

PyCAMA report generated by tropl2-proc

tropl2-proc

2025-10-21 (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]	0.612 ± 0.375	18986264	0.995	0.630	0.750	0.0	1.000
cloud fraction [1]	0.555 ± 0.340	18986264	0.995	0.706	0.515	5.575×10^{-3}	1.000
cloud top height [m]	$(0.385 \pm 0.261) \times 10^4$	18986264	1.575×10^3	3.690×10^3	3.294×10^3	0.0	2.000×10^4
cloud optical thickness [1]	19.5 ± 36.5	18986264	9.34	10.5	9.25	1.000	250
cloud fraction crb [1]	0.554 ± 0.340	18986264	0.995	0.705	0.515	8.372×10^{-3}	1.000
cloud height crb [m]	$(0.301 \pm 0.221) \times 10^4$	18986264	1.125×10^3	3.054×10^3	2.585×10^3	0.0	2.000×10^4
cloud albedo crb [1]	0.604 ± 0.222	18986264	0.995	0.296	0.582	0.0	1.000
surface albedo fitted [1]	0.248 ± 0.321	18986264	2.500×10^{-2}	0.308	5.851×10^{-2}	0.0	1.000
surface albedo fitted crb [1]	0.235 ± 0.306	18986264	1.500×10^{-2}	0.319	4.744×10^{-2}	0.0	1.000
fitted root mean square [1]	$(6.296 \pm 9.809) \times 10^{-4}$	18986264	5.000×10^{-5}	7.738×10^{-4}	3.901×10^{-4}	9.475×10^{-7}	0.906
fitted root mean square crb [1]	$(5.559 \pm 9.838) \times 10^{-4}$	18986264	5.000×10^{-5}	7.102×10^{-4}	2.995×10^{-4}	8.834×10^{-7}	0.861
wavelength shift [nm]	$(8.992 \pm 7.442) \times 10^{-3}$	18986264	9.000×10^{-4}	1.111×10^{-2}	8.417×10^{-3}	-7.609×10^{-2}	0.589
cloud fraction apriori [1]	0.563 ± 0.345	18986264	0.995	0.753	0.530	0.0	1.000
reflectance blue ocra [1]	0.575 ± 0.237	18986264	0.255	0.414	0.544	0.124	2.10
reflectance green ocra [1]	0.523 ± 0.267	18986264	0.175	0.490	0.496	7.335×10^{-2}	2.03
reflectance continuum aband [1]	0.474 ± 0.291	18986264	4.500×10^{-2}	0.500	0.461	1.036×10^{-2}	5.77

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	0.930	1.000	1.000	1.000	1.000
cloud fraction [1]	2.754×10^{-2}	7.001×10^{-2}	0.108	0.155	0.243	0.949	1.000	1.000	1.000	1.000
cloud top height [m]	265	727	1.054×10^3	1.342×10^3	1.744×10^3	5.433×10^3	6.555×10^3	7.511×10^3	8.842×10^3	1.129×10^4
cloud optical thickness [1]	1.000	2.26	3.41	4.38	5.48	16.0	24.7	37.7	67.9	250
cloud fraction crb [1]	2.705×10^{-2}	6.937×10^{-2}	0.107	0.154	0.243	0.948	1.000	1.000	1.000	1.000
cloud height crb [m]	0.0	317	606	868	1.222×10^3	4.276×10^3	5.266×10^3	6.209×10^3	7.354×10^3	9.332×10^3
cloud albedo crb [1]	3.454×10^{-2}	0.227	0.345	0.414	0.465	0.761	0.853	0.932	1.000	1.000
surface albedo fitted [1]	0.0	8.218×10^{-3}	1.427×10^{-2}	1.931×10^{-2}	2.652×10^{-2}	0.334	0.750	0.842	0.924	1.000
surface albedo fitted crb [1]	0.0	6.960×10^{-3}	1.106×10^{-2}	1.497×10^{-2}	2.077×10^{-2}	0.340	0.716	0.785	0.869	0.950
fitted root mean square [1]	1.526×10^{-5}	2.919×10^{-5}	4.596×10^{-5}	7.176×10^{-5}	1.258×10^{-4}	8.995×10^{-4}	1.209×10^{-3}	1.516×10^{-3}	1.975×10^{-3}	3.093×10^{-3}
fitted root mean square crb [1]	7.326×10^{-6}	1.683×10^{-5}	2.934×10^{-5}	4.828×10^{-5}	8.602×10^{-5}	7.962×10^{-4}	1.122×10^{-3}	1.441×10^{-3}	1.905×10^{-3}	2.951×10^{-3}
wavelength shift [nm]	-6.643×10^{-3}	-4.564×10^{-4}	3.044×10^{-4}	1.266×10^{-3}	3.102×10^{-3}	1.422×10^{-2}	1.675×10^{-2}	1.885×10^{-2}	2.155×10^{-2}	2.721×10^{-2}
cloud fraction apriori [1]	3.179×10^{-2}	6.657×10^{-2}	0.102	0.150	0.244	0.996	1.000	1.000	1.000	1.000
reflectance blue ocra [1]	0.232	0.256	0.282	0.314	0.365	0.779	0.839	0.884	0.941	1.14
reflectance green ocra [1]	0.152	0.173	0.192	0.219	0.271	0.762	0.831	0.879	0.936	1.10
reflectance continuum aband [1]	3.008×10^{-2}	5.327×10^{-2}	8.600×10^{-2}	0.132	0.219	0.720	0.800	0.855	0.920	1.08

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 ± 0.386	8672337	0.670	0.790	0.0	1.000	0.280	0.950
cloud fraction [1]	0.572 ± 0.353	8672337	0.759	0.574	5.575×10^{-3}	1.000	0.222	0.981
cloud top height [m]	$(0.391 \pm 0.251) \times 10^4$	8672337	3.331×10^3	3.429×10^3	0.0	2.000×10^4	1.925×10^3	5.257×10^3
cloud optical thickness [1]	23.2 ± 40.8	8672337	14.0	10.1	1.000	250	5.98	19.9
cloud fraction crb [1]	0.571 ± 0.353	8672337	0.759	0.572	8.432×10^{-3}	1.000	0.221	0.980
cloud height crb [m]	$(0.328 \pm 0.220) \times 10^4$	8672337	2.994×10^3	2.858×10^3	0.0	1.987×10^4	1.518×10^3	4.512×10^3
cloud albedo crb [1]	0.574 ± 0.208	8672337	0.256	0.564	0.0	1.000	0.451	0.707
surface albedo fitted [1]	0.148 ± 0.189	8672337	0.172	6.040×10^{-2}	0.0	1.000	2.783×10^{-2}	0.200
surface albedo fitted crb [1]	0.143 ± 0.191	8672337	0.172	4.772×10^{-2}	0.0	1.000	2.167×10^{-2}	0.194
fitted root mean square [1]	$(4.618 \pm 6.551) \times 10^{-4}$	8672337	4.951×10^{-4}	2.385×10^{-4}	9.475×10^{-7}	0.181	9.206×10^{-5}	5.871×10^{-4}
fitted root mean square crb [1]	$(4.085 \pm 5.800) \times 10^{-4}$	8672337	4.726×10^{-4}	1.734×10^{-4}	8.834×10^{-7}	0.139	5.572×10^{-5}	5.283×10^{-4}
wavelength shift [nm]	$(7.246 \pm 7.007) \times 10^{-3}$	8672337	9.835×10^{-3}	6.258×10^{-3}	-4.721×10^{-2}	6.630×10^{-2}	1.800×10^{-3}	1.163×10^{-2}
cloud fraction apriori [1]	0.577 ± 0.359	8672337	0.784	0.584	0.0	1.000	0.216	1.000
reflectance blue ocra [1]	0.533 ± 0.216	8672337	0.330	0.497	0.124	2.03	0.353	0.683
reflectance green ocra [1]	0.472 ± 0.242	8672337	0.394	0.434	7.335×10^{-2}	2.03	0.258	0.652
reflectance continuum aband [1]	0.425 ± 0.273	8672337	0.414	0.392	1.143×10^{-2}	4.97	0.201	0.616

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]	0.620 ± 0.366	10313927	0.560	0.710	0.0	1.000	0.350	0.910
cloud fraction [1]	0.540 ± 0.328	10313927	0.643	0.481	7.973×10^{-3}	1.000	0.258	0.901
cloud top height [m]	$(0.379 \pm 0.269) \times 10^4$	10313927	3.962×10^3	3.142×10^3	0.0	2.000×10^4	1.609×10^3	5.571×10^3
cloud optical thickness [1]	16.3 ± 32.2	10313927	8.23	8.70	1.000	250	5.20	13.4
cloud fraction crb [1]	0.540 ± 0.328	10313927	0.642	0.482	8.372×10^{-3}	1.000	0.258	0.901
cloud height crb [m]	$(0.278 \pm 0.219) \times 10^4$	10313927	3.074×10^3	2.277×10^3	0.0	2.000×10^4	1.016×10^3	4.090×10^3
cloud albedo crb [1]	0.629 ± 0.230	10313927	0.334	0.604	0.0	1.000	0.475	0.808
surface albedo fitted [1]	0.332 ± 0.379	10313927	0.745	5.656×10^{-2}	0.0	1.000	2.550×10^{-2}	0.770
surface albedo fitted crb [1]	0.311 ± 0.359	10313927	0.707	4.718×10^{-2}	0.0	1.000	1.997×10^{-2}	0.727
fitted root mean square [1]	$(7.706 \pm 11.691) \times 10^{-4}$	10313927	9.103×10^{-4}	5.826×10^{-4}	4.793×10^{-6}	0.906	1.944×10^{-4}	1.105×10^{-3}
fitted root mean square crb [1]	$(6.799 \pm 12.104) \times 10^{-4}$	10313927	8.484×10^{-4}	4.515×10^{-4}	1.872×10^{-6}	0.861	1.399×10^{-4}	9.883×10^{-4}
wavelength shift [nm]	$(1.046 \pm 0.748) \times 10^{-2}$	10313927	1.111×10^{-2}	1.052×10^{-2}	-7.609×10^{-2}	0.589	4.693×10^{-3}	1.580×10^{-2}
cloud fraction apriori [1]	0.550 ± 0.332	10313927	0.672	0.499	0.0	1.000	0.264	0.936
reflectance blue oca [1]	0.610 ± 0.248	10313927	0.445	0.608	0.143	2.10	0.379	0.824
reflectance green oca [1]	0.566 ± 0.280	10313927	0.528	0.575	8.872×10^{-2}	2.01	0.288	0.815
reflectance continuum aband [1]	0.515 ± 0.299	10313927	0.533	0.551	1.036×10^{-2}	5.77	0.241	0.774

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]	0.678 ± 0.345	11880664	0.550	0.850	0.0	1.000	0.400	0.950
cloud fraction [1]	0.559 ± 0.350	11880664	0.752	0.546	7.349×10^{-3}	1.000	0.215	0.967
cloud top height [m]	$(0.344 \pm 0.251) \times 10^4$	11880664	3.146×10^3	2.735×10^3	0.0	2.000×10^4	1.540×10^3	4.686×10^3
cloud optical thickness [1]	17.7 ± 29.0	11880664	9.34	9.88	1.000	250	6.59	15.9
cloud fraction crb [1]	0.558 ± 0.350	11880664	0.752	0.544	8.372×10^{-3}	1.000	0.214	0.966
cloud height crb [m]	$(0.276 \pm 0.225) \times 10^4$	11880664	2.924×10^3	2.147×10^3	0.0	2.000×10^4	1.020×10^3	3.943×10^3
cloud albedo crb [1]	0.559 ± 0.191	11880664	0.233	0.539	0.0	1.000	0.449	0.681
surface albedo fitted [1]	0.109 ± 0.223	11880664	3.303×10^{-2}	3.201×10^{-2}	0.0	1.000	1.924×10^{-2}	5.227×10^{-2}
surface albedo fitted crb [1]	0.100 ± 0.216	11880664	2.739×10^{-2}	2.528×10^{-2}	0.0	1.000	1.490×10^{-2}	4.229×10^{-2}
fitted root mean square [1]	$(5.839 \pm 10.853) \times 10^{-4}$	11880664	7.690×10^{-4}	2.983×10^{-4}	9.475×10^{-7}	0.906	8.600×10^{-5}	8.550×10^{-4}
fitted root mean square crb [1]	$(5.546 \pm 11.302) \times 10^{-4}$	11880664	7.543×10^{-4}	2.666×10^{-4}	8.834×10^{-7}	0.861	6.839×10^{-5}	8.226×10^{-4}
wavelength shift [nm]	$(8.637 \pm 7.834) \times 10^{-3}$	11880664	1.186×10^{-2}	7.824×10^{-3}	-7.609×10^{-2}	0.589	2.335×10^{-3}	1.420×10^{-2}
cloud fraction apriori [1]	0.564 ± 0.356	11880664	0.791	0.557	0.0	1.000	0.209	1.000
reflectance blue oca [1]	0.519 ± 0.210	11880664	0.330	0.476	0.155	2.07	0.342	0.672
reflectance green oca [1]	0.456 ± 0.237	11880664	0.400	0.411	7.784×10^{-2}	1.95	0.242	0.642
reflectance continuum aband [1]	0.386 ± 0.273	11880664	0.480	0.347	1.048×10^{-2}	4.97	0.133	0.612

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]	0.469 ± 0.399	5435605	0.880	0.590	0.0	1.000	0.0	0.880
cloud fraction [1]	0.505 ± 0.308	5435605	0.501	0.430	5.697×10^{-3}	1.000	0.265	0.766
cloud top height [m]	$(0.471 \pm 0.264) \times 10^4$	5435605	3.707×10^3	4.572×10^3	0.0	2.000×10^4	2.664×10^3	6.371×10^3
cloud optical thickness [1]	17.8 ± 40.3	5435605	8.10	6.24	1.000	250	4.22	12.3
cloud fraction crb [1]	0.506 ± 0.307	5435605	0.499	0.432	8.631×10^{-3}	1.000	0.267	0.766
cloud height crb [m]	$(0.349 \pm 0.206) \times 10^4$	5435605	2.747×10^3	3.263×10^3	0.0	2.000×10^4	1.927×10^3	4.673×10^3
cloud albedo crb [1]	0.692 ± 0.256	5435605	0.397	0.718	0.0	1.000	0.527	0.923
surface albedo fitted [1]	0.554 ± 0.319	5435605	0.631	0.617	0.0	1.000	0.232	0.863
surface albedo fitted crb [1]	0.528 ± 0.294	5435605	0.560	0.609	3.822×10^{-3}	1.000	0.229	0.789
fitted root mean square [1]	$(7.633 \pm 7.771) \times 10^{-4}$	5435605	7.452×10^{-4}	5.845×10^{-4}	4.952×10^{-6}	0.181	2.822×10^{-4}	1.027×10^{-3}
fitted root mean square crb [1]	$(5.979 \pm 6.608) \times 10^{-4}$	5435605	6.729×10^{-4}	3.902×10^{-4}	2.257×10^{-6}	0.171	1.476×10^{-4}	8.205×10^{-4}
wavelength shift [nm]	$(9.991 \pm 6.741) \times 10^{-3}$	5435605	1.001×10^{-2}	9.692×10^{-3}	-5.741×10^{-2}	7.773×10^{-2}	4.776×10^{-3}	1.479×10^{-2}
cloud fraction apriori [1]	0.520 ± 0.311	5435605	0.526	0.449	0.0	1.000	0.276	0.802
reflectance blue ocra [1]	0.687 ± 0.257	5435605	0.423	0.776	0.124	2.10	0.448	0.871
reflectance green ocra [1]	0.657 ± 0.284	5435605	0.493	0.763	7.335×10^{-2}	2.03	0.378	0.870
reflectance continuum aband [1]	0.643 ± 0.255	5435605	0.427	0.699	1.212×10^{-2}	5.77	0.412	0.840

3 Granule outlines

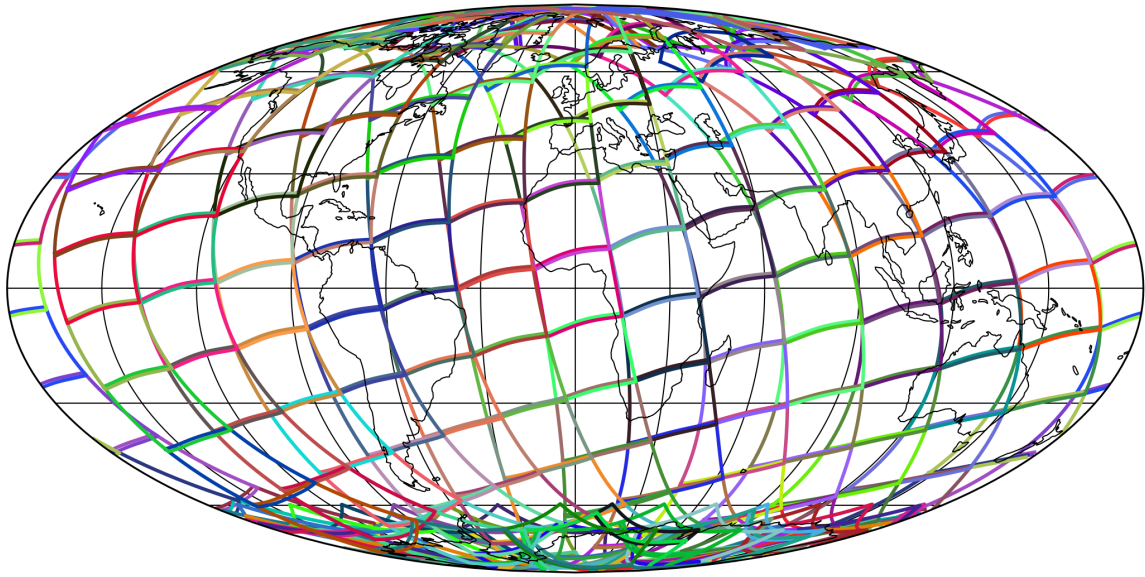


Figure 1: Outline of the granules.

