2. MIPAS Daily Report for level 2 products summary report

(See **mipas_daily_report_level2_ML2PP_7_03_W_20120105.html** for a detailed report).

2.1. General Info

- **2.1.1 Report summary**
- **2.1.2 Summary per product**

2.2 Processing performance indicators

- **2.2.1 Successful retrievals**
- **2.2.2 Pressure overview**
- **2.2.3 Temperature overview**
- **2.2.4 Species overview**
- **2.2.5 History of daily averages**

2.1 General Info

This report contains a daily analysis on parameters extracted from MIPAS level 2 data (The MIP_NL__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	v1.11 26-05-2015
Time of report generation	20MAY2016 08:46:15
Data source version	ML2PP/7.03-W
Processing scope for products	05JAN2012 00:00:00 to 06JAN2012 00:00:00
Start time of first product within scope	04JAN2012 23:32:15
Stop time of last product within scope	06JAN2012 00:35:39
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.

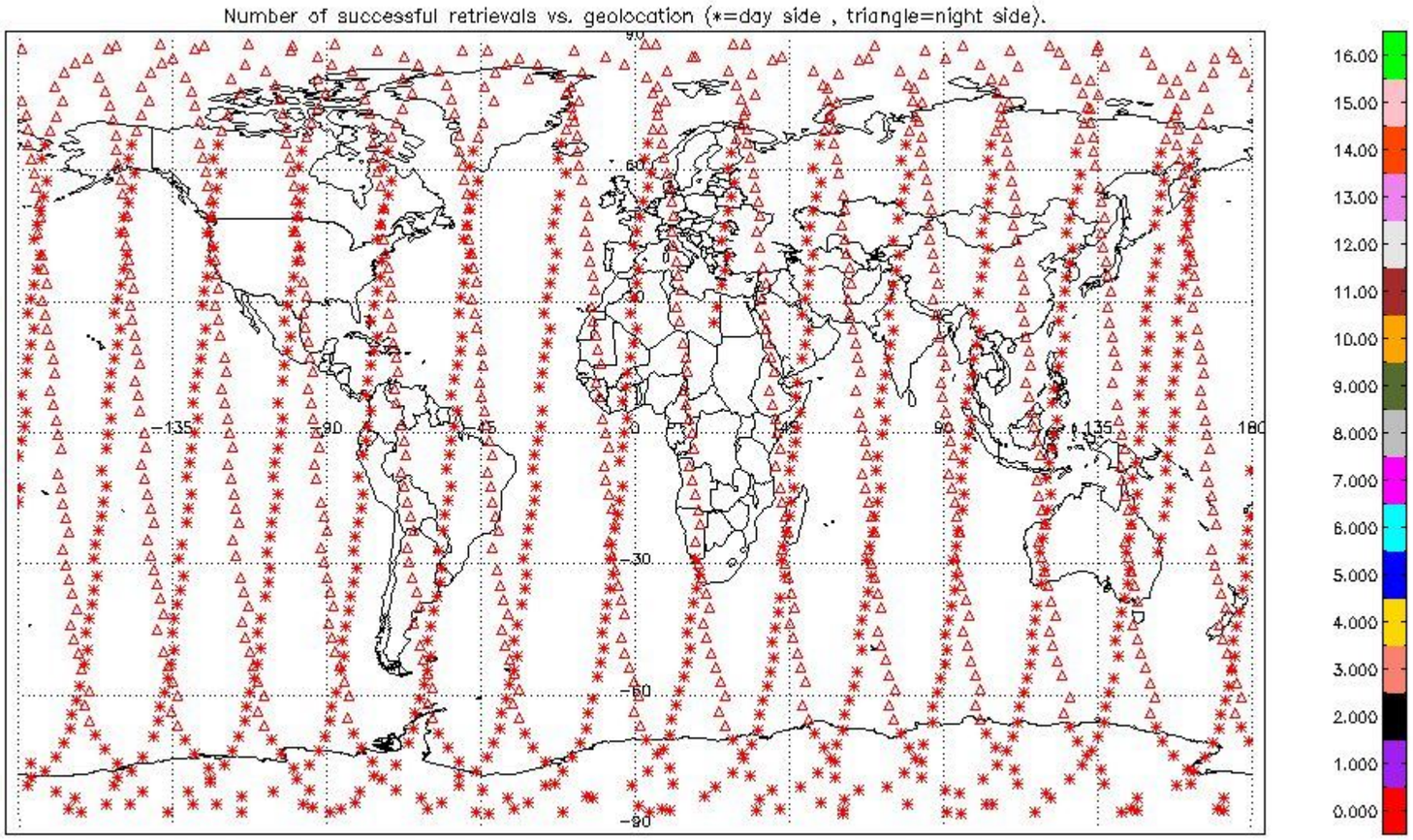
#	Product name	Start time	Stop time	Prod err	Number of scans (tot/proc)	Quality summary warnings
0	MIP_NL__2PWDSI20120104_233215_000059813110_00203_51510_1000.N1	04JAN2012 23:32:15	05JAN2012 01:11:56	0	102/102	
1	MIP_NL__2PWDSI20120105_011202_000060083110_00204_51511_1000.N1	05JAN2012 01:12:02	05JAN2012 02:52:10	0	103/103	
2	MIP_NL__2PWDSI20120105_025217_000060083110_00205_51512_1000.N1	05JAN2012 02:52:17	05JAN2012 04:32:24	0	103/103	
3	MIP_NL__2PWDSI20120105_043231_000060373110_00206_51513_1000.N1	05JAN2012 04:32:31	05JAN2012 06:13:08	0	103/103	
4	MIP_NL__2PWDSI20120105_061218_000060083110_00207_51514_1000.N1	05JAN2012 06:12:18	05JAN2012 07:52:26	0	103/103	
5	MIP_NL__2PWDSI20120105_075232_000060273110_00208_51515_1000.N1	05JAN2012 07:52:32	05JAN2012 09:32:59	0	89/89	
6	MIP_NL__2PWDSI20120105_093306_000060083110_00209_51516_1000.N1	05JAN2012 09:33:06	05JAN2012 11:13:14	0	103/103	
7	MIP_NL__2PWDSI20120105_111349_000060083110_00210_51517_1000.N1	05JAN2012 11:13:49	05JAN2012 12:53:57	0	103/103	
8	MIP_NL__2PWDSI20120105_125404_000060083110_00211_51518_1000.N1	05JAN2012 12:54:04	05JAN2012 14:34:12	0	103/103	
9	MIP_NL__2PWDSI20120105_143418_000059523110_00212_51519_1000.N1	05JAN2012 14:34:18	05JAN2012 16:13:29	0	102/102	
10	MIP_NL__2PWDSI20120105_161405_000060083110_00213_51520_1000.N1	05JAN2012 16:14:05	05JAN2012 17:54:13	0	103/103	
11	MIP_NL__2PWDSI20120105_175419_000060083110_00214_51521_1000.N1	05JAN2012 17:54:19	05JAN2012 19:34:27	0	103/103	
12	MIP_NL__2PWDSI20120105_193433_000060373110_00215_51522_1000.N1	05JAN2012 19:34:33	05JAN2012 21:15:11	0	103/103	
13	MIP_NL__2PWDSI20120105_211517_000060083110_00216_51523_1000.N1	05JAN2012 21:15:17	05JAN2012 22:55:25	0	103/103	
14	MIP_NL__2PWDSI20120105_225531_000060083110_00217_51524_1000.N1	05JAN2012 22:55:31	06JAN2012 00:35:39	0	103/103	

2.2 Processing performance indicators

2.2.1 Successful retrievals

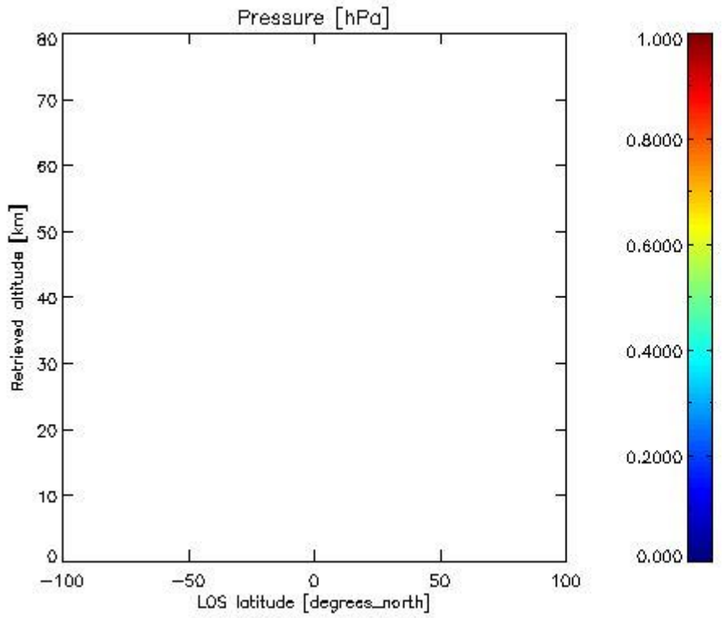
This section includes a table with statistics on the number of retrievals, as well as a worldmap plot that shows successful retrievals.

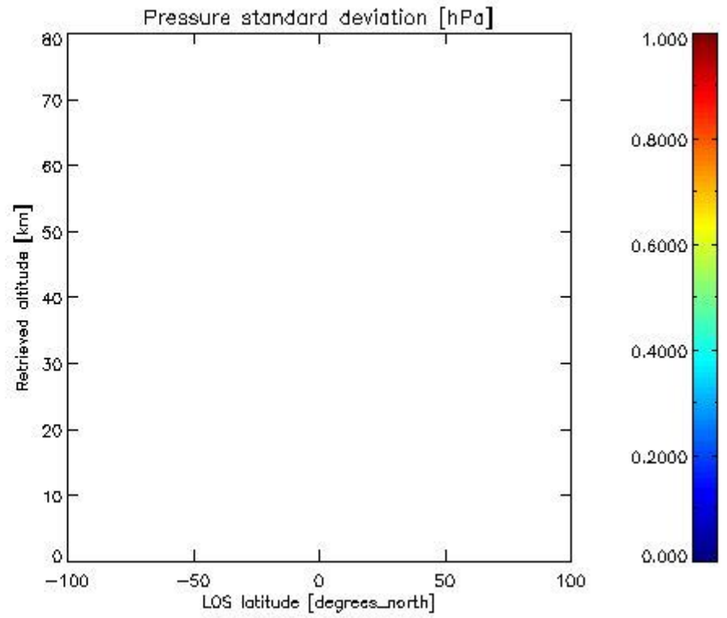
RETRIEVAL MDS	# scans processed	# Successful retrievals	%
PT	1529	0	0.0000
H2O	1529	0	0.0000
O3	1529	0	0.0000
HNO3	1529	0	0.0000
CH4	1529	0	0.0000
N2O	1529	0	0.0000
NO2	1529	0	0.0000
F11	1529	0	0.0000
CLNO	1529	0	0.0000
N2O5	1529	0	0.0000
F12	1529	0	0.0000
COF2	1529	0	0.0000
CCL4	1529	0	0.0000
HCN	1529	0	0.0000
F14	1529	0	0.0000
F22	1529	0	0.0000



2.2.2 Pressure overview

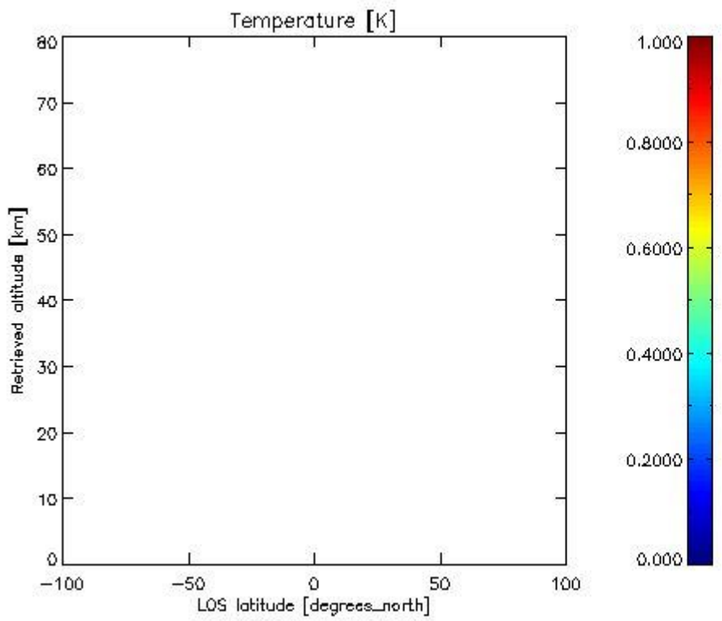
This section shows values (left) and error (right) for pressure after binning individual sweep values over retrieved altitude and tangent latitude.

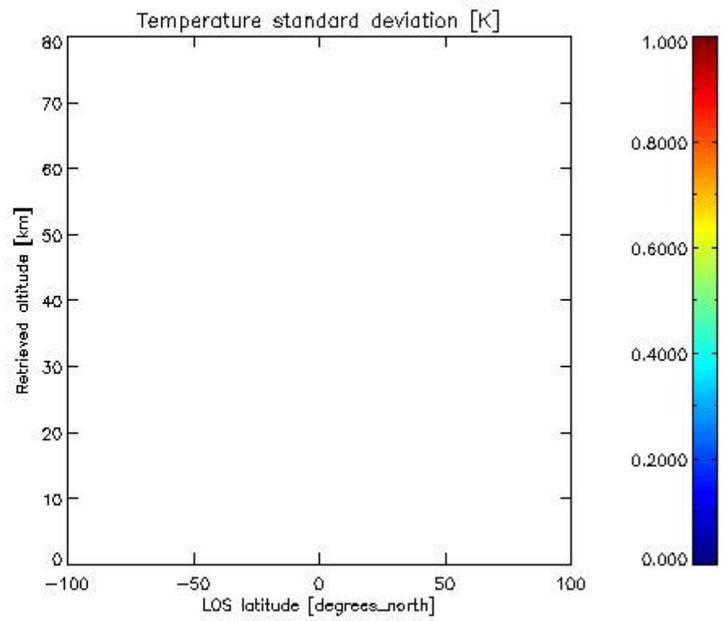




2.2.3 Temperature overview

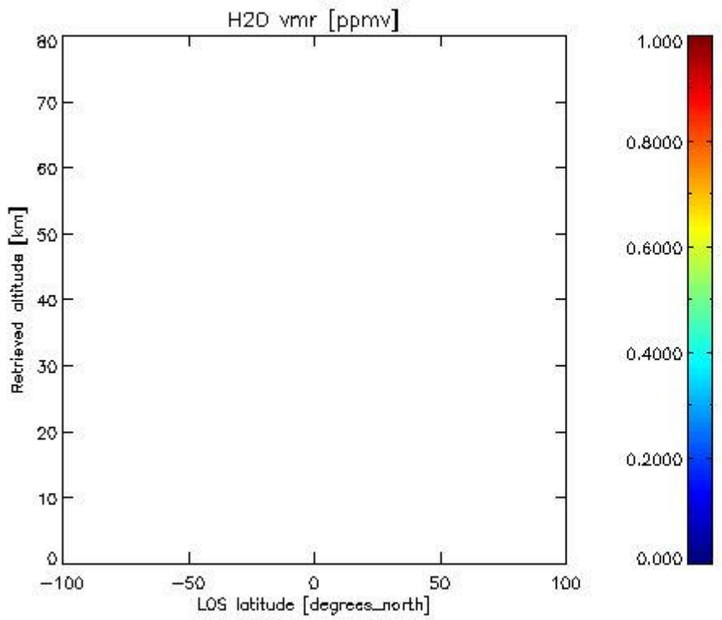
This section shows values (left) and error (right) for temperature after binning individual sweep values over retrieved altitude and tangent latitude.

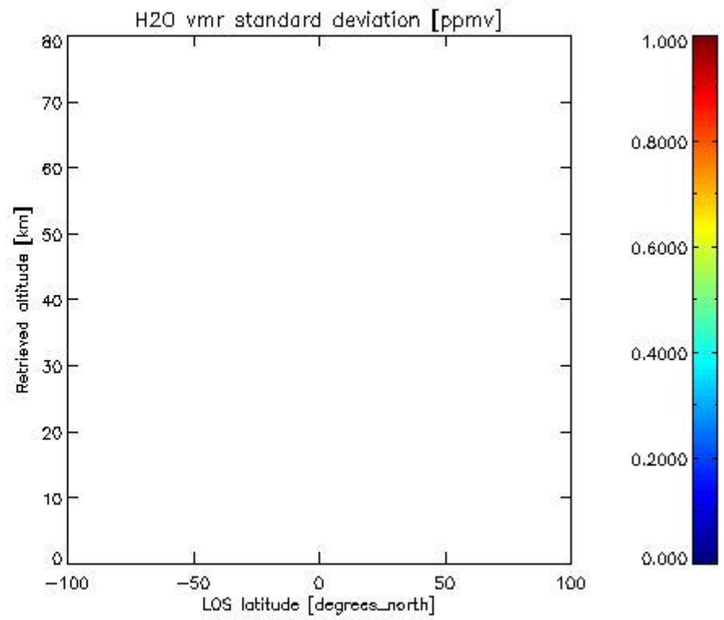




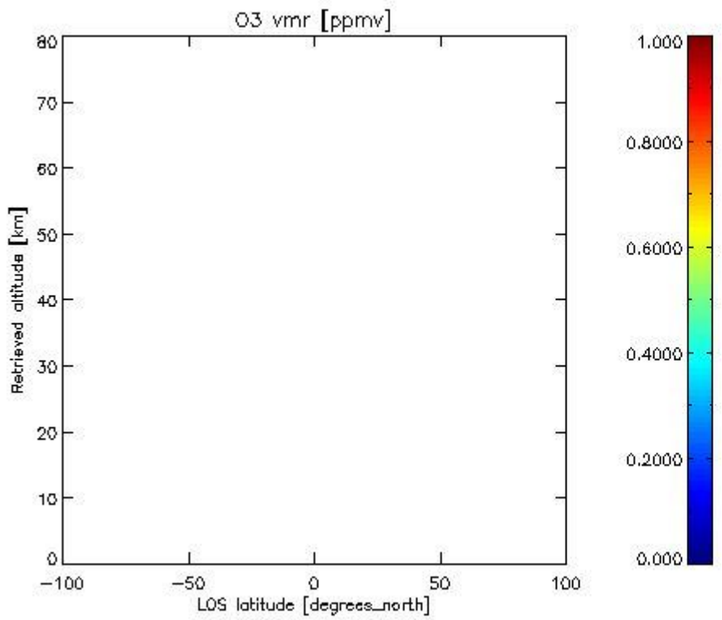
2.2.4 Species overview

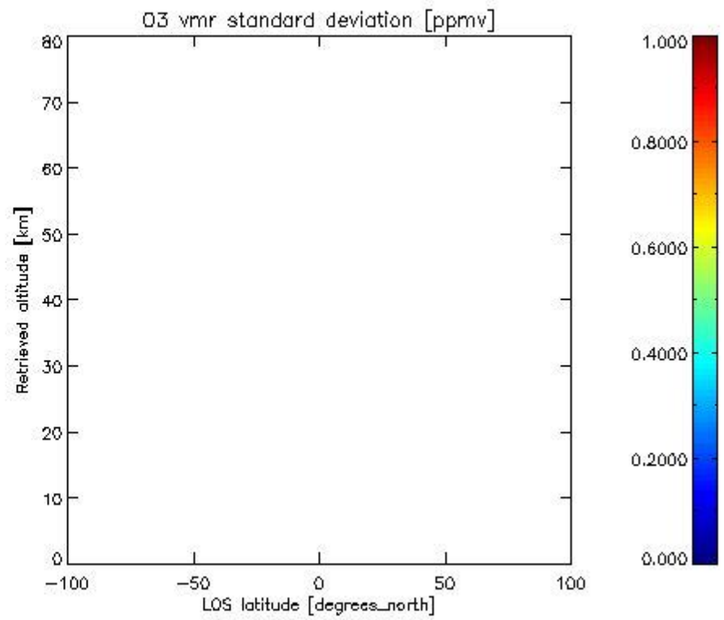
2.2.4.1 H2O overview This section shows values (left) and error (right) for H2O after binning individual sweep values over retrieved altitude and tangent latitude.



