

## 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	1.6 (28-07-2008)
Time of report generation	27SEP2008 06:01:37
Data source version	SCIA-OL/3.01-R
Processing scope for products	09SEP2008 00:00:00 to 10SEP2008 00:00:00
Start time of first product within scope	09SEP2008 11:41:27
Stop time of last product within scope	10SEP2008 00:22:03
Total number of level 2 products	7
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.

Products are linked to a corresponding server directory for view/download. Note: Link access may be restricted by security settings of your internet browser or firewall.

#	Product name	Start time	Stop time	Prod err	Fit summary
0	<a href="#">SCI_OL__2PRDPA20080909_114127_000033252072_00009_34131_0310.N1</a>	09SEP2008 11:41:27	09SEP2008 12:36:52	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20080909_150240_000033252072_00011_34133_0320.N1</a>	09SEP2008 15:02:40	09SEP2008 15:58:05	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20080909_164316_000033812072_00011_34133_0356.N1</a>	09SEP2008 16:43:16	09SEP2008 17:39:38	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20080909_182413_000033252072_00013_34135_0358.N1</a>	09SEP2008 18:24:13	09SEP2008 19:19:38	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20080909_200449_000033122072_00014_34136_0360.N1</a>	09SEP2008 20:04:49	09SEP2008 21:00:02	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20080909_214506_000033252072_00015_34137_0362.N1</a>	09SEP2008 21:45:06	09SEP2008 22:40:31	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20080909_232542_000033812072_00016_34138_0364.N1</a>	09SEP2008 23:25:42	10SEP2008 00:22:03	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: 66820

Total number of cloud data DSRs with good quality flag (=0): 66820 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	66820	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	66820	0.17218	0.12500	0.12500	0.25000	0.060593	s

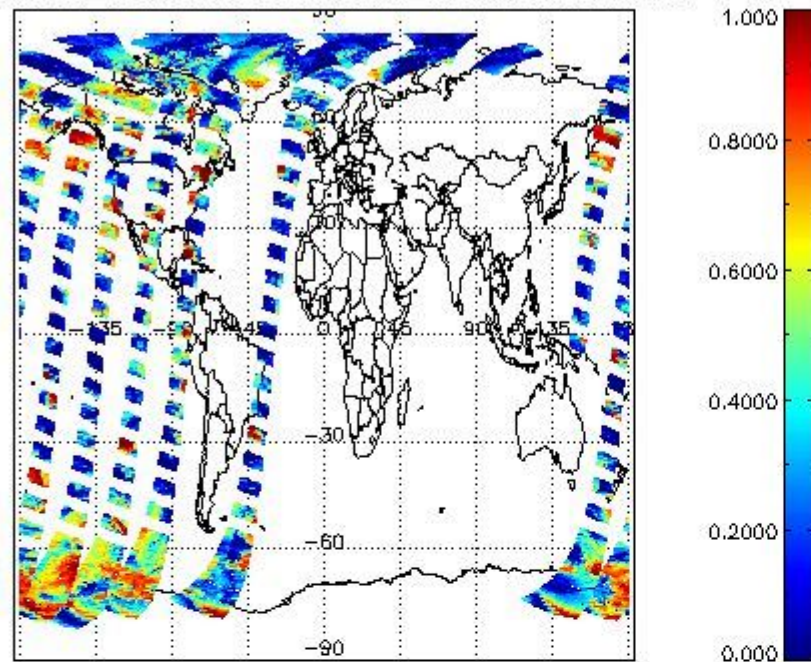
CL_FRAC	66820	0.35307	0.30926	0.0000	1.0000	0.28841	-
CL_FRAC_ERR	66820	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	66820	5.5097	4.0000	4.0000	8.0000	1.9390	
PMD_READ_CL[0]	66820	0.21052	0.0000	0.0000	8.0000	1.0784	-
PMD_READ_CL[1]	66820	1.2045	0.0000	0.0000	8.0000	2.2515	-
CL_TOP_HEIGHT	58491	3.6998	1.9385	0.0000	17.000	4.0509	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	58491	59.977	70.584	0.0000	101.00	42.061	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	66820	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	66820	11001010	11000100	11000000	11100000	3264.2	flags
AERO_ABSO_IND	66820	3.0934	3.6851	-0.47742	13.330	2.0029	
AERO_IND_DIAG	66820	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	66820	01011010	00000000	00000000	11000000	24533.	flags

### Time and geolocation plots:

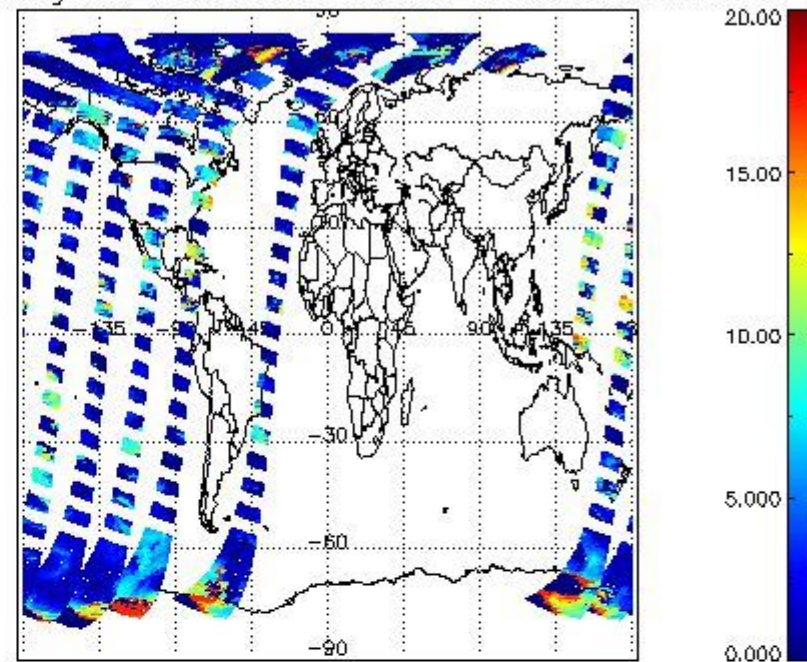
Plots are available for the following parameters:

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

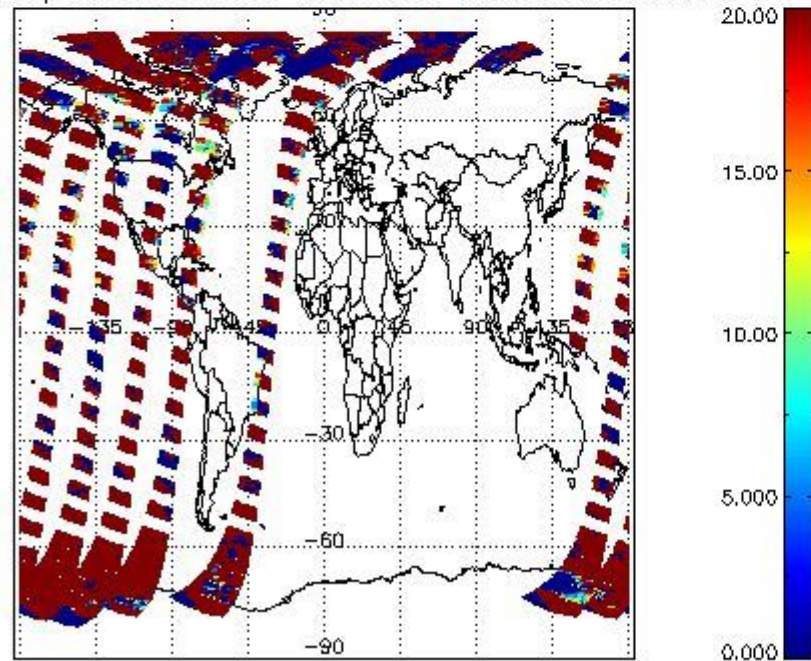
cL\_frac for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



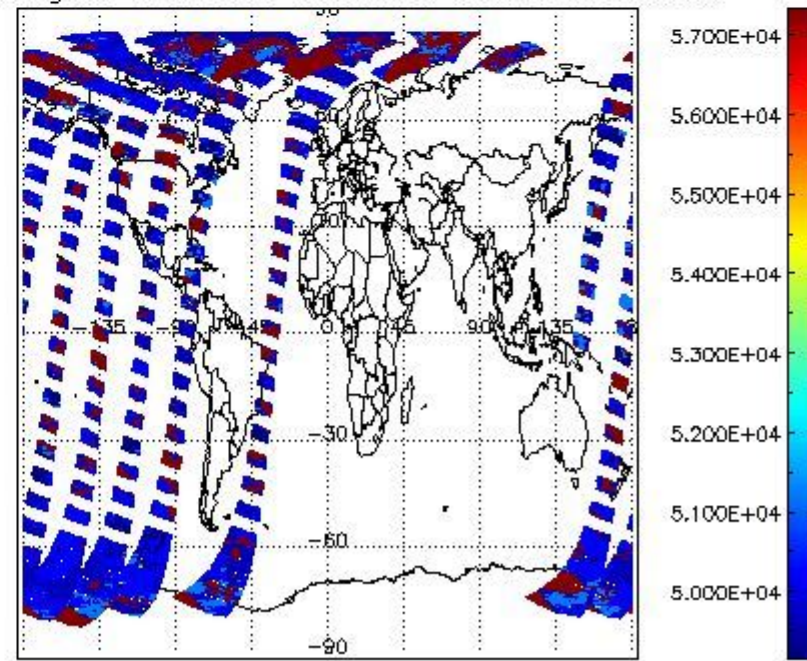
cL\_top\_height for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



