

## 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	13JUN2008 10:38:02
Data source version	SCIA-OL/3.01-R
Processing scope for products	24NOV2002 00:00:00 to 25NOV2002 00:00:00
Start time of first product within scope	24NOV2002 00:11:04
Stop time of last product within scope	25NOV2002 00:24:57
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__2PRDPA20021124_001104_000031782011_00274_03835_1635.N1	24NOV2002 00:11:04	24NOV2002 01:04:02	0	GOOD
1	SCI_OL__2PRDPA20021124_014914_000029212011_00275_03836_1653.N1	24NOV2002 01:49:14	24NOV2002 02:37:55	0	GOOD
2	SCI_OL__2PRDPA20021124_032950_000028732011_00276_03837_1658.N1	24NOV2002 03:29:50	24NOV2002 04:17:43	0	GOOD
3	SCI_OL__2PRDPA20021124_051026_000029212011_00277_03838_1636.N1	24NOV2002 05:10:26	24NOV2002 05:59:07	0	GOOD
4	SCI_OL__2PRDPA20021124_065102_000028732011_00278_03839_1642.N1	24NOV2002 06:51:02	24NOV2002 07:38:56	0	GOOD
5	SCI_OL__2PRDPA20021124_083138_000029212011_00279_03840_1652.N1	24NOV2002 08:31:38	24NOV2002 09:20:20	0	GOOD
6	SCI_OL__2PRDPA20021124_101214_000028732011_00280_03841_1630.N1	24NOV2002 10:12:14	24NOV2002 11:00:08	0	GOOD
7	SCI_OL__2PRDPA20021124_115250_000029212011_00281_03842_1678.N1	24NOV2002 11:52:50	24NOV2002 12:41:32	0	GOOD
8	SCI_OL__2PRDPA20021124_133327_000028732011_00282_03843_1689.N1	24NOV2002 13:33:27	24NOV2002 14:21:20	0	GOOD
9	SCI_OL__2PRDPA20021124_151403_000029212011_00283_03844_1654.N1	24NOV2002 15:14:03	24NOV2002 16:02:44	0	GOOD
10	SCI_OL__2PRDPA20021124_165439_000028732011_00284_03845_1624.N1	24NOV2002 16:54:39	24NOV2002 17:42:33	0	GOOD
11	SCI_OL__2PRDPA20021124_183453_000029042011_00285_03846_1700.N1	24NOV2002 18:34:53	24NOV2002 19:23:17	0	GOOD
12	SCI_OL__2PRDPA20021124_201613_000028732011_00286_03847_1656.N1	24NOV2002 20:16:13	24NOV2002 21:04:06	0	GOOD
13	SCI_OL__2PRDPA20021124_215627_000029212011_00287_03848_1709.N1	24NOV2002 21:56:27	24NOV2002 22:45:09	0	GOOD
14	SCI_OL__2PRDPA20021124_233704_000028732011_00288_03849_1710.N1	24NOV2002 23:37:04	25NOV2002 00:24:57	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: 7680

Total number of cloud data DSRs with good quality flag (=0): 7680 (100.0 %)

Parameter	#valid	Mean	Median	Min	Max	Stddev	Unit
QUALITY_FLAG	7680	0.0000	0.0000	0.0000	0.0000	0.0000	flag
INTEGR_TIME	7680	0.21289	0.25000	0.12500	0.50000	0.072218	s
SURFACE_PRES	7680	0.0000	0.0000	0.0000	0.0000	0.0000	hPa
CL_FRAC	7680	0.46155	0.46498	0.0000	1.0000	0.28715	-

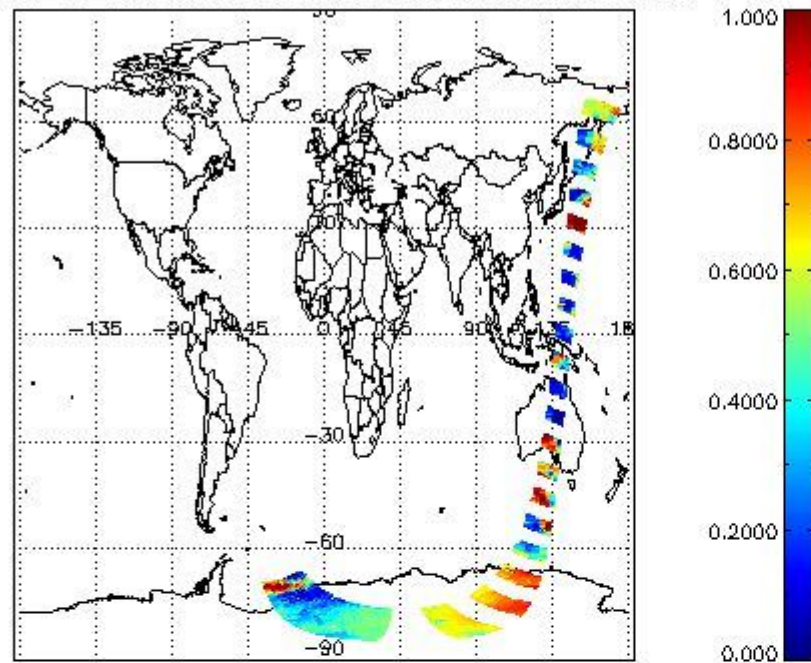
CL_FRAC_ERR	7680	0.0000	0.0000	0.0000	0.0000	0.0000	rel. fraction
PMD_READ	7680	6.8125	8.0000	4.0000	16.000	2.3110	
PMD_READ_CL[0]	7680	0.54557	0.0000	0.0000	16.000	1.9009	-
PMD_READ_CL[1]	7680	0.29323	0.0000	0.0000	16.000	1.2646	-
CL_TOP_HEIGHT	7144	4.8279	4.1713	0.0000	17.000	3.9045	km
CL_TOP_HEIGHT_ERR	0	---	---	---	---	---	---
CL_OPT_DEPTH	7144	54.544	40.297	0.0000	101.00	39.384	km
CL_OPT_DEPTH_ERR	0	---	---	---	---	---	---
CL_TYPE_FLAGS	7680	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	7680	11000101	11000010	11000000	11100000	2182.9	flags
AERO_ABSO_IND	7680	0.44558	0.34532	-4.1603	4.2282	0.93236	
AERO_IND_DIAG	7680	0.0000	0.0000	0.0000	0.0000	0.0000	
AERO_FLAGS	7680	01101010	11000000	00000000	11000000	24418.	flags

Time and geolocation plots:

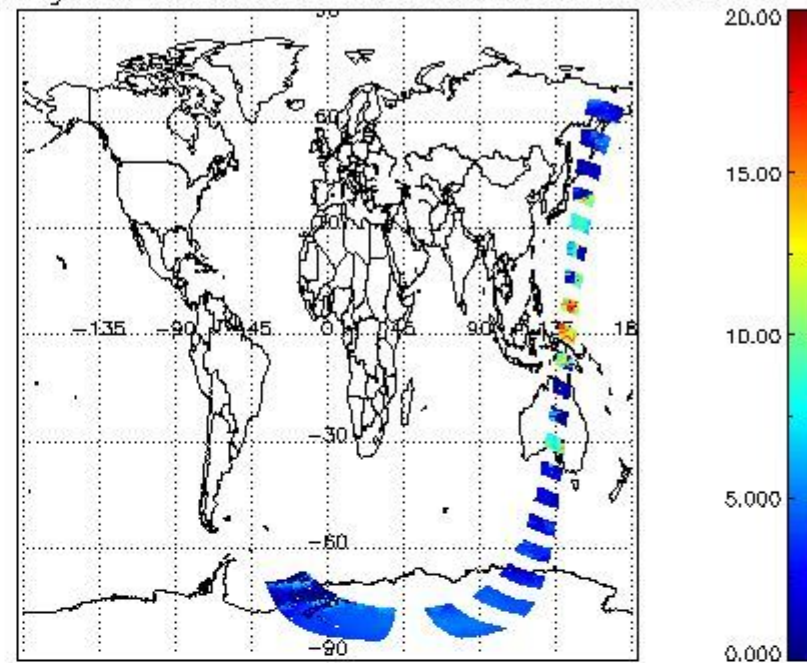
Plots are available for the following parameters:

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

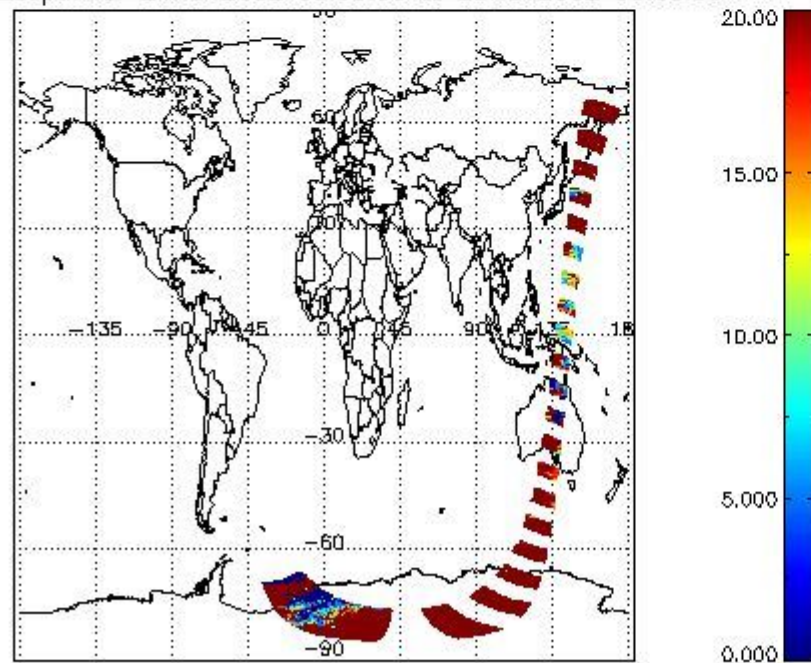
cLfrac for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



