

## 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	19NOV2008 19:25:02
Data source version	SCIA-OL/3.01-R
Processing scope for products	20NOV2004 00:00:00 to 21NOV2004 00:00:00
Start time of first product within scope	20NOV2004 07:42:26
Stop time of last product within scope	20NOV2004 23:44:14
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.

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__2PRDPA20041120_074226_000033252032_00164_14246_0682.N1</a>	20NOV2004 07:42:26	20NOV2004 08:37:52	0	GOOD
1	<a href="#">SCI_OL__2PRDPA20041120_092302_000033812032_00165_14247_0662.N1</a>	20NOV2004 09:23:02	20NOV2004 10:19:24	0	GOOD
2	<a href="#">SCI_OL__2PRDPA20041120_110339_000033252032_00166_14248_0704.N1</a>	20NOV2004 11:03:39	20NOV2004 11:59:04	0	GOOD
3	<a href="#">SCI_OL__2PRDPA20041120_124415_000033812032_00167_14249_0689.N1</a>	20NOV2004 12:44:15	20NOV2004 13:40:36	0	GOOD
4	<a href="#">SCI_OL__2PRDPA20041120_142451_000033252032_00168_14250_0741.N1</a>	20NOV2004 14:24:51	20NOV2004 15:20:16	0	GOOD
5	<a href="#">SCI_OL__2PRDPA20041120_160527_000033812032_00169_14251_0646.N1</a>	20NOV2004 16:05:27	20NOV2004 17:01:49	0	GOOD
6	<a href="#">SCI_OL__2PRDPA20041120_174557_000033862032_00170_14252_0631.N1</a>	20NOV2004 17:45:57	20NOV2004 18:42:23	0	GOOD
7	<a href="#">SCI_OL__2PRDPA20041120_192701_000033122032_00171_14253_0672.N1</a>	20NOV2004 19:27:01	20NOV2004 20:22:14	0	GOOD
8	<a href="#">SCI_OL__2PRDPA20041120_210716_000033252032_00172_14254_0767.N1</a>	20NOV2004 21:07:16	20NOV2004 22:02:41	0	GOOD
9	<a href="#">SCI_OL__2PRDPA20041120_224752_000033812032_00173_14255_0666.N1</a>	20NOV2004 22:47:52	20NOV2004 23:44:14	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: 100100

Total number of cloud data DSRs with good quality flag (=0): 100100 (100.0 %)

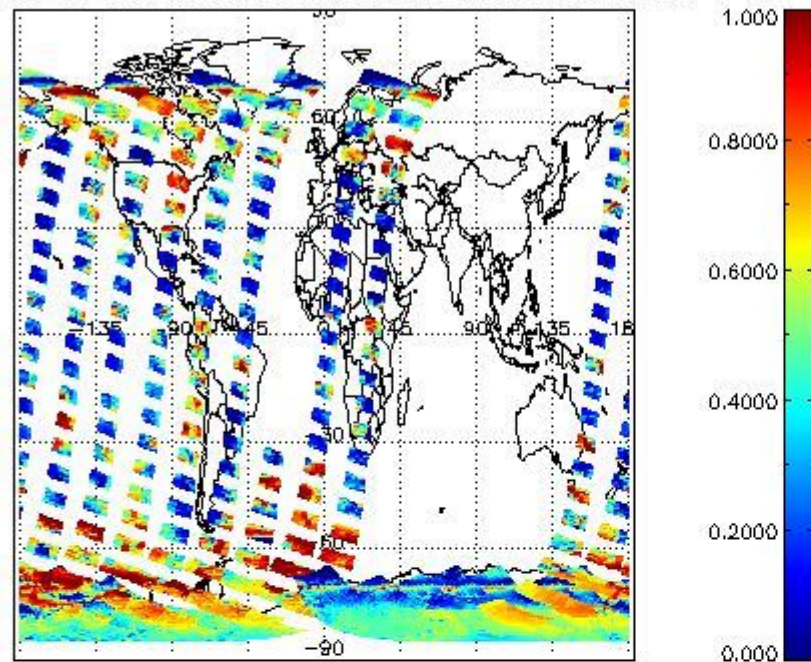
Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	100100	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	100100	0.16883	0.12500	0.12500	0.25000	0.059647	s
CL_FRAC	100100	0.43105	0.42988	0.0000	1.0000	0.27585	-
CL_FRAC_ERR	100100	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	100100	5.4026	4.0000	4.0000	8.0000	1.9087	
PMD_READ_CL[0]	100100	0.30632	0.0000	0.0000	8.0000	1.2757	-
PMD_READ_CL[1]	100100	0.37082	0.0000	0.0000	8.0000	1.2476	-
CL_TOP_HEIGHT	87427	4.2966	3.1760	0.0000	17.000	3.8976	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	87427	53.131	39.636	0.0000	101.00	39.901	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	100100	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	100100	11001000	11000100	11000000	11100000	2844.2	flags
AERO_ABSO_IND	100100	0.72616	0.47602	-4.0090	6.3633	0.98556	
AERO_IND_DIAG	100100	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	100100	01010101	00000000	00000000	11000000	24440.	flags

### Time and geolocation plots:

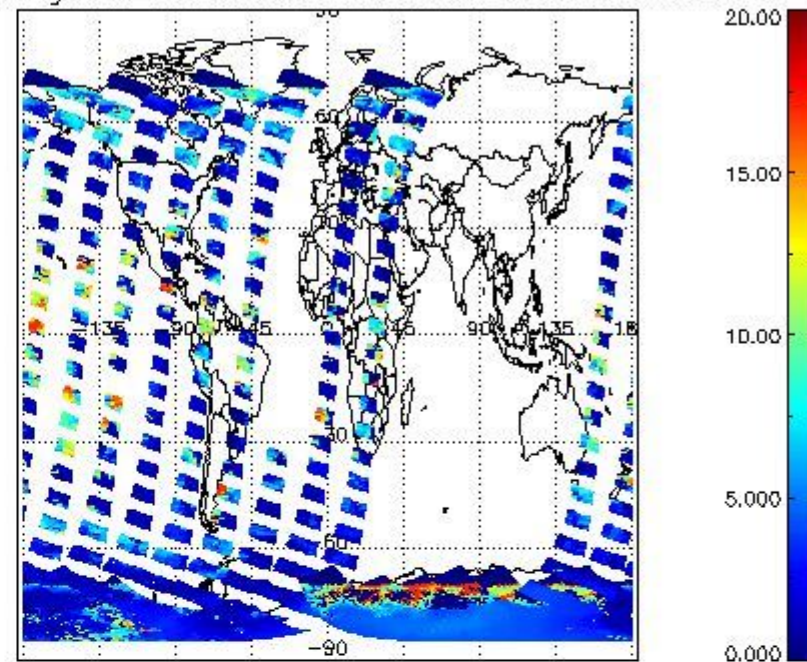
Plots are available for the following parameters:

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

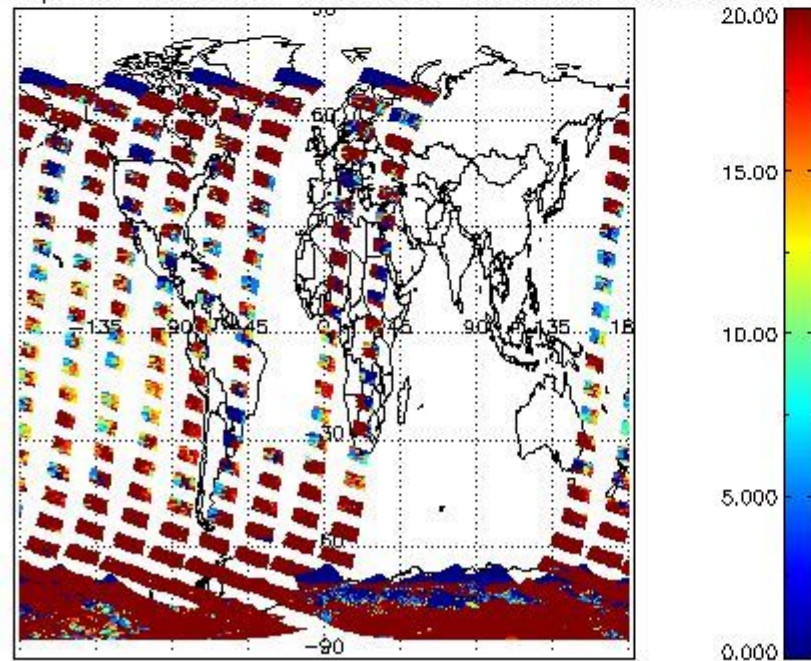
cLfrac for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



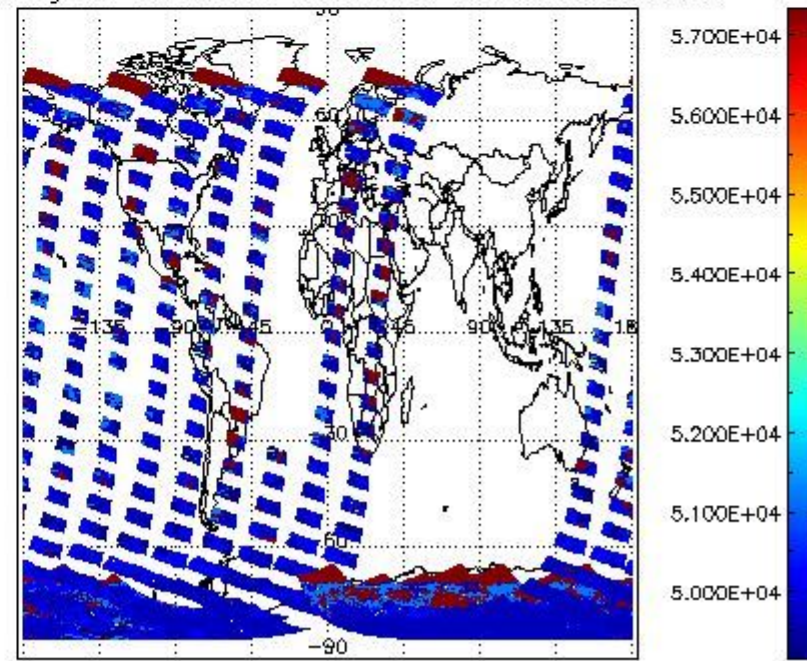
cL\_top\_height for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



