

## 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	09DEC2009 14:02:01
Data source version	SCIA-OL/3.01-R
Processing scope for products	31AUG2009 00:00:00 to 01SEP2009 00:00:00
Start time of first product within scope	31AUG2009 00:07:37
Stop time of last product within scope	01SEP2009 00:32:28
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.

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__2PRDPA20090831_000737_000033812082_00088_39220_4031.N1</a>	31AUG2009 00:07:37	31AUG2009 01:03:59	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20090831_014814_000033252082_00089_39221_4032.N1</a>	31AUG2009 01:48:14	31AUG2009 02:43:39	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20090831_032850_000033812082_00090_39222_4033.N1</a>	31AUG2009 03:28:50	31AUG2009 04:25:11	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20090831_050926_000033252082_00091_39223_4034.N1</a>	31AUG2009 05:09:26	31AUG2009 06:04:52	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20090831_065003_000033812082_00092_39224_4036.N1</a>	31AUG2009 06:50:03	31AUG2009 07:46:24	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20090831_083039_000033252082_00093_39225_4035.N1</a>	31AUG2009 08:30:39	31AUG2009 09:26:05	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20090831_101116_000033812082_00094_39226_4037.N1</a>	31AUG2009 10:11:16	31AUG2009 11:07:37	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20090831_115152_000033252082_00095_39227_4038.N1</a>	31AUG2009 11:51:52	31AUG2009 12:47:18	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20090831_133228_000033812082_00096_39228_4039.N1</a>	31AUG2009 13:32:28	31AUG2009 14:28:50	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20090831_151305_000033252082_00097_39229_4040.N1</a>	31AUG2009 15:13:05	31AUG2009 16:08:30	0	GOOD
10	<a href="#">SCI_OL__2PRDPA20090831_165341_000033812082_00098_39230_4041.N1</a>	31AUG2009 16:53:41	31AUG2009 17:50:03	0	GOOD
11	<a href="#">SCI_OL__2PRDPA20090831_183437_000033592082_00099_39231_4042.N1</a>	31AUG2009 18:34:37	31AUG2009 19:30:37	0	GOOD
12	<a href="#">SCI_OL__2PRDPA20090831_201514_000033122082_00100_39232_4043.N1</a>	31AUG2009 20:15:14	31AUG2009 21:10:27	0	GOOD
13	<a href="#">SCI_OL__2PRDPA20090831_215530_000033252082_00101_39233_4044.N1</a>	31AUG2009 21:55:30	31AUG2009 22:50:56	0	GOOD
14	<a href="#">SCI_OL__2PRDPA20090831_233607_000033812082_00102_39234_4045.N1</a>	31AUG2009 23:36:07	01SEP2009 00:32:28	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: 150020

Total number of cloud data DSRs with good quality flag (=0): 150020 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	150020	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	150020	0.16984	0.12500	0.12500	0.25000	0.059954	s
CL_FRAC	150020	0.31578	0.25350	0.0000	1.0000	0.28864	-
CL_FRAC_ERR	150020	0.0000	0.0000	0.0000	0.0000	0.0000	%
PMD_READ	150020	5.4350	4.0000	4.0000	8.0000	1.9185	
PMD_READ_CL[0]	150020	0.14798	0.0000	0.0000	8.0000	0.86630	-
PMD_READ_CL[1]	150020	1.7256	0.0000	0.0000	8.0000	2.6788	-
CL_TOP_HEIGHT	126705	3.0799	1.4442	0.0000	17.000	3.5440	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	126705	59.327	89.949	0.0000	101.00	44.390	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	150020	11100000	11100000	11100000	11100000	0.0000	flags
CLOUD_FLAGS	150020	11001101	11000100	11000000	11100000	3587.2	flags
AERO_ABSO_IND	150020	4.2135	5.1017	-0.52830	16.604	2.8222	
AERO_IND_DIAG	150020	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	150020	01010110	00000000	00000000	11000000	24464.	flags

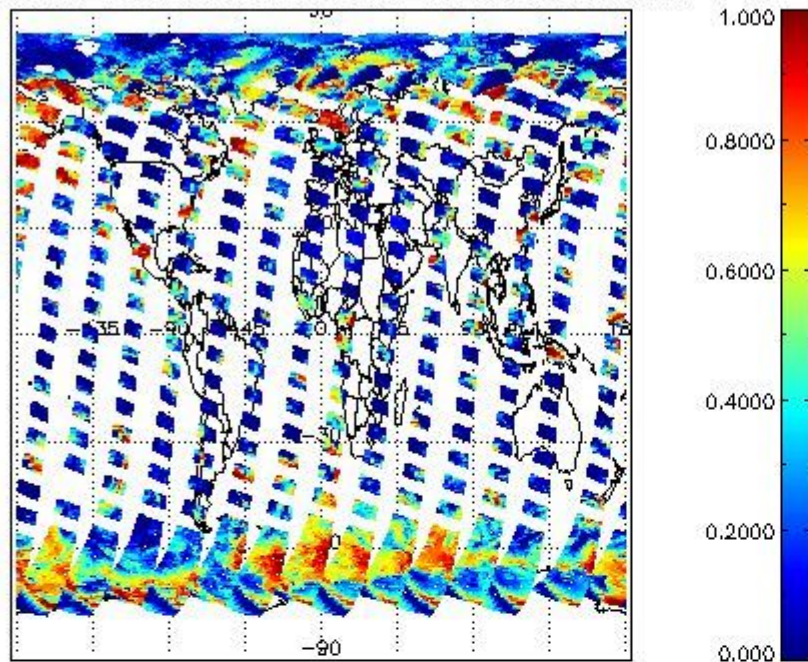
### Time and geolocation plots:

Plots are available for the following parameters:

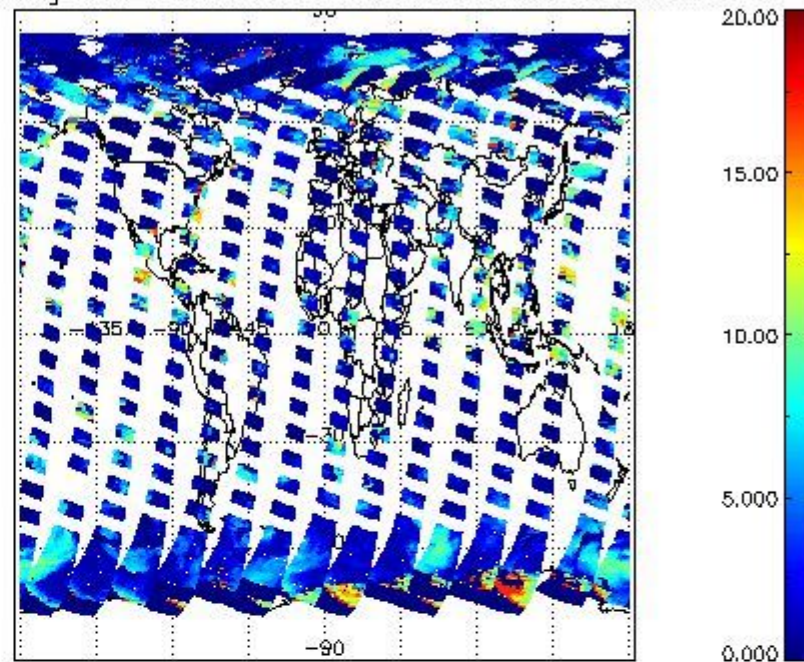
Number	Data item ID
0	cl_frac
1	cl_top_height
2	cl_opt_depth
3	cloud_flags



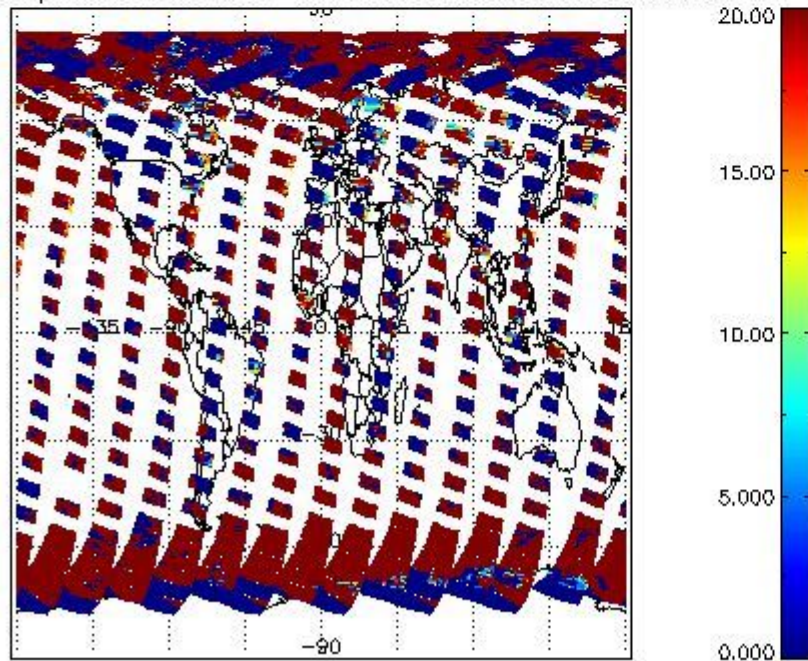
cLfrac for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



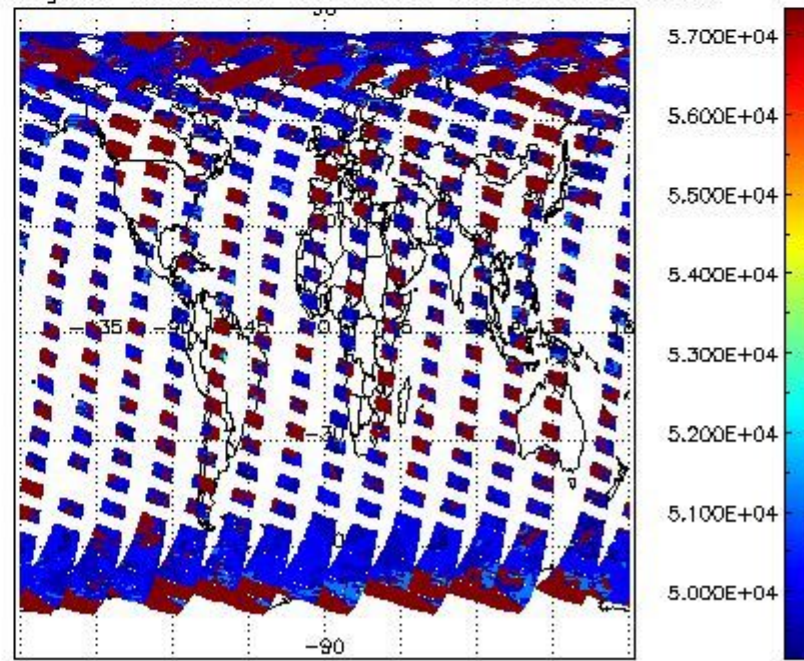
cL\_top\_height for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