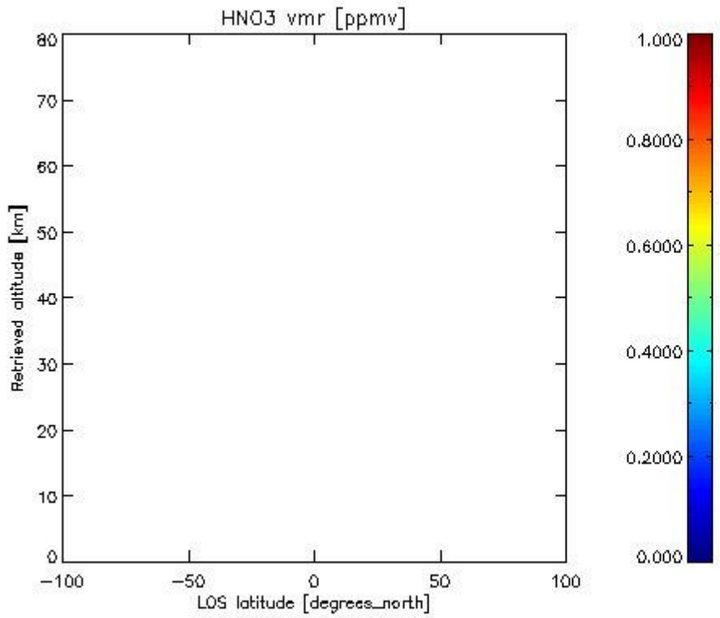


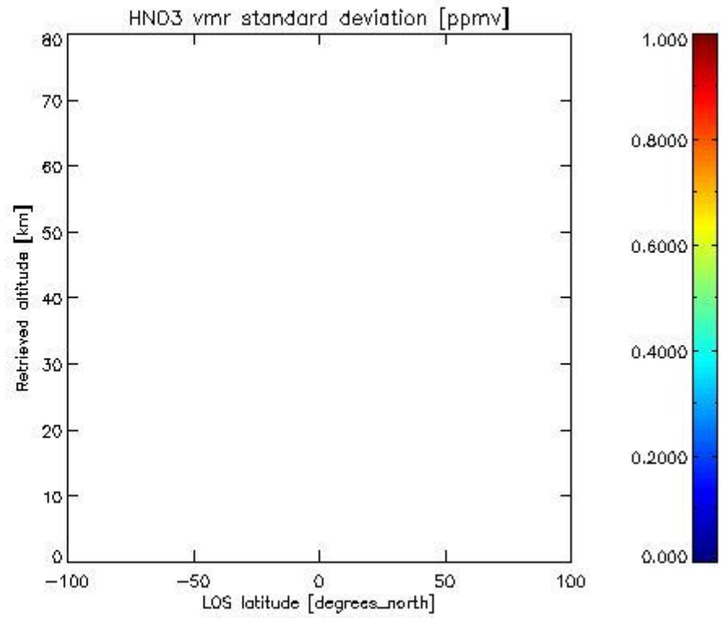
2.2.4.2 O3 overview **This section shows values (left) and error (right) for O3 after binning individual sweep values over retrieved altitude and tangent latitude.**



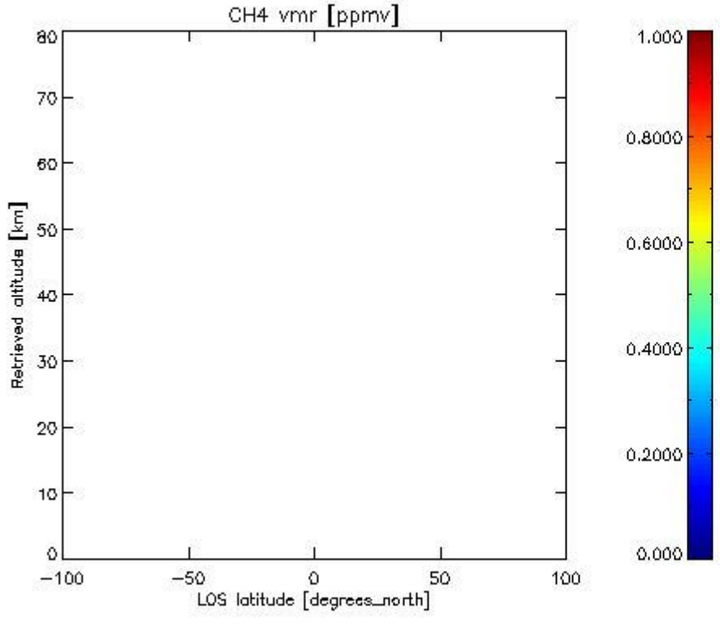


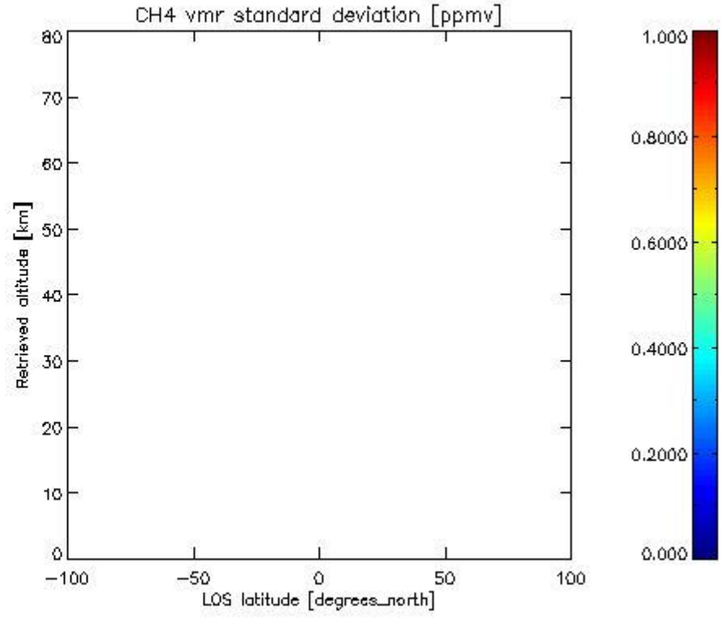
2.2.4.3 HNO3 overview **This section shows values (left) and error (right) for HNO3 after binning individual sweep values over retrieved altitude and tangent latitude.**



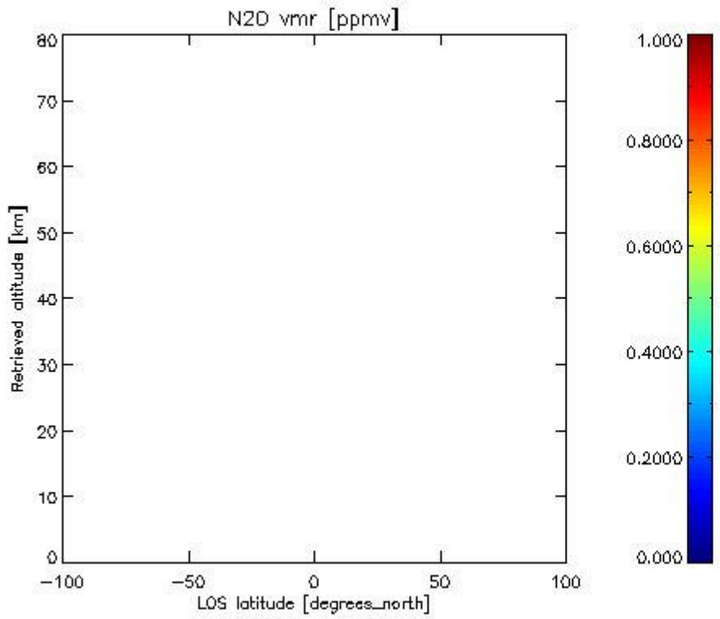


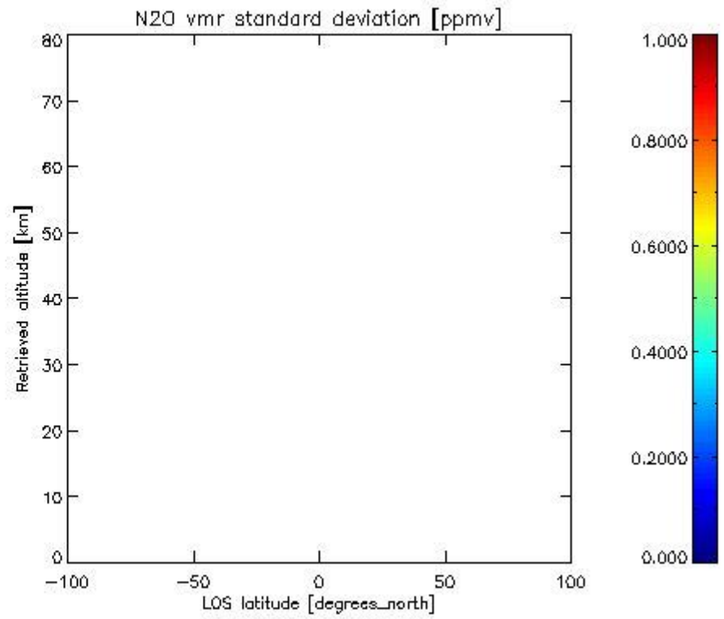
2.2.4.4 CH4 overview This section shows values (left) and error (right) for CH4 after binning individual sweep values over retrieved altitude and tangent latitude.



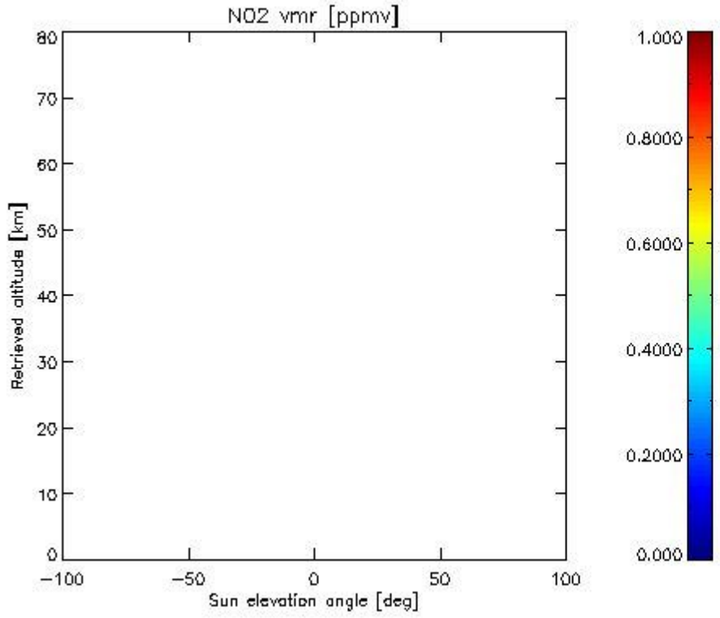


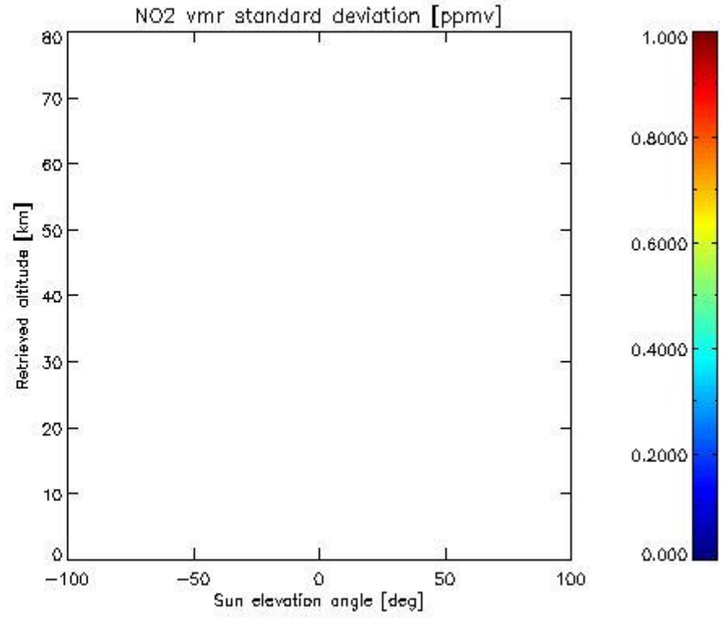
2.2.4.5 N2O overview This section shows values (left) and error (right) for N2O after binning individual sweep values over retrieved altitude and tangent latitude.



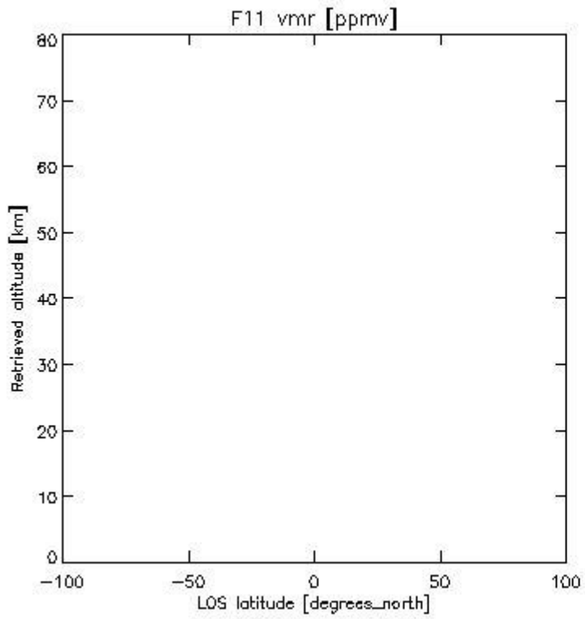


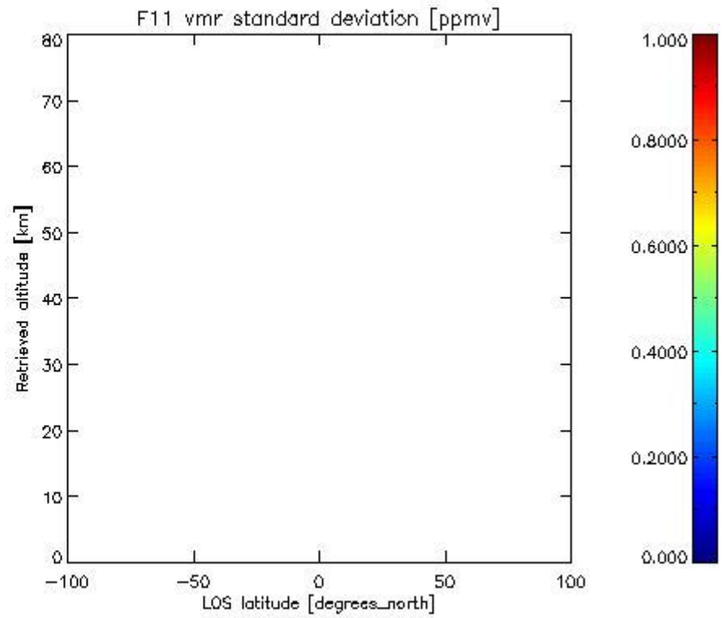
2.2.4.6 NO2 overview This section shows values (left) and error (right) for NO2 after binning individual sweep values over retrieved altitude and Sun Elevation Angle. Note that for NO2 the bin heights are 8 km.



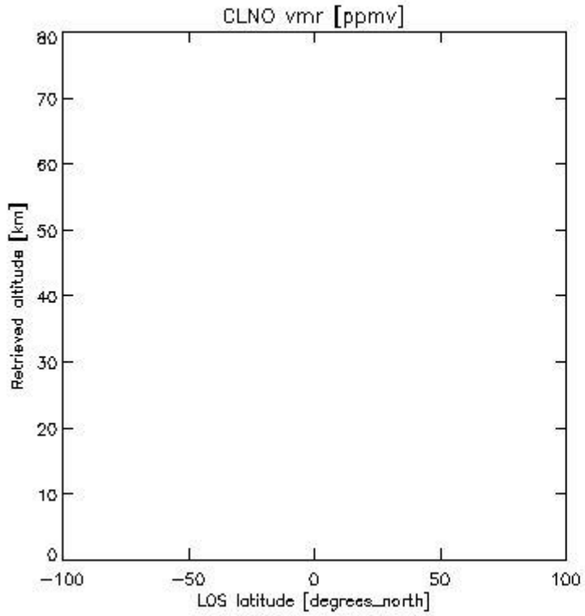


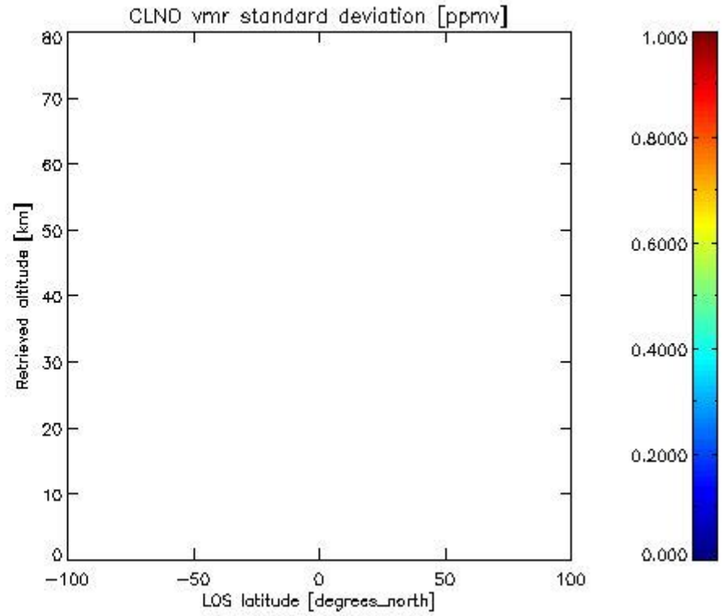
2.2.4.7 F11 overview This section shows values (left) and error (right) for F11 after binning individual sweep values over retrieved altitude and tangent latitude.