cLopt\_depth for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



cloud\_flags for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



## 2.2.2 Nadir

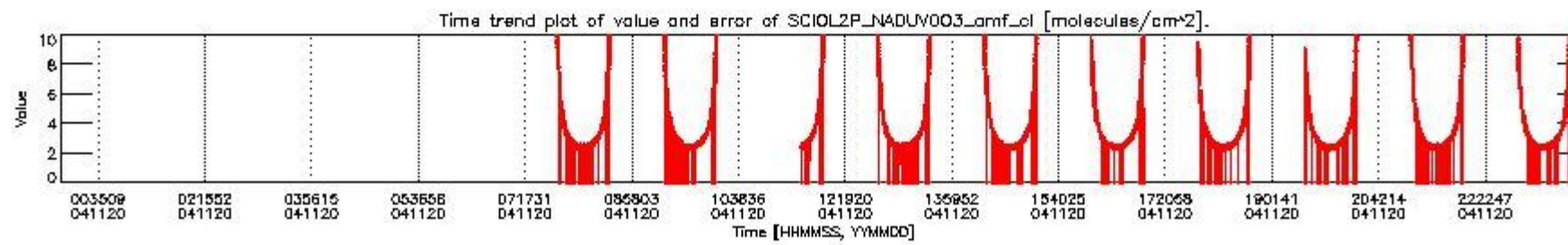
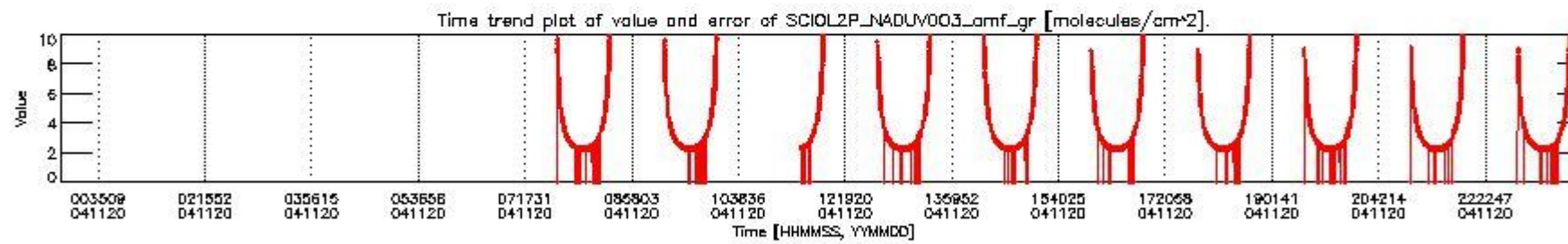
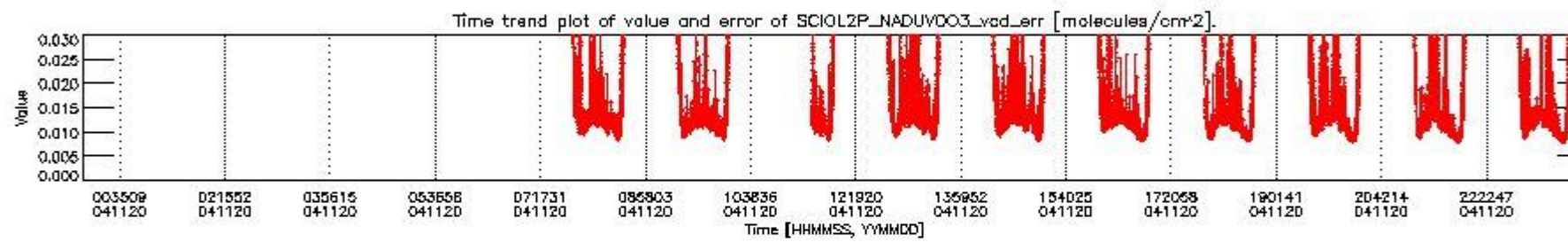
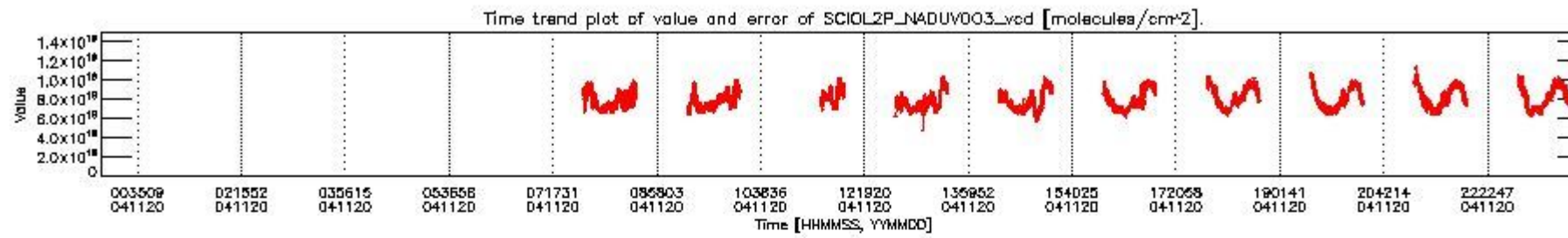
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

The following data items are currently included into this section:

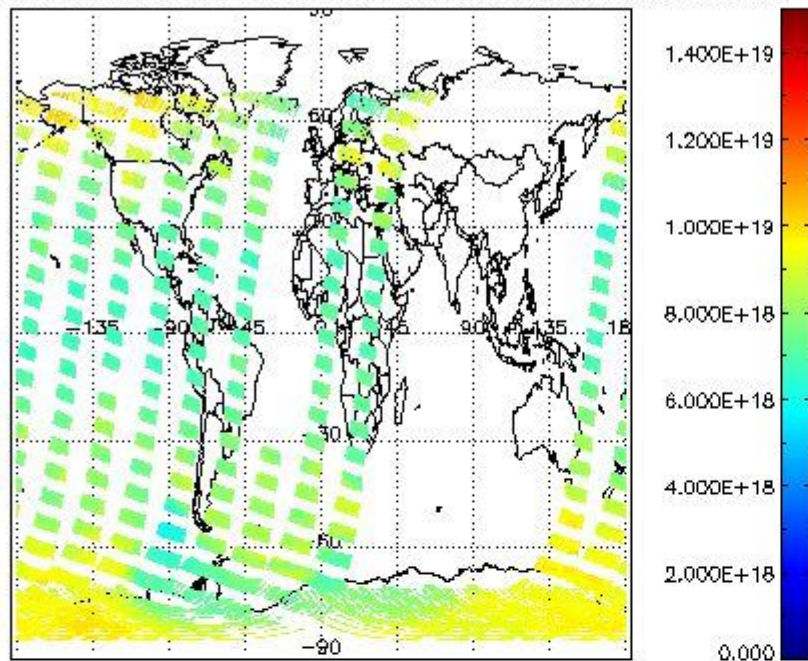
Number	Data item ID
0	SCIOL2P_NADUV003_vcd
1	SCIOL2P_NADUV003_vcd_err
2	SCIOL2P_NADUV003_amf_gr

3	SCIOL2P_NADUV003_amf_cl
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

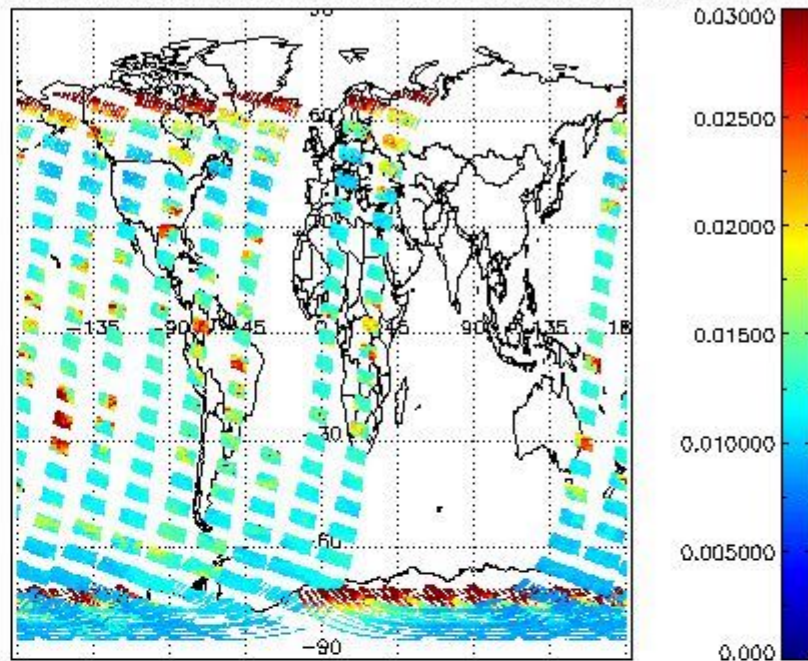
Data is presented both in time trend plots and world map plots, in order to show variations with time and geolocation. The vertical dotted lines in the time trend plots indicate orbits. The orbit times on the X-axis are estimated sensing\_start time as suggested by the product sensing\_start time in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



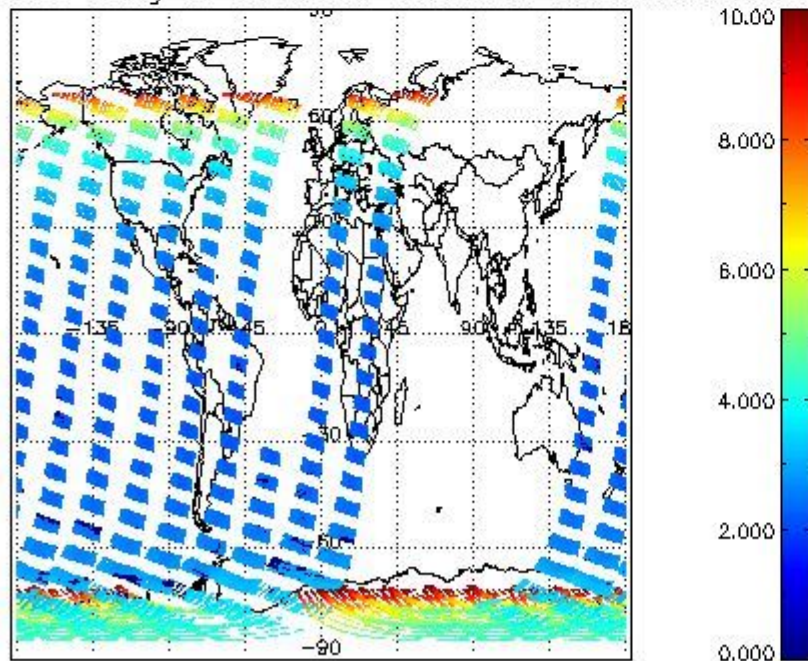
SCIOL2P\_NADUV003\_vcd for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



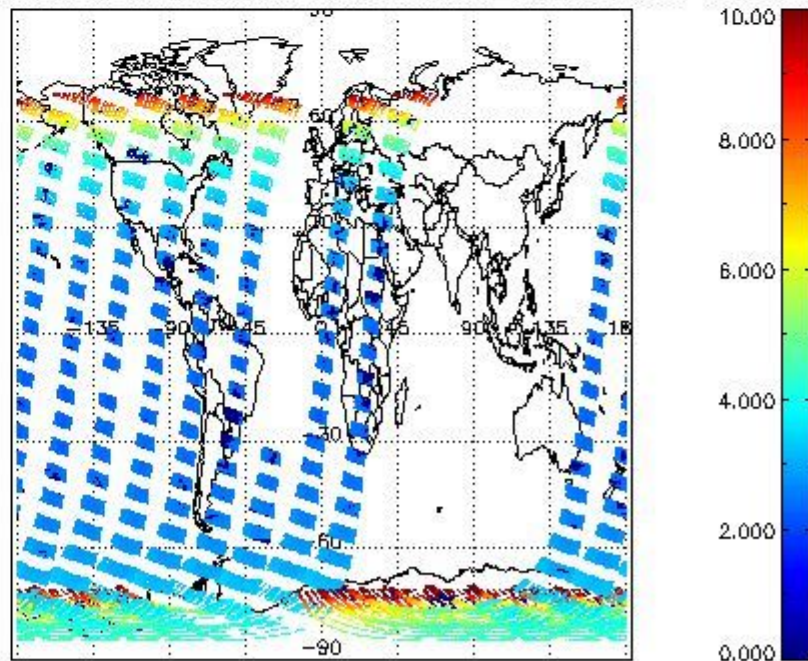
SCIOL2P\_NADUV003\_vcd\_err for 20NOV2004 00:00:00 to 21NOV2004 00:00:00