4 Input data monitoring

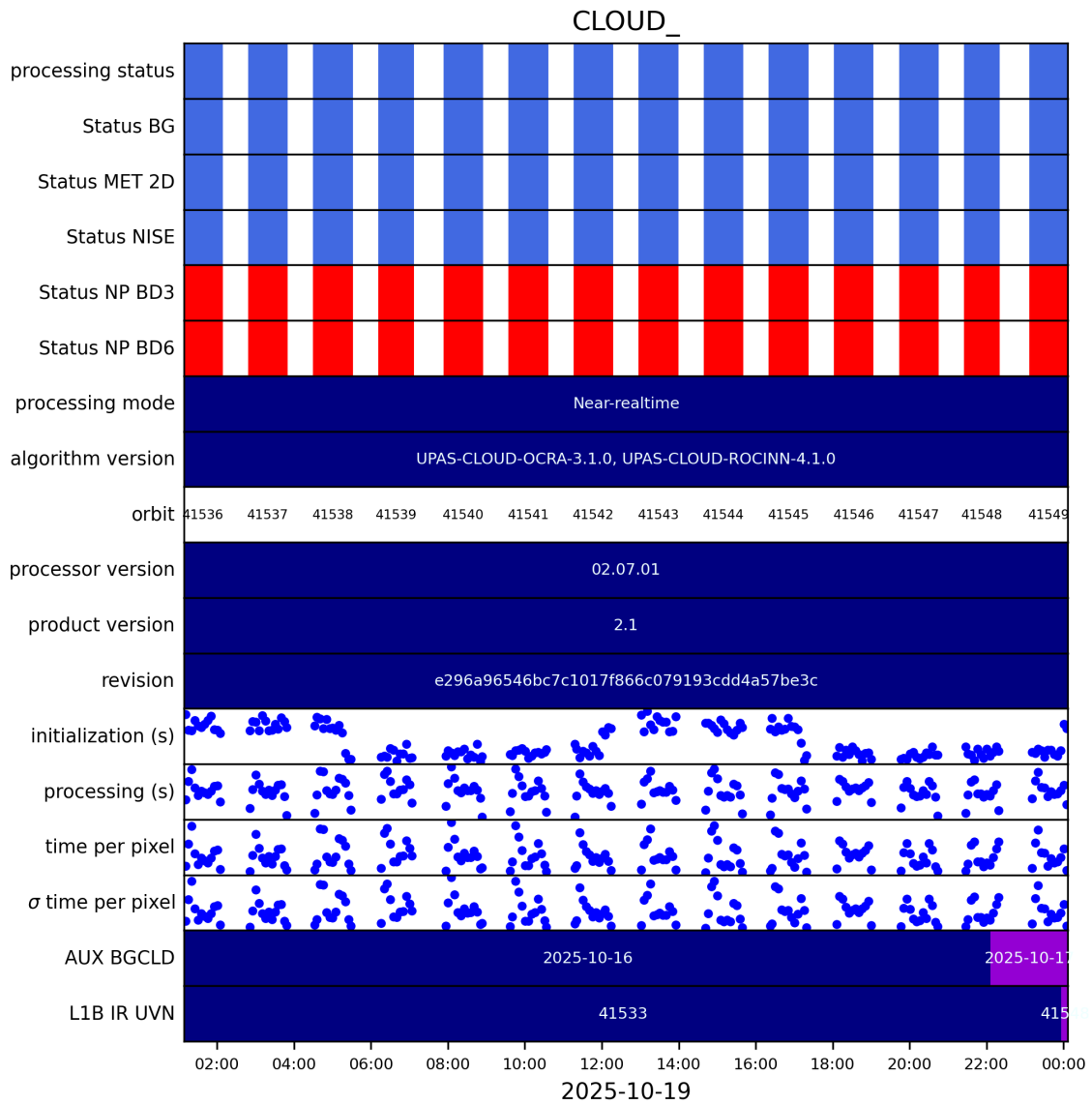


Figure 2: Input data per granule

5 Warnings and errors

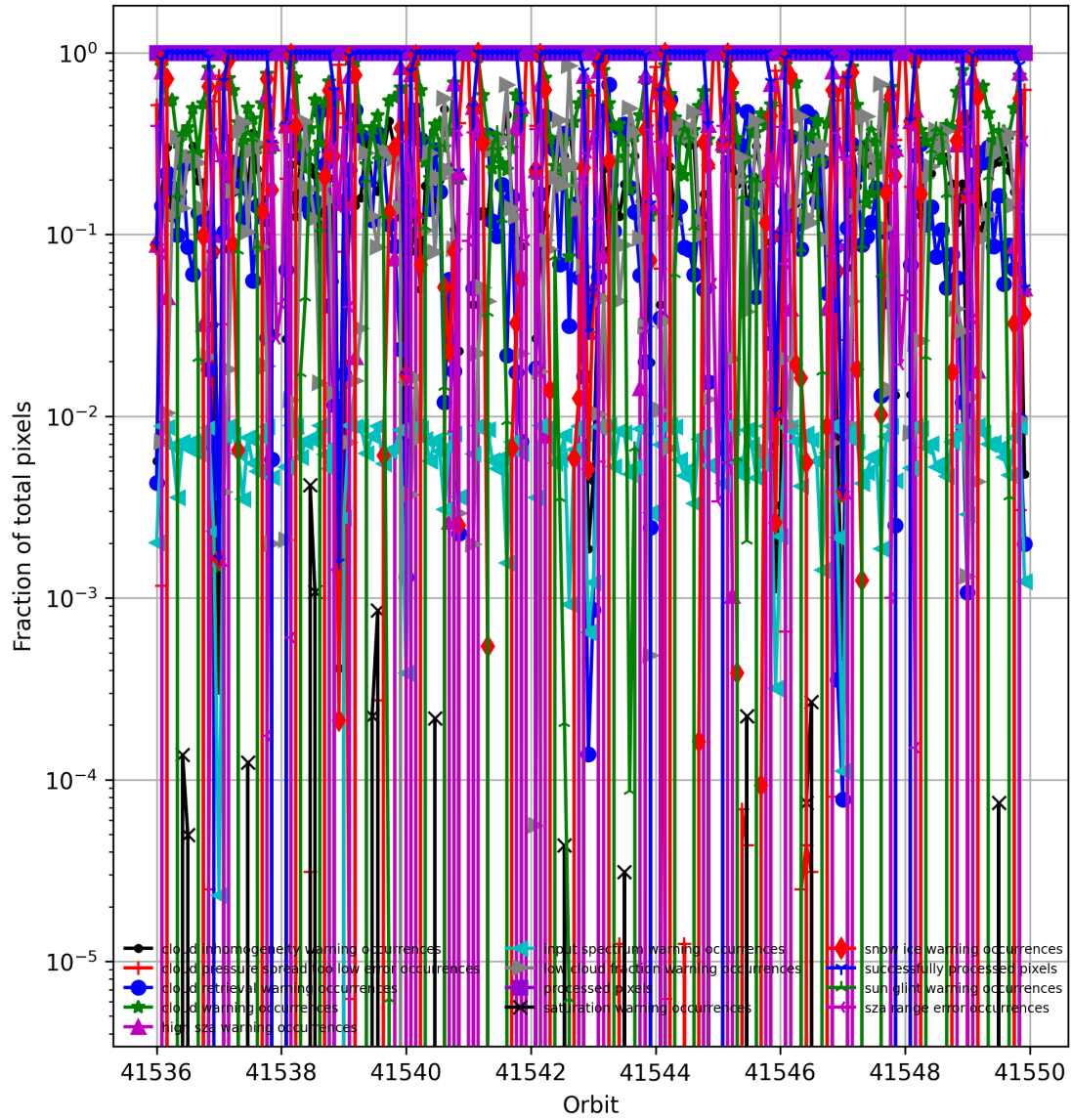


Figure 3: Fraction of pixels with specific warnings and errors during processing

6 World maps

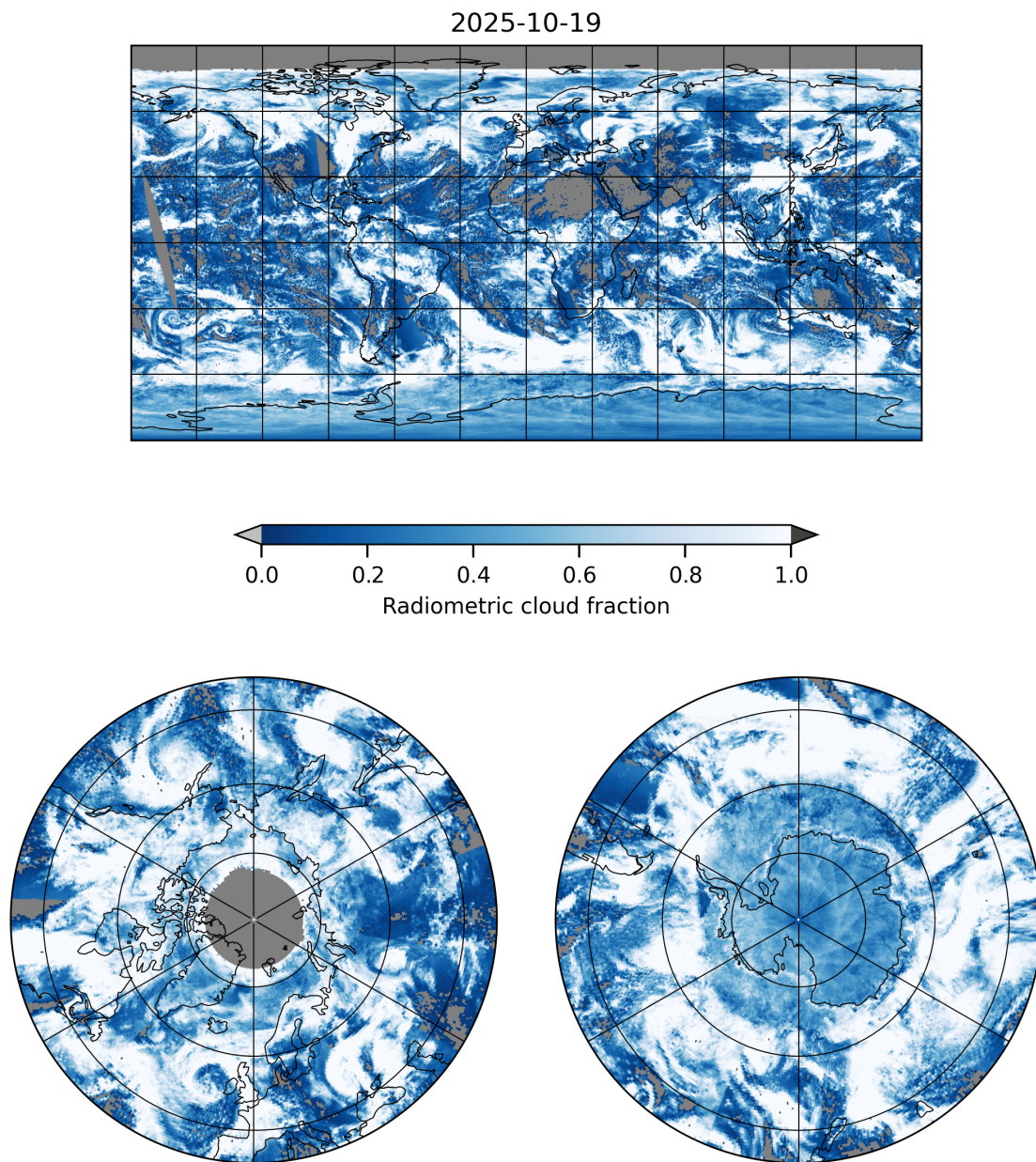


Figure 4: Map of “Radiometric cloud fraction” for 2025-10-19 to 2025-10-20

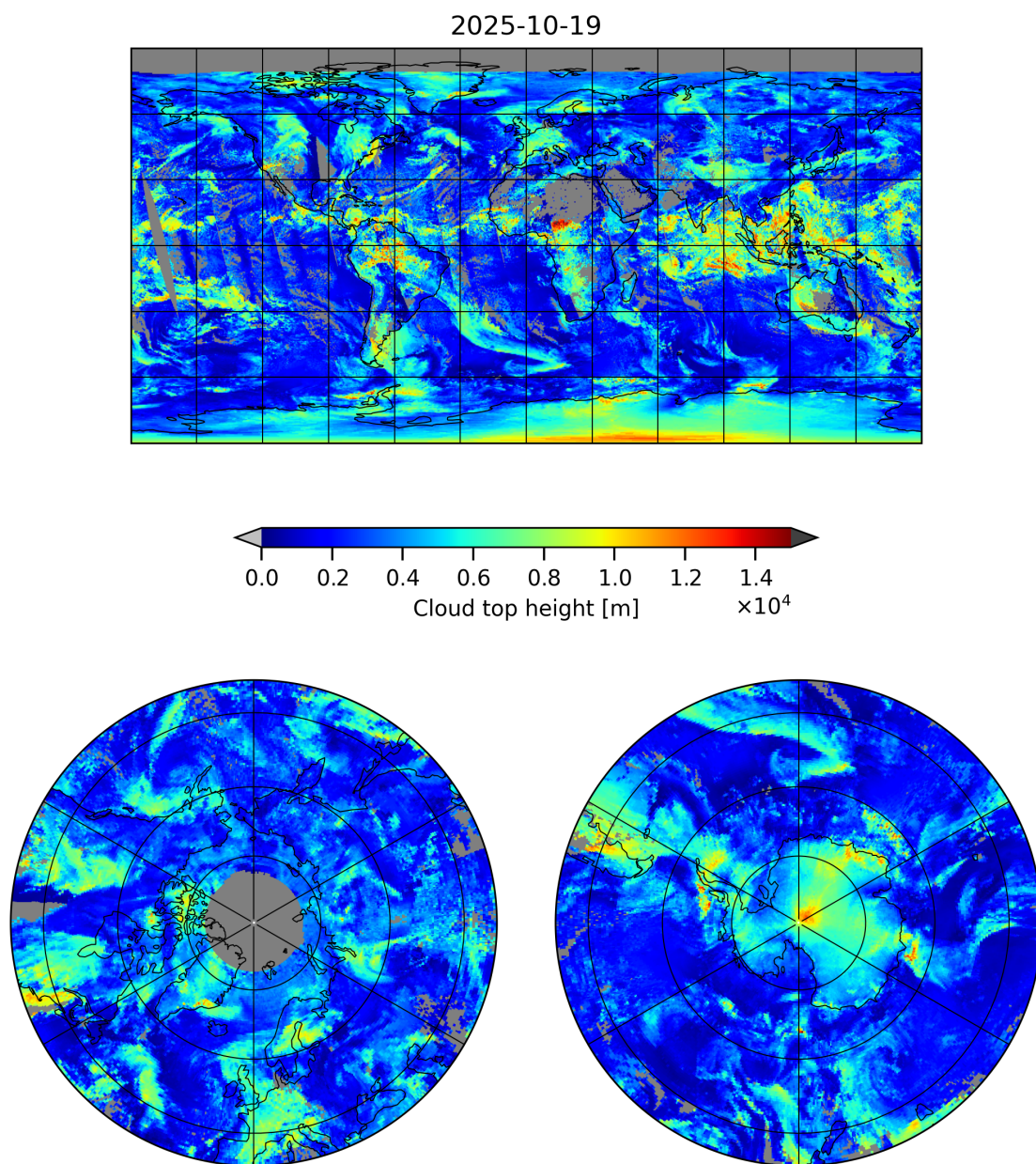


Figure 5: Map of “Cloud top height” for 2025-10-19 to 2025-10-20

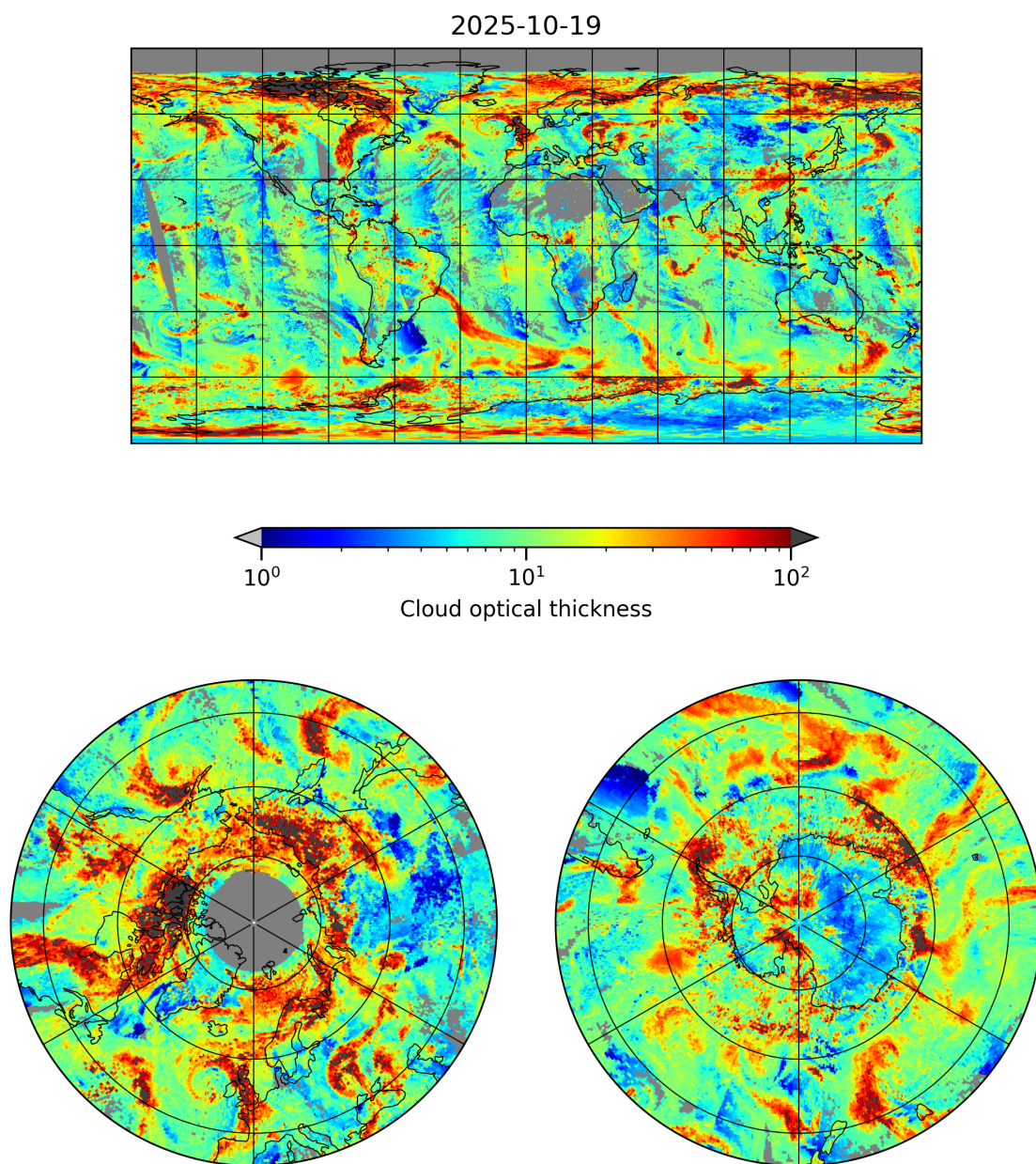


Figure 6: Map of “Cloud optical thickness” for 2025-10-19 to 2025-10-20

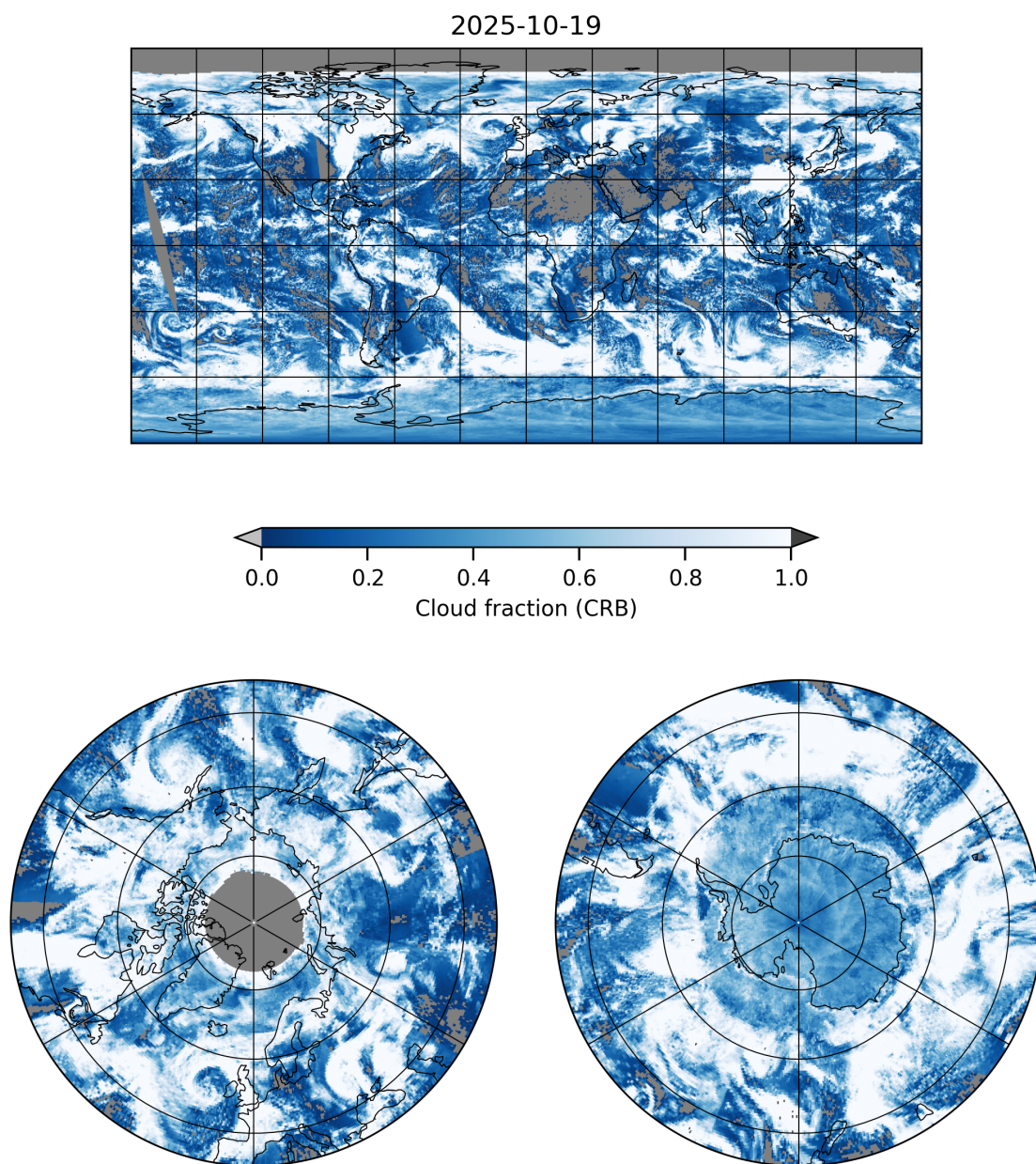


Figure 7: Map of “Cloud fraction (CRB)” for 2025-10-19 to 2025-10-20

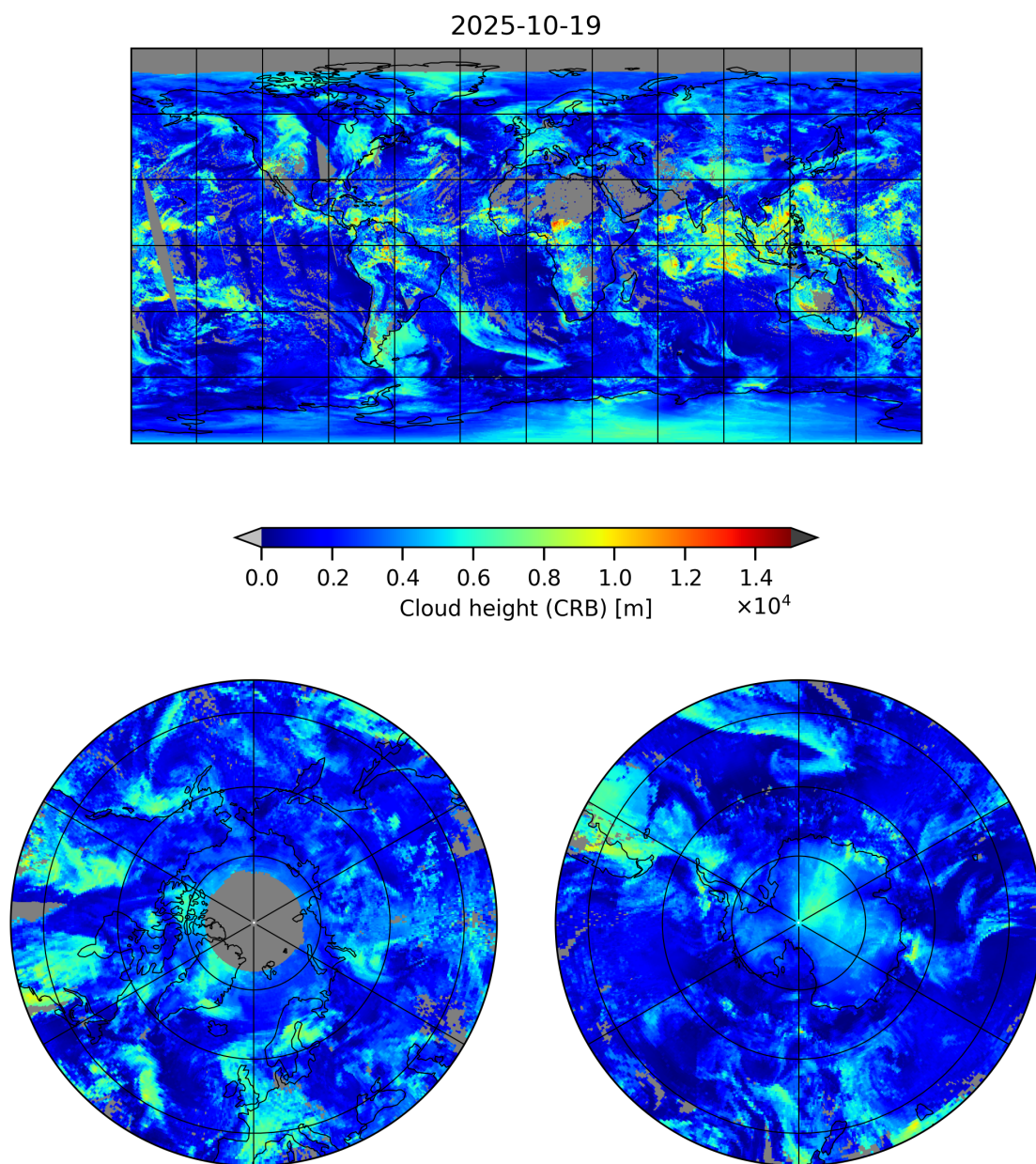


Figure 8: Map of “Cloud height (CRB)” for 2025-10-19 to 2025-10-20

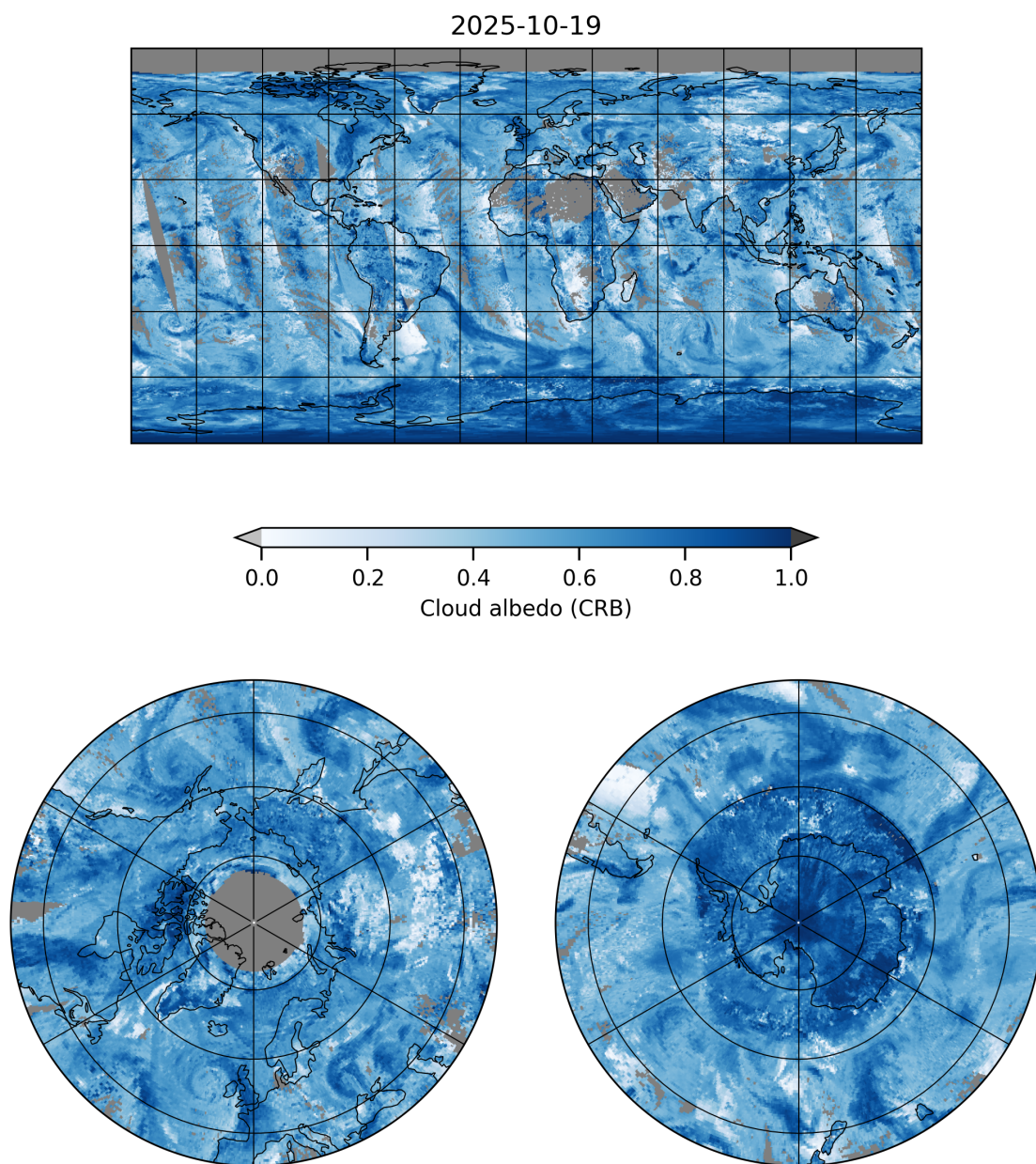


Figure 9: Map of “Cloud albedo (CRB)” for 2025-10-19 to 2025-10-20

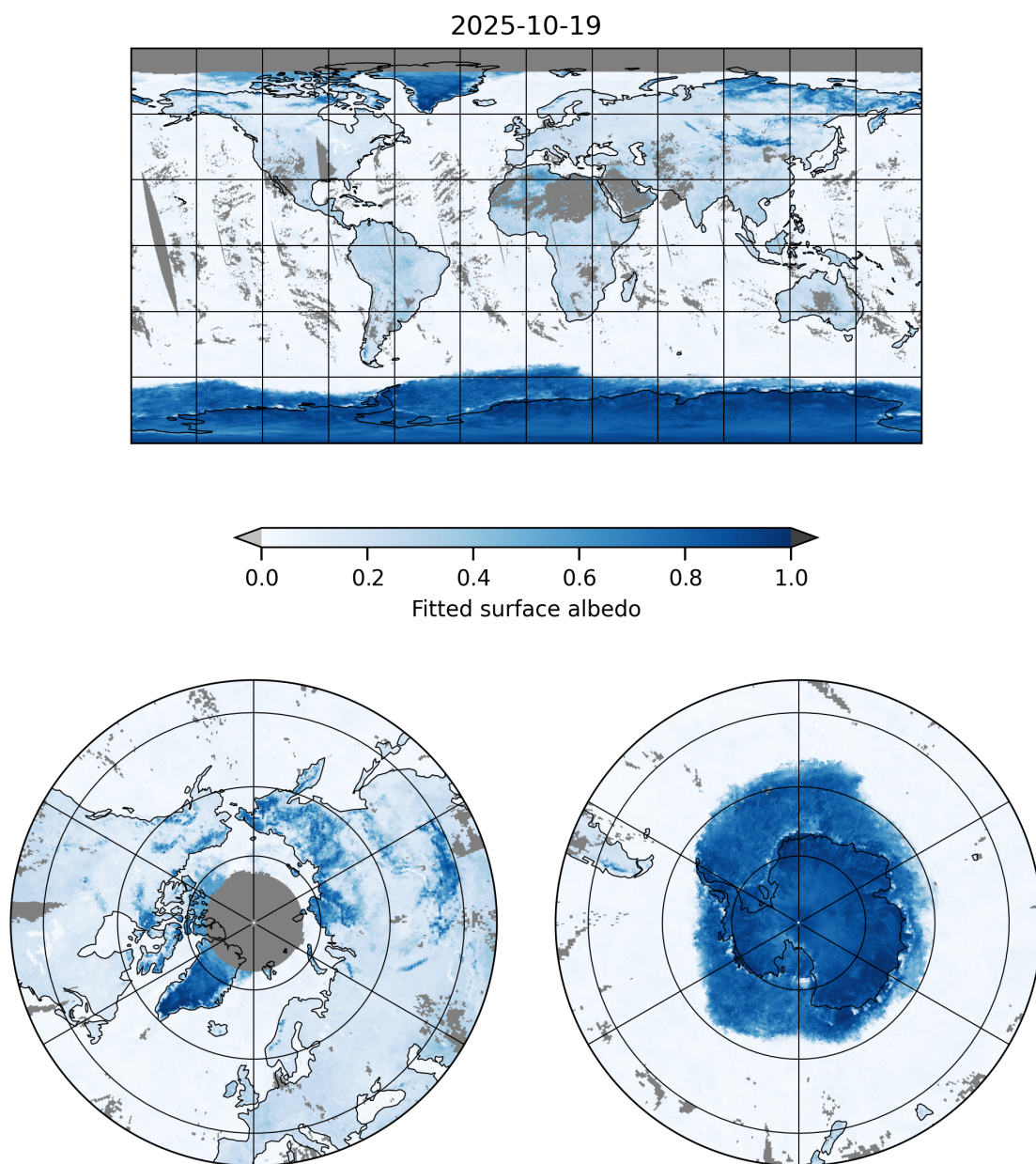


Figure 10: Map of “Fitted surface albedo” for 2025-10-19 to 2025-10-20

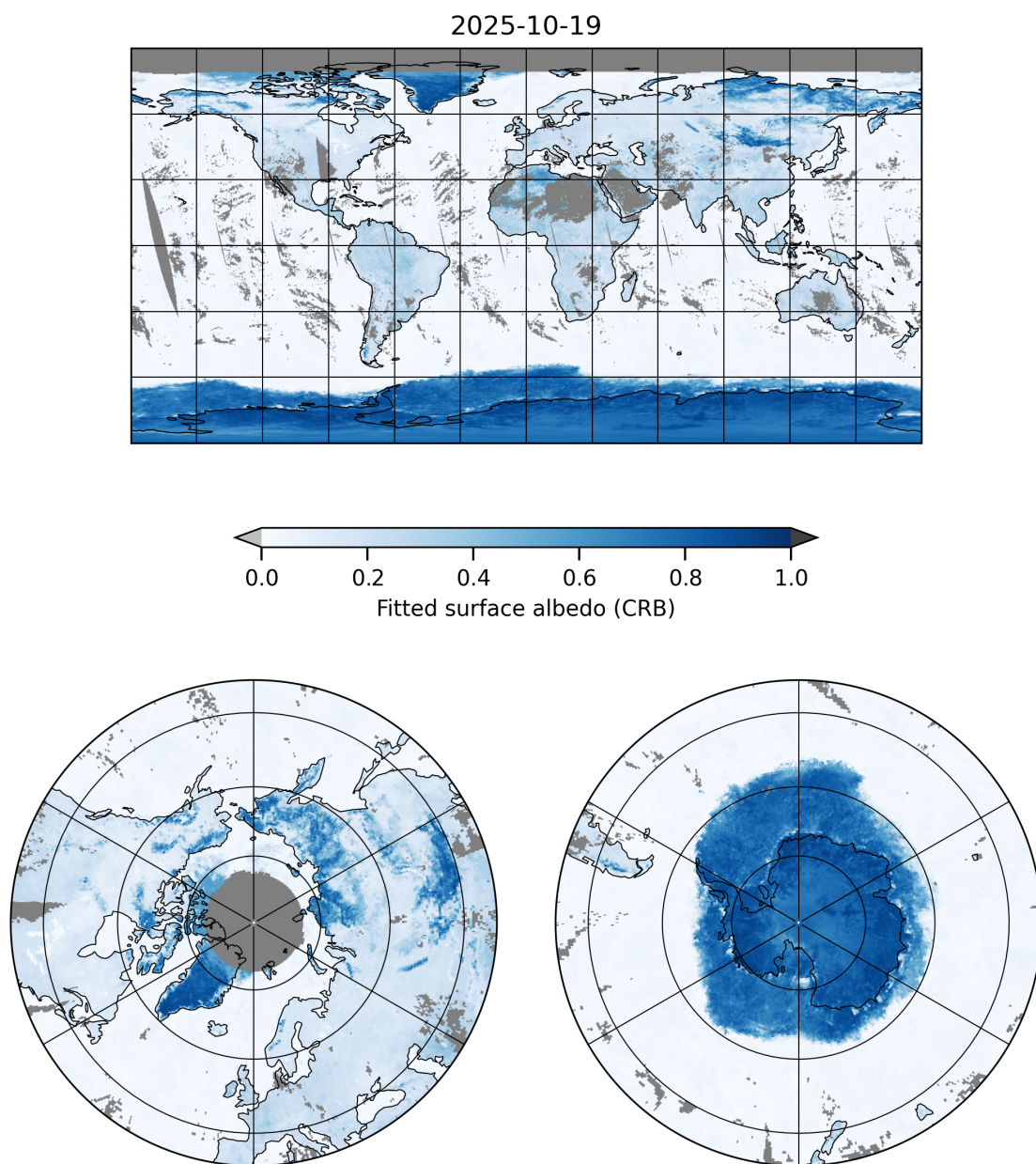


Figure 11: Map of “Fitted surface albedo (CRB)” for 2025-10-19 to 2025-10-20

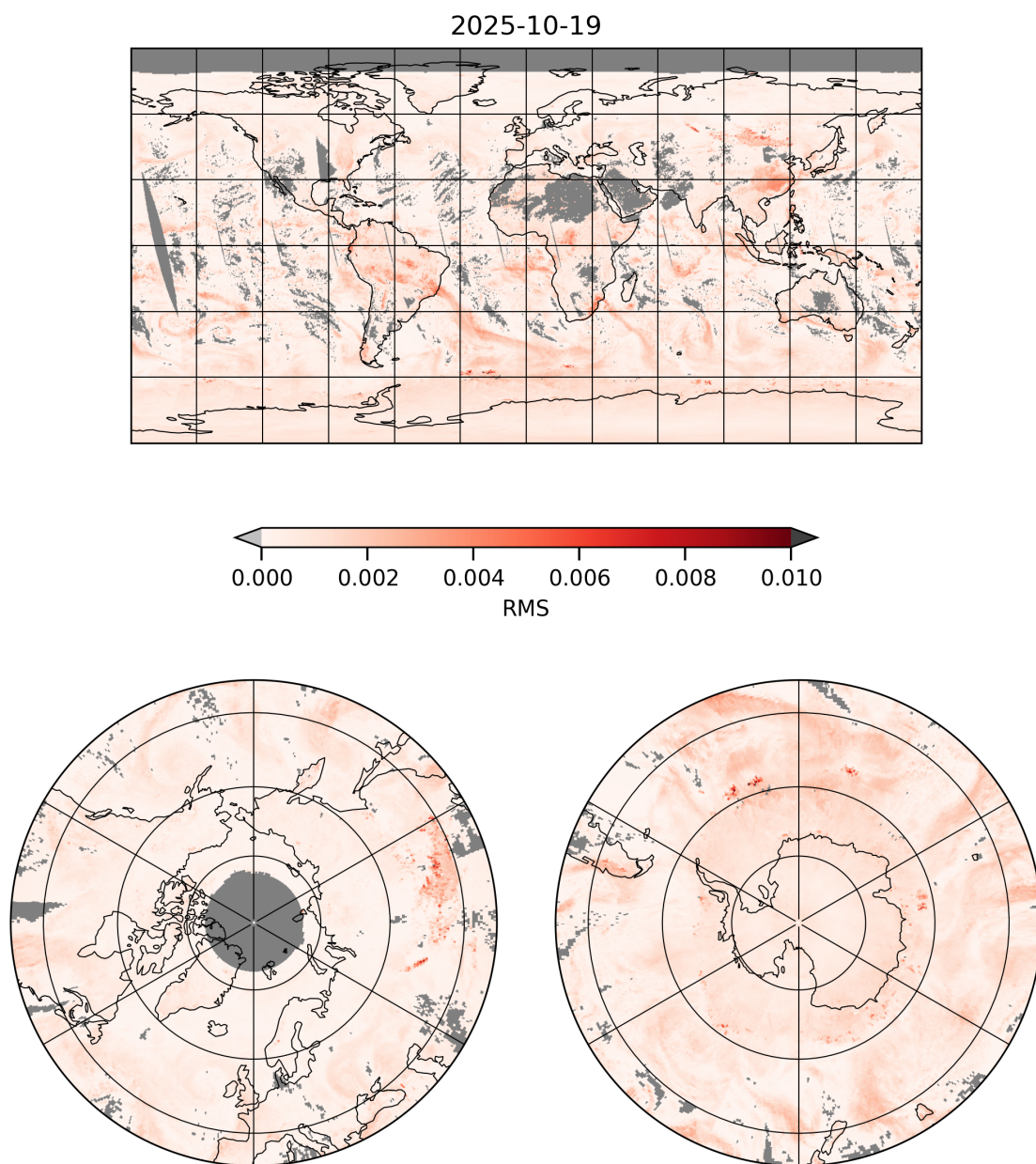