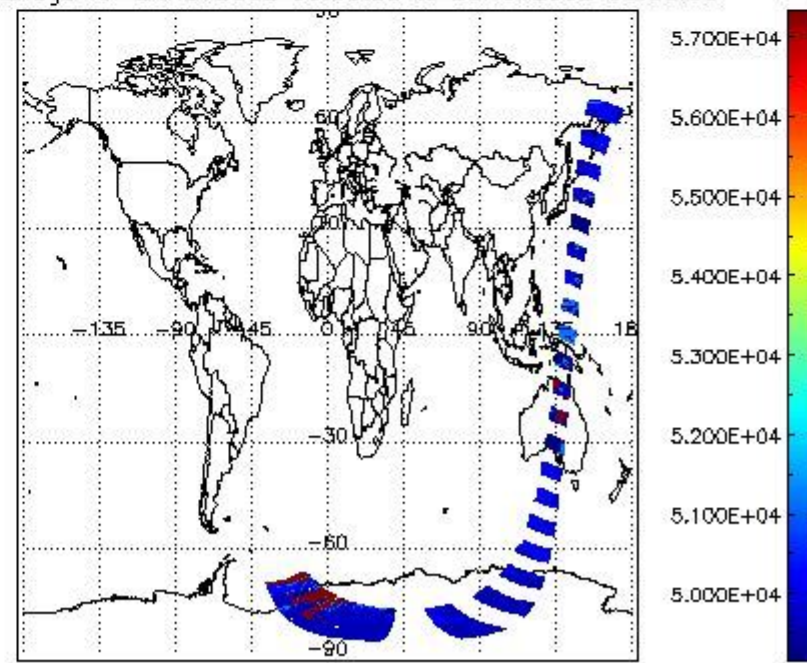
cL\_top\_height for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



cL\_opt\_depth for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



cloud\_flags for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



### 2.2.2 Nadir

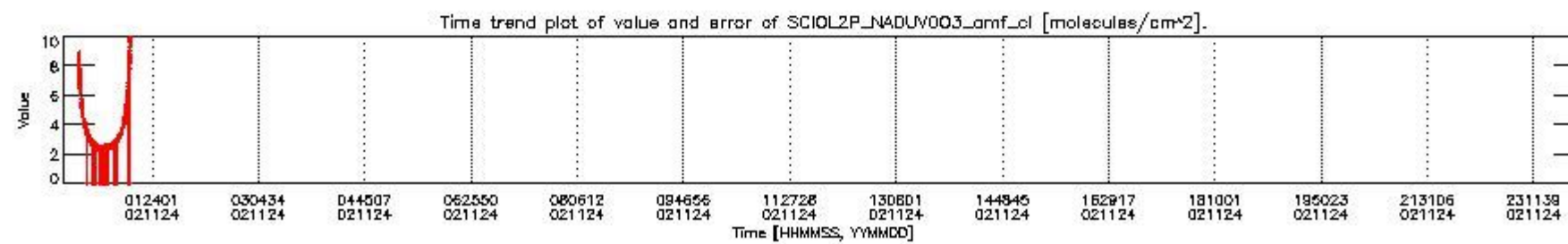
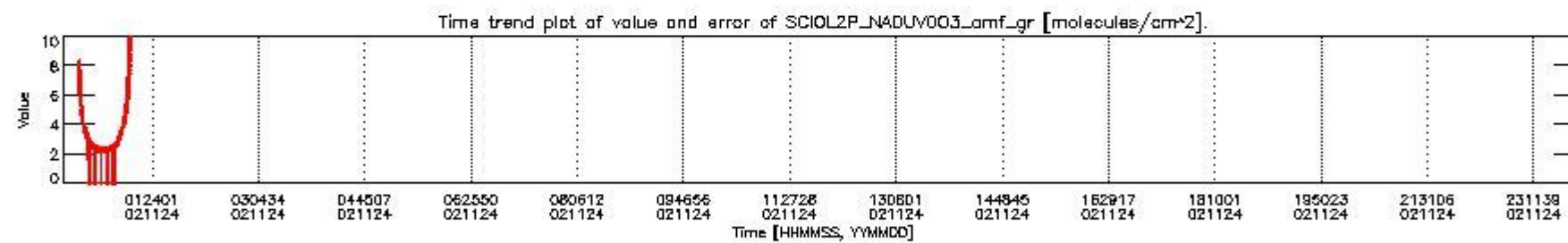
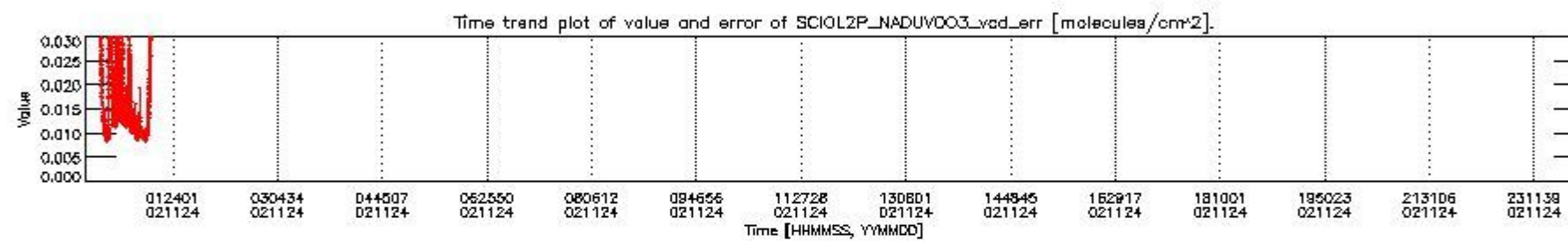
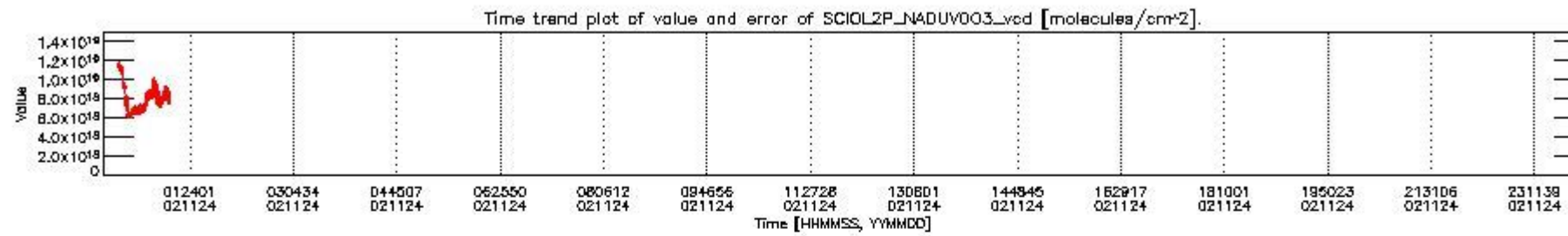
This section shows information about product quality of nadir measurements, in particular the quality of retrieved species.

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

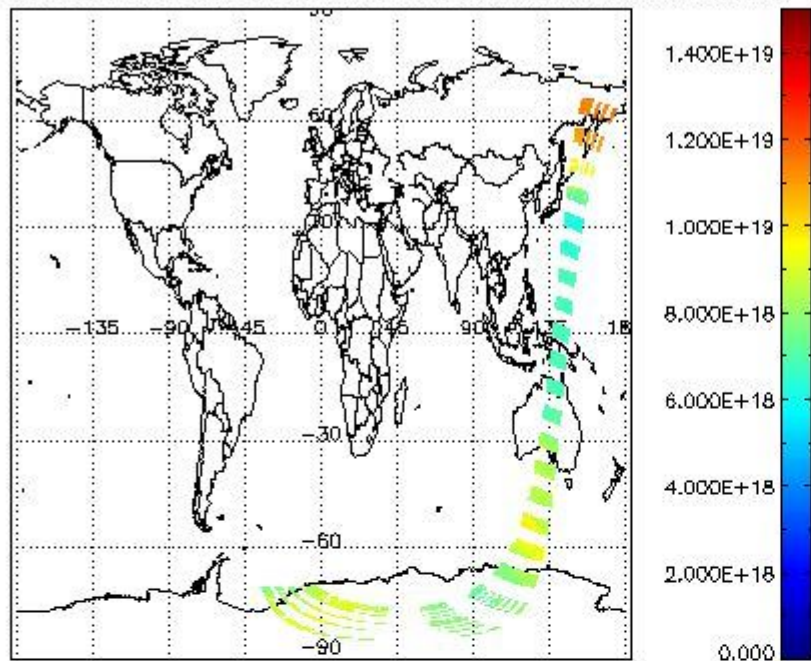
4	SCIOL2P_NADUV1NO2_vcd
5	SCIOL2P_NADUV1NO2_vcd_err
6	SCIOL2P_NADUV1NO2_amf_gr
7	SCIOL2P_NADUV1NO2_amf_cl

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.

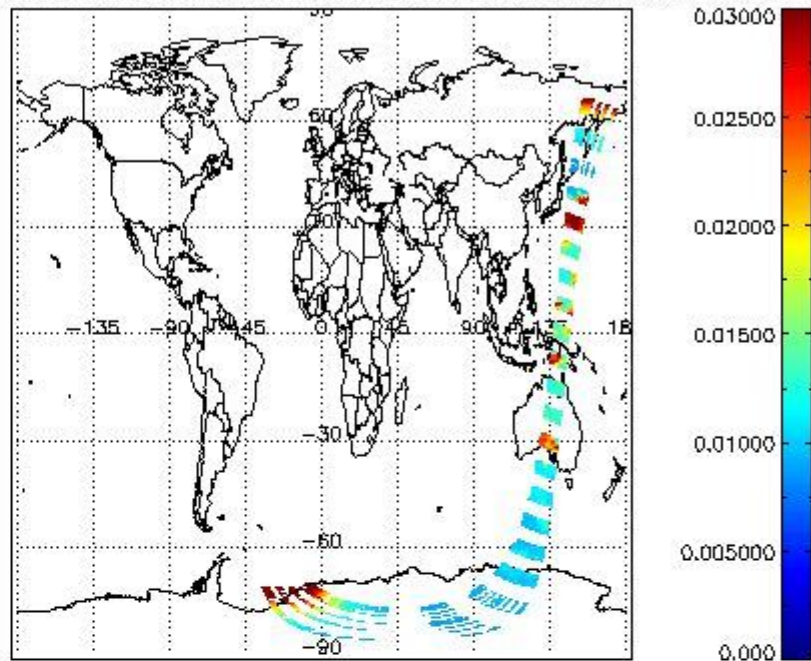




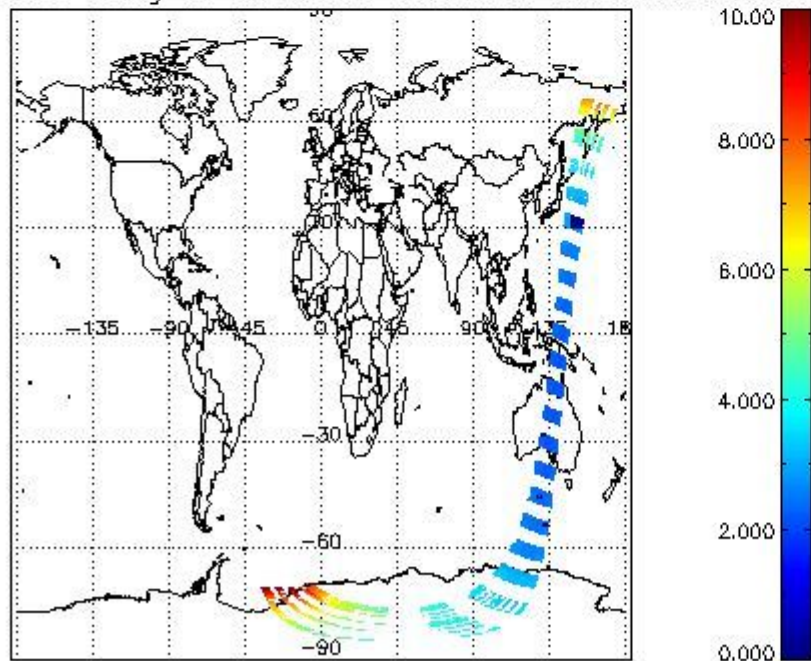
SCIOL2P\_NADUV003\_vcd for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



