

PyCAMA report generated by tropl2-proc

tropl2-proc

2025-10-25 (02:45)

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]	0.611 ± 0.372	19102093	0.995	0.620	0.720	0.0	1.000
cloud fraction [1]	0.558 ± 0.338	19102093	0.995	0.695	0.526	3.678×10^{-3}	1.000
cloud top height [m]	$(0.399 \pm 0.276) \times 10^4$	19102093	1.575×10^3	3.760×10^3	3.381×10^3	0.0	2.000×10^4
cloud optical thickness [1]	20.1 ± 37.8	19102093	9.34	10.9	9.22	1.000	250
cloud fraction crb [1]	0.557 ± 0.338	19102093	0.995	0.694	0.526	6.544×10^{-4}	1.000
cloud height crb [m]	$(0.309 \pm 0.230) \times 10^4$	19102093	975	3.137×10^3	2.631×10^3	0.0	2.000×10^4
cloud albedo crb [1]	0.611 ± 0.222	19102093	0.995	0.303	0.590	0.0	1.000
surface albedo fitted [1]	0.261 ± 0.333	19102093	2.500×10^{-2}	0.353	6.193×10^{-2}	0.0	1.000
surface albedo fitted crb [1]	0.247 ± 0.317	19102093	1.500×10^{-2}	0.364	5.072×10^{-2}	0.0	1.000
fitted root mean square [1]	$(6.368 \pm 18.311) \times 10^{-4}$	19102093	5.000×10^{-5}	7.779×10^{-4}	3.877×10^{-4}	1.101×10^{-6}	1.82
fitted root mean square crb [1]	$(5.680 \pm 27.676) \times 10^{-4}$	19102093	5.000×10^{-5}	7.145×10^{-4}	2.978×10^{-4}	1.029×10^{-6}	3.59
wavelength shift [nm]	$(9.076 \pm 7.472) \times 10^{-3}$	19102093	9.000×10^{-4}	1.110×10^{-2}	8.505×10^{-3}	-0.236	0.673
cloud fraction apriori [1]	0.566 ± 0.342	19102093	0.995	0.735	0.542	0.0	1.000
reflectance blue ocra [1]	0.581 ± 0.239	19102093	0.255	0.417	0.556	0.131	2.09
reflectance green ocra [1]	0.530 ± 0.269	19102093	0.185	0.494	0.508	7.472×10^{-2}	2.12
reflectance continuum aband [1]	0.482 ± 0.296	19102093	4.500×10^{-2}	0.504	0.471	1.179×10^{-2}	5.29

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]	2.786×10^{-2}	7.040×10^{-2}	0.109	0.158	0.247	0.942	1.000	1.000	1.000	1.000
cloud top height [m]	222	732	1.095×10^3	1.395×10^3	1.807×10^3	5.568×10^3	6.807×10^3	7.956×10^3	9.352×10^3	1.202×10^4
cloud optical thickness [1]	1.000	2.32	3.46	4.41	5.51	16.4	25.5	39.0	72.4	250
cloud fraction crb [1]	2.742×10^{-2}	6.975×10^{-2}	0.108	0.157	0.247	0.941	1.000	1.000	1.000	1.000
cloud height crb [m]	0.0	276	604	870	1.247×10^3	4.384×10^3	5.505×10^3	6.510×10^3	7.699×10^3	9.580×10^3
cloud albedo crb [1]	4.263×10^{-2}	0.233	0.350	0.417	0.468	0.772	0.864	0.940	1.000	1.000
surface albedo fitted [1]	0.0	8.264×10^{-3}	1.425×10^{-2}	1.933×10^{-2}	2.672×10^{-2}	0.380	0.786	0.877	0.950	1.000
surface albedo fitted crb [1]	0.0	6.993×10^{-3}	1.113×10^{-2}	1.513×10^{-2}	2.115×10^{-2}	0.385	0.744	0.817	0.892	0.955
fitted root mean square [1]	1.483×10^{-5}	2.886×10^{-5}	4.646×10^{-5}	7.479×10^{-5}	1.311×10^{-4}	9.091×10^{-4}	1.225×10^{-3}	1.539×10^{-3}	1.985×10^{-3}	3.000×10^{-3}
fitted root mean square crb [1]	8.413×10^{-6}	1.839×10^{-5}	3.134×10^{-5}	5.035×10^{-5}	8.983×10^{-5}	8.043×10^{-4}	1.141×10^{-3}	1.474×10^{-3}	1.925×10^{-3}	2.864×10^{-3}
wavelength shift [nm]	-6.612×10^{-3}	-4.225×10^{-4}	3.562×10^{-4}	1.358×10^{-3}	3.213×10^{-3}	1.431×10^{-2}	1.682×10^{-2}	1.891×10^{-2}	2.159×10^{-2}	2.723×10^{-2}
cloud fraction apriori [1]	3.121×10^{-2}	6.658×10^{-2}	0.102	0.152	0.247	0.982	1.000	1.000	1.000	1.000
reflectance blue ocra [1]	0.231	0.256	0.283	0.314	0.368	0.785	0.847	0.891	0.945	1.15
reflectance green ocra [1]	0.152	0.173	0.193	0.220	0.275	0.769	0.839	0.886	0.940	1.11
reflectance continuum aband [1]	3.007×10^{-2}	5.408×10^{-2}	8.872×10^{-2}	0.136	0.225	0.729	0.809	0.864	0.929	1.11

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]	0.603 ± 0.384	8635969	0.650	0.780	0.0	1.000	0.300	0.950
cloud fraction [1]	0.580 ± 0.351	8635969	0.749	0.592	3.678×10^{-3}	1.000	0.234	0.983
cloud top height [m]	$(0.417 \pm 0.260) \times 10^4$	8635969	3.655×10^3	3.662×10^3	0.0	2.000×10^4	2.097×10^3	5.752×10^3
cloud optical thickness [1]	25.7 ± 44.5	8635969	16.0	10.3	1.000	250	6.23	22.2
cloud fraction crb [1]	0.579 ± 0.351	8635969	0.749	0.589	7.910×10^{-3}	1.000	0.233	0.981
cloud height crb [m]	$(0.351 \pm 0.227) \times 10^4$	8635969	3.224×10^3	3.080×10^3	0.0	1.739×10^4	1.679×10^3	4.902×10^3
cloud albedo crb [1]	0.581 ± 0.210	8635969	0.262	0.570	0.0	1.000	0.454	0.716
surface albedo fitted [1]	0.148 ± 0.186	8635969	0.177	6.041×10^{-2}	0.0	1.000	2.760×10^{-2}	0.205
surface albedo fitted crb [1]	0.143 ± 0.187	8635969	0.176	4.904×10^{-2}	0.0	1.000	2.190×10^{-2}	0.198
fitted root mean square [1]	$(4.419 \pm 6.222) \times 10^{-4}$	8635969	4.446×10^{-4}	2.354×10^{-4}	1.101×10^{-6}	0.170	9.679×10^{-5}	5.414×10^{-4}
fitted root mean square crb [1]	$(3.889 \pm 5.571) \times 10^{-4}$	8635969	4.221×10^{-4}	1.667×10^{-4}	1.029×10^{-6}	1.996×10^{-2}	5.644×10^{-5}	4.785×10^{-4}
wavelength shift [nm]	$(7.226 \pm 6.909) \times 10^{-3}$	8635969	9.562×10^{-3}	6.235×10^{-3}	-4.609×10^{-2}	6.402×10^{-2}	1.904×10^{-3}	1.147×10^{-2}
cloud fraction apriori [1]	0.585 ± 0.356	8635969	0.772	0.601	0.0	1.000	0.228	1.000
reflectance blue ocra [1]	0.542 ± 0.218	8635969	0.334	0.512	0.131	2.05	0.359	0.694
reflectance green ocra [1]	0.482 ± 0.244	8635969	0.399	0.450	7.472×10^{-2}	2.12	0.265	0.664
reflectance continuum aband [1]	0.434 ± 0.276	8635969	0.410	0.404	1.179×10^{-2}	5.29	0.212	0.622

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 ± 0.361	10466124	0.530	0.700	0.0	1.000	0.370	0.900
cloud fraction [1]	0.539 ± 0.325	10466124	0.624	0.491	7.650×10^{-3}	1.000	0.257	0.881
cloud top height [m]	$(0.384 \pm 0.287) \times 10^4$	10466124	3.798×10^3	3.101×10^3	0.0	2.000×10^4	1.622×10^3	5.420×10^3
cloud optical thickness [1]	15.5 ± 30.4	10466124	8.06	8.55	1.000	250	5.16	13.2
cloud fraction crb [1]	0.539 ± 0.325	10466124	0.623	0.492	6.544×10^{-4}	1.000	0.257	0.880
cloud height crb [m]	$(0.275 \pm 0.228) \times 10^4$	10466124	2.918×10^3	2.178×10^3	0.0	2.000×10^4	987	3.905×10^3
cloud albedo crb [1]	0.636 ± 0.229	10466124	0.340	0.613	0.0	1.000	0.479	0.819
surface albedo fitted [1]	0.354 ± 0.393	10466124	0.785	6.377×10^{-2}	0.0	1.000	2.600×10^{-2}	0.811
surface albedo fitted crb [1]	0.333 ± 0.372	10466124	0.737	5.246×10^{-2}	0.0	1.000	2.048×10^{-2}	0.758
fitted root mean square [1]	$(7.976 \pm 23.964) \times 10^{-4}$	10466124	9.371×10^{-4}	6.064×10^{-4}	3.645×10^{-6}	1.82	2.012×10^{-4}	1.138×10^{-3}
fitted root mean square crb [1]	$(7.158 \pm 36.981) \times 10^{-4}$	10466124	8.787×10^{-4}	4.761×10^{-4}	2.137×10^{-6}	3.59	1.515×10^{-4}	1.030×10^{-3}
wavelength shift [nm]	$(1.060 \pm 0.757) \times 10^{-2}$	10466124	1.113×10^{-2}	1.076×10^{-2}	-0.236	0.673	4.838×10^{-3}	1.597×10^{-2}
cloud fraction apriori [1]	0.550 ± 0.330	10466124	0.649	0.510	0.0	1.000	0.262	0.911
reflectance blue ocra [1]	0.613 ± 0.250	10466124	0.453	0.616	0.161	2.09	0.377	0.830
reflectance green ocra [1]	0.569 ± 0.282	10466124	0.536	0.583	9.390×10^{-2}	2.02	0.287	0.824
reflectance continuum aband [1]	0.522 ± 0.305	10466124	0.543	0.559	1.329×10^{-2}	4.45	0.240	0.784

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]	0.680 ± 0.340	11851034	0.550	0.850	0.0	1.000	0.400	0.950
cloud fraction [1]	0.568 ± 0.350	11851034	0.751	0.566	7.650×10^{-3}	1.000	0.222	0.973
cloud top height [m]	$(0.357 \pm 0.257) \times 10^4$	11851034	3.320×10^3	2.843×10^3	0.0	2.000×10^4	1.592×10^3	4.912×10^3
cloud optical thickness [1]	18.2 ± 30.8	11851034	9.50	9.87	1.000	250	6.63	16.1
cloud fraction crb [1]	0.567 ± 0.350	11851034	0.751	0.564	6.544×10^{-4}	1.000	0.221	0.972
cloud height crb [m]	$(0.285 \pm 0.230) \times 10^4$	11851034	3.068×10^3	2.235×10^3	0.0	2.000×10^4	1.049×10^3	4.117×10^3
cloud albedo crb [1]	0.563 ± 0.191	11851034	0.237	0.542	0.0	1.000	0.451	0.688
surface albedo fitted [1]	0.115 ± 0.232	11851034	3.428×10^{-2}	3.219×10^{-2}	0.0	1.000	1.914×10^{-2}	5.342×10^{-2}
surface albedo fitted crb [1]	0.107 ± 0.224	11851034	2.881×10^{-2}	2.573×10^{-2}	0.0	1.000	1.496×10^{-2}	4.377×10^{-2}
fitted root mean square [1]	$(6.149 \pm 20.129) \times 10^{-4}$	11851034	8.184×10^{-4}	3.083×10^{-4}	1.101×10^{-6}	1.20	8.909×10^{-5}	9.075×10^{-4}
fitted root mean square crb [1]	$(5.940 \pm 30.629) \times 10^{-4}$	11851034	8.087×10^{-4}	2.761×10^{-4}	1.029×10^{-6}	3.59	7.058×10^{-5}	8.793×10^{-4}
wavelength shift [nm]	$(8.748 \pm 7.875) \times 10^{-3}$	11851034	1.191×10^{-2}	7.994×10^{-3}	-0.236	0.673	2.430×10^{-3}	1.434×10^{-2}
cloud fraction apriori [1]	0.572 ± 0.356	11851034	0.785	0.577	0.0	1.000	0.215	1.000
reflectance blue ocra [1]	0.523 ± 0.212	11851034	0.339	0.482	0.150	2.08	0.343	0.681
reflectance green ocra [1]	0.461 ± 0.240	11851034	0.407	0.416	7.872×10^{-2}	1.96	0.244	0.652
reflectance continuum aband [1]	0.392 ± 0.276	11851034	0.486	0.352	1.179×10^{-2}	5.29	0.136	0.622

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]	0.476 ± 0.393	5586765	0.860	0.610	0.0	1.000	0.0	0.860
cloud fraction [1]	0.499 ± 0.300	5586765	0.463	0.441	3.678×10^{-3}	1.000	0.262	0.725
cloud top height [m]	$(0.498 \pm 0.295) \times 10^4$	5586765	3.738×10^3	4.594×10^3	0.0	2.000×10^4	2.784×10^3	6.522×10^3
cloud optical thickness [1]	17.8 ± 39.7	5586765	8.06	6.27	1.000	250	4.29	12.3
cloud fraction crb [1]	0.500 ± 0.299	5586765	0.461	0.443	7.910×10^{-3}	1.000	0.263	0.725
cloud height crb [m]	$(0.362 \pm 0.229) \times 10^4$	5586765	2.952×10^3	3.232×10^3	0.0	2.000×10^4	1.917×10^3	4.869×10^3
cloud albedo crb [1]	0.700 ± 0.255	5586765	0.396	0.729	0.0	1.000	0.535	0.930
surface albedo fitted [1]	0.576 ± 0.329	5586765	0.662	0.676	0.0	1.000	0.237	0.899
surface albedo fitted crb [1]	0.548 ± 0.304	5586765	0.597	0.661	3.615×10^{-3}	1.000	0.234	0.831
fitted root mean square [1]	$(7.298 \pm 7.577) \times 10^{-4}$	5586765	7.208×10^{-4}	5.574×10^{-4}	2.150×10^{-6}	0.170	2.690×10^{-4}	9.898×10^{-4}
fitted root mean square crb [1]	$(5.656 \pm 5.921) \times 10^{-4}$	5586765	6.255×10^{-4}	3.772×10^{-4}	2.015×10^{-6}	3.414×10^{-2}	1.541×10^{-4}	7.796×10^{-4}
wavelength shift [nm]	$(1.009 \pm 0.670) \times 10^{-2}$	5586765	9.857×10^{-3}	9.771×10^{-3}	-3.641×10^{-2}	6.538×10^{-2}	4.986×10^{-3}	1.484×10^{-2}
cloud fraction apriori [1]	0.515 ± 0.304	5586765	0.483	0.462	0.0	1.000	0.273	0.756
reflectance blue ocra [1]	0.691 ± 0.256	5586765	0.422	0.779	0.131	2.09	0.455	0.877
reflectance green ocra [1]	0.661 ± 0.282	5586765	0.491	0.766	7.472×10^{-2}	2.12	0.386	0.877
reflectance continuum aband [1]	0.652 ± 0.263	5586765	0.435	0.707	1.642×10^{-2}	4.45	0.416	0.851

3 Granule outlines

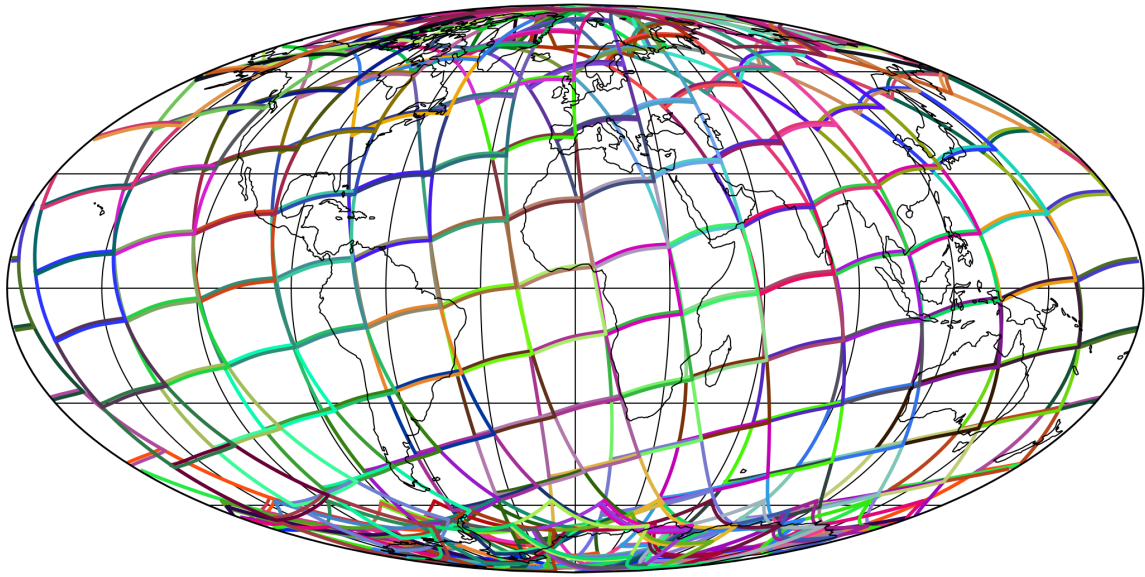


Figure 1: Outline of the granules.