cL\_opt\_depth for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



cloud\_flags for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



## 2.2.2 Nadir

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

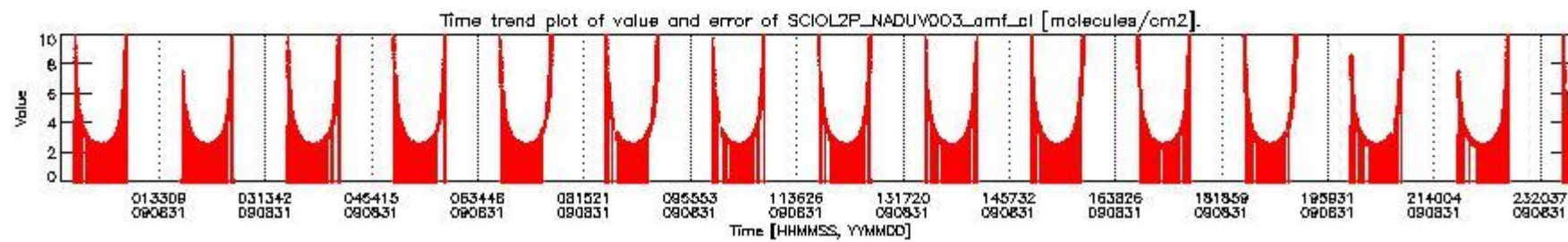
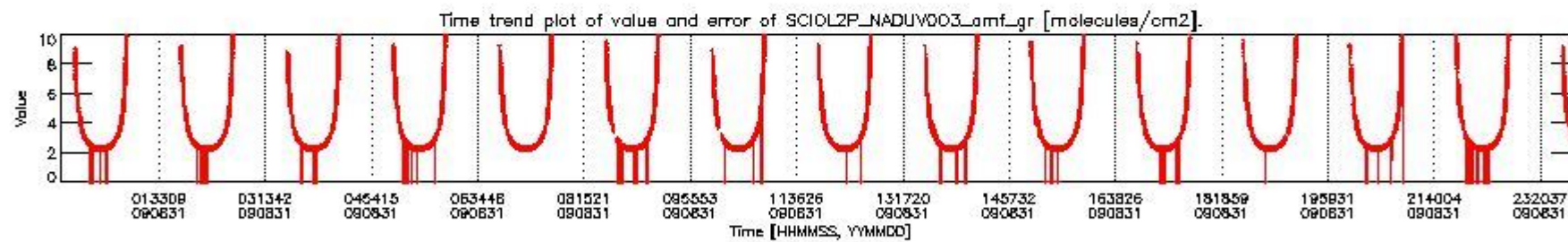
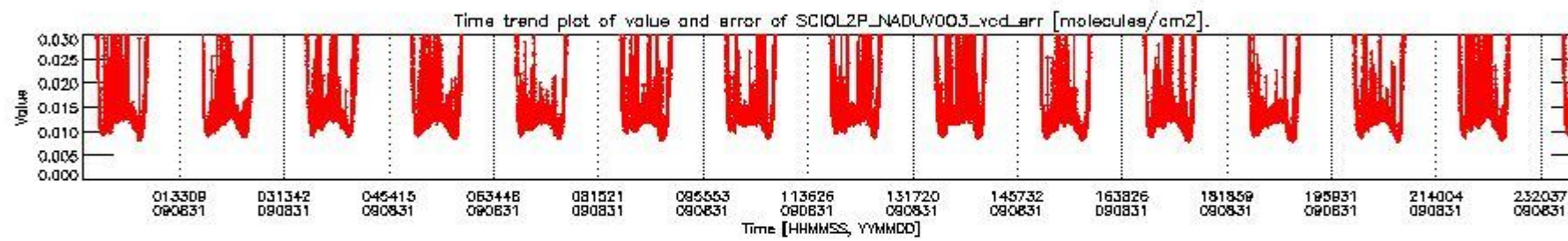
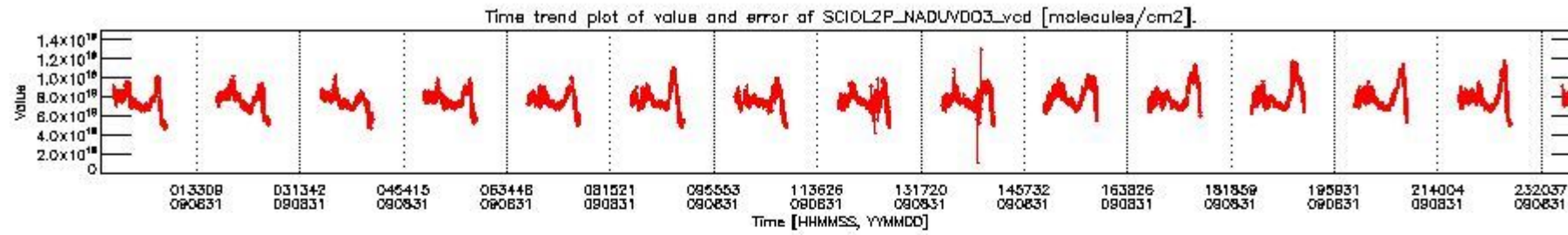
The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr



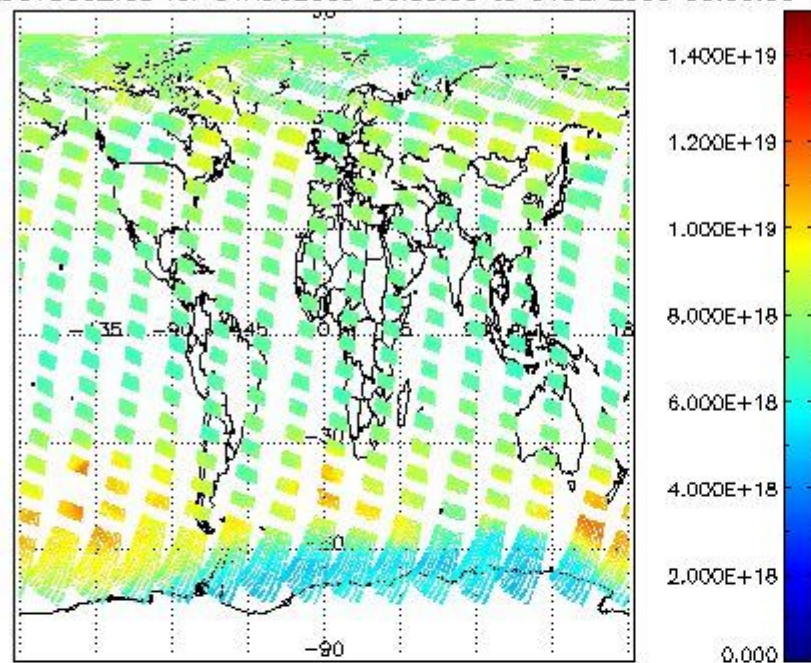
3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

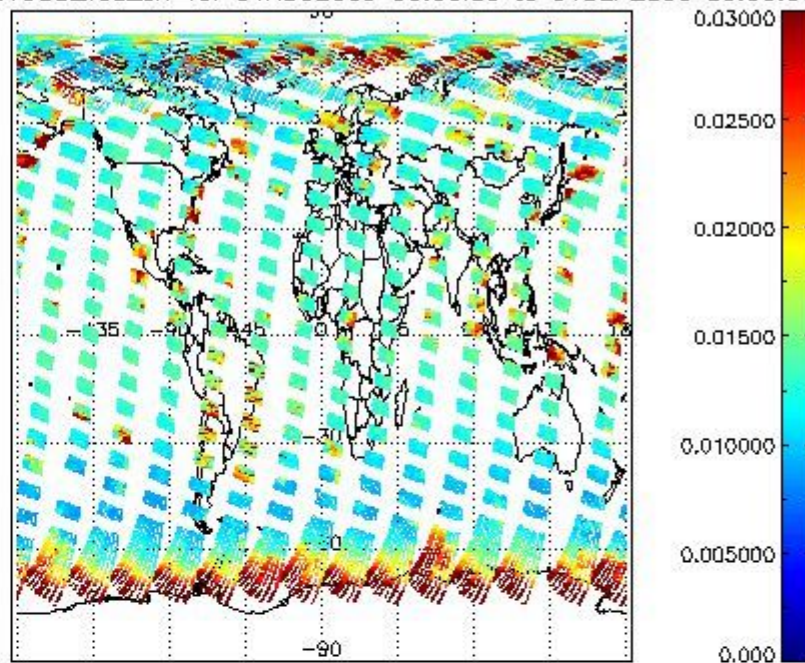




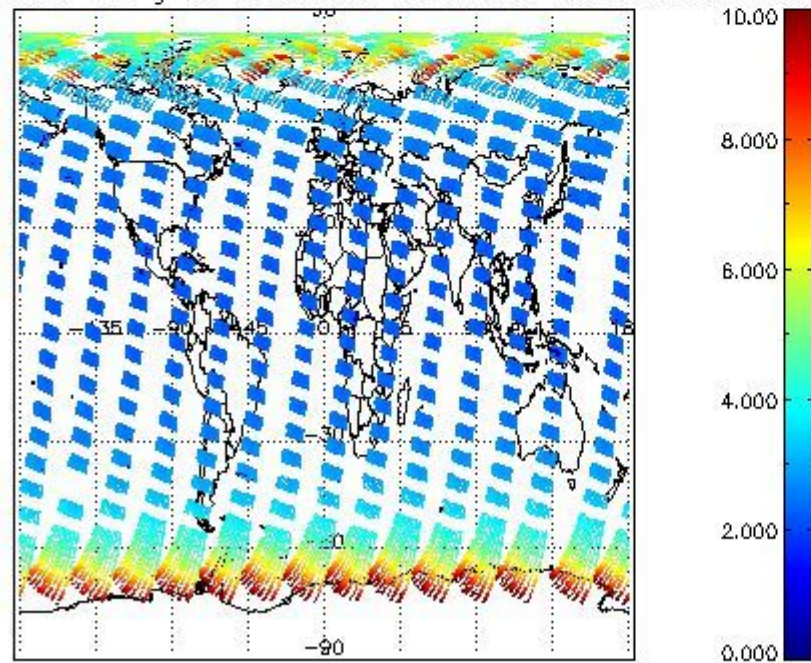
SCIOL2P\_NADUV003\_vcd for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