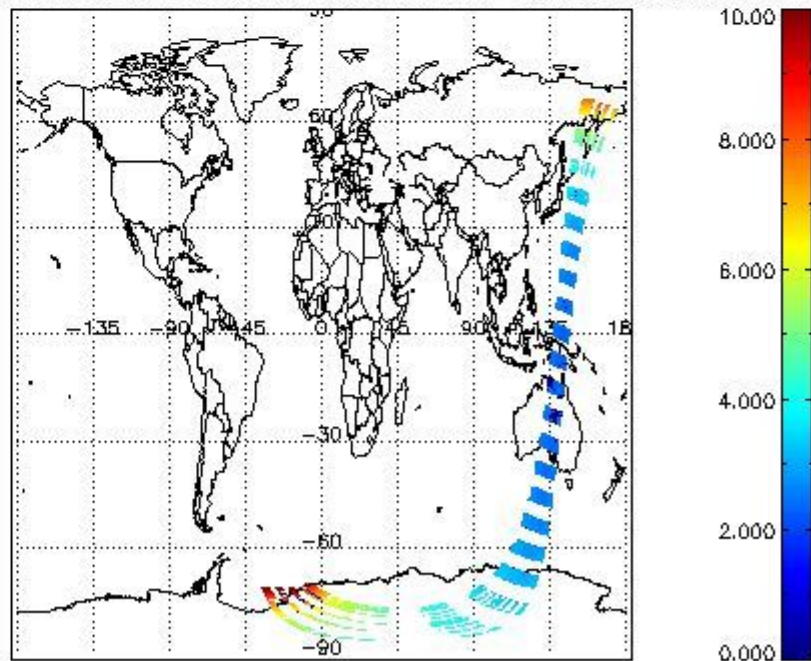
SCIOL2P\_NADUV003\_vcd\_err for 24NOV2002 00:00:00 to 25NOV2002 00:00:00

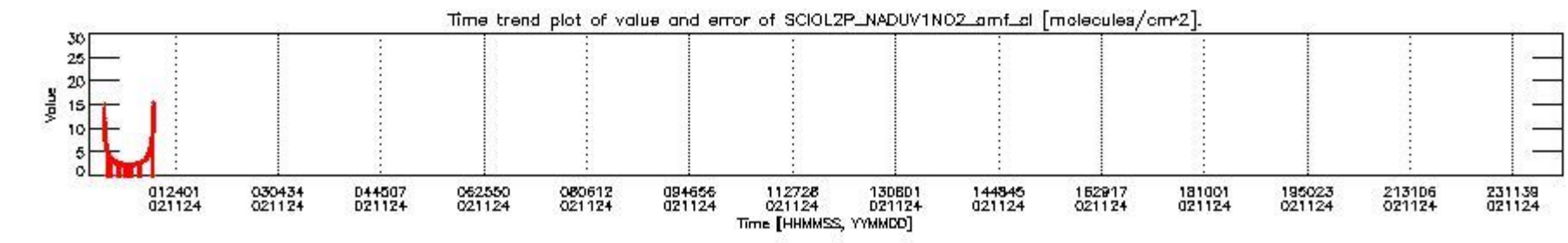
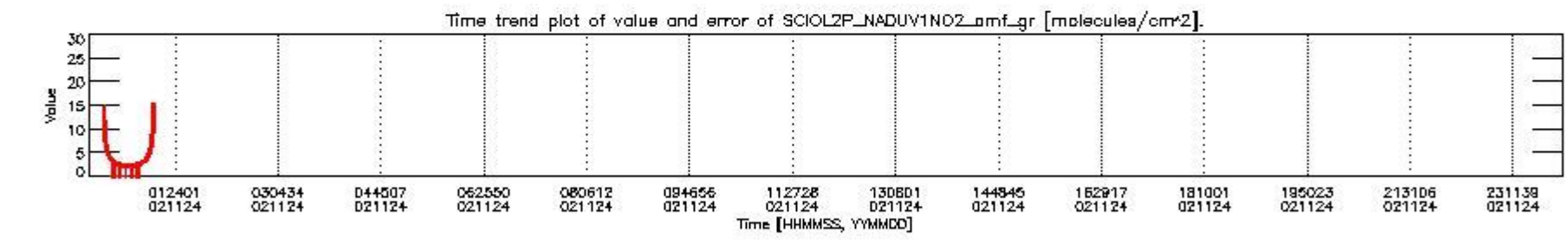
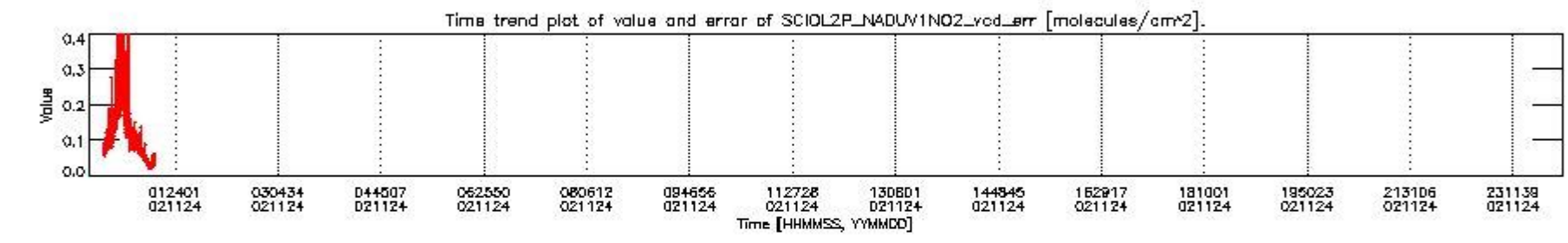
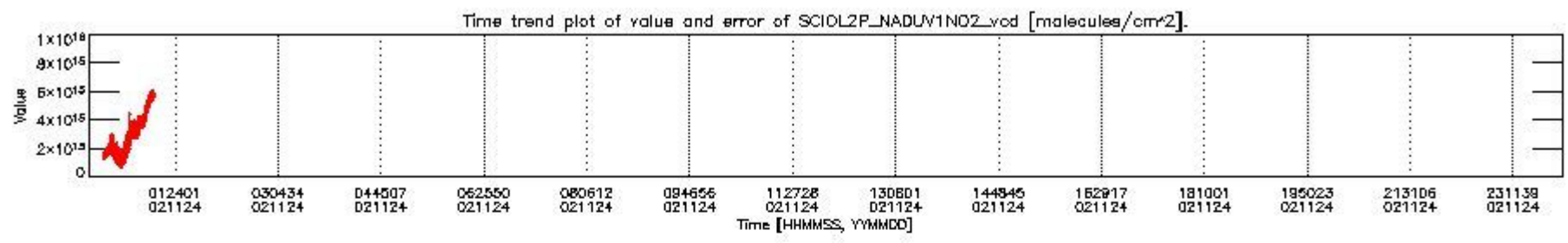


SCIOL2P\_NADUV003\_amf\_gr for 24NOV2002 00:00:00 to 25NOV2002 00:00:00

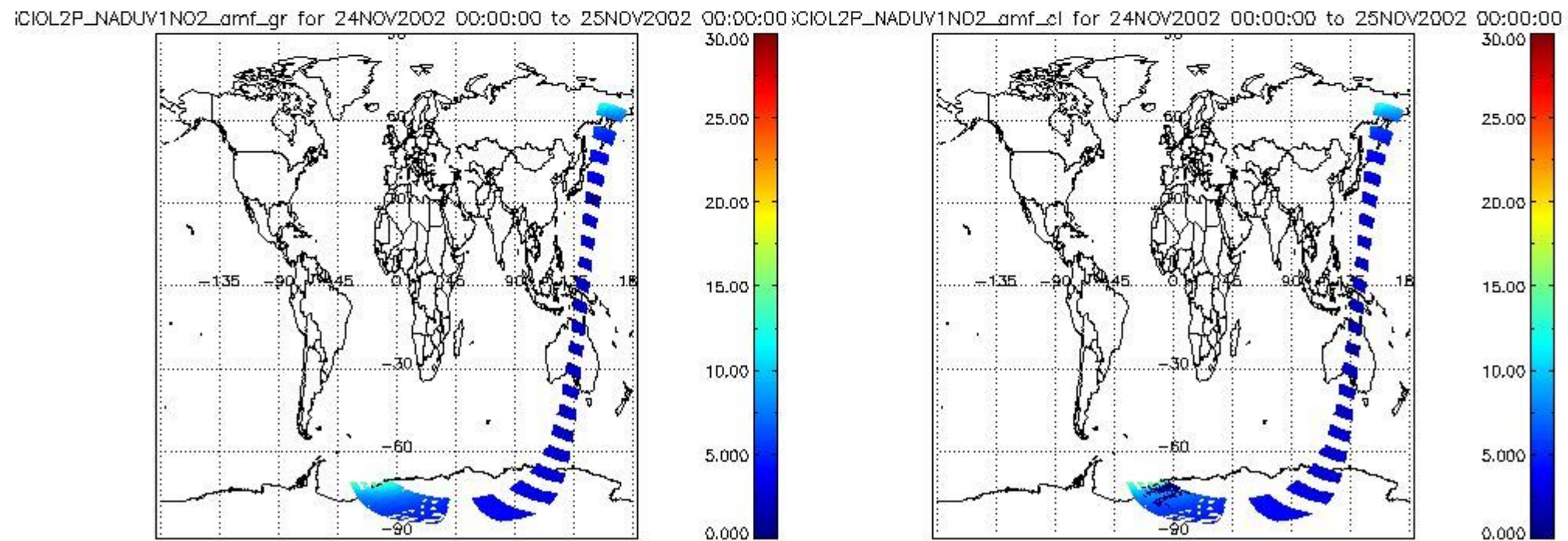
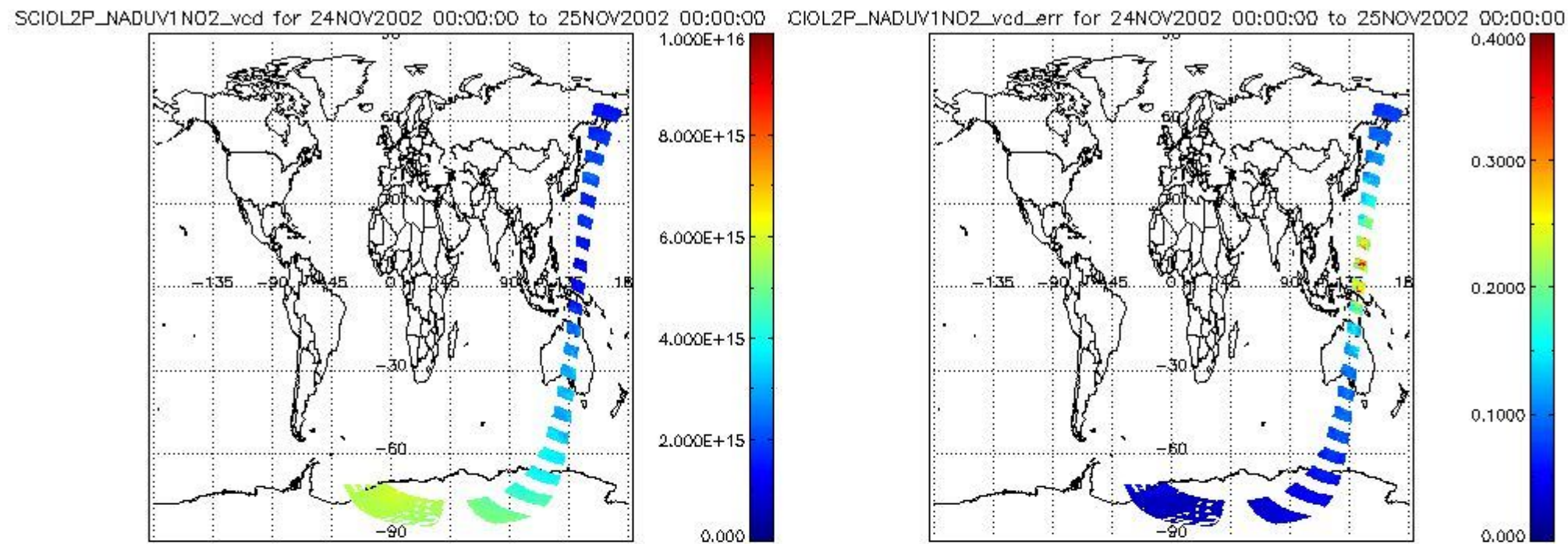