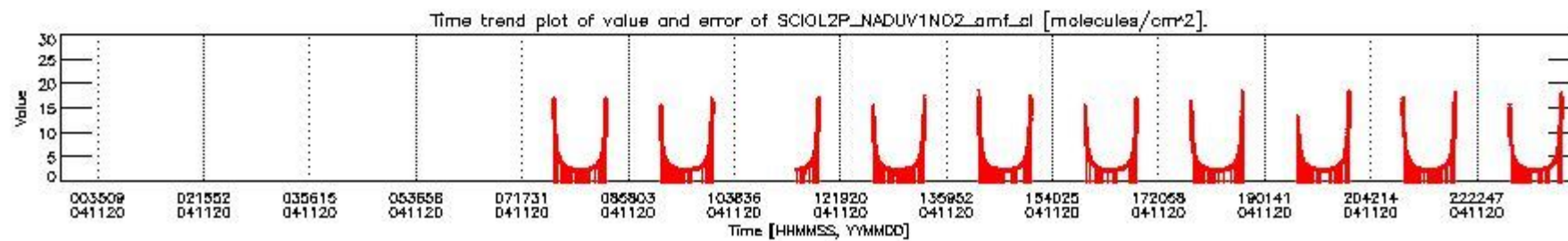
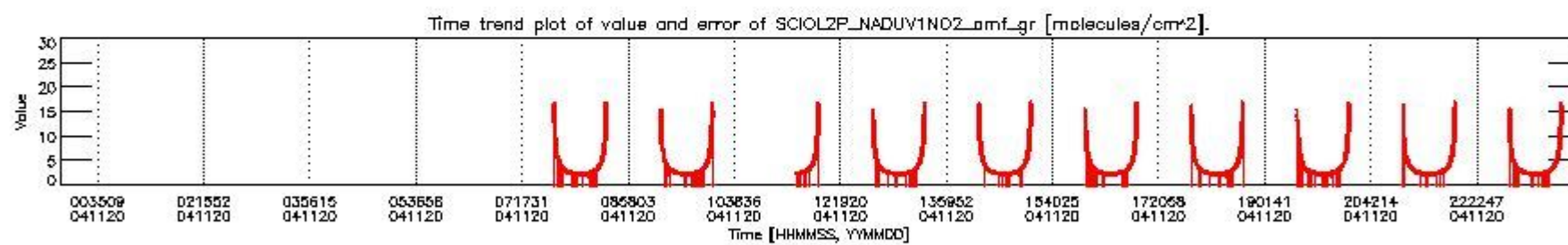
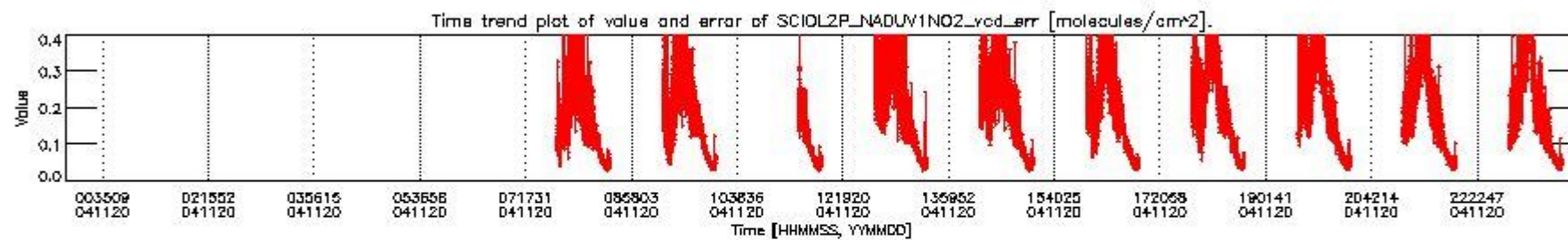
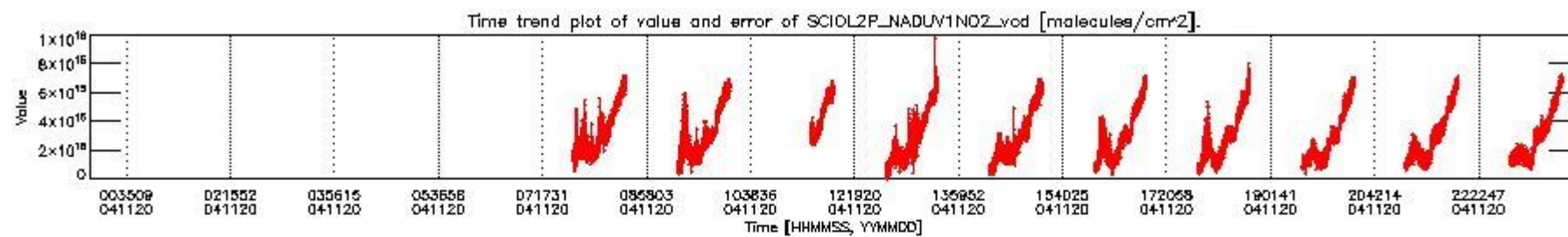


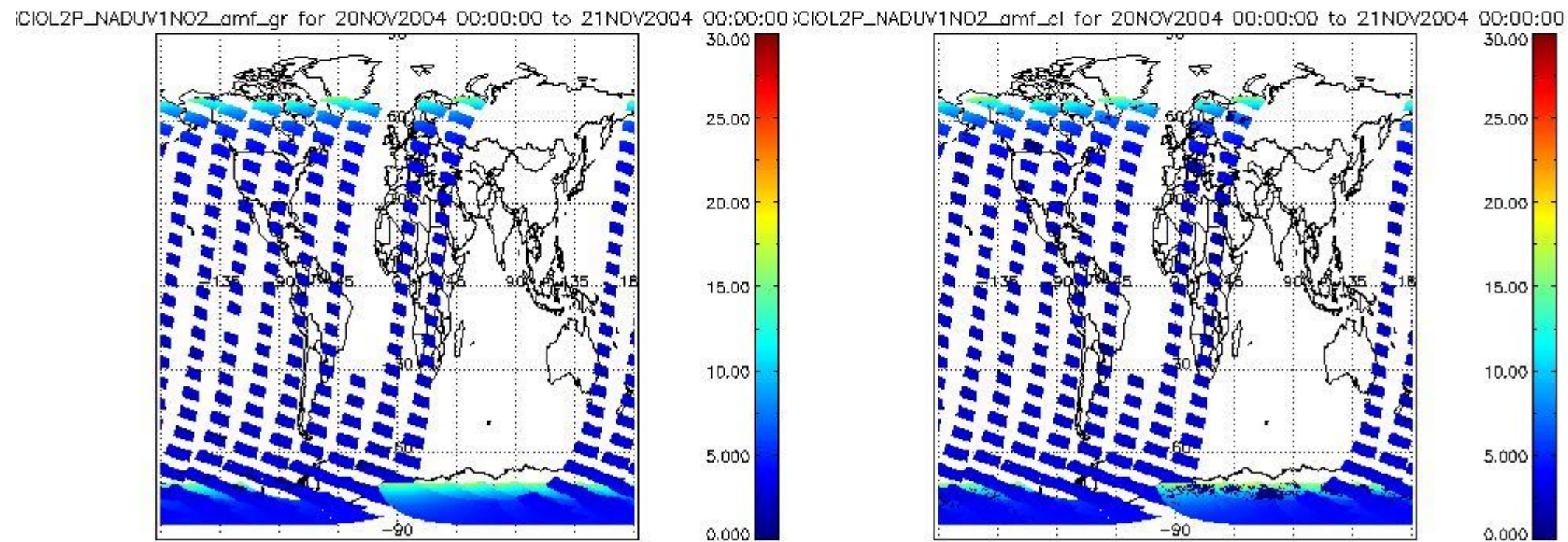
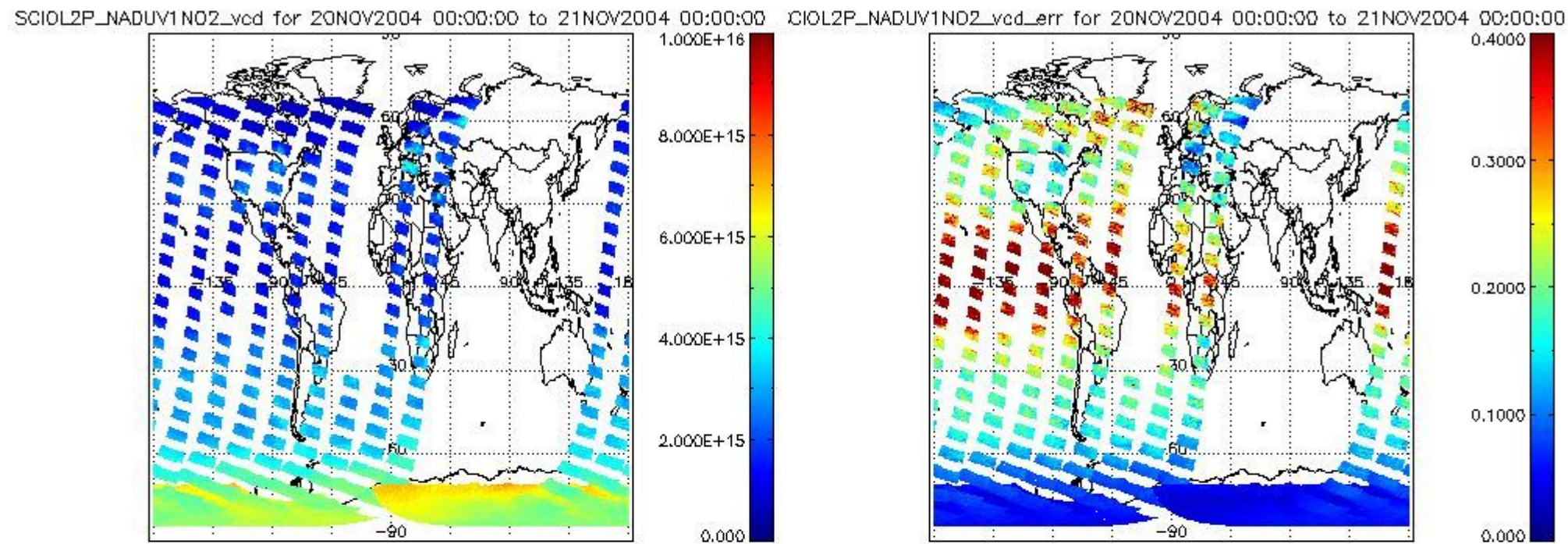
SCIOL2P\_NADUV003\_amf\_gr for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