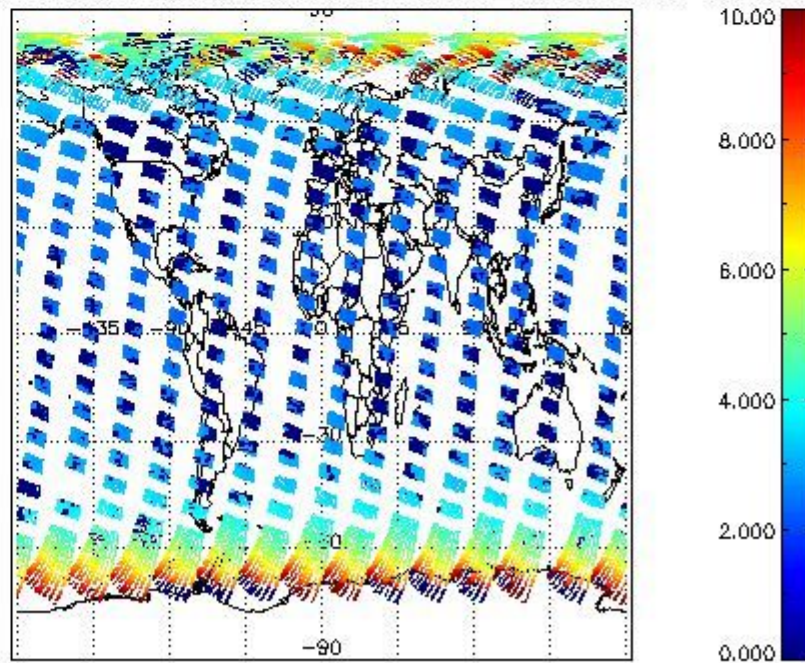
SCIOL2P\_NADUV003\_vcd\_err for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



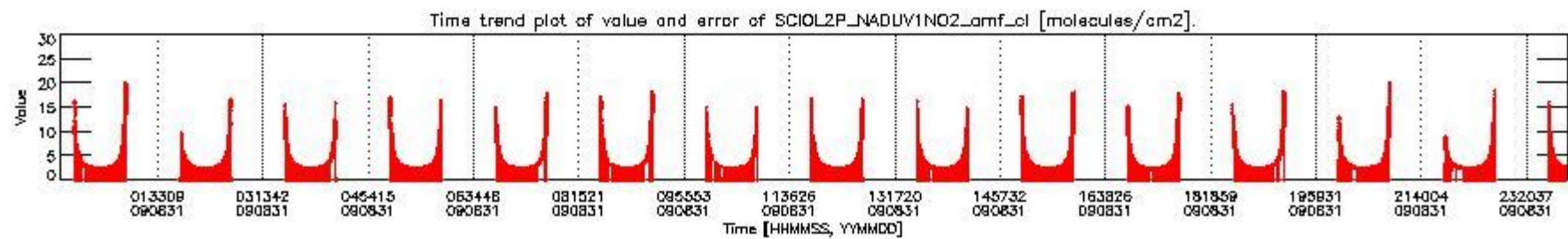
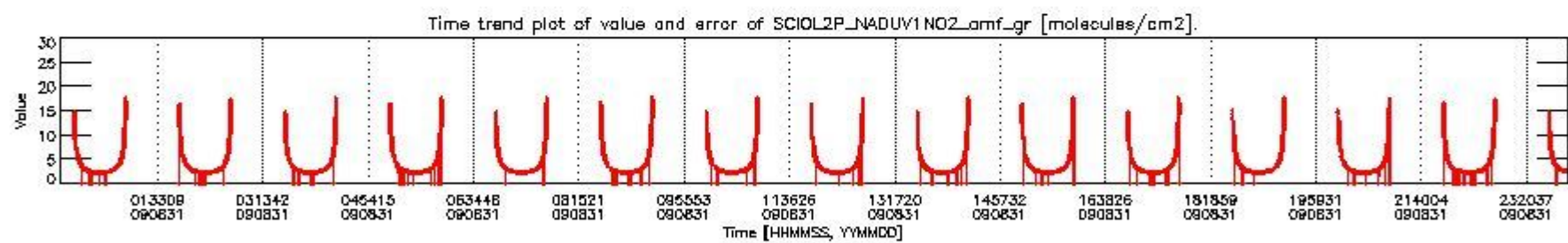
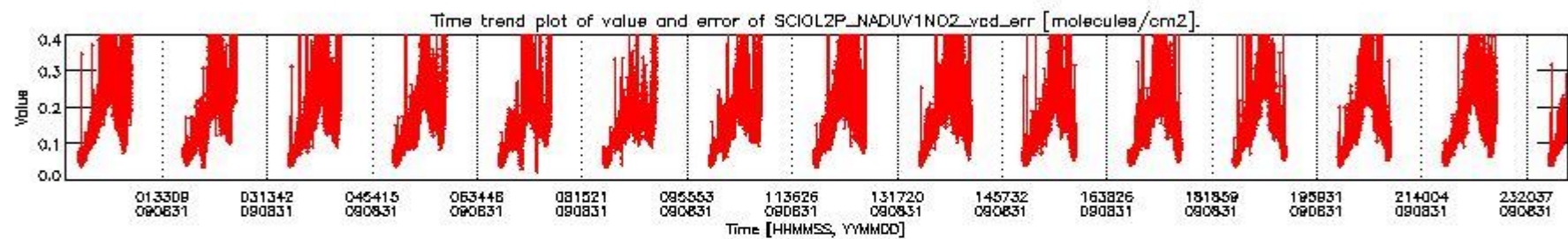
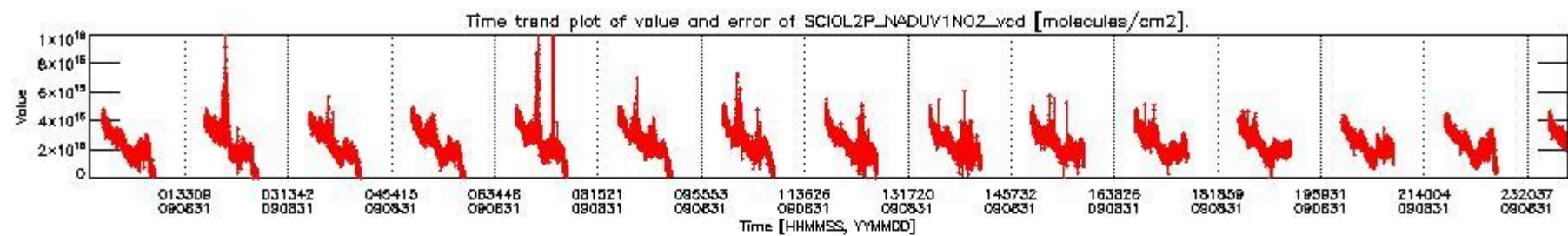
SCIOL2P\_NADUV003\_amf\_gr for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



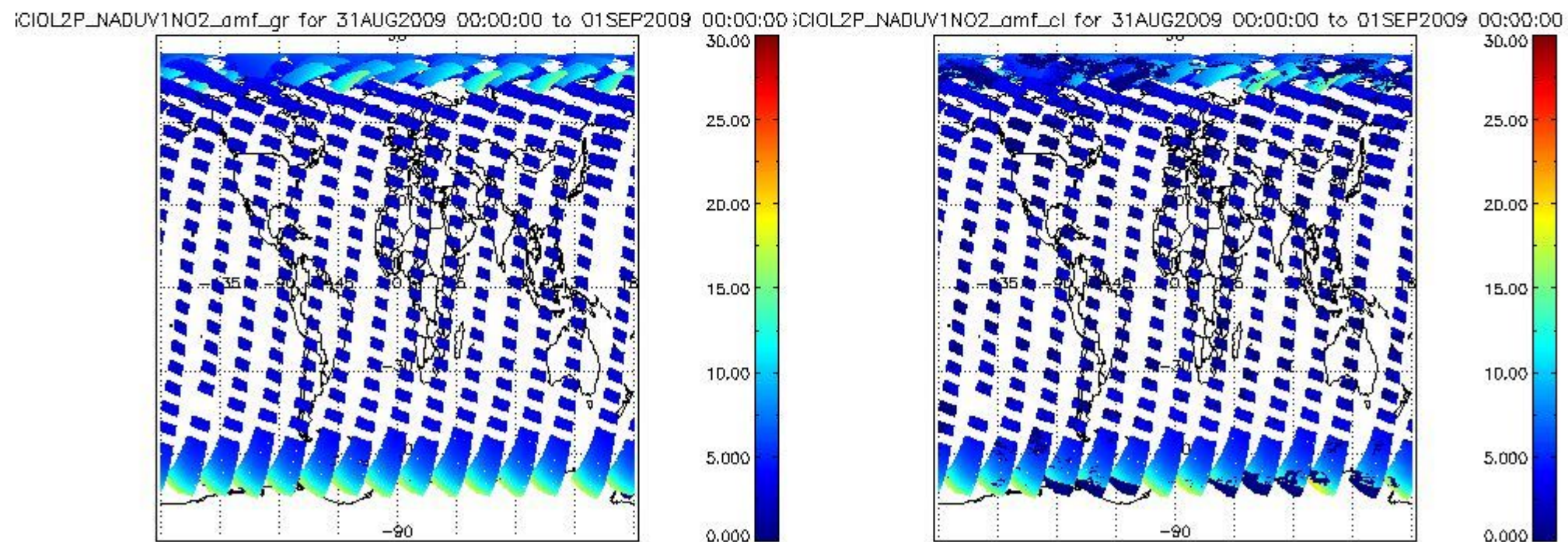
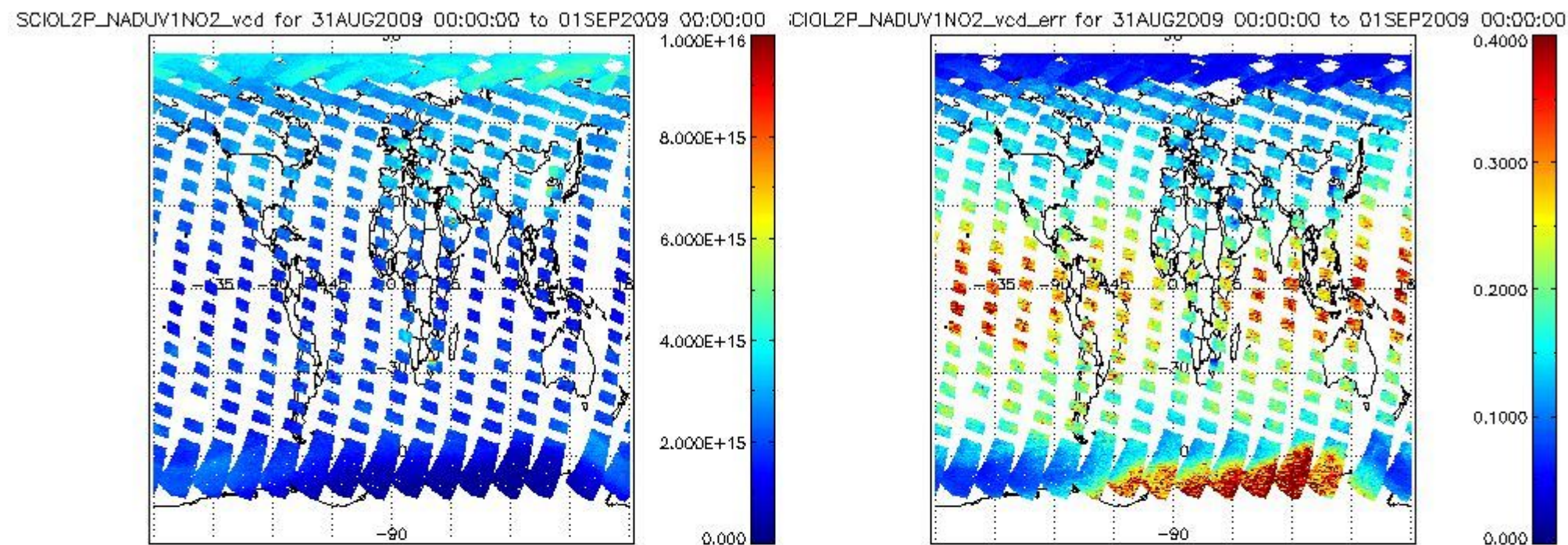
SCIOL2P\_NADUV003\_amf\_cl for 31AUG2009 00:00:00 to 01SEP2009 00:00:00











