

PyCAMA report generated by tropl2-proc

tropl2-proc

2025-10-27 (01:45)

1 Short Introduction

1.1 The list of parameters

You may want to keep the list given in table 1 at hand when viewing the results.

2 Definitions

The averages shown here are *unweighed* averages:

$$\bar{x} = \frac{1}{N} \sum_{i=1}^N x_i \quad (1)$$

with N the number of observations in the dataset.

The spread of the measurements is indicated with the variance $V(x)$, or rather the standard deviation $\sigma(x) = \sqrt{V(x)}$.

$$V(x) = \frac{1}{N-1} \sum_{i=1}^N (x_i - \bar{x})^2 \quad (2)$$

We also report the more robust statistics median, minimum, maximum, various percentiles and inter quartile range.

The median m is the value of parameter x for which half of the observations of x is smaller than m :

$$P(x \leq m) = P(x \geq m) = \int_{-\infty}^m f(x) dx = \frac{1}{2} \quad (3)$$

with $f(x)$ the probability density function.

The median is a special case of a percentile. Instead of 1/2 in equation 3, other threshold values can be used. We report results for 1 %, 5 %, 10 %, 15.9 %, 25 %, 75 %, 84.1 %, 90 %, 95 % and 99 %. The inter quartile range is the difference between the 75 % and 25 % percentiles. Similarly the minimum and maximum values correspond to the 0 % and 100 % percentiles respectively.

For normally distributed parameters the mean and median are the same, while the $\mu \pm \sigma$ values and the 15.9 % and 84.1 % percentiles coincide.

To get a measure for the relation of one variable $x_{(k)}$ with another $x_{(l)}$, we calculate the covariance matrix C_{kl} .

$$C_{kl} = C(x_{(k)}, x_{(l)}) = \frac{1}{N-1} \sum_{i=1}^N (x_{(k),i} - \bar{x}_{(k)})(x_{(l),i} - \bar{x}_{(l)}) \quad (4)$$

Rather than a dimensionally dependent covariance, it is often easier to interpret a correlation matrix R_{kl} , a matrix of Pearson's r coefficients:

$$R_{kl} = R(x_{(k)}, x_{(l)}) = \frac{C_{kl}}{\sqrt{C_{kk}C_{ll}}} = \frac{C_{kl}}{\sqrt{V(x_k)V(x_l)}} \quad (5)$$

The diagonal elements of the covariance matrix are the variances of the elements, $V(x_{(k)}) = C_{kk}$ and obviously $R_{kk} = 1$.

Table 1: Parameterlist and basic statistics for the analysis

Variable	mean $\pm \sigma$	Count	Mode	IQR	Median	Minimum	Maximum
qa value [1]	0.609 ± 0.372	19235528	5.000×10^{-3}	0.620	0.720	0.0	1.000
cloud fraction [1]	0.568 ± 0.339	19235528	0.995	0.703	0.544	5.931×10^{-3}	1.000
cloud top height [m]	$(0.410 \pm 0.285) \times 10^4$	19235528	1.575×10^3	3.889×10^3	3.450×10^3	0.0	2.000×10^4
cloud optical thickness [1]	21.6 ± 40.3	19235528	9.34	12.0	9.45	1.000	250
cloud fraction crb [1]	0.567 ± 0.338	19235528	0.995	0.702	0.544	7.038×10^{-3}	1.000
cloud height crb [m]	$(0.319 \pm 0.234) \times 10^4$	19235528	1.125×10^3	3.220×10^3	2.727×10^3	0.0	2.000×10^4
cloud albedo crb [1]	0.617 ± 0.222	19235528	0.995	0.309	0.600	0.0	1.000
surface albedo fitted [1]	0.265 ± 0.335	19235528	2.500×10^{-2}	0.357	6.668×10^{-2}	0.0	1.000
surface albedo fitted crb [1]	0.251 ± 0.319	19235528	1.500×10^{-2}	0.367	5.437×10^{-2}	0.0	1.000
fitted root mean square [1]	$(6.538 \pm 11.270) \times 10^{-4}$	19235528	5.000×10^{-5}	7.953×10^{-4}	3.949×10^{-4}	1.310×10^{-6}	0.780
fitted root mean square crb [1]	$(5.783 \pm 11.006) \times 10^{-4}$	19235528	5.000×10^{-5}	7.424×10^{-4}	2.964×10^{-4}	8.136×10^{-7}	0.929
wavelength shift [nm]	$(9.134 \pm 7.498) \times 10^{-3}$	19235528	9.000×10^{-4}	1.125×10^{-2}	8.539×10^{-3}	-5.139×10^{-2}	0.615
cloud fraction apriori [1]	0.575 ± 0.343	19235528	0.995	0.745	0.559	0.0	1.000
reflectance blue ocra [1]	0.590 ± 0.241	19235528	0.295	0.421	0.572	0.130	2.09
reflectance green ocra [1]	0.540 ± 0.271	19235528	0.175	0.500	0.528	7.688×10^{-2}	2.11
reflectance continuum aband [1]	0.494 ± 0.301	19235528	4.500×10^{-2}	0.512	0.491	1.029×10^{-2}	5.90

Table 2: Percentile ranges

Variable	1 %	5 %	10 %	15.9 %	25 %	75 %	84.1 %	90 %	95 %	99 %
qa value [1]	0.0	0.0	0.0	0.0	0.300	0.920	1.000	1.000	1.000	1.000
cloud fraction [1]	2.847×10^{-2}	7.161×10^{-2}	0.111	0.161	0.255	0.958	1.000	1.000	1.000	1.000
cloud top height [m]	285	811	1.142×10^3	1.432×10^3	1.843×10^3	5.732×10^3	7.007×10^3	8.120×10^3	9.526×10^3	1.255×10^4
cloud optical thickness [1]	1.000	2.38	3.51	4.45	5.58	17.6	28.0	43.1	82.2	250
cloud fraction crb [1]	2.797×10^{-2}	7.103×10^{-2}	0.110	0.160	0.254	0.956	1.000	1.000	1.000	1.000
cloud height crb [m]	0.0	358	667	928	1.296×10^3	4.516×10^3	5.612×10^3	6.575×10^3	7.740×10^3	9.816×10^3
cloud albedo crb [1]	4.779×10^{-2}	0.237	0.354	0.421	0.472	0.781	0.869	0.942	1.000	1.000
surface albedo fitted [1]	0.0	8.216×10^{-3}	1.435×10^{-2}	1.947×10^{-2}	2.694×10^{-2}	0.384	0.798	0.884	0.950	1.000
surface albedo fitted crb [1]	0.0	7.094×10^{-3}	1.130×10^{-2}	1.527×10^{-2}	2.128×10^{-2}	0.388	0.755	0.827	0.896	0.956
fitted root mean square [1]	1.546×10^{-5}	2.940×10^{-5}	4.747×10^{-5}	7.624×10^{-5}	1.333×10^{-4}	9.286×10^{-4}	1.268×10^{-3}	1.603×10^{-3}	2.078×10^{-3}	3.140×10^{-3}
fitted root mean square crb [1]	8.220×10^{-6}	1.857×10^{-5}	3.165×10^{-5}	5.030×10^{-5}	8.782×10^{-5}	8.302×10^{-4}	1.185×10^{-3}	1.535×10^{-3}	2.019×10^{-3}	3.002×10^{-3}
wavelength shift [nm]	-6.518×10^{-3}	-4.184×10^{-4}	3.689×10^{-4}	1.348×10^{-3}	3.184×10^{-3}	1.443×10^{-2}	1.698×10^{-2}	1.909×10^{-2}	2.177×10^{-2}	2.733×10^{-2}
cloud fraction apriori [1]	3.257×10^{-2}	6.774×10^{-2}	0.105	0.156	0.255	1.000	1.000	1.000	1.000	1.000
reflectance blue ocra [1]	0.232	0.257	0.285	0.318	0.374	0.795	0.853	0.896	0.950	1.16
reflectance green ocra [1]	0.153	0.174	0.194	0.223	0.281	0.780	0.846	0.892	0.945	1.12
reflectance continuum aband [1]	3.086×10^{-2}	5.372×10^{-2}	8.830×10^{-2}	0.137	0.232	0.744	0.818	0.869	0.935	1.14

Table 3: Parameterlist and basic statistics for the analysis for observations in the northern hemisphere

Variable	mean $\pm \sigma$	Count	IQR	Median	Minimum	Maximum	25 % percentile	75 % percentile
qa value [1]	0.601 ± 0.386	8774931	0.650	0.780	0.0	1.000	0.300	0.950
cloud fraction [1]	0.595 ± 0.348	8774931	0.738	0.623	6.425×10^{-3}	1.000	0.253	0.991
cloud top height [m]	$(0.415 \pm 0.260) \times 10^4$	8774931	3.692×10^3	3.609×10^3	0.0	2.000×10^4	2.060×10^3	5.752×10^3
cloud optical thickness [1]	27.7 ± 47.4	8774931	17.8	10.9	1.000	250	6.50	24.3
cloud fraction crb [1]	0.594 ± 0.348	8774931	0.738	0.620	8.628×10^{-3}	1.000	0.252	0.990
cloud height crb [m]	$(0.349 \pm 0.223) \times 10^4$	8774931	3.203×10^3	3.088×10^3	0.0	1.802×10^4	1.663×10^3	4.866×10^3
cloud albedo crb [1]	0.592 ± 0.209	8774931	0.263	0.580	0.0	1.000	0.464	0.727
surface albedo fitted [1]	0.149 ± 0.184	8774931	0.179	6.462×10^{-2}	0.0	1.000	2.752×10^{-2}	0.206
surface albedo fitted crb [1]	0.143 ± 0.184	8774931	0.176	5.237×10^{-2}	0.0	1.000	2.172×10^{-2}	0.198
fitted root mean square [1]	$(4.594 \pm 6.206) \times 10^{-4}$	8774931	4.632×10^{-4}	2.465×10^{-4}	1.310×10^{-6}	8.914×10^{-2}	1.032×10^{-4}	5.664×10^{-4}
fitted root mean square crb [1]	$(3.968 \pm 5.733) \times 10^{-4}$	8774931	4.306×10^{-4}	1.640×10^{-4}	8.136×10^{-7}	2.116×10^{-2}	5.727×10^{-5}	4.878×10^{-4}
wavelength shift [nm]	$(7.245 \pm 6.925) \times 10^{-3}$	8774931	9.648×10^{-3}	6.239×10^{-3}	-4.302×10^{-2}	6.424×10^{-2}	1.883×10^{-3}	1.153×10^{-2}
cloud fraction apriori [1]	0.599 ± 0.354	8774931	0.753	0.631	0.0	1.000	0.247	1.000
reflectance blue ocr [1]	0.554 ± 0.223	8774931	0.340	0.527	0.130	2.04	0.368	0.708
reflectance green ocr [1]	0.496 ± 0.249	8774931	0.405	0.472	7.688×10^{-2}	2.11	0.275	0.680
reflectance continuum aband [1]	0.449 ± 0.284	8774931	0.415	0.425	1.029×10^{-2}	5.43	0.224	0.639

Table 4: Parameterlist and basic statistics for the analysis for observations in the southern hemisphere

Variable	mean $\pm \sigma$	Count	IQR	Median	Minimum	Maximum	25 % percentile	75 % percentile
qa value [1]	0.617 ± 0.360	10460597	0.520	0.700	0.0	1.000	0.380	0.900
cloud fraction [1]	0.544 ± 0.328	10460597	0.644	0.497	5.931×10^{-3}	1.000	0.256	0.900
cloud top height [m]	$(0.406 \pm 0.304) \times 10^4$	10460597	4.021×10^3	3.286×10^3	0.0	2.000×10^4	1.694×10^3	5.715×10^3
cloud optical thickness [1]	16.5 ± 32.3	10460597	8.57	8.58	1.000	250	5.17	13.7
cloud fraction crb [1]	0.544 ± 0.328	10460597	0.643	0.498	7.038×10^{-3}	1.000	0.256	0.899
cloud height crb [m]	$(0.294 \pm 0.239) \times 10^4$	10460597	3.138×10^3	2.383×10^3	0.0	2.000×10^4	1.062×10^3	4.200×10^3
cloud albedo crb [1]	0.638 ± 0.231	10460597	0.346	0.623	0.0	1.000	0.479	0.825
surface albedo fitted [1]	0.363 ± 0.396	10460597	0.797	6.953×10^{-2}	0.0	1.000	2.646×10^{-2}	0.824
surface albedo fitted crb [1]	0.342 ± 0.376	10460597	0.751	5.673×10^{-2}	0.0	1.000	2.089×10^{-2}	0.771
fitted root mean square [1]	$(8.169 \pm 13.980) \times 10^{-4}$	10460597	9.768×10^{-4}	6.103×10^{-4}	4.406×10^{-6}	0.780	1.952×10^{-4}	1.172×10^{-3}
fitted root mean square crb [1]	$(7.306 \pm 13.788) \times 10^{-4}$	10460597	9.232×10^{-4}	4.854×10^{-4}	2.561×10^{-6}	0.929	1.486×10^{-4}	1.072×10^{-3}
wavelength shift [nm]	$(1.072 \pm 0.759) \times 10^{-2}$	10460597	1.132×10^{-2}	1.088×10^{-2}	-5.139×10^{-2}	0.615	4.847×10^{-3}	1.617×10^{-2}
cloud fraction apriori [1]	0.555 ± 0.333	10460597	0.676	0.516	0.0	1.000	0.260	0.936
reflectance blue oca [1]	0.621 ± 0.251	10460597	0.456	0.640	0.136	2.09	0.380	0.836
reflectance green oca [1]	0.577 ± 0.283	10460597	0.542	0.610	8.196×10^{-2}	2.02	0.288	0.830
reflectance continuum aband [1]	0.531 ± 0.309	10460597	0.553	0.583	1.310×10^{-2}	5.90	0.242	0.795

Table 5: Parameterlist and basic statistics for the analysis for observations over water

Variable	mean $\pm \sigma$	Count	IQR	Median	Minimum	Maximum	25 % percentile	75 % percentile
qa value [1]	0.679 ± 0.343	11647239	0.550	0.850	0.0	1.000	0.400	0.950
cloud fraction [1]	0.570 ± 0.353	11647239	0.764	0.571	5.931×10^{-3}	1.000	0.217	0.981
cloud top height [m]	$(0.356 \pm 0.256) \times 10^4$	11647239	3.260×10^3	2.818×10^3	0.0	2.000×10^4	1.612×10^3	4.872×10^3
cloud optical thickness [1]	18.7 ± 31.6	11647239	10.1	9.93	1.000	250	6.59	16.7
cloud fraction crb [1]	0.569 ± 0.353	11647239	0.764	0.569	8.445×10^{-3}	1.000	0.216	0.980
cloud height crb [m]	$(0.287 \pm 0.230) \times 10^4$	11647239	3.034×10^3	2.263×10^3	0.0	2.000×10^4	1.069×10^3	4.104×10^3
cloud albedo crb [1]	0.565 ± 0.193	11647239	0.245	0.544	0.0	1.000	0.450	0.695
surface albedo fitted [1]	0.114 ± 0.232	11647239	3.399×10^{-2}	3.183×10^{-2}	0.0	1.000	1.896×10^{-2}	5.295×10^{-2}
surface albedo fitted crb [1]	0.106 ± 0.224	11647239	2.837×10^{-2}	2.539×10^{-2}	0.0	1.000	1.486×10^{-2}	4.323×10^{-2}
fitted root mean square [1]	$(6.306 \pm 12.458) \times 10^{-4}$	11647239	8.500×10^{-4}	3.062×10^{-4}	1.310×10^{-6}	0.780	8.740×10^{-5}	9.374×10^{-4}
fitted root mean square crb [1]	$(5.994 \pm 12.524) \times 10^{-4}$	11647239	8.368×10^{-4}	2.687×10^{-4}	8.136×10^{-7}	0.929	6.768×10^{-5}	9.045×10^{-4}
wavelength shift [nm]	$(8.733 \pm 7.926) \times 10^{-3}$	11647239	1.214×10^{-2}	7.877×10^{-3}	-4.508×10^{-2}	0.615	2.300×10^{-3}	1.444×10^{-2}
cloud fraction apriori [1]	0.575 ± 0.359	11647239	0.790	0.585	0.0	1.000	0.210	1.000
reflectance blue ocr [1]	0.527 ± 0.216	11647239	0.348	0.484	0.147	2.07	0.342	0.691
reflectance green ocr [1]	0.466 ± 0.244	11647239	0.422	0.420	8.498×10^{-2}	1.97	0.242	0.663
reflectance continuum aband [1]	0.396 ± 0.281	11647239	0.500	0.358	1.029×10^{-2}	5.37	0.133	0.633

Table 6: Parameterlist and basic statistics for the analysis for observations over land

Variable	mean $\pm \sigma$	Count	IQR	Median	Minimum	Maximum	25 % percentile	75 % percentile
qa value [1]	0.488 ± 0.390	5838379	0.860	0.630	0.0	1.000	0.0	0.860
cloud fraction [1]	0.528 ± 0.305	5838379	0.516	0.470	6.741×10^{-3}	1.000	0.284	0.800
cloud top height [m]	$(0.522 \pm 0.312) \times 10^4$	5838379	4.011×10^3	4.829×10^3	0.0	2.000×10^4	2.908×10^3	6.919×10^3
cloud optical thickness [1]	19.4 ± 41.3	5838379	9.68	6.70	1.000	250	4.49	14.2
cloud fraction crb [1]	0.529 ± 0.304	5838379	0.514	0.472	8.744×10^{-3}	1.000	0.285	0.799
cloud height crb [m]	$(0.381 \pm 0.235) \times 10^4$	5838379	3.053×10^3	3.454×10^3	0.0	2.000×10^4	2.067×10^3	5.121×10^3
cloud albedo crb [1]	0.705 ± 0.247	5838379	0.376	0.729	0.0	1.000	0.548	0.924
surface albedo fitted [1]	0.571 ± 0.332	5838379	0.669	0.655	0.0	1.000	0.230	0.900
surface albedo fitted crb [1]	0.545 ± 0.309	5838379	0.614	0.645	4.783×10^{-3}	1.000	0.226	0.840
fitted root mean square [1]	$(7.445 \pm 8.095) \times 10^{-4}$	5838379	7.213×10^{-4}	5.581×10^{-4}	3.966×10^{-6}	0.327	2.708×10^{-4}	9.921×10^{-4}
fitted root mean square crb [1]	$(5.951 \pm 6.611) \times 10^{-4}$	5838379	6.561×10^{-4}	3.901×10^{-4}	2.712×10^{-6}	0.247	1.571×10^{-4}	8.132×10^{-4}
wavelength shift [nm]	$(1.034 \pm 0.674) \times 10^{-2}$	5838379	9.876×10^{-3}	1.005×10^{-2}	-4.009×10^{-2}	0.169	5.221×10^{-3}	1.510×10^{-2}
cloud fraction apriori [1]	0.540 ± 0.308	5838379	0.533	0.486	0.0	1.000	0.293	0.826
reflectance blue ocra [1]	0.703 ± 0.249	5838379	0.386	0.784	0.130	2.09	0.493	0.879
reflectance green ocra [1]	0.674 ± 0.274	5838379	0.443	0.773	7.688×10^{-2}	2.07	0.436	0.879
reflectance continuum aband [1]	0.665 ± 0.261	5838379	0.410	0.723	1.657×10^{-2}	5.90	0.444	0.854

3 Granule outlines

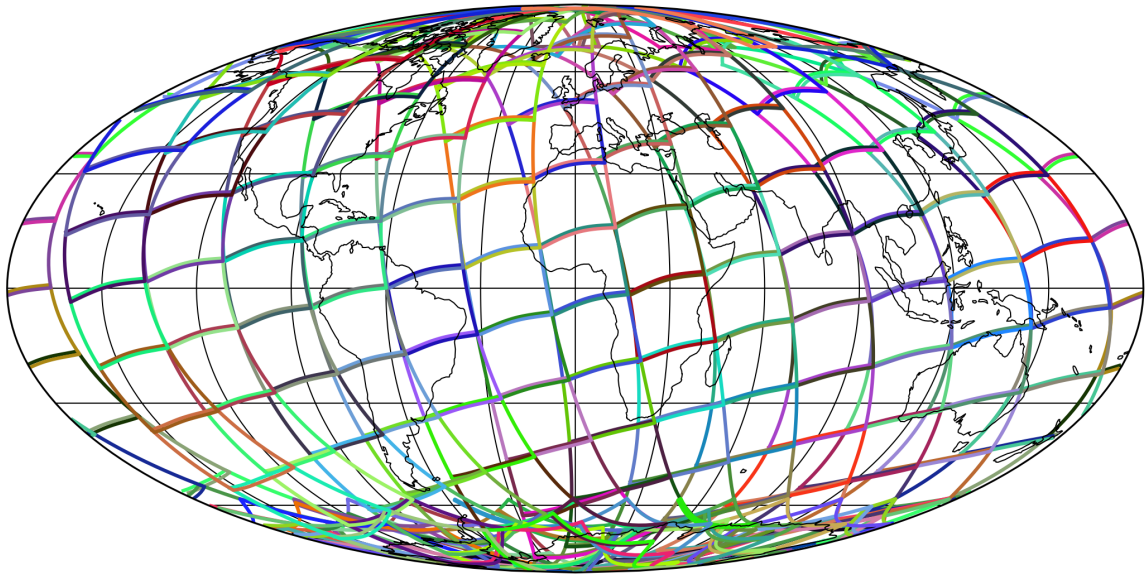


Figure 1: Outline of the granules.

