GOMOS Level 2 Daily Report

SUMMARY

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1. General info

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P).
It is intended to monitor some important parameters that will impact the quality of these products.
A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	19APR2013 12:04:54
Data source version	GOMOS/6.01
Start time of products	25-03-2003 (25MAR2003 00:00:00)
Stop time of products	26-03-2003 (26MAR2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	47
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

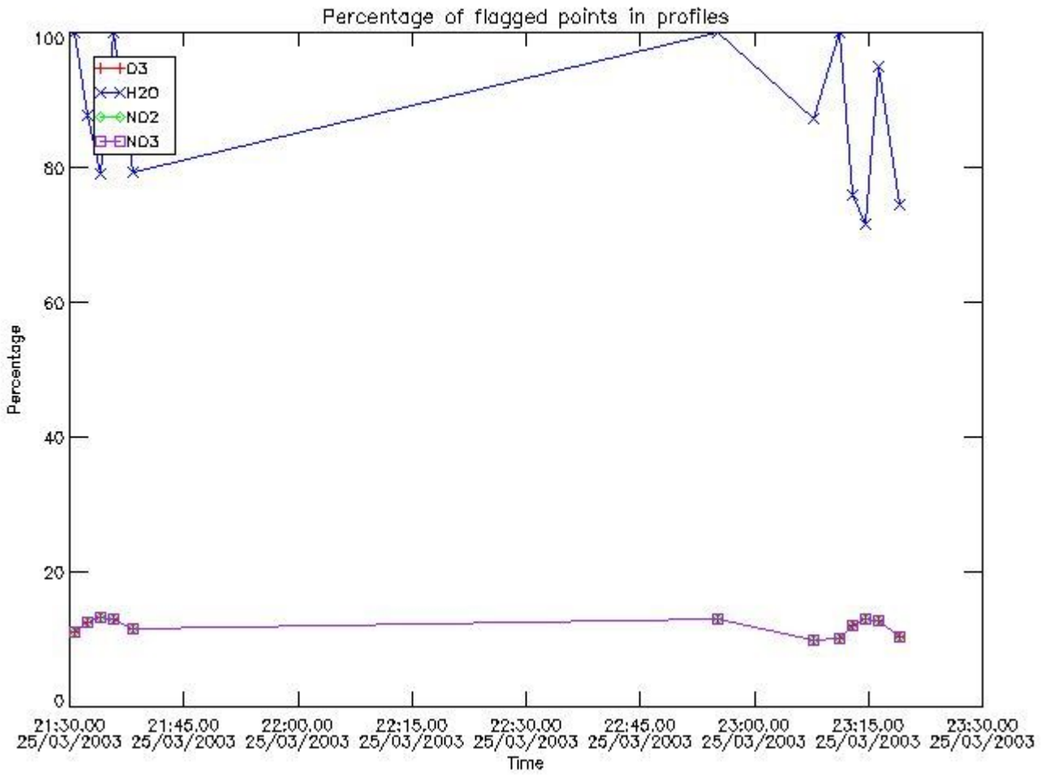
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030325_213036_000000512015_00015_05580_5535.N1	25-MAR-2003 21:30:36	Dark	51.000	85	Kap Sco	2.4070	28000.	102	5580	No
2	GOM_NL__2PRFIN20030325_213222_000000412015_00015_05580_5536.N1	25-MAR-2003 21:32:22	Dark	41.000	141	Bet Ara	2.8400	4600.0	82	5580	No
3	GOM_NL__2PRFIN20030325_213402_000000392015_00015_05580_5537.N1	25-MAR-2003 21:34:02	Dark	38.500	43	Alp TrA	1.9100	4250.0	77	5580	No
4	GOM_NL__2PRFIN20030325_213543_000000392015_00015_05580_5538.N1	25-MAR-2003 21:35:43	Dark	39.000	134	Bet TrA	2.8100	6600.0	78	5580	No
5	GOM_NL__2PRFIN20030325_213826_000000442015_00015_05580_5539.N1	25-MAR-2003 21:38:26	Dark	44.000	4	Alp1Cen	-0.010000	5800.0	88	5580	No
6	GOM_NL__2PRFIN20030325_214104_000000452015_00015_05580_5540.N1	25-MAR-2003 21:41:04	Straylight	44.500	12	Alp1Cru	0.77500	30000.	89	5580	No
7	GOM_NL__2PRFIN20030325_214227_000000462015_00015_05580_5541.N1	25-MAR-2003 21:42:27	Straylight	45.500	26	Gam Cru	1.6240	2900.0	91	5580	No
8	GOM_NL__2PRFIN20030325_214419_000000412015_00015_05580_5542.N1	25-MAR-2003 21:44:19	Straylight	40.500	64	Gam Cen	2.2000	10600.	81	5580	No
9	GOM_NL__2PRFIN20030325_215157_000000502015_00015_05580_5543.N1	25-MAR-2003 21:51:57	Straylight	49.500	106	9Bet Crv	2.6480	5600.0	99	5580	No
10	GOM_NL__2PRFIN20030325_215402_000000442015_00015_05580_5544.N1	25-MAR-2003 21:54:02	Twi_and_stray	43.500	100	4Gam Crv	2.5800	13100.	87	5580	No
11	GOM_NL__2PRFIN20030325_215609_000000722015_00015_05580_5545.N1	25-MAR-2003 21:56:09	Bright	71.500	15	67Alp Vir	0.97600	28000.	143	5580	No
12	GOM_NL__2PRFIN20030325_215935_000000492015_00015_05580_5546.N1	25-MAR-2003 21:59:35	Bright	48.500	121	29Gam Vir	2.7400	7200.0	97	5580	No
13	GOM_NL__2PRFIN20030325_220320_000000382015_00015_05580_5547.N1	25-MAR-2003 22:03:20	Bright	37.500	22	32Alp Leo	1.3600	15200.	75	5580	No
14	GOM_NL__2PRFIN20030325_220526_000000372015_00015_05580_5548.N1	25-MAR-2003 22:05:26	Bright	36.500	51	41Gam1Leo	2.0100	4500.0	73	5580	No
15	GOM_NL__2PRFIN20030325_220650_000000352015_00015_05580_5549.N1	25-MAR-2003 22:06:50	Bright	35.000	166	17Eps Leo	2.9800	6000.0	70	5580	No
16	GOM_NL__2PRFIN20030325_221234_000000382015_00015_05580_5550.N1	25-MAR-2003 22:12:34	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	5580	No
17	GOM_NL__2PRFIN20030325_221552_000000362015_00015_05580_5551.N1	25-MAR-2003 22:15:52	Bright	35.500	82	48Bet UMa	2.3650	10600.	71	5580	No
18	GOM_NL__2PRFIN20030325_221723_000000372015_00015_05580_5552.N1	25-MAR-2003 22:17:23	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	5580	No
19	GOM_NL__2PRFIN20030325_221854_000000462015_00015_05580_5553.N1	25-MAR-2003 22:18:54	Bright	45.500	55	79Zet UMa	2.0600	10200.	91	5580	No
20	GOM_NL__2PRFIN20030325_222105_000000752015_00015_05580_5554.N1	25-MAR-2003 22:21:05	Bright	75.000	180	27Gam Boo	3.0400	8000.0	150	5580	No
21	GOM_NL__2PRFIN20030325_222406_000000382015_00015_05580_5555.N1	25-MAR-2003 22:24:06	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	5580	No
22	GOM_NL__2PRFIN20030325_222731_000000492015_00015_05580_5556.N1	25-MAR-2003 22:27:31	Bright	49.000	119	14Eta Dra	2.7270	4700.0	98	5580	No
23	GOM_NL__2PRFIN20030325_223811_000000412015_00015_05580_5557.N1	25-MAR-2003 22:38:11	Bright	40.500	19	50Alp Cyg	1.2460	10500.	81	5580	No
24	GOM_NL__2PRFIN20030325_223947_000000422015_00015_05580_5558.N1	25-MAR-2003 22:39:47	Bright	42.000	66	37Gam Cyg	2.2080	5900.0	84	5580	No
25	GOM_NL__2PRFIN20030325_224140_000000402015_00015_05580_5559.N1	25-MAR-2003 22:41:40	Bright	39.500	92	53Eps Cyg	2.5000	4500.0	79	5580	No
26	GOM_NL__2PRFIN20030325_225051_000000622015_00015_05580_5560.N1	25-MAR-2003 22:50:51	Straylight	61.500	11	53Alp Aql	0.76500	8000.0	123	5580	No
27	GOM_NL__2PRFIN20030325_225508_000000402015_00015_05580_5561.N1	25-MAR-2003 22:55:08	Dark	39.500	142	49Del Cap	2.8500	8900.0	79	5580	No
28	GOM_NL__2PRFIN20030325_230745_000000512015_00015_05580_5562.N1	25-MAR-2003 23:07:45	Dark	51.000	38	20Eps Sgr	1.8360	11000.	102	5580	No
29	GOM_NL__2PRFIN20030325_231112_000000512015_00016_05581_6079.N1	25-MAR-2003 23:11:12	Dark	50.500	85	Kap Sco	2.4070	28000.	101	5581	No
30	GOM_NL__2PRFIN20030325_231258_000000422015_00016_05581_6080.N1	25-MAR-2003 23:12:58	Dark	42.000	141	Bet Ara	2.8400	4600.0	84	5581	No
31	GOM_NL__2PRFIN20030325_231438_000000392015_00016_05581_6081.N1	25-MAR-2003 23:14:38	Dark	39.000	43	Alp TrA	1.9100	4250.0	78	5581	No
32	GOM_NL__2PRFIN20030325_231619_000000402015_00016_05581_6082.N1	25-MAR-2003 23:16:19	Dark	40.000	134	Bet TrA	2.8100	6600.0	80	5581	No
33	GOM_NL__2PRFIN20030325_231902_000000502015_00016_05581_6083.N1	25-MAR-2003 23:19:02	Dark	49.500	4	Alp1Cen	-0.010000	5800.0	99	5581	No
34	GOM_NL__2PRFIN20030325_232140_000000442015_00016_05581_6084.N1	25-MAR-2003 23:21:40	Straylight	44.000	12	Alp1Cru	0.77500	30000.	88	5581	No
35	GOM_NL__2PRFIN20030325_232303_000000442015_00016_05581_6085.N1	25-MAR-2003 23:23:03	Straylight	44.000	26	Gam Cru	1.6240	2900.0	88	5581	No
36	GOM_NL__2PRFIN20030325_232455_000000422015_00016_05581_6086.N1	25-MAR-2003 23:24:55	Straylight	41.500	64	Gam Cen	2.2000	10600.	83	5581	No
37	GOM_NL__2PRFIN20030325_233233_000000472015_00016_05581_6087.N1	25-MAR-2003 23:32:33	Straylight	46.500	106	9Bet Crv	2.6480	5600.0	93	5581	No
38	GOM_NL__2PRFIN20030325_233438_000000462015_00016_05581_6088.N1	25-MAR-2003 23:34:38	Twi_and_stray	46.000	100	4Gam Crv	2.5800	13100.	92	5581	No
39	GOM_NL__2PRFIN20030325_233645_000000722015_00016_05581_6089.N1	25-MAR-2003 23:36:45	Bright	72.000	15	67Alp Vir	0.97600	28000.	144	5581	No
40	GOM_NL__2PRFIN20030325_234010_000000492015_00016_05581_6090.N1	25-MAR-2003 23:40:10	Bright	49.000	121	29Gam Vir	2.7400	7200.0	98	5581	No
41	GOM_NL__2PRFIN20030325_234356_000000372015_00016_05581_6091.N1	25-MAR-2003 23:43:56	Bright	37.000	22	32Alp Leo	1.3600	15200.	74	5581	No
42	GOM_NL__2PRFIN20030325_234602_000000362015_00016_05581_6092.N1	25-MAR-2003 23:46:02	Bright	36.000	51	41Gam1Leo	2.0100	4500.0	72	5581	No

43	GOM_NL__2PRFIN20030325_234726_000000352015_00016_05581_6093.N1	25-MAR-2003 23:47:26	Bright	35.000	166	17Eps Leo	2.9800	6000.0	70	5581	No
44	GOM_NL__2PRFIN20030325_235309_000000372015_00016_05581_6094.N1	25-MAR-2003 23:53:09	Bright	37.000	174	52Psi UMa	3.0040	4400.0	74	5581	No
45	GOM_NL__2PRFIN20030325_235627_000000372015_00016_05581_6095.N1	25-MAR-2003 23:56:27	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	5581	No
46	GOM_NL__2PRFIN20030325_235759_000000392015_00016_05581_6096.N1	25-MAR-2003 23:57:59	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	5581	No
47	GOM_NL__2PRFIN20030325_235929_000000462015_00016_05581_6097.N1	25-MAR-2003 23:59:29	Bright	45.500	55	79Zet UMa	2.0600	10200.	91	5581	No

3. Quality information per product

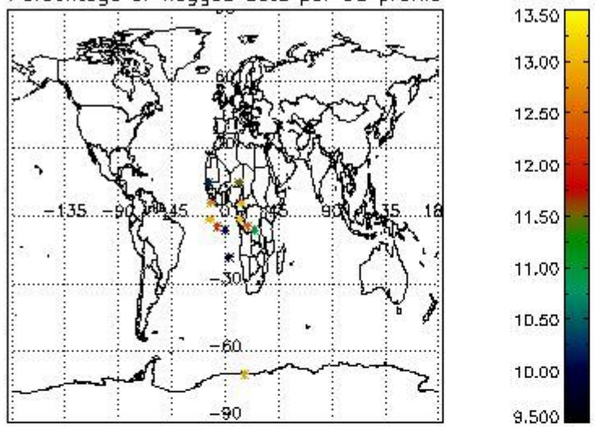
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

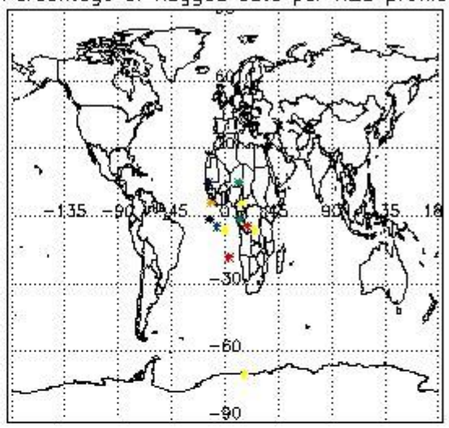


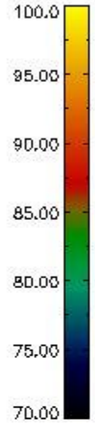
3.2 Plot quality information per product (world map)

Percentage of flagged data per O3 profile

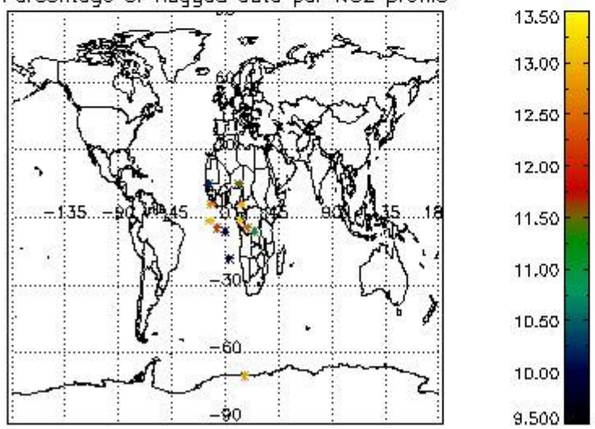


Percentage of flagged data per H2O profile

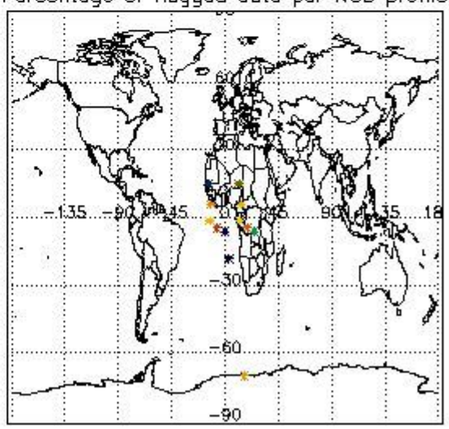


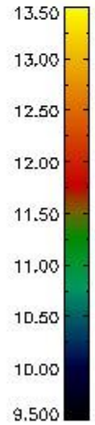


Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



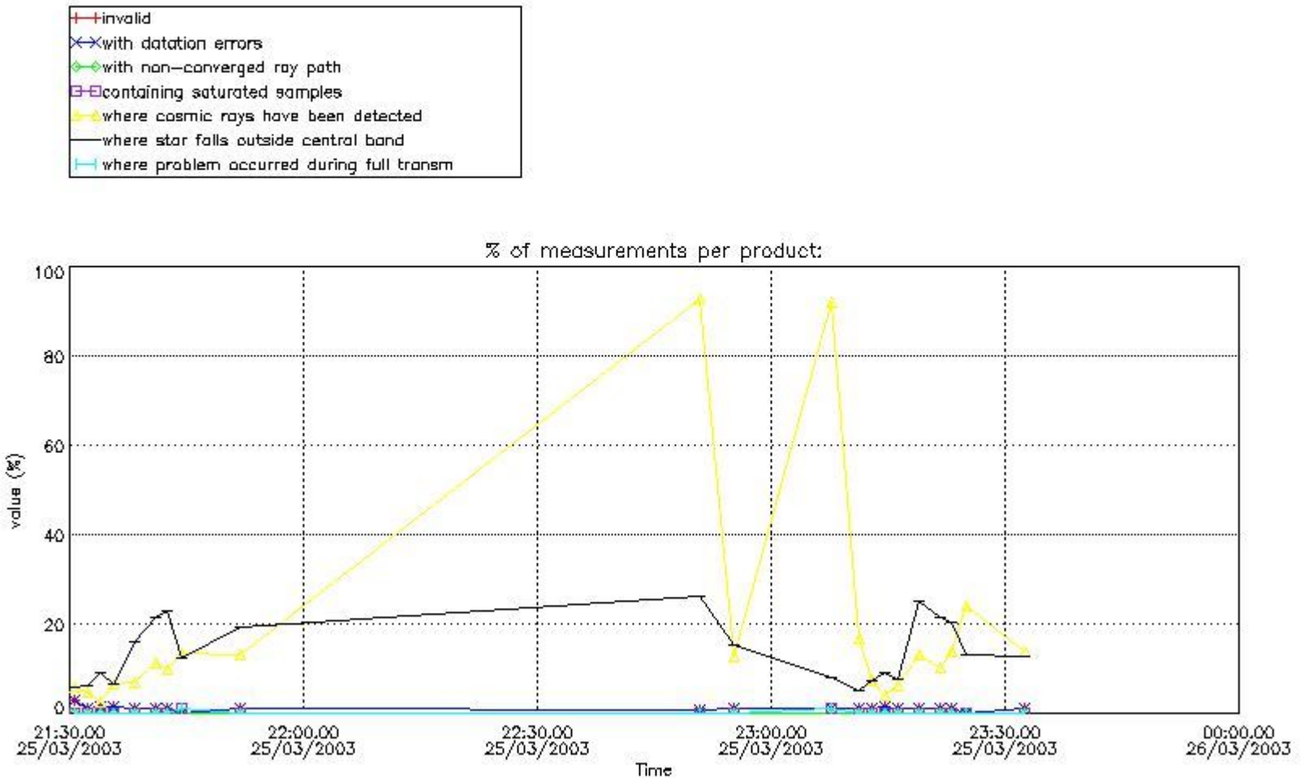


4. Level 1 quality information per product

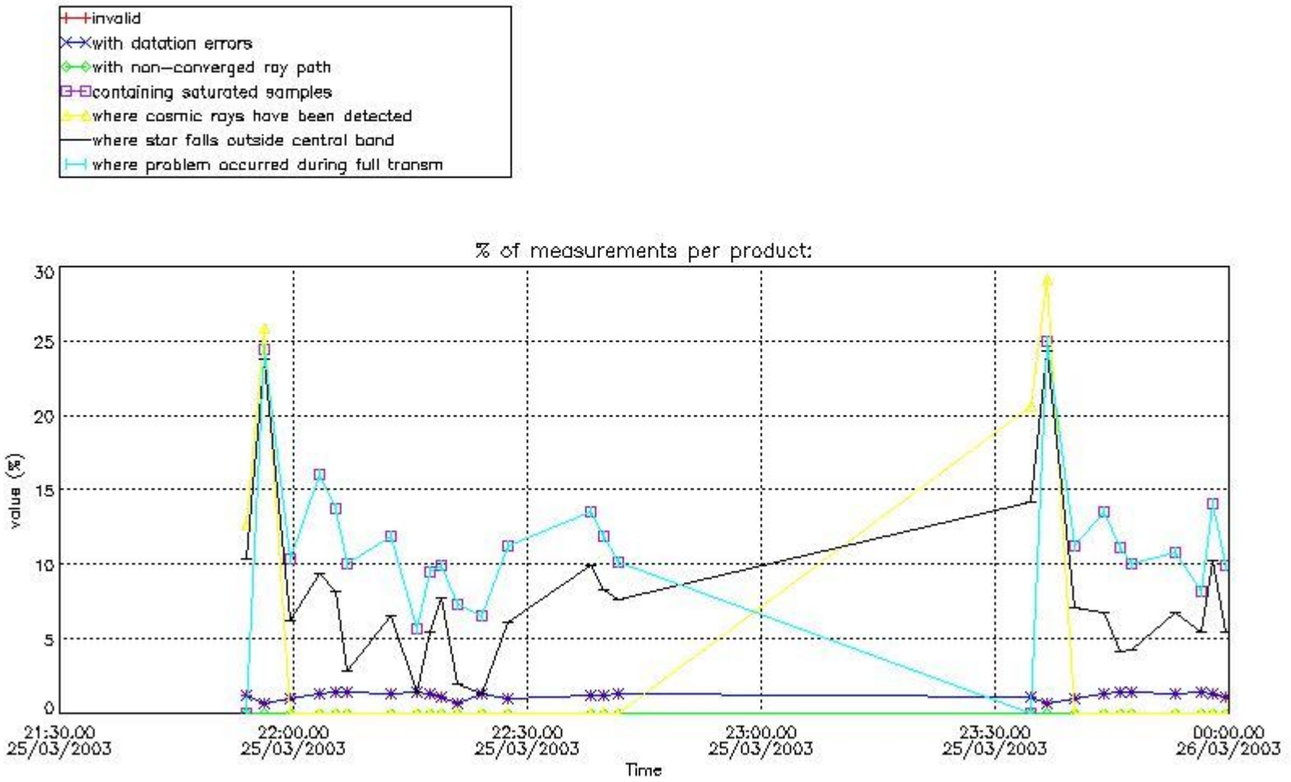
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processsing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) comming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes

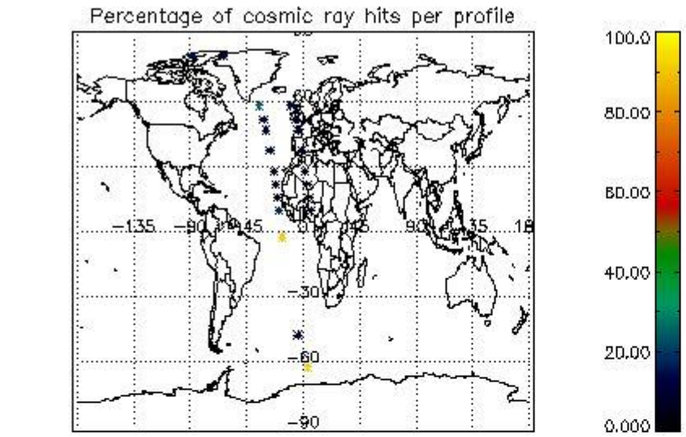


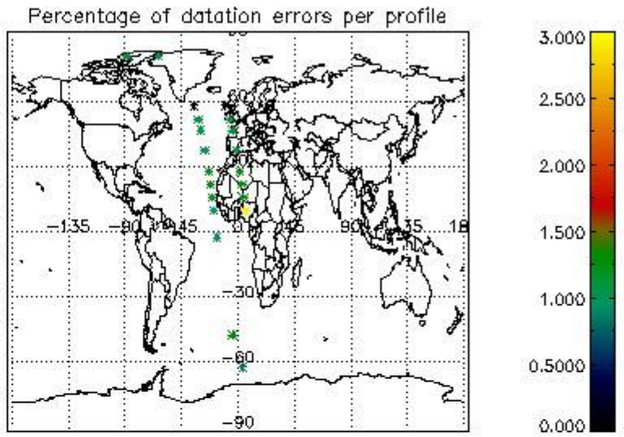
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

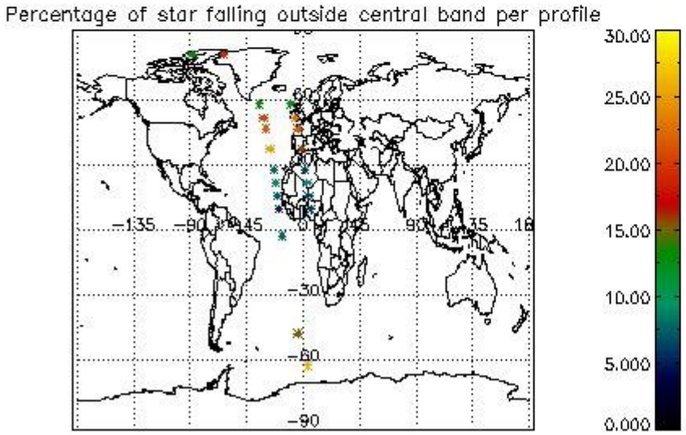


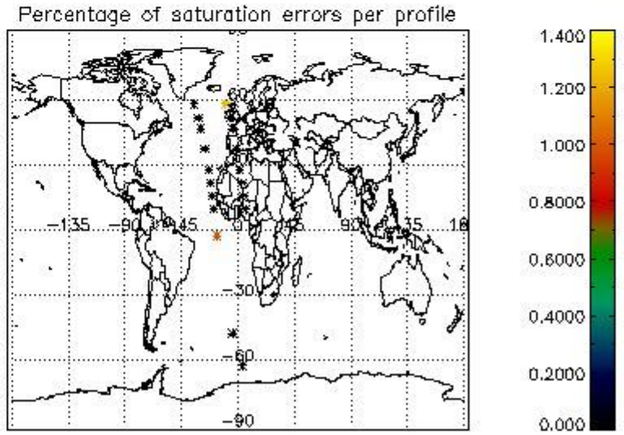
4.2 Plot quality information per product comming from level 1b processing (world map)

4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes



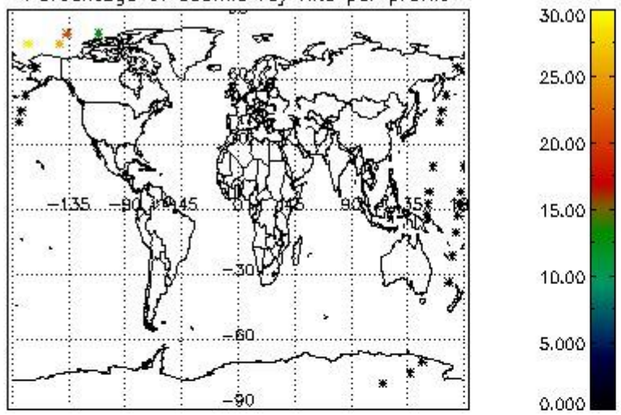




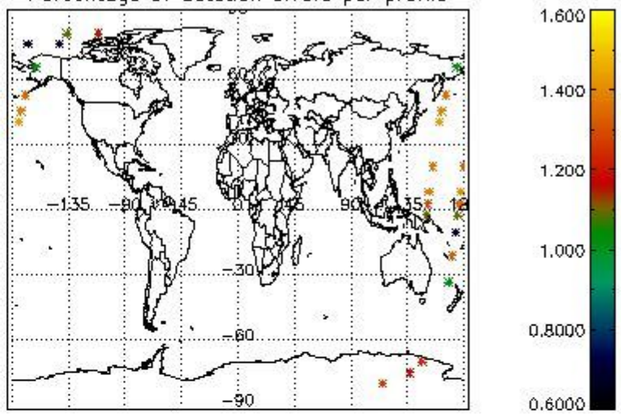


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

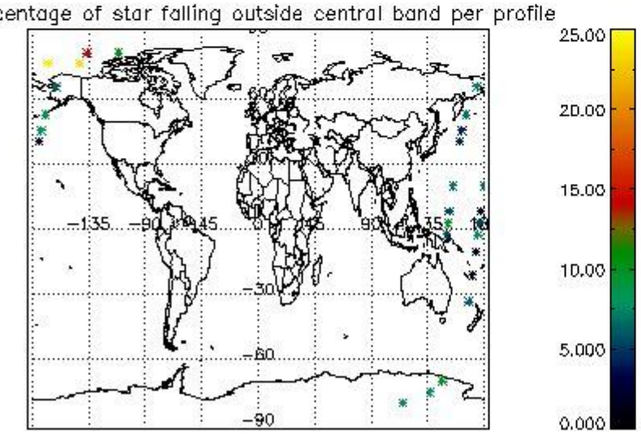
Percentage of cosmic ray hits per profile



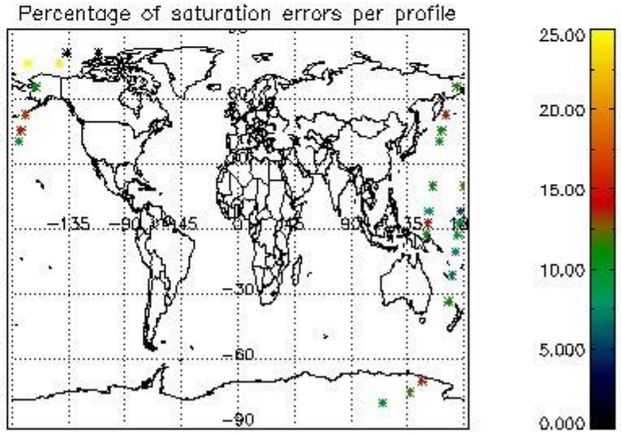
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile.
This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
    - Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

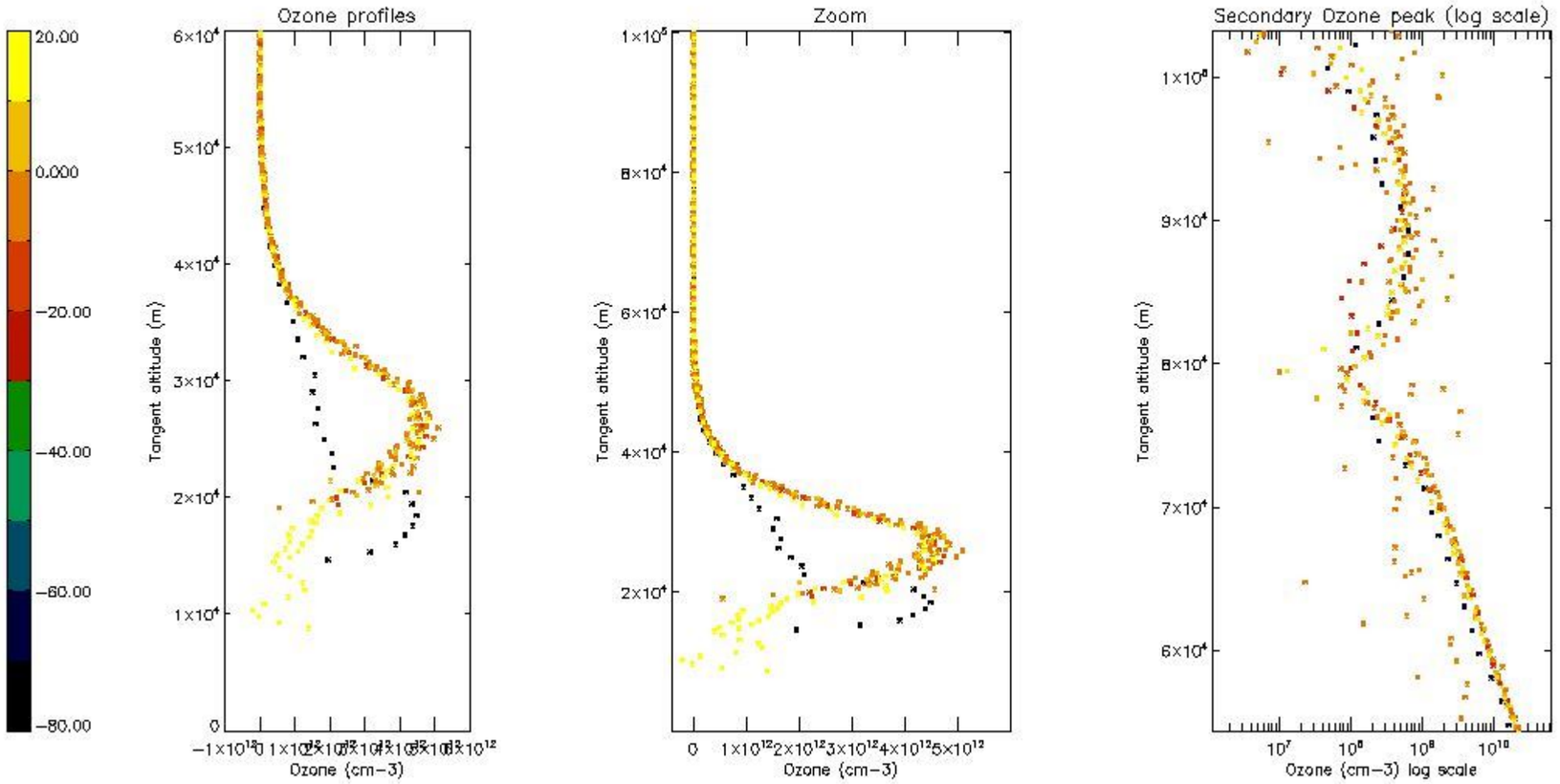
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	26
STD < 20	15