cL\_opt\_depth for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



cloud\_flags for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



## 2.2.2 Nadir

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

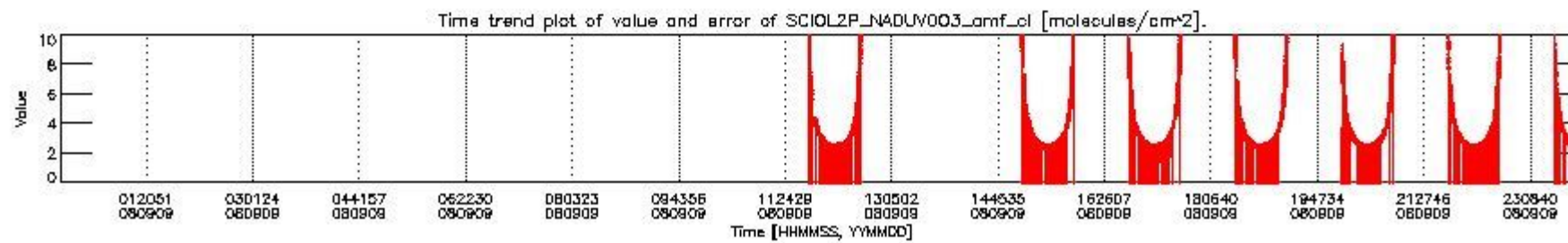
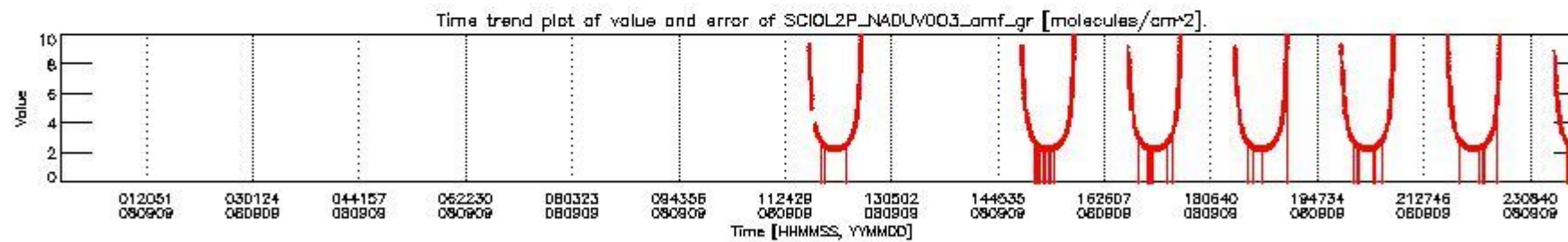
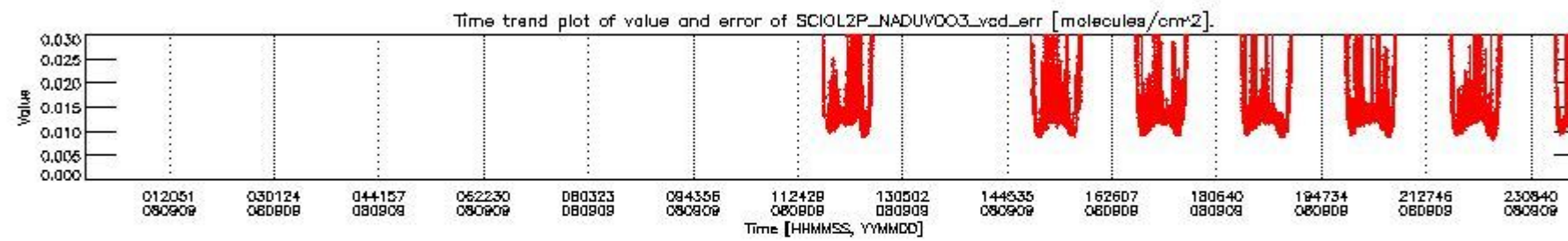
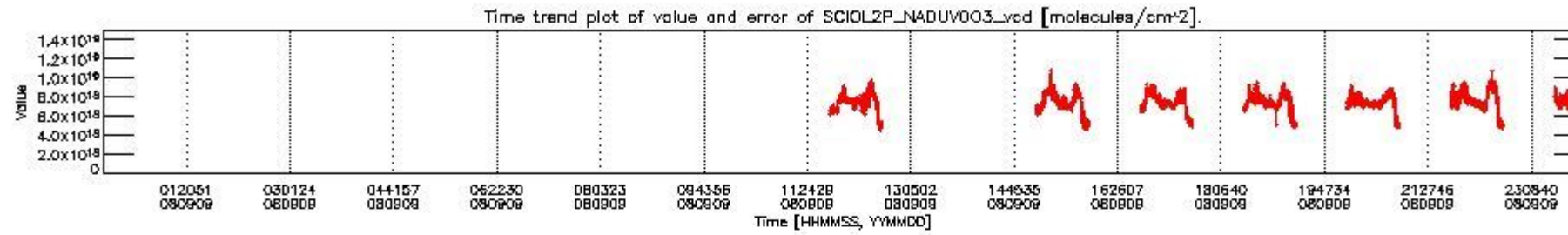
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



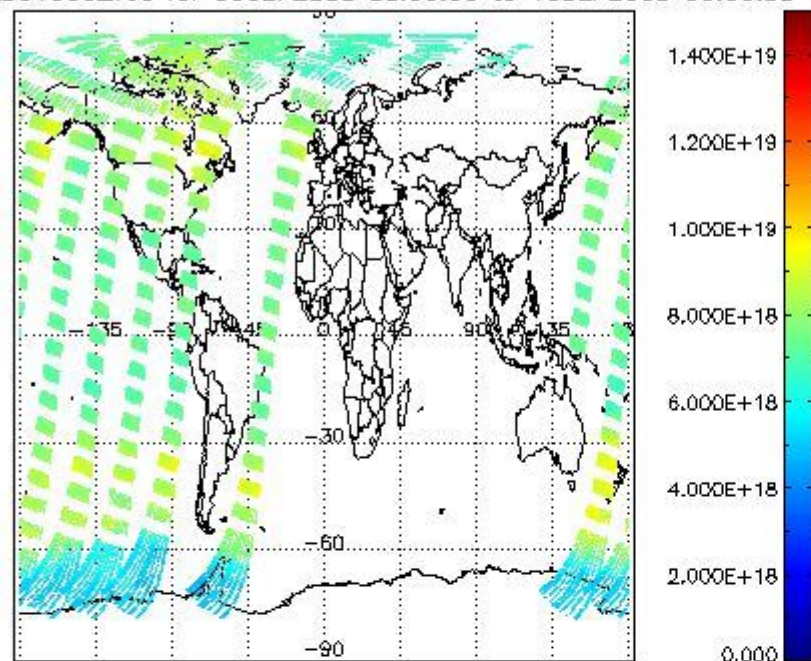
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

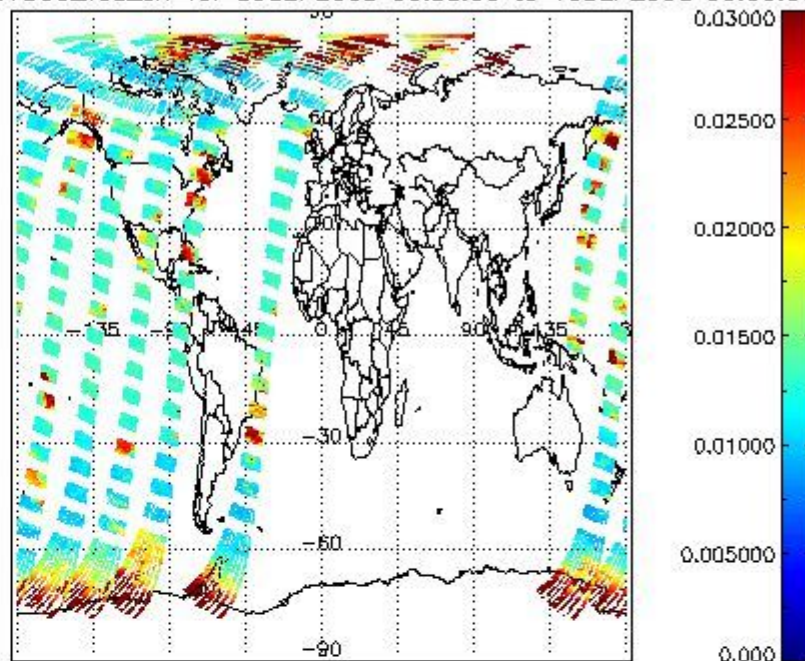




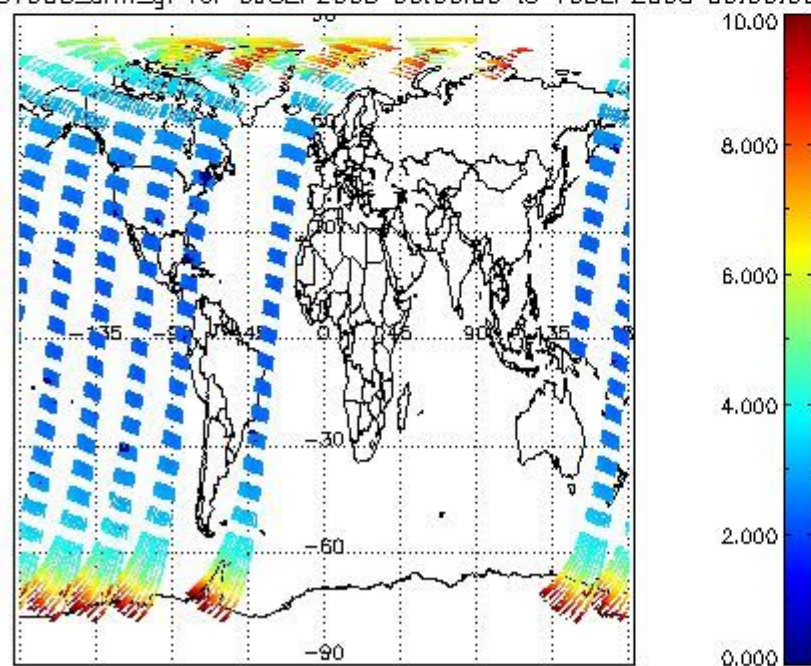
SCIOL2P\_NADUV003\_vcd for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



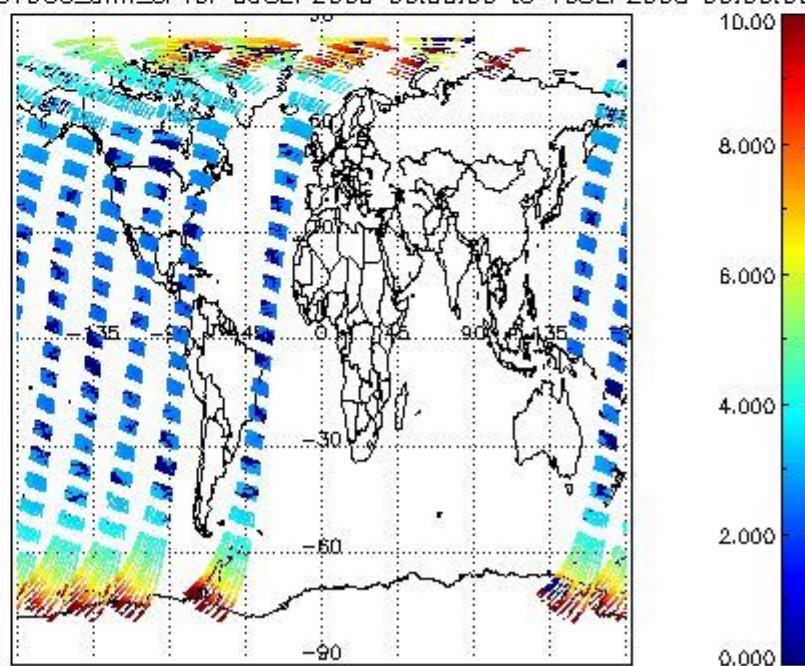
SCIOL2P\_NADUV003\_vcd\_err for 09SEP2008 00:00:00 to 10SEP2008 00:00:00

