

## 2. SCIAMACHY Daily Report for level 2 products

### [2.1. General Info](#)

### [2.2 Product Quality Indicators](#)

### [2.3 ADF monitoring](#)

#### 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	23FEB2008 06:03:06
Data source version	SCIA-OL/3.01-R
Processing scope for products	31JAN2008 00:00:00 to 01FEB2008 00:00:00
Start time of first product within scope	30JAN2008 23:42:59
Stop time of last product within scope	01FEB2008 00:05:46
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__2PRDPA20080130_234259_000032692065_00331_30946_2207.N1	30JAN2008 23:42:59	31JAN2008 00:37:28	0	GOOD
1	SCI_OL__2PRDPA20080131_012226_000033252065_00332_30947_2210.N1	31JAN2008 01:22:26	31JAN2008 02:17:51	0	GOOD
2	SCI_OL__2PRDPA20080131_030410_000032692065_00333_30948_2211.N1	31JAN2008 03:04:10	31JAN2008 03:58:39	0	GOOD
3	SCI_OL__2PRDPA20080131_044337_000033252065_00334_30949_2212.N1	31JAN2008 04:43:37	31JAN2008 05:39:02	0	GOOD
4	SCI_OL__2PRDPA20080131_062521_000032692065_00335_30950_2215.N1	31JAN2008 06:25:21	31JAN2008 07:19:51	0	GOOD
5	SCI_OL__2PRDPA20080131_080448_000033252065_00336_30951_2228.N1	31JAN2008 08:04:48	31JAN2008 09:00:13	0	GOOD
6	SCI_OL__2PRDPA20080131_094632_000032692065_00337_30952_2241.N1	31JAN2008 09:46:32	31JAN2008 10:41:01	0	GOOD
7	SCI_OL__2PRDPA20080131_112559_000033252065_00338_30953_2245.N1	31JAN2008 11:25:59	31JAN2008 12:21:24	0	GOOD
8	SCI_OL__2PRDPA20080131_130743_000032692065_00339_30954_2258.N1	31JAN2008 13:07:43	31JAN2008 14:02:12	0	GOOD
9	SCI_OL__2PRDPA20080131_144710_000033252065_00340_30955_2257.N1	31JAN2008 14:47:10	31JAN2008 15:42:35	0	GOOD
10	SCI_OL__2PRDPA20080131_162854_000032692065_00341_30956_2279.N1	31JAN2008 16:28:54	31JAN2008 17:23:23	0	GOOD
11	SCI_OL__2PRDPA20080131_180754_000033812065_00342_30957_2283.N1	31JAN2008 18:07:54	31JAN2008 19:04:15	0	GOOD
12	SCI_OL__2PRDPA20080131_194829_000033942065_00343_30958_2285.N1	31JAN2008 19:48:29	31JAN2008 20:45:04	0	GOOD
13	SCI_OL__2PRDPA20080131_212932_000033252065_00344_30959_2286.N1	31JAN2008 21:29:32	31JAN2008 22:24:57	0	GOOD
14	SCI_OL__2PRDPA20080131_231116_000032692065_00345_30960_2290.N1	31JAN2008 23:11:16	01FEB2008 00:05:46	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: 152074

Total number of cloud data DSRs with good quality flag (=0): 152074 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	152074	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	152074	0.17095	0.12500	0.12500	0.25000	0.060269	s
SURFACE_PRES	152074	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	152074	0.41604	0.40281	0.0000	1.0000	0.26906	-

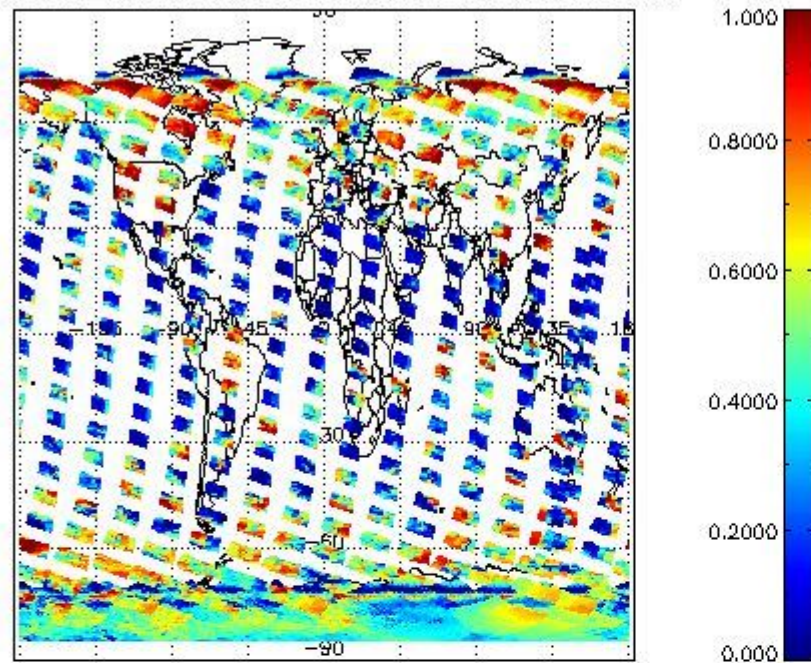
CL_FRAC_ERR	152074	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	152074	5.4703	4.0000	4.0000	8.0000	1.9286	
PMD_READ_CL[0]	152074	0.19776	0.0000	0.0000	8.0000	0.98275	-
PMD_READ_CL[1]	152074	0.55675	0.0000	0.0000	8.0000	1.6936	-
CL_TOP_HEIGHT	128368	4.2813	3.2740	0.0000	17.000	3.7664	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	128368	53.931	43.139	0.0000	101.00	39.717	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	152074	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	152074	11001001	11000100	11000000	11100000	3040.1	flags
AERO_ABSO_IND	152074	2.7053	3.0379	-1.2516	15.976	1.9079	
AERO_IND_DIAG	152074	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	152074	01011000	00000000	00000000	11000000	24502.	flags

Time and geolocation plots:

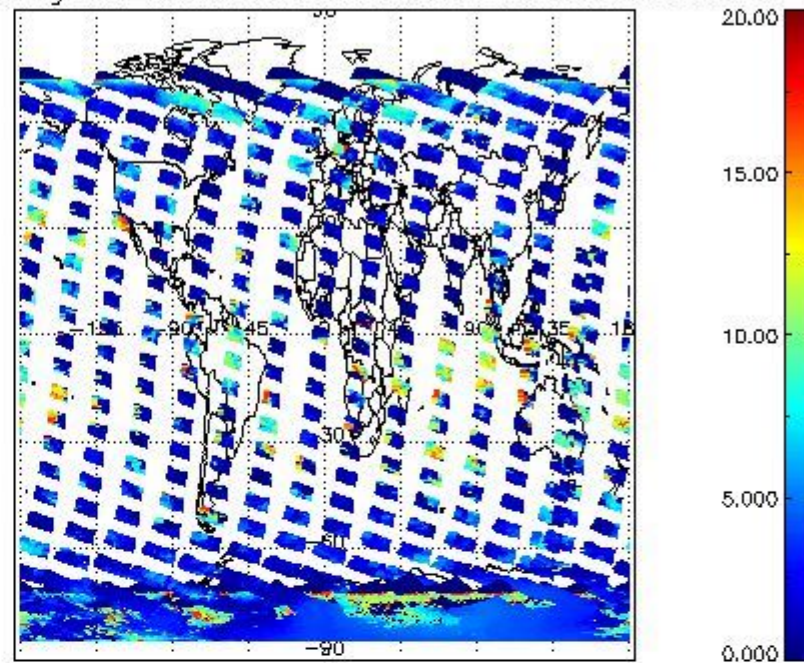
Plots are available for the following parameters:

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

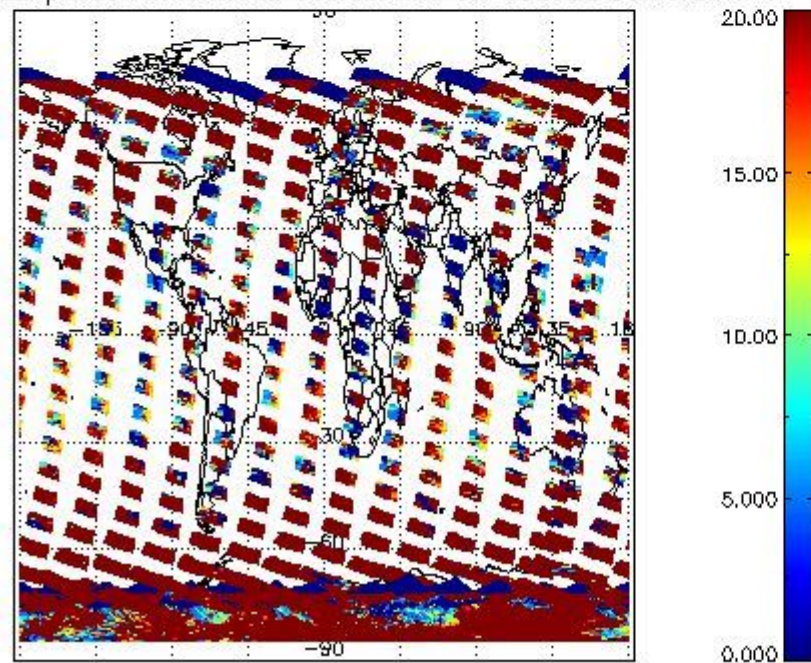
cLfrac for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



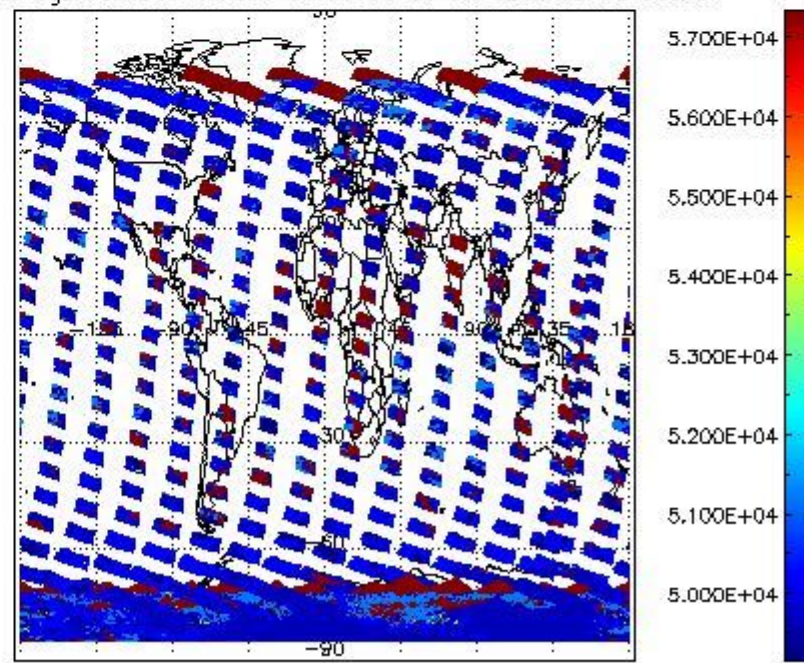
cL\_top\_height for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