STD < 10	12
STD < 5	7

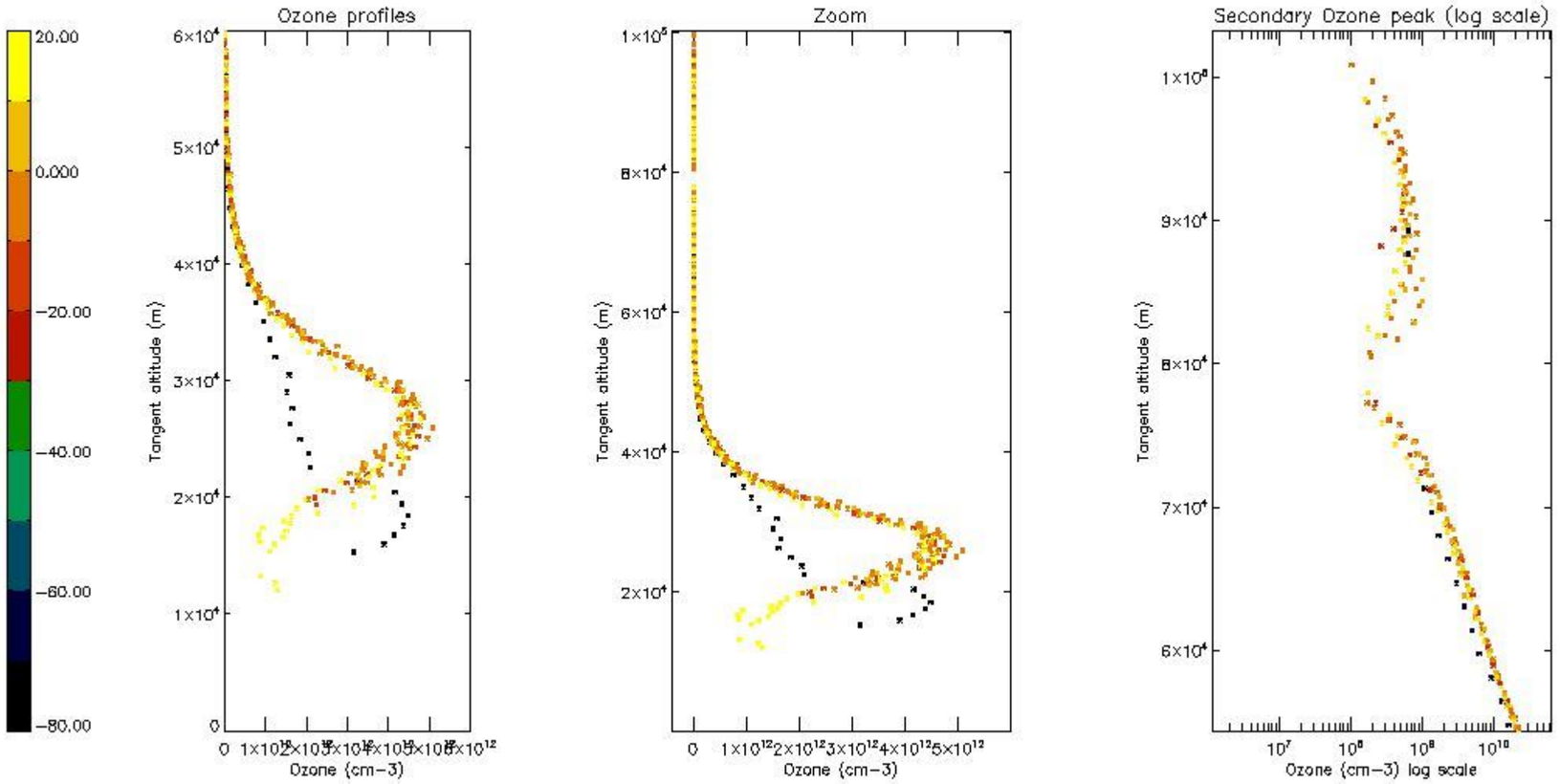
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



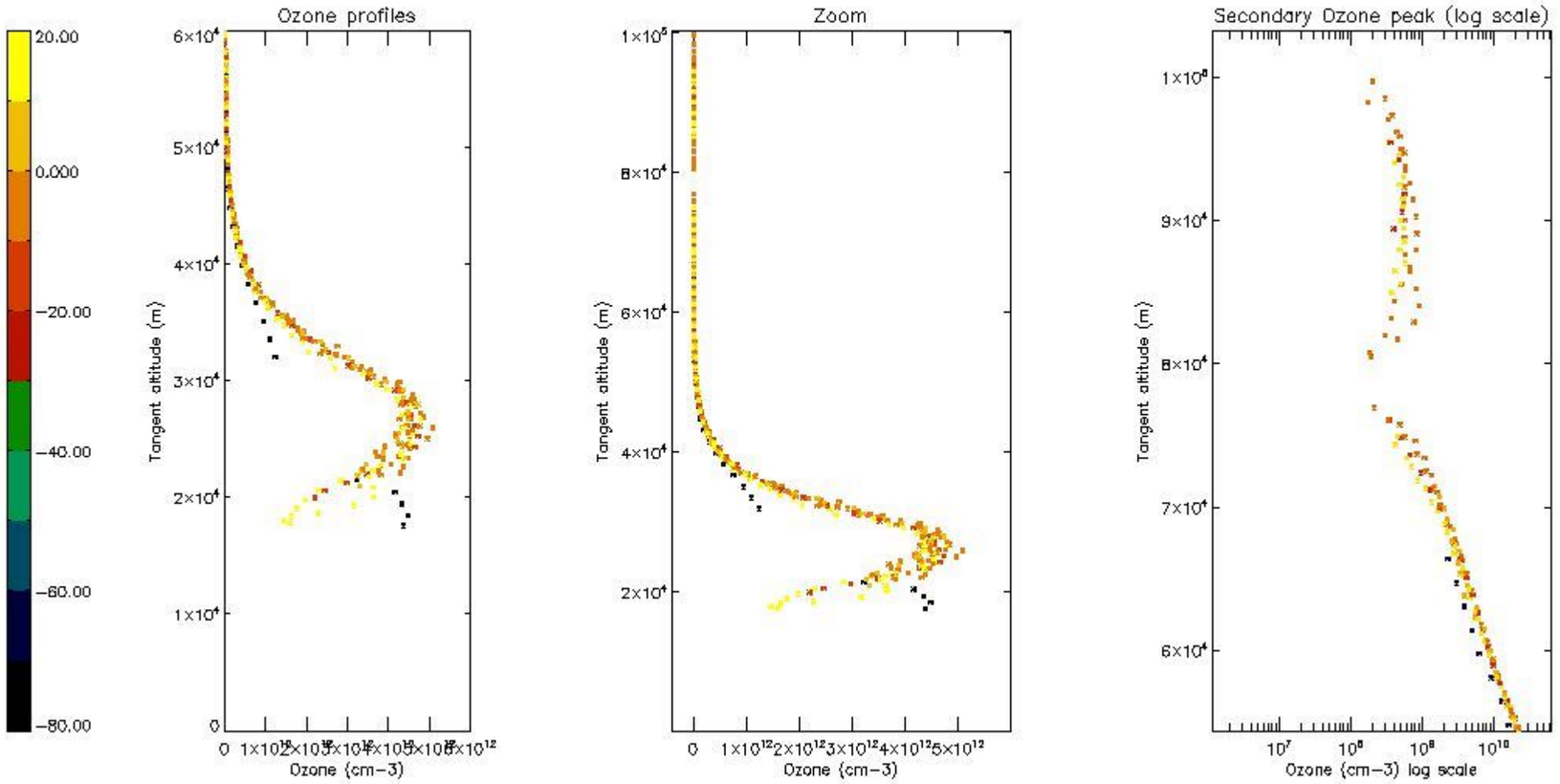
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



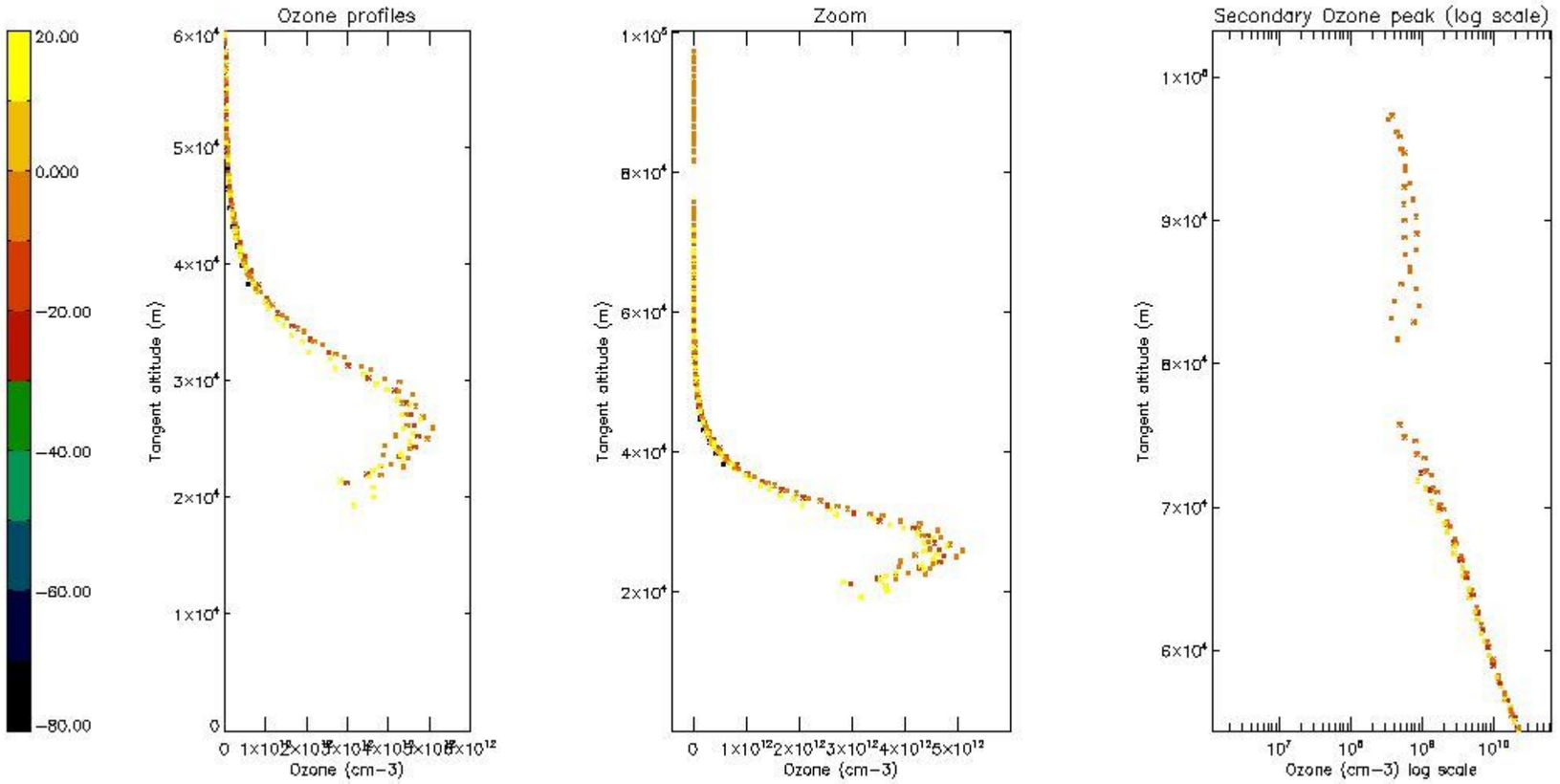
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



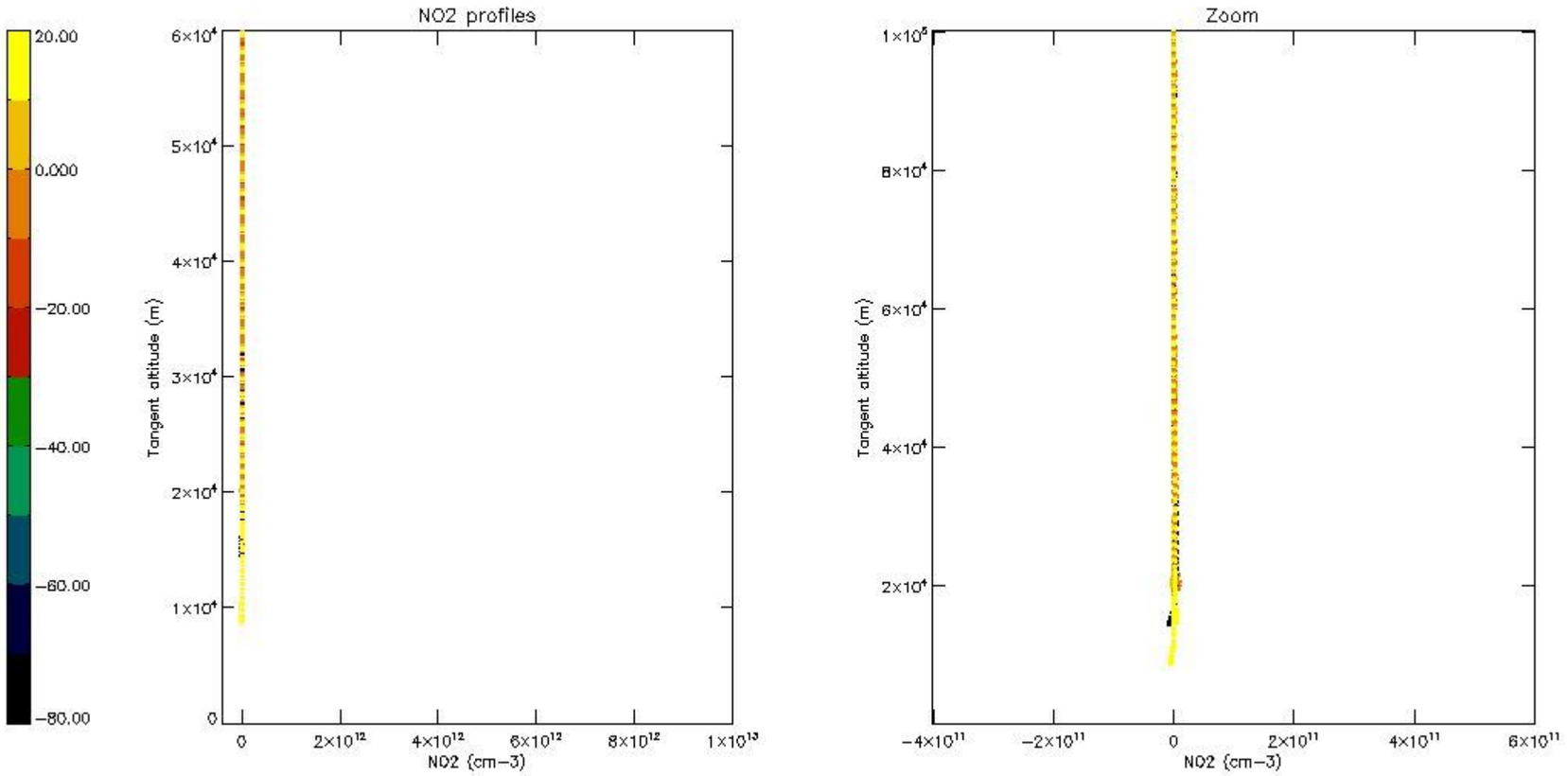
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



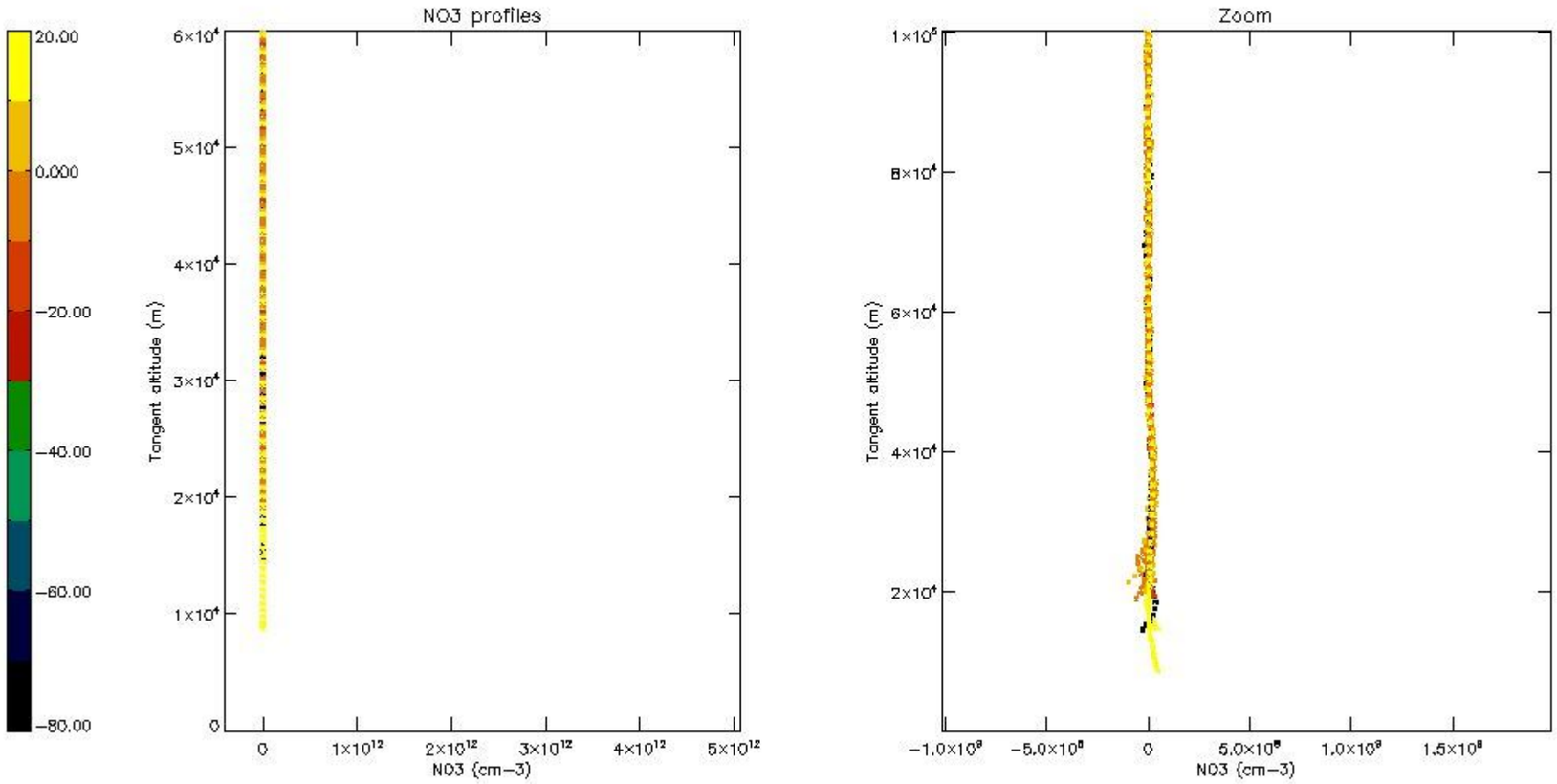
5.6 Plot NO2 profiles for all STD (dark without errors)

The colorbar represents the latitude.



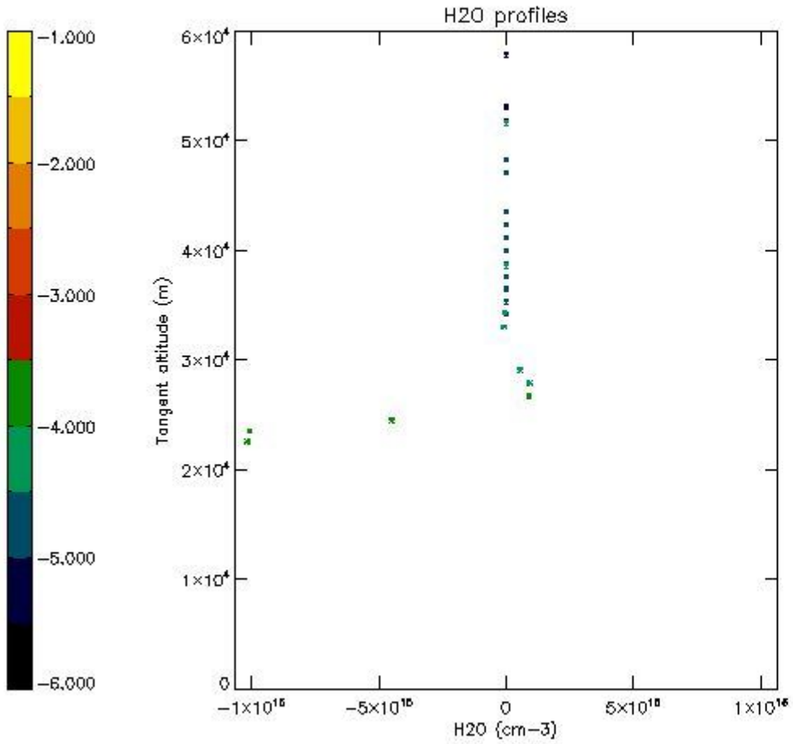
5.7 Plot NO3 profiles for all STD (dark without errors)

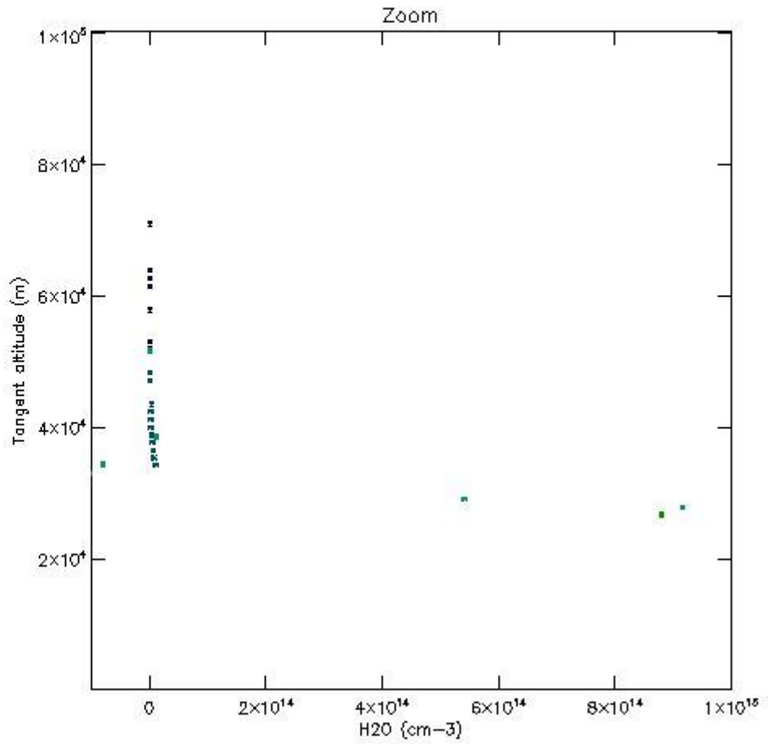
The colorbar represents the latitude.



5.8 Plot H2O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

The colorbar represents the latitude.





6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	25-MAR-2003 21:30:36
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	25-MAR-2003 21:30:36
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	25-MAR-2003 21:30:36

GOMOS Level 2 Daily Report

SUMMARY

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1. General info

This report presents the daily analysis on parameters extracted from GOMOS level 2 data (GOM_NL__2P).
It is intended to monitor some important parameters that will impact the quality of these products.
A list of level 2 products (and content) that have arrived during the reporting day to the PCF is also given.

Item	Value
Time of report generation	19APR2013 12:04:54
Data source version	GOMOS/6.01
Start time of products	25-03-2003 (25MAR2003 00:00:00)
Stop time of products	26-03-2003 (26MAR2003 00:00:00)
Store outputs in DB	Yes
Nb of level 2 prods	47
Nb of prods with errors	0

2. Summary of processed GOM_NL__2P products.

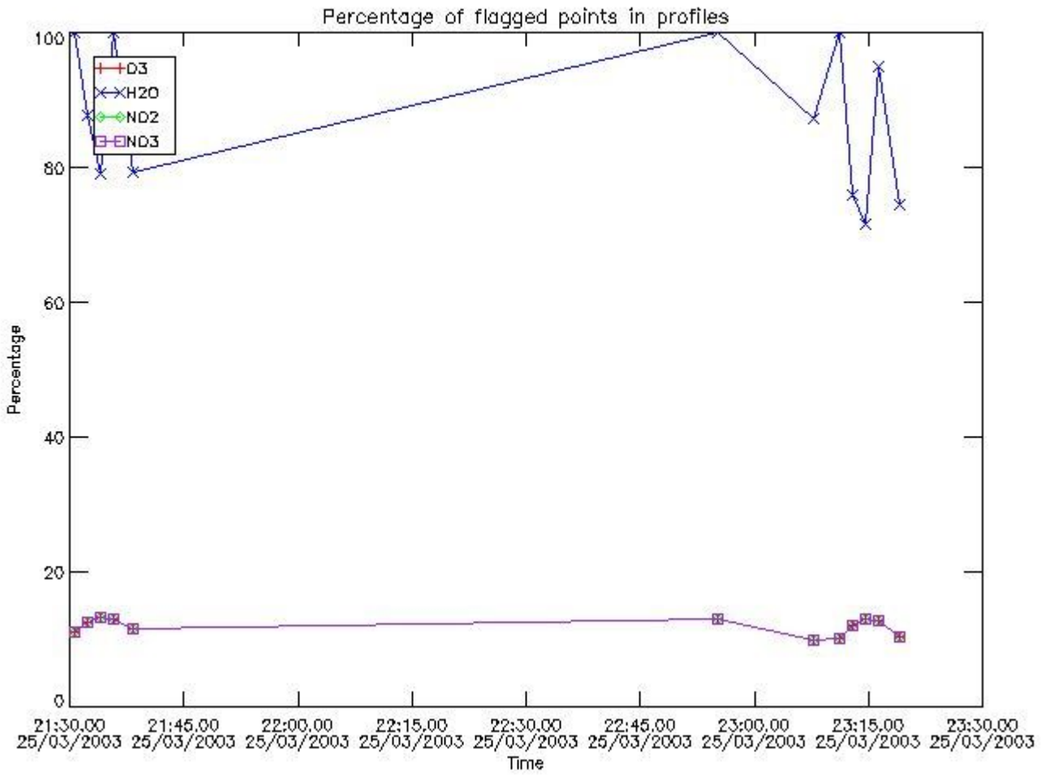
Nr	Filename	UTC Start time	Limb	Duration	Star Id	Star Name	Star Mag	Star Temp	Nb Meas	Orbit	Prod. error
1	GOM_NL__2PRFIN20030325_213036_000000512015_00015_05580_5535.N1	25-MAR-2003 21:30:36	Dark	51.000	85	Kap Sco	2.4070	28000.	102	5580	No
2	GOM_NL__2PRFIN20030325_213222_000000412015_00015_05580_5536.N1	25-MAR-2003 21:32:22	Dark	41.000	141	Bet Ara	2.8400	4600.0	82	5580	No
3	GOM_NL__2PRFIN20030325_213402_000000392015_00015_05580_5537.N1	25-MAR-2003 21:34:02	Dark	38.500	43	Alp TrA	1.9100	4250.0	77	5580	No
4	GOM_NL__2PRFIN20030325_213543_000000392015_00015_05580_5538.N1	25-MAR-2003 21:35:43	Dark	39.000	134	Bet TrA	2.8100	6600.0	78	5580	No
5	GOM_NL__2PRFIN20030325_213826_000000442015_00015_05580_5539.N1	25-MAR-2003 21:38:26	Dark	44.000	4	Alp1Cen	-0.010000	5800.0	88	5580	No
6	GOM_NL__2PRFIN20030325_214104_000000452015_00015_05580_5540.N1	25-MAR-2003 21:41:04	Straylight	44.500	12	Alp1Cru	0.77500	30000.	89	5580	No
7	GOM_NL__2PRFIN20030325_214227_000000462015_00015_05580_5541.N1	25-MAR-2003 21:42:27	Straylight	45.500	26	Gam Cru	1.6240	2900.0	91	5580	No
8	GOM_NL__2PRFIN20030325_214419_000000412015_00015_05580_5542.N1	25-MAR-2003 21:44:19	Straylight	40.500	64	Gam Cen	2.2000	10600.	81	5580	No
9	GOM_NL__2PRFIN20030325_215157_000000502015_00015_05580_5543.N1	25-MAR-2003 21:51:57	Straylight	49.500	106	9Bet Crv	2.6480	5600.0	99	5580	No
10	GOM_NL__2PRFIN20030325_215402_000000442015_00015_05580_5544.N1	25-MAR-2003 21:54:02	Twi_and_stray	43.500	100	4Gam Crv	2.5800	13100.	87	5580	No
11	GOM_NL__2PRFIN20030325_215609_000000722015_00015_05580_5545.N1	25-MAR-2003 21:56:09	Bright	71.500	15	67Alp Vir	0.97600	28000.	143	5580	No
12	GOM_NL__2PRFIN20030325_215935_000000492015_00015_05580_5546.N1	25-MAR-2003 21:59:35	Bright	48.500	121	29Gam Vir	2.7400	7200.0	97	5580	No
13	GOM_NL__2PRFIN20030325_220320_000000382015_00015_05580_5547.N1	25-MAR-2003 22:03:20	Bright	37.500	22	32Alp Leo	1.3600	15200.	75	5580	No
14	GOM_NL__2PRFIN20030325_220526_000000372015_00015_05580_5548.N1	25-MAR-2003 22:05:26	Bright	36.500	51	41Gam1Leo	2.0100	4500.0	73	5580	No
15	GOM_NL__2PRFIN20030325_220650_000000352015_00015_05580_5549.N1	25-MAR-2003 22:06:50	Bright	35.000	166	17Eps Leo	2.9800	6000.0	70	5580	No
16	GOM_NL__2PRFIN20030325_221234_000000382015_00015_05580_5550.N1	25-MAR-2003 22:12:34	Bright	38.000	174	52Psi UMa	3.0040	4400.0	76	5580	No
17	GOM_NL__2PRFIN20030325_221552_000000362015_00015_05580_5551.N1	25-MAR-2003 22:15:52	Bright	35.500	82	48Bet UMa	2.3650	10600.	71	5580	No
18	GOM_NL__2PRFIN20030325_221723_000000372015_00015_05580_5552.N1	25-MAR-2003 22:17:23	Bright	37.000	36	50Alp UMa	1.8000	6300.0	74	5580	No
19	GOM_NL__2PRFIN20030325_221854_000000462015_00015_05580_5553.N1	25-MAR-2003 22:18:54	Bright	45.500	55	79Zet UMa	2.0600	10200.	91	5580	No
20	GOM_NL__2PRFIN20030325_222105_000000752015_00015_05580_5554.N1	25-MAR-2003 22:21:05	Bright	75.000	180	27Gam Boo	3.0400	8000.0	150	5580	No
21	GOM_NL__2PRFIN20030325_222406_000000382015_00015_05580_5555.N1	25-MAR-2003 22:24:06	Bright	38.000	60	7Bet UMi	2.0810	3950.0	76	5580	No
22	GOM_NL__2PRFIN20030325_222731_000000492015_00015_05580_5556.N1	25-MAR-2003 22:27:31	Bright	49.000	119	14Eta Dra	2.7270	4700.0	98	5580	No
23	GOM_NL__2PRFIN20030325_223811_000000412015_00015_05580_5557.N1	25-MAR-2003 22:38:11	Bright	40.500	19	50Alp Cyg	1.2460	10500.	81	5580	No
24	GOM_NL__2PRFIN20030325_223947_000000422015_00015_05580_5558.N1	25-MAR-2003 22:39:47	Bright	42.000	66	37Gam Cyg	2.2080	5900.0	84	5580	No
25	GOM_NL__2PRFIN20030325_224140_000000402015_00015_05580_5559.N1	25-MAR-2003 22:41:40	Bright	39.500	92	53Eps Cyg	2.5000	4500.0	79	5580	No
26	GOM_NL__2PRFIN20030325_225051_000000622015_00015_05580_5560.N1	25-MAR-2003 22:50:51	Straylight	61.500	11	53Alp Aql	0.76500	8000.0	123	5580	No
27	GOM_NL__2PRFIN20030325_225508_000000402015_00015_05580_5561.N1	25-MAR-2003 22:55:08	Dark	39.500	142	49Del Cap	2.8500	8900.0	79	5580	No
28	GOM_NL__2PRFIN20030325_230745_000000512015_00015_05580_5562.N1	25-MAR-2003 23:07:45	Dark	51.000	38	20Eps Sgr	1.8360	11000.	102	5580	No
29	GOM_NL__2PRFIN20030325_231112_000000512015_00016_05581_6079.N1	25-MAR-2003 23:11:12	Dark	50.500	85	Kap Sco	2.4070	28000.	101	5581	No
30	GOM_NL__2PRFIN20030325_231258_000000422015_00016_05581_6080.N1	25-MAR-2003 23:12:58	Dark	42.000	141	Bet Ara	2.8400	4600.0	84	5581	No
31	GOM_NL__2PRFIN20030325_231438_000000392015_00016_05581_6081.N1	25-MAR-2003 23:14:38	Dark	39.000	43	Alp TrA	1.9100	4250.0	78	5581	No
32	GOM_NL__2PRFIN20030325_231619_000000402015_00016_05581_6082.N1	25-MAR-2003 23:16:19	Dark	40.000	134	Bet TrA	2.8100	6600.0	80	5581	No
33	GOM_NL__2PRFIN20030325_231902_000000502015_00016_05581_6083.N1	25-MAR-2003 23:19:02	Dark	49.500	4	Alp1Cen	-0.010000	5800.0	99	5581	No
34	GOM_NL__2PRFIN20030325_232140_000000442015_00016_05581_6084.N1	25-MAR-2003 23:21:40	Straylight	44.000	12	Alp1Cru	0.77500	30000.	88	5581	No
35	GOM_NL__2PRFIN20030325_232303_000000442015_00016_05581_6085.N1	25-MAR-2003 23:23:03	Straylight	44.000	26	Gam Cru	1.6240	2900.0	88	5581	No
36	GOM_NL__2PRFIN20030325_232455_000000422015_00016_05581_6086.N1	25-MAR-2003 23:24:55	Straylight	41.500	64	Gam Cen	2.2000	10600.	83	5581	No
37	GOM_NL__2PRFIN20030325_233233_000000472015_00016_05581_6087.N1	25-MAR-2003 23:32:33	Straylight	46.500	106	9Bet Crv	2.6480	5600.0	93	5581	No
38	GOM_NL__2PRFIN20030325_233438_000000462015_00016_05581_6088.N1	25-MAR-2003 23:34:38	Twi_and_stray	46.000	100	4Gam Crv	2.5800	13100.	92	5581	No
39	GOM_NL__2PRFIN20030325_233645_000000722015_00016_05581_6089.N1	25-MAR-2003 23:36:45	Bright	72.000	15	67Alp Vir	0.97600	28000.	144	5581	No
40	GOM_NL__2PRFIN20030325_234010_000000492015_00016_05581_6090.N1	25-MAR-2003 23:40:10	Bright	49.000	121	29Gam Vir	2.7400	7200.0	98	5581	No
41	GOM_NL__2PRFIN20030325_234356_000000372015_00016_05581_6091.N1	25-MAR-2003 23:43:56	Bright	37.000	22	32Alp Leo	1.3600	15200.	74	5581	No
42	GOM_NL__2PRFIN20030325_234602_000000362015_00016_05581_6092.N1	25-MAR-2003 23:46:02	Bright	36.000	51	41Gam1Leo	2.0100	4500.0	72	5581	No

43	GOM_NL__2PRFIN20030325_234726_000000352015_00016_05581_6093.N1	25-MAR-2003 23:47:26	Bright	35.000	166	17Eps Leo	2.9800	6000.0	70	5581	No
44	GOM_NL__2PRFIN20030325_235309_000000372015_00016_05581_6094.N1	25-MAR-2003 23:53:09	Bright	37.000	174	52Psi UMa	3.0040	4400.0	74	5581	No
45	GOM_NL__2PRFIN20030325_235627_000000372015_00016_05581_6095.N1	25-MAR-2003 23:56:27	Bright	36.500	82	48Bet UMa	2.3650	10600.	73	5581	No
46	GOM_NL__2PRFIN20030325_235759_000000392015_00016_05581_6096.N1	25-MAR-2003 23:57:59	Bright	39.000	36	50Alp UMa	1.8000	6300.0	78	5581	No
47	GOM_NL__2PRFIN20030325_235929_000000462015_00016_05581_6097.N1	25-MAR-2003 23:59:29	Bright	45.500	55	79Zet UMa	2.0600	10200.	91	5581	No