### 2.2.3 Limb

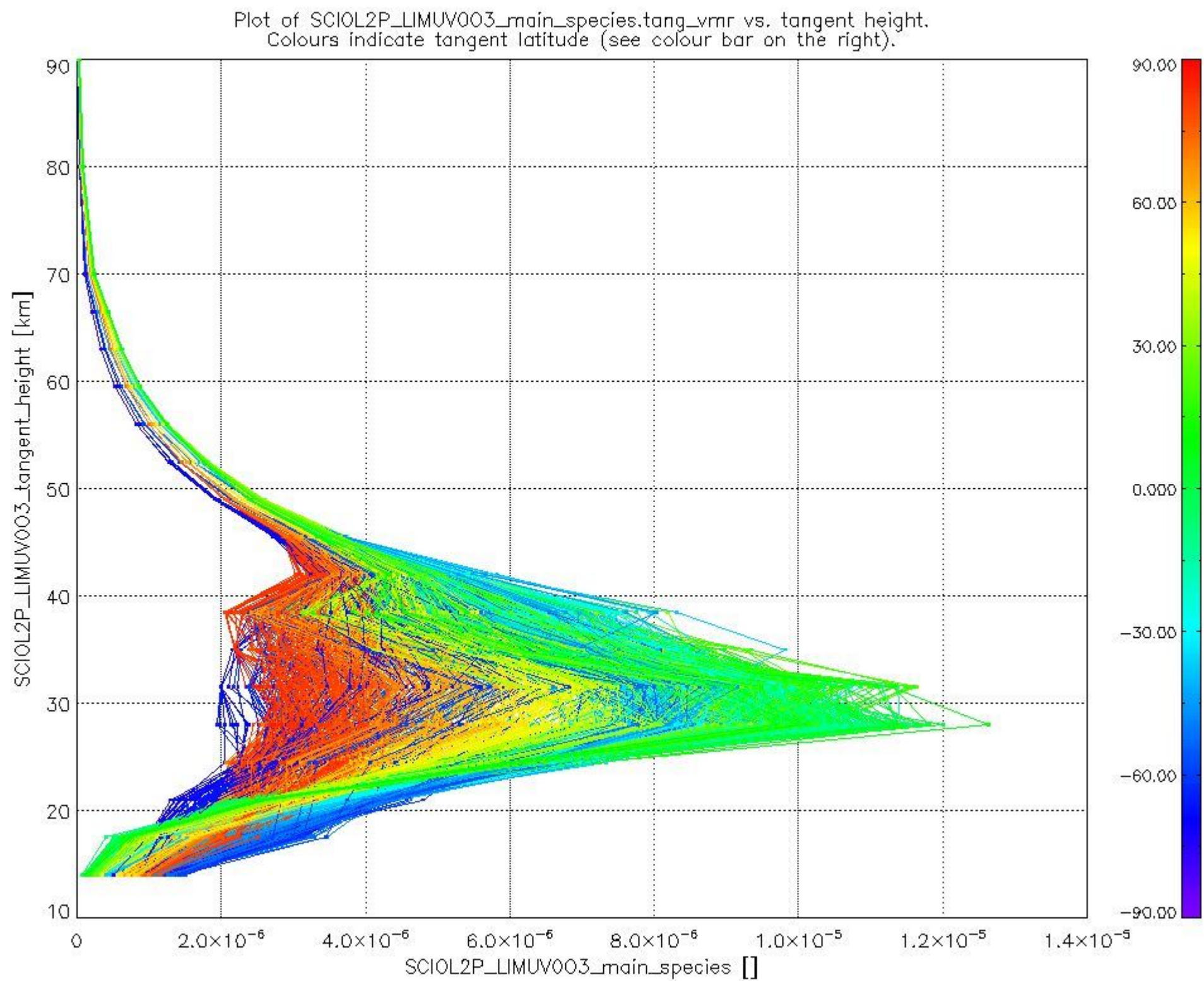
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

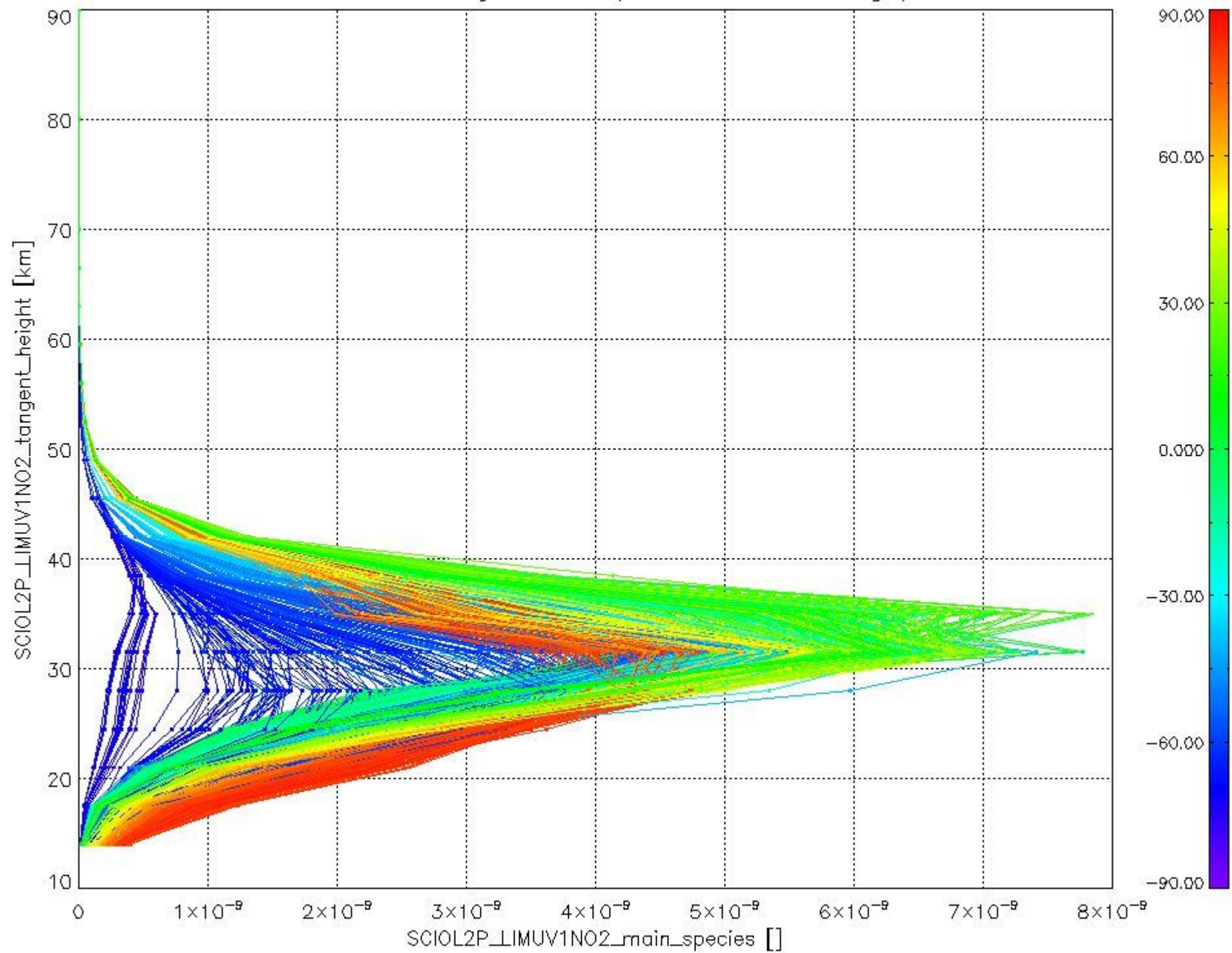


The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.





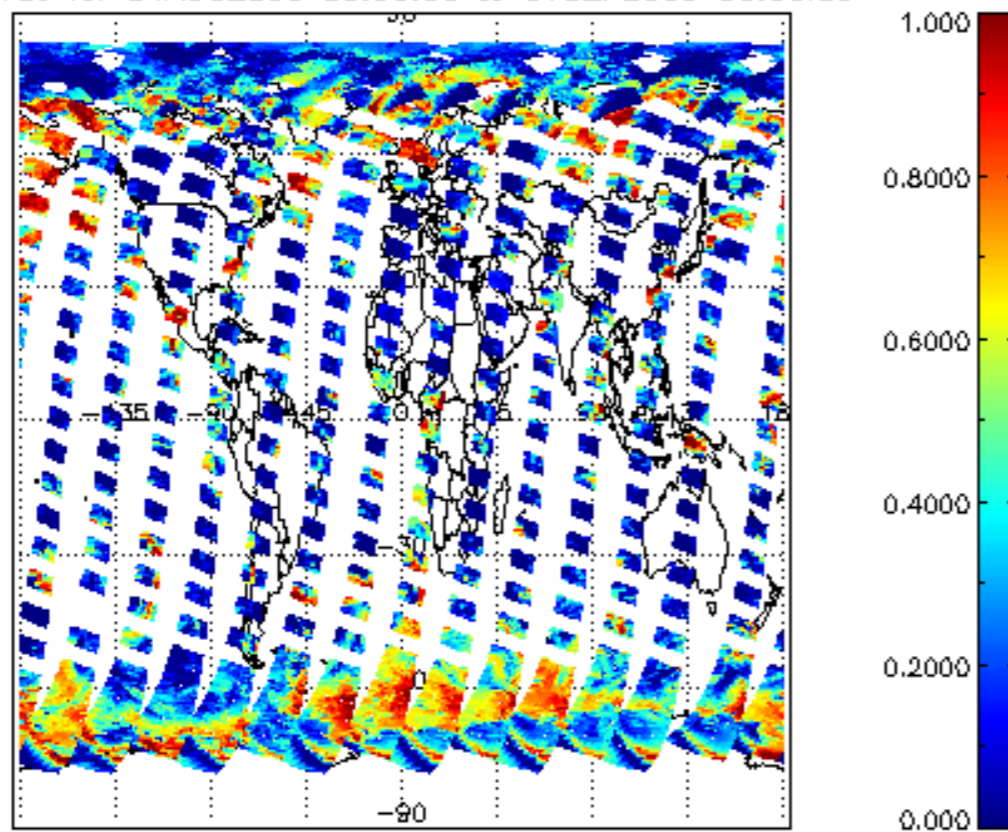
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