4 Input data monitoring

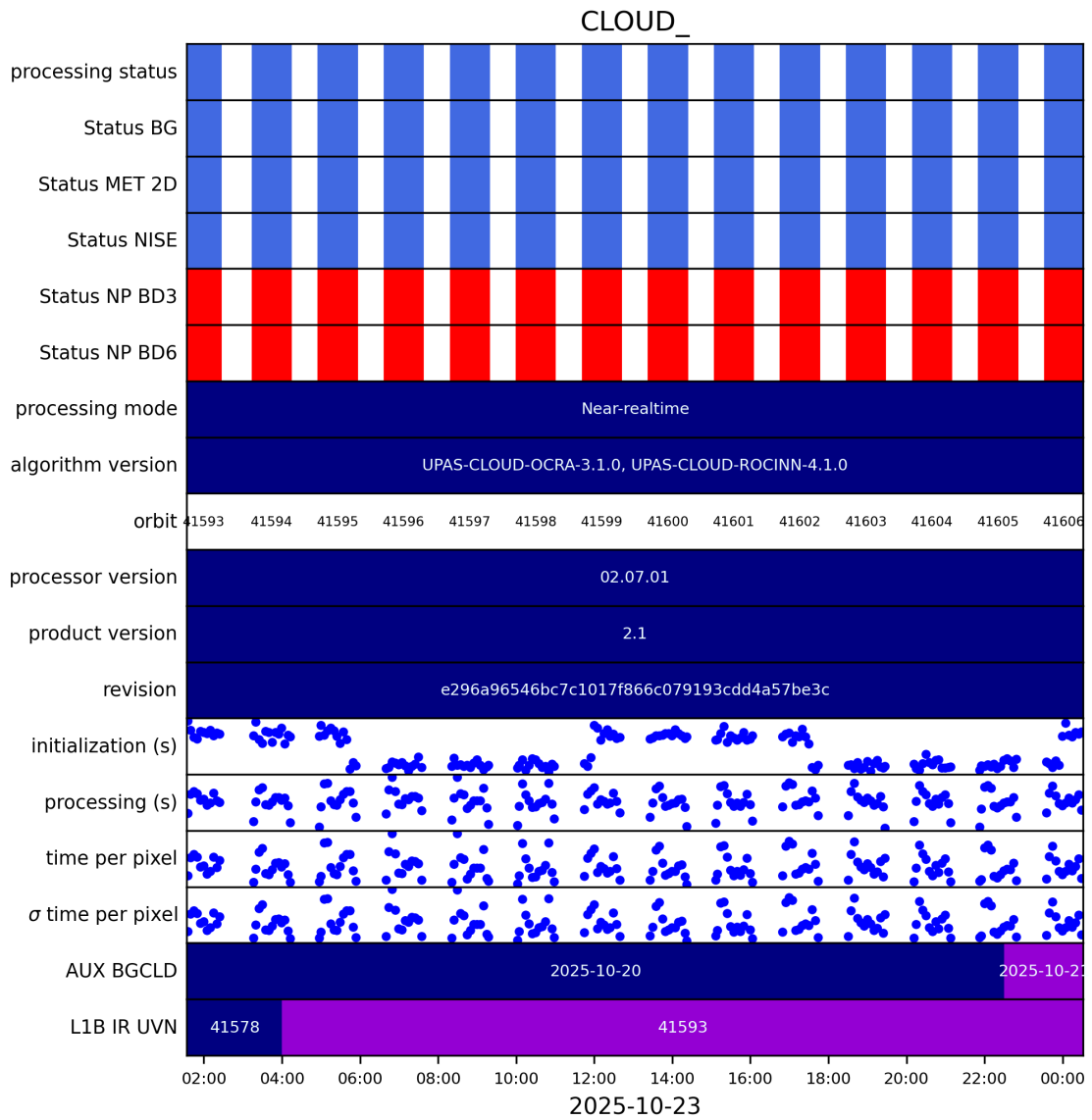


Figure 2: Input data per granule

5 Warnings and errors

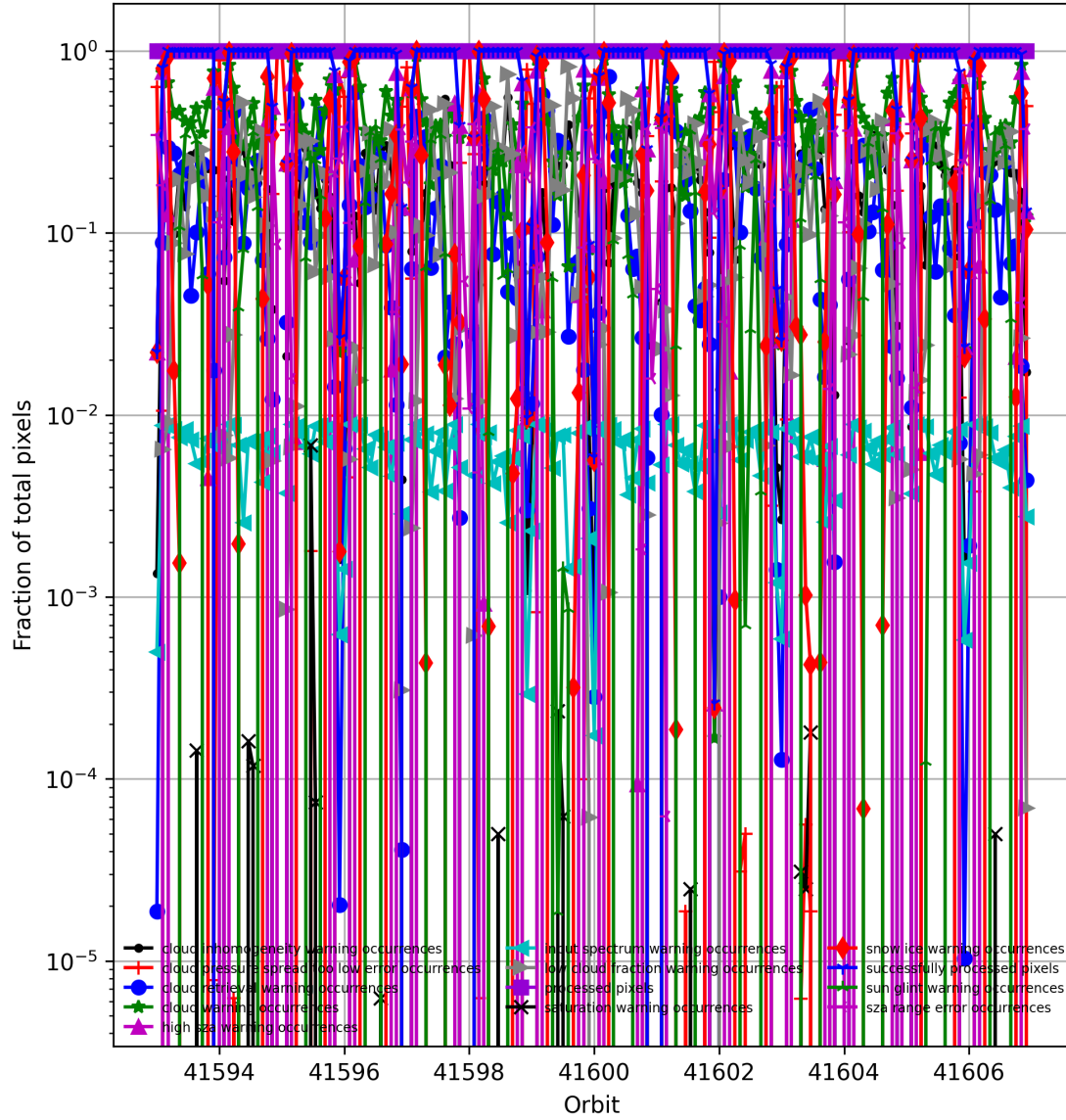


Figure 3: Fraction of pixels with specific warnings and errors during processing

6 World maps

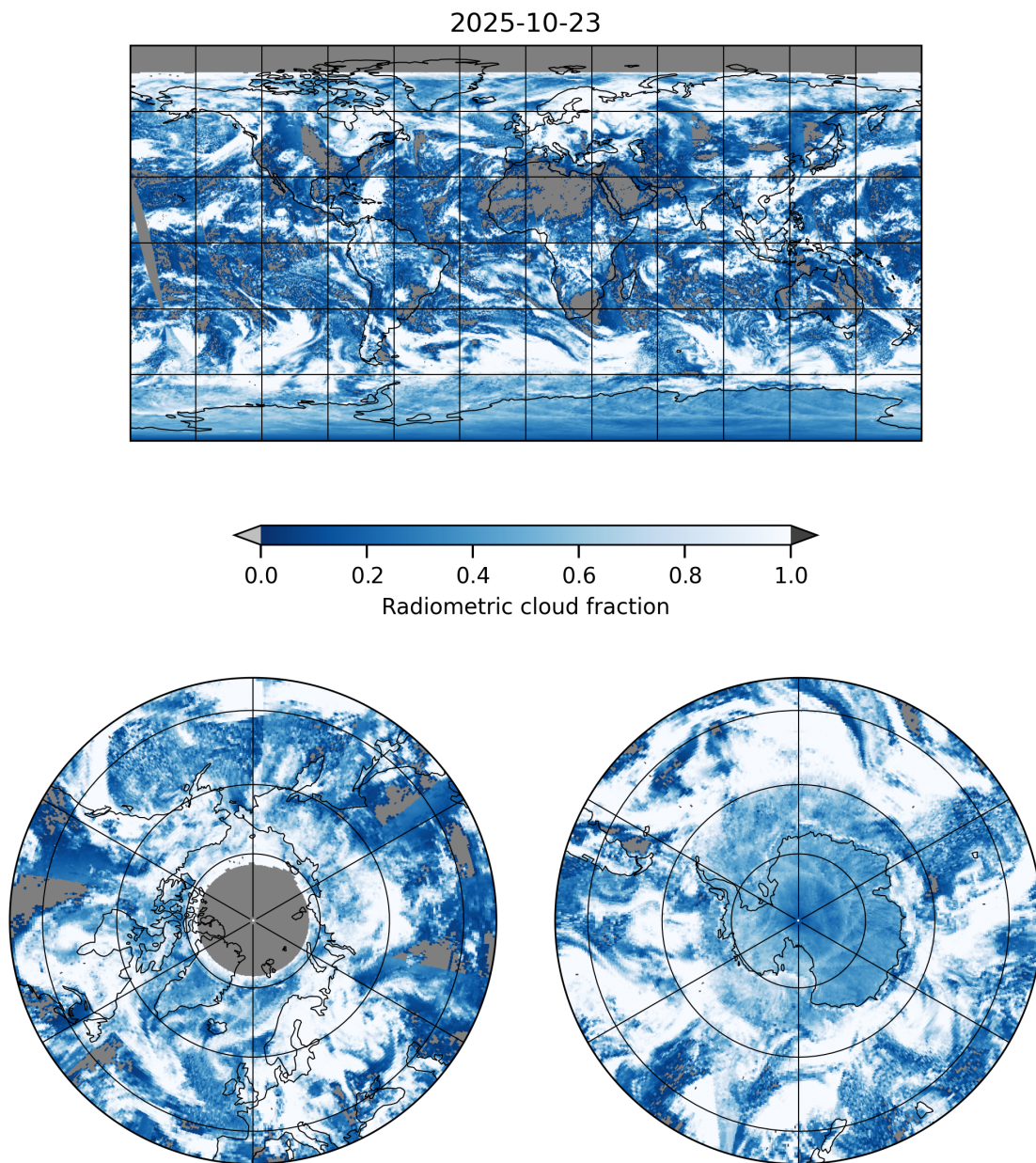


Figure 4: Map of “Radiometric cloud fraction” for 2025-10-23 to 2025-10-24

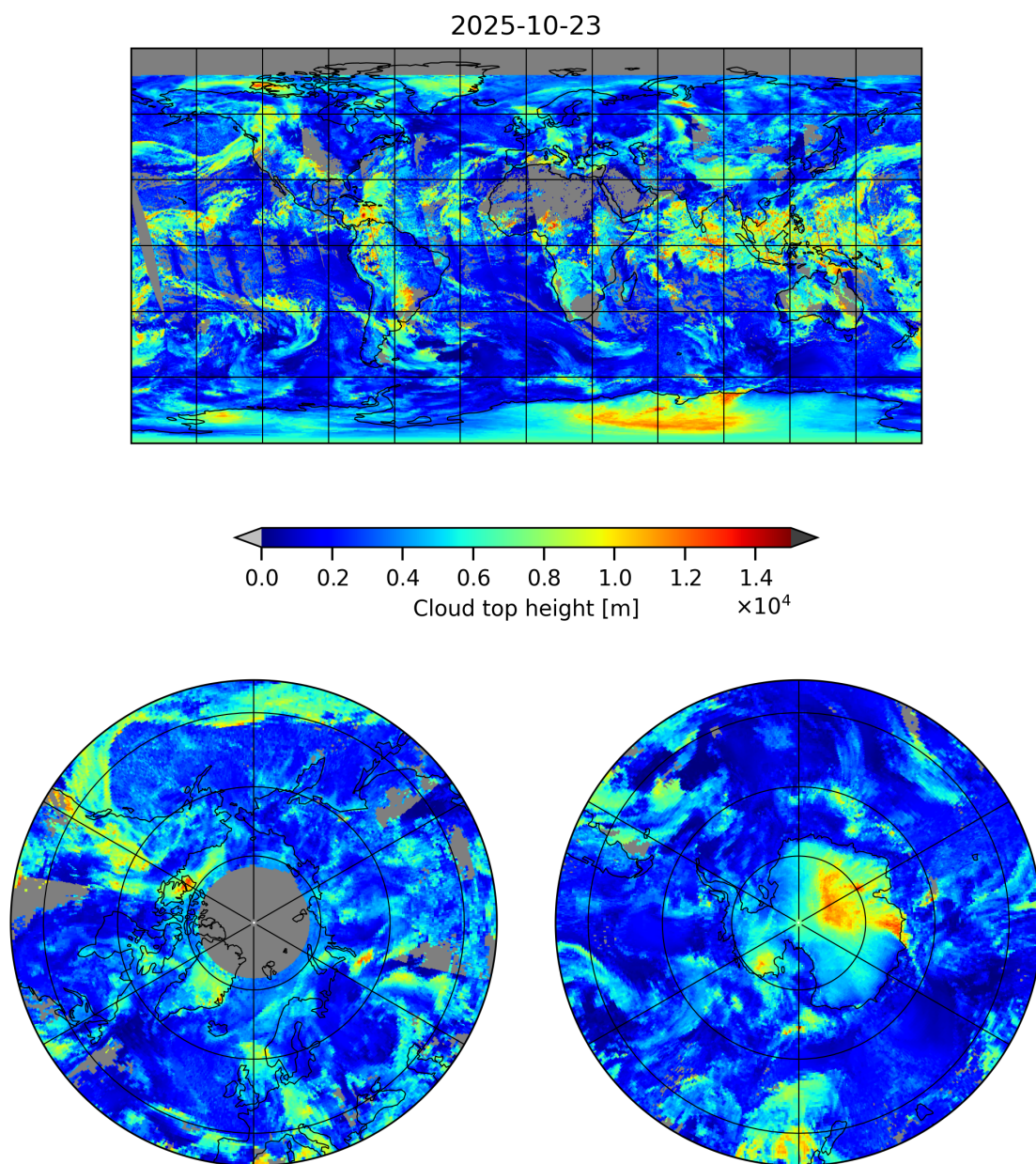


Figure 5: Map of “Cloud top height” for 2025-10-23 to 2025-10-24

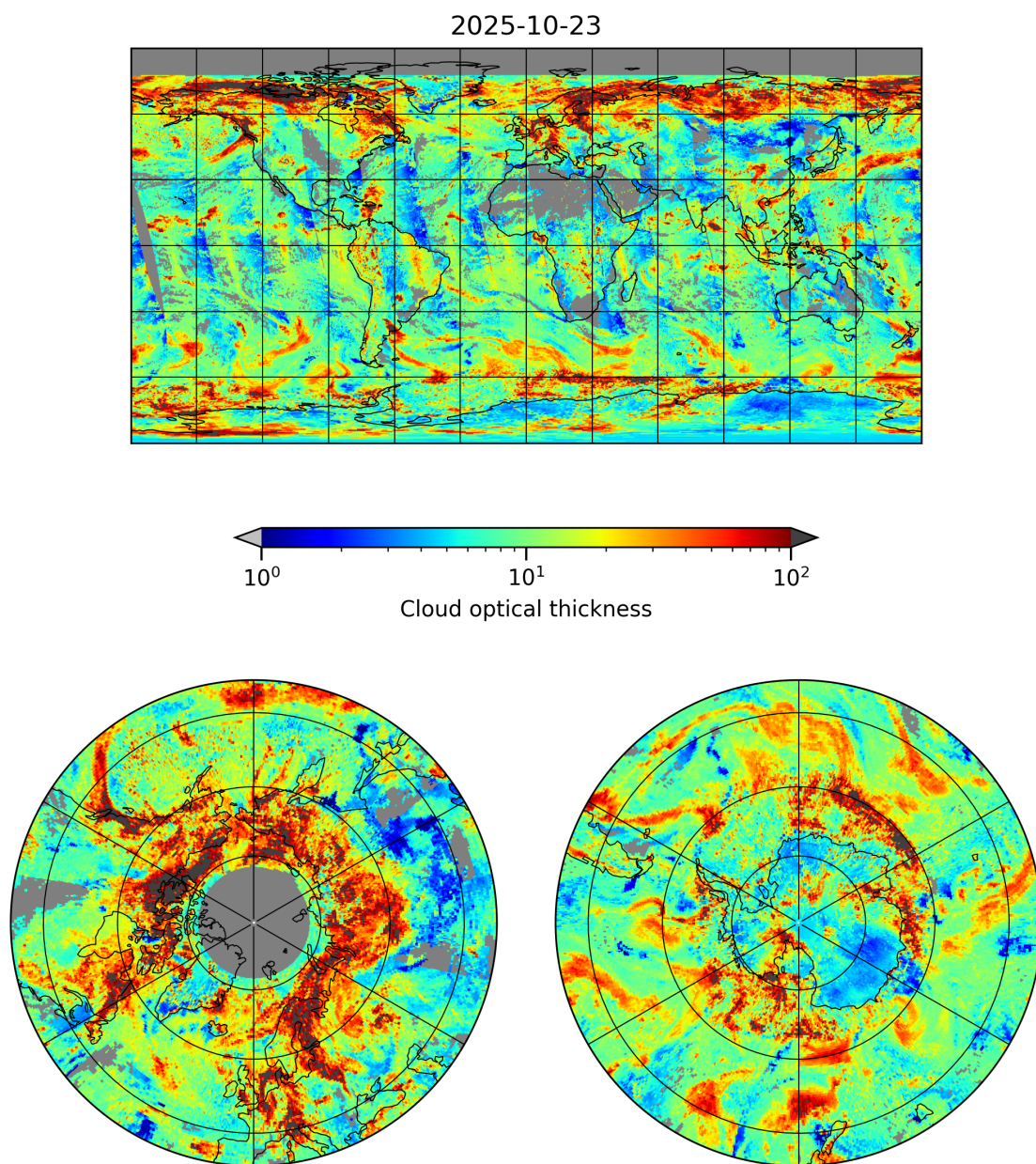


Figure 6: Map of “Cloud optical thickness” for 2025-10-23 to 2025-10-24

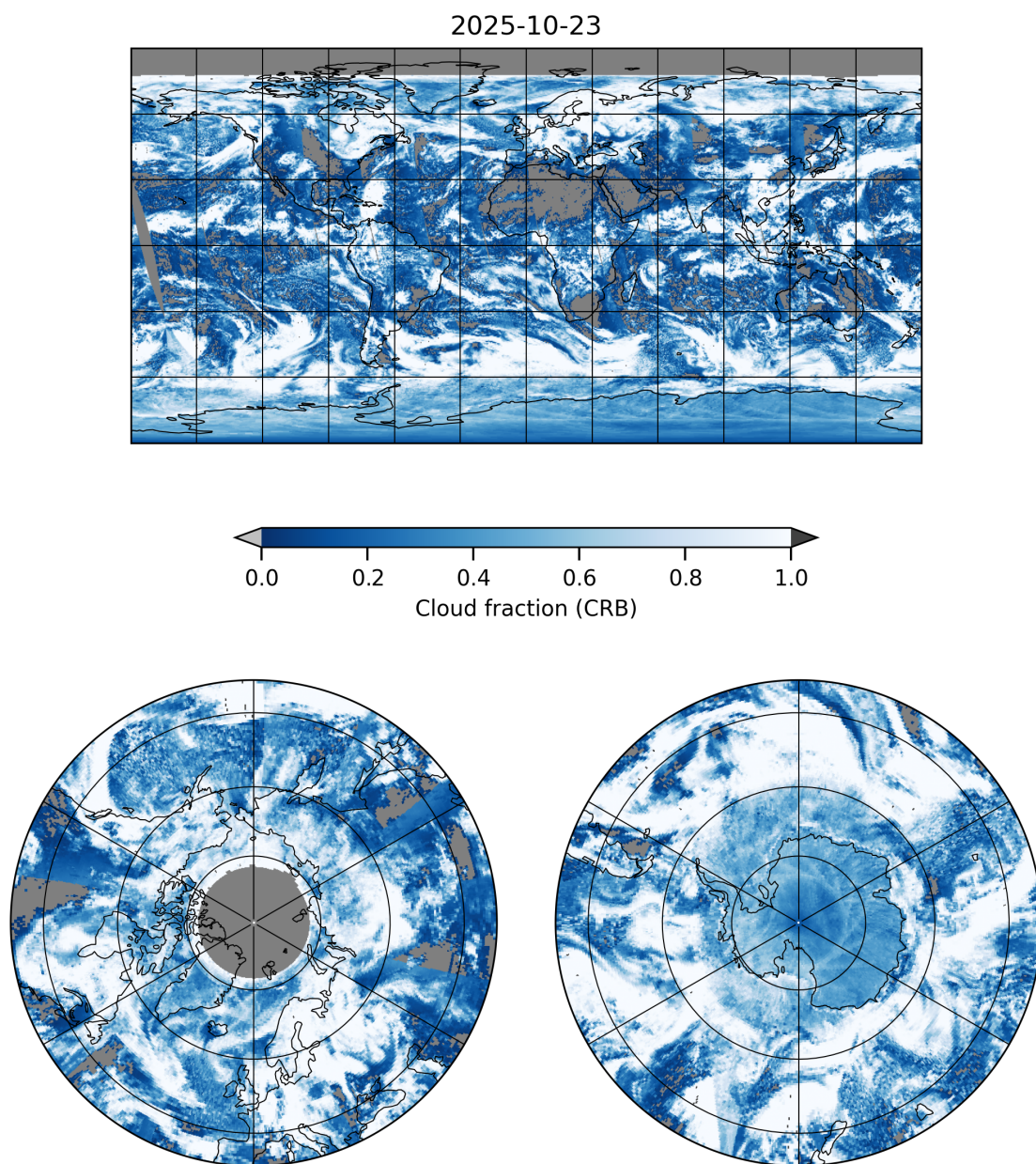


Figure 7: Map of “Cloud fraction (CRB)” for 2025-10-23 to 2025-10-24

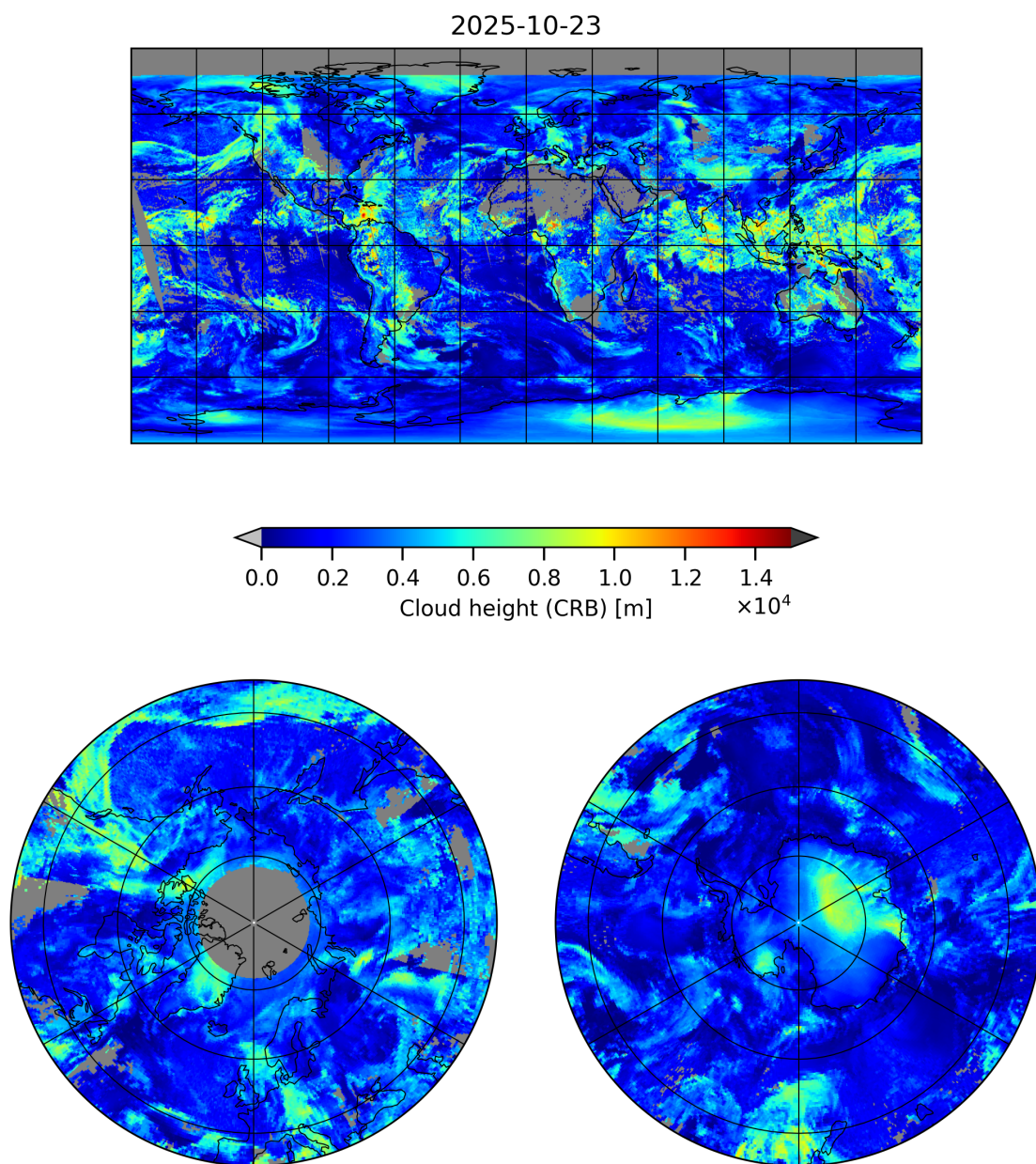


Figure 8: Map of “Cloud height (CRB)” for 2025-10-23 to 2025-10-24

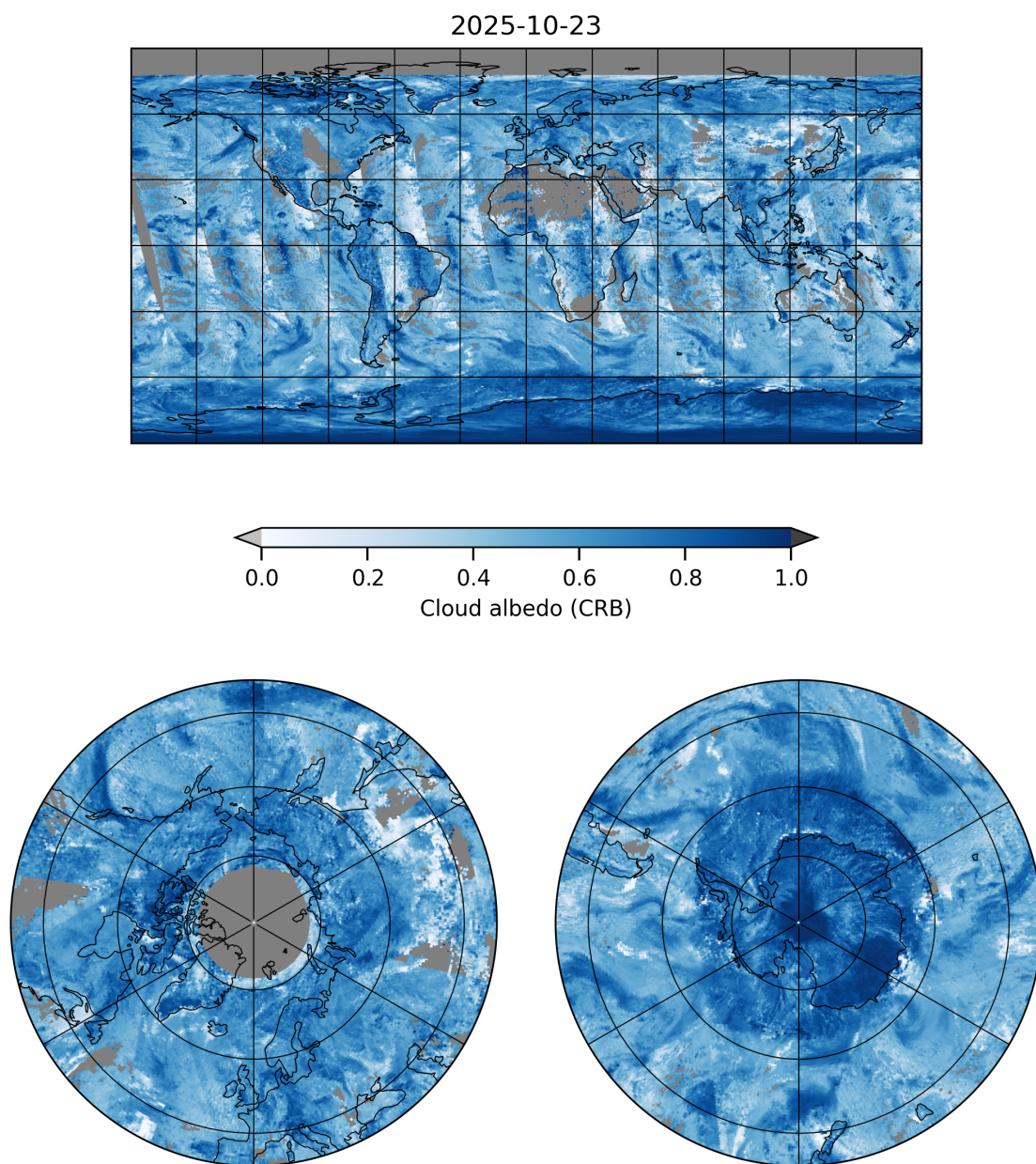


Figure 9: Map of “Cloud albedo (CRB)” for 2025-10-23 to 2025-10-24

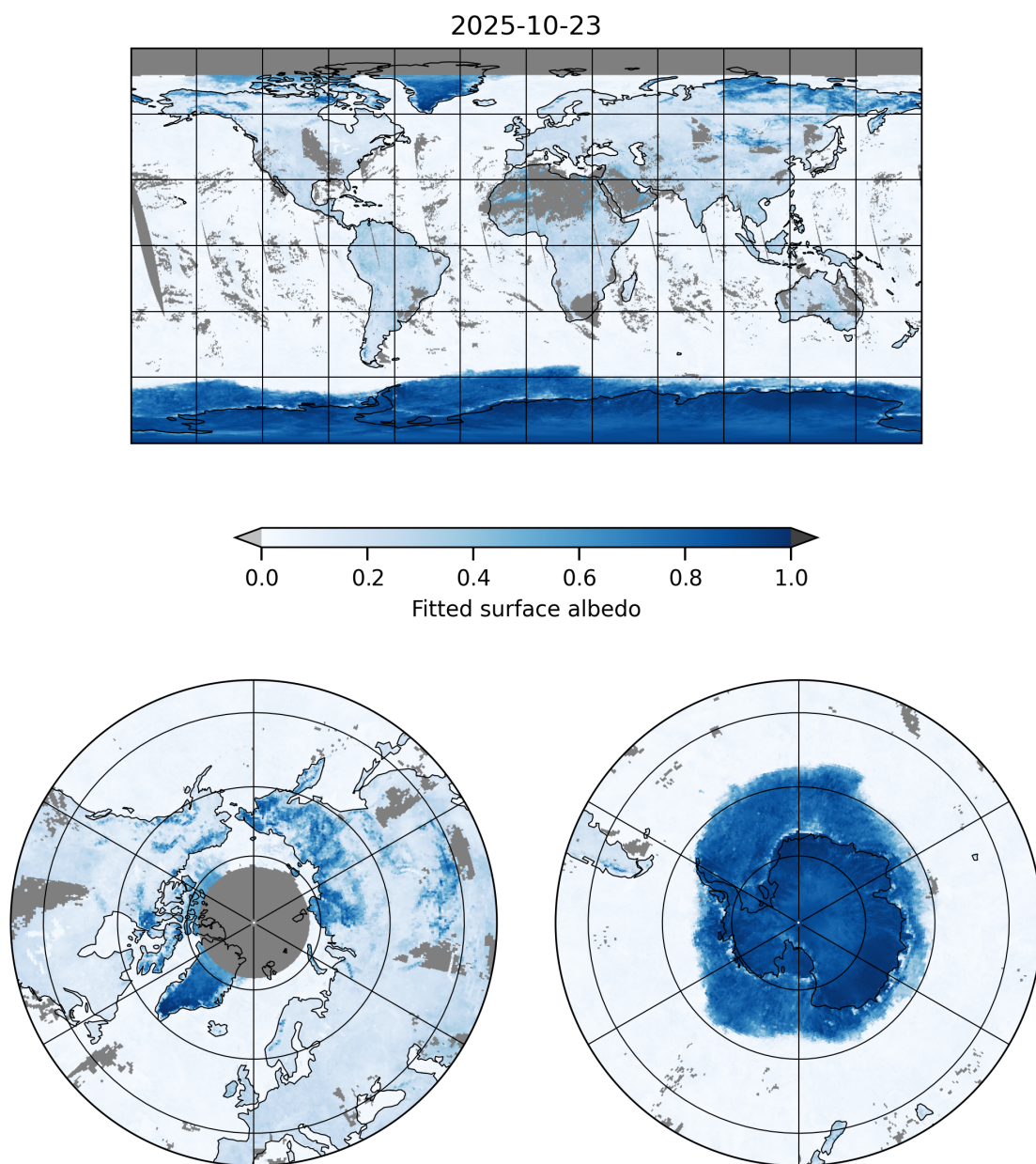


Figure 10: Map of “Fitted surface albedo” for 2025-10-23 to 2025-10-24

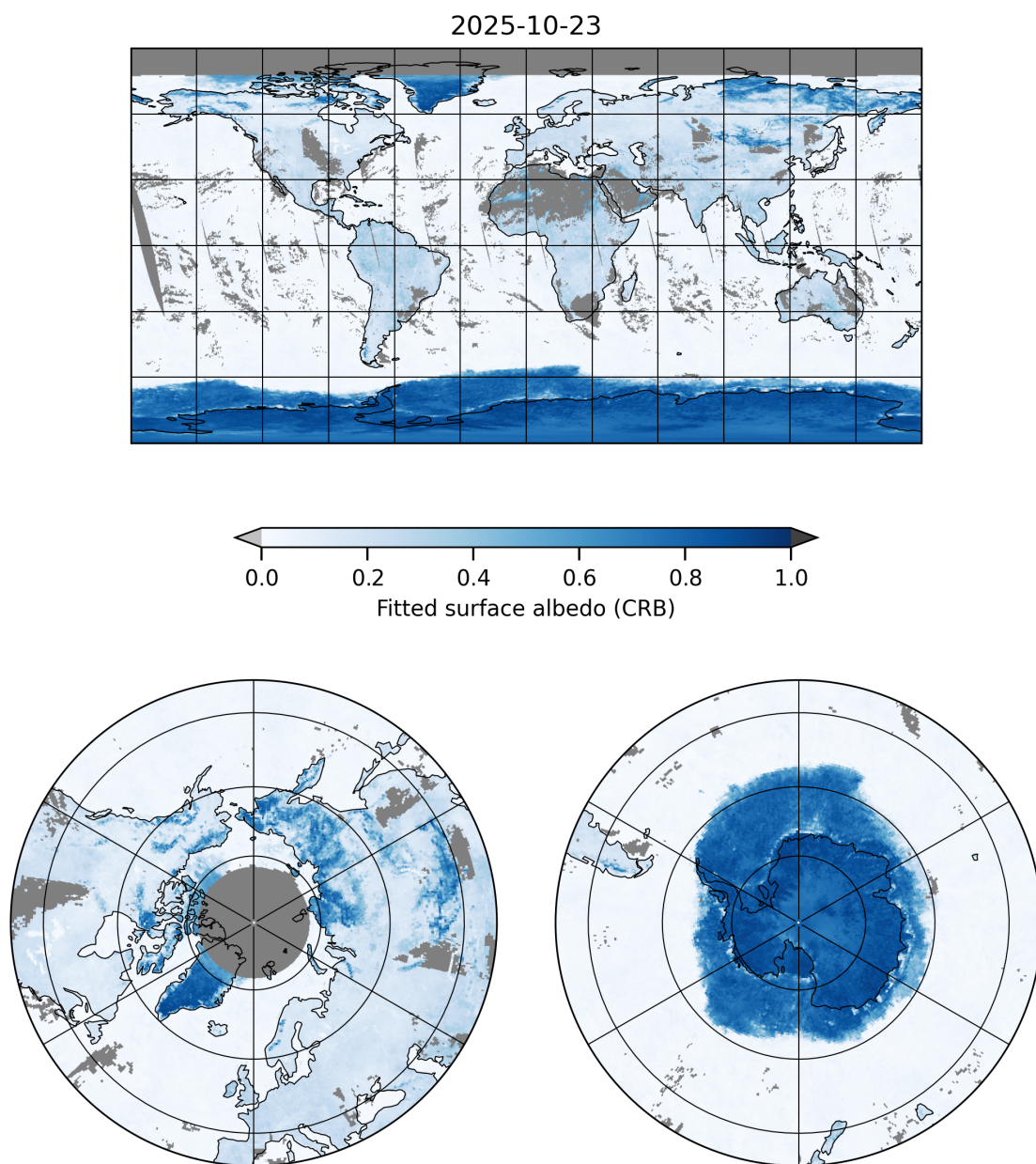


Figure 11: Map of “Fitted surface albedo (CRB)” for 2025-10-23 to 2025-10-24

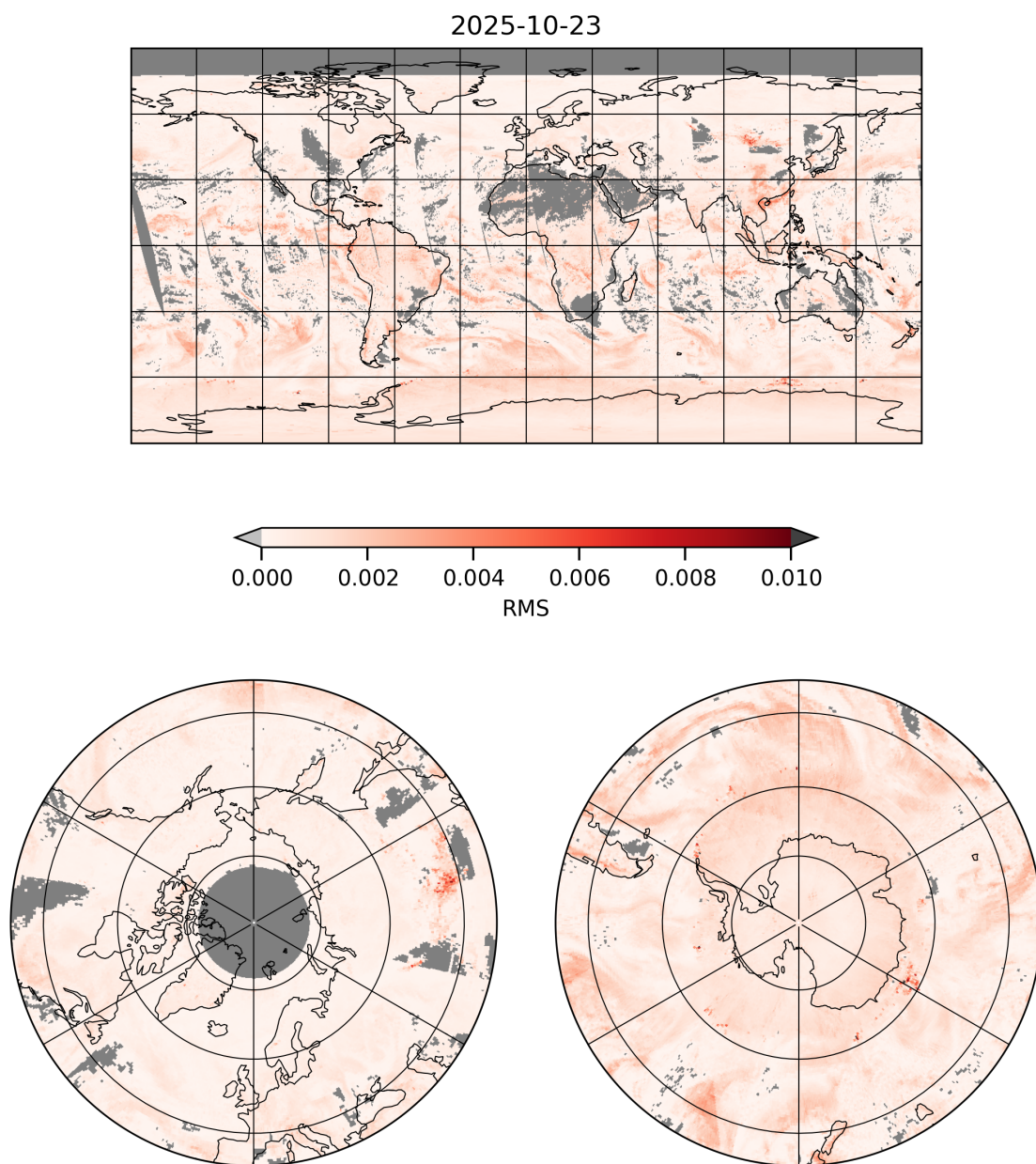


Figure 12: Map of “RMS” for 2025-10-23 to 2025-10-24