SCIOL2P\_NADUV003\_amf\_cl for 24NOV2002 00:00:00 to 25NOV2002 00:00:00









### 2.2.3 Limb

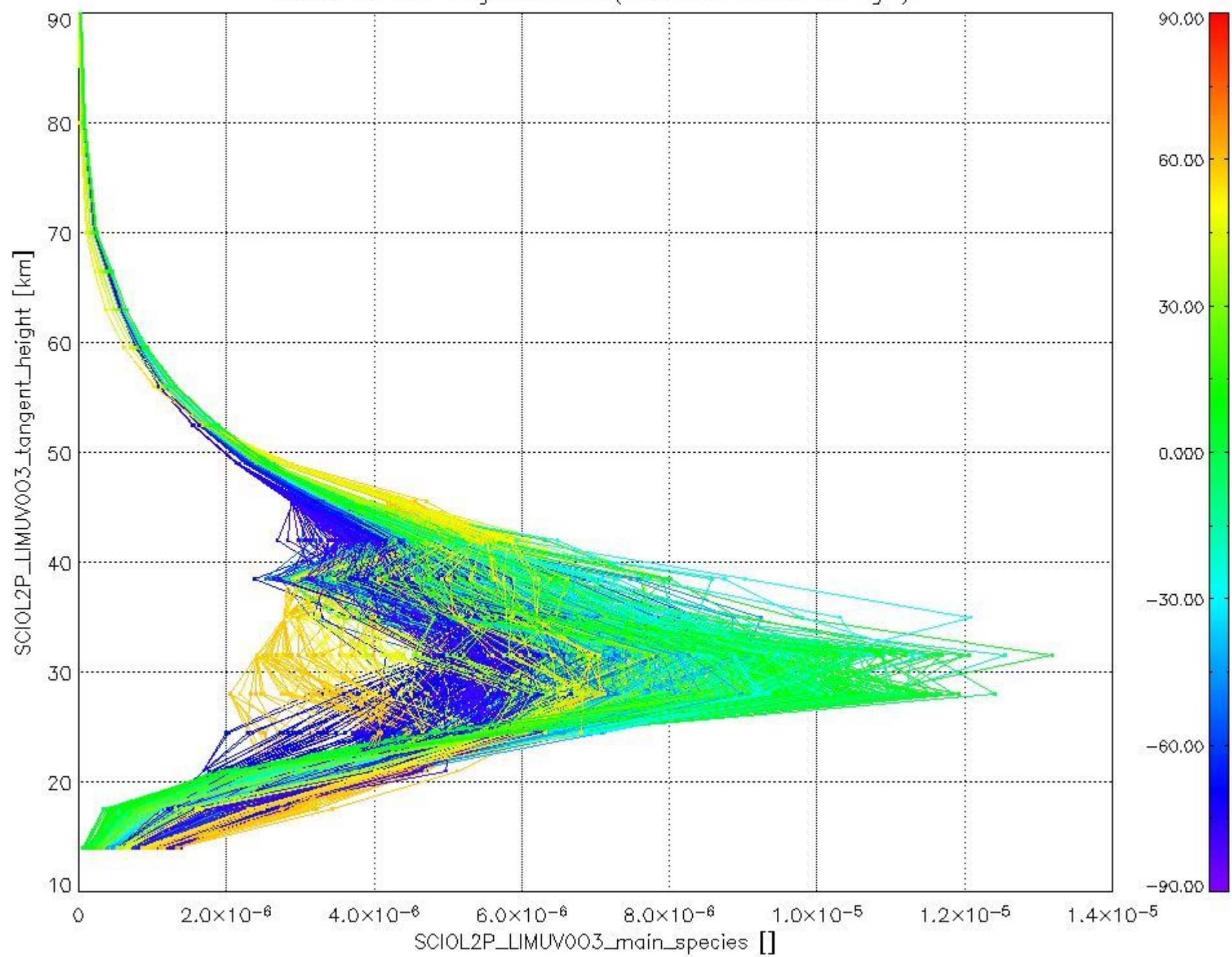
This section shows information about product quality of the limb retrievals, in particular the quality of retrieved species.

The following data items are currently included into this section:

Number	Data item ID
0	SCIOL2PLIMUV003_main_species
1	SCIOL2PLIMUV1NO2_main_species

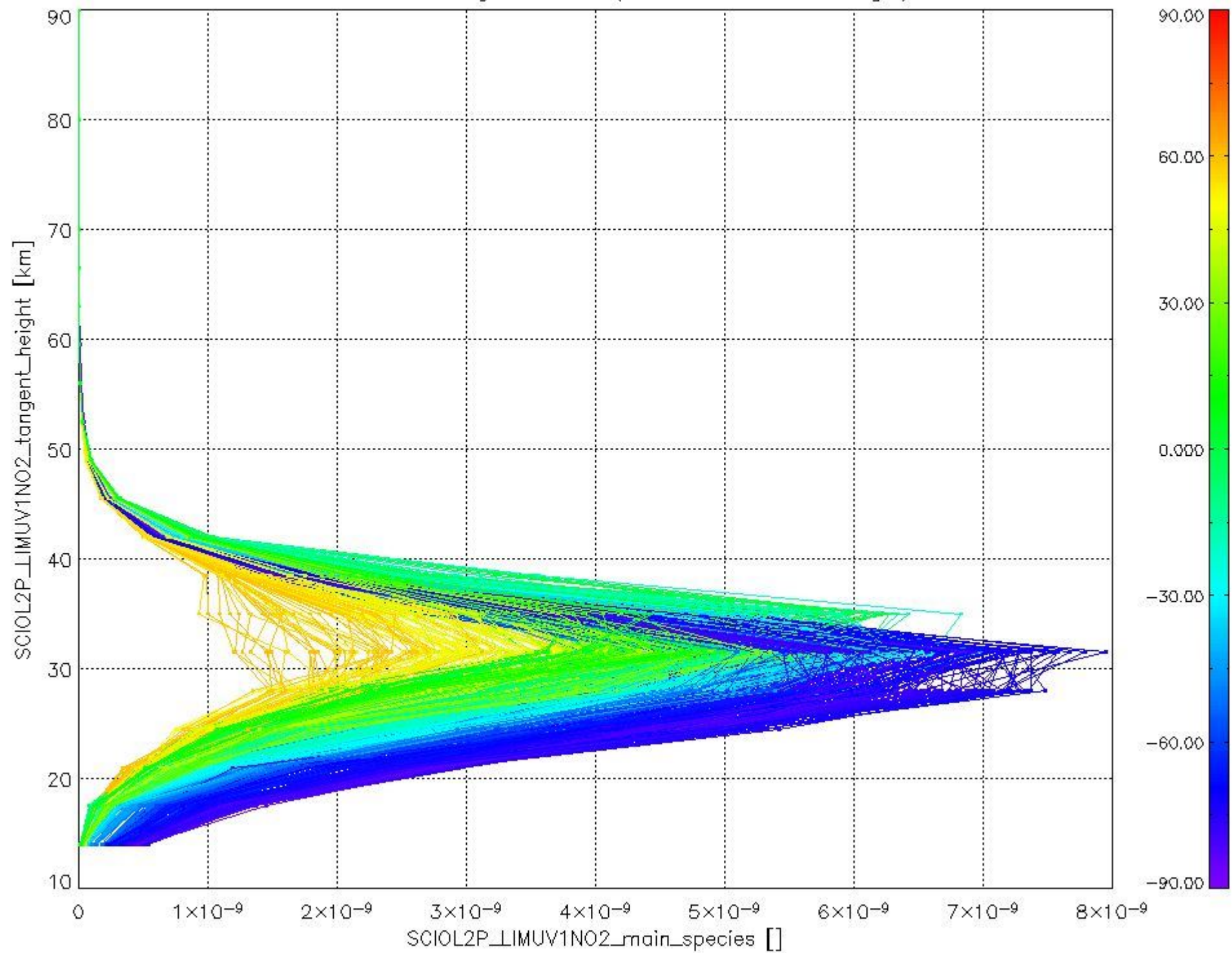
The following plots shows for each species the tangent volume mixing ratio vs. tangent height. Colours indicate tangent latitude.

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





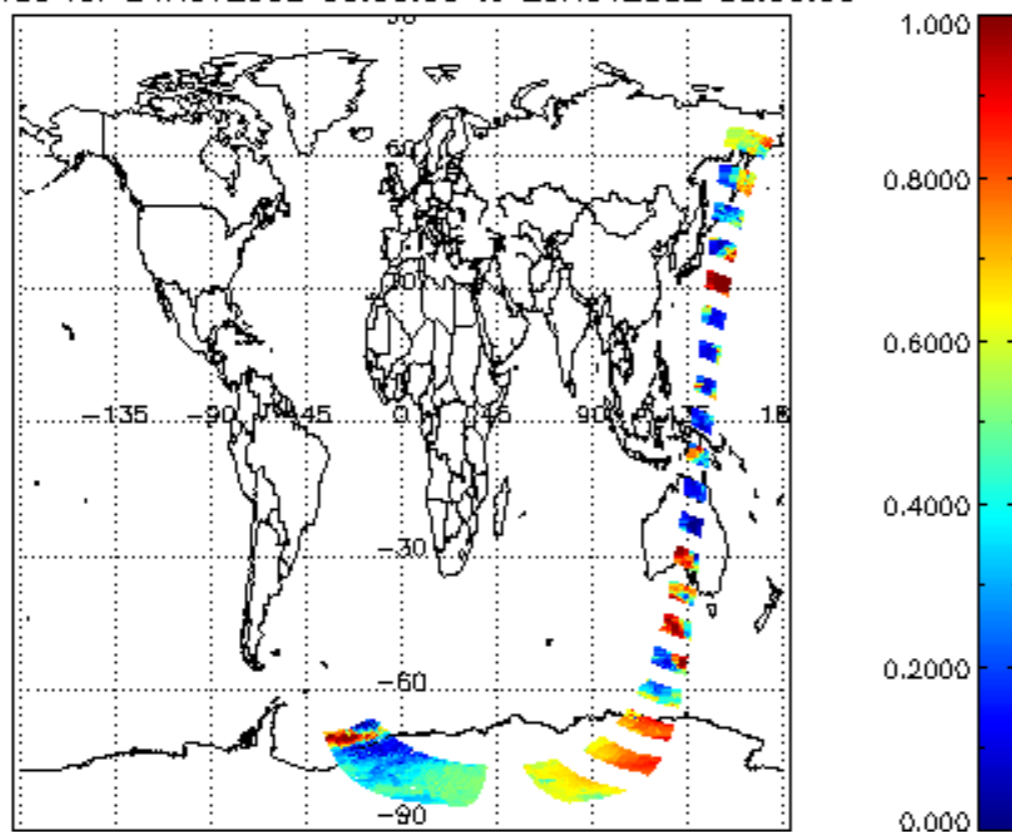
Plot of SCIOL2P\_LIMUV1NO2\_main\_species.tang\_vmr vs. tangent height.  
Colours indicate tangent latitude (see colour bar on the right).