cLopt\_depth for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



cloud\_flags for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



### 2.2.2 Nadir

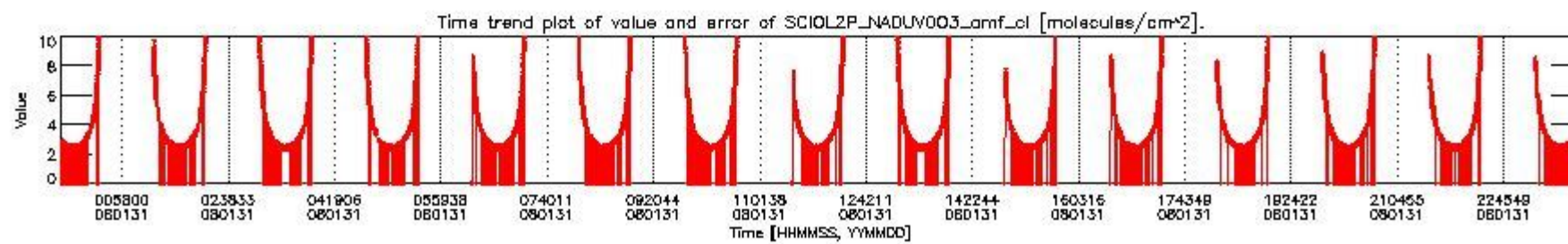
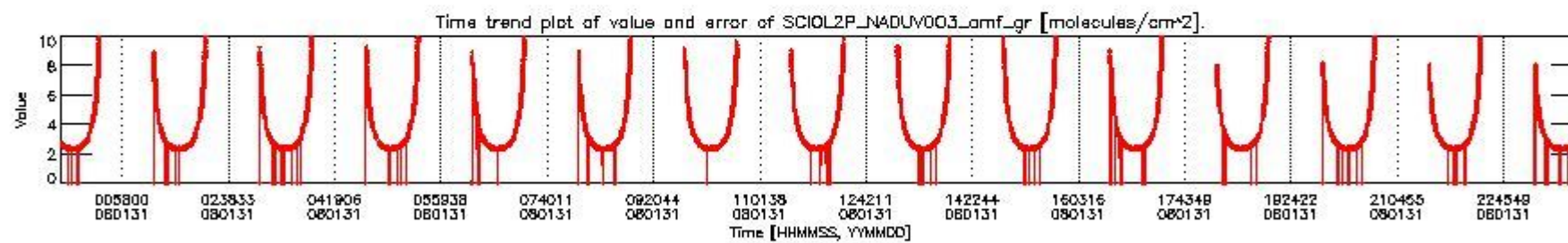
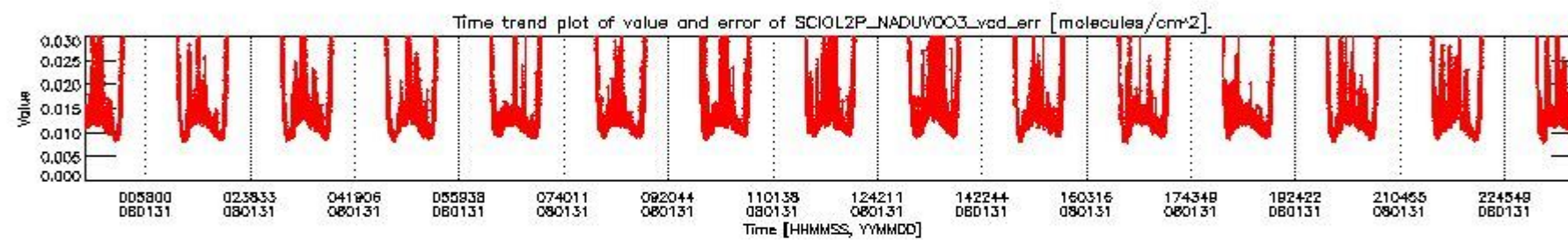
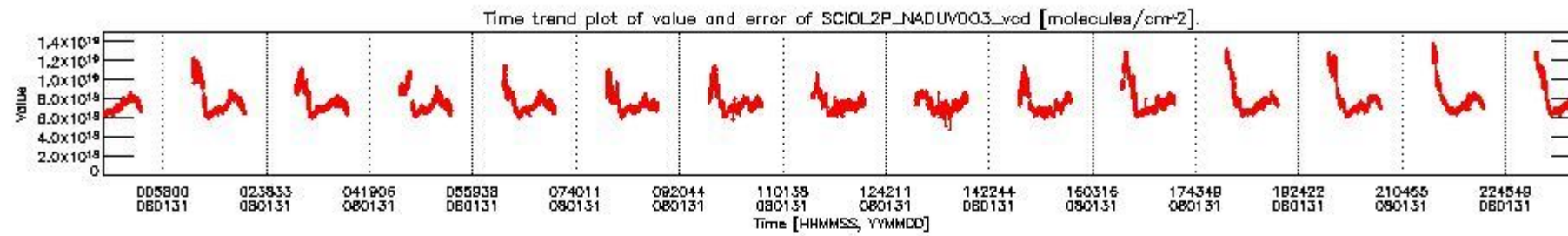
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

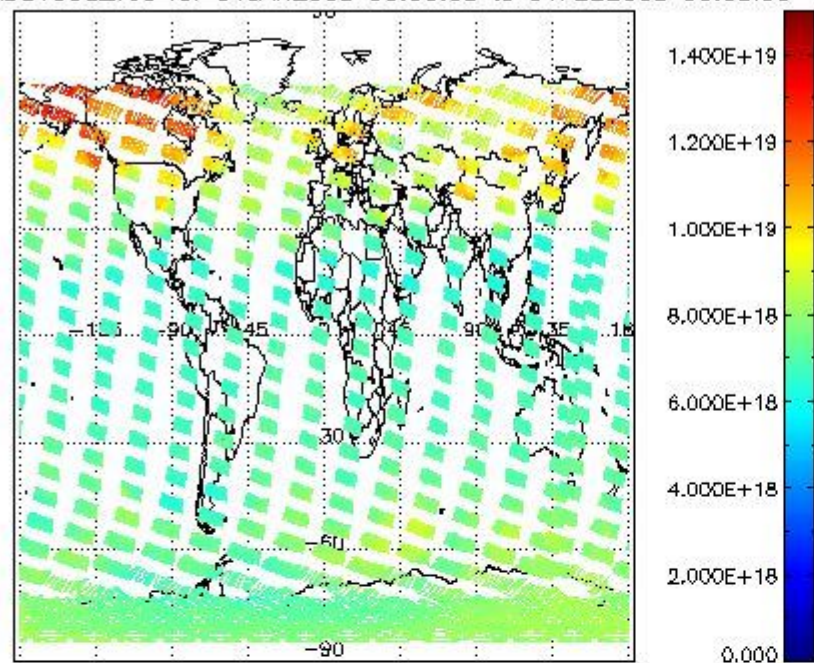
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr
3	SCIOL2P_NADUV003_amf_cl

4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

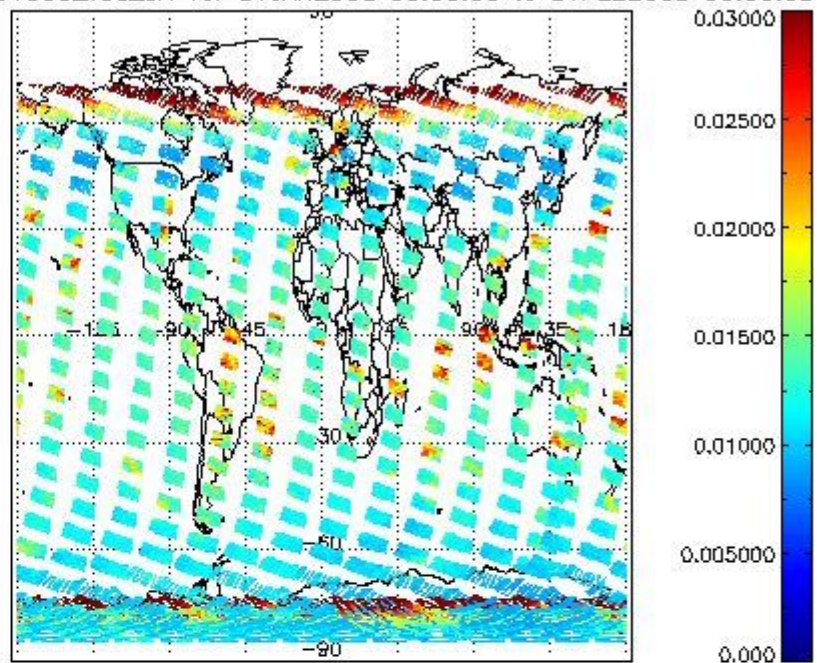
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



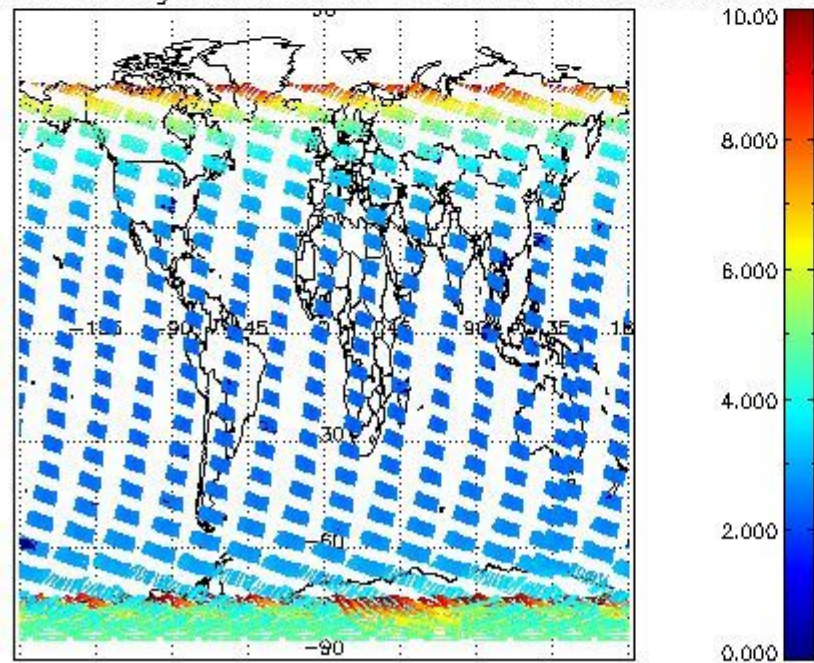
SCIOL2P\_NADUV003\_vcd for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