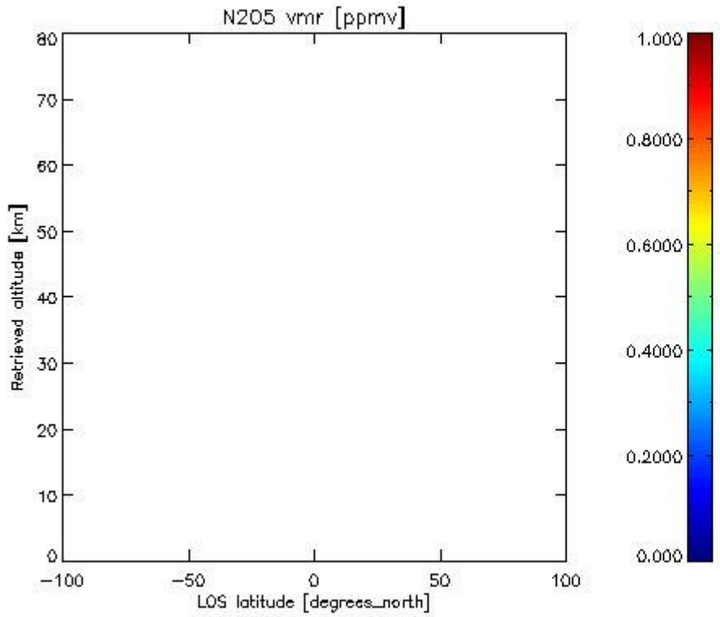


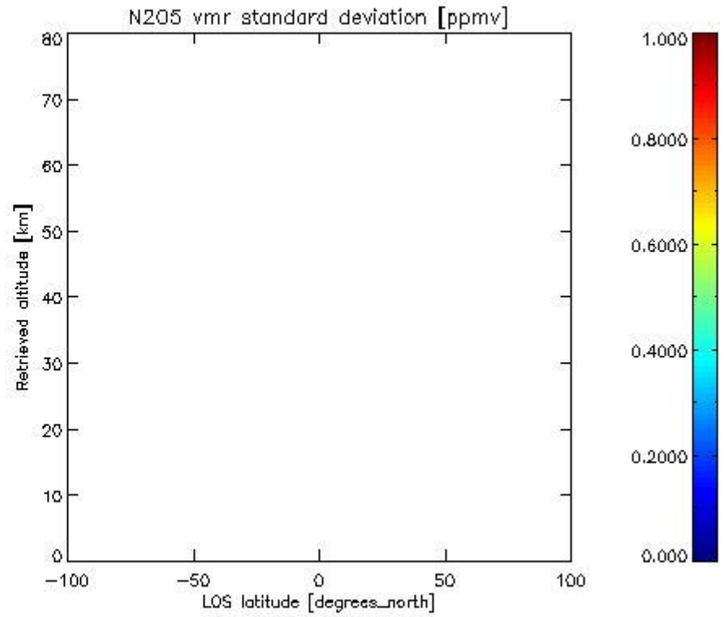


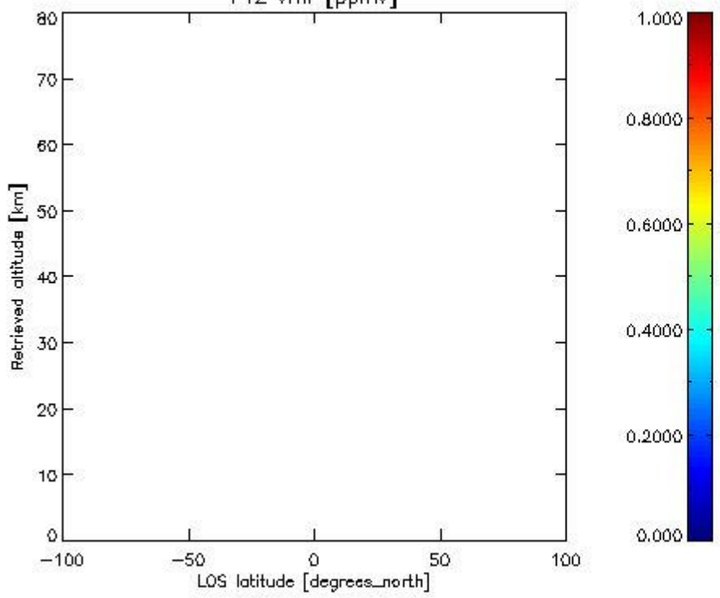
2.2.4.8 CLNO overview This section shows values (left) and error (right) for CLNO after binning individual sweep values over retrieved altitude and tangent latitude.






N2O5 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


N2O5 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


F12 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
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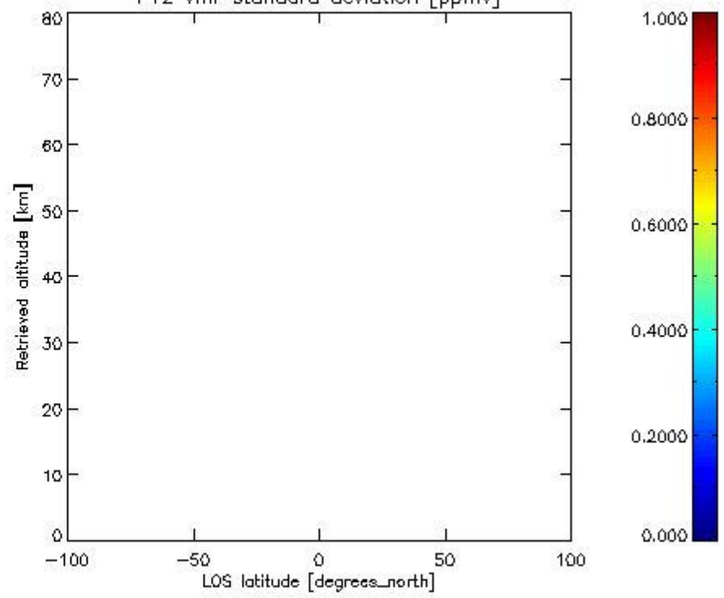
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


F12 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
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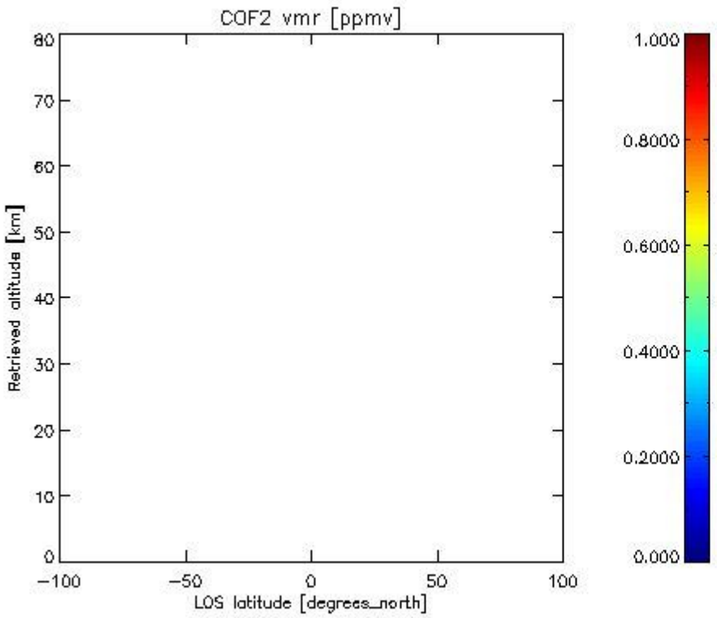
0.4000
0.2000
0.000


COF2 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
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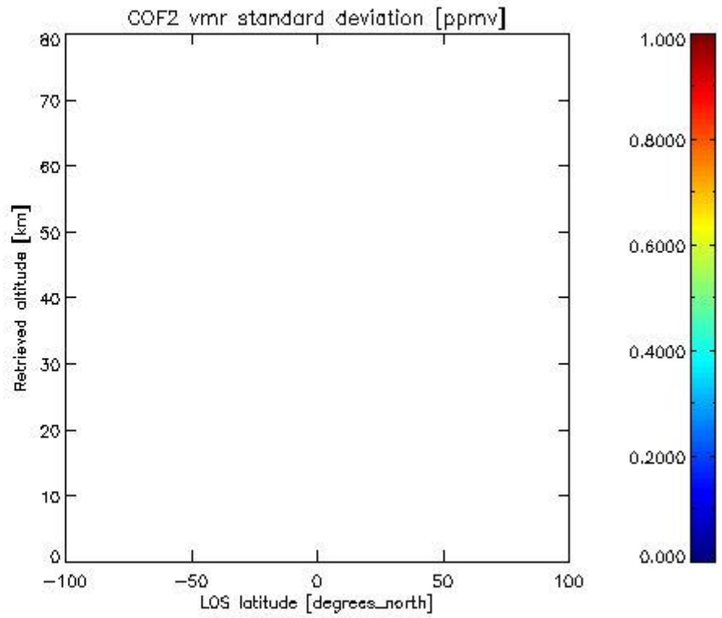
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


COF2 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
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−50
0
50
100
1.000
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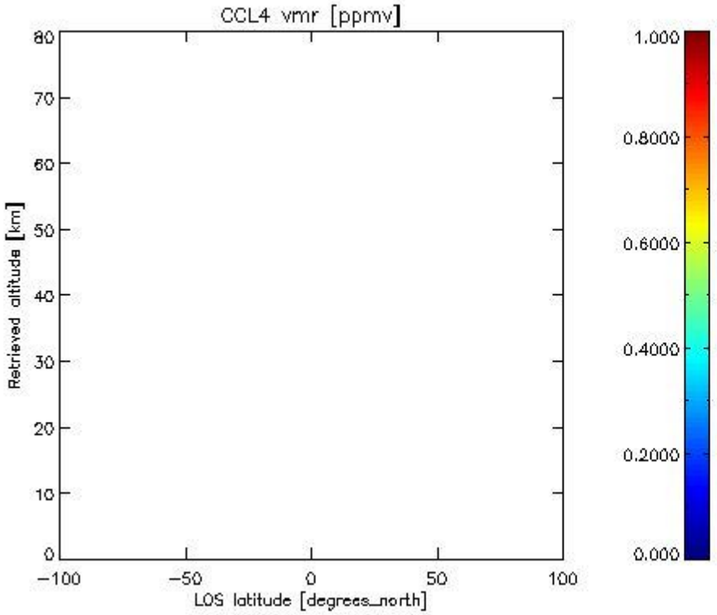
0.4000
0.2000
0.000


CCL4 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
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100
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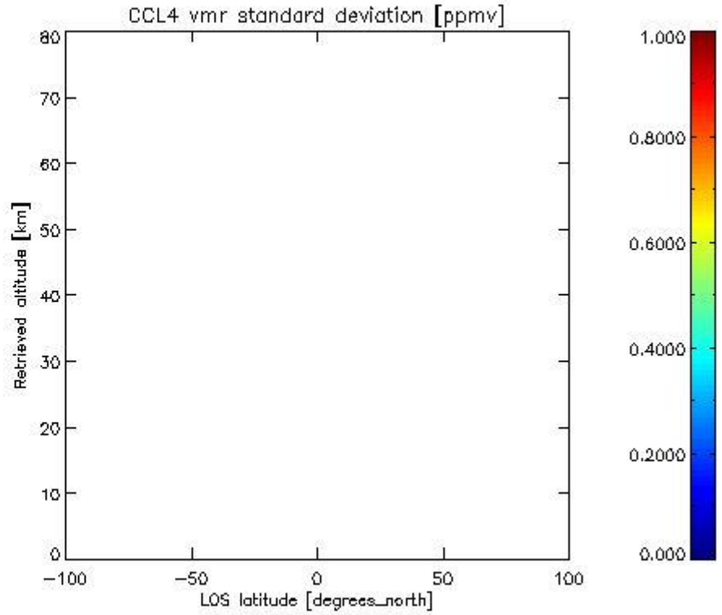
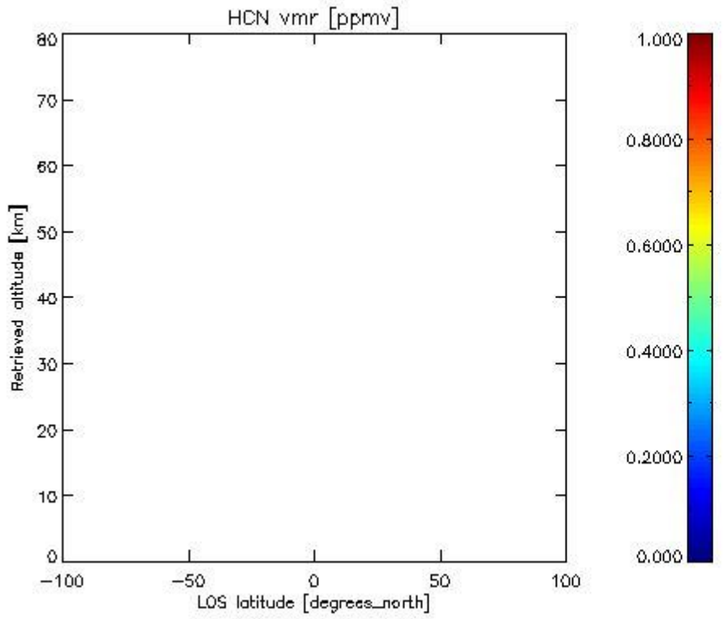
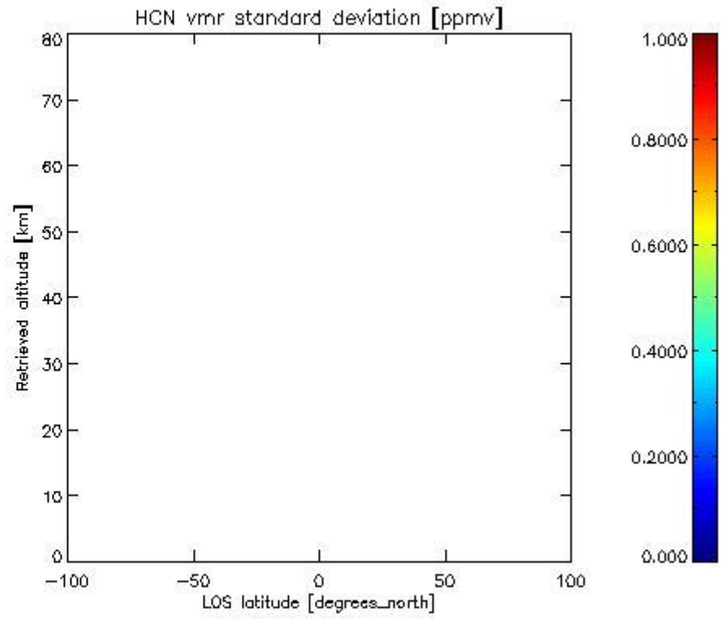
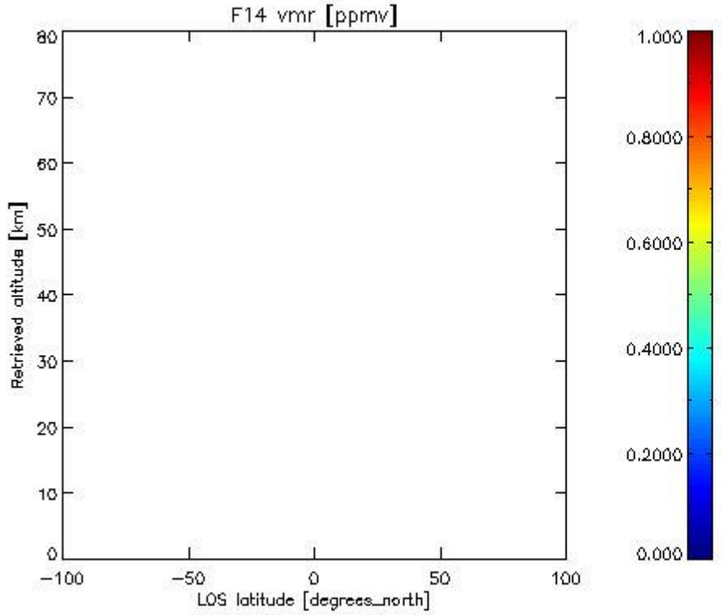
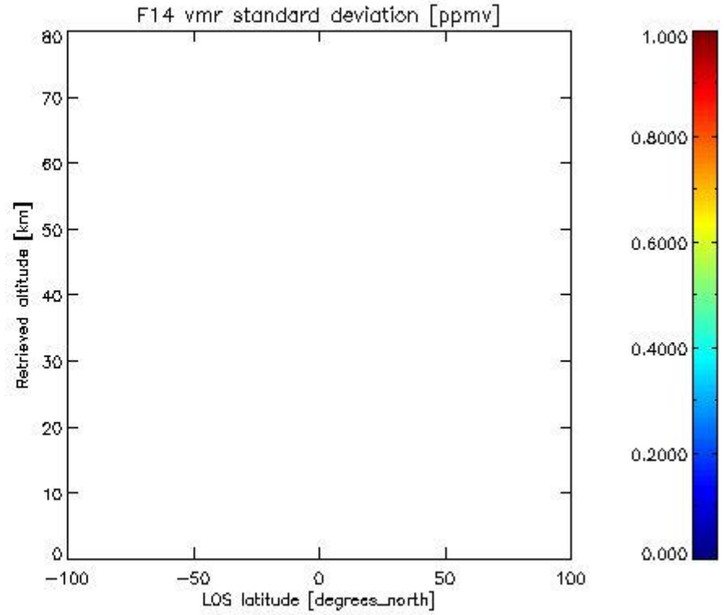
0.4000
0.2000
0.000

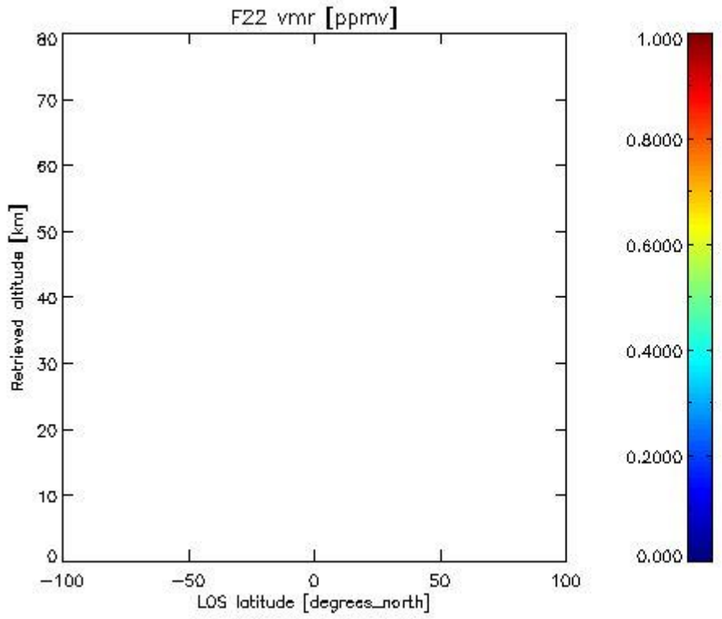

CCL4 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

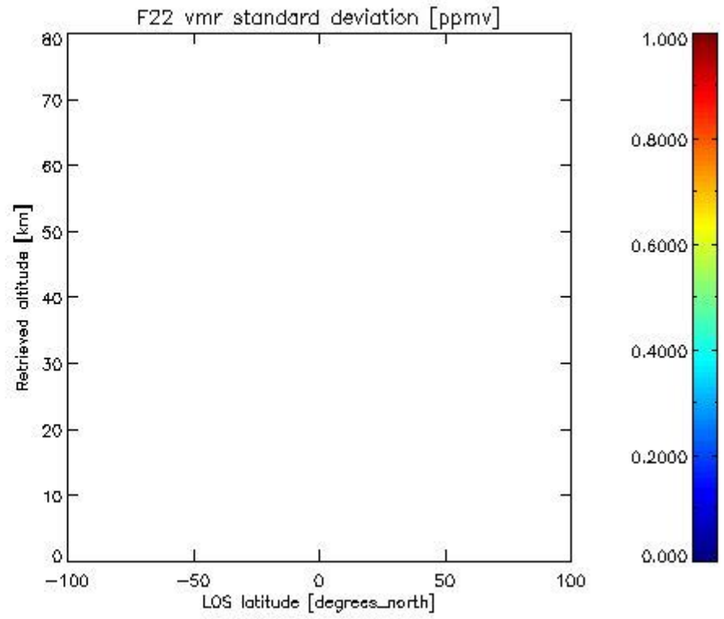

HCN vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


HCN vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


F14 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


F14 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000





3.2.5 Histories of daily averages

The following section finds zonal daily averages from the years of operation of different pressure levels. The value of a species for a pressure level is calculated by linear interpolation of the logarithm of the 3 consecutive survey values with a pressure below and above the pressure level. For 0.01 averages are given both for day and daytime (sun elevation angles) and night side (negative sun elevation angles).