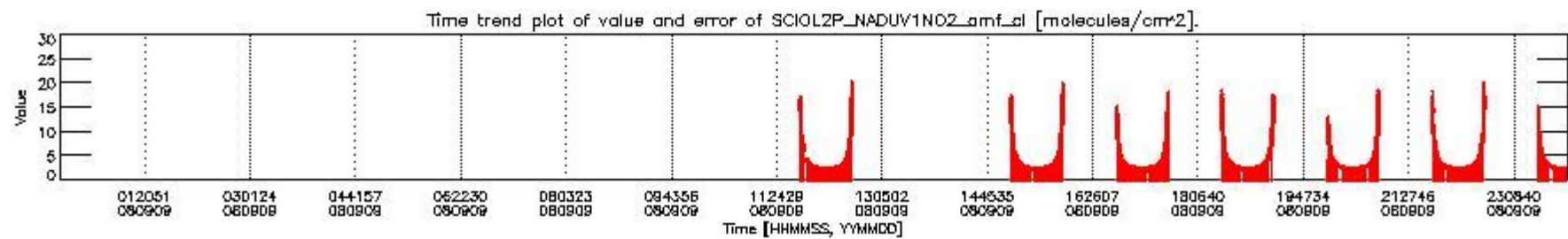
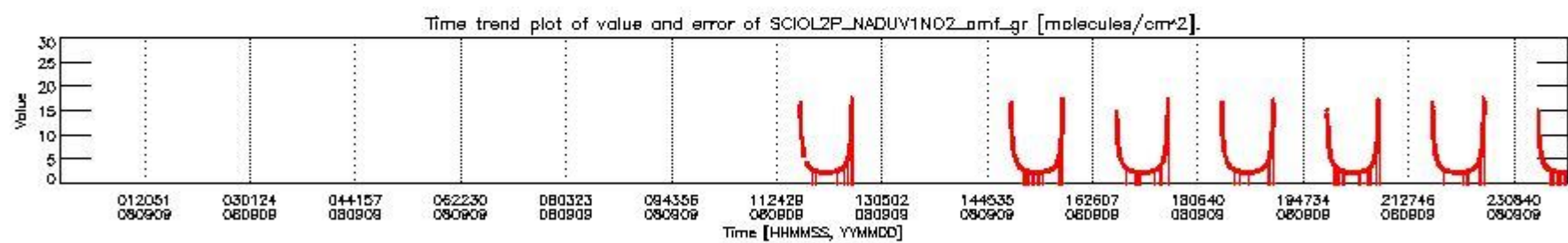
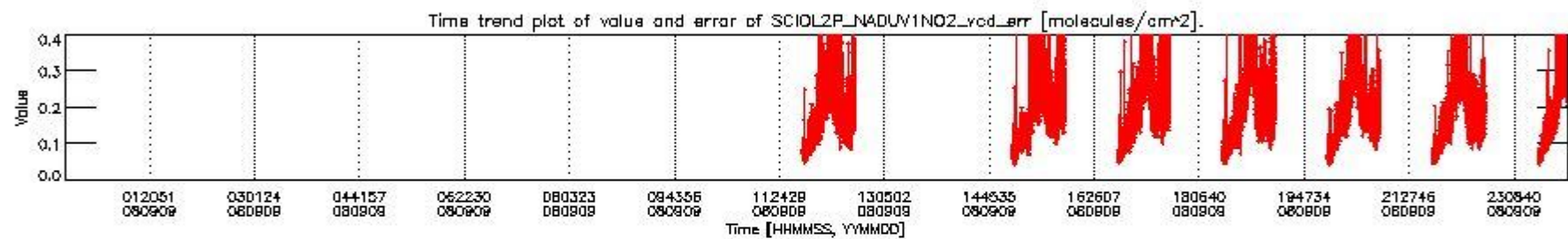
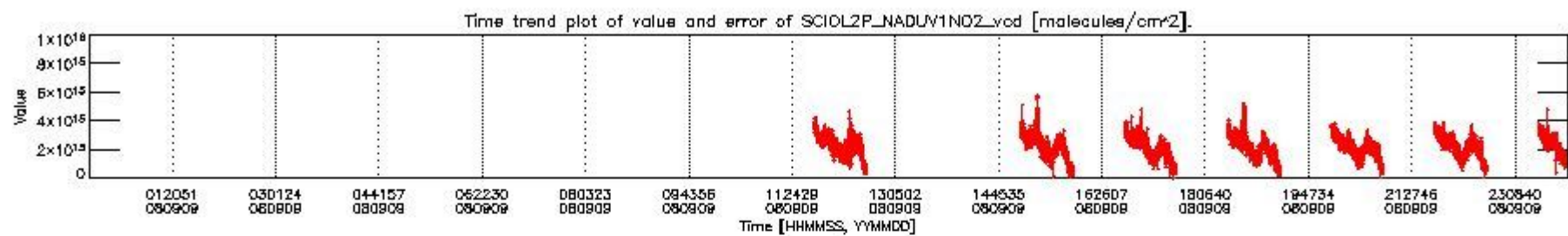


SCIOL2P\_NADUV003\_amf\_gr for 09SEP2008 00:00:00 to 10SEP2008 00:00:00

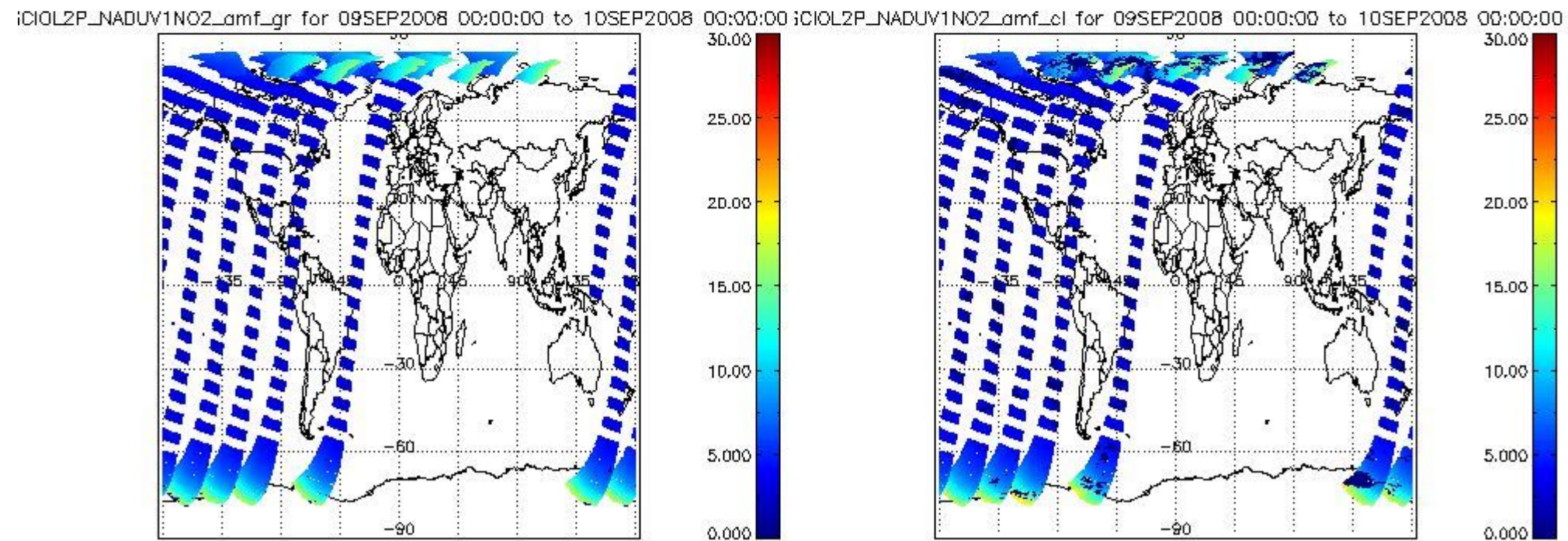
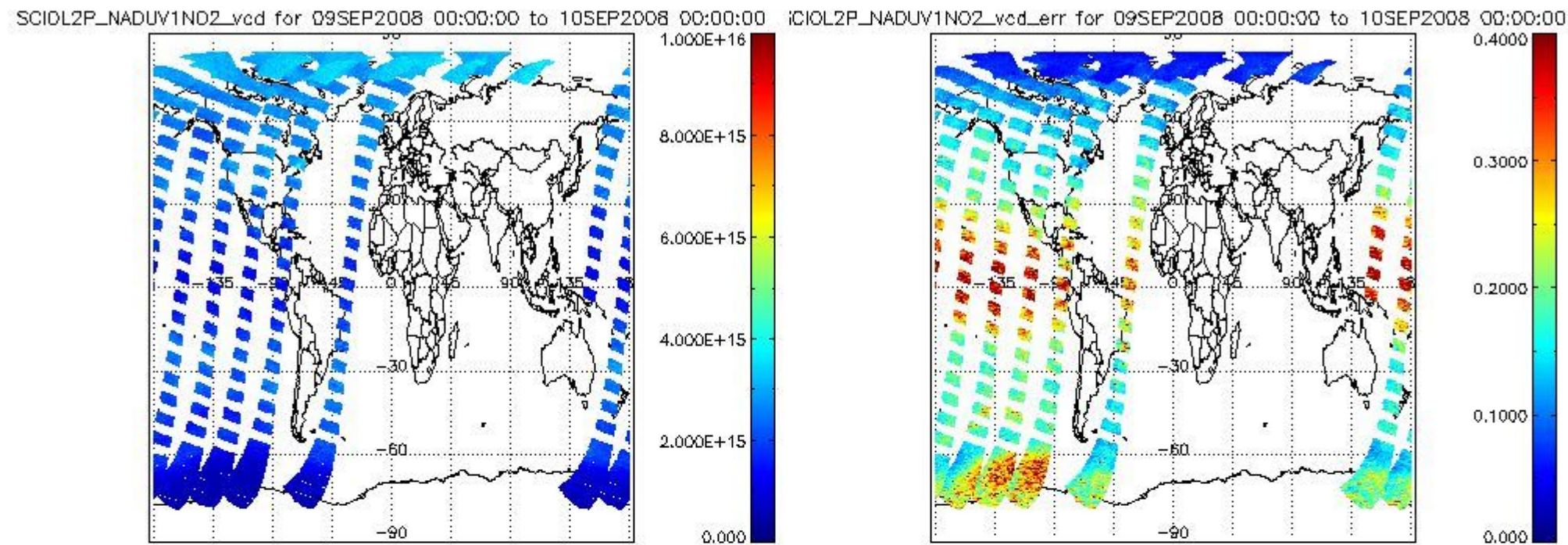


