

PyCAMA report generated by tropl2-proc

tropl2-proc

2025-10-09 (02:30)

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 ± 0.378	10620573	0.995	0.650	0.760	0.0	1.000
cloud fraction [1]	0.567 ± 0.350	10620573	0.995	0.753	0.535	6.652×10^{-3}	1.000
cloud top height [m]	$(0.397 \pm 0.270) \times 10^4$	10620573	1.725×10^3	3.932×10^3	3.436×10^3	0.0	2.000×10^4
cloud optical thickness [1]	21.3 ± 39.4	10620573	9.34	12.5	9.60	1.000	250
cloud fraction crb [1]	0.566 ± 0.350	10620573	0.995	0.752	0.533	8.345×10^{-3}	1.000
cloud height crb [m]	$(0.315 \pm 0.228) \times 10^4$	10620573	75.0	3.337×10^3	2.763×10^3	0.0	2.000×10^4
cloud albedo crb [1]	0.612 ± 0.219	10620573	0.995	0.293	0.591	0.0	1.000
surface albedo fitted [1]	0.239 ± 0.308	10620573	2.500×10^{-2}	0.301	5.702×10^{-2}	0.0	1.000
surface albedo fitted crb [1]	0.225 ± 0.290	10620573	1.500×10^{-2}	0.304	4.743×10^{-2}	0.0	1.000
fitted root mean square [1]	$(6.092 \pm 7.296) \times 10^{-4}$	10620573	5.000×10^{-5}	7.362×10^{-4}	3.890×10^{-4}	9.401×10^{-7}	0.537
fitted root mean square crb [1]	$(5.313 \pm 6.405) \times 10^{-4}$	10620573	5.000×10^{-5}	6.627×10^{-4}	2.944×10^{-4}	1.077×10^{-6}	0.331
wavelength shift [nm]	$(8.823 \pm 7.196) \times 10^{-3}$	10620573	9.000×10^{-4}	1.081×10^{-2}	8.370×10^{-3}	-0.171	6.288×10^{-2}
cloud fraction apriori [1]	0.573 ± 0.355	10620573	0.995	0.767	0.548	0.0	1.000
reflectance blue ocra [1]	0.581 ± 0.236	10620573	0.255	0.408	0.564	0.140	2.08
reflectance green ocra [1]	0.530 ± 0.265	10620573	0.175	0.488	0.521	7.768×10^{-2}	2.07
reflectance continuum aband [1]	0.483 ± 0.291	10620573	4.500×10^{-2}	0.496	0.487	1.156×10^{-2}	5.10

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	0.950	1.000	1.000	1.000	1.000
cloud fraction [1]	2.735×10^{-2}	6.961×10^{-2}	0.107	0.154	0.235	0.988	1.000	1.000	1.000	1.000
cloud top height [m]	170	647	1.007×10^3	1.338×10^3	1.792×10^3	5.723×10^3	6.798×10^3	7.699×10^3	8.912×10^3	1.135×10^4
cloud optical thickness [1]	1.000	2.37	3.51	4.46	5.62	18.1	28.5	42.3	75.6	250
cloud fraction crb [1]	2.676×10^{-2}	6.880×10^{-2}	0.106	0.153	0.235	0.987	1.000	1.000	1.000	1.000
cloud height crb [m]	0.0	269	574	869	1.270×10^3	4.606×10^3	5.524×10^3	6.343×10^3	7.444×10^3	9.403×10^3
cloud albedo crb [1]	6.288×10^{-2}	0.244	0.359	0.423	0.472	0.765	0.855	0.944	1.000	1.000
surface albedo fitted [1]	0.0	8.367×10^{-3}	1.443×10^{-2}	1.923×10^{-2}	2.617×10^{-2}	0.327	0.710	0.805	0.887	0.988
surface albedo fitted crb [1]	0.0	7.686×10^{-3}	1.183×10^{-2}	1.558×10^{-2}	2.128×10^{-2}	0.325	0.676	0.740	0.822	0.936
fitted root mean square [1]	1.562×10^{-5}	2.966×10^{-5}	4.684×10^{-5}	7.504×10^{-5}	1.291×10^{-4}	8.653×10^{-4}	1.166×10^{-3}	1.463×10^{-3}	1.900×10^{-3}	2.942×10^{-3}
fitted root mean square crb [1]	8.750×10^{-6}	1.823×10^{-5}	2.982×10^{-5}	4.753×10^{-5}	8.714×10^{-5}	7.499×10^{-4}	1.064×10^{-3}	1.378×10^{-3}	1.837×10^{-3}	2.814×10^{-3}
wavelength shift [nm]	-6.159×10^{-3}	-4.125×10^{-4}	3.326×10^{-4}	1.280×10^{-3}	3.062×10^{-3}	1.387×10^{-2}	1.628×10^{-2}	1.829×10^{-2}	2.089×10^{-2}	2.646×10^{-2}
cloud fraction apriori [1]	3.229×10^{-2}	6.642×10^{-2}	0.101	0.148	0.233	1.000	1.000	1.000	1.000	1.000
reflectance blue ocra [1]	0.231	0.256	0.283	0.315	0.370	0.778	0.834	0.877	0.940	1.16
reflectance green ocra [1]	0.153	0.173	0.193	0.219	0.274	0.763	0.825	0.869	0.930	1.12
reflectance continuum aband [1]	3.069×10^{-2}	5.325×10^{-2}	8.566×10^{-2}	0.131	0.228	0.724	0.799	0.847	0.913	1.09

