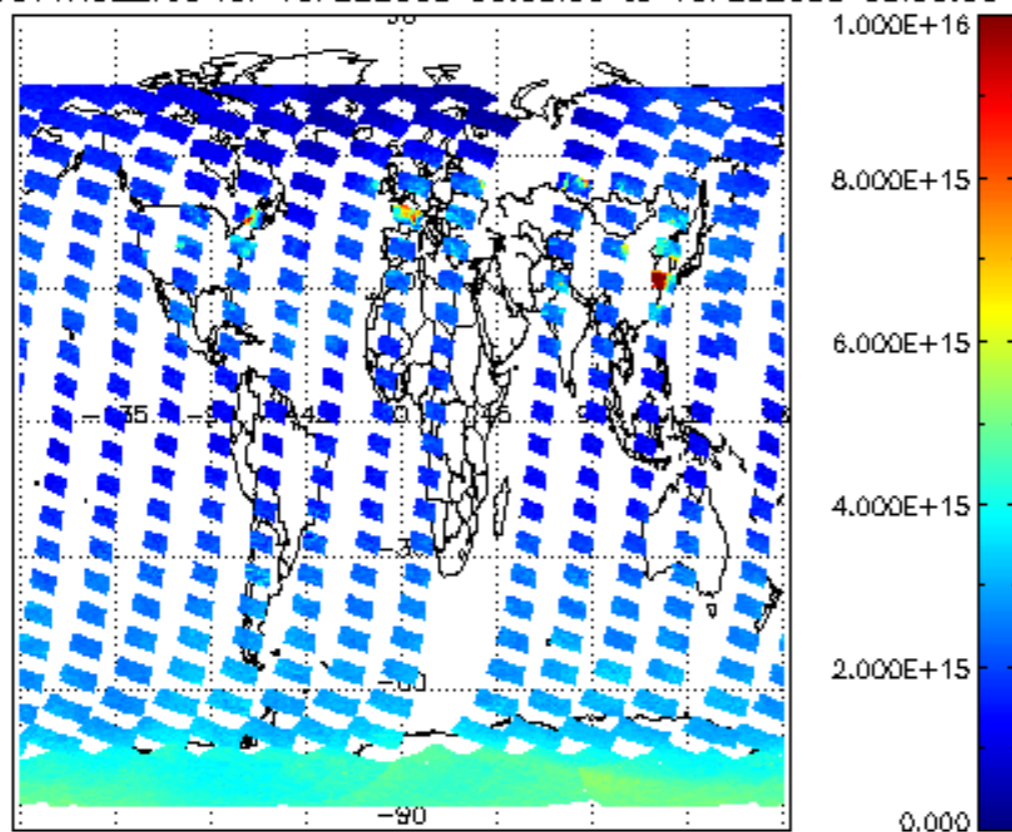


SCIOL2P_NADUV003_amf_cl for 15FEB2008 00:00:00 to 16FEB2008 00:00:00

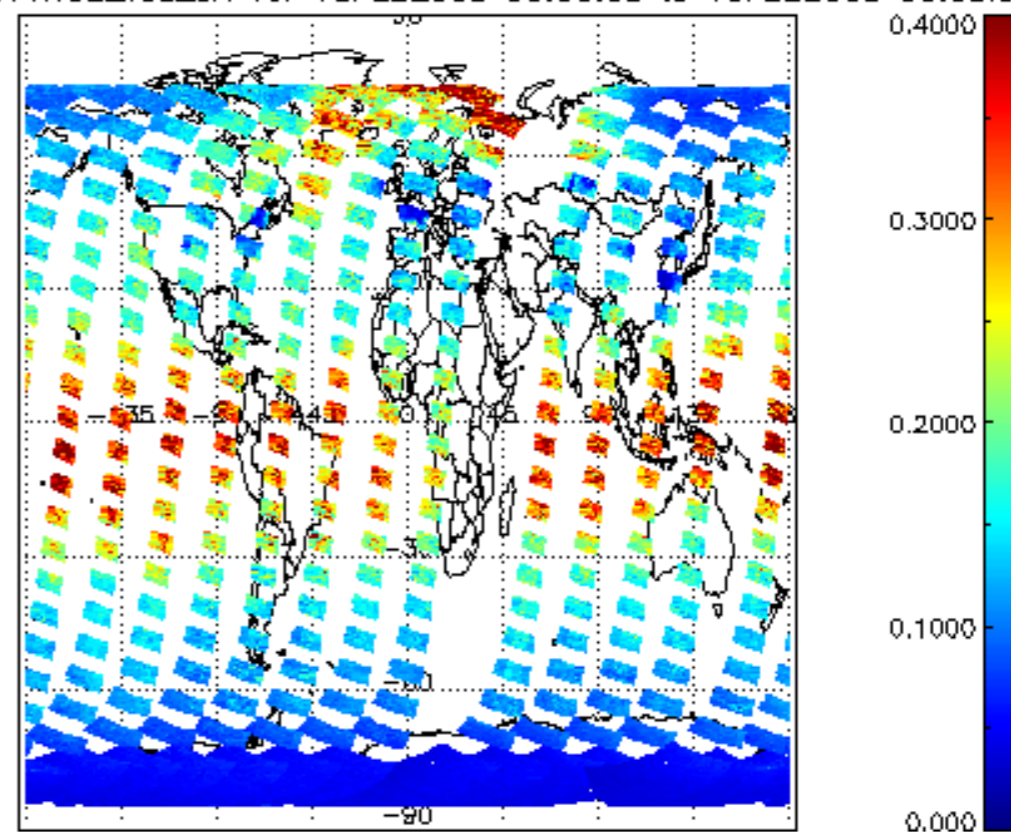