SCIOL2P\_NADUV003\_amf\_cl for 09SEP2008 00:00:00 to 10SEP2008 00:00:00









### 2.2.3 Limb

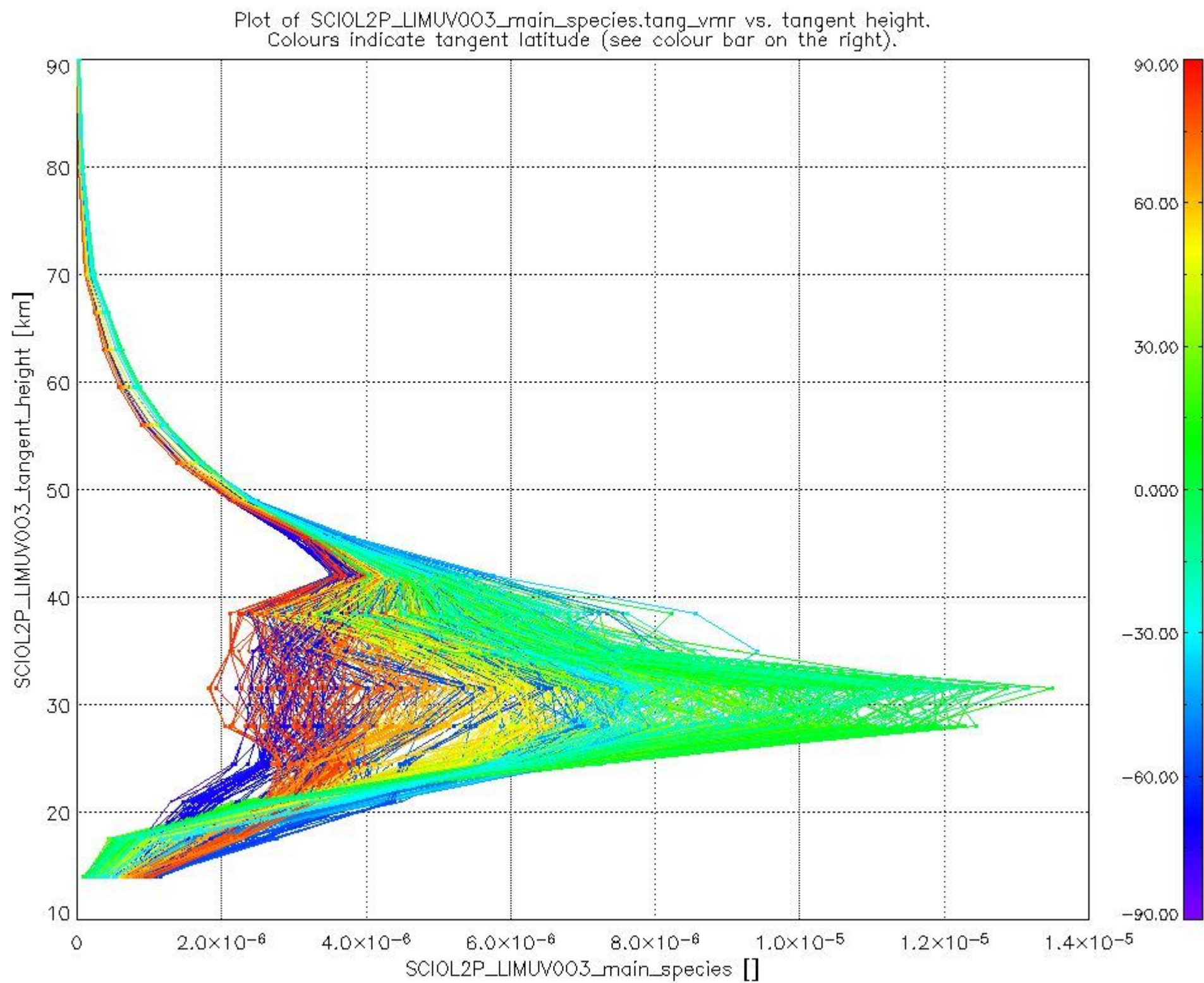
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

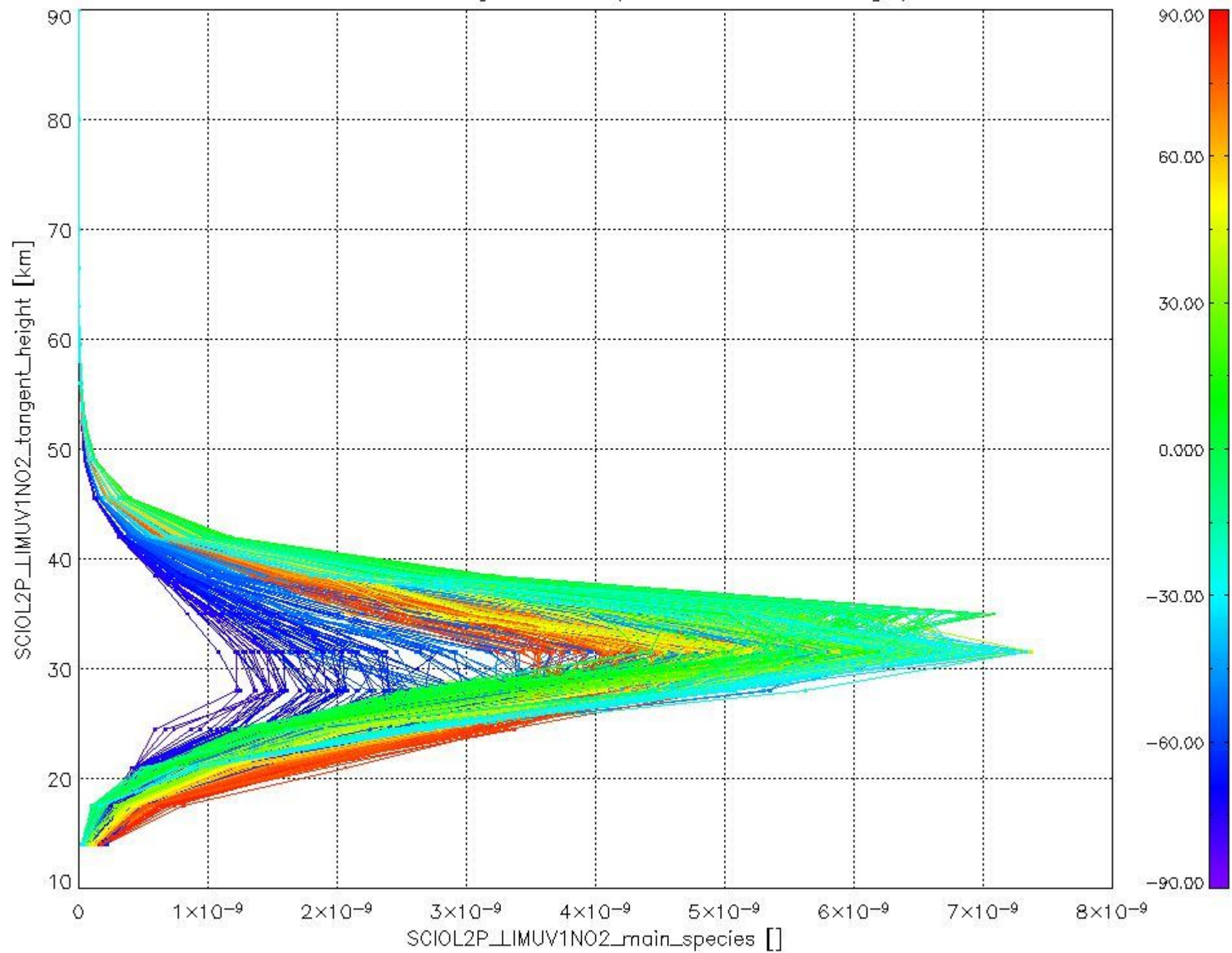


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





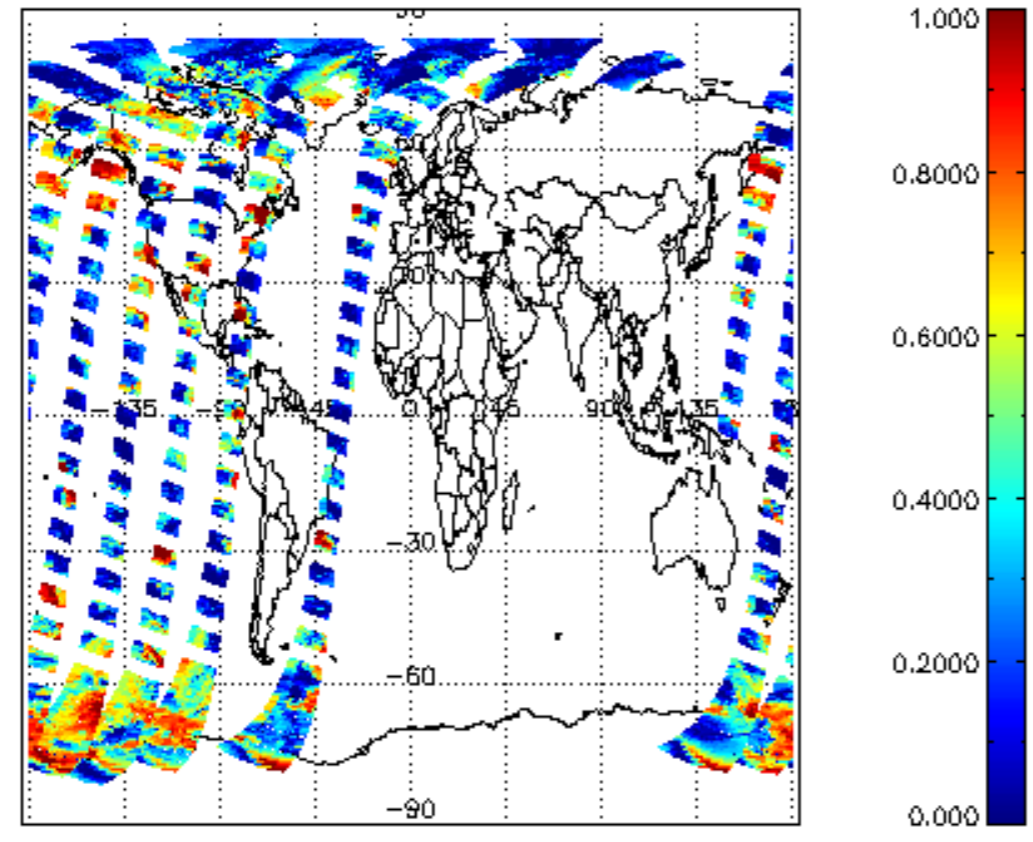
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