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]	0.613 ± 0.381	5126183	0.650	0.800	0.0	1.000	0.300	0.950
cloud fraction [1]	0.603 ± 0.360	5126183	0.764	0.648	6.652×10^{-3}	1.000	0.236	1.000
cloud top height [m]	$(0.383 \pm 0.254) \times 10^4$	5126183	3.541×10^3	3.312×10^3	0.0	2.000×10^4	1.813×10^3	5.354×10^3
cloud optical thickness [1]	22.3 ± 37.0	5126183	15.1	10.4	1.000	250	6.24	21.3
cloud fraction crb [1]	0.602 ± 0.360	5126183	0.765	0.646	8.345×10^{-3}	1.000	0.235	1.000
cloud height crb [m]	$(0.319 \pm 0.222) \times 10^4$	5126183	3.177×10^3	2.789×10^3	0.0	2.000×10^4	1.378×10^3	4.555×10^3
cloud albedo crb [1]	0.579 ± 0.198	5126183	0.246	0.571	0.0	1.000	0.462	0.708
surface albedo fitted [1]	0.157 ± 0.206	5126183	0.182	5.947×10^{-2}	0.0	1.000	2.700×10^{-2}	0.209
surface albedo fitted crb [1]	0.152 ± 0.205	5126183	0.183	4.855×10^{-2}	0.0	1.000	2.189×10^{-2}	0.205
fitted root mean square [1]	$(4.848 \pm 6.871) \times 10^{-4}$	5126183	5.295×10^{-4}	2.540×10^{-4}	9.401×10^{-7}	0.537	1.014×10^{-4}	6.310×10^{-4}
fitted root mean square crb [1]	$(4.472 \pm 6.233) \times 10^{-4}$	5126183	5.434×10^{-4}	2.007×10^{-4}	1.077×10^{-6}	0.331	5.923×10^{-5}	6.026×10^{-4}
wavelength shift [nm]	$(7.504 \pm 6.873) \times 10^{-3}$	5126183	9.942×10^{-3}	6.658×10^{-3}	-0.171	5.756×10^{-2}	2.025×10^{-3}	1.197×10^{-2}
cloud fraction apriori [1]	0.608 ± 0.365	5126183	0.770	0.664	0.0	1.000	0.230	1.000
reflectance blue ocra [1]	0.543 ± 0.222	5126183	0.354	0.517	0.140	2.04	0.351	0.705
reflectance green ocra [1]	0.486 ± 0.249	5126183	0.423	0.462	7.768×10^{-2}	2.07	0.256	0.680
reflectance continuum aband [1]	0.444 ± 0.278	5126183	0.427	0.428	1.156×10^{-2}	5.10	0.213	0.640

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]	0.610 ± 0.375	5494390	0.630	0.700	0.0	1.000	0.300	0.930
cloud fraction [1]	0.533 ± 0.338	5494390	0.691	0.459	6.785×10^{-3}	1.000	0.234	0.924
cloud top height [m]	$(0.411 \pm 0.283) \times 10^4$	5494390	4.281×10^3	3.574×10^3	0.0	2.000×10^4	1.770×10^3	6.051×10^3
cloud optical thickness [1]	20.4 ± 41.6	5494390	10.2	8.98	1.000	250	5.19	15.4
cloud fraction crb [1]	0.533 ± 0.337	5494390	0.688	0.458	8.421×10^{-3}	1.000	0.235	0.924
cloud height crb [m]	$(0.312 \pm 0.233) \times 10^4$	5494390	3.494×10^3	2.734×10^3	0.0	2.000×10^4	1.160×10^3	4.654×10^3
cloud albedo crb [1]	0.643 ± 0.232	5494390	0.345	0.619	0.0	1.000	0.482	0.827
surface albedo fitted [1]	0.315 ± 0.363	5494390	0.697	5.451×10^{-2}	0.0	1.000	2.549×10^{-2}	0.723
surface albedo fitted crb [1]	0.292 ± 0.338	5494390	0.661	4.628×10^{-2}	0.0	1.000	2.072×10^{-2}	0.682
fitted root mean square [1]	$(7.252 \pm 7.487) \times 10^{-4}$	5494390	8.390×10^{-4}	5.456×10^{-4}	5.259×10^{-6}	7.405×10^{-2}	1.977×10^{-4}	1.037×10^{-3}
fitted root mean square crb [1]	$(6.097 \pm 6.464) \times 10^{-4}$	5494390	7.369×10^{-4}	3.960×10^{-4}	2.502×10^{-6}	3.443×10^{-2}	1.327×10^{-4}	8.697×10^{-4}
wavelength shift [nm]	$(1.005 \pm 0.727) \times 10^{-2}$	5494390	1.085×10^{-2}	1.014×10^{-2}	-4.423×10^{-2}	6.288×10^{-2}	4.384×10^{-3}	1.524×10^{-2}
cloud fraction apriori [1]	0.540 ± 0.342	5494390	0.725	0.473	0.0	1.000	0.235	0.959
reflectance blue ocra [1]	0.616 ± 0.242	5494390	0.425	0.626	0.165	2.08	0.393	0.818
reflectance green ocra [1]	0.571 ± 0.274	5494390	0.510	0.595	9.422×10^{-2}	1.96	0.300	0.810
reflectance continuum aband [1]	0.520 ± 0.298	5494390	0.529	0.564	1.386×10^{-2}	4.85	0.247	0.776