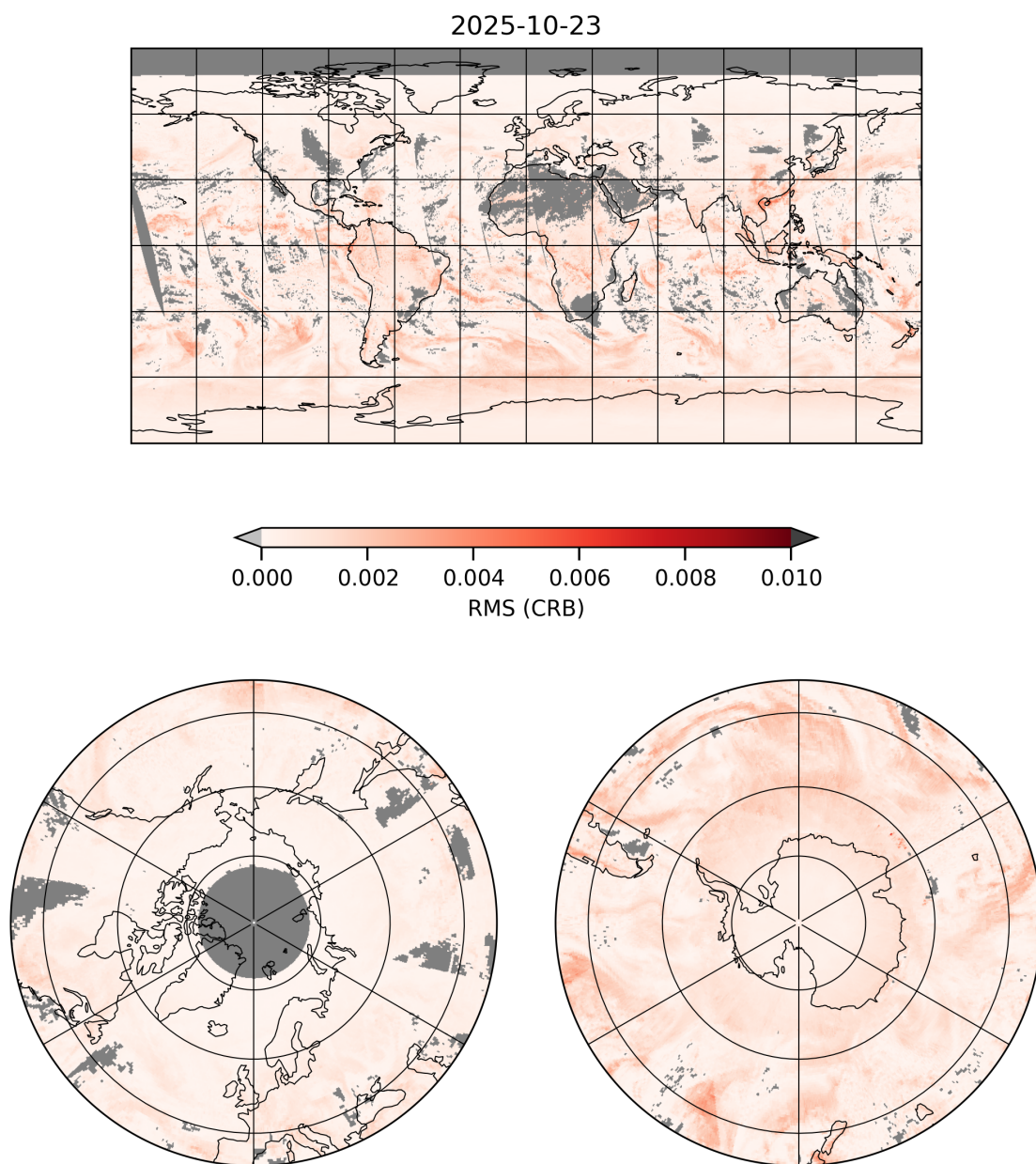


Figure 13: Map of “RMS (CRB)” for 2025-10-23 to 2025-10-24

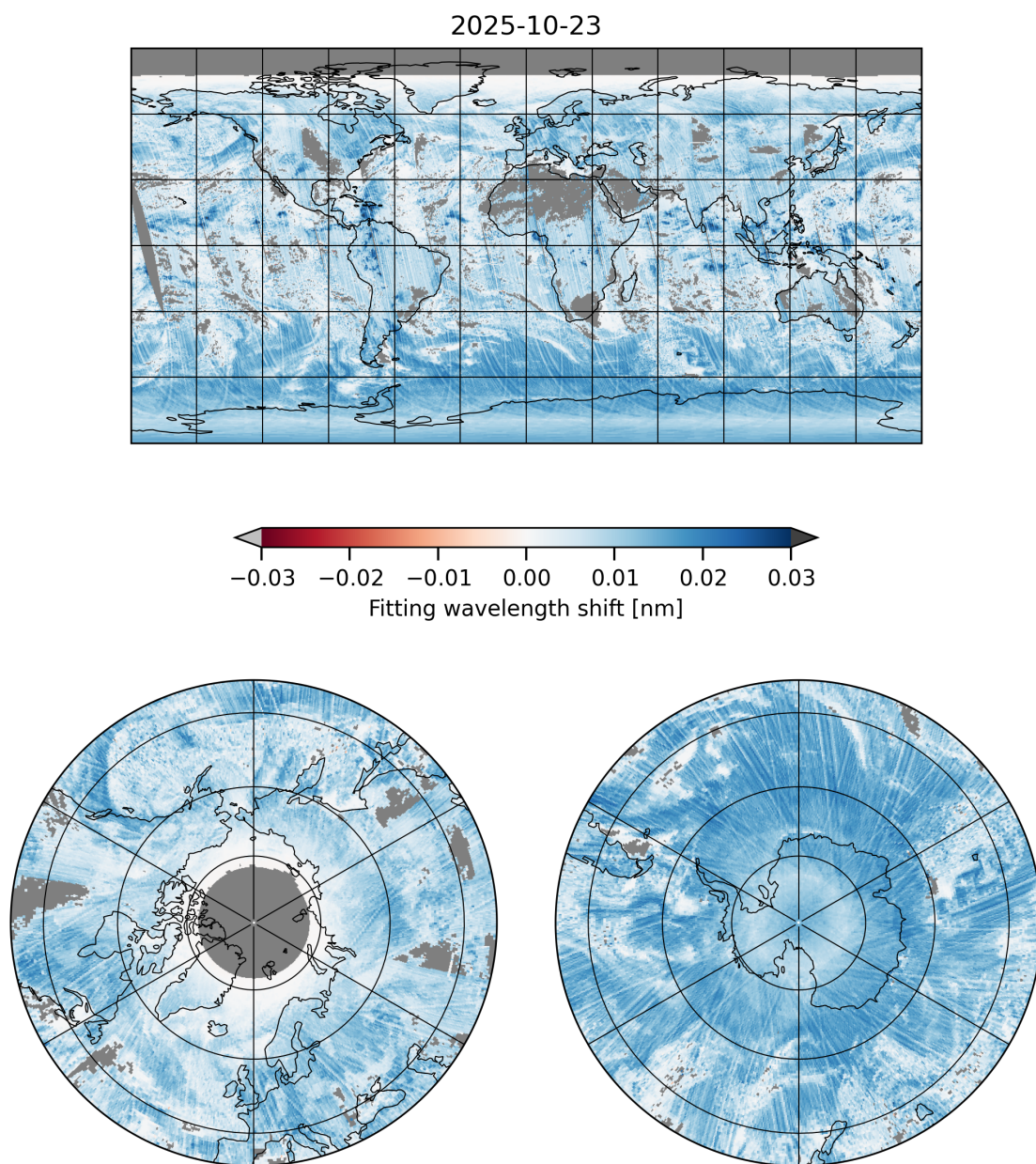


Figure 14: Map of “Fitting wavelength shift” for 2025-10-23 to 2025-10-24

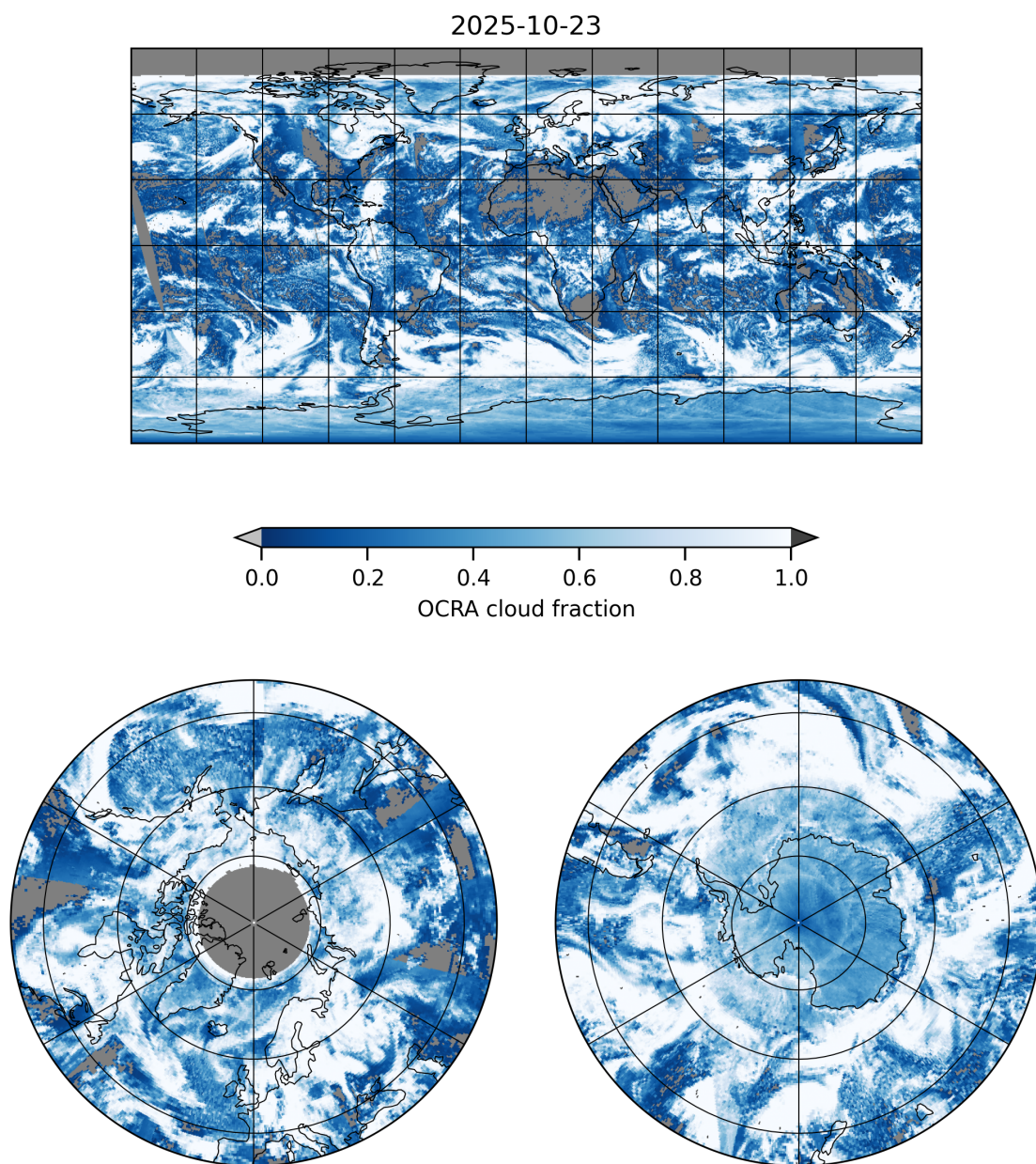


Figure 15: Map of “OCRA cloud fraction” for 2025-10-23 to 2025-10-24

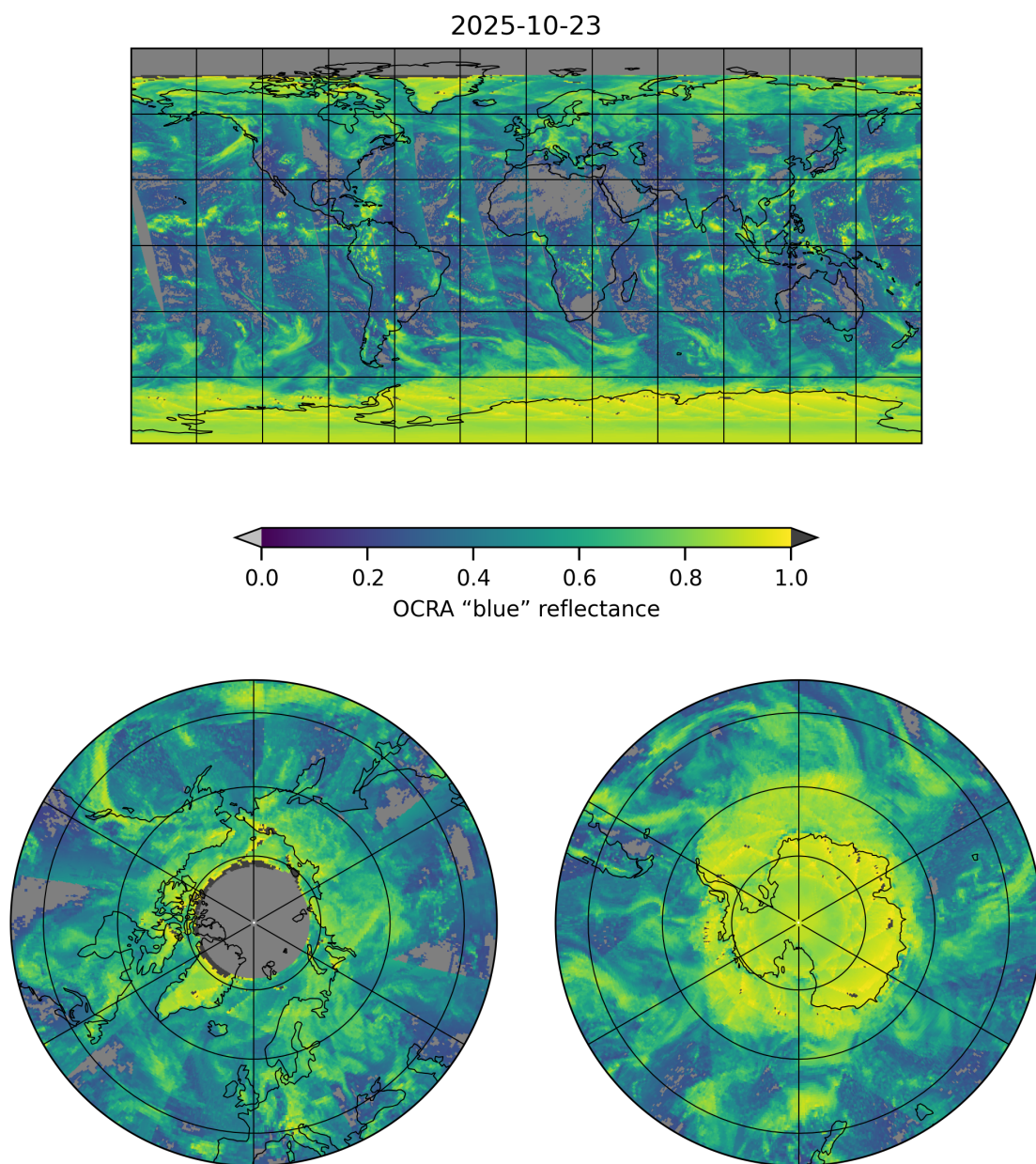


Figure 16: Map of "OCRA "blue" reflectance" for 2025-10-23 to 2025-10-24

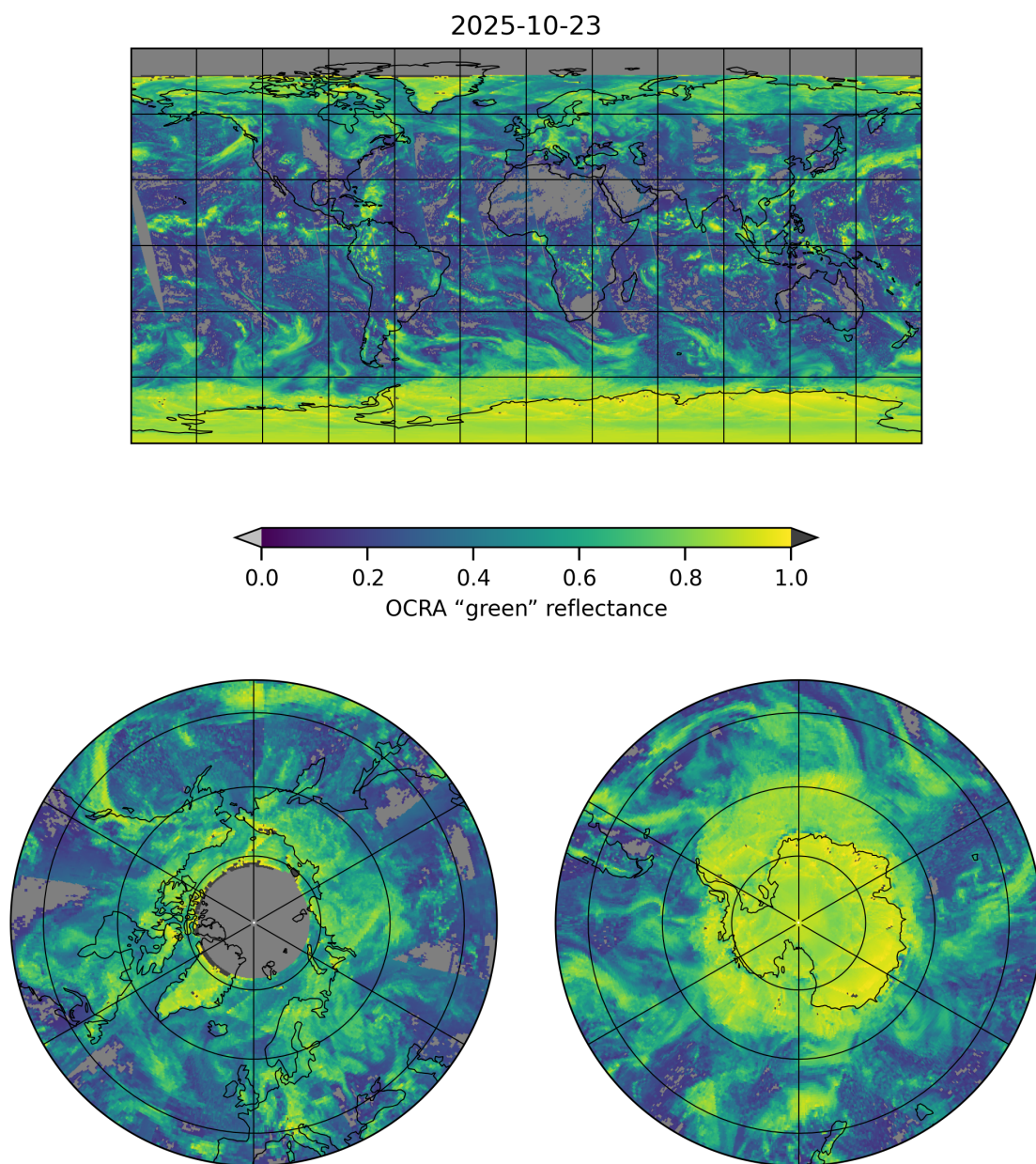


Figure 17: Map of "OCRA "green" reflectance" for 2025-10-23 to 2025-10-24

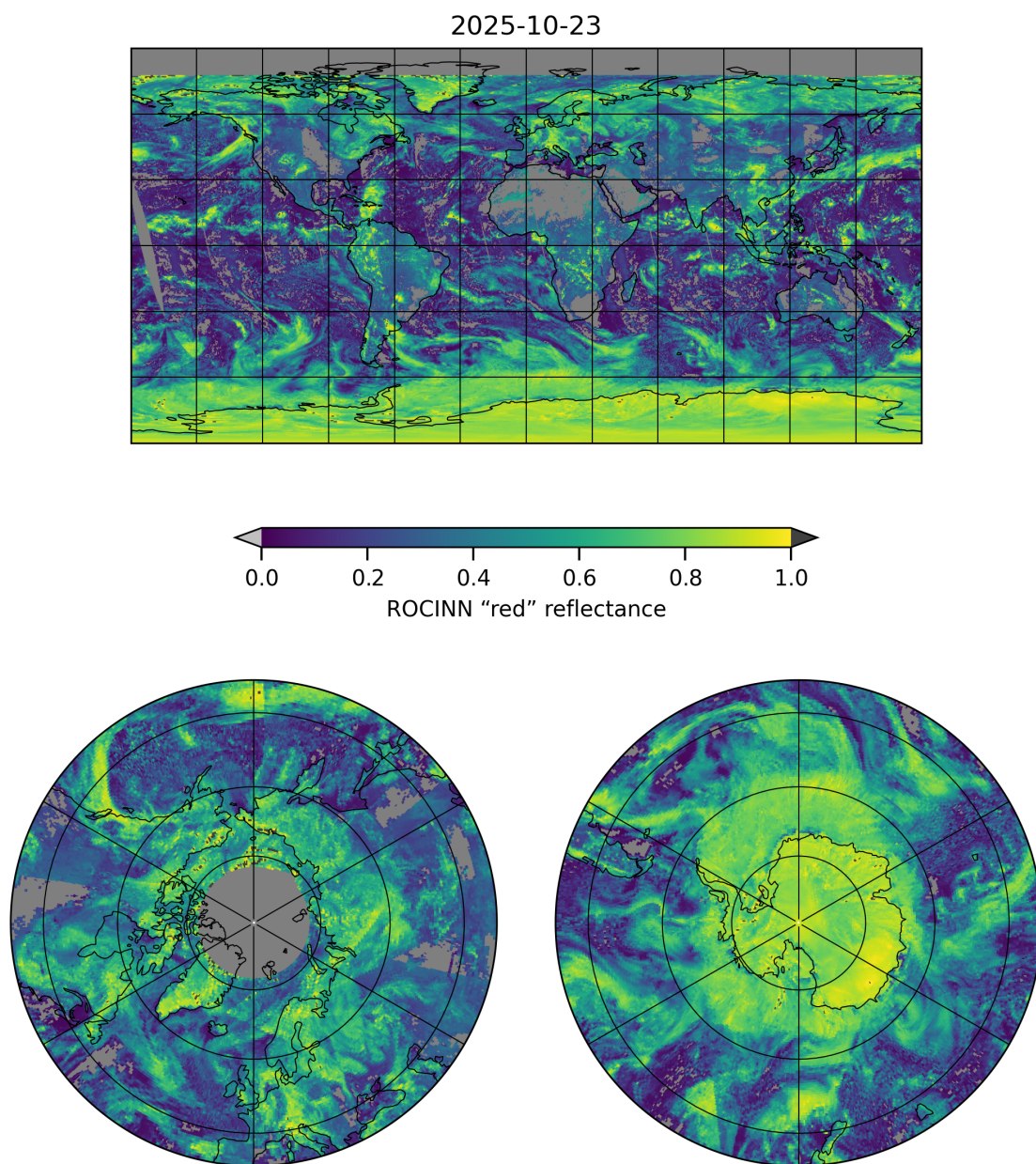


Figure 18: Map of "ROCINN "red" reflectance" for 2025-10-23 to 2025-10-24

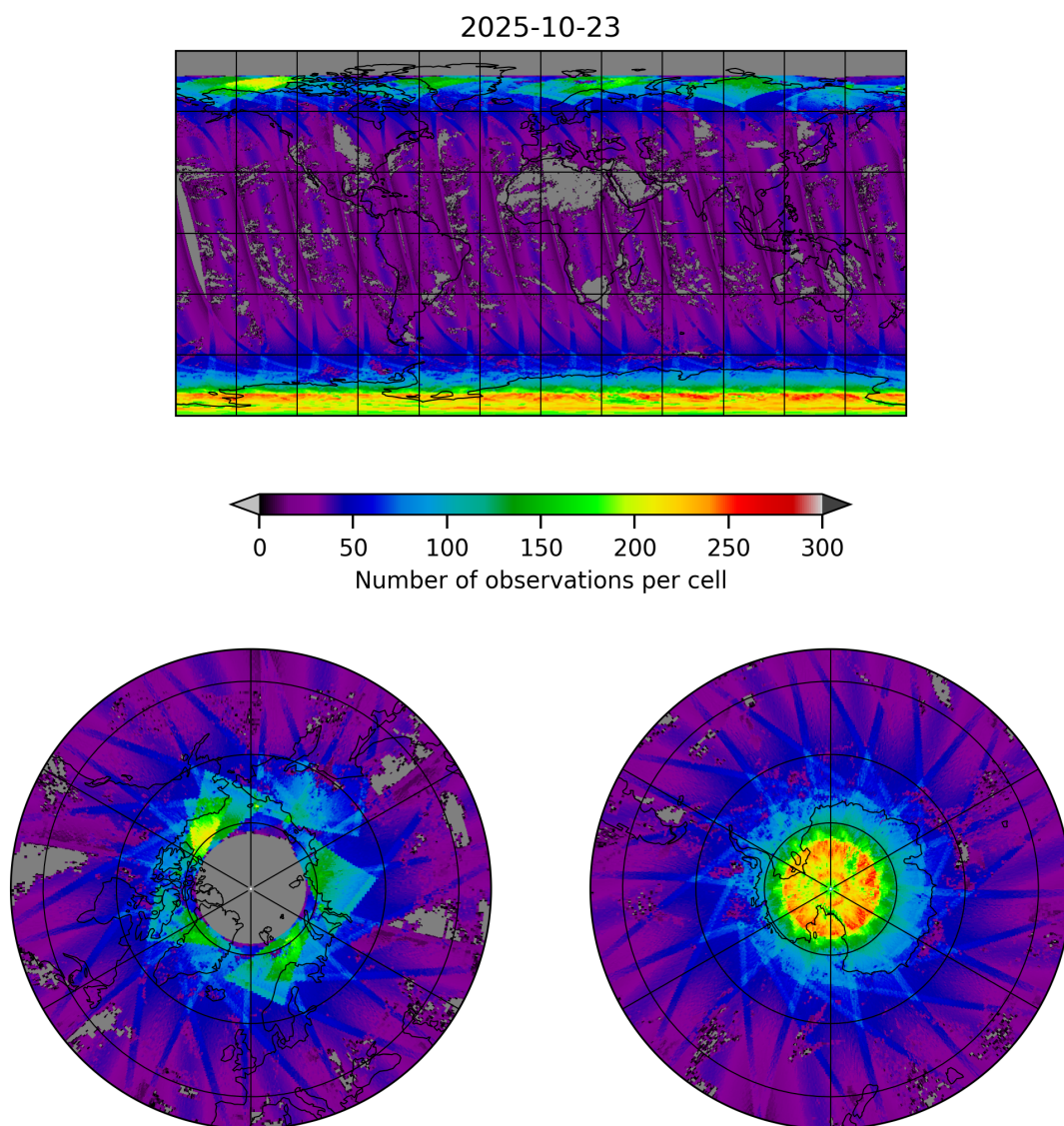


Figure 19: Map of the number of observations for 2025-10-23 to 2025-10-24

7 Zonal average

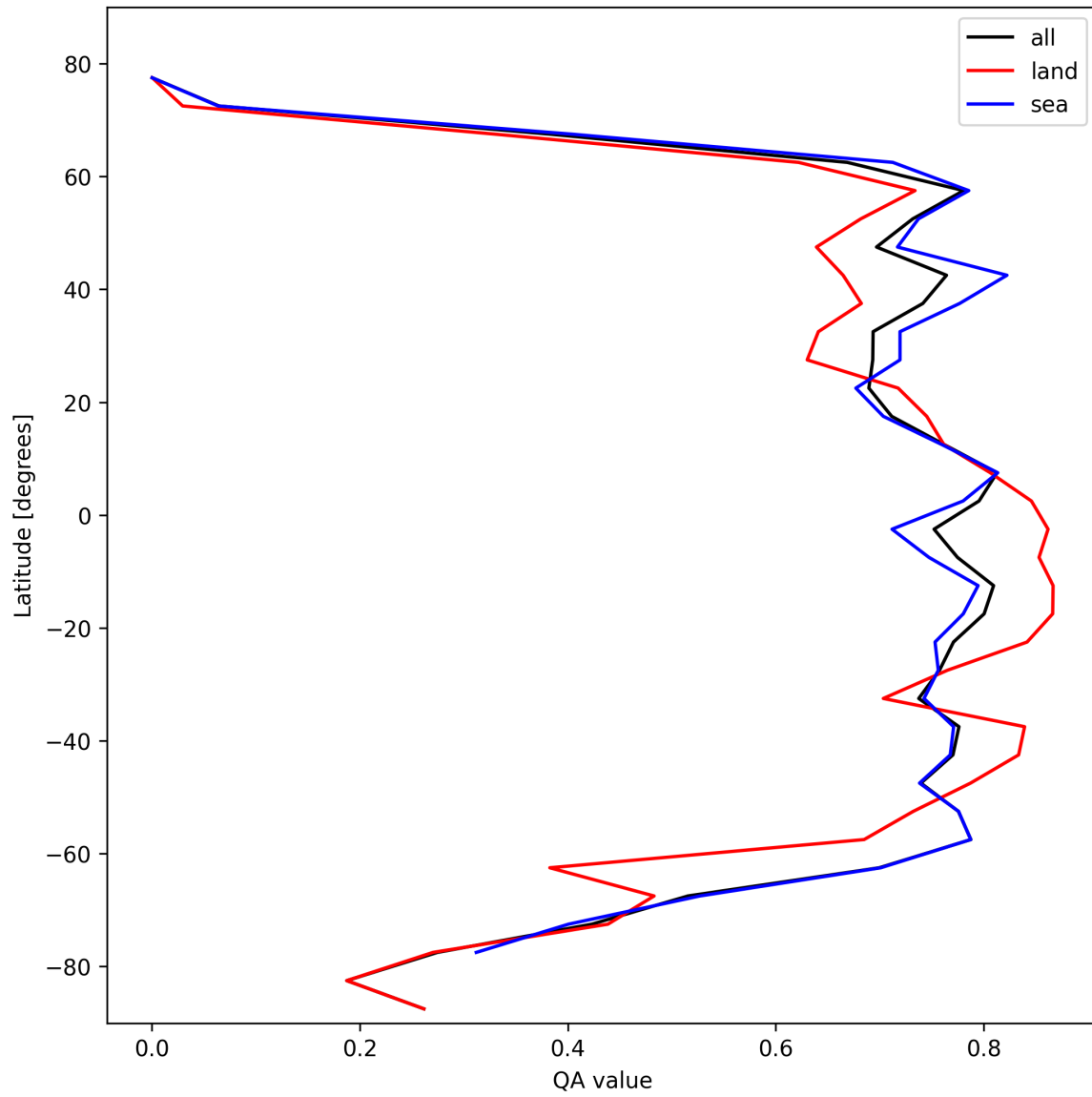


Figure 20: Zonal average of “QA value” for 2025-10-23 to 2025-10-24.

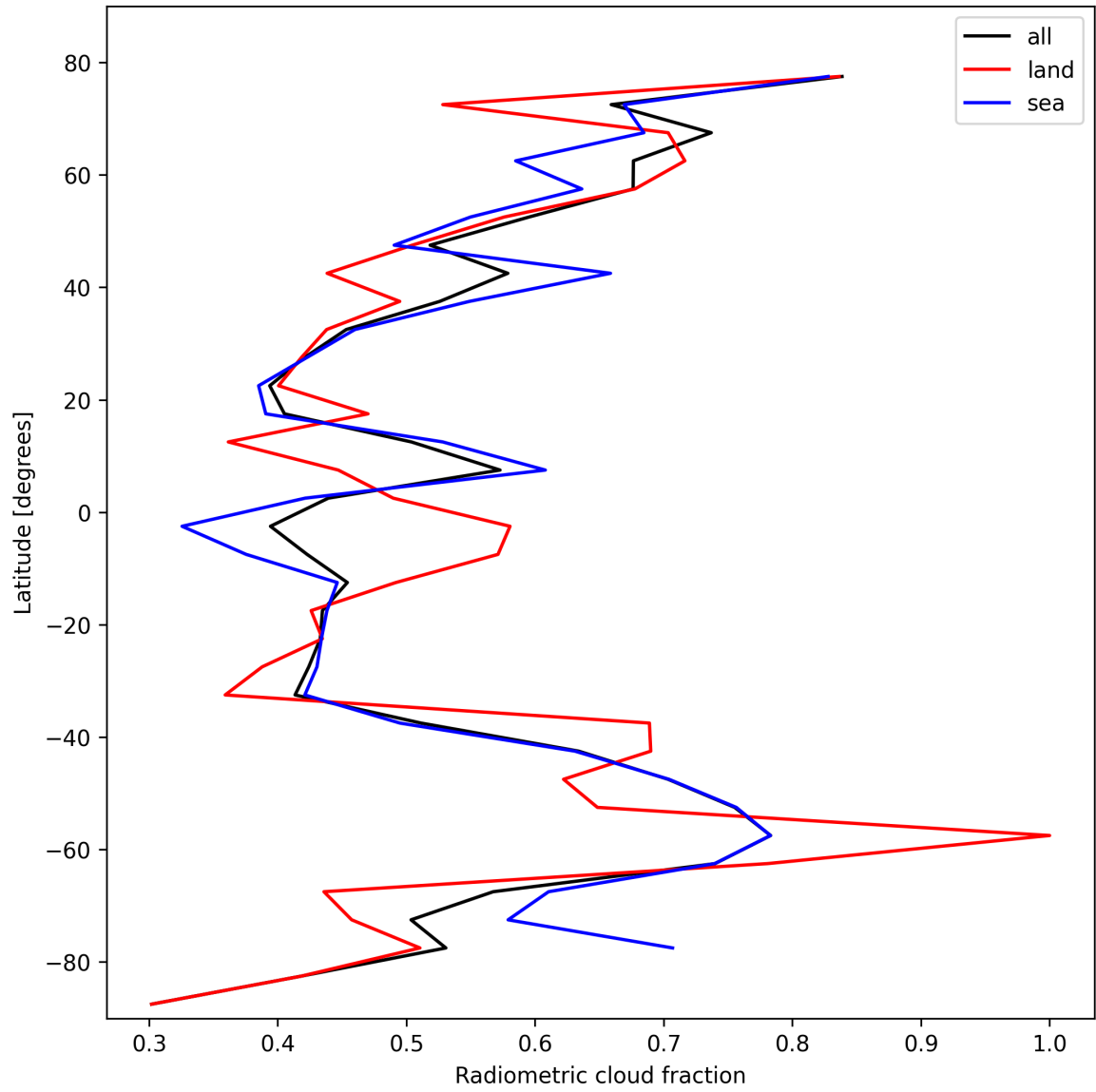


Figure 21: Zonal average of “Radiometric cloud fraction” for 2025-10-23 to 2025-10-24.

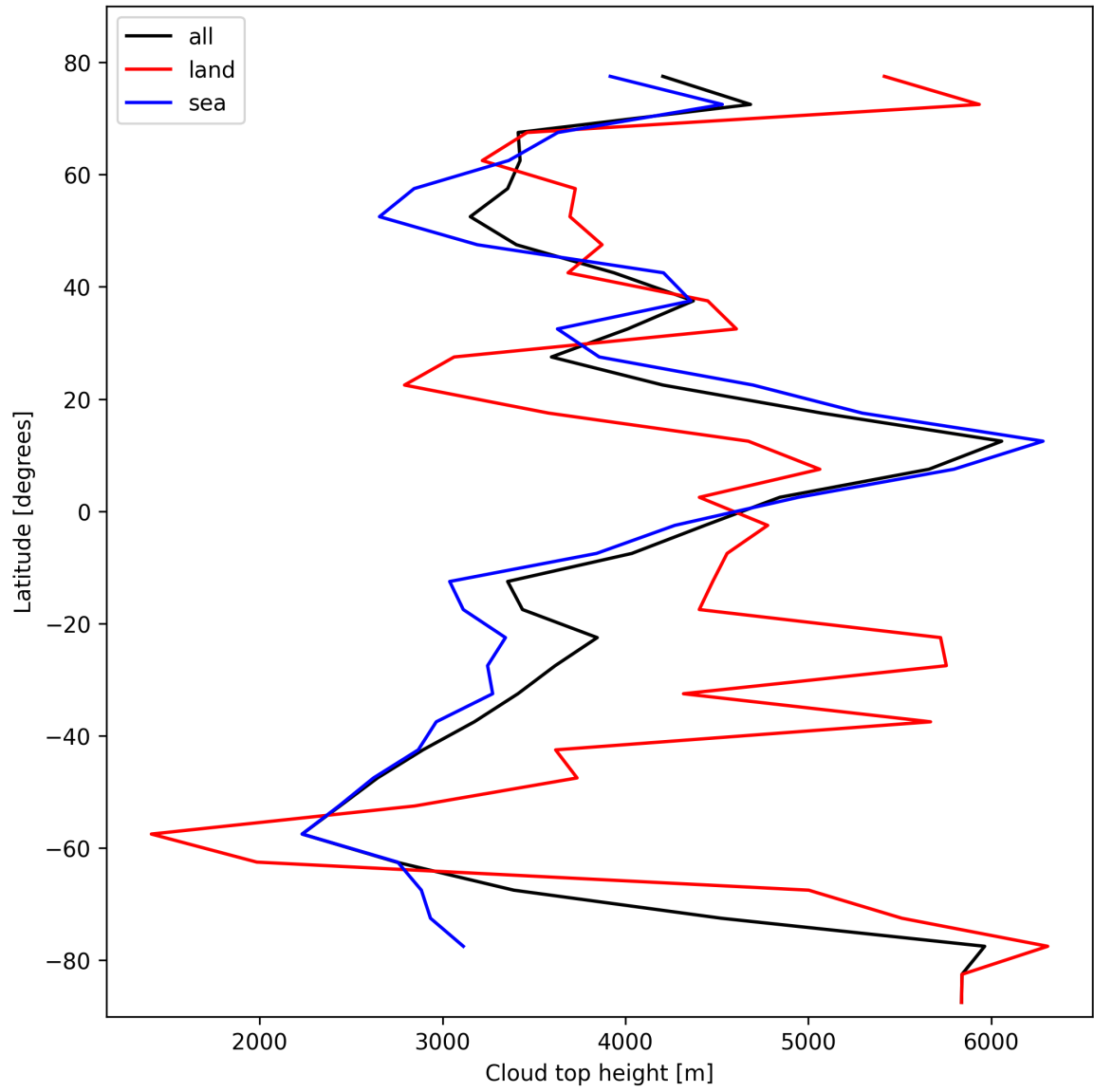


Figure 22: Zonal average of “Cloud top height” for 2025-10-23 to 2025-10-24.

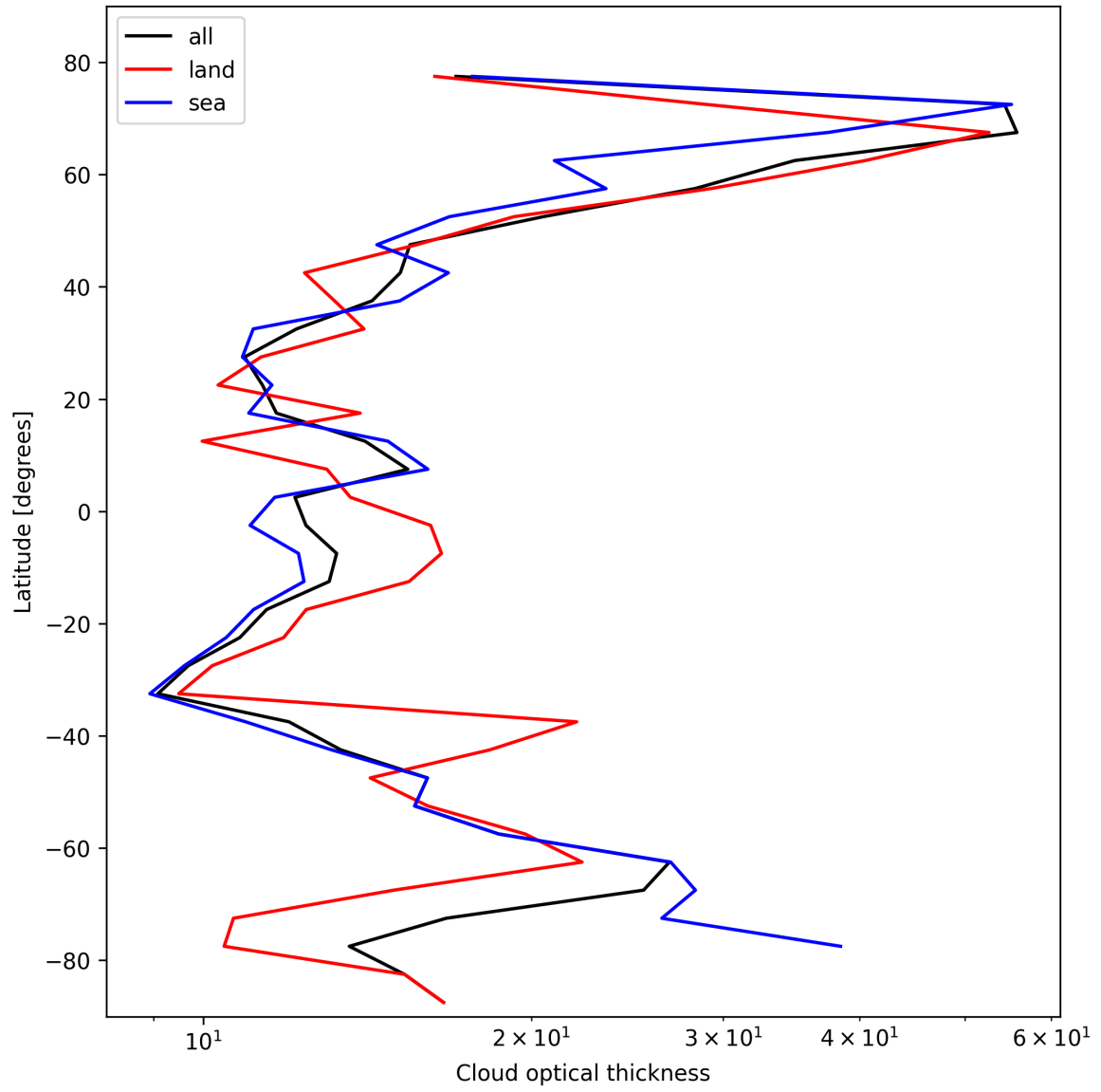


Figure 23: Zonal average of “Cloud optical thickness” for 2025-10-23 to 2025-10-24.