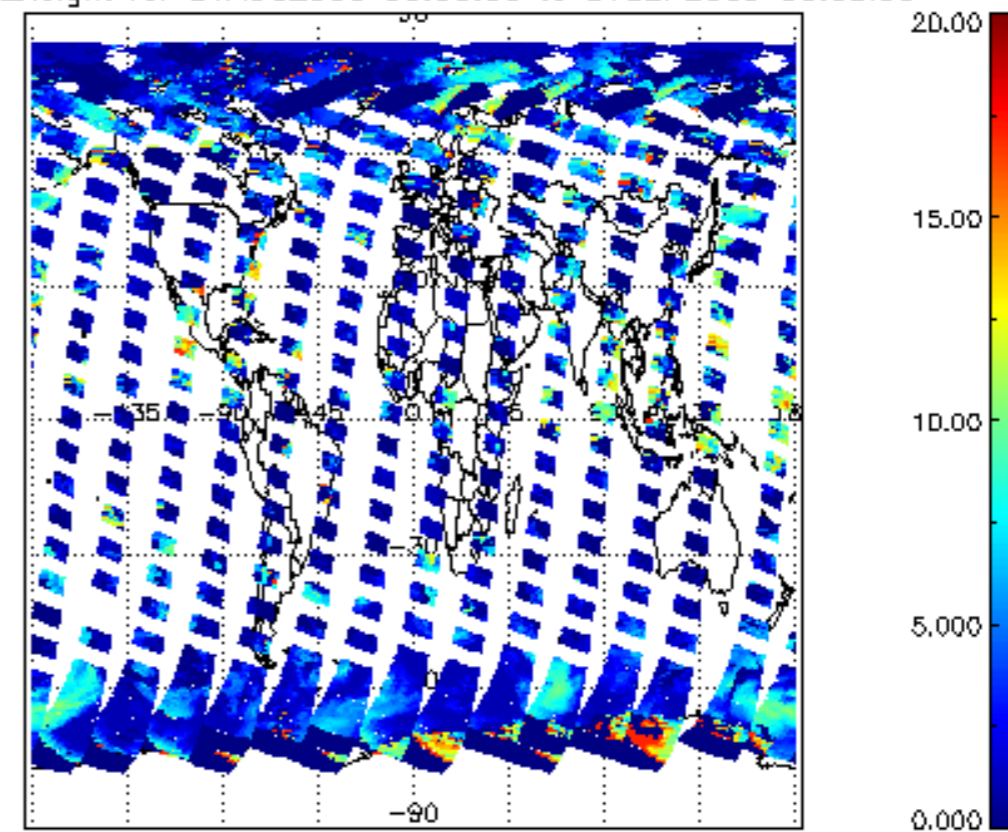
### 2.3 ADF monitoring

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

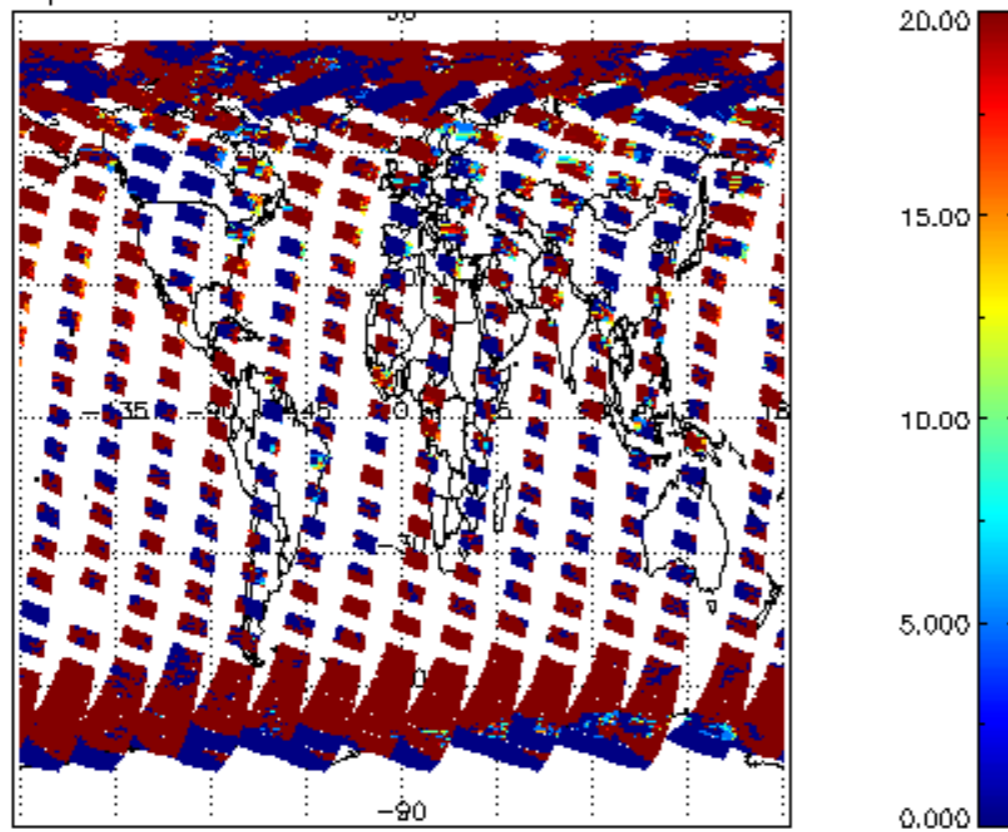
cL\_frac for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



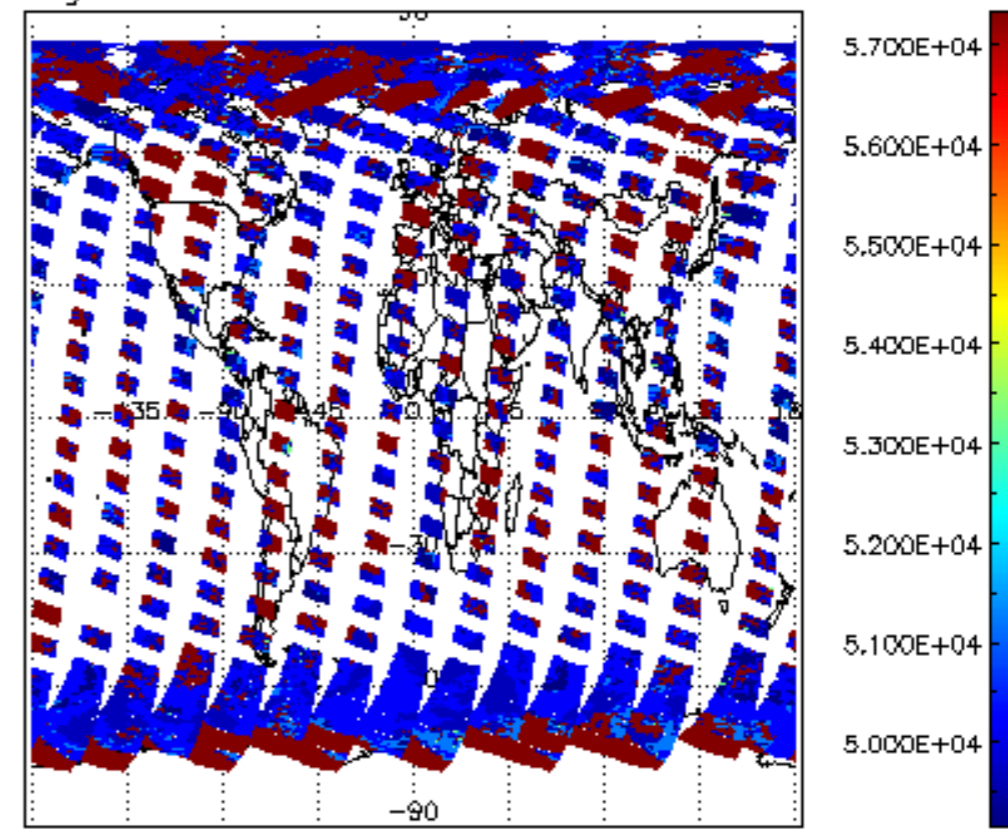
cL\_top\_height for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



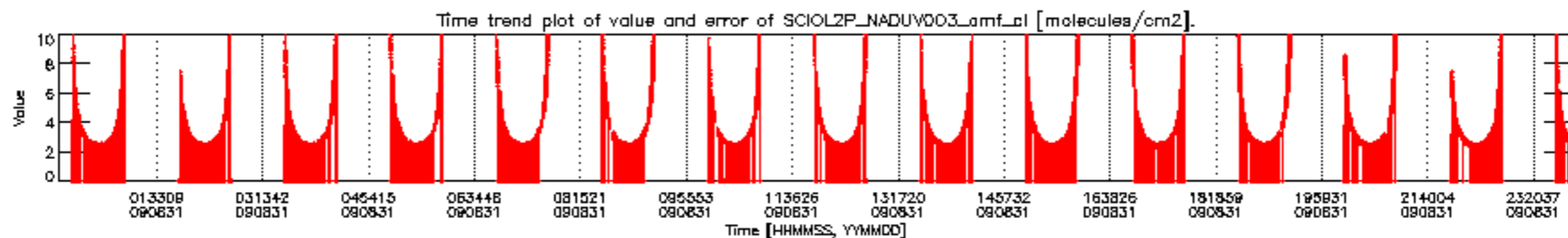
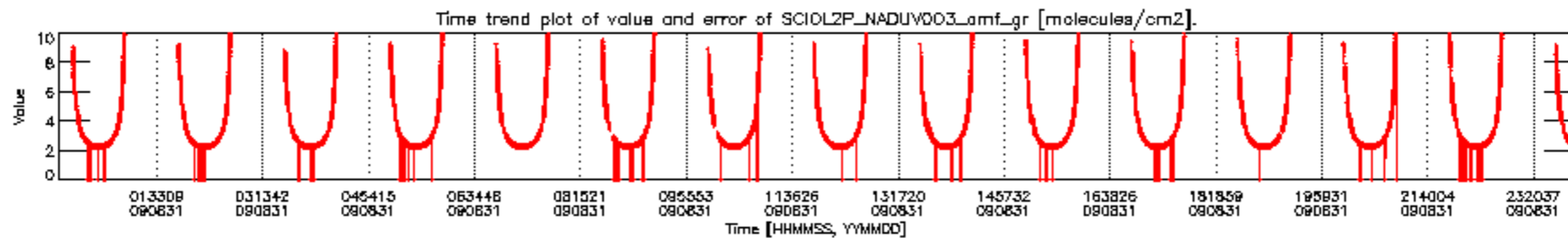
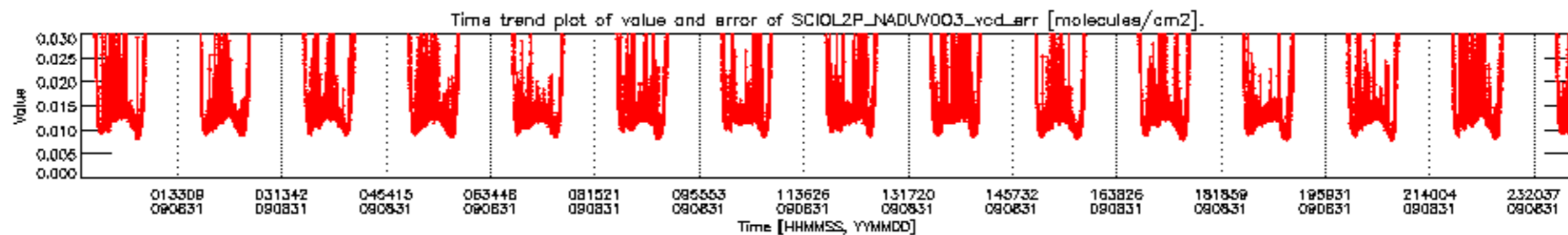
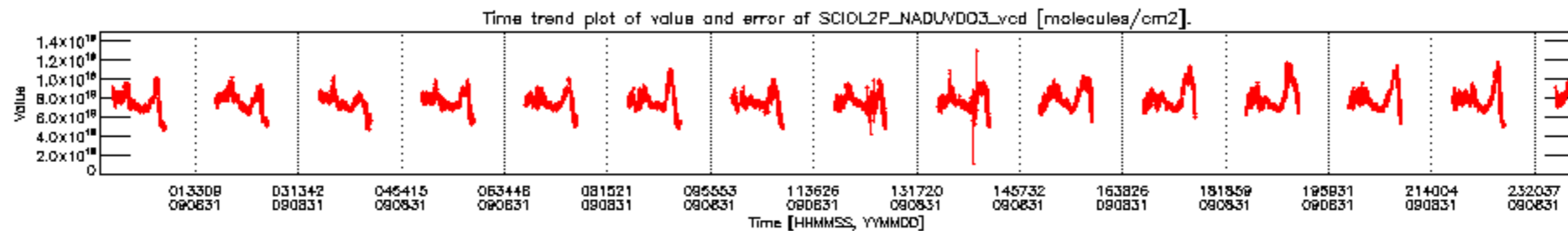
cL\_opt\_depth for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