Figure 12: Map of “RMS” for 2025-10-19 to 2025-10-20

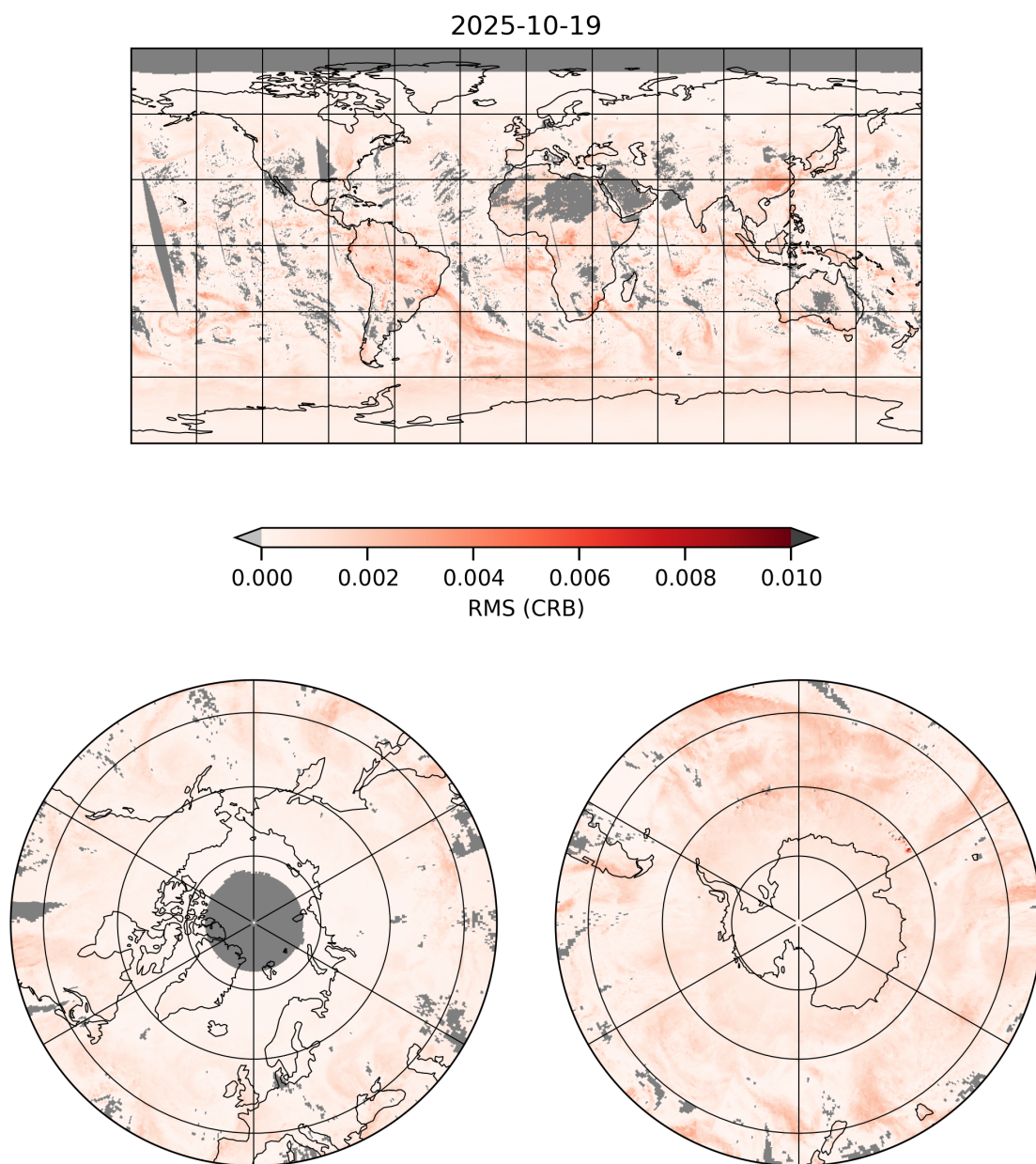


Figure 13: Map of “RMS (CRB)” for 2025-10-19 to 2025-10-20

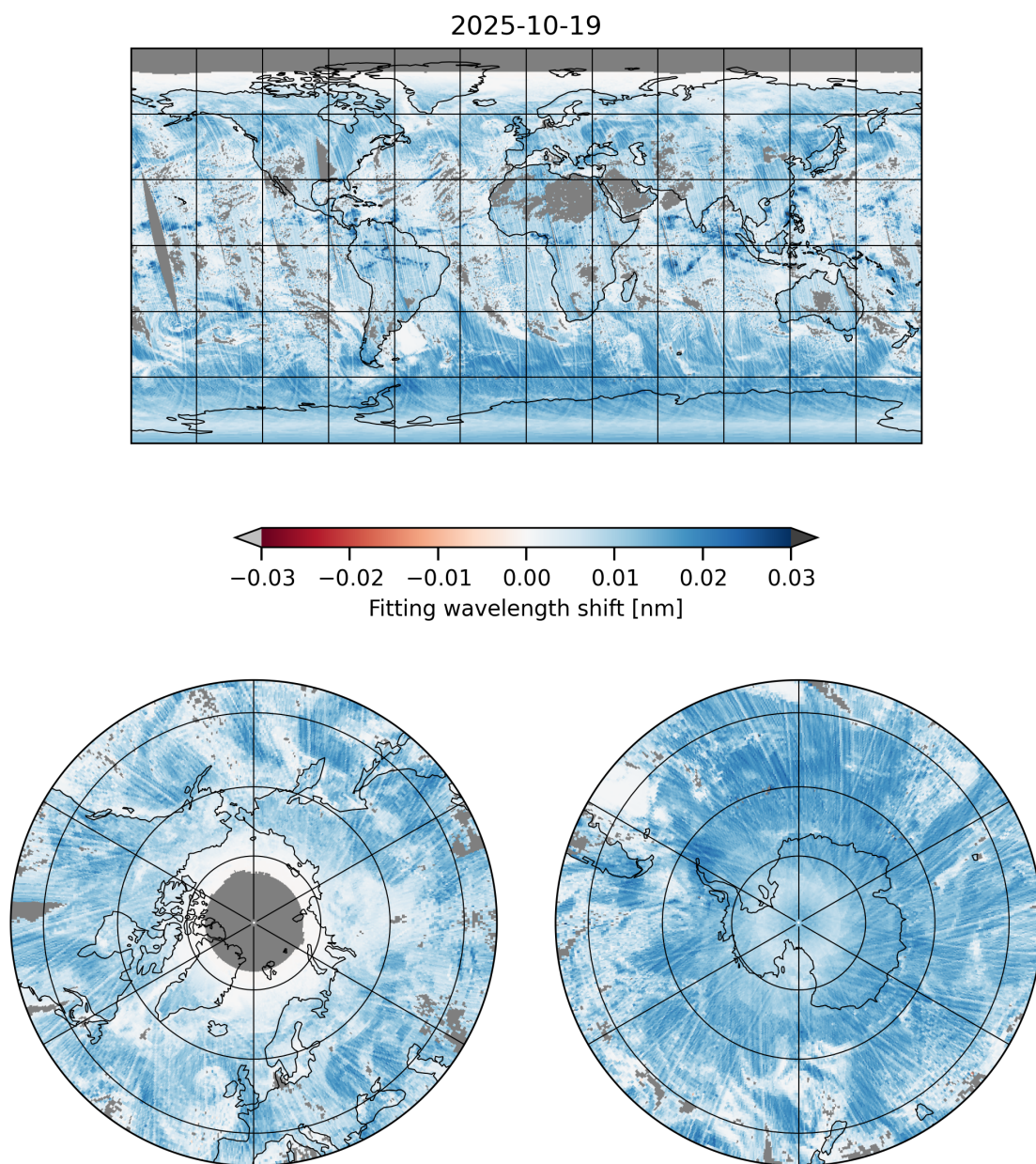


Figure 14: Map of “Fitting wavelength shift” for 2025-10-19 to 2025-10-20

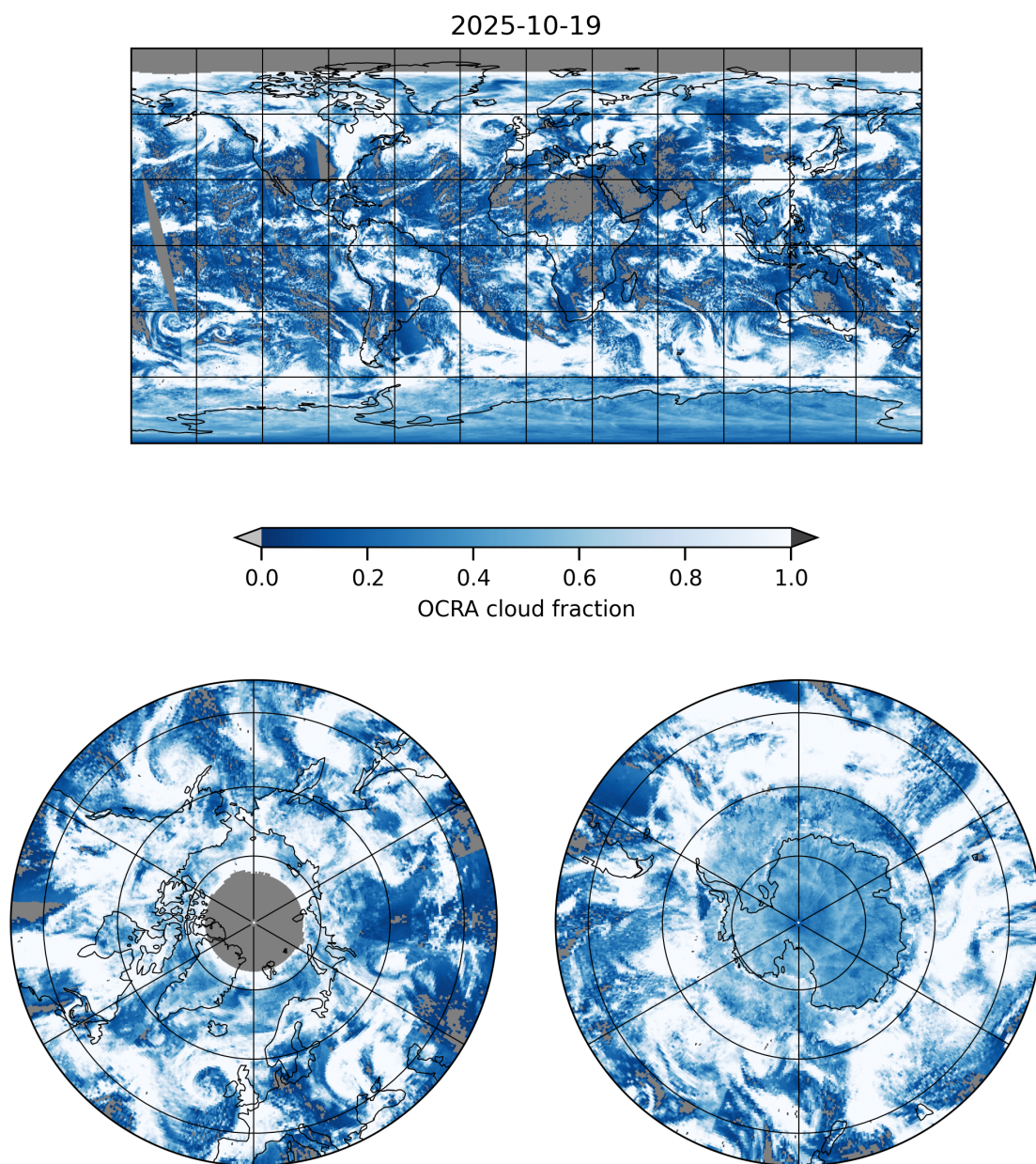


Figure 15: Map of “OCRA cloud fraction” for 2025-10-19 to 2025-10-20

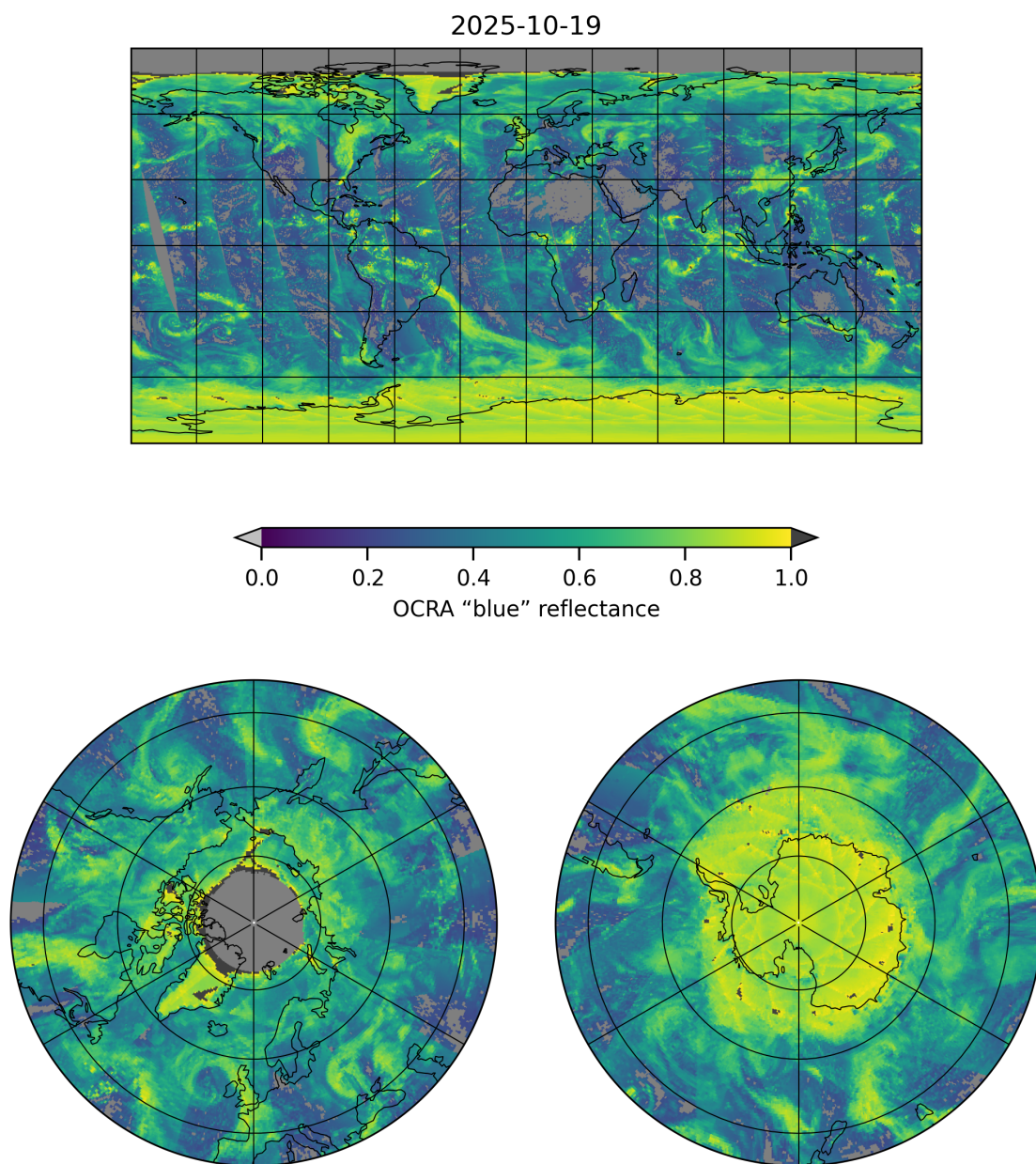


Figure 16: Map of "OCRA "blue" reflectance" for 2025-10-19 to 2025-10-20

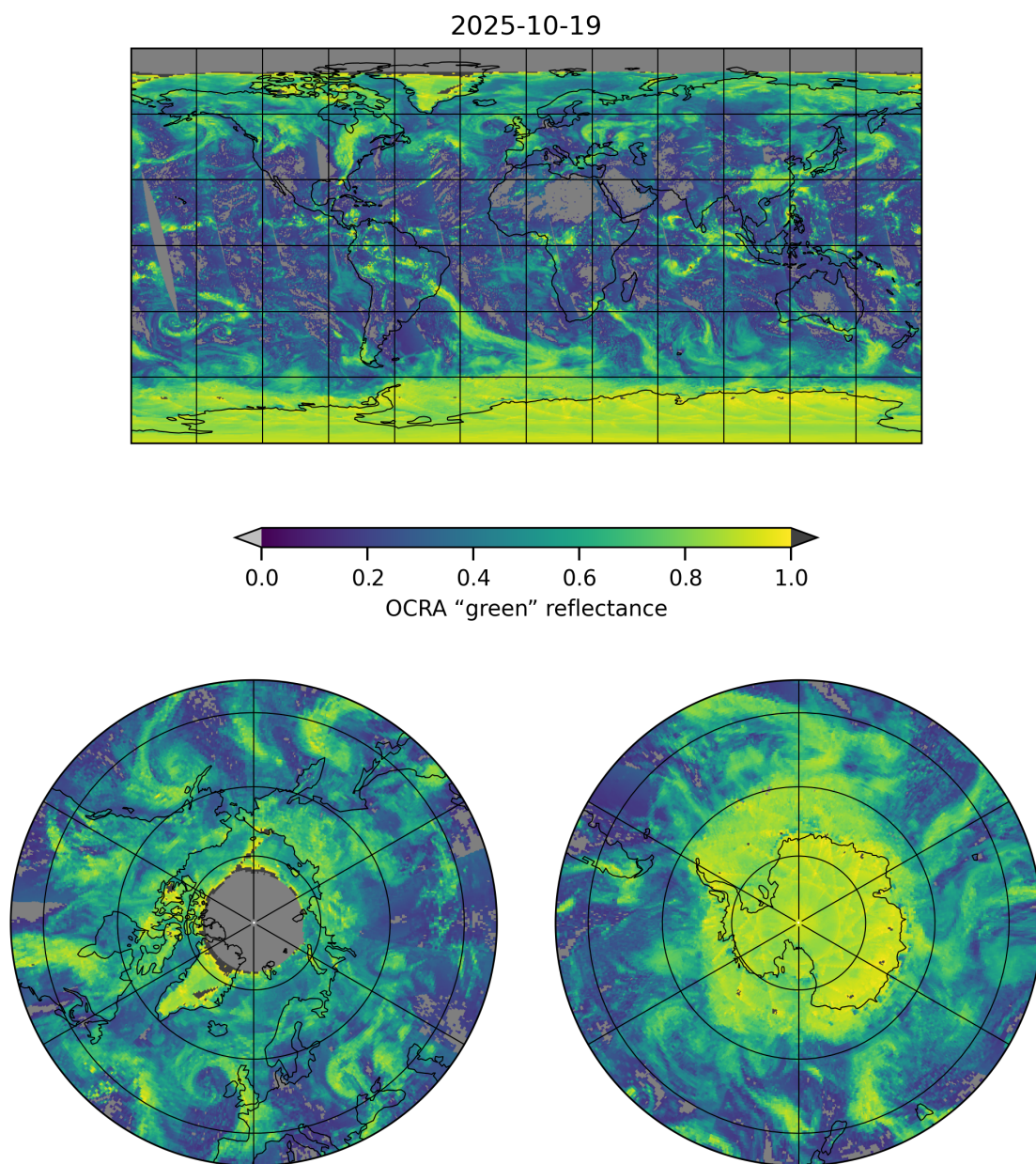


Figure 17: Map of "OCRA "green" reflectance" for 2025-10-19 to 2025-10-20

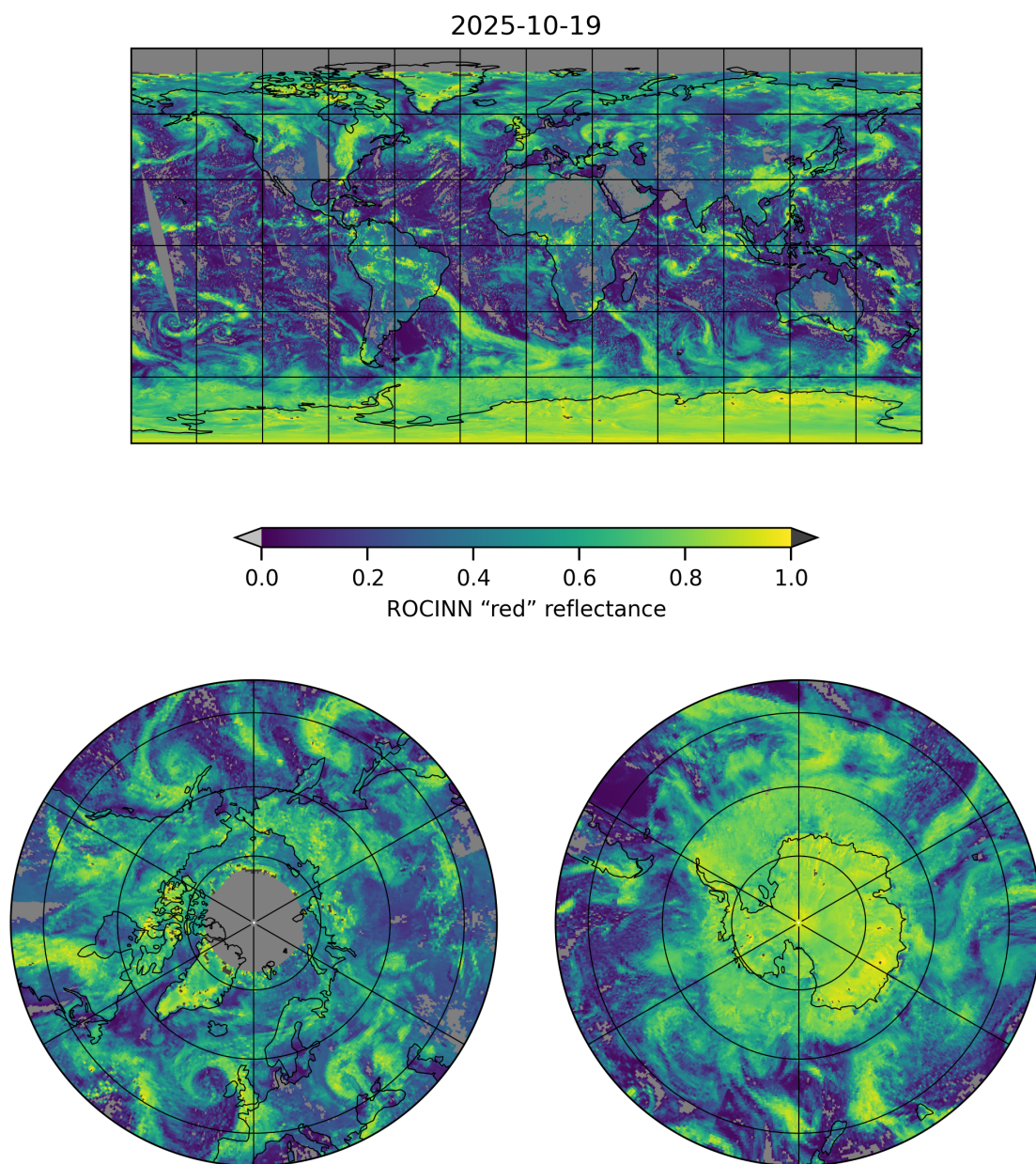


Figure 18: Map of "ROCINN "red" reflectance" for 2025-10-19 to 2025-10-20

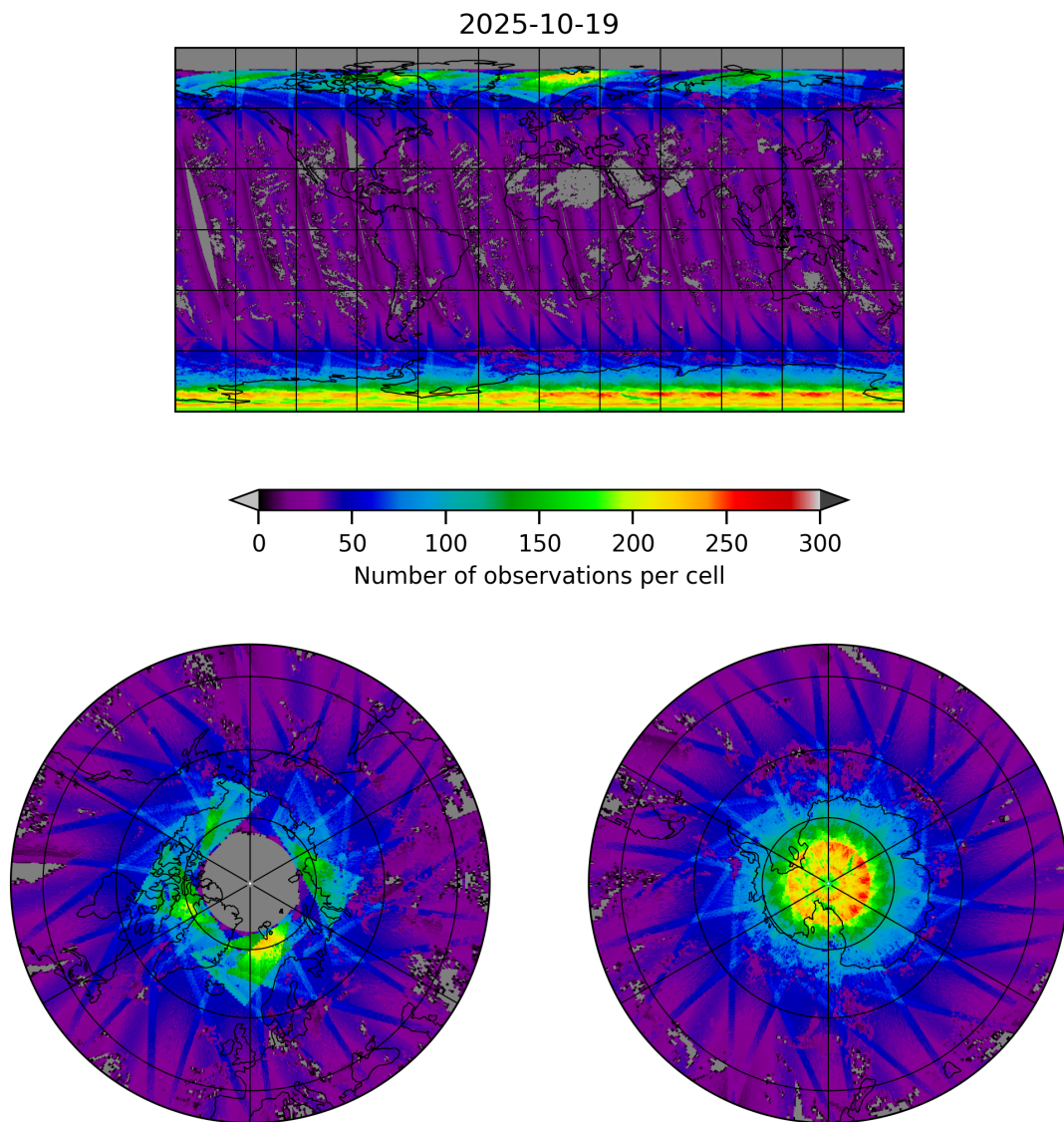


Figure 19: Map of the number of observations for 2025-10-19 to 2025-10-20

7 Zonal average

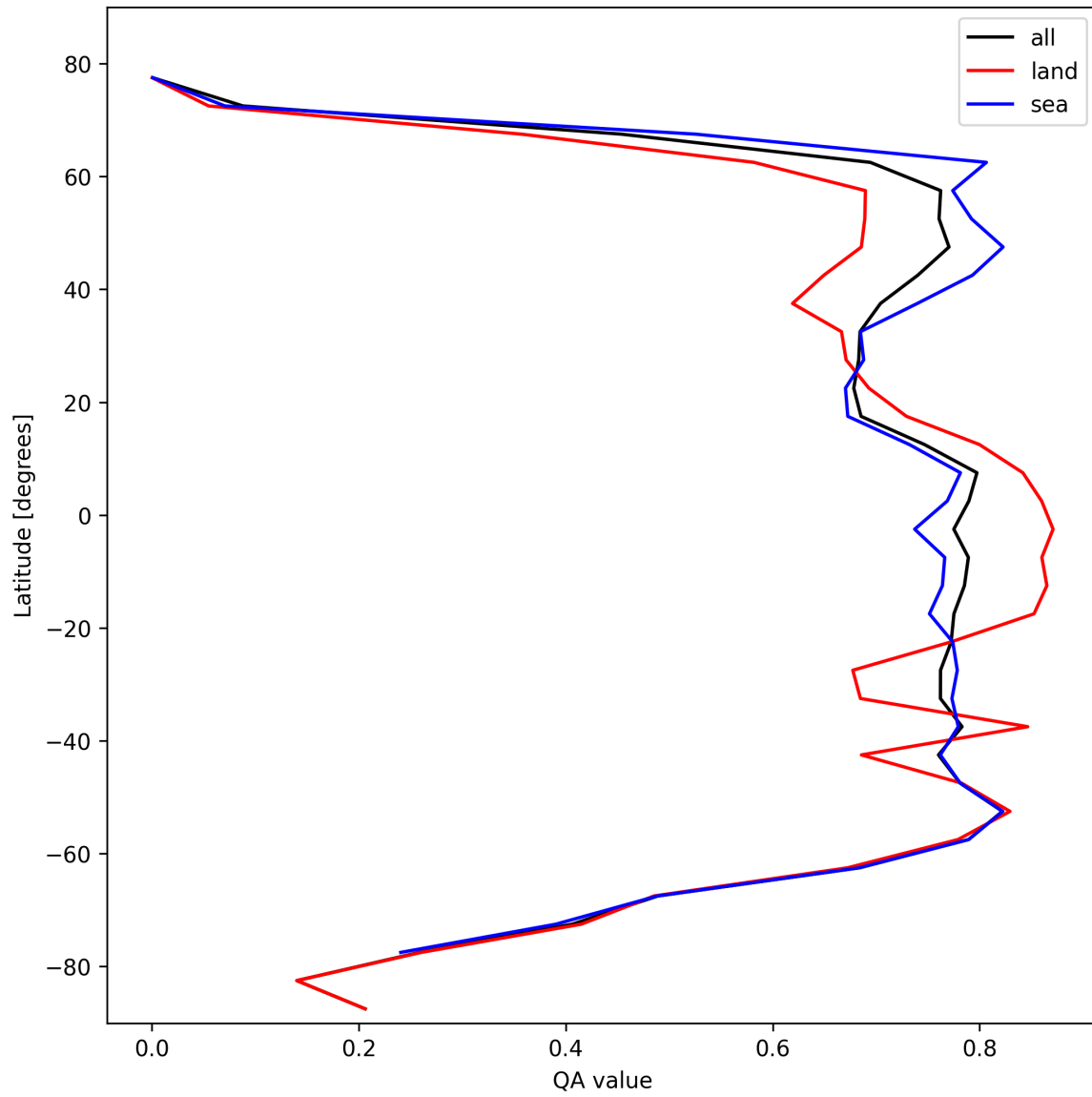


Figure 20: Zonal average of “QA value” for 2025-10-19 to 2025-10-20.

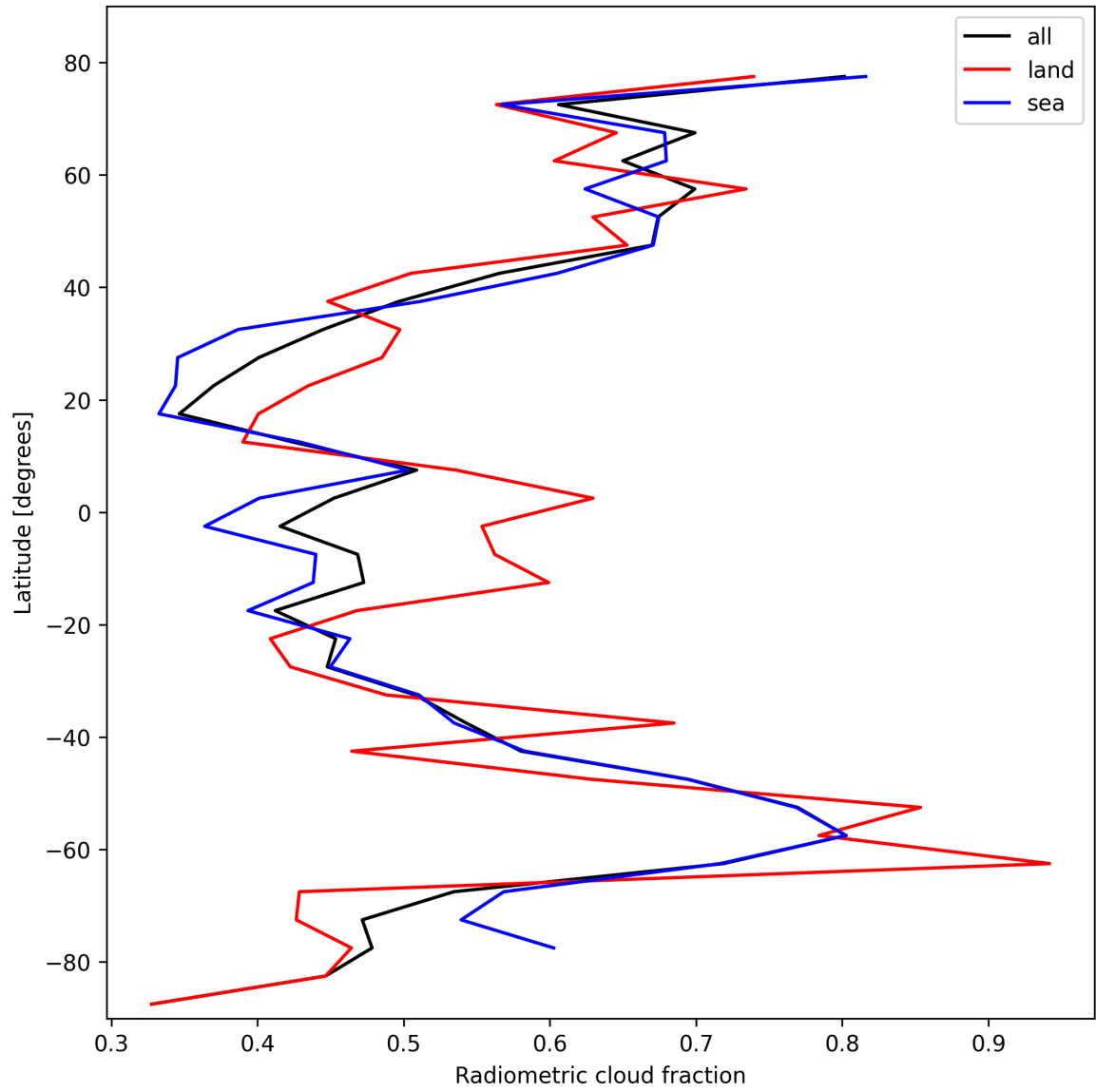


Figure 21: Zonal average of “Radiometric cloud fraction” for 2025-10-19 to 2025-10-20.

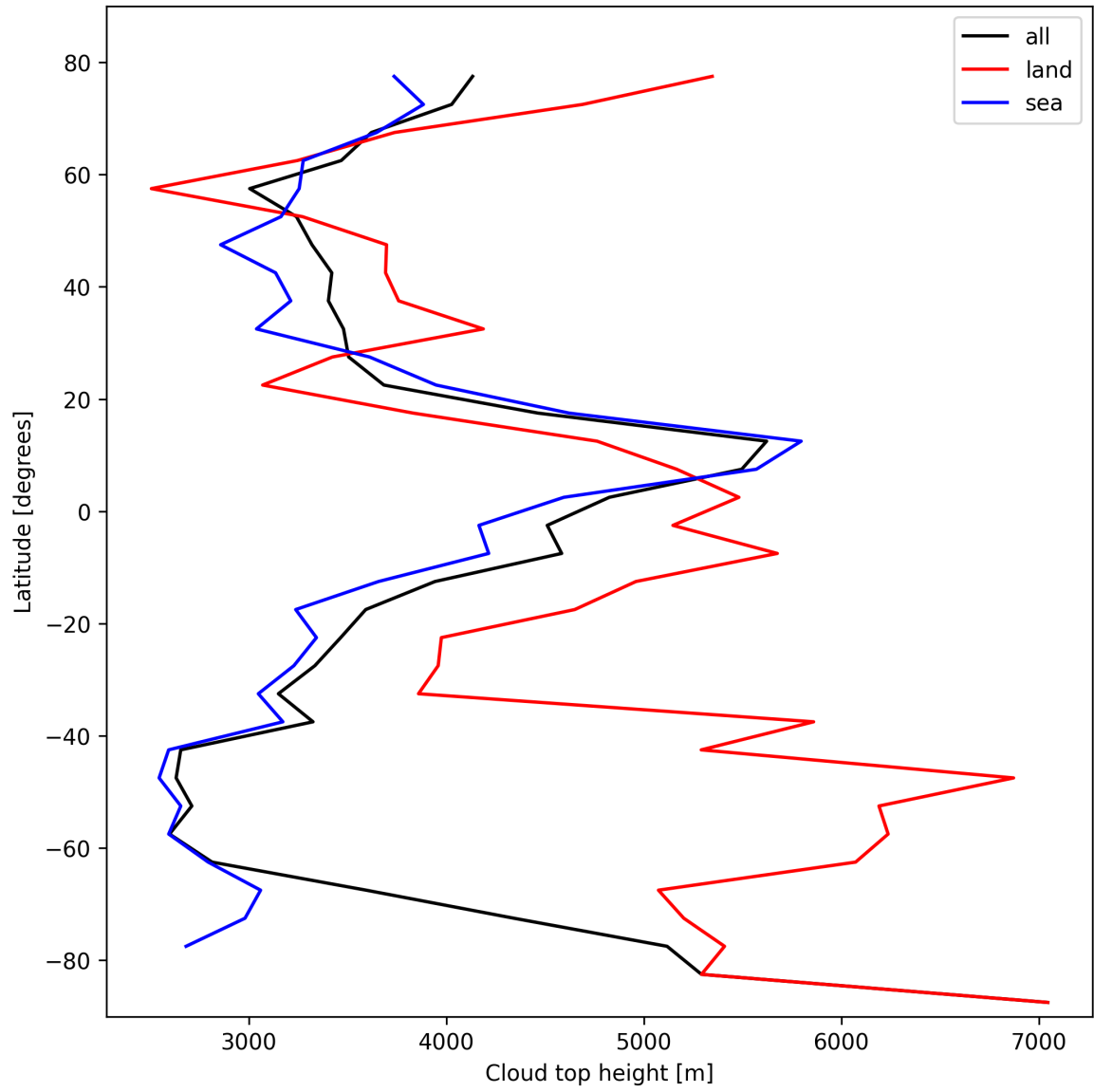


Figure 22: Zonal average of “Cloud top height” for 2025-10-19 to 2025-10-20.