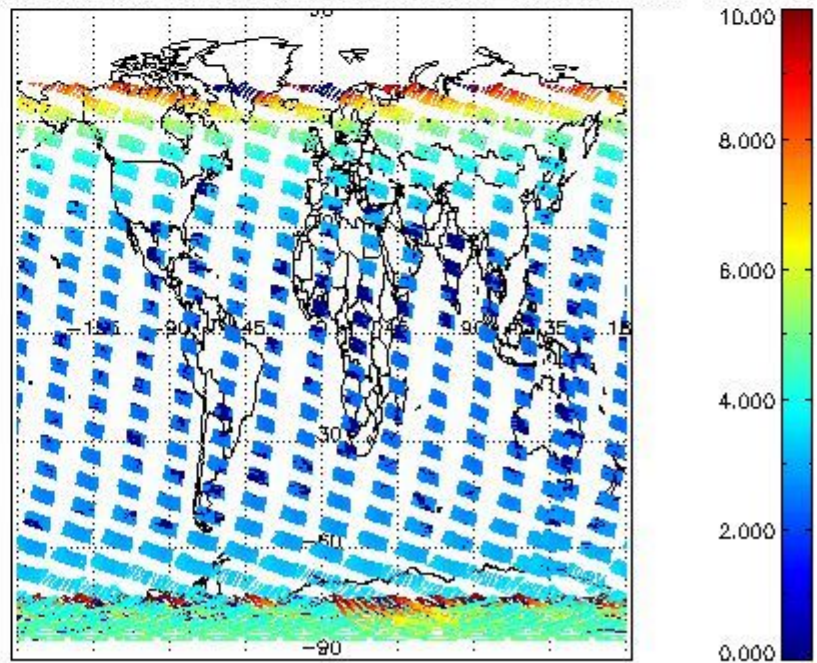
SCIOL2P\_NADUV003\_vcd\_err for 31JAN2008 00:00:00 to 01FEB2008 00:00:00

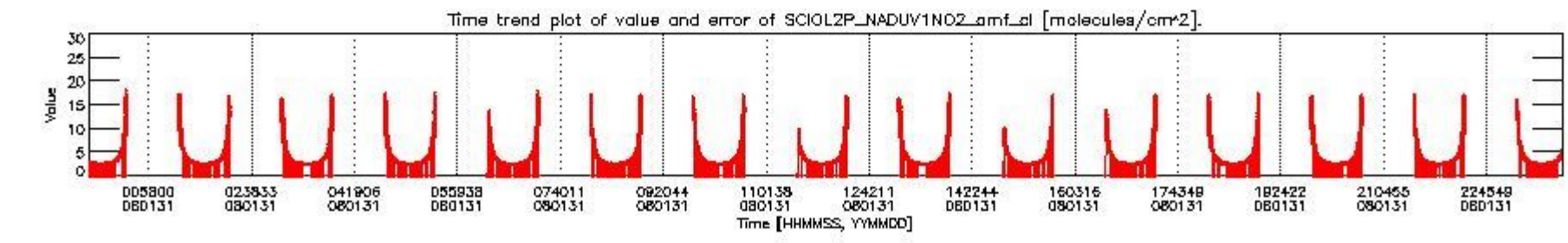
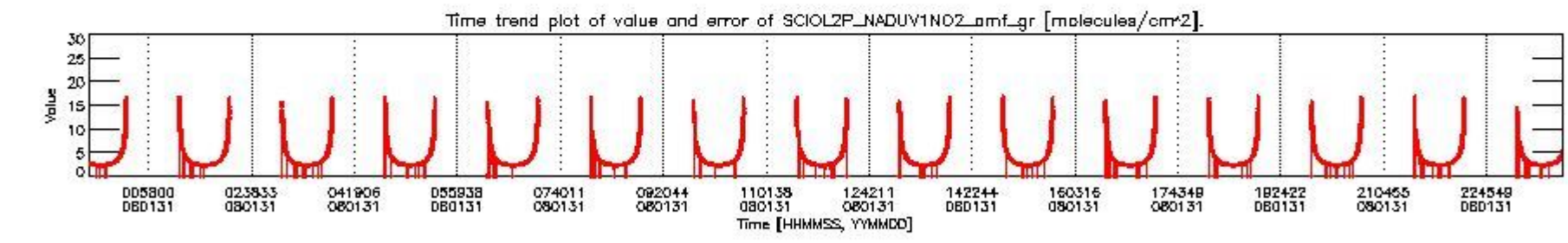
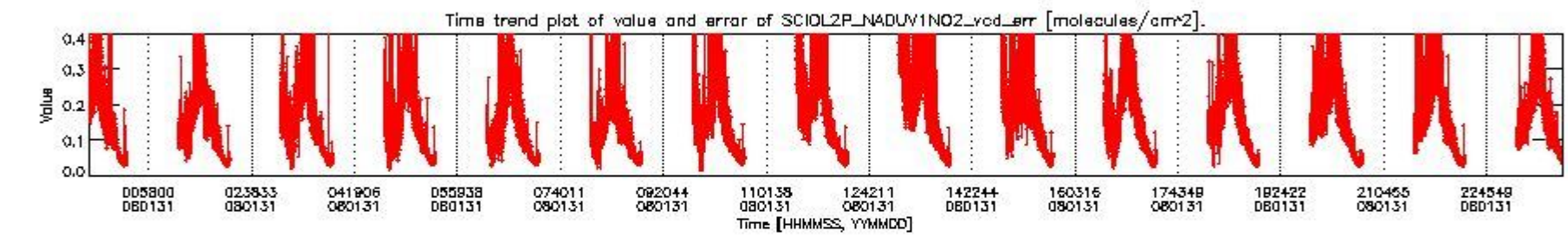
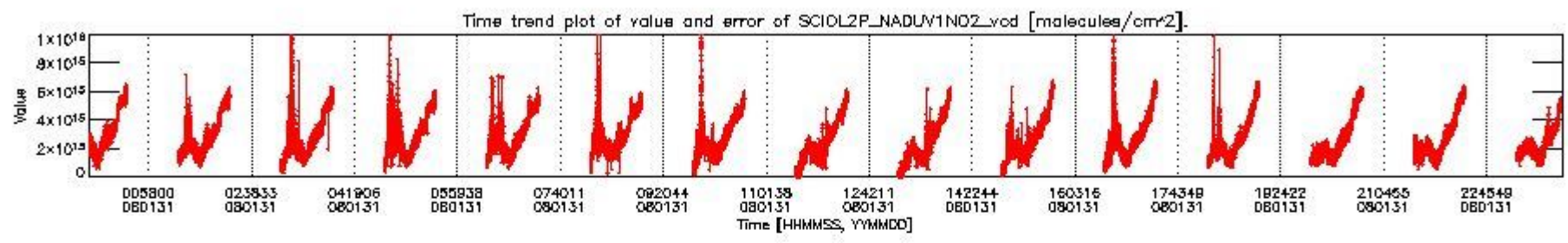


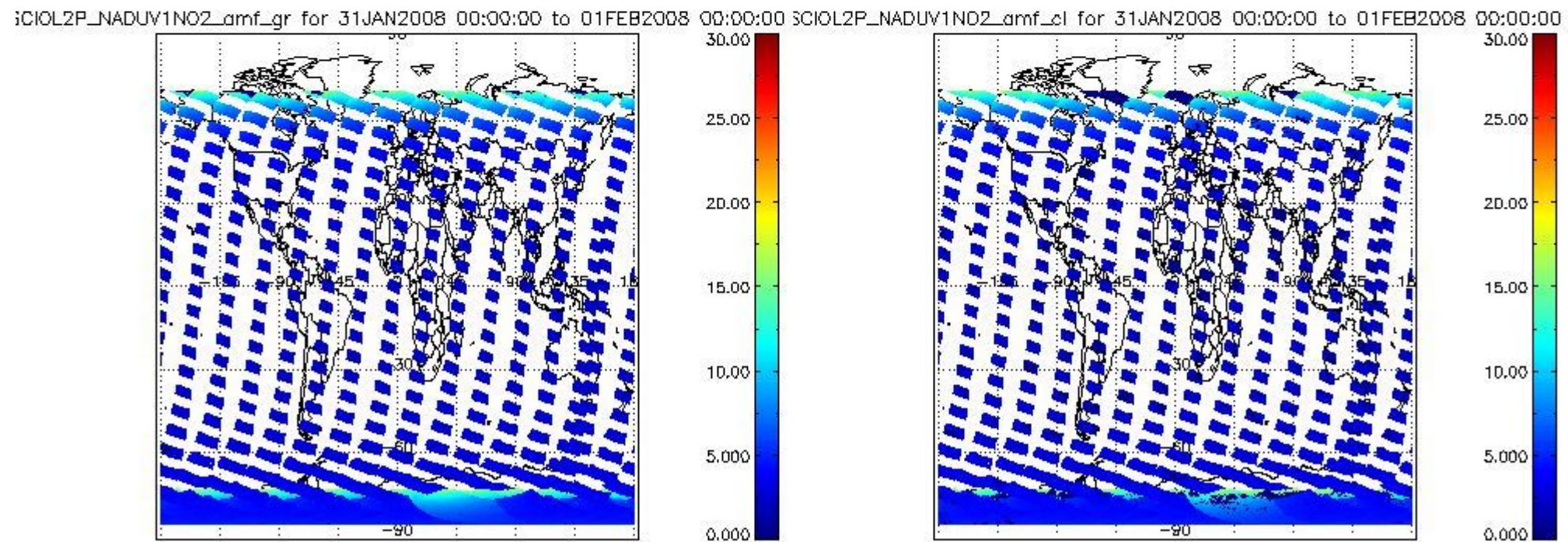
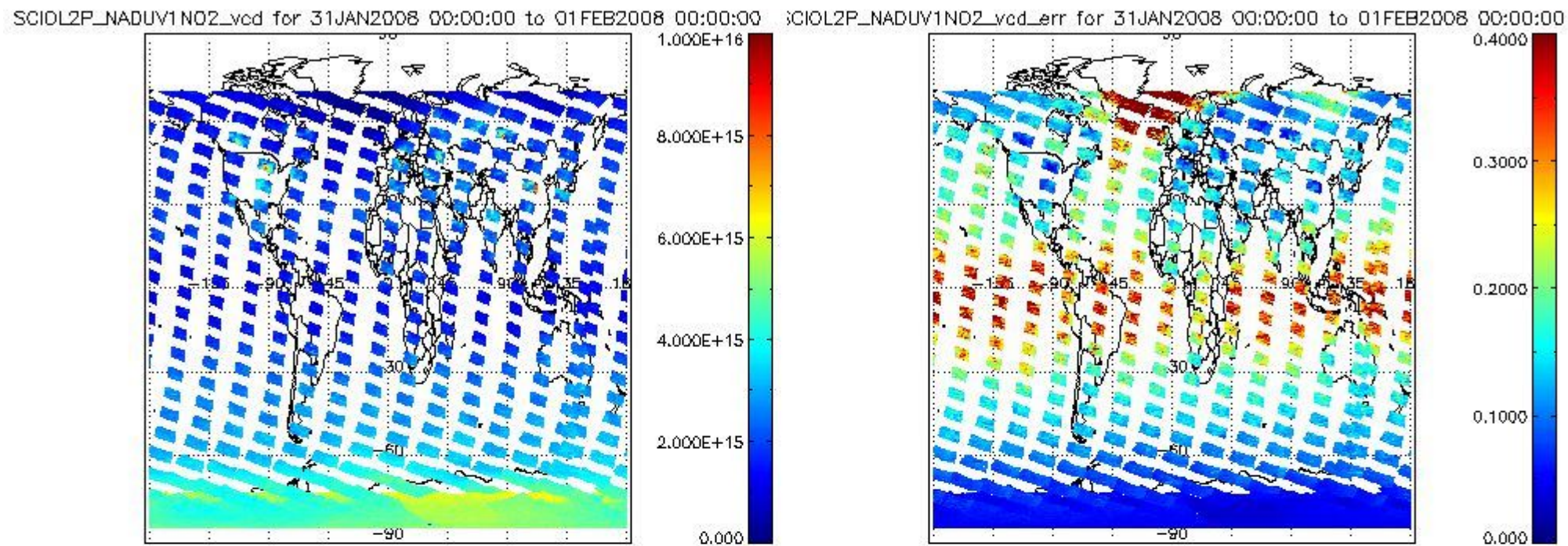
SCIOL2P\_NADUV003\_amf\_gr for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 31JAN2008 00:00:00 to 01FEB2008 00:00:00