Plots are shown for the following pressures: 100.0 hPa, 10.0 hPa, 1.0 hPa, 0.1 hPa.

3.2.5.1 Daily average at 100.0 hPa

No zonal plots for pressure level 100.00000 due to unavailability of pressure data.

3.2.5.2 Daily average at 10.0 hPa

No zonal plots for pressure level 10.000000 due to unavailability of pressure data.

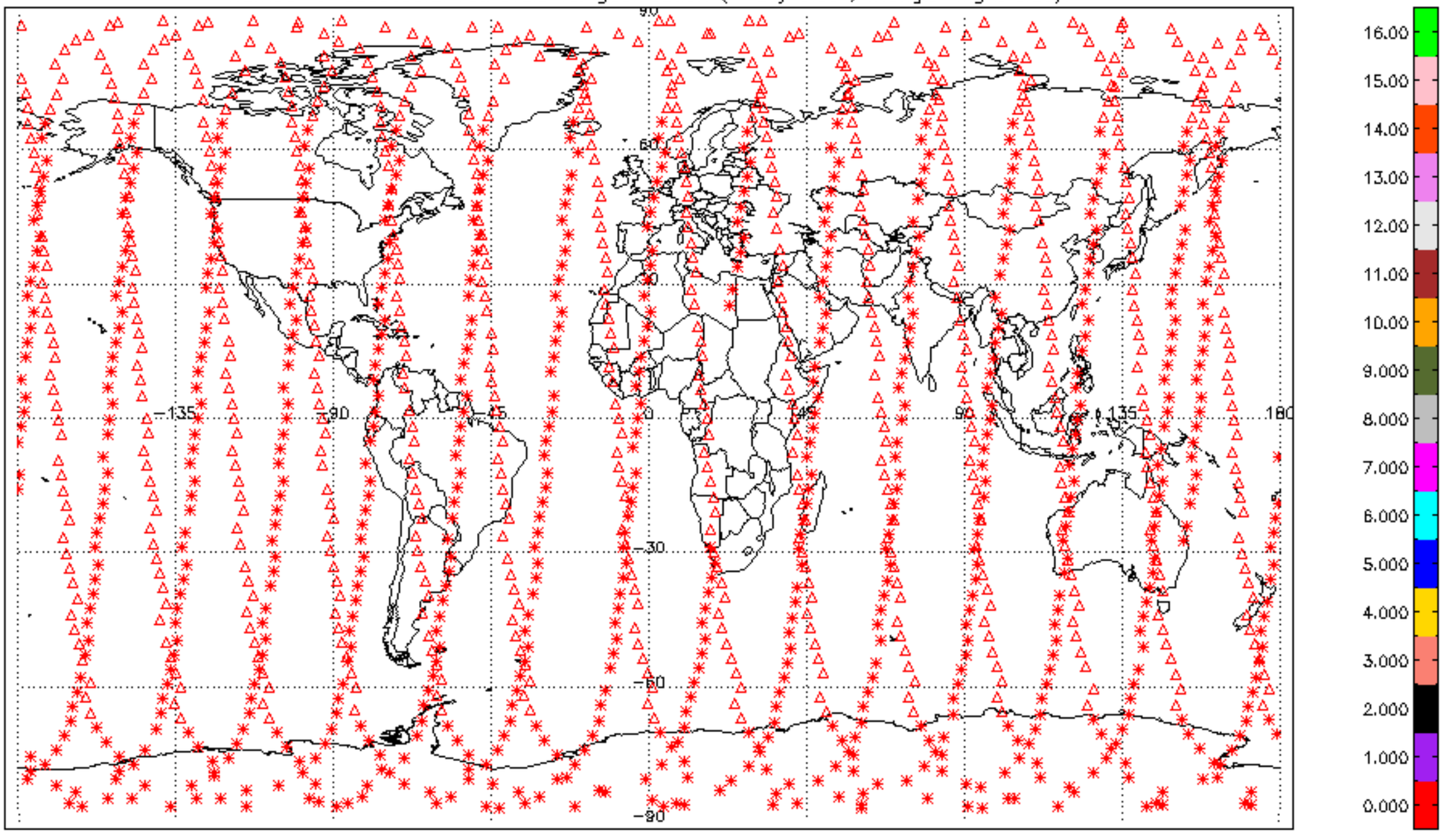
3.2.5.3 Daily average at 1.0 hPa

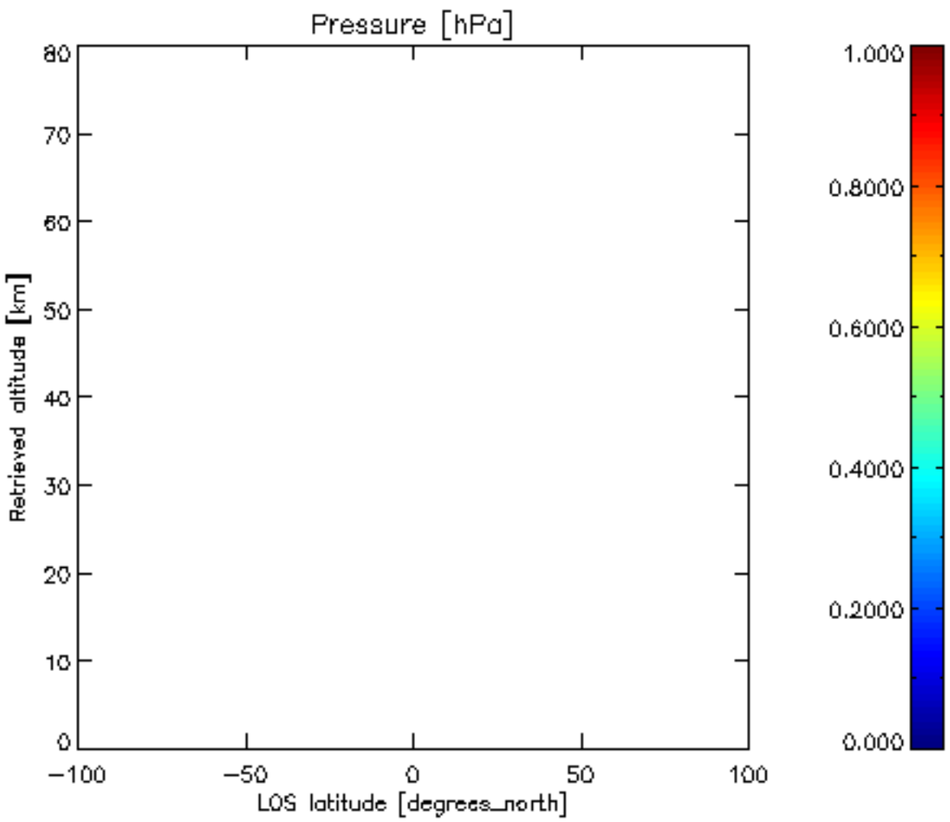
No zonal plots for pressure level 1.0000000 due to unavailability of pressure data.

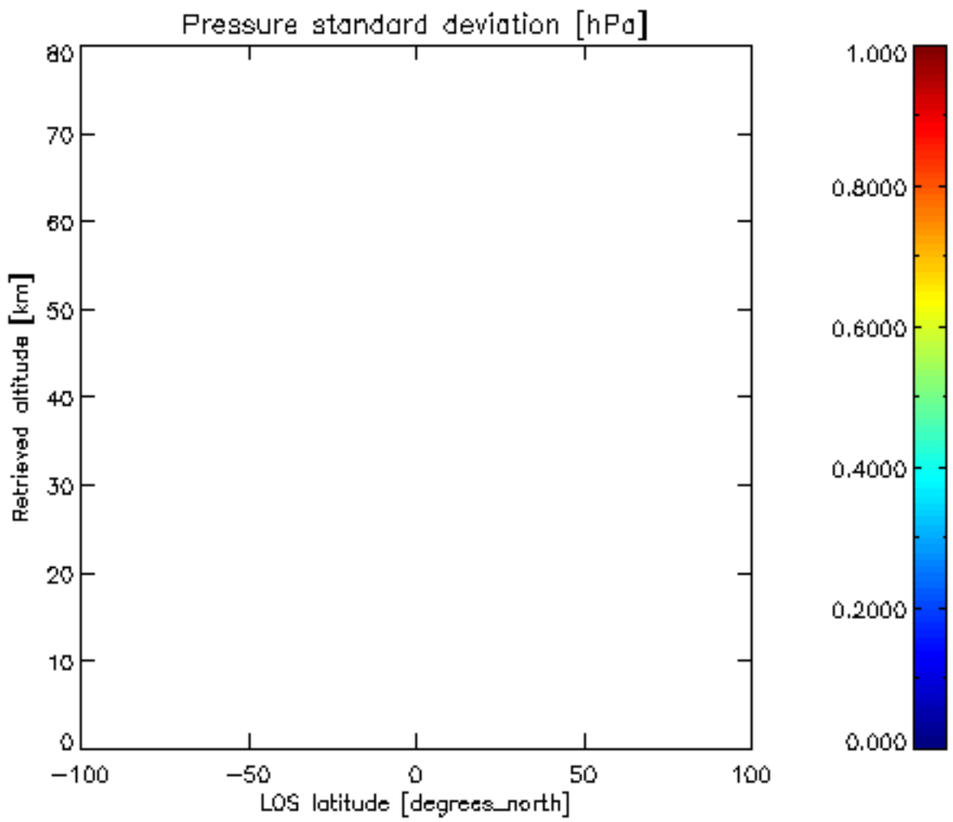
3.2.5.4 Daily average at 0.1 hPa

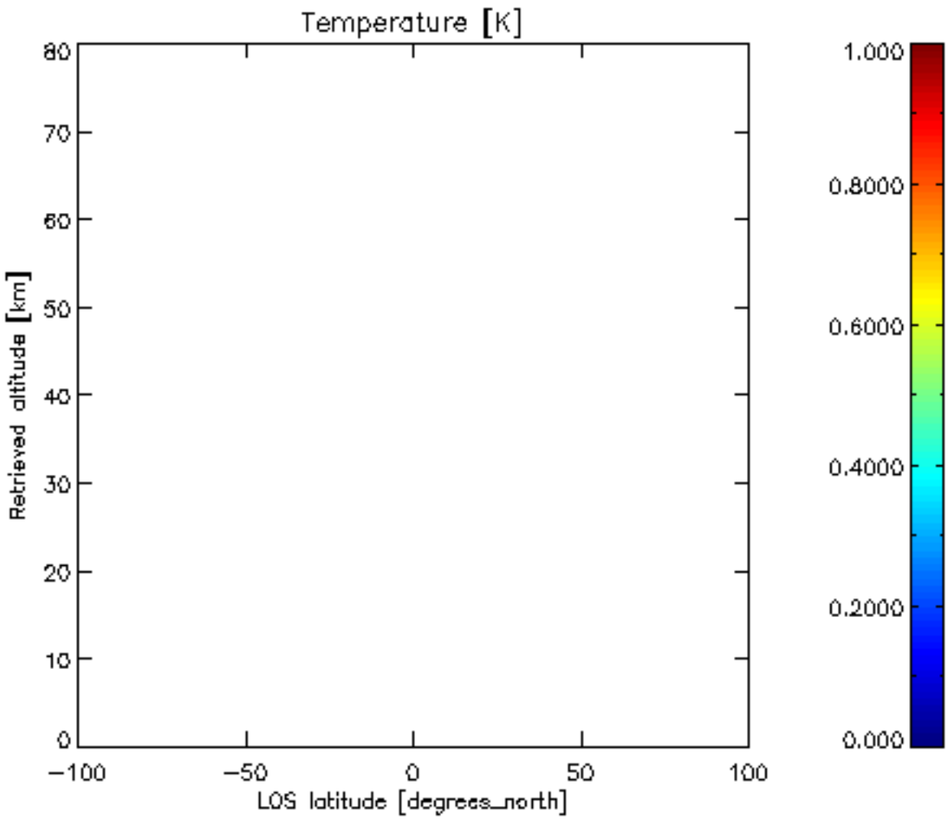
No zonal plots for pressure level 0.10000000 due to unavailability of pressure data.

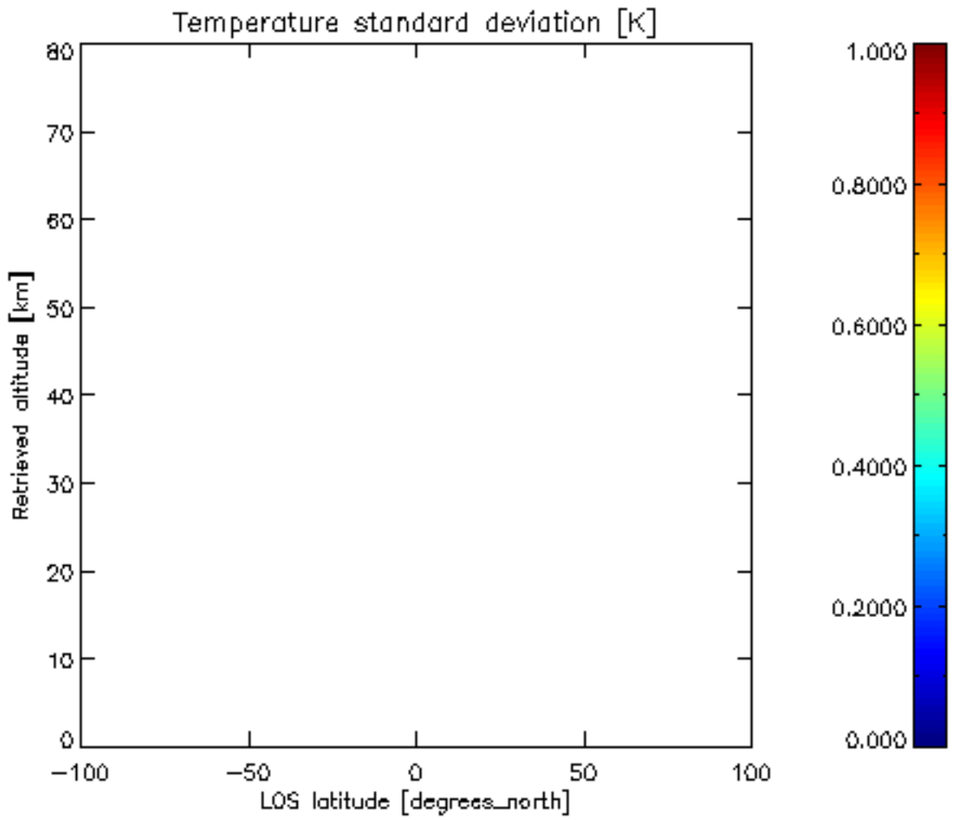
Number of successful retrievals vs. geolocation (*=day side , triangle=night side).