3. Quality information per product

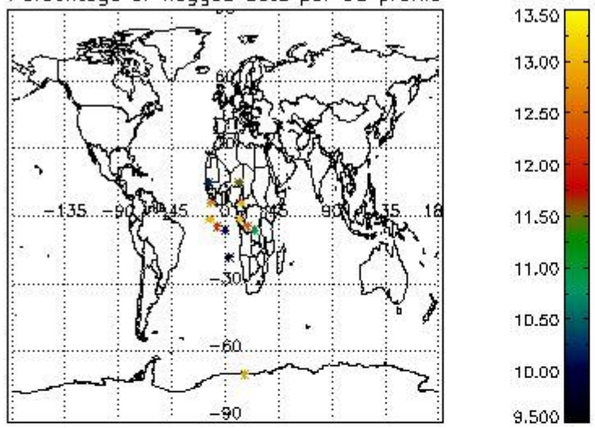
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

3.1 Plot quality information per product (time dependant)

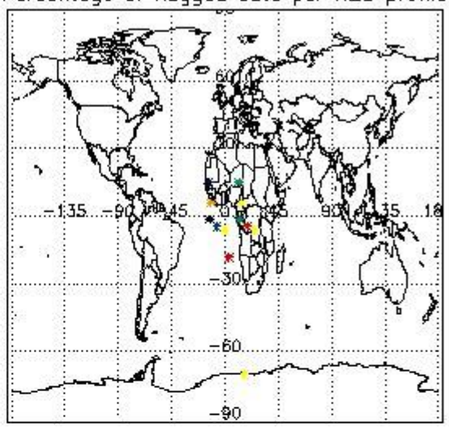


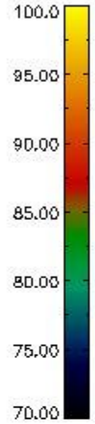
3.2 Plot quality information per product (world map)

Percentage of flagged data per O3 profile

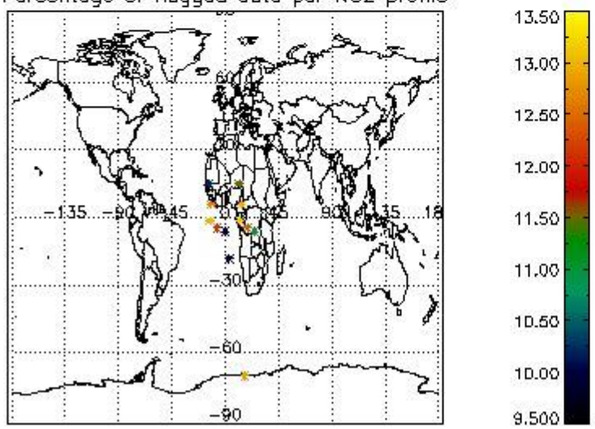


Percentage of flagged data per H2O profile

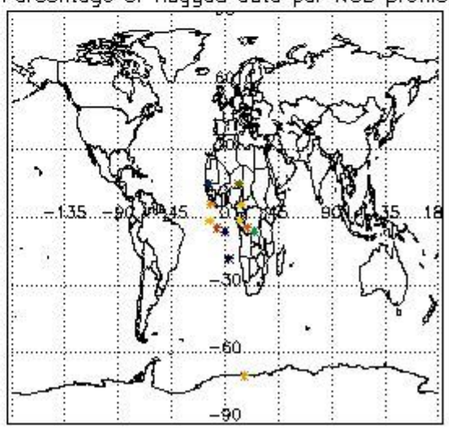


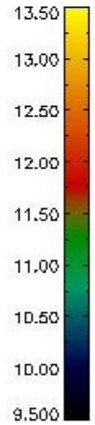


Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile



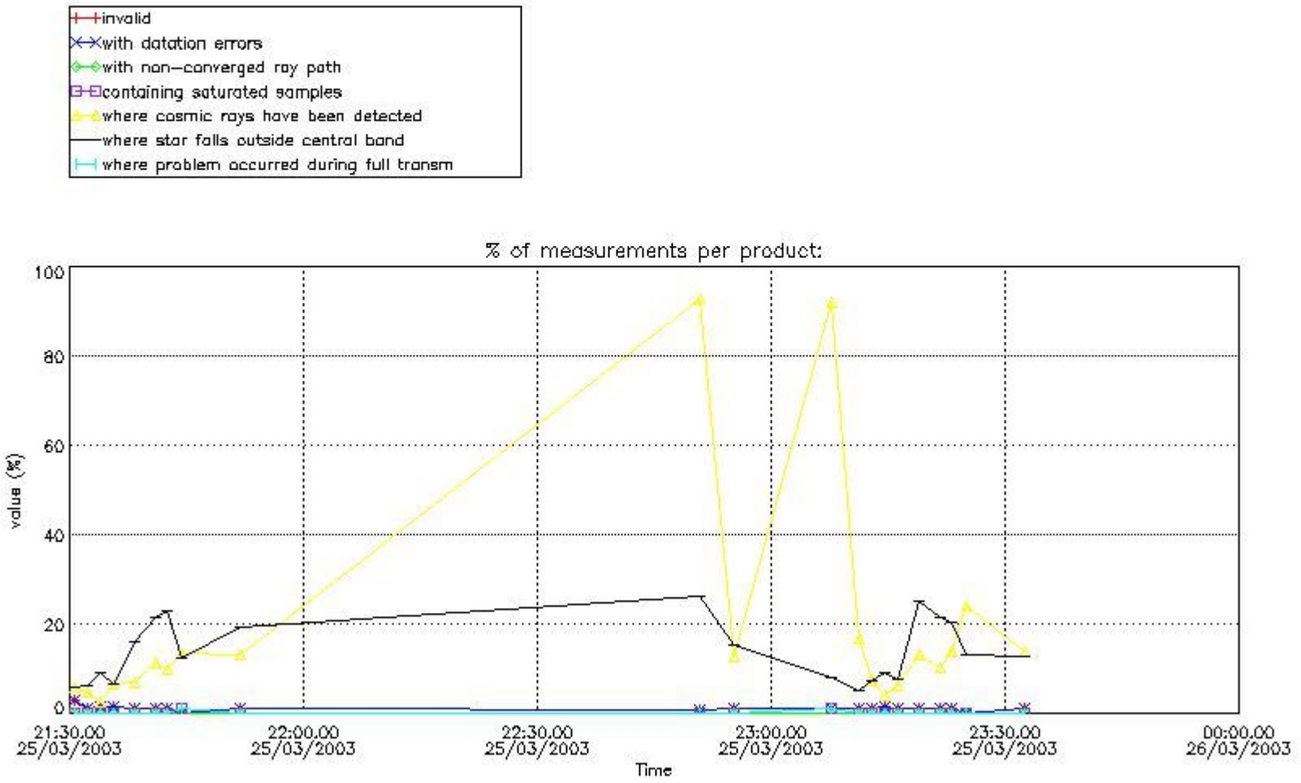


4. Level 1 quality information per product

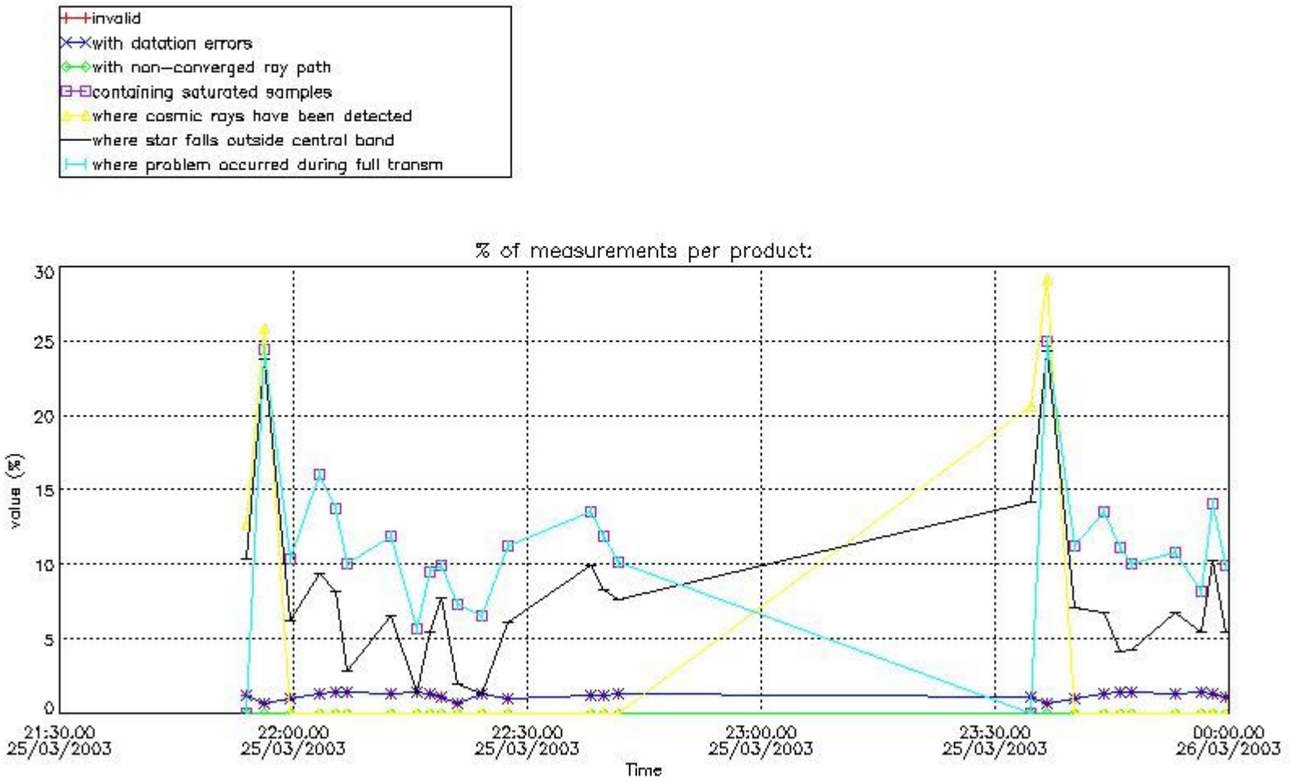
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processsing. Products without errors (error flag in the MPH set to "0") are used.

4.1 Plot quality information per product (time dependant) comming from level 1b processing

4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes

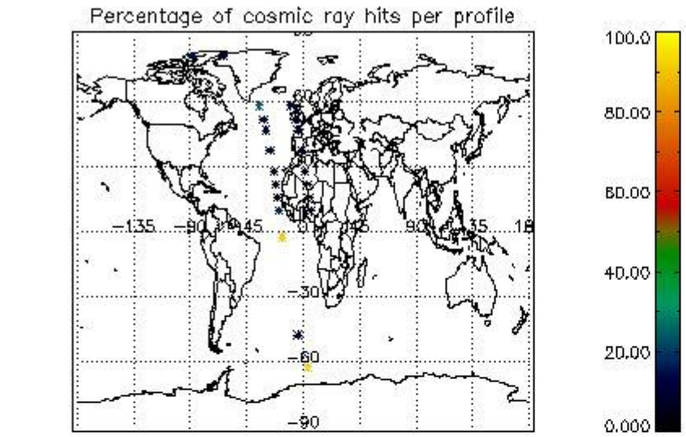


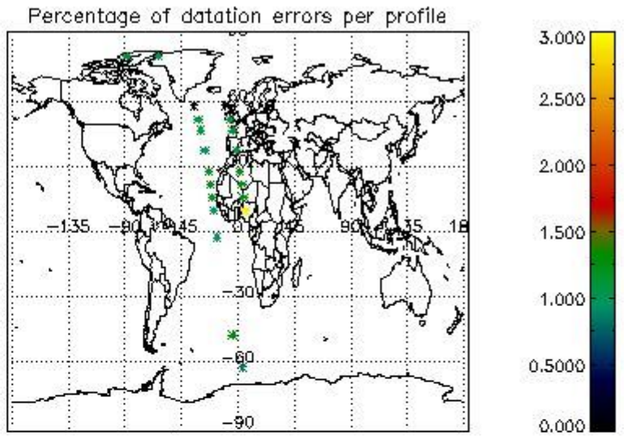
4.1.2 Plot level 1 quality information per product (time dependant): ENVISAT DESCENDING passes

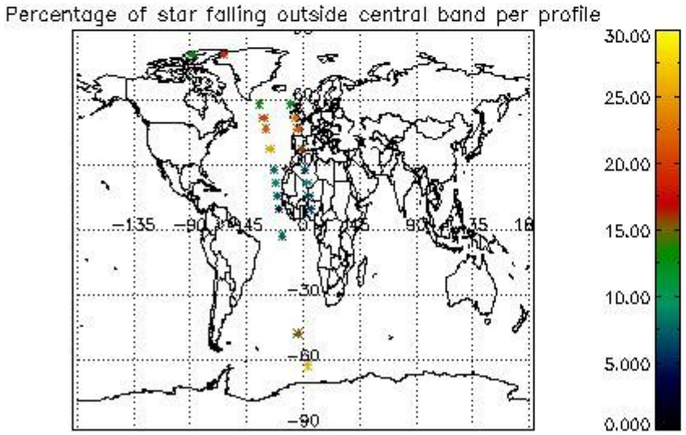


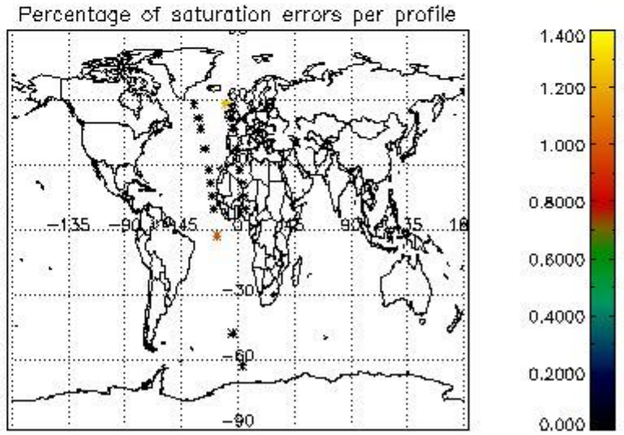
4.2 Plot quality information per product comming from level 1b processing (world map)

4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes



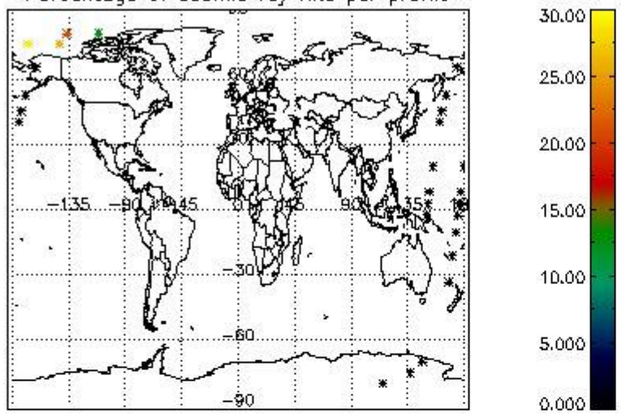




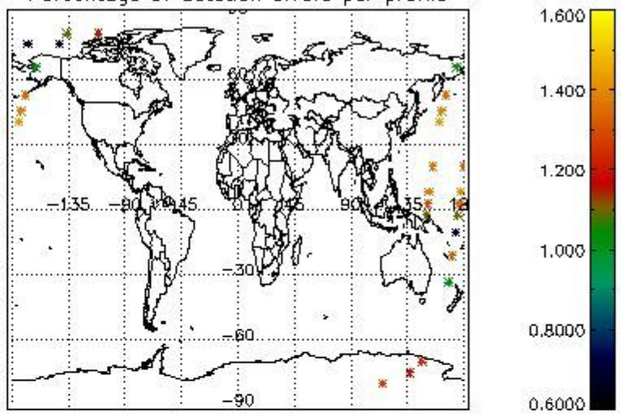


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

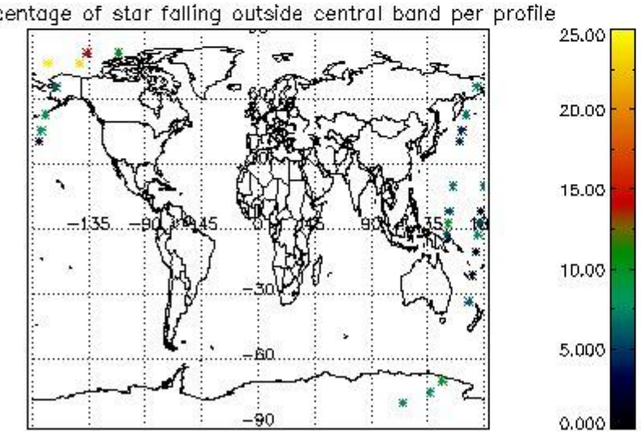
Percentage of cosmic ray hits per profile



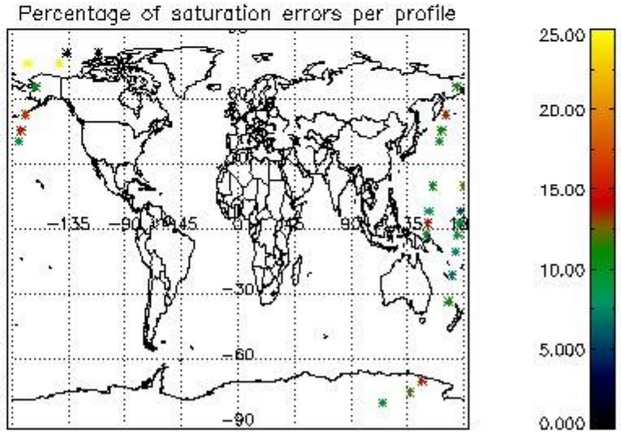
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



5. Trace gas profiles

5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile.
This information is written to the parameter GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/o3_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
- Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM_NL__2P/NL_SUMMARY_QUALITY/obs_ill_cond=0
- Products without fatal errors: GOM_NL__2P/MPH/PRODUCT_ERR=0
    - Valid point profile: GOM_NL__2P/NL_LOCAL_SPECIES_DENSITY/pcd(0)=0

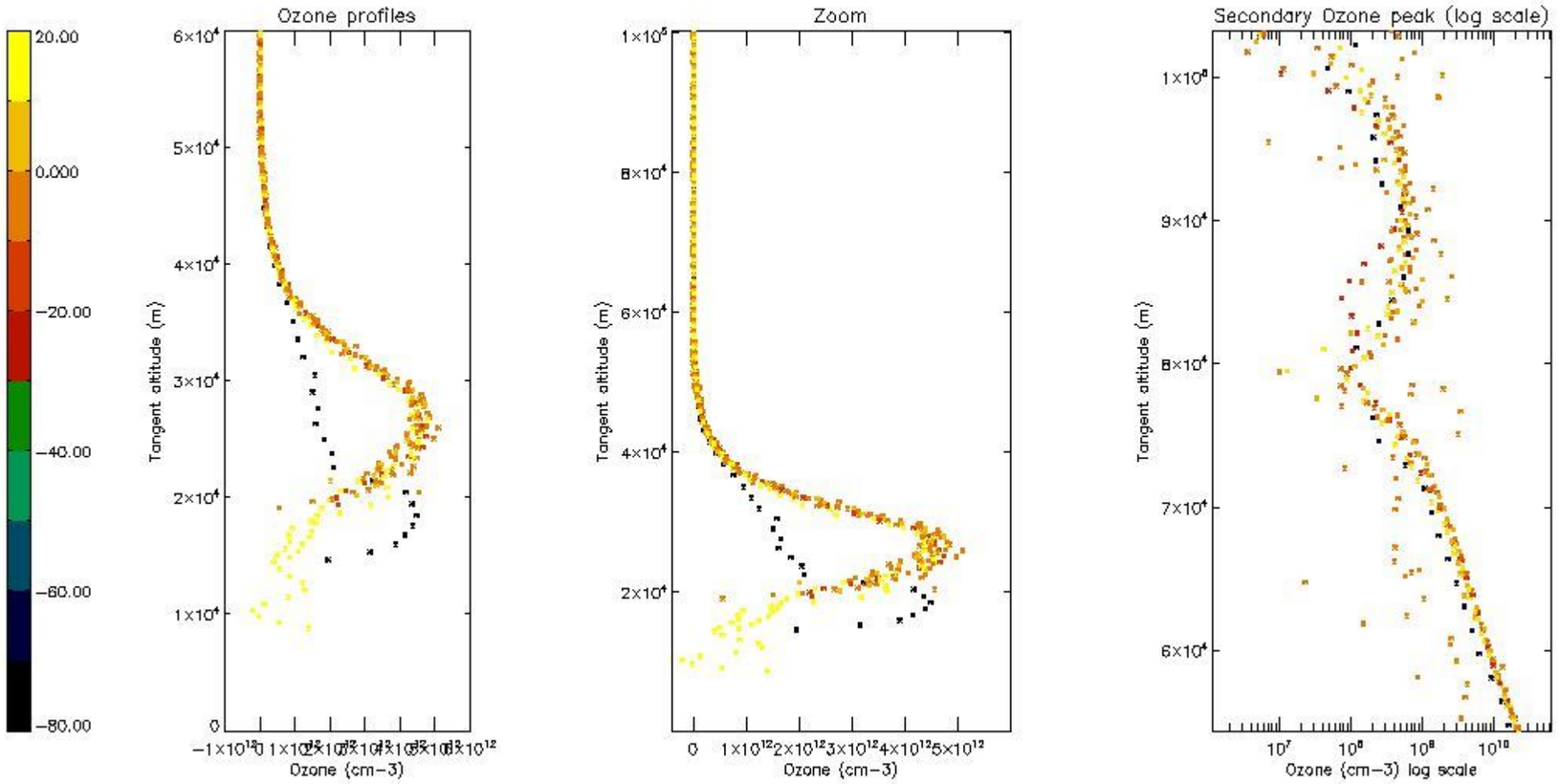
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	26
STD < 20	15

STD < 10	12
STD < 5	7

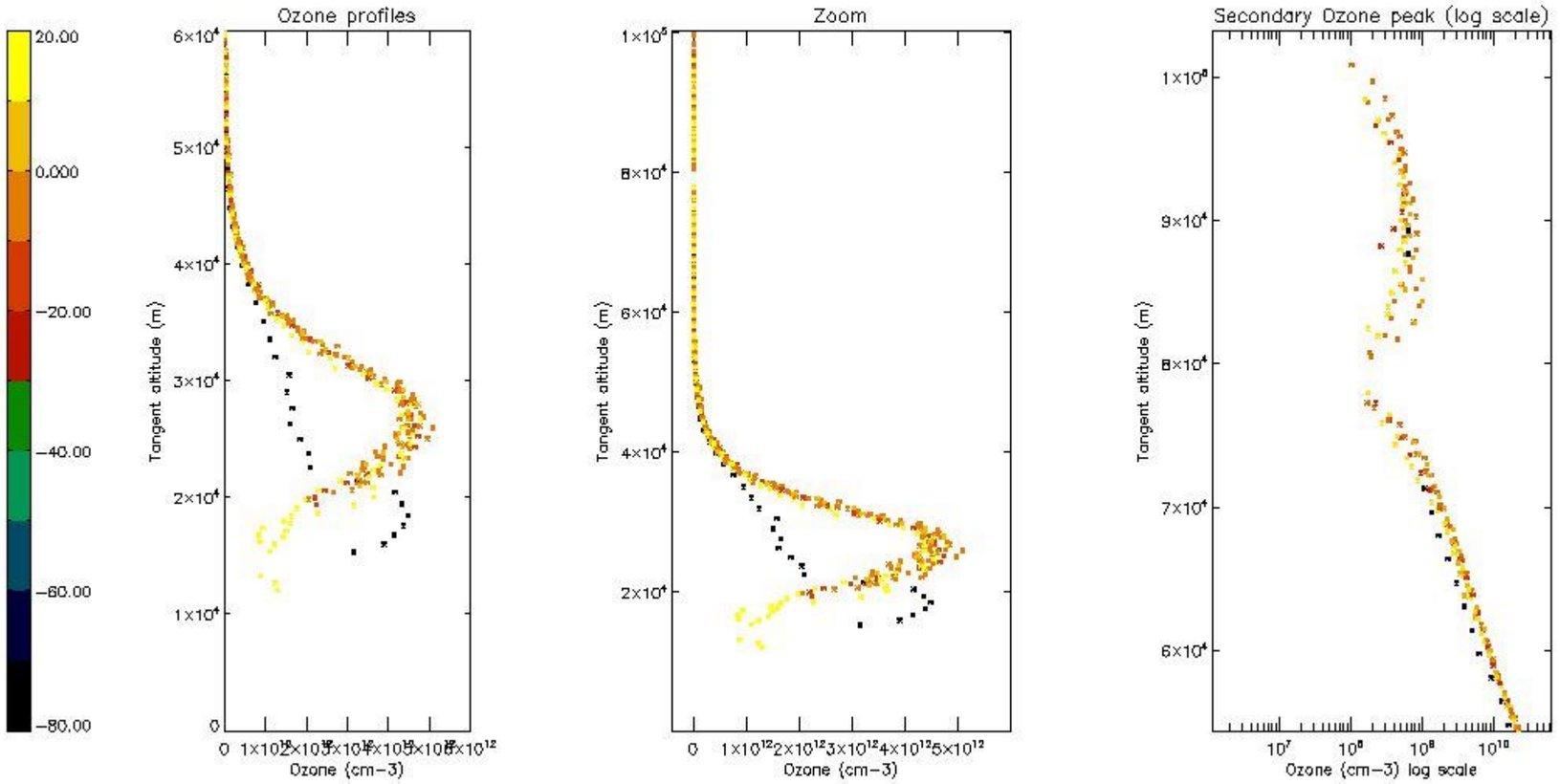
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



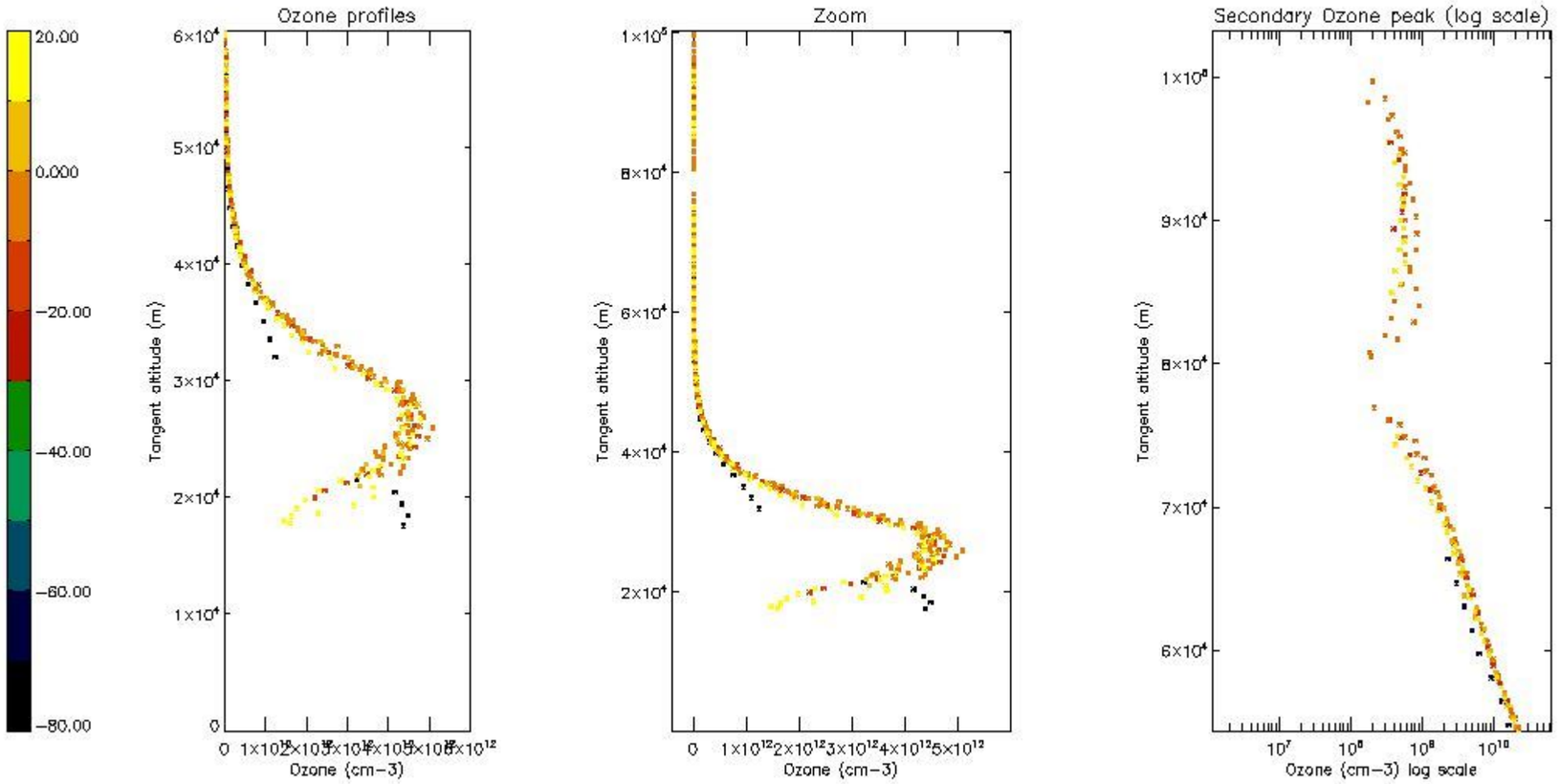
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



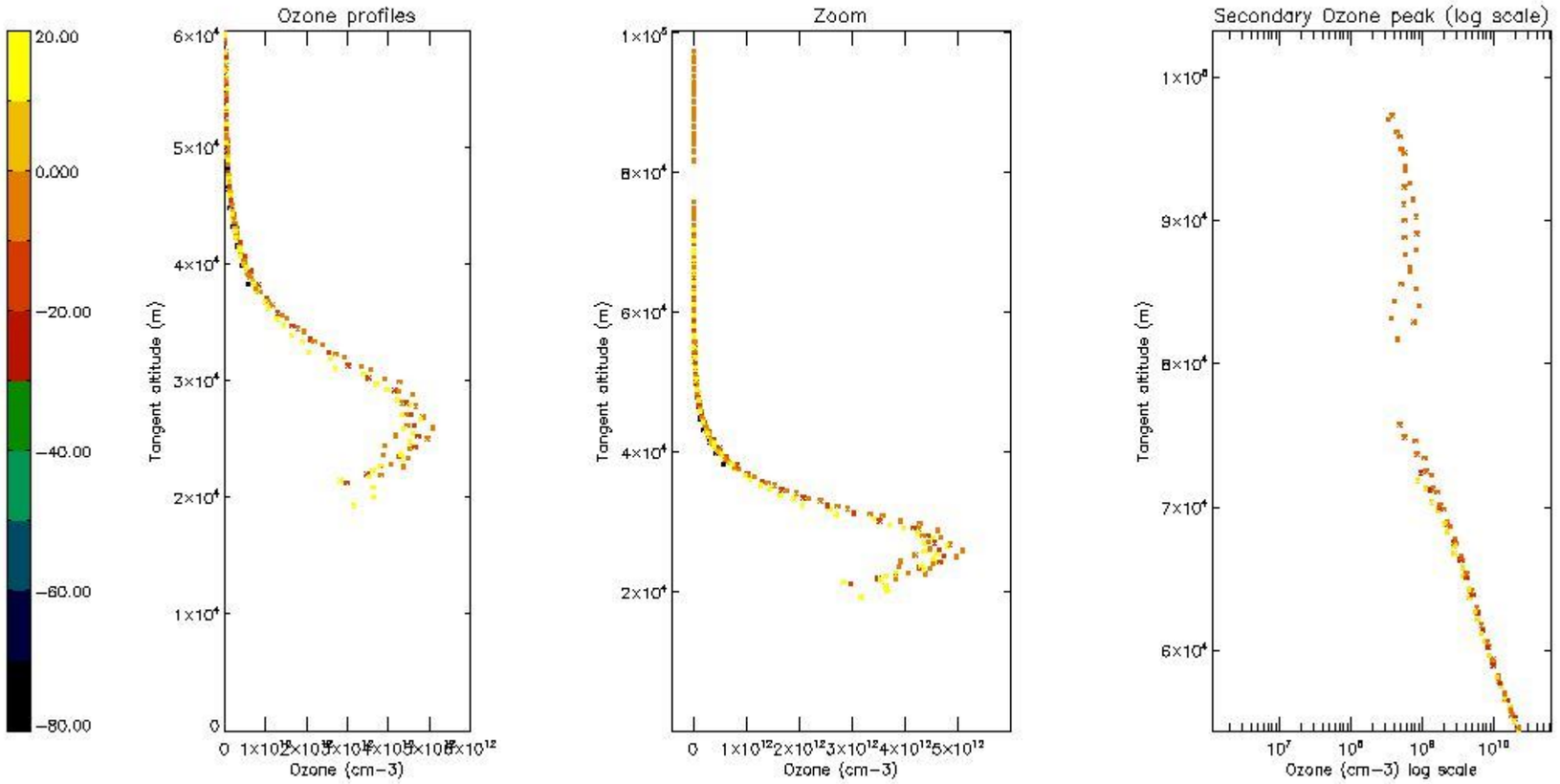
5.4 Plot ozone profiles where STD < 10% (dark without errors)

The colorbar represents the latitude.



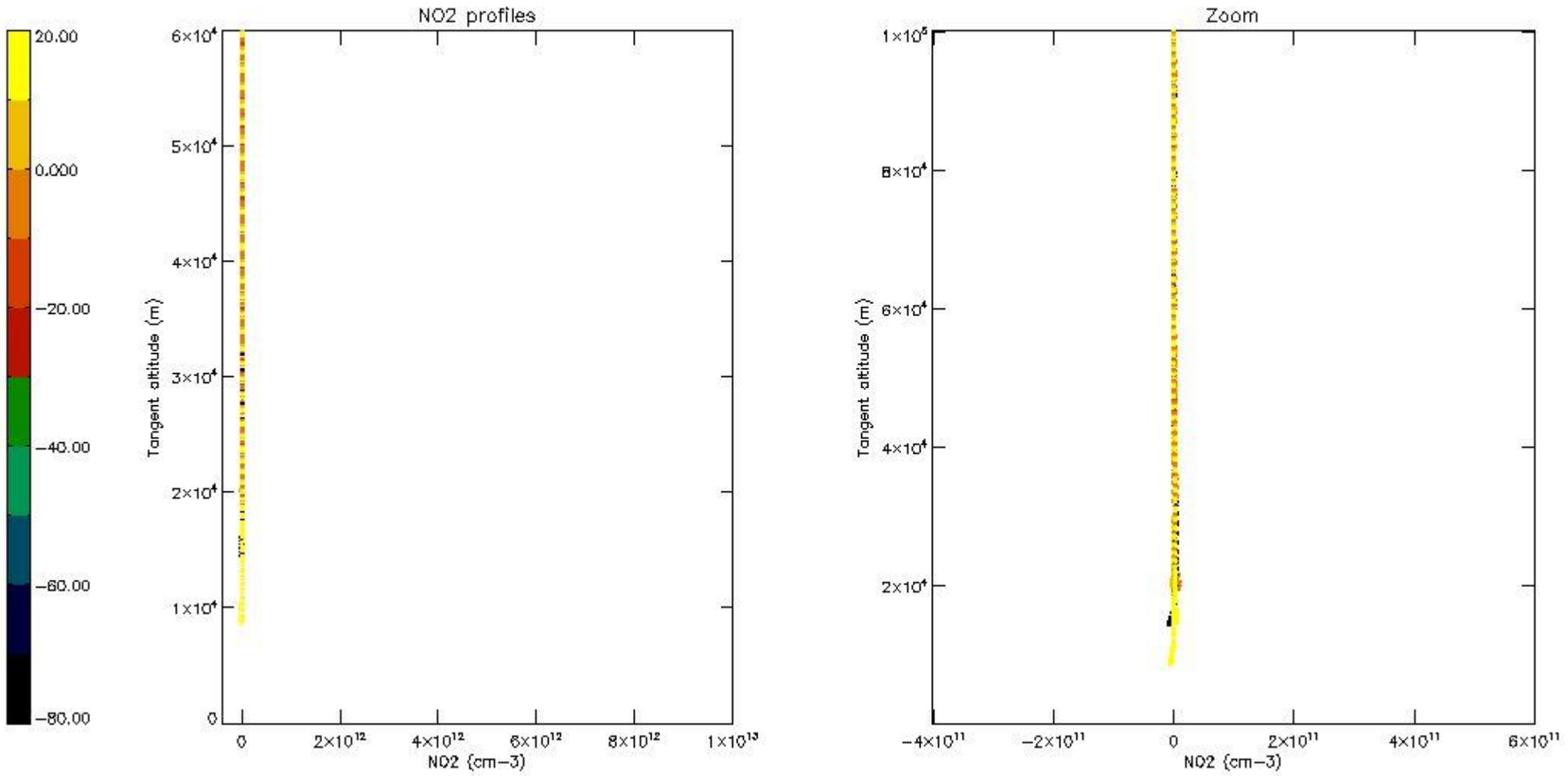
5.5 Plot ozone profiles where STD < 5% (dark without errors)

The colorbar represents the latitude.