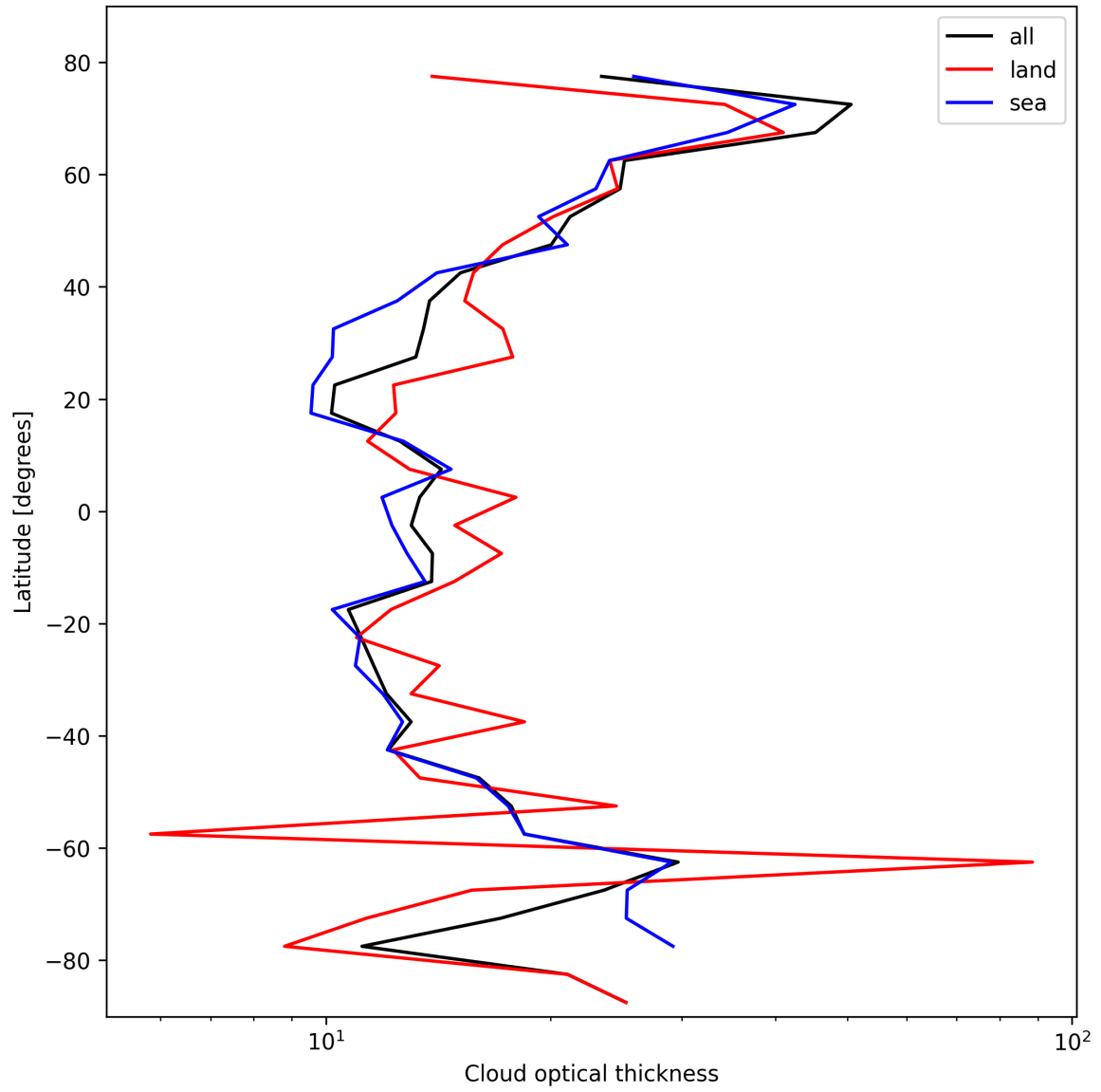


Figure 23: Zonal average of “Cloud optical thickness” for 2025-10-19 to 2025-10-20.

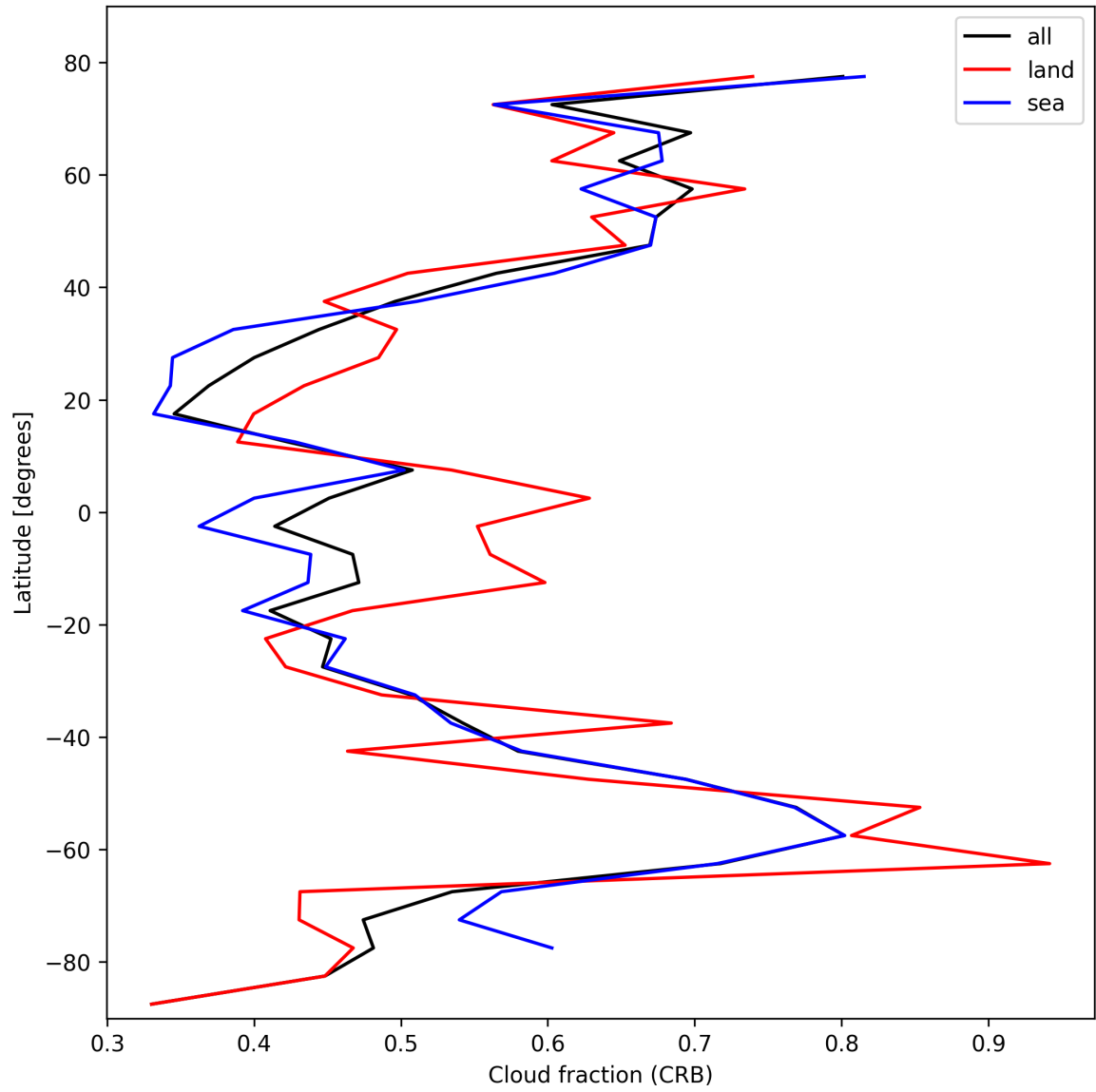


Figure 24: Zonal average of “Cloud fraction (CRB)” for 2025-10-19 to 2025-10-20.

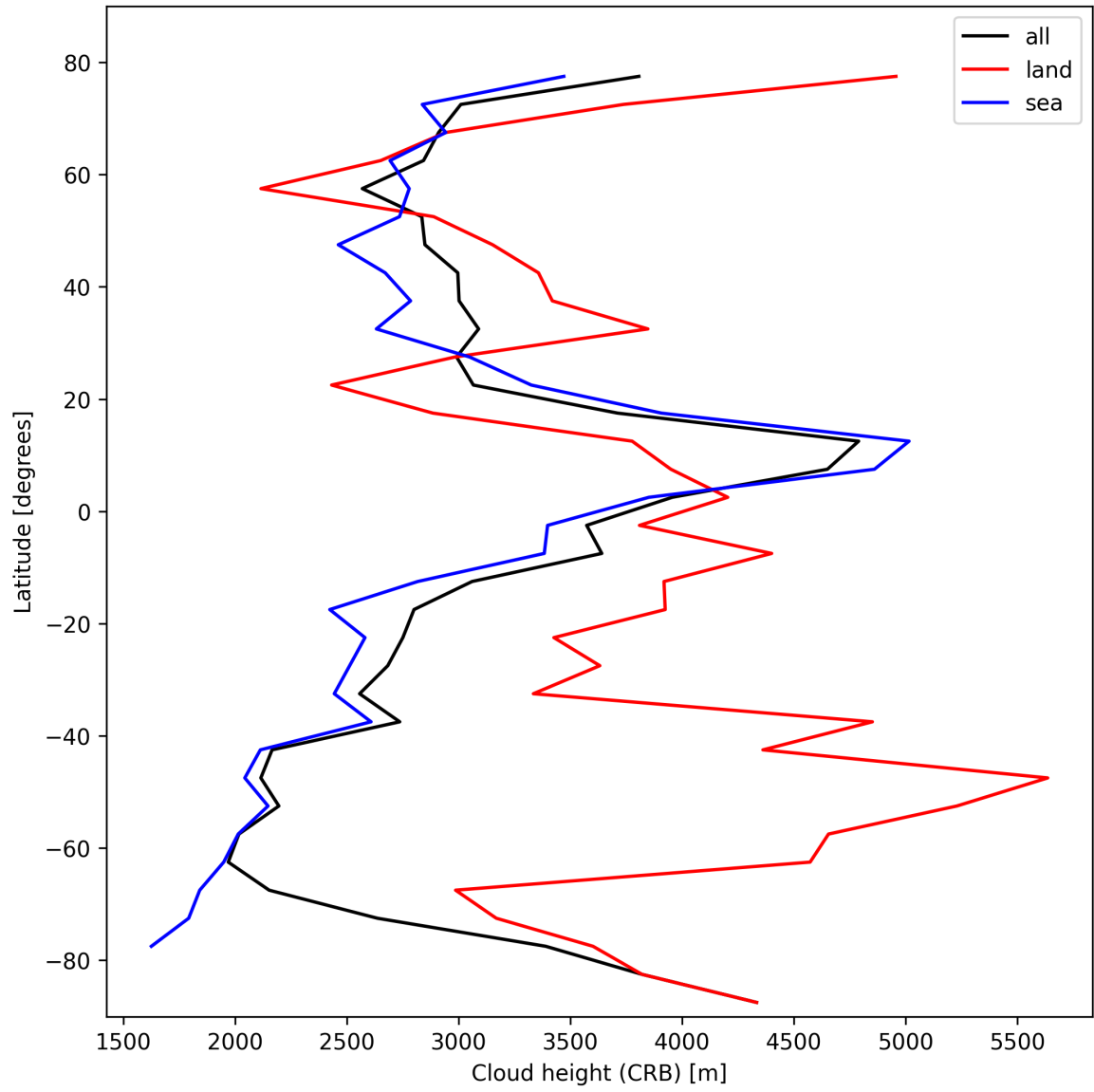


Figure 25: Zonal average of “Cloud height (CRB)” for 2025-10-19 to 2025-10-20.

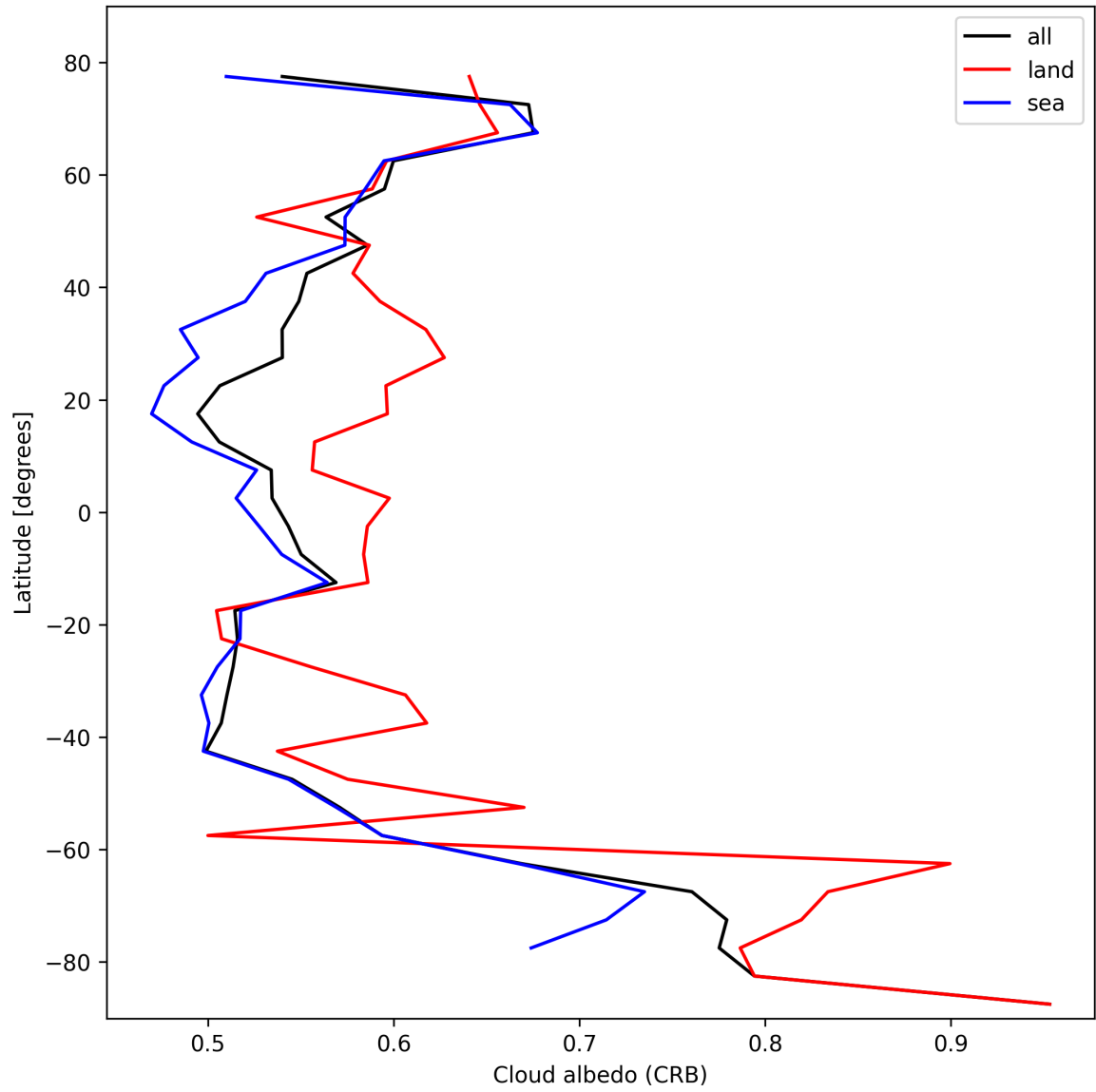


Figure 26: Zonal average of “Cloud albedo (CRB)” for 2025-10-19 to 2025-10-20.

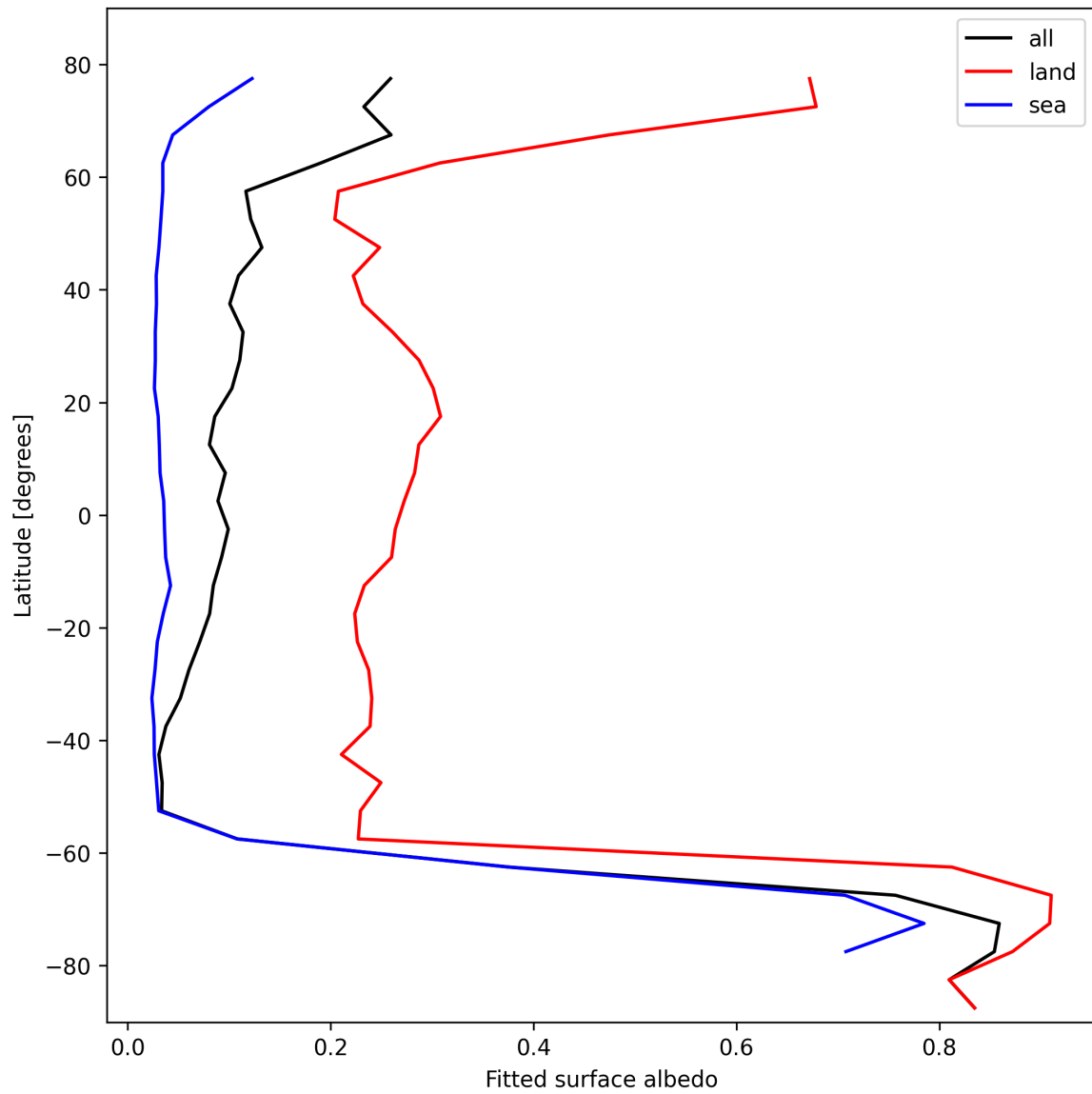


Figure 27: Zonal average of “Fitted surface albedo” for 2025-10-19 to 2025-10-20.

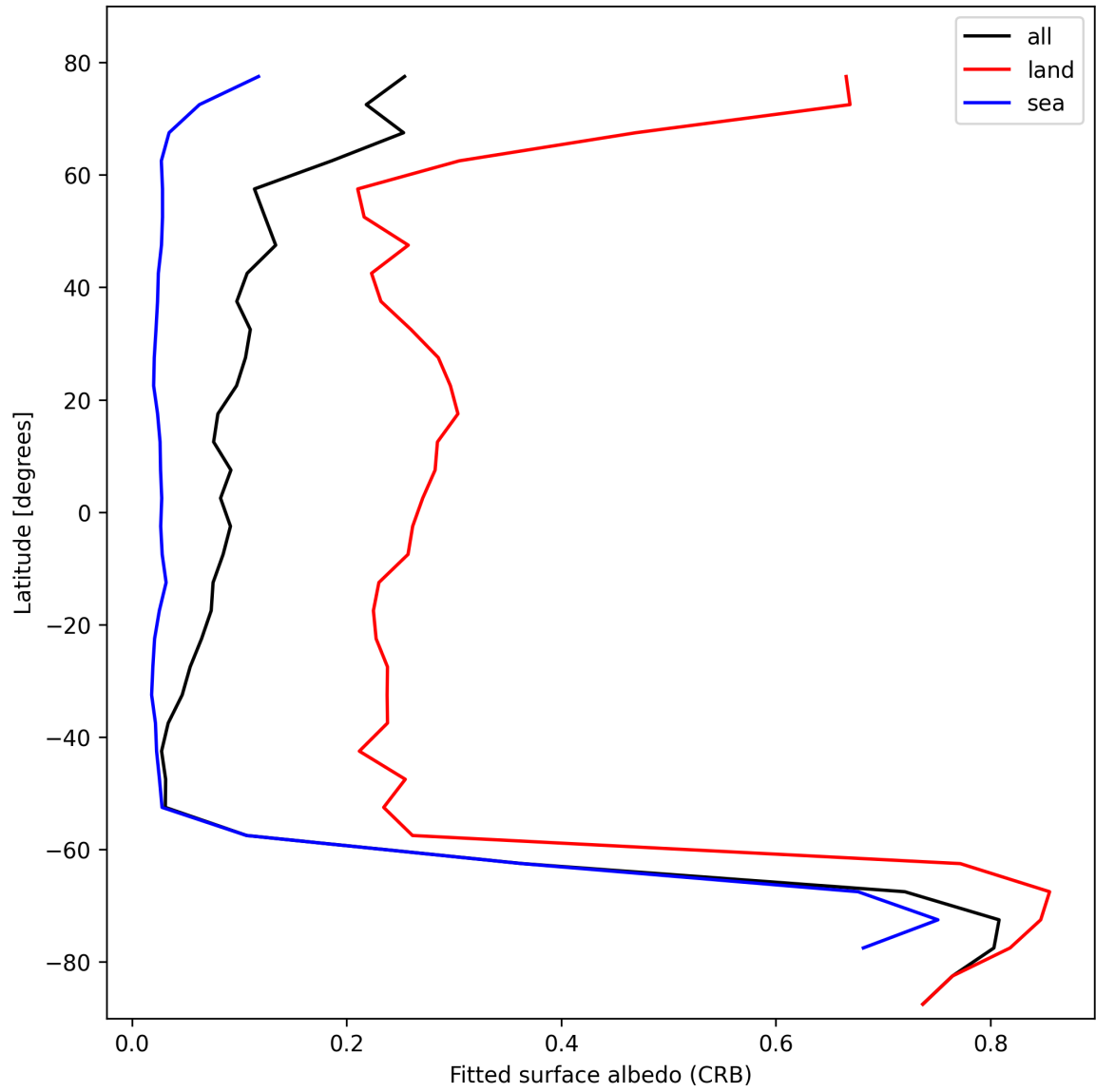


Figure 28: Zonal average of “Fitted surface albedo (CRB)” for 2025-10-19 to 2025-10-20.

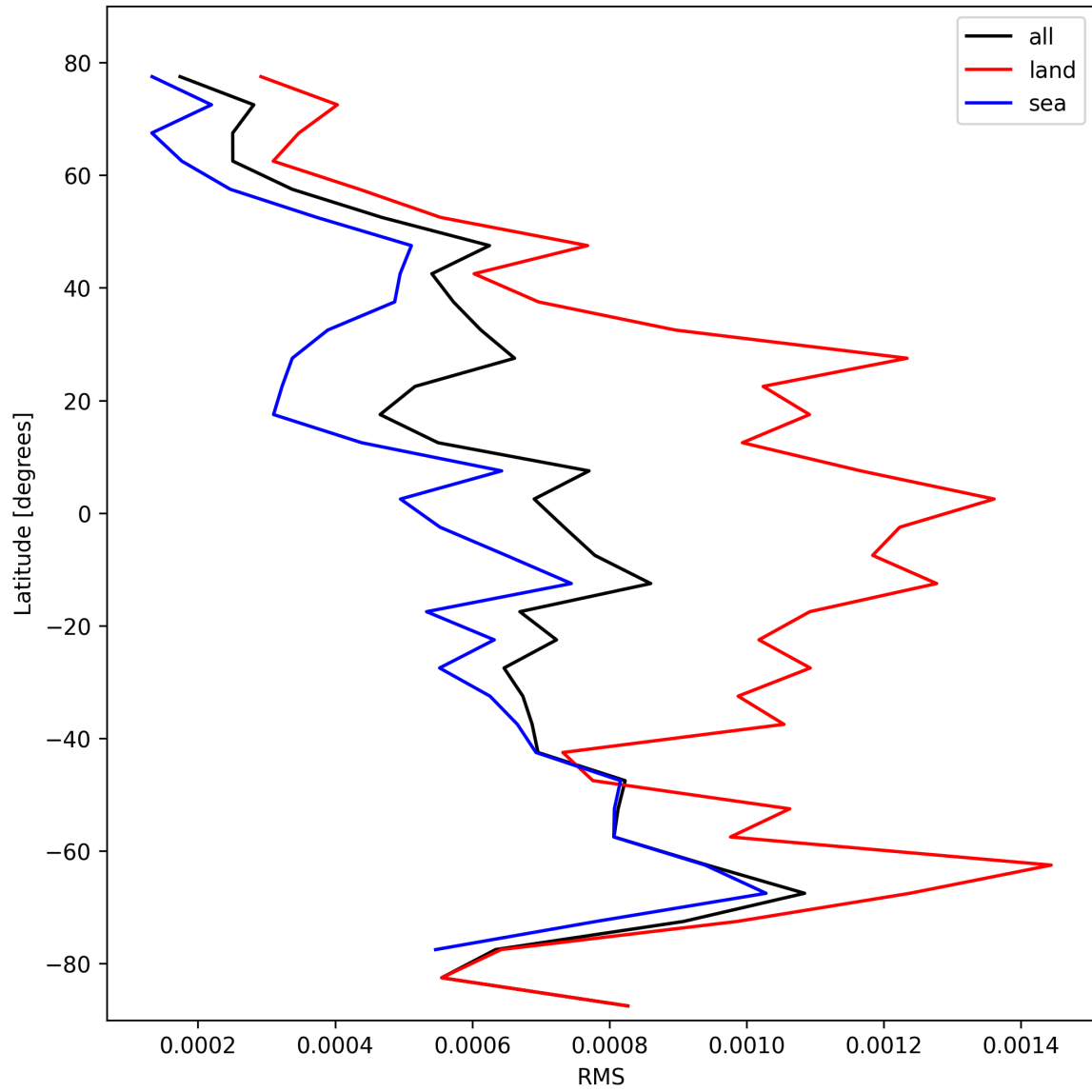


Figure 29: Zonal average of “RMS” for 2025-10-19 to 2025-10-20.

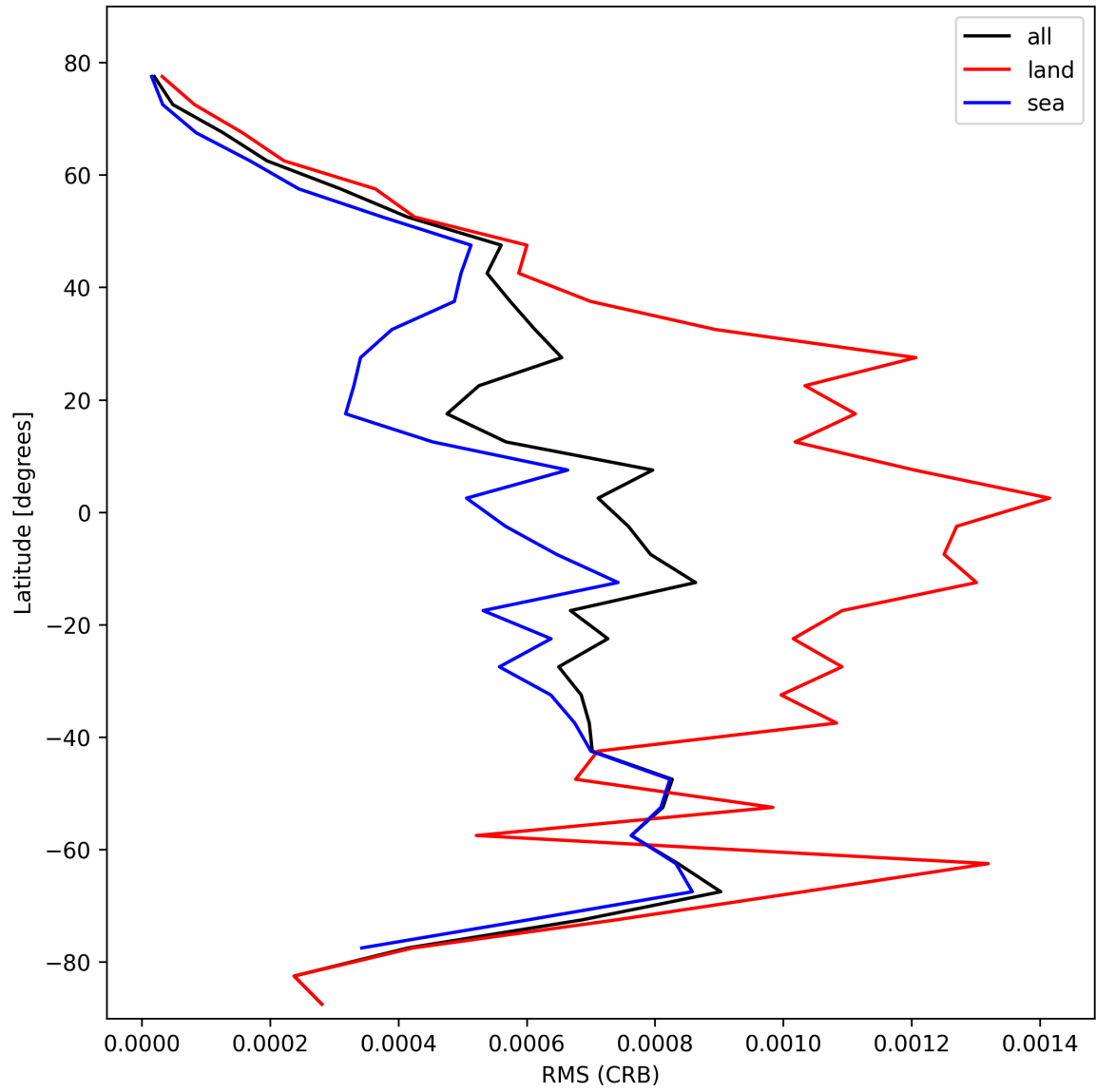


Figure 30: Zonal average of “RMS (CRB)” for 2025-10-19 to 2025-10-20.

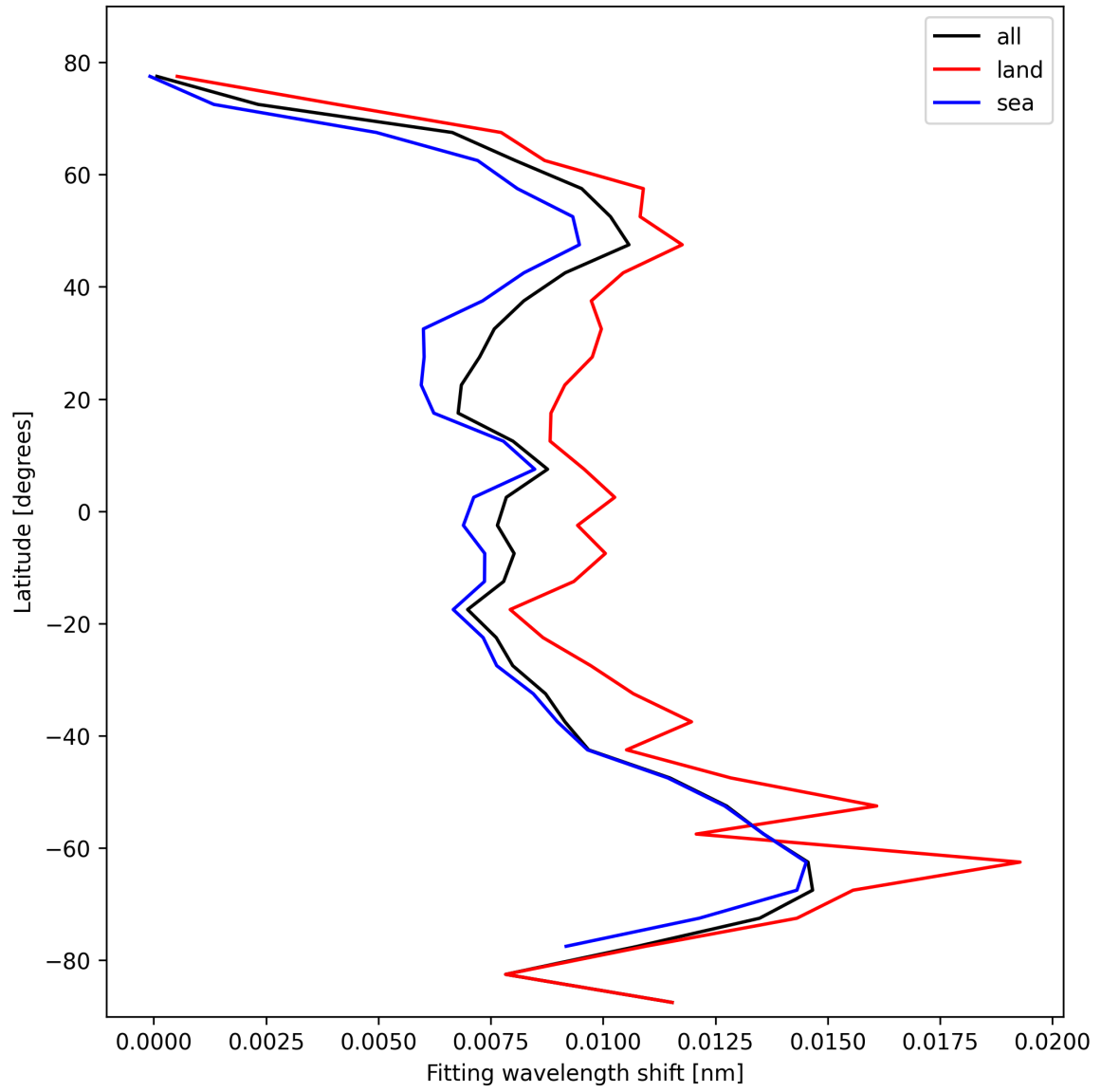


Figure 31: Zonal average of “Fitting wavelength shift” for 2025-10-19 to 2025-10-20.