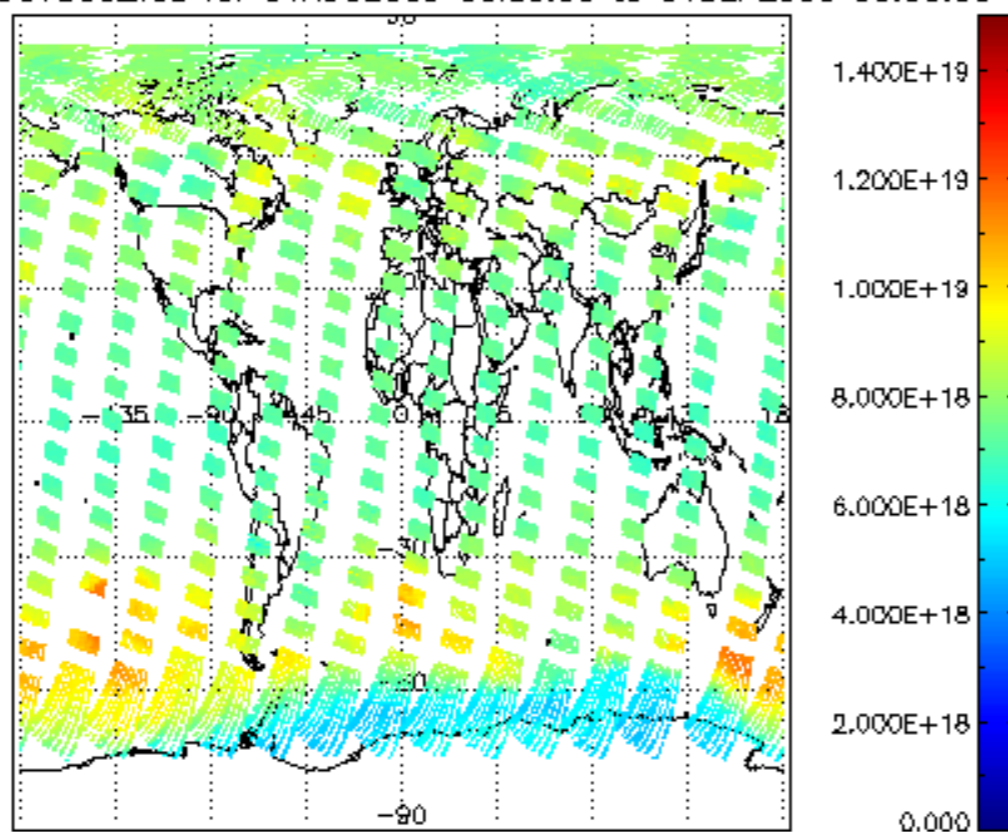
cloud\_flags for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



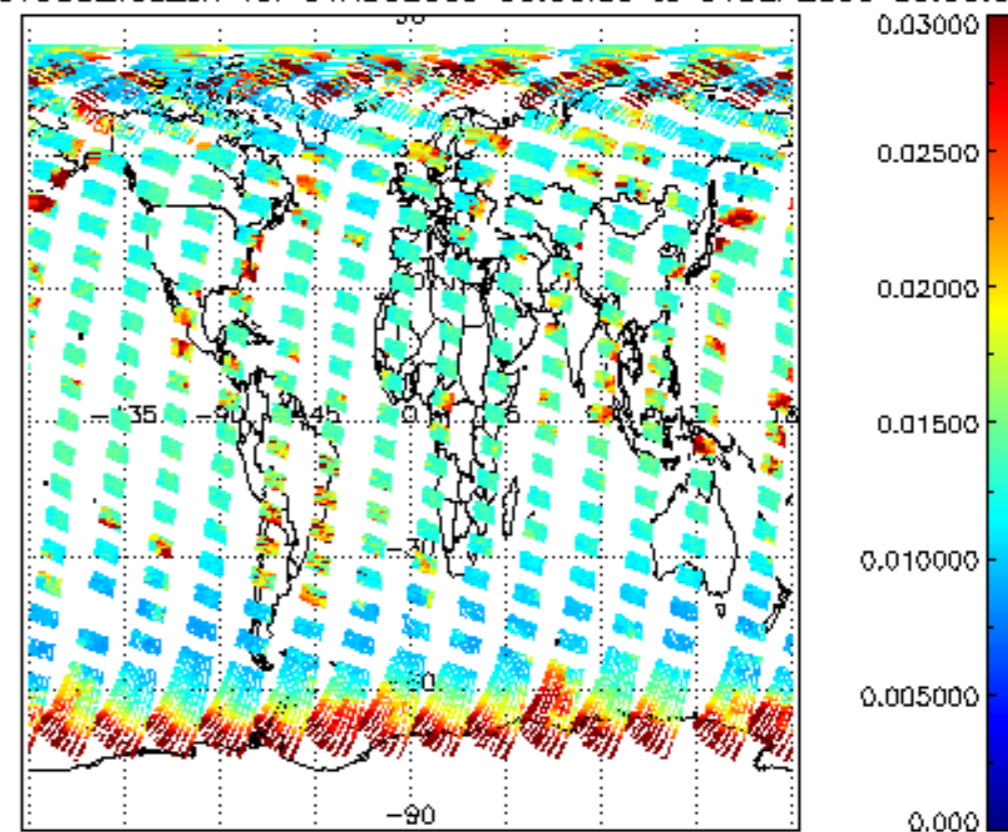




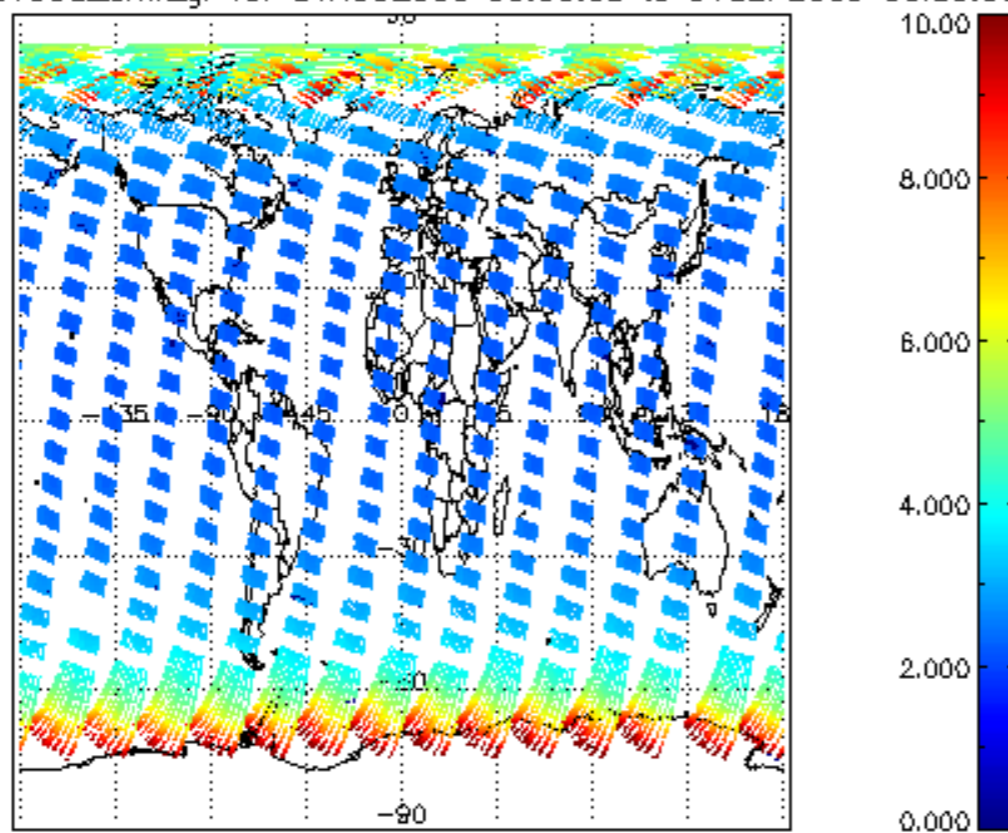
SCIOL2P\_NADUV003\_vcd for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