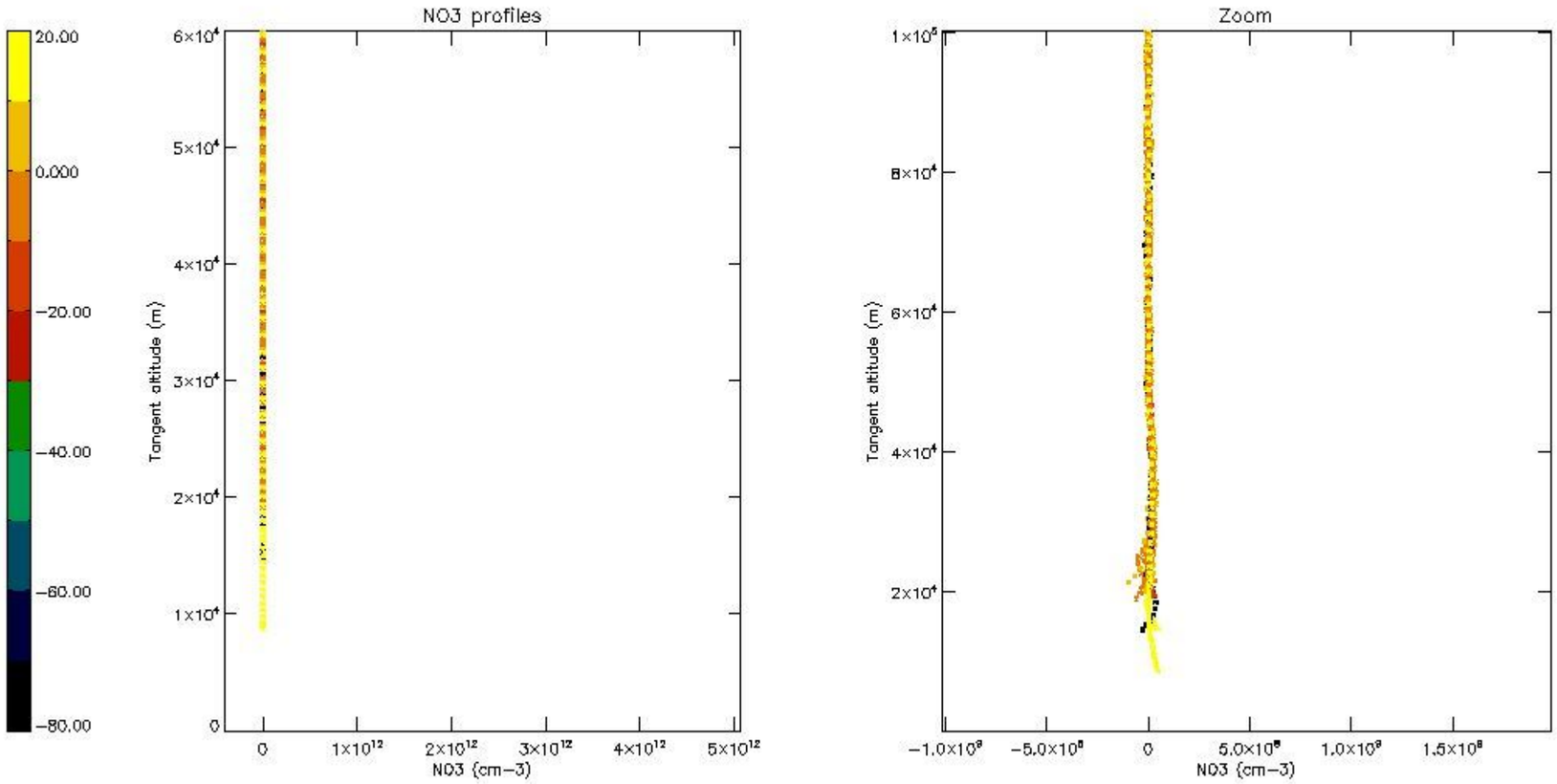
5.6 Plot NO2 profiles for all STD (dark without errors)

The colorbar represents the latitude.



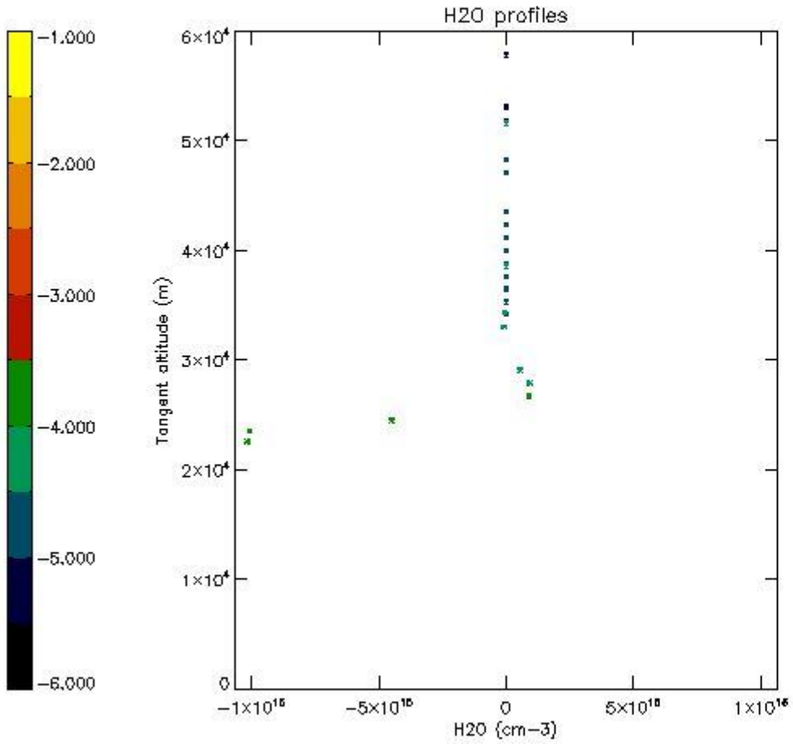
5.7 Plot NO3 profiles for all STD (dark without errors)

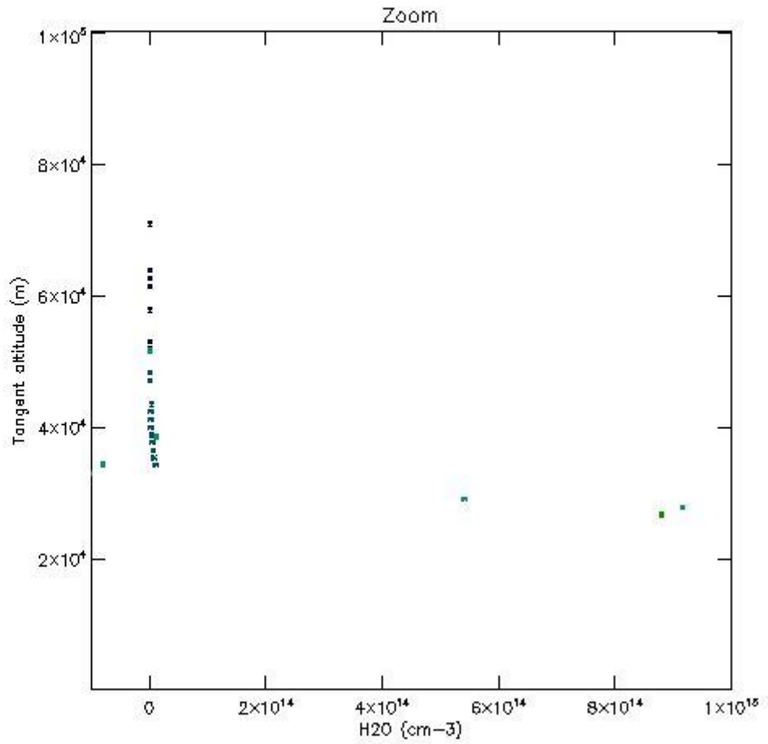
The colorbar represents the latitude.



5.8 Plot H2O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

The colorbar represents the latitude.

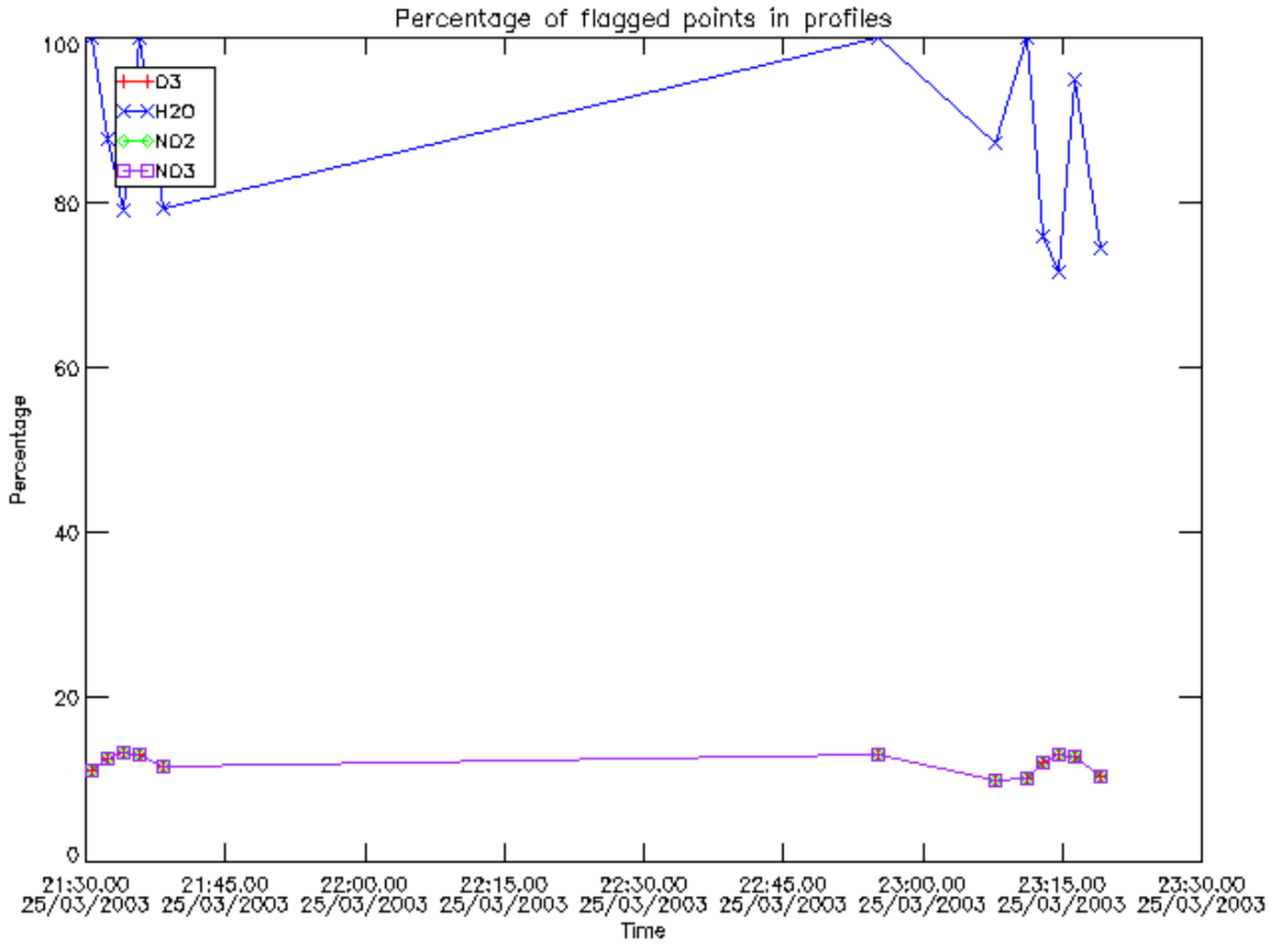




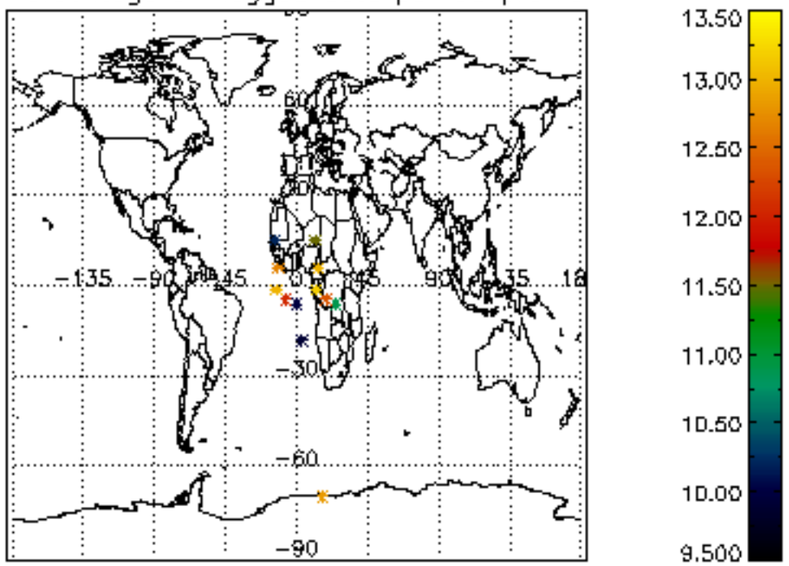
6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

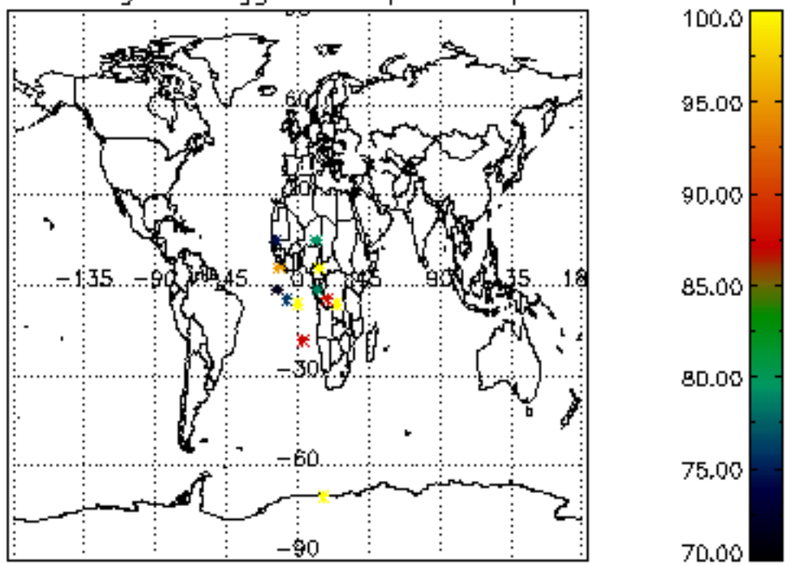
Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXNIEC20050627_150440_20020301_000000_20100101_000000	1	25-MAR-2003 21:30:36
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	25-MAR-2003 21:30:36
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	25-MAR-2003 21:30:36


Percentage of flagged points in profiles
O3
H2O
NO2
NO3
100
80
60
40
20
0
Percentage
21:30.00 25/03/2003
21:45.00 25/03/2003
22:00.00 25/03/2003
22:15.00 25/03/2003
22:30.00 25/03/2003
22:45.00 25/03/2003
23:00.00 25/03/2003
23:15.00 25/03/2003
23:30.00 25/03/2003
Time

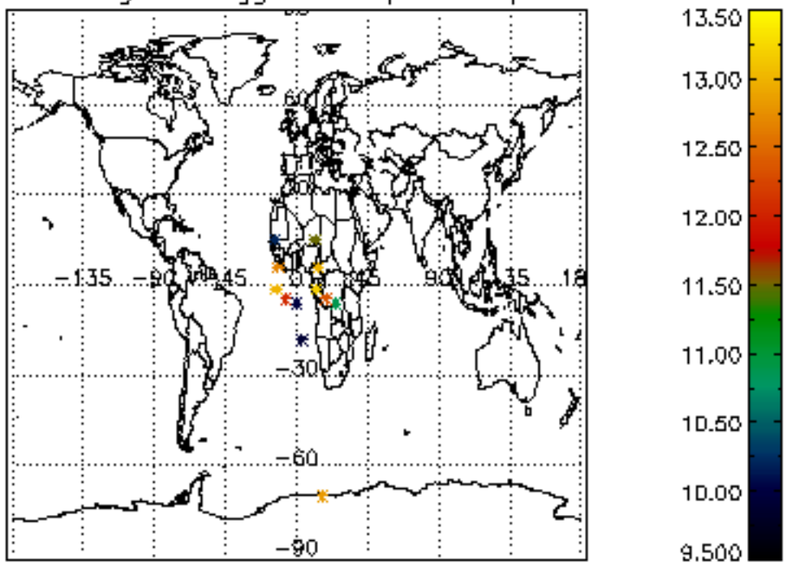
Percentage of flagged data per O3 profile



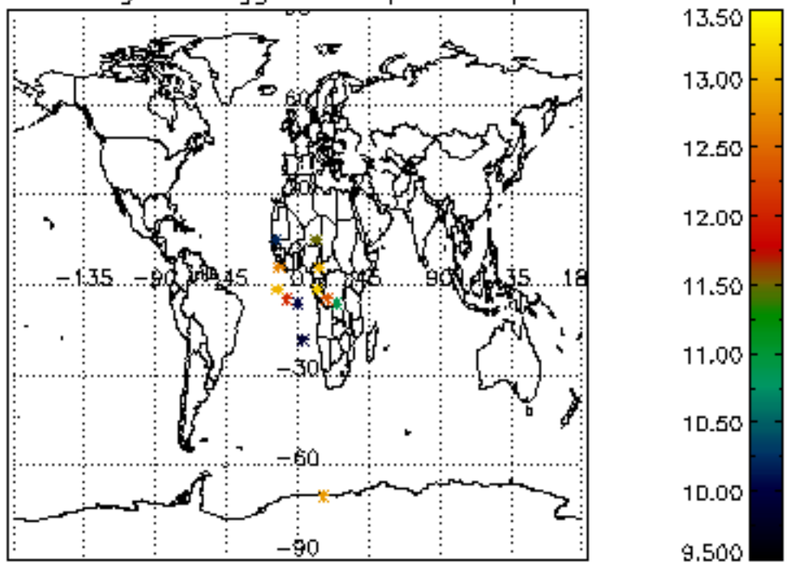
Percentage of flagged data per H2O profile

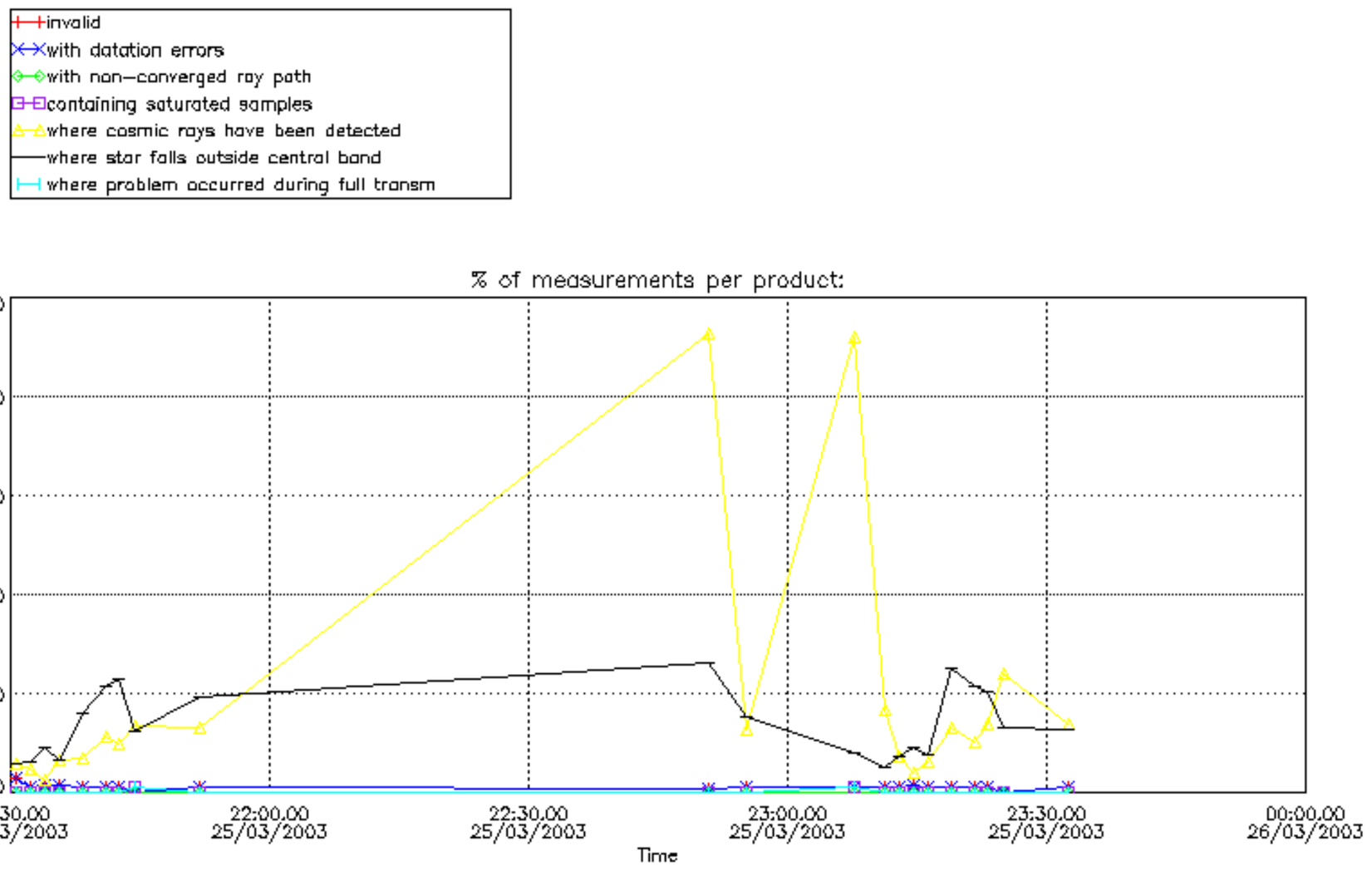


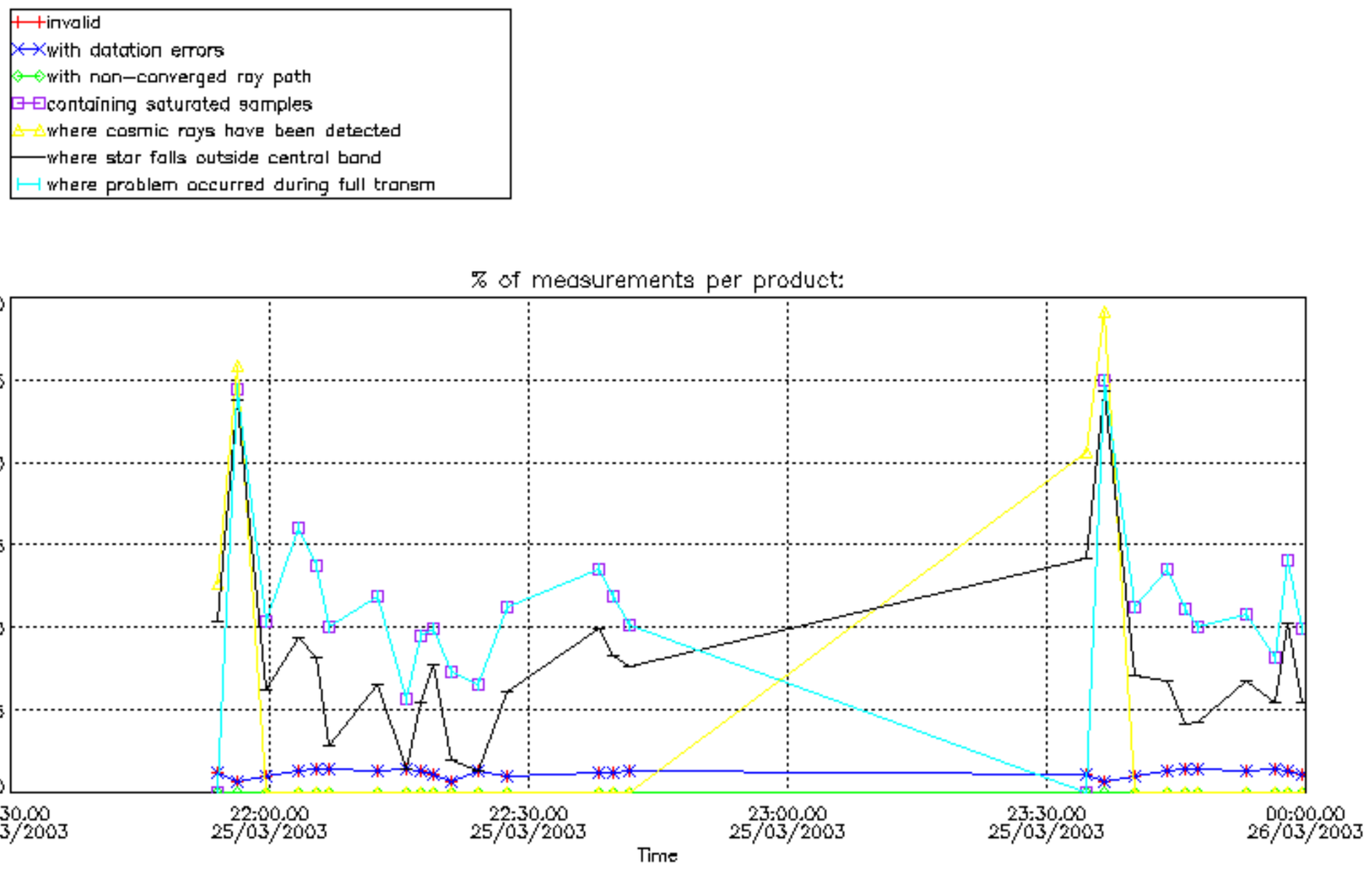
Percentage of flagged data per NO2 profile

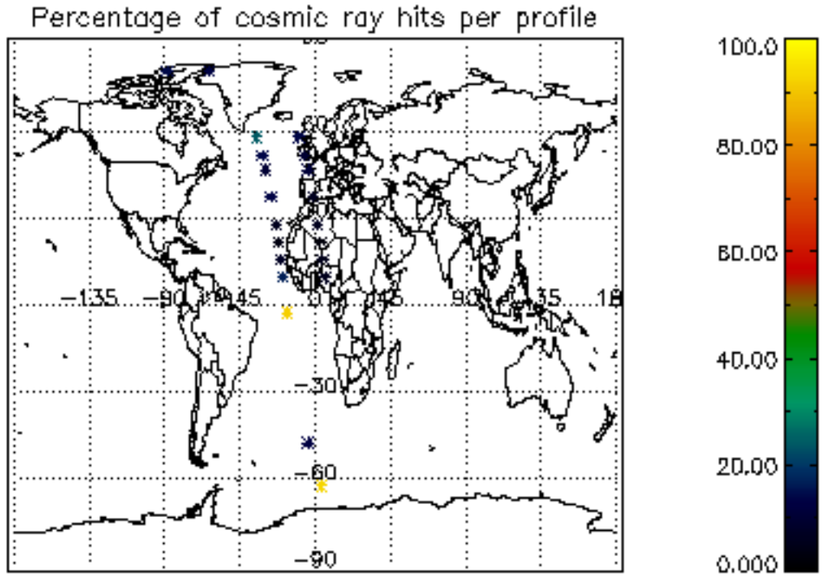


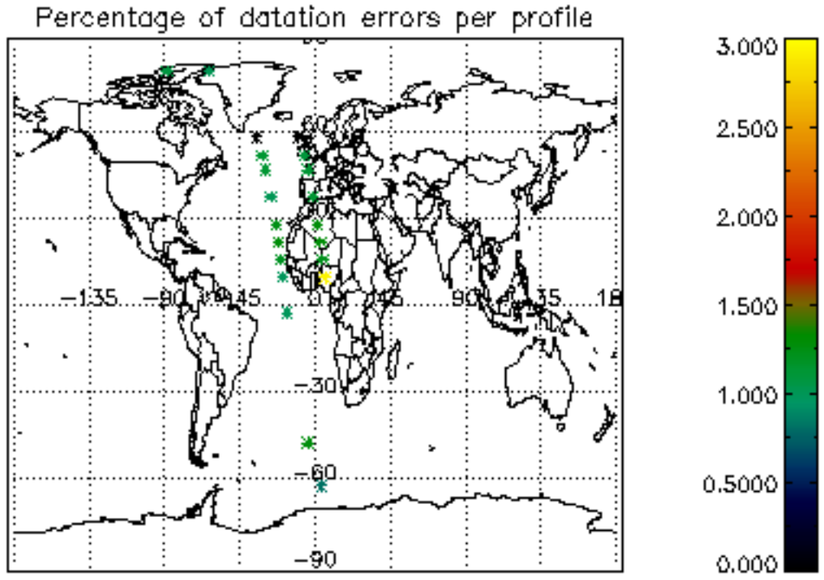
Percentage of flagged data per NO3 profile

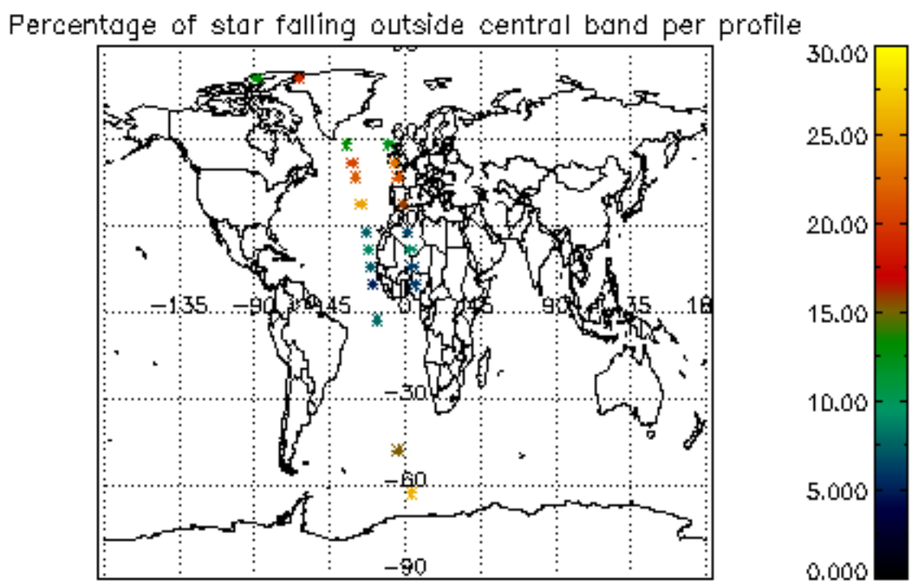


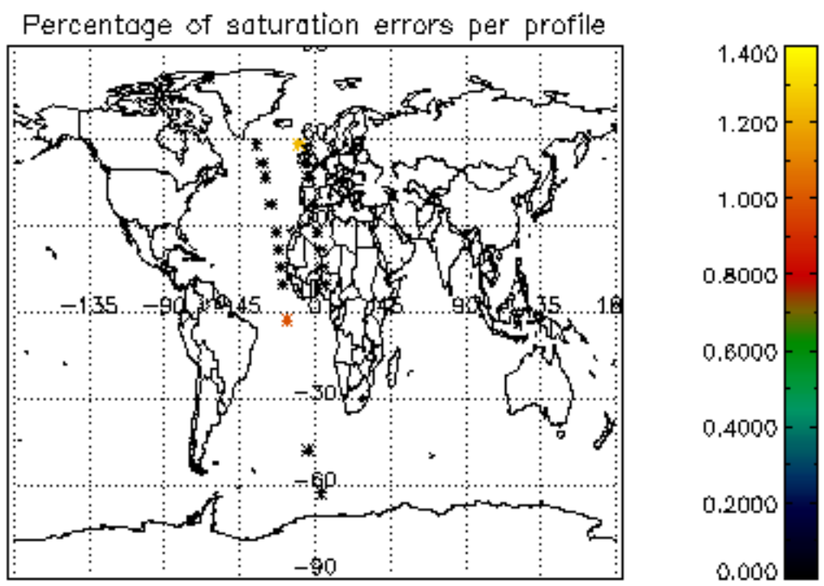

invalid
with datation errors
with non-converged ray path
containing saturated samples
where cosmic rays have been detected
where star falls outside central band
where problem occurred during full transm
% of measurements per product:
100
80
60
40
20
0
value (%)
21:30.00
25/03/2003
22:00.00
25/03/2003
22:30.00
25/03/2003
23:00.00
25/03/2003
23:30.00
25/03/2003
00:00.00
26/03/2003
Time