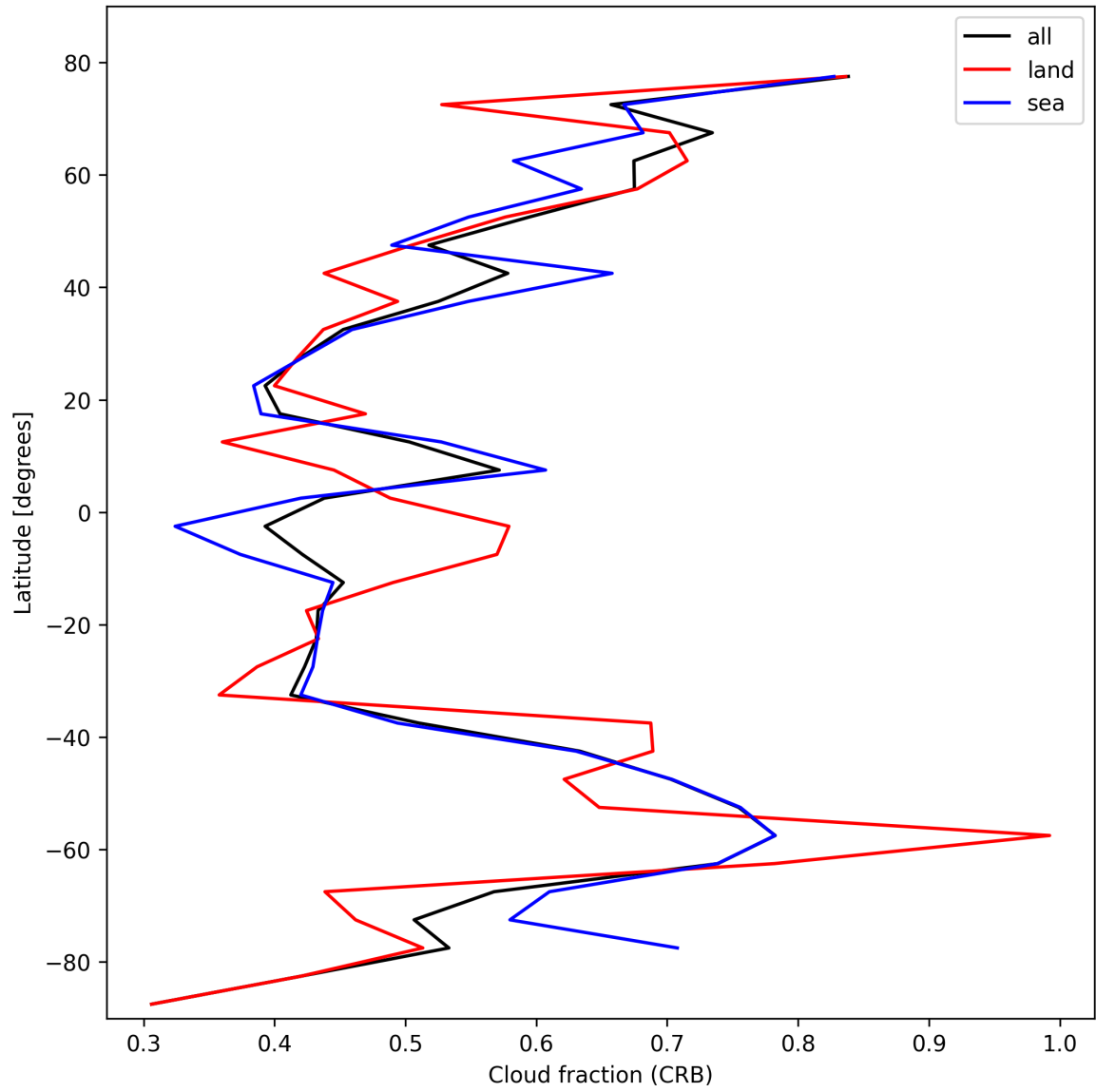


Figure 24: Zonal average of “Cloud fraction (CRB)” for 2025-10-23 to 2025-10-24.

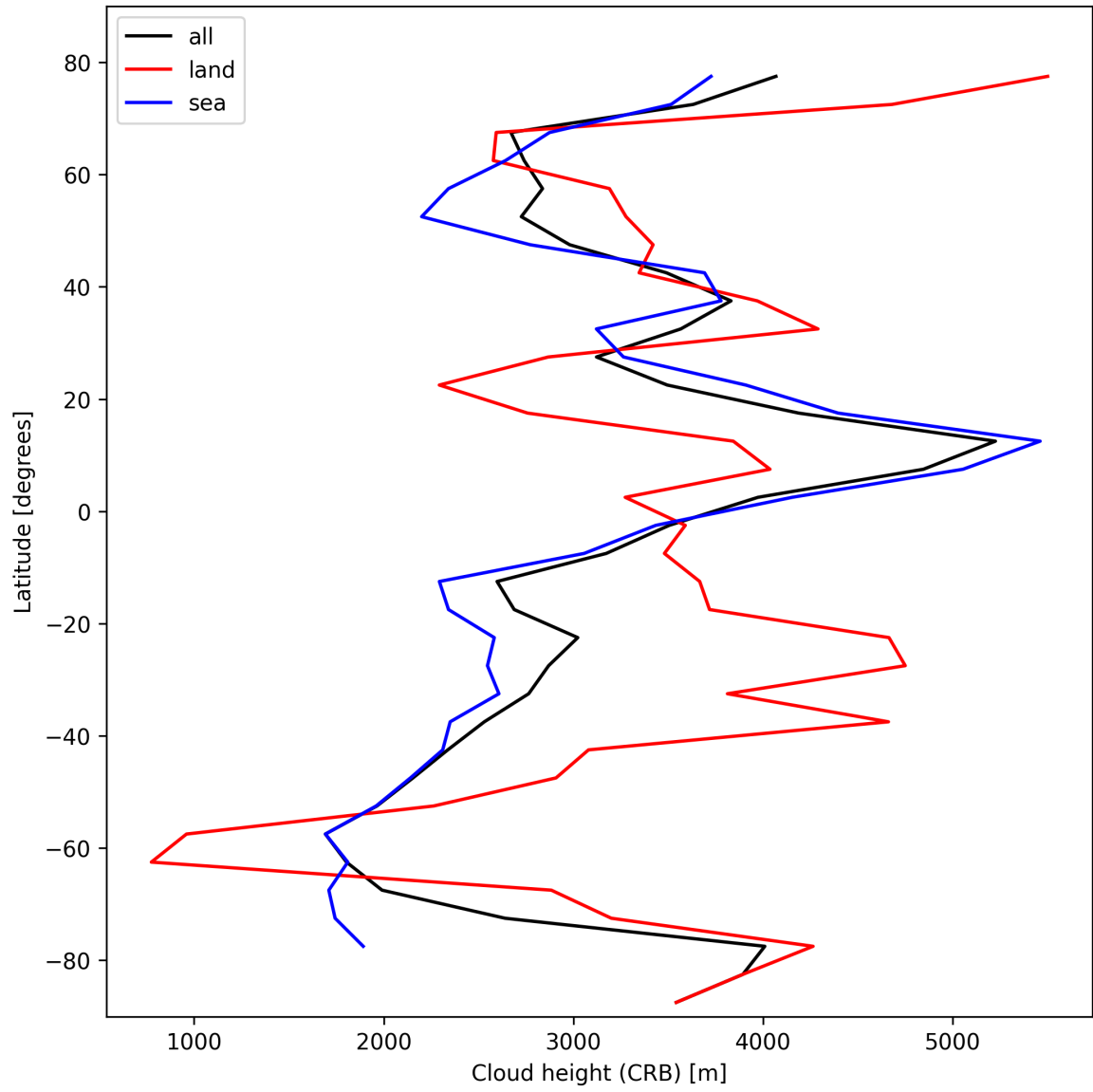


Figure 25: Zonal average of “Cloud height (CRB)” for 2025-10-23 to 2025-10-24.

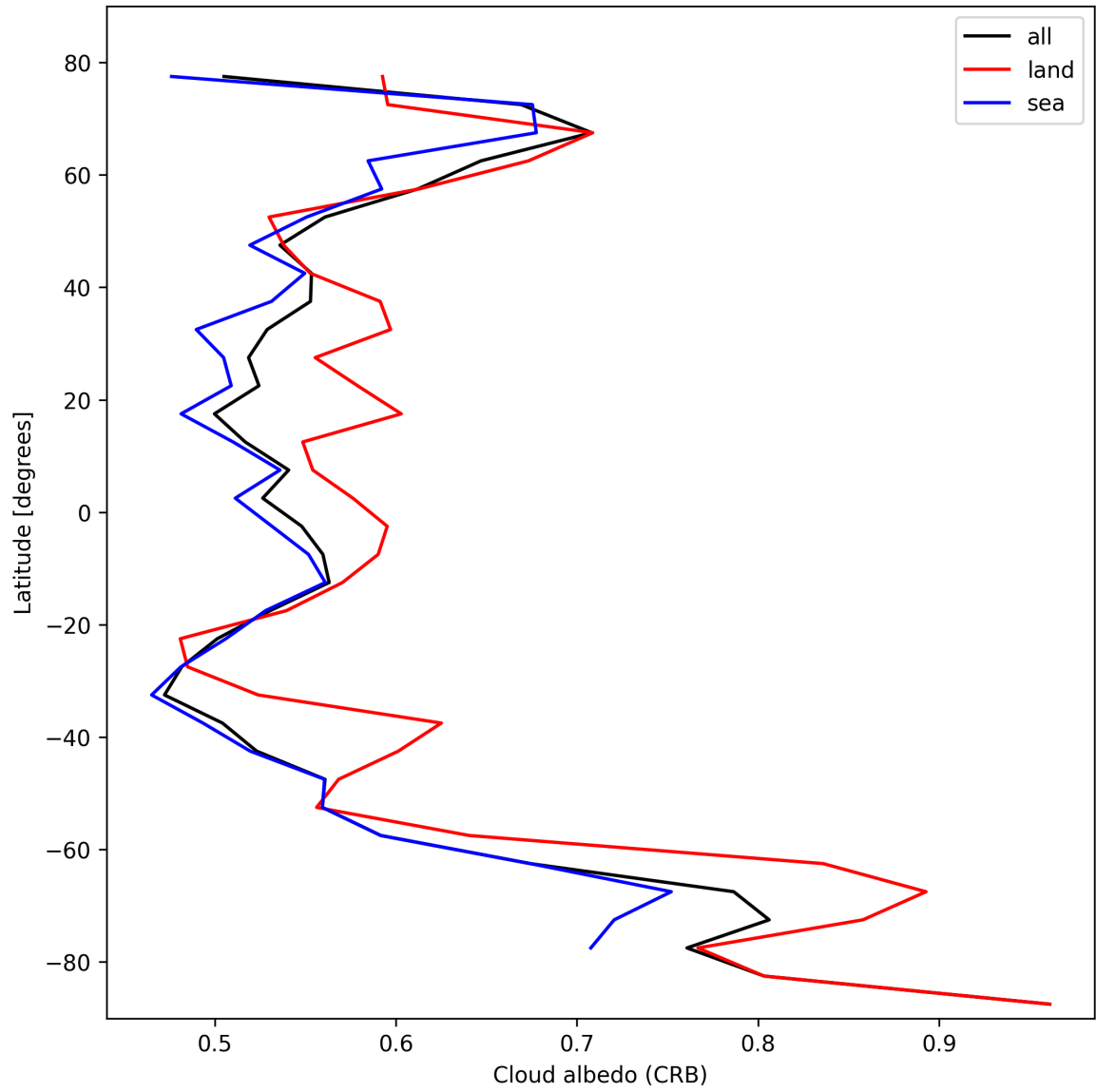


Figure 26: Zonal average of “Cloud albedo (CRB)” for 2025-10-23 to 2025-10-24.

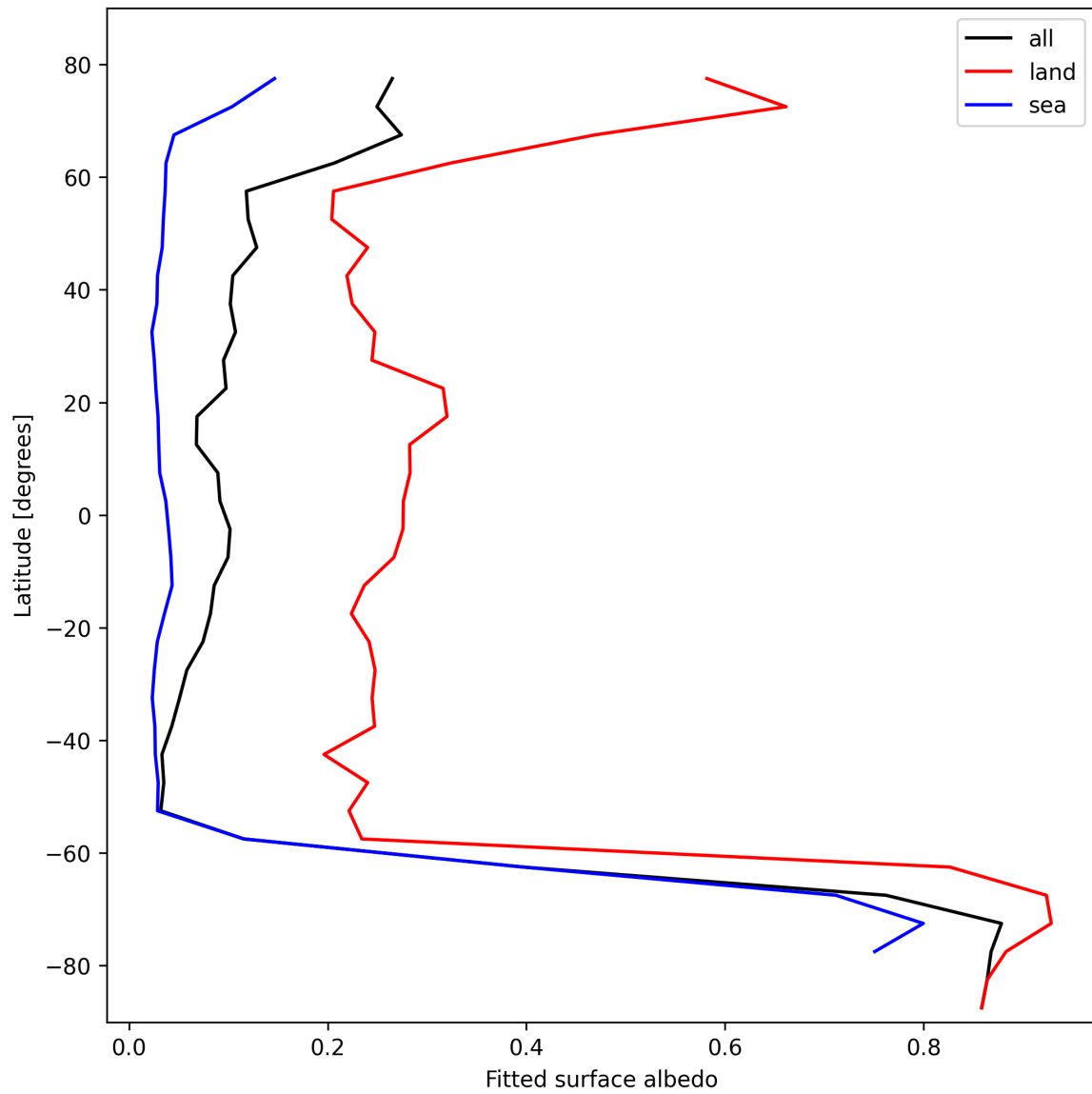


Figure 27: Zonal average of “Fitted surface albedo” for 2025-10-23 to 2025-10-24.

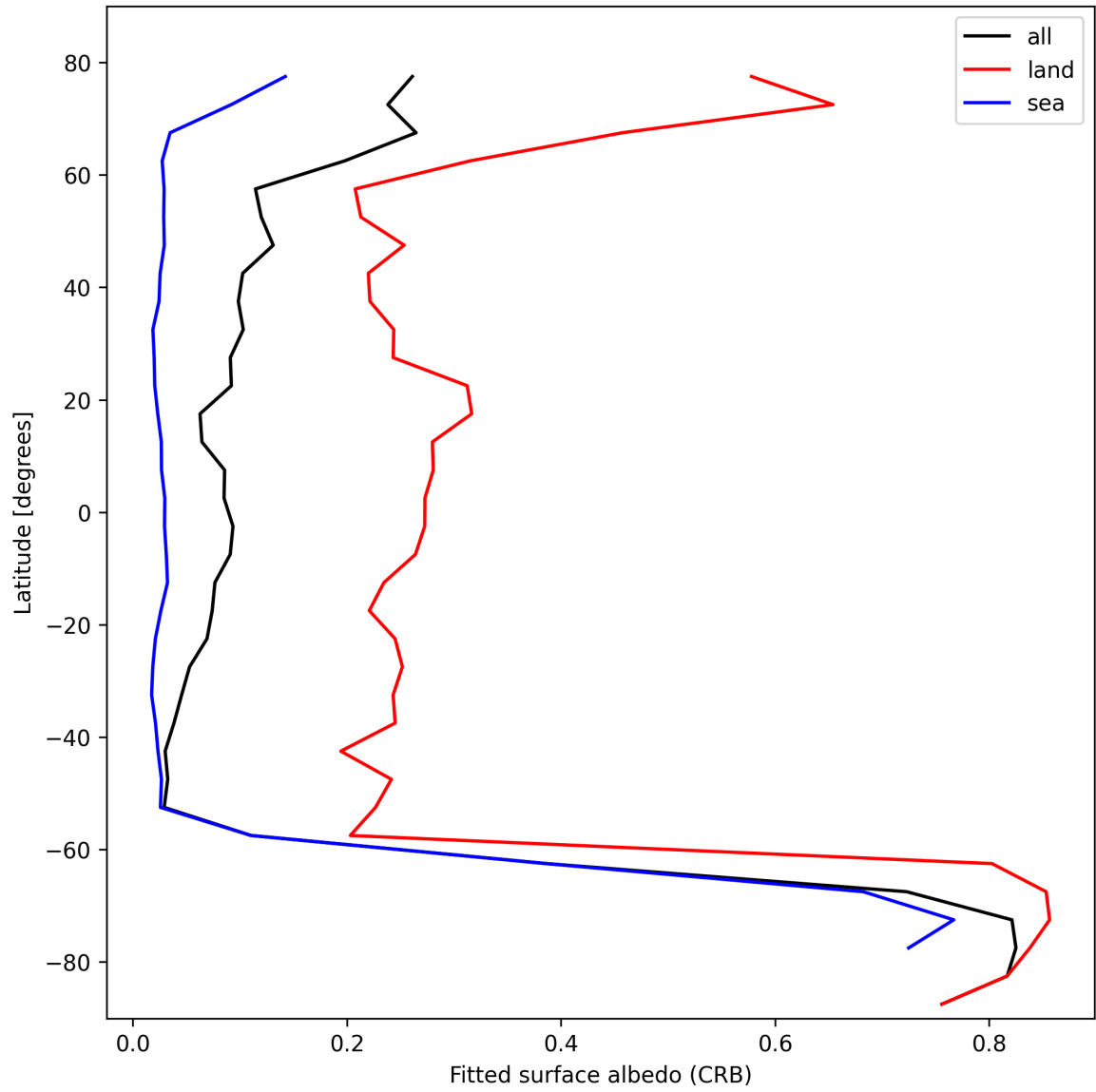


Figure 28: Zonal average of “Fitted surface albedo (CRB)” for 2025-10-23 to 2025-10-24.

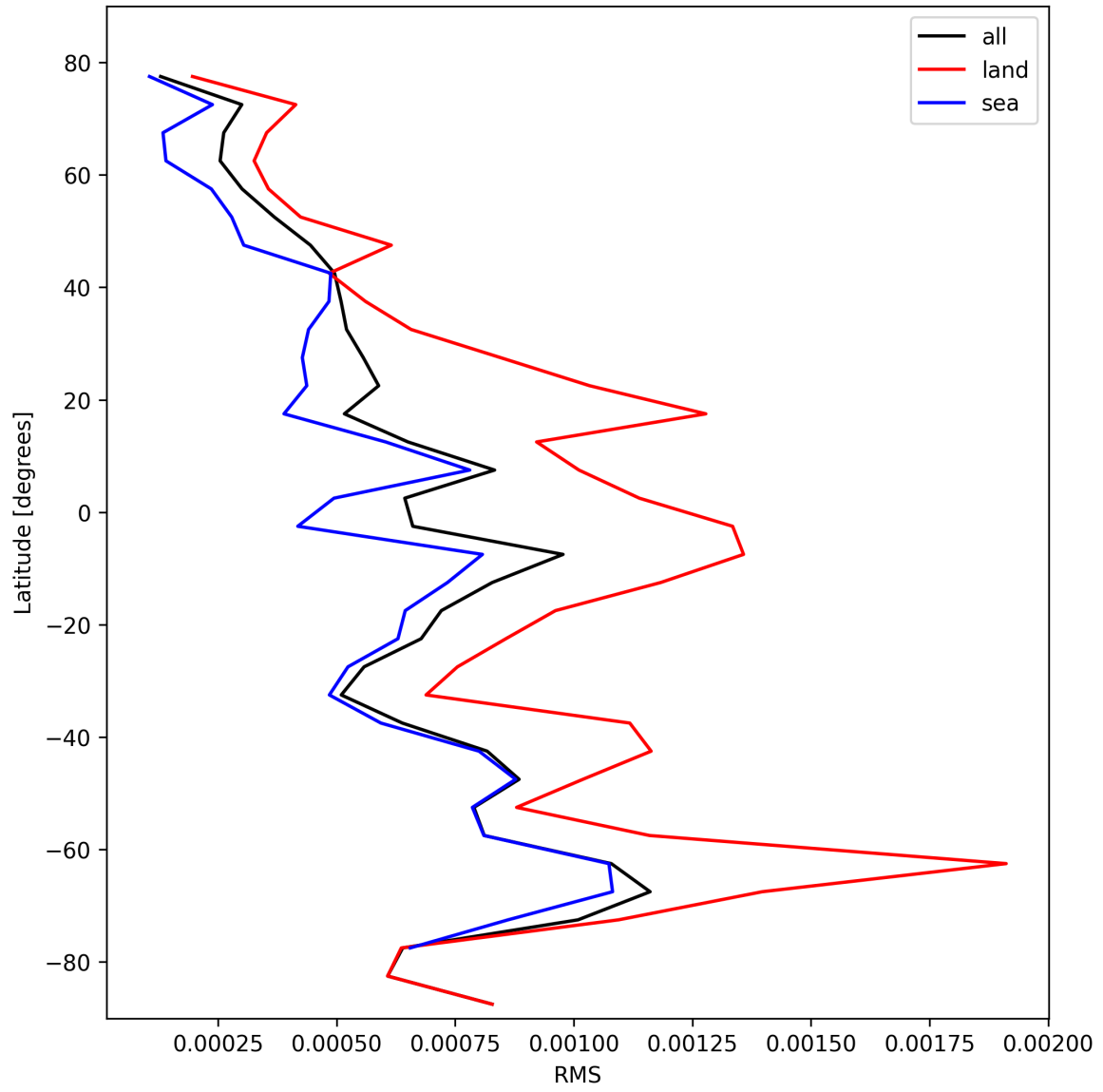


Figure 29: Zonal average of “RMS” for 2025-10-23 to 2025-10-24.

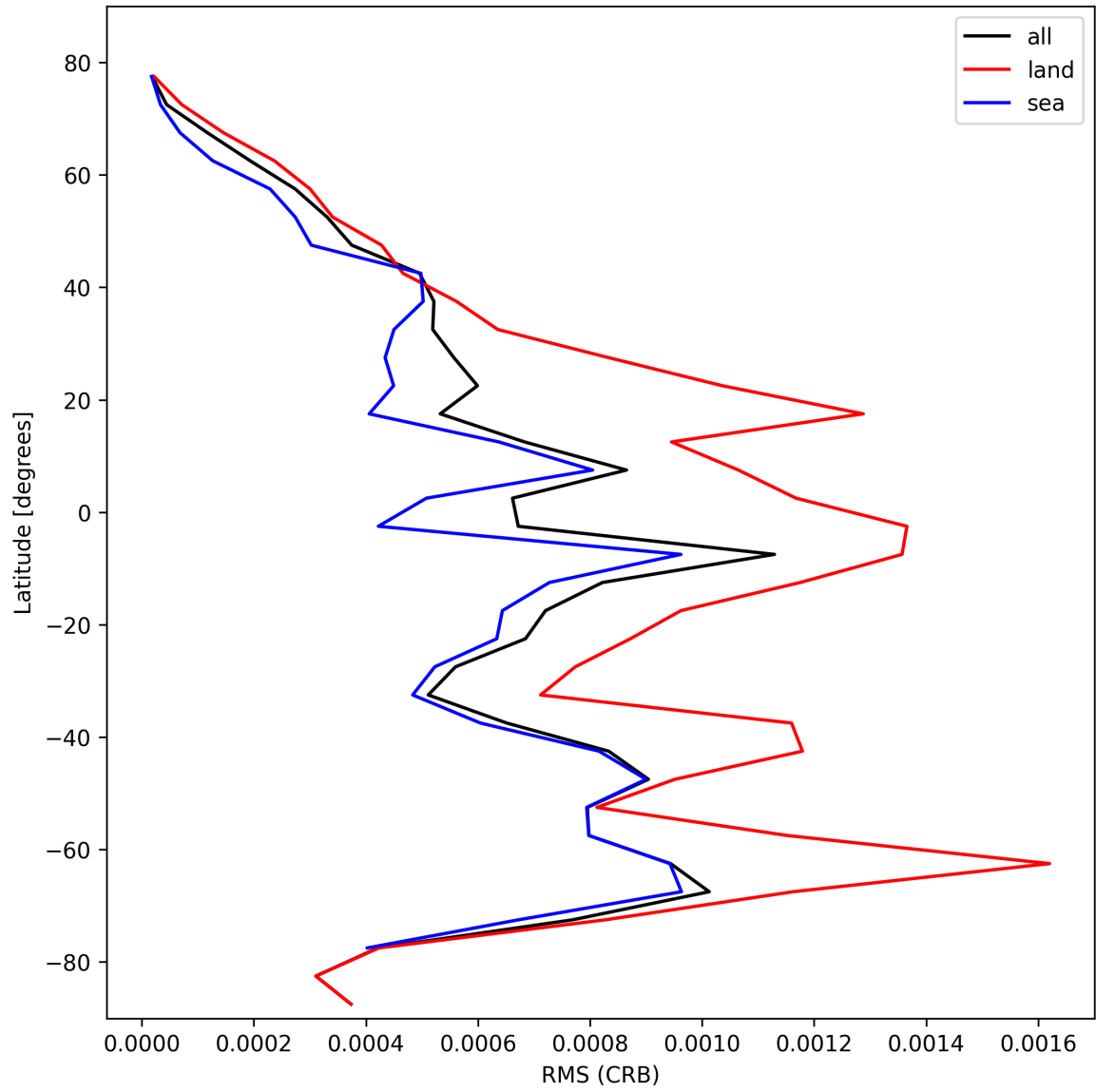


Figure 30: Zonal average of “RMS (CRB)” for 2025-10-23 to 2025-10-24.

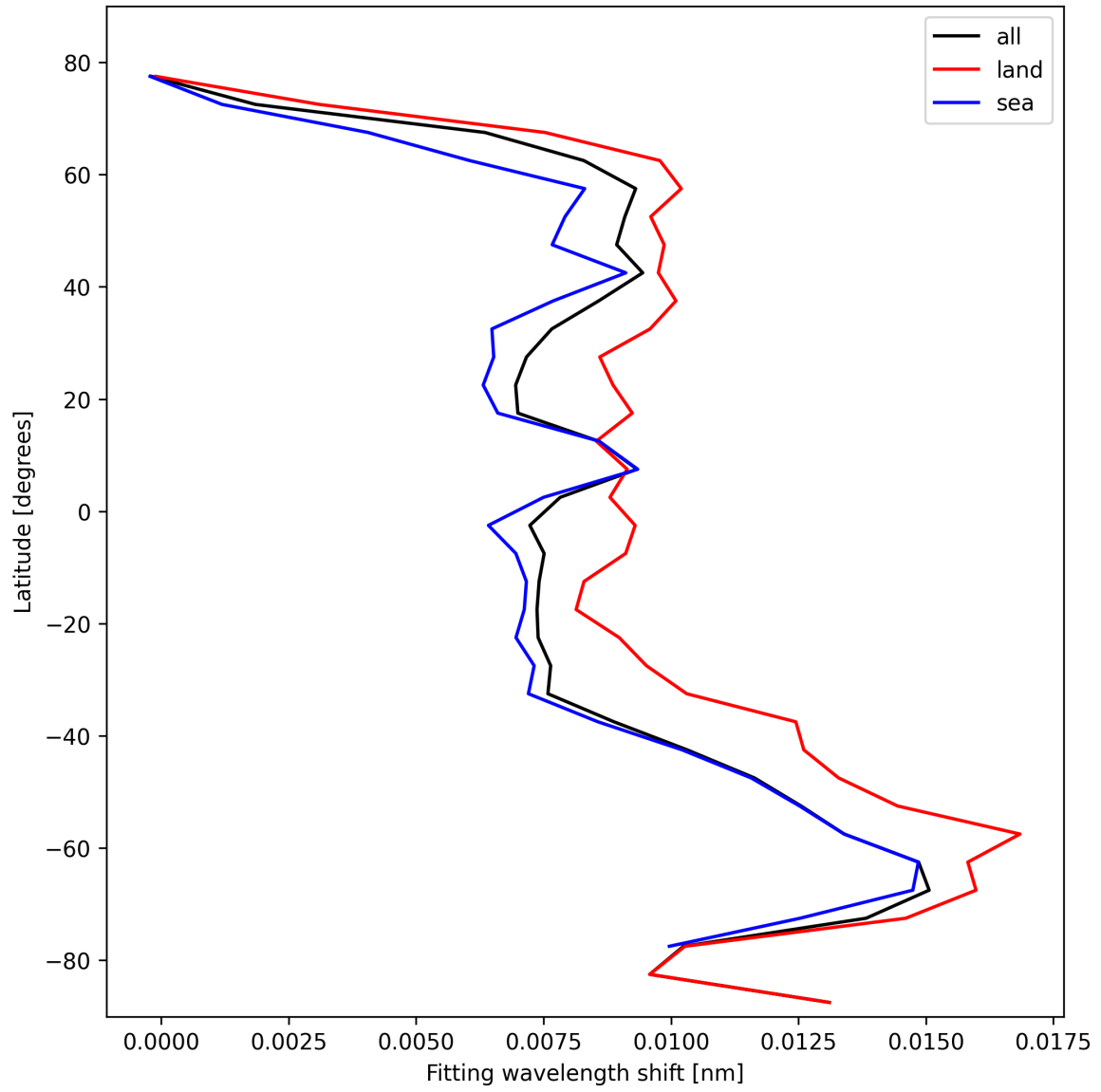


Figure 31: Zonal average of “Fitting wavelength shift” for 2025-10-23 to 2025-10-24.