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]	0.675 ± 0.343	6827389	0.550	0.850	0.0	1.000	0.400	0.950
cloud fraction [1]	0.577 ± 0.357	6827389	0.776	0.585	6.785×10^{-3}	1.000	0.217	0.993
cloud top height [m]	$(0.371 \pm 0.266) \times 10^4$	6827389	3.548×10^3	3.034×10^3	0.0	2.000×10^4	1.660×10^3	5.208×10^3
cloud optical thickness [1]	21.6 ± 37.5	6827389	12.5	10.3	1.000	250	6.72	19.2
cloud fraction crb [1]	0.576 ± 0.357	6827389	0.776	0.583	8.652×10^{-3}	1.000	0.216	0.992
cloud height crb [m]	$(0.302 \pm 0.234) \times 10^4$	6827389	3.305×10^3	2.470×10^3	0.0	2.000×10^4	1.138×10^3	4.443×10^3
cloud albedo crb [1]	0.565 ± 0.194	6827389	0.238	0.548	0.0	1.000	0.452	0.690
surface albedo fitted [1]	0.110 ± 0.222	6827389	3.458×10^{-2}	3.229×10^{-2}	0.0	1.000	1.950×10^{-2}	5.407×10^{-2}
surface albedo fitted crb [1]	0.103 ± 0.214	6827389	2.913×10^{-2}	2.645×10^{-2}	0.0	1.000	1.579×10^{-2}	4.492×10^{-2}
fitted root mean square [1]	$(5.541 \pm 7.007) \times 10^{-4}$	6827389	7.100×10^{-4}	2.860×10^{-4}	9.401×10^{-7}	4.514×10^{-2}	8.902×10^{-5}	7.990×10^{-4}
fitted root mean square crb [1]	$(5.192 \pm 6.375) \times 10^{-4}$	6827389	6.876×10^{-4}	2.516×10^{-4}	1.077×10^{-6}	2.565×10^{-2}	6.775×10^{-5}	7.553×10^{-4}
wavelength shift [nm]	$(8.499 \pm 7.469) \times 10^{-3}$	6827389	1.126×10^{-2}	7.777×10^{-3}	-4.423×10^{-2}	6.288×10^{-2}	2.502×10^{-3}	1.377×10^{-2}
cloud fraction apriori [1]	0.580 ± 0.362	6827389	0.789	0.595	0.0	1.000	0.211	1.000
reflectance blue ocrs [1]	0.532 ± 0.212	6827389	0.346	0.500	0.164	2.02	0.348	0.694
reflectance green ocrs [1]	0.471 ± 0.240	6827389	0.421	0.441	8.745×10^{-2}	2.03	0.246	0.667
reflectance continuum aband [1]	0.404 ± 0.279	6827389	0.496	0.385	1.156×10^{-2}	5.10	0.136	0.632

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]	0.466 ± 0.410	3039593	0.900	0.580	0.0	1.000	0.0	0.900
cloud fraction [1]	0.505 ± 0.324	3039593	0.605	0.403	6.652×10^{-3}	1.000	0.241	0.846
cloud top height [m]	$(0.474 \pm 0.271) \times 10^4$	3039593	4.095×10^3	4.710×10^3	0.0	2.000×10^4	2.486×10^3	6.581×10^3
cloud optical thickness [1]	18.1 ± 40.1	3039593	9.00	6.74	1.000	250	4.46	13.5
cloud fraction crb [1]	0.505 ± 0.323	3039593	0.601	0.405	8.345×10^{-3}	1.000	0.243	0.845
cloud height crb [m]	$(0.356 \pm 0.215) \times 10^4$	3039593	3.156×10^3	3.421×10^3	0.0	2.000×10^4	1.792×10^3	4.948×10^3
cloud albedo crb [1]	0.714 ± 0.238	3039593	0.397	0.727	0.0	1.000	0.547	0.944
surface albedo fitted [1]	0.527 ± 0.301	3039593	0.583	0.560	1.711×10^{-3}	1.000	0.227	0.810
surface albedo fitted crb [1]	0.495 ± 0.273	3039593	0.509	0.550	3.418×10^{-3}	1.000	0.223	0.731
fitted root mean square [1]	$(7.516 \pm 7.639) \times 10^{-4}$	3039593	7.041×10^{-4}	5.794×10^{-4}	4.895×10^{-6}	0.537	3.009×10^{-4}	1.005×10^{-3}
fitted root mean square crb [1]	$(5.734 \pm 6.453) \times 10^{-4}$	3039593	6.261×10^{-4}	3.793×10^{-4}	2.696×10^{-6}	0.331	1.494×10^{-4}	7.755×10^{-4}
wavelength shift [nm]	$(9.551 \pm 6.588) \times 10^{-3}$	3039593	9.791×10^{-3}	9.332×10^{-3}	-0.171	4.942×10^{-2}	4.425×10^{-3}	1.422×10^{-2}
cloud fraction apriori [1]	0.515 ± 0.329	3039593	0.642	0.417	0.0	1.000	0.244	0.886
reflectance blue ocra [1]	0.683 ± 0.255	3039593	0.408	0.768	0.140	2.08	0.449	0.857
reflectance green ocra [1]	0.652 ± 0.279	3039593	0.469	0.755	7.768×10^{-2}	2.04	0.386	0.855
reflectance continuum aband [1]	0.642 ± 0.249	3039593	0.398	0.696	2.209×10^{-2}	4.85	0.426	0.824