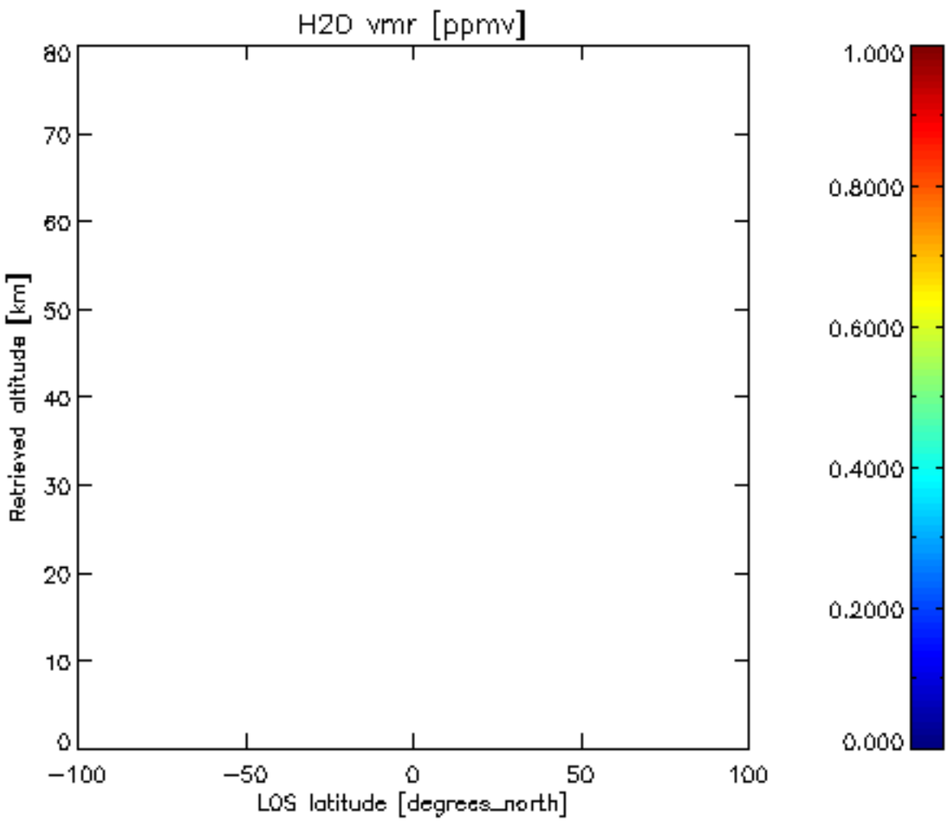


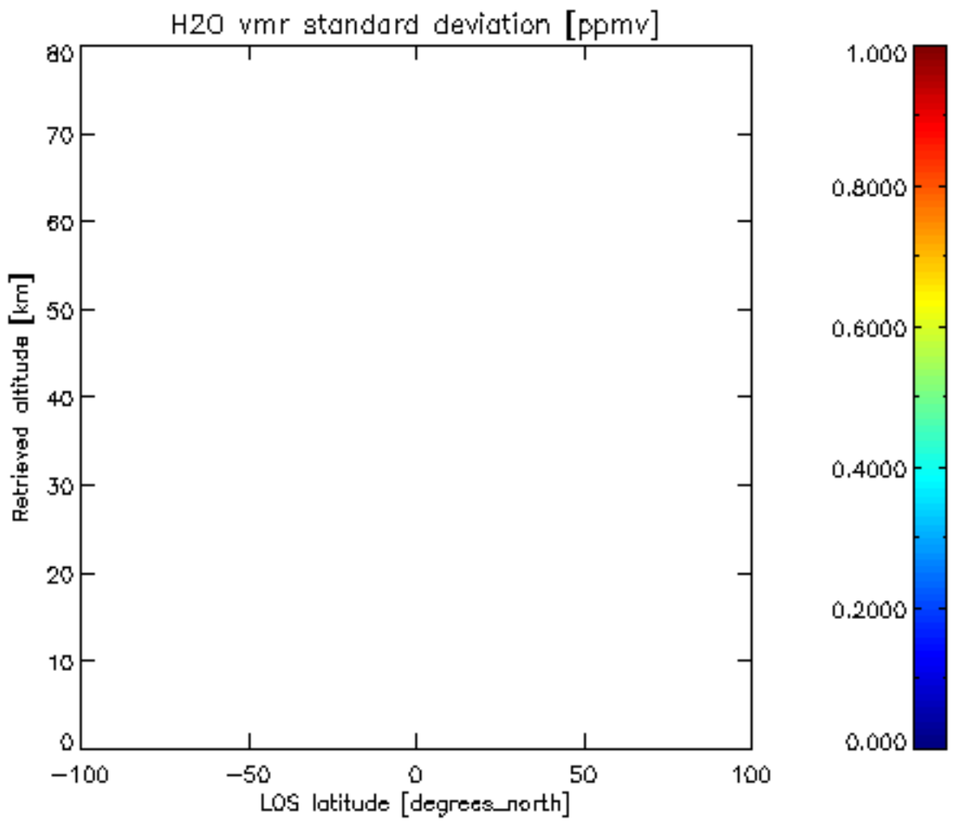

Pressure [hPa]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

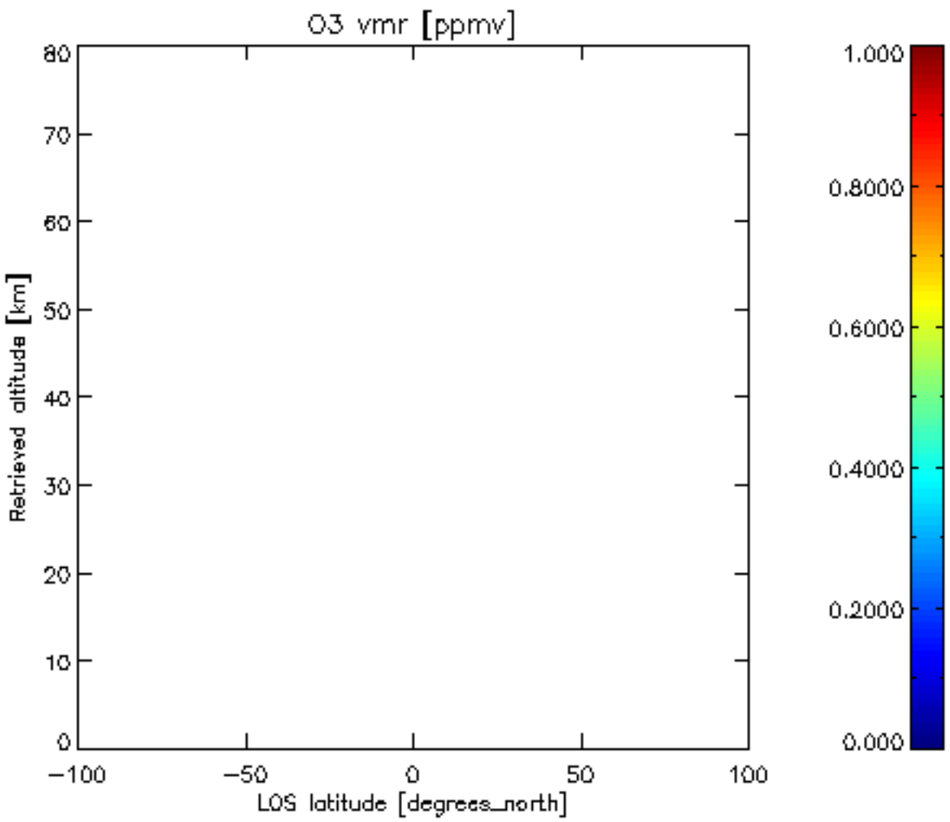

Pressure standard deviation [hPa]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

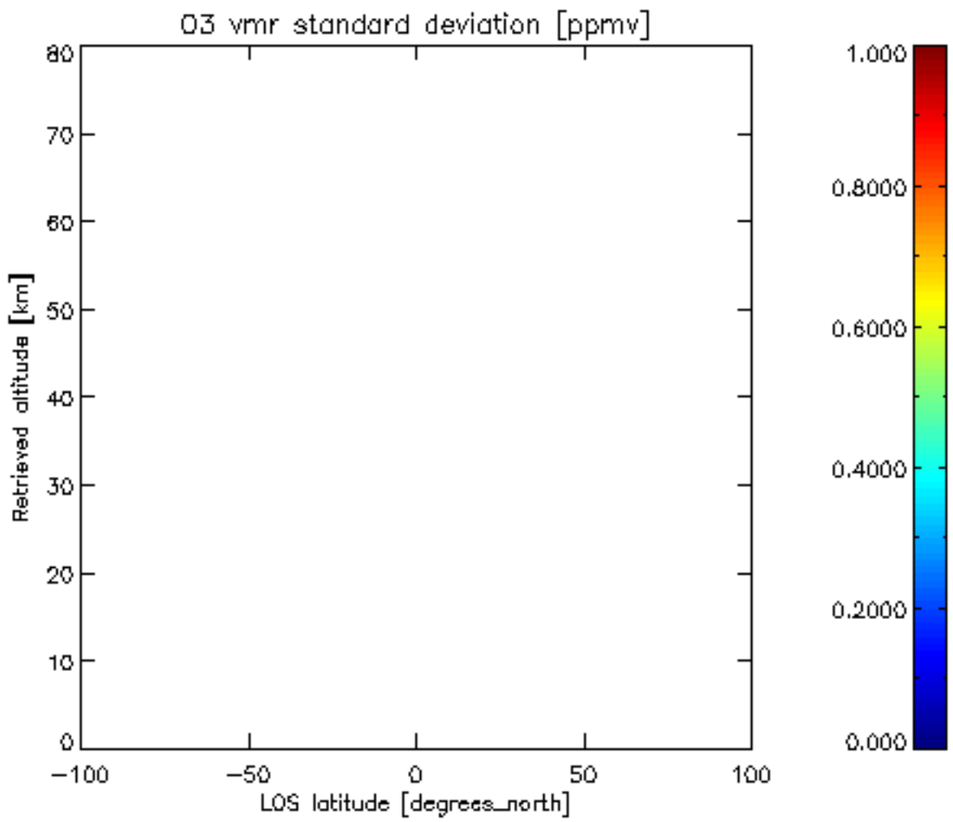

Temperature [K]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

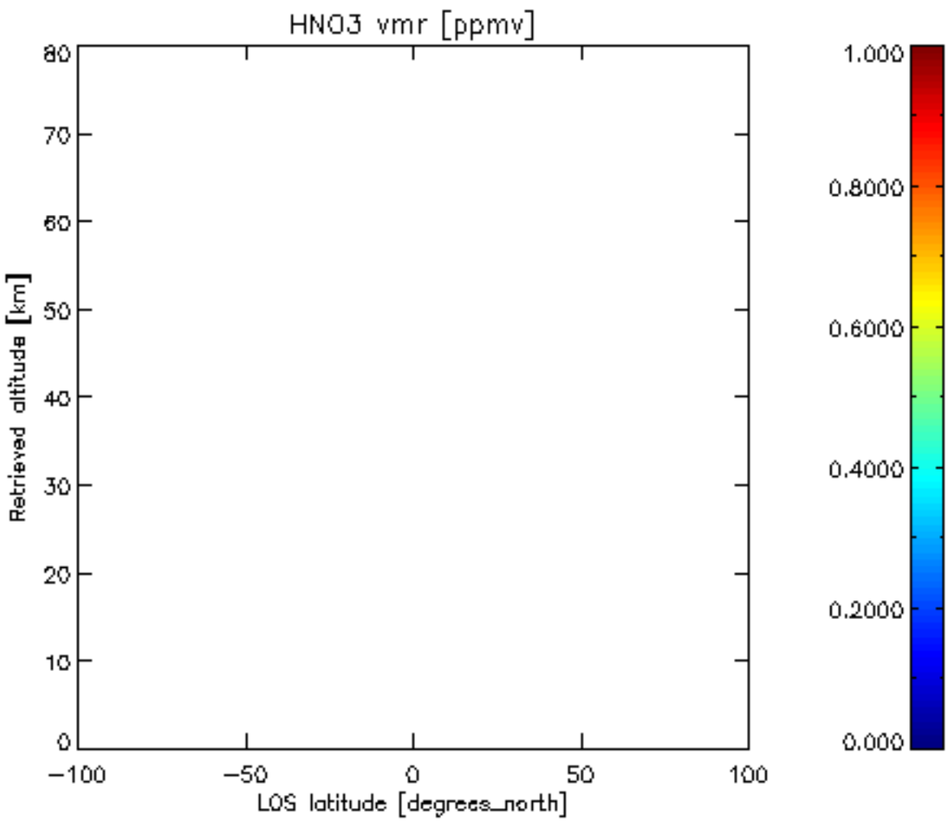

Temperature standard deviation [K]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