### 2.2.3 Limb

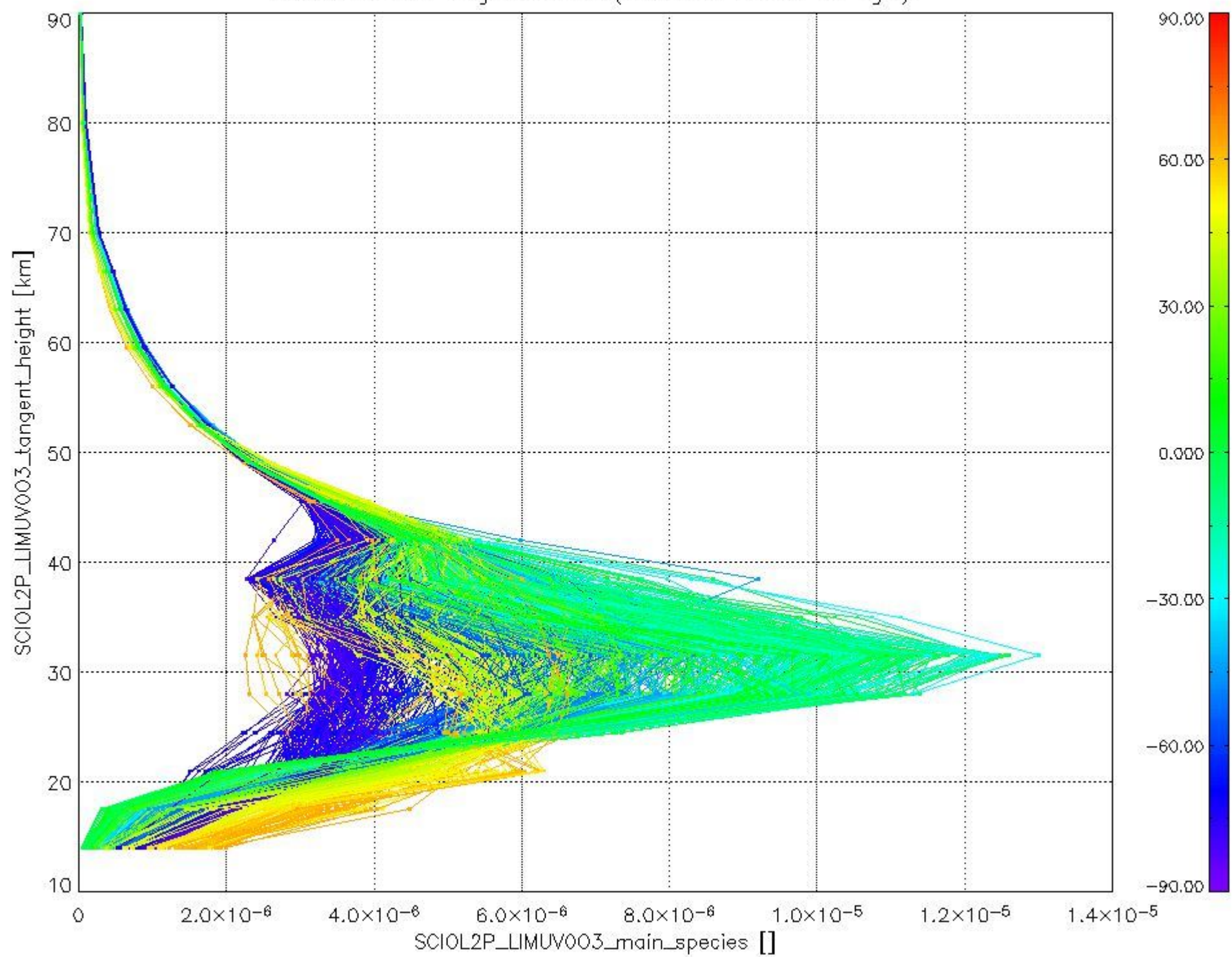
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

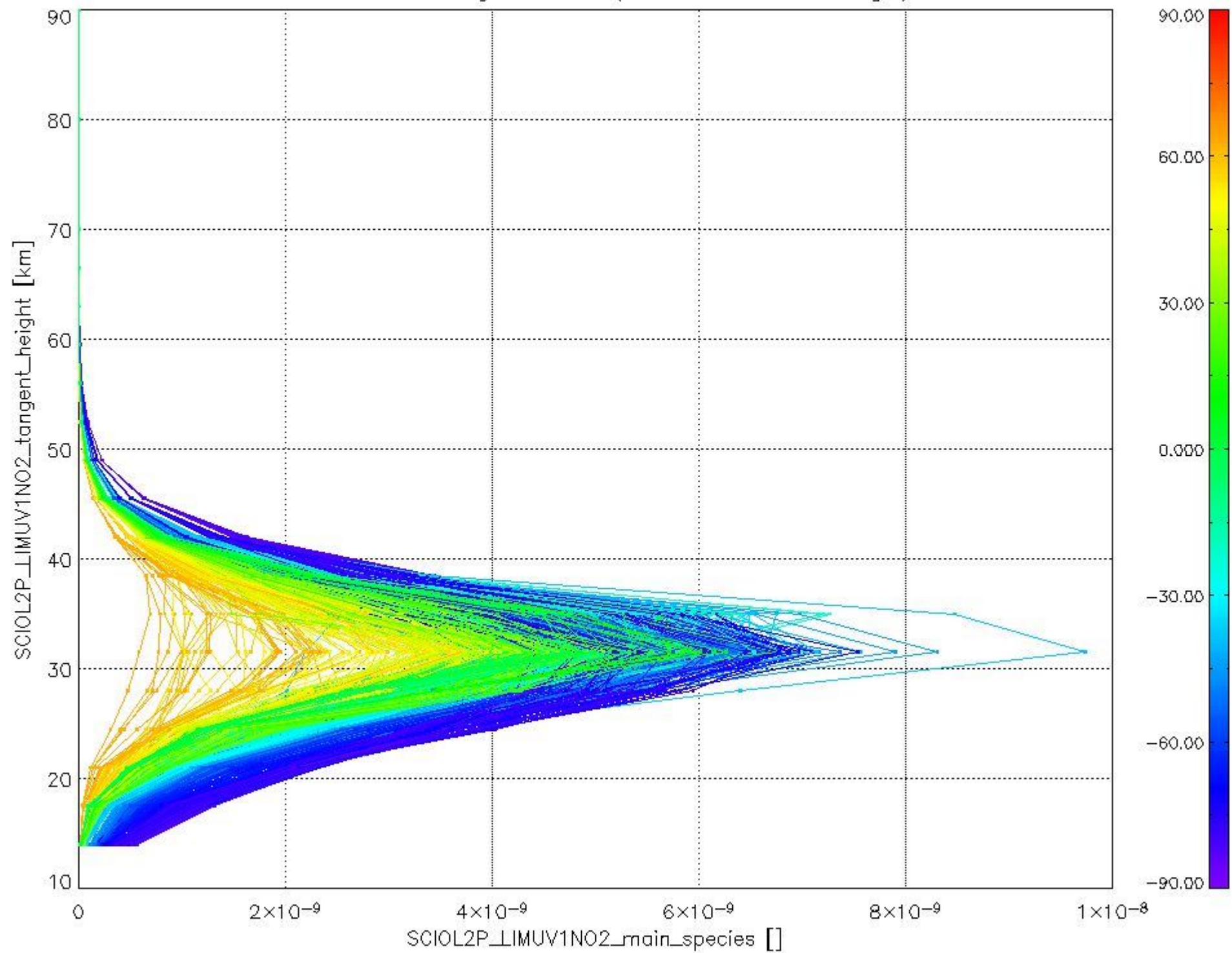
The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

Plot of SCIOL2P\_LIMUV003\_main\_species.tang\_vmr vs. tangent height.  
 Colours indicate tangent latitude (see colour bar on the right).





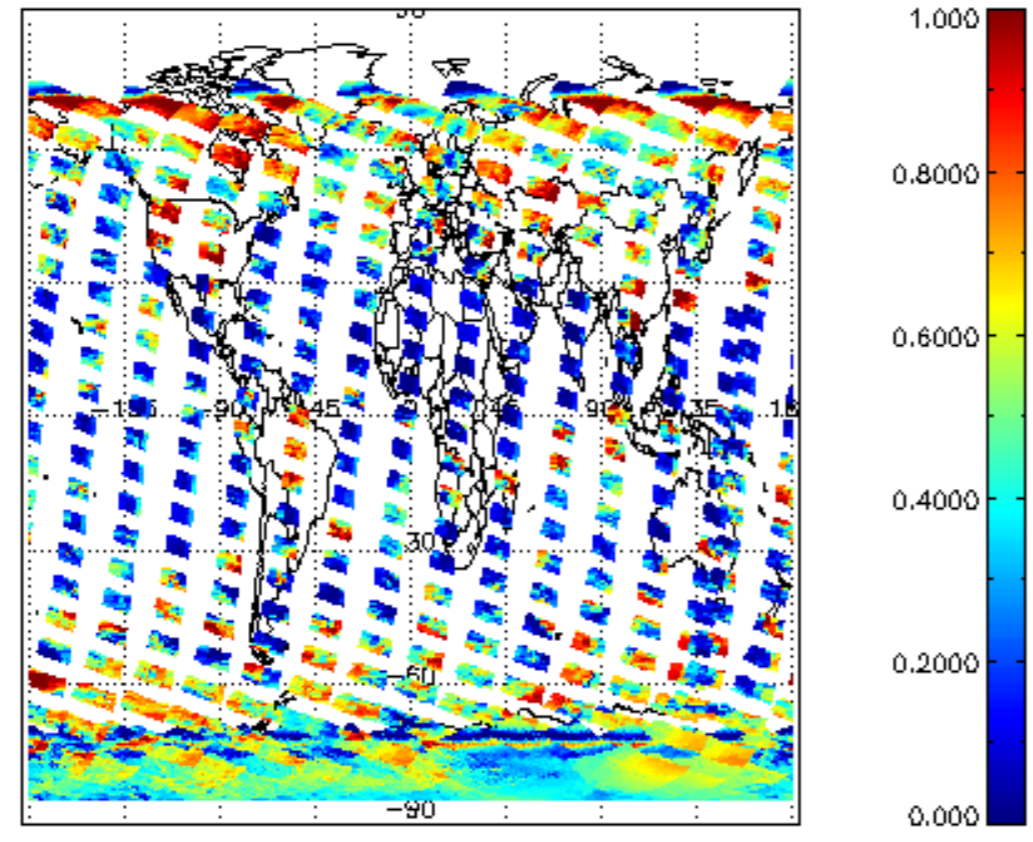
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