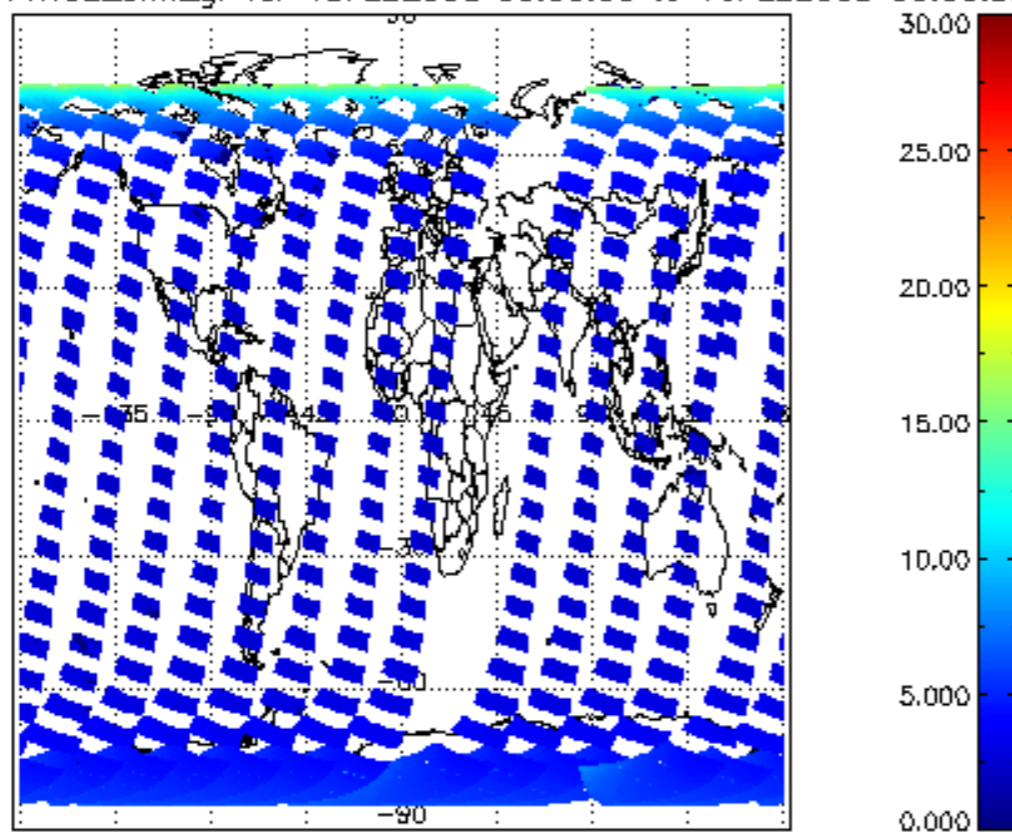
SCIOL2P_NADUV1NO2_vcd for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



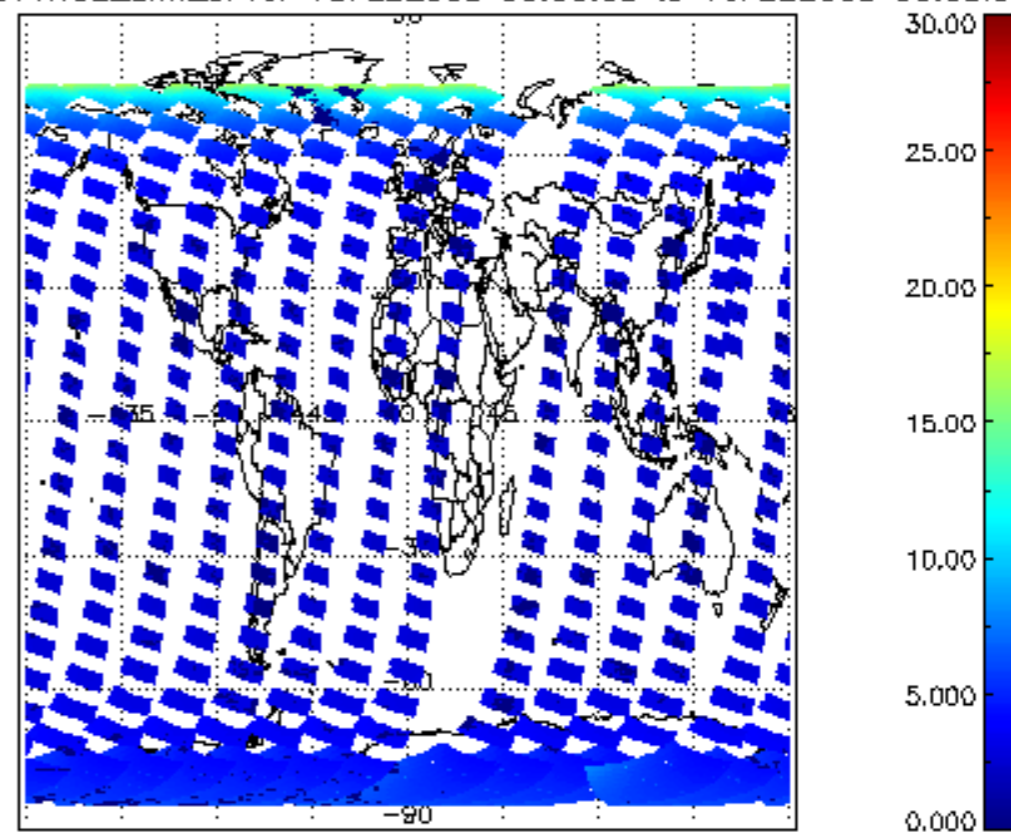