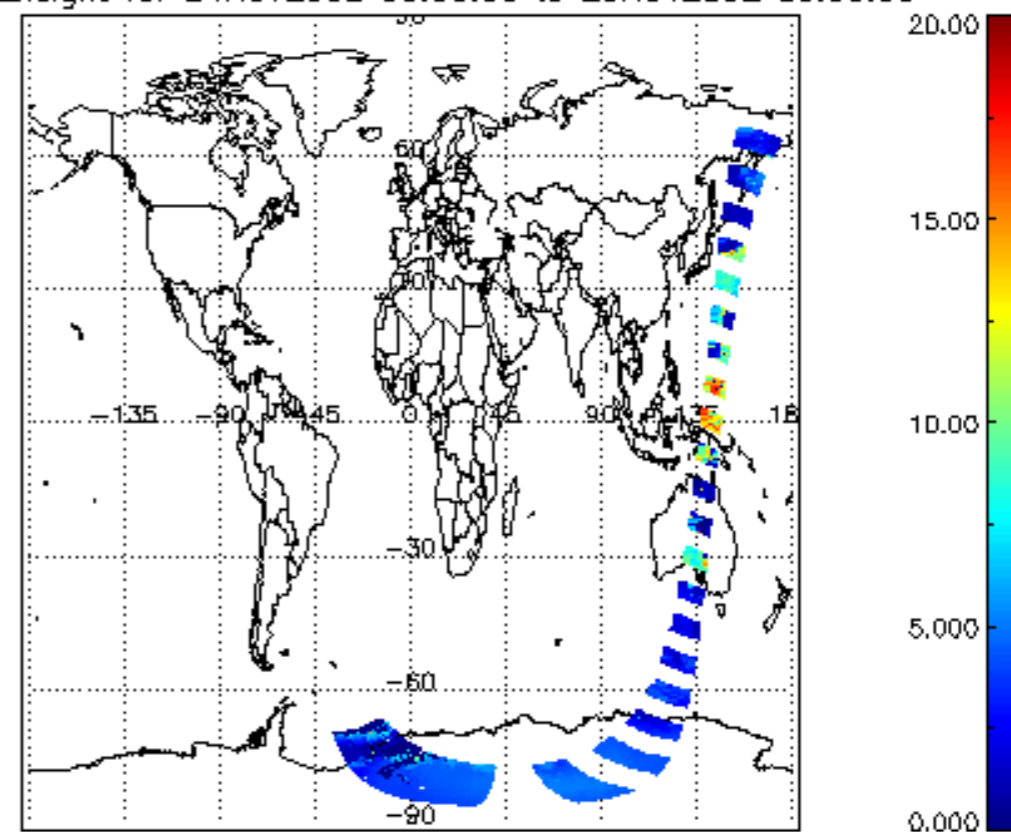
### 2.3 ADF monitoring

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

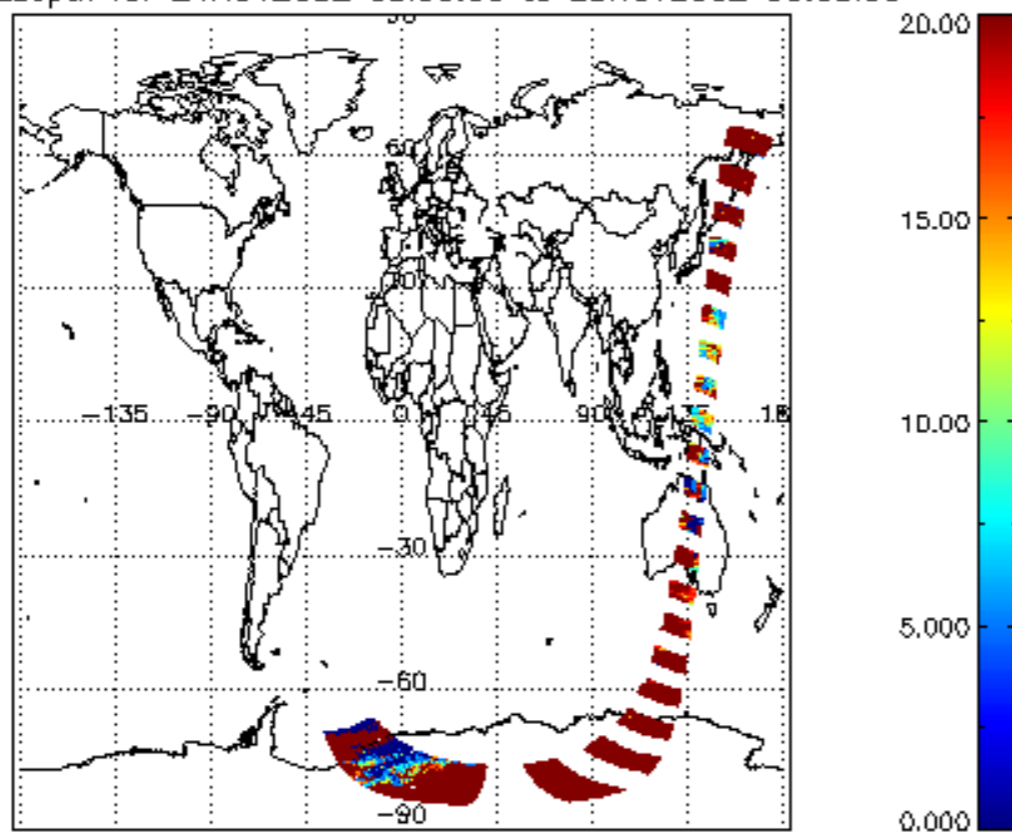
cLfrac for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



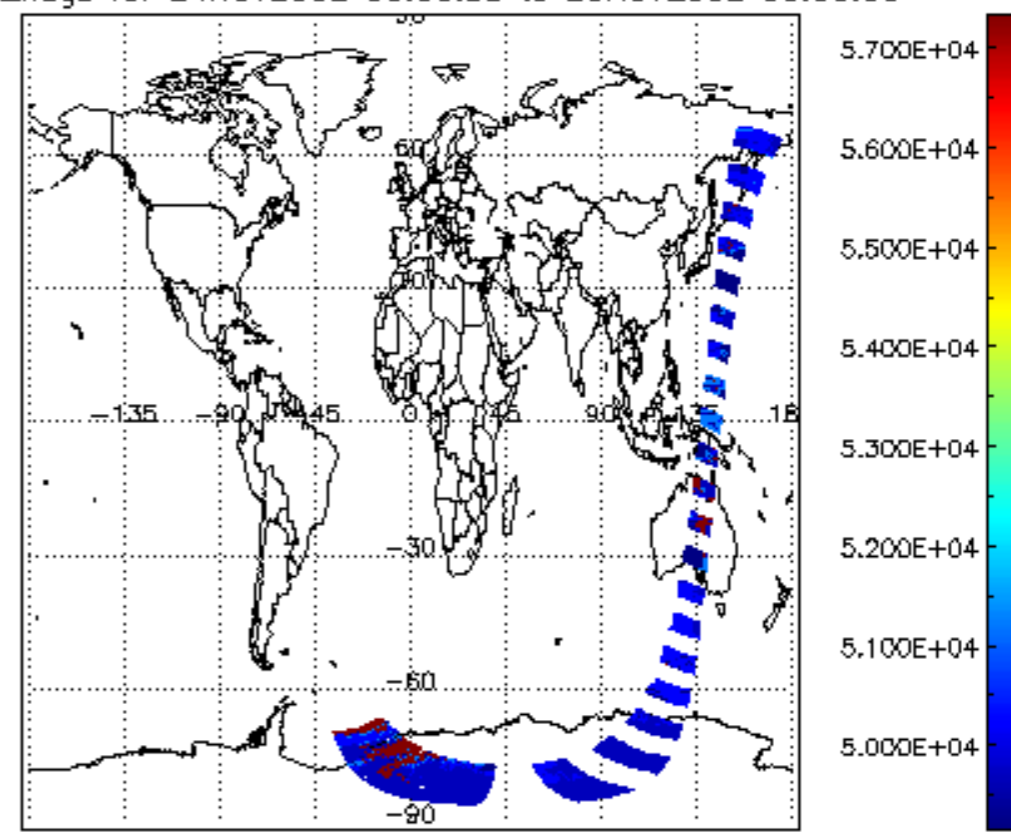
cl\_top\_height for 24NOV2002 00:00:00 to 25NOV2002 00:00:00