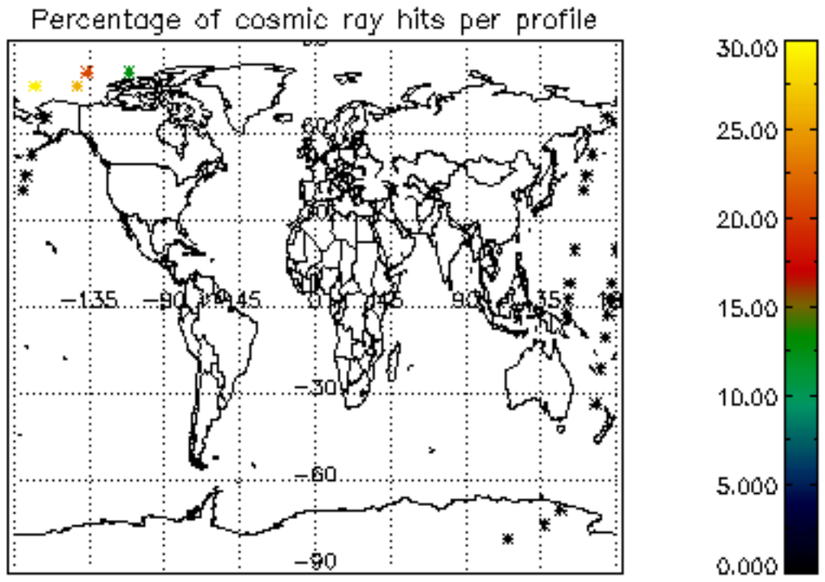

invalid
with datation errors
with non-converged ray path
containing saturated samples
where cosmic rays have been detected
where star falls outside central band
where problem occurred during full transm
% of measurements per product:
value (%)
30
25
20
15
10
5
0
21:30.00
25/03/2003
22:00.00
25/03/2003
22:30.00
25/03/2003
23:00.00
25/03/2003
23:30.00
25/03/2003
00:00.00
26/03/2003
Time

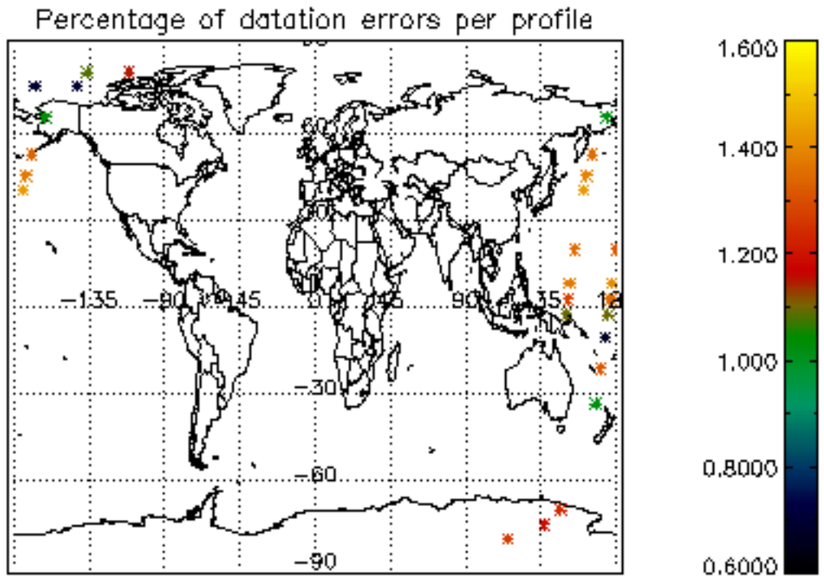

Percentage of cosmic ray hits per profile
100.0
80.00
60.00
40.00
20.00
0.000
−135
−90
−45
0
45
90
135
180
−30
−60
−90

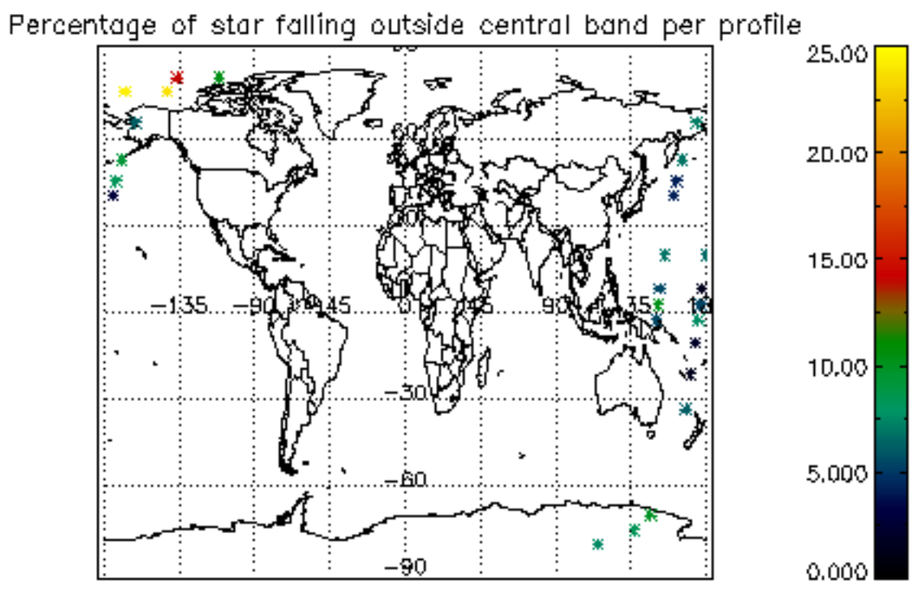

Percentage of datation errors per profile
3.000
2.500
2.000
1.500
1.000
0.5000
0.000
−135
−90
−45
0
45
90
135
180
−30
−60
−90

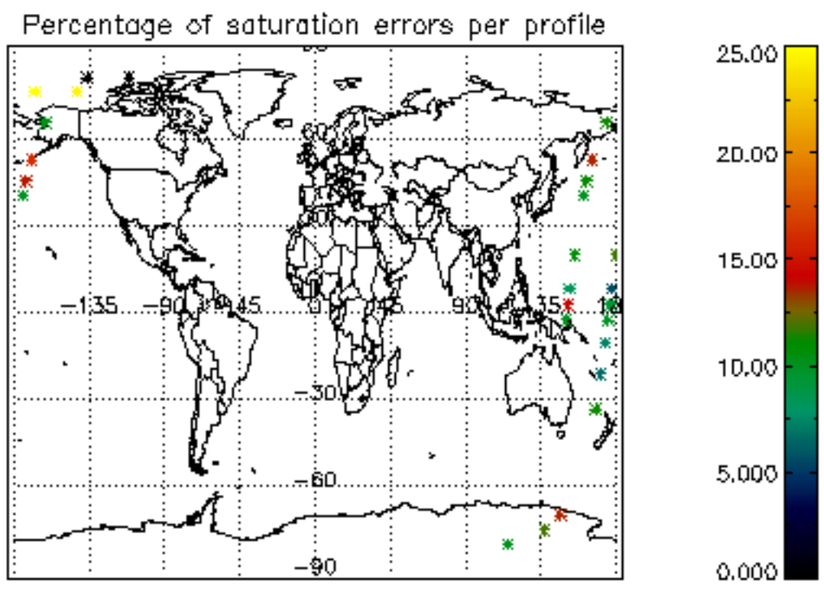

Percentage of star falling outside central band per profile
30.00
25.00
20.00
15.00
10.00
5.000
0.000
−135
−90
−45
0
45
90
135
180
−30
−60
−90

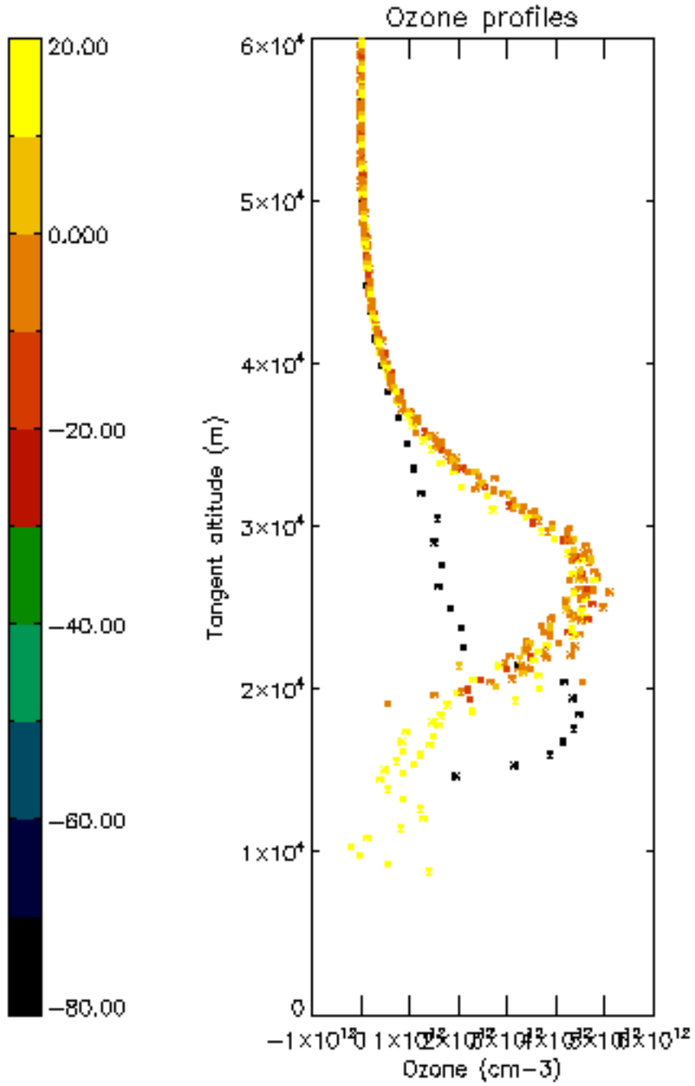

Percentage of saturation errors per profile
1.400
1.200
1.000
0.8000
0.6000
0.4000
0.2000
0.000
−135
−90
−45
0
45
90
135
180
−30
−60
−90

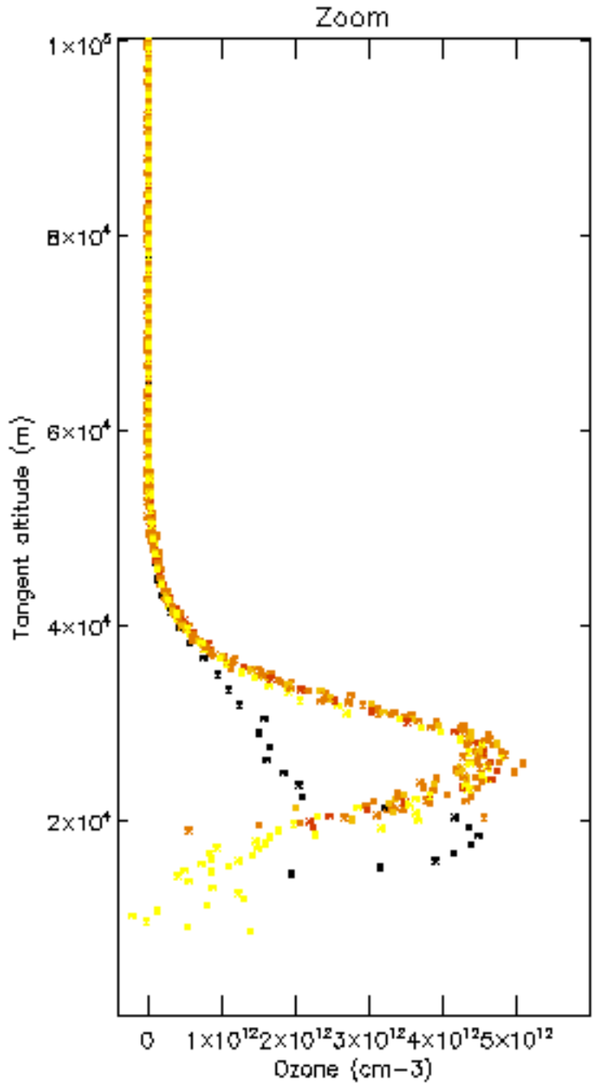

Percentage of cosmic ray hits per profile
30.00
25.00
20.00
15.00
10.00
5.000
0.000
−135
−90
−45
0
45
90
135
−30
−60
−90

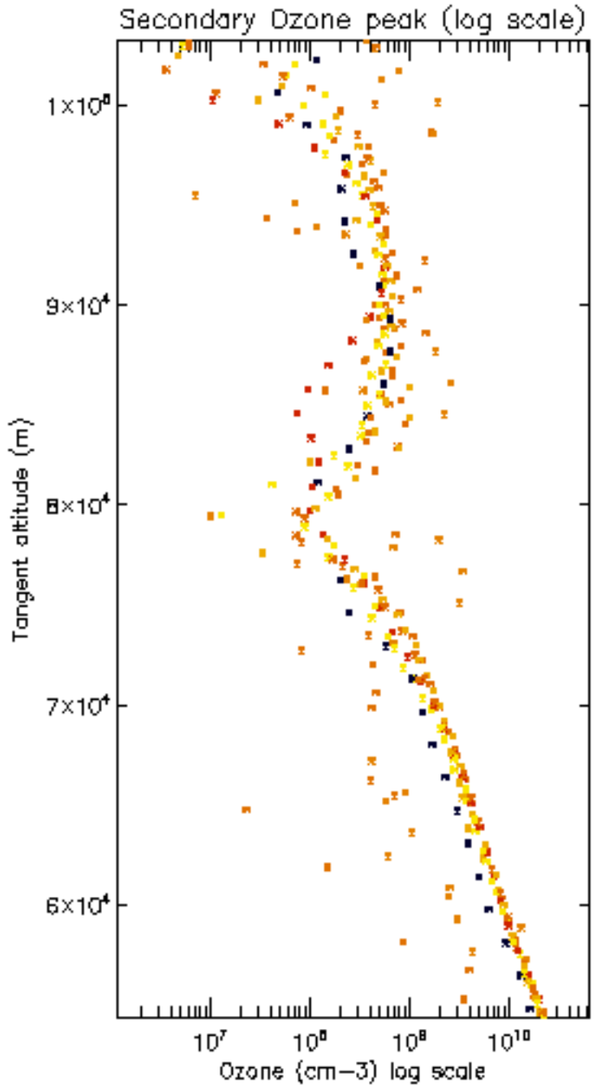

Percentage of datation errors per profile
1.600
1.400
1.200
1.000
0.8000
0.6000
−135
−90
−45
0
45
90
135
−30
−60
−90

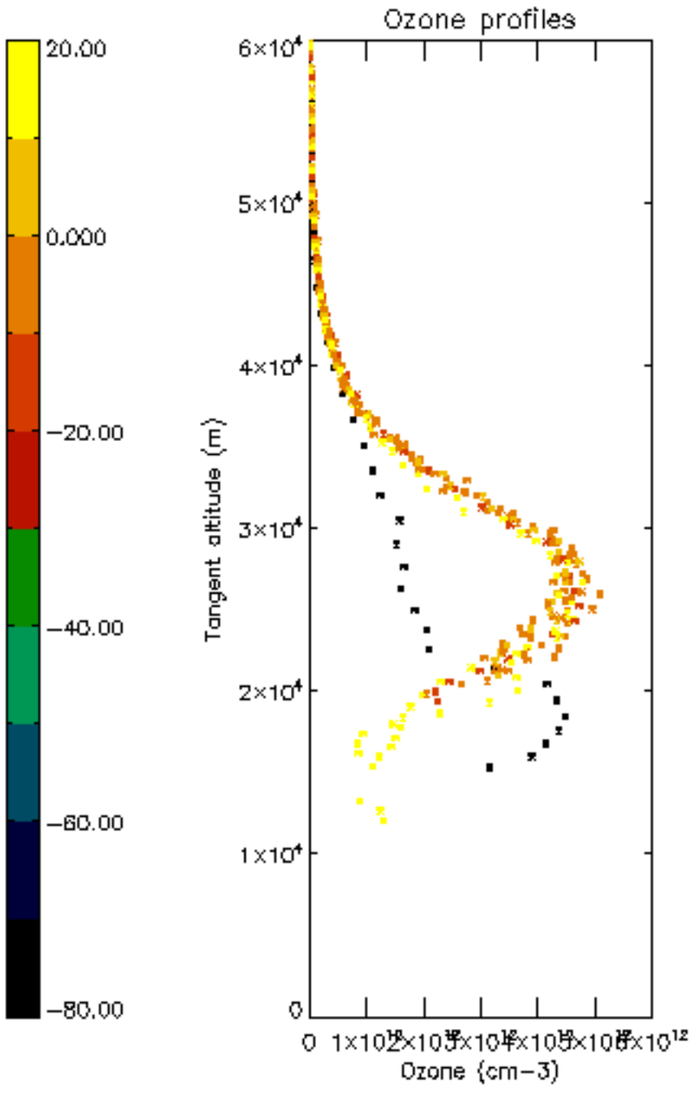

Percentage of star falling outside central band per profile
25.00
20.00
15.00
10.00
5.000
0.000
−135
−90
−45
0
45
90
135
−30
−60
−90

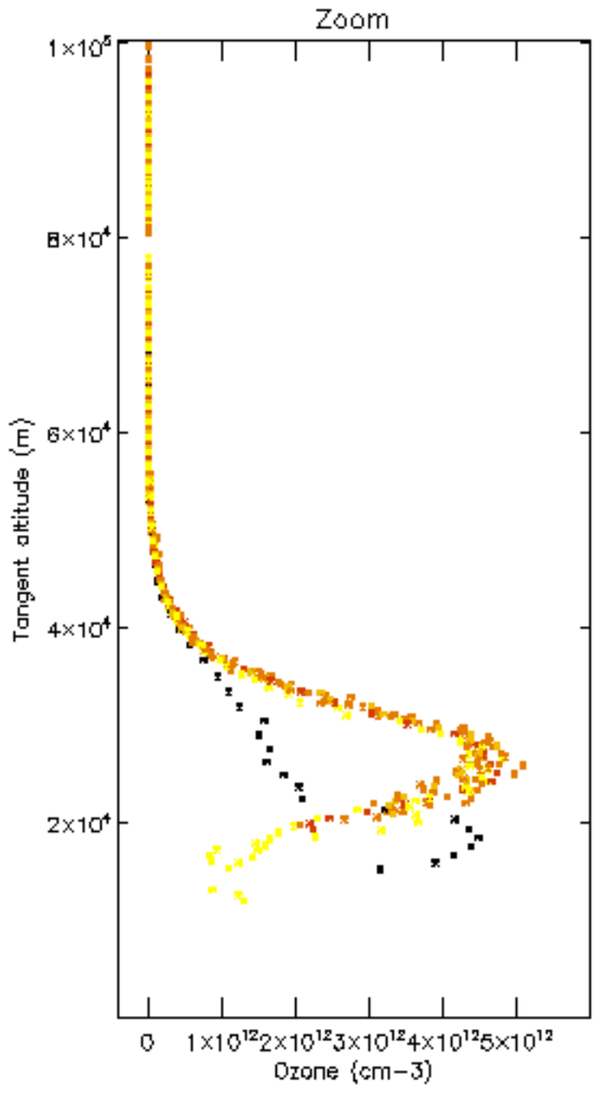

Percentage of saturation errors per profile
25.00
20.00
15.00
10.00
5.000
0.000
−135
−90
−45
0
45
90
135
−30
−60
−90

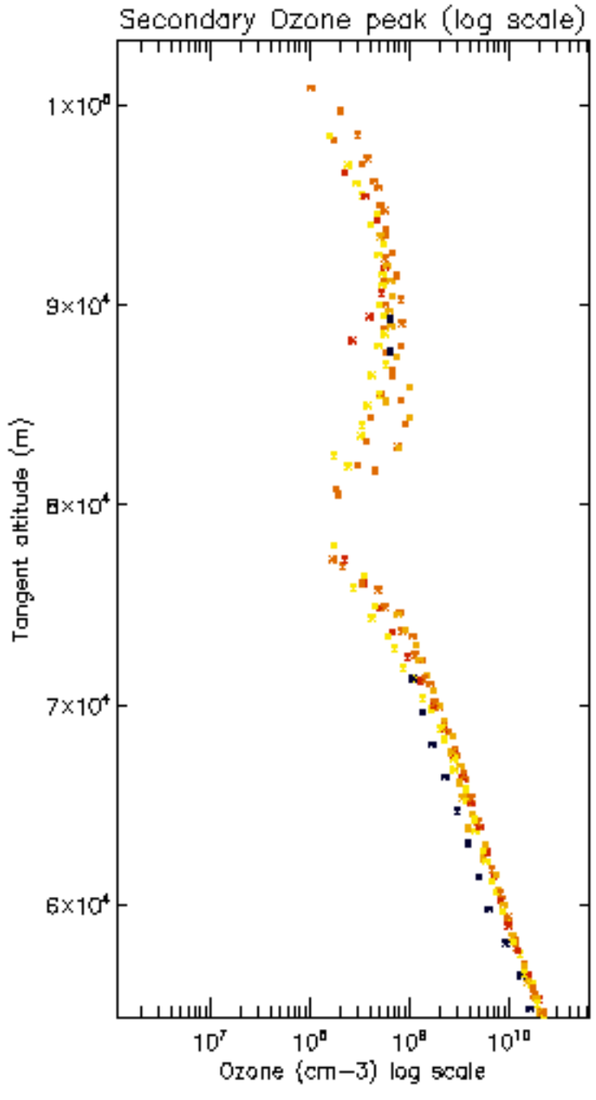

20.00
0.000
−20.00
−40.00
−60.00
−80.00
Ozone profiles
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
Tangent altitude (m)
−1×10¹²
0
1×10¹²
Ozone (cm−3)

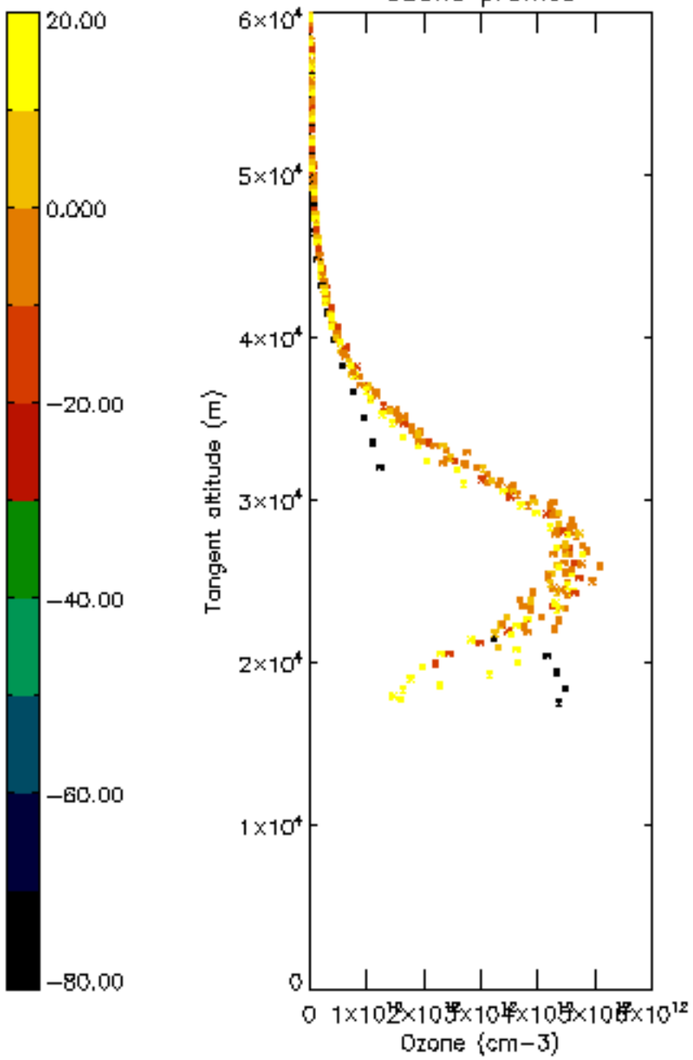

Zoom
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
Tangent altitude (m)
0
1×10¹²
2×10¹²
3×10¹²
4×10¹²
5×10¹²
Ozone (cm−3)

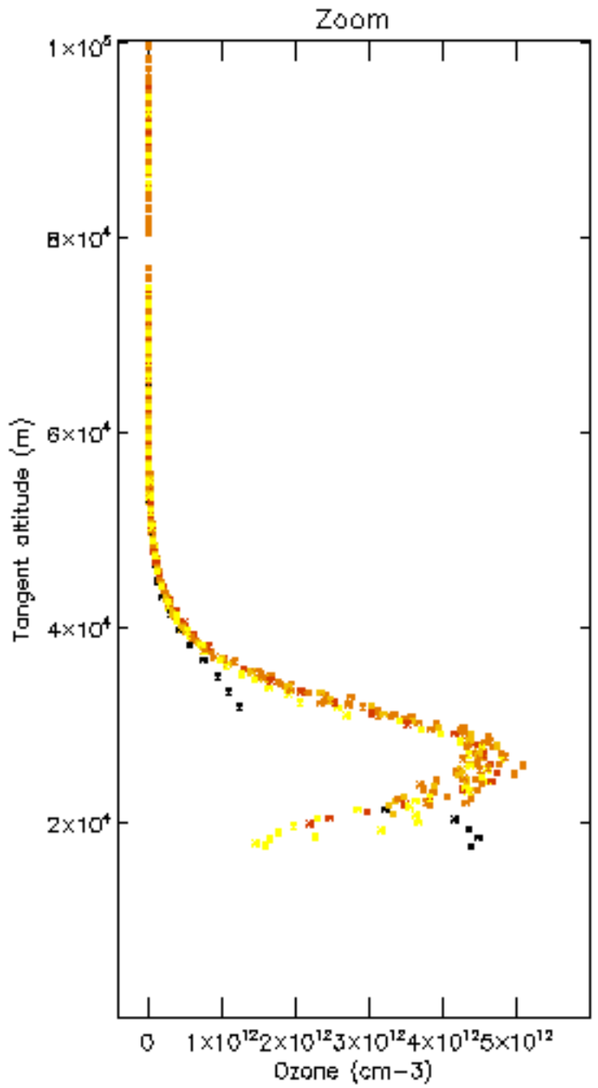

Secondary Ozone peak (log scale)
1×10⁵
9×10⁴
8×10⁴
7×10⁴
6×10⁴
Tangent altitude (m)
10⁷
10⁸
10⁸
10¹⁰
Ozone (cm−3) log scale

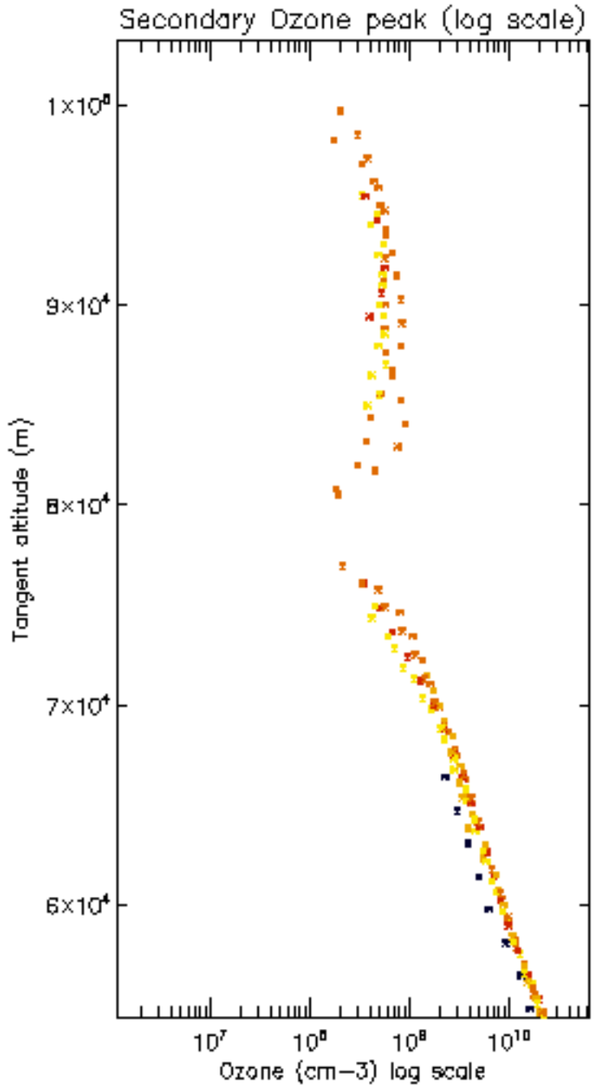

20.00
0.000
−20.00
−40.00
−60.00
−80.00
Ozone profiles
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
Tangent altitude (m)
0 1×10¹² 2×10¹² 3×10¹² 4×10¹² 5×10¹² 6×10¹²
Ozone (cm−3)

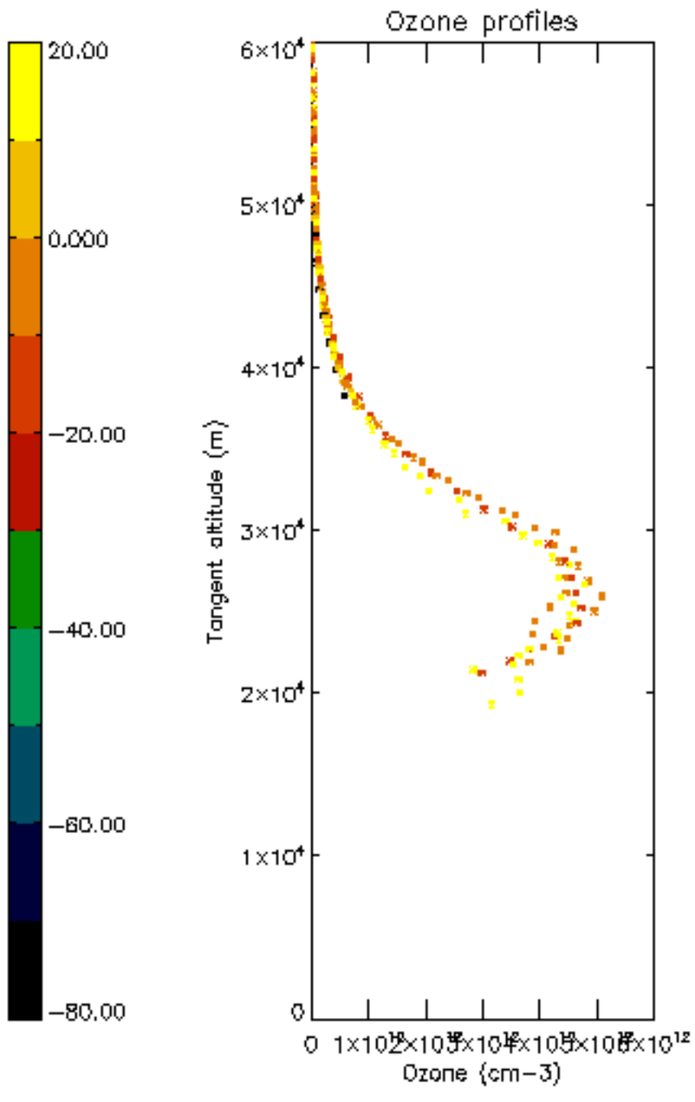

Zoom
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
Tangent altitude (m)
0 1×10¹² 2×10¹² 3×10¹² 4×10¹² 5×10¹²
Ozone (cm−3)


Secondary Ozone peak (log scale)
1×10⁵
9×10⁴
8×10⁴
7×10⁴
6×10⁴
Tangent altitude (m)
10⁷ 10⁸ 10⁹ 10¹⁰
Ozone (cm−3) log scale


20.00
0.000
−20.00
−40.00
−60.00
−80.00
Ozone profiles
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
Tangent altitude (m)
0 1×10¹² 2×10¹² 3×10¹² 4×10¹² 5×10¹² 6×10¹²
Ozone (cm−3)

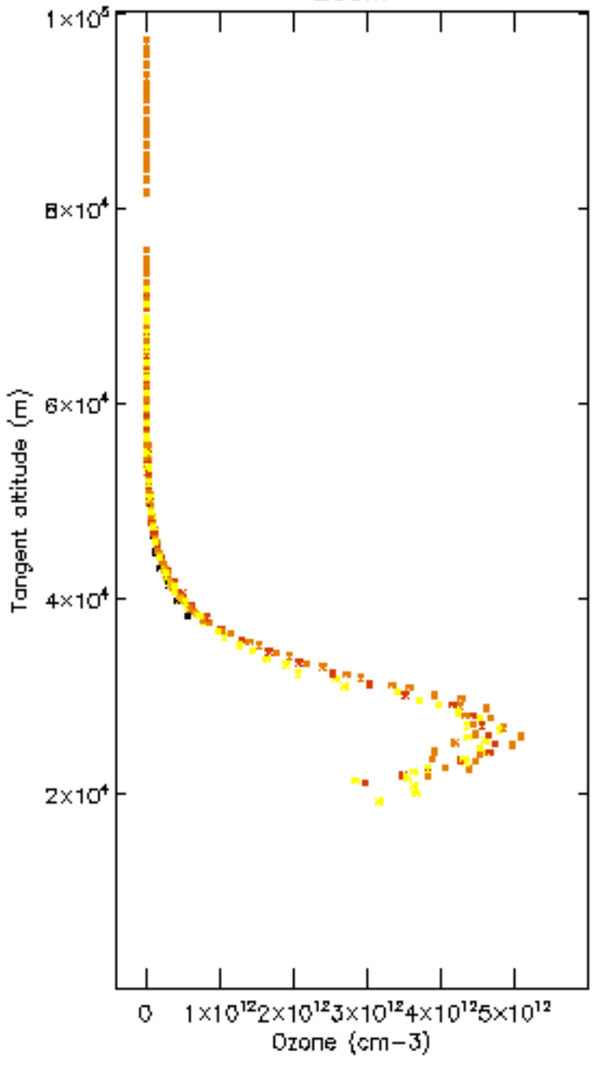

Zoom
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
Tangent altitude (m)
0 1×10¹² 2×10¹² 3×10¹² 4×10¹² 5×10¹²
Ozone (cm−3)


Secondary Ozone peak (log scale)
1×10⁵
9×10⁴
8×10⁴
7×10⁴
6×10⁴
Tangent altitude (m)
10⁷ 10⁸ 10⁹ 10¹⁰
Ozone (cm−3) log scale