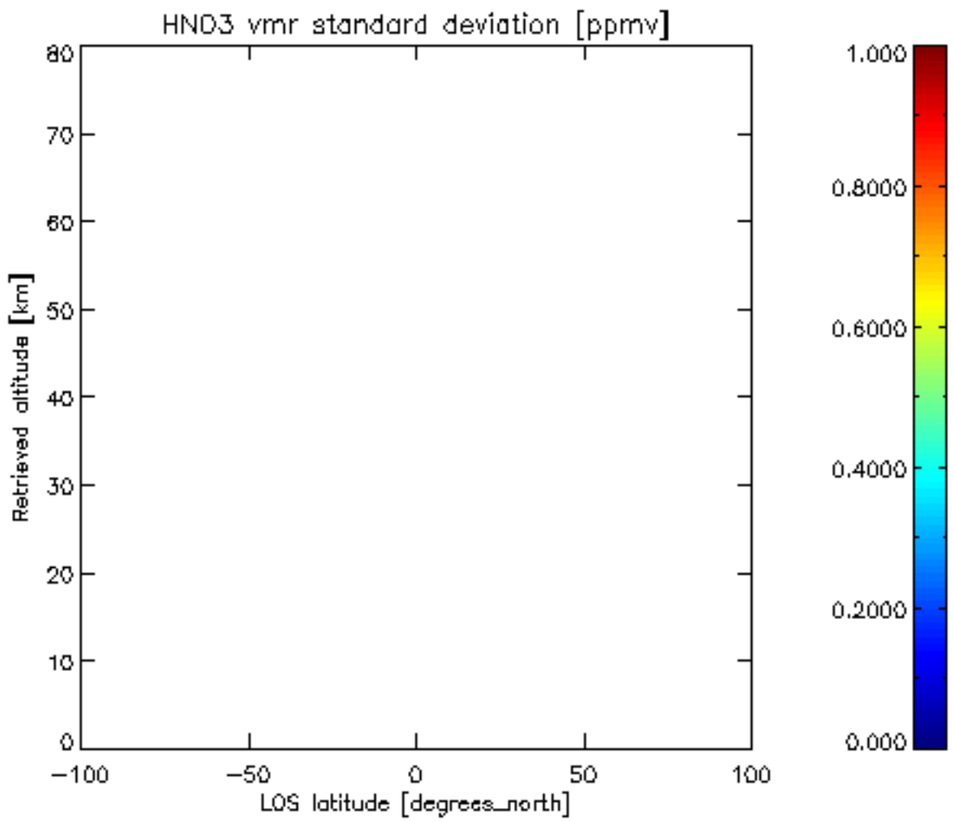

H2O vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

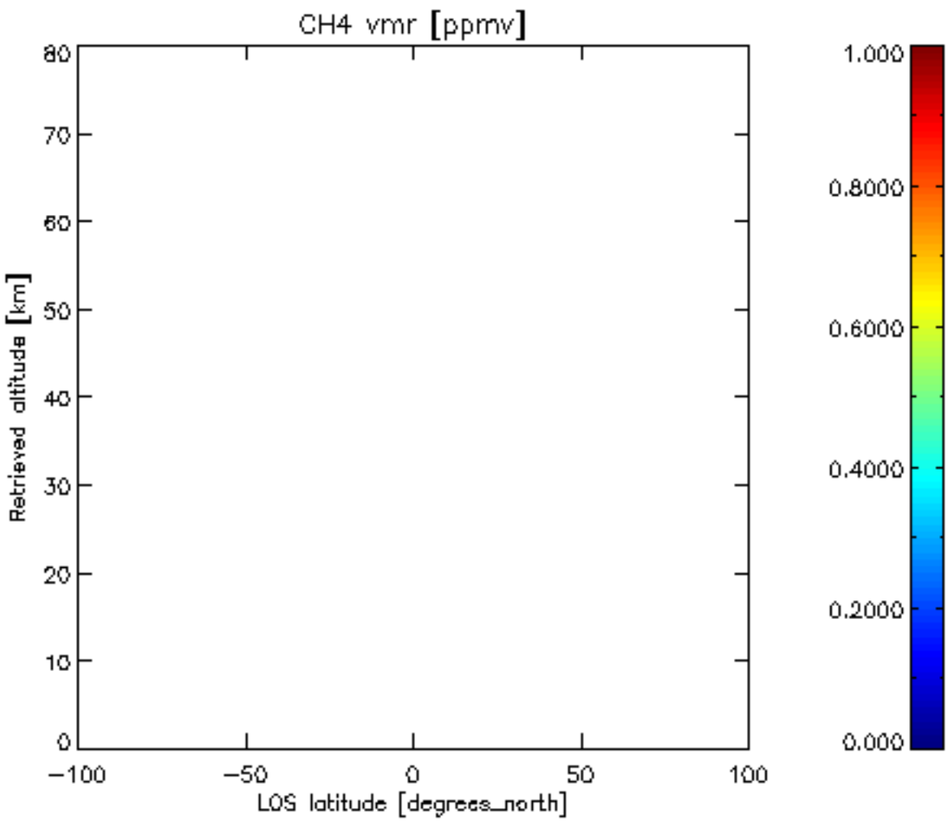

H2O vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

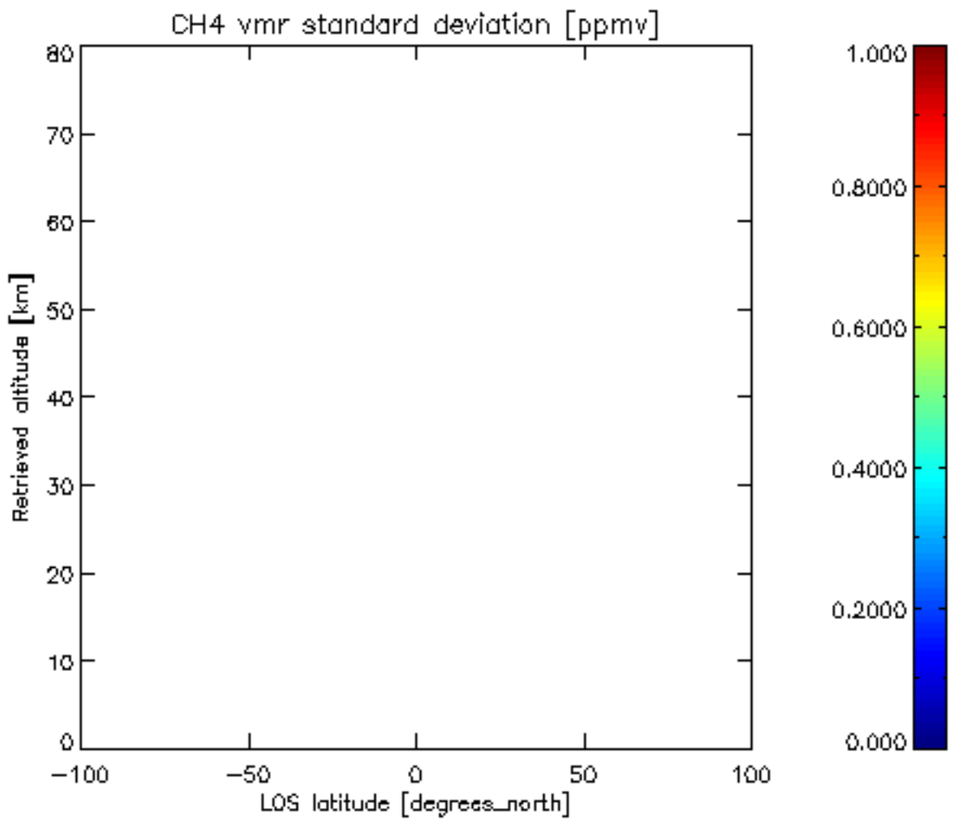

O3 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

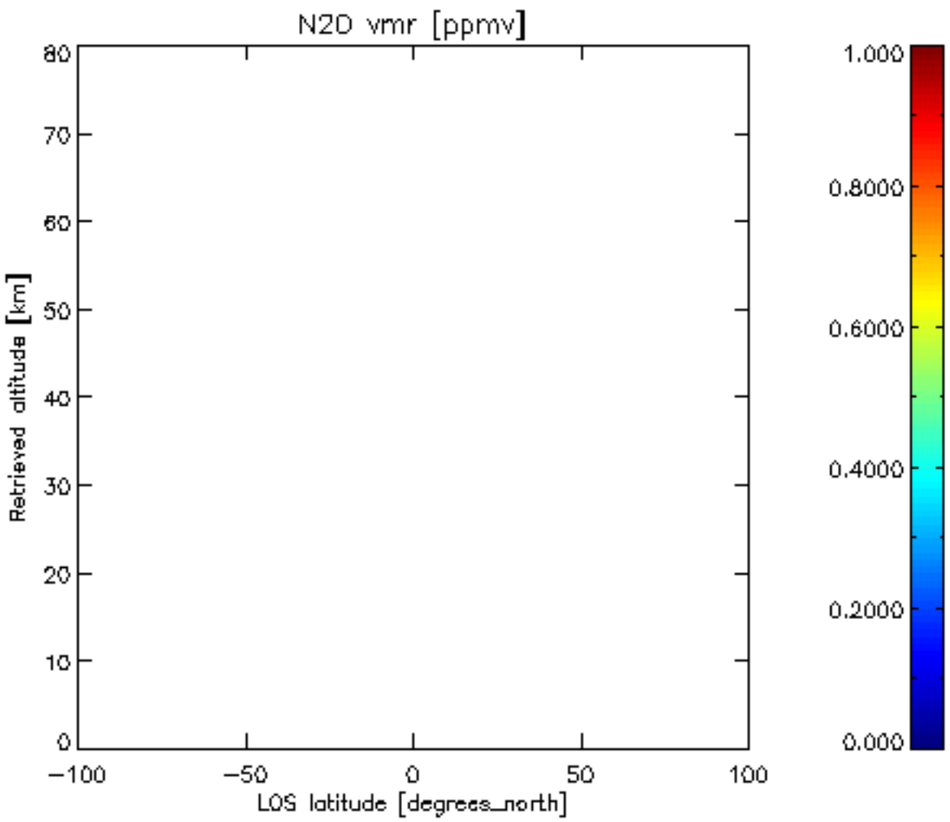

O3 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

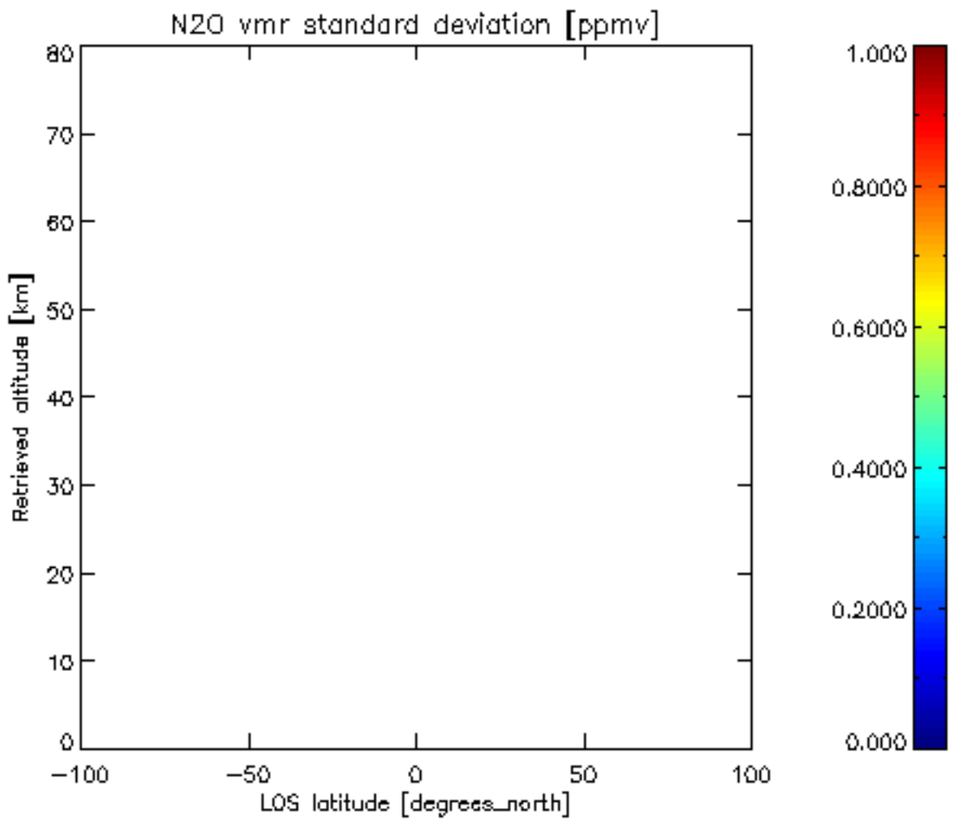

HNO3 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

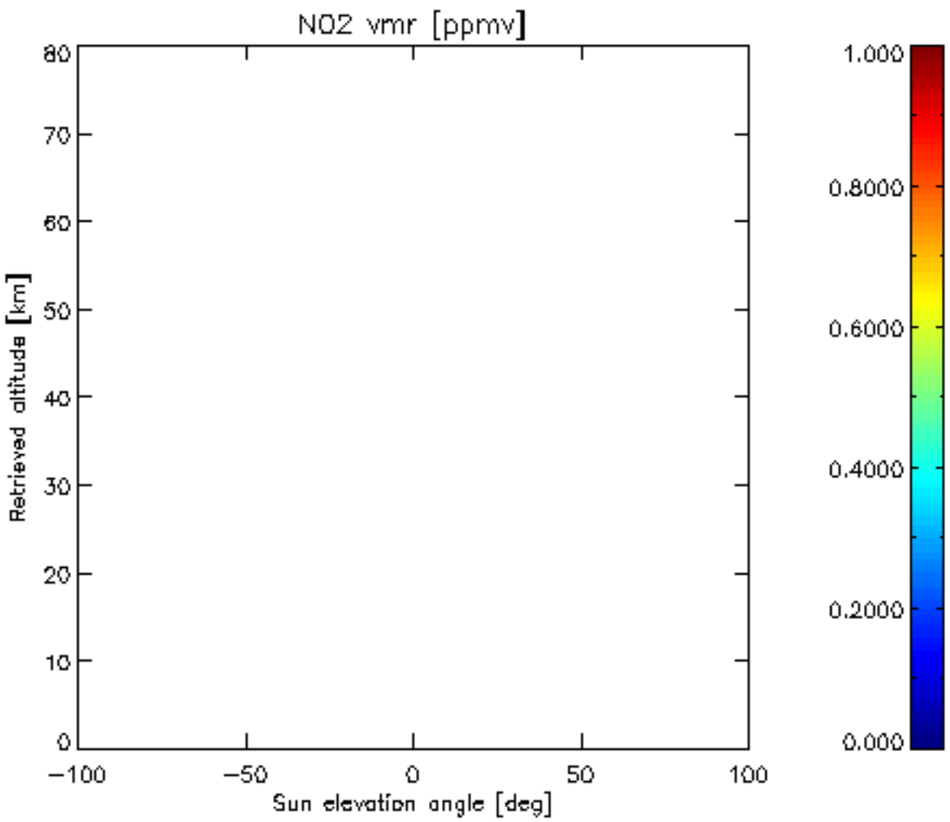

HNO3 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

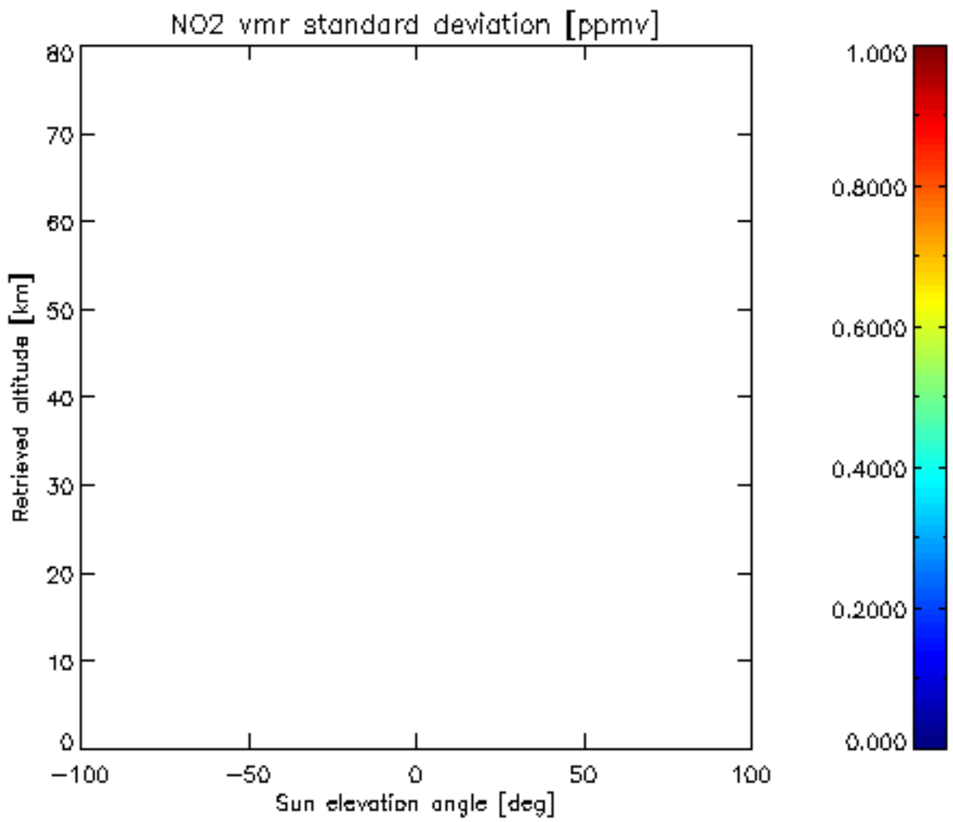

CH4 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

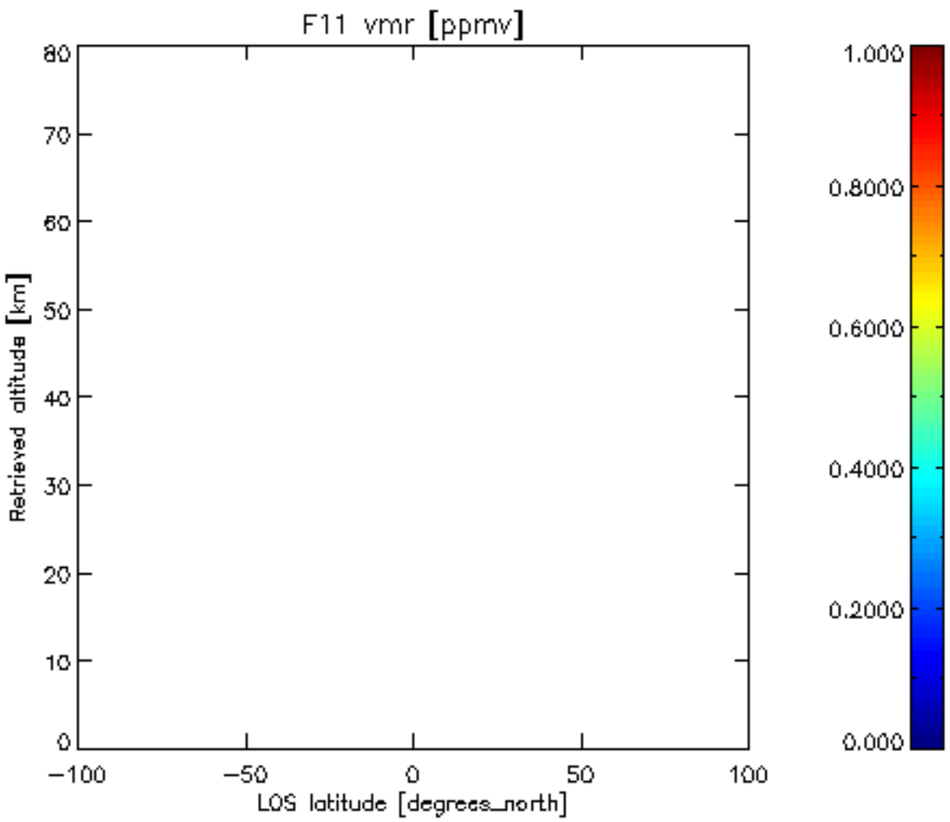

CH4 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

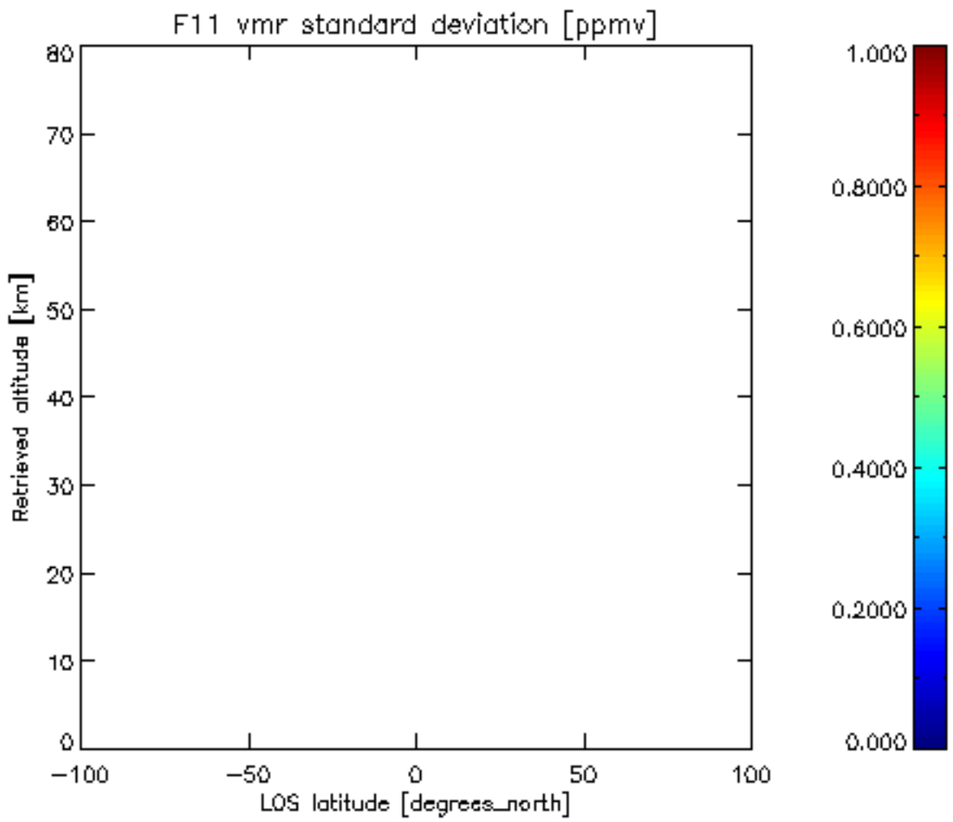

N2O vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

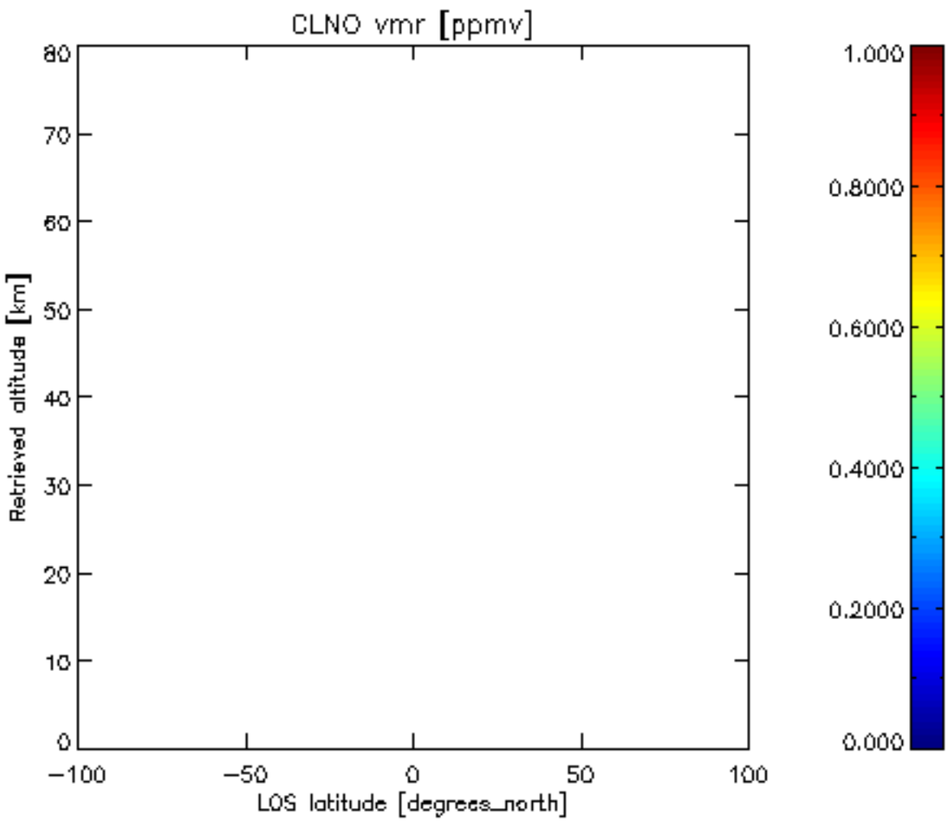

N2O vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

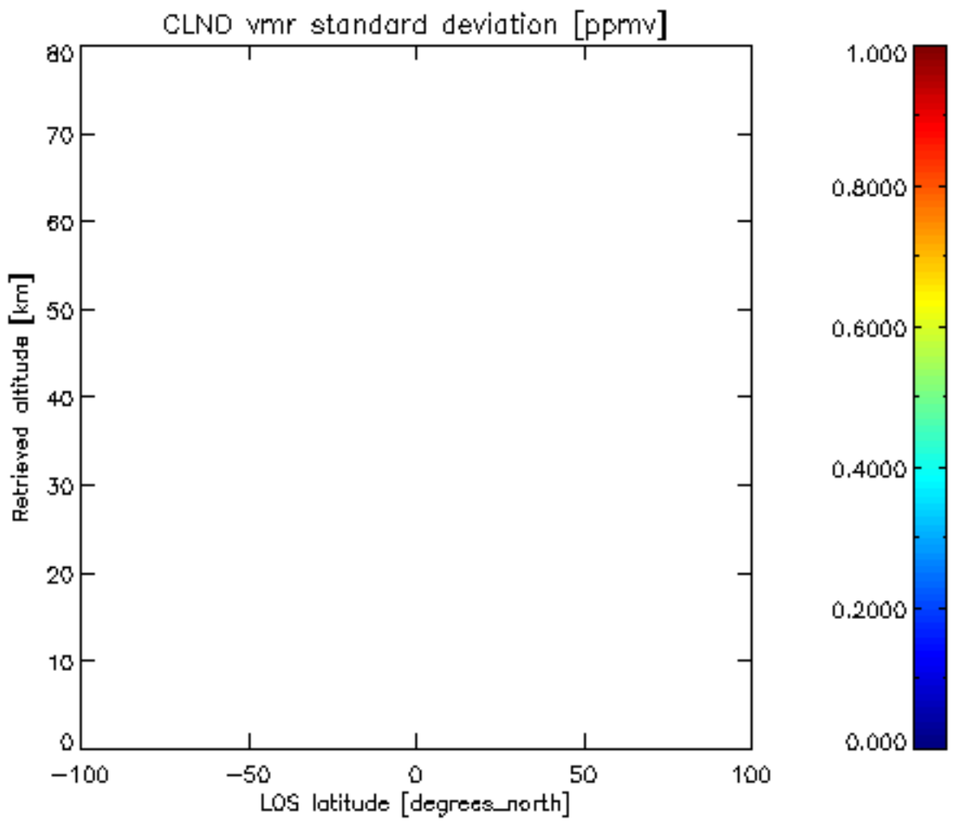

NO2 vmr [ppmv]
Retrieved altitude [km]
Sun elevation angle [deg]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