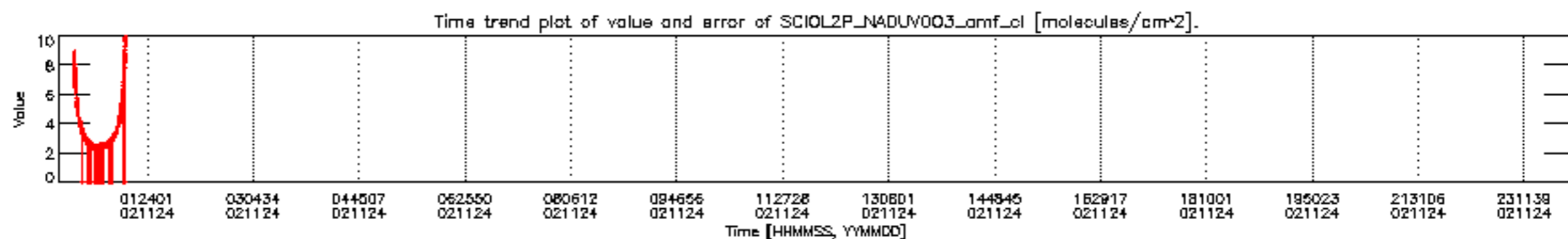
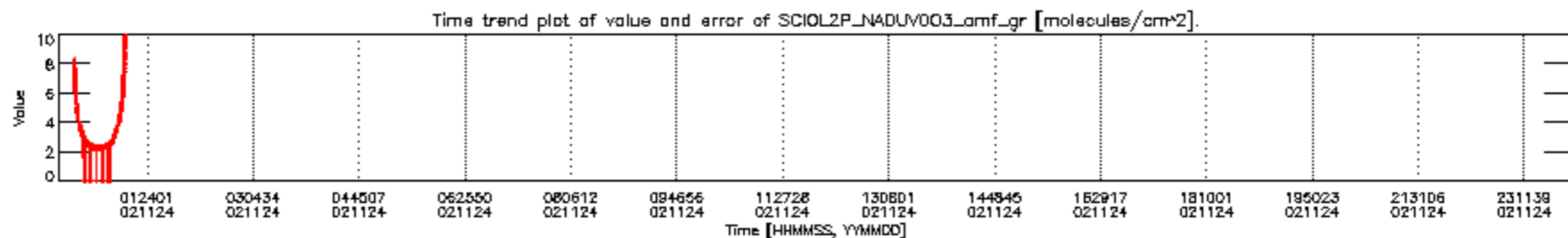
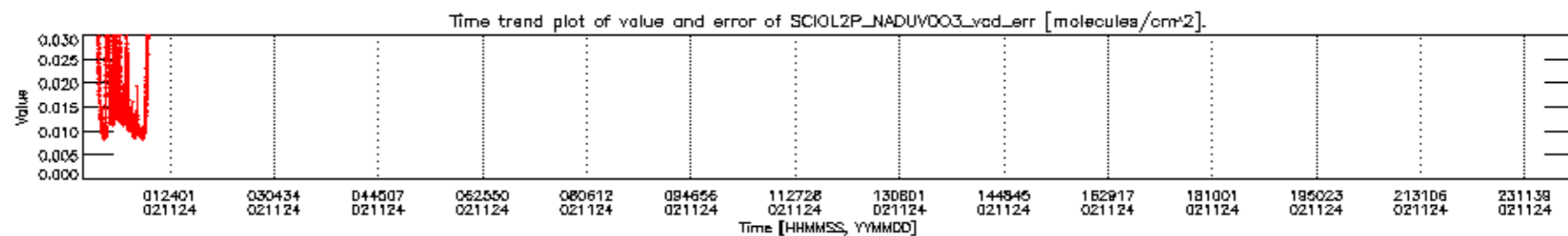
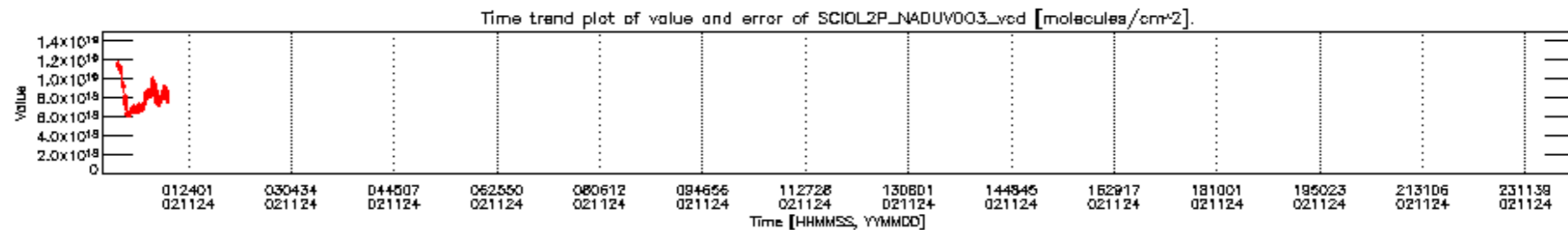


cl\_opt\_depth for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



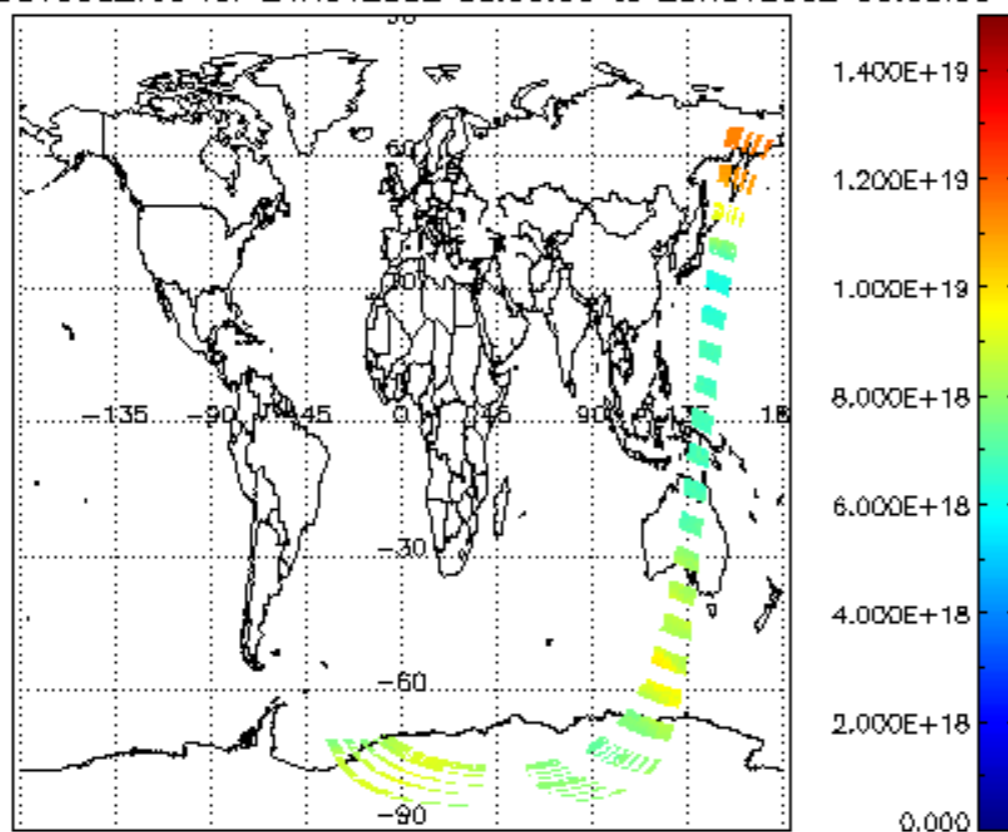
cloud\_flags for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



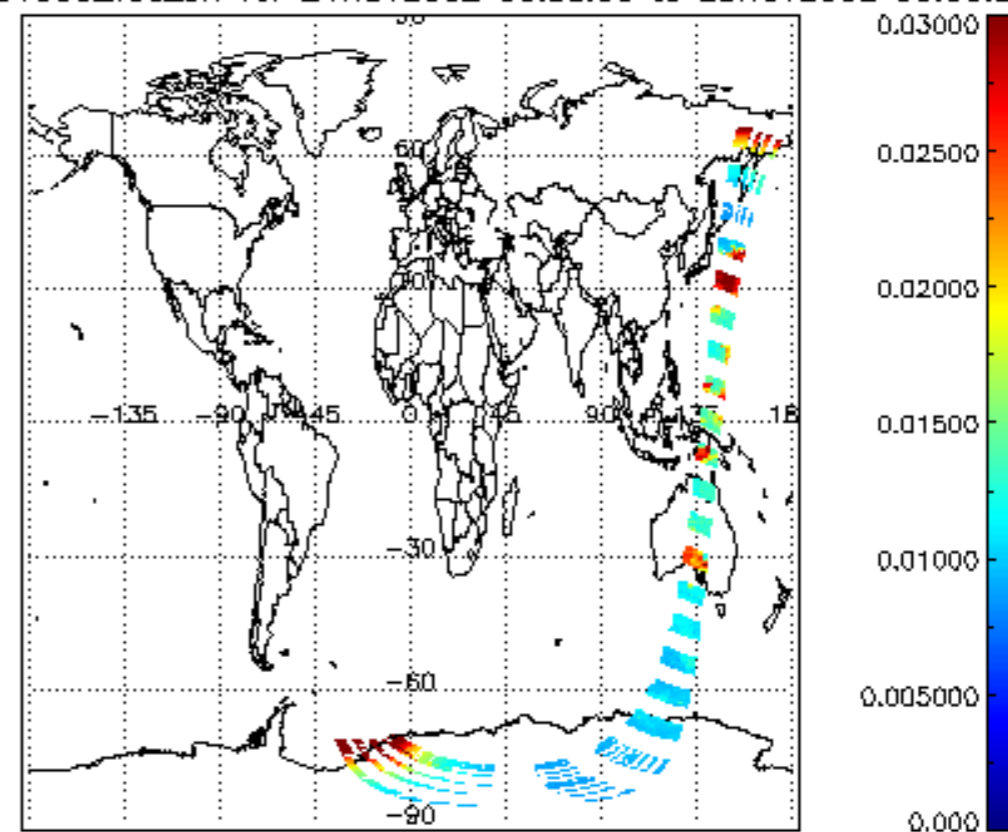




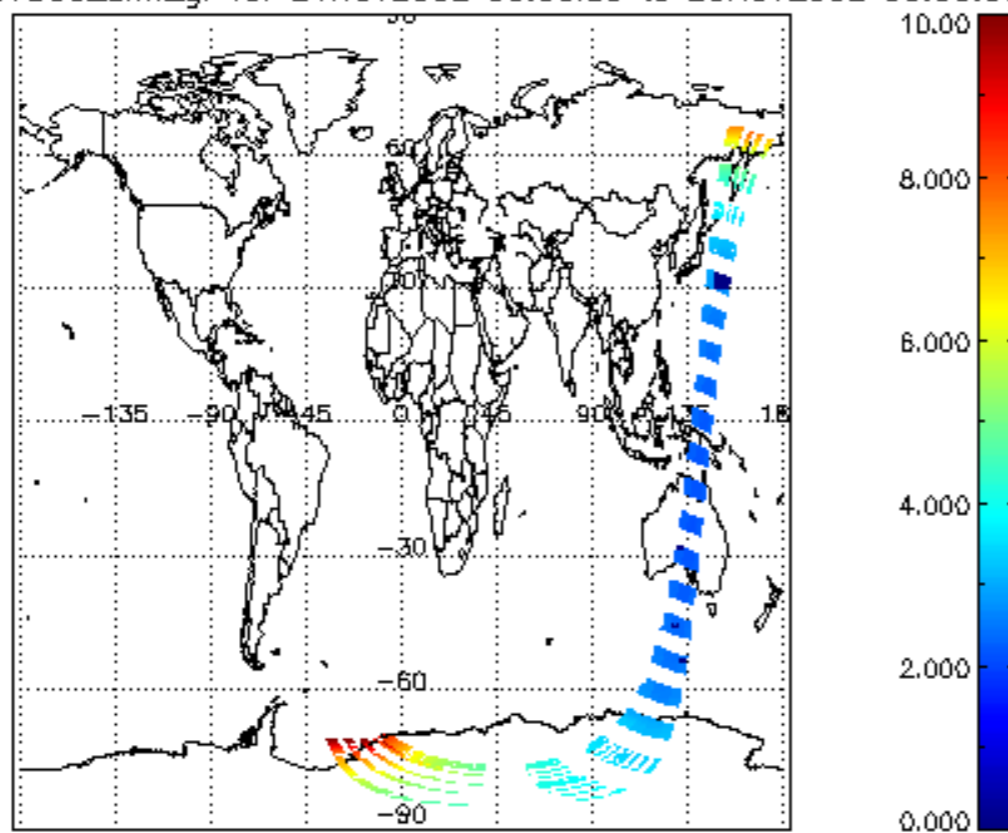
SCIOL2P\_NADUV003\_vcd for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