SCIOL2P\_NADUV003\_amf\_cl for 20NOV2004 00:00:00 to 21NOV2004 00:00:00







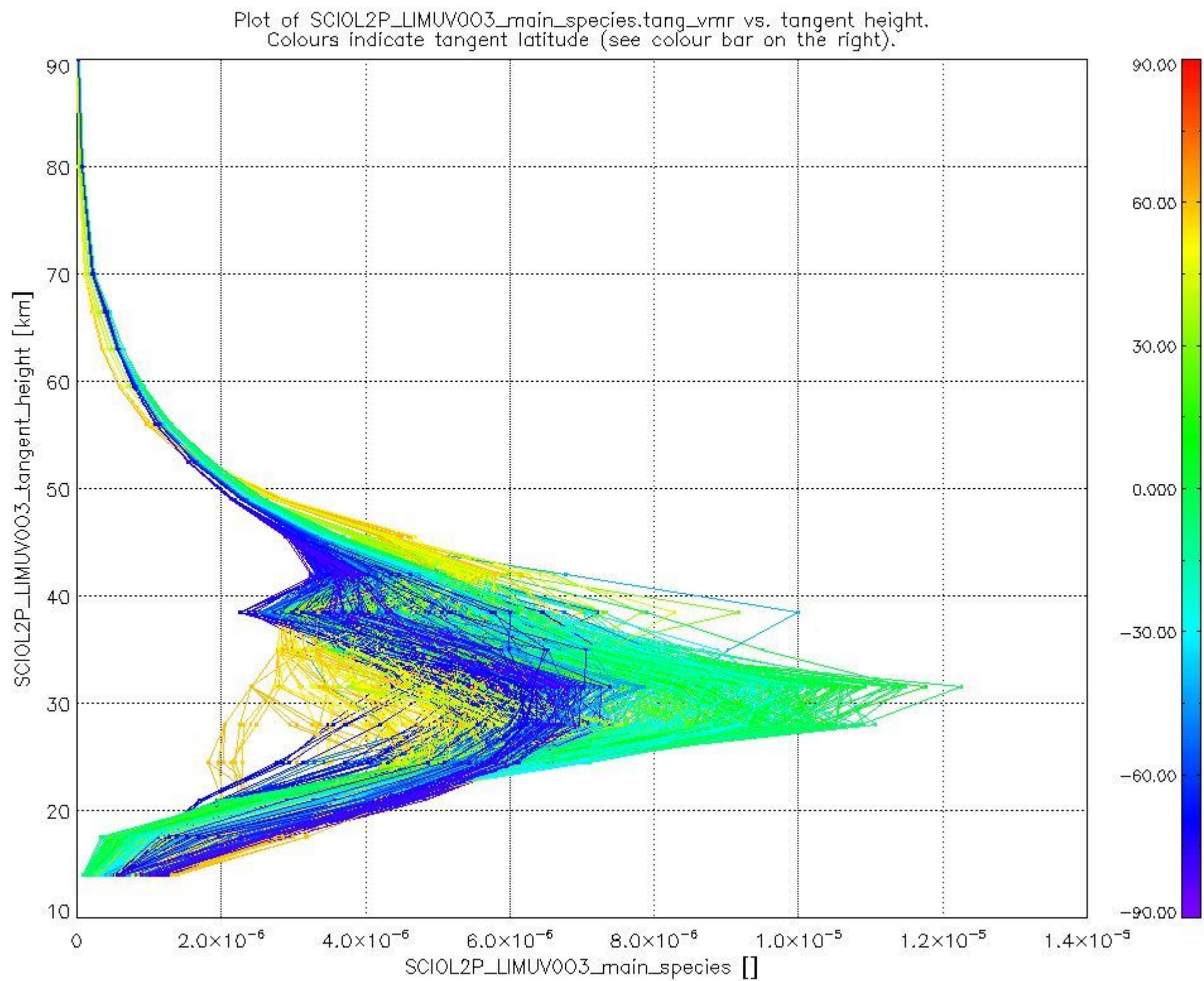
### 2.2.3 Limb

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:

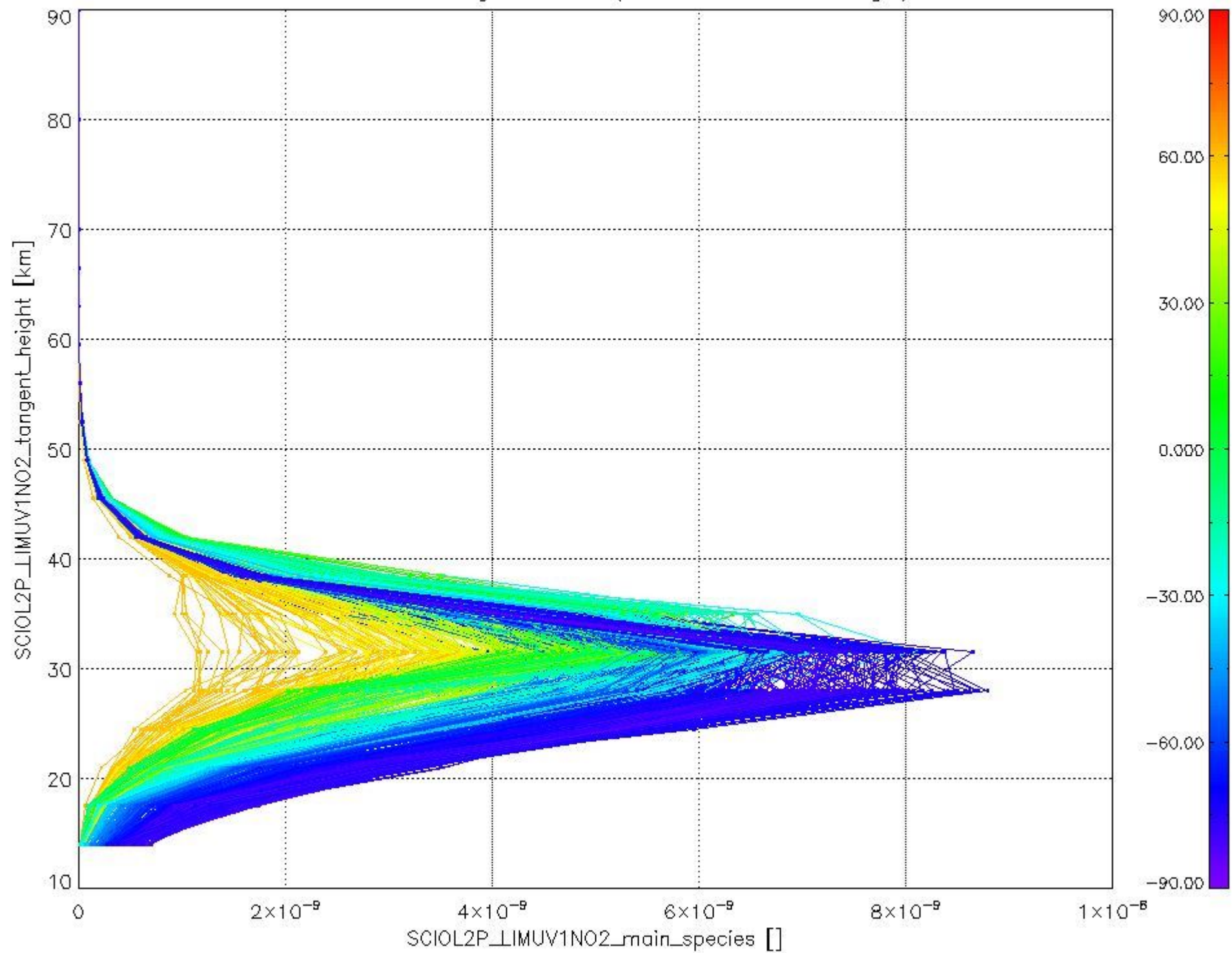
Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

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





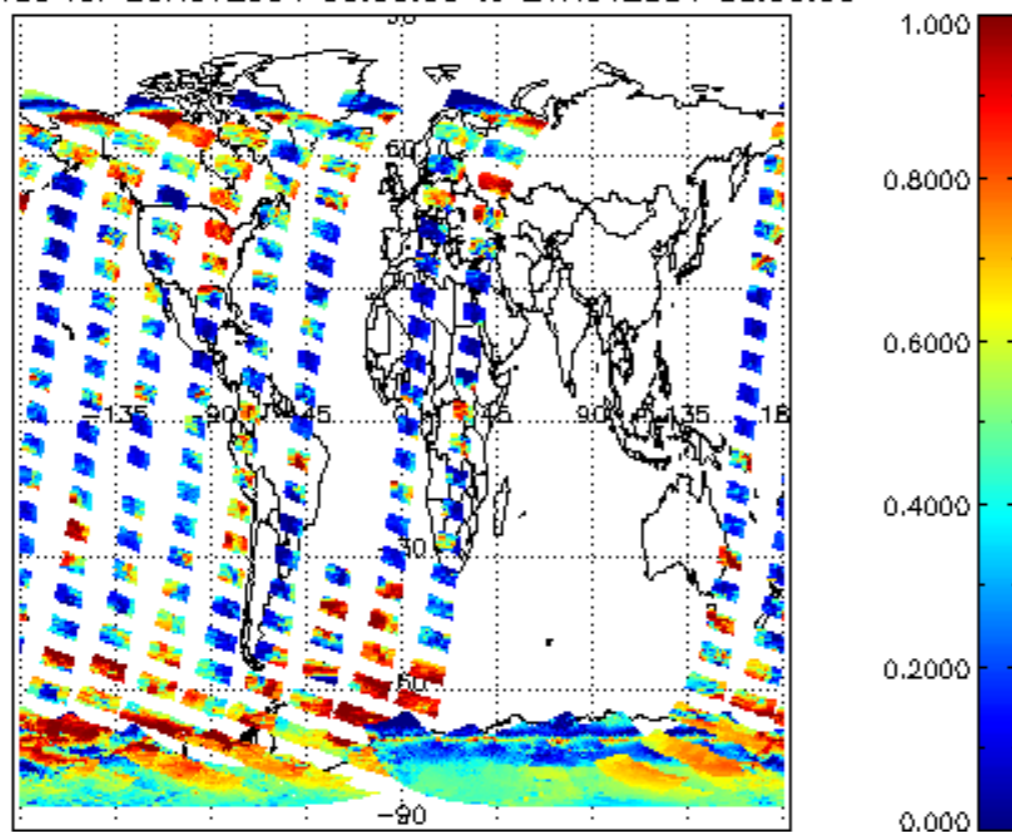
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