4 Input data monitoring

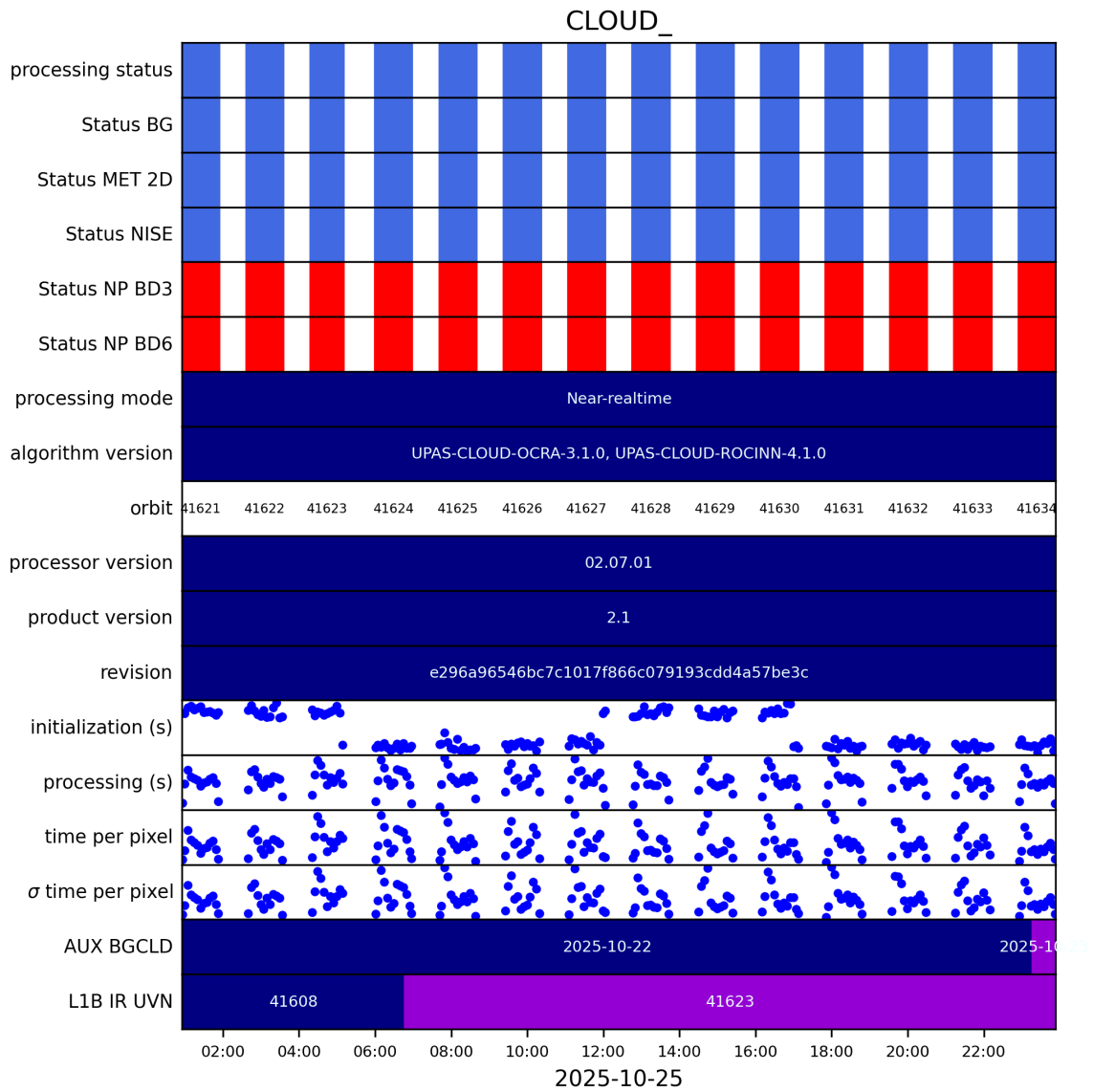


Figure 2: Input data per granule

5 Warnings and errors

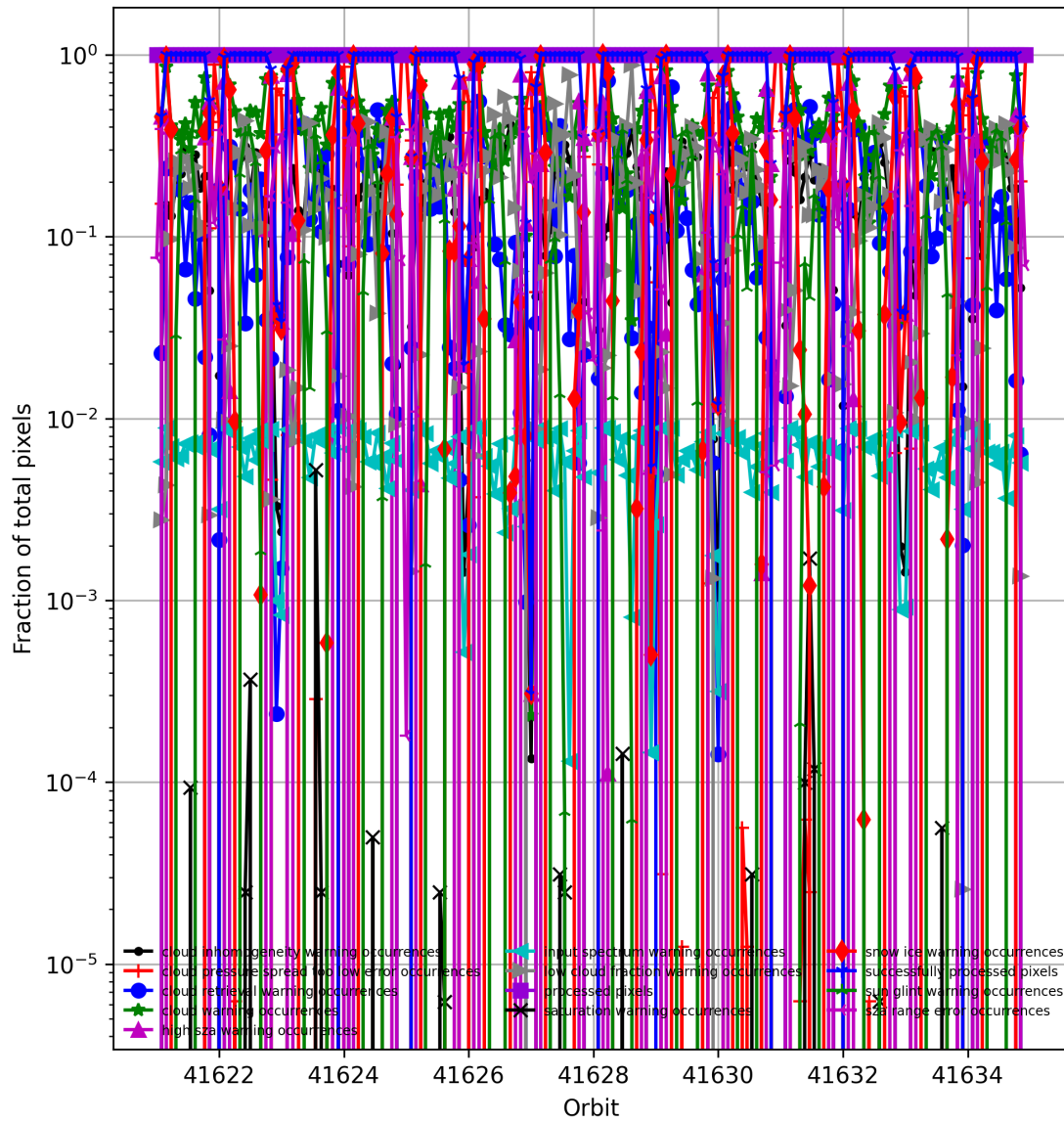


Figure 3: Fraction of pixels with specific warnings and errors during processing

6 World maps

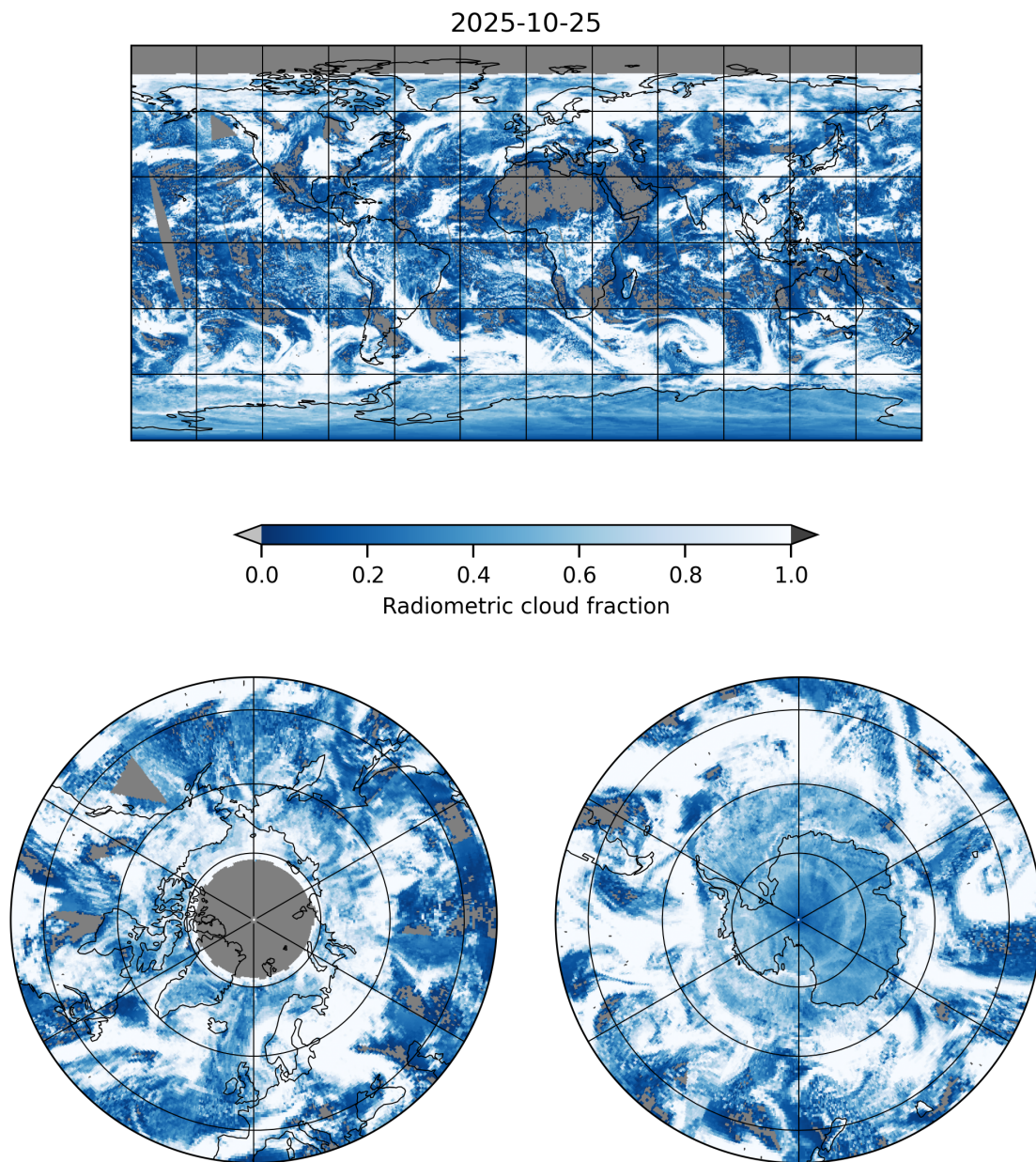


Figure 4: Map of “Radiometric cloud fraction” for 2025-10-25 to 2025-10-25

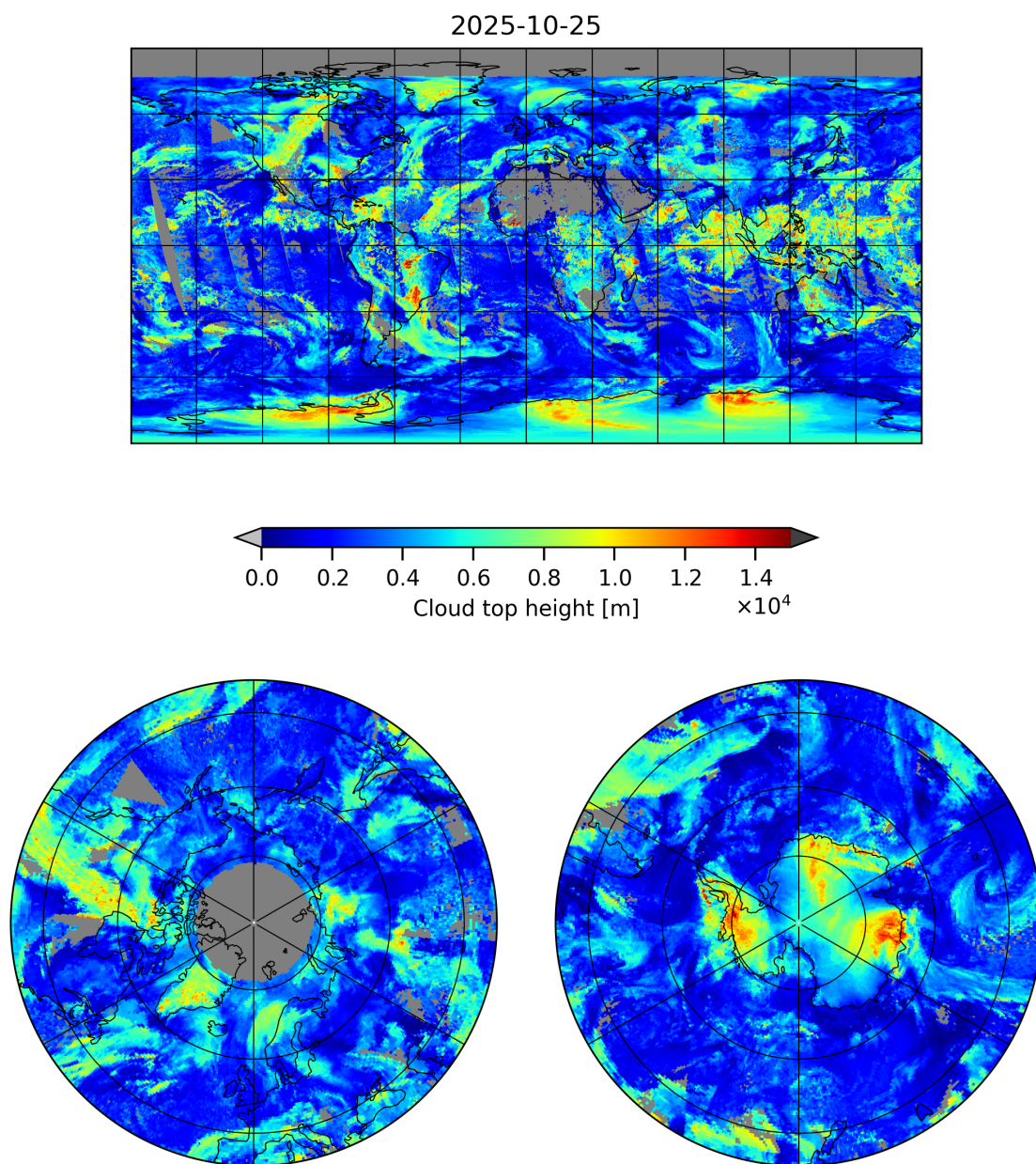


Figure 5: Map of “Cloud top height” for 2025-10-25 to 2025-10-25

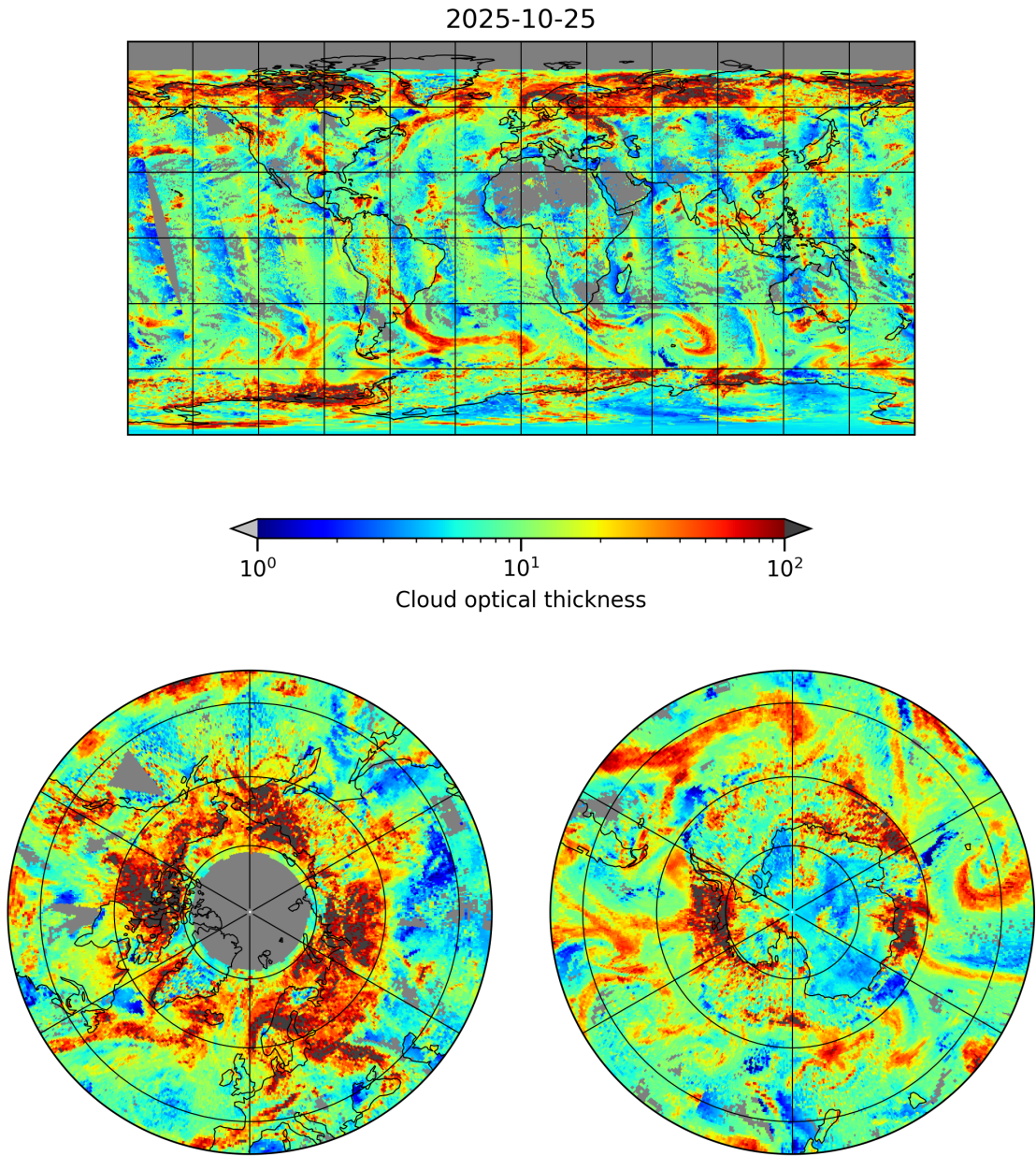


Figure 6: Map of “Cloud optical thickness” for 2025-10-25 to 2025-10-25

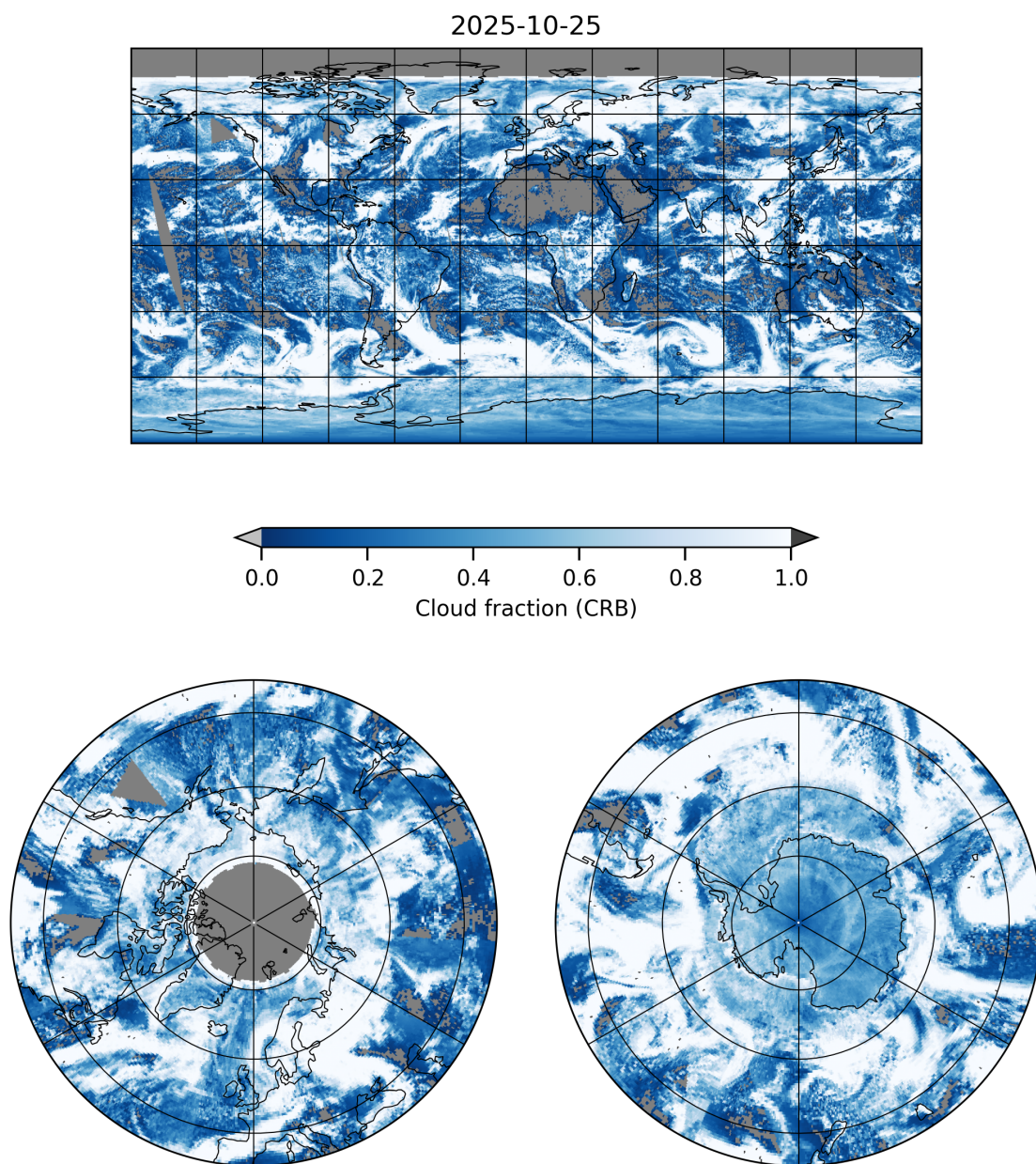


Figure 7: Map of “Cloud fraction (CRB)” for 2025-10-25 to 2025-10-25

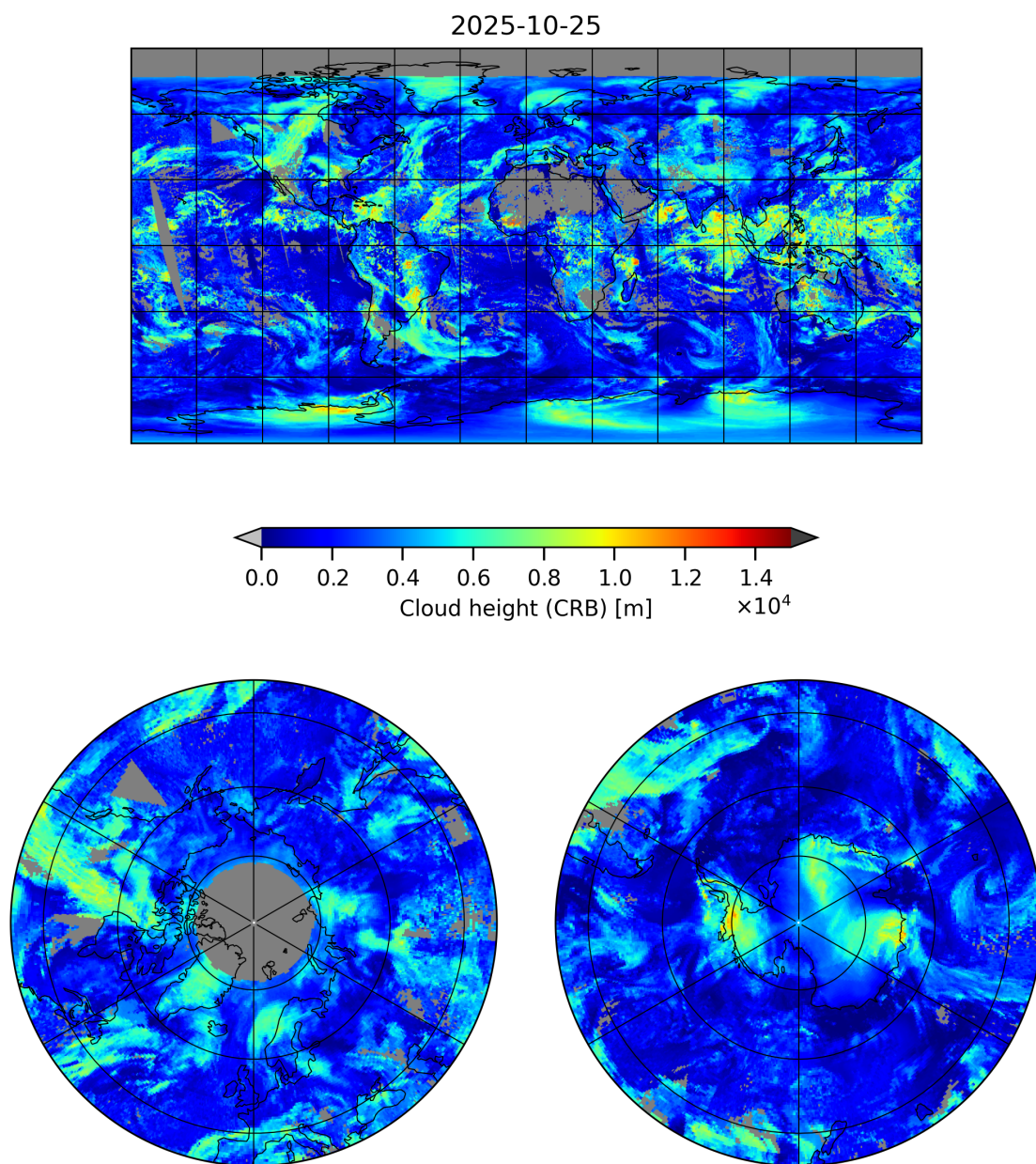


Figure 8: Map of “Cloud height (CRB)” for 2025-10-25 to 2025-10-25

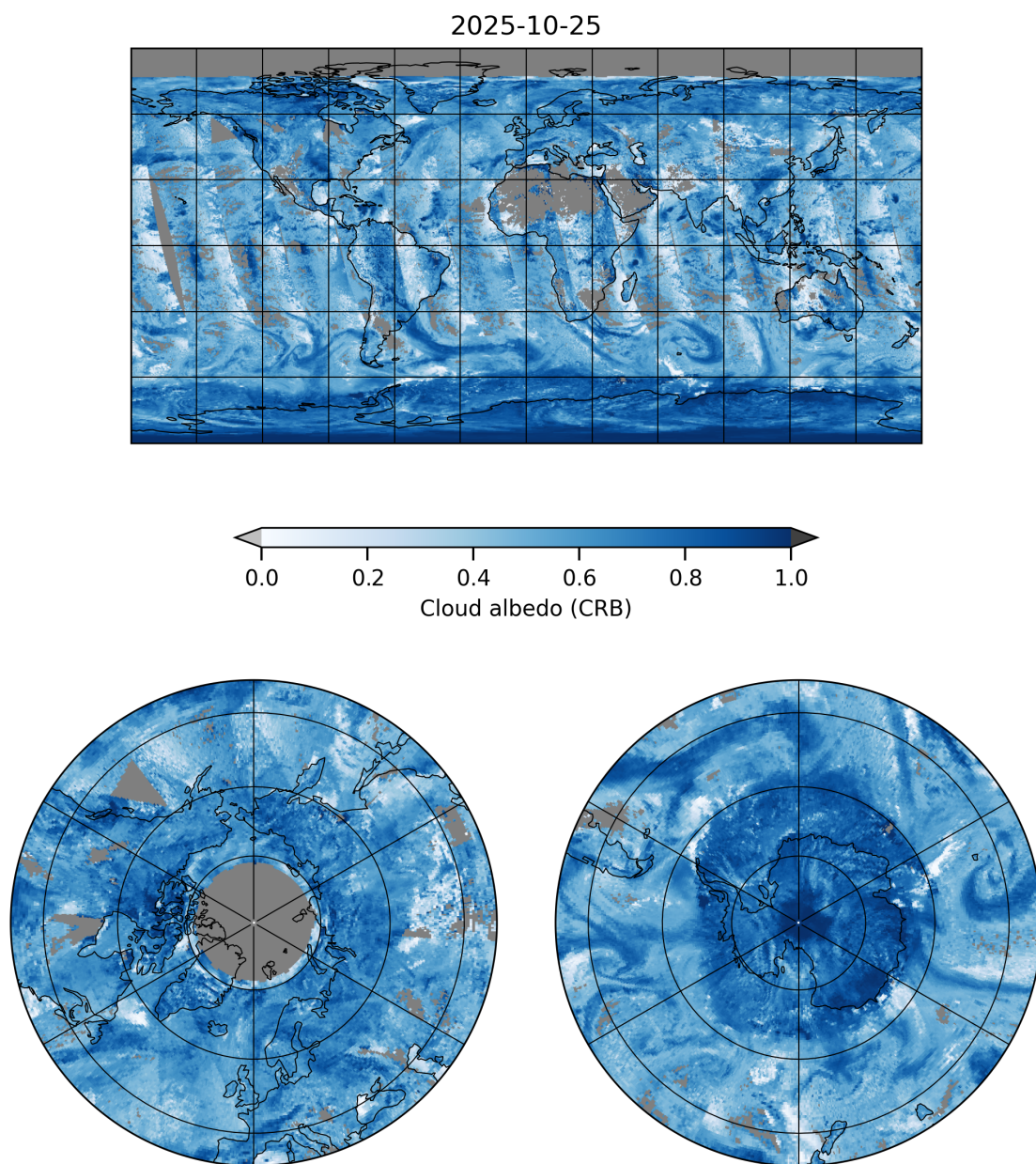


Figure 9: Map of “Cloud albedo (CRB)” for 2025-10-25 to 2025-10-25

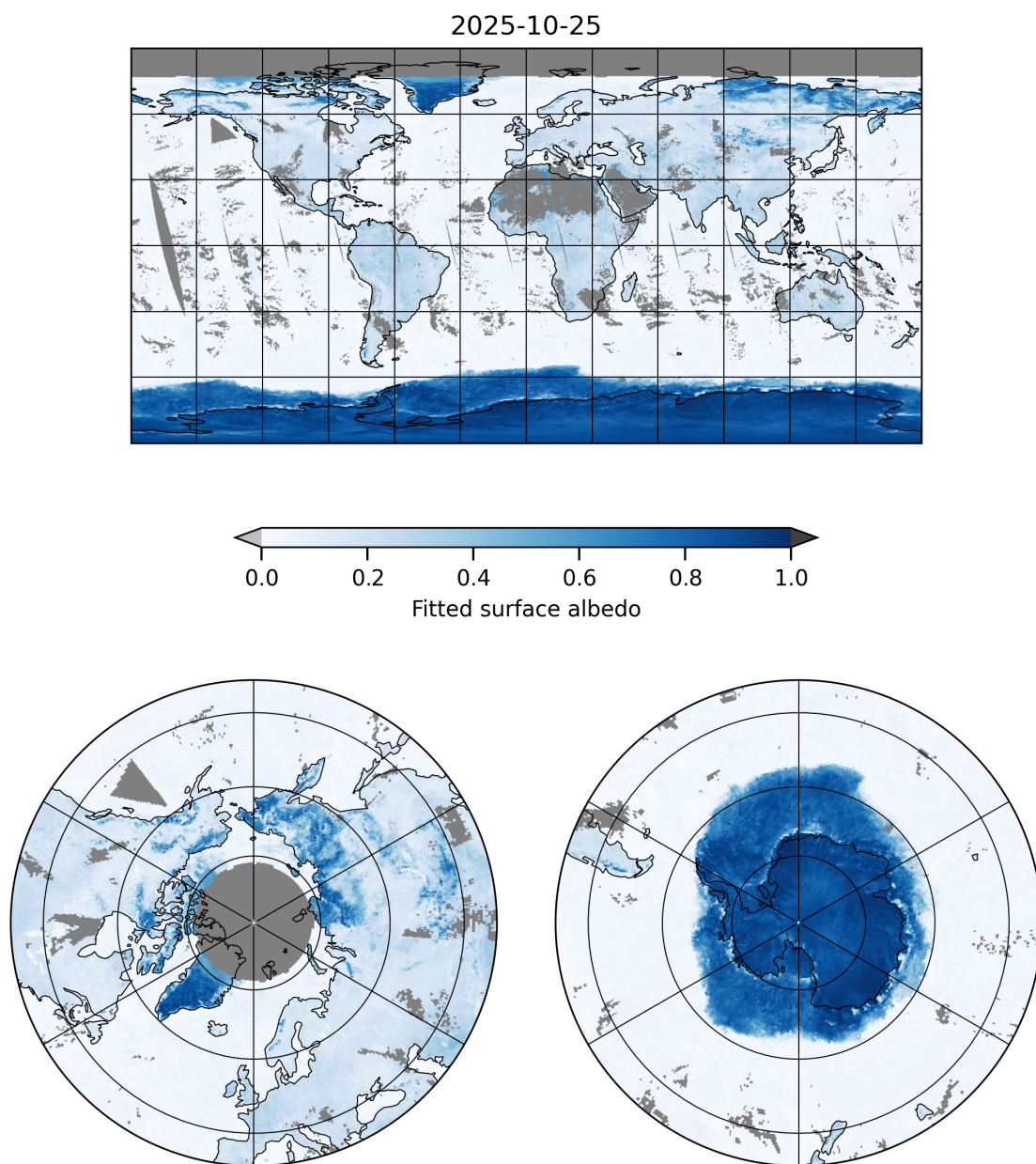


Figure 10: Map of “Fitted surface albedo” for 2025-10-25 to 2025-10-25

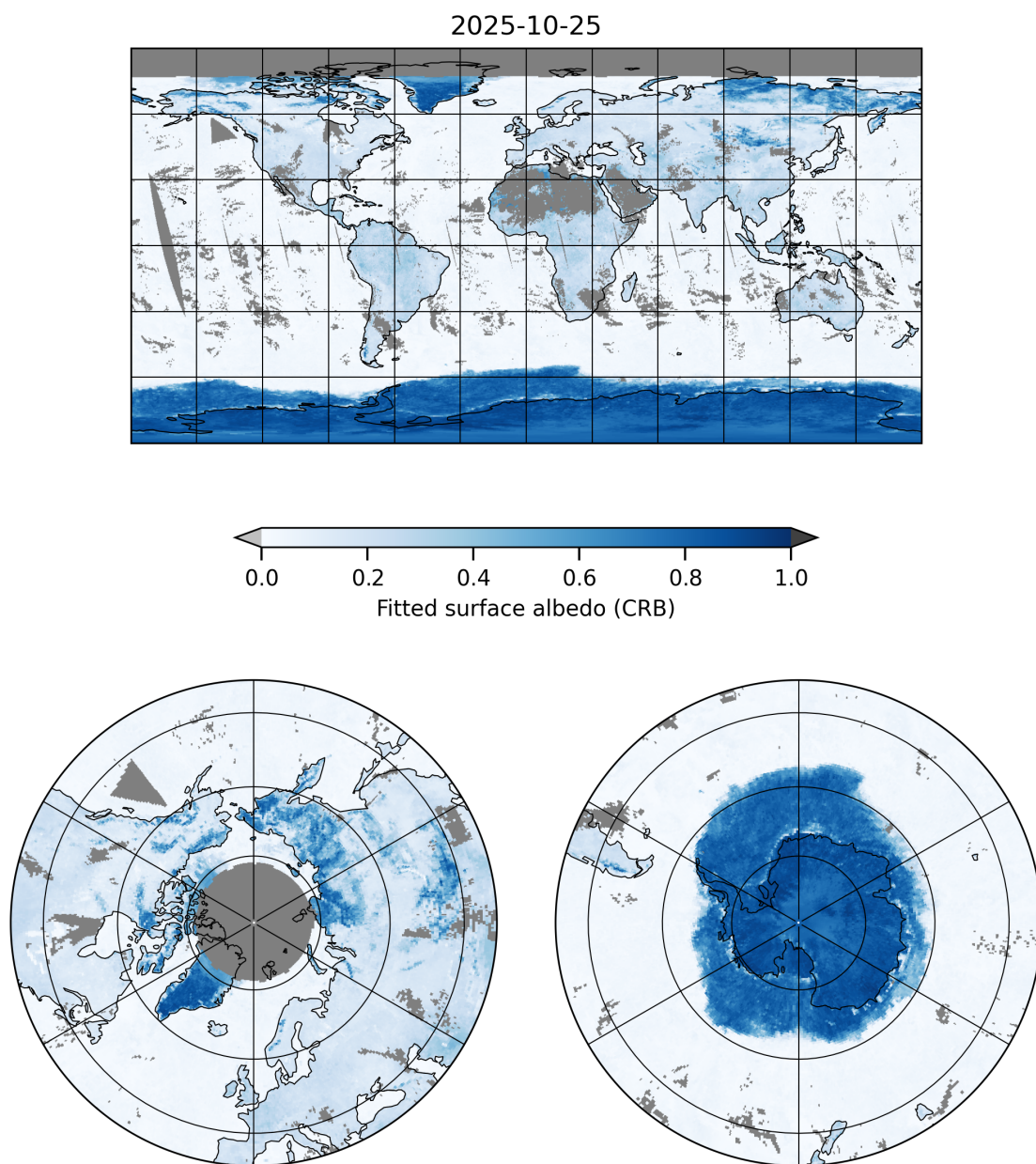


Figure 11: Map of “Fitted surface albedo (CRB)” for 2025-10-25 to 2025-10-25

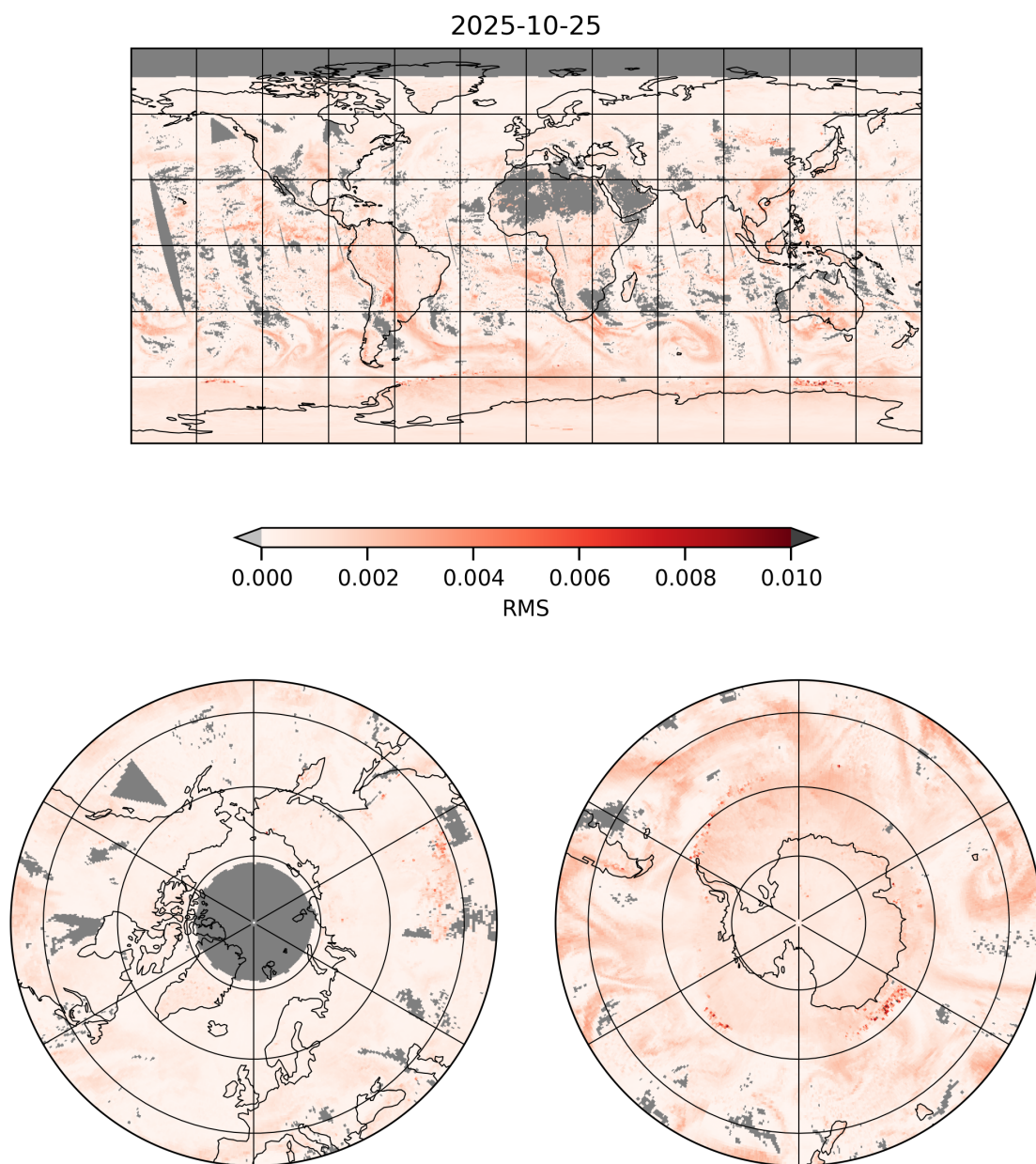