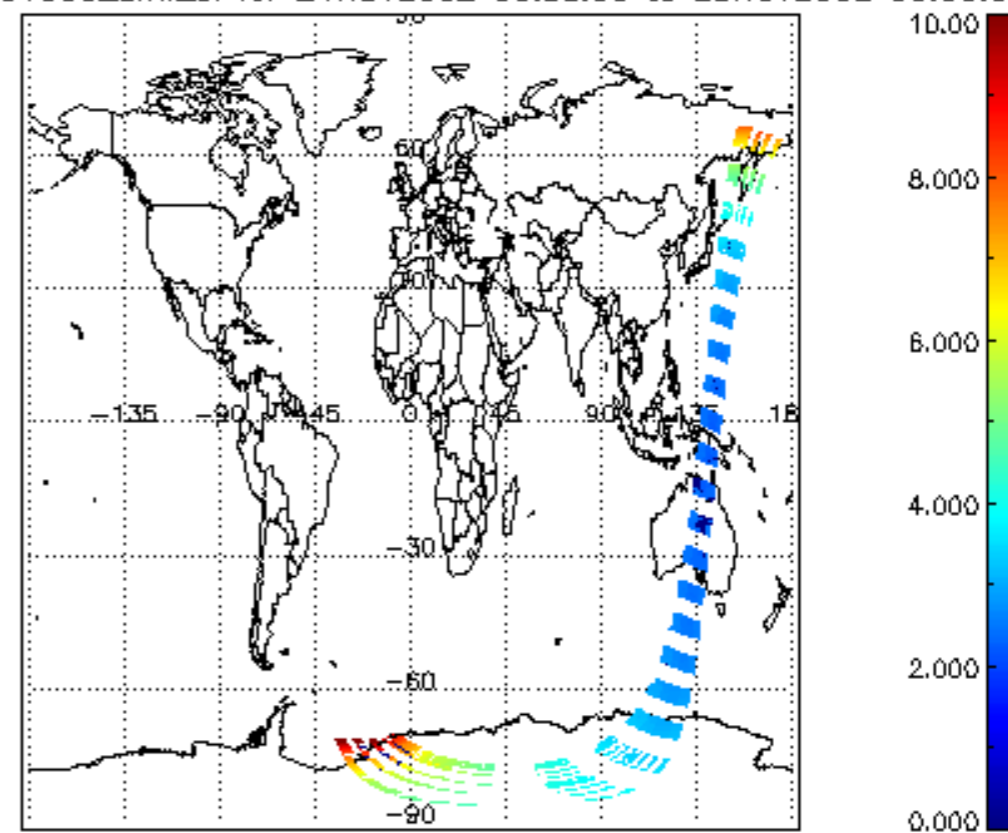
SCIOL2P\_NADUV003\_vcd\_err for 24NOV2002 00:00:00 to 25NOV2002 00:00:00

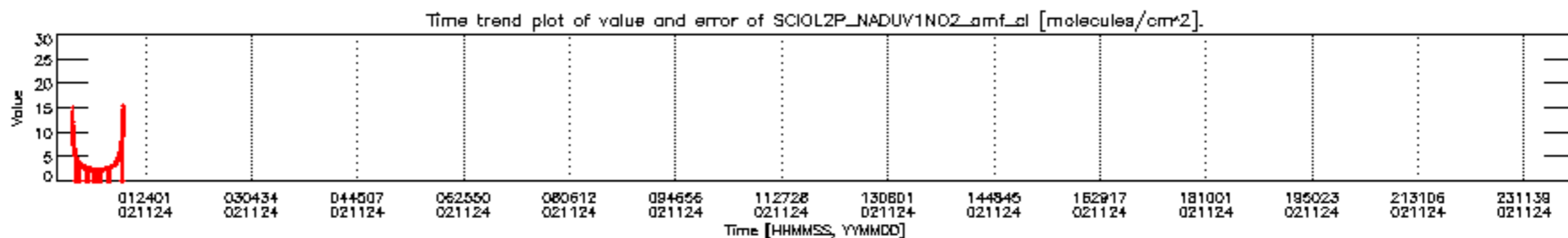
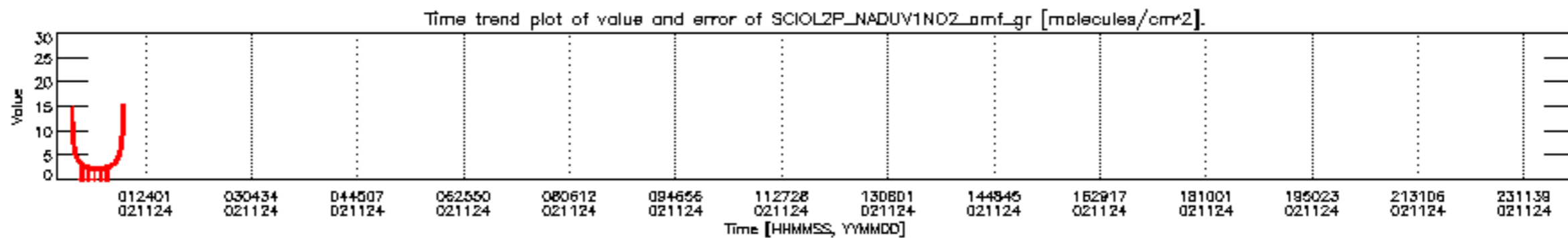
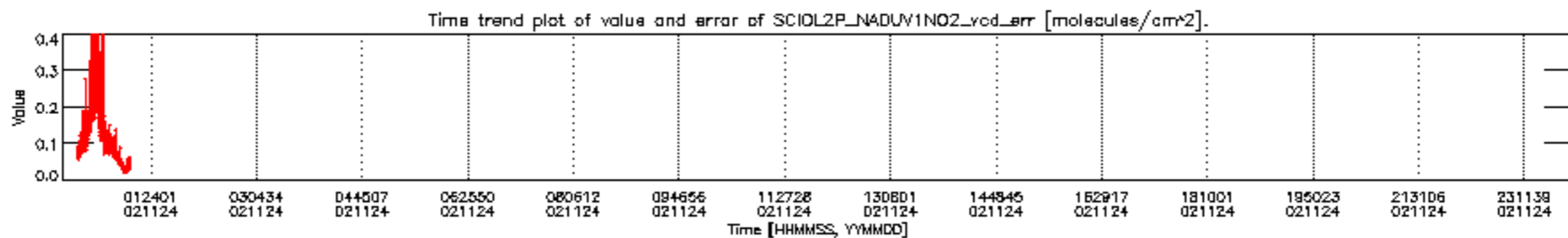
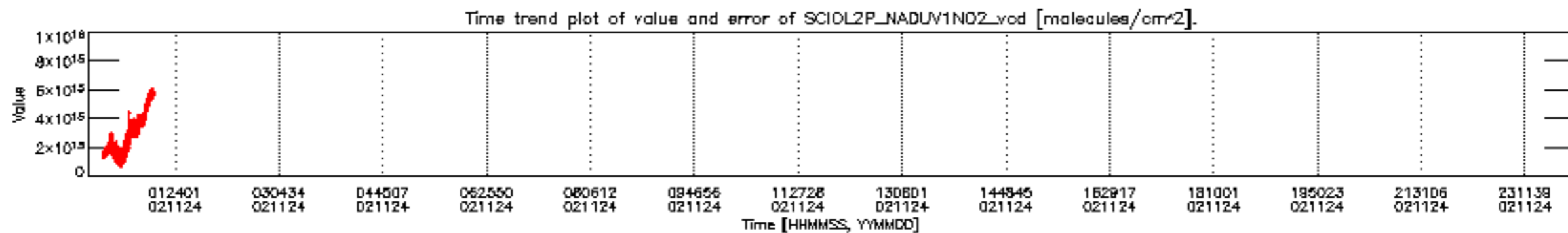