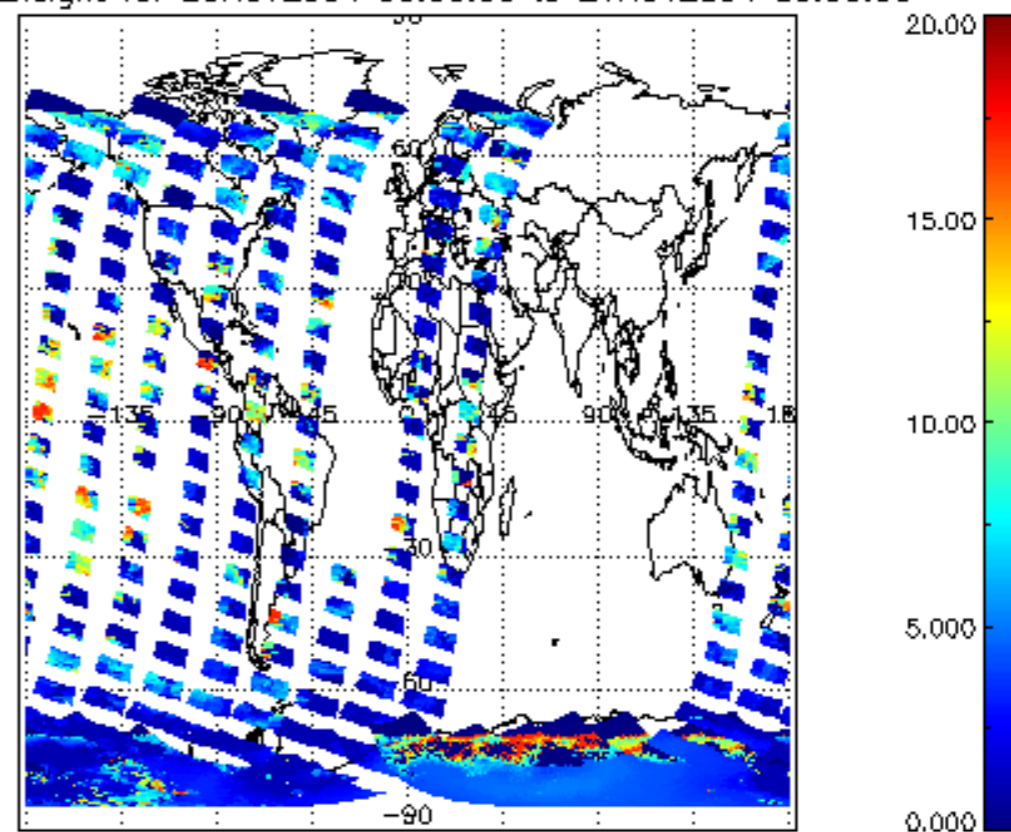
### 2.3 ADF monitoring

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

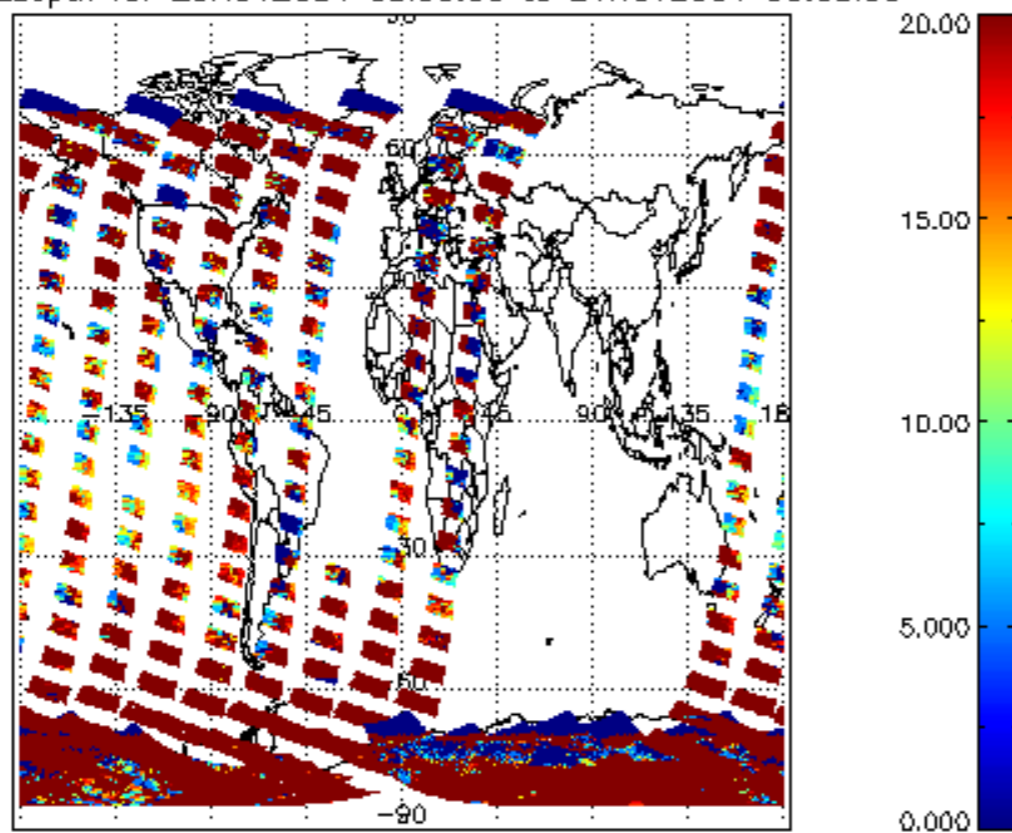
cLfrac for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



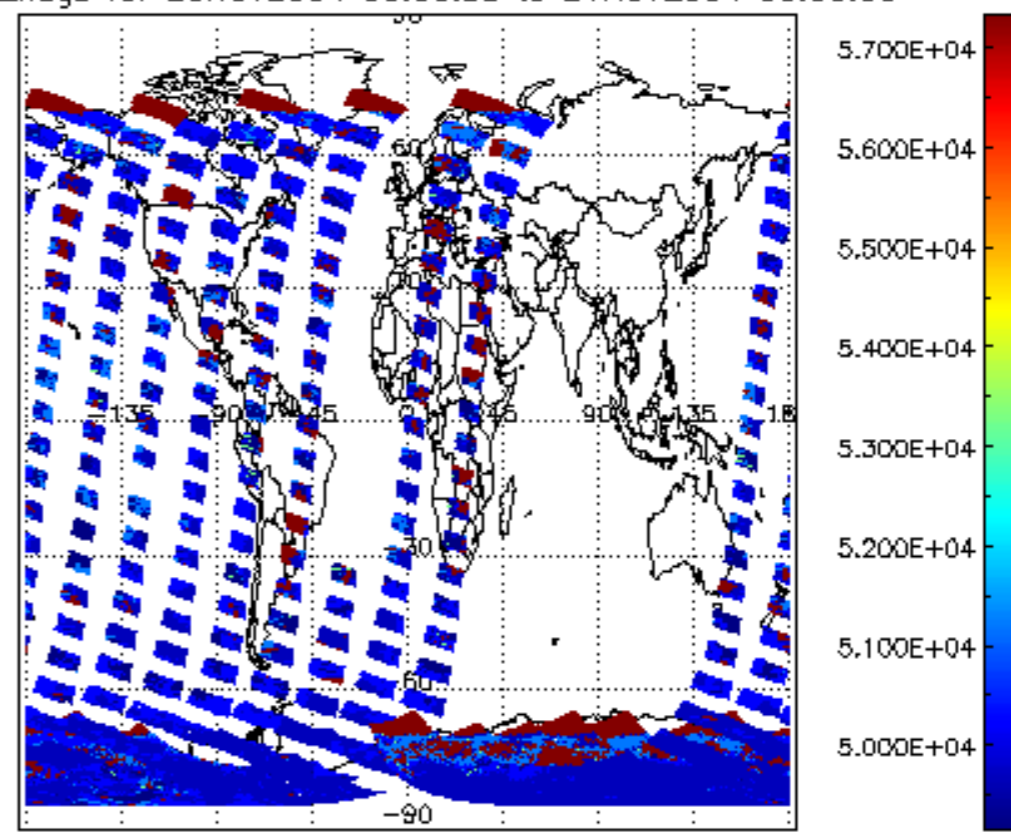
cL\_top\_height for 20NOV2004 00:00:00 to 21NOV2004 00:00:00

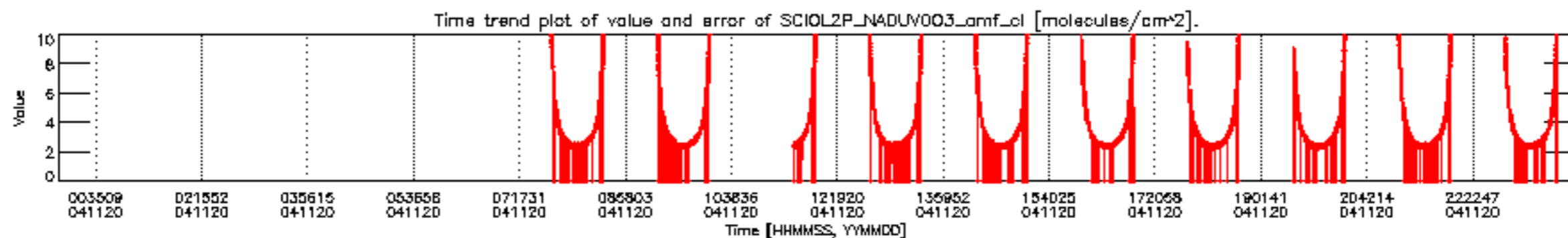
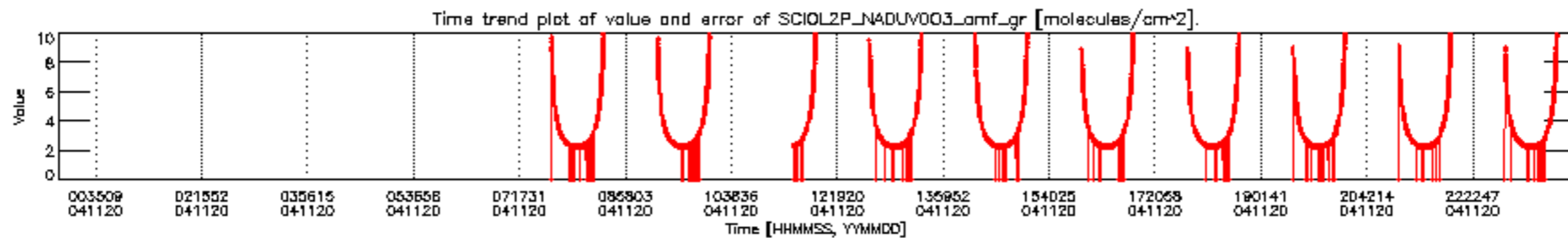
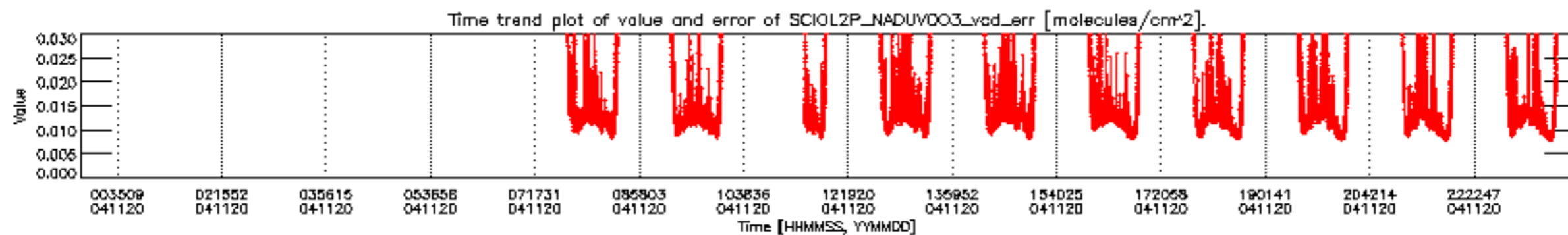
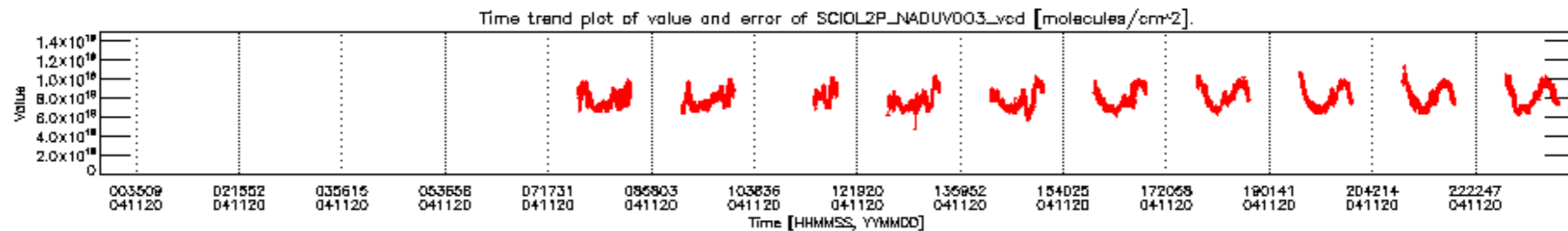