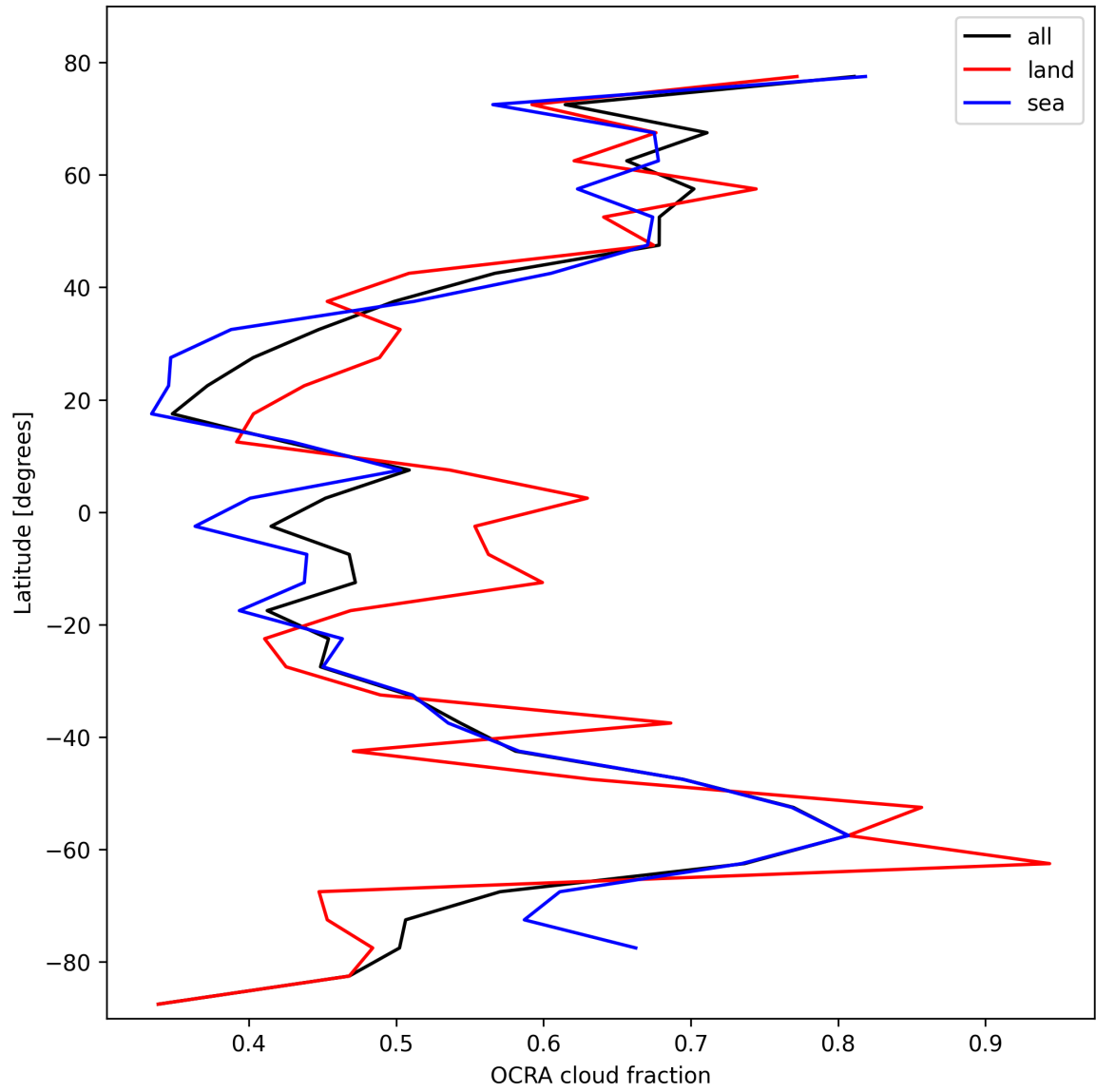


Figure 32: Zonal average of “OCRA cloud fraction” for 2025-10-19 to 2025-10-20.

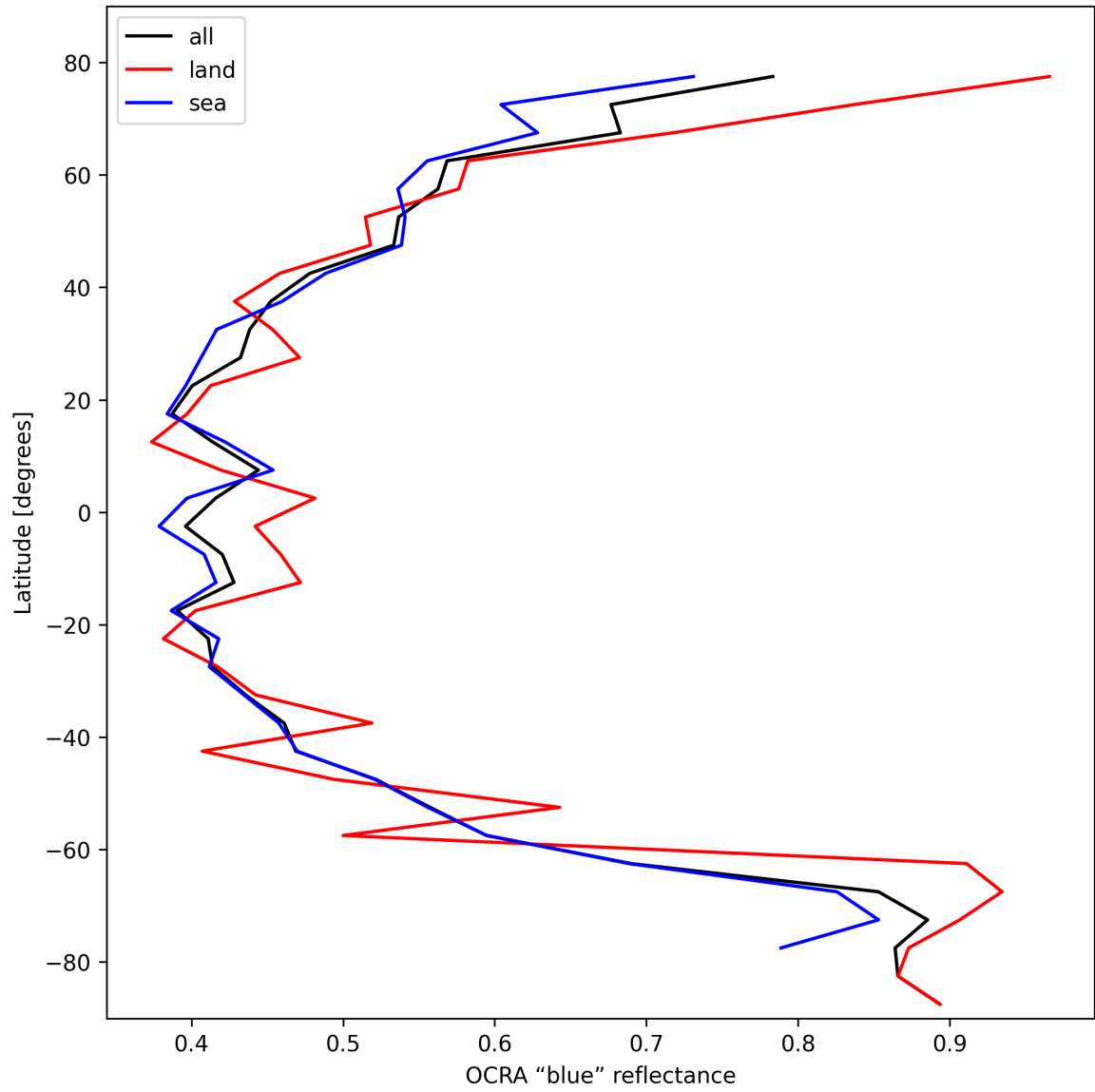


Figure 33: Zonal average of “OCRA “blue” reflectance” for 2025-10-19 to 2025-10-20.

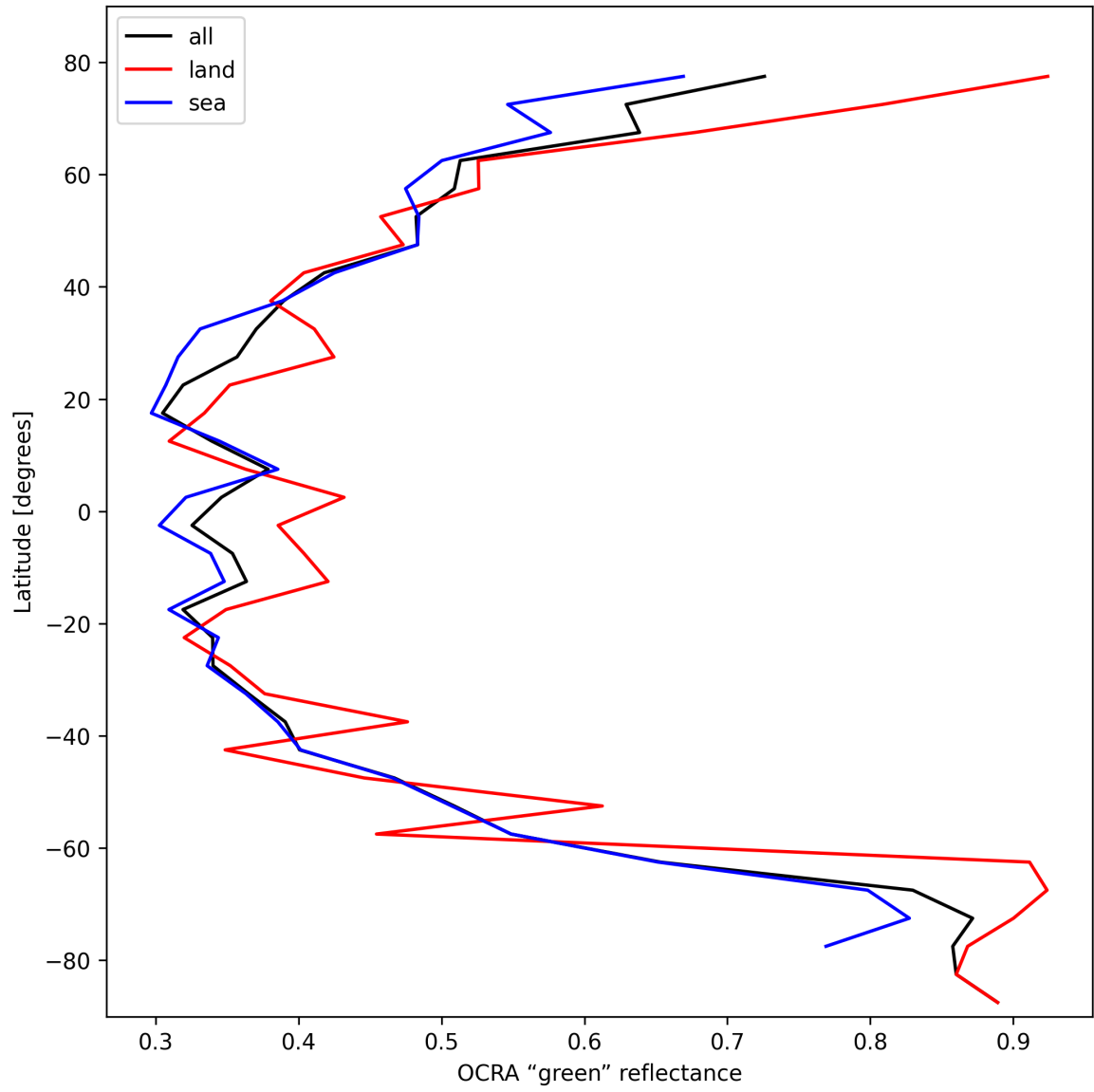


Figure 34: Zonal average of “OCRA “green” reflectance” for 2025-10-19 to 2025-10-20.

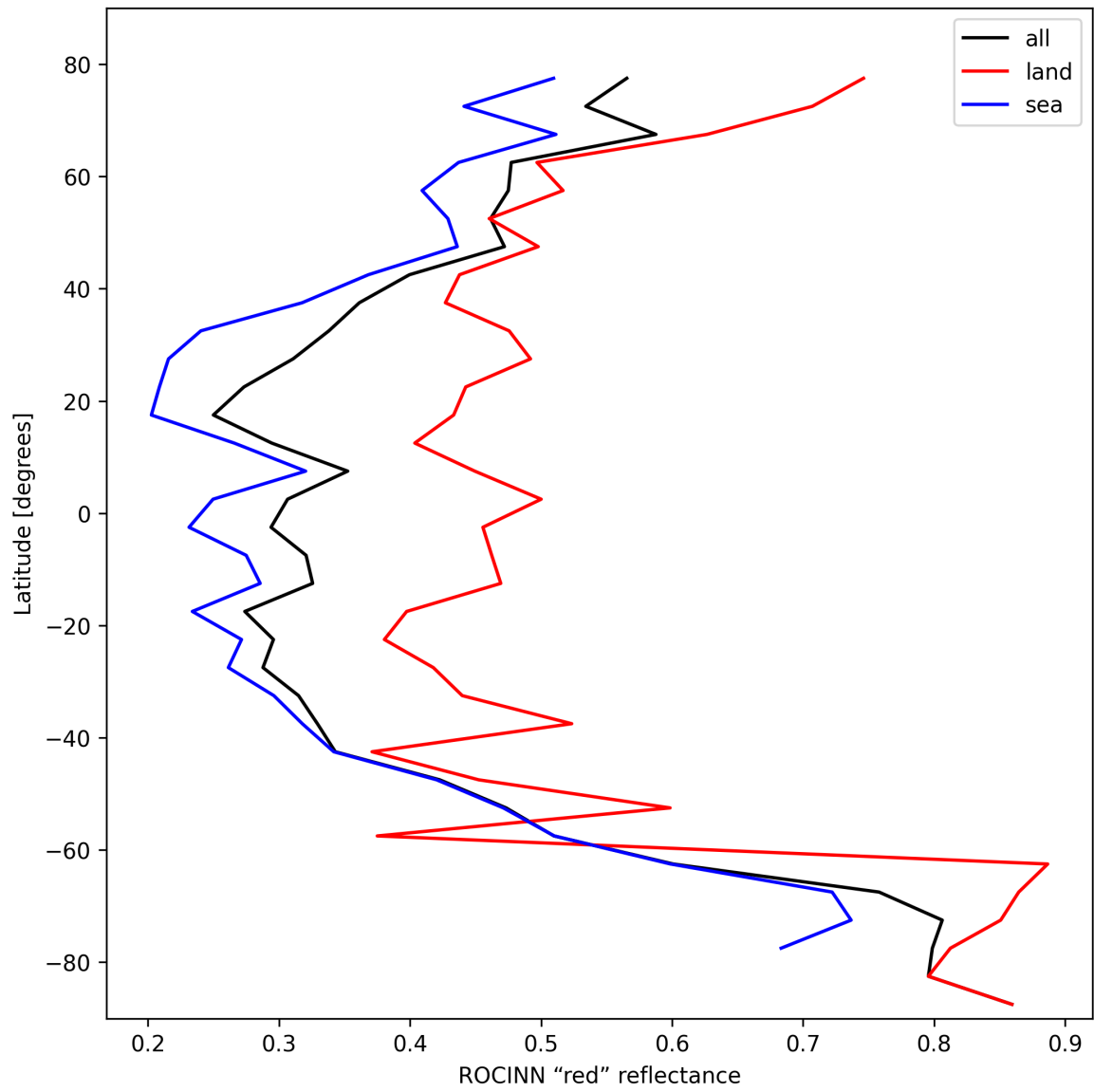


Figure 35: Zonal average of “ROCINN “red” reflectance” for 2025-10-19 to 2025-10-20.

8 Histograms

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

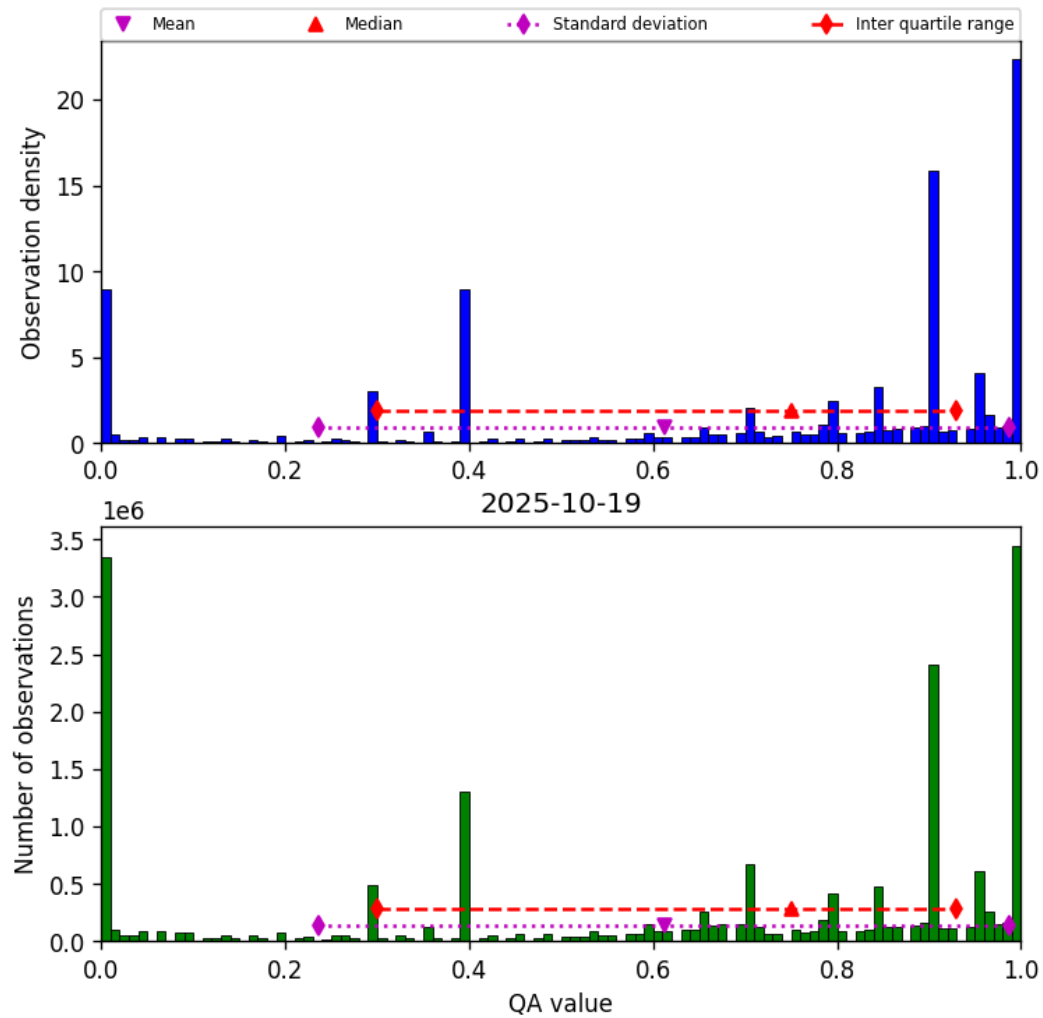


Figure 36: Histogram of “QA value” for 2025-10-19 to 2025-10-20

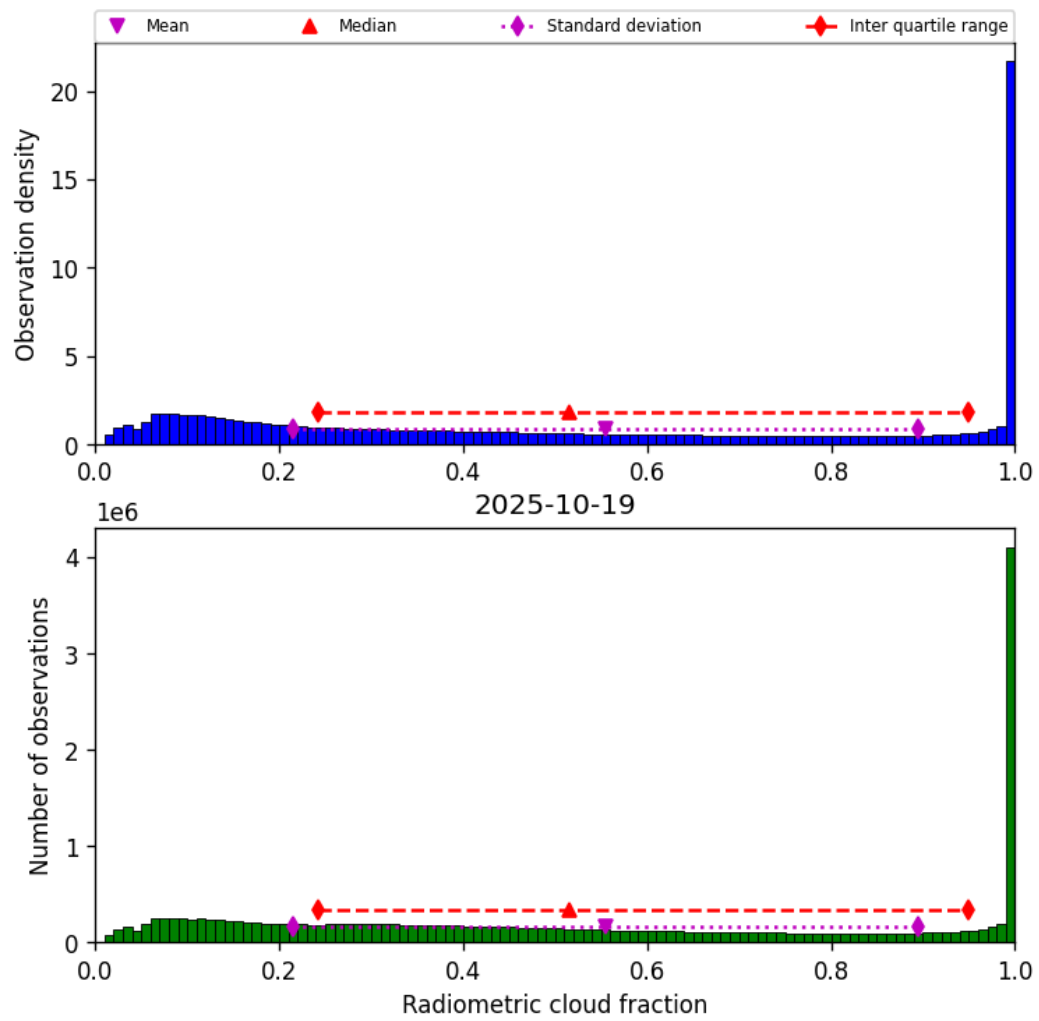


Figure 37: Histogram of “Radiometric cloud fraction” for 2025-10-19 to 2025-10-20