Figure 12: Map of “RMS” for 2025-10-25 to 2025-10-25

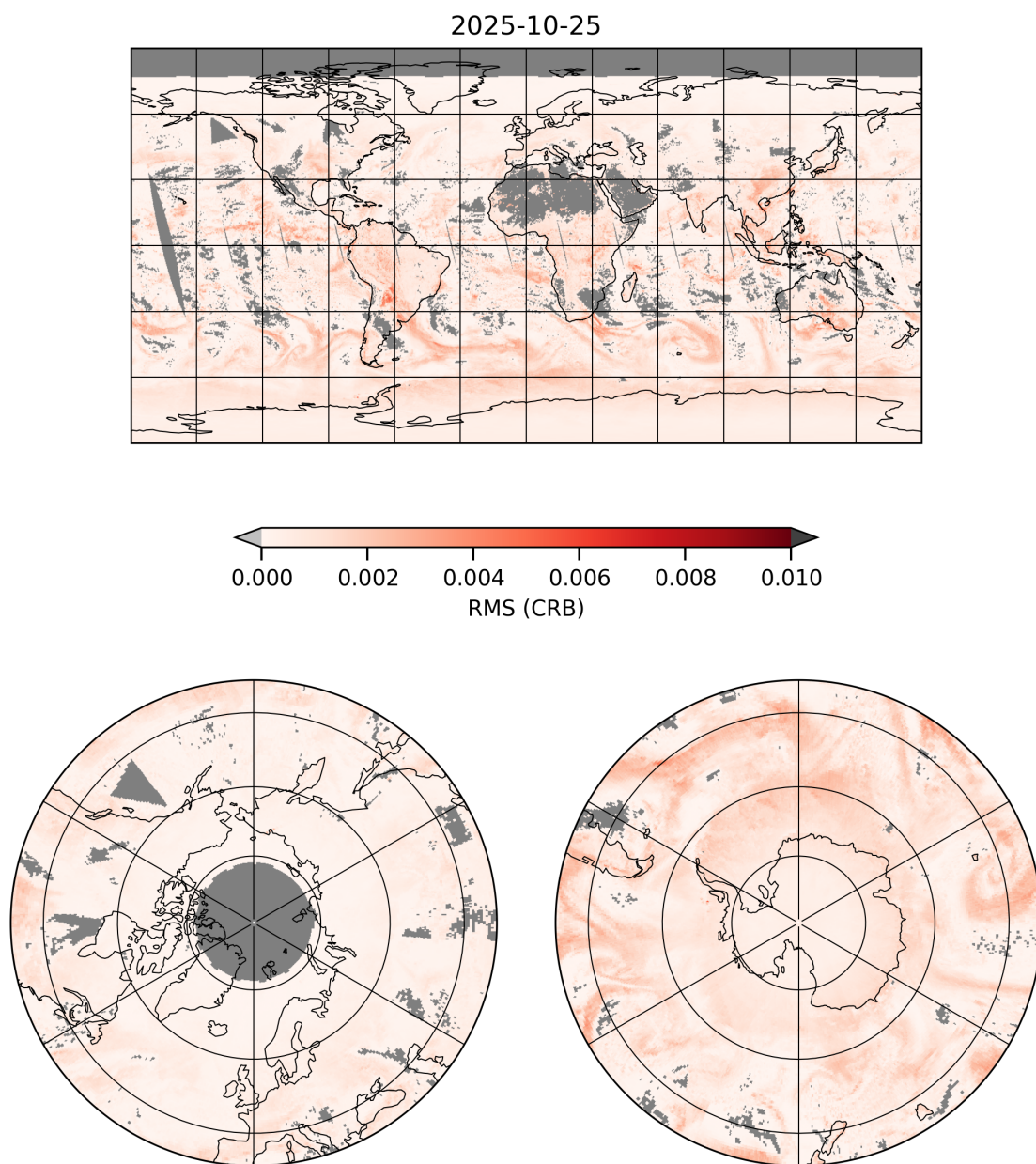


Figure 13: Map of “RMS (CRB)” for 2025-10-25 to 2025-10-25

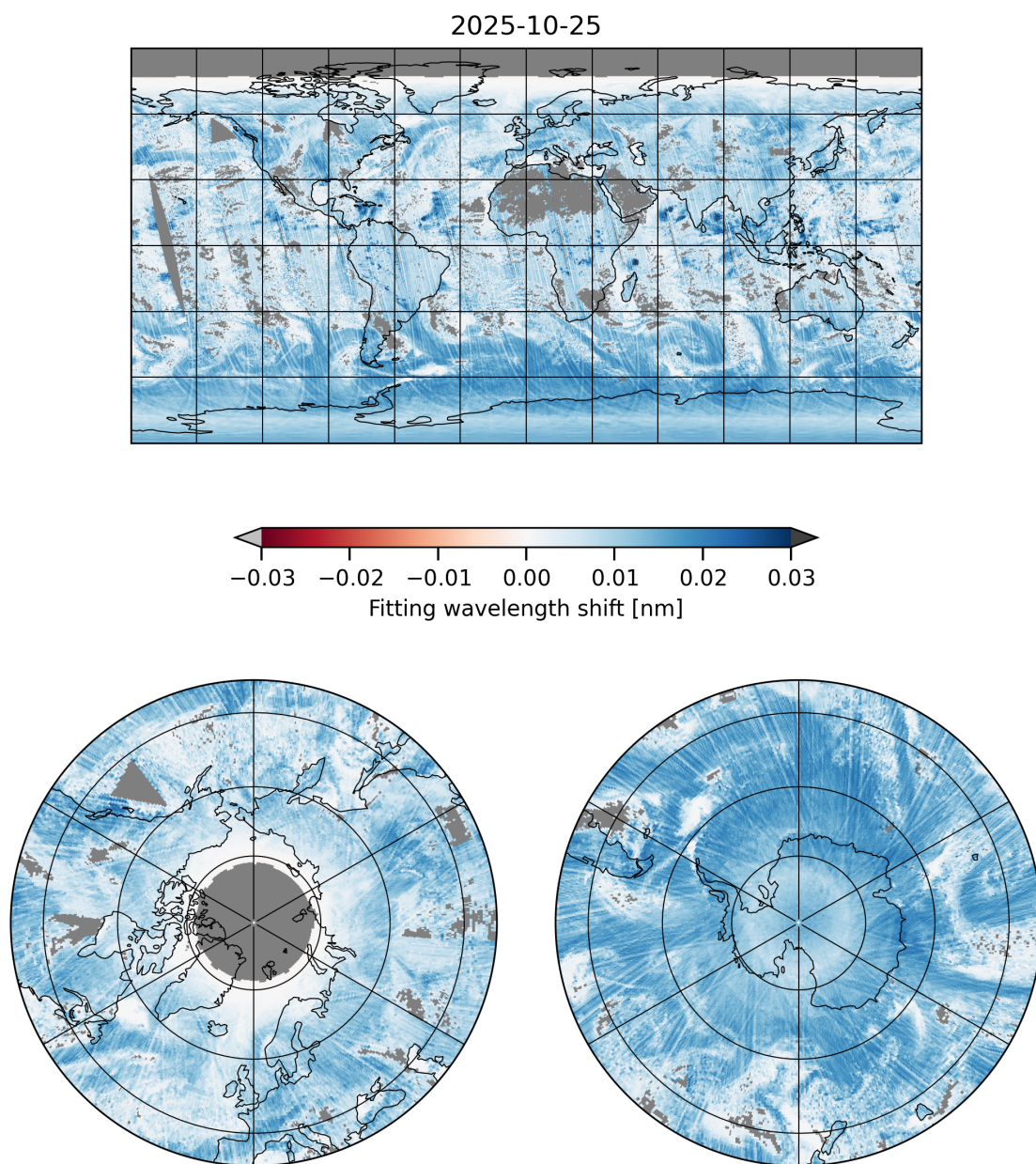


Figure 14: Map of “Fitting wavelength shift” for 2025-10-25 to 2025-10-25

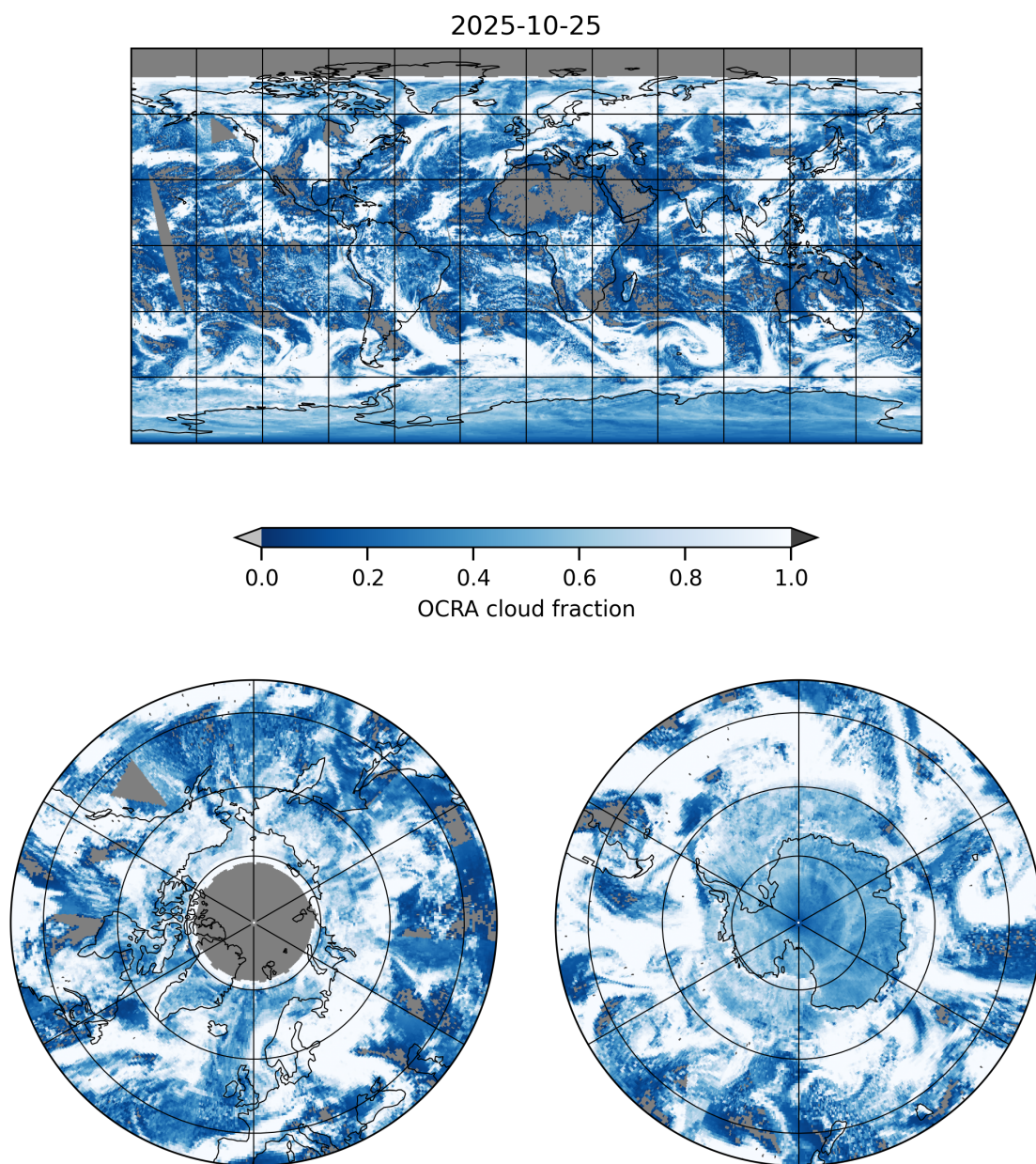


Figure 15: Map of “OCRA cloud fraction” for 2025-10-25 to 2025-10-25

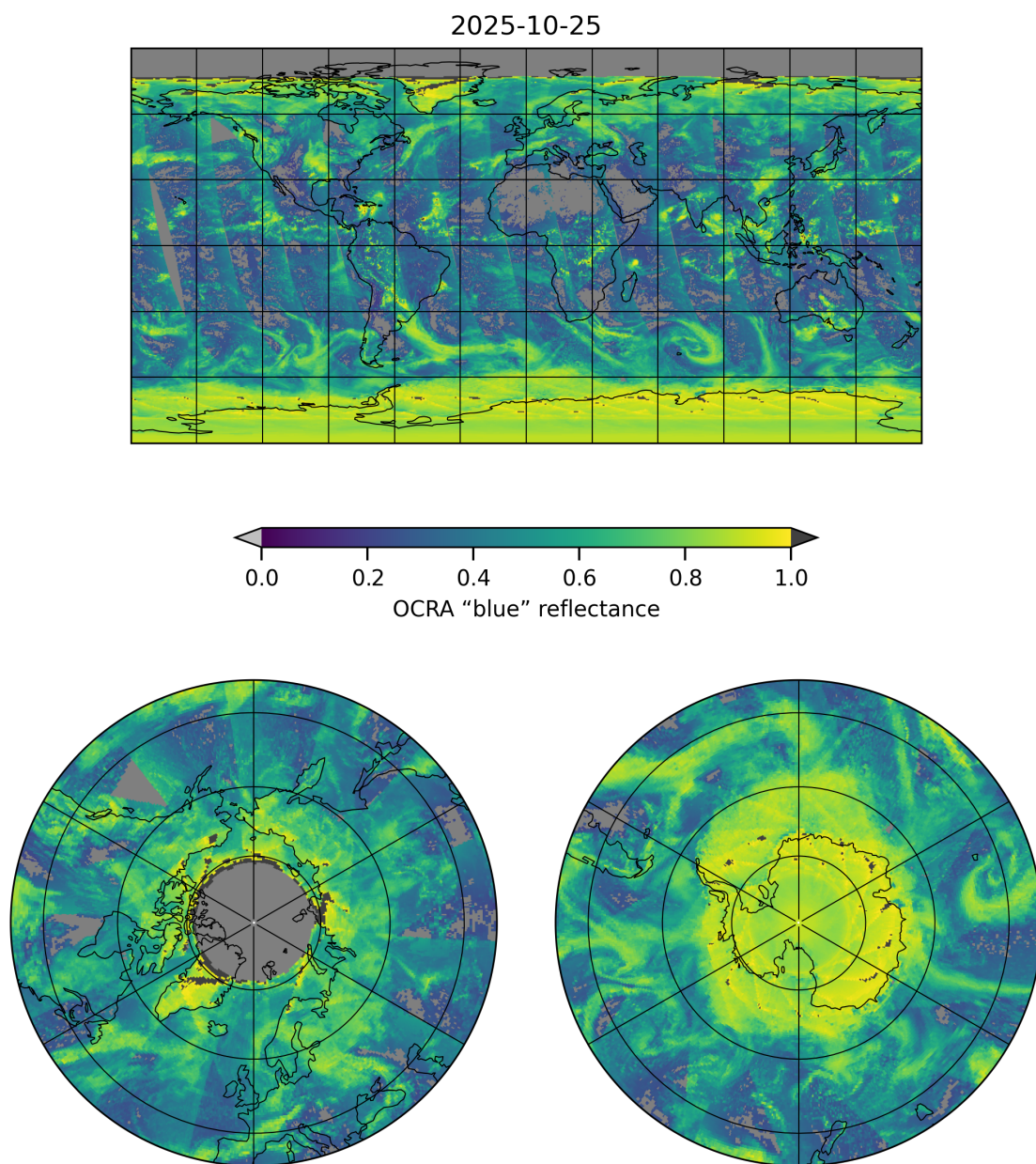


Figure 16: Map of "OCRA "blue" reflectance" for 2025-10-25 to 2025-10-25

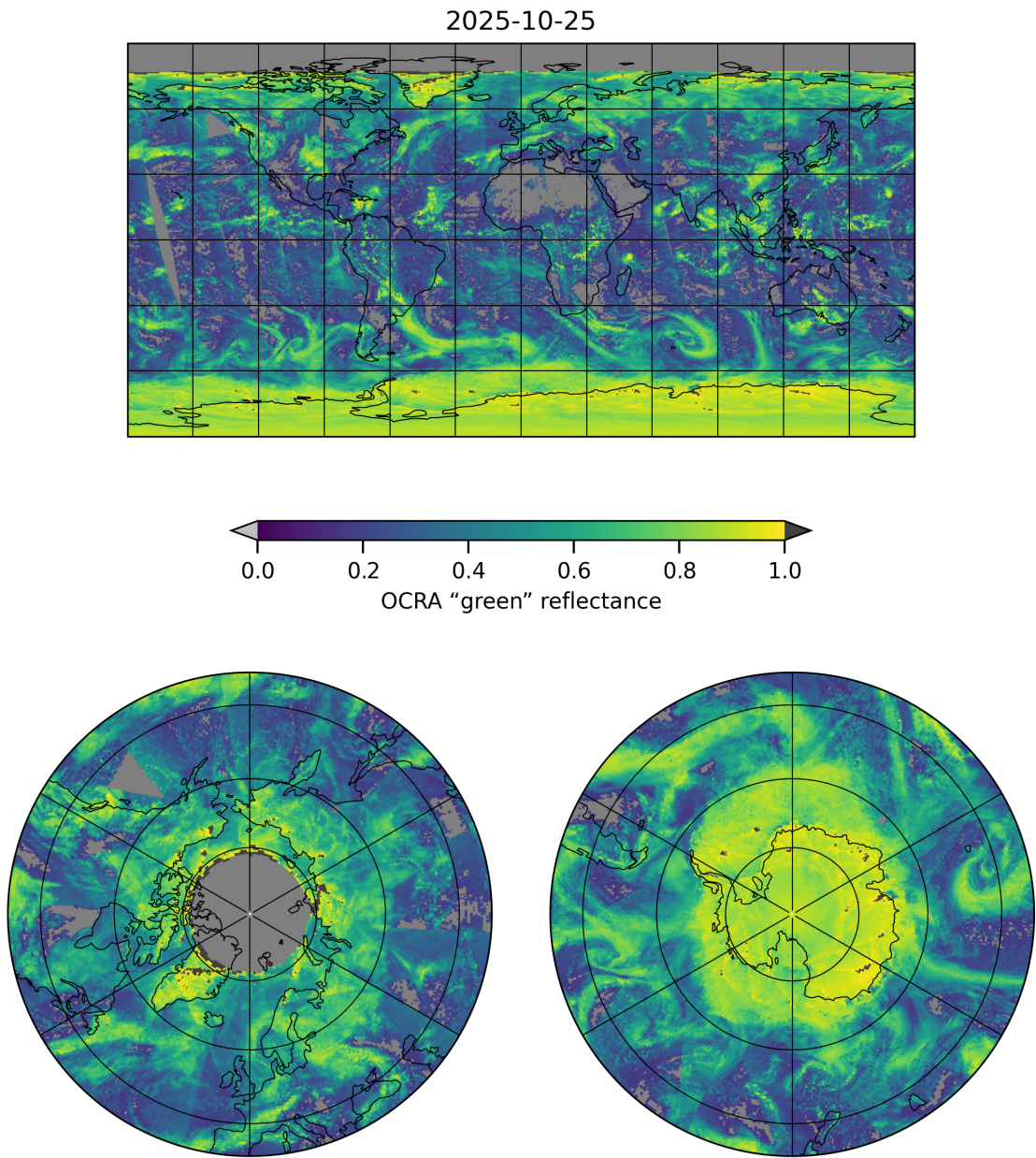


Figure 17: Map of "OCRA "green" reflectance" for 2025-10-25 to 2025-10-25

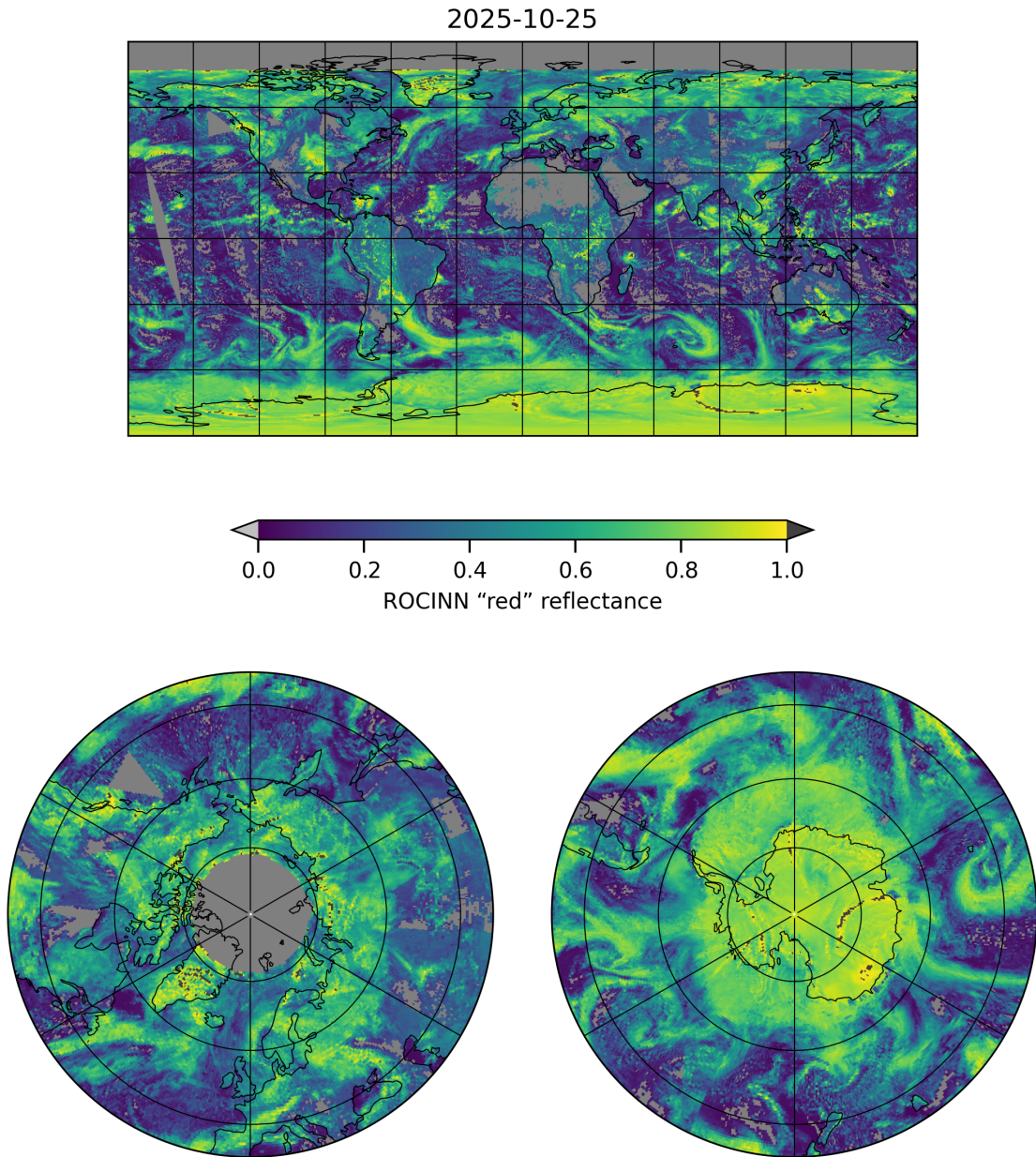


Figure 18: Map of "ROCINN "red" reflectance" for 2025-10-25 to 2025-10-25

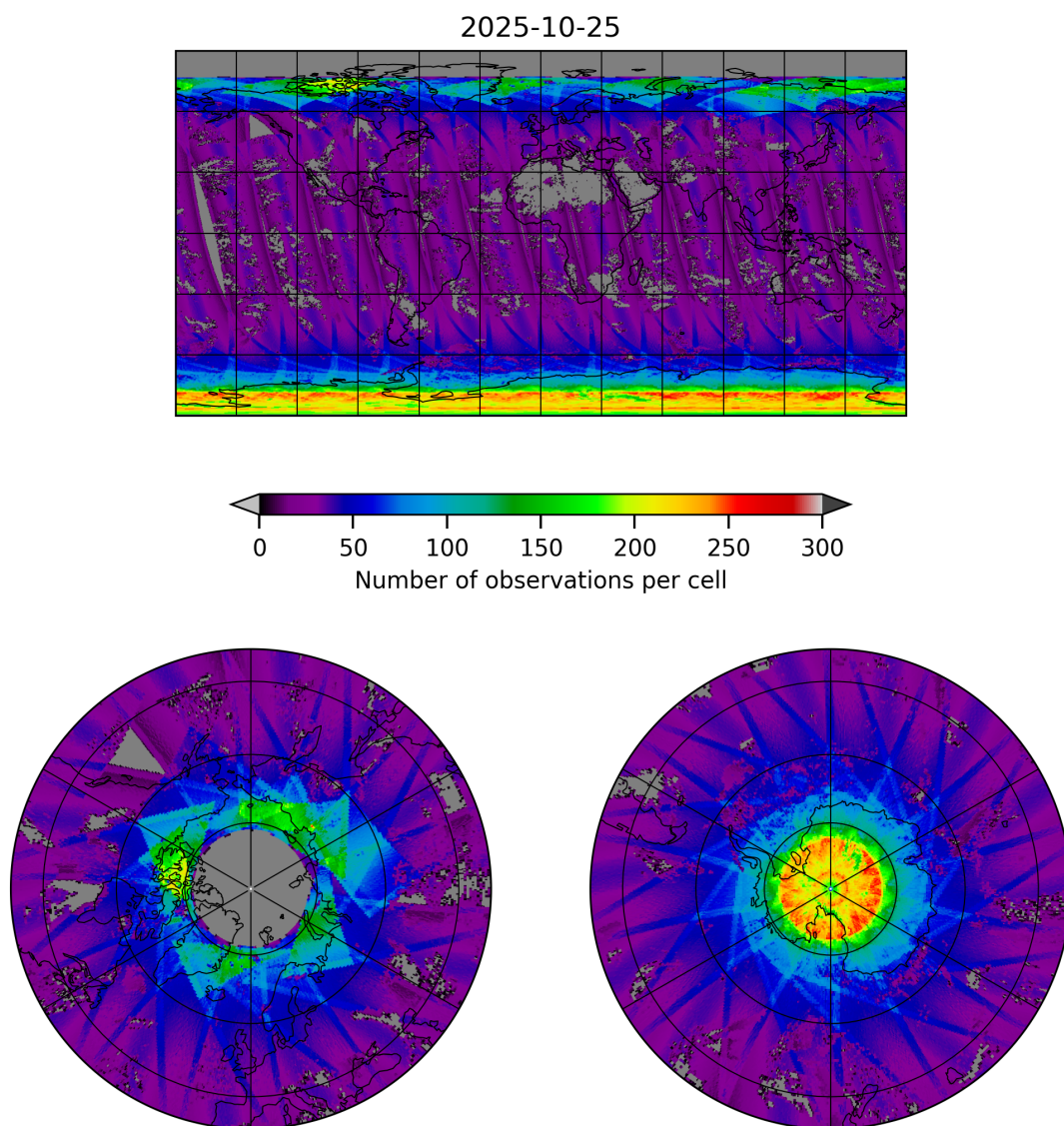


Figure 19: Map of the number of observations for 2025-10-25 to 2025-10-25

7 Zonal average

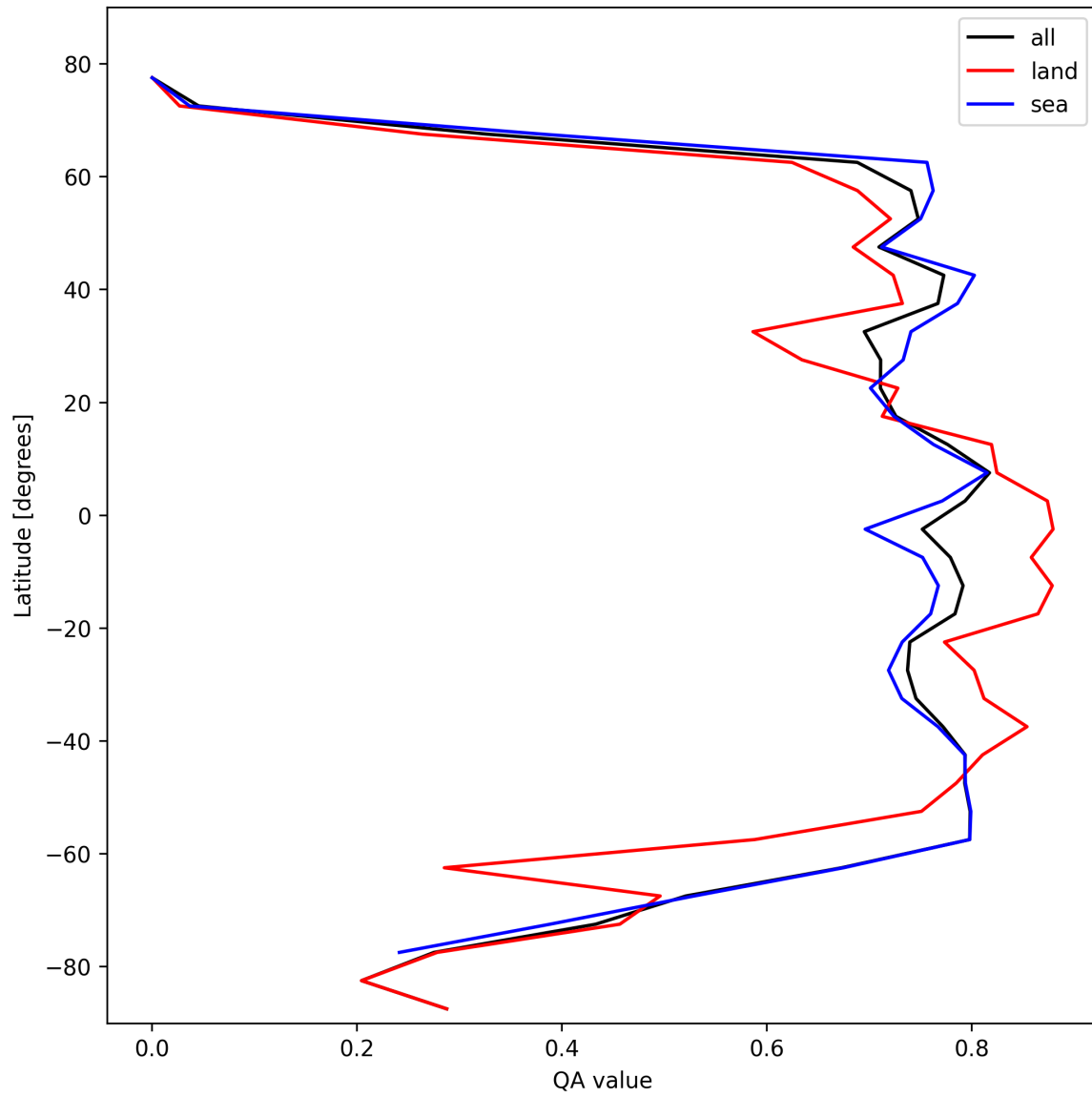


Figure 20: Zonal average of “QA value” for 2025-10-25 to 2025-10-25.

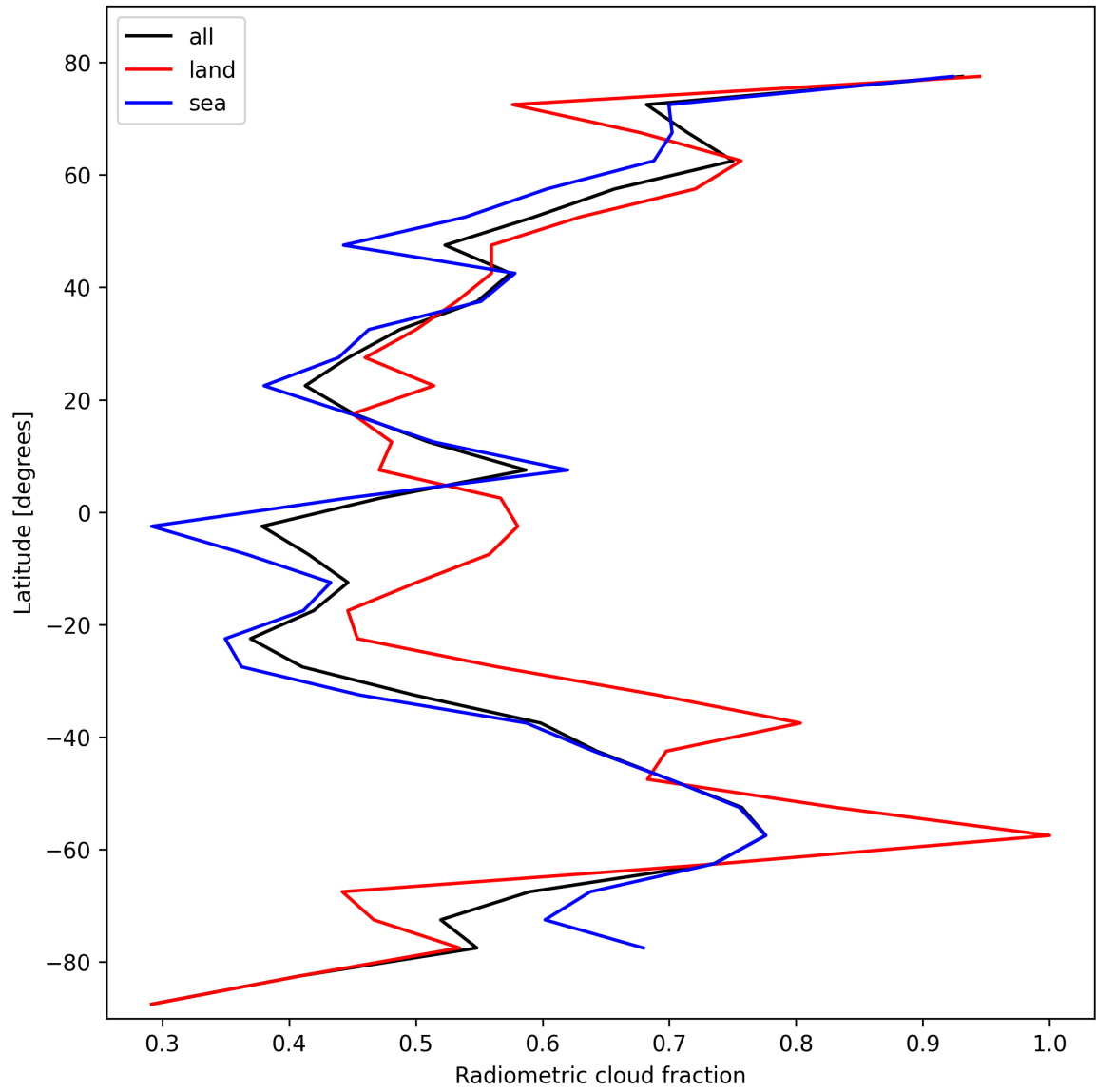


Figure 21: Zonal average of “Radiometric cloud fraction” for 2025-10-25 to 2025-10-25.

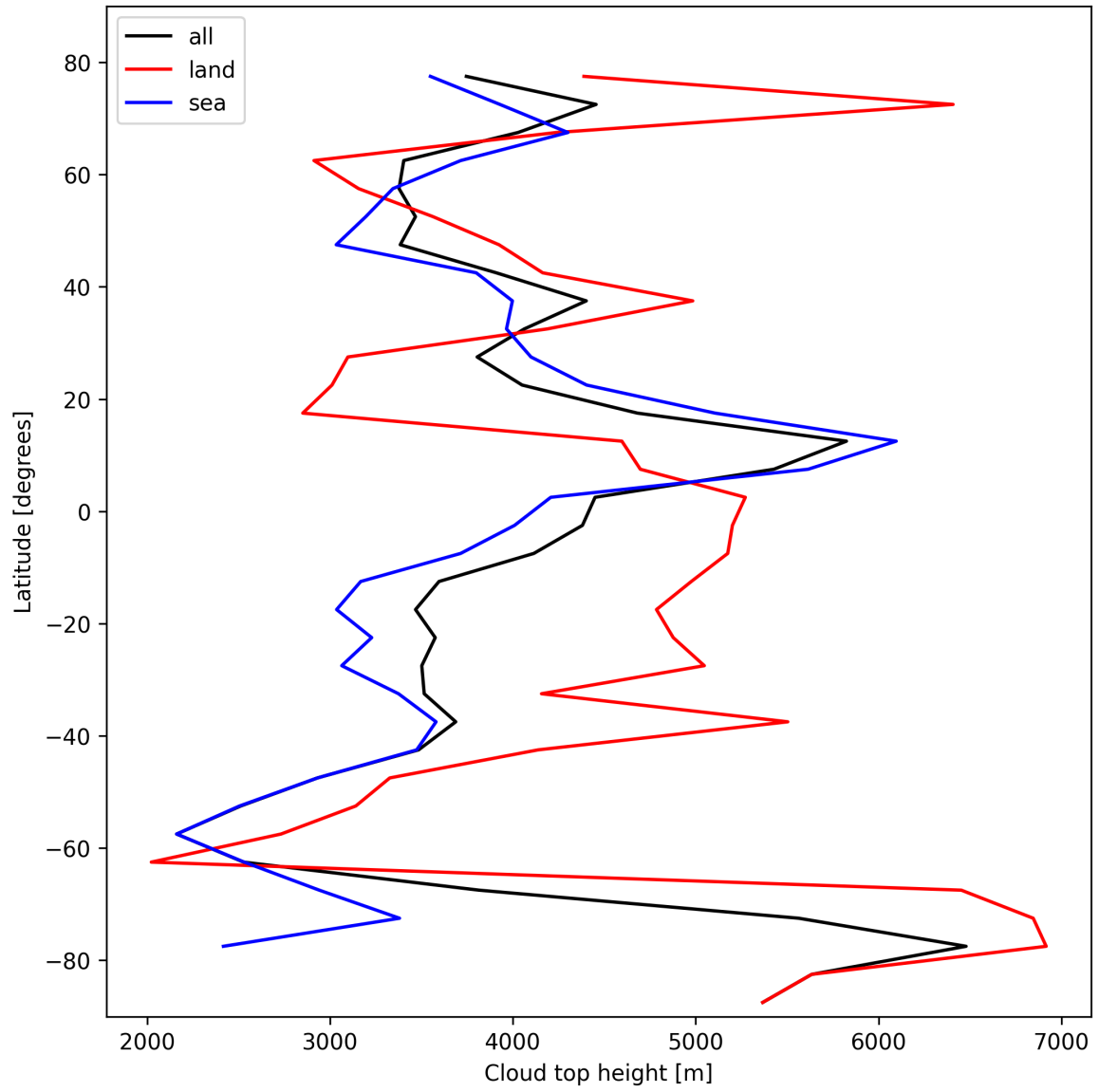


Figure 22: Zonal average of “Cloud top height” for 2025-10-25 to 2025-10-25.