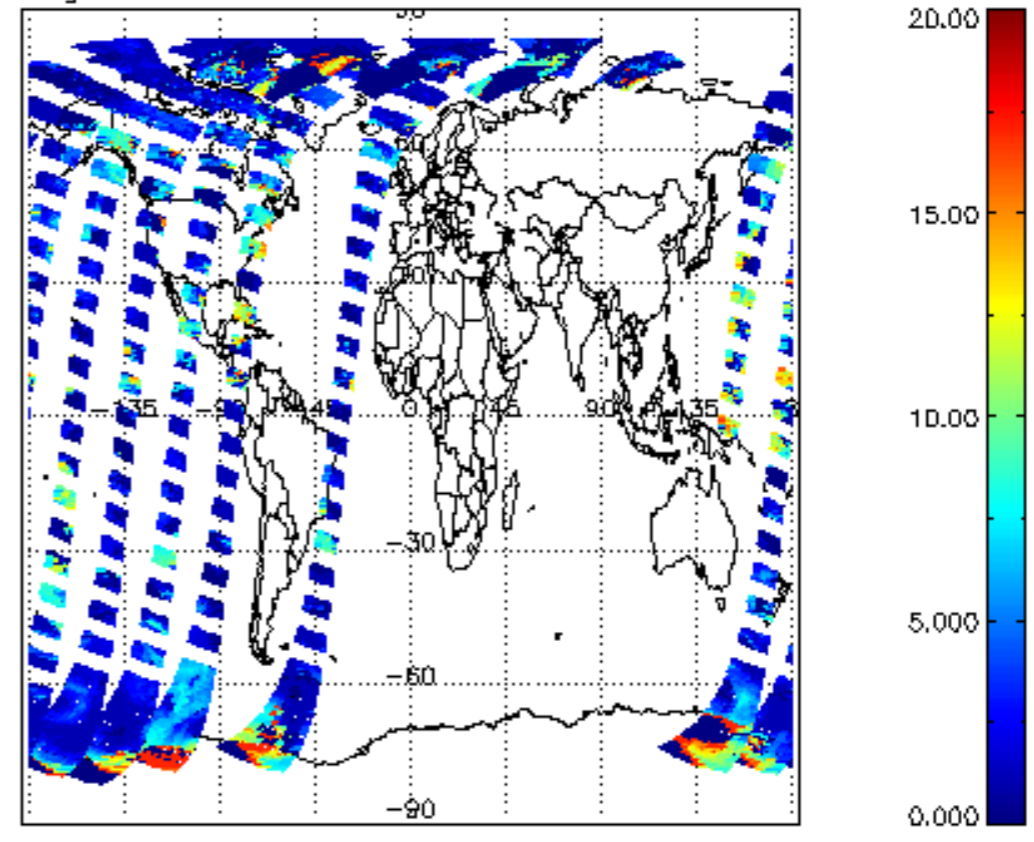
### 2.3 ADF monitoring

Number	ADF
	<b>IN_ (INITIALISATION_FILE)</b>
0	SCI_IN__AXNPDE20070629_092400_20070720_000000_20991231_235959
	<b>ECF (ECMWF_FILE)</b>
1	NOT USED

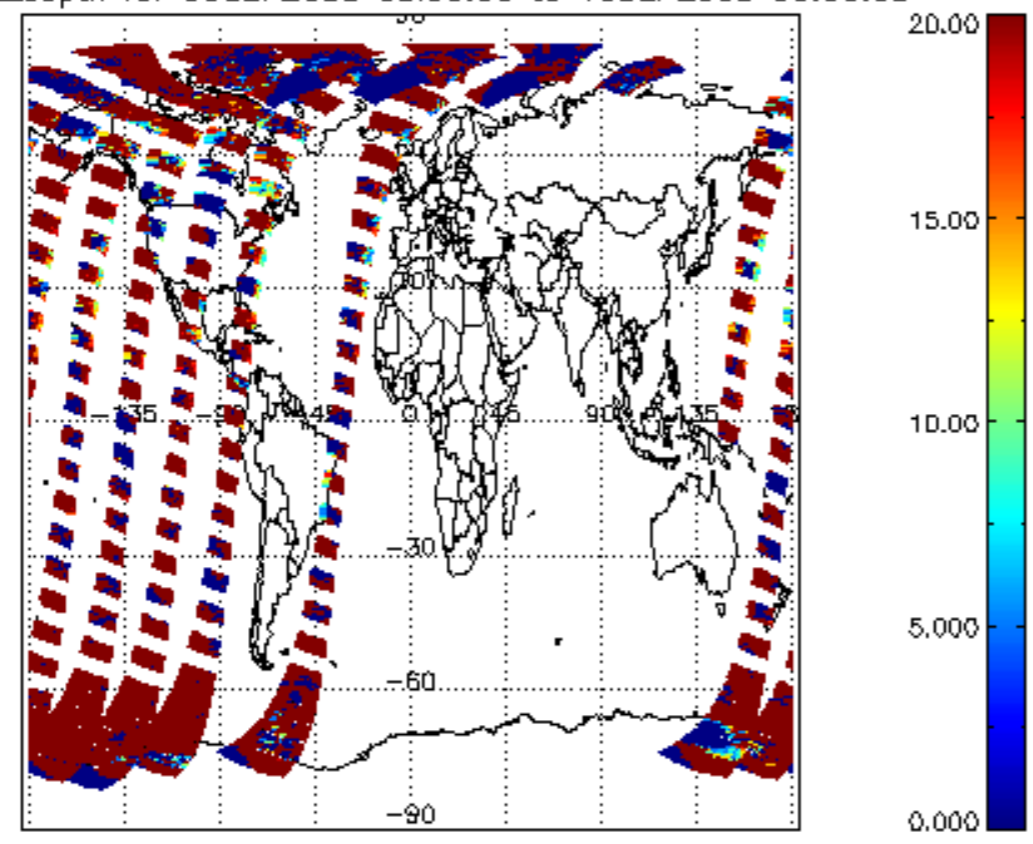
cl\_frac for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



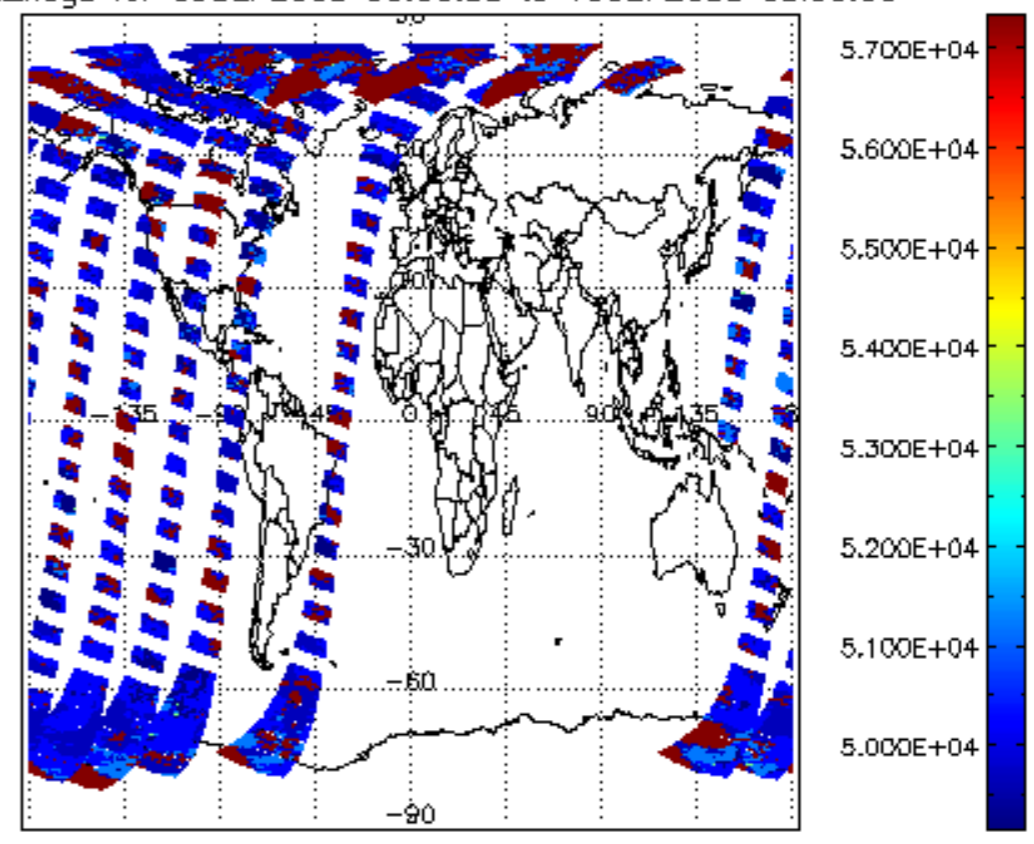
cl\_top\_height for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



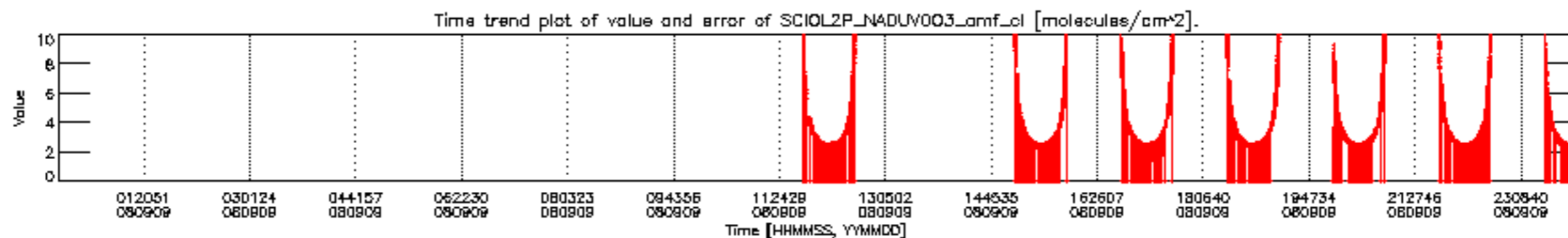
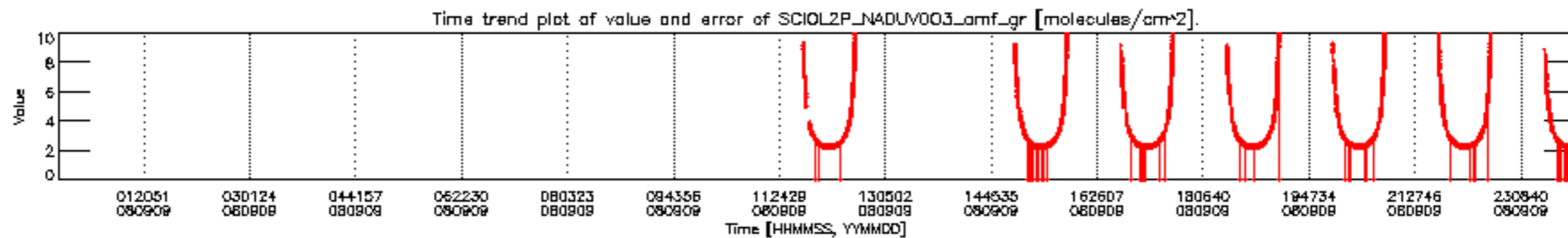
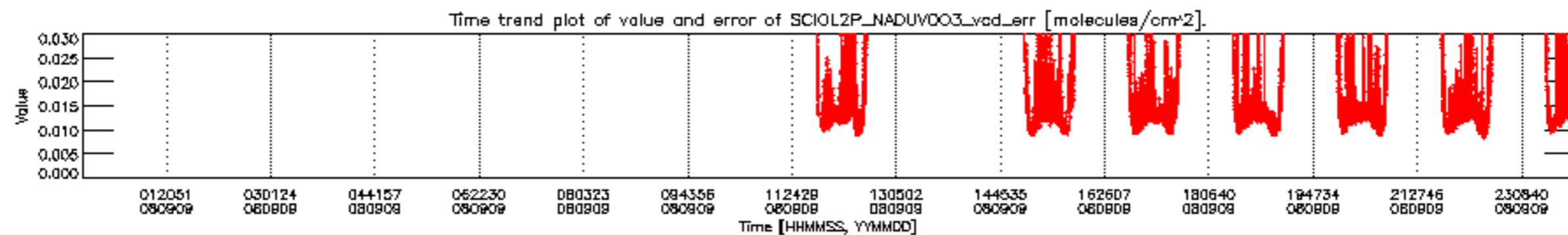
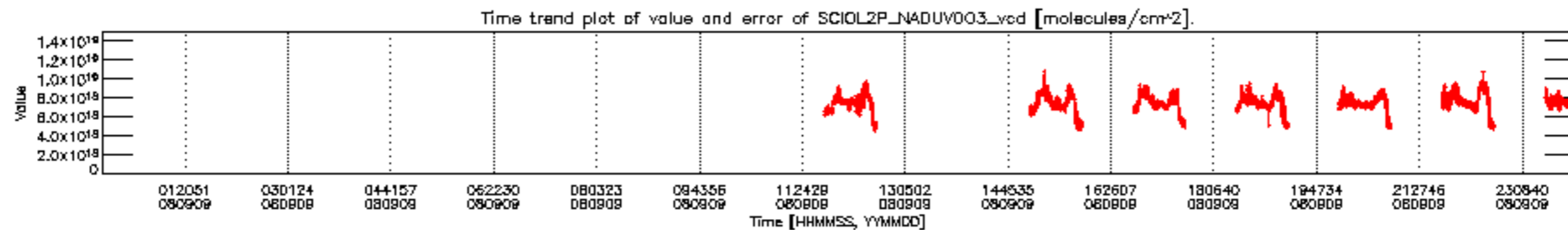
cl\_opt\_depth for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