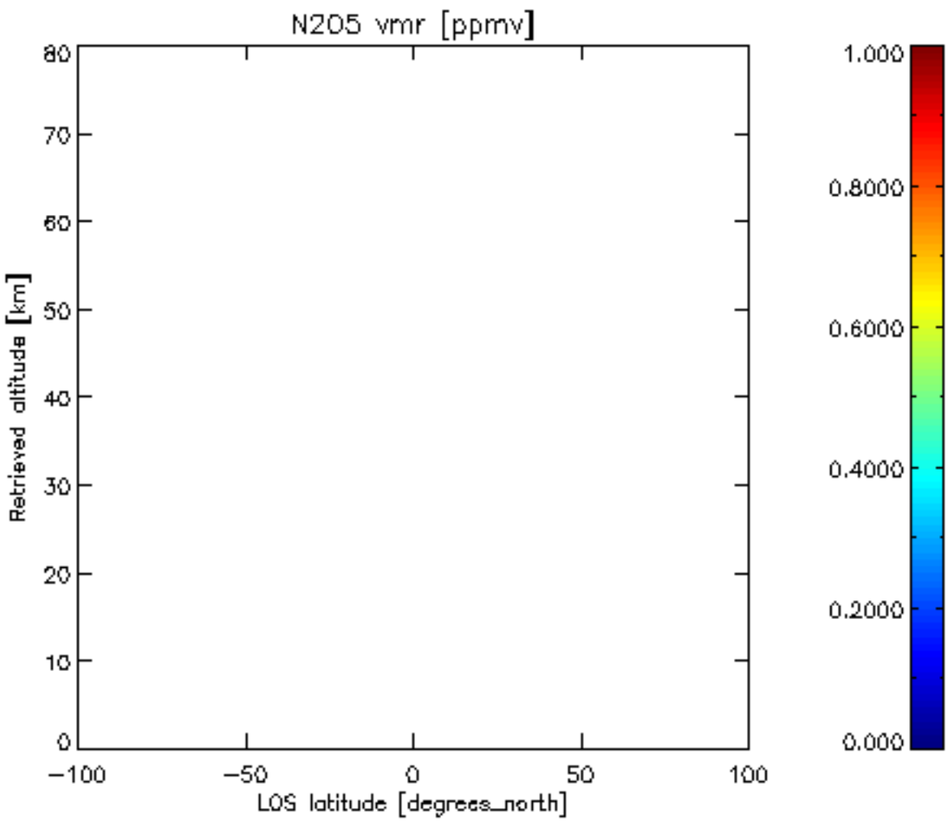

NO2 vmr standard deviation [ppmv]
Retrieved altitude [km]
Sun elevation angle [deg]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