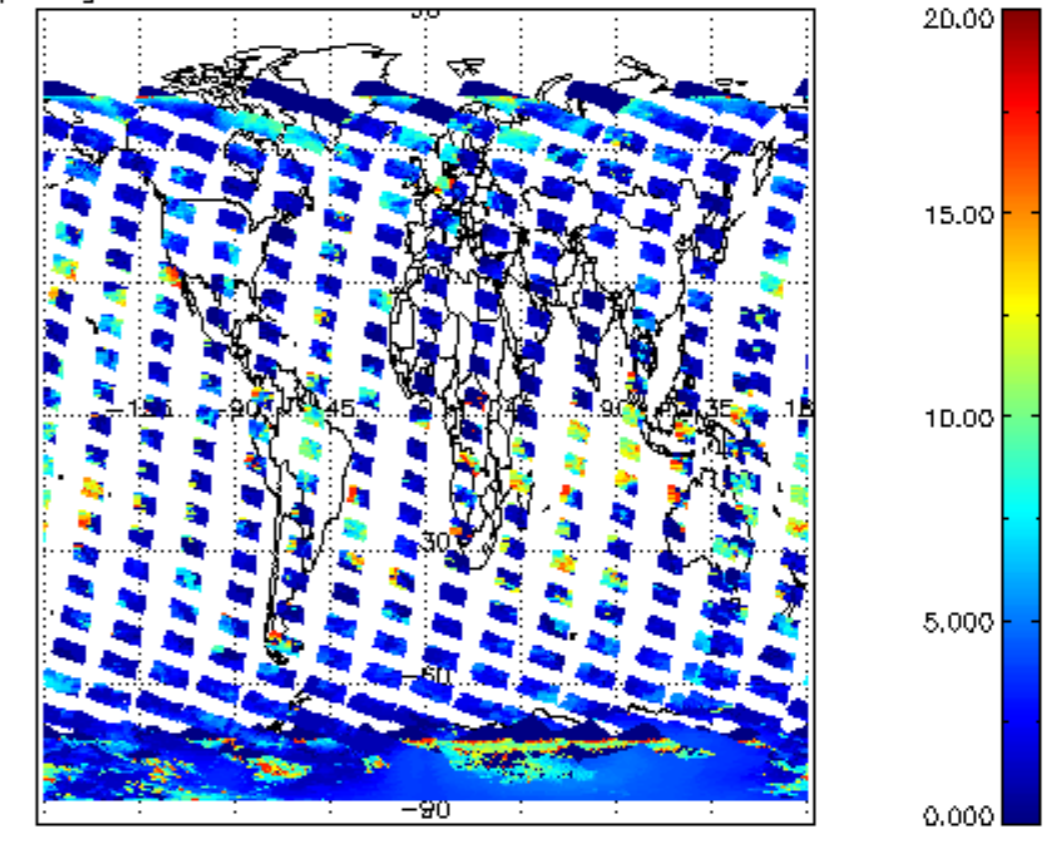
### 2.3 ADF monitoring

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

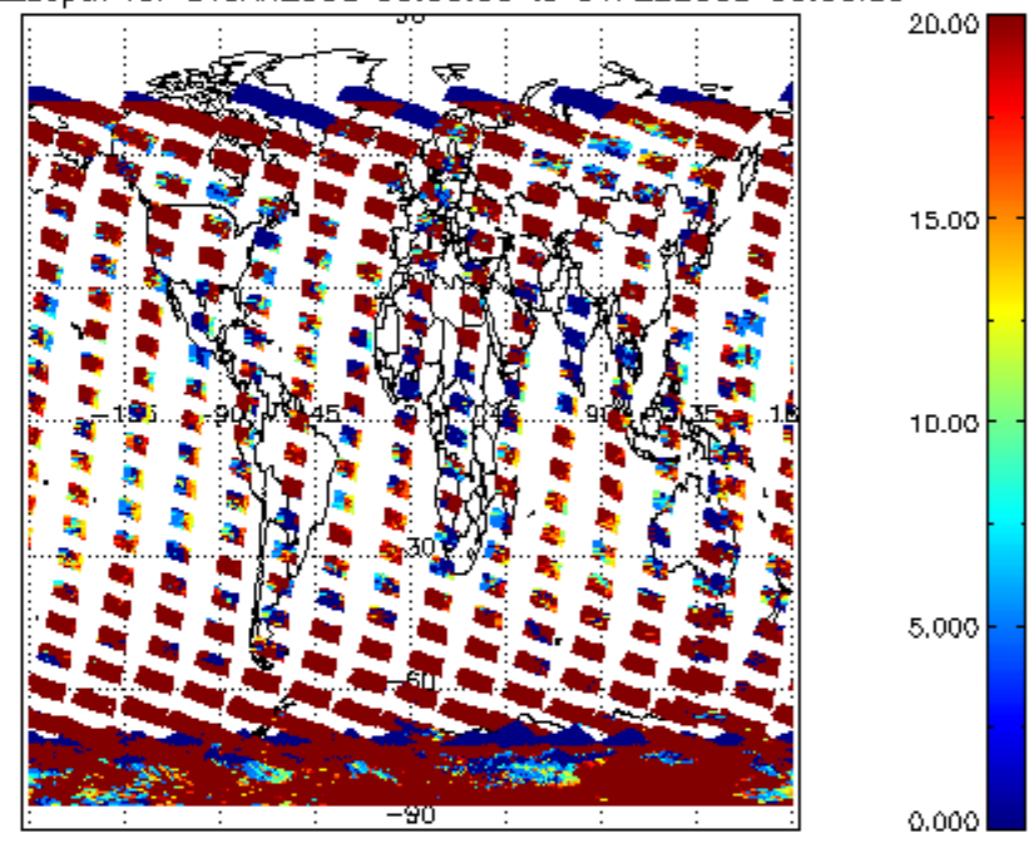
cl\_frac for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



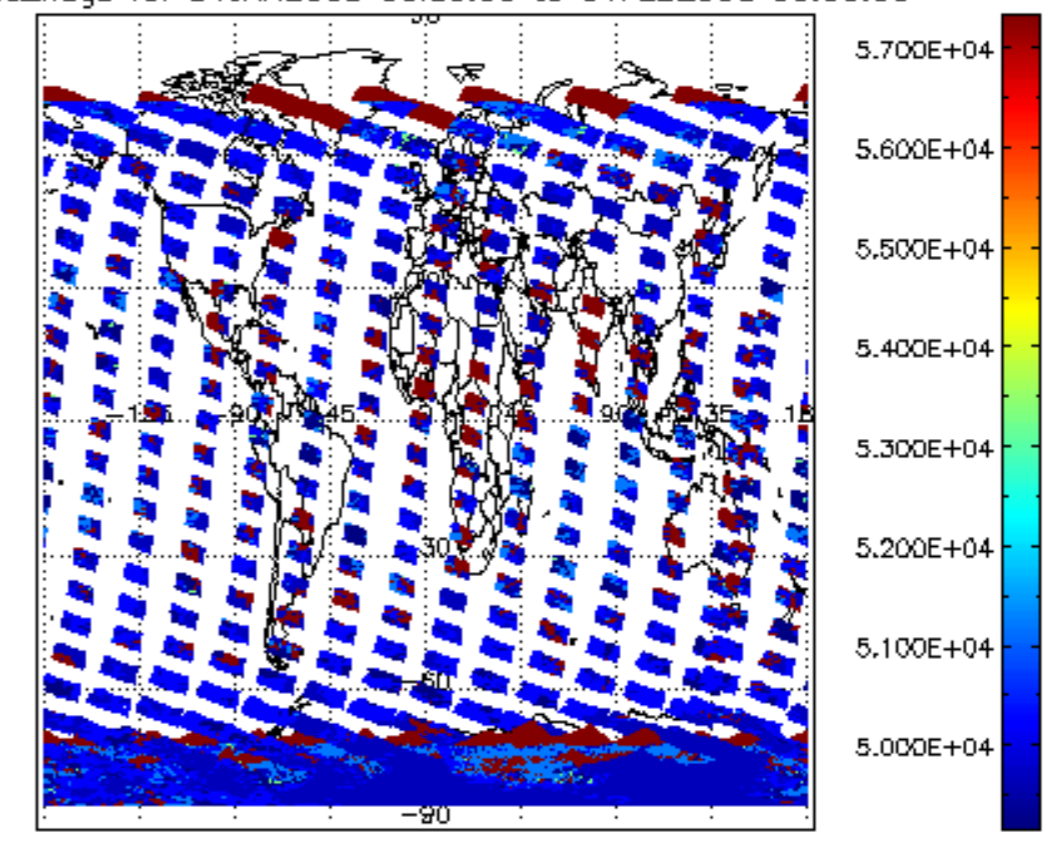
cl\_top\_height for 31JAN2008 00:00:00 to 01FEB2008 00:00:00

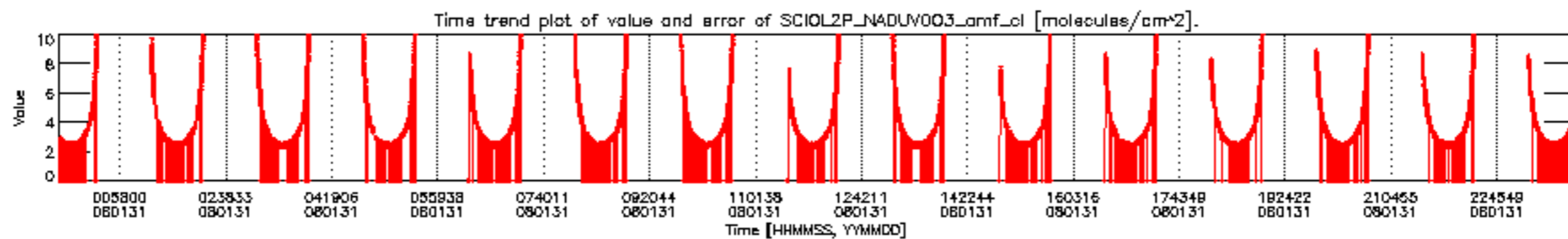
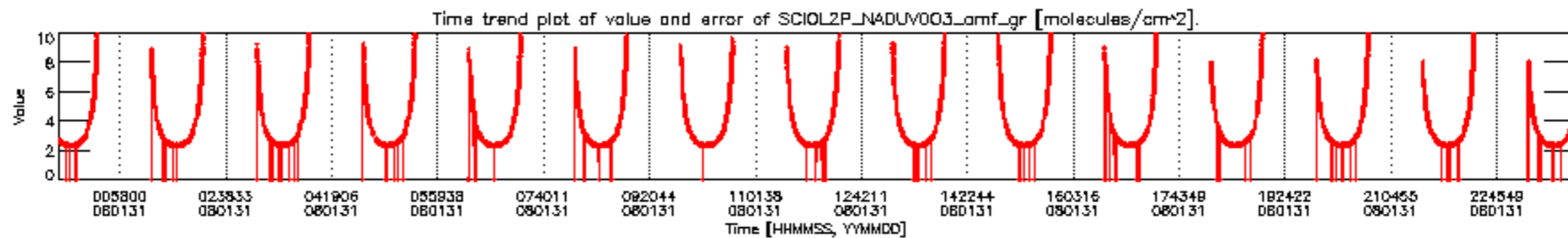
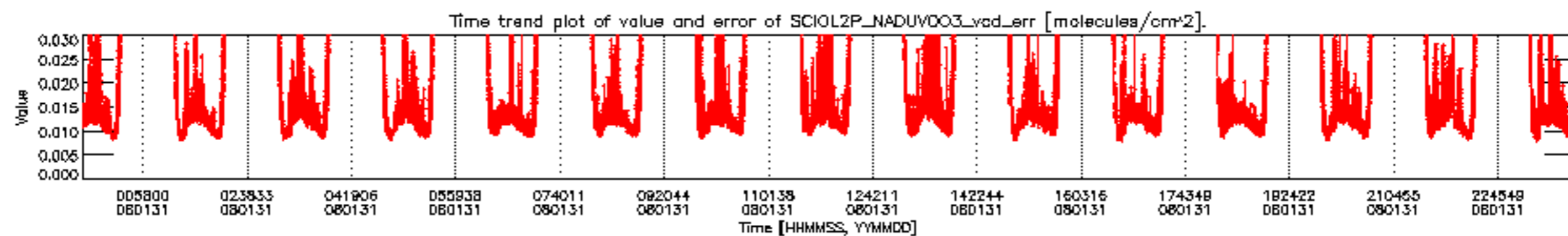
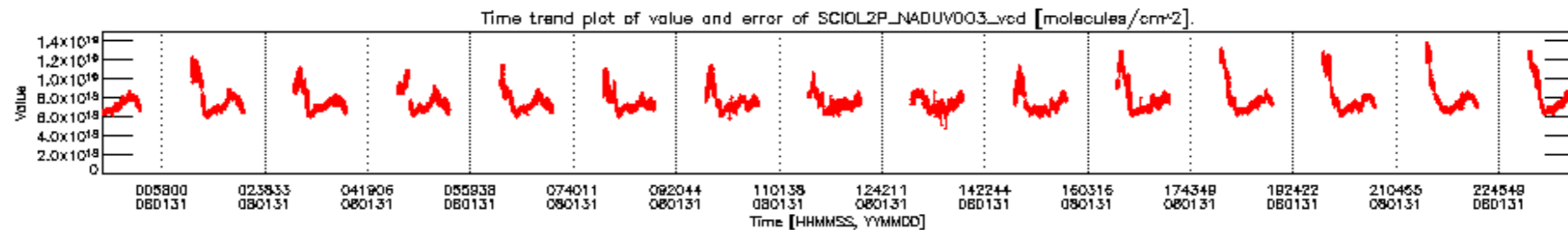