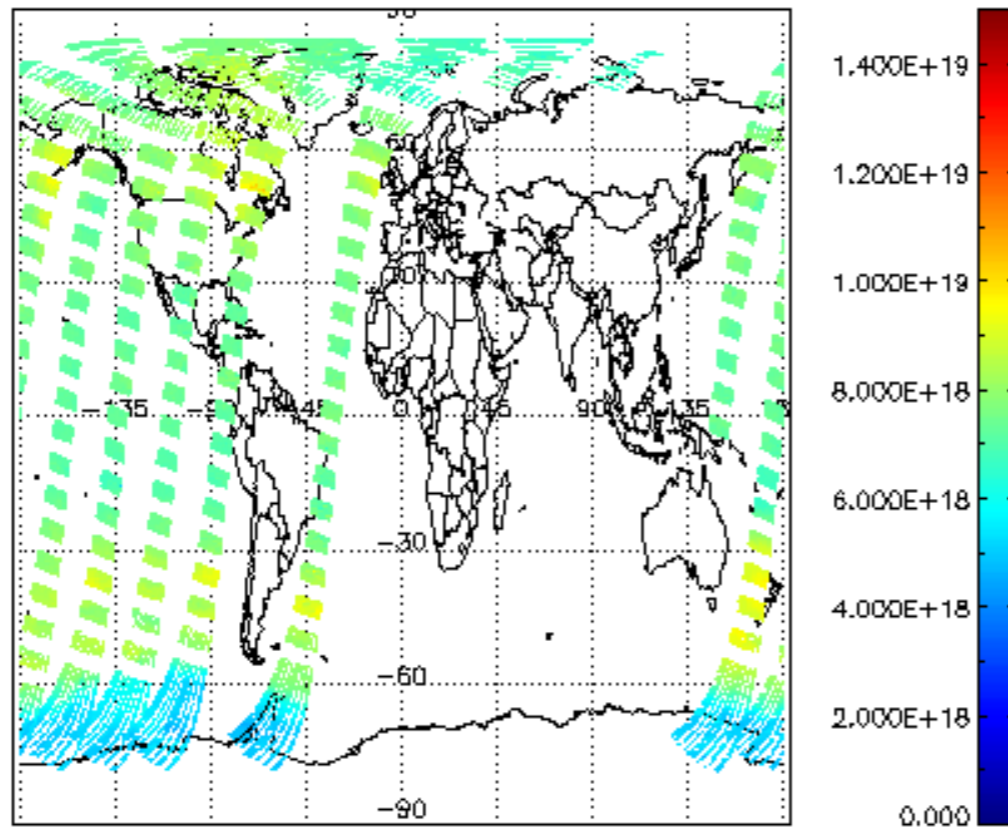
cloud\_flags for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



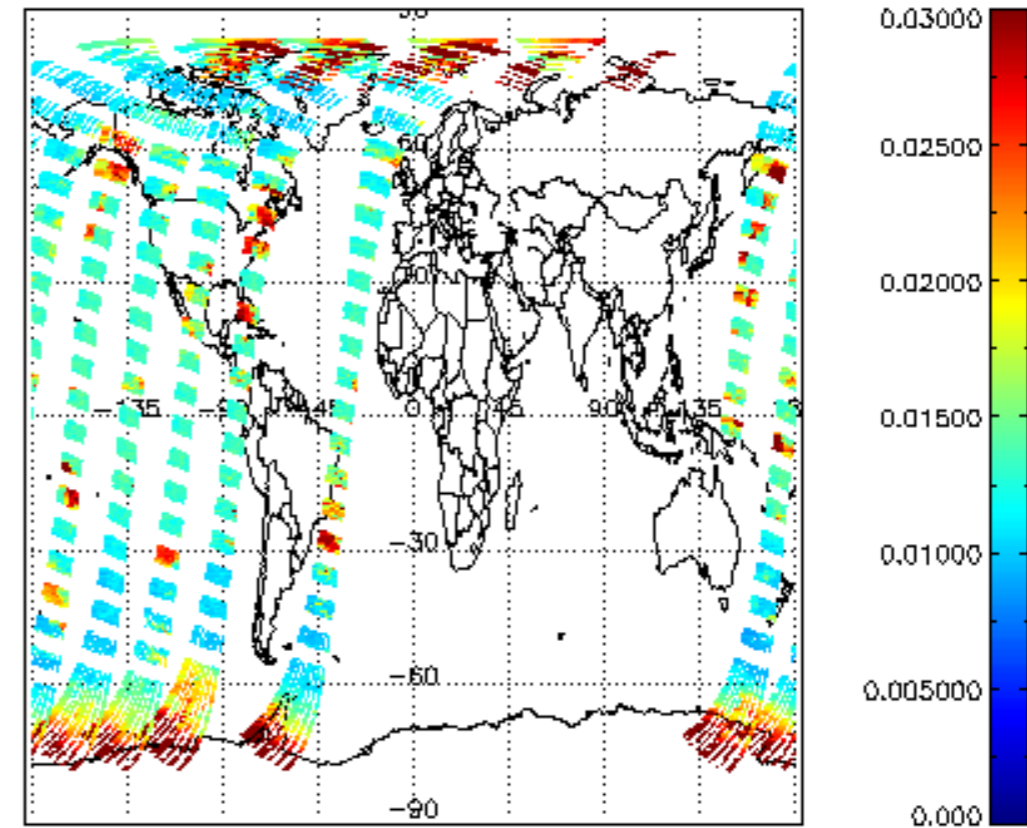




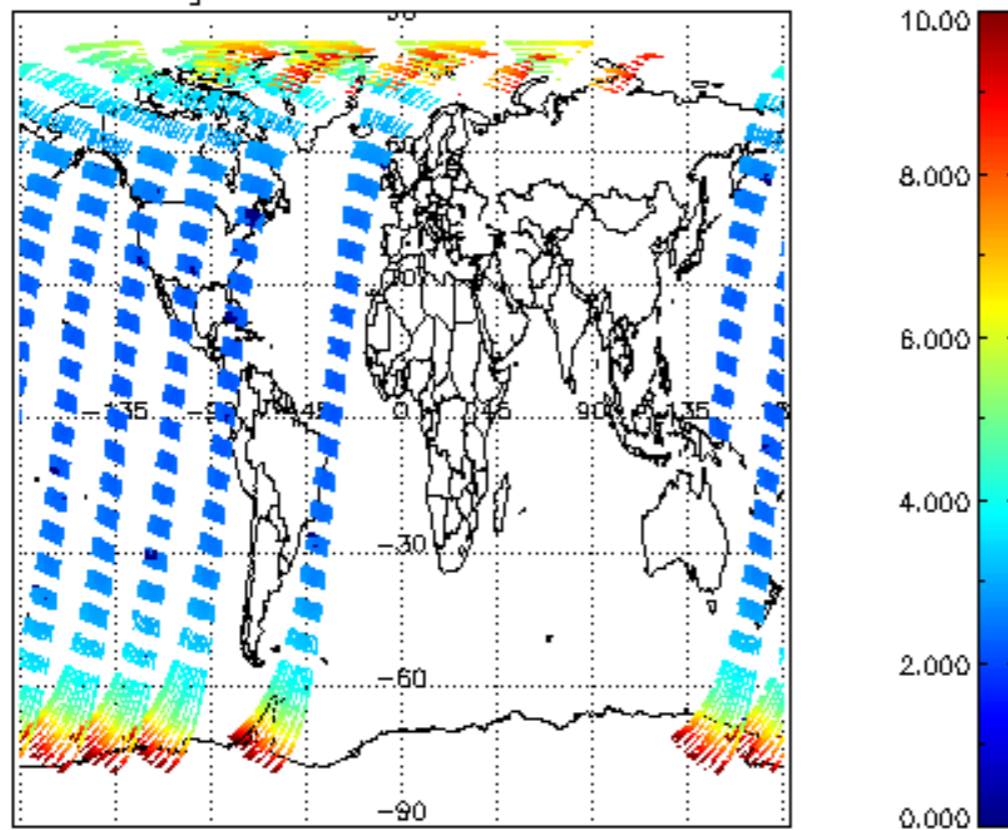
SCIOL2P\_NADUV003\_vcd for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