cL\_opt\_depth for 20NOV2004 00:00:00 to 21NOV2004 00:00:00

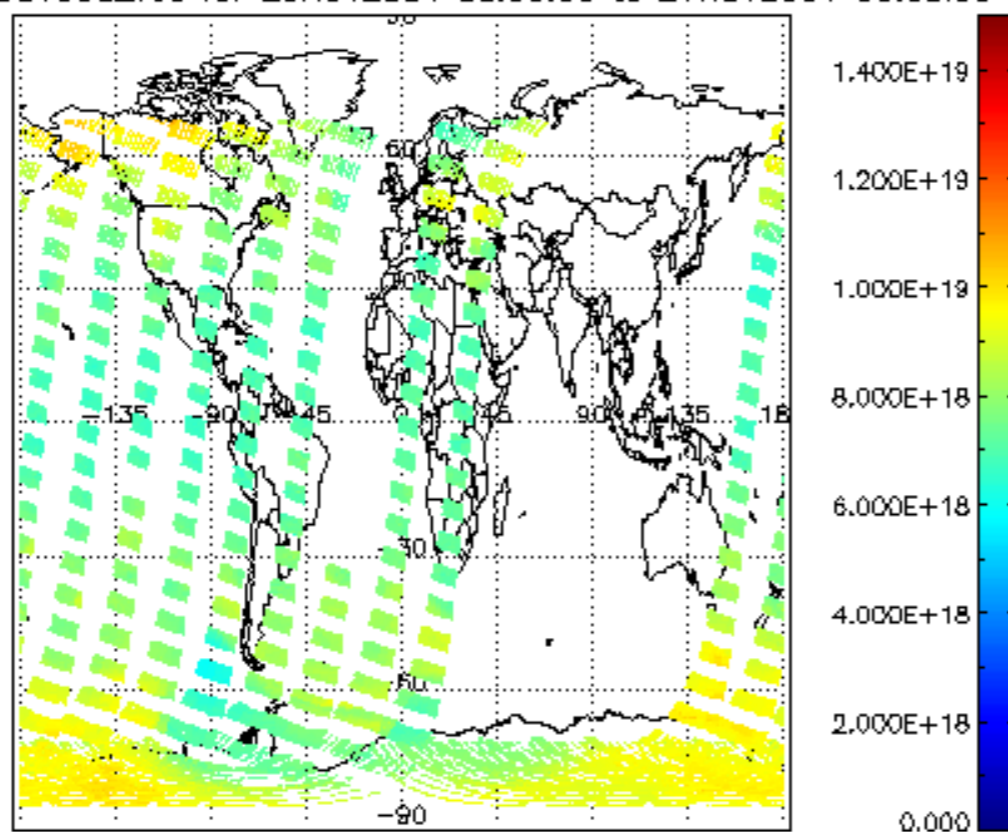


cloud\_flags for 20NOV2004 00:00:00 to 21NOV2004 00:00:00

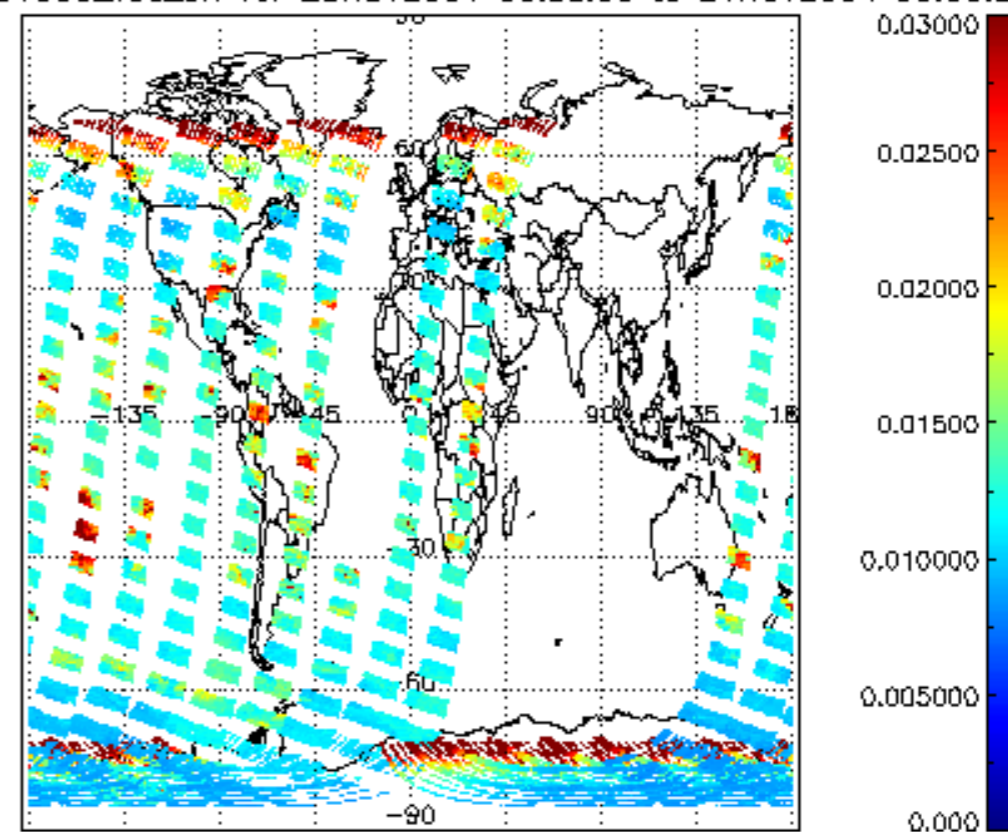




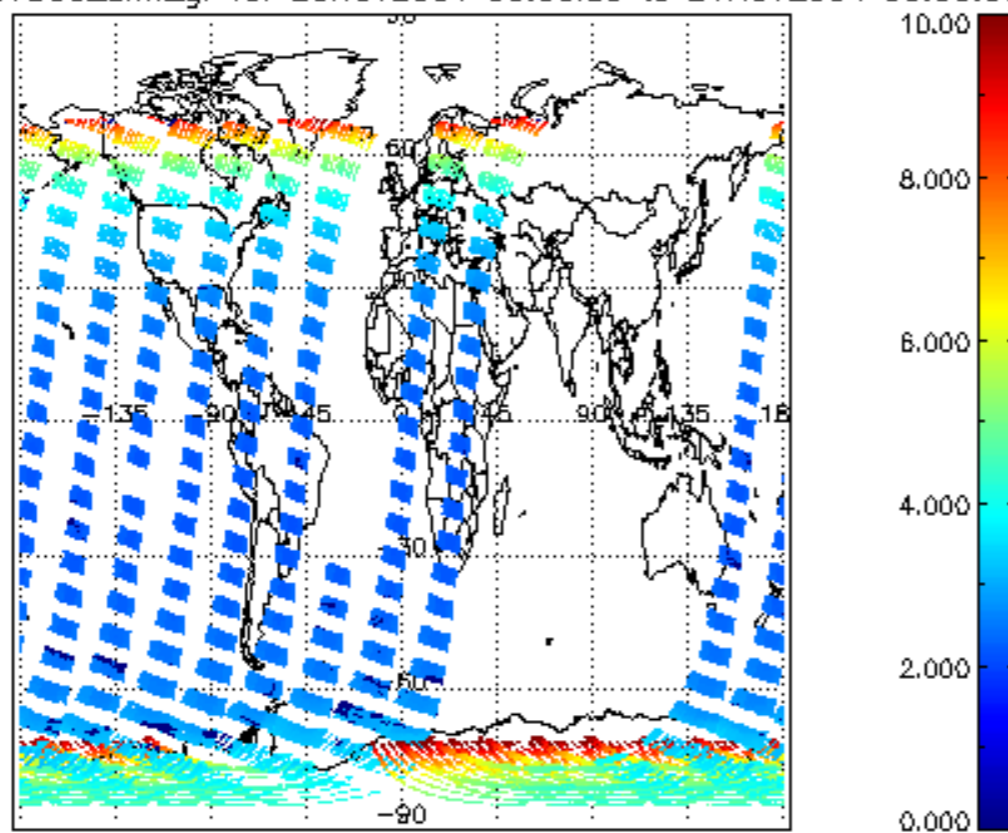
SCIOL2P\_NADUV003\_vcd for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