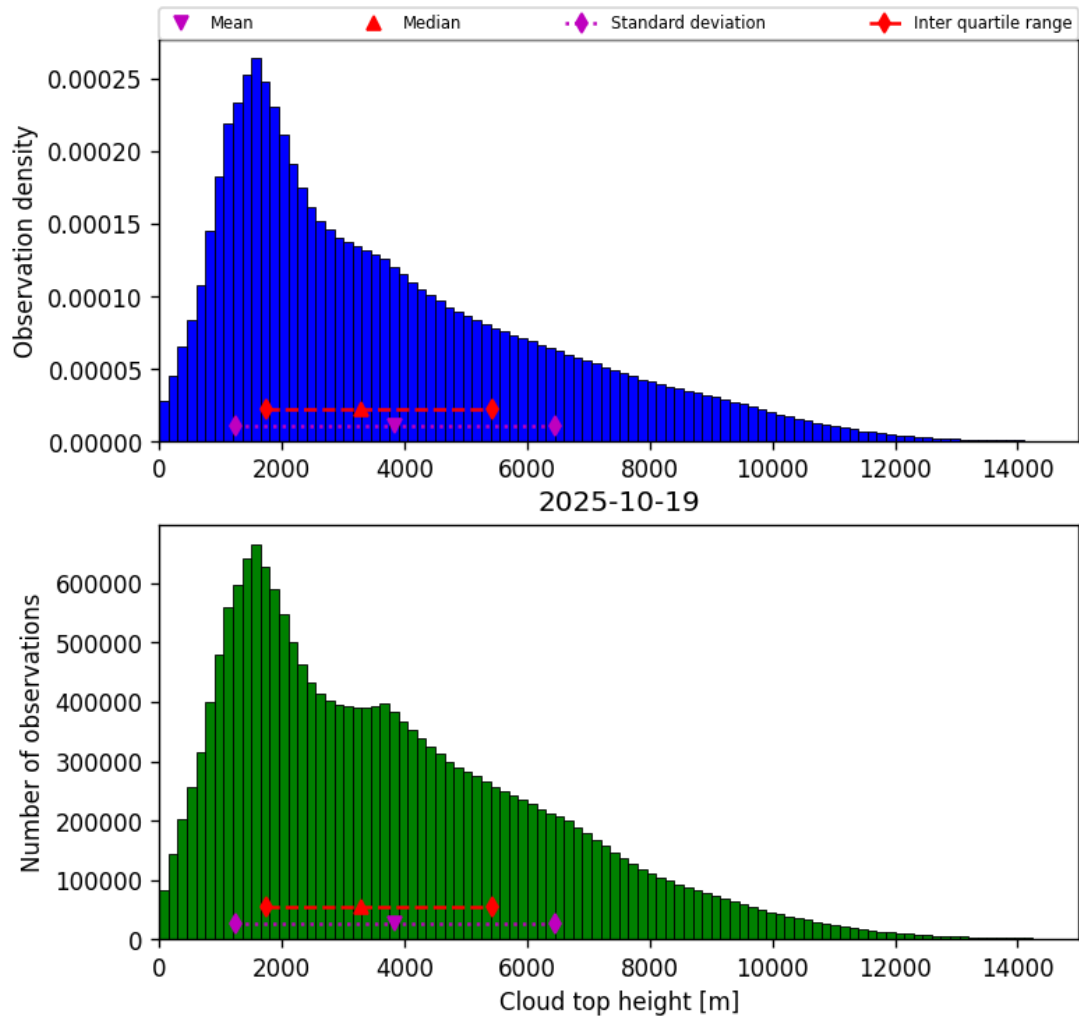


Figure 38: Histogram of “Cloud top height” for 2025-10-19 to 2025-10-20

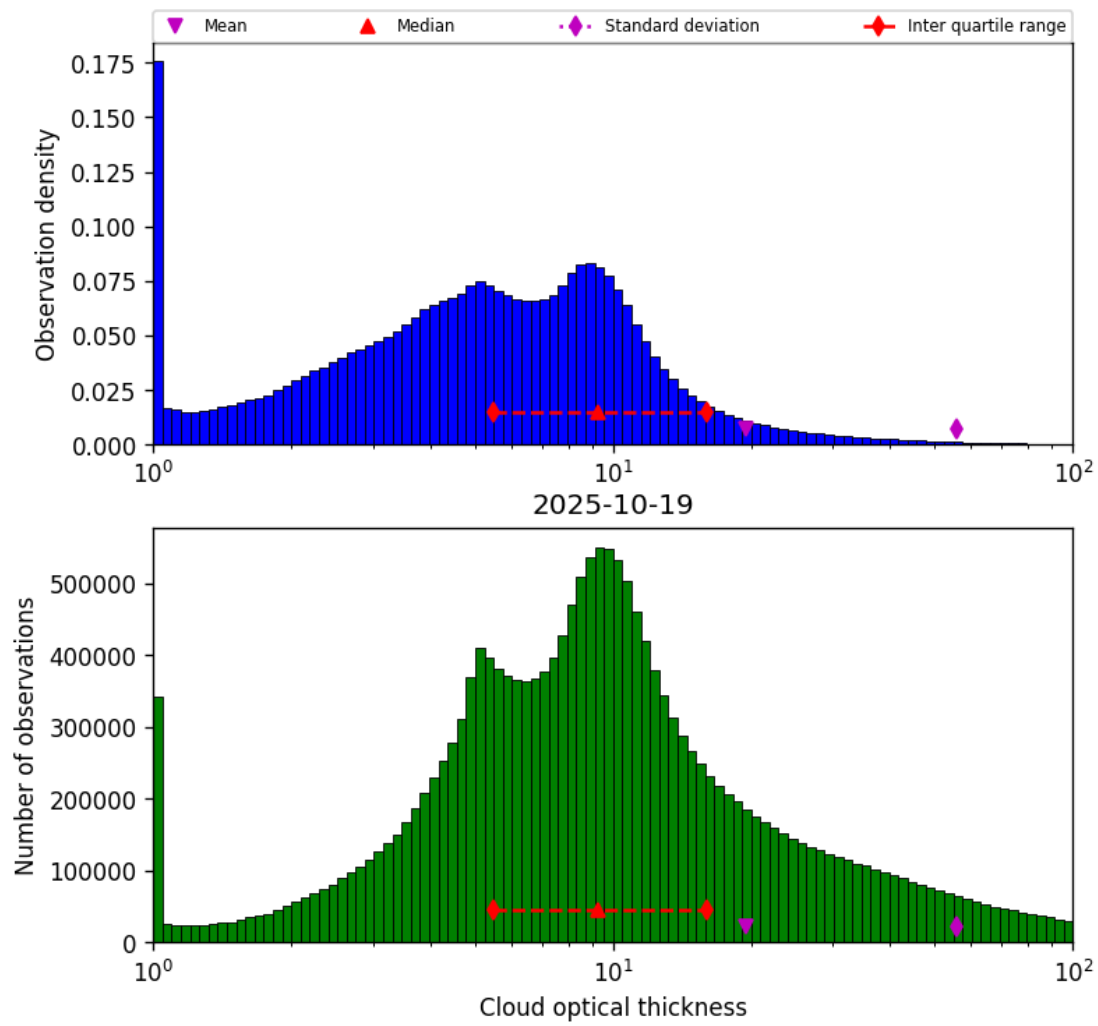


Figure 39: Histogram of “Cloud optical thickness” for 2025-10-19 to 2025-10-20

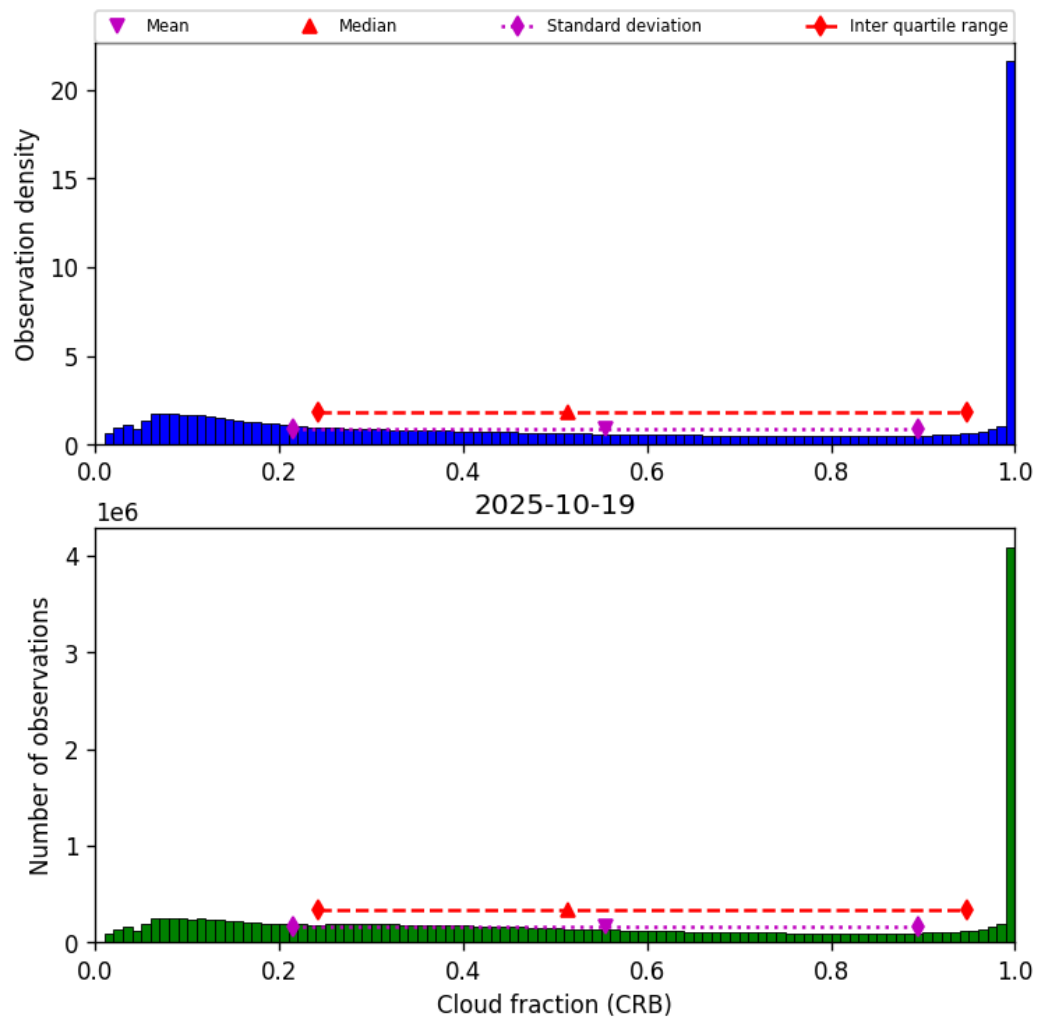


Figure 40: Histogram of “Cloud fraction (CRB)” for 2025-10-19 to 2025-10-20

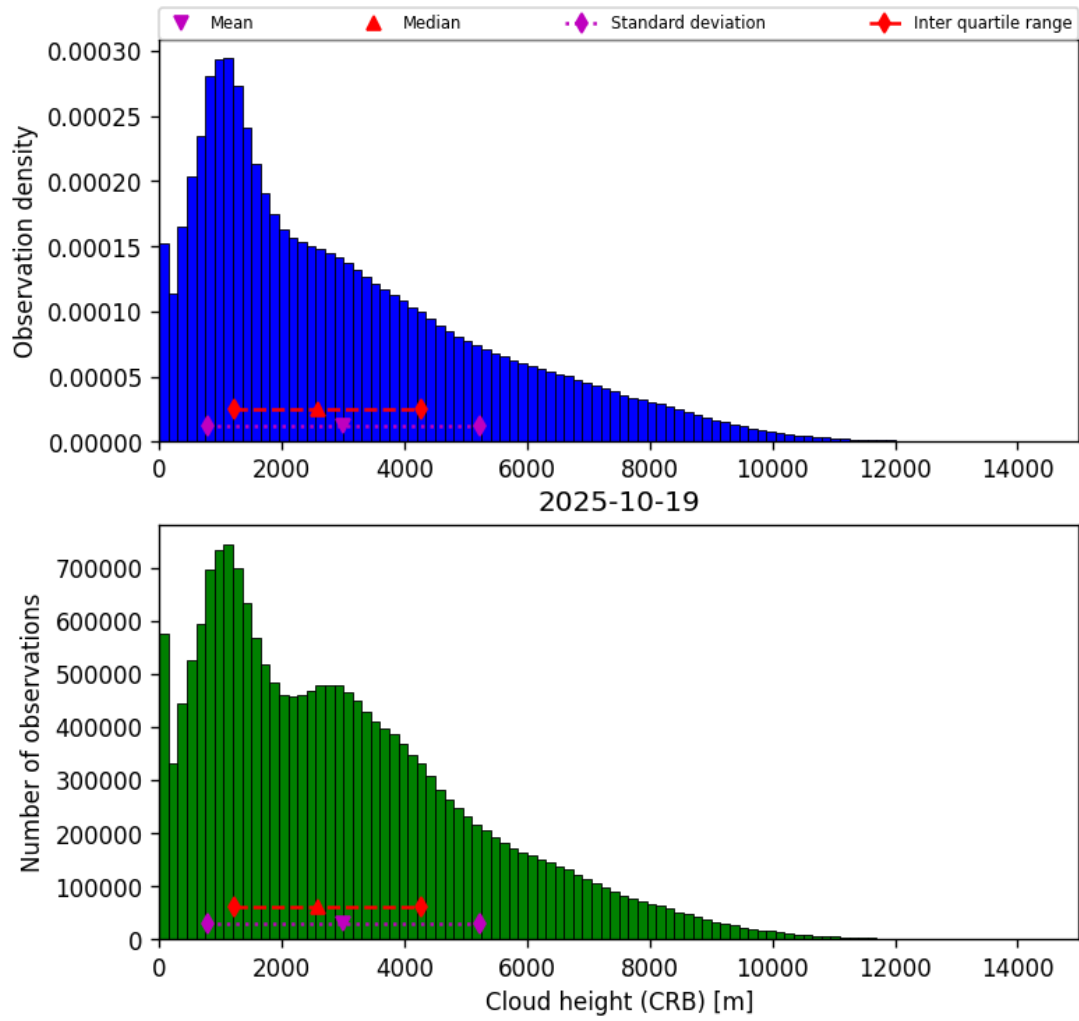


Figure 41: Histogram of “Cloud height (CRB)” for 2025-10-19 to 2025-10-20

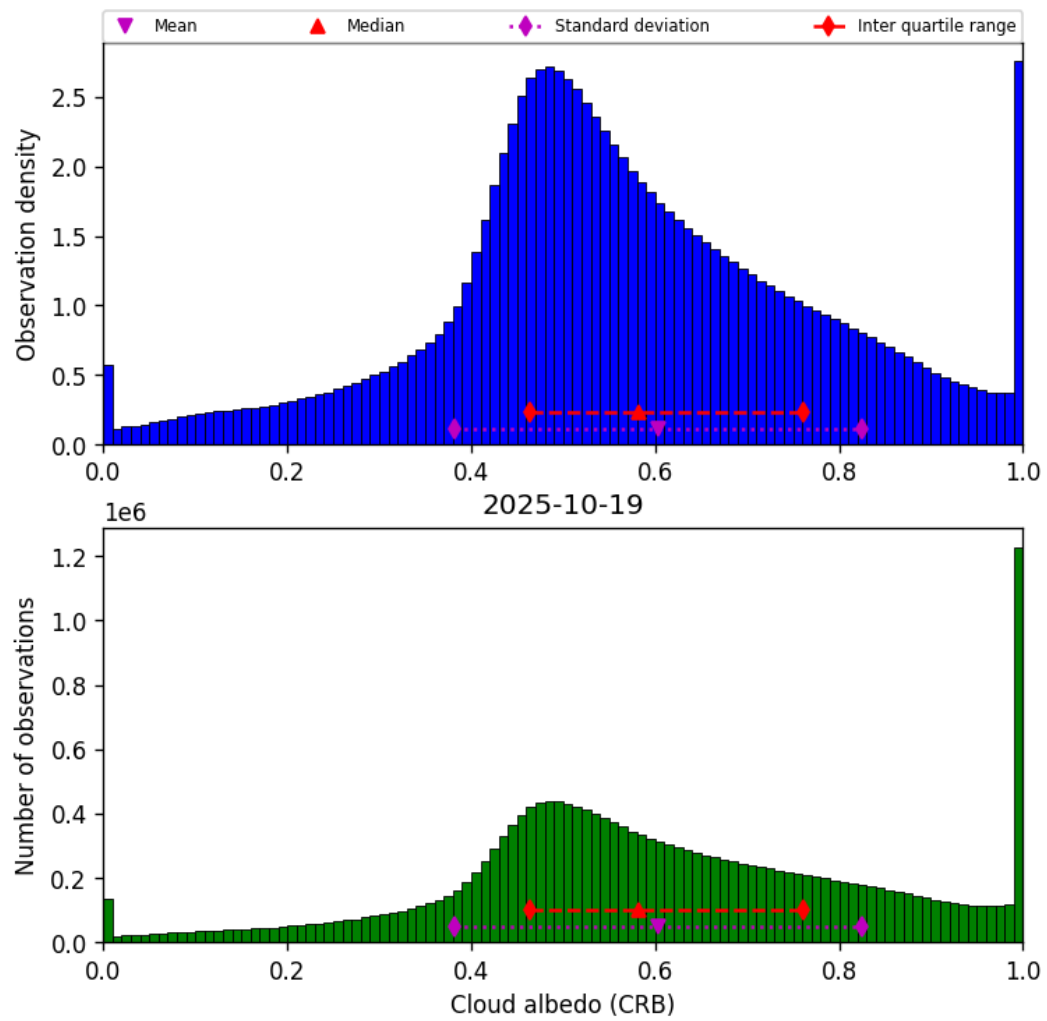


Figure 42: Histogram of “Cloud albedo (CRB)” for 2025-10-19 to 2025-10-20

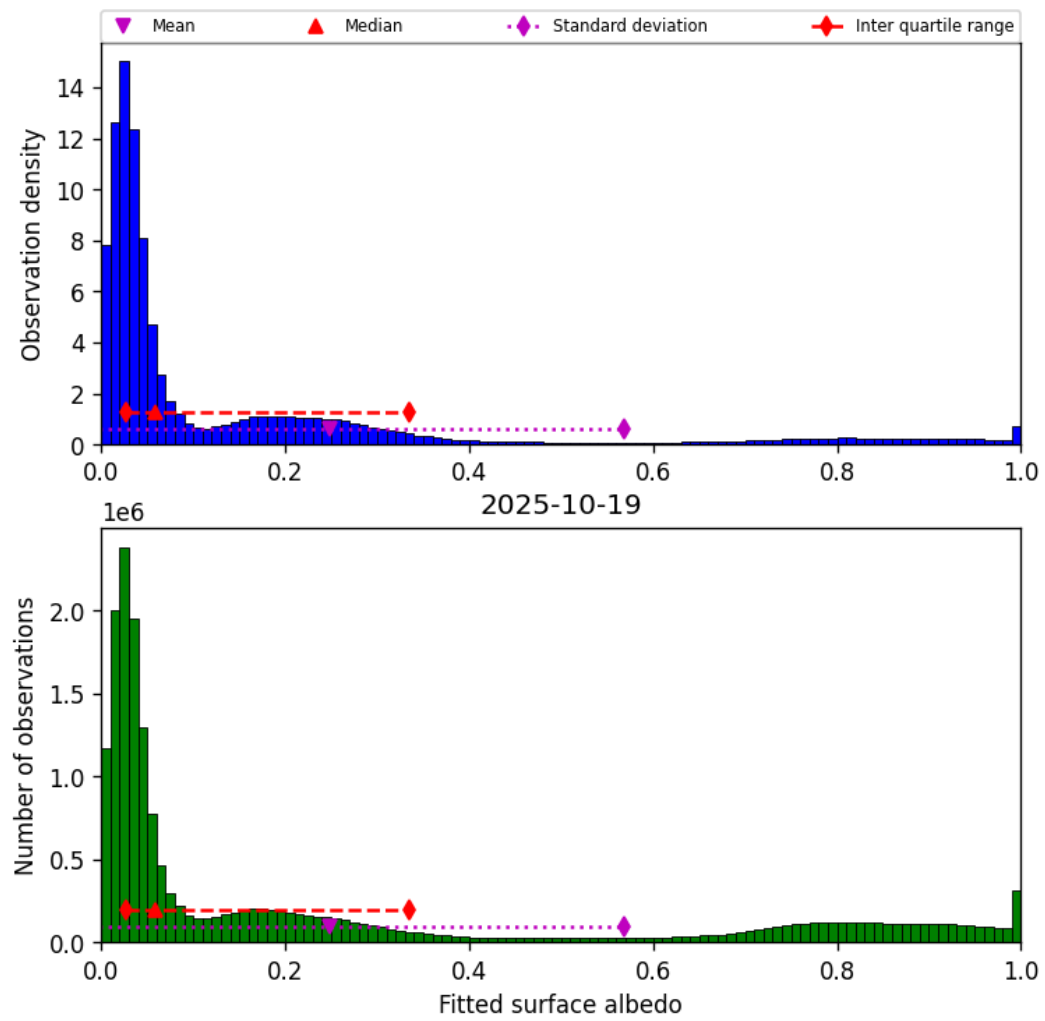


Figure 43: Histogram of “Fitted surface albedo” for 2025-10-19 to 2025-10-20

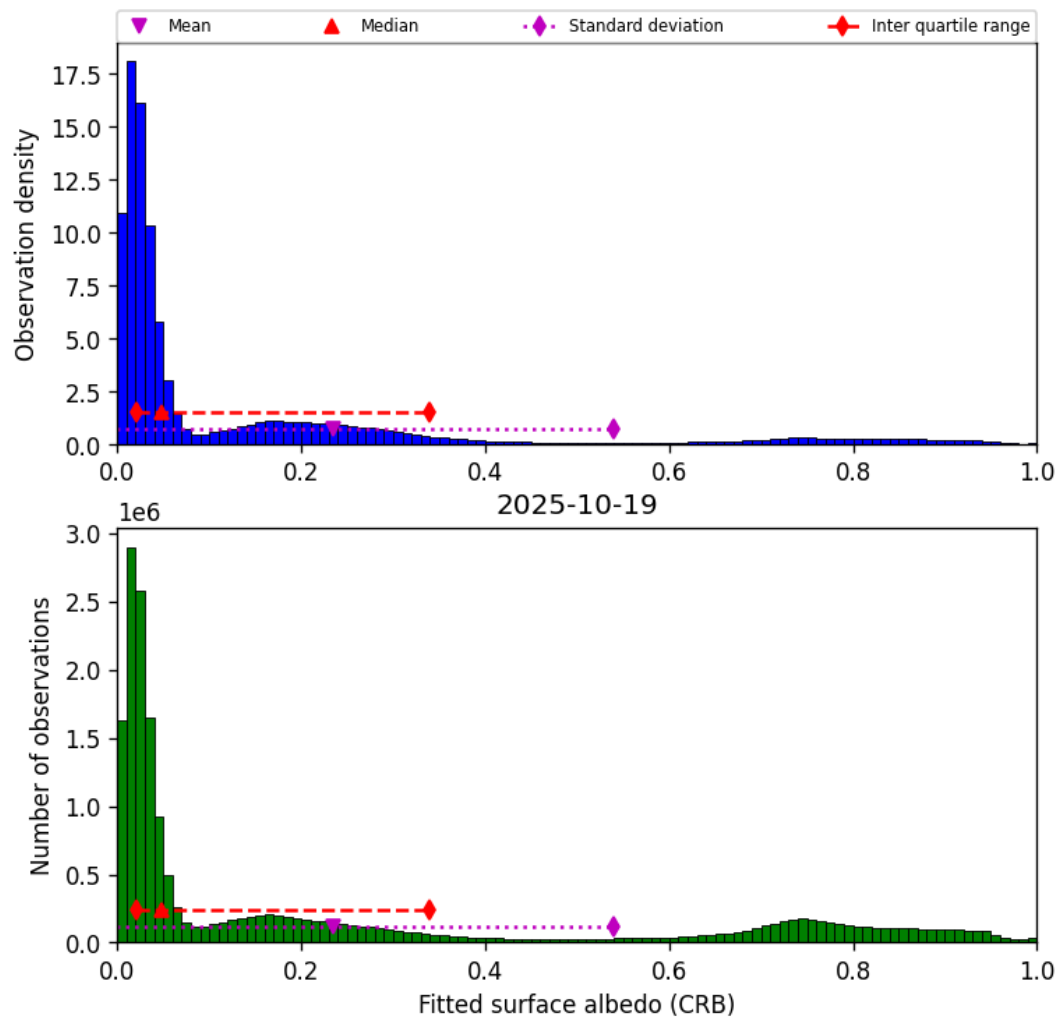


Figure 44: Histogram of “Fitted surface albedo (CRB)” for 2025-10-19 to 2025-10-20