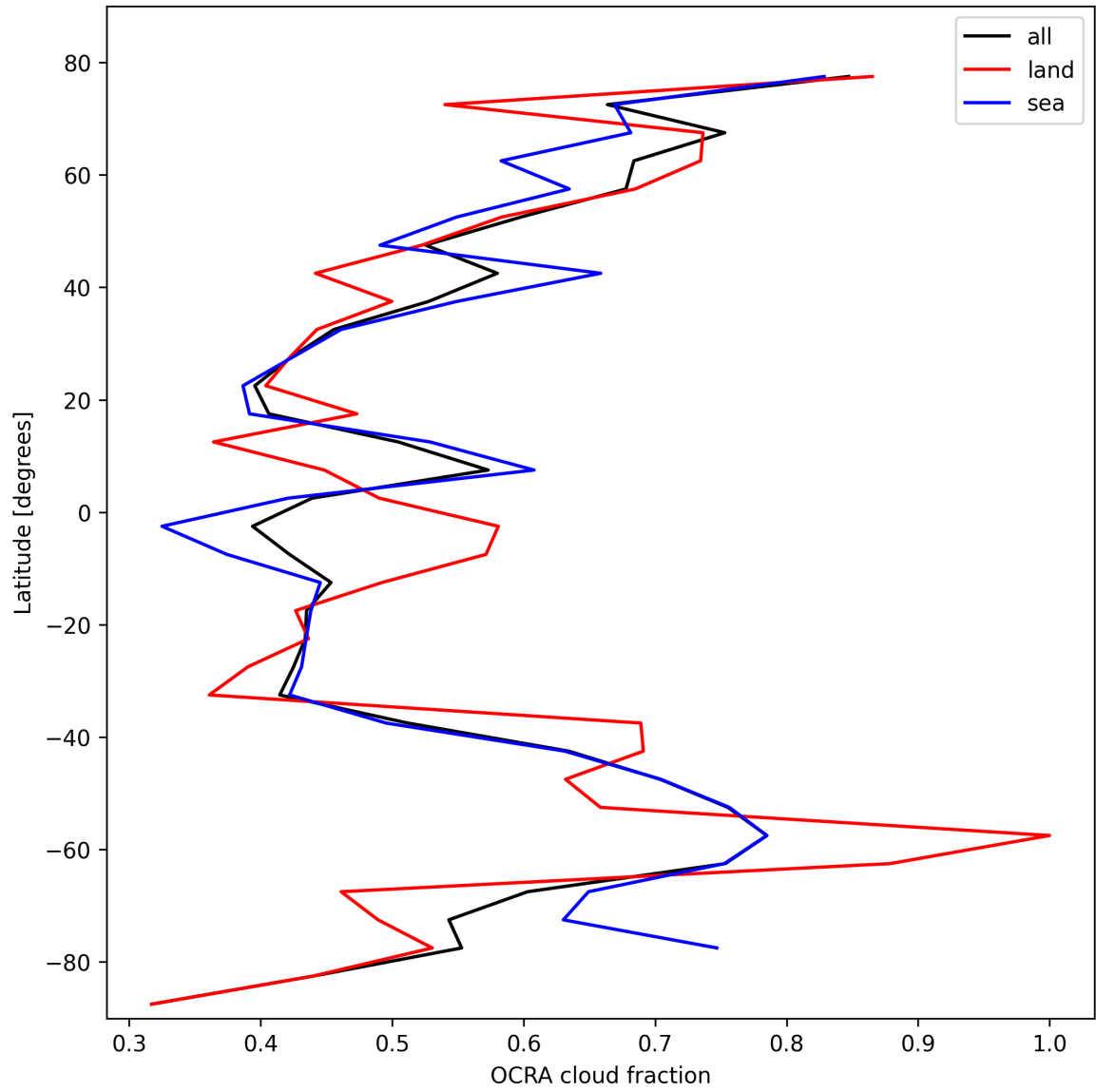


Figure 32: Zonal average of “OCRA cloud fraction” for 2025-10-23 to 2025-10-24.

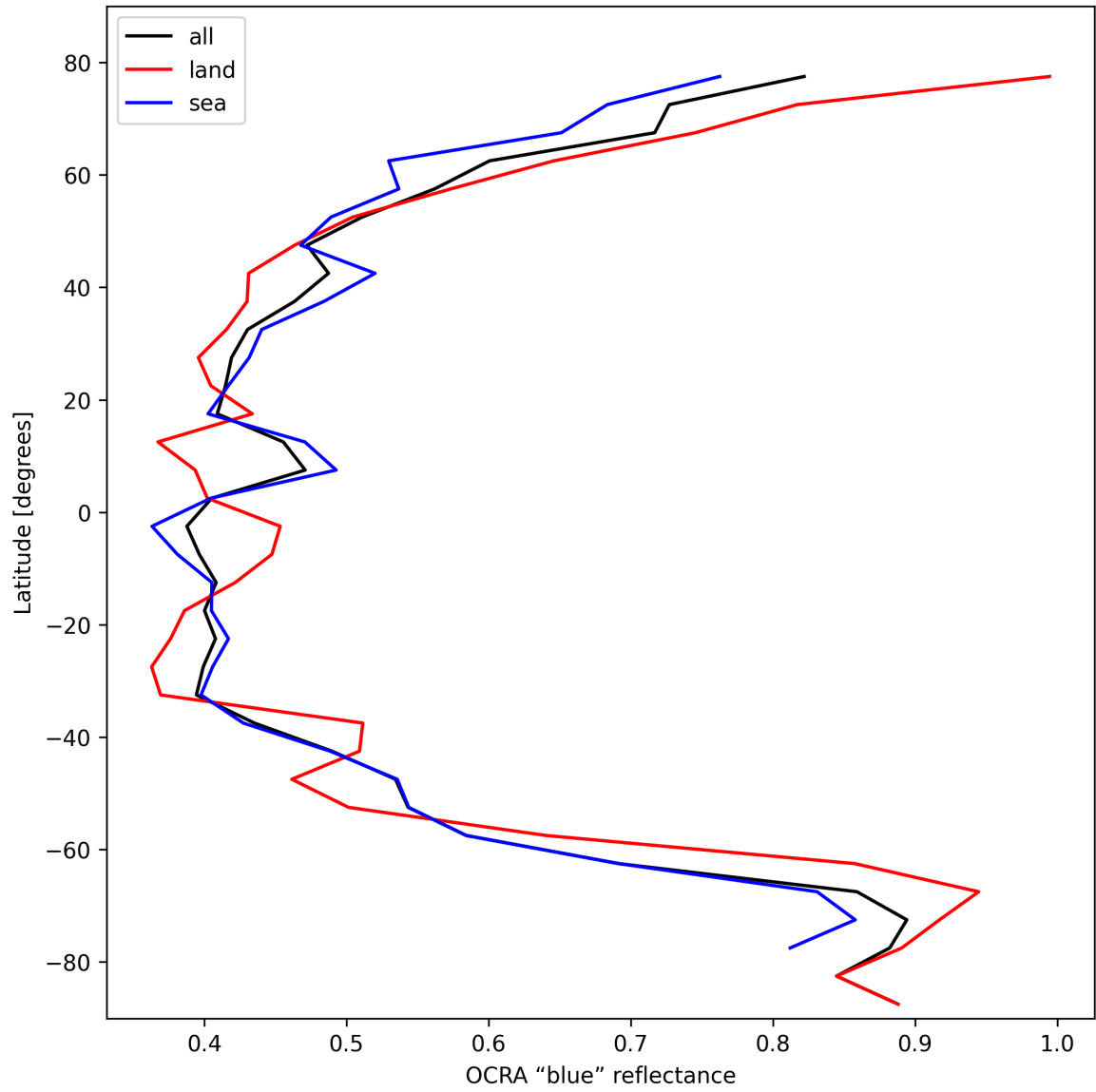


Figure 33: Zonal average of “OCRA “blue” reflectance” for 2025-10-23 to 2025-10-24.

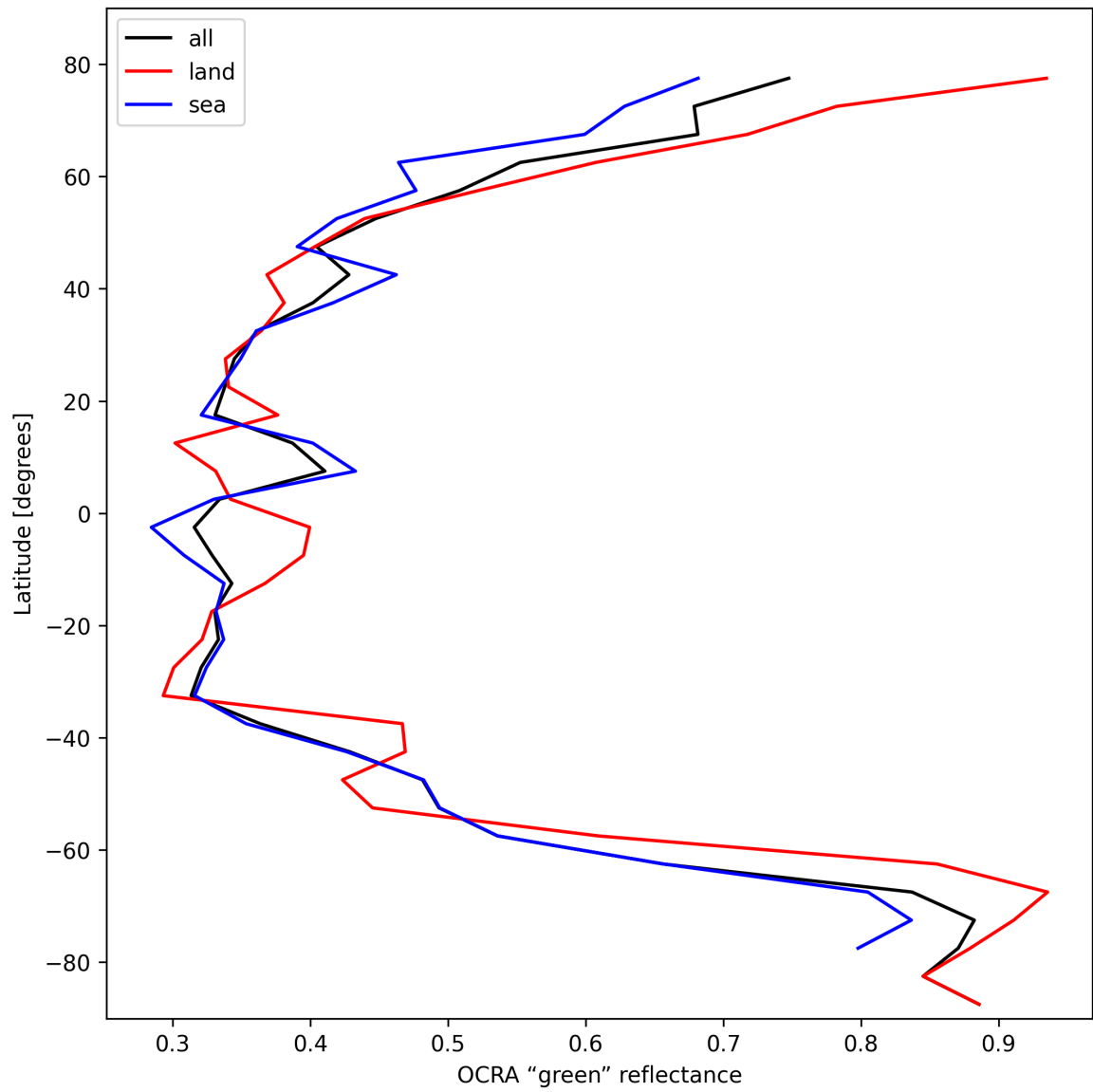


Figure 34: Zonal average of “OCRA “green” reflectance” for 2025-10-23 to 2025-10-24.

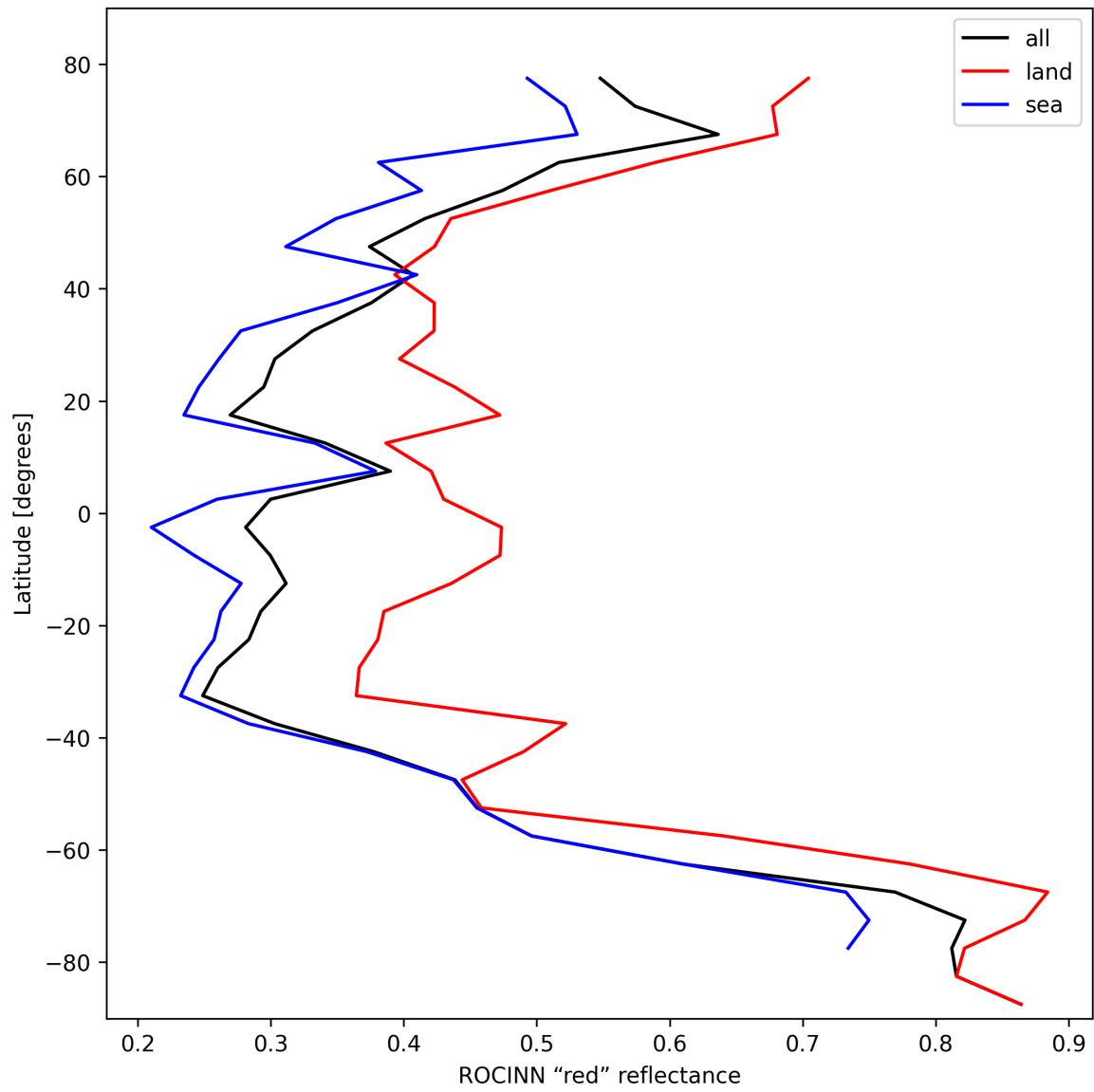


Figure 35: Zonal average of “ROCINN “red” reflectance” for 2025-10-23 to 2025-10-24.

8 Histograms

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

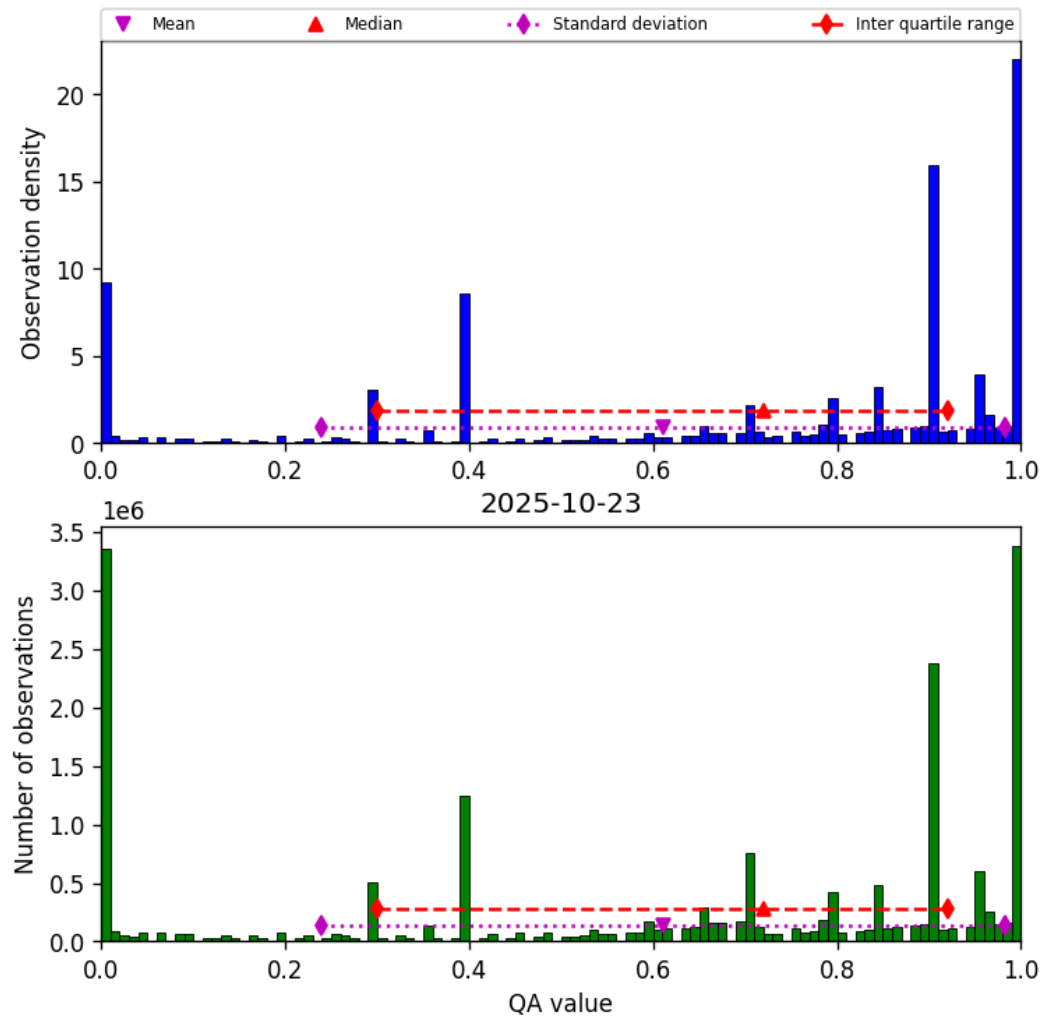


Figure 36: Histogram of “QA value” for 2025-10-23 to 2025-10-24

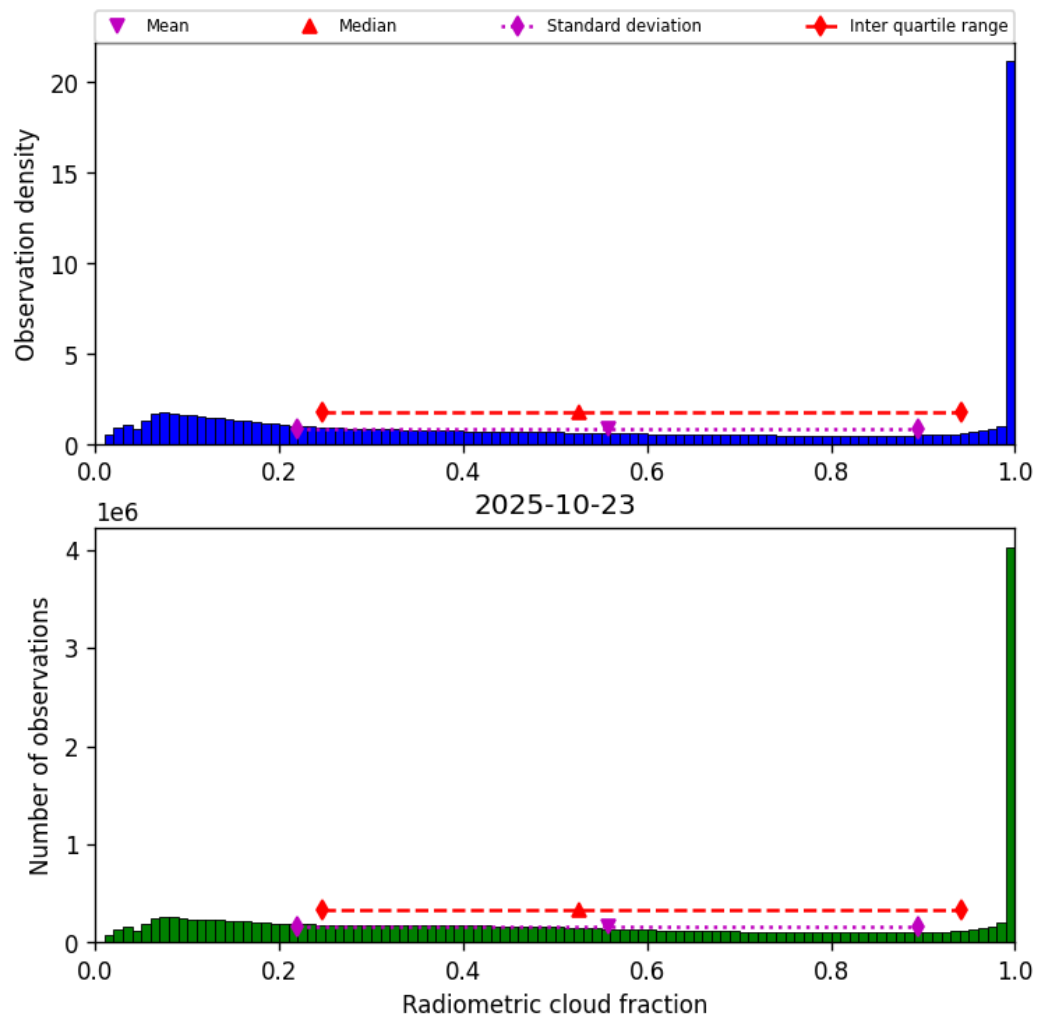


Figure 37: Histogram of “Radiometric cloud fraction” for 2025-10-23 to 2025-10-24