SCIOL2P_NADUV1NO2_vcd_err for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



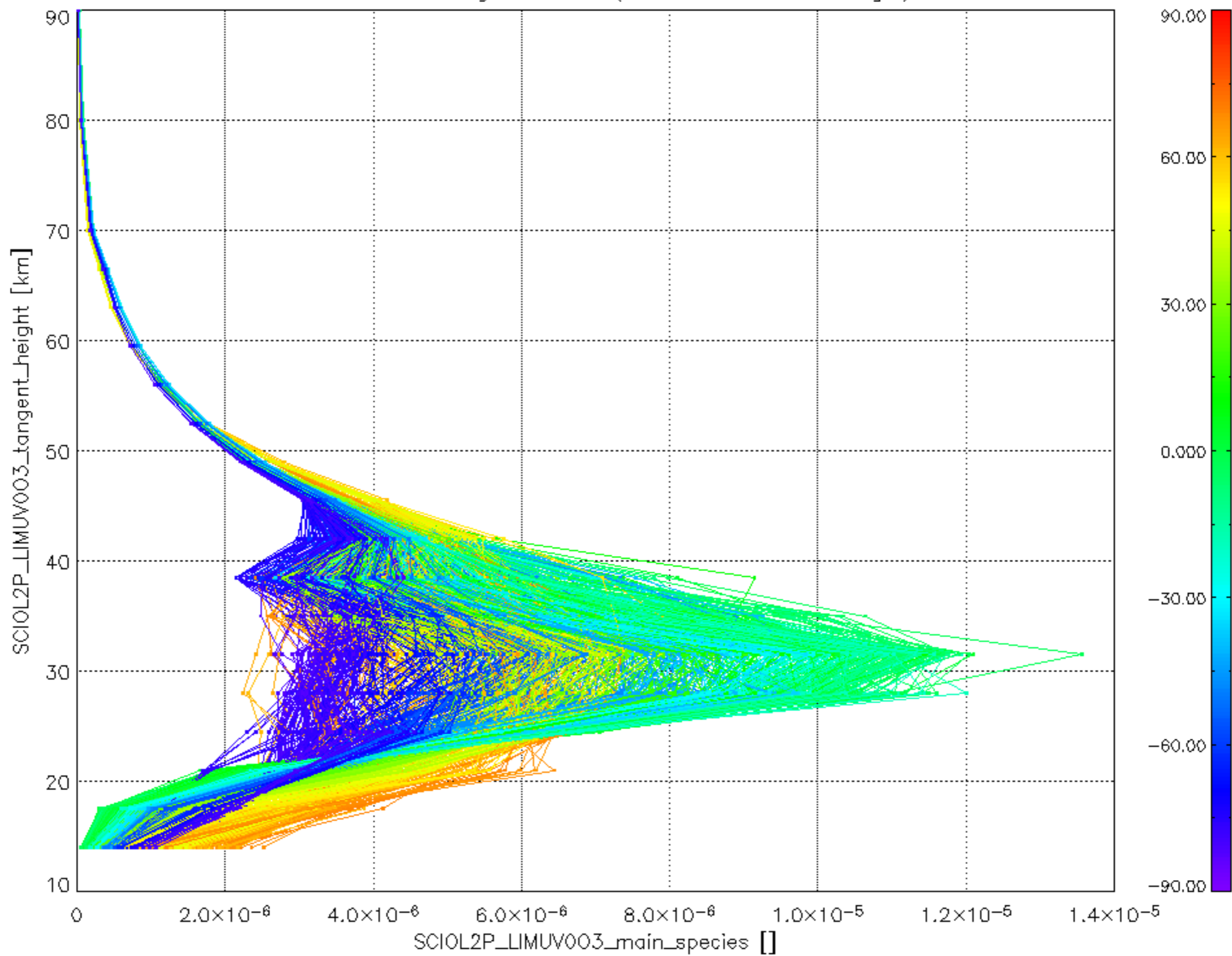
SCIOL2P_NADUV1NO2_amf_gr for 15FEB2008 00:00:00 to 16FEB2008 00:00:00



SCIOL2P_NADUV1NO2_amf_cl for 15FEB2008 00:00:00 to 16FEB2008 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).