cl\_opt\_depth for 31JAN2008 00:00:00 to 01FEB2008 00:00:00

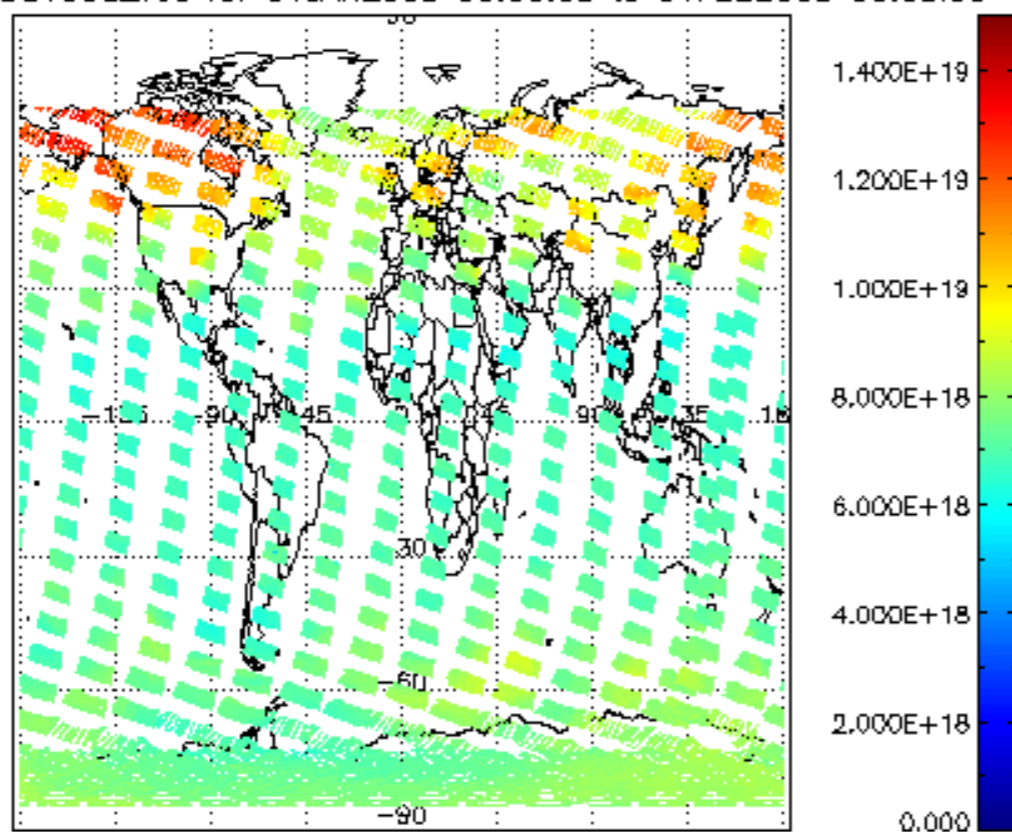


cloud\_flags for 31JAN2008 00:00:00 to 01FEB2008 00:00:00

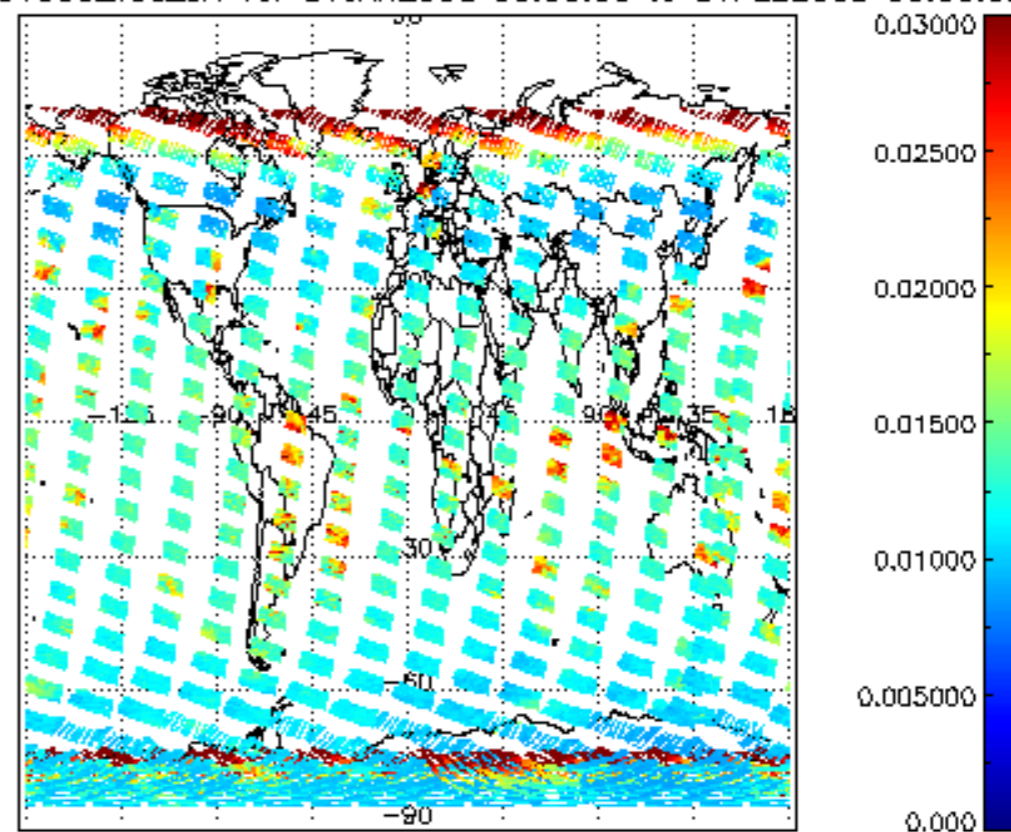




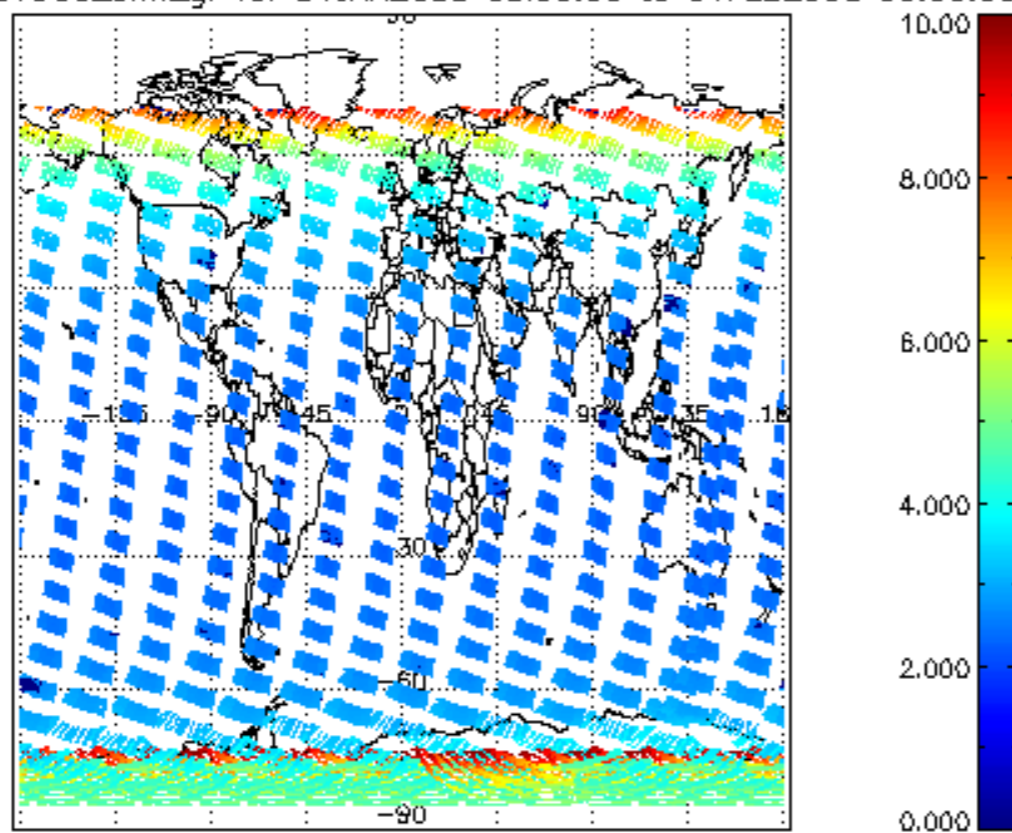
SCIOL2P\_NADUV003\_vcd for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