SCIOL2P\_NADUV003\_amf\_gr for 24NOV2002 00:00:00 to 25NOV2002 00:00:00

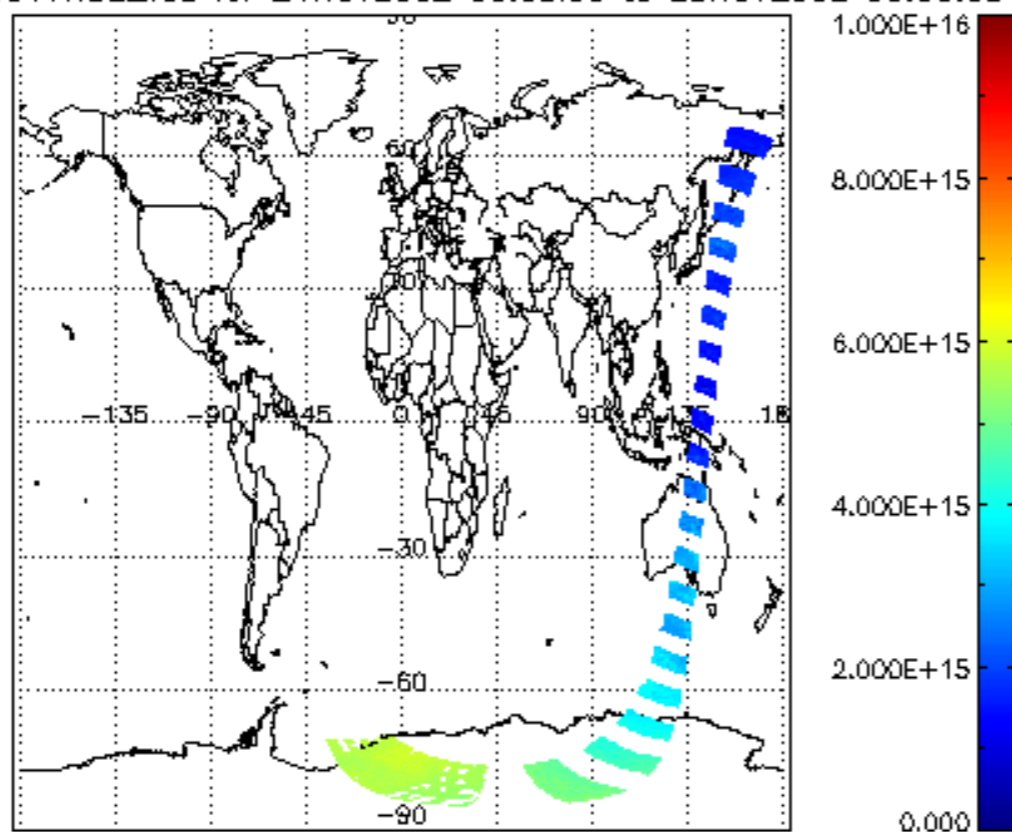


SCIOL2P\_NADUV003\_amf\_cl for 24NOV2002 00:00:00 to 25NOV2002 00:00:00

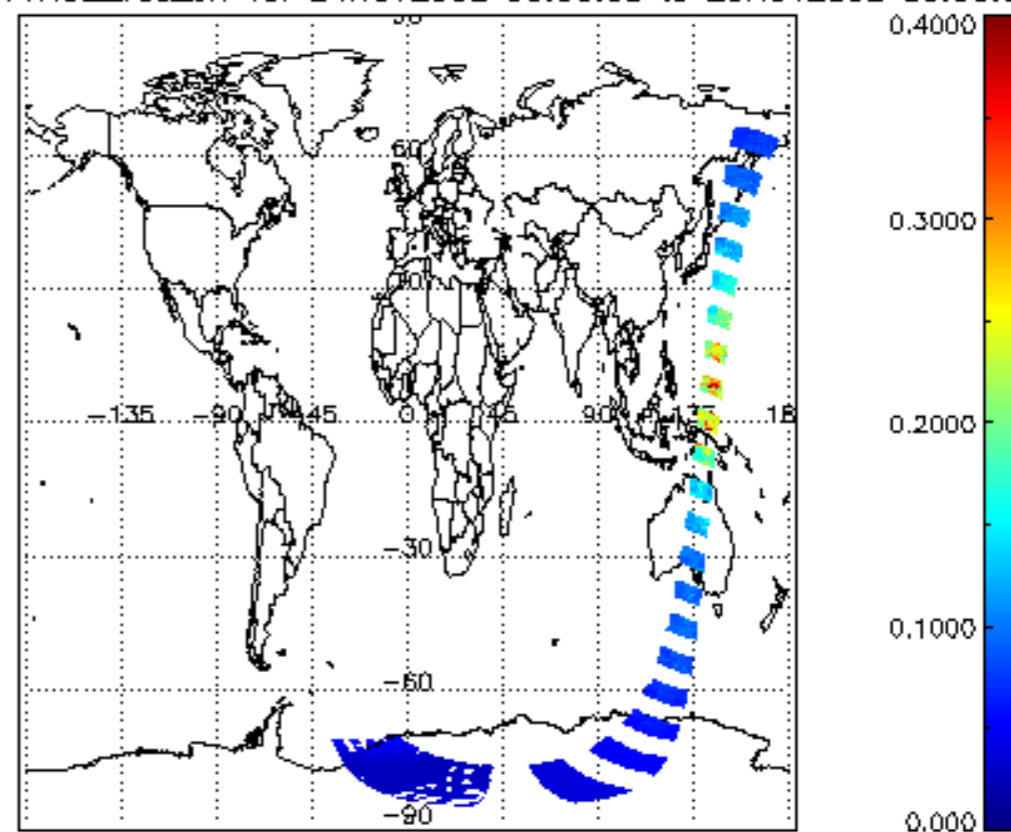




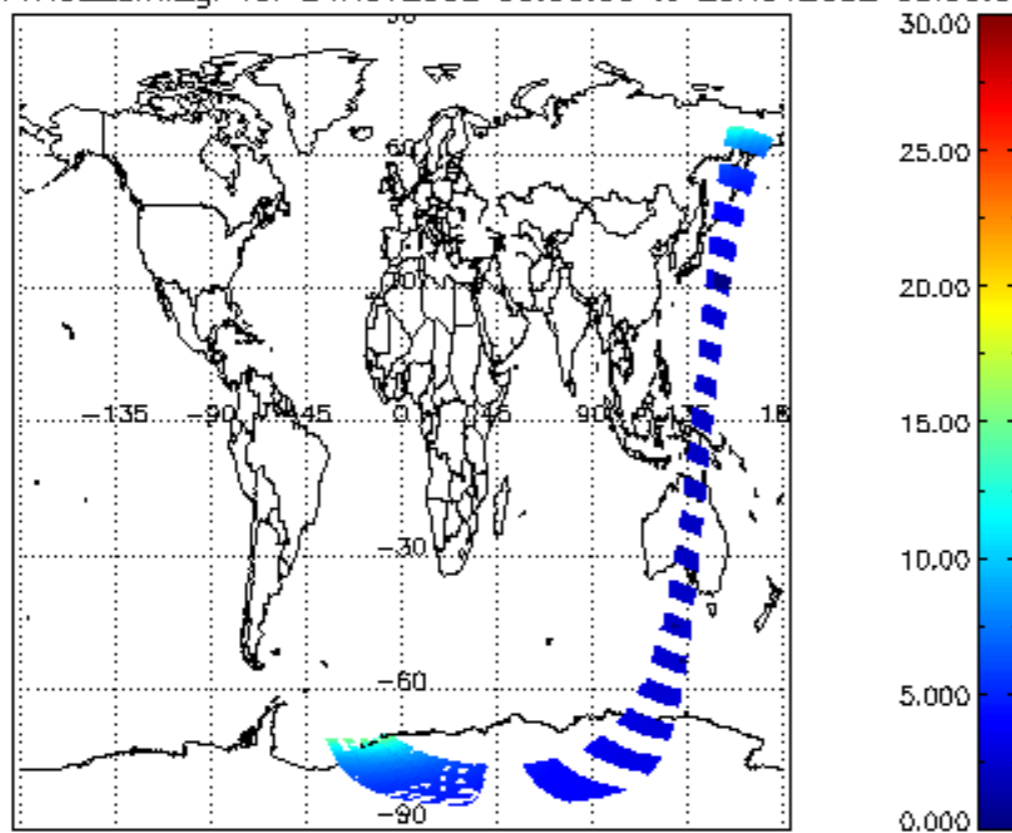
SCIOL2P\_NADUV1NO2\_vcd for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



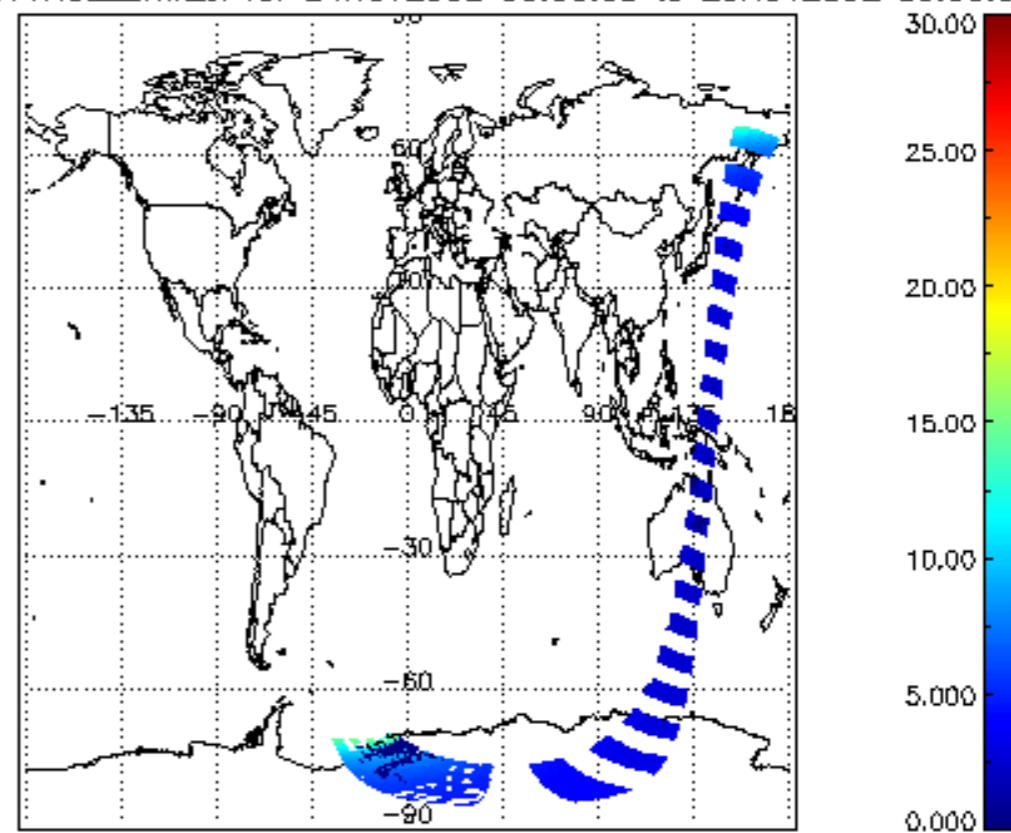
SCIOL2P\_NADUV1NO2\_vcd\_err for 24NOV2002 00:00:00 to 25NOV2002 00:00:00



SCIOL2P\_NADUV1NO2\_amf\_gr for 24NOV2002 00:00:00 to 25NOV2002 00:00:00

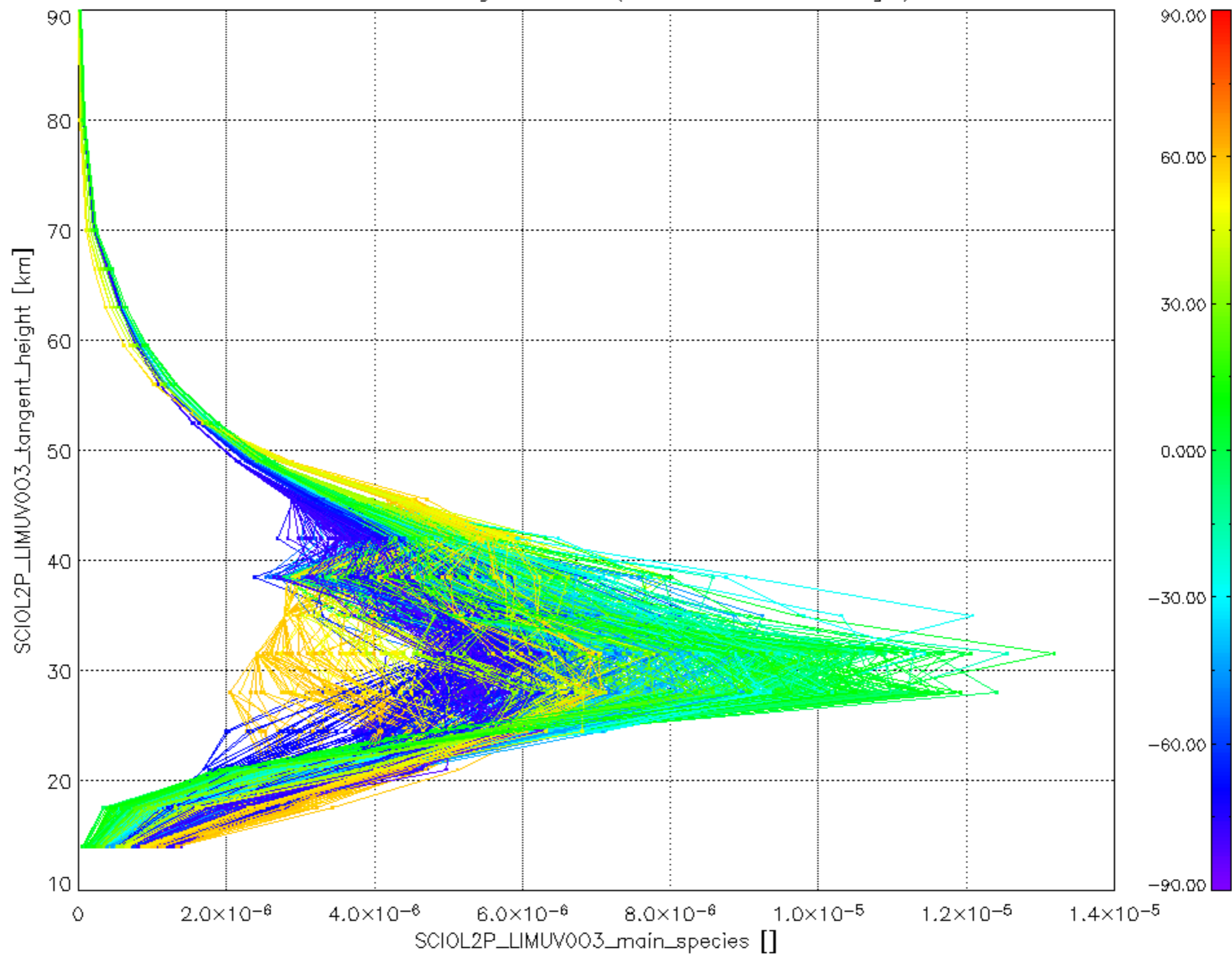


SCIOL2P\_NADUV1NO2\_amf\_cl for 24NOV2002 00:00:00 to 25NOV2002 00:00:00





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).