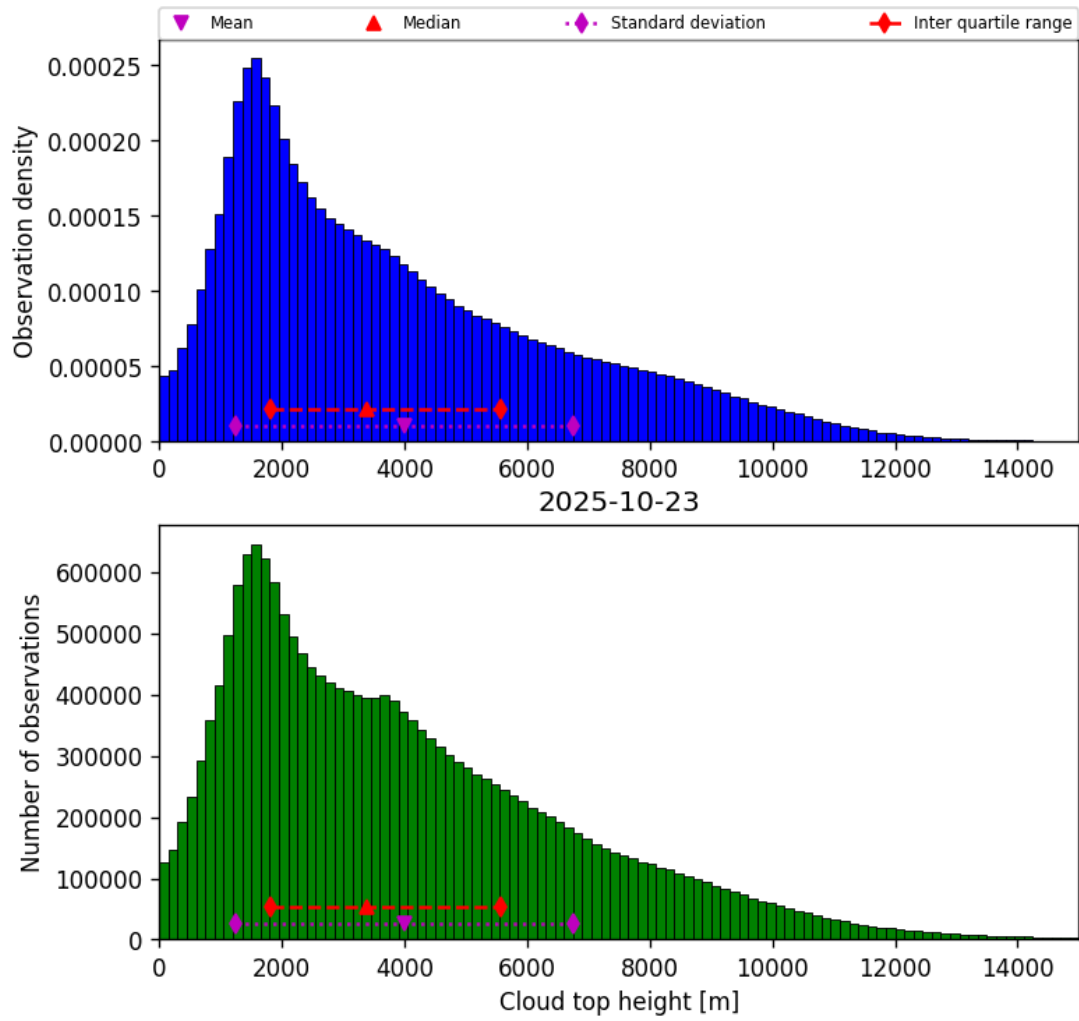


Figure 38: Histogram of “Cloud top height” for 2025-10-23 to 2025-10-24

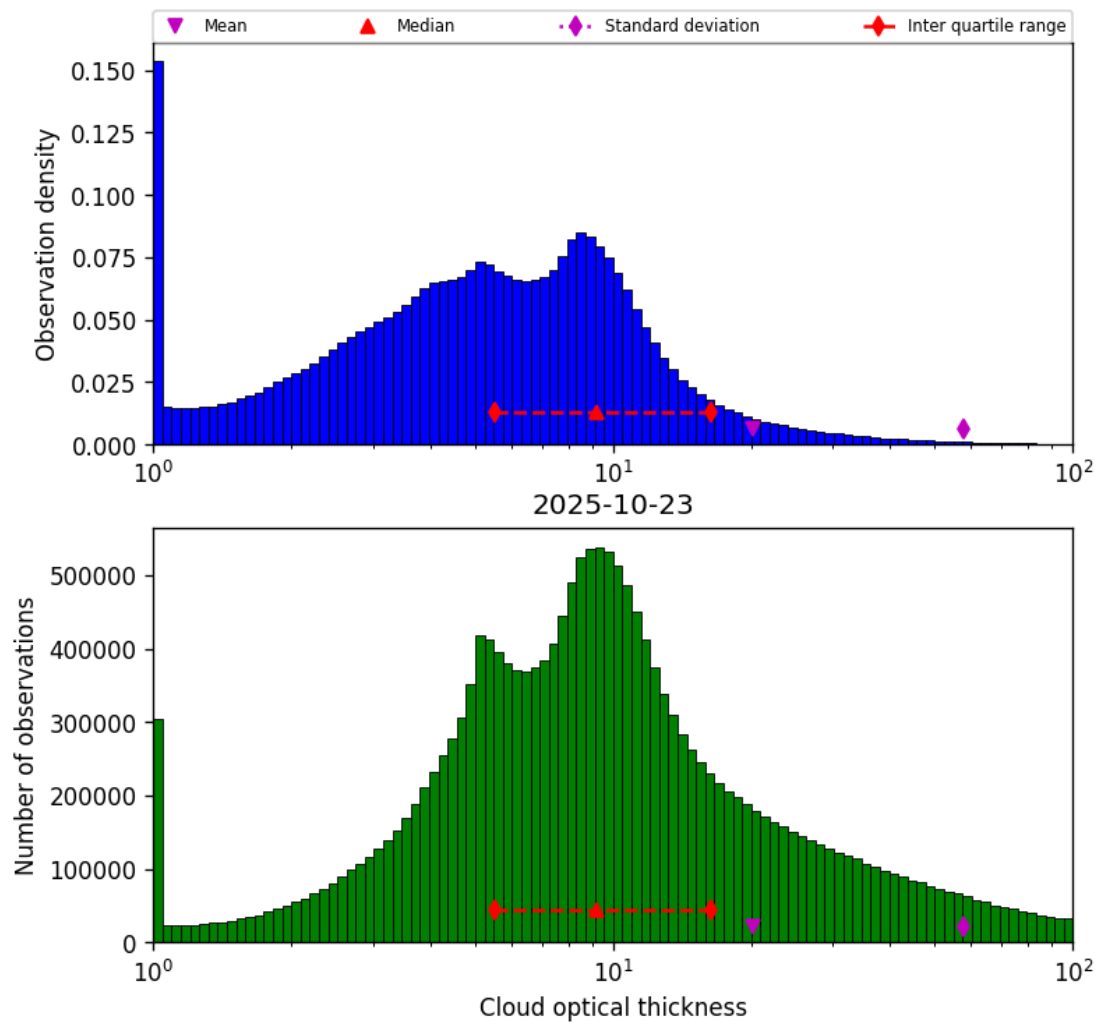


Figure 39: Histogram of “Cloud optical thickness” for 2025-10-23 to 2025-10-24

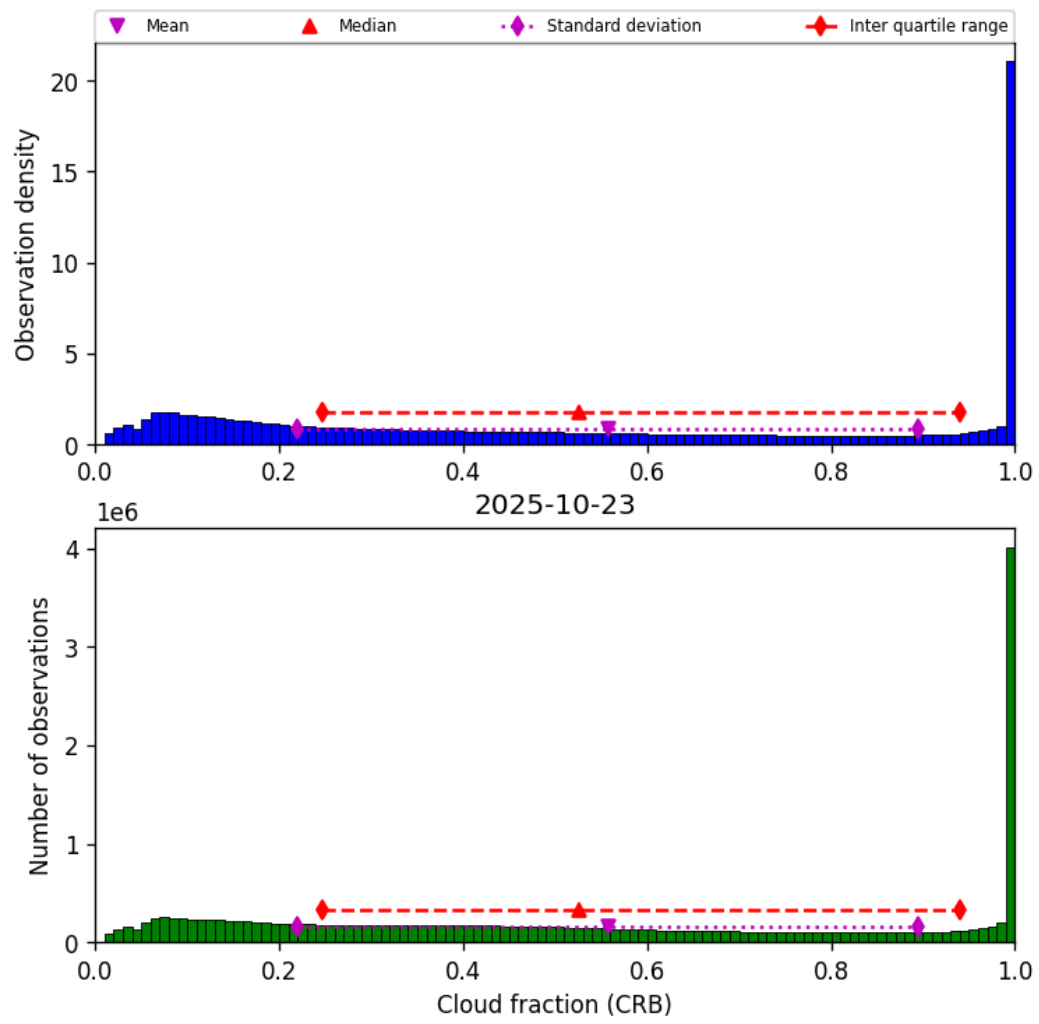


Figure 40: Histogram of “Cloud fraction (CRB)” for 2025-10-23 to 2025-10-24

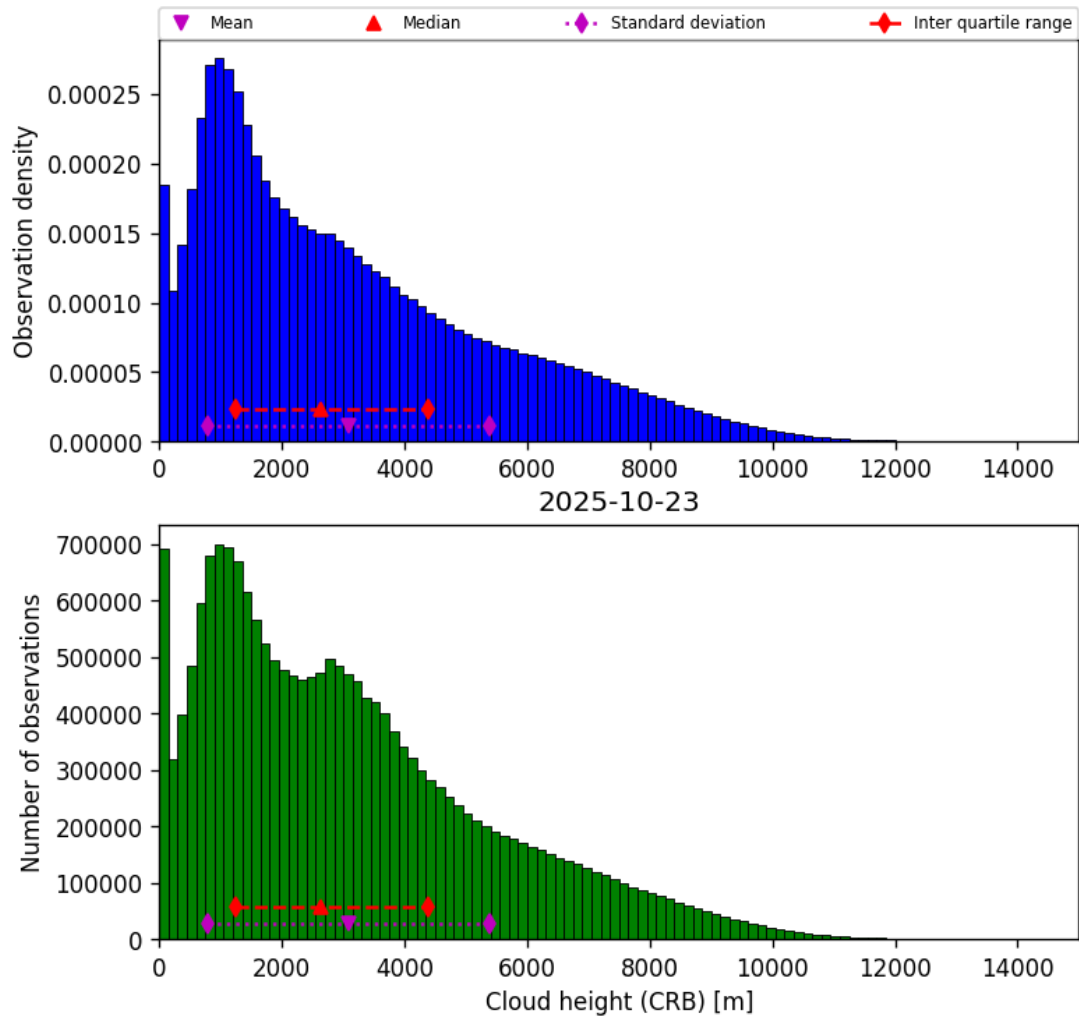


Figure 41: Histogram of “Cloud height (CRB)” for 2025-10-23 to 2025-10-24

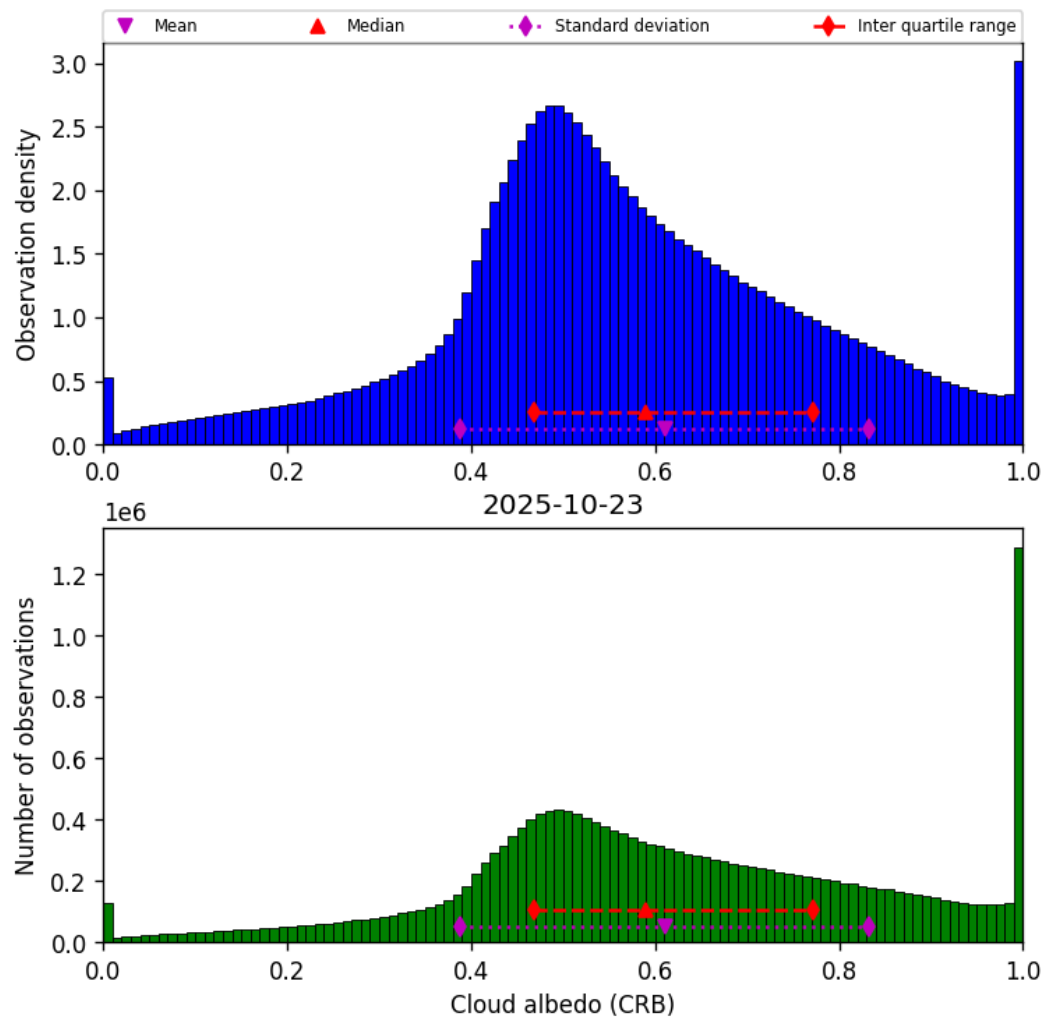


Figure 42: Histogram of “Cloud albedo (CRB)” for 2025-10-23 to 2025-10-24

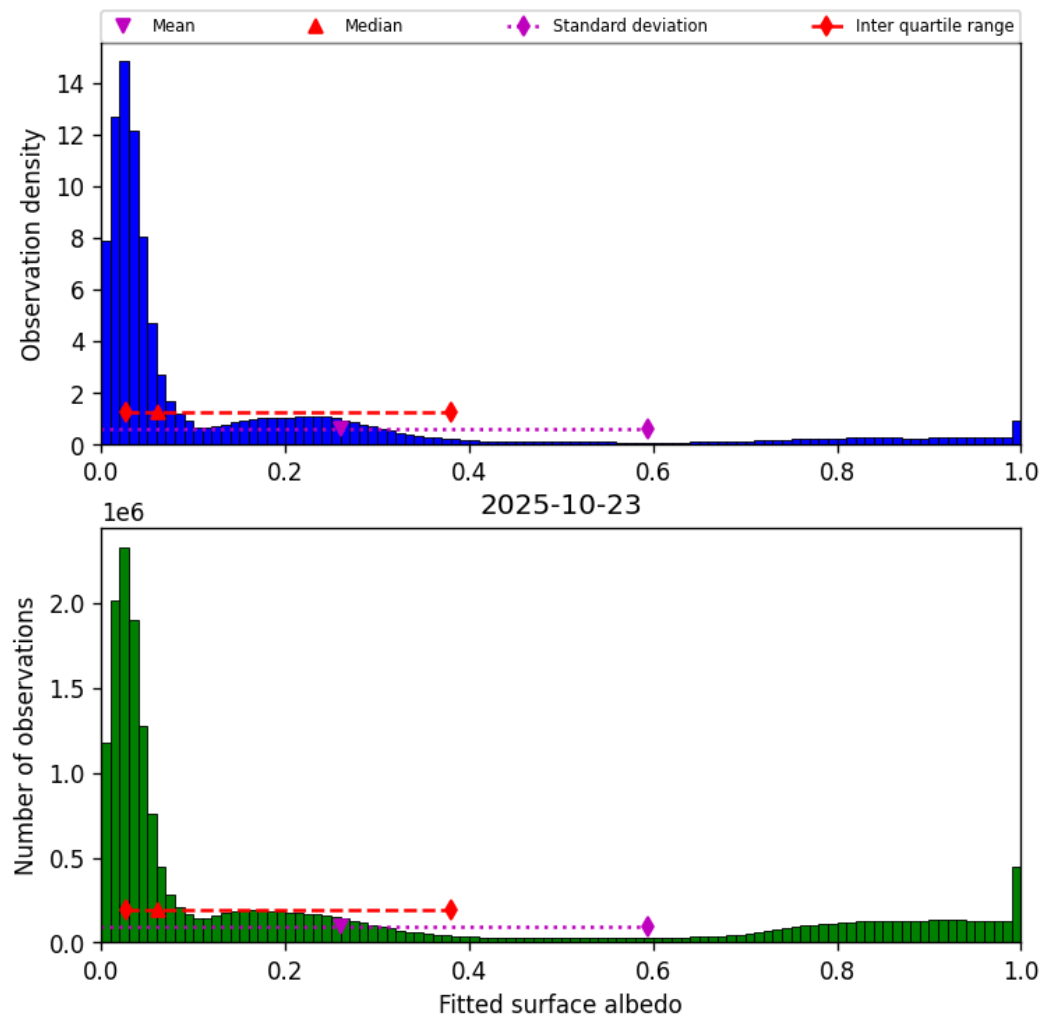


Figure 43: Histogram of “Fitted surface albedo” for 2025-10-23 to 2025-10-24

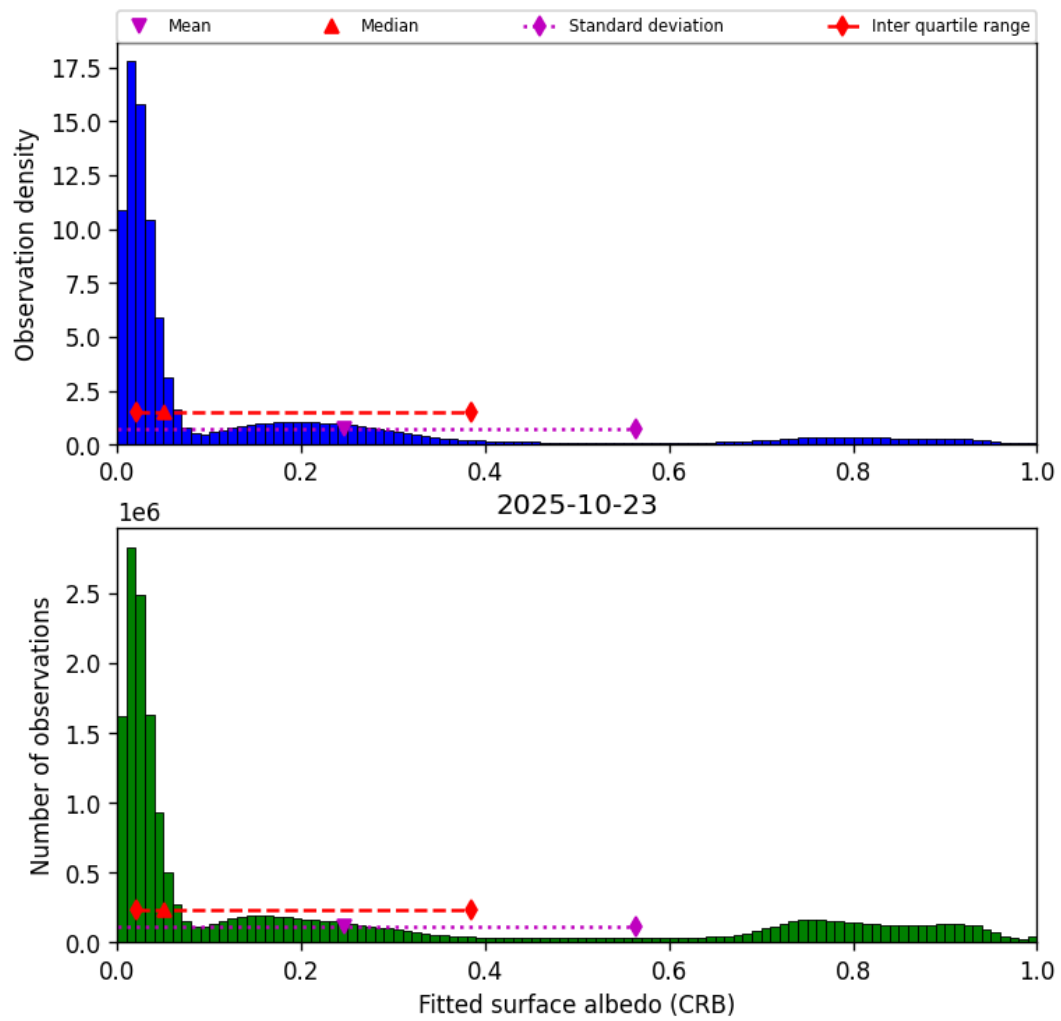


Figure 44: Histogram of “Fitted surface albedo (CRB)” for 2025-10-23 to 2025-10-24