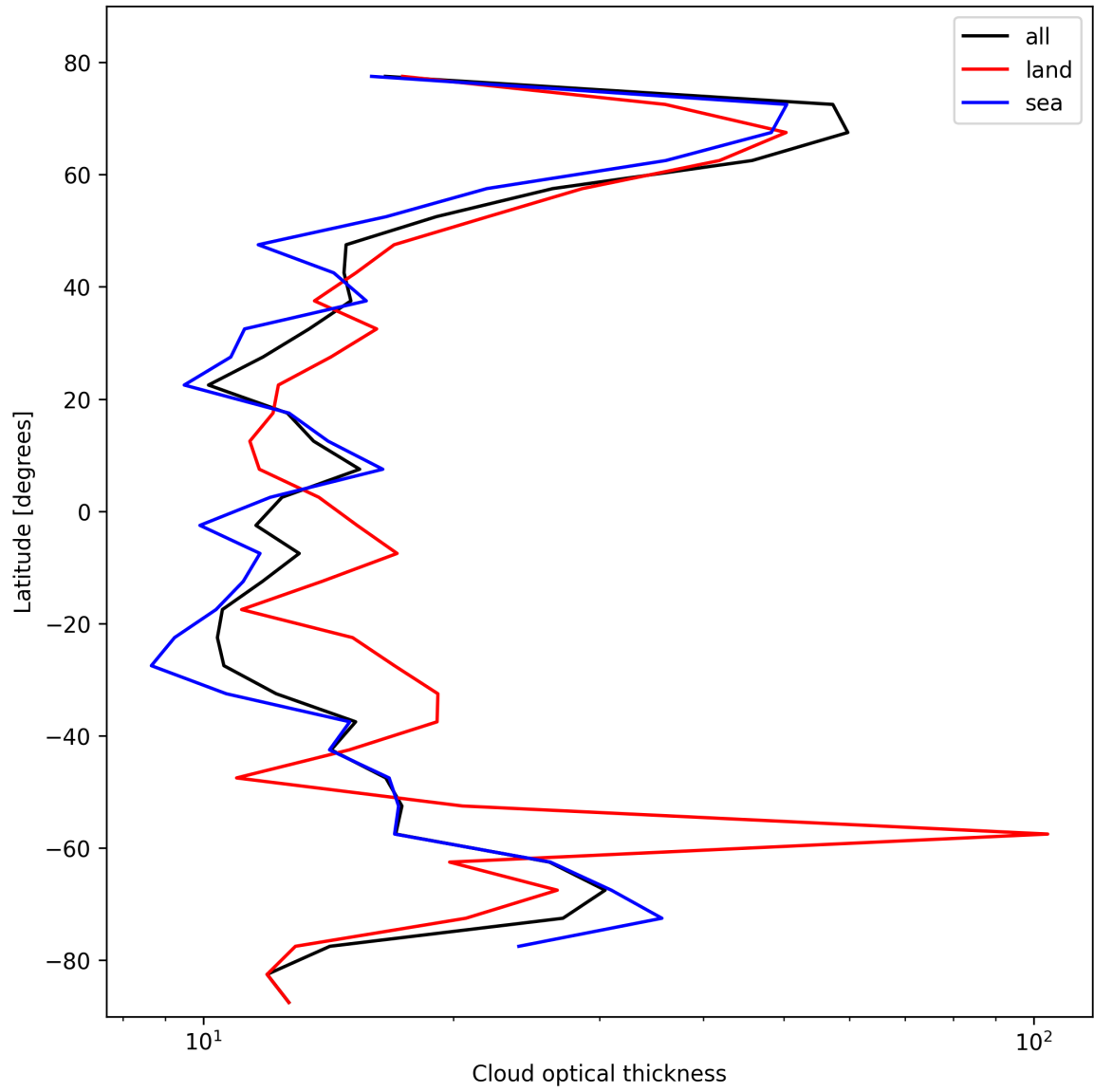


Figure 23: Zonal average of “Cloud optical thickness” for 2025-10-25 to 2025-10-25.

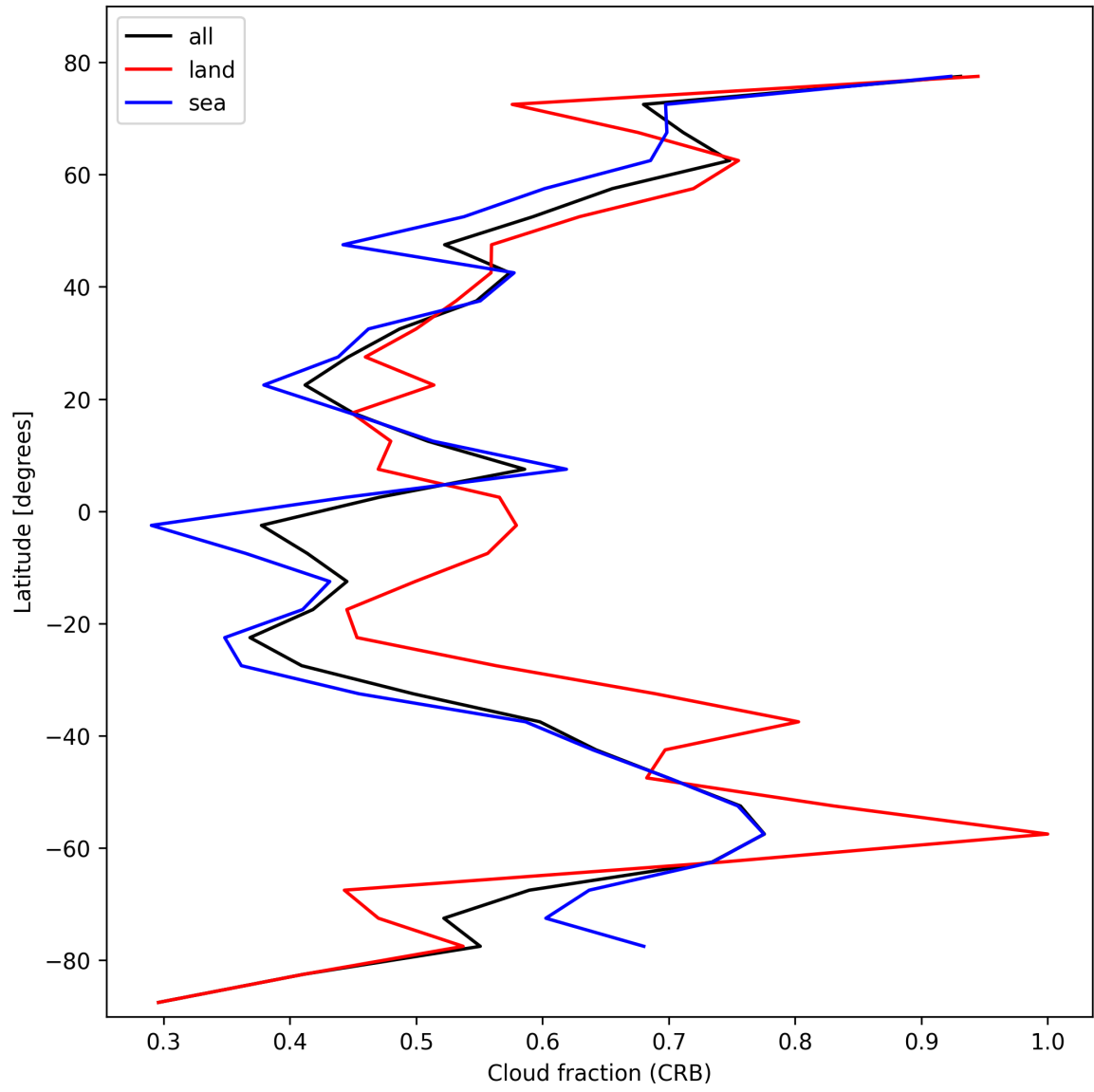


Figure 24: Zonal average of “Cloud fraction (CRB)” for 2025-10-25 to 2025-10-25.

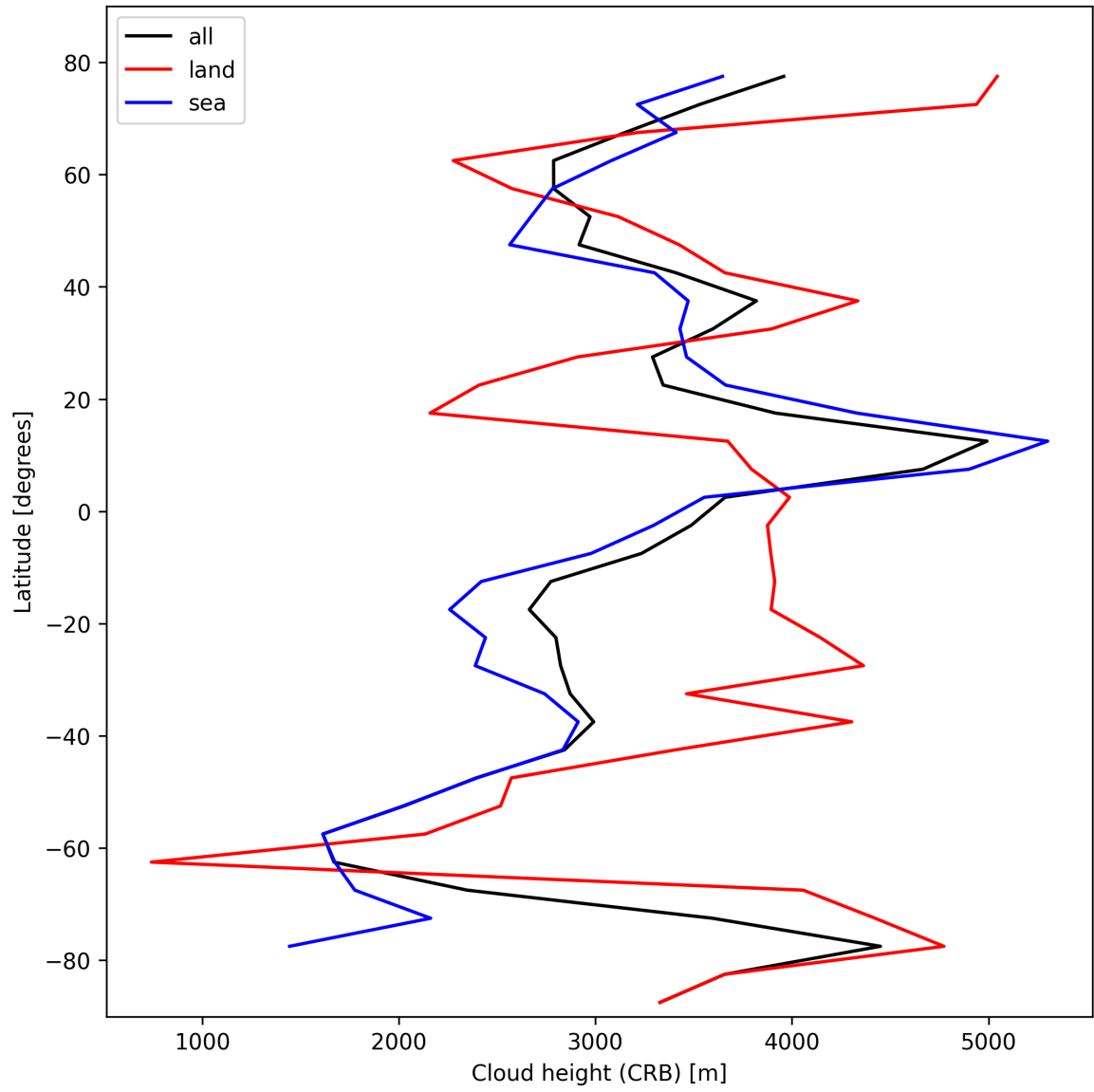


Figure 25: Zonal average of “Cloud height (CRB)” for 2025-10-25 to 2025-10-25.

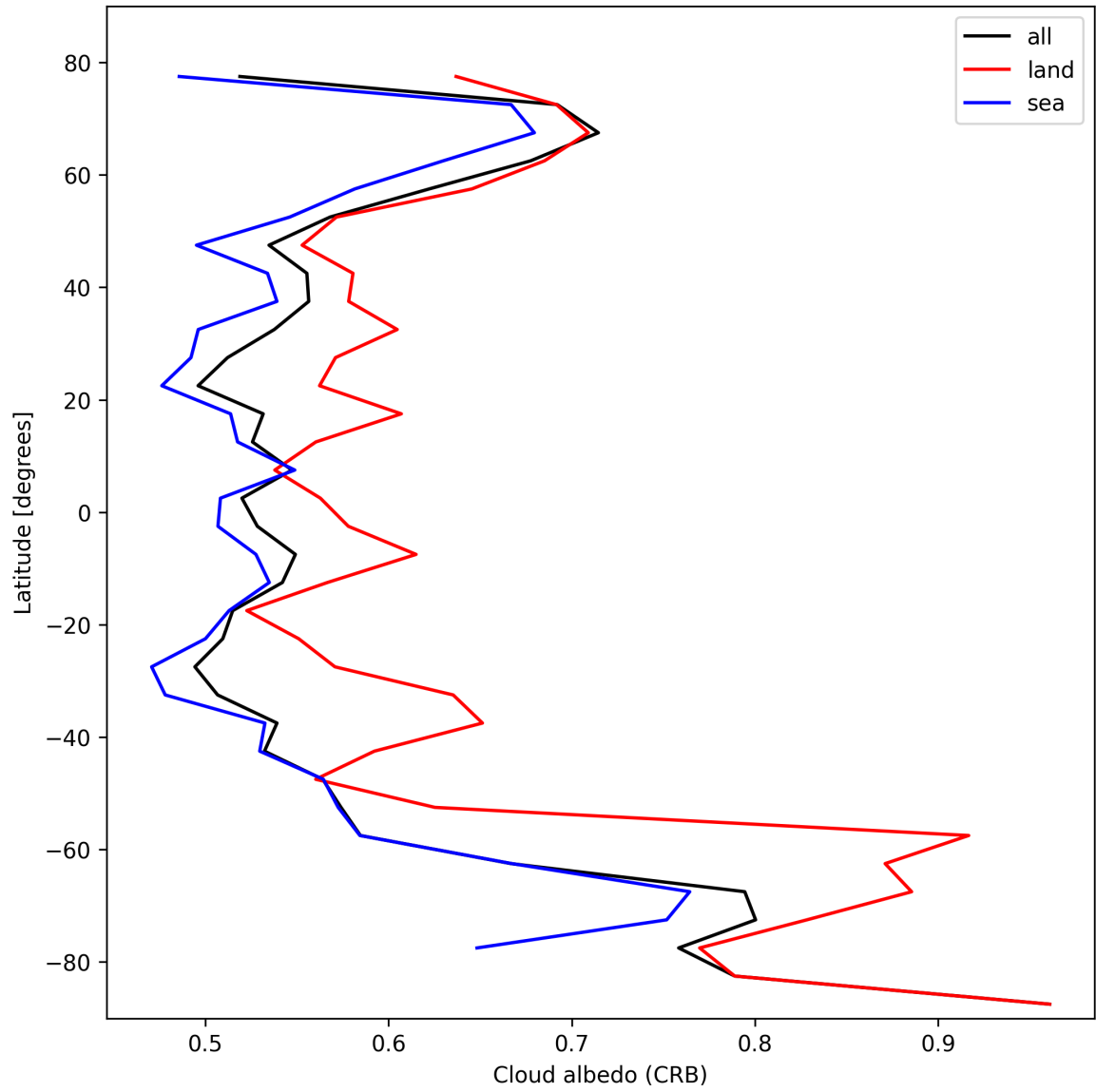


Figure 26: Zonal average of “Cloud albedo (CRB)” for 2025-10-25 to 2025-10-25.

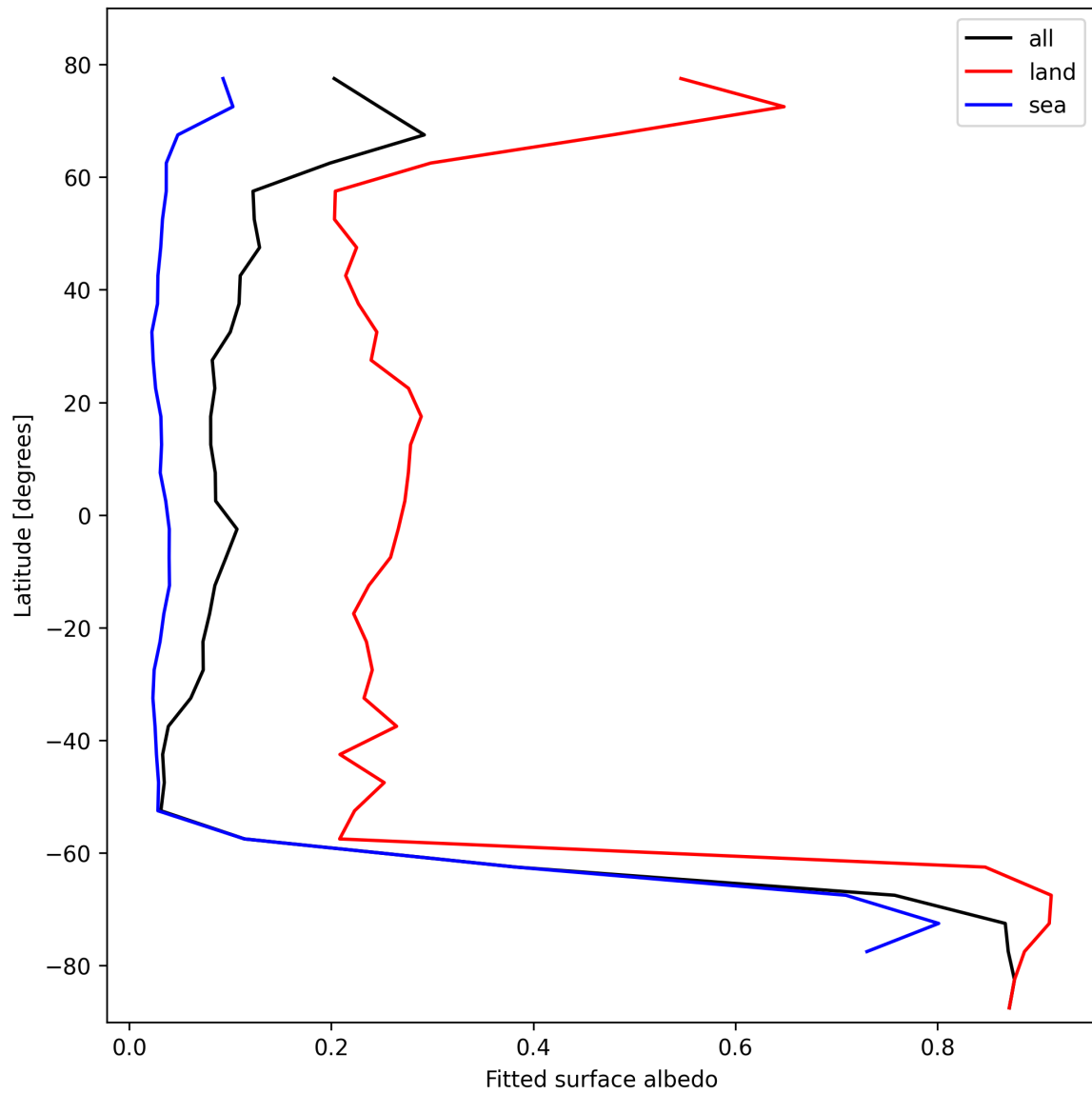


Figure 27: Zonal average of “Fitted surface albedo” for 2025-10-25 to 2025-10-25.

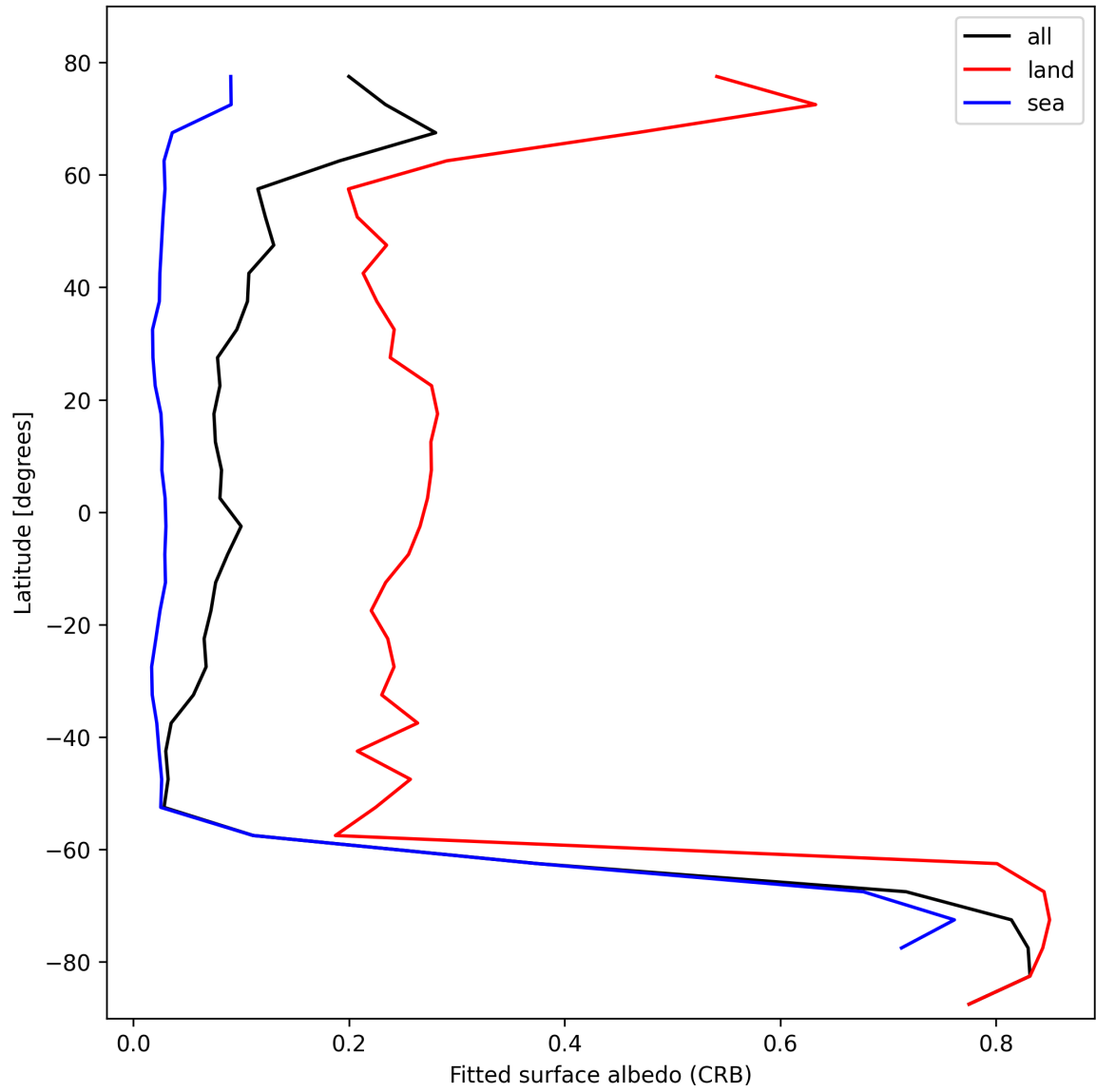


Figure 28: Zonal average of “Fitted surface albedo (CRB)” for 2025-10-25 to 2025-10-25.

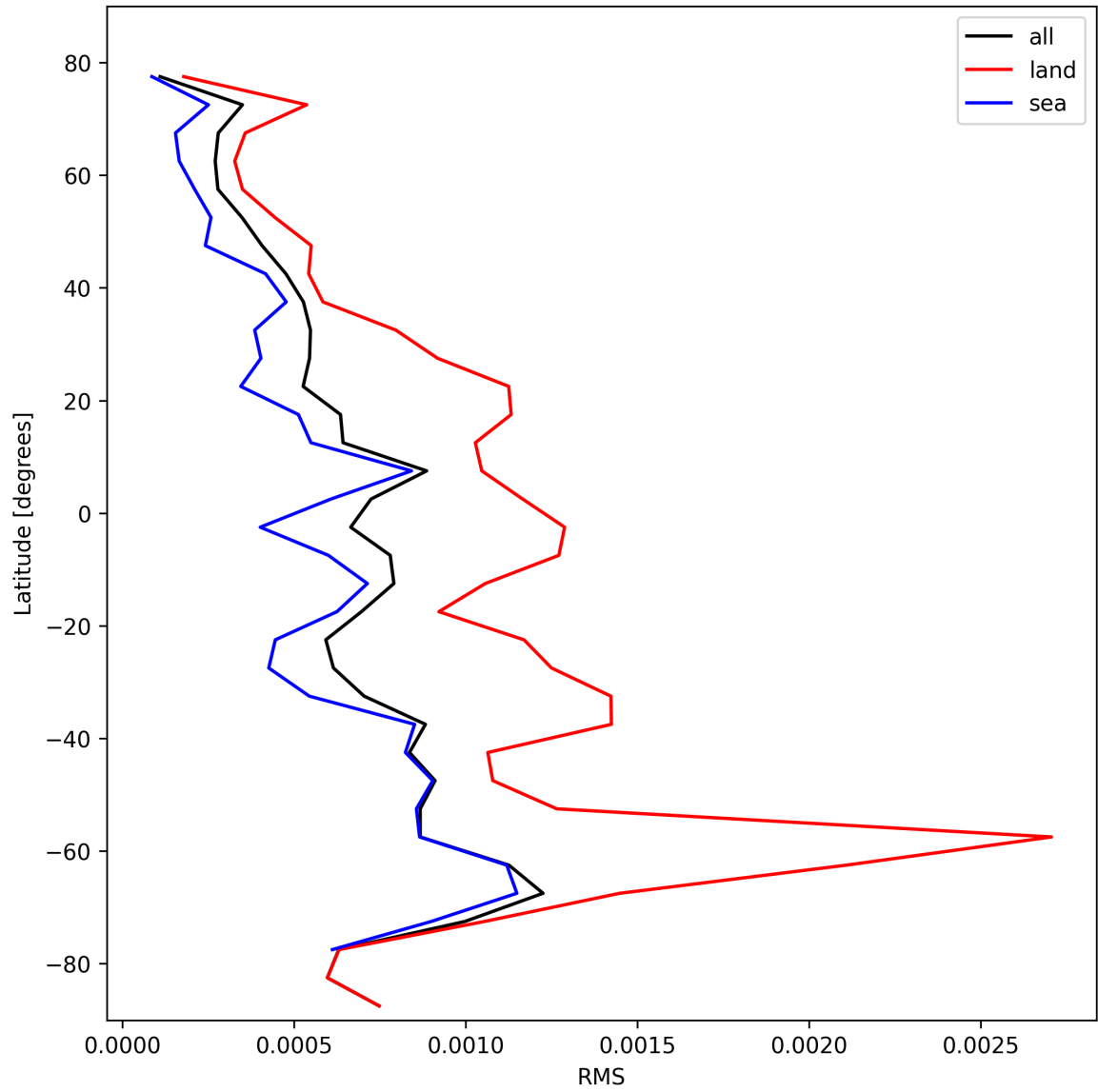


Figure 29: Zonal average of “RMS” for 2025-10-25 to 2025-10-25.

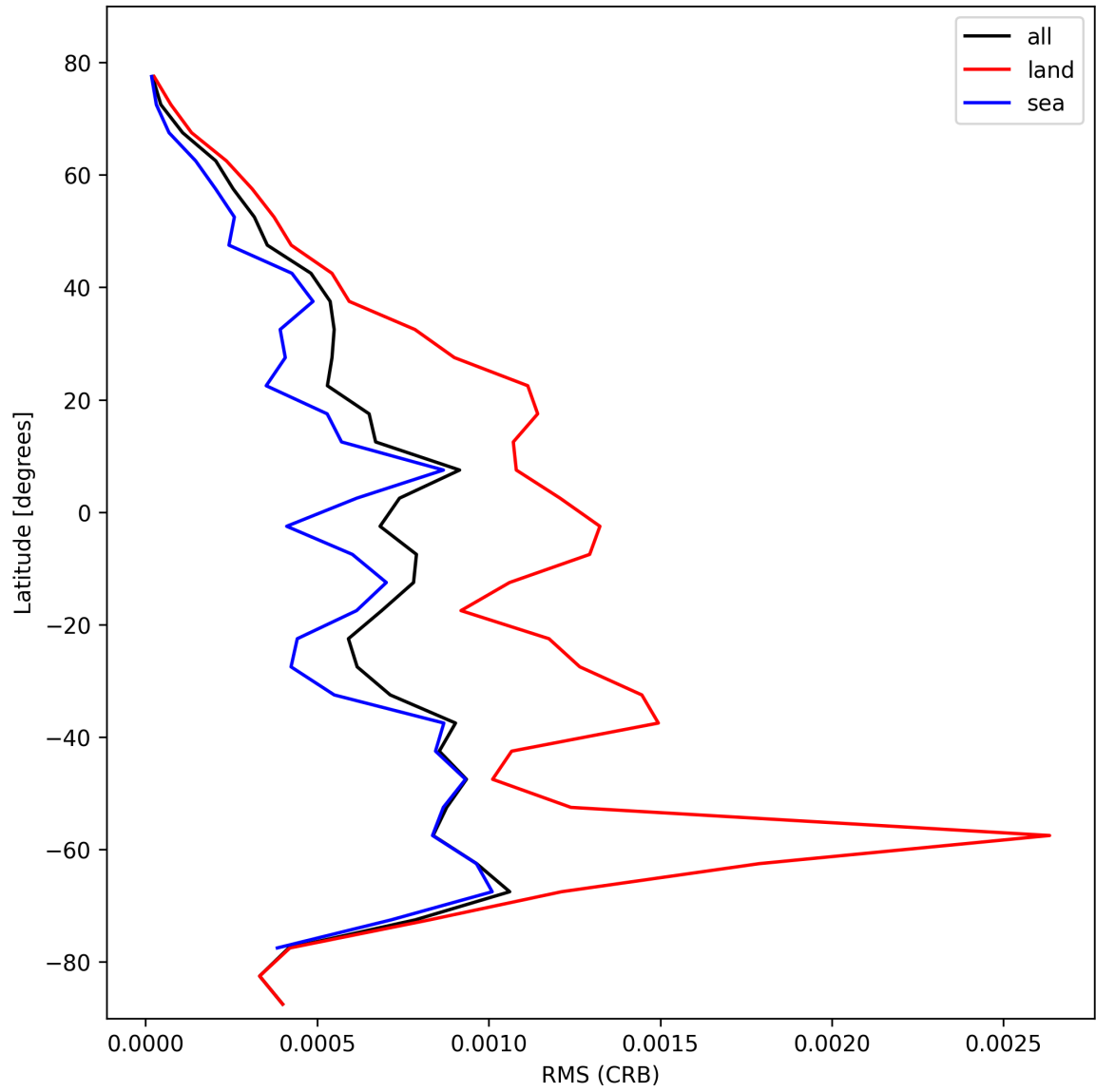


Figure 30: Zonal average of “RMS (CRB)” for 2025-10-25 to 2025-10-25.

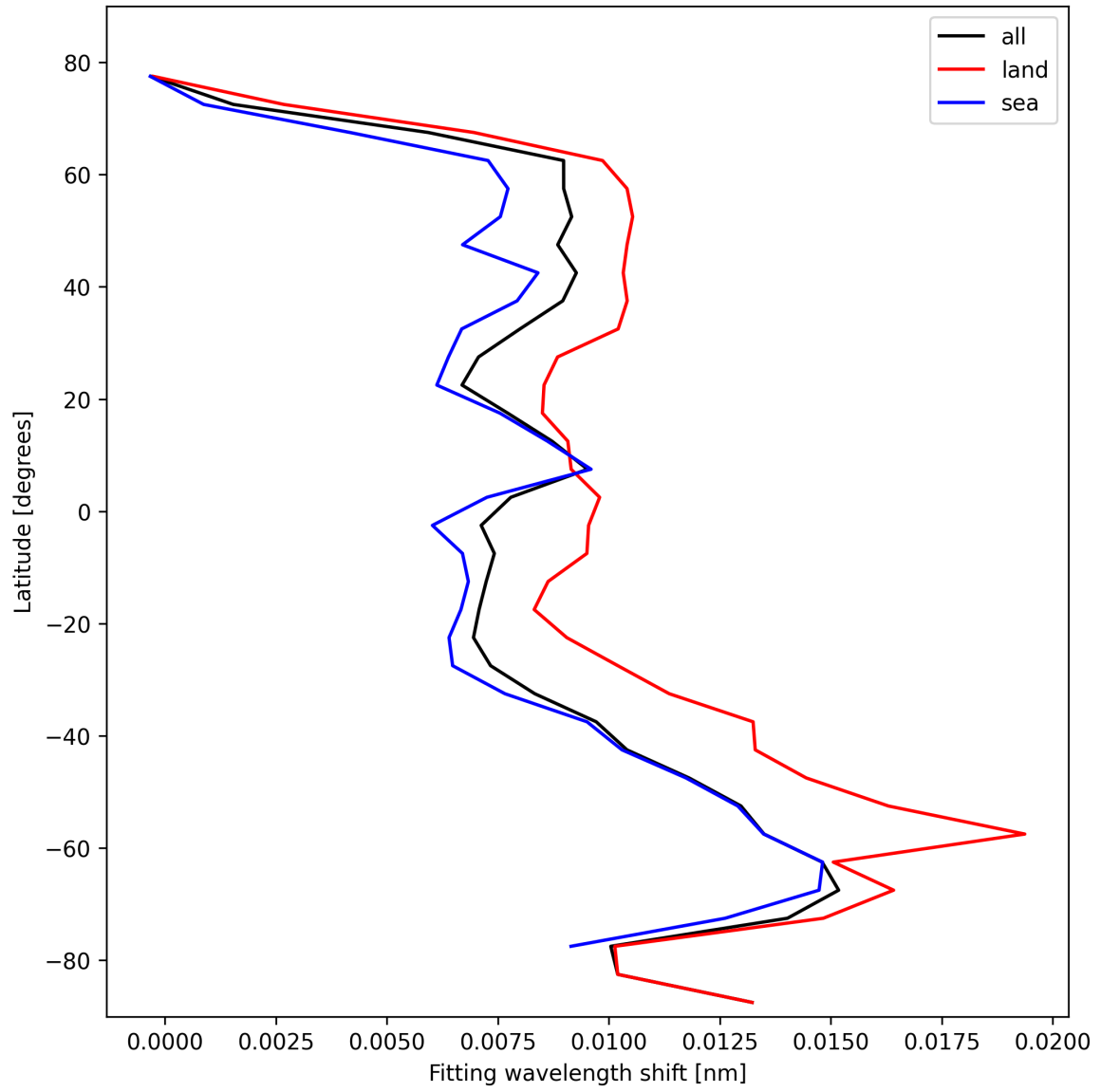


Figure 31: Zonal average of “Fitting wavelength shift” for 2025-10-25 to 2025-10-25.