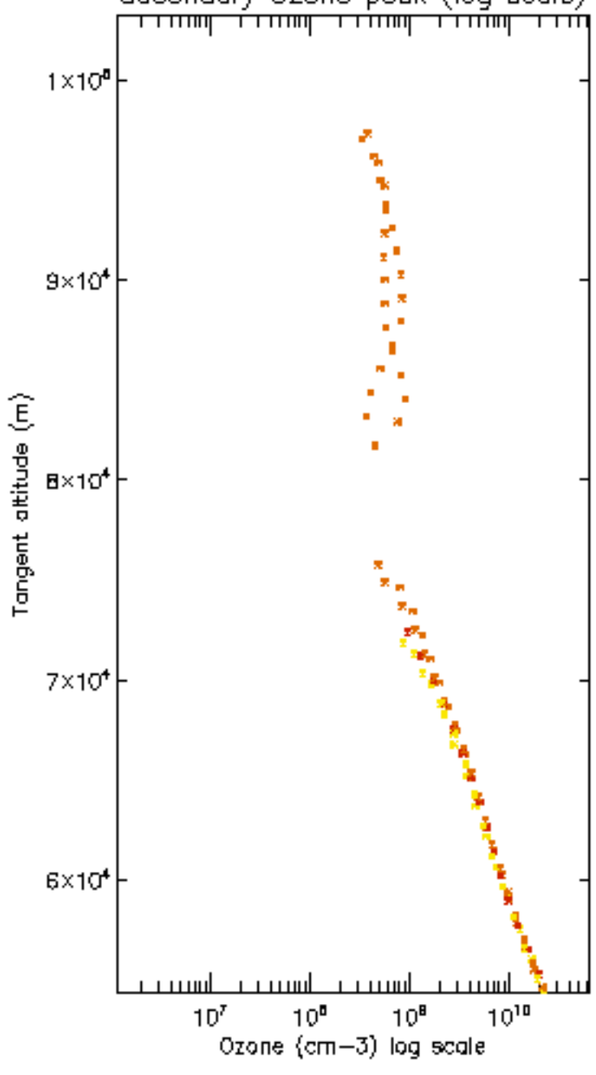


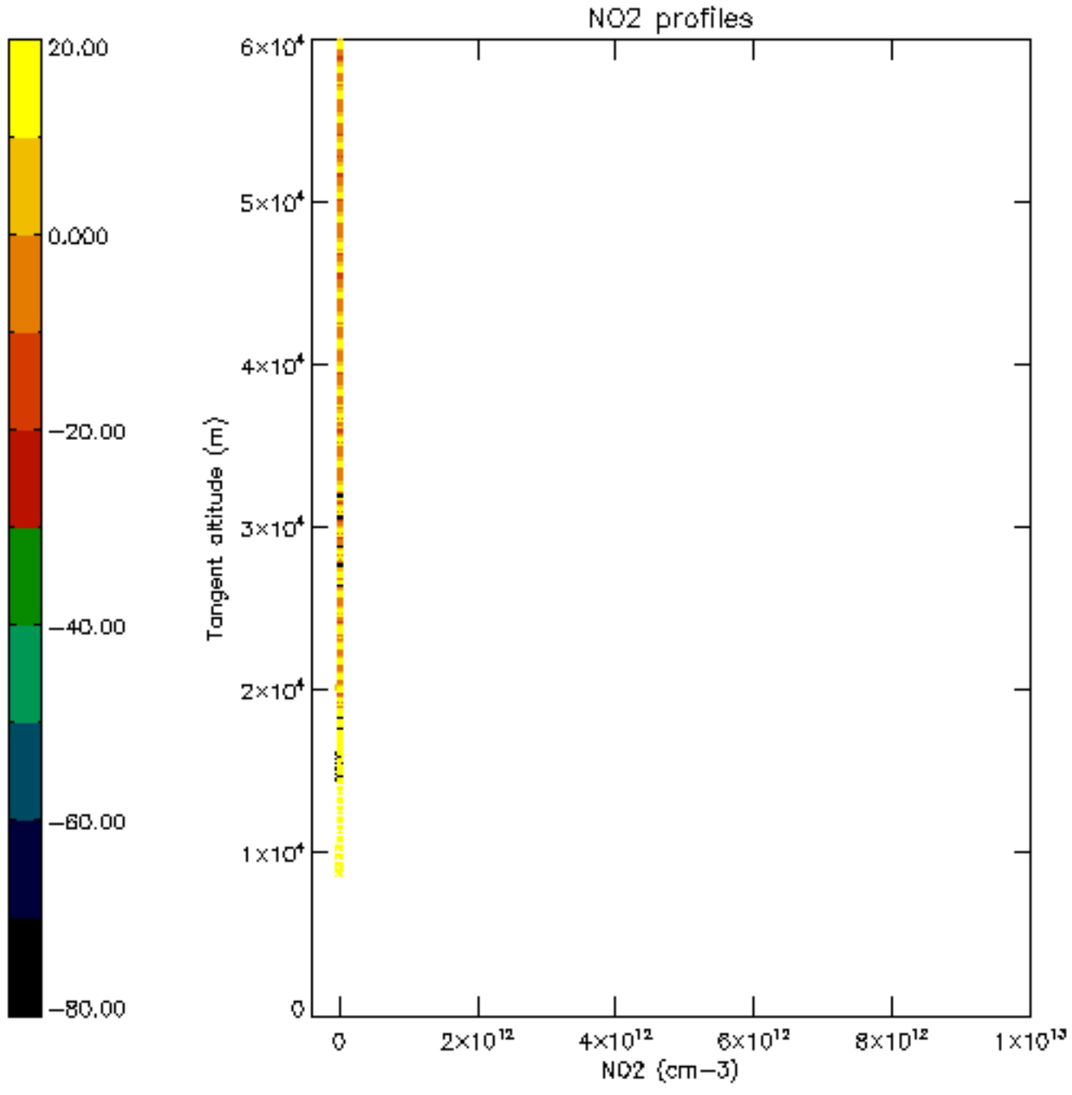
Ozone profiles

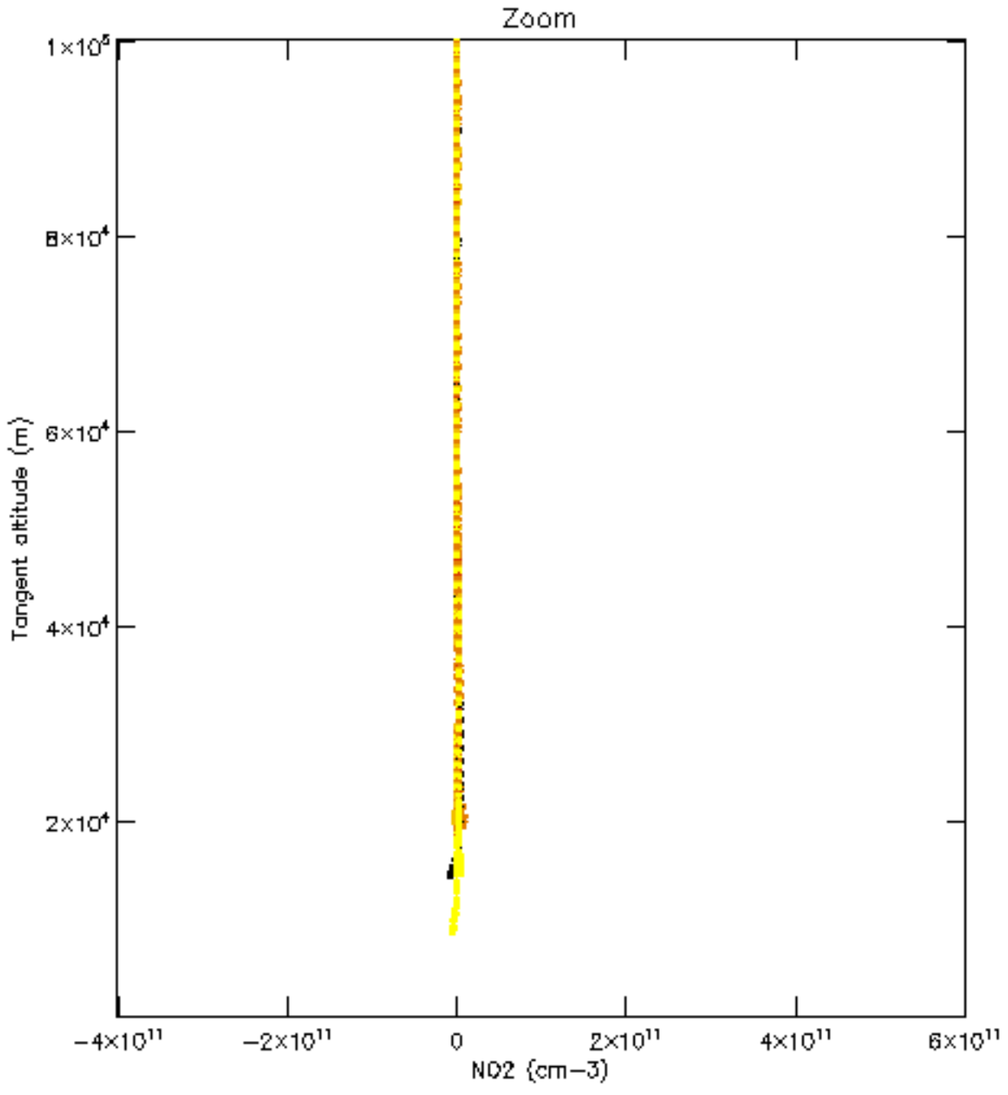
Zoom

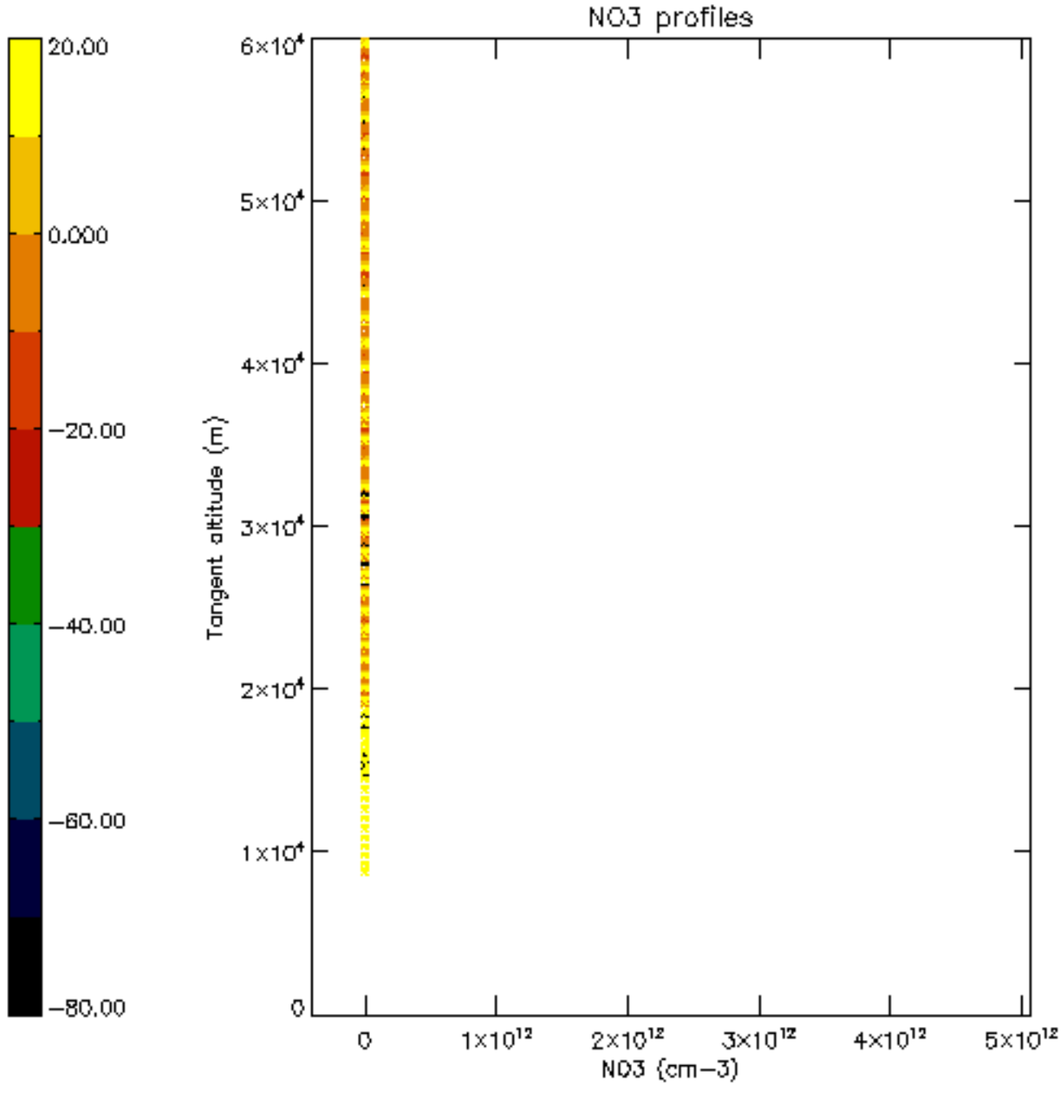


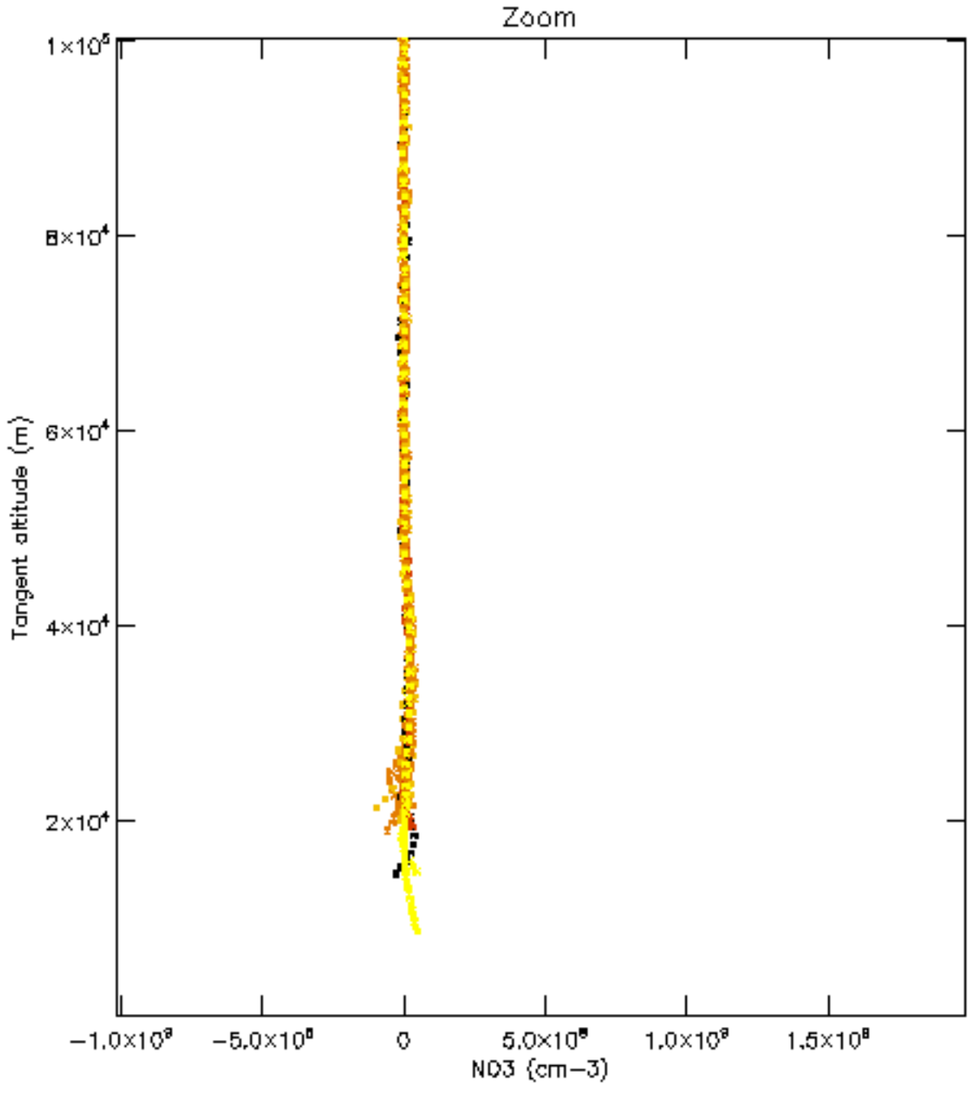
Secondary Ozone peak (log scale)

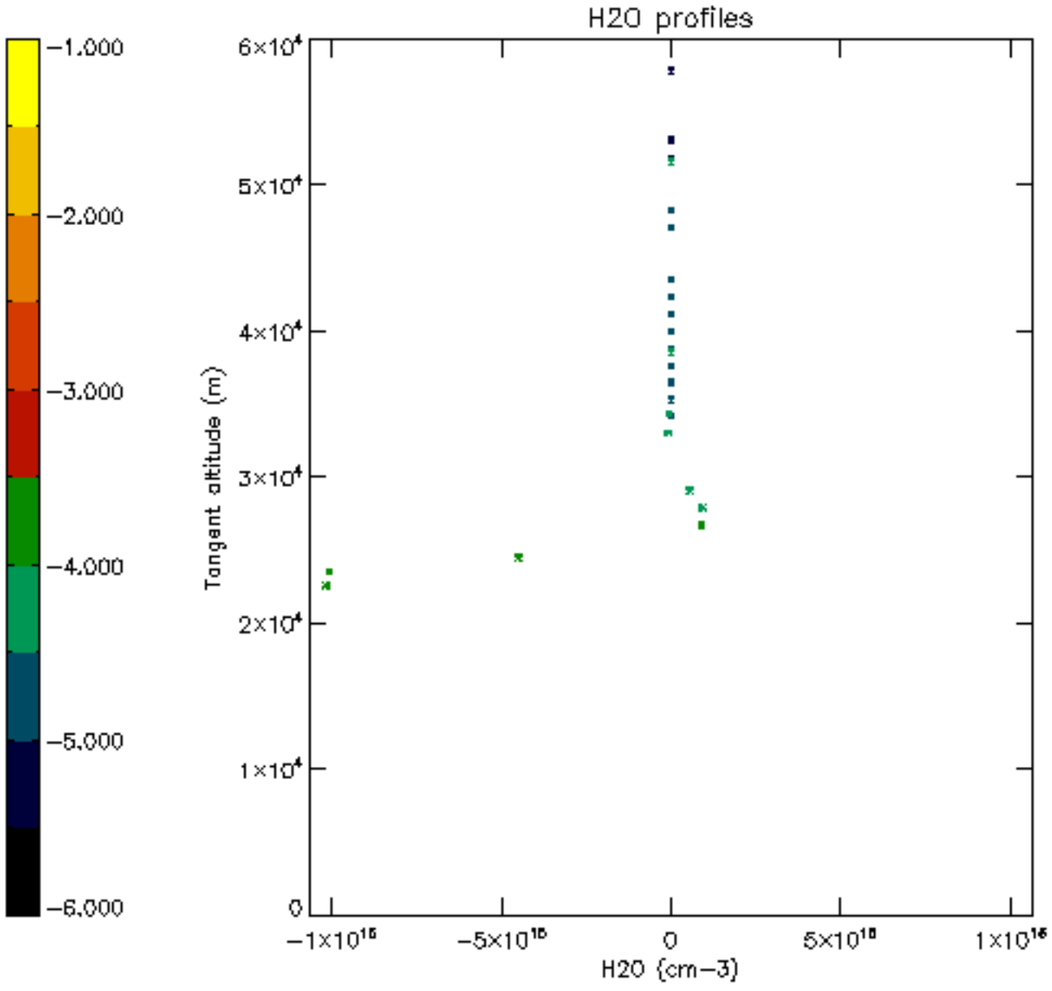


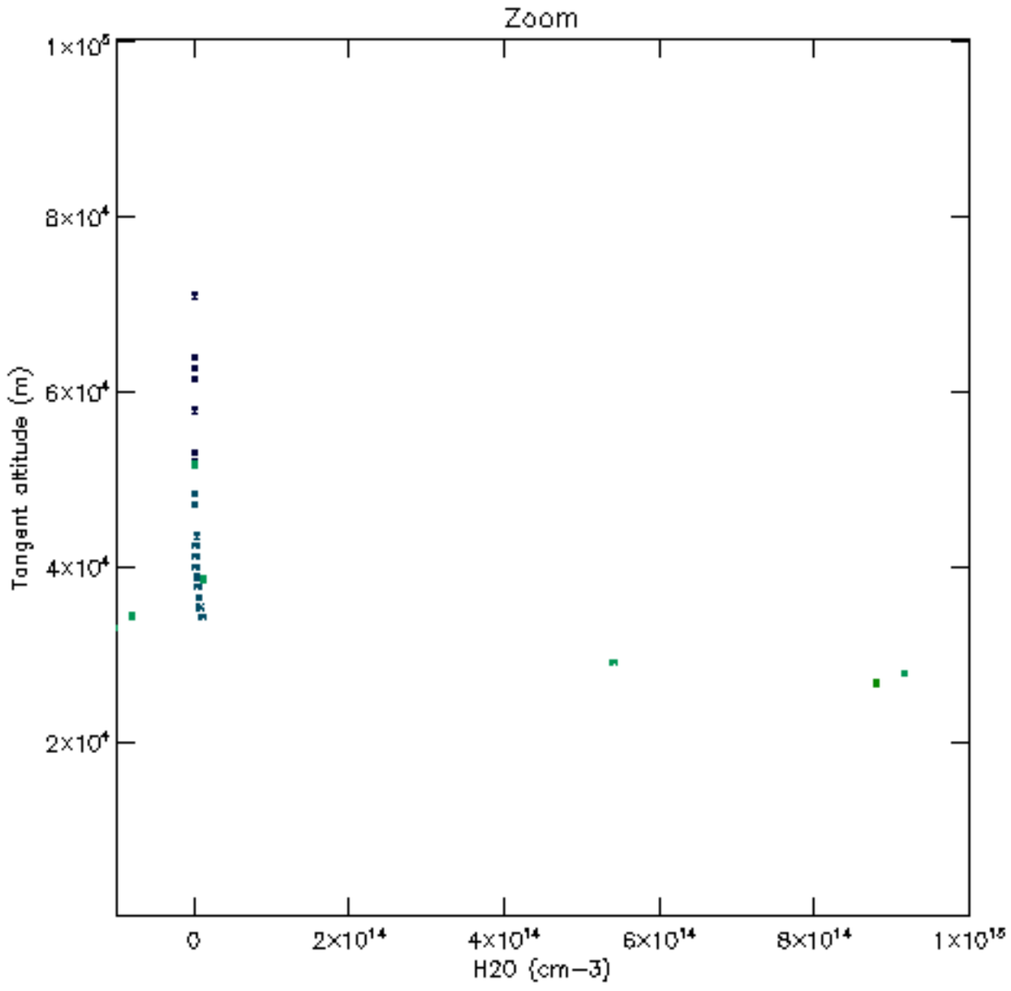

NO2 profiles
20.00
0.000
−20.00
−40.00
−60.00
−80.00
Tangent altitude (m)
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
0
2×10¹²
4×10¹²
6×10¹²
8×10¹²
1×10¹³
NO2 (cm−3)

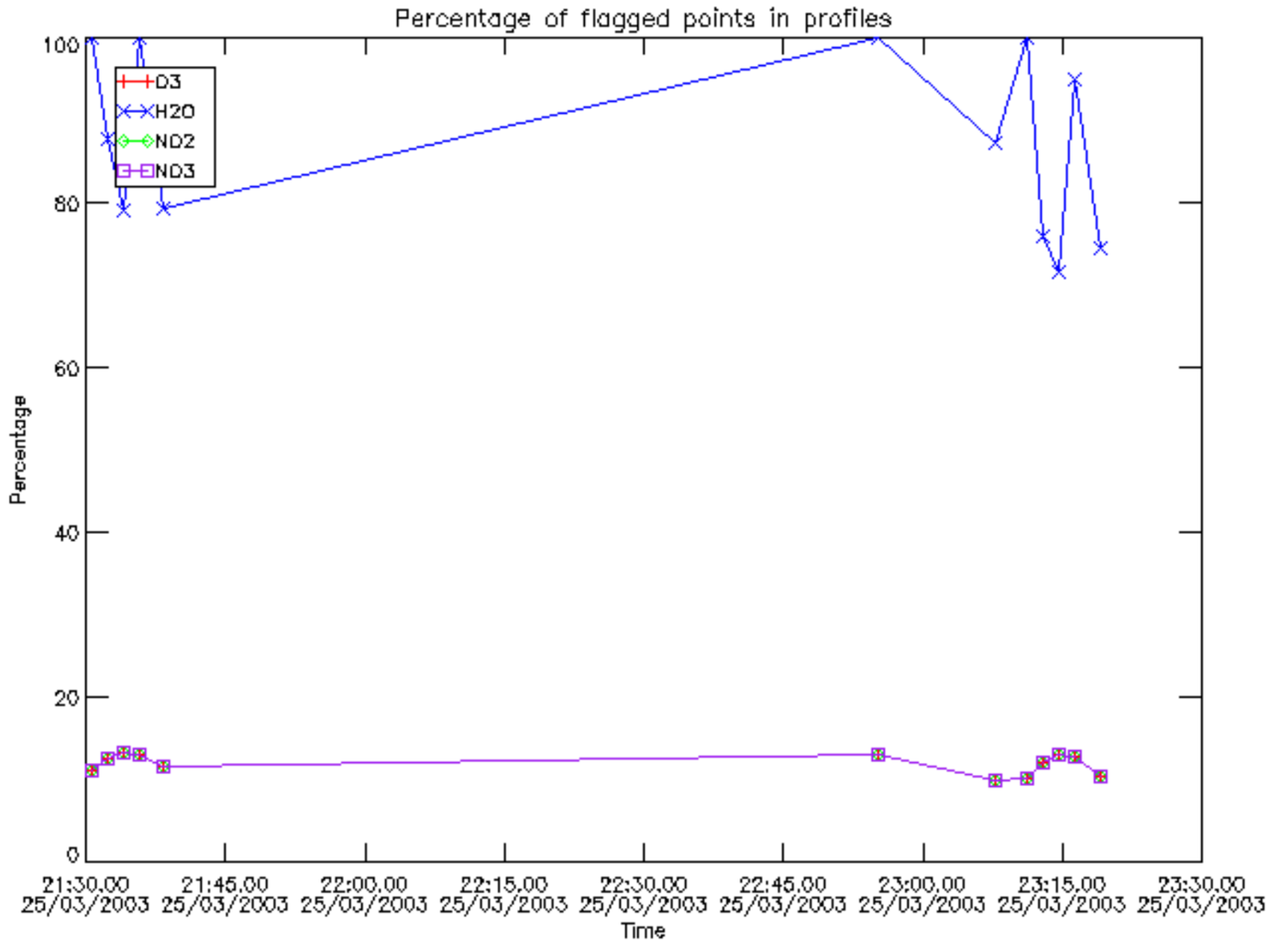

Zoom
Tangent altitude (m)
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
−4×10¹¹
−2×10¹¹
0
2×10¹¹
4×10¹¹
6×10¹¹
NO2 (cm−3)


NO3 profiles
20.00
0.000
−20.00
−40.00
−60.00
−80.00
Tangent altitude (m)
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
0
1×10¹²
2×10¹²
3×10¹²
4×10¹²
5×10¹²
NO3 (cm−3)

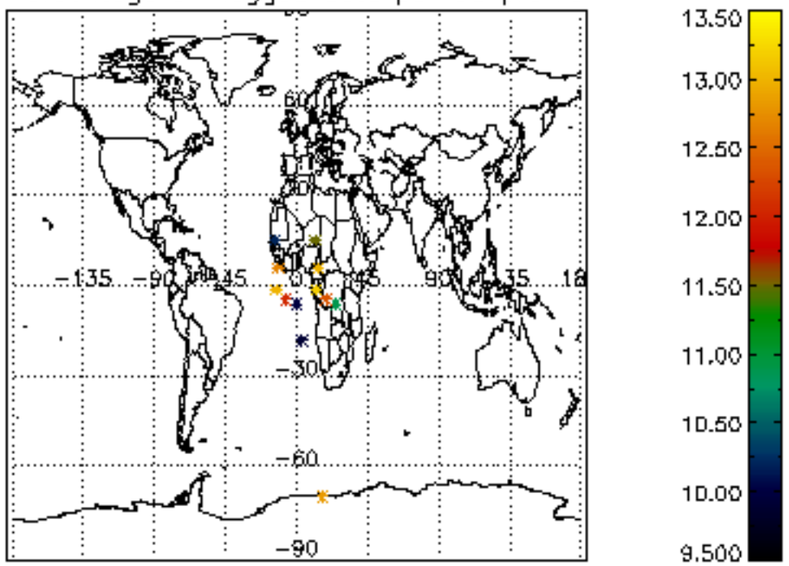

Zoom
Tangent altitude (m)
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
−1.0×10⁹
−5.0×10⁸
0
5.0×10⁸
1.0×10⁹
1.5×10⁹
NO3 (cm−3)


H2O profiles
−1.000
−2.000
−3.000
−4.000
−5.000
−6.000
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
Tangent altitude (m)
−1×10¹⁵
−5×10¹⁵
0
5×10¹⁵
1×10¹⁶
H2O (cm−3)

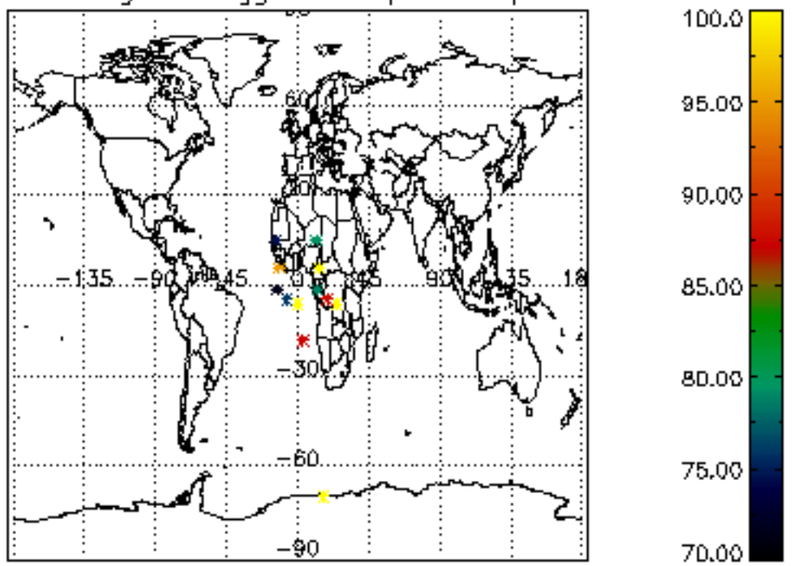

Zoom
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
Tangent altitude (m)
0
2×10¹⁴
4×10¹⁴
6×10¹⁴
8×10¹⁴
1×10¹⁵
H2O (cm−3)


Percentage of flagged points in profiles
O3
H2O
NO2
NO3
100
80
60
40
20
0
Percentage
21:30.00 25/03/2003
21:45.00 25/03/2003
22:00.00 25/03/2003
22:15.00 25/03/2003
22:30.00 25/03/2003
22:45.00 25/03/2003
23:00.00 25/03/2003
23:15.00 25/03/2003
23:30.00 25/03/2003
Time

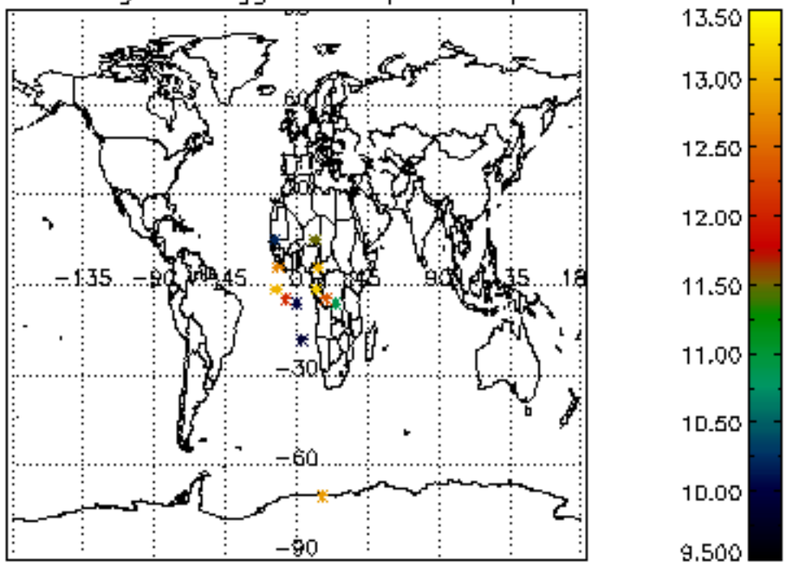
Percentage of flagged data per O3 profile



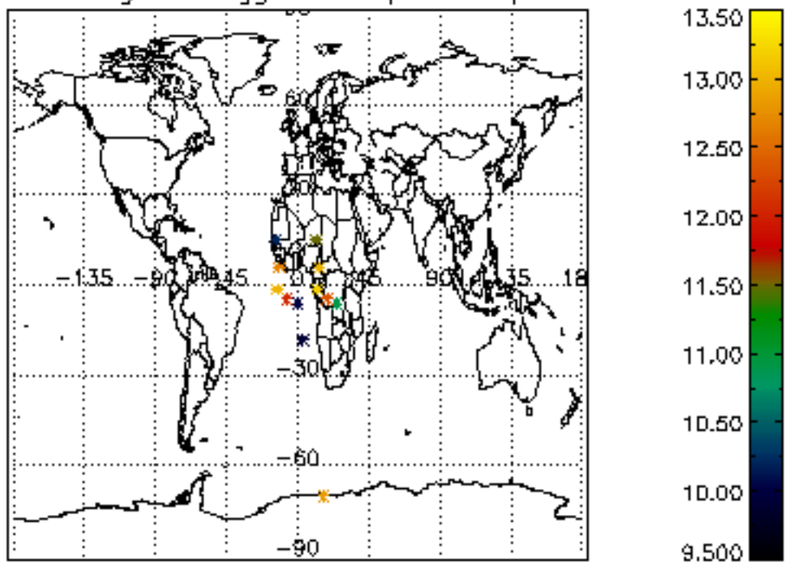
Percentage of flagged data per H2O profile