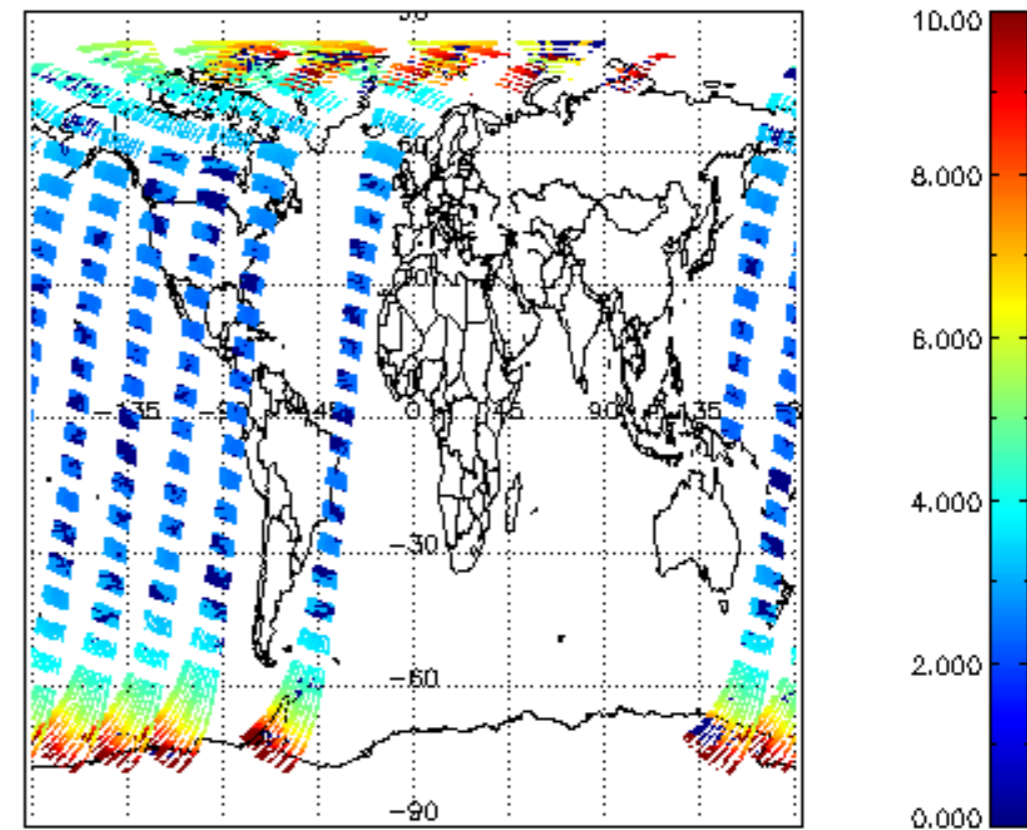
SCIOL2P\_NADUV003\_vcd\_err for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



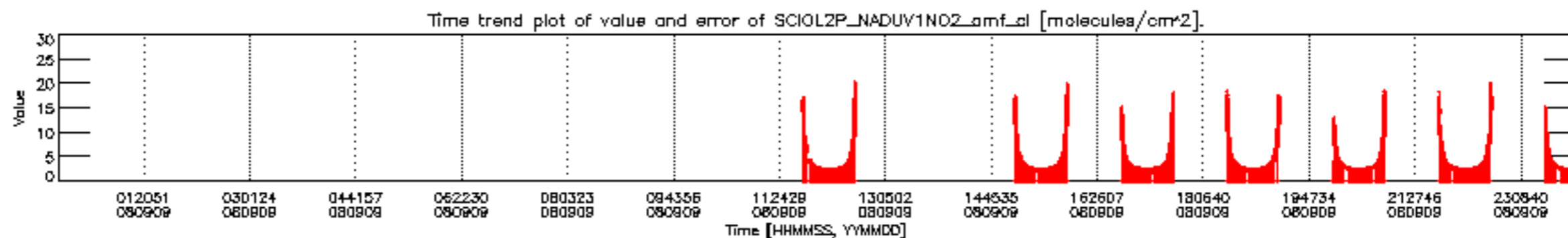
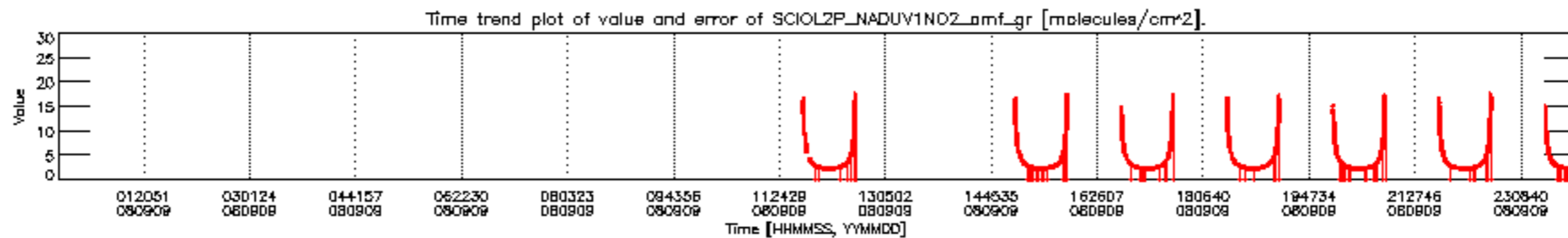
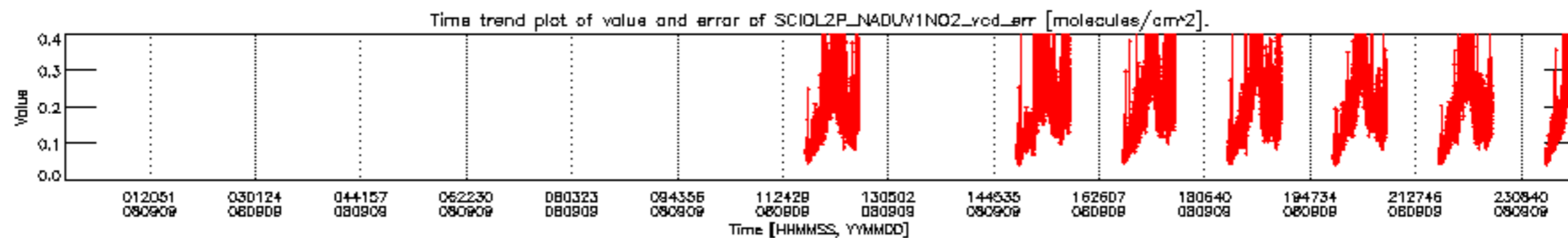
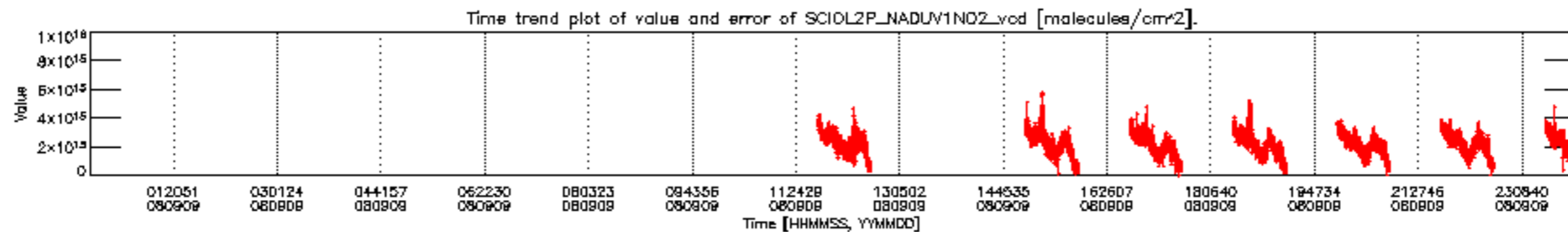
SCIOL2P\_NADUV003\_amf\_gr for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



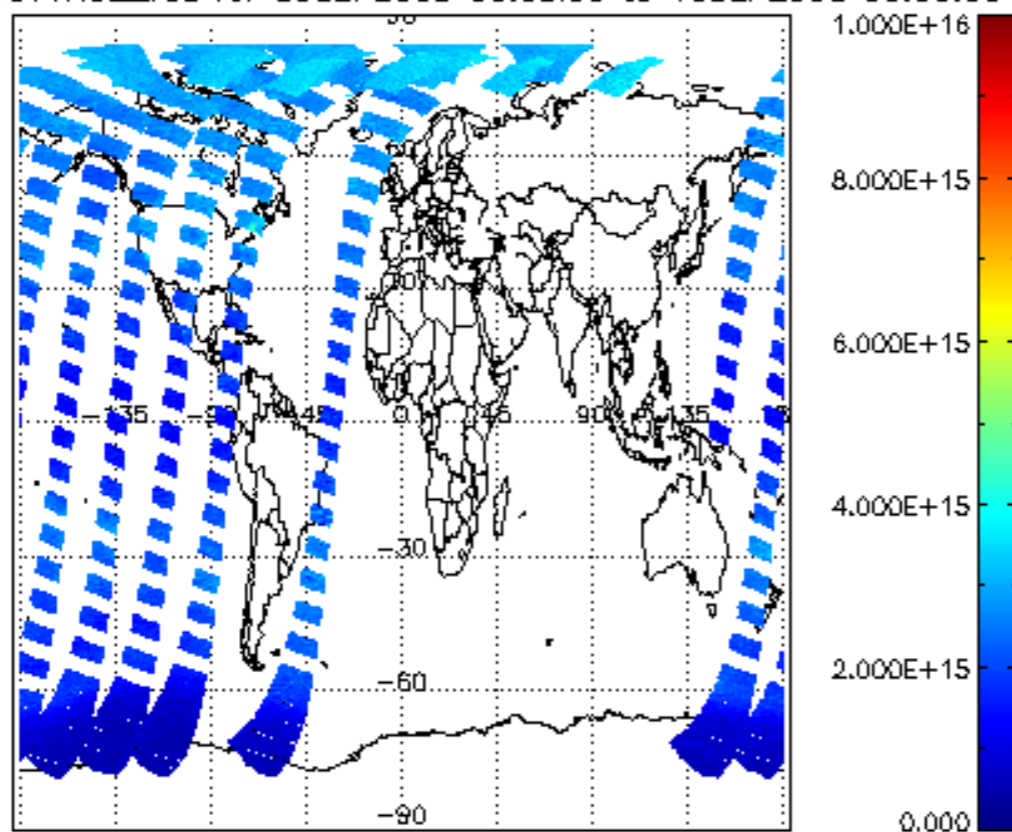
SCIOL2P\_NADUV003\_amf\_cl for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