3 Granule outlines

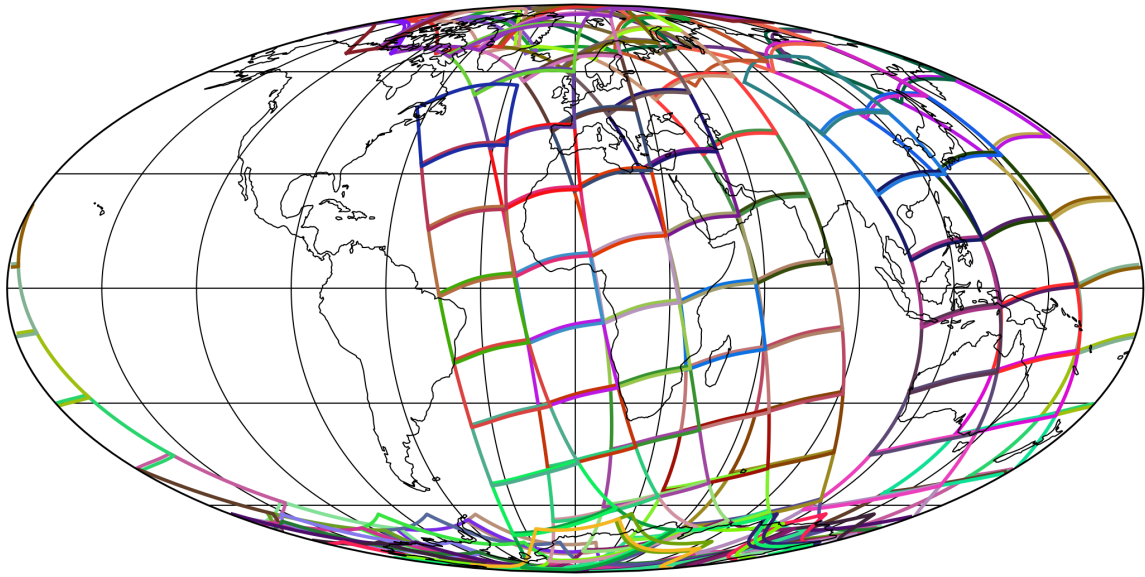


Figure 1: Outline of the granules.