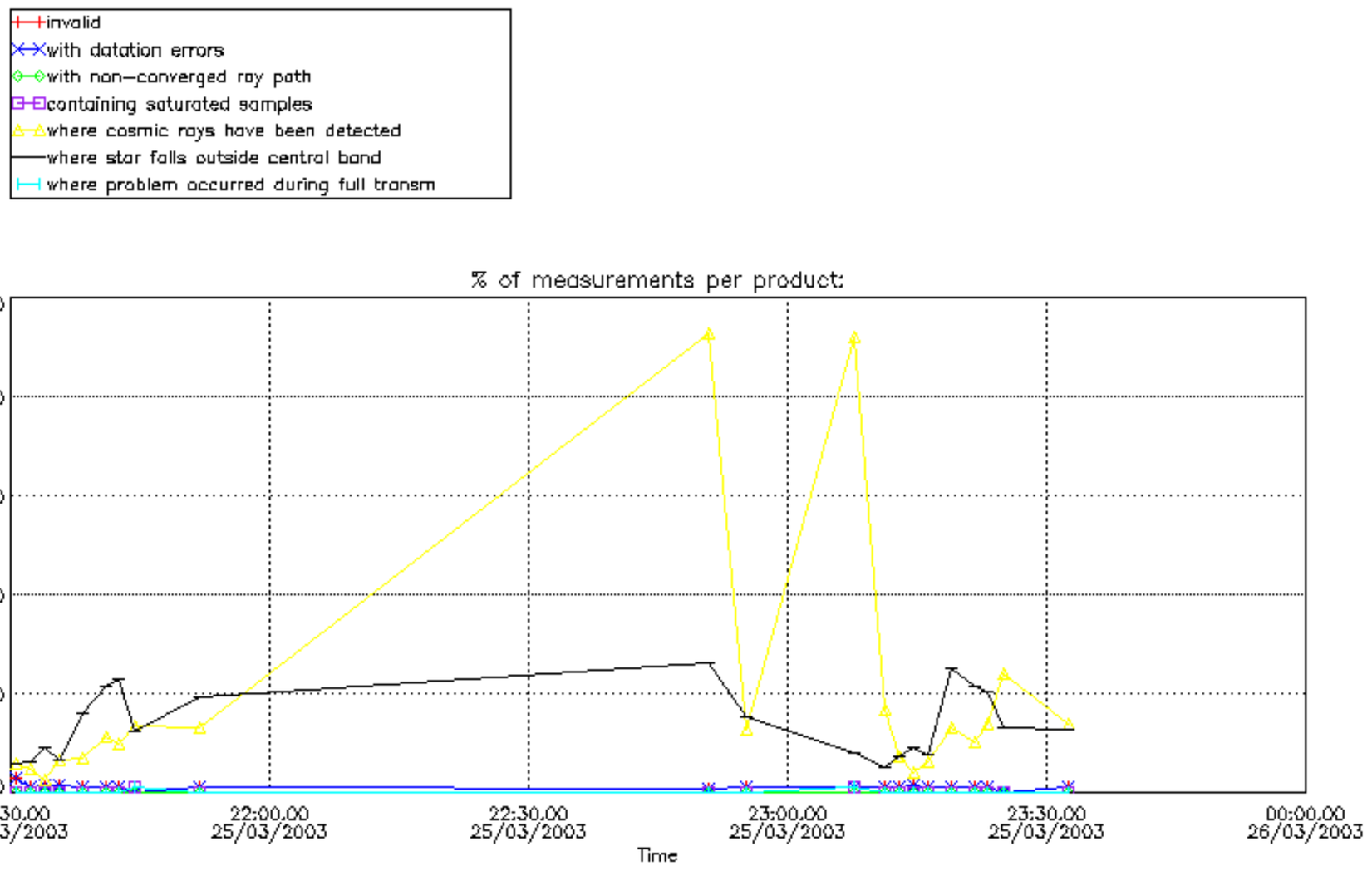


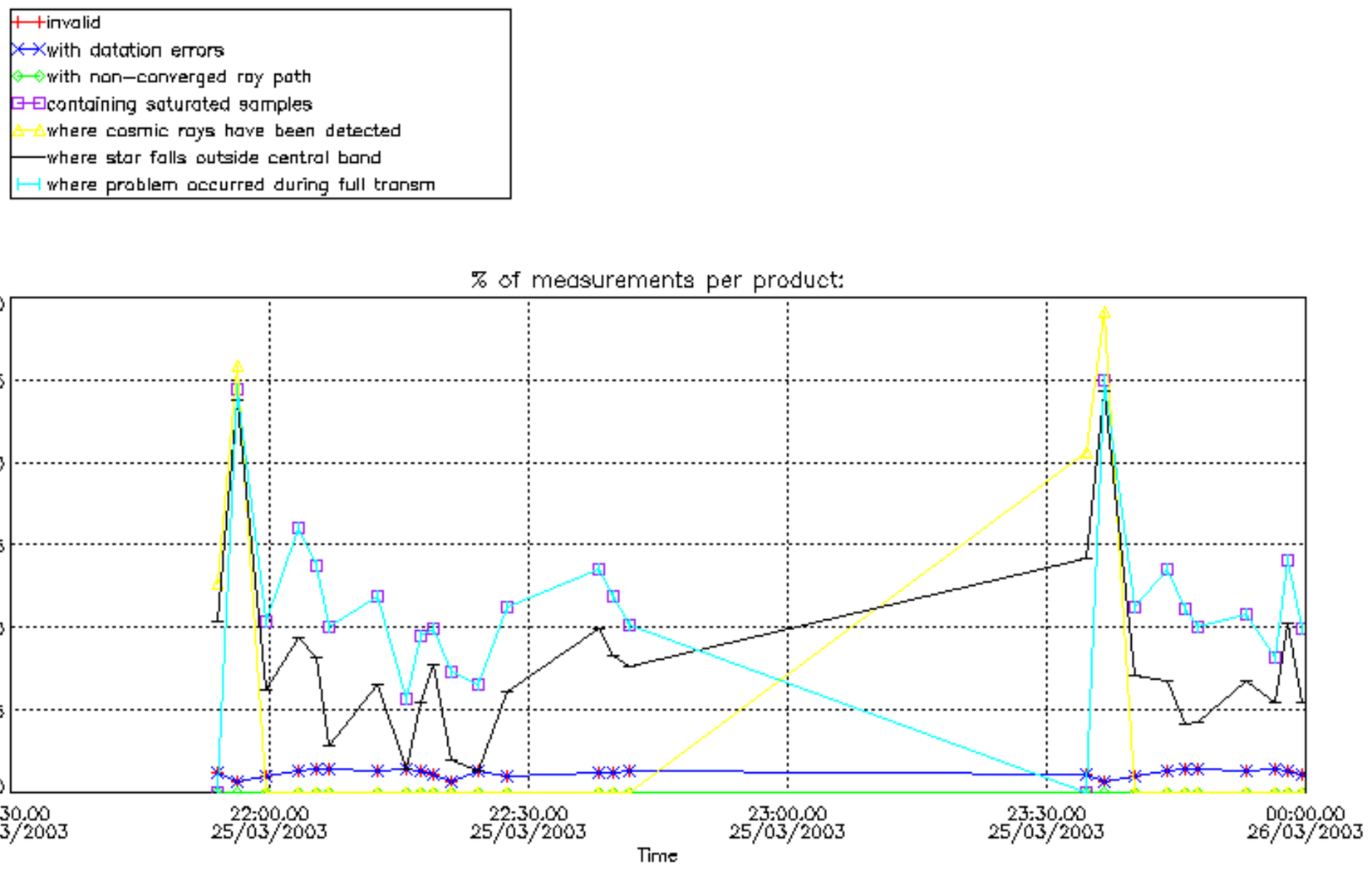
Percentage of flagged data per NO2 profile

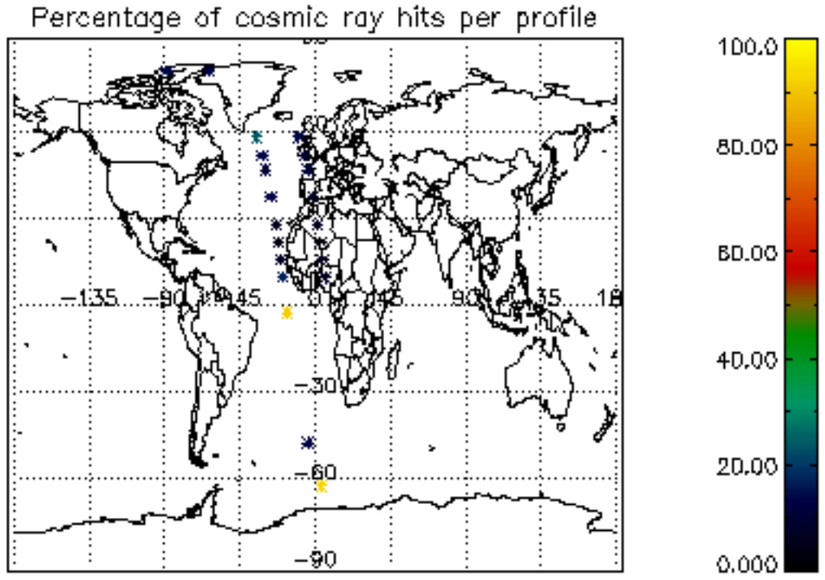


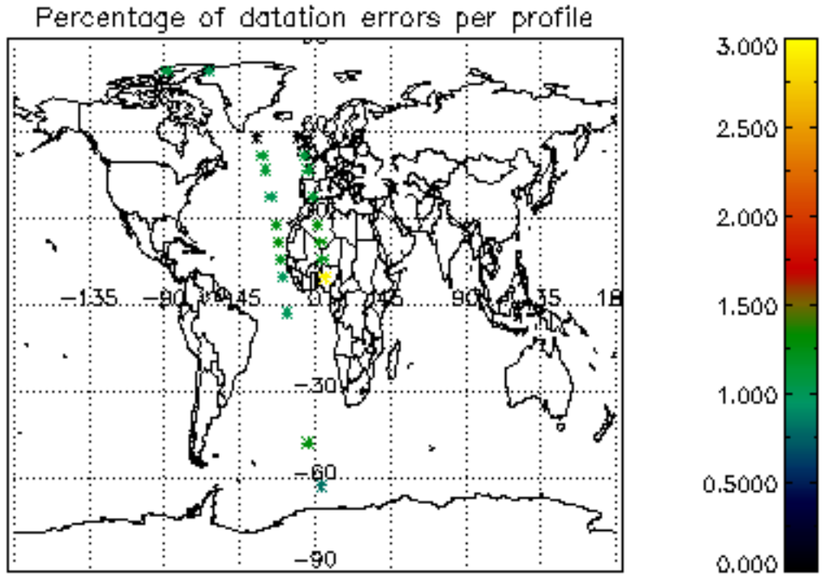
Percentage of flagged data per NO3 profile

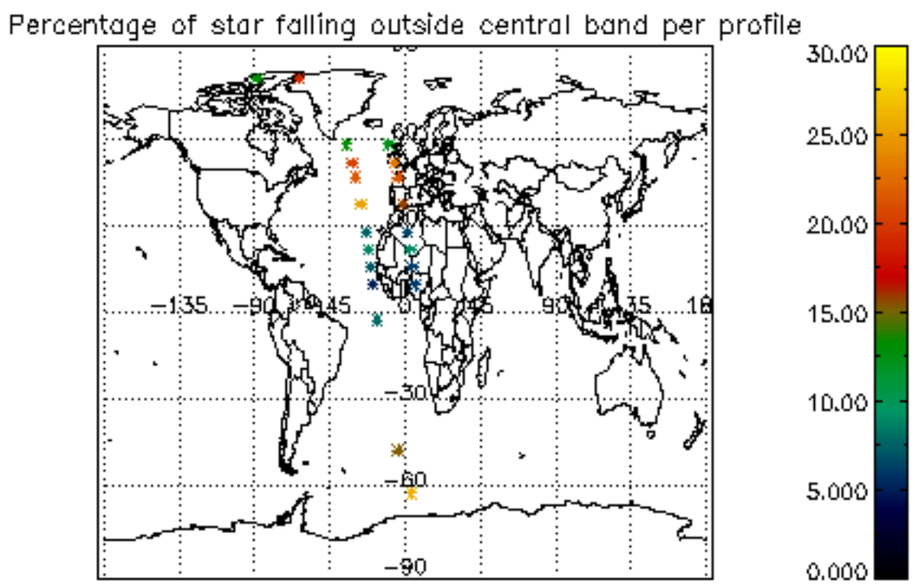


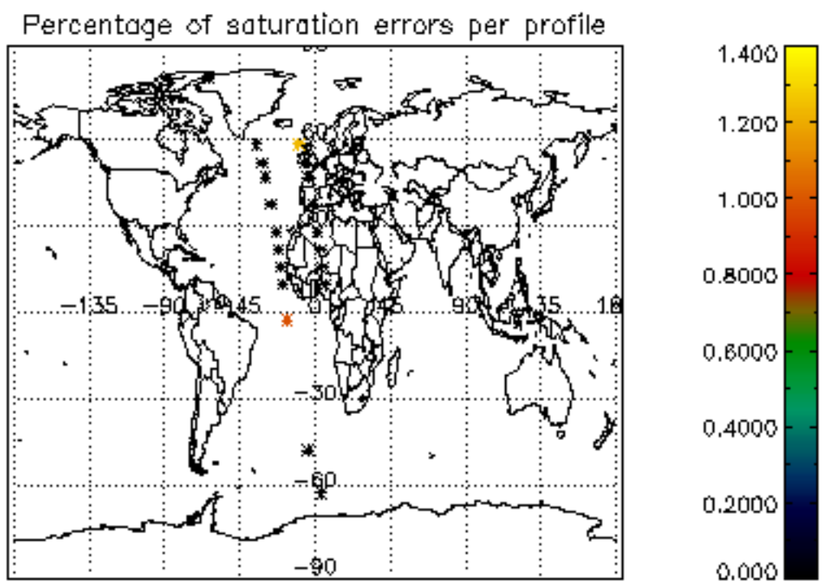

invalid
with datation errors
with non-converged ray path
containing saturated samples
where cosmic rays have been detected
where star falls outside central band
where problem occurred during full transm
% of measurements per product:
100
80
60
40
20
0
value (%)
21:30.00
25/03/2003
22:00.00
25/03/2003
22:30.00
25/03/2003
23:00.00
25/03/2003
23:30.00
25/03/2003
00:00.00
26/03/2003
Time

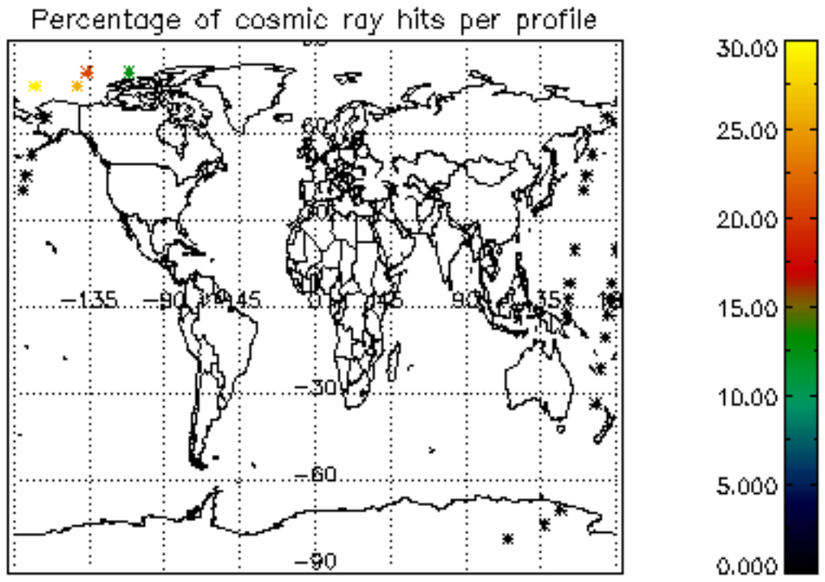

invalid
with datation errors
with non-converged ray path
containing saturated samples
where cosmic rays have been detected
where star falls outside central band
where problem occurred during full transm
% of measurements per product:
value (%)
30
25
20
15
10
5
0
21:30.00
25/03/2003
22:00.00
25/03/2003
22:30.00
25/03/2003
23:00.00
25/03/2003
23:30.00
25/03/2003
00:00.00
26/03/2003
Time

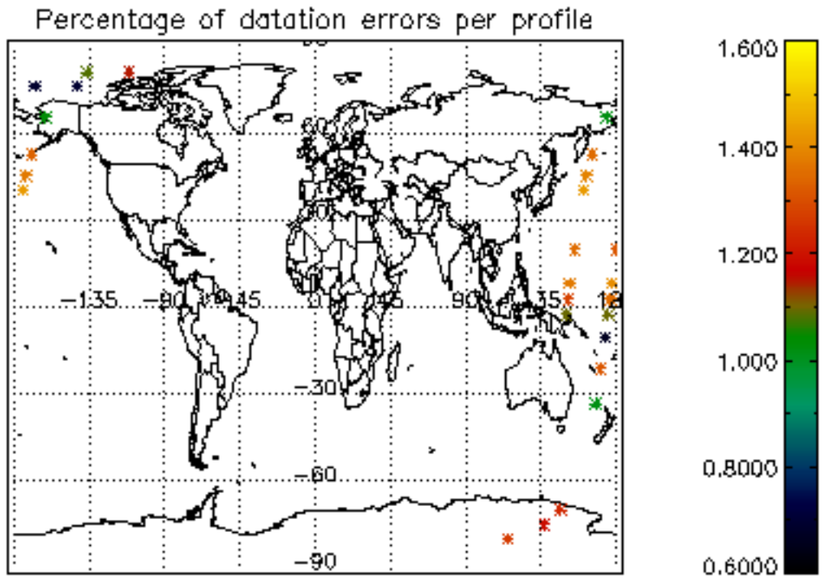

Percentage of cosmic ray hits per profile
100.0
80.00
60.00
40.00
20.00
0.000
−135
−90
−45
0
45
90
135
180
−30
−60
−90

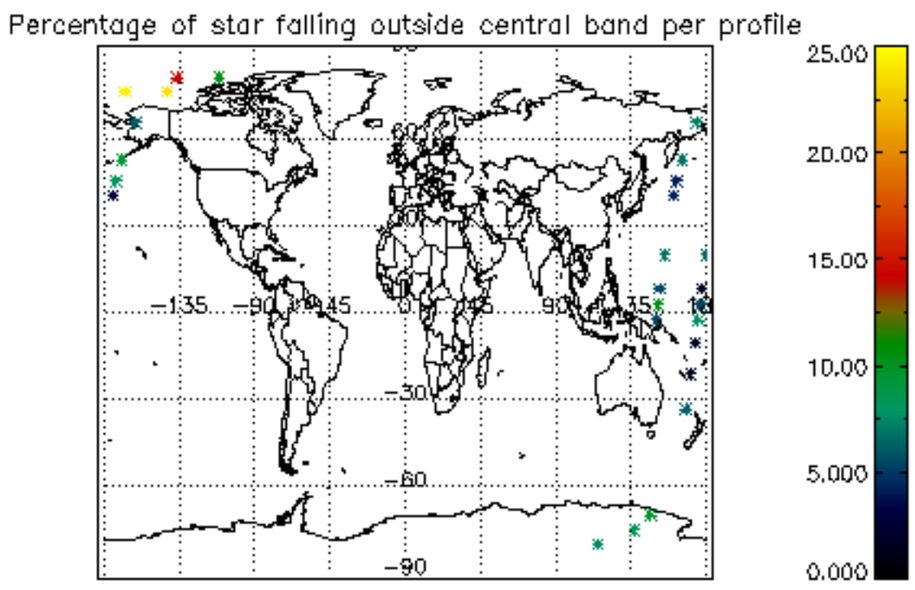

Percentage of datation errors per profile
3.000
2.500
2.000
1.500
1.000
0.5000
0.000
−135
−90
−45
0
45
90
135
180
−30
−60
−90

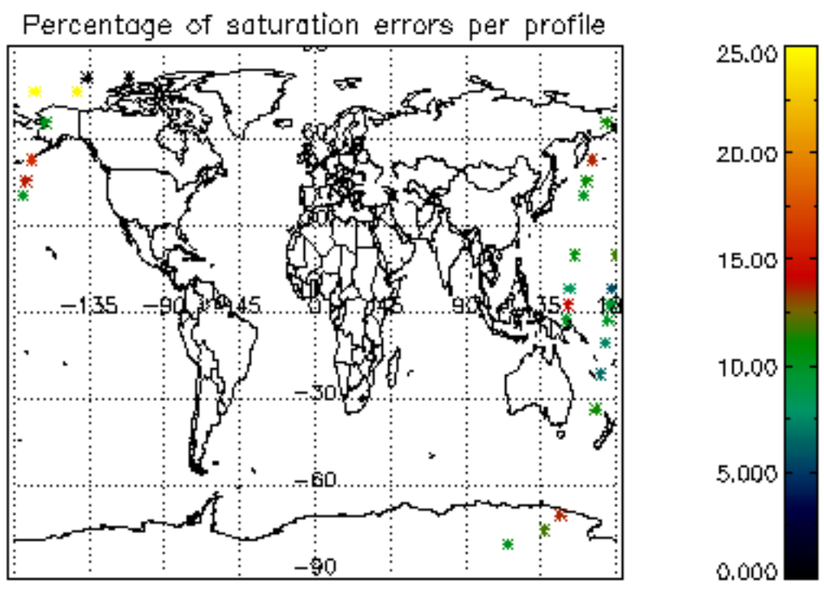

Percentage of star falling outside central band per profile
30.00
25.00
20.00
15.00
10.00
5.000
0.000
−135
−90
−45
0
45
90
135
180
−30
−60
−90

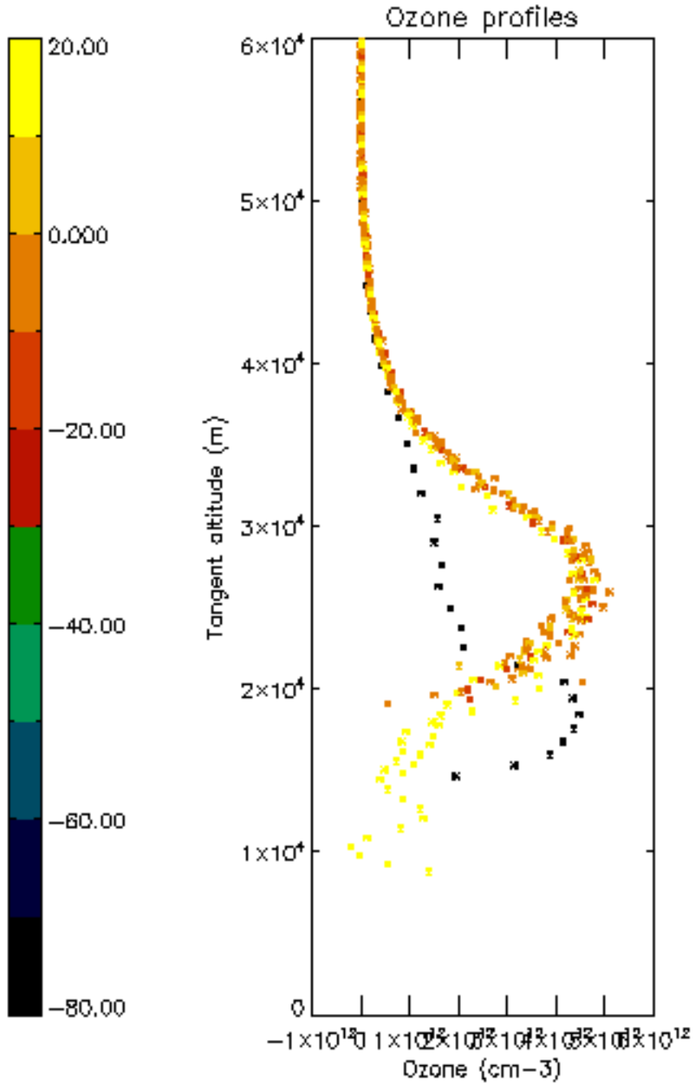

Percentage of saturation errors per profile
1.400
1.200
1.000
0.8000
0.6000
0.4000
0.2000
0.000
−135
−90
−45
0
45
90
135
180
−30
−60
−90

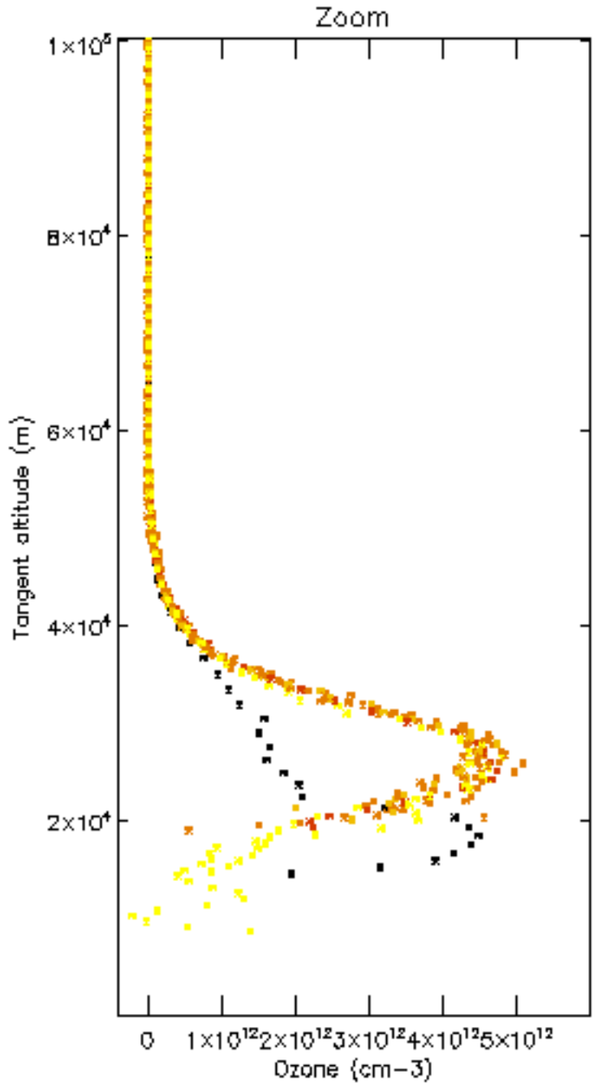

Percentage of cosmic ray hits per profile
30.00
25.00
20.00
15.00
10.00
5.000
0.000
−135
−90
−45
0
45
90
135
−30
−60
−90

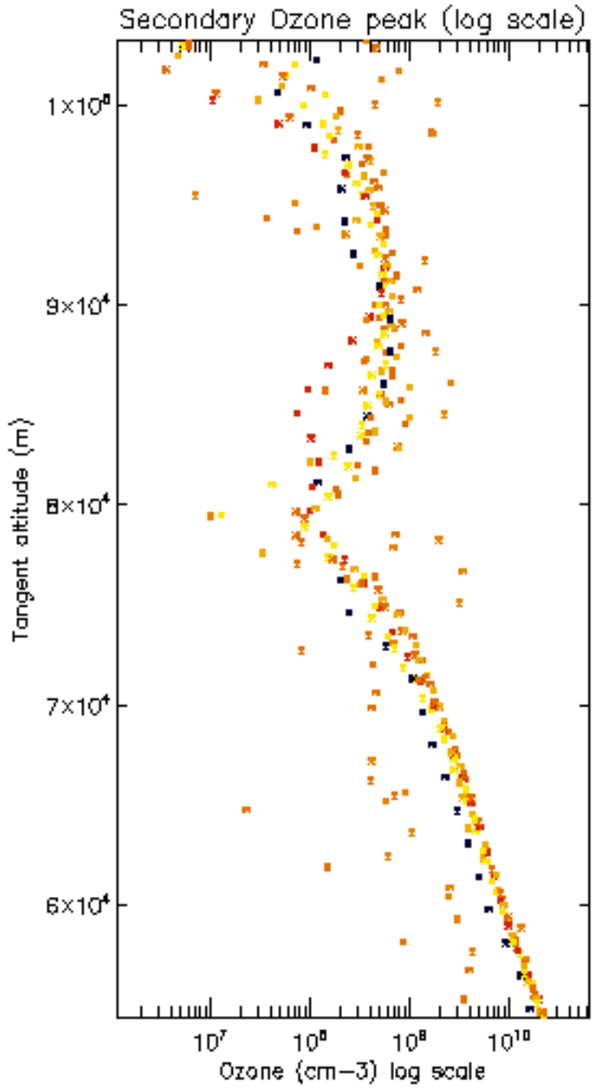

Percentage of datation errors per profile
1.600
1.400
1.200
1.000
0.8000
0.6000
−135
−90
−45
0
45
90
135
−30
−60
−90

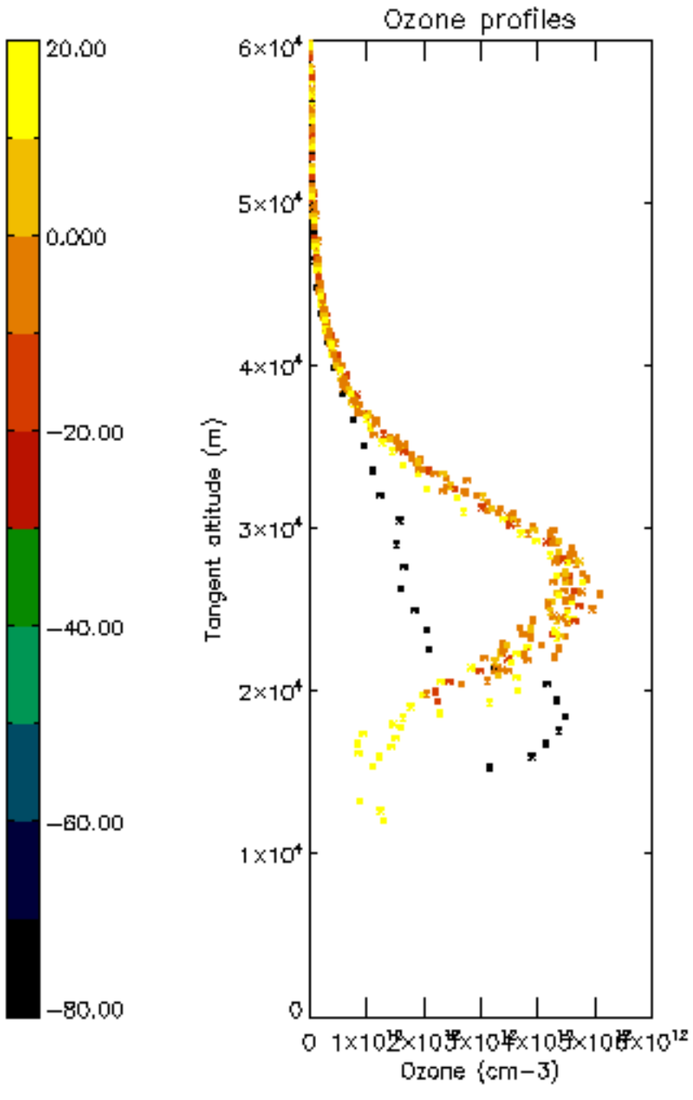

Percentage of star falling outside central band per profile
25.00
20.00
15.00
10.00
5.000
0.000
−135
−90
−45
0
45
90
135
−30
−60
−90

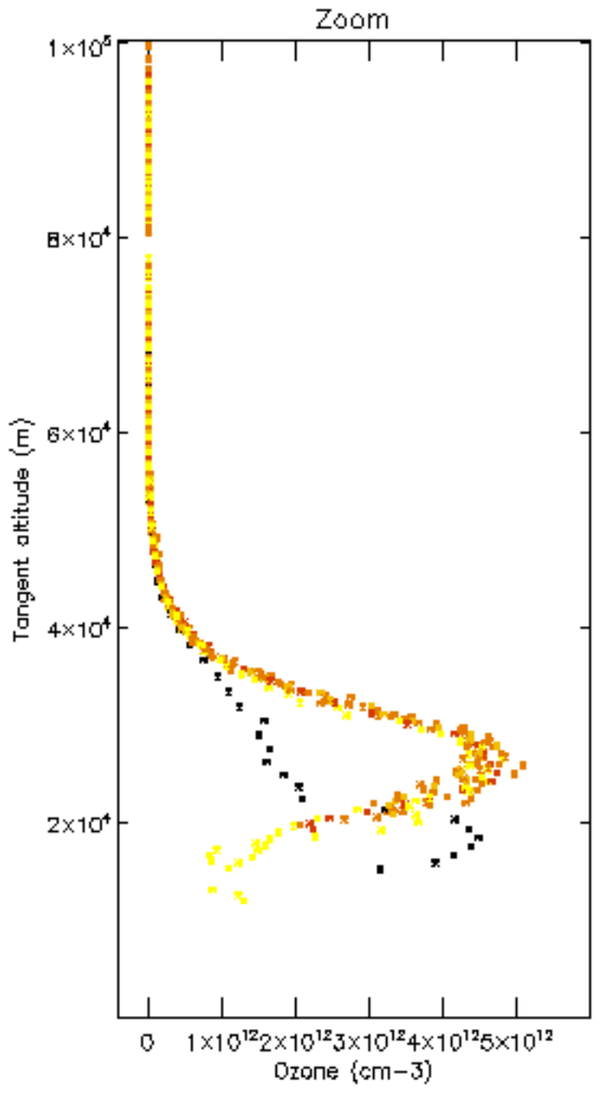

Percentage of saturation errors per profile
25.00
20.00
15.00
10.00
5.000
0.000
−135
−90
−45
0
45
90
135
−30
−60
−90

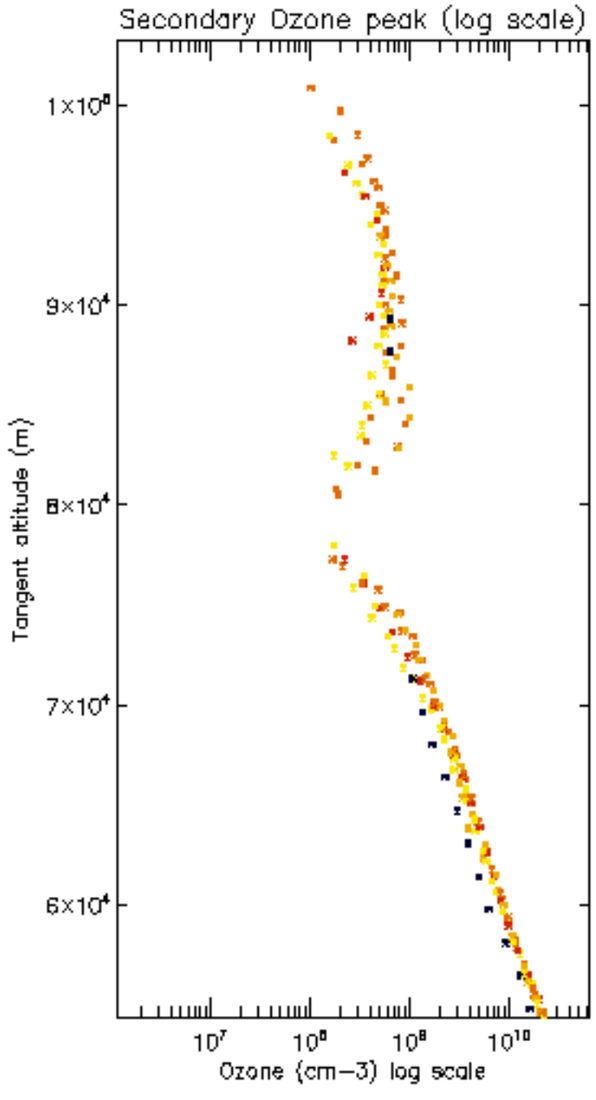

20.00
0.000
−20.00
−40.00
−60.00
−80.00
Ozone profiles
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
Tangent altitude (m)
−1×10¹²
0
1×10¹²
Ozone (cm−3)

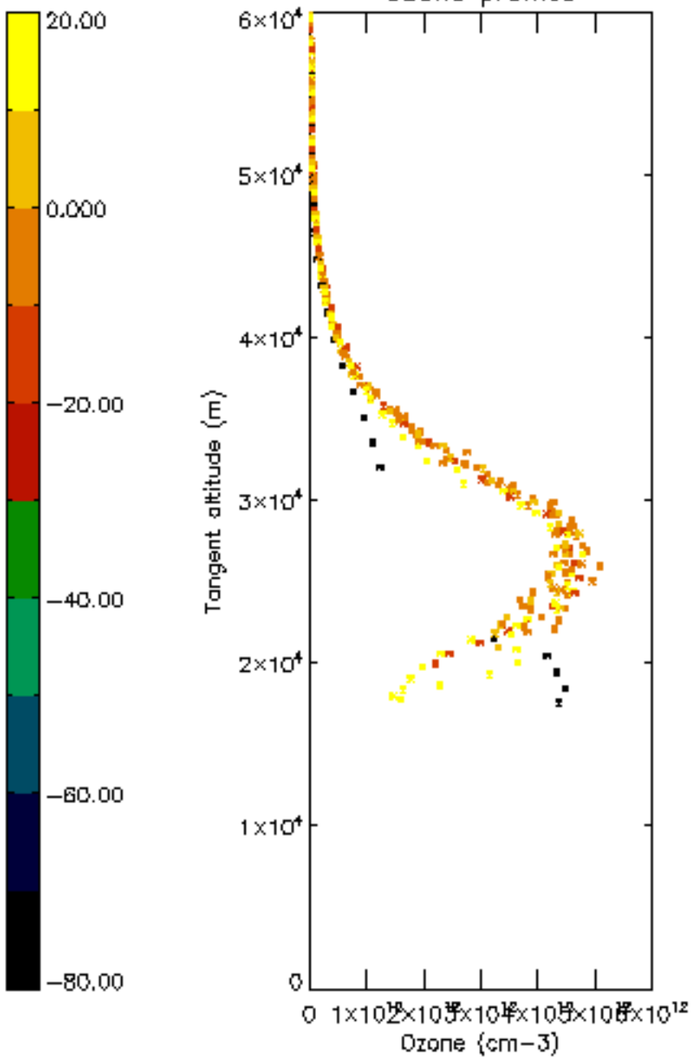

Zoom
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
Tangent altitude (m)
0
1×10¹²
2×10¹²
3×10¹²
4×10¹²
5×10¹²
Ozone (cm−3)