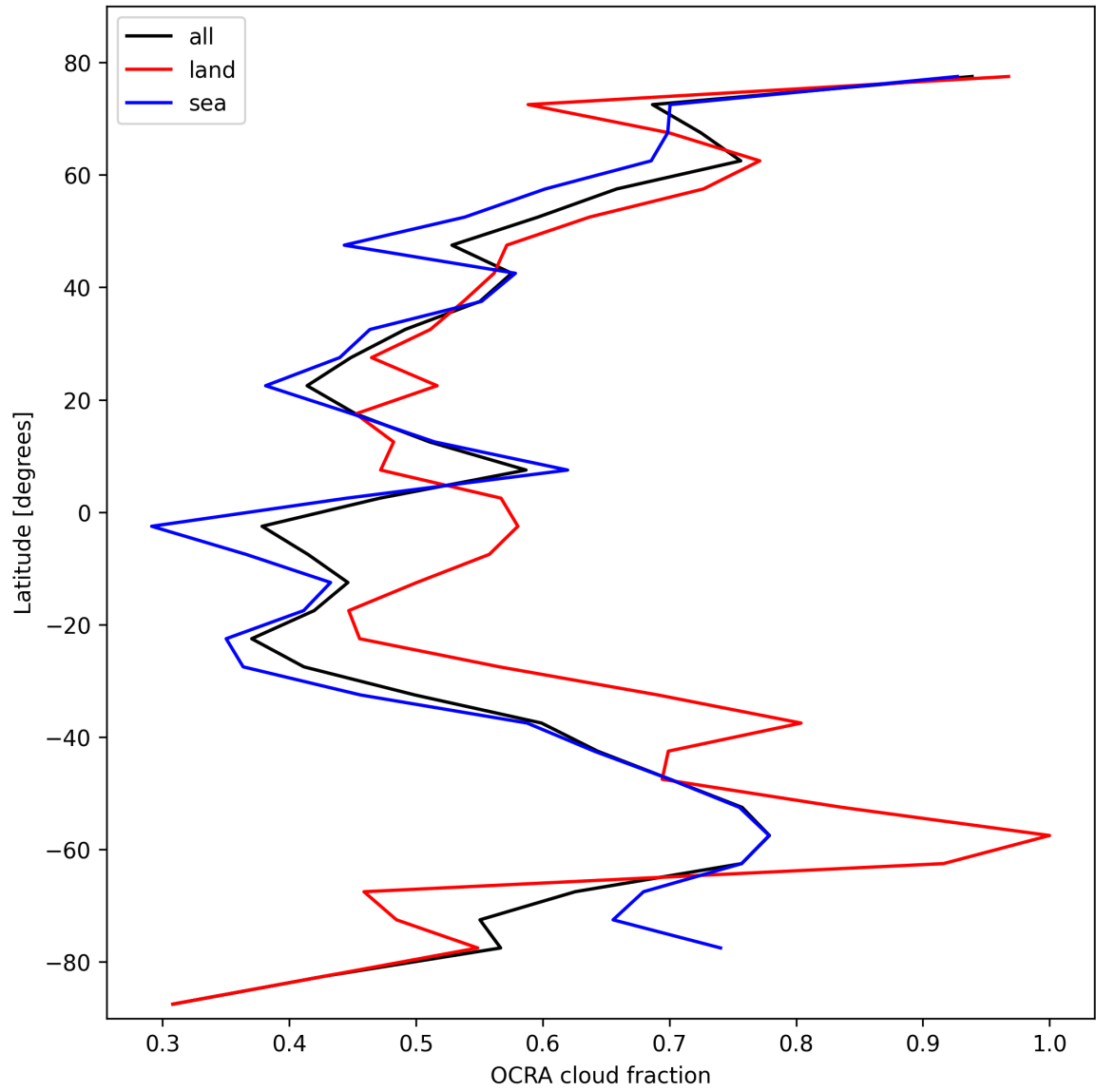


Figure 32: Zonal average of “OCRA cloud fraction” for 2025-10-25 to 2025-10-25.

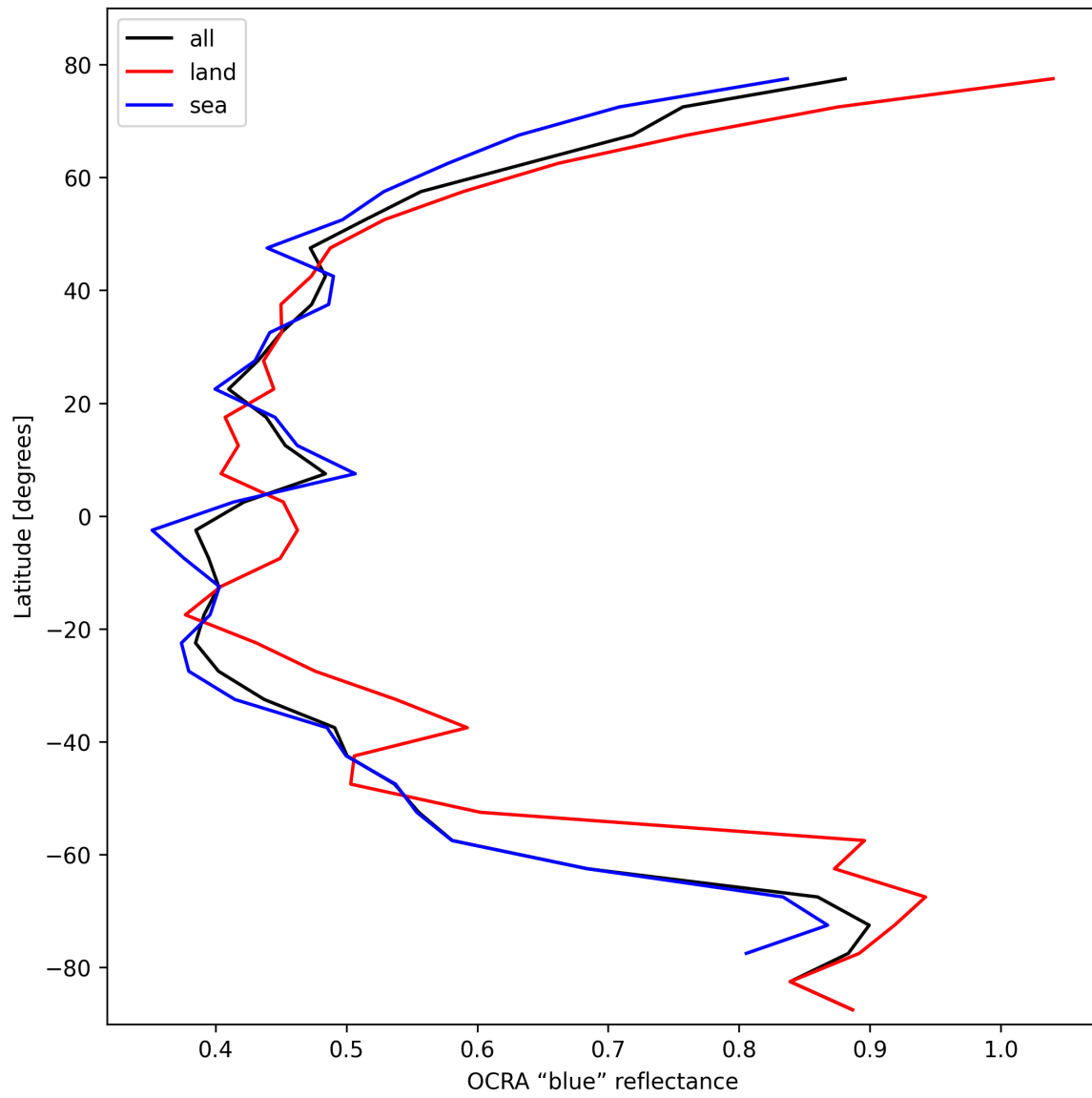


Figure 33: Zonal average of "OCRA "blue" reflectance" for 2025-10-25 to 2025-10-25.

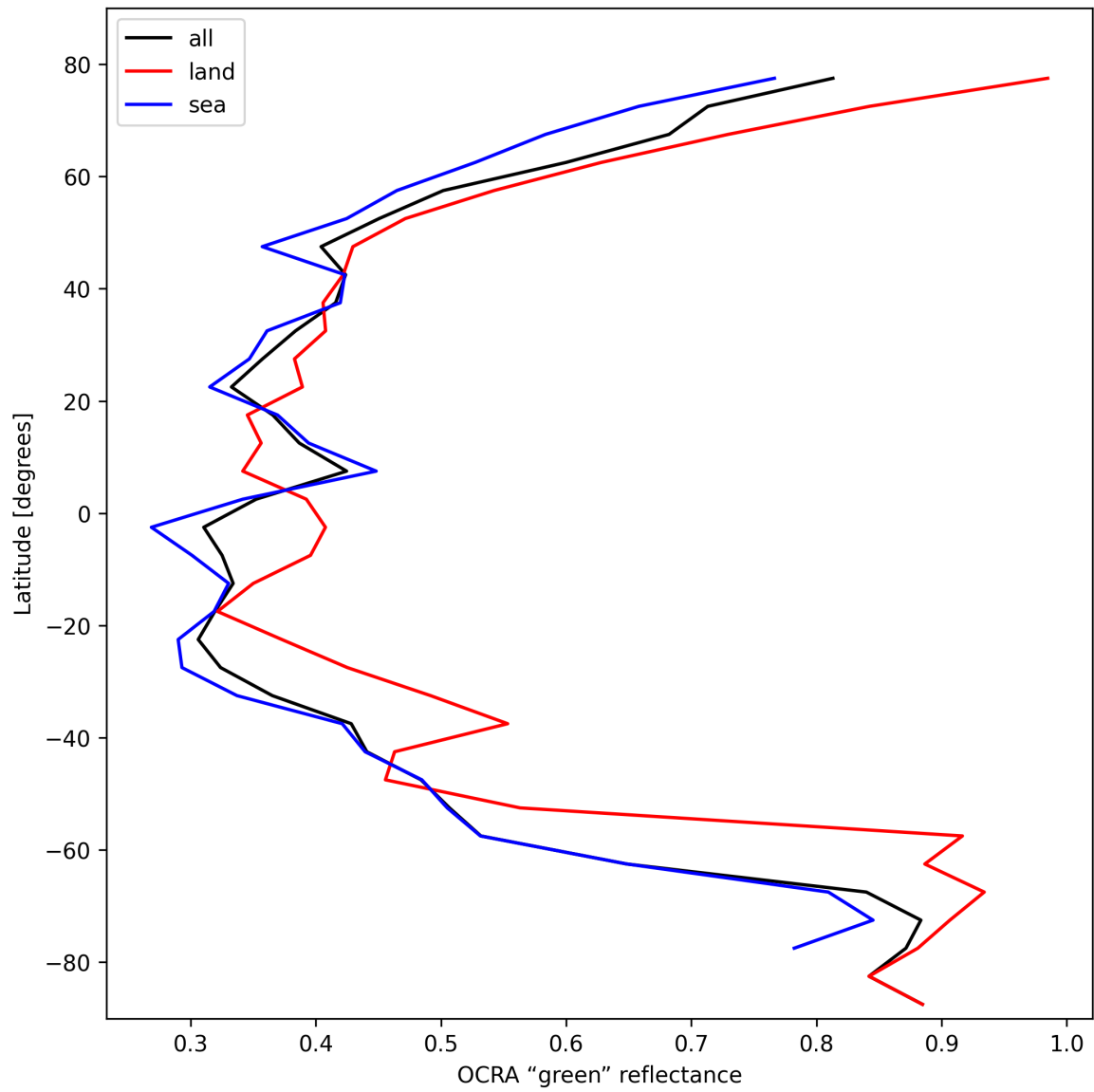


Figure 34: Zonal average of “OCRA “green” reflectance” for 2025-10-25 to 2025-10-25.

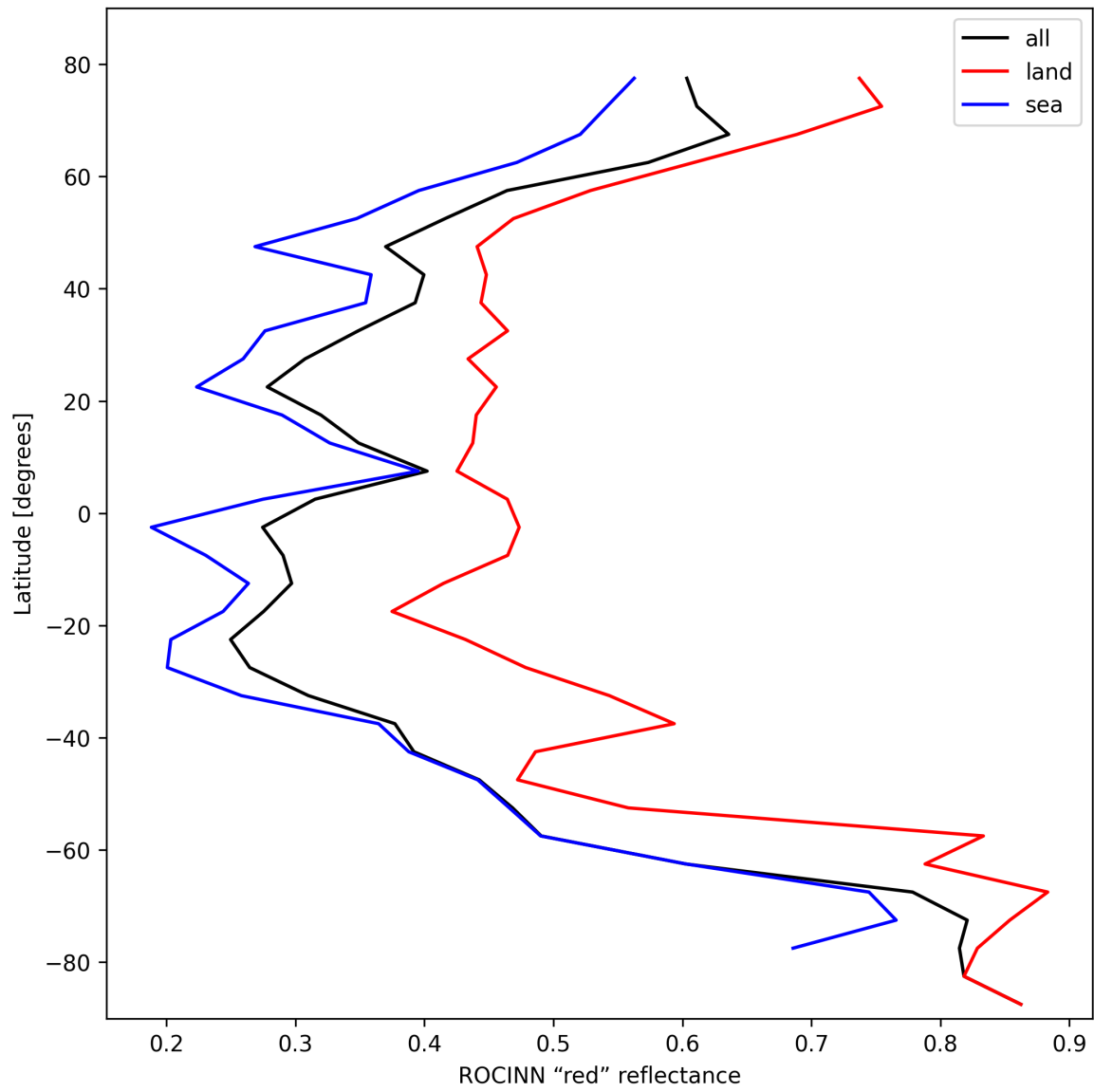


Figure 35: Zonal average of “ROCINN “red” reflectance” for 2025-10-25 to 2025-10-25.

8 Histograms

The definitions of the parameters given in this section can be found in section 2.

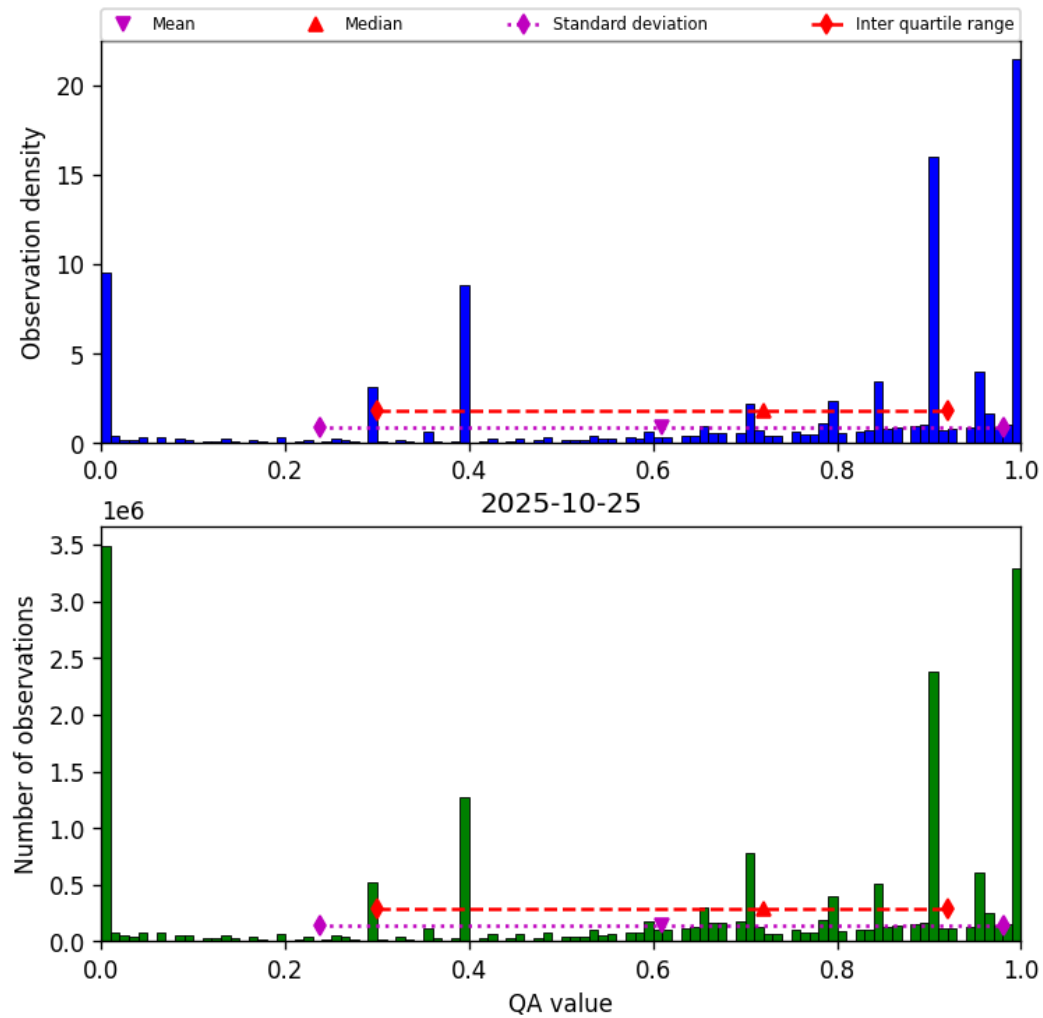


Figure 36: Histogram of “QA value” for 2025-10-25 to 2025-10-25

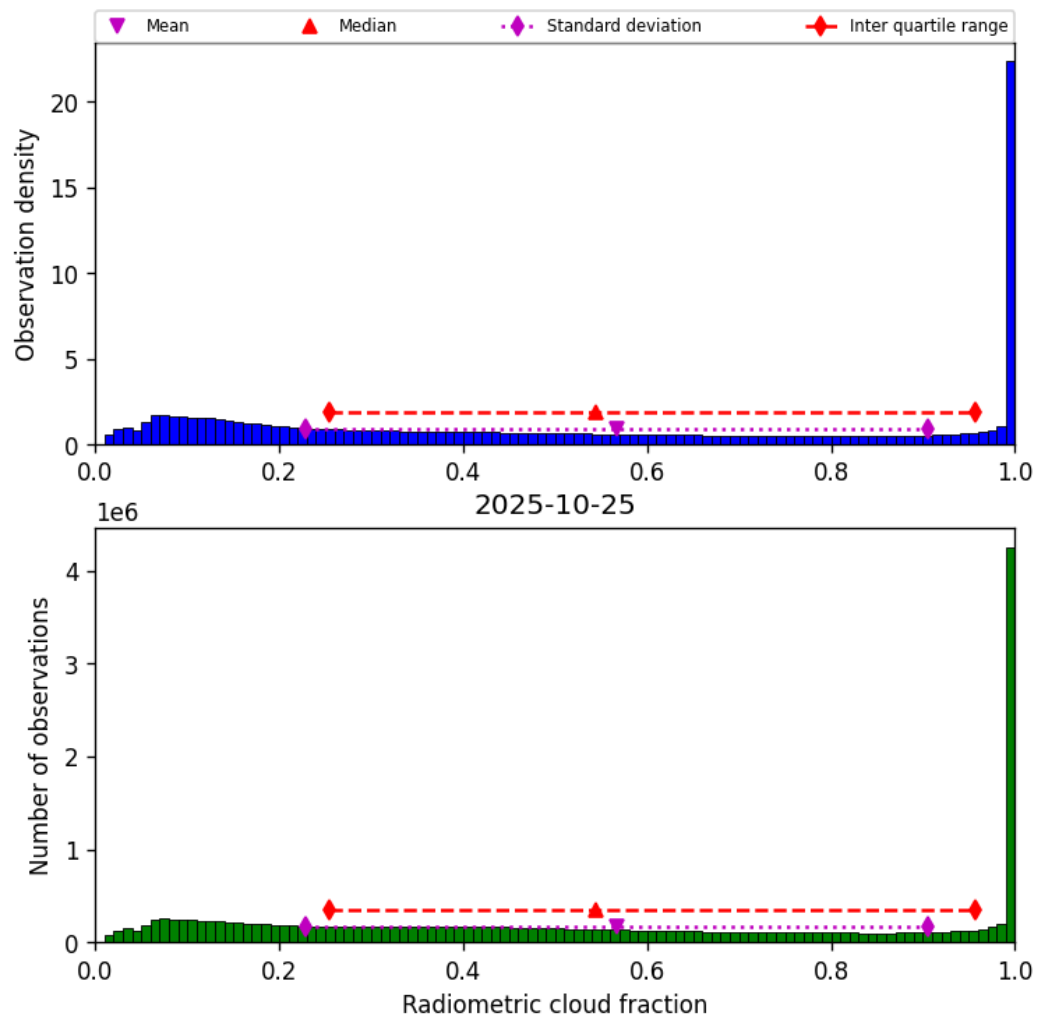


Figure 37: Histogram of “Radiometric cloud fraction” for 2025-10-25 to 2025-10-25