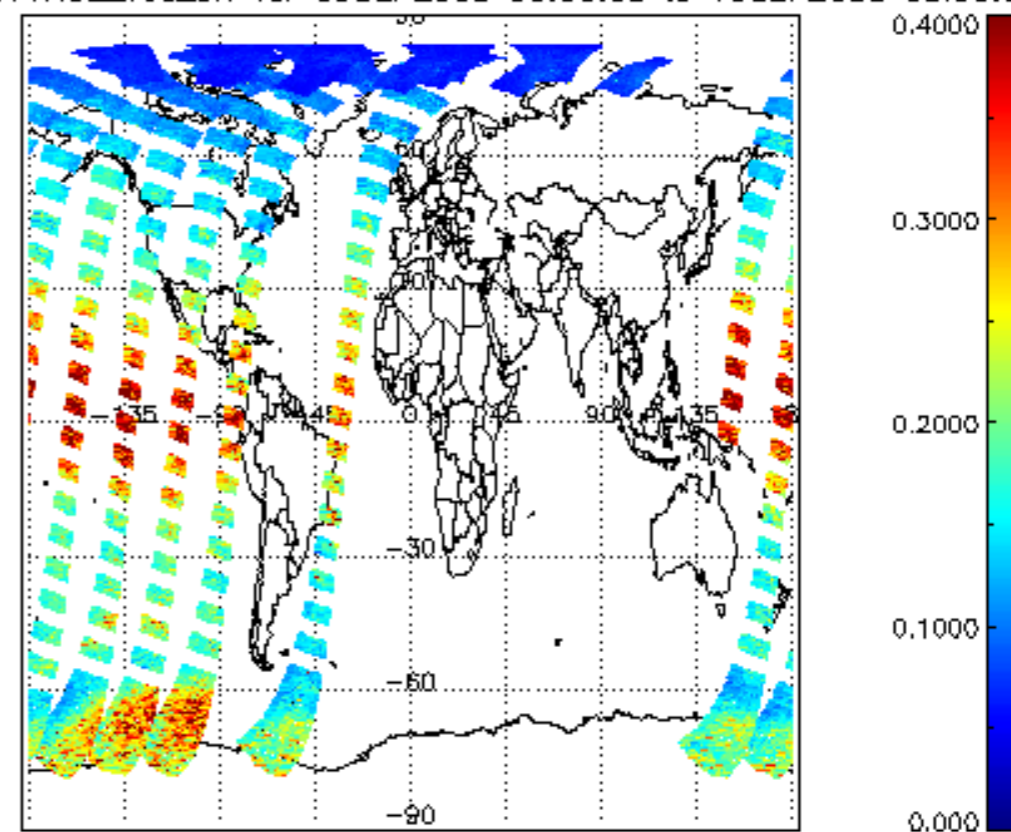




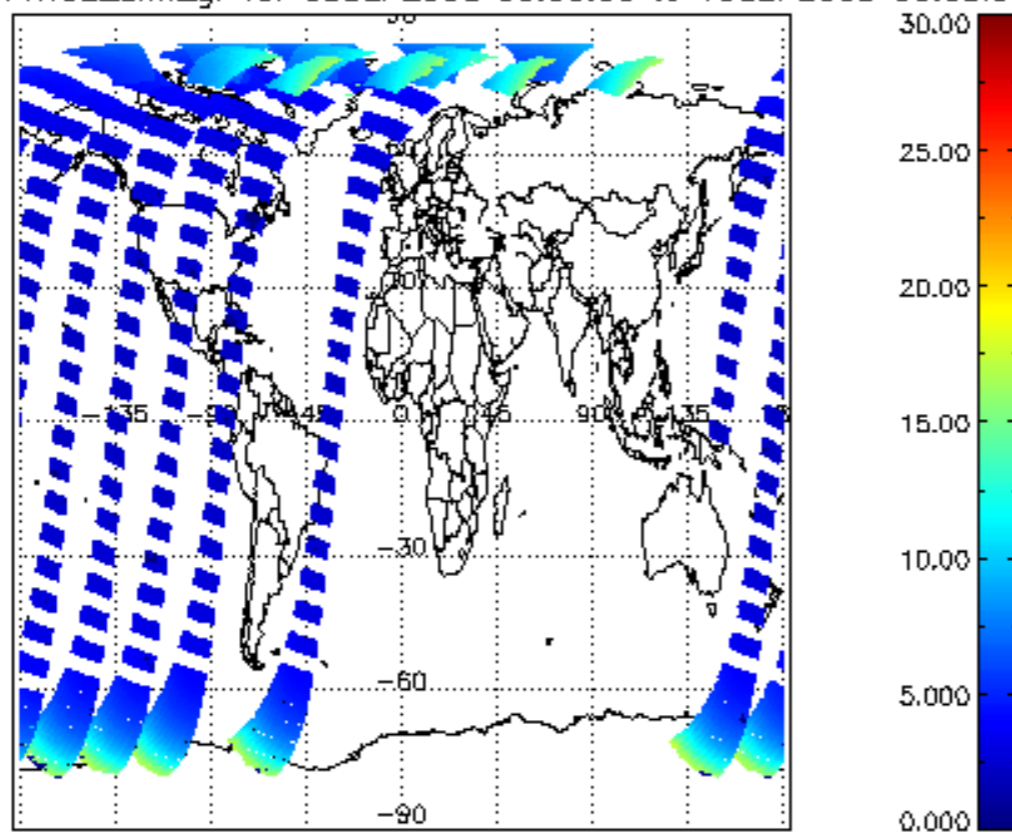
SCIOL2P\_NADUV1NO2\_vcd for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



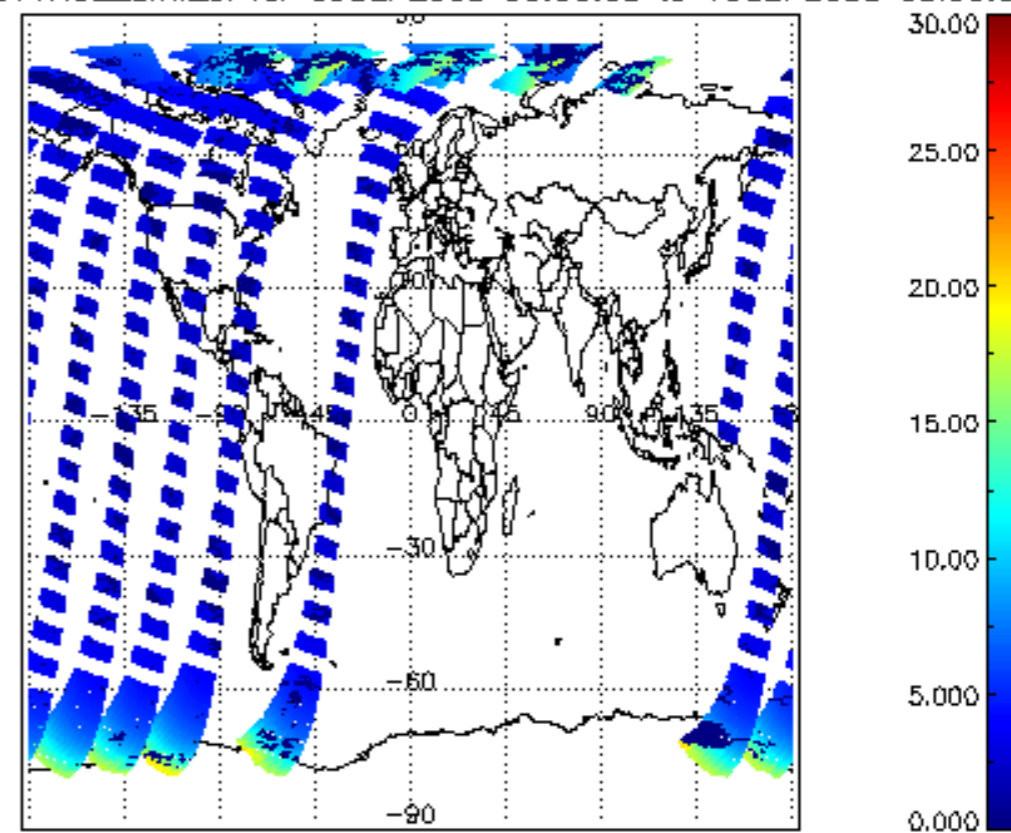
iCIOL2P\_NADUV1NO2\_vcd\_err for 09SEP2008 00:00:00 to 10SEP2008 00:00:00



iCIOL2P\_NADUV1NO2\_amf\_gr for 09SEP2008 00:00:00 to 10SEP2008 00:00:00

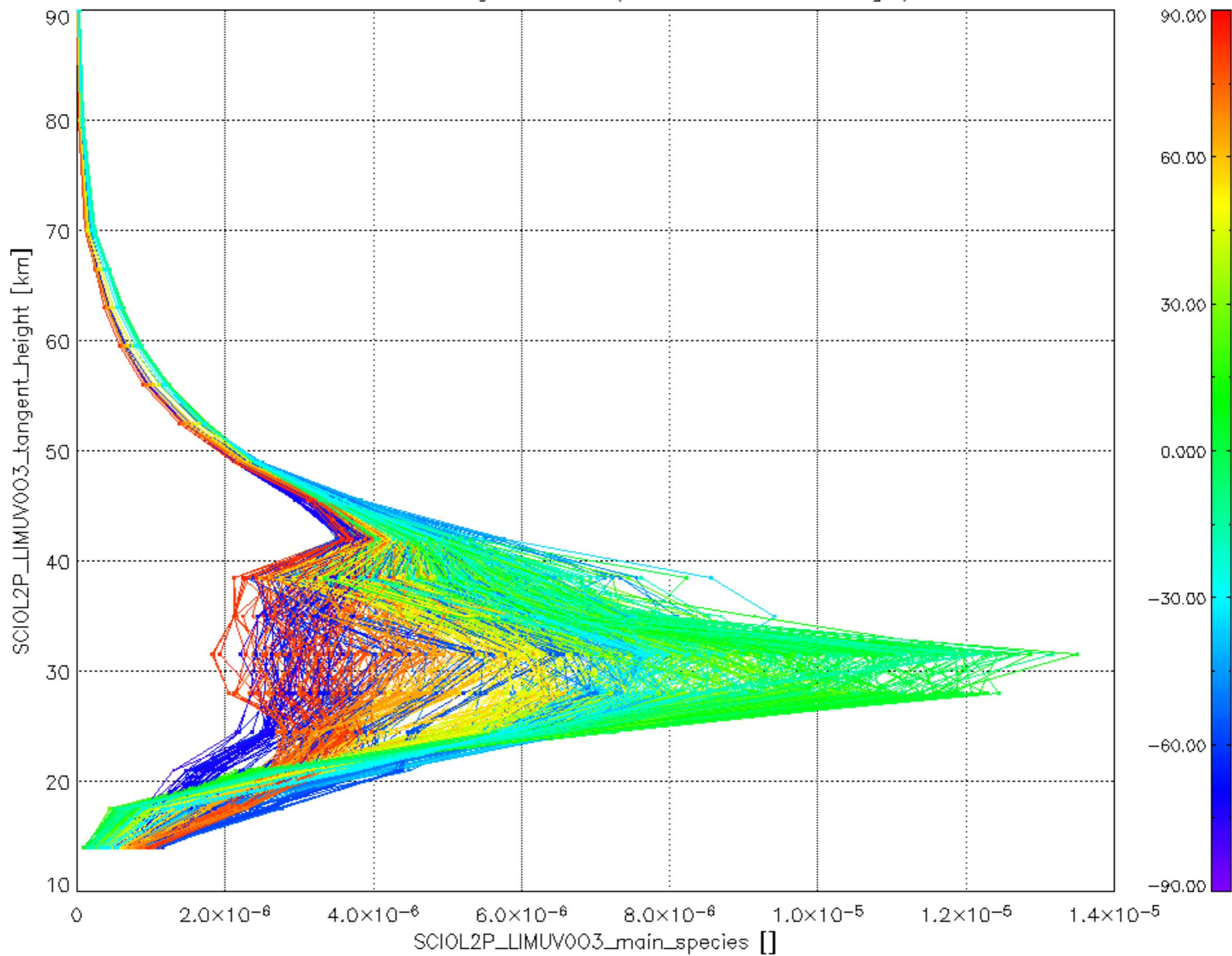


iCIOL2P\_NADUV1NO2\_amf\_cl for 09SEP2008 00:00:00 to 10SEP2008 00:00:00





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).