4 Input data monitoring

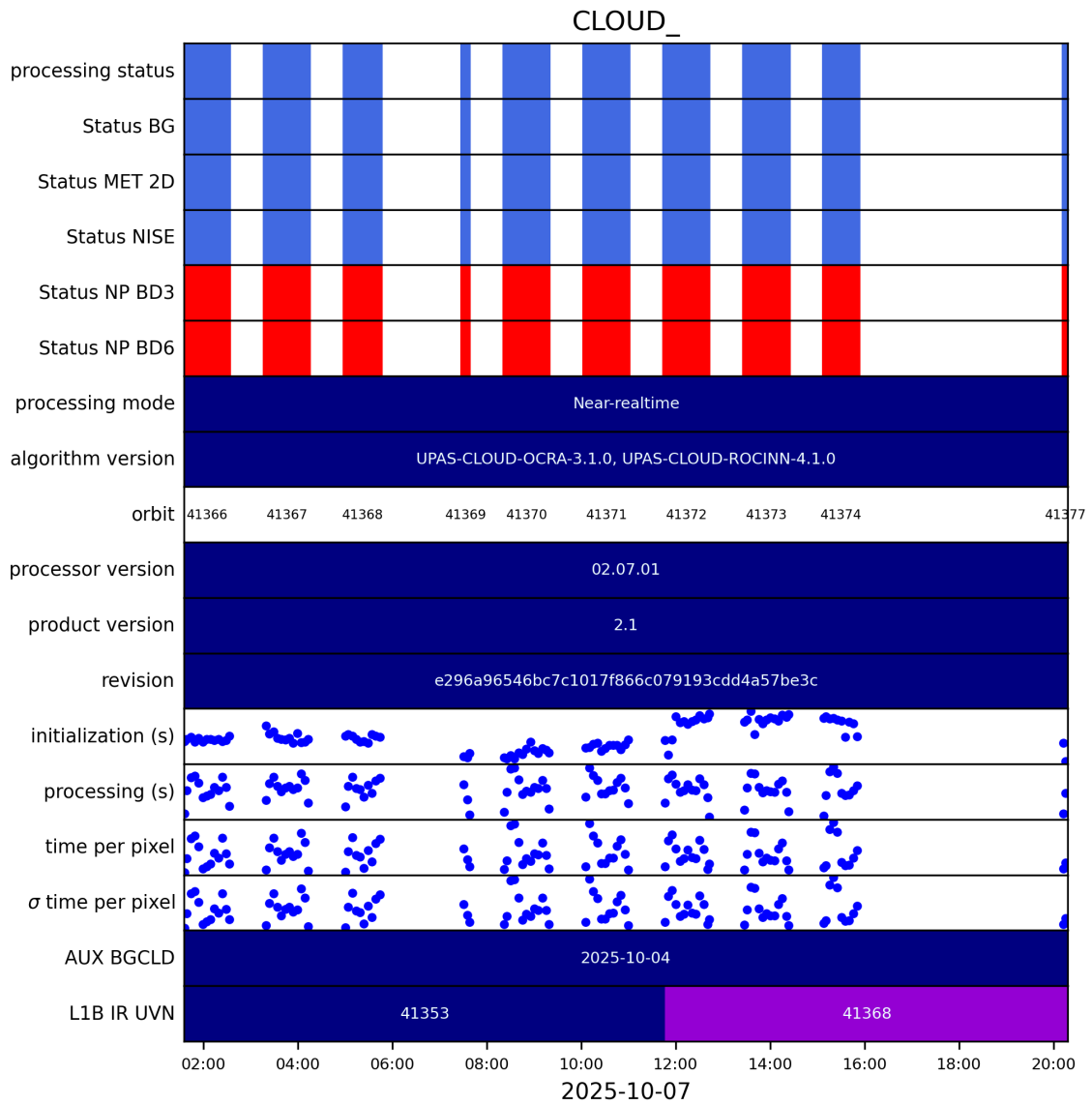


Figure 2: Input data per granule