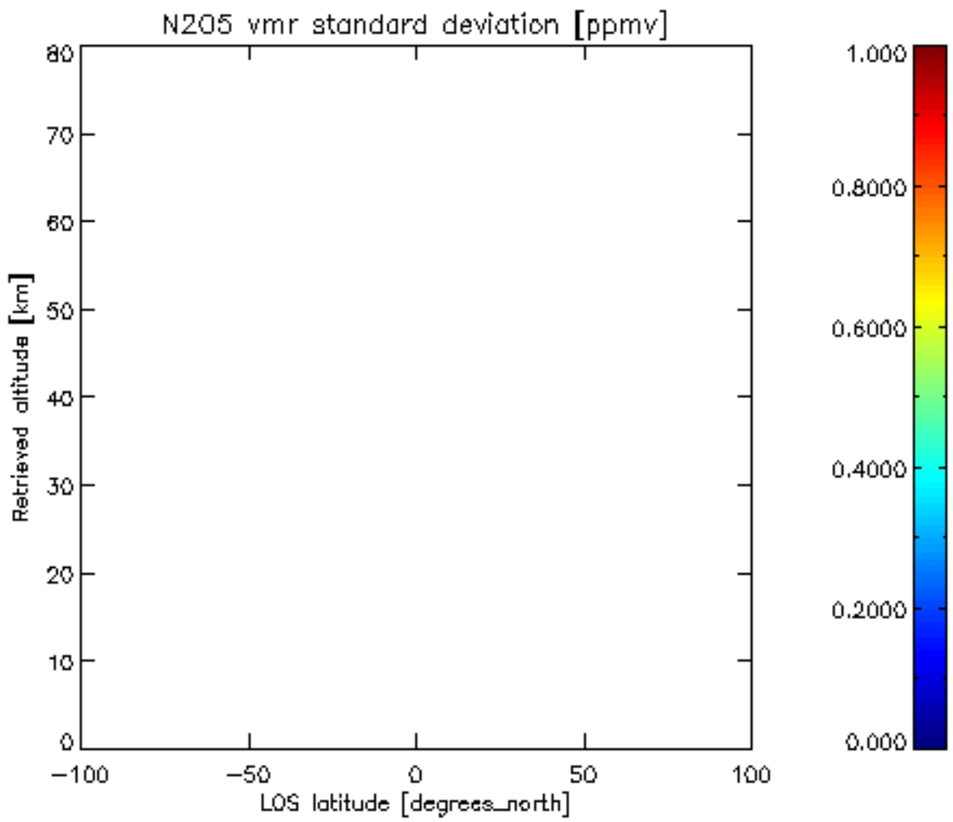

F11 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

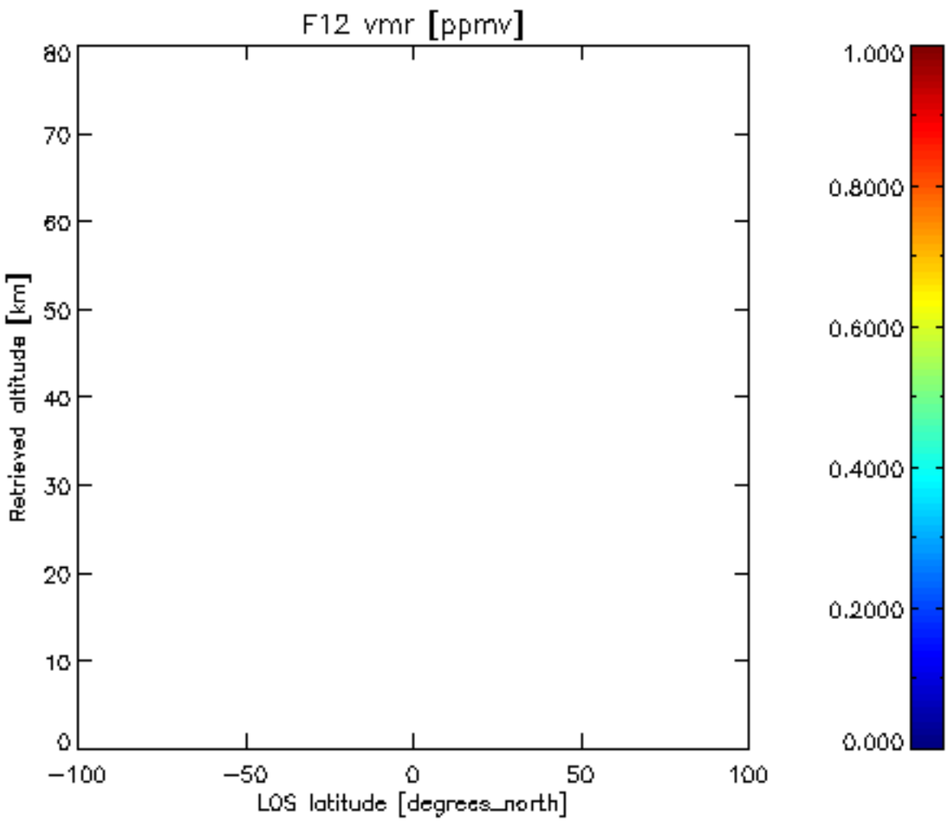

F11 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

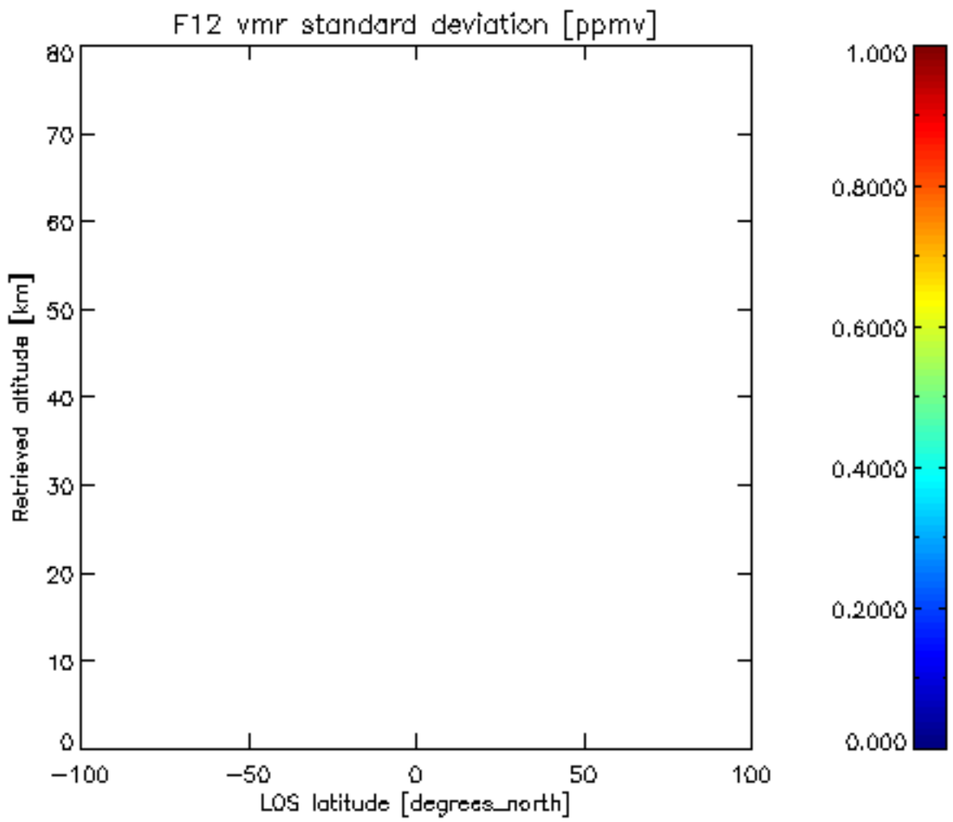

CLNO vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

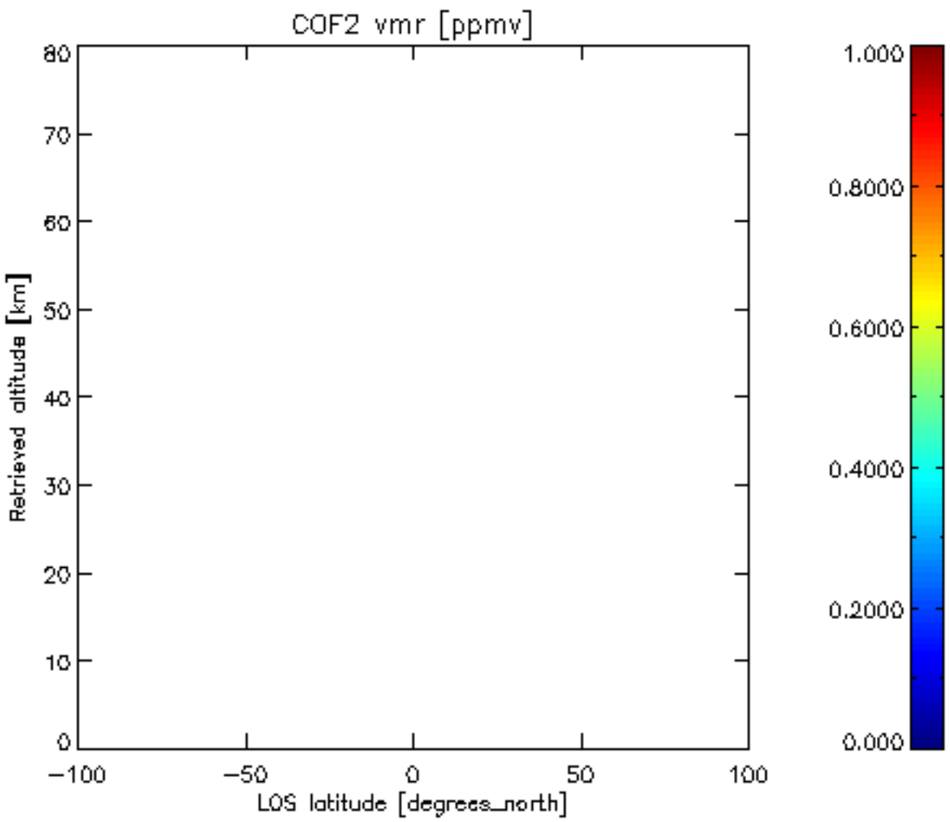

CLNO vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

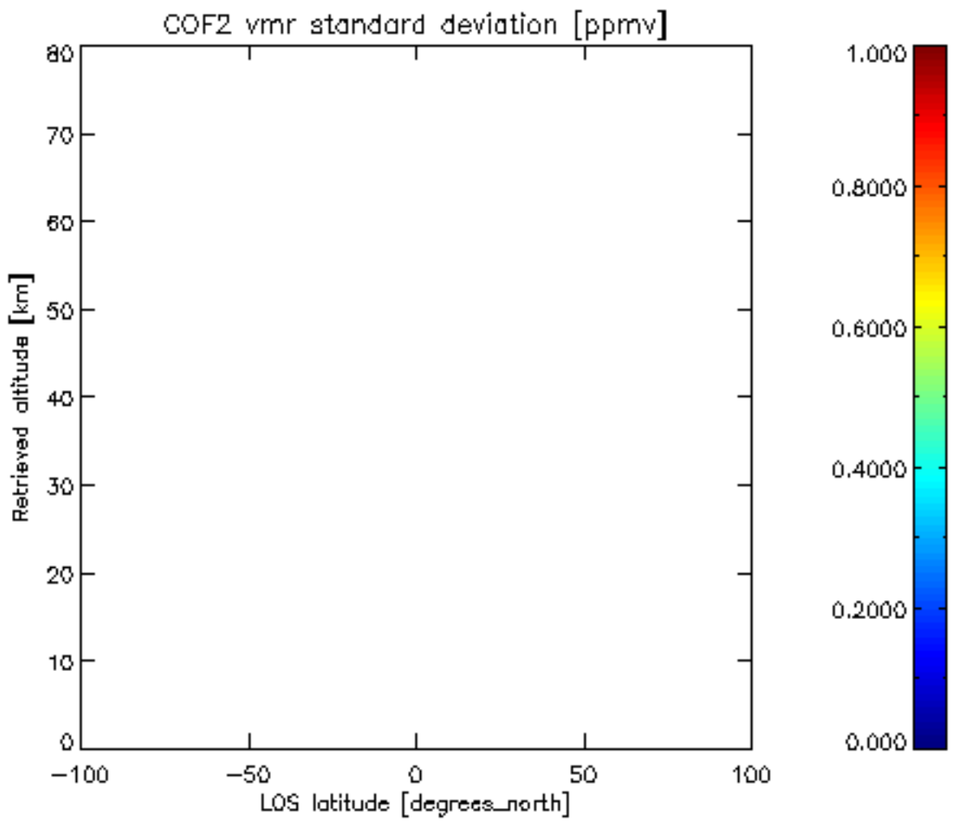

N2O5 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

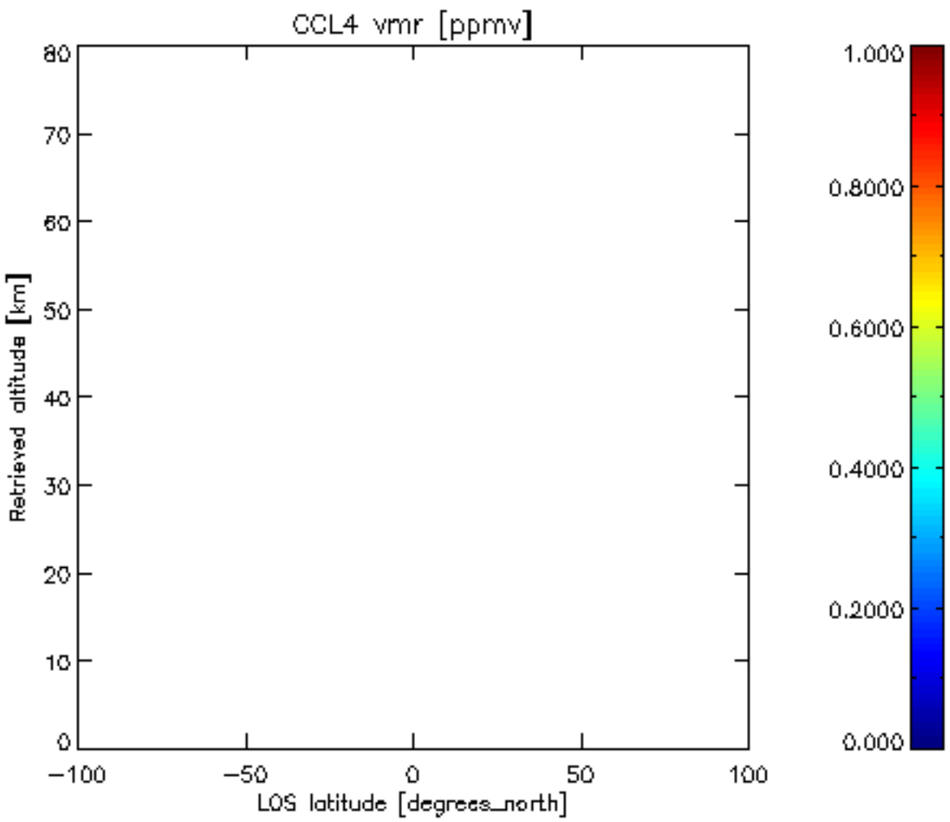

N2O5 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

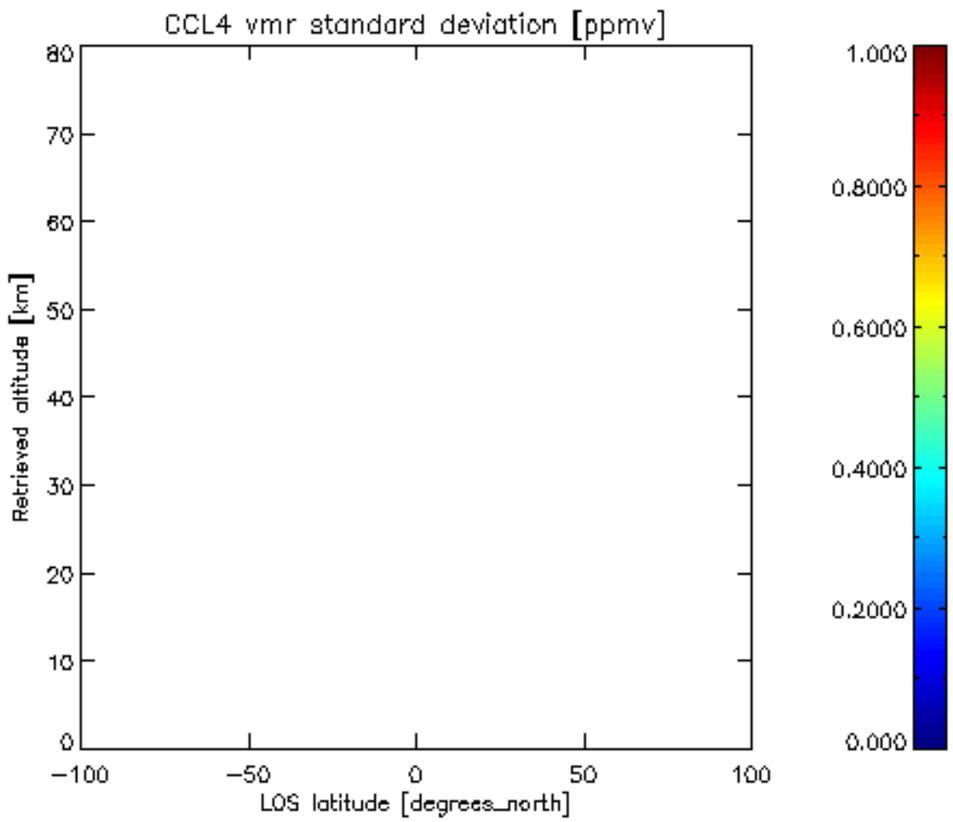

F12 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

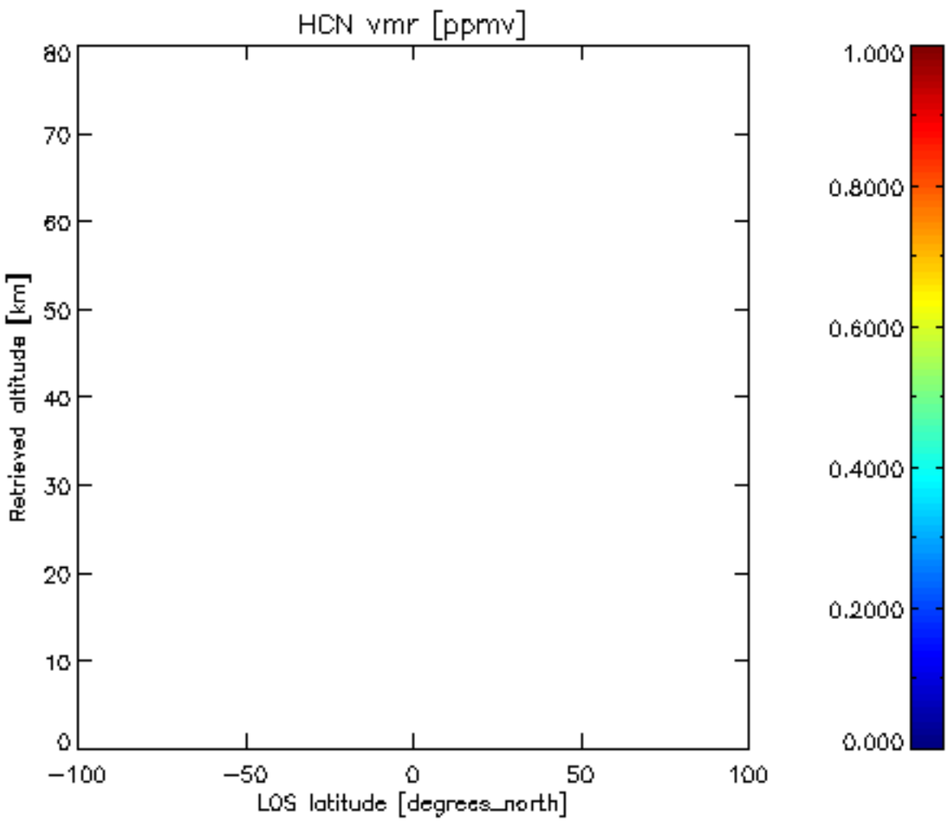

F12 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

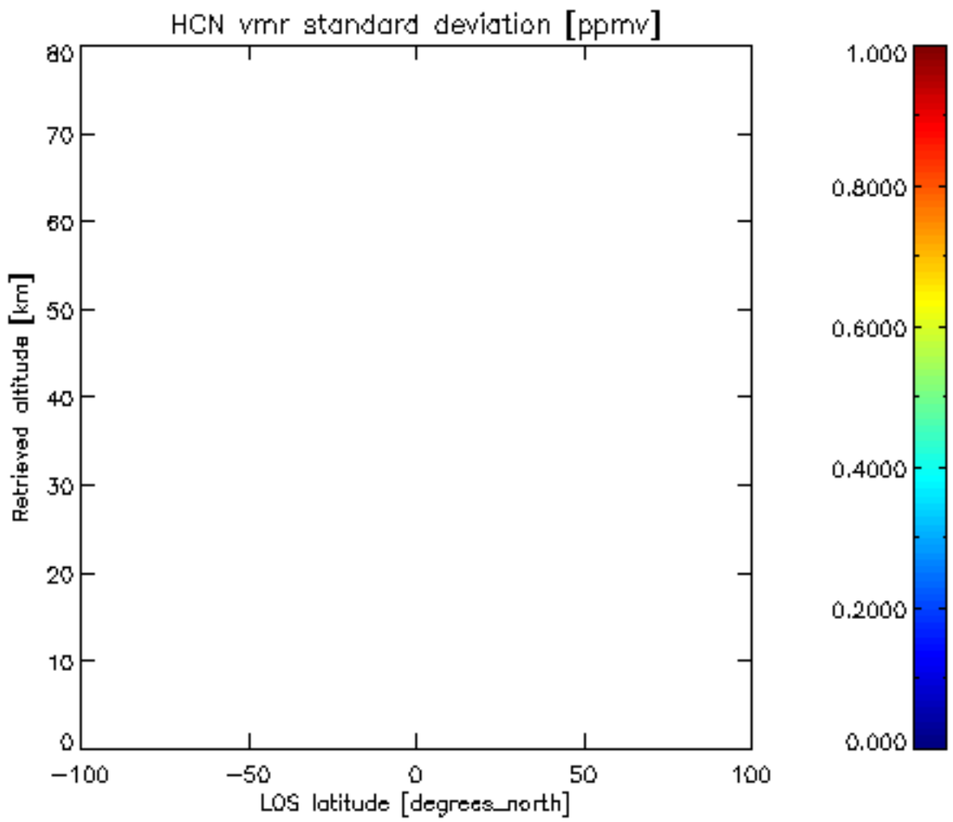

COF2 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

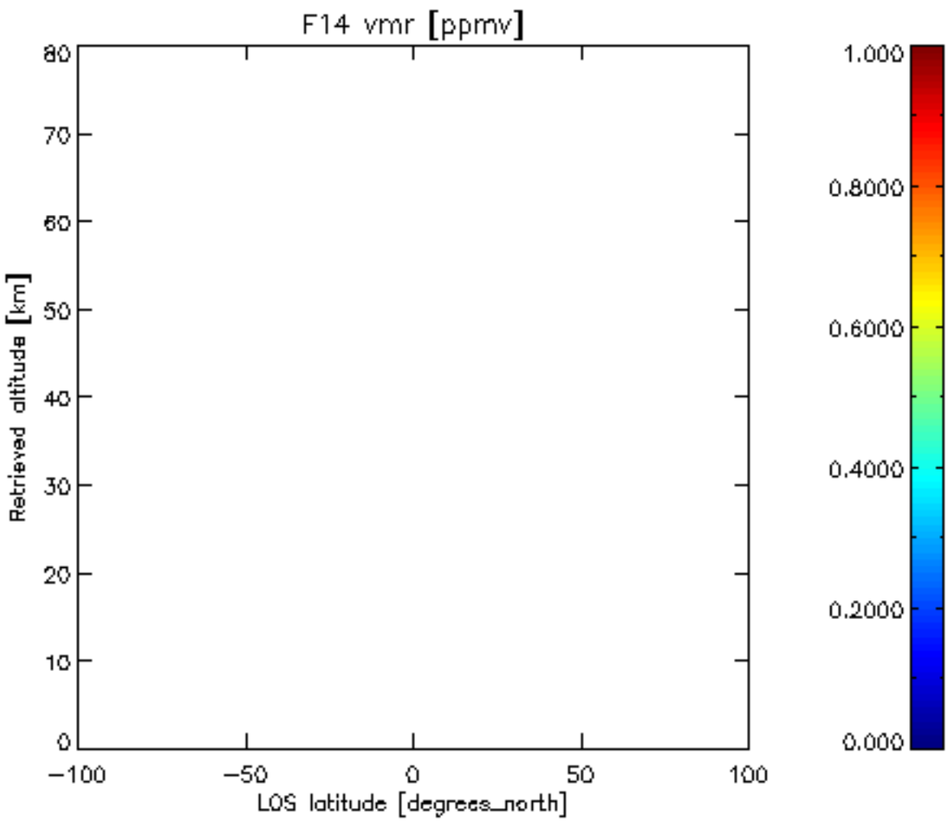

COF2 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

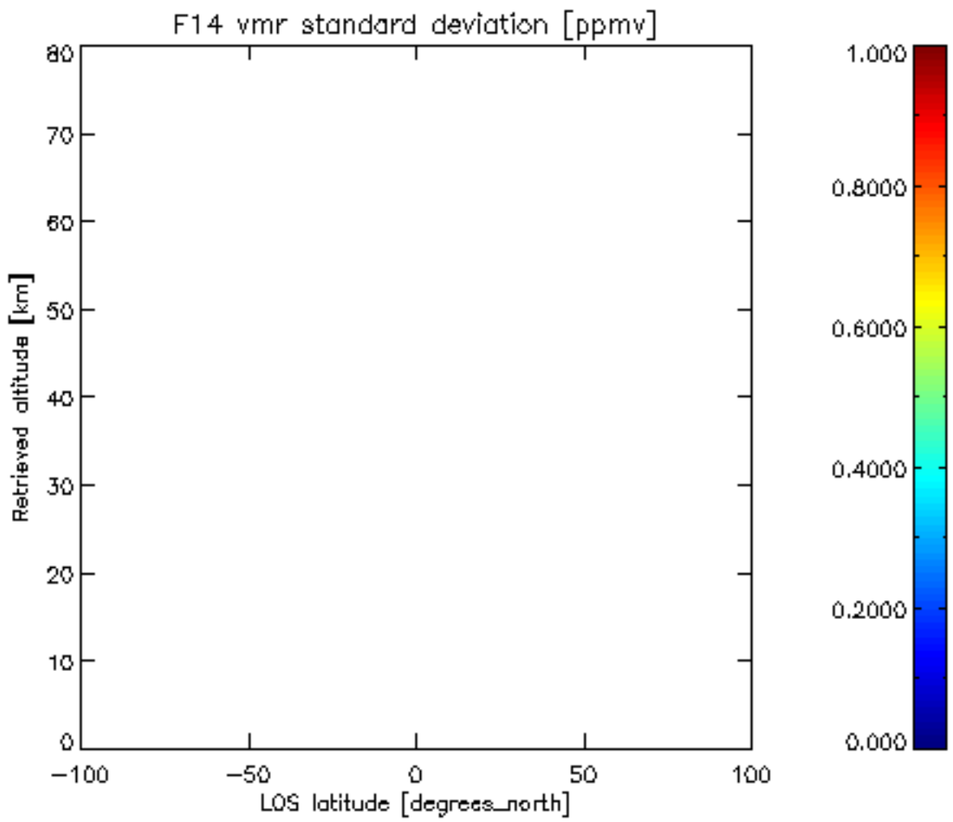

CCL4 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

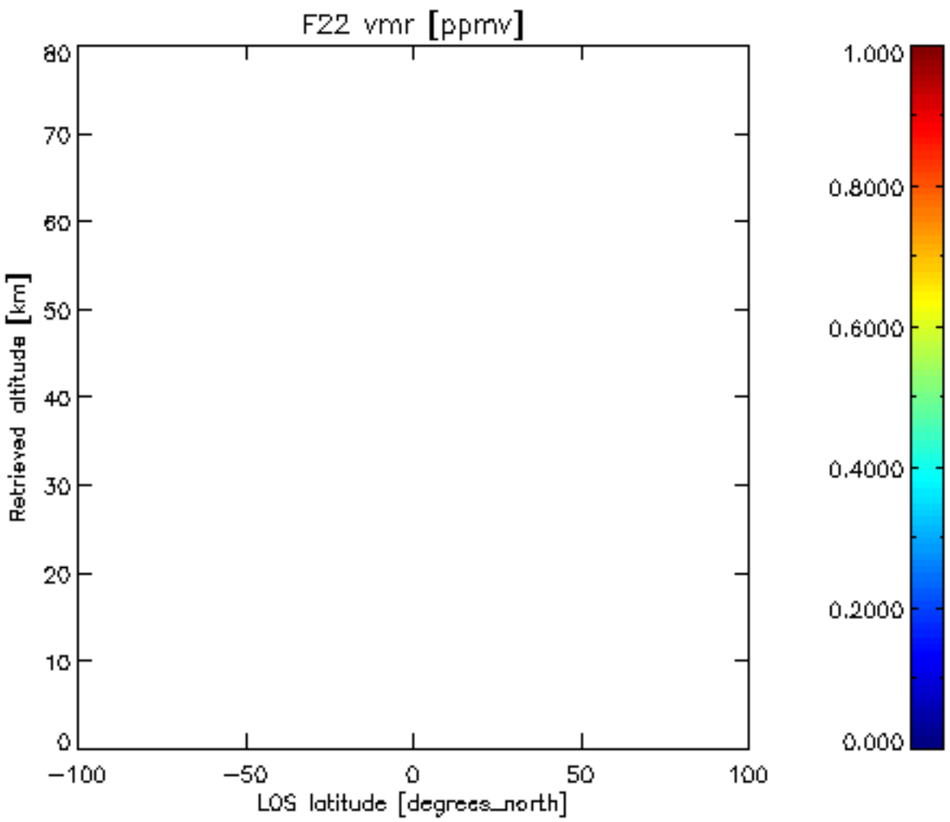

CCL4 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000

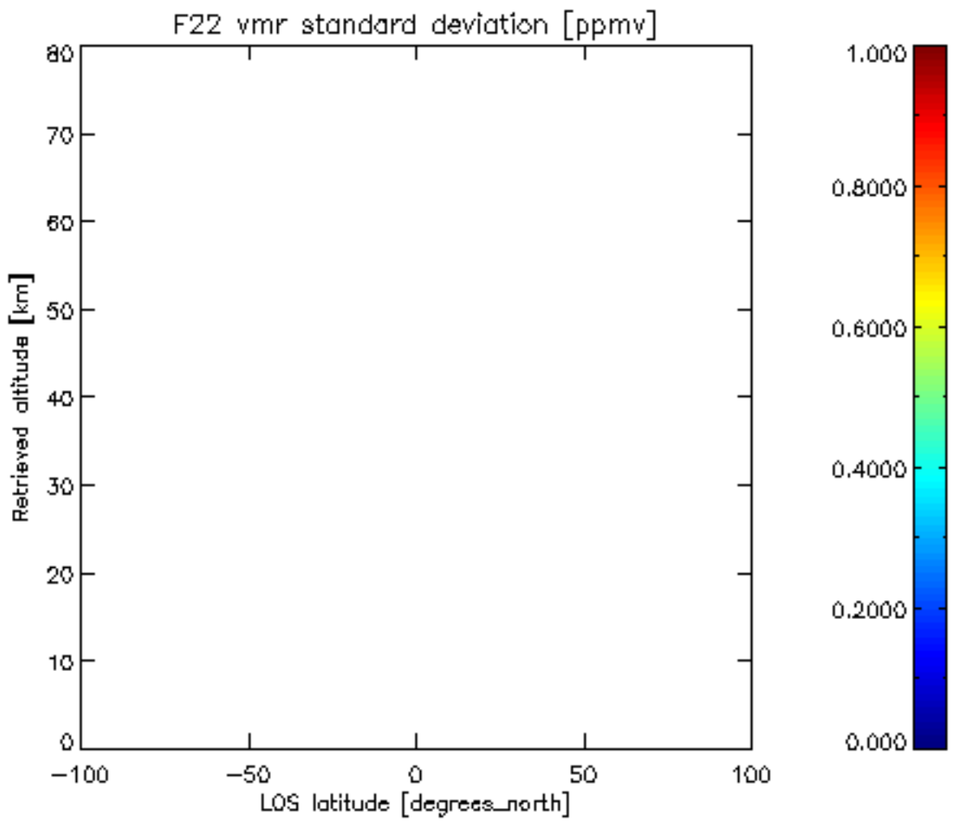

HCN vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


HCN vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


F14 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


F14 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


F22 vmr [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000


F22 vmr standard deviation [ppmv]
Retrieved altitude [km]
LOS latitude [degrees_north]
80
70
60
50
40
30
20
10
0
−100
−50
0
50
100
1.000
0.8000
0.6000
0.4000
0.2000
0.000