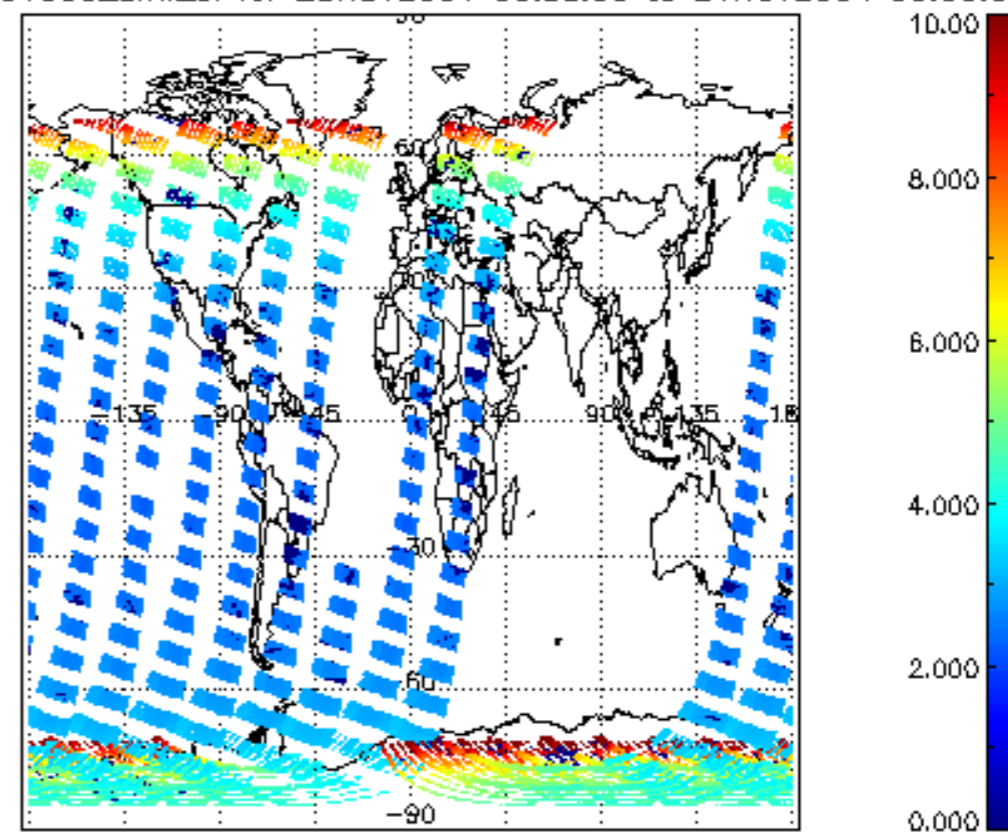
SCIOL2P\_NADUV003\_vcd\_err for 20NOV2004 00:00:00 to 21NOV2004 00:00:00

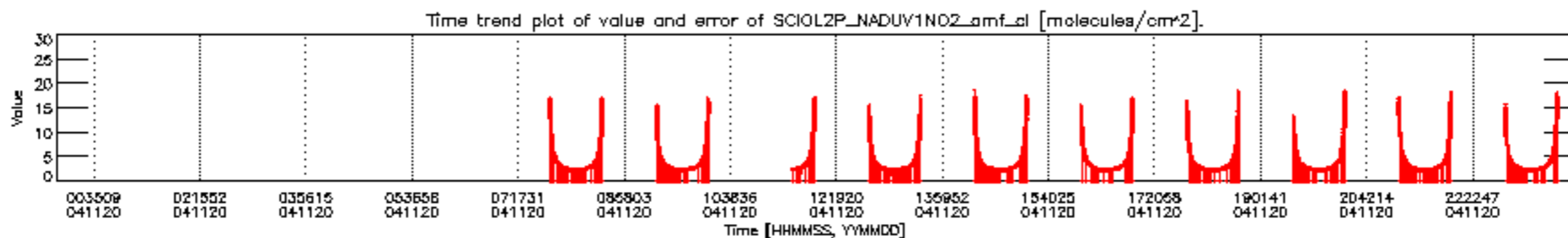
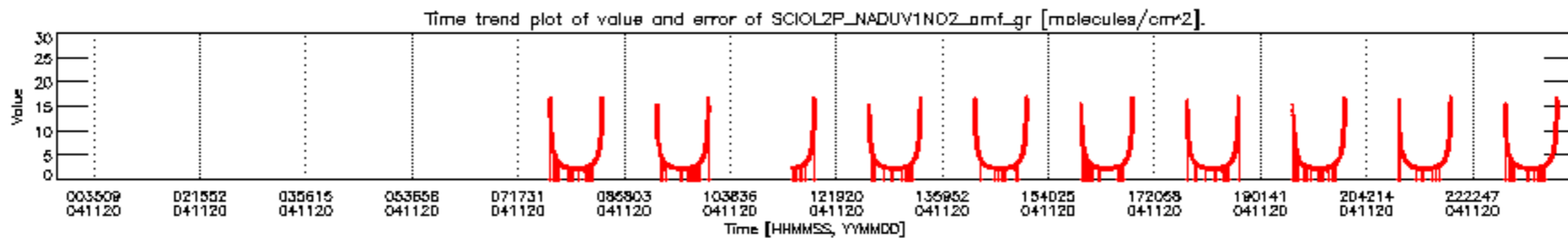
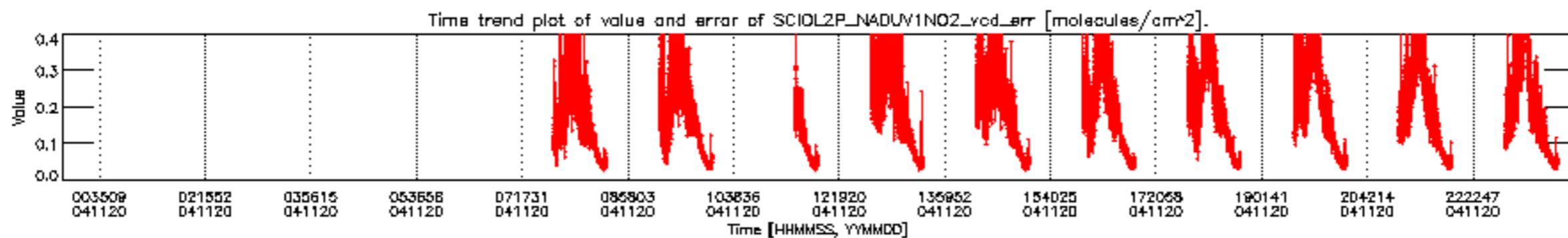
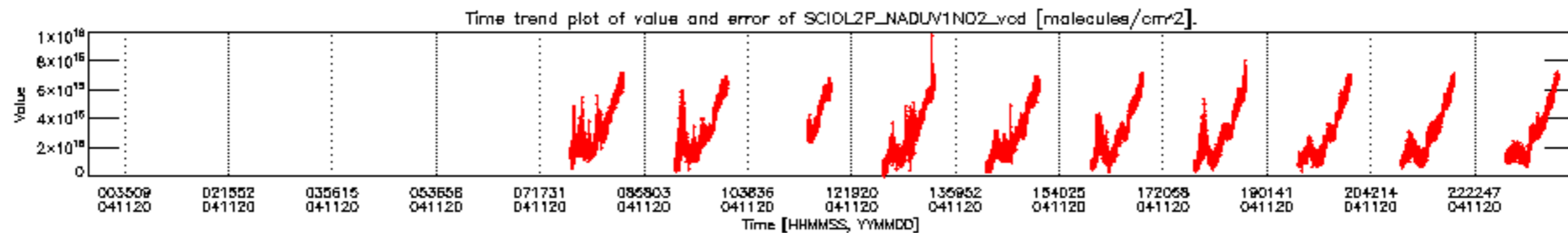