5 Warnings and errors

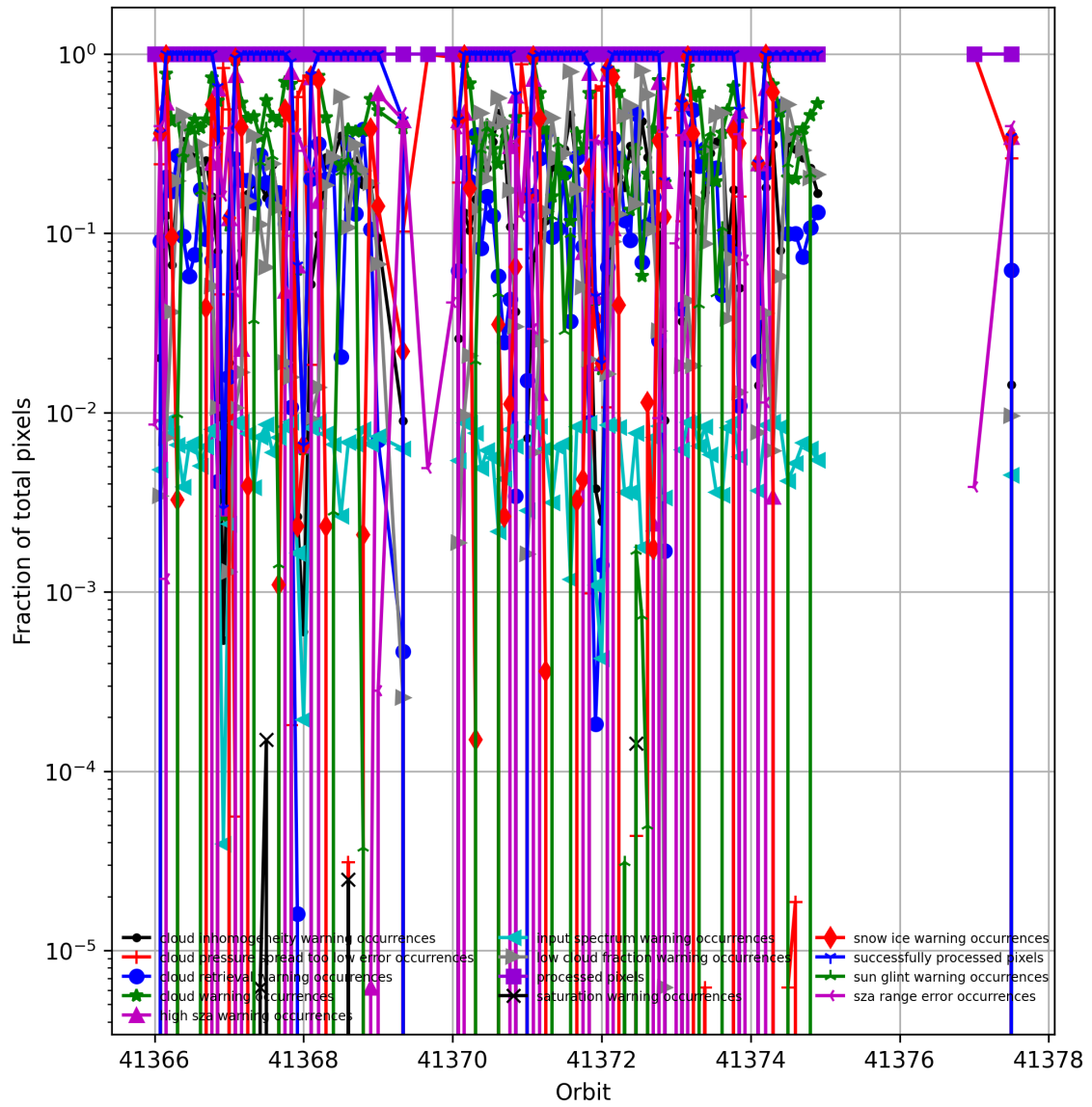
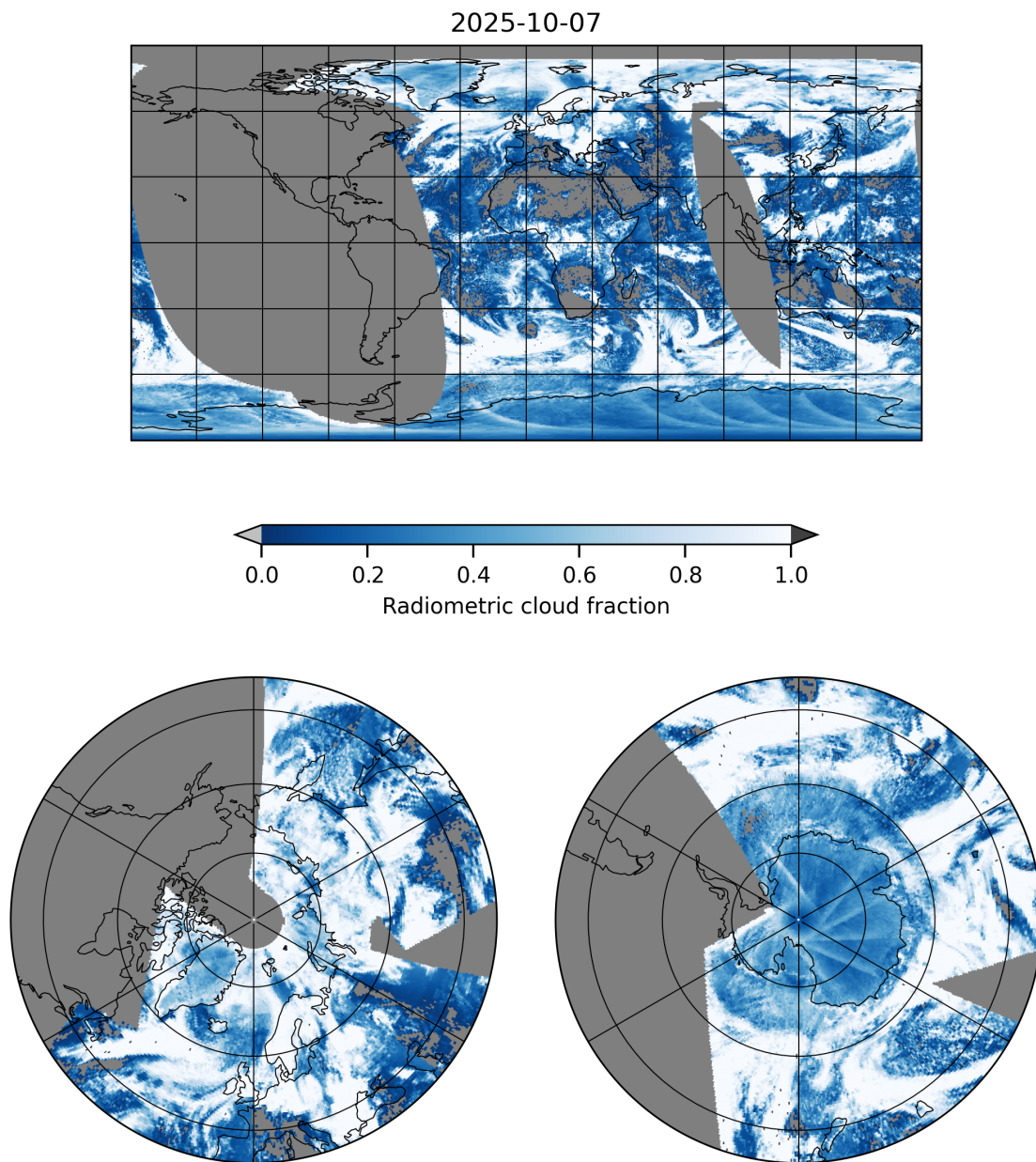