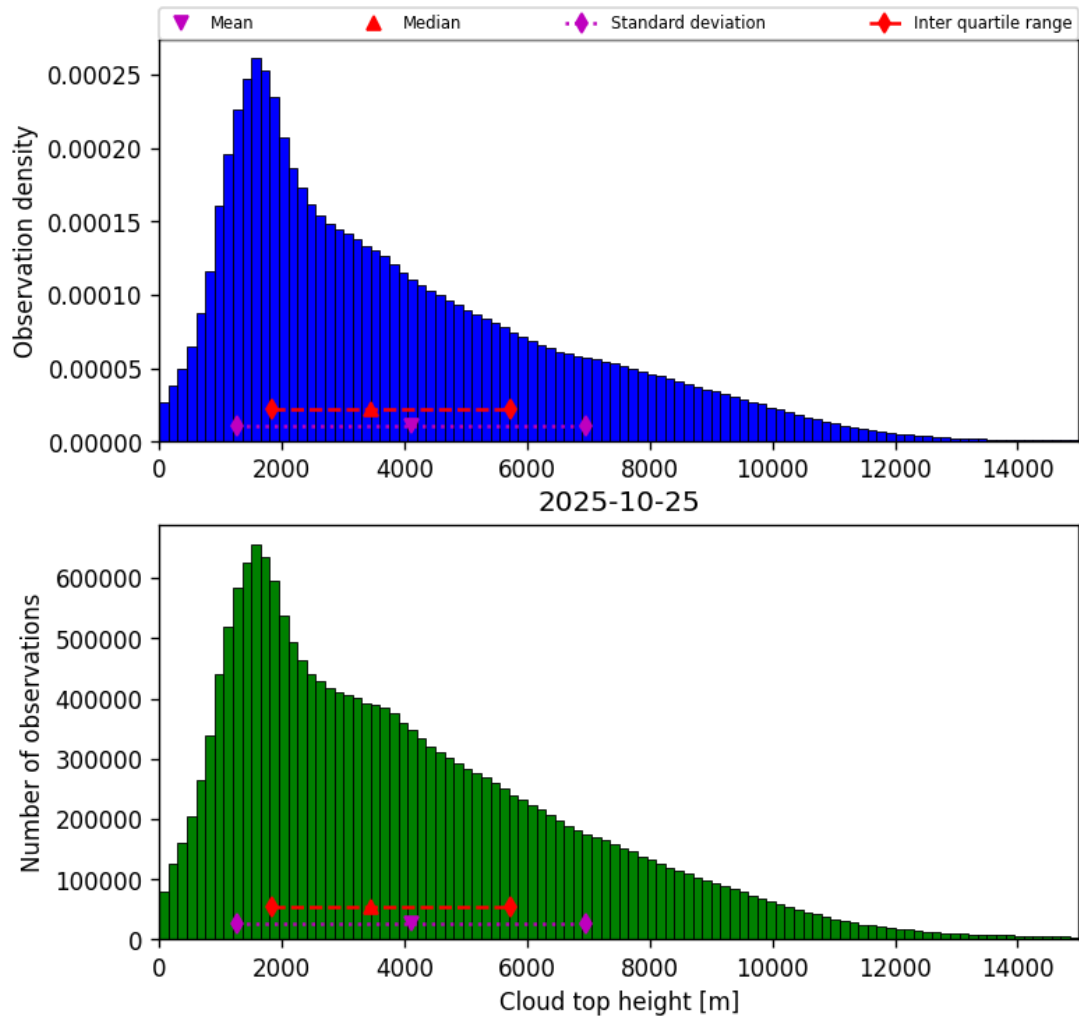


Figure 38: Histogram of “Cloud top height” for 2025-10-25 to 2025-10-25

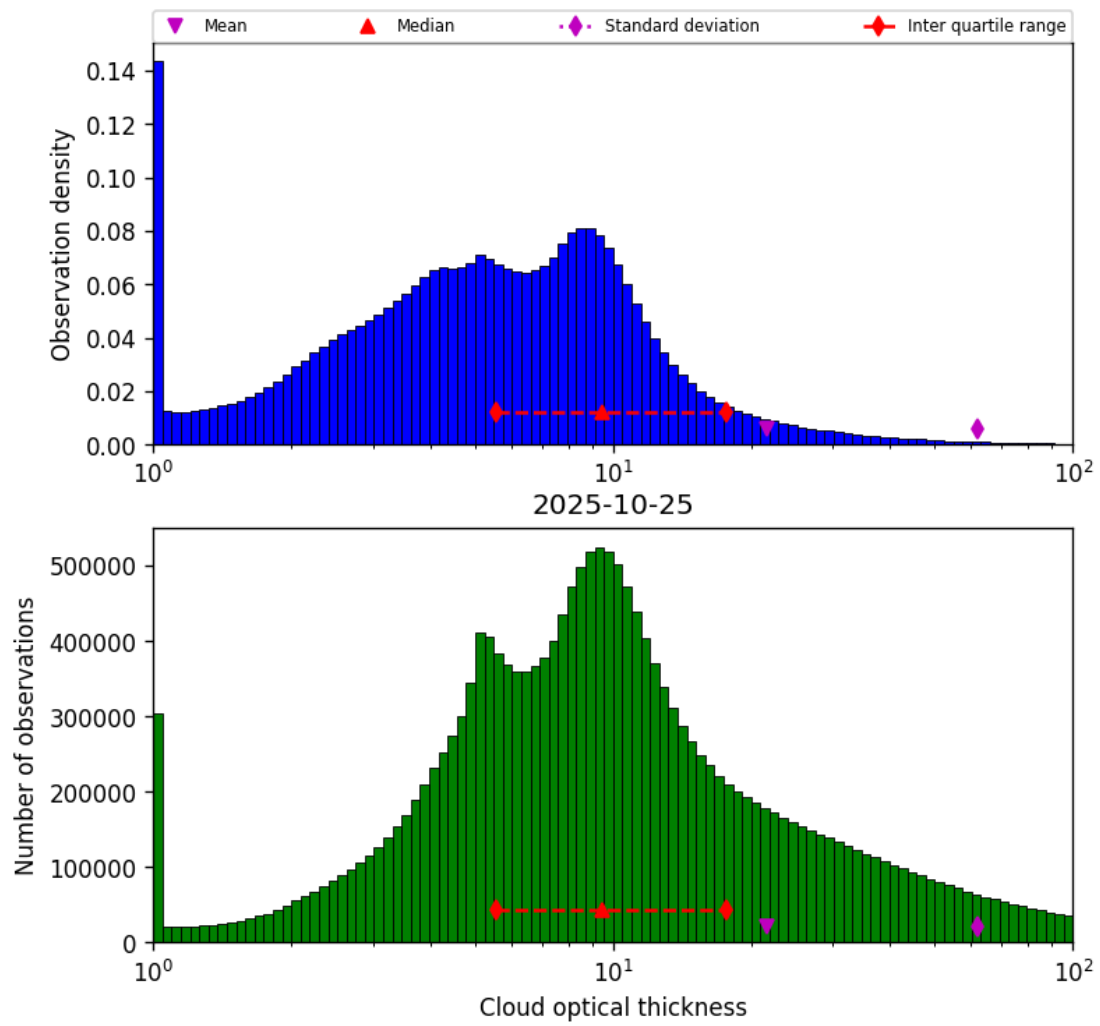


Figure 39: Histogram of “Cloud optical thickness” for 2025-10-25 to 2025-10-25

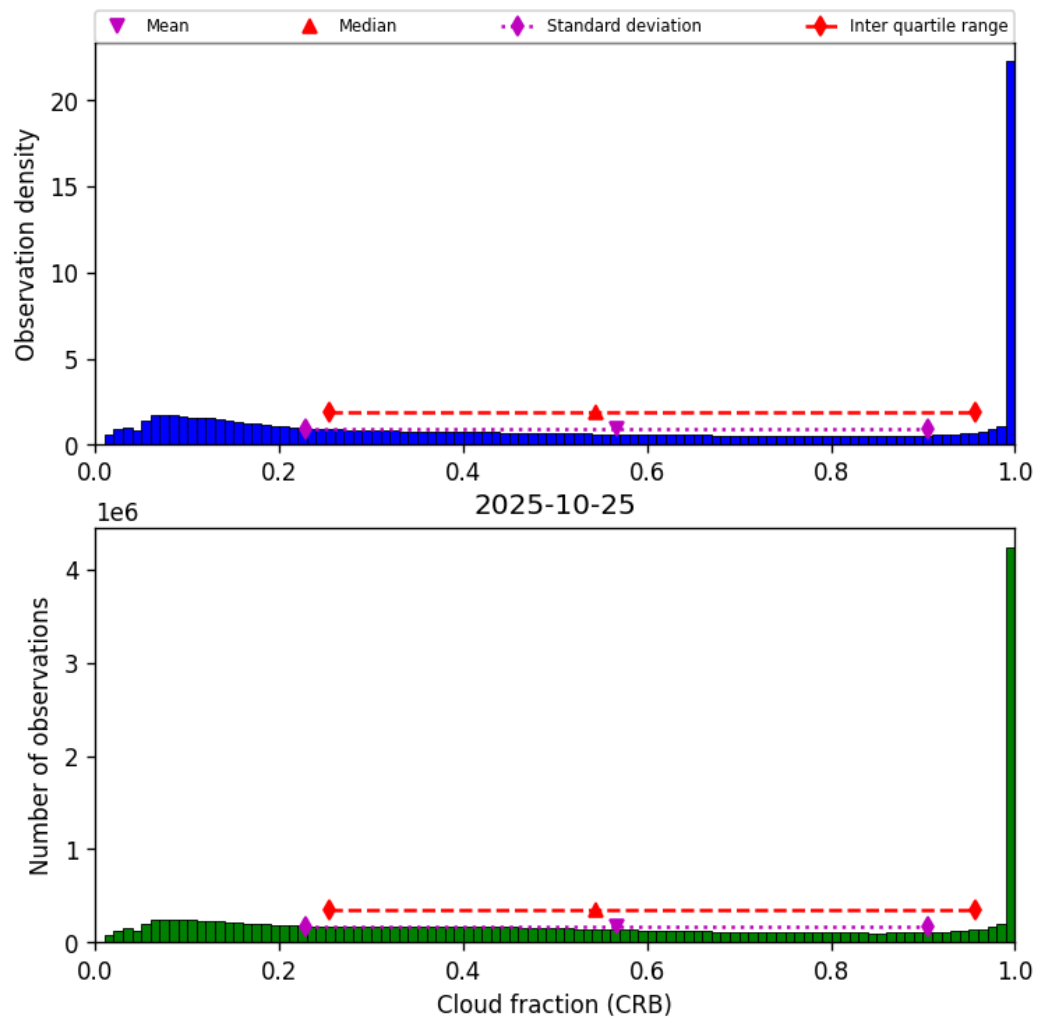


Figure 40: Histogram of "Cloud fraction (CRB)" for 2025-10-25 to 2025-10-25

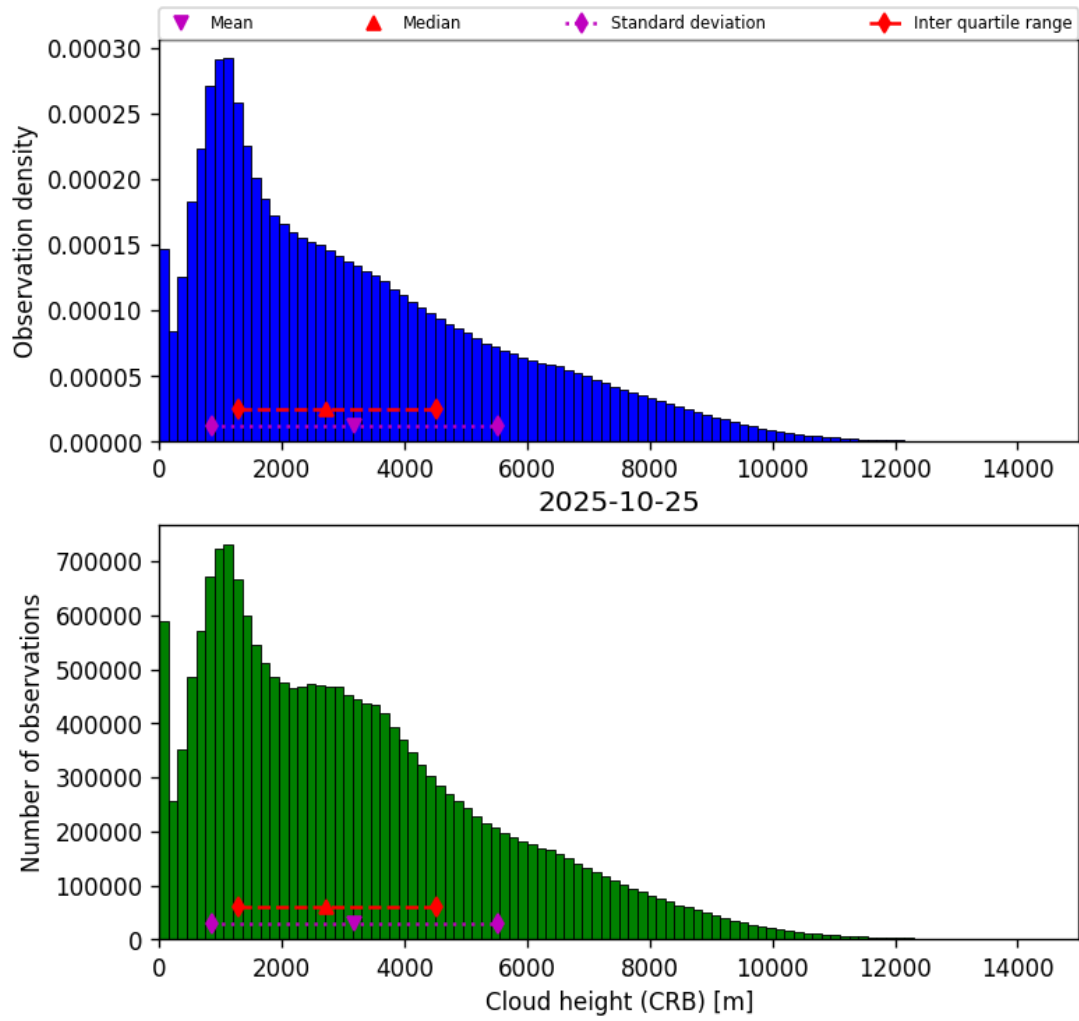


Figure 41: Histogram of “Cloud height (CRB)” for 2025-10-25 to 2025-10-25

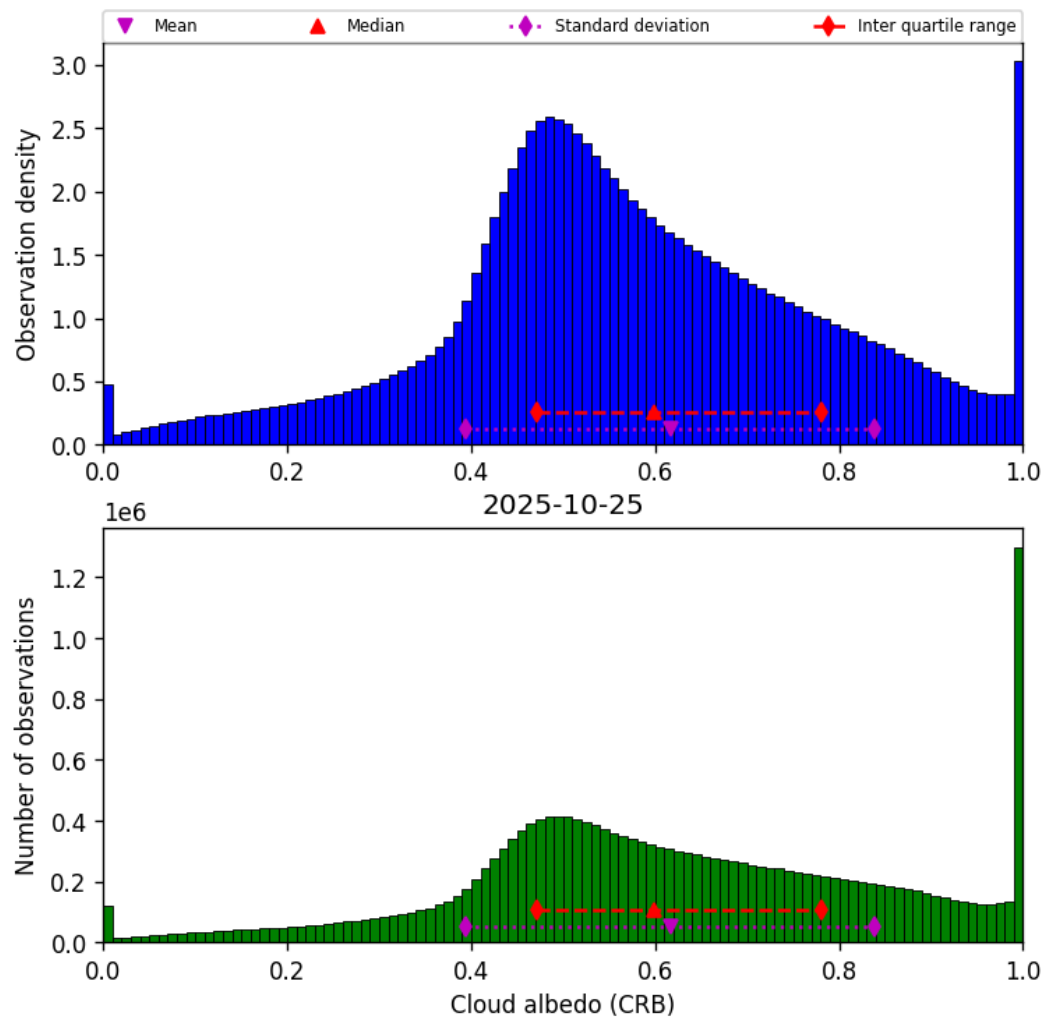


Figure 42: Histogram of “Cloud albedo (CRB)” for 2025-10-25 to 2025-10-25

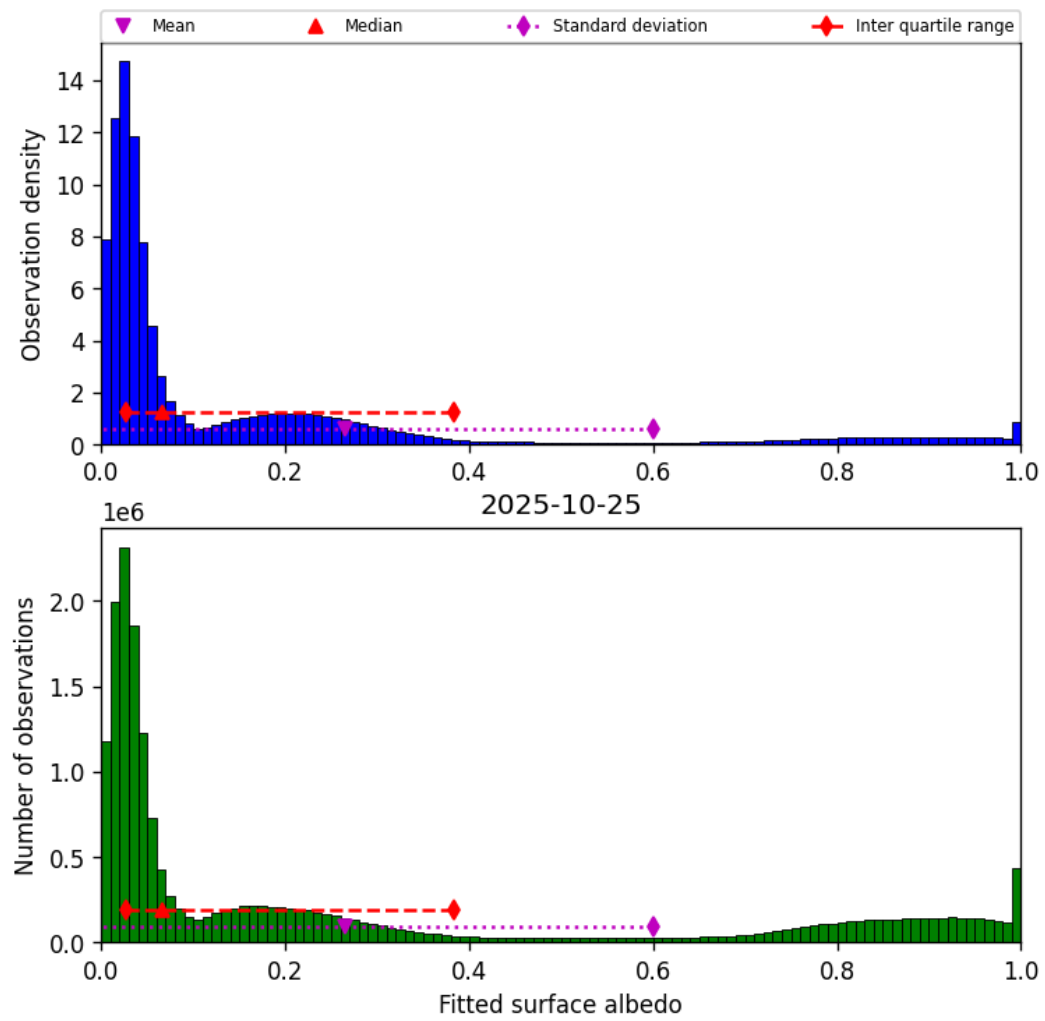


Figure 43: Histogram of “Fitted surface albedo” for 2025-10-25 to 2025-10-25

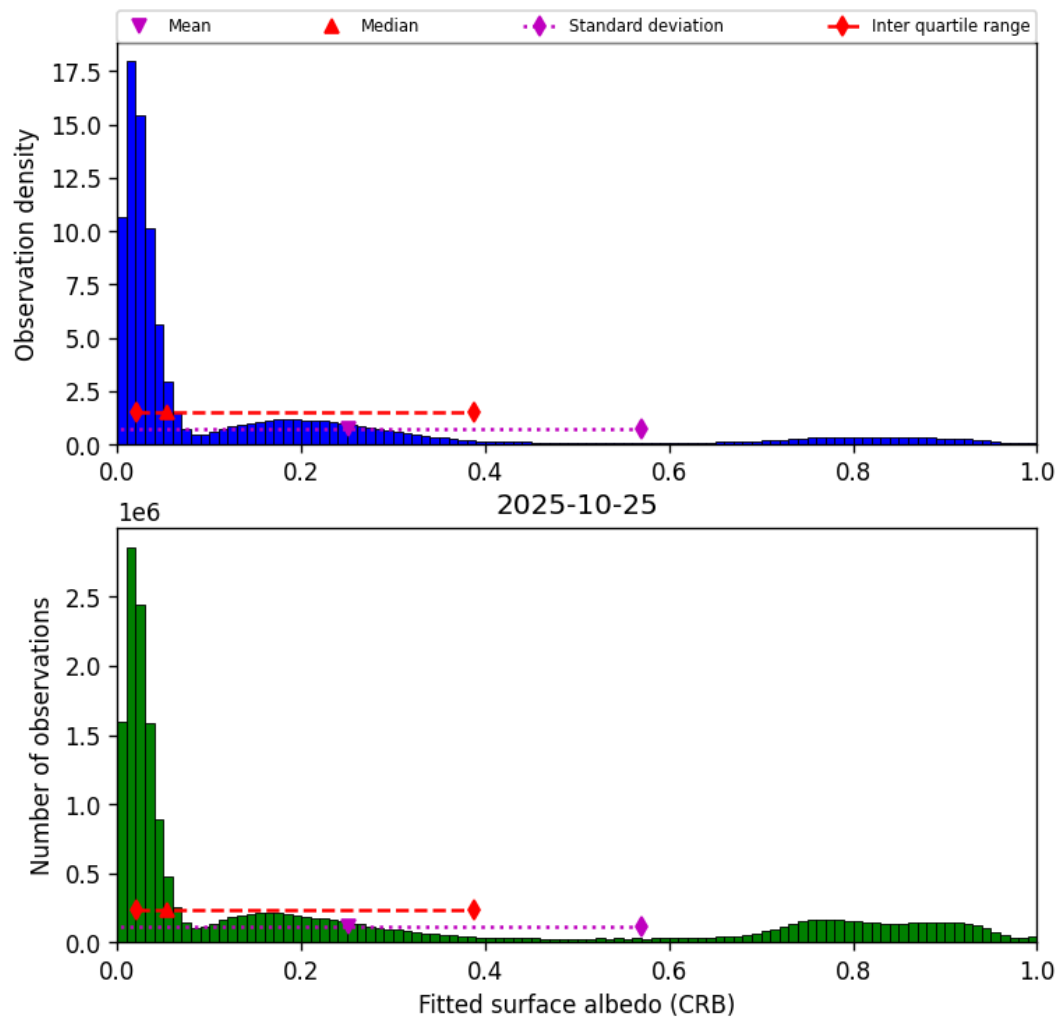


Figure 44: Histogram of “Fitted surface albedo (CRB)” for 2025-10-25 to 2025-10-25