SCIOL2P\_NADUV003\_amf\_gr for 20NOV2004 00:00:00 to 21NOV2004 00:00:00

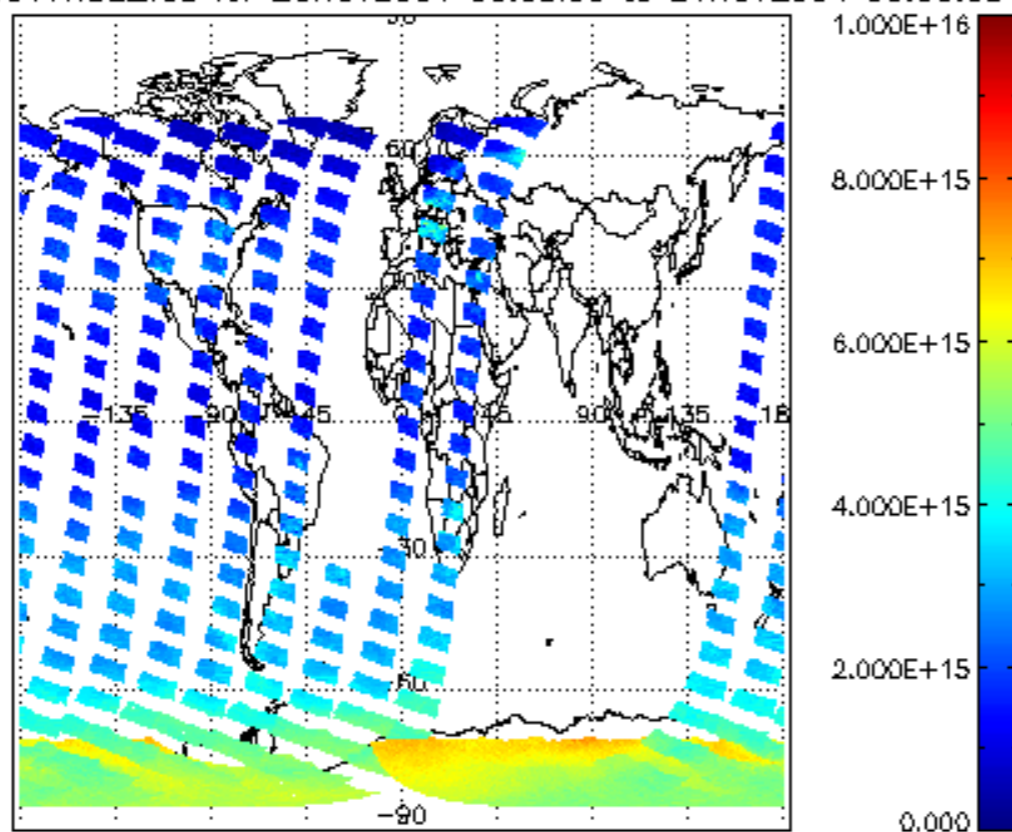


SCIOL2P\_NADUV003\_amf\_cl for 20NOV2004 00:00:00 to 21NOV2004 00:00:00

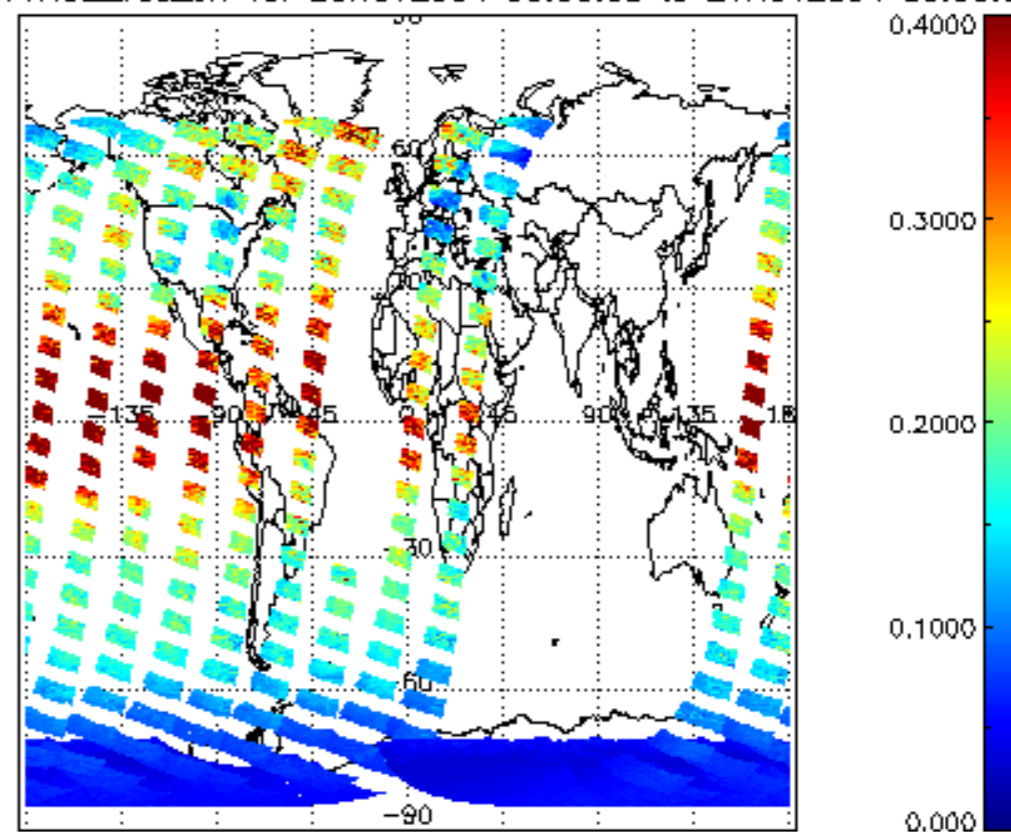




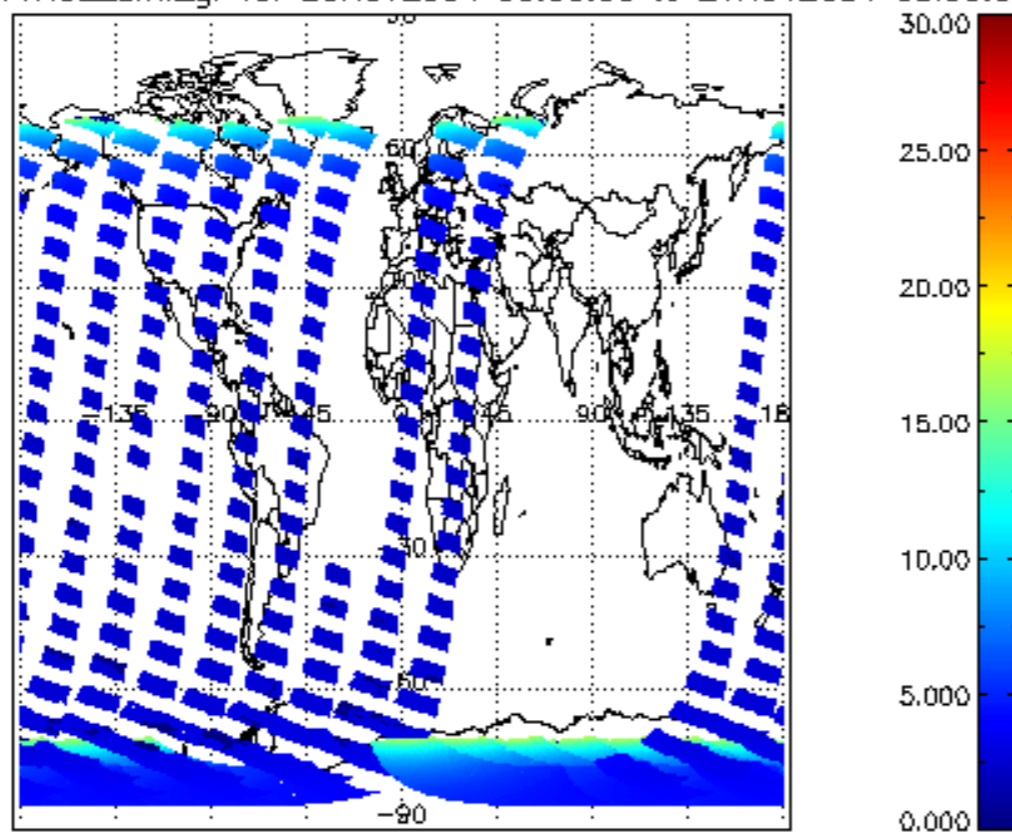
SCIOL2P\_NADUV1NO2\_vcd for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



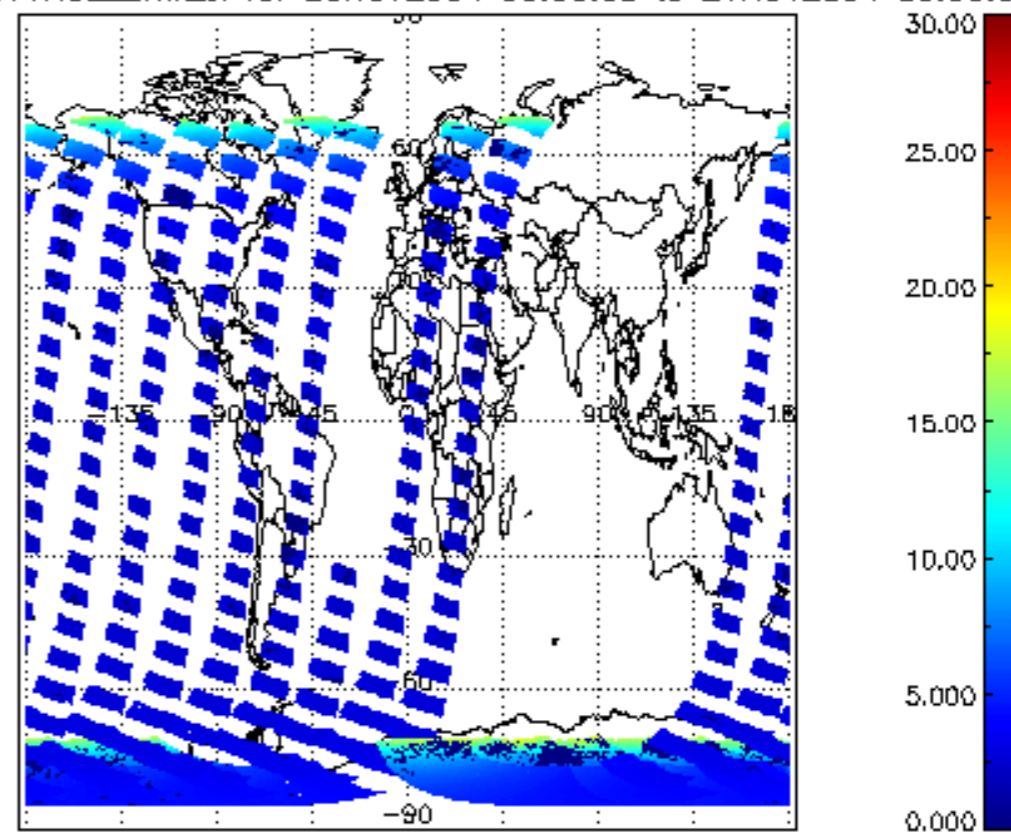
SCIOL2P\_NADUV1NO2\_vcd\_err for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



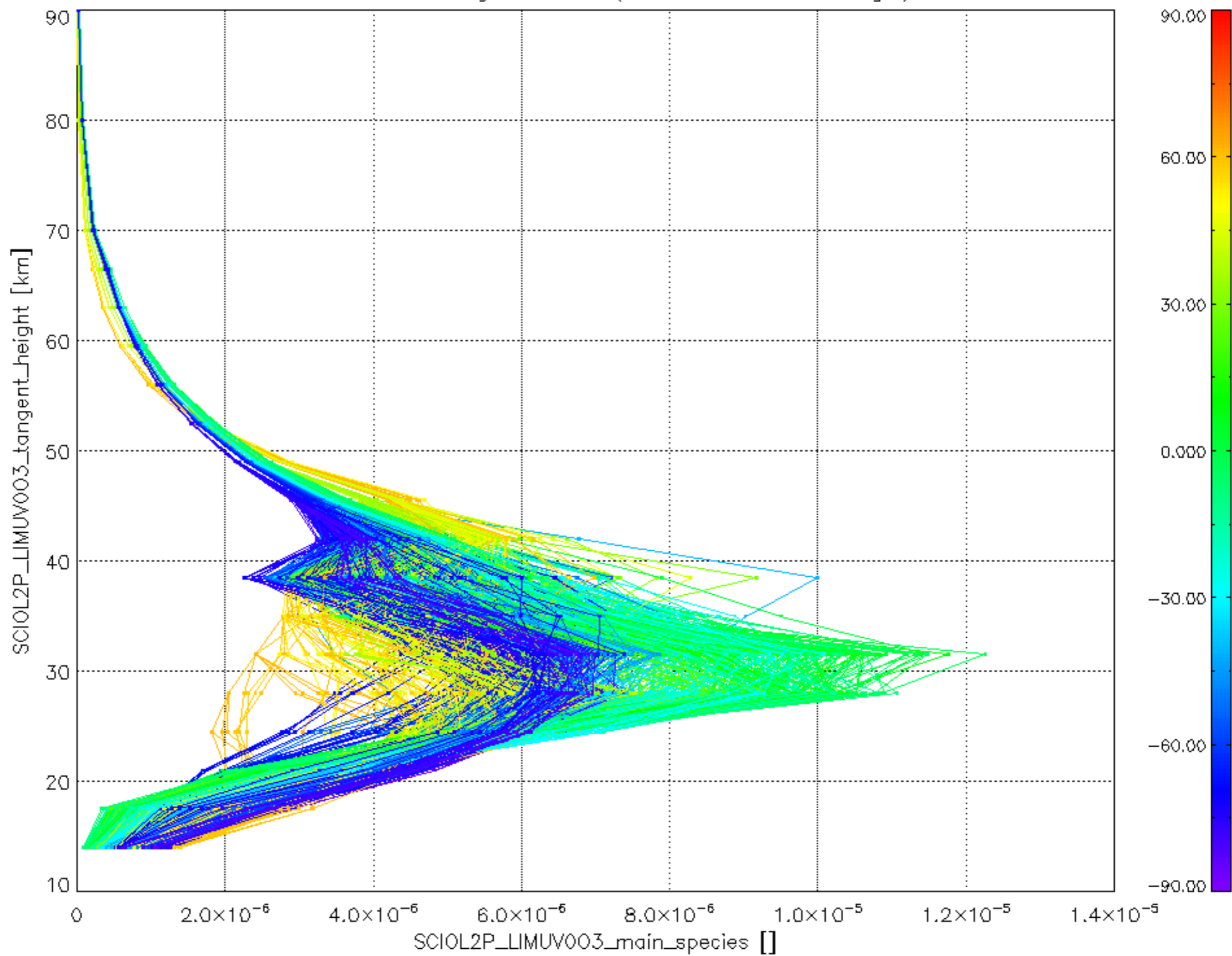
SCIOL2P\_NADUV1NO2\_amf\_gr for 20NOV2004 00:00:00 to 21NOV2004 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_cl for 20NOV2004 00:00:00 to 21NOV2004 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).