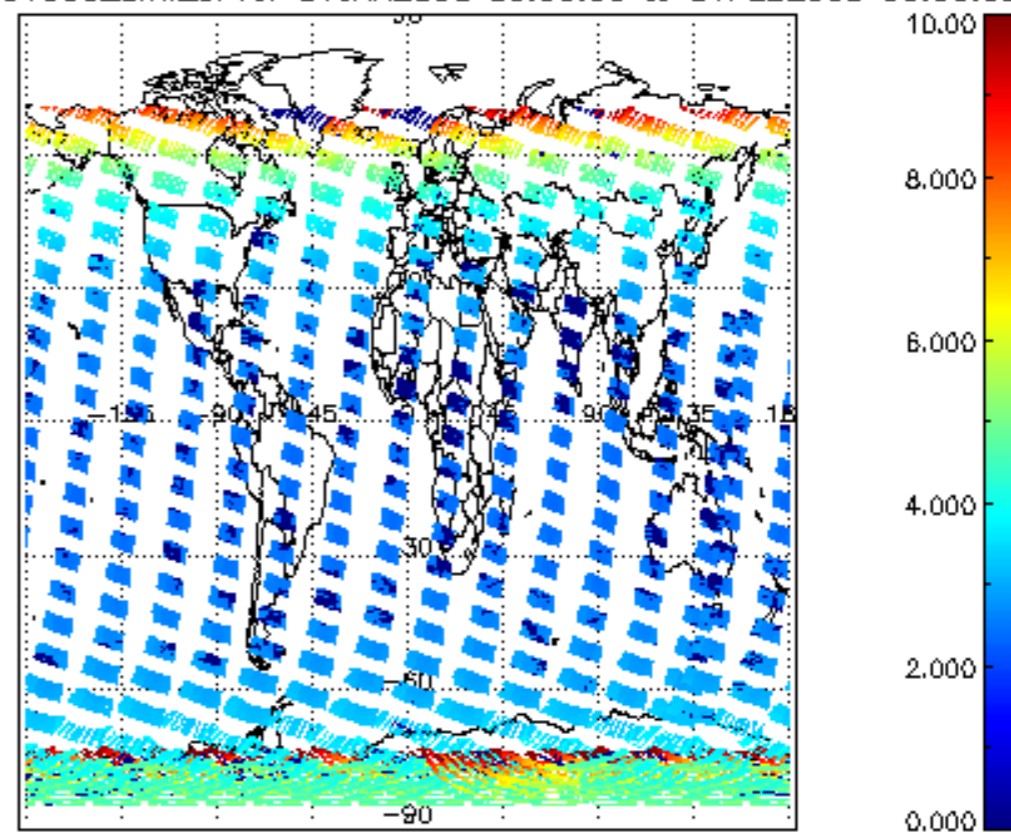
SCIOL2P\_NADUV003\_vcd\_err for 31JAN2008 00:00:00 to 01FEB2008 00:00:00

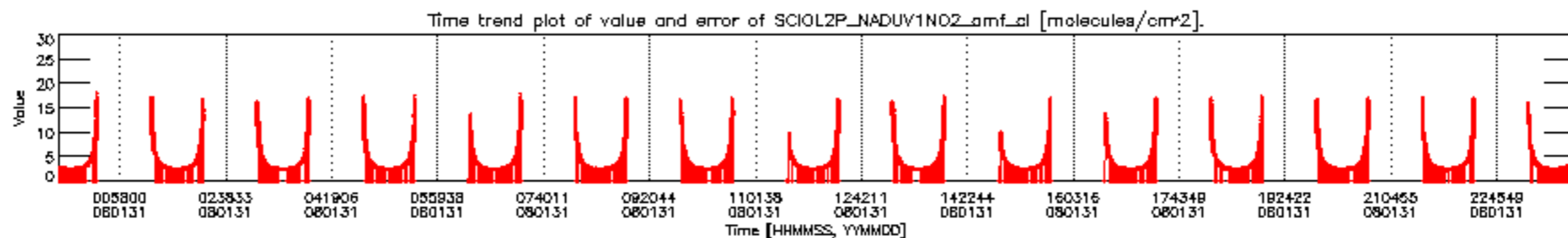
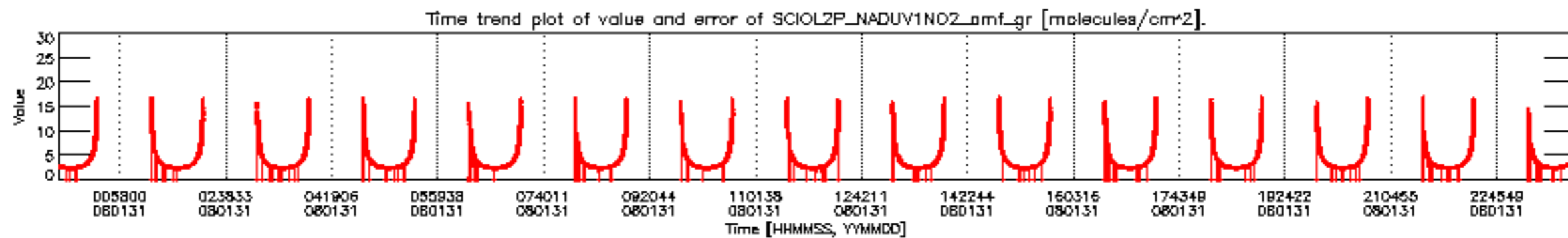
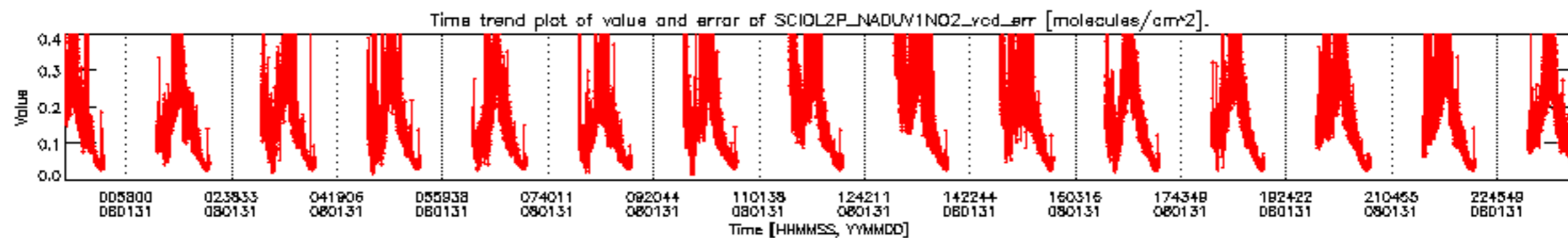
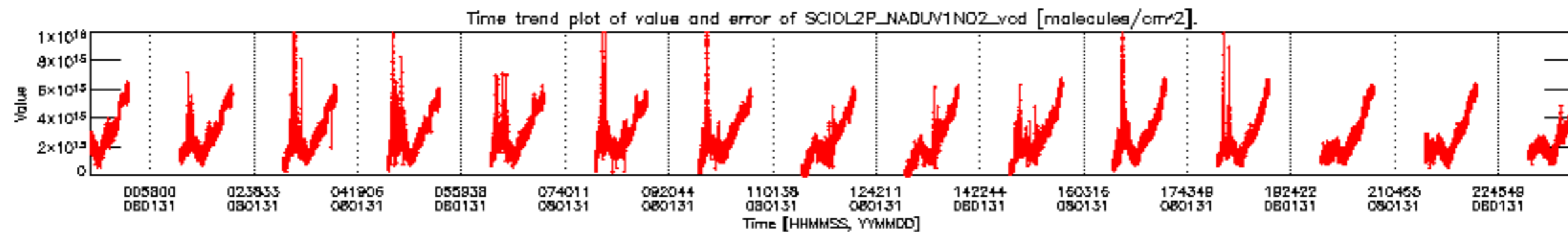