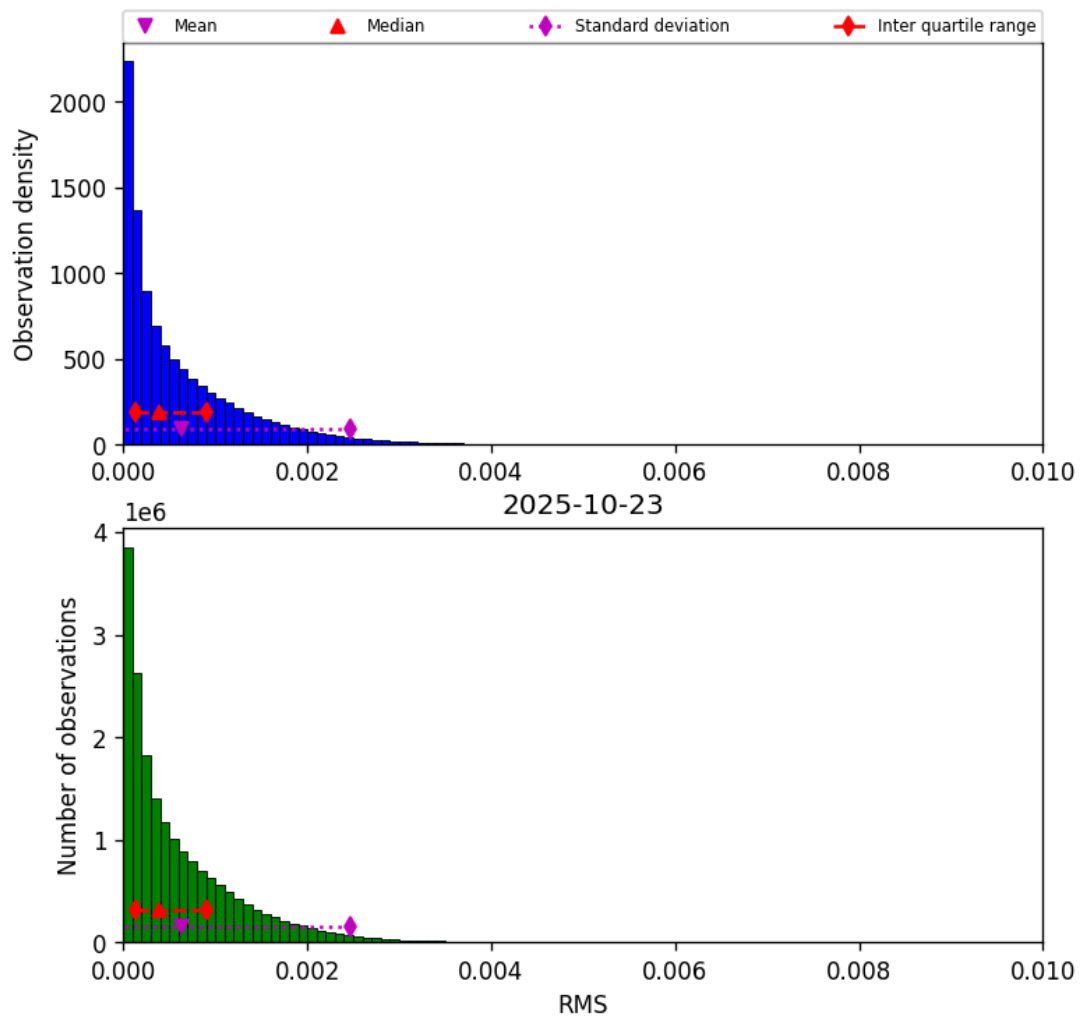


Figure 45: Histogram of “RMS” for 2025-10-23 to 2025-10-24

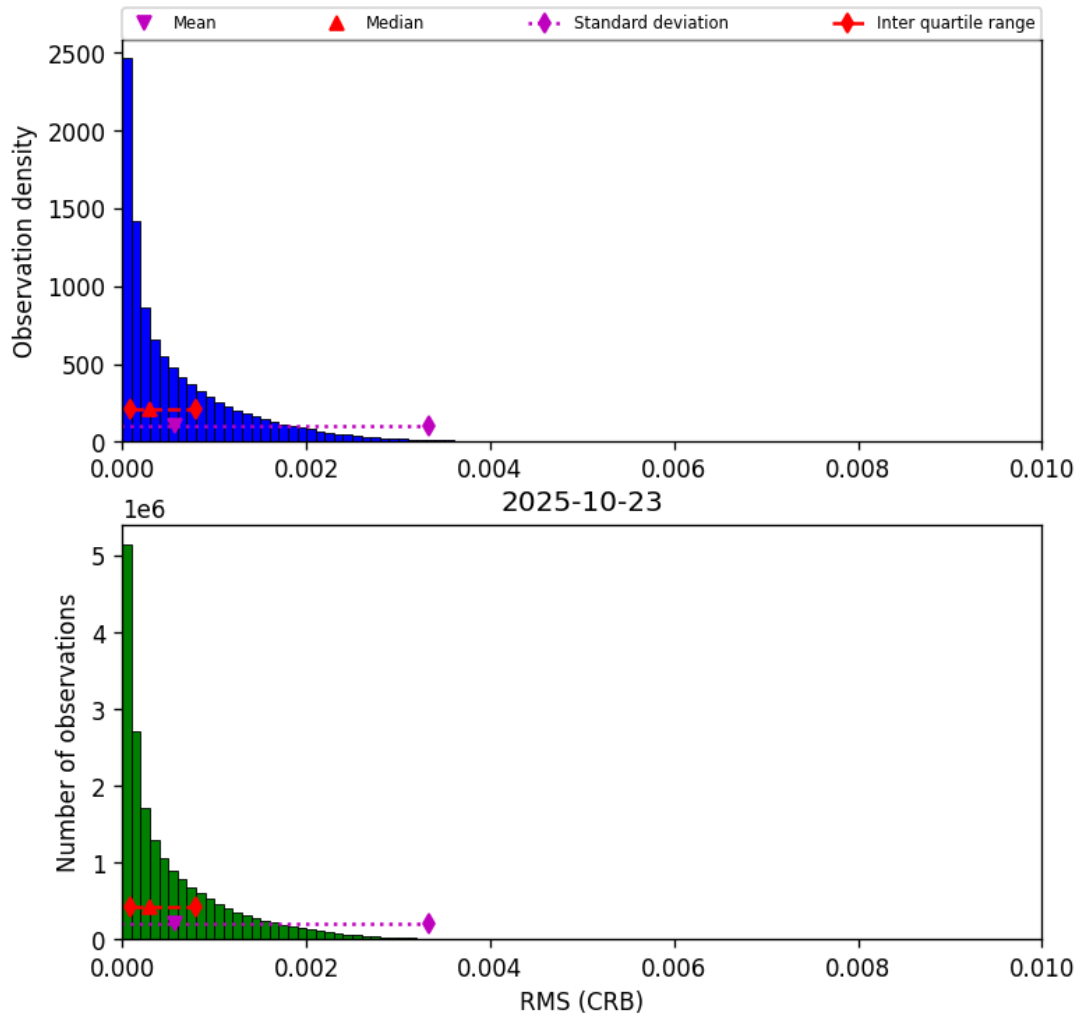


Figure 46: Histogram of "RMS (CRB)" for 2025-10-23 to 2025-10-24

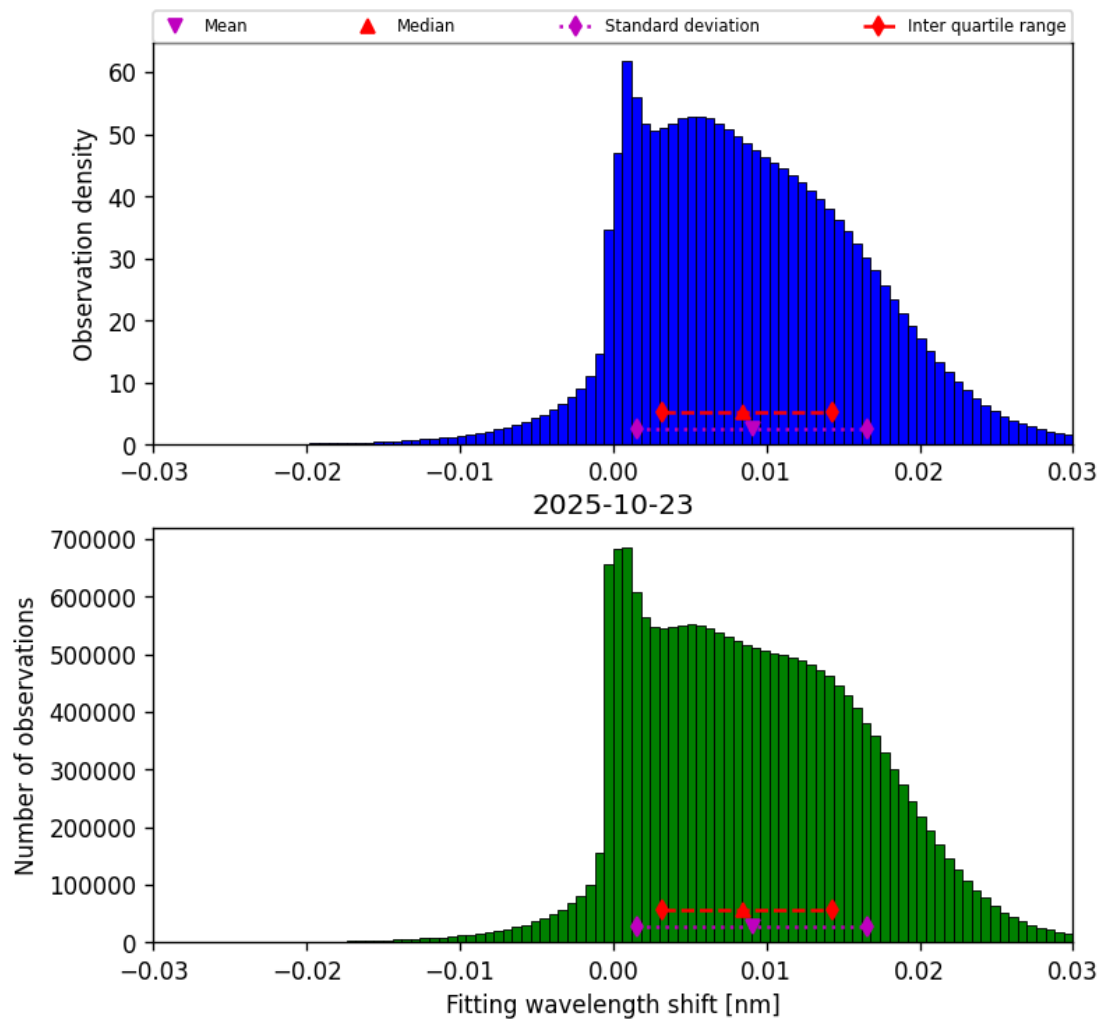


Figure 47: Histogram of “Fitting wavelength shift” for 2025-10-23 to 2025-10-24

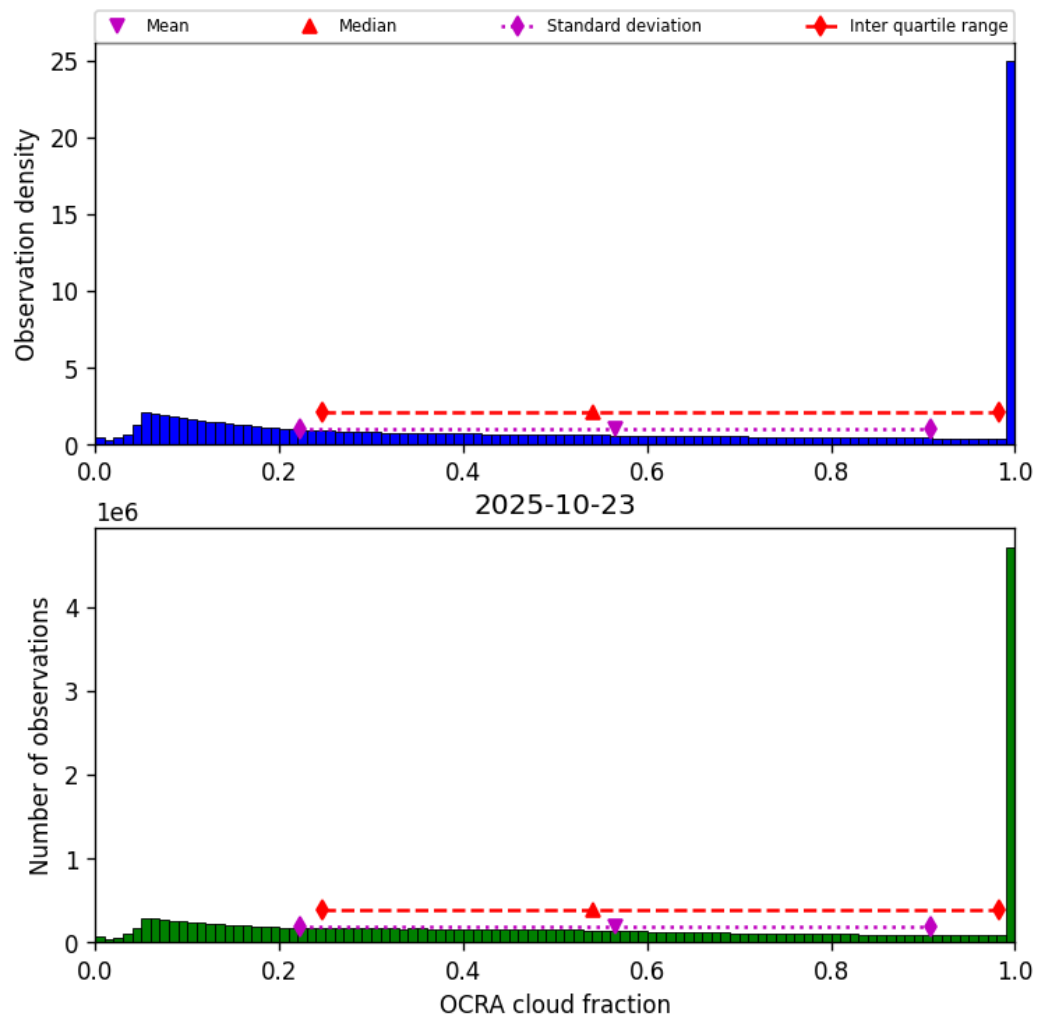


Figure 48: Histogram of “OCRA cloud fraction” for 2025-10-23 to 2025-10-24

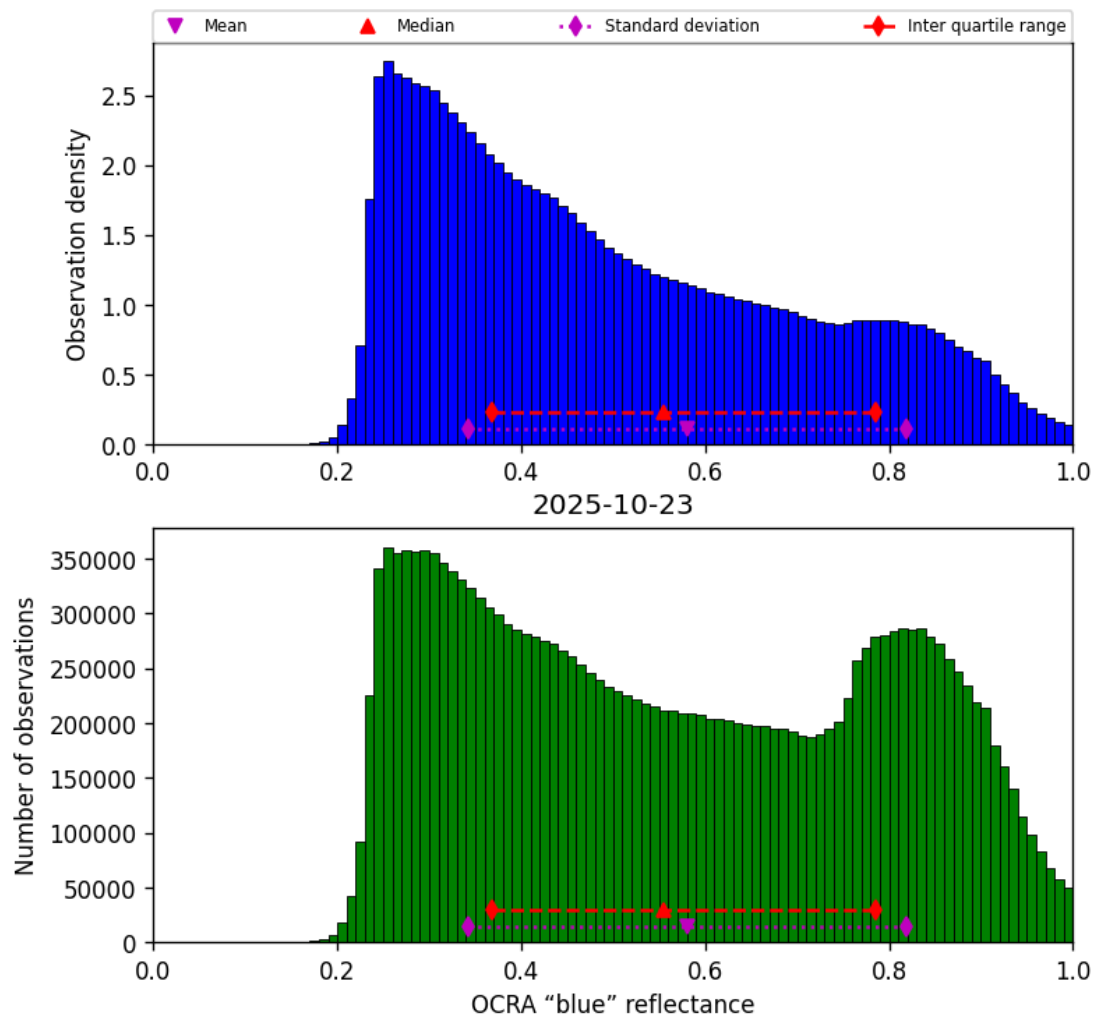


Figure 49: Histogram of “OCRA “blue” reflectance” for 2025-10-23 to 2025-10-24

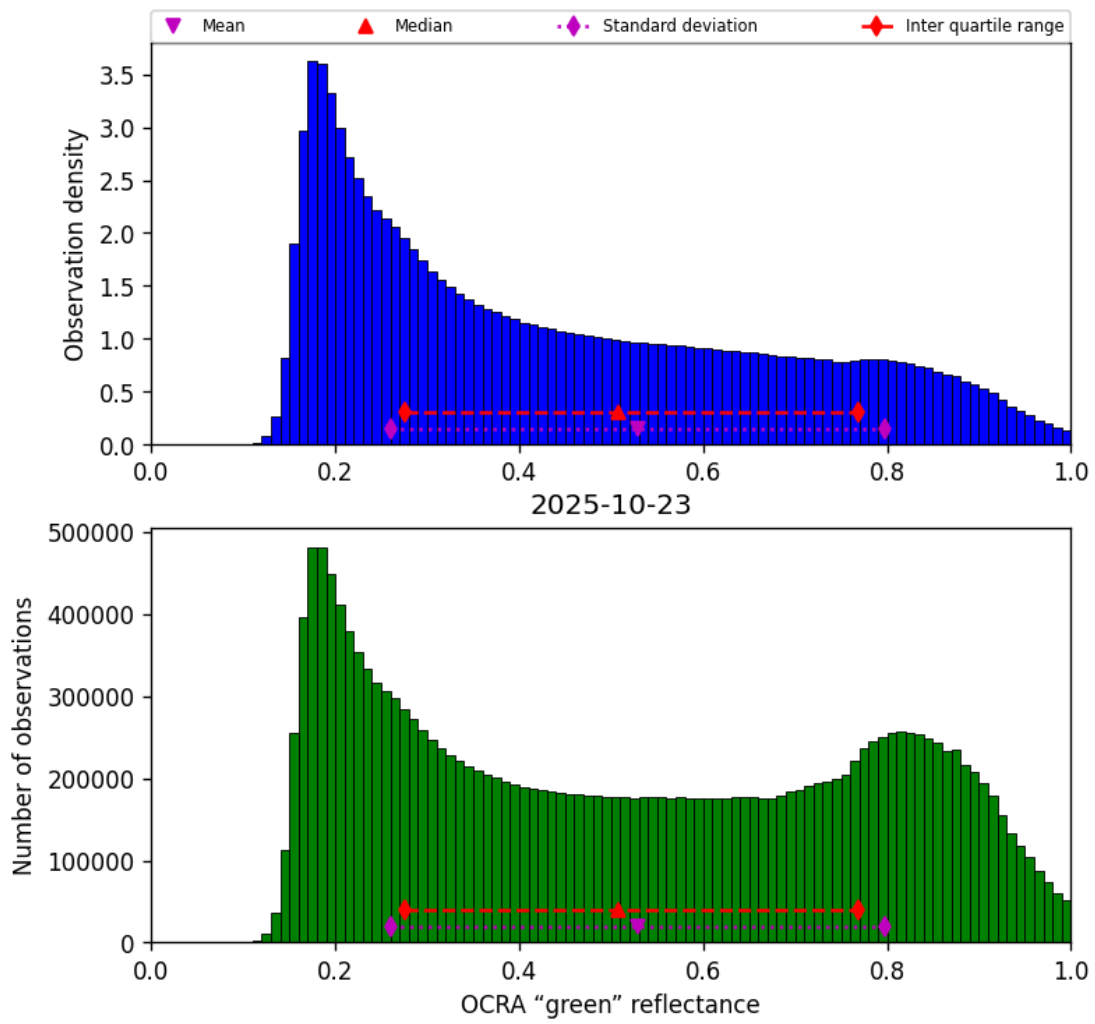


Figure 50: Histogram of “OCRA “green” reflectance” for 2025-10-23 to 2025-10-24

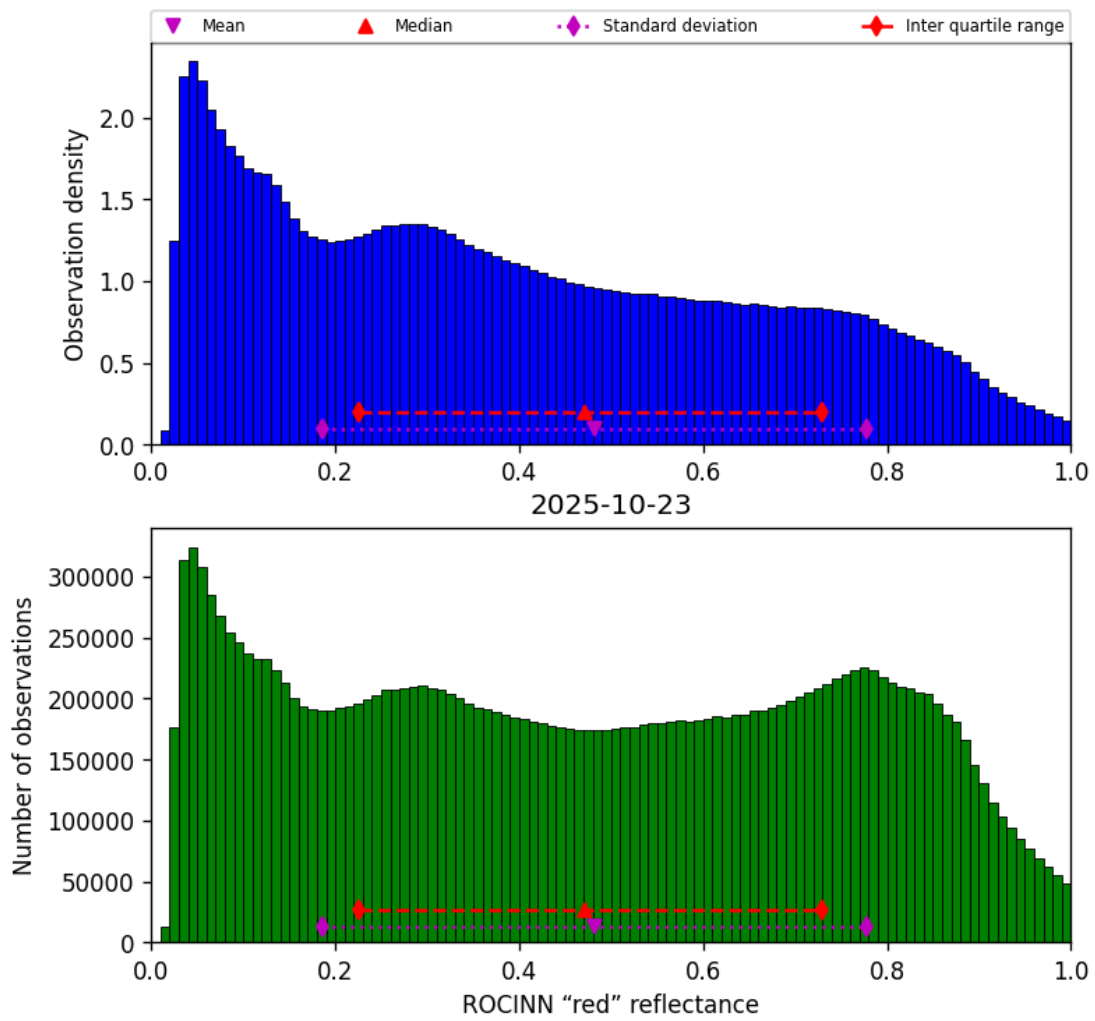


Figure 51: Histogram of “ROCINN “red” reflectance” for 2025-10-23 to 2025-10-24

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.

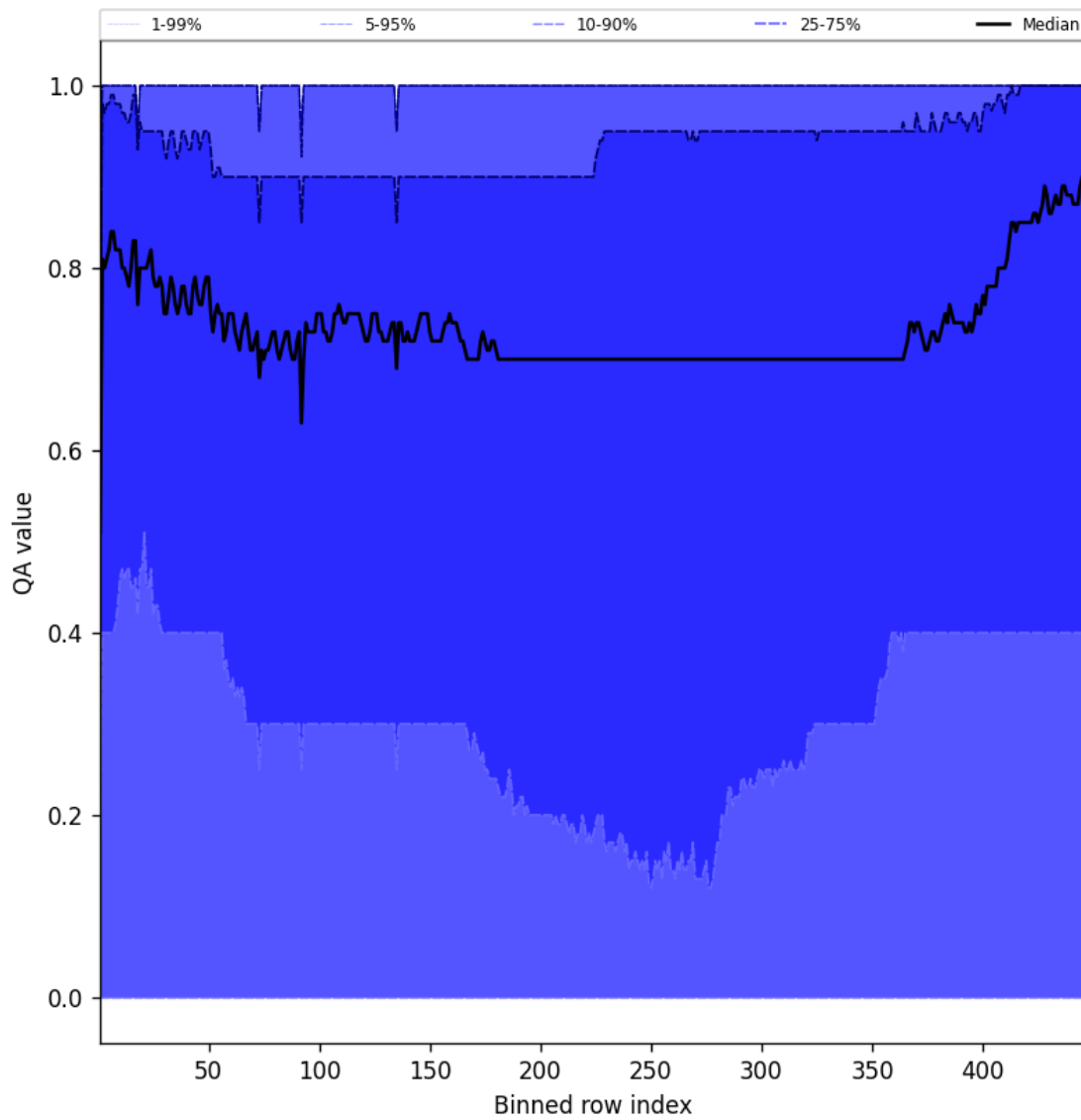


Figure 52: Along track statistics of “QA value” for 2025-10-23 to 2025-10-24

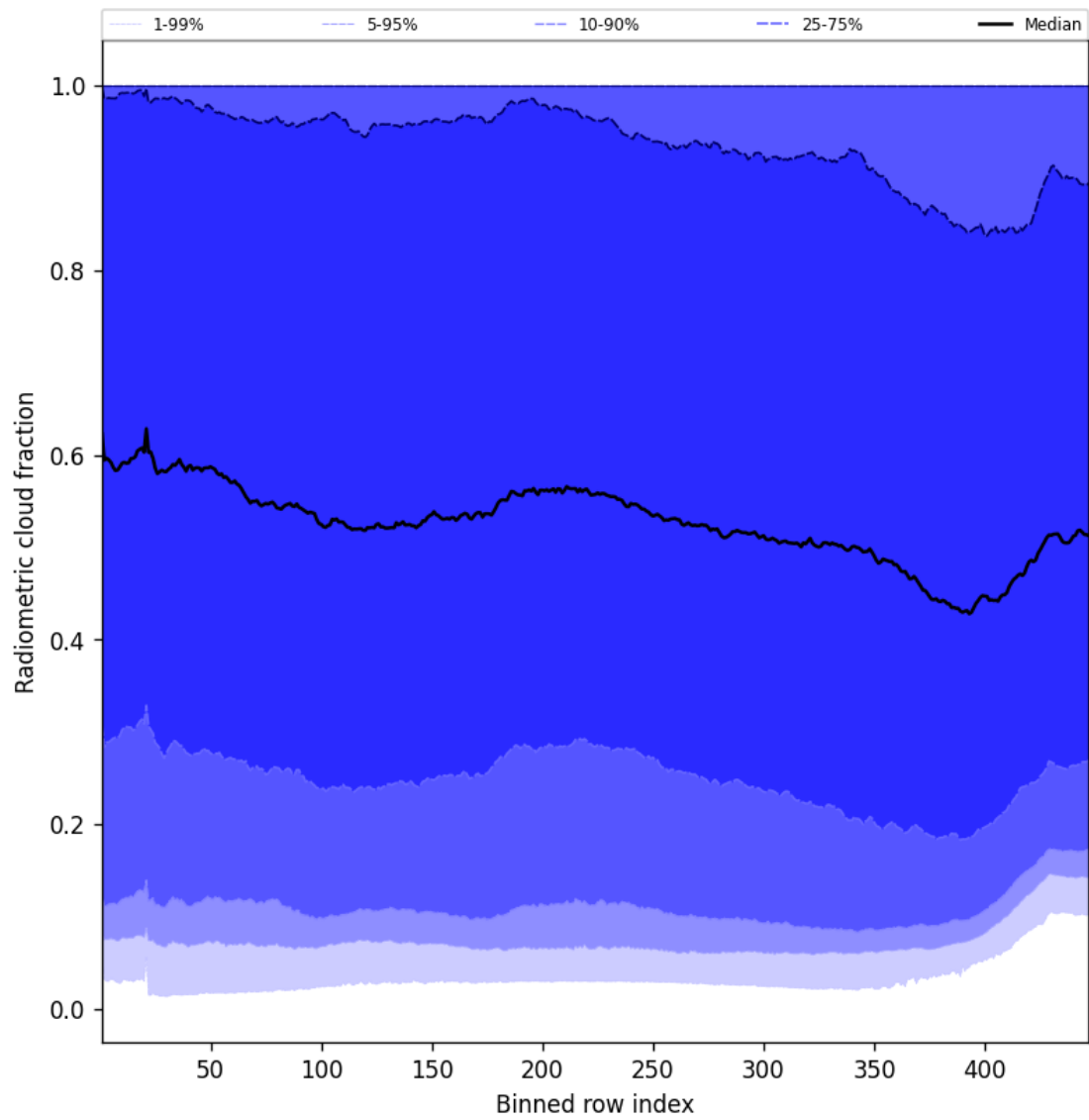


Figure 53: Along track statistics of “Radiometric cloud fraction” for 2025-10-23 to 2025-10-24

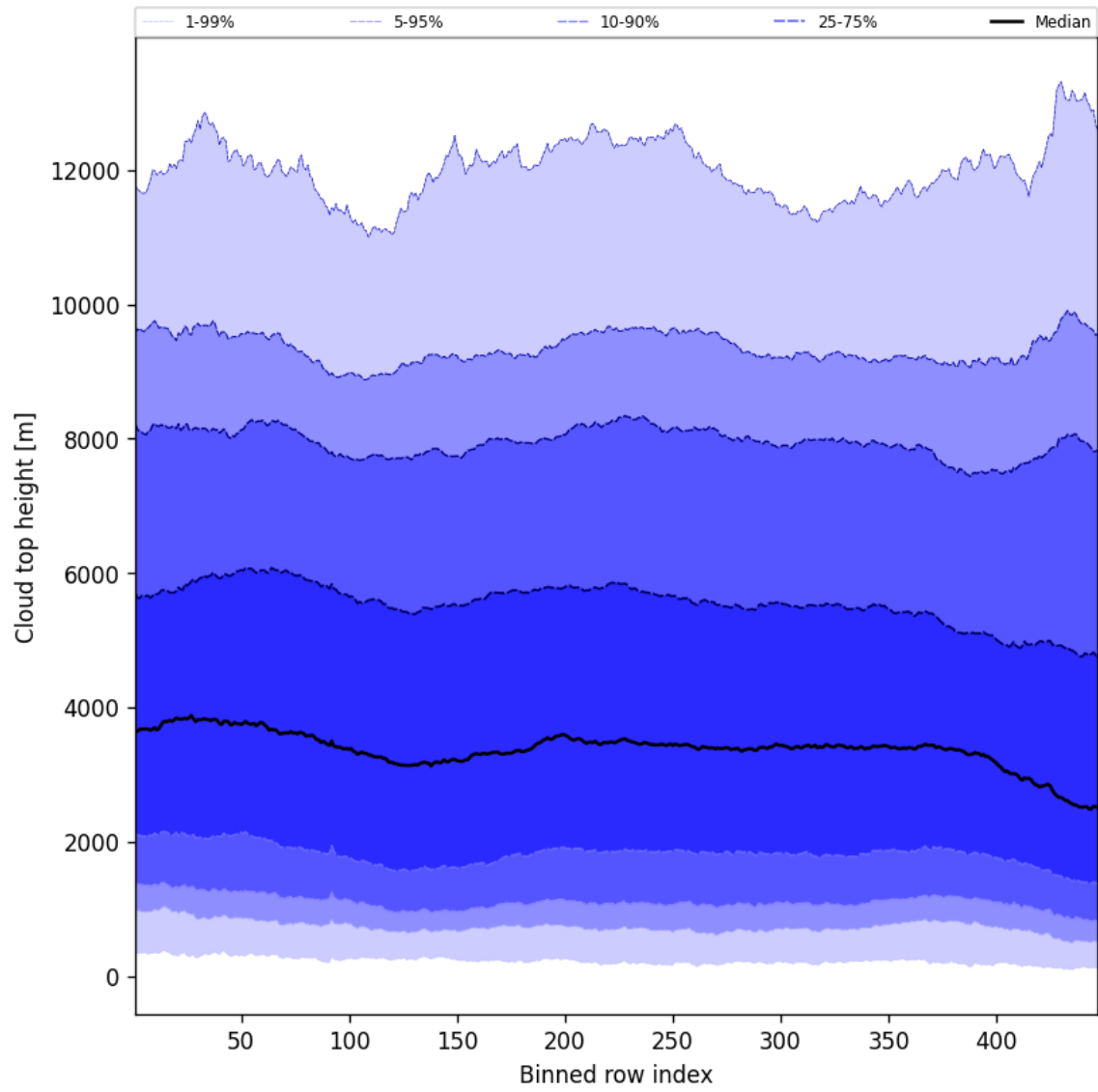


Figure 54: Along track statistics of “Cloud top height” for 2025-10-23 to 2025-10-24

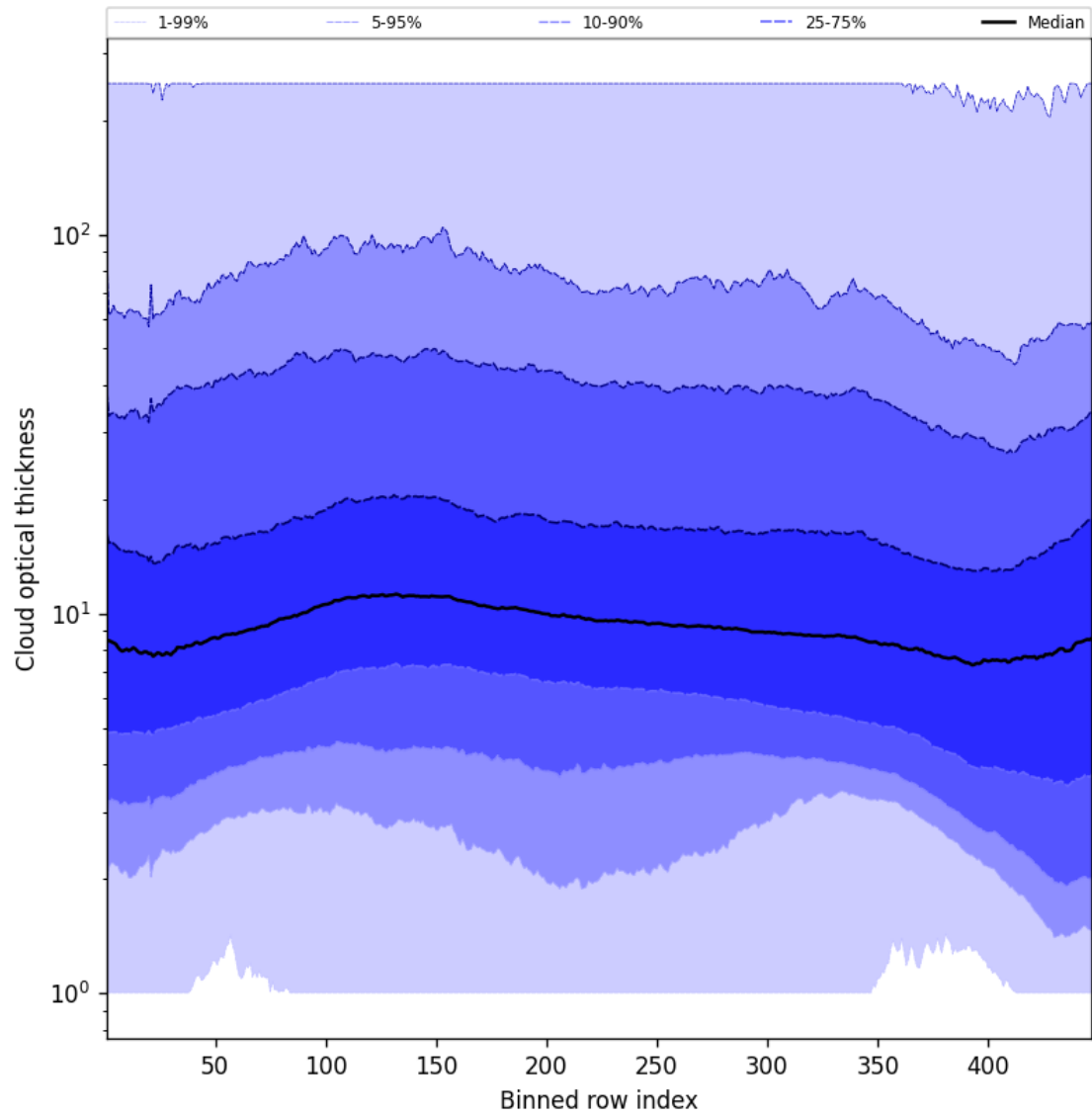


Figure 55: Along track statistics of “Cloud optical thickness” for 2025-10-23 to 2025-10-24

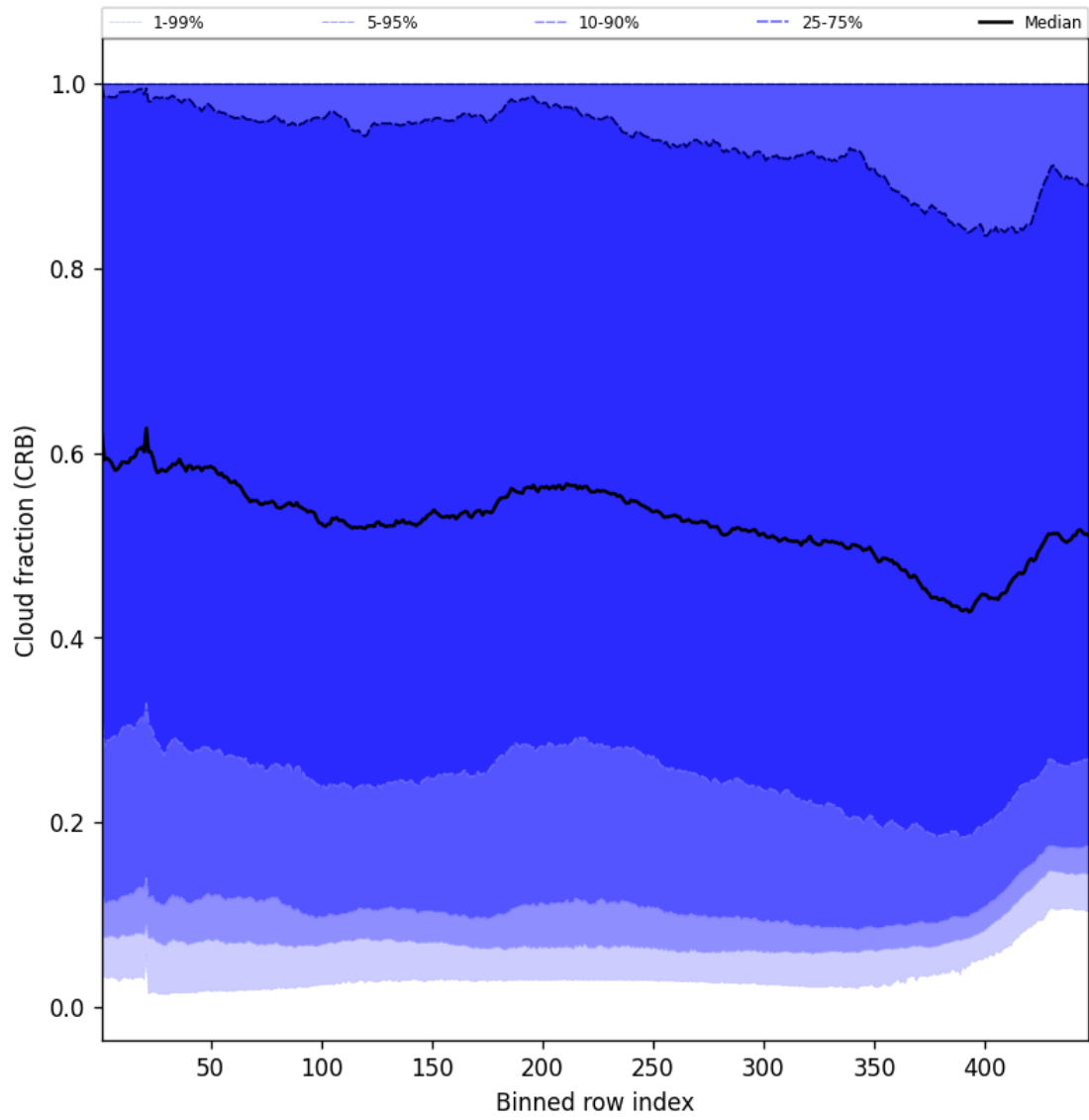


Figure 56: Along track statistics of “Cloud fraction (CRB)” for 2025-10-23 to 2025-10-24

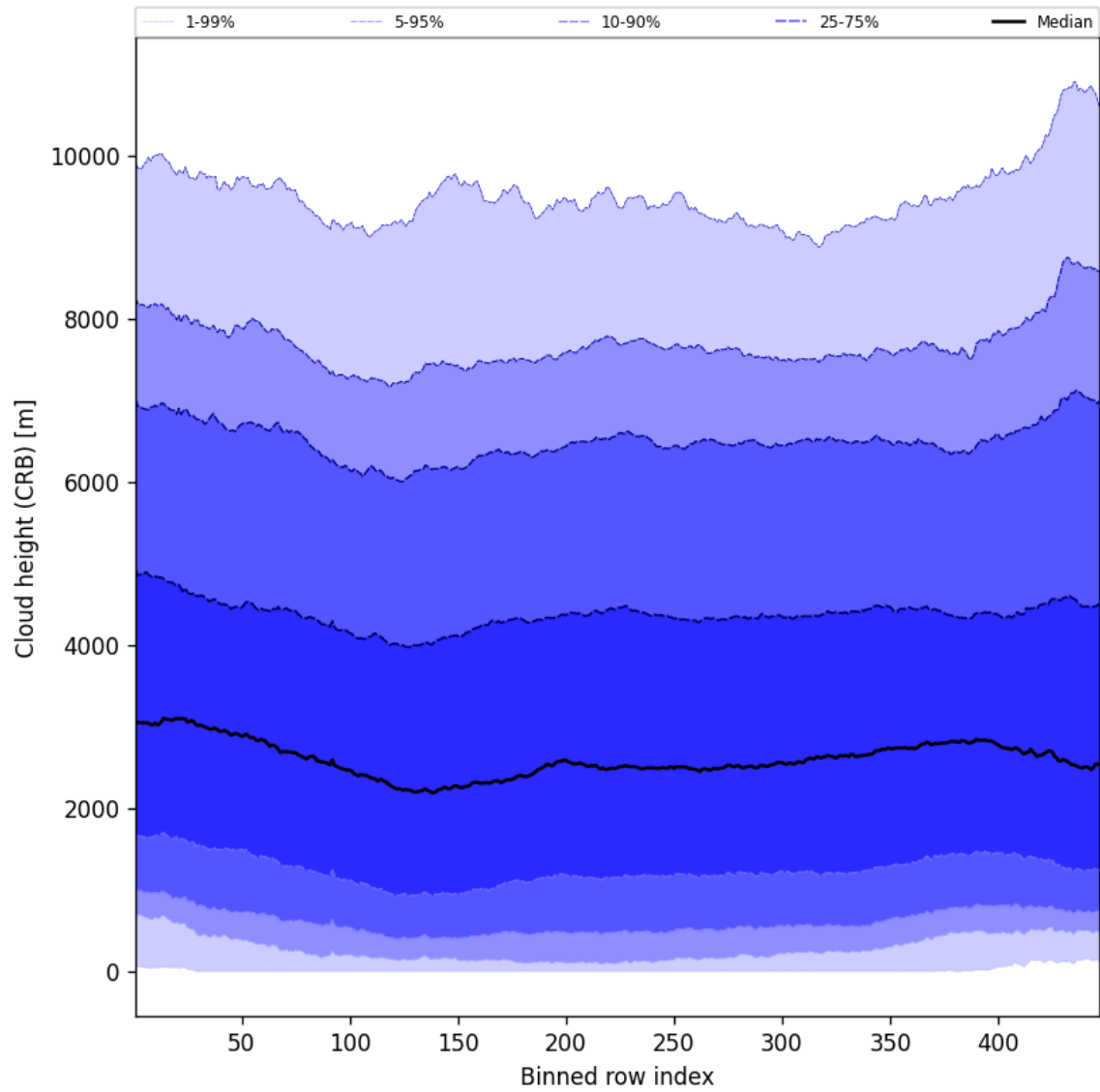


Figure 57: Along track statistics of “Cloud height (CRB)” for 2025-10-23 to 2025-10-24

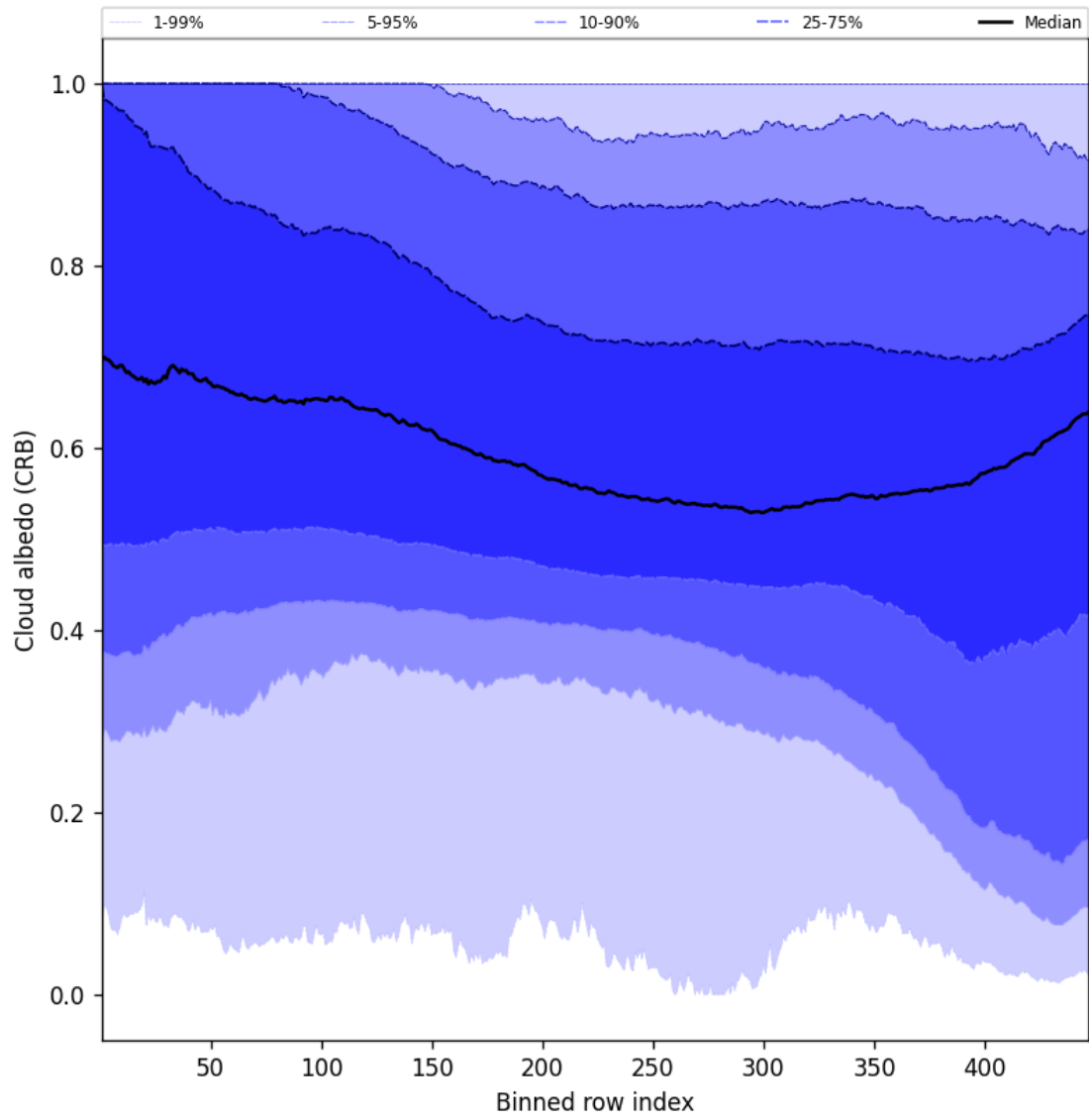


Figure 58: Along track statistics of “Cloud albedo (CRB)” for 2025-10-23 to 2025-10-24