Figure 3: Fraction of pixels with specific warnings and errors during processing

6 World maps



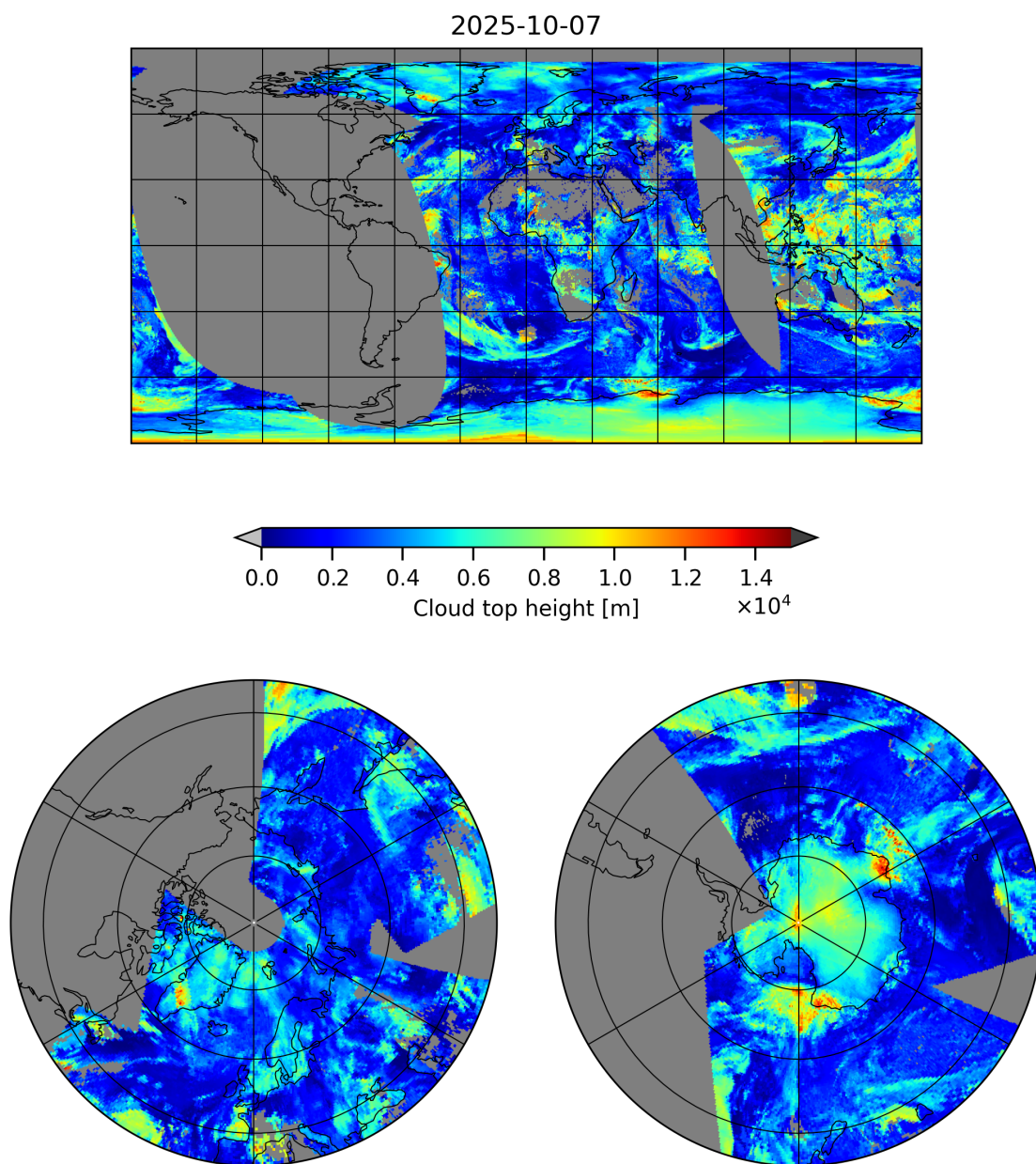


Figure 5: Map of “Cloud top height” for 2025-10-07 to 2025-10-07