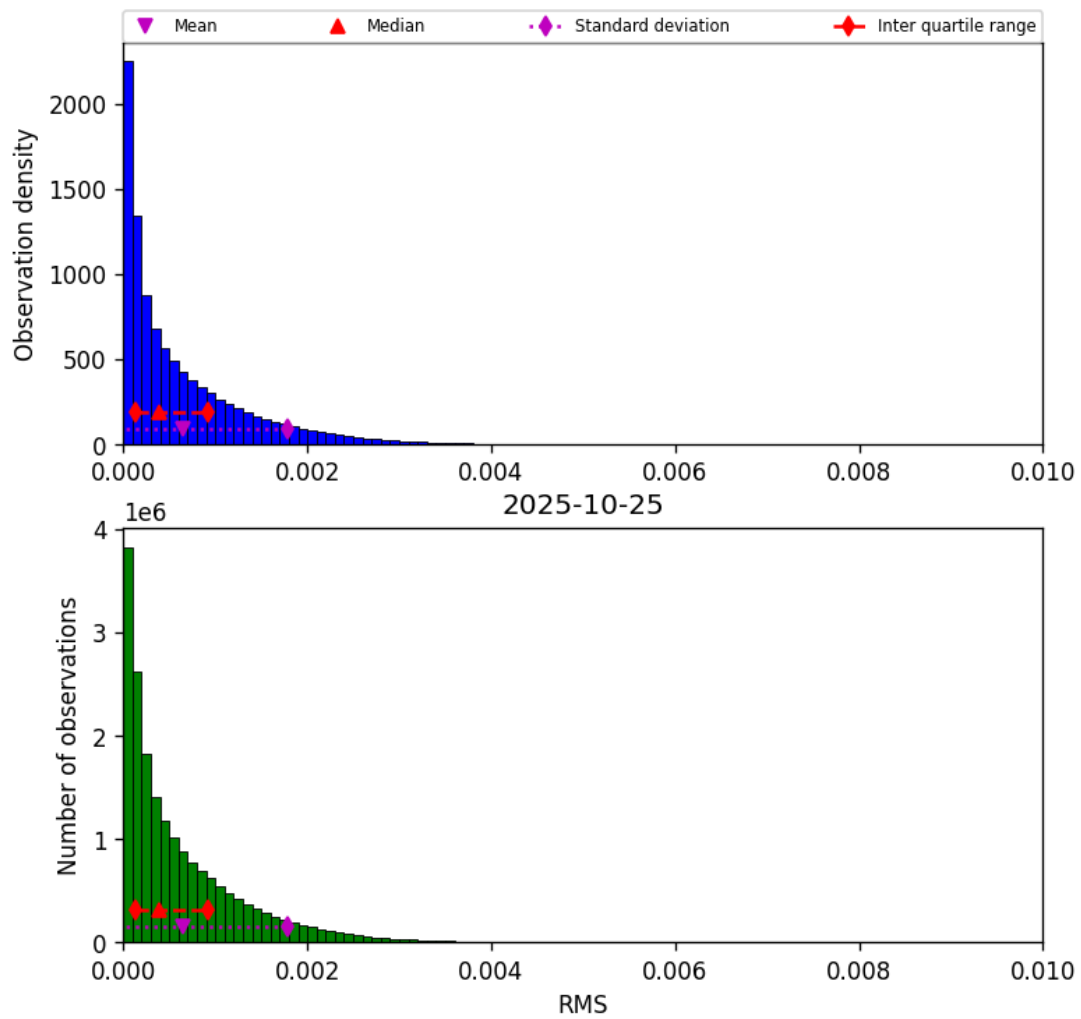


Figure 45: Histogram of “RMS” for 2025-10-25 to 2025-10-25

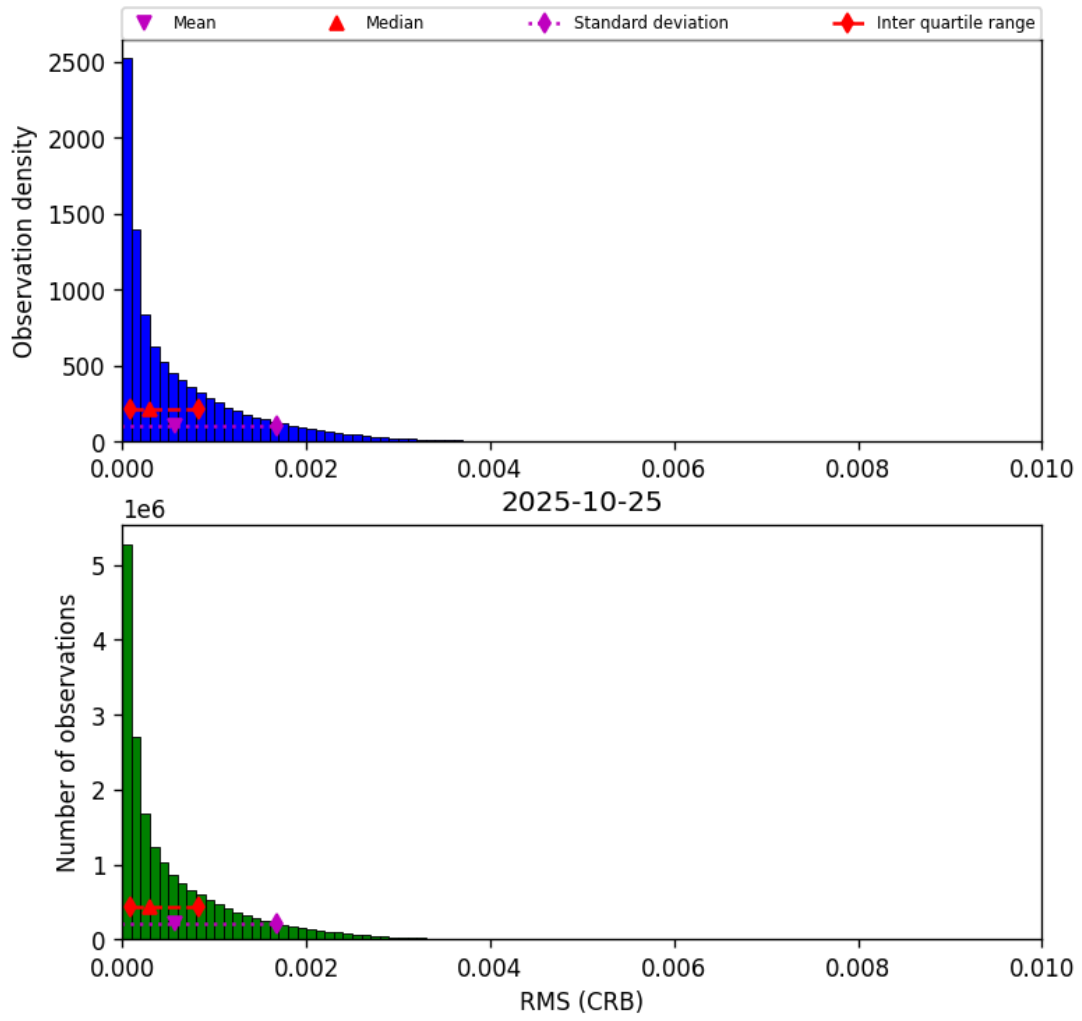


Figure 46: Histogram of “RMS (CRB)” for 2025-10-25 to 2025-10-25

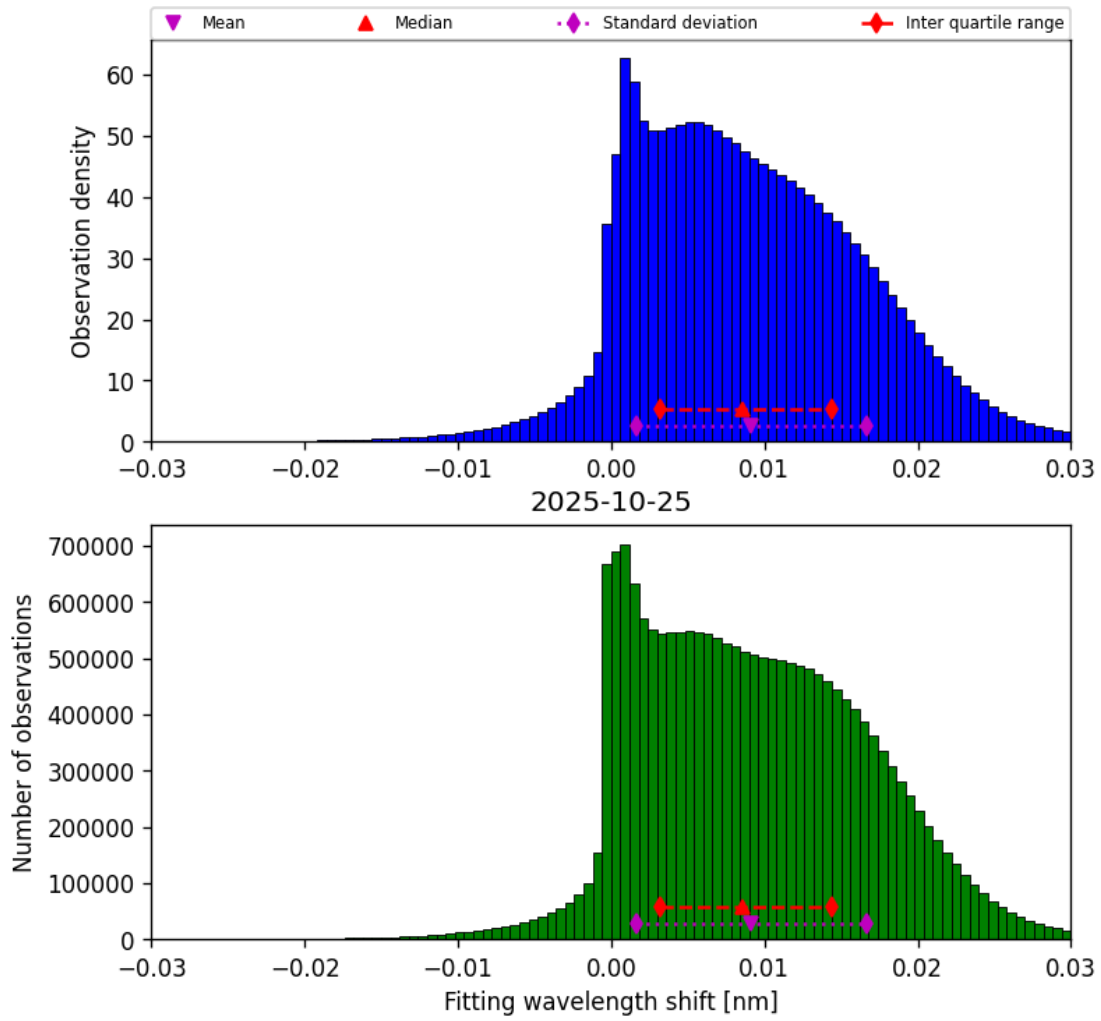


Figure 47: Histogram of “Fitting wavelength shift” for 2025-10-25 to 2025-10-25

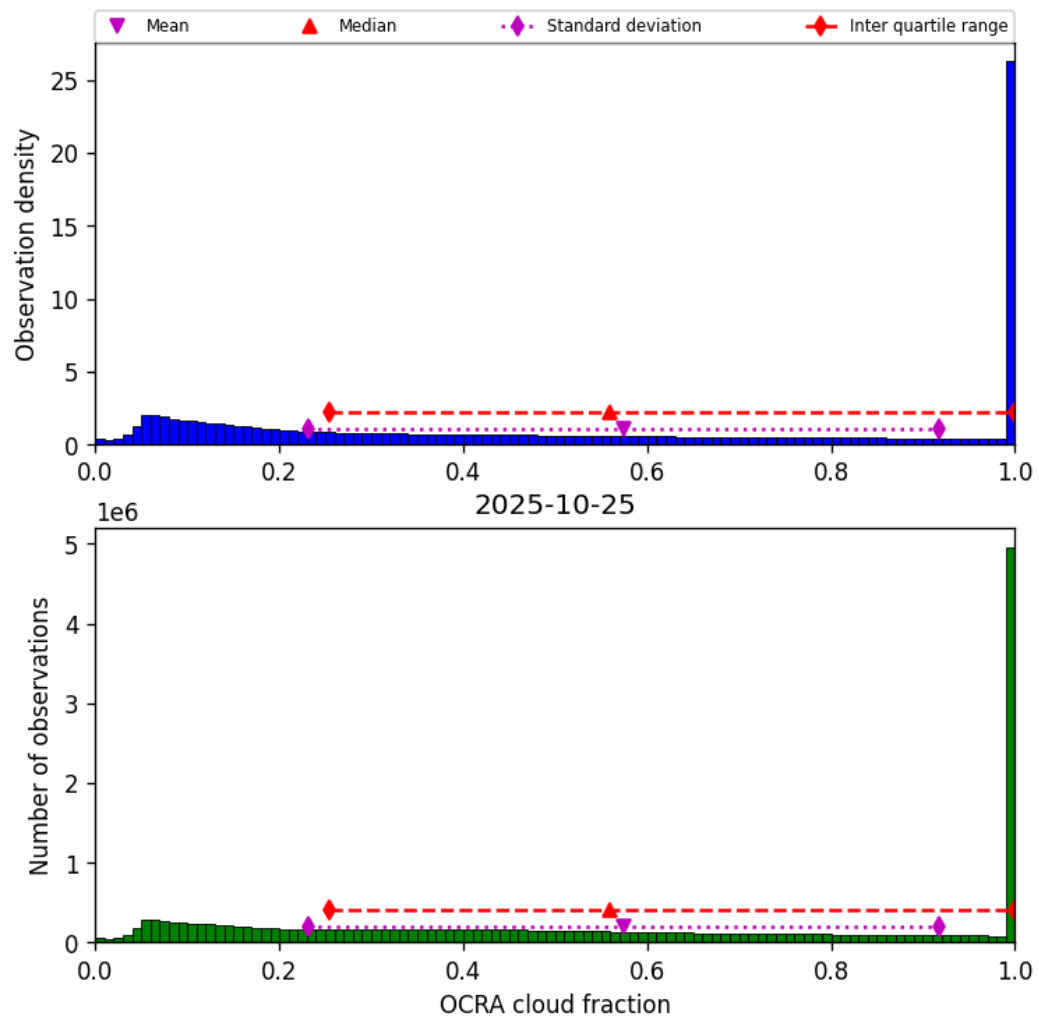


Figure 48: Histogram of “OCRA cloud fraction” for 2025-10-25 to 2025-10-25

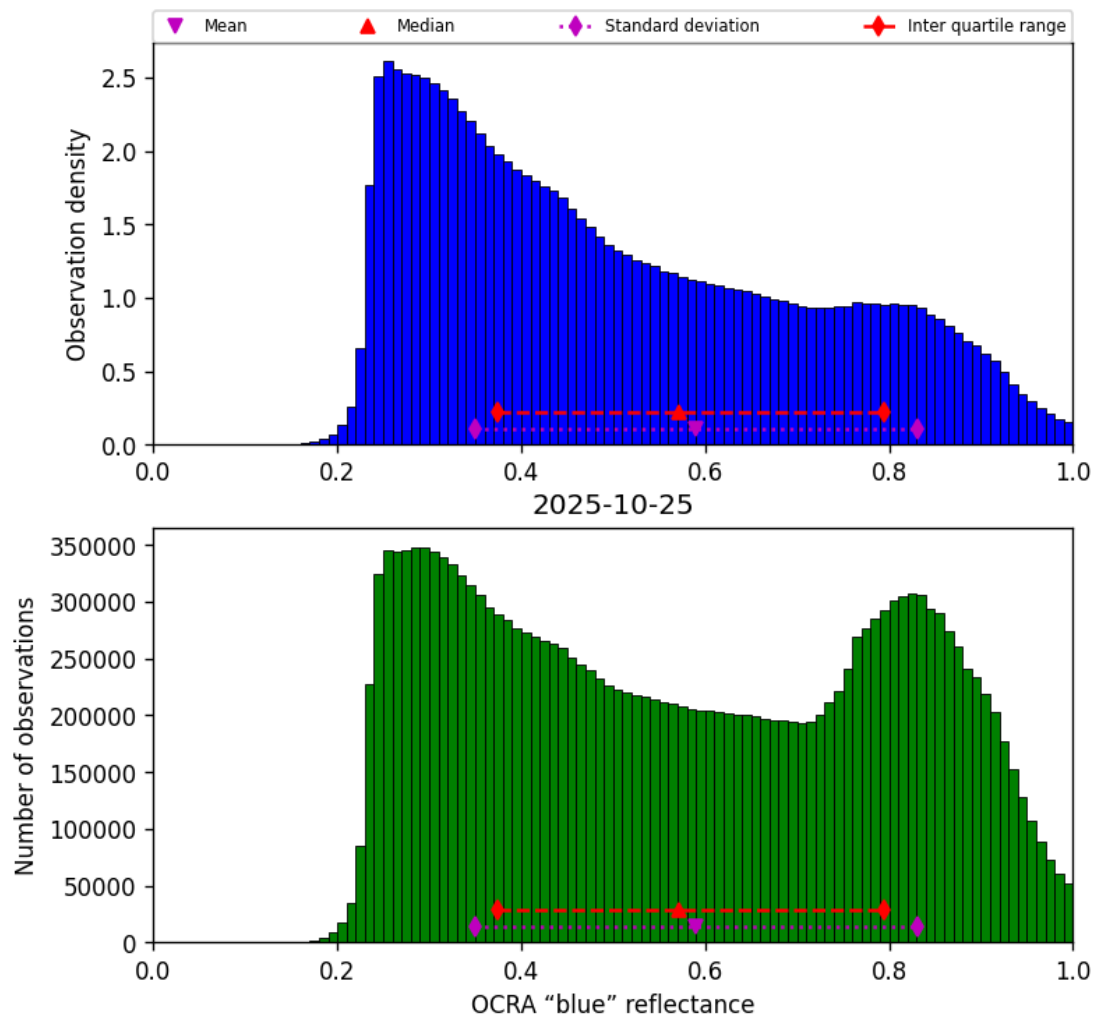


Figure 49: Histogram of “OCRA “blue” reflectance” for 2025-10-25 to 2025-10-25

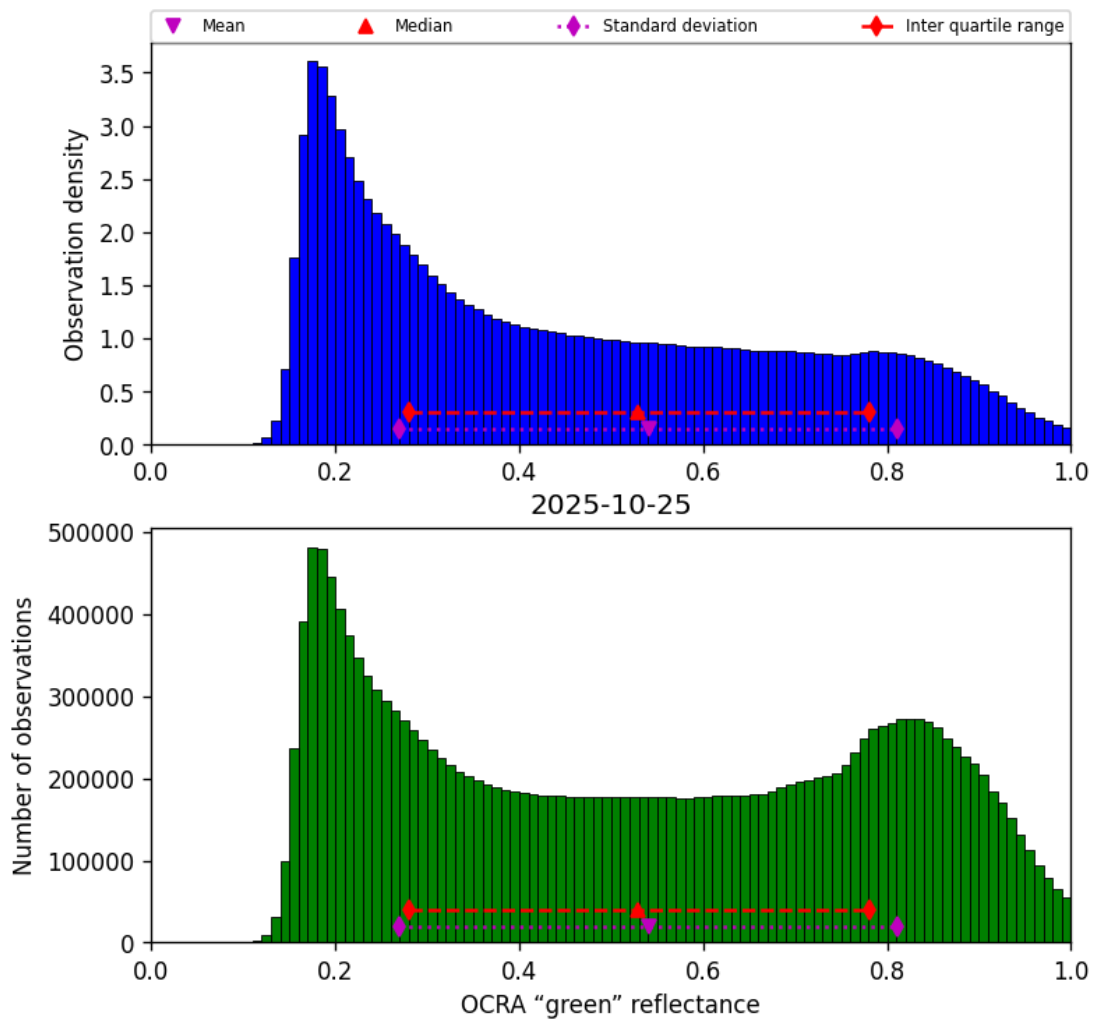


Figure 50: Histogram of “OCRA “green” reflectance” for 2025-10-25 to 2025-10-25

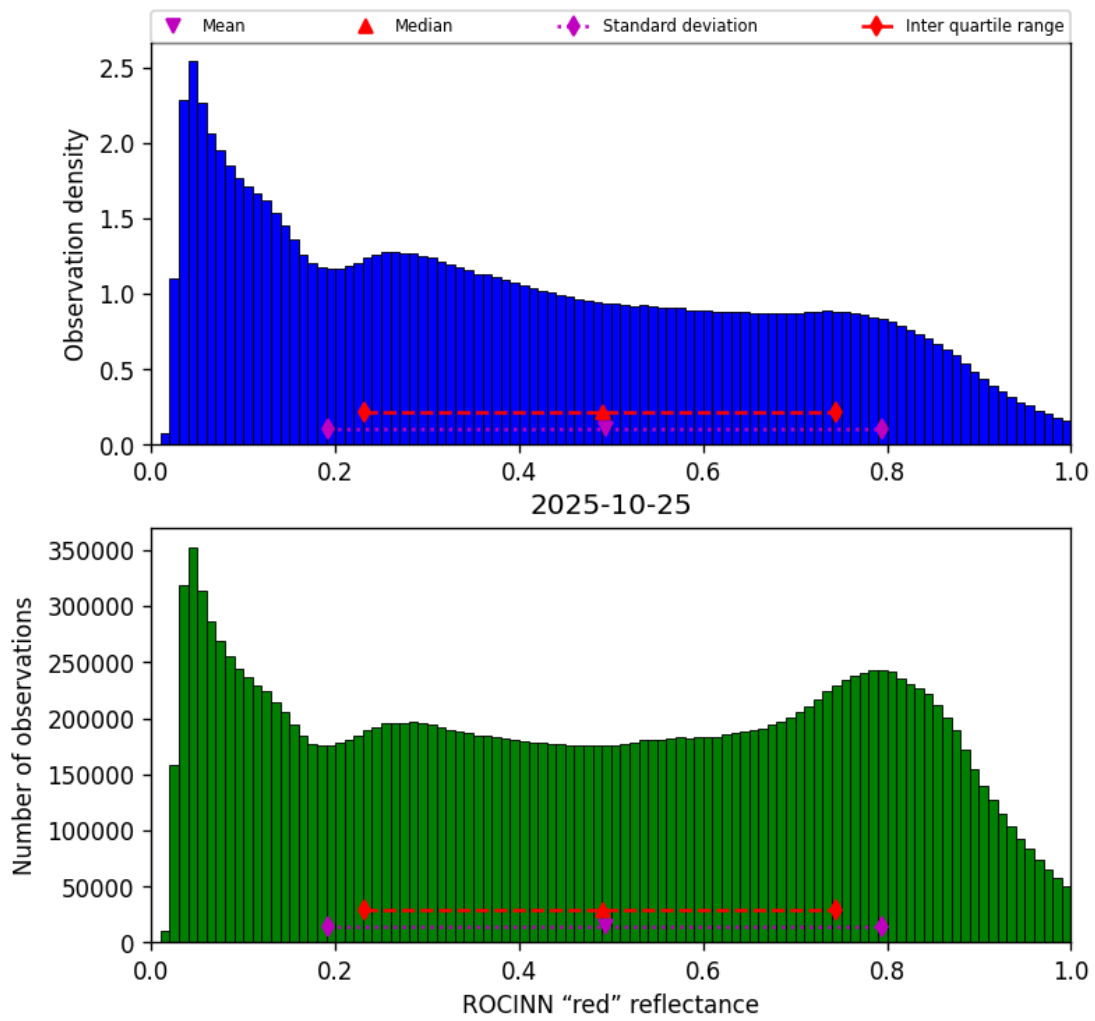


Figure 51: Histogram of “ROCINN “red” reflectance” for 2025-10-25 to 2025-10-25

9 Along track statistics

The TROPOMI instrument uses different binned detector rows for different viewing directions. In this section statistics are presented for each of the binned rows in the instrument.

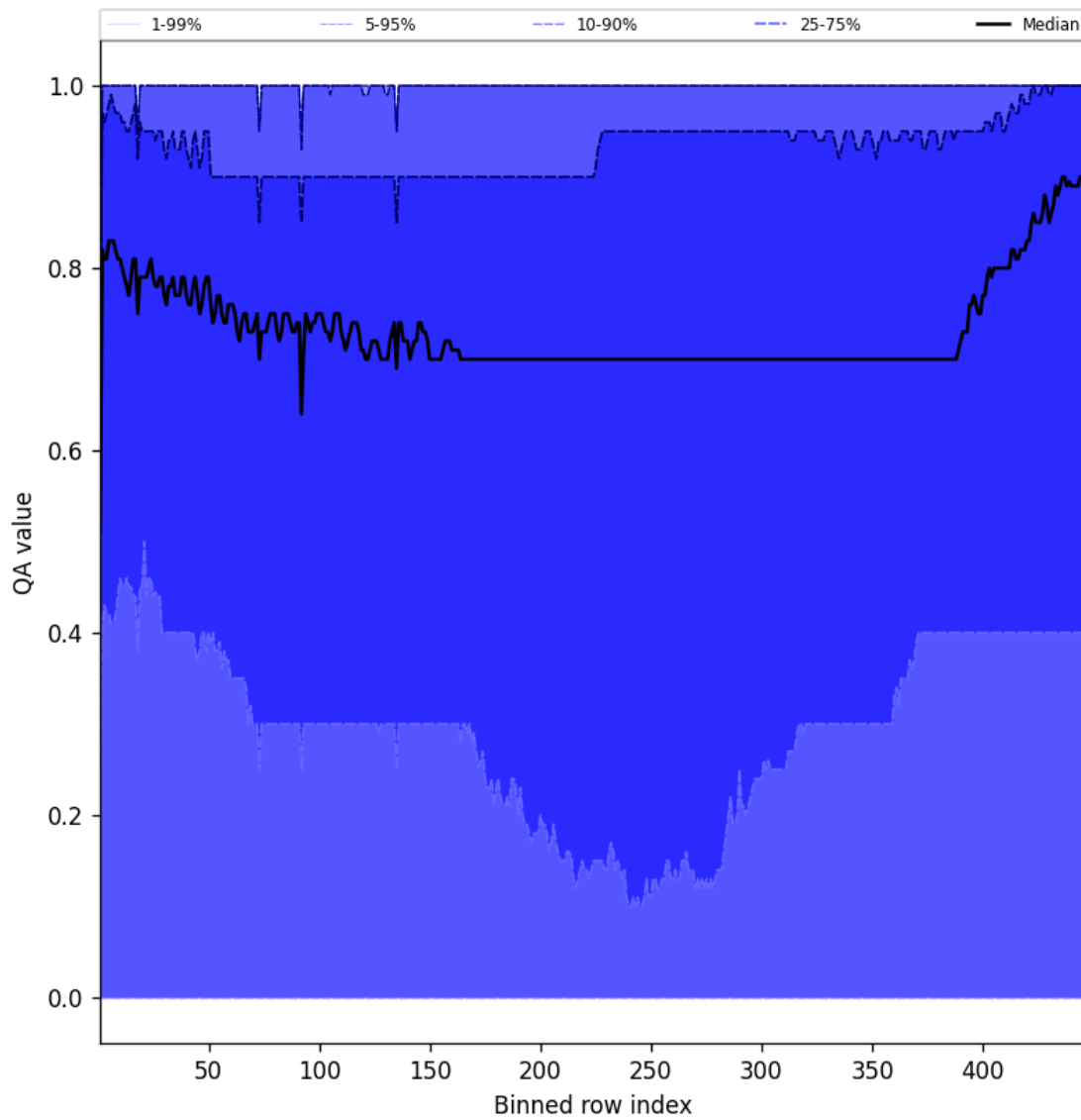


Figure 52: Along track statistics of “QA value” for 2025-10-25 to 2025-10-25

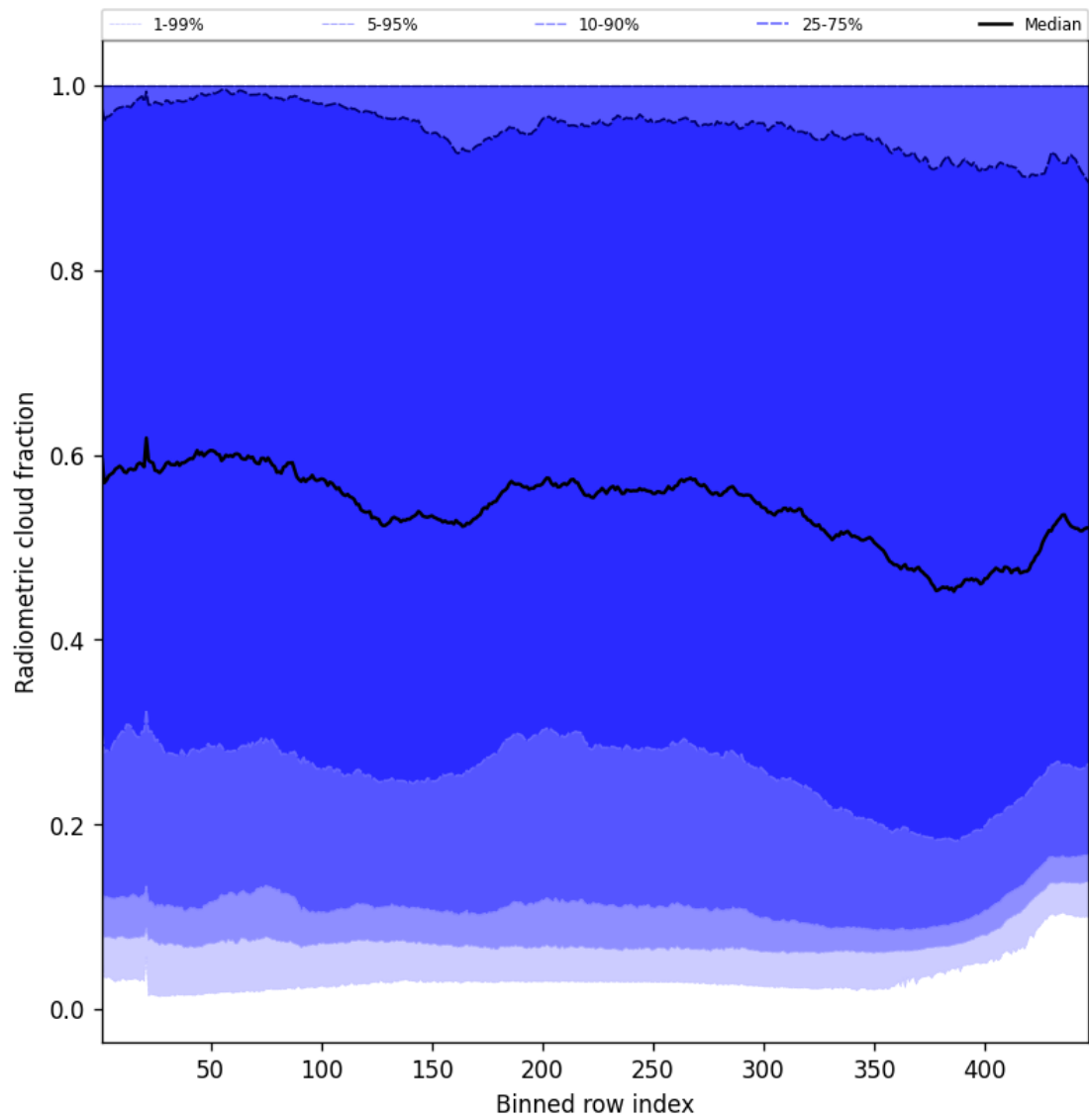


Figure 53: Along track statistics of “Radiometric cloud fraction” for 2025-10-25 to 2025-10-25

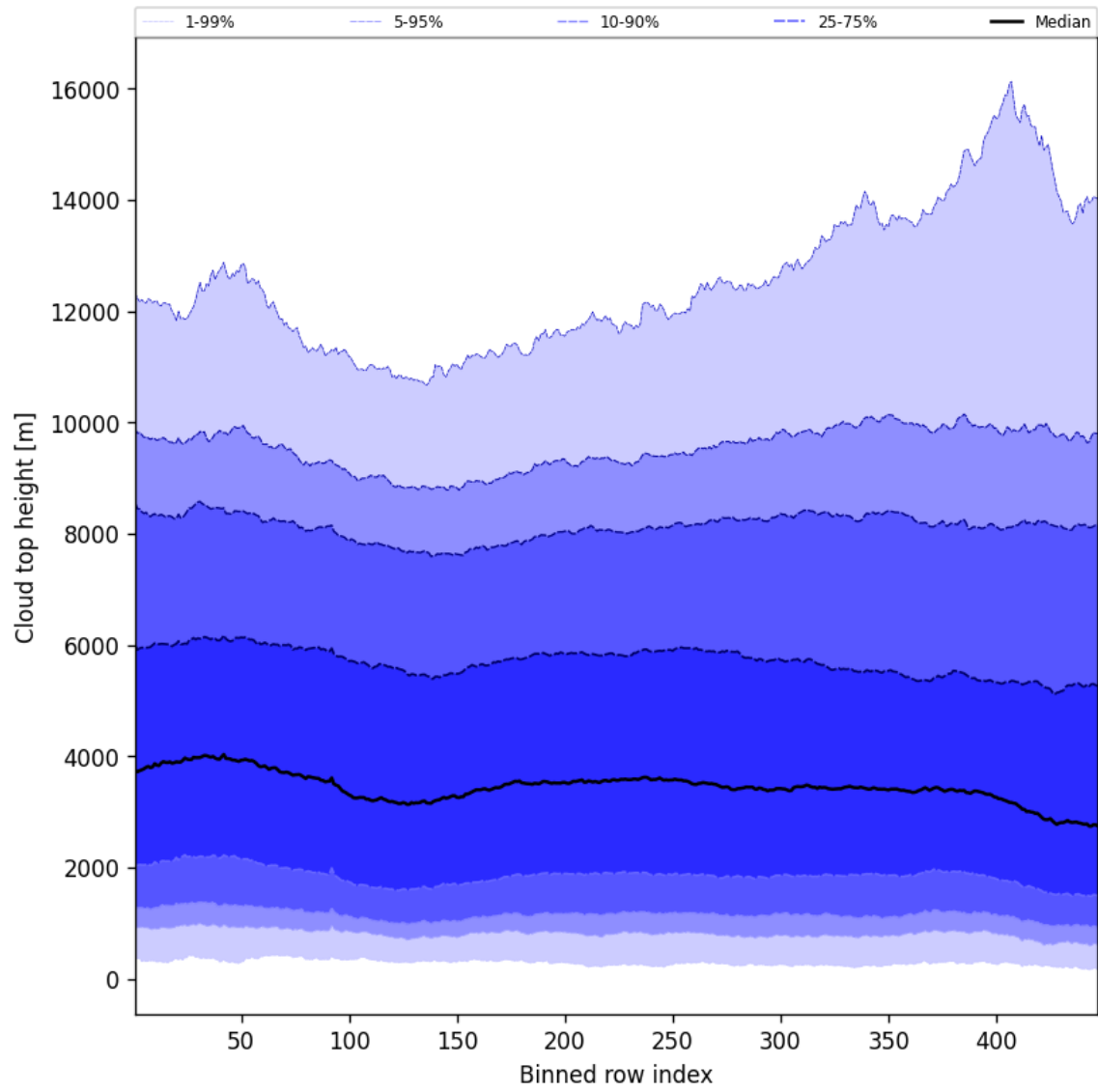


Figure 54: Along track statistics of “Cloud top height” for 2025-10-25 to 2025-10-25

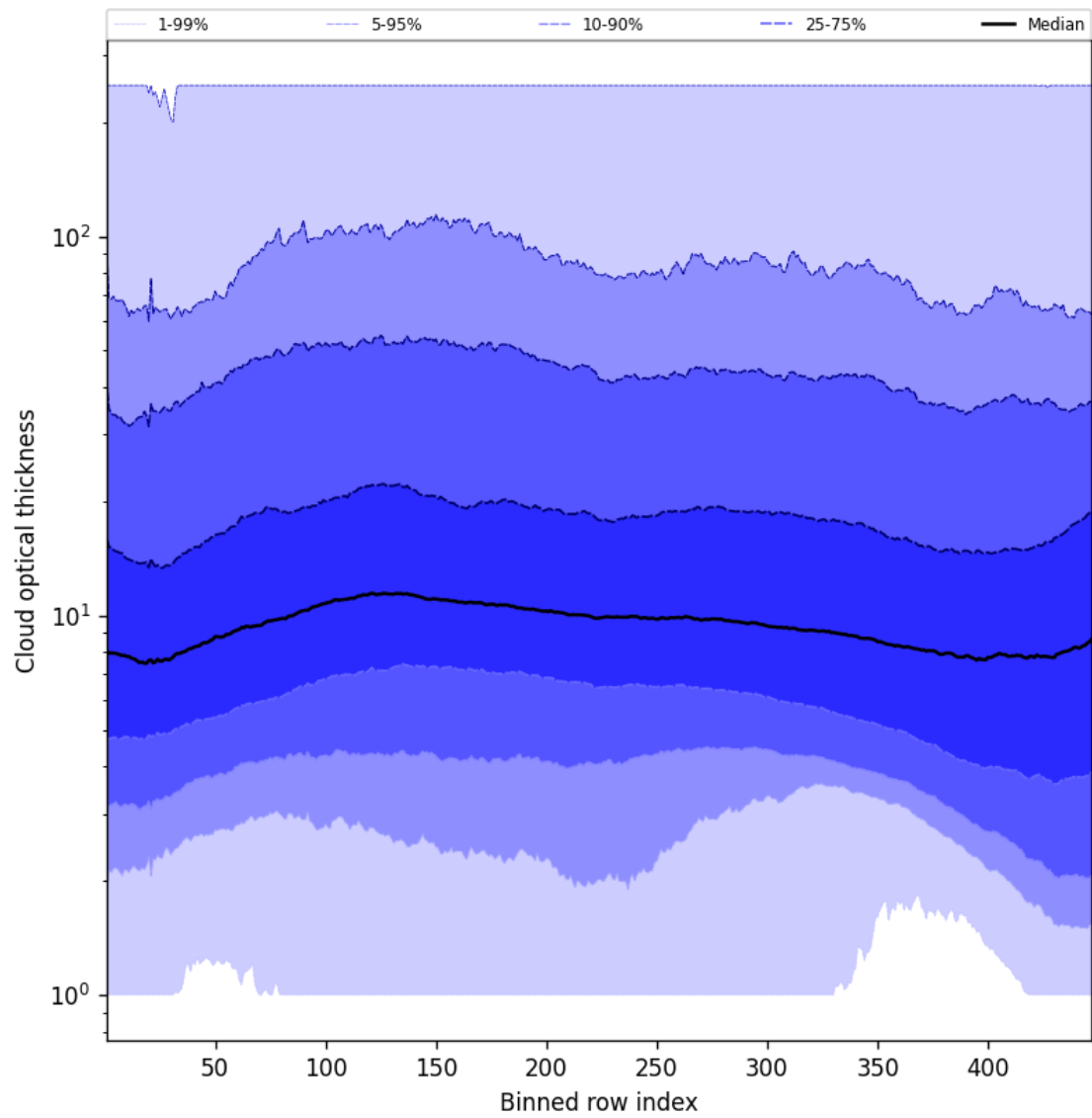


Figure 55: Along track statistics of “Cloud optical thickness” for 2025-10-25 to 2025-10-25

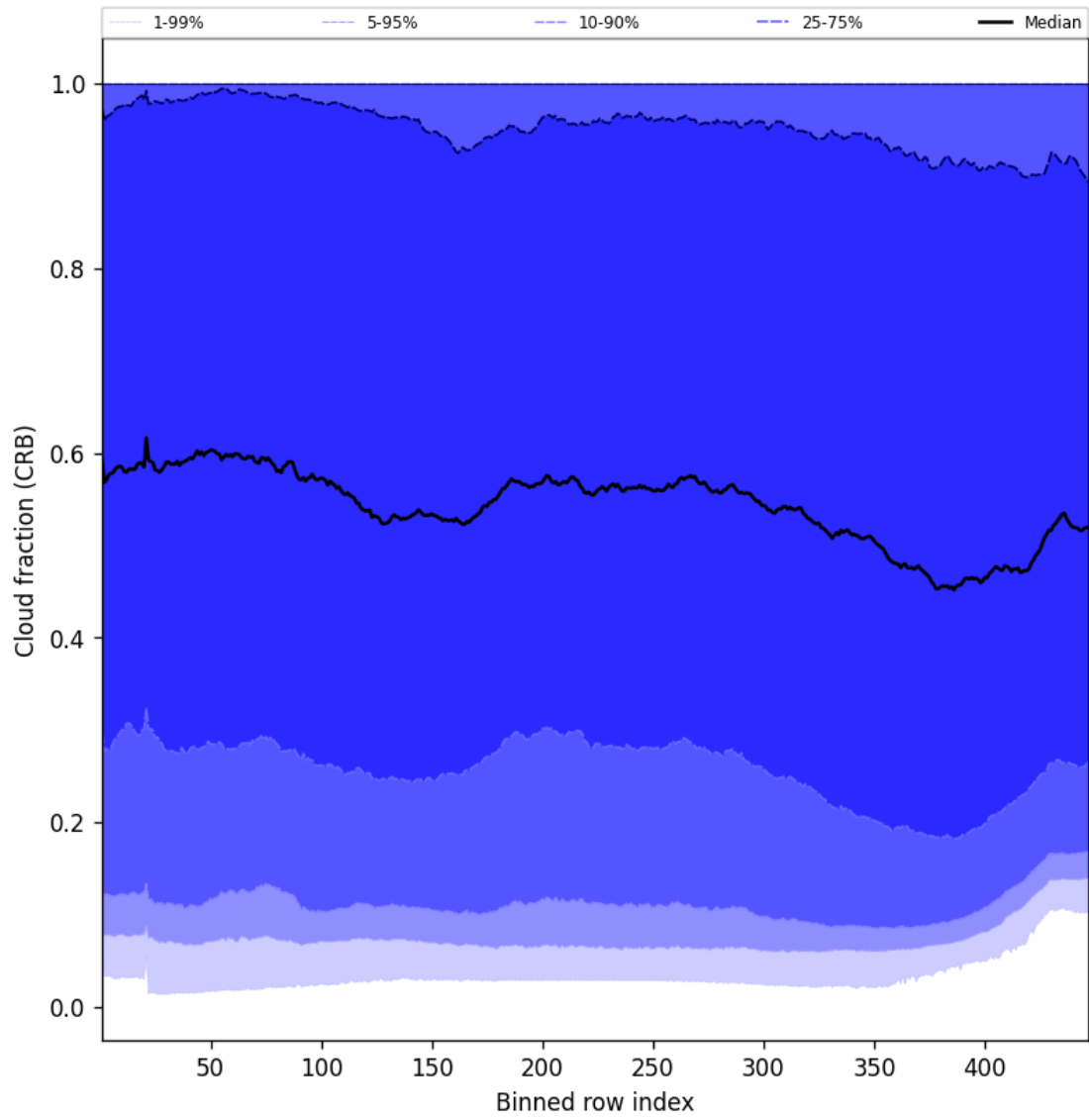


Figure 56: Along track statistics of “Cloud fraction (CRB)” for 2025-10-25 to 2025-10-25

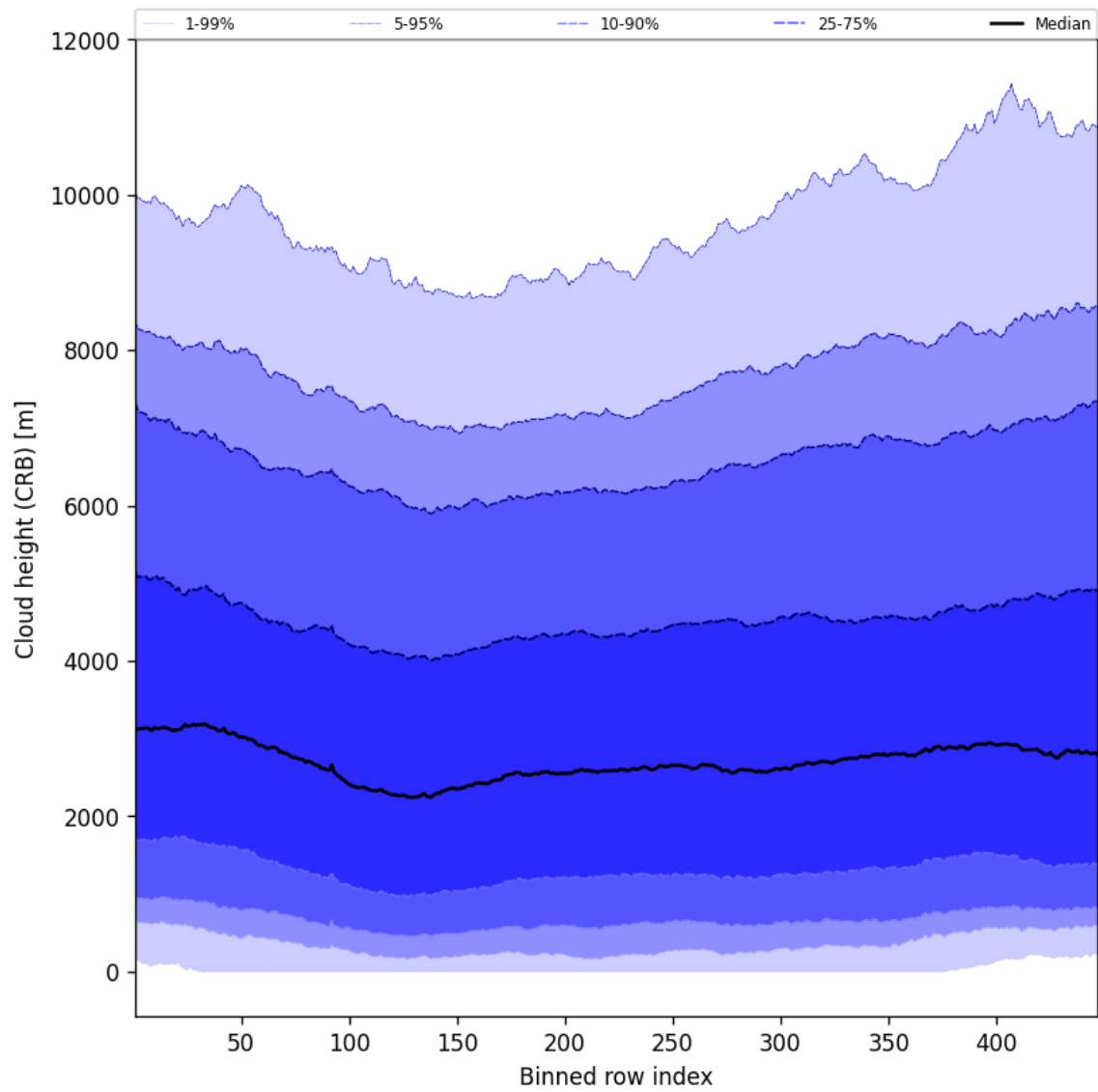


Figure 57: Along track statistics of “Cloud height (CRB)” for 2025-10-25 to 2025-10-25

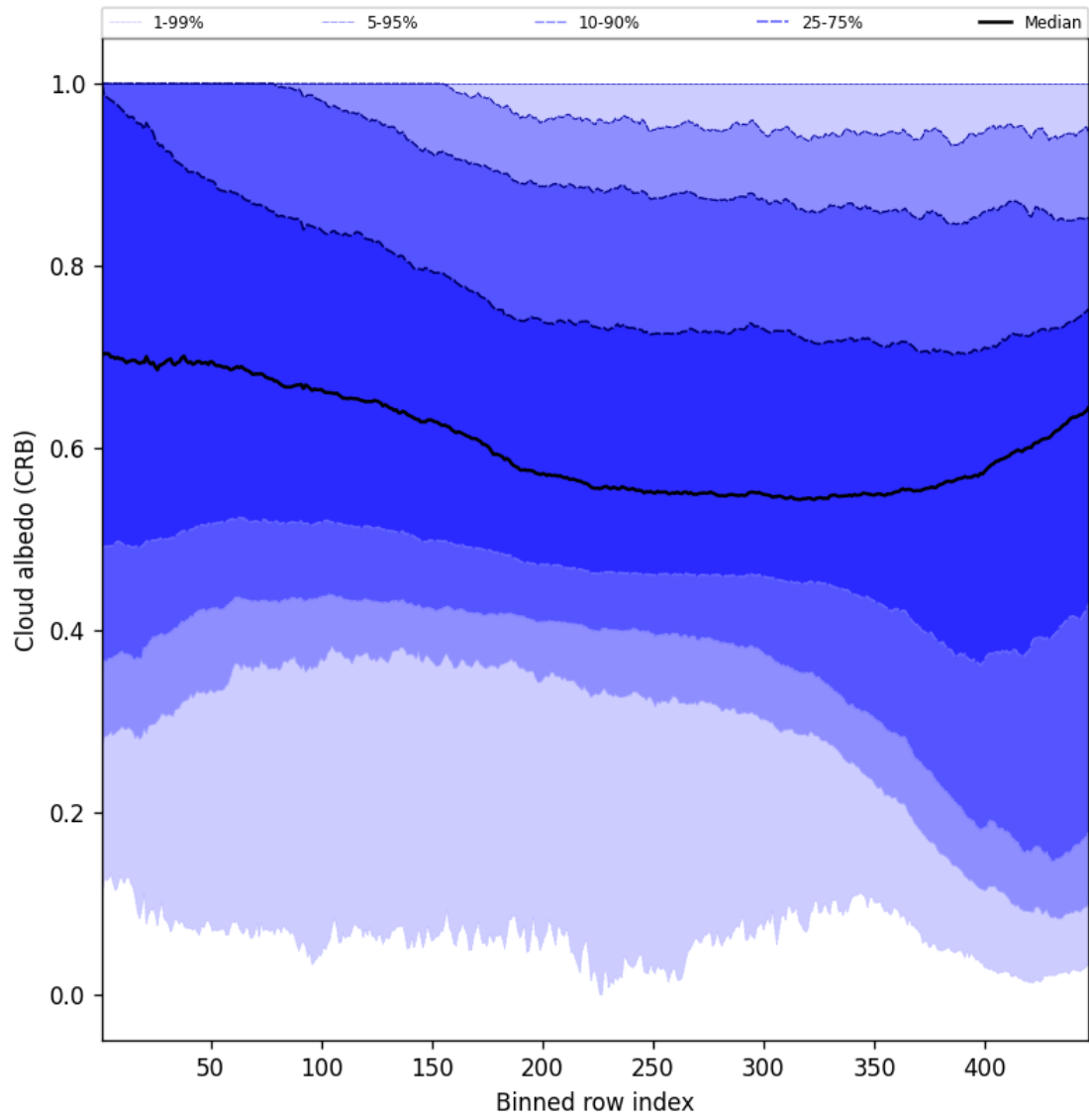


Figure 58: Along track statistics of “Cloud albedo (CRB)” for 2025-10-25 to 2025-10-25