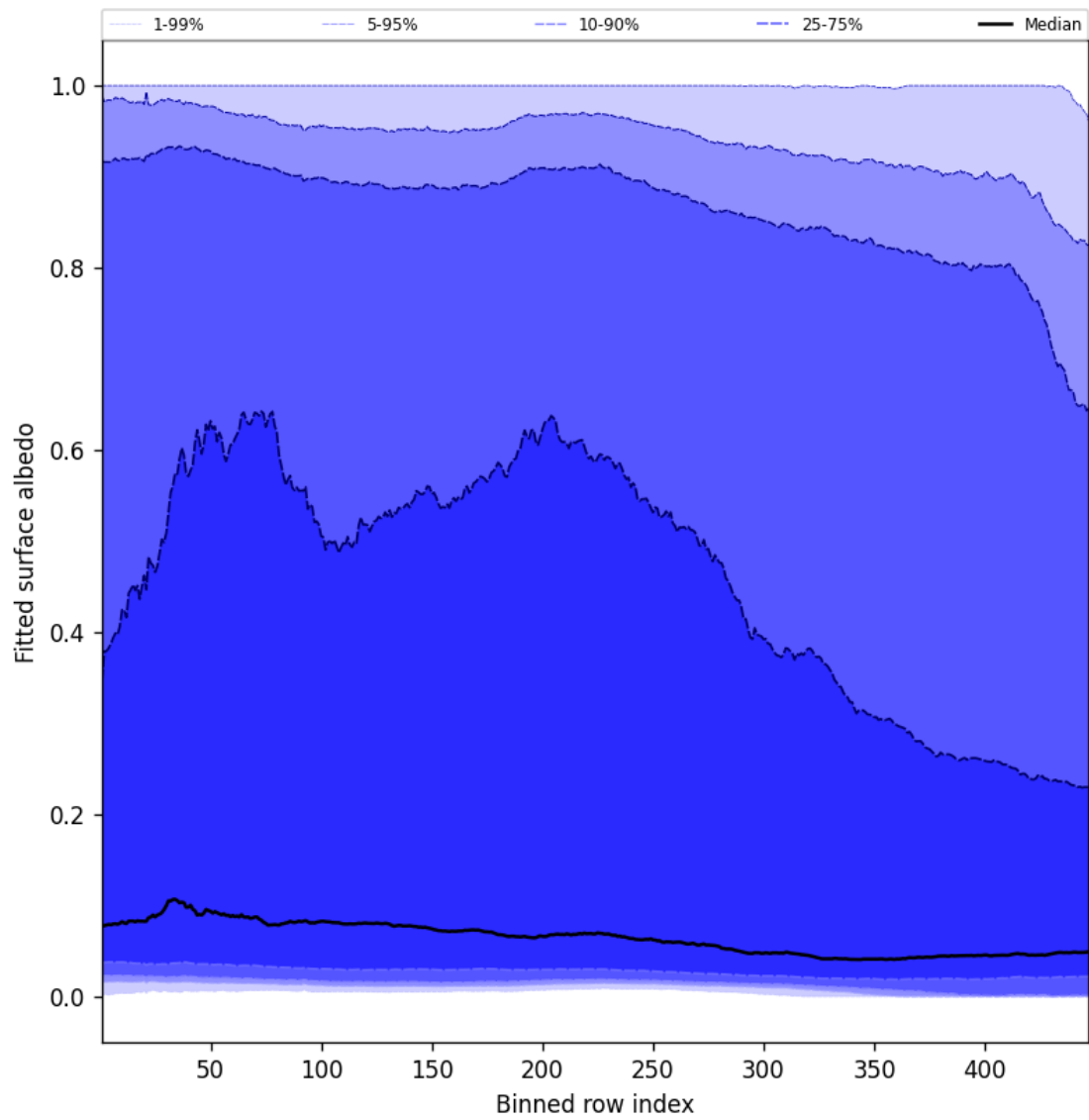


Figure 59: Along track statistics of “Fitted surface albedo” for 2025-10-23 to 2025-10-24

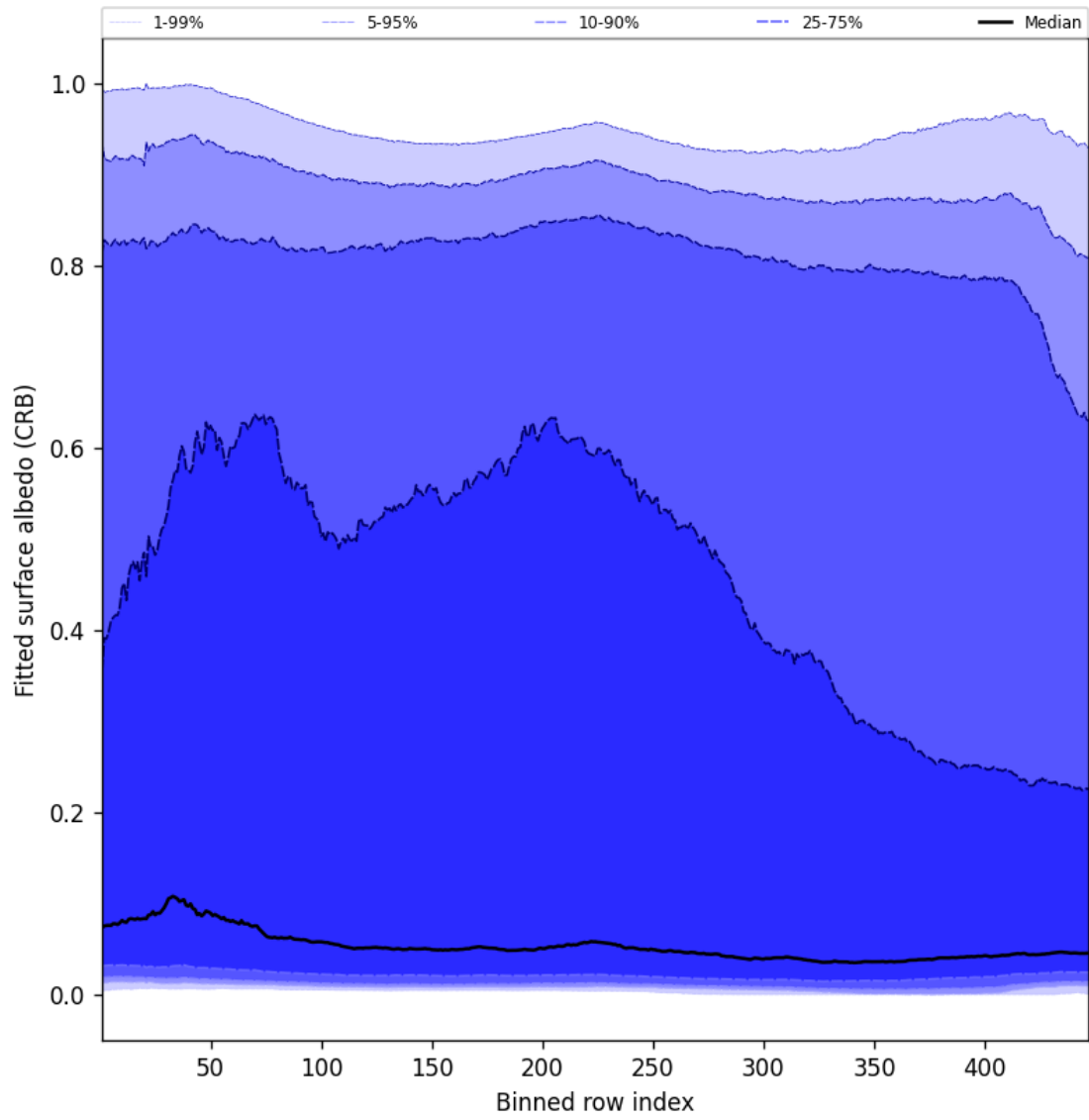


Figure 60: Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-23 to 2025-10-24

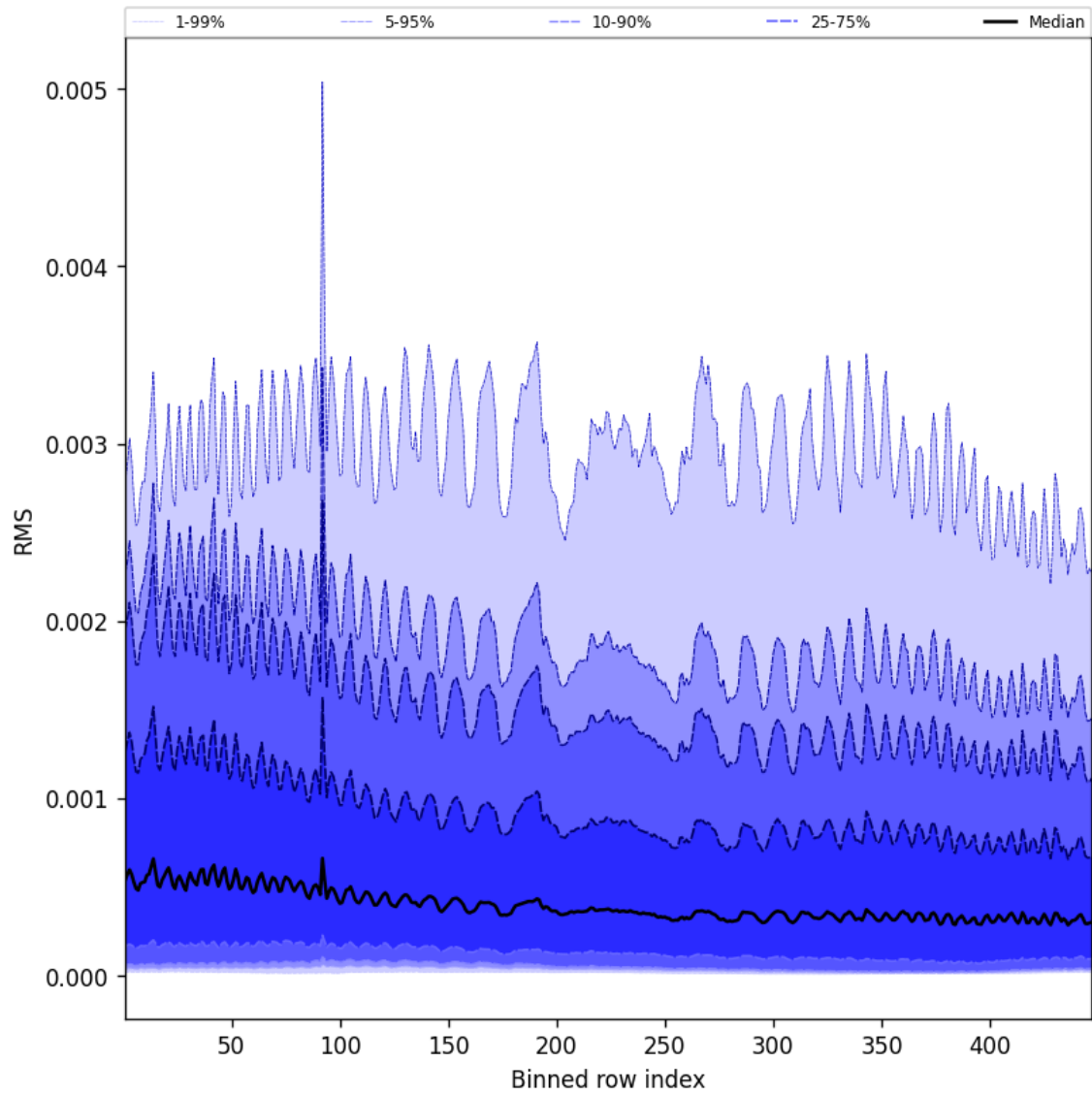


Figure 61: Along track statistics of “RMS” for 2025-10-23 to 2025-10-24

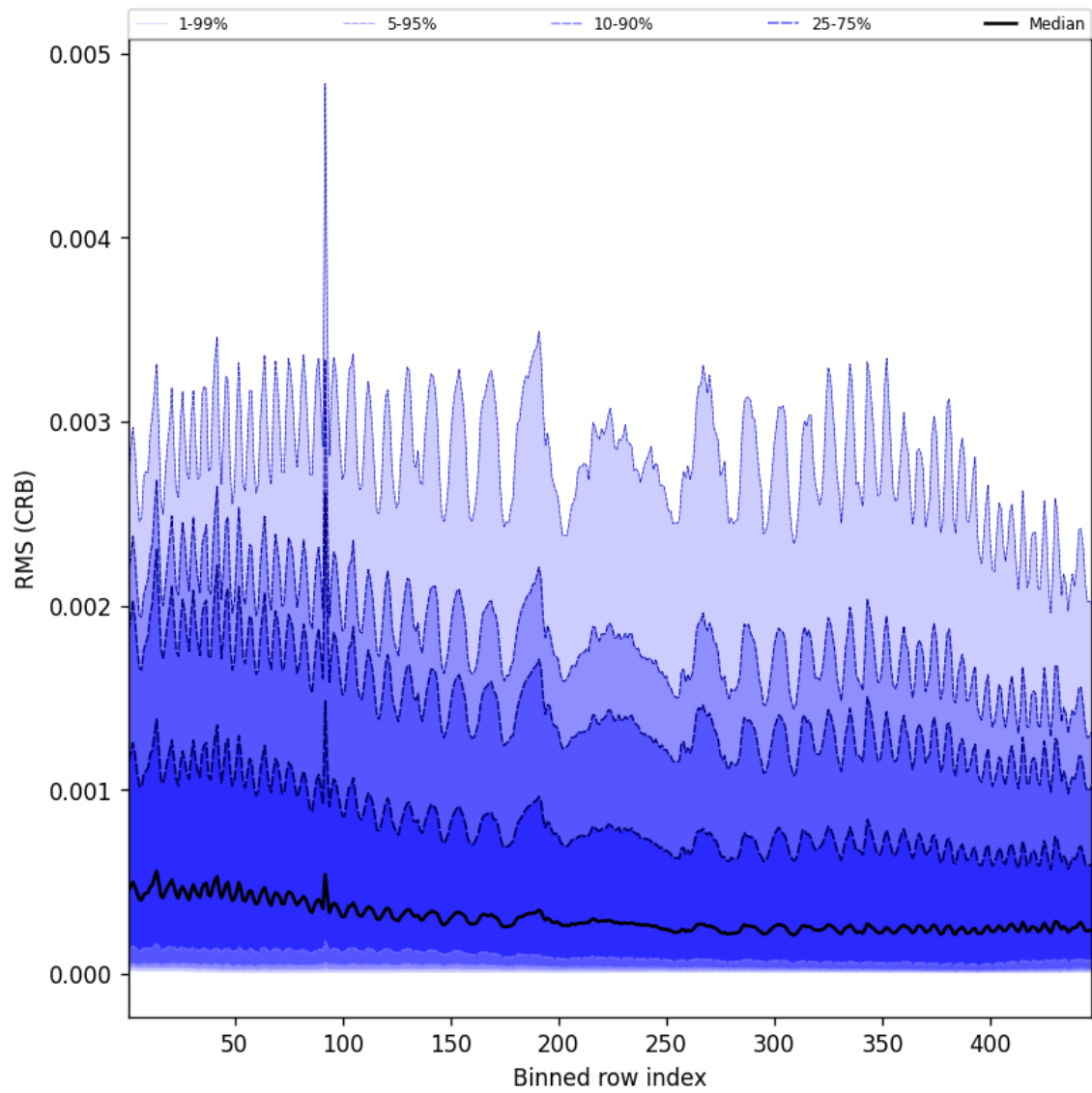


Figure 62: Along track statistics of “RMS (CRB)” for 2025-10-23 to 2025-10-24

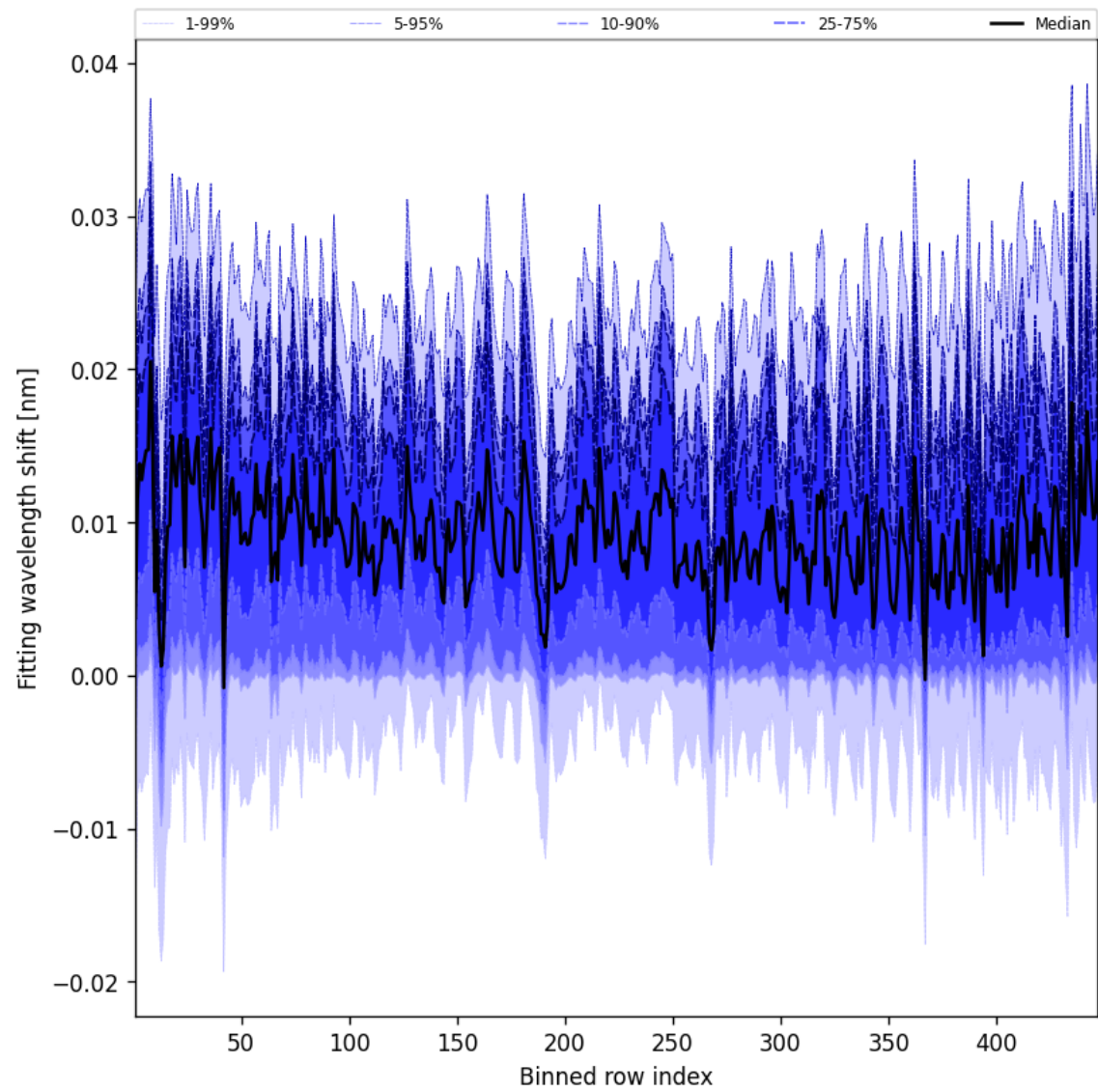


Figure 63: Along track statistics of “Fitting wavelength shift” for 2025-10-23 to 2025-10-24

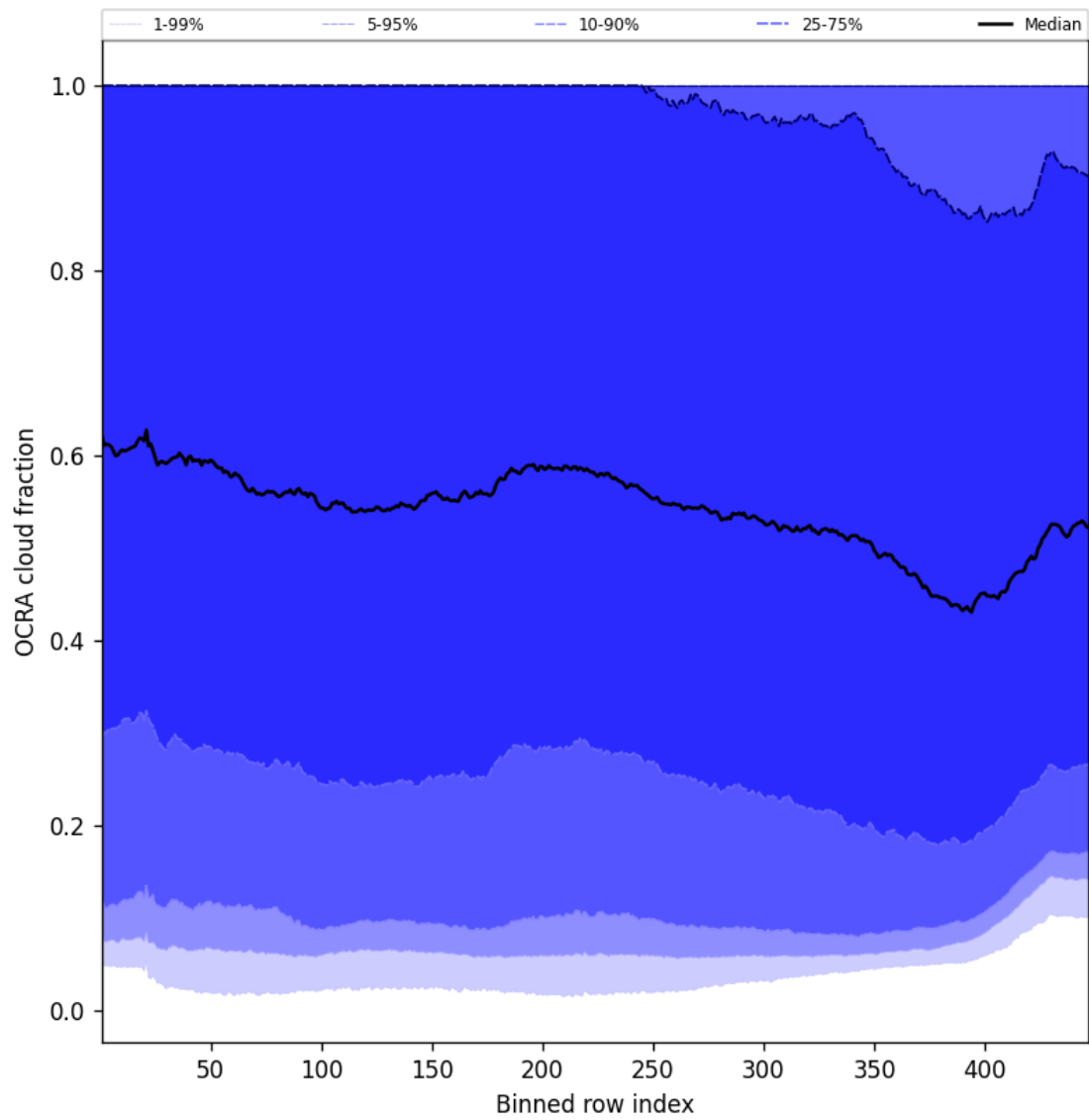


Figure 64: Along track statistics of “OCRA cloud fraction” for 2025-10-23 to 2025-10-24

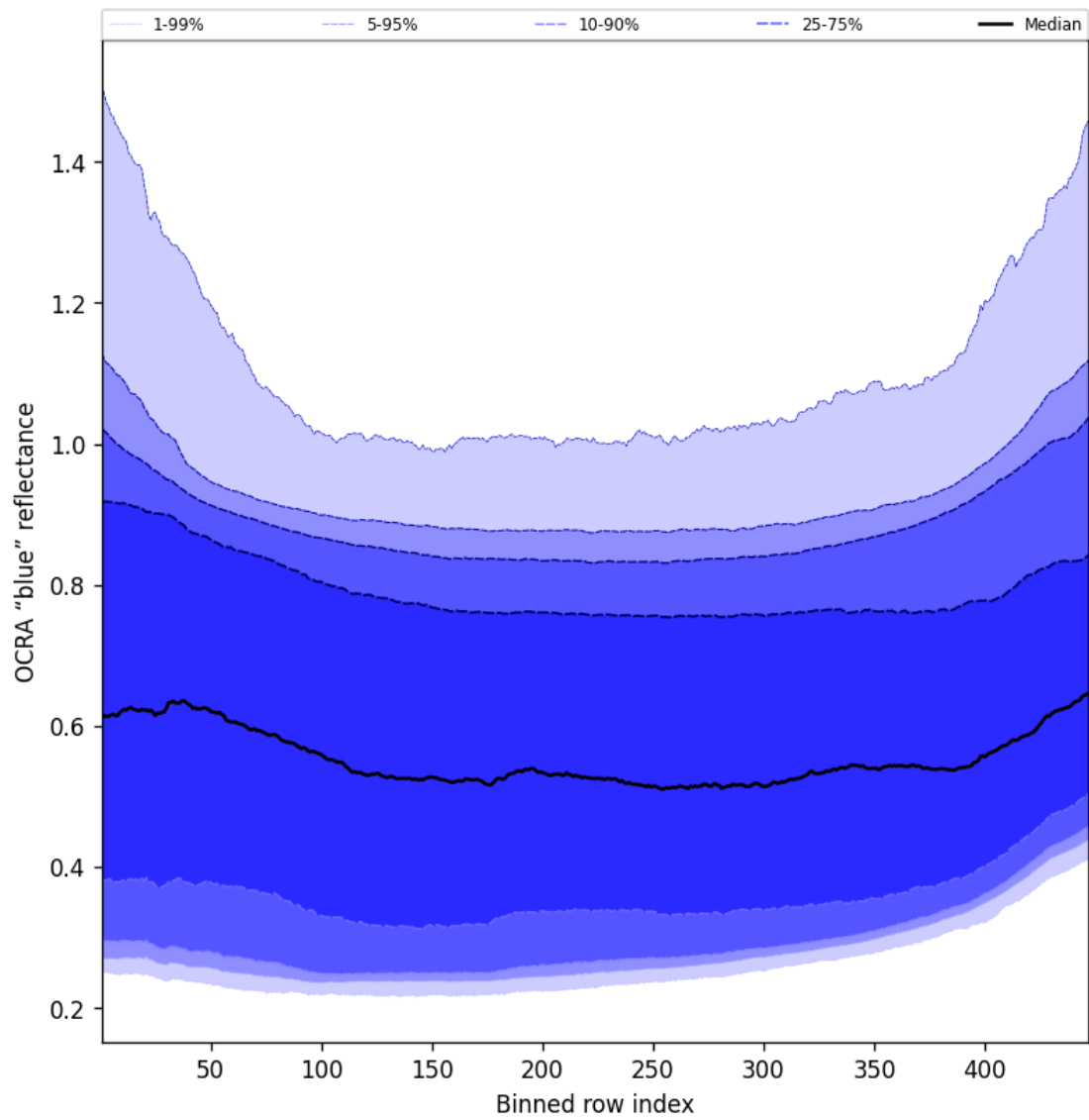


Figure 65: Along track statistics of “OCRA “blue” reflectance” for 2025-10-23 to 2025-10-24

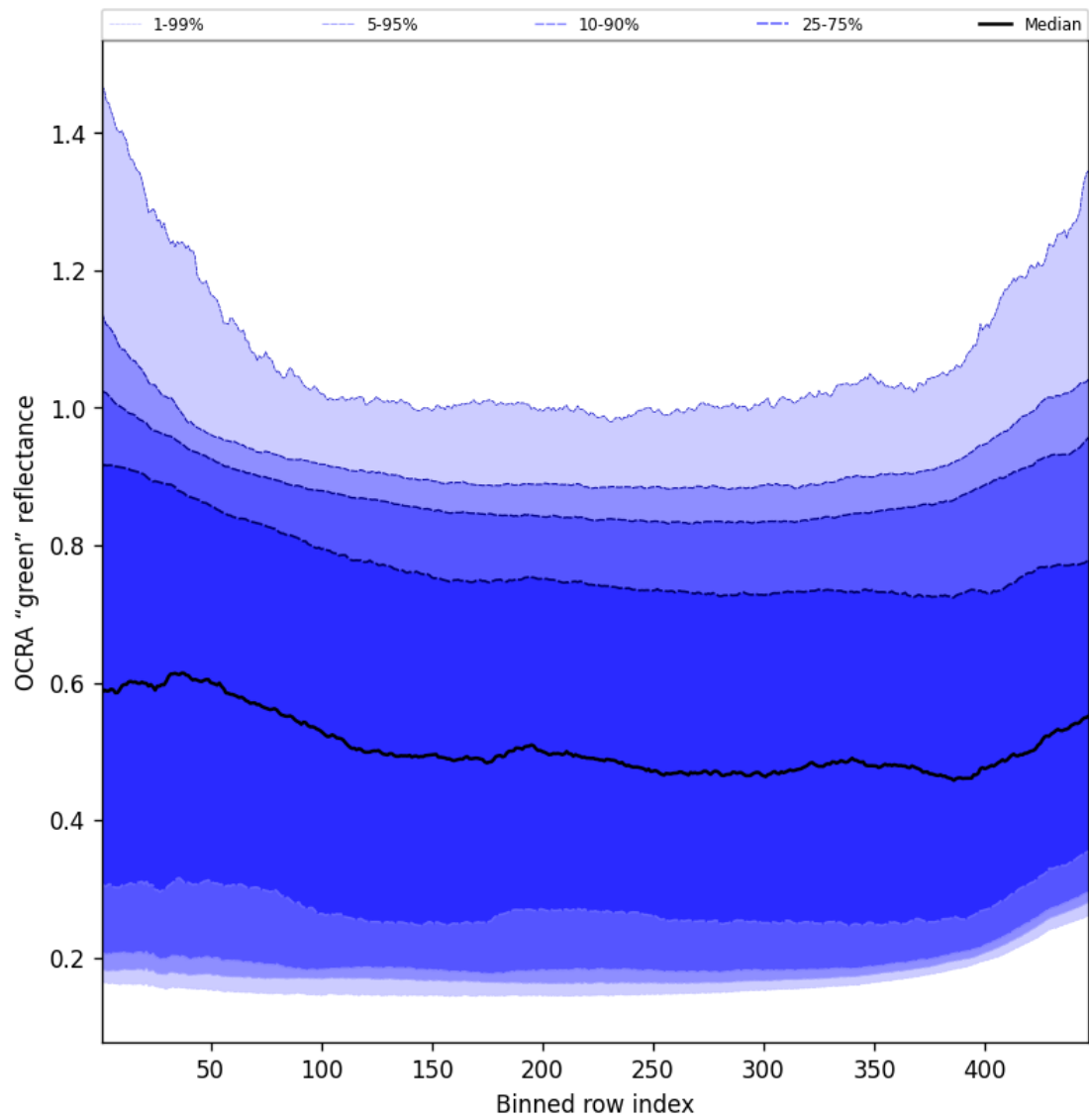


Figure 66: Along track statistics of “OCRA “green” reflectance” for 2025-10-23 to 2025-10-24

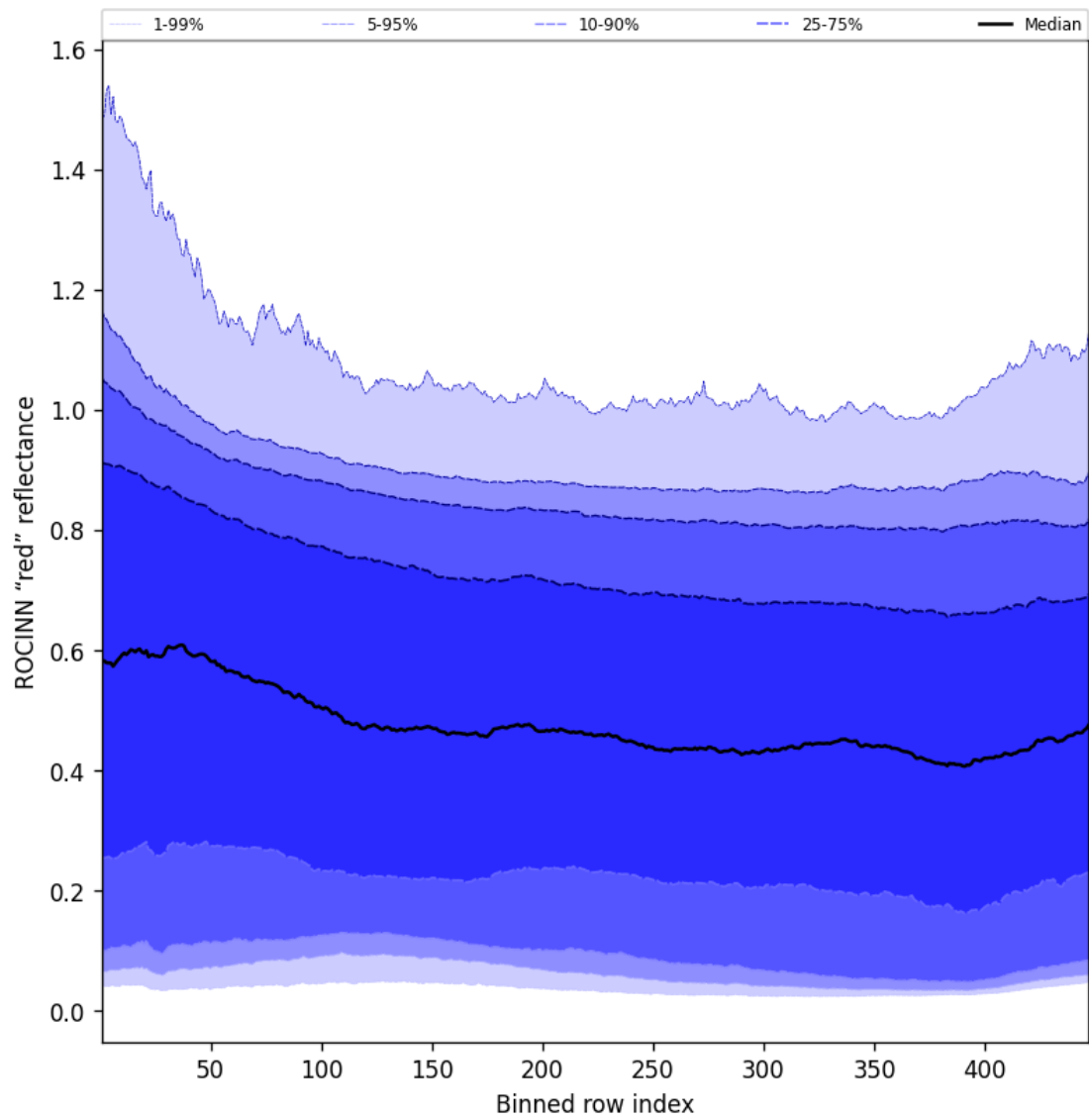


Figure 67: Along track statistics of “ROCINN “red” reflectance” for 2025-10-23 to 2025-10-24

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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