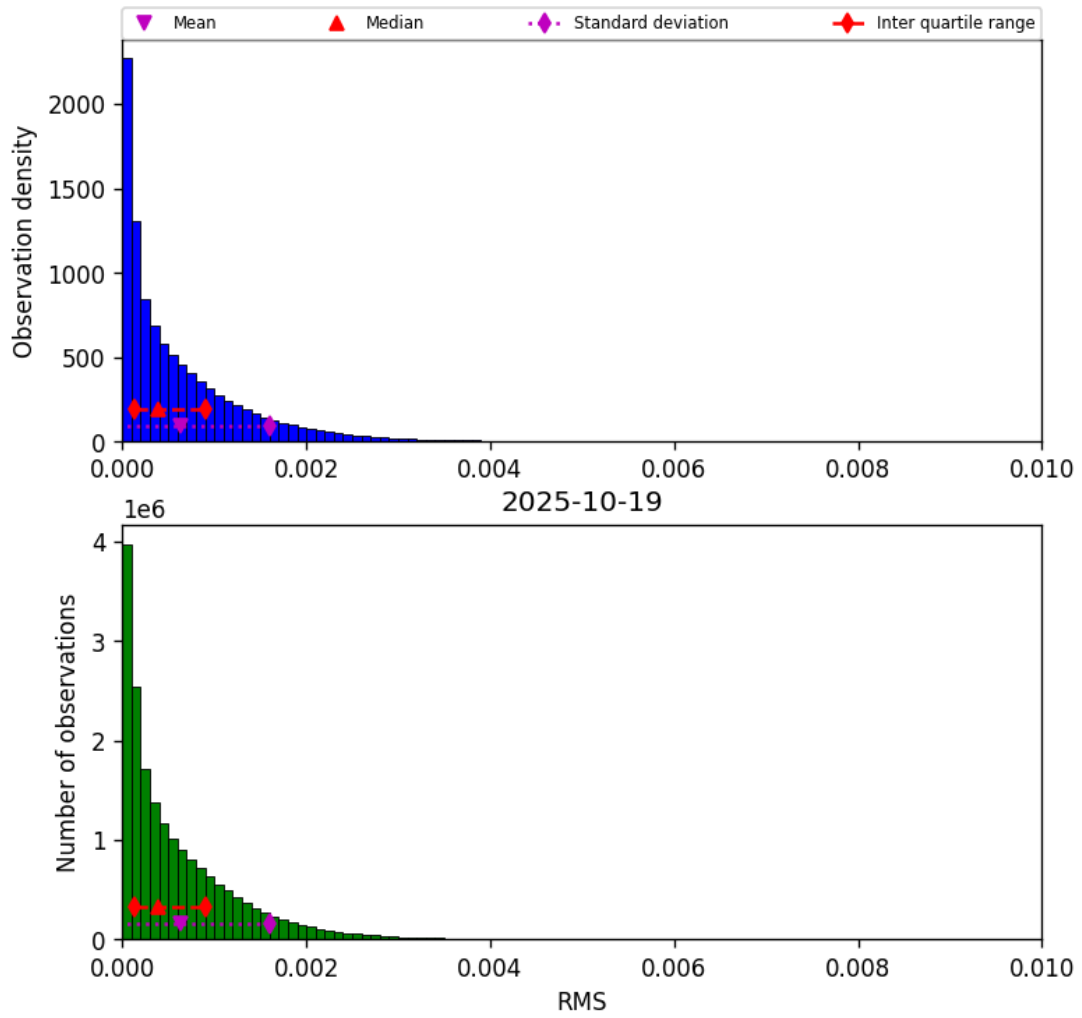


Figure 45: Histogram of “RMS” for 2025-10-19 to 2025-10-20

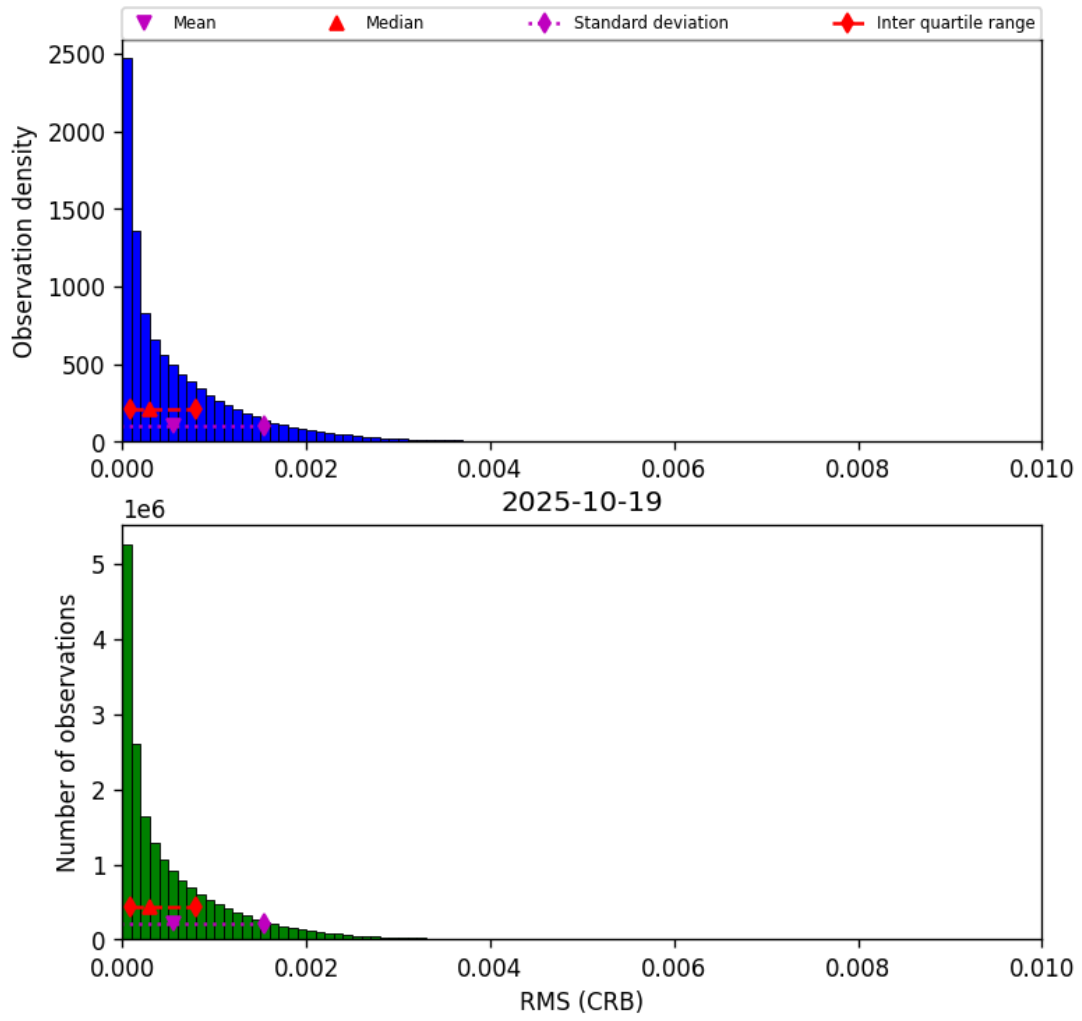


Figure 46: Histogram of “RMS (CRB)” for 2025-10-19 to 2025-10-20

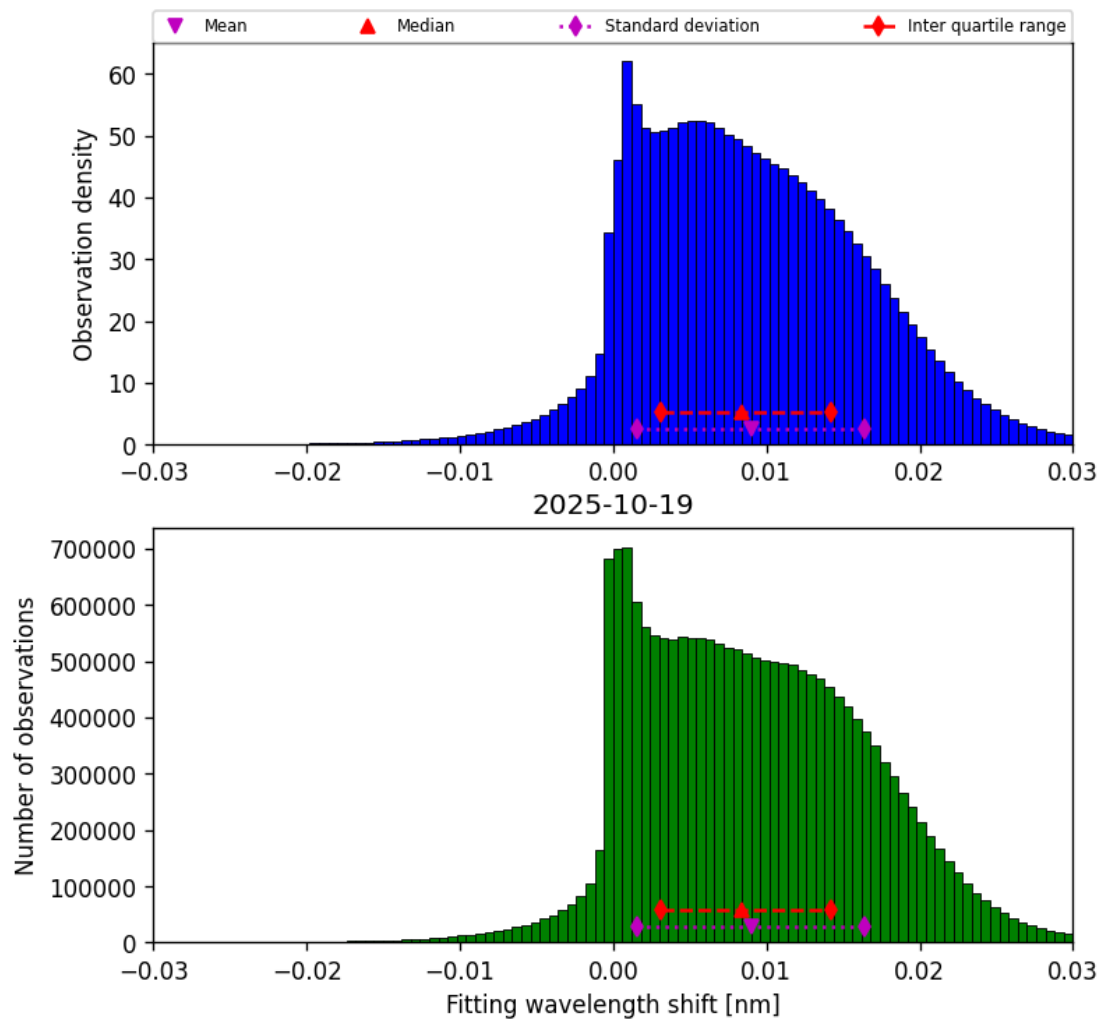


Figure 47: Histogram of “Fitting wavelength shift” for 2025-10-19 to 2025-10-20

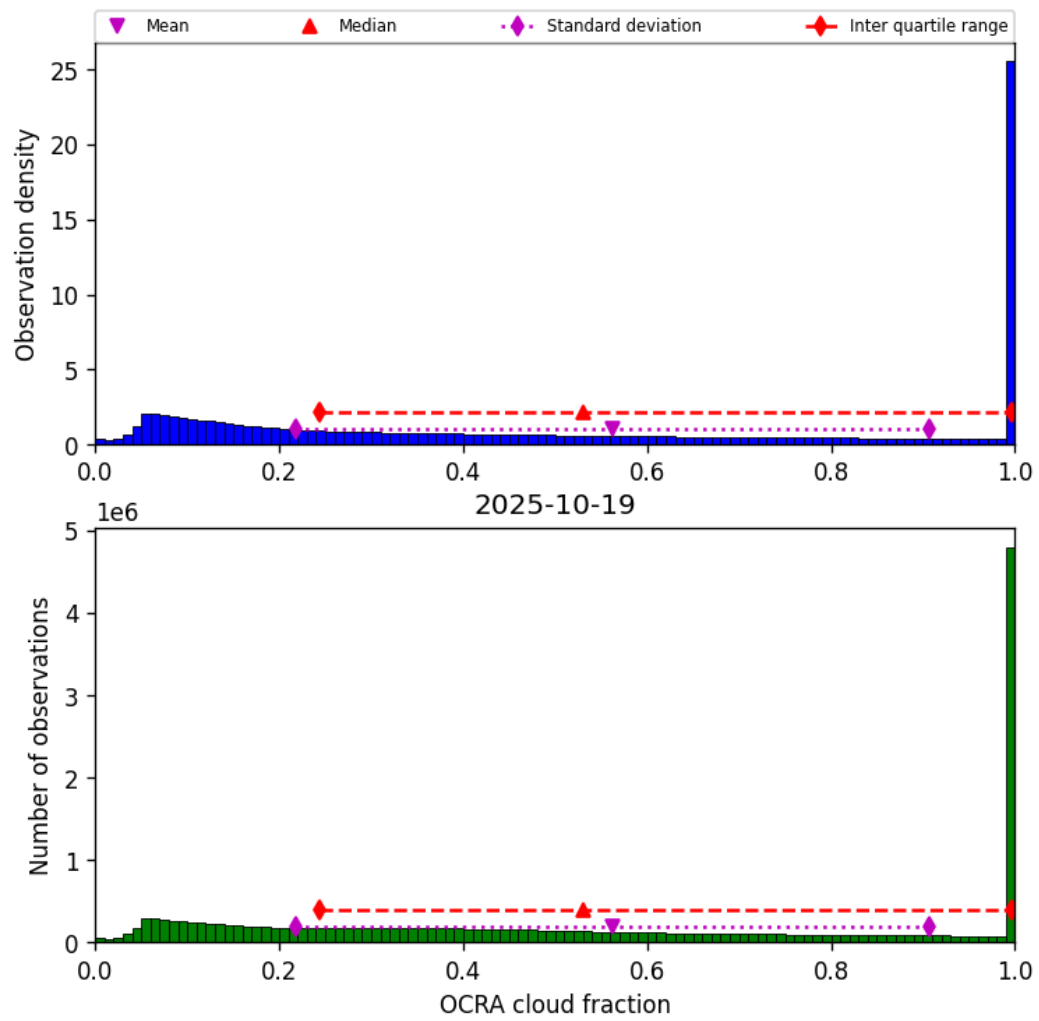


Figure 48: Histogram of “OCRA cloud fraction” for 2025-10-19 to 2025-10-20

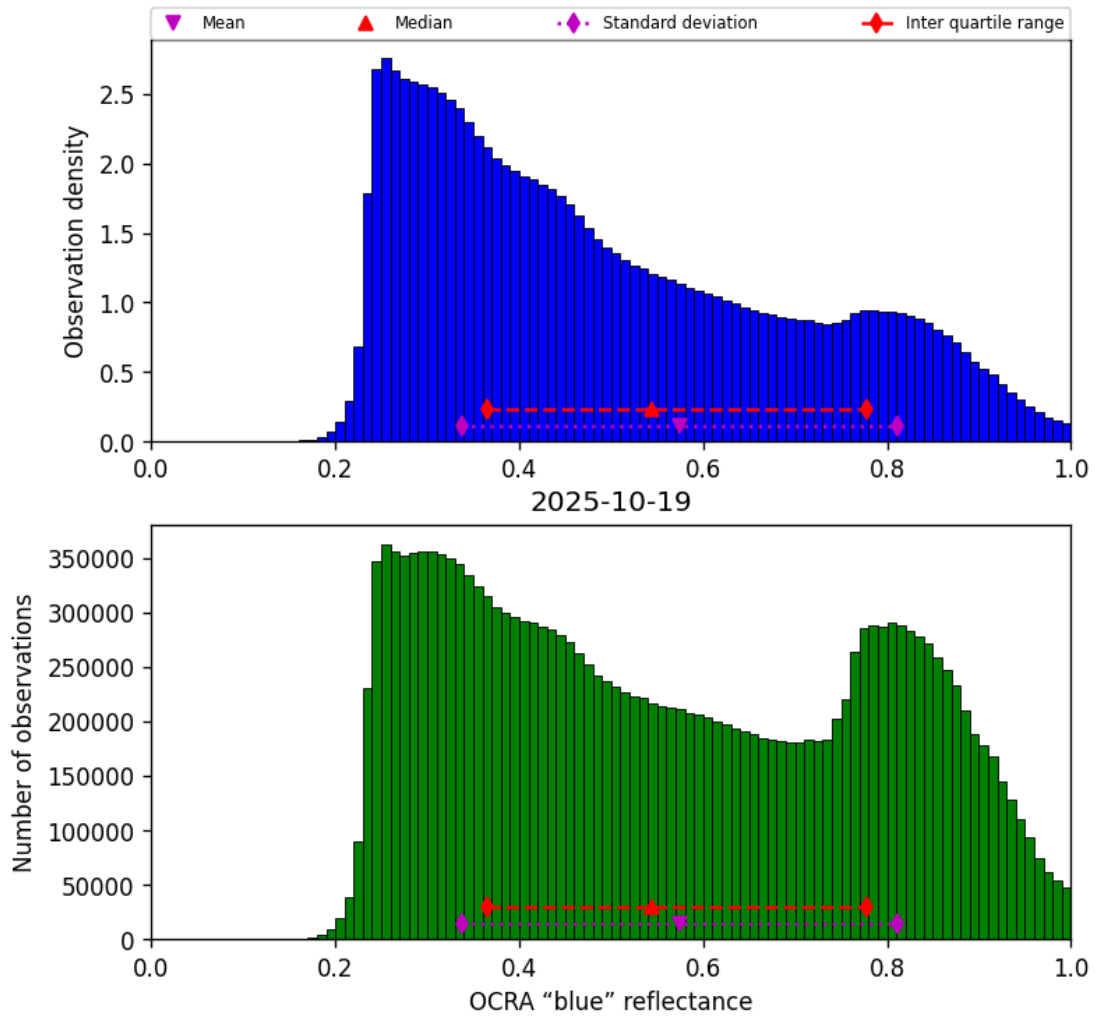


Figure 49: Histogram of “OCRA “blue” reflectance” for 2025-10-19 to 2025-10-20

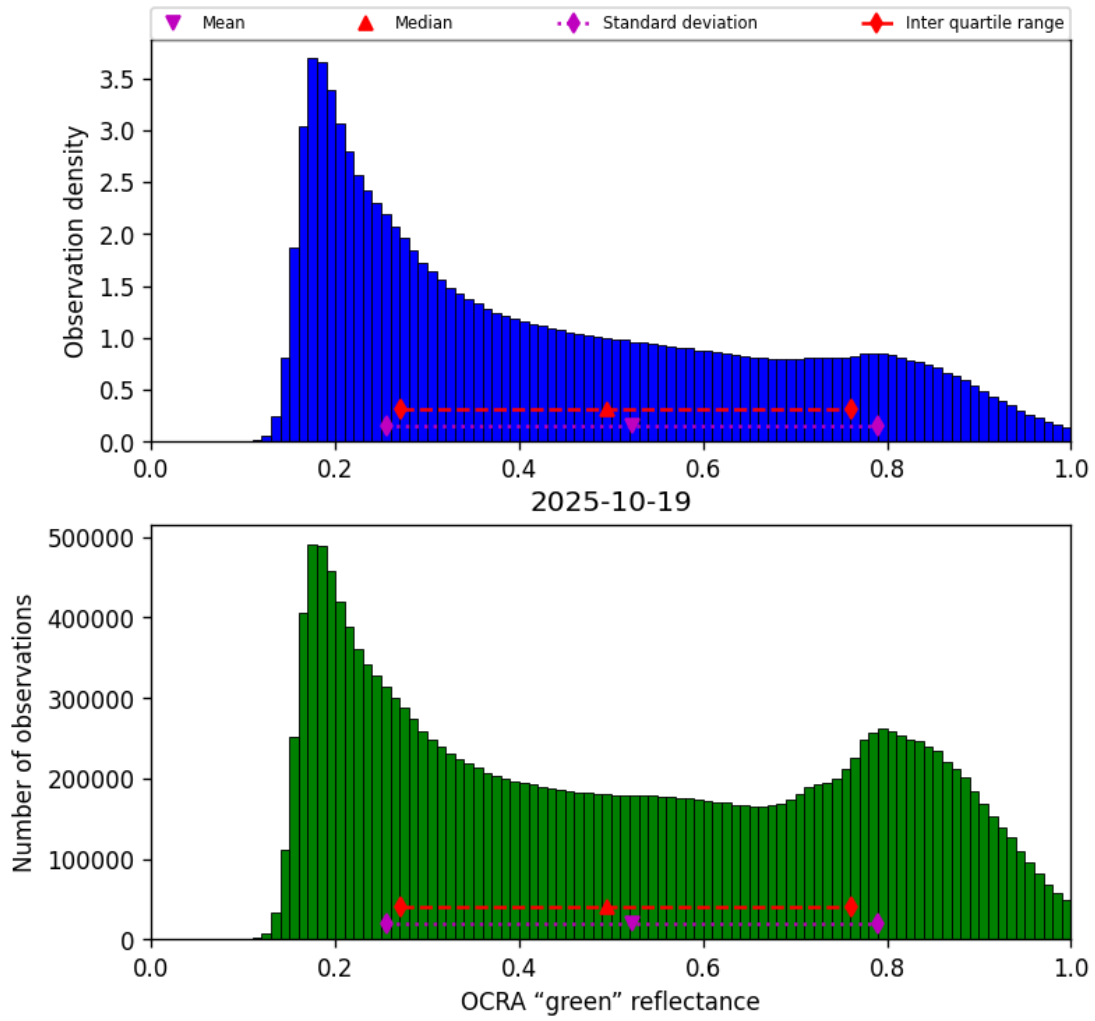


Figure 50: Histogram of “OCRA “green” reflectance” for 2025-10-19 to 2025-10-20

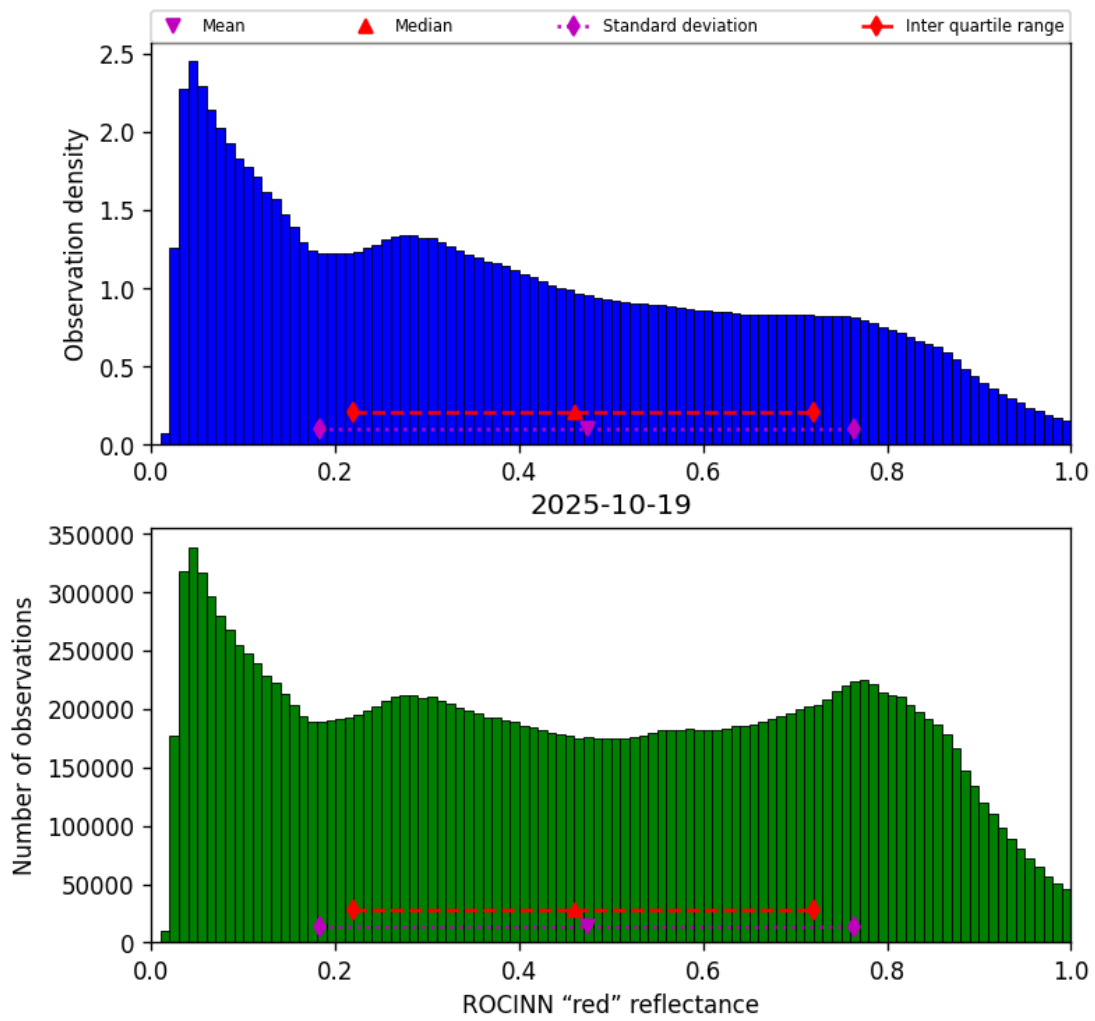


Figure 51: Histogram of “ROCINN “red” reflectance” for 2025-10-19 to 2025-10-20

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.

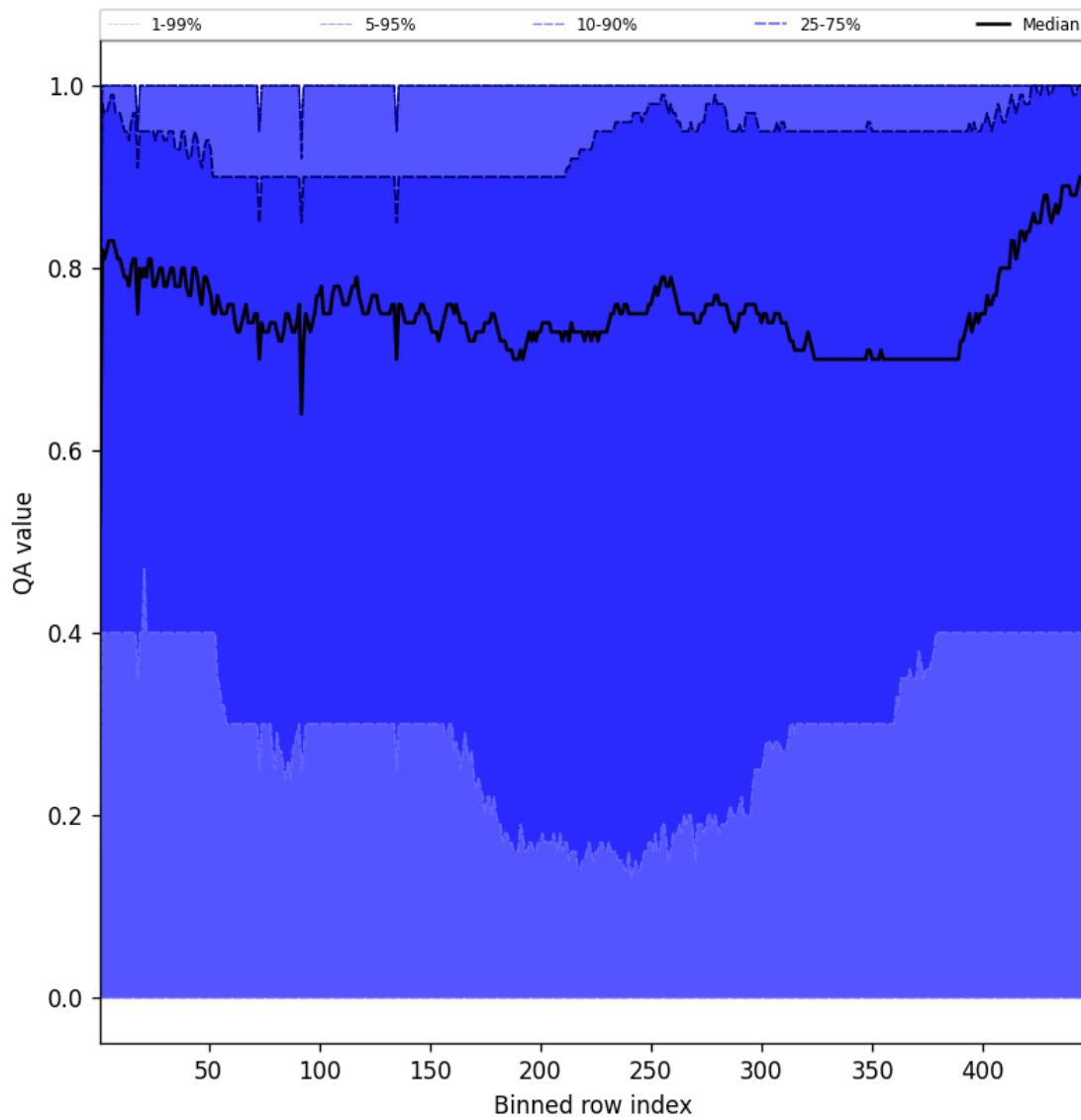


Figure 52: Along track statistics of “QA value” for 2025-10-19 to 2025-10-20

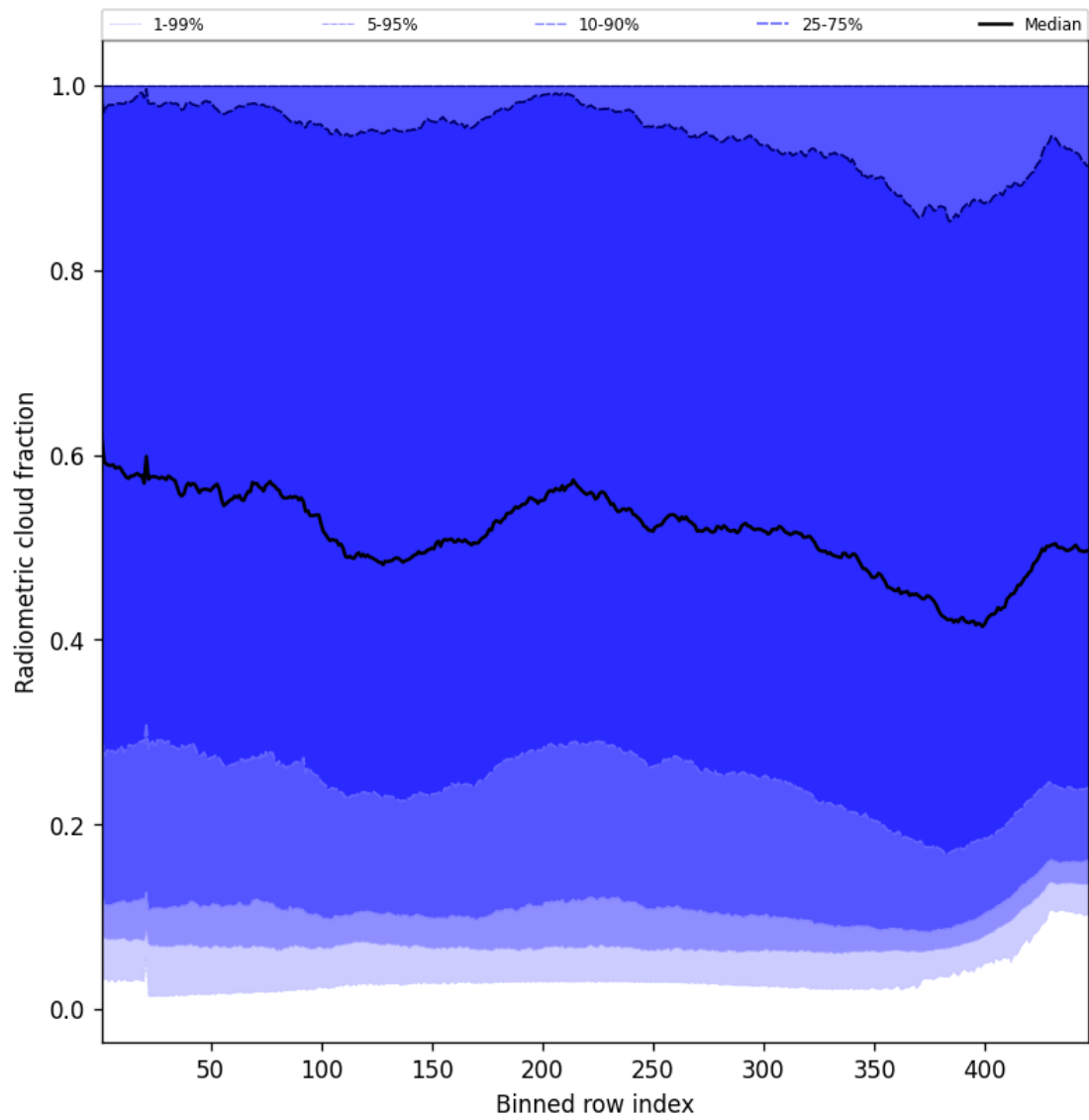


Figure 53: Along track statistics of “Radiometric cloud fraction” for 2025-10-19 to 2025-10-20

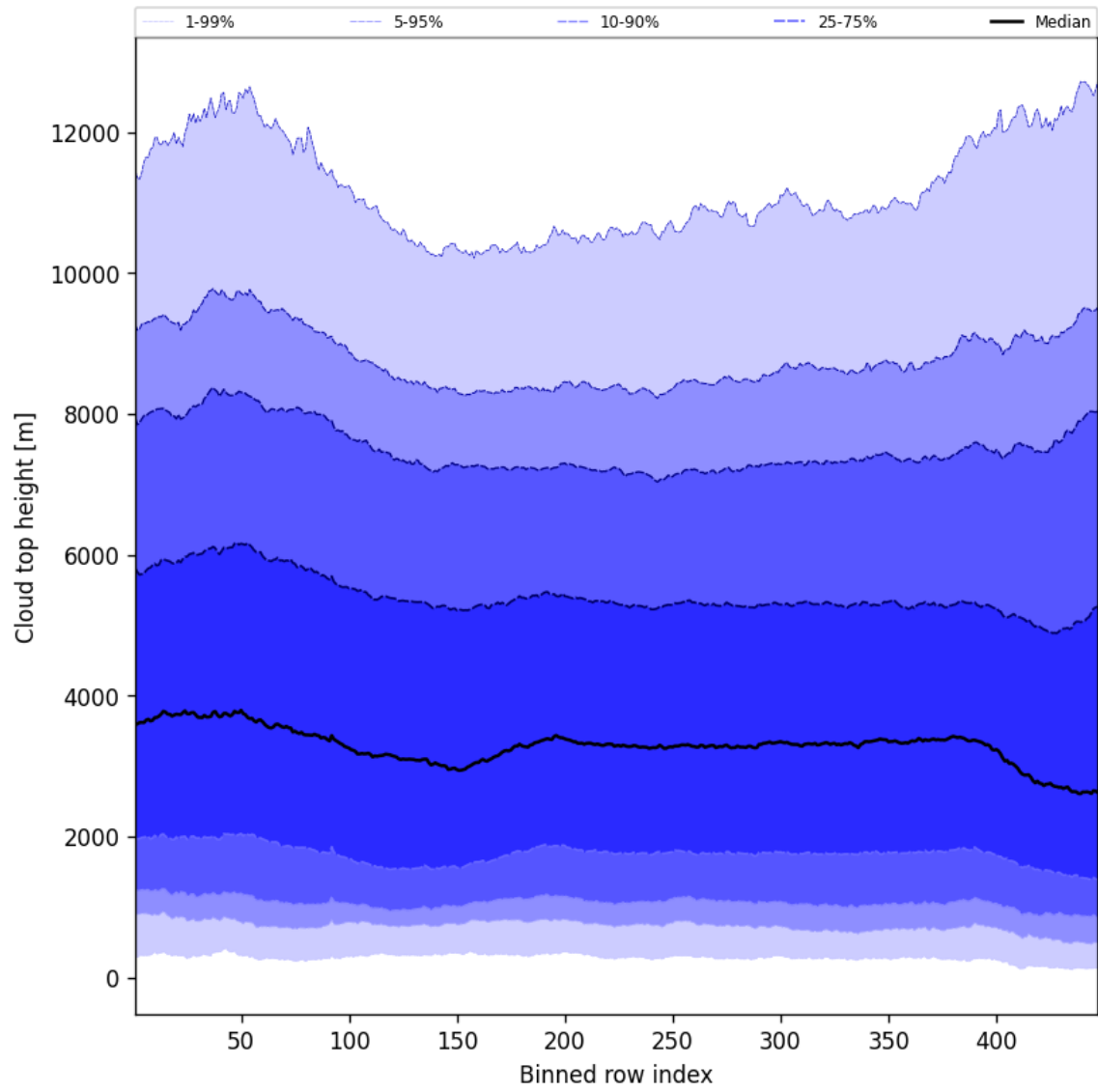


Figure 54: Along track statistics of “Cloud top height” for 2025-10-19 to 2025-10-20

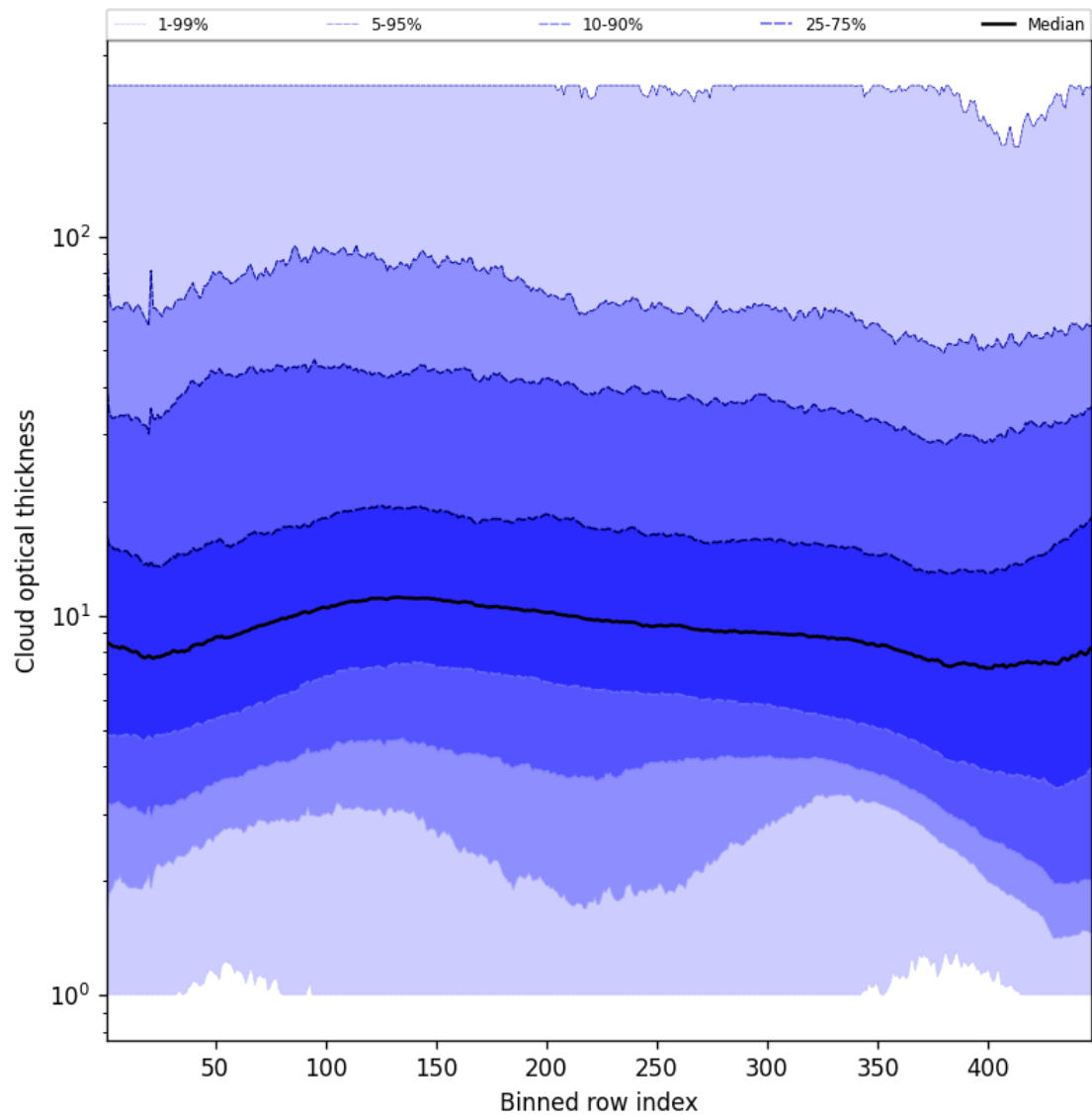


Figure 55: Along track statistics of “Cloud optical thickness” for 2025-10-19 to 2025-10-20

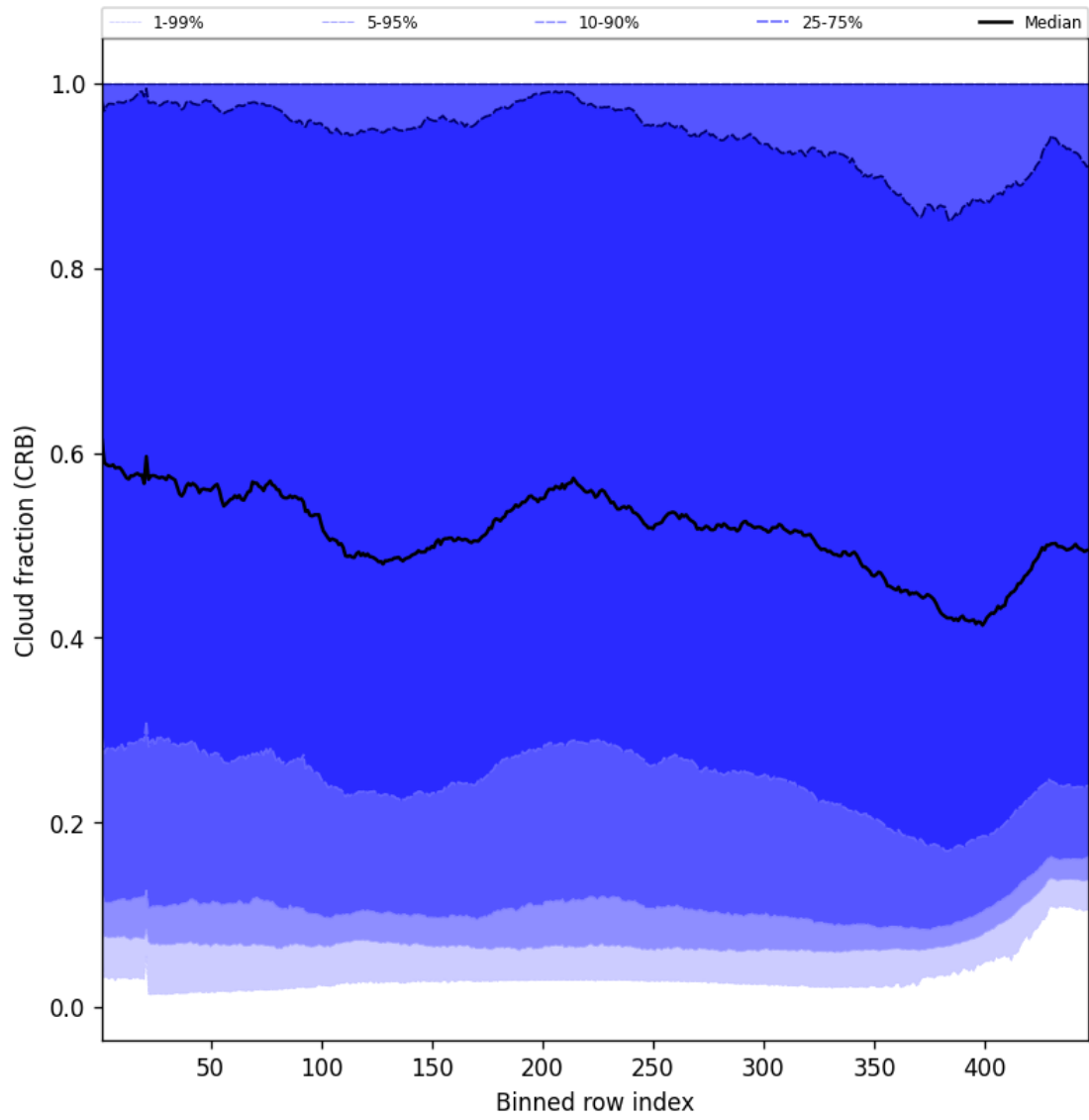


Figure 56: Along track statistics of “Cloud fraction (CRB)” for 2025-10-19 to 2025-10-20

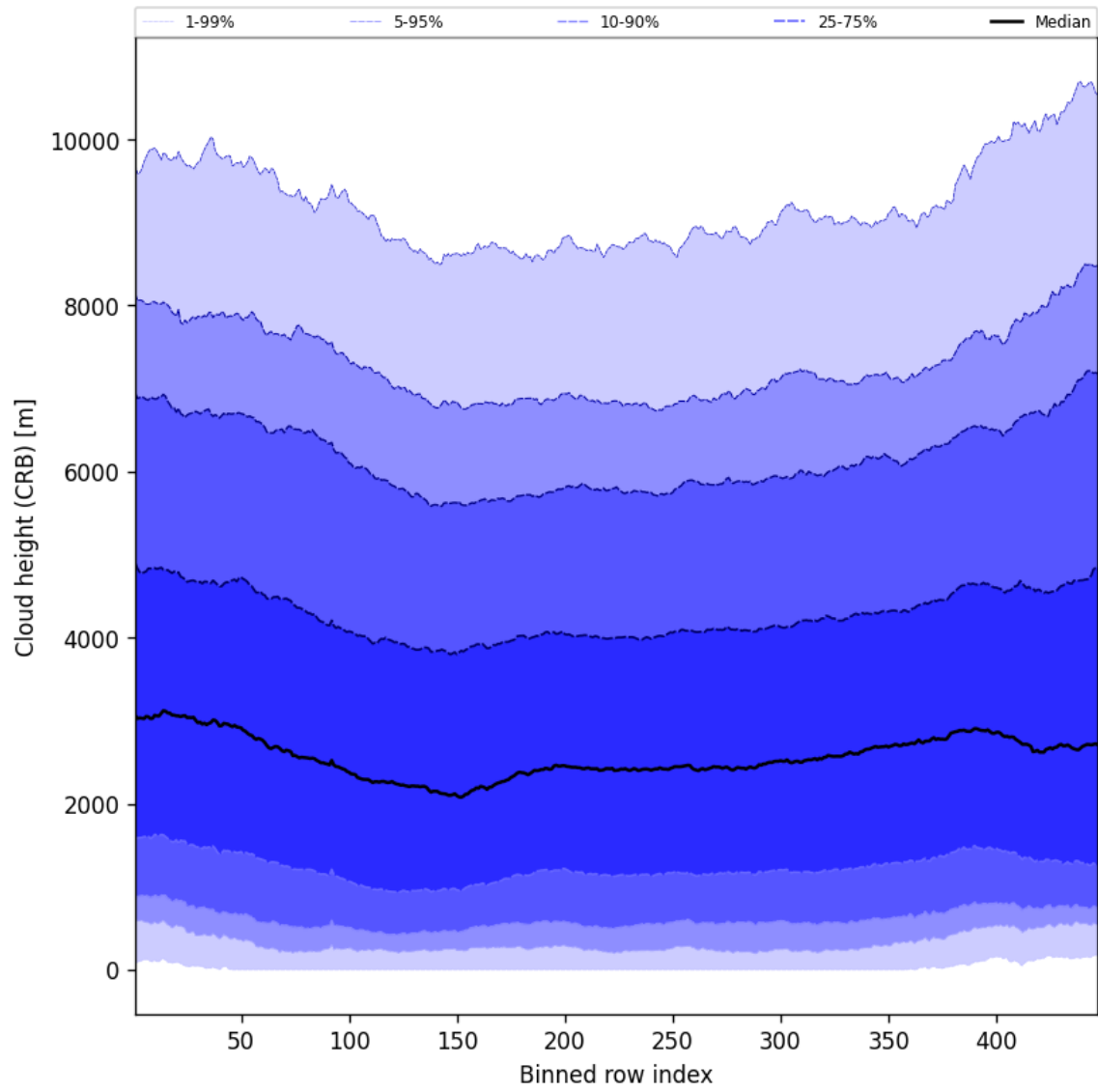


Figure 57: Along track statistics of “Cloud height (CRB)” for 2025-10-19 to 2025-10-20

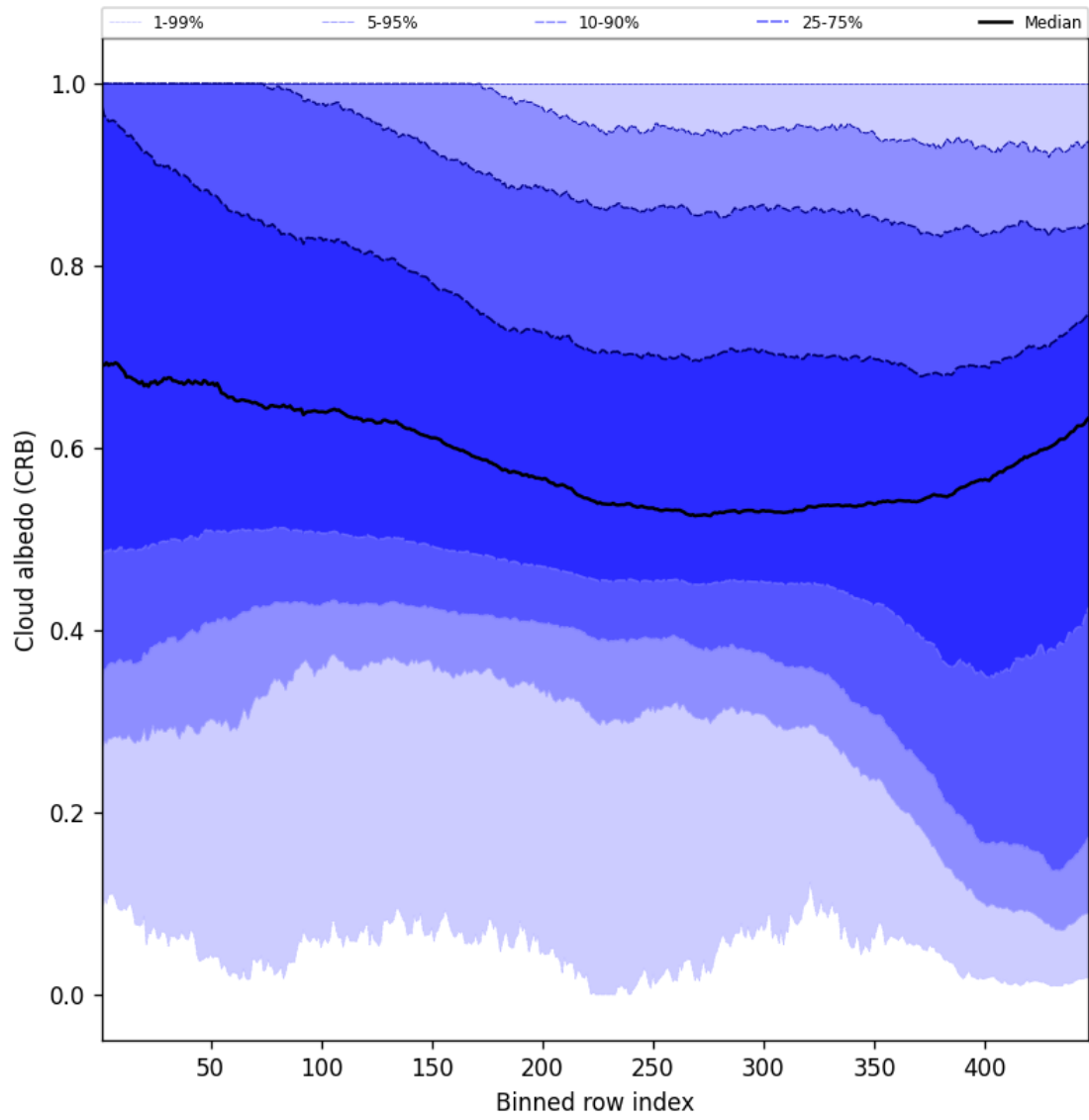


Figure 58: Along track statistics of “Cloud albedo (CRB)” for 2025-10-19 to 2025-10-20