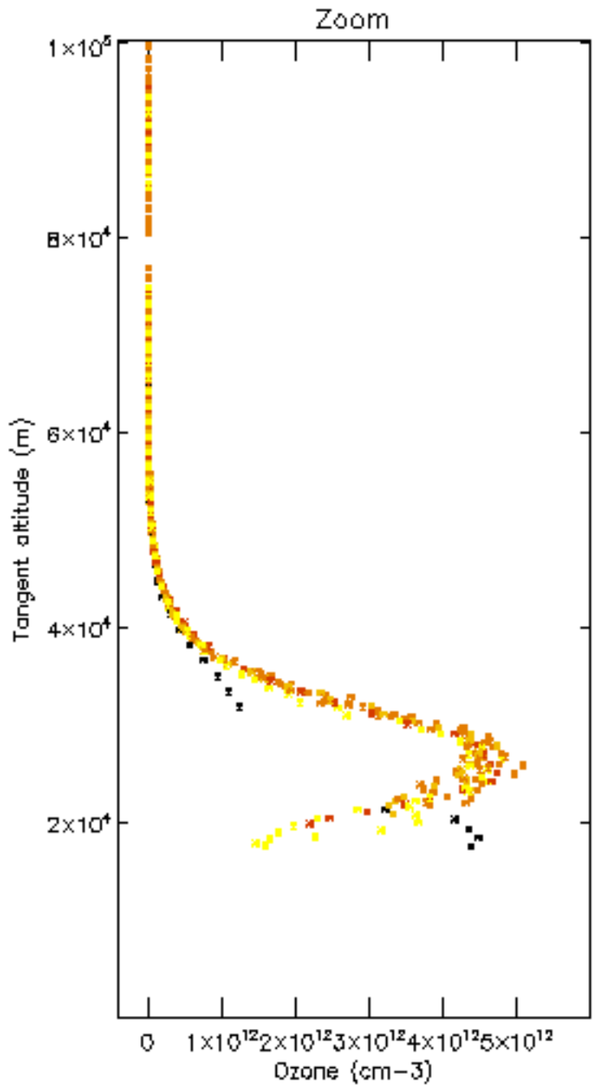

Secondary Ozone peak (log scale)
1×10⁵
9×10⁴
8×10⁴
7×10⁴
6×10⁴
Tangent altitude (m)
10⁷
10⁸
10⁸
10¹⁰
Ozone (cm−3) log scale

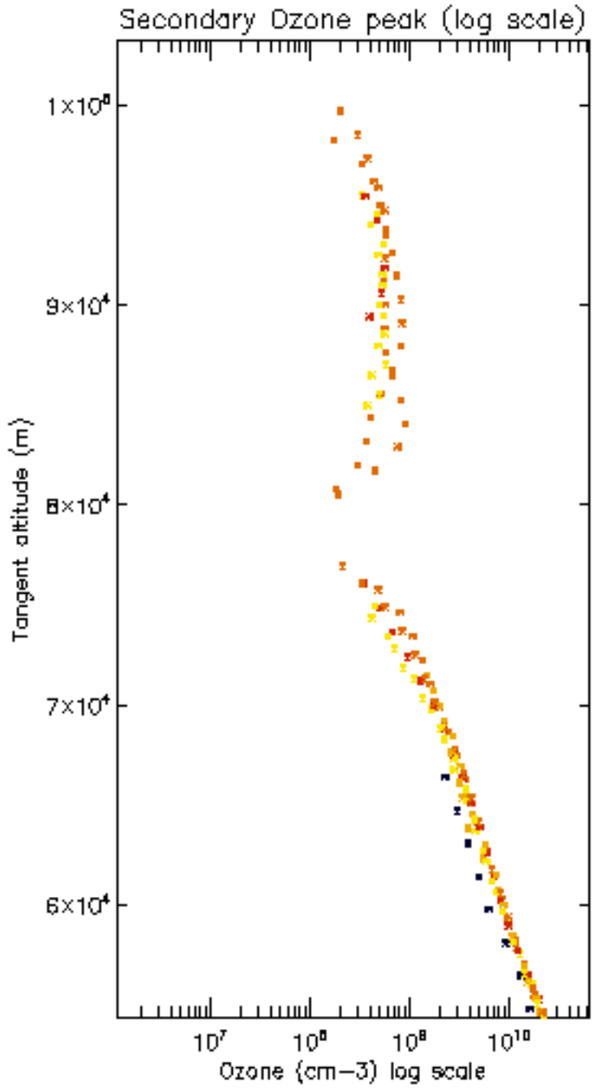

20.00
0.000
−20.00
−40.00
−60.00
−80.00
Ozone profiles
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
Tangent altitude (m)
0 1×10¹² 2×10¹² 3×10¹² 4×10¹² 5×10¹² 6×10¹²
Ozone (cm−3)

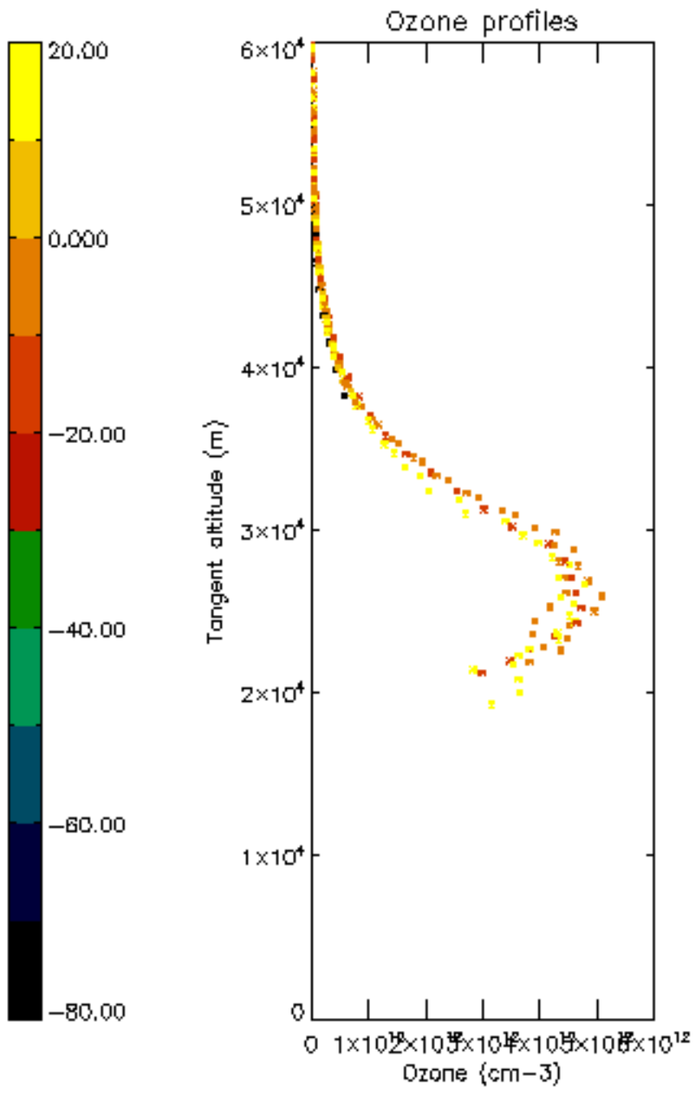

Zoom
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
Tangent altitude (m)
0 1×10¹² 2×10¹² 3×10¹² 4×10¹² 5×10¹²
Ozone (cm−3)


Secondary Ozone peak (log scale)
1×10⁵
9×10⁴
8×10⁴
7×10⁴
6×10⁴
Tangent altitude (m)
10⁷ 10⁸ 10⁹ 10¹⁰
Ozone (cm−3) log scale


20.00
0.000
−20.00
−40.00
−60.00
−80.00
Ozone profiles
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
Tangent altitude (m)
0 1×10¹² 2×10¹² 3×10¹² 4×10¹² 5×10¹² 6×10¹²
Ozone (cm−3)

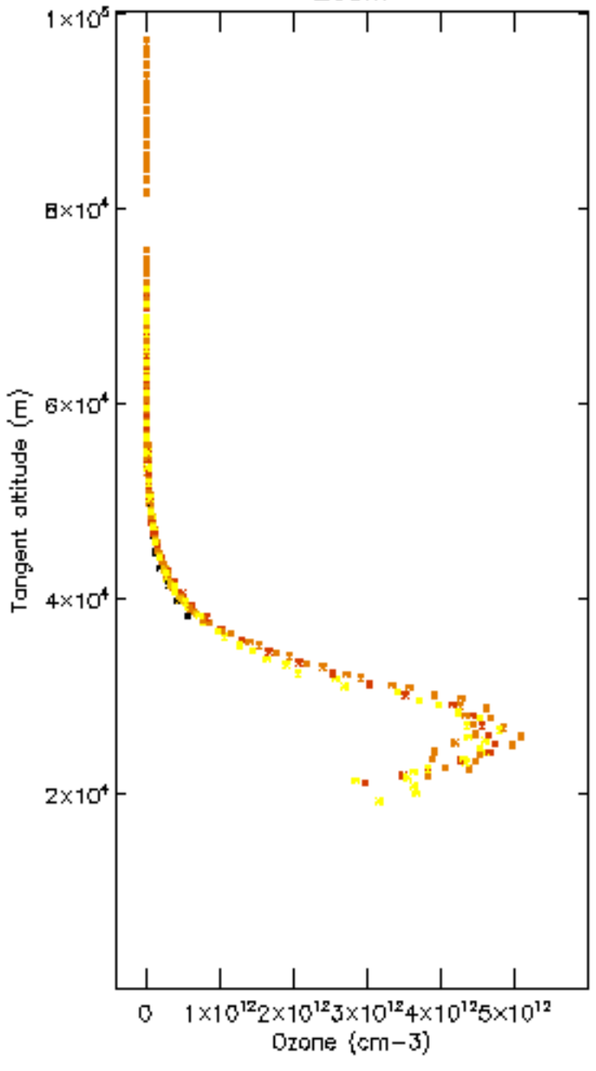

Zoom
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
Tangent altitude (m)
0 1×10¹² 2×10¹² 3×10¹² 4×10¹² 5×10¹²
Ozone (cm−3)


Secondary Ozone peak (log scale)
1×10⁵
9×10⁴
8×10⁴
7×10⁴
6×10⁴
Tangent altitude (m)
10⁷ 10⁸ 10⁹ 10¹⁰
Ozone (cm−3) log scale

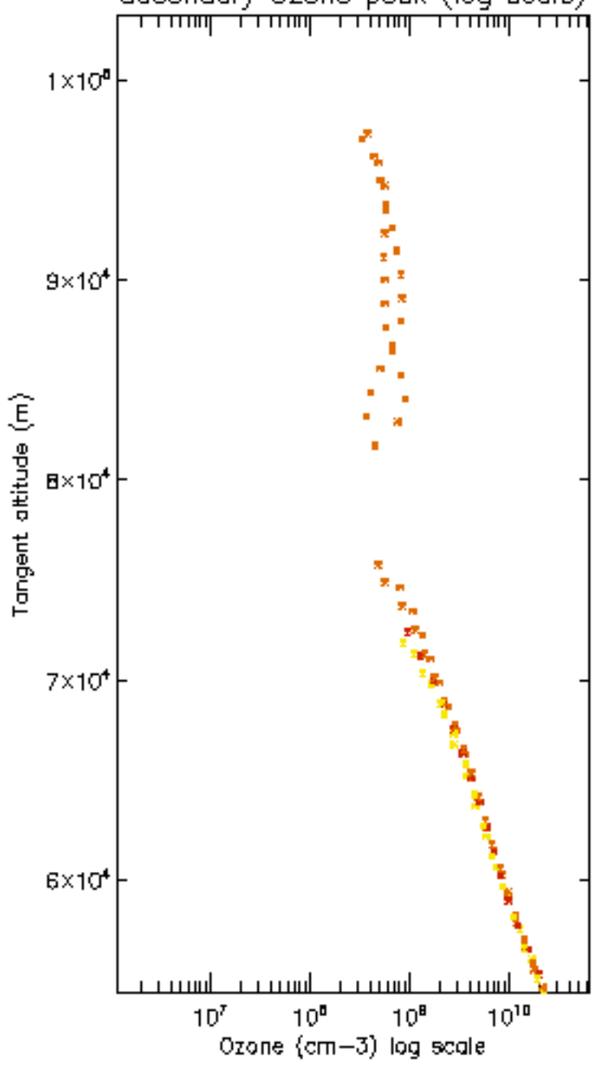


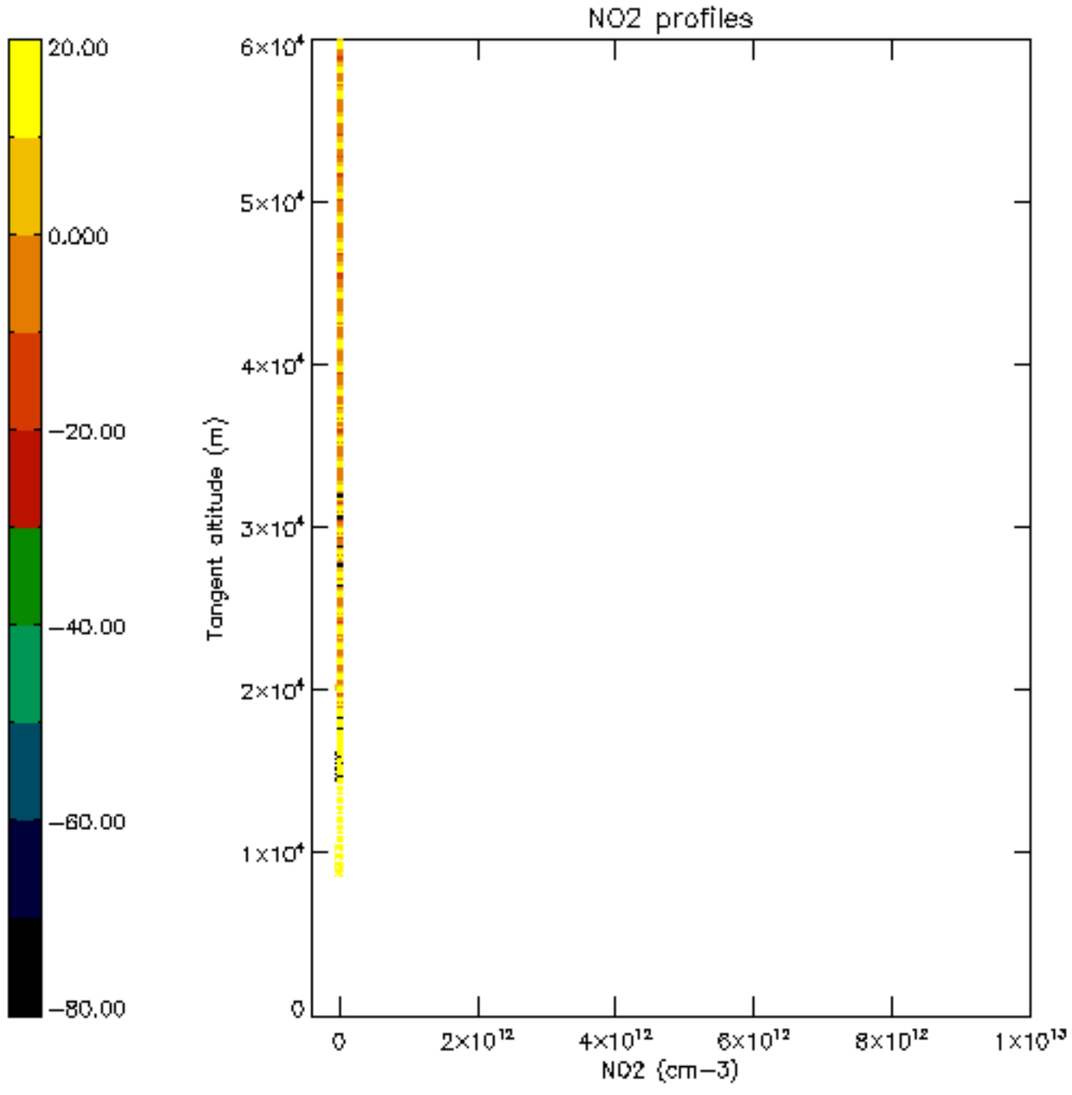
Ozone profiles

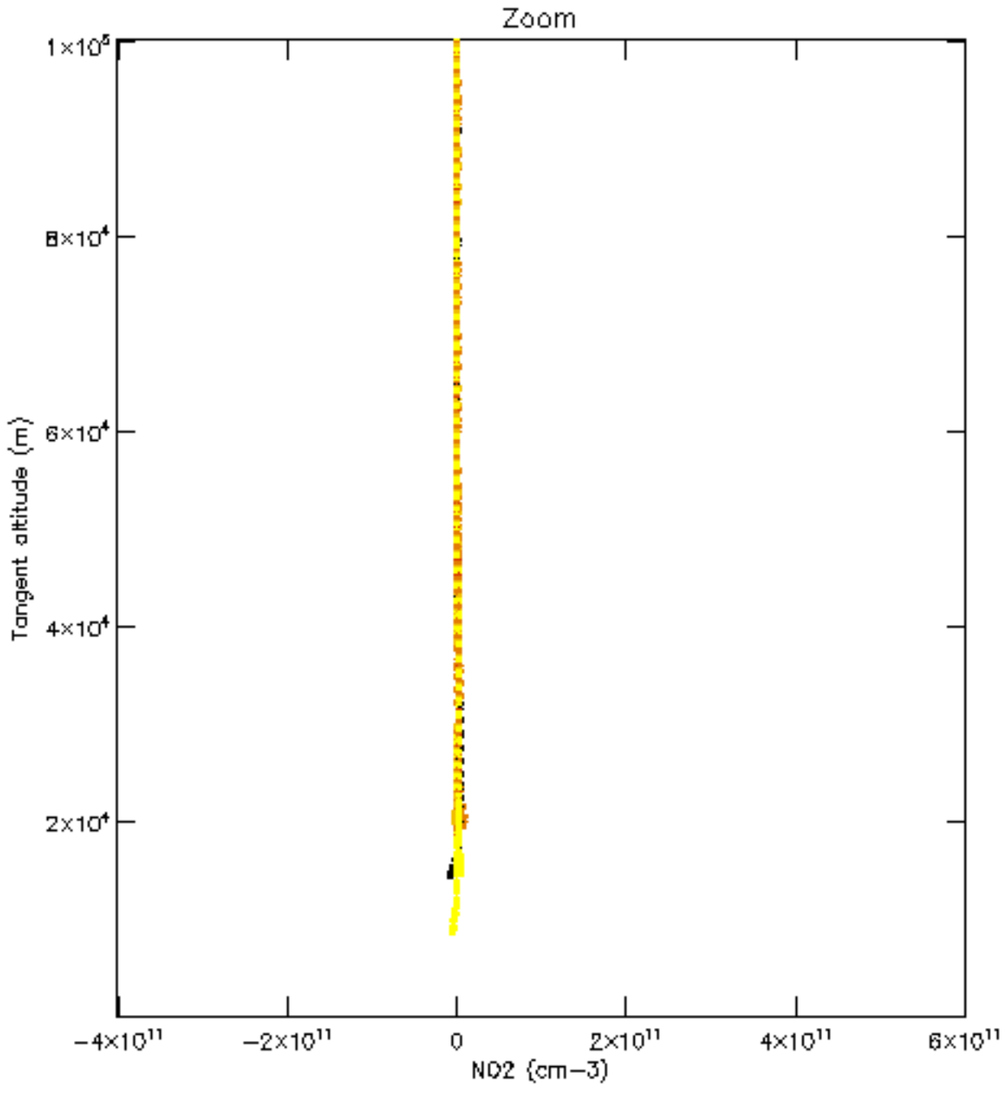
Zoom

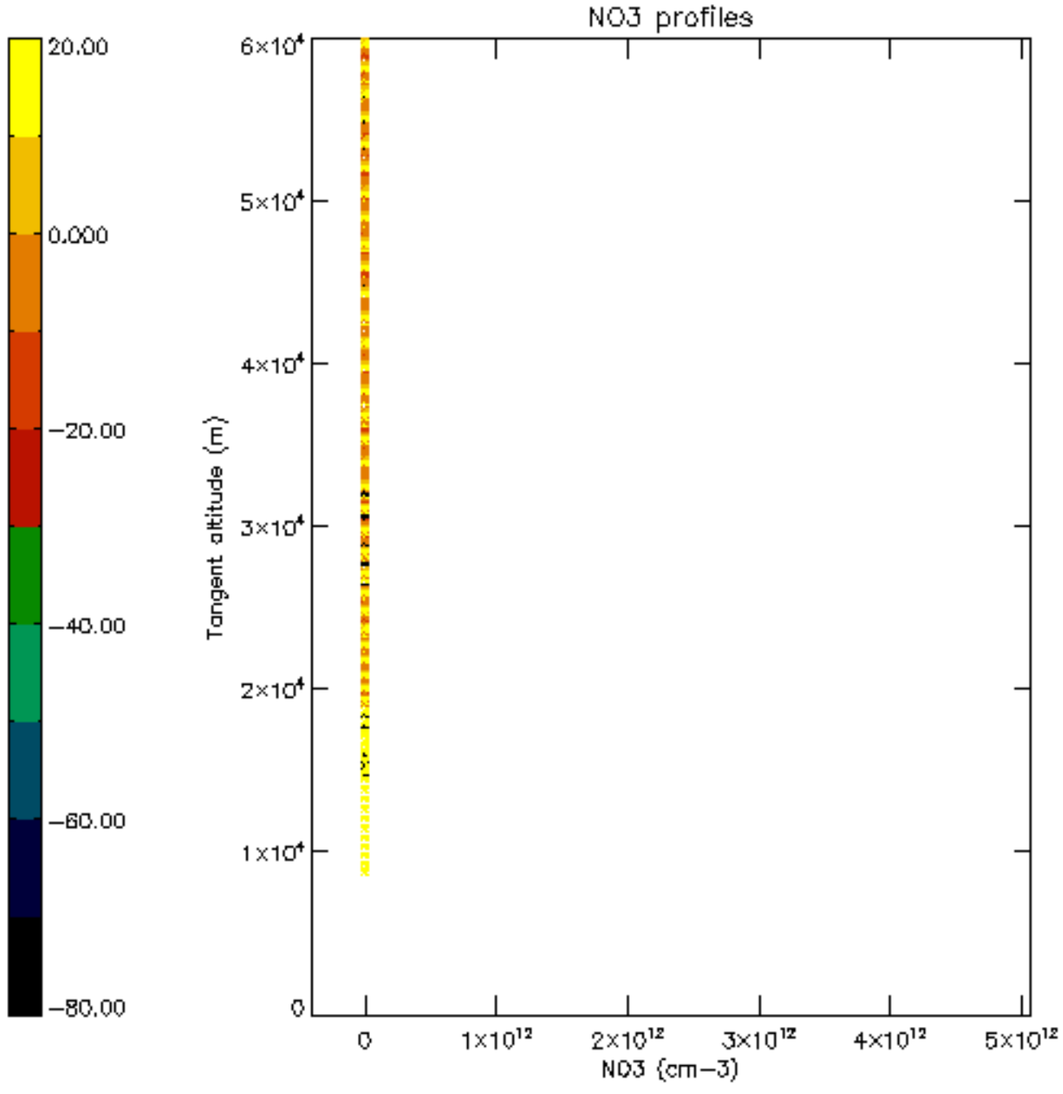


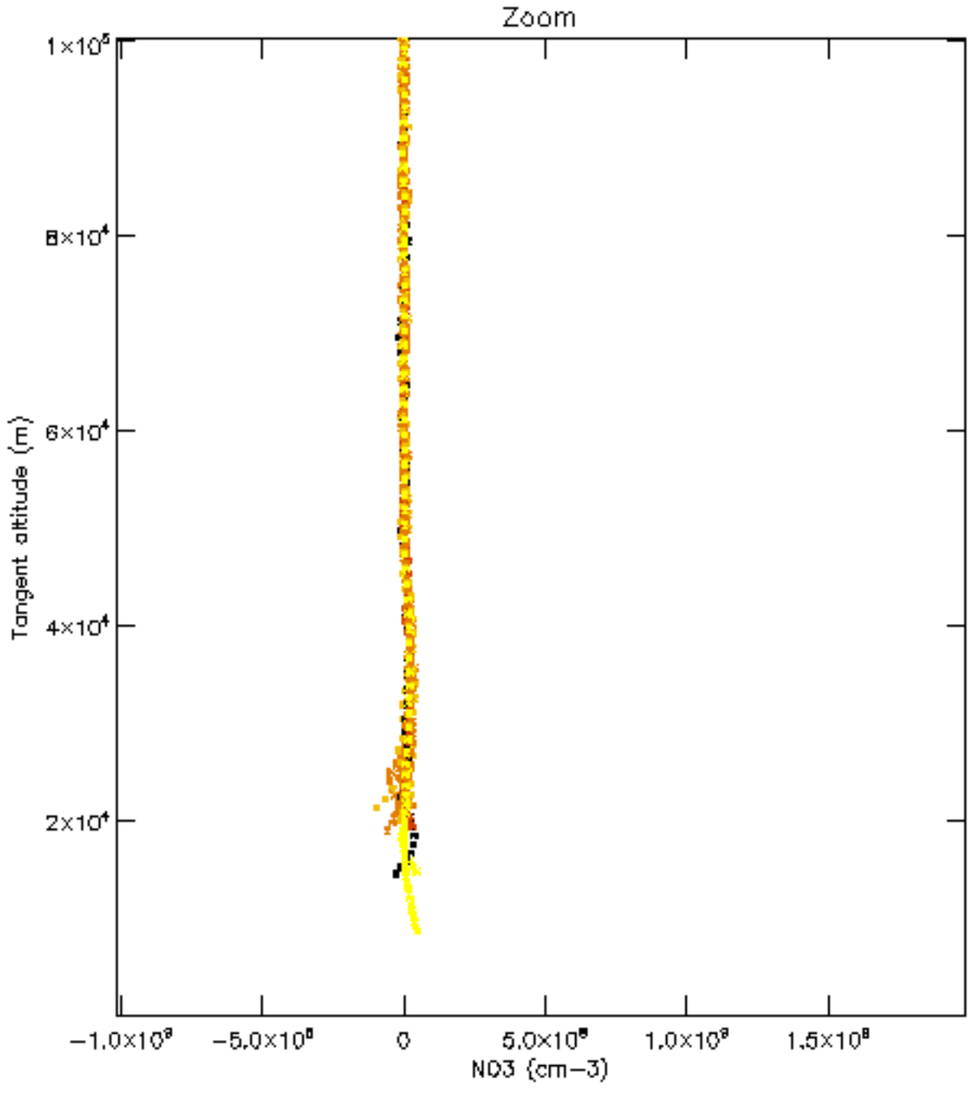
Secondary Ozone peak (log scale)

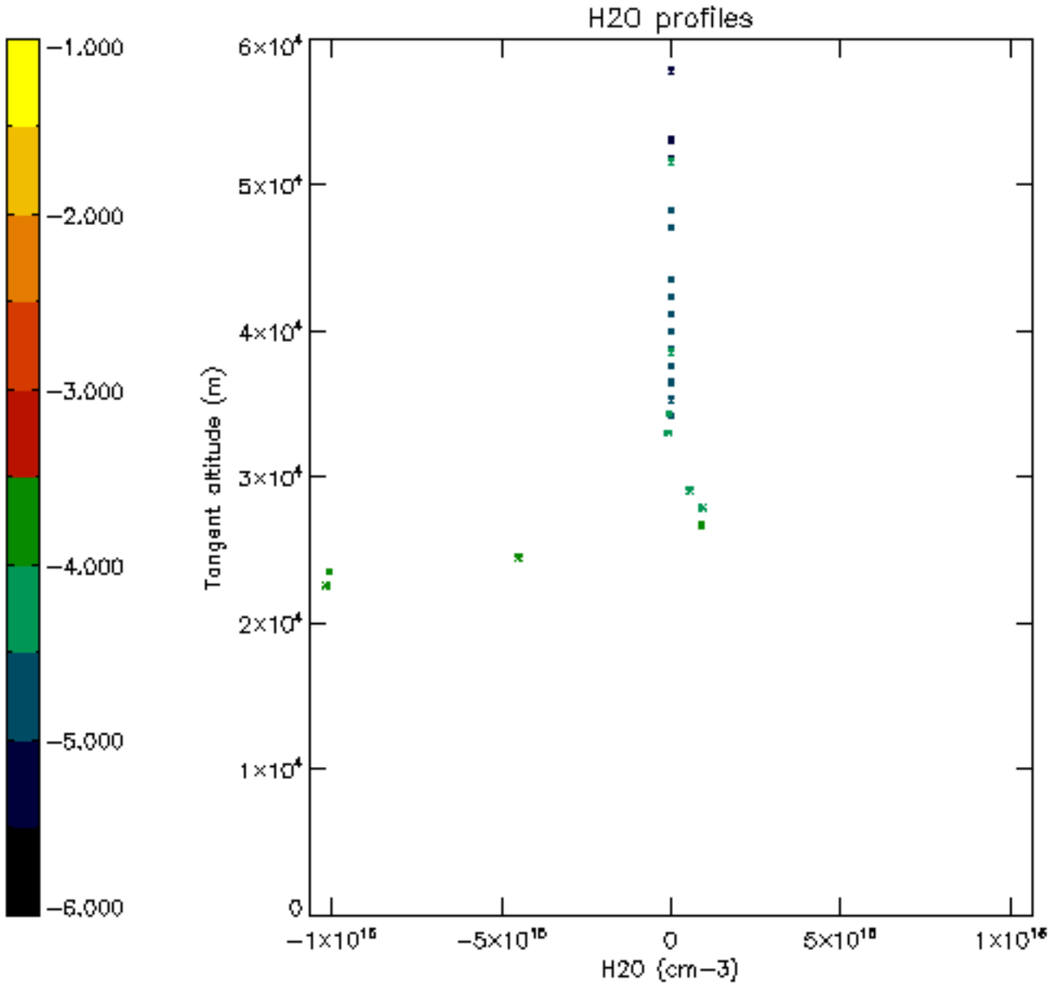


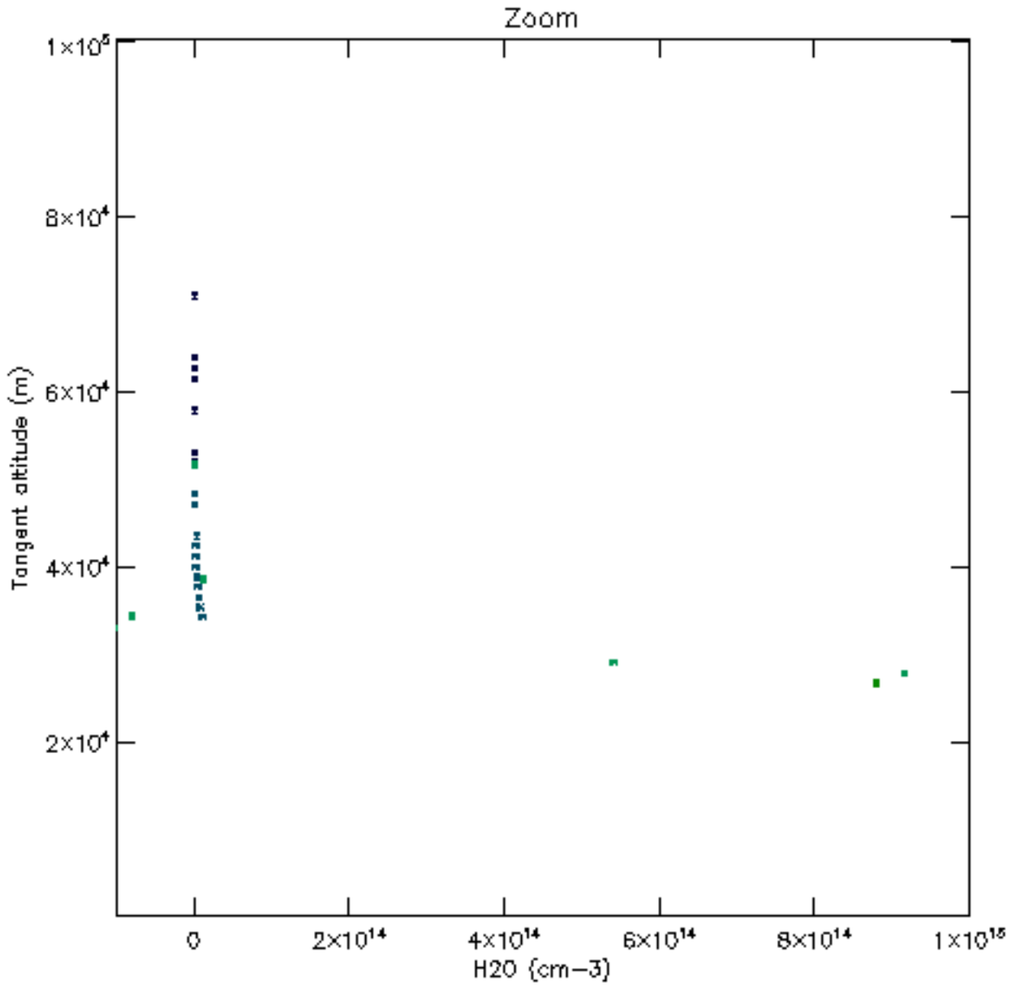

NO2 profiles
20.00
0.000
−20.00
−40.00
−60.00
−80.00
Tangent altitude (m)
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
0
2×10¹²
4×10¹²
6×10¹²
8×10¹²
1×10¹³
NO2 (cm−3)


Zoom
Tangent altitude (m)
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
−4×10¹¹
−2×10¹¹
0
2×10¹¹
4×10¹¹
6×10¹¹
NO2 (cm−3)


NO3 profiles
20.00
0.000
−20.00
−40.00
−60.00
−80.00
Tangent altitude (m)
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
0
1×10¹²
2×10¹²
3×10¹²
4×10¹²
5×10¹²
NO3 (cm−3)


Zoom
Tangent altitude (m)
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
−1.0×10⁹
−5.0×10⁸
0
5.0×10⁸
1.0×10⁹
1.5×10⁹
NO3 (cm−3)


H2O profiles
−1.000
−2.000
−3.000
−4.000
−5.000
−6.000
6×10⁴
5×10⁴
4×10⁴
3×10⁴
2×10⁴
1×10⁴
0
Tangent altitude (m)
−1×10¹⁵
−5×10¹⁵
0
5×10¹⁵
1×10¹⁶
H2O (cm−3)


Zoom
1×10⁵
8×10⁴
6×10⁴
4×10⁴
2×10⁴
Tangent altitude (m)
0
2×10¹⁴
4×10¹⁴
6×10¹⁴
8×10¹⁴
1×10¹⁵
H2O (cm−3)