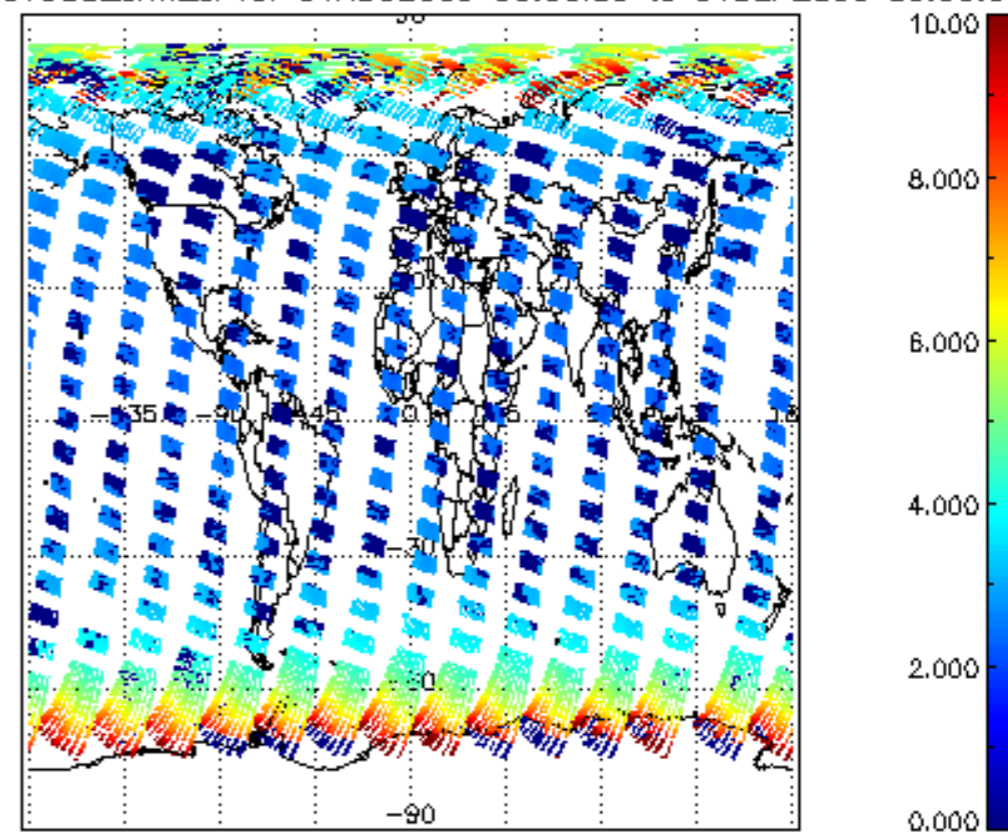
SCIOL2P\_NADUV003\_vcd\_err for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



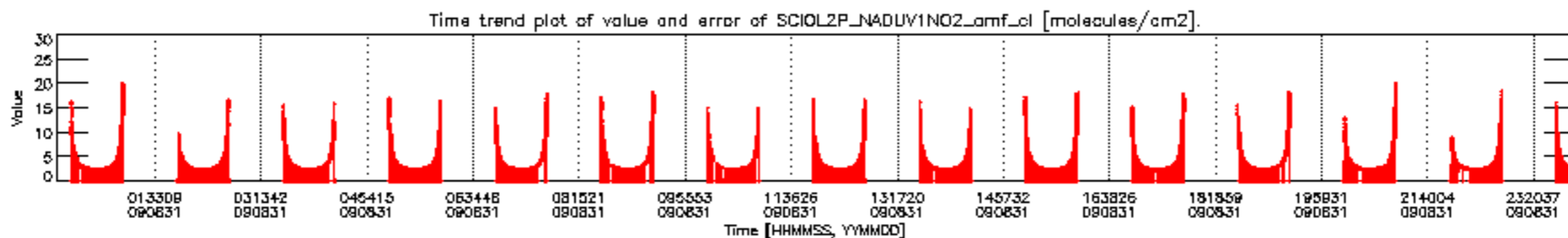
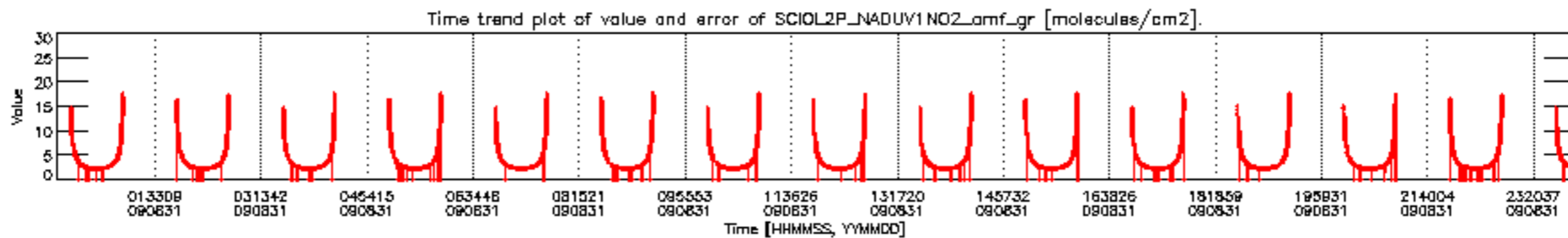
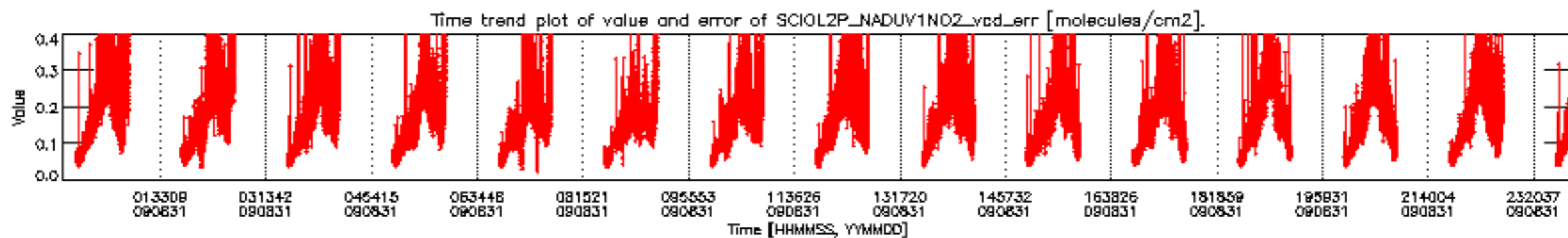
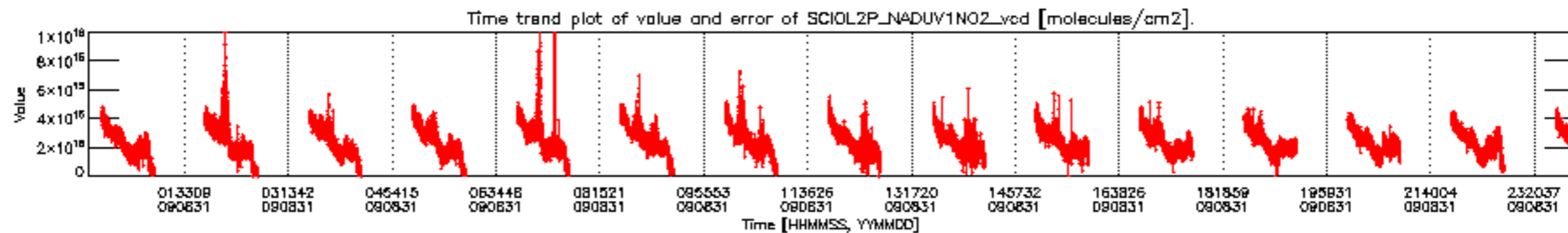
SCIOL2P\_NADUV003\_amf\_gr for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



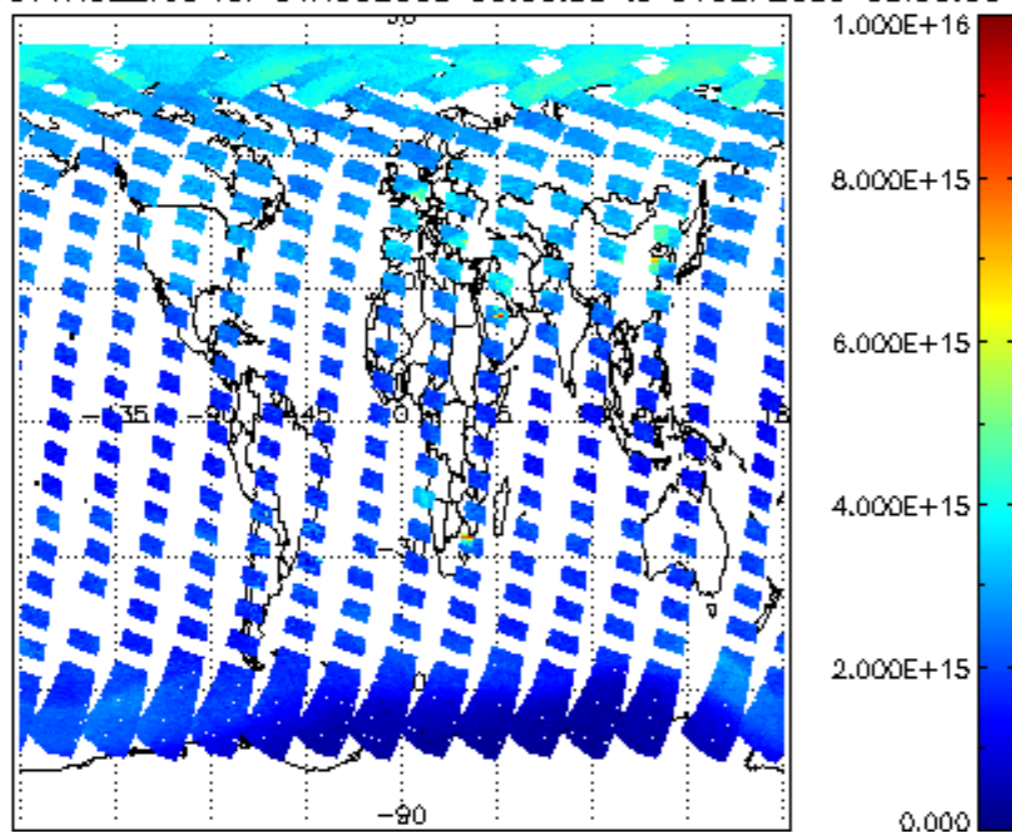
SCIOL2P\_NADUV003\_amf\_cl for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