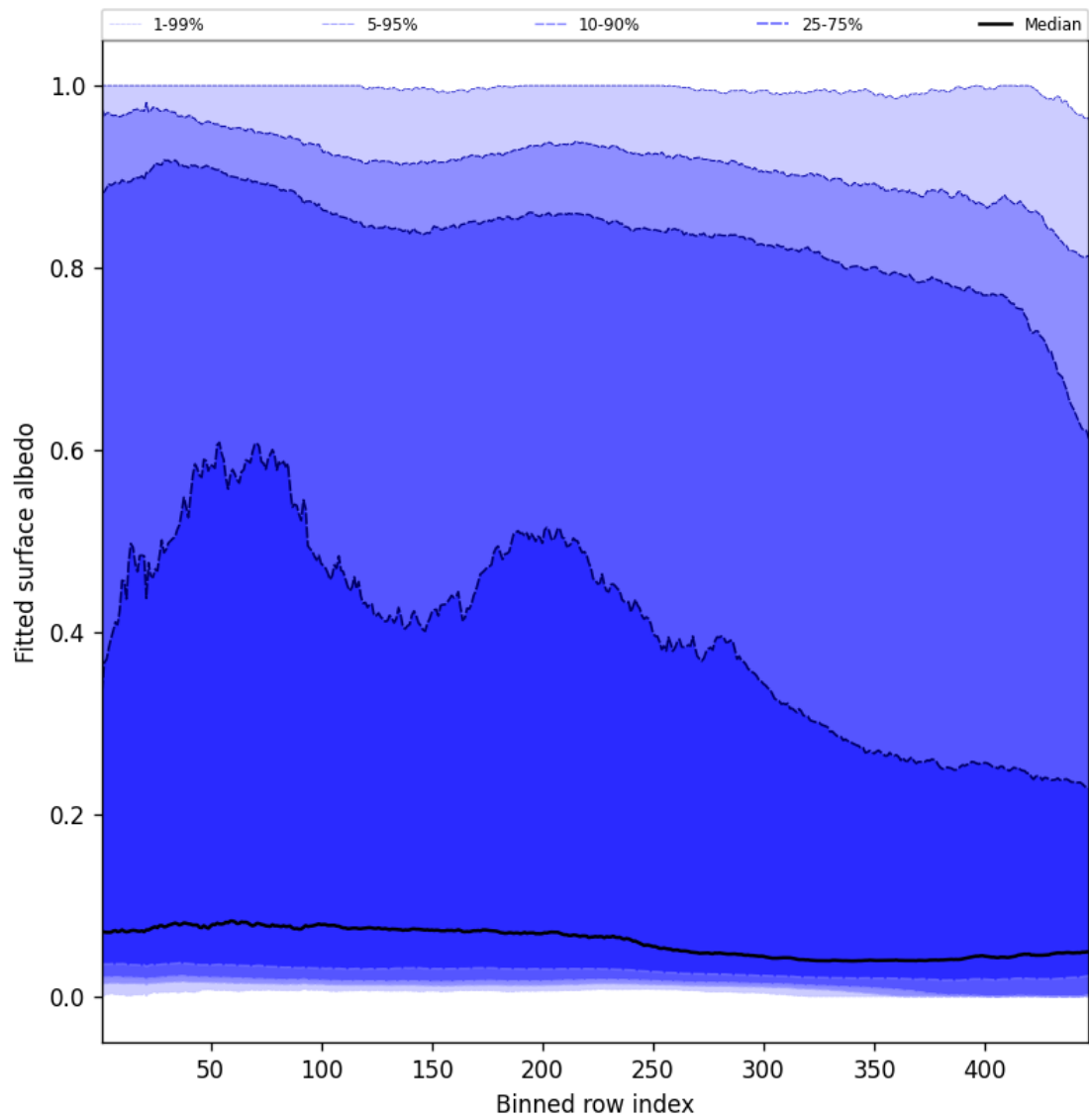


Figure 59: Along track statistics of “Fitted surface albedo” for 2025-10-19 to 2025-10-20

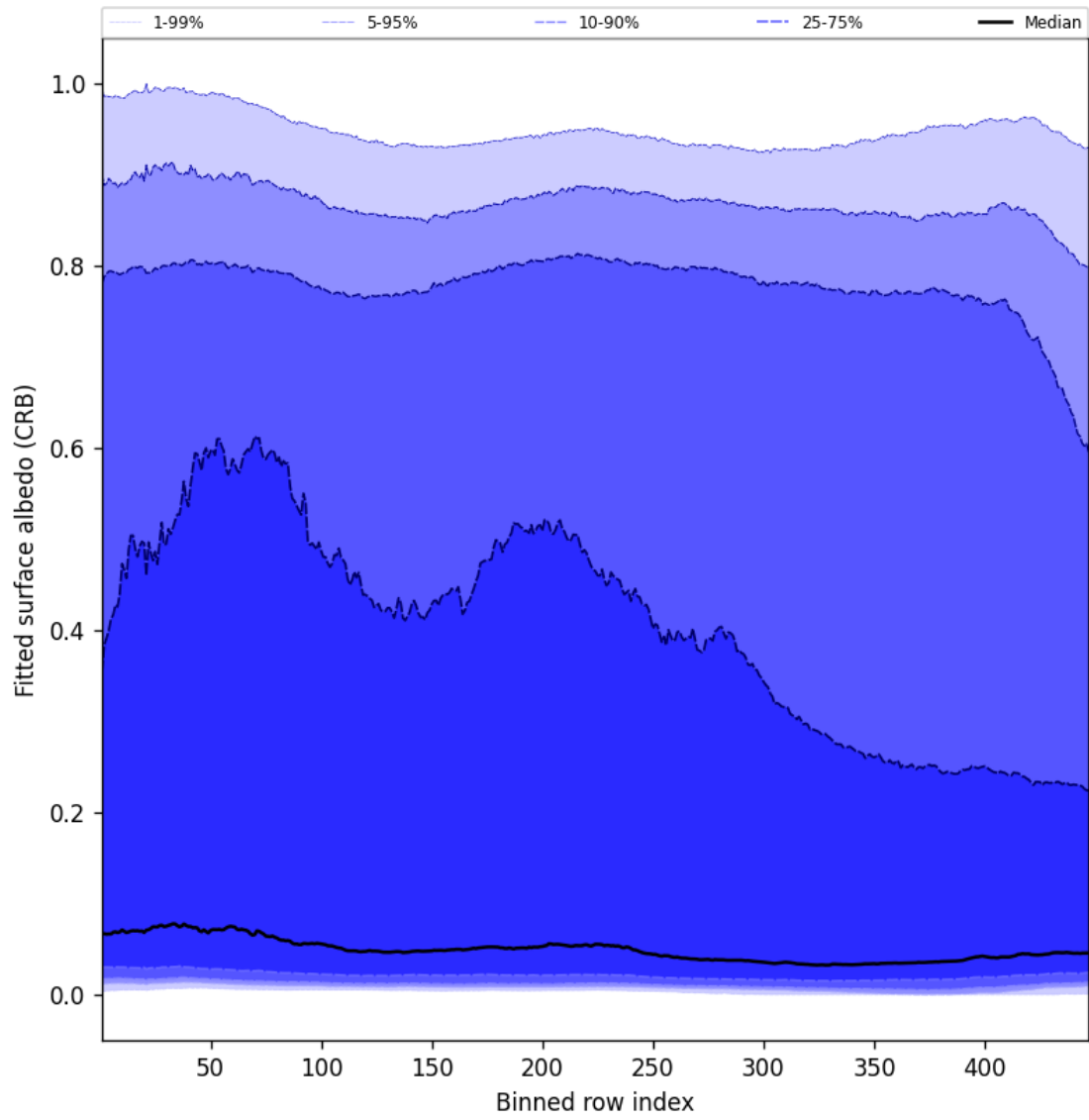


Figure 60: Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-19 to 2025-10-20

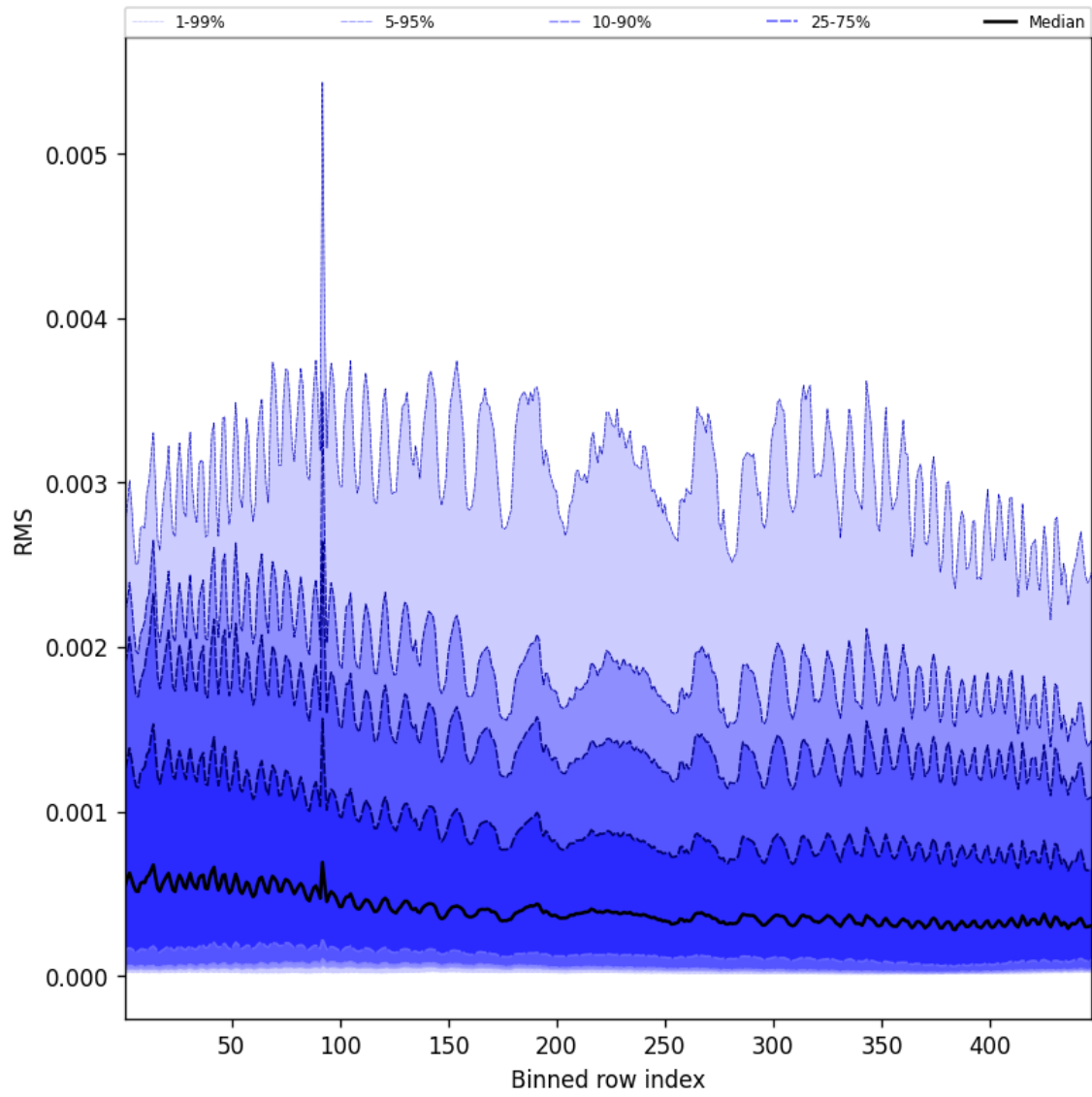


Figure 61: Along track statistics of “RMS” for 2025-10-19 to 2025-10-20

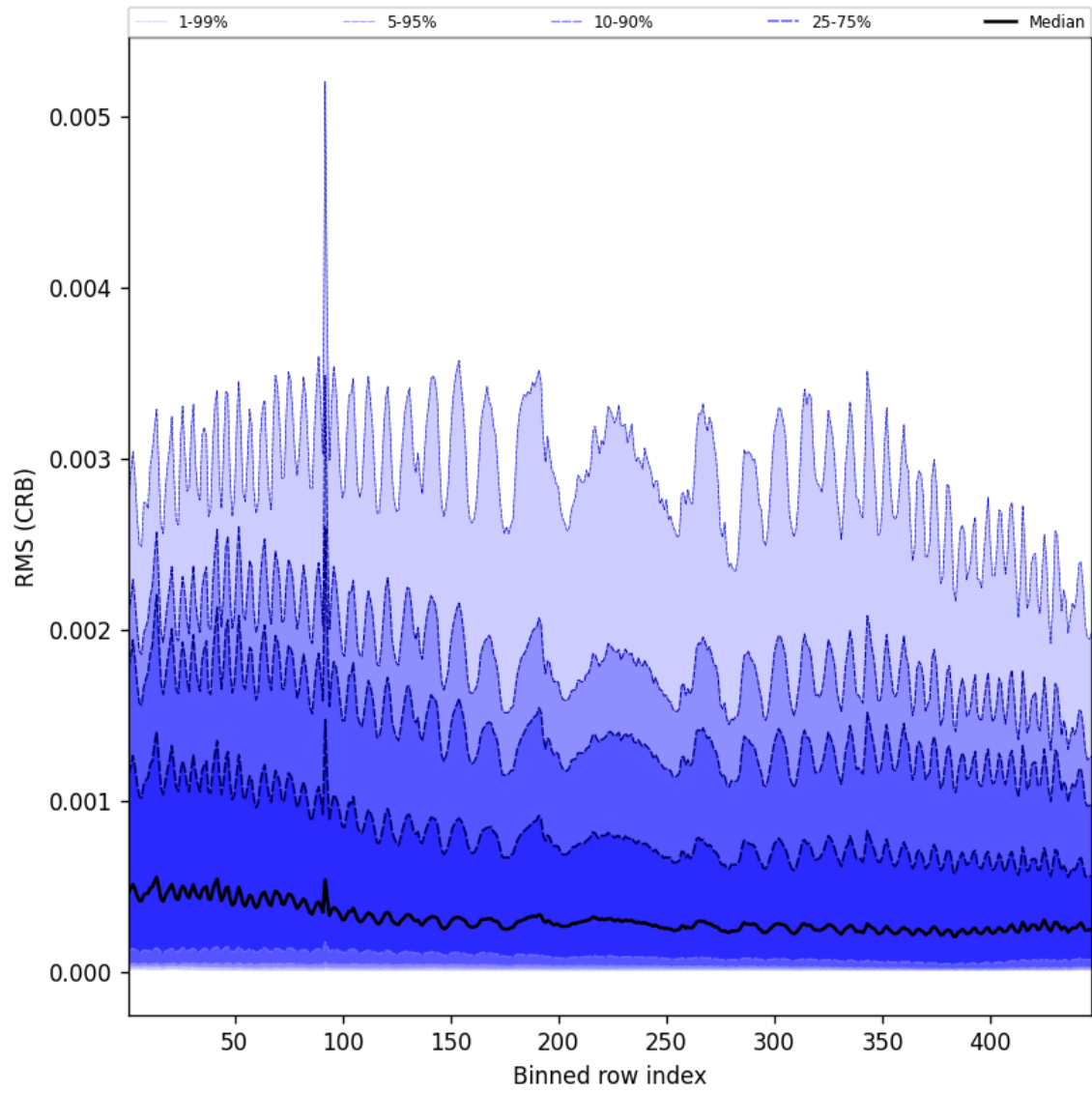


Figure 62: Along track statistics of “RMS (CRB)” for 2025-10-19 to 2025-10-20

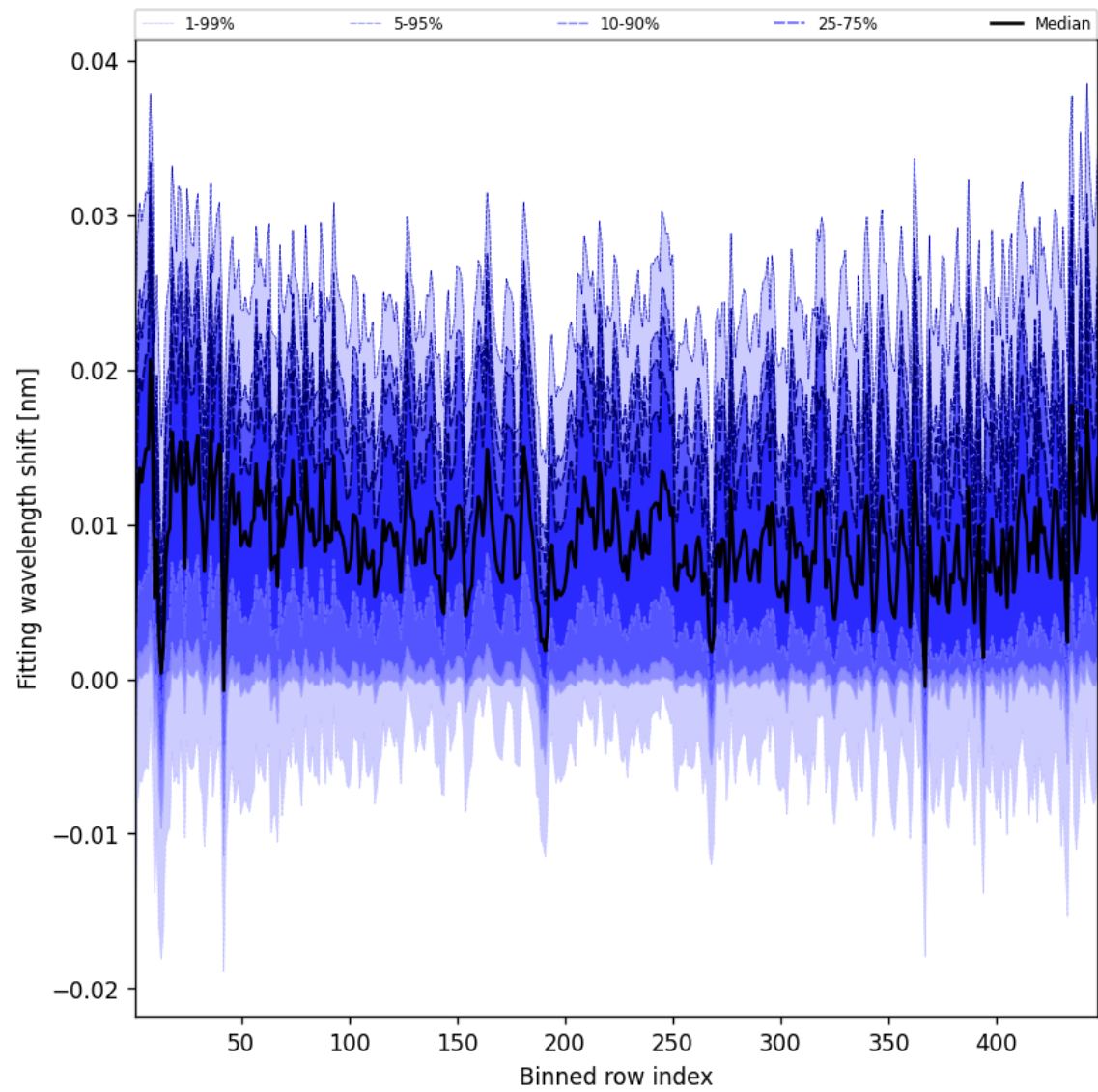


Figure 63: Along track statistics of “Fitting wavelength shift” for 2025-10-19 to 2025-10-20

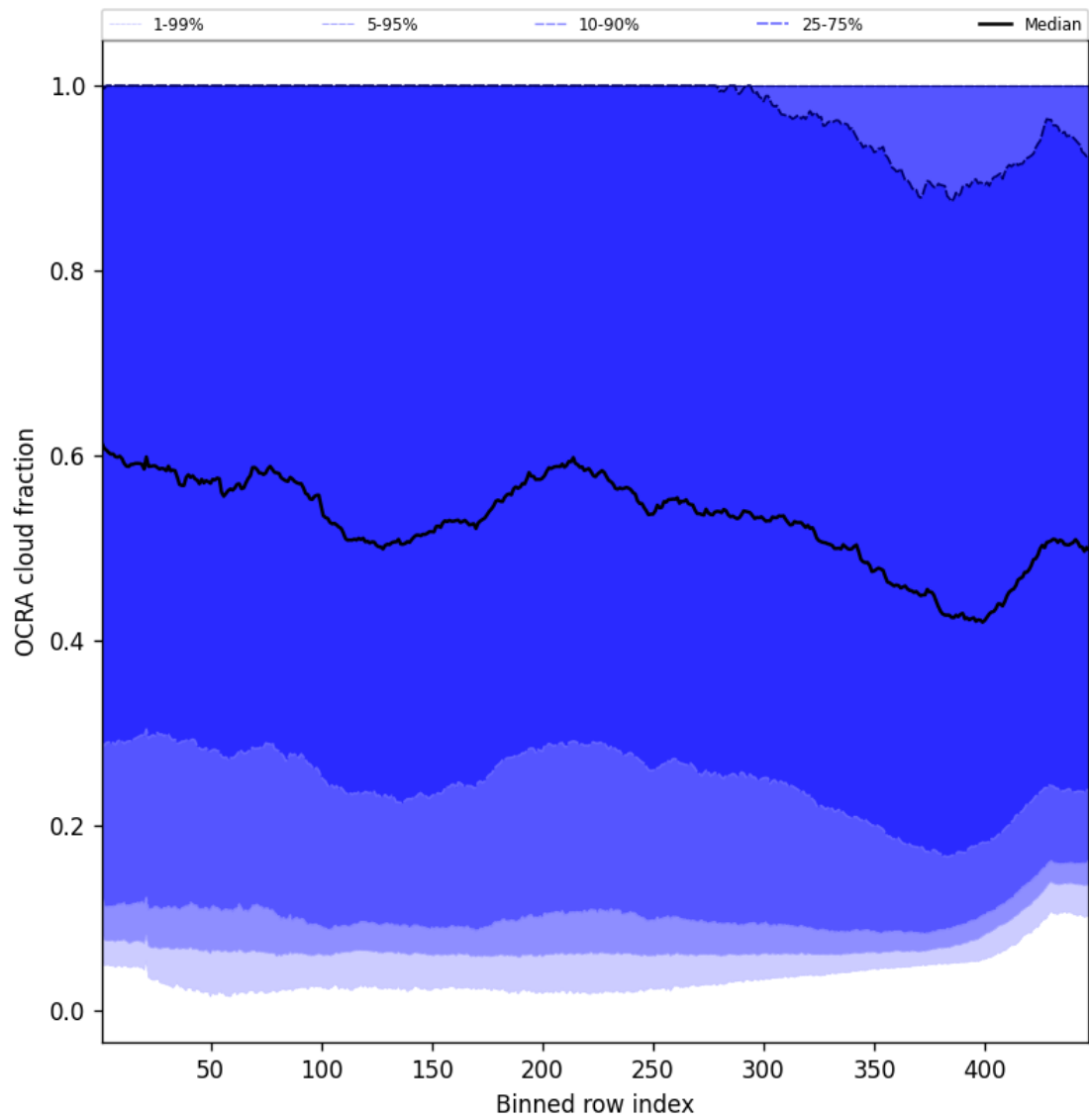


Figure 64: Along track statistics of “OCRA cloud fraction” for 2025-10-19 to 2025-10-20

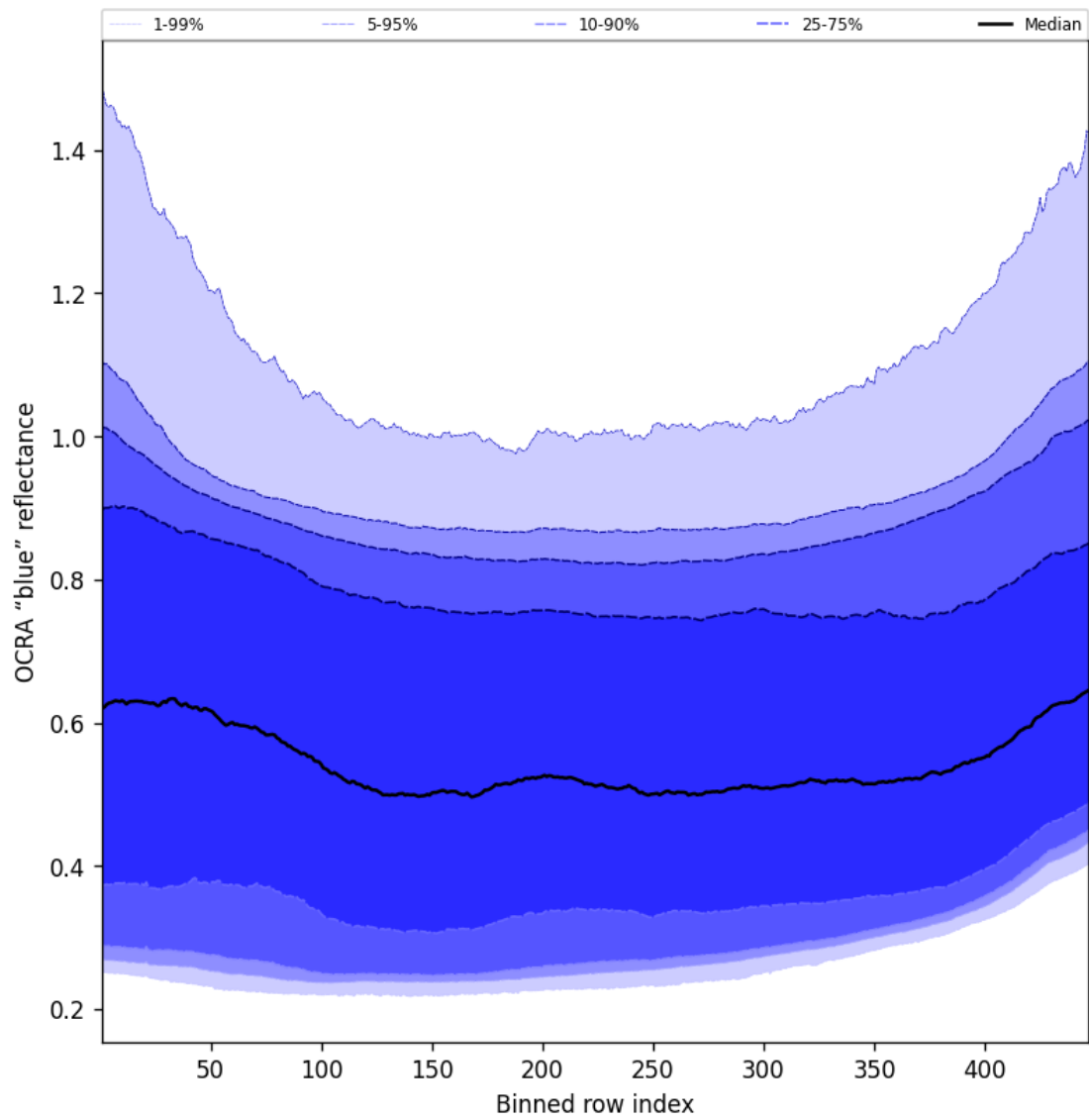


Figure 65: Along track statistics of “OCRA “blue” reflectance” for 2025-10-19 to 2025-10-20

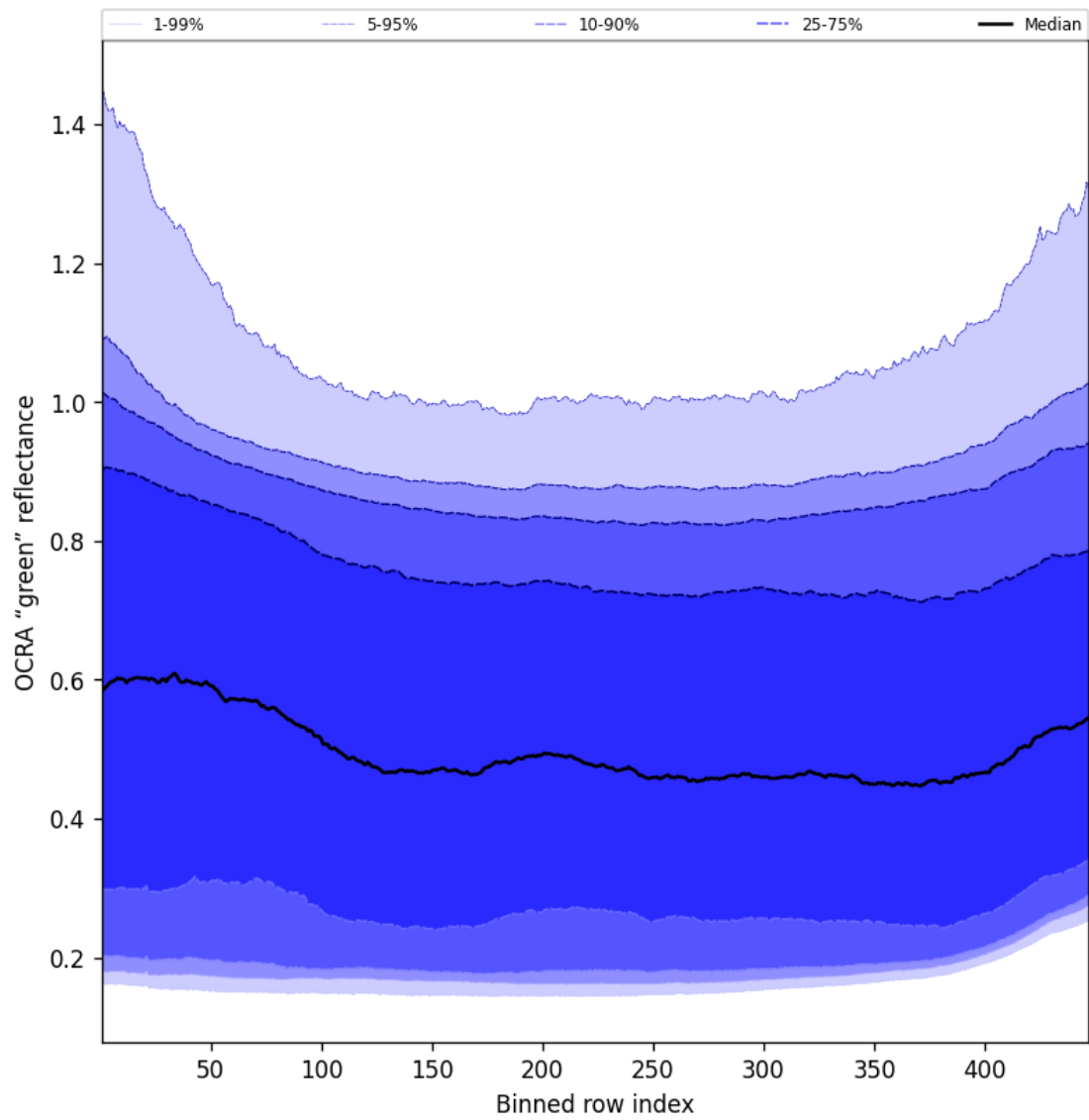


Figure 66: Along track statistics of “OCRA “green” reflectance” for 2025-10-19 to 2025-10-20

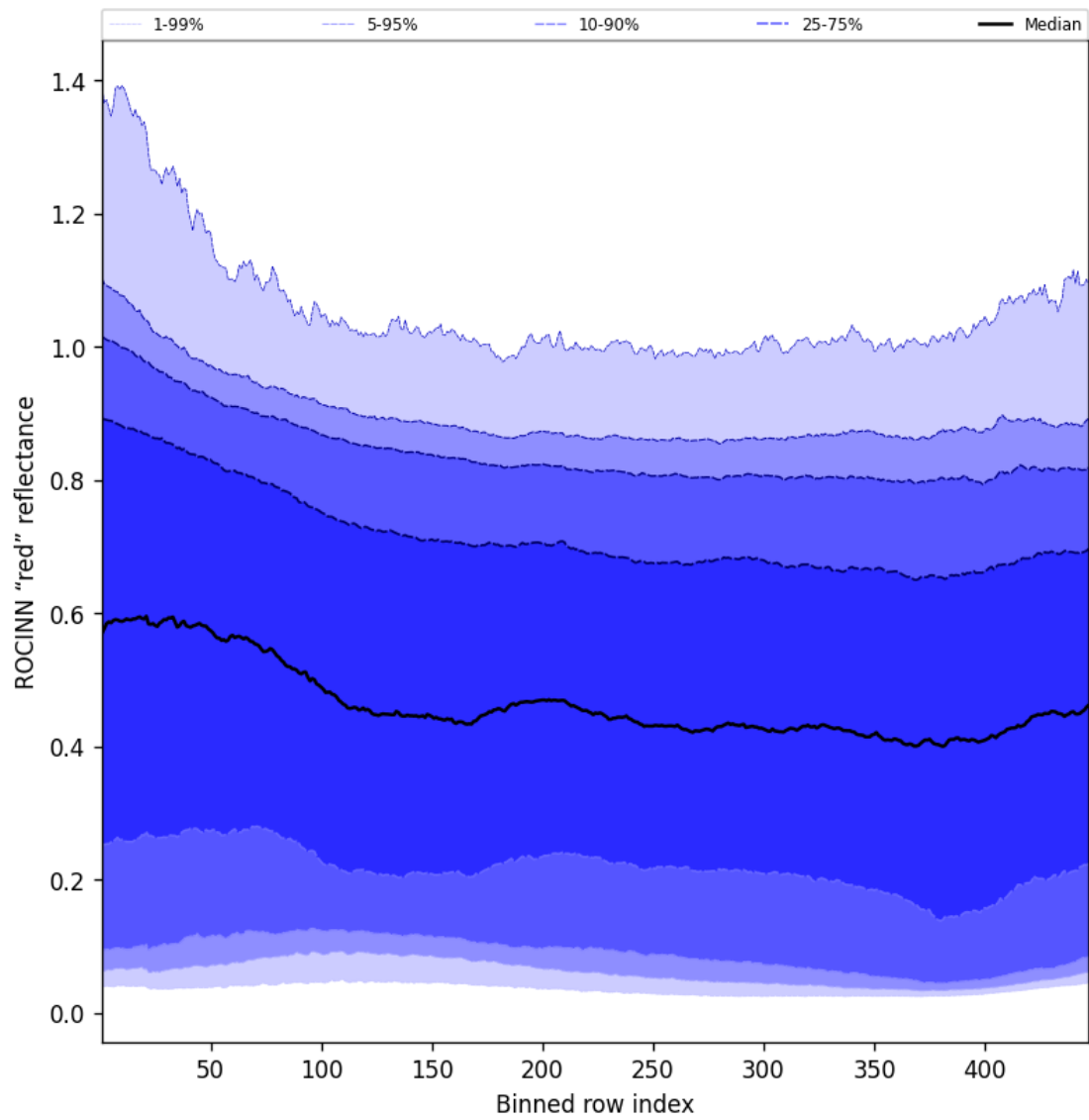


Figure 67: Along track statistics of “ROCINN “red” reflectance” for 2025-10-19 to 2025-10-20

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).