SCIOL2P\_NADUV003\_amf\_gr for 31JAN2008 00:00:00 to 01FEB2008 00:00:00

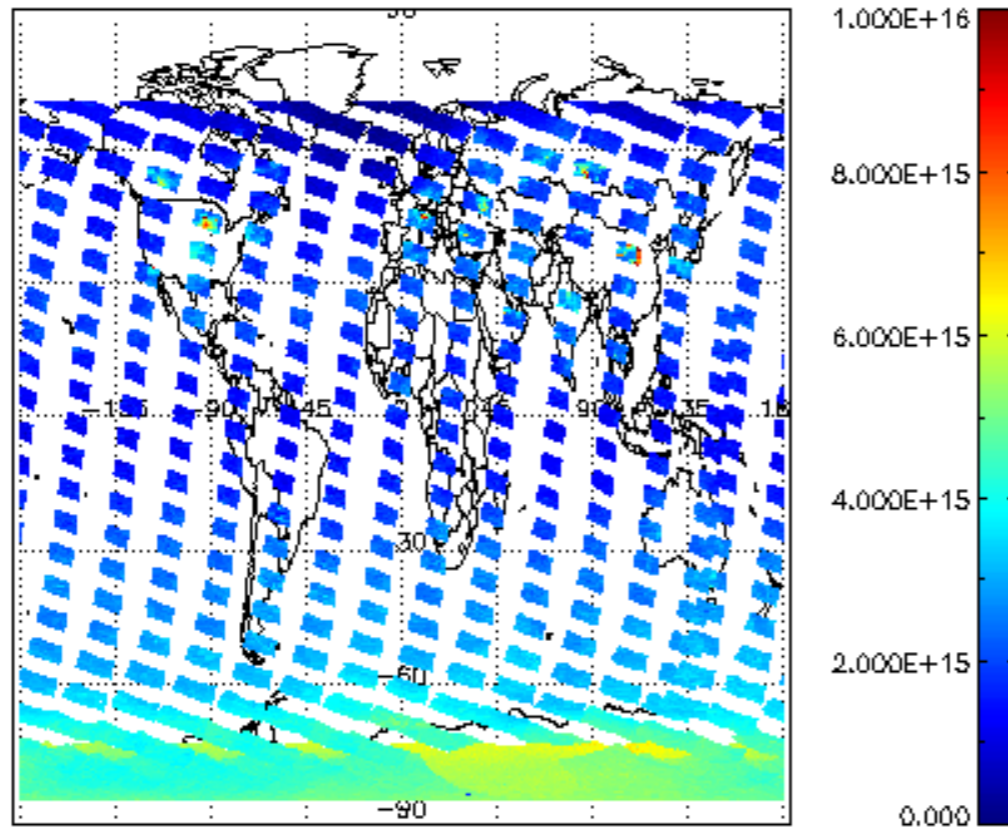


SCIOL2P\_NADUV003\_amf\_cl for 31JAN2008 00:00:00 to 01FEB2008 00:00:00

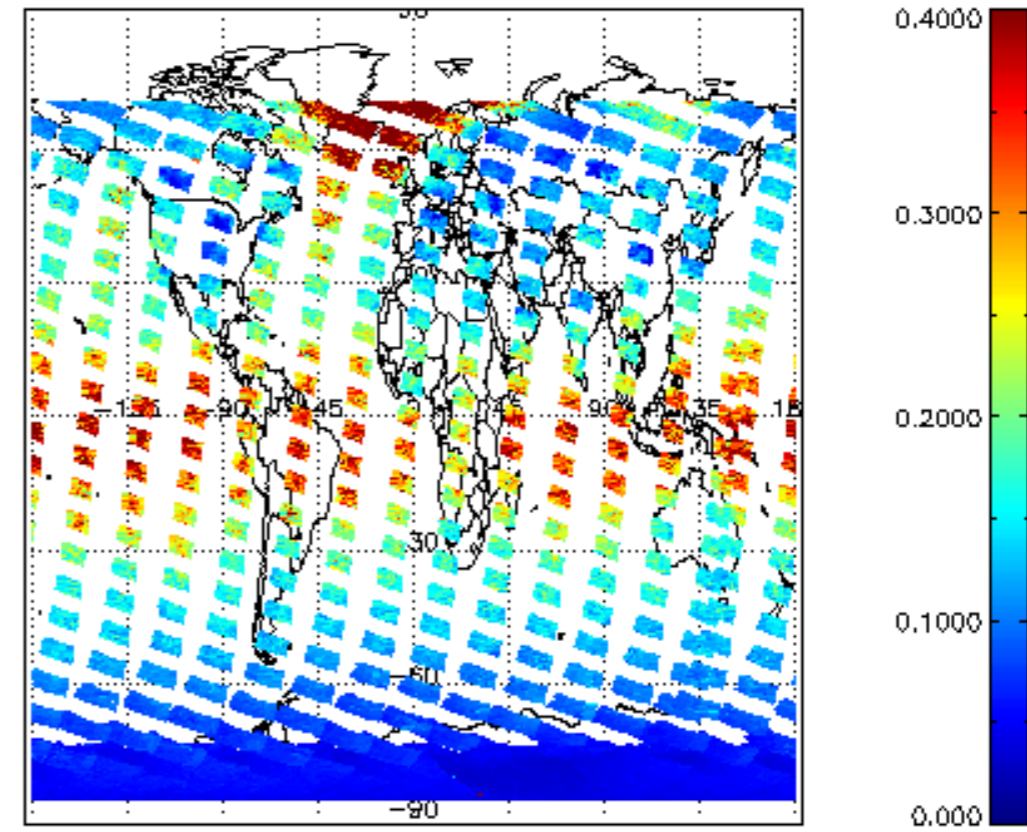




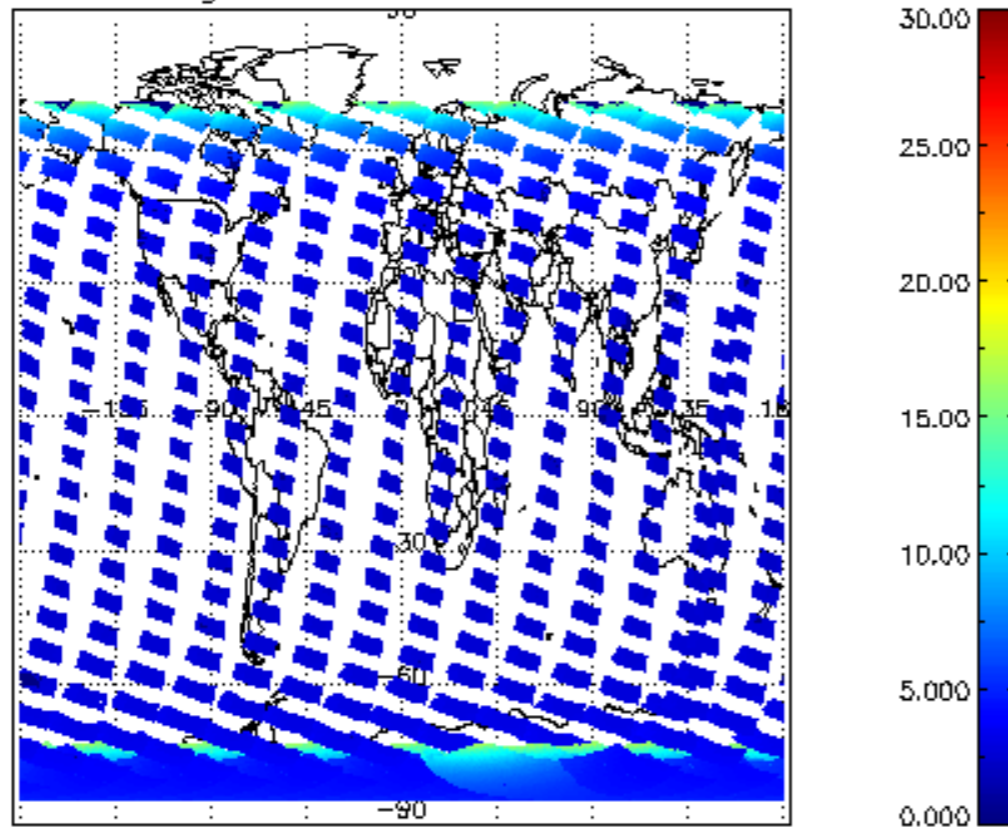
SCIOL2P\_NADUV1NO2\_vcd for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



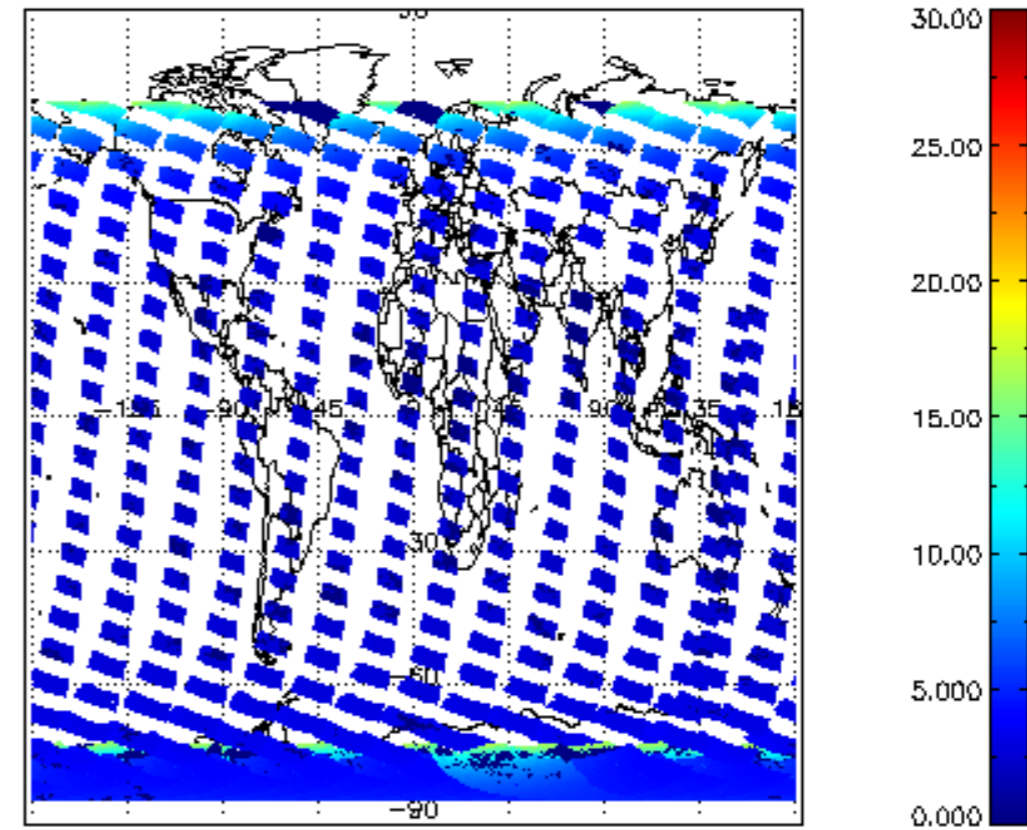
SCIOL2P\_NADUV1NO2\_vcd\_err for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



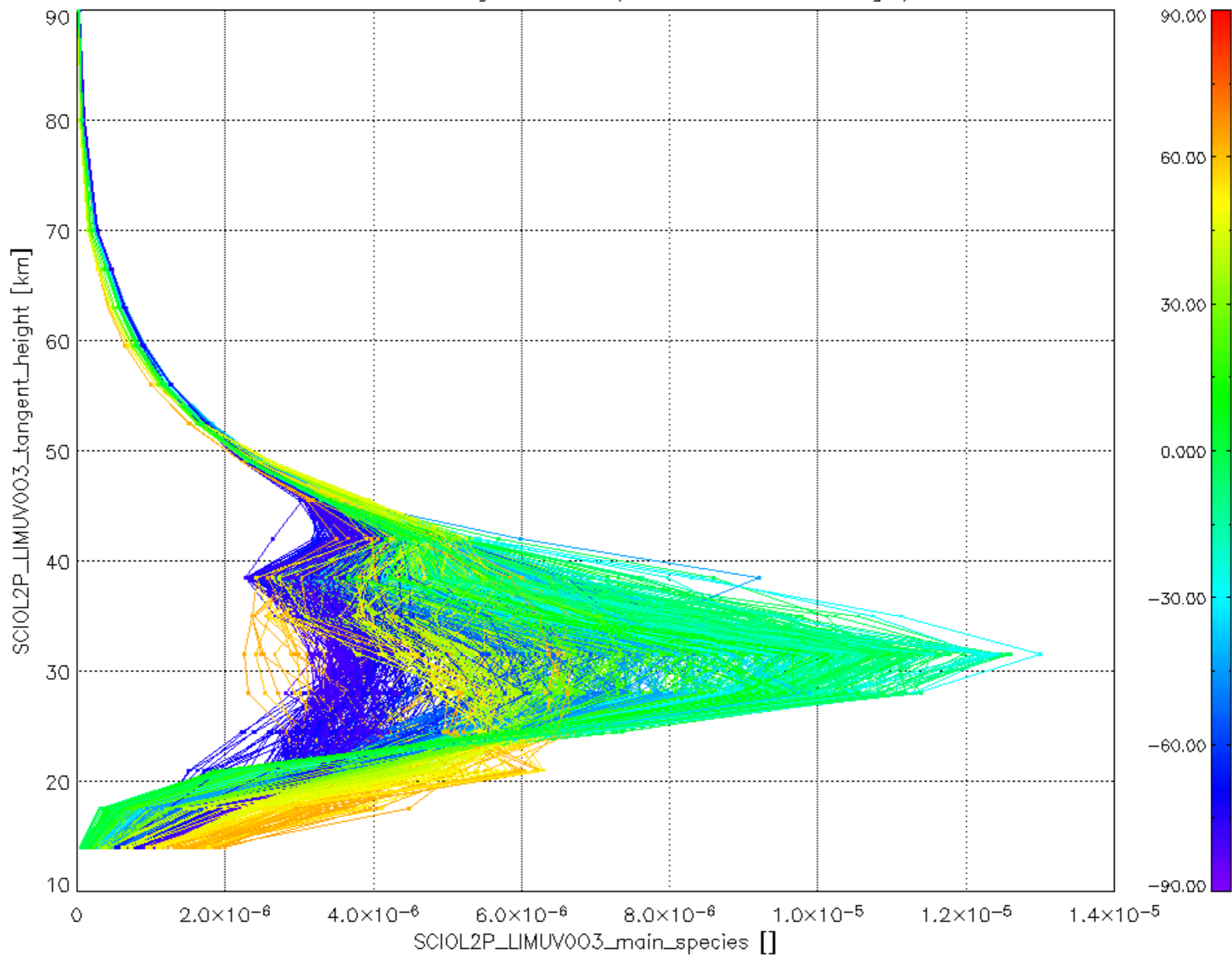
SCIOL2P\_NADUV1NO2\_amf\_gr for 31JAN2008 00:00:00 to 01FEB2008 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 31JAN2008 00:00:00 to 01FEB2008 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).