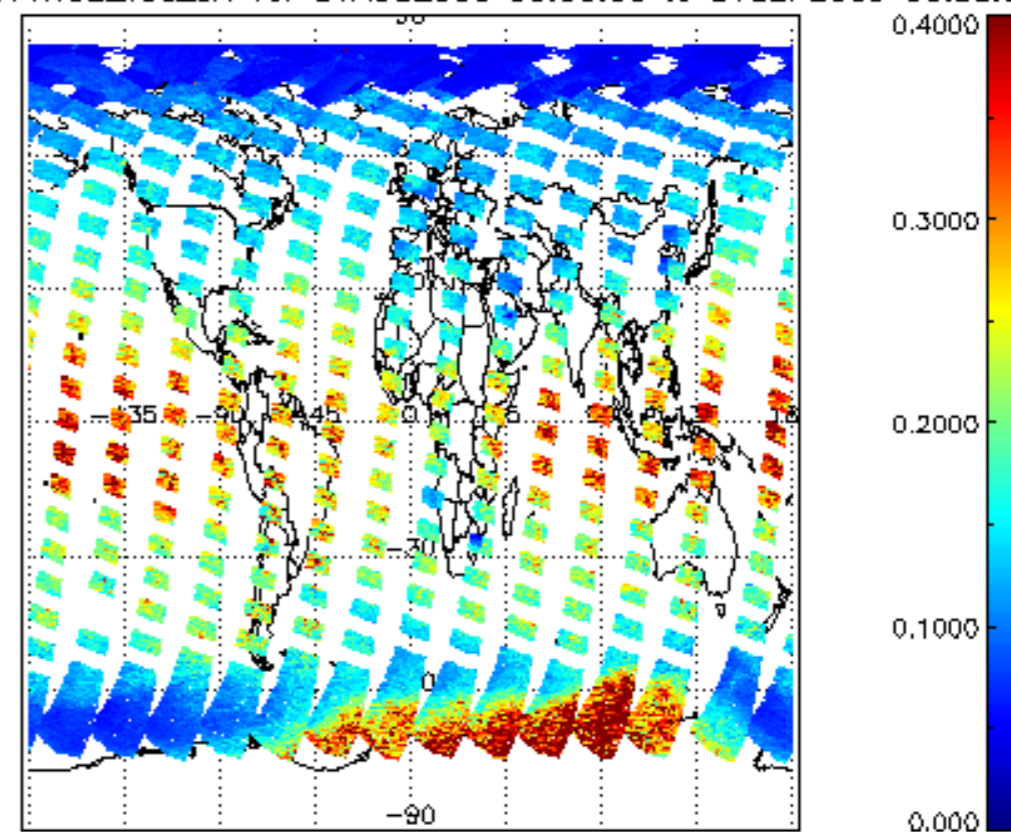




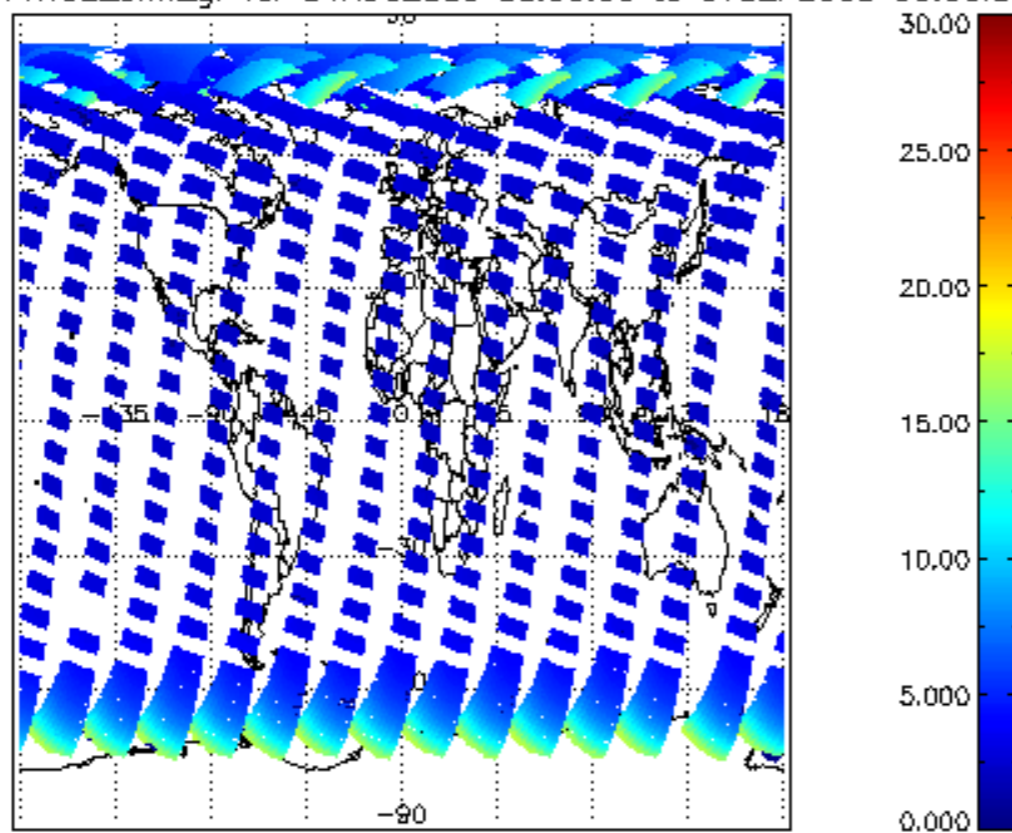
SCIOL2P\_NADUV1NO2\_vcd for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



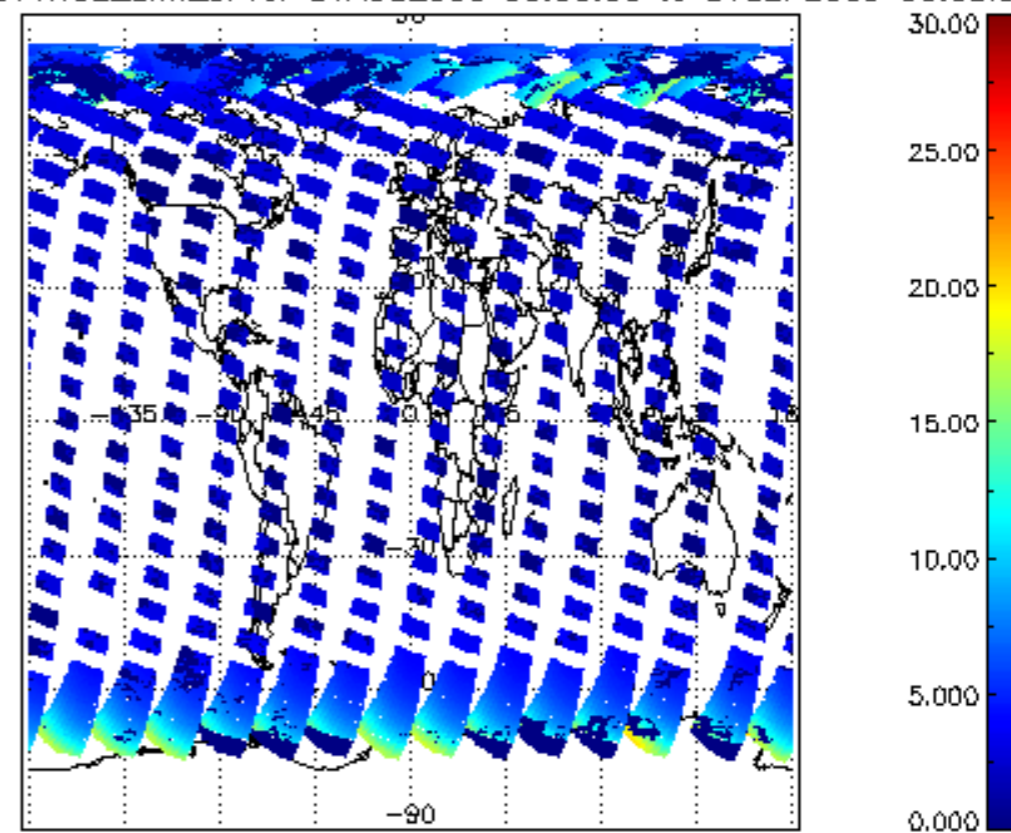
SCIOL2P\_NADUV1NO2\_vcd\_err for 31AUG2009 00:00:00 to 01SEP2009 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 31AUG2009 00:00:00 to 01SEP2009 00:00:00

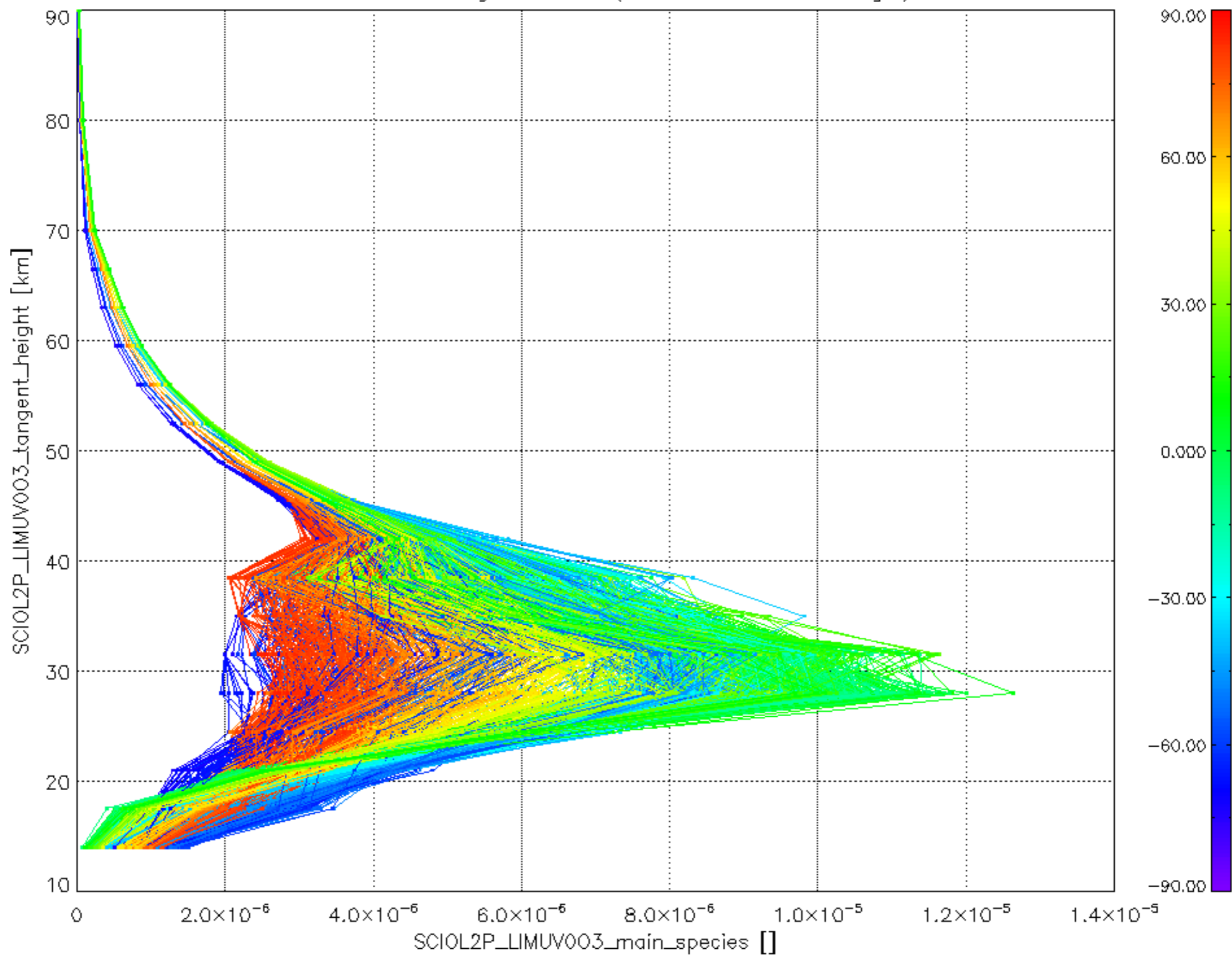


SCIOL2P\_NADUV1NO2\_amf\_cl for 31AUG2009 00:00:00 to 01SEP2009 00:00:00





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).