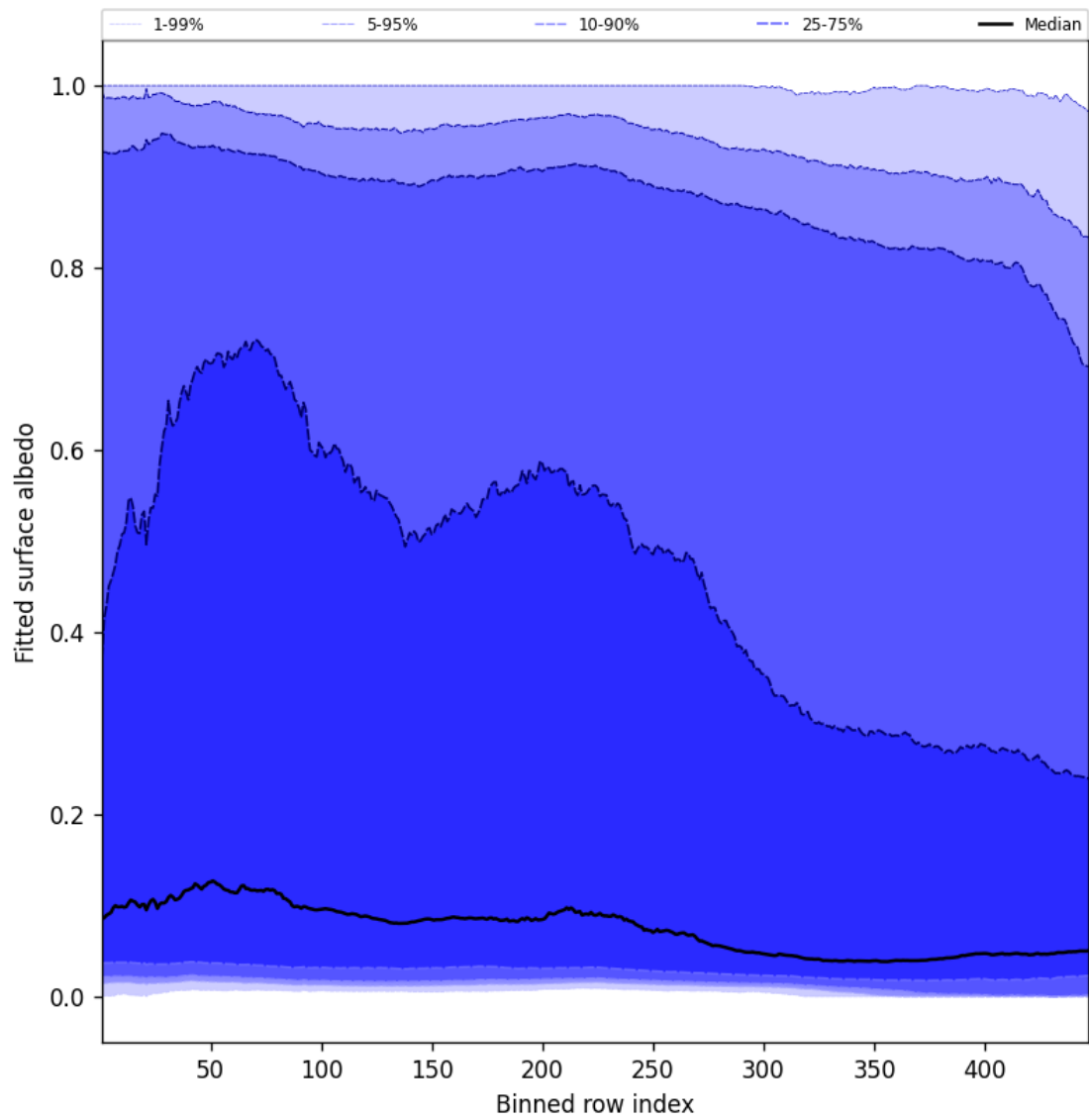


Figure 59: Along track statistics of “Fitted surface albedo” for 2025-10-25 to 2025-10-25

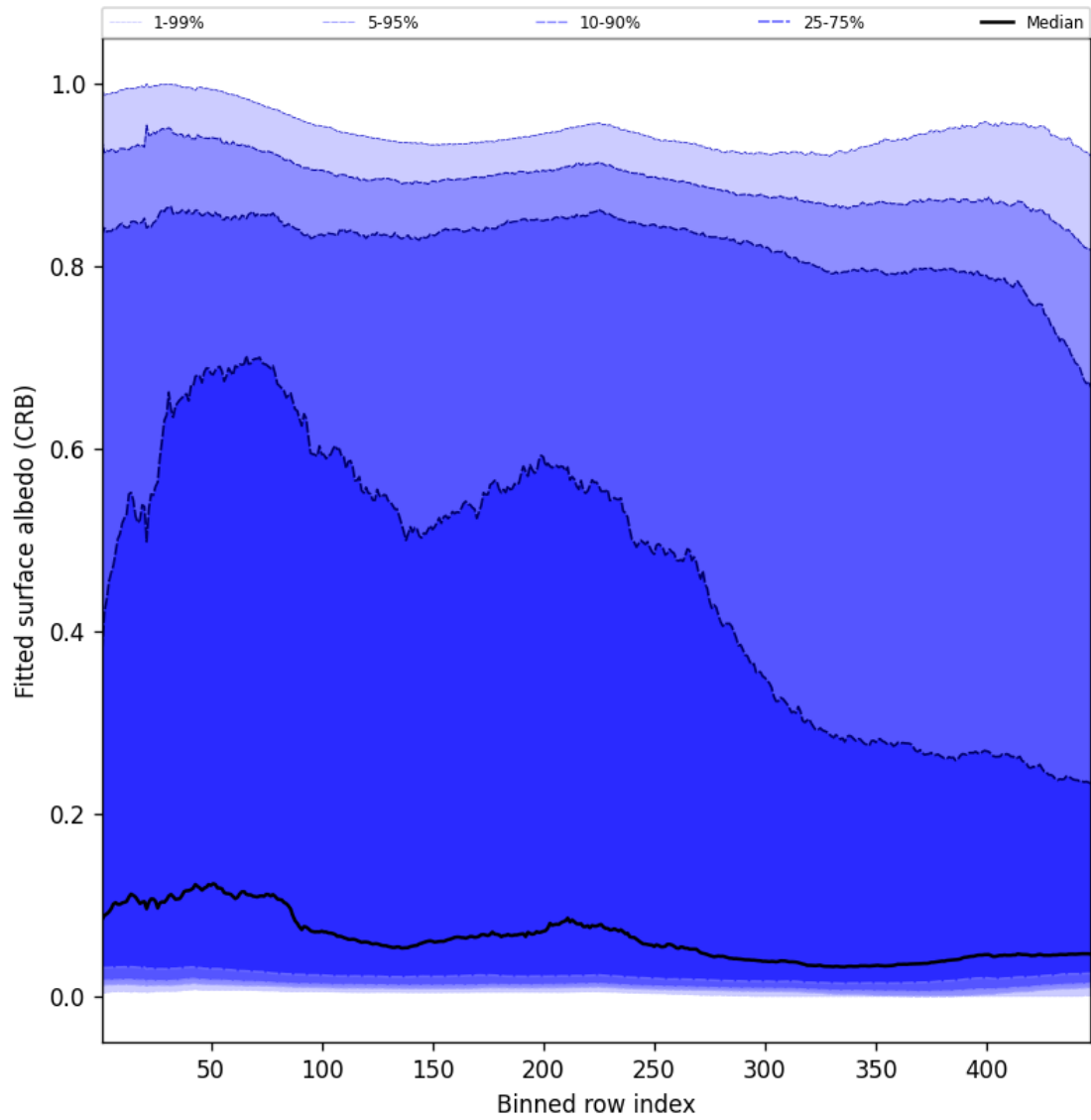


Figure 60: Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-25 to 2025-10-25

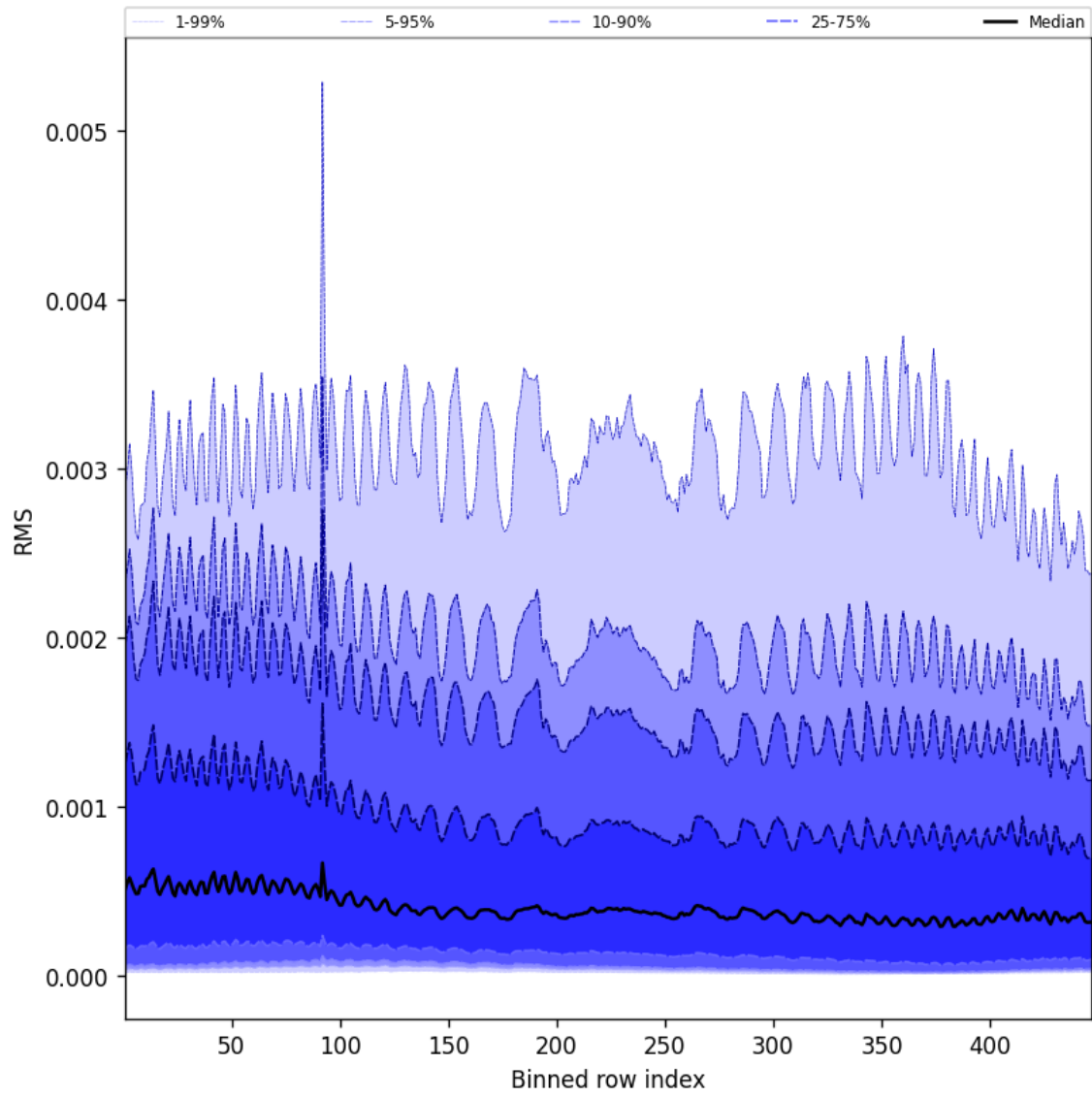


Figure 61: Along track statistics of “RMS” for 2025-10-25 to 2025-10-25

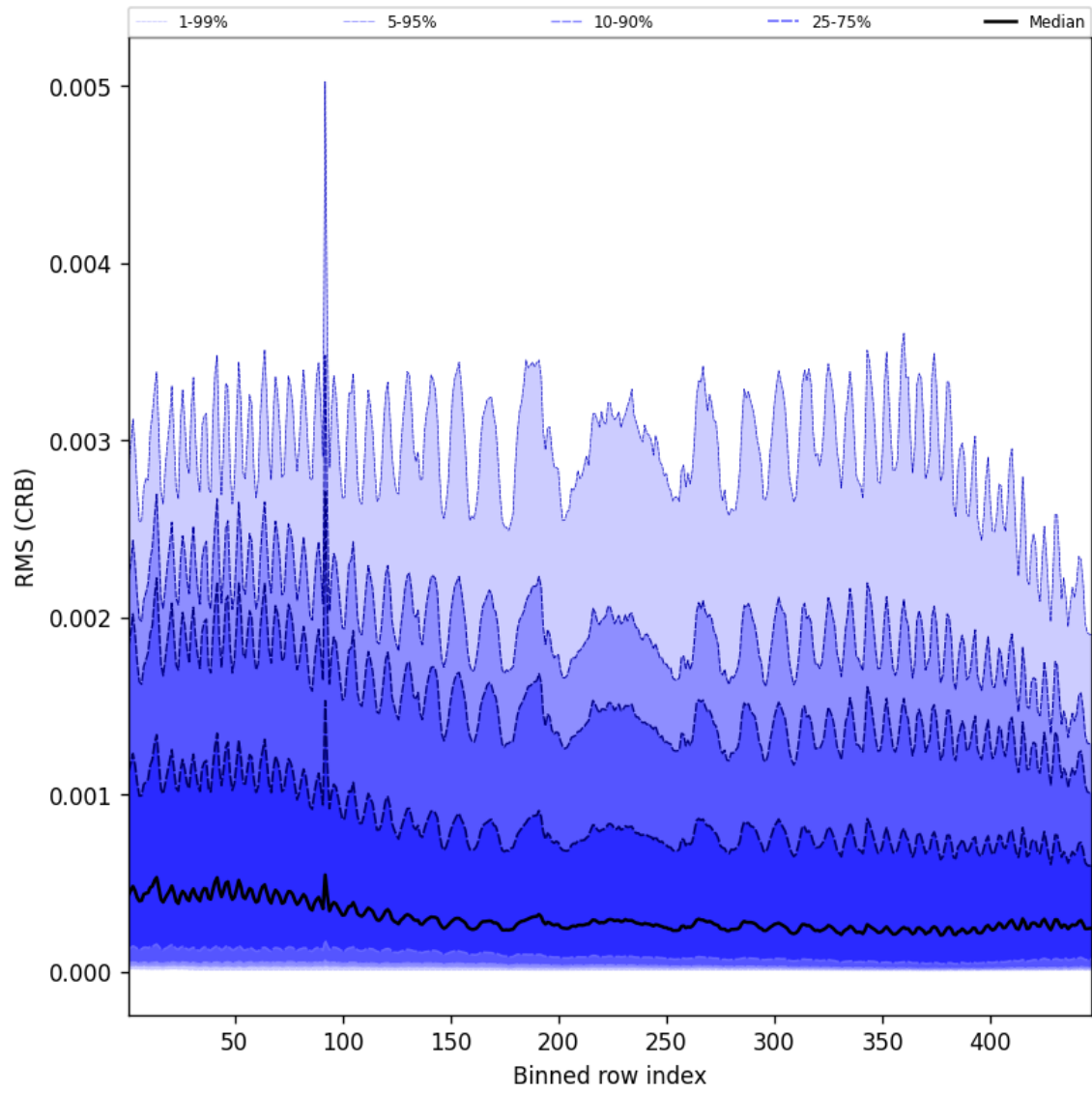


Figure 62: Along track statistics of “RMS (CRB)” for 2025-10-25 to 2025-10-25

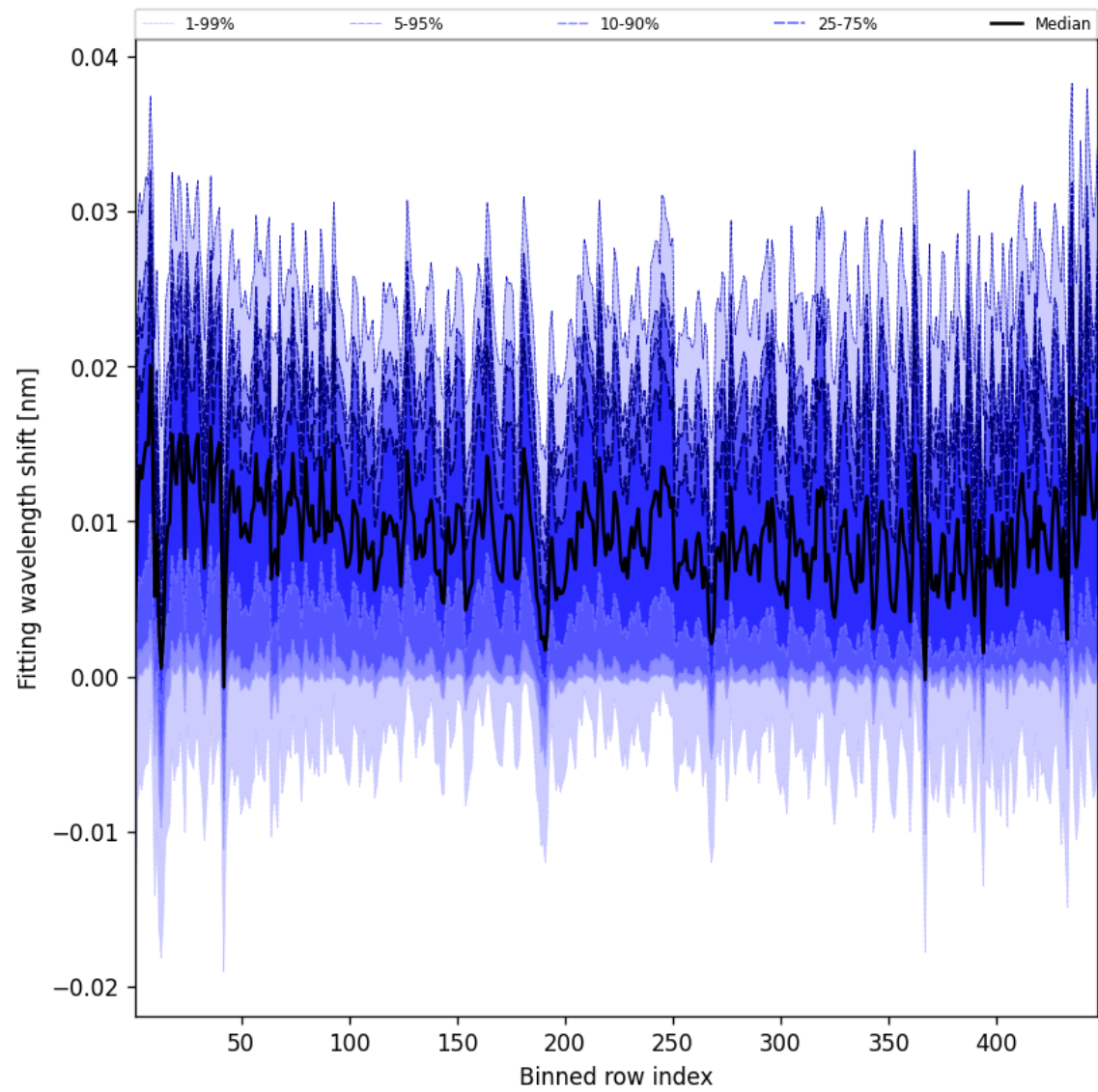


Figure 63: Along track statistics of “Fitting wavelength shift” for 2025-10-25 to 2025-10-25

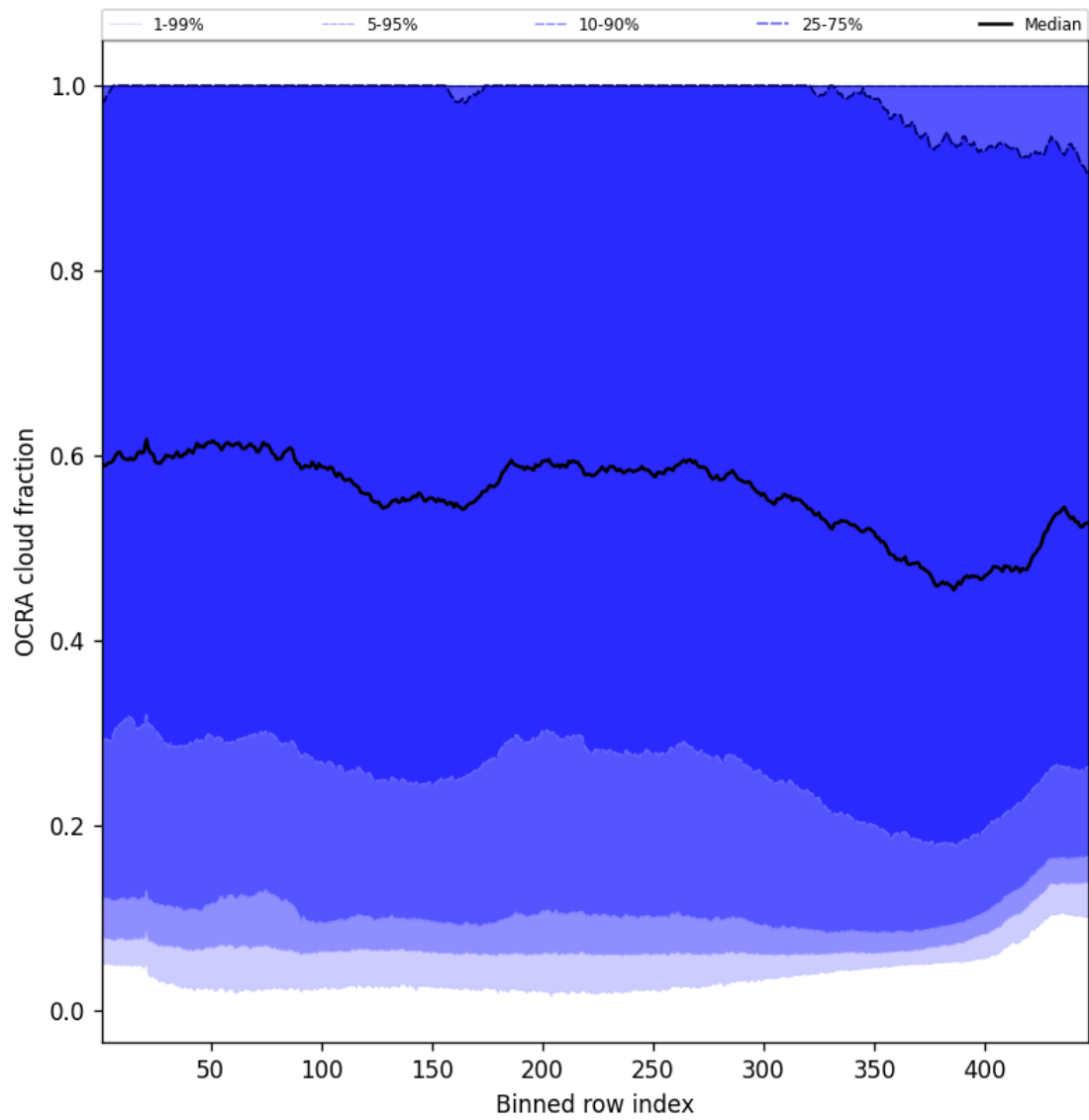


Figure 64: Along track statistics of “OCRA cloud fraction” for 2025-10-25 to 2025-10-25

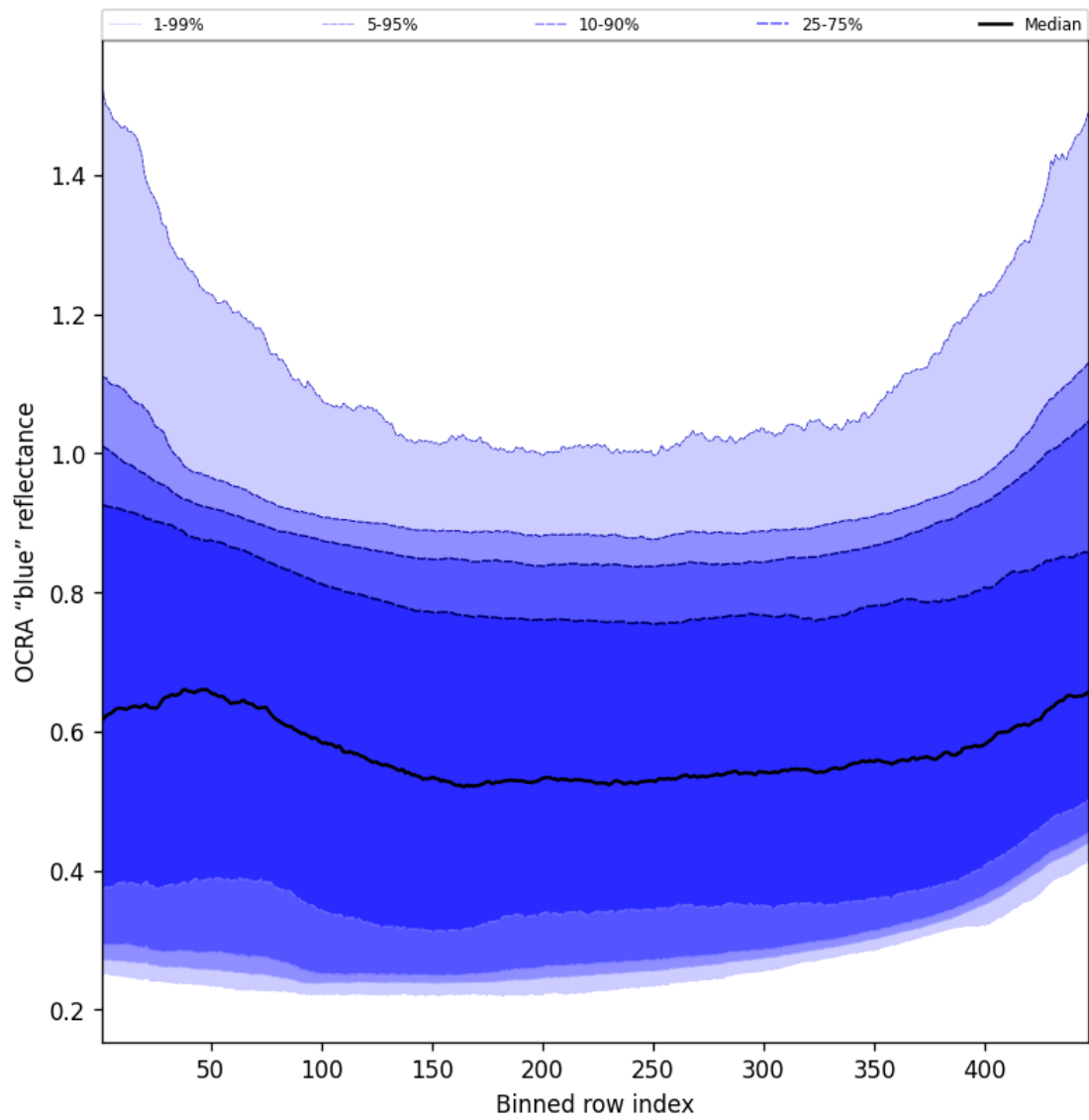


Figure 65: Along track statistics of “OCRA “blue” reflectance” for 2025-10-25 to 2025-10-25

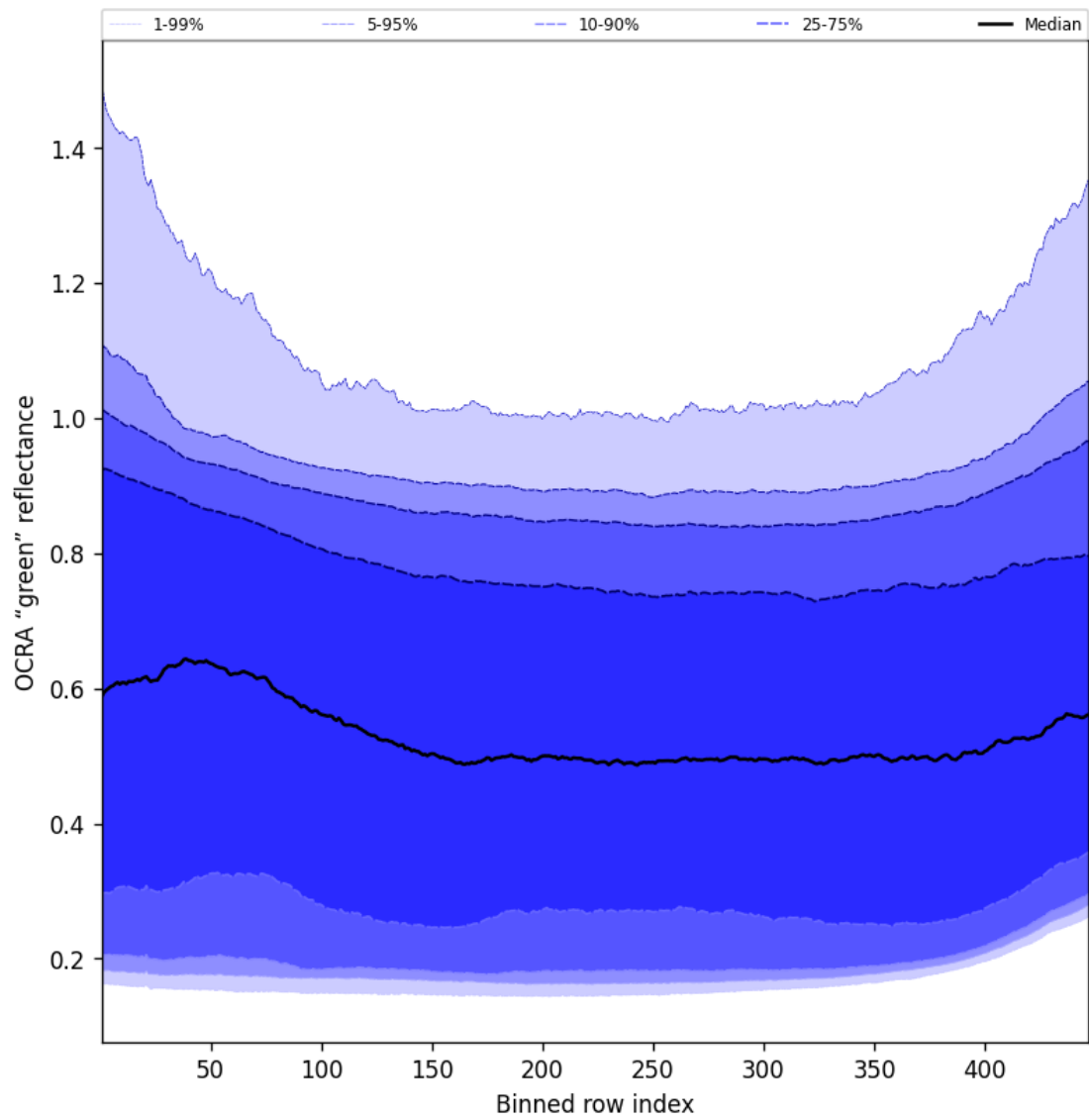
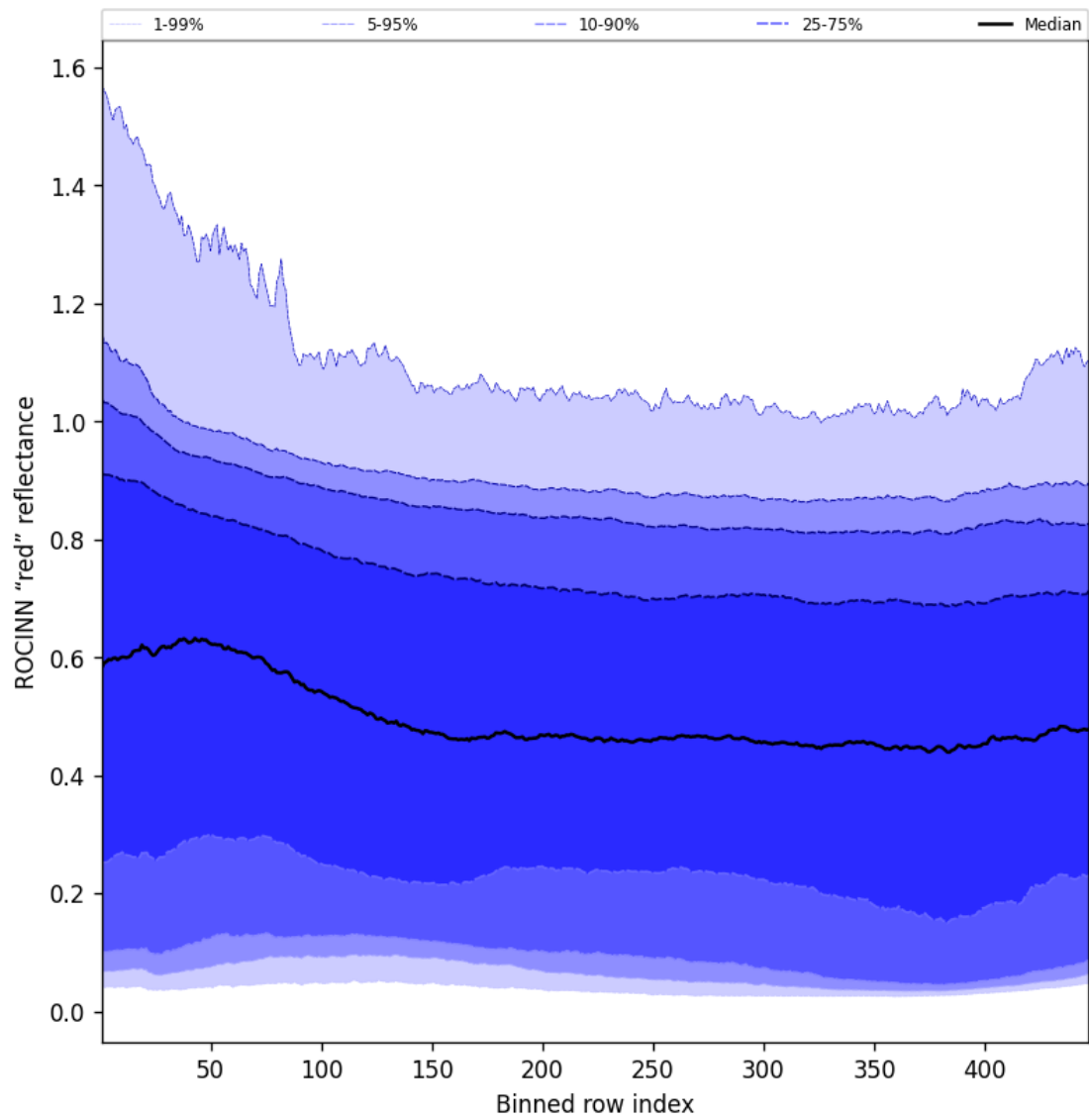


Figure 66: Along track statistics of “OCRA “green” reflectance” for 2025-10-25 to 2025-10-25



10 Coincidence density

To investigate the relation between parameters scatter density plots are produced. These include some ‘hidden’ parameters, latitude and the solar- and viewing geometries, in addition to all configured parameters. All combinations of pairs of parameters are included *once*, in one direction alone.

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Maarten Sneep (maarten.sneep@knmi.nl).