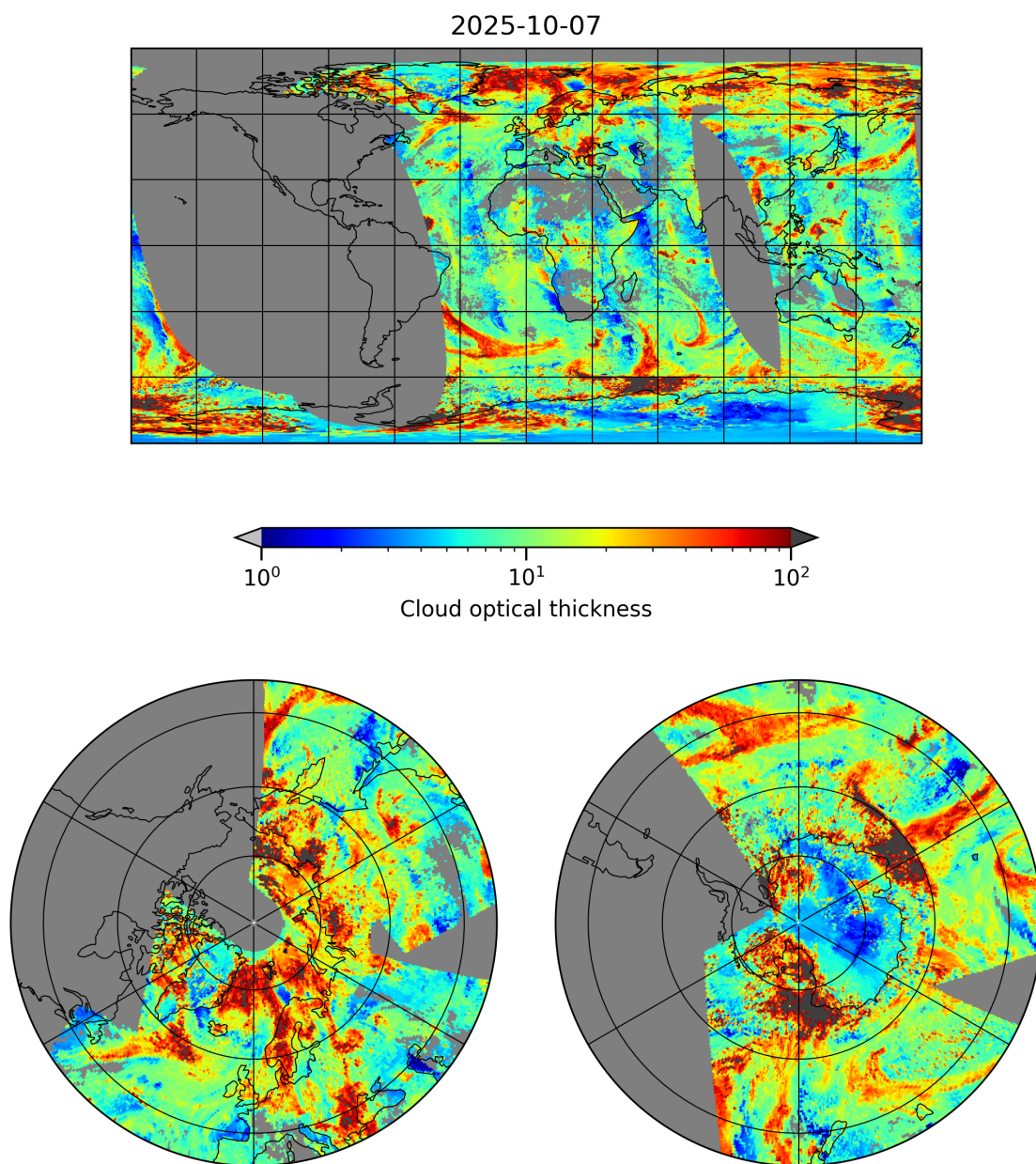


Figure 6: Map of “Cloud optical thickness” for 2025-10-07 to 2025-10-07

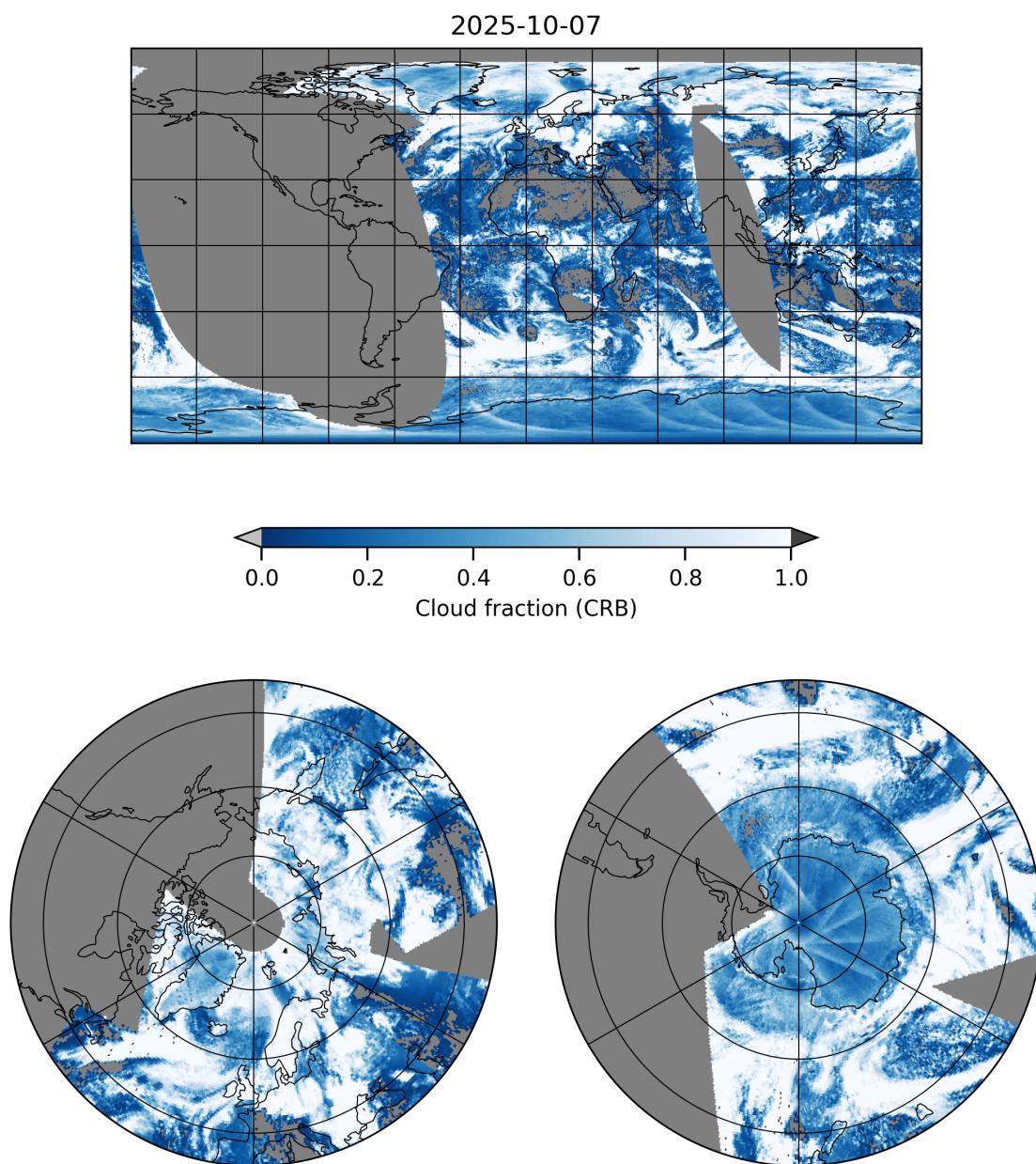


Figure 7: Map of “Cloud fraction (CRB)” for 2025-10-07 to 2025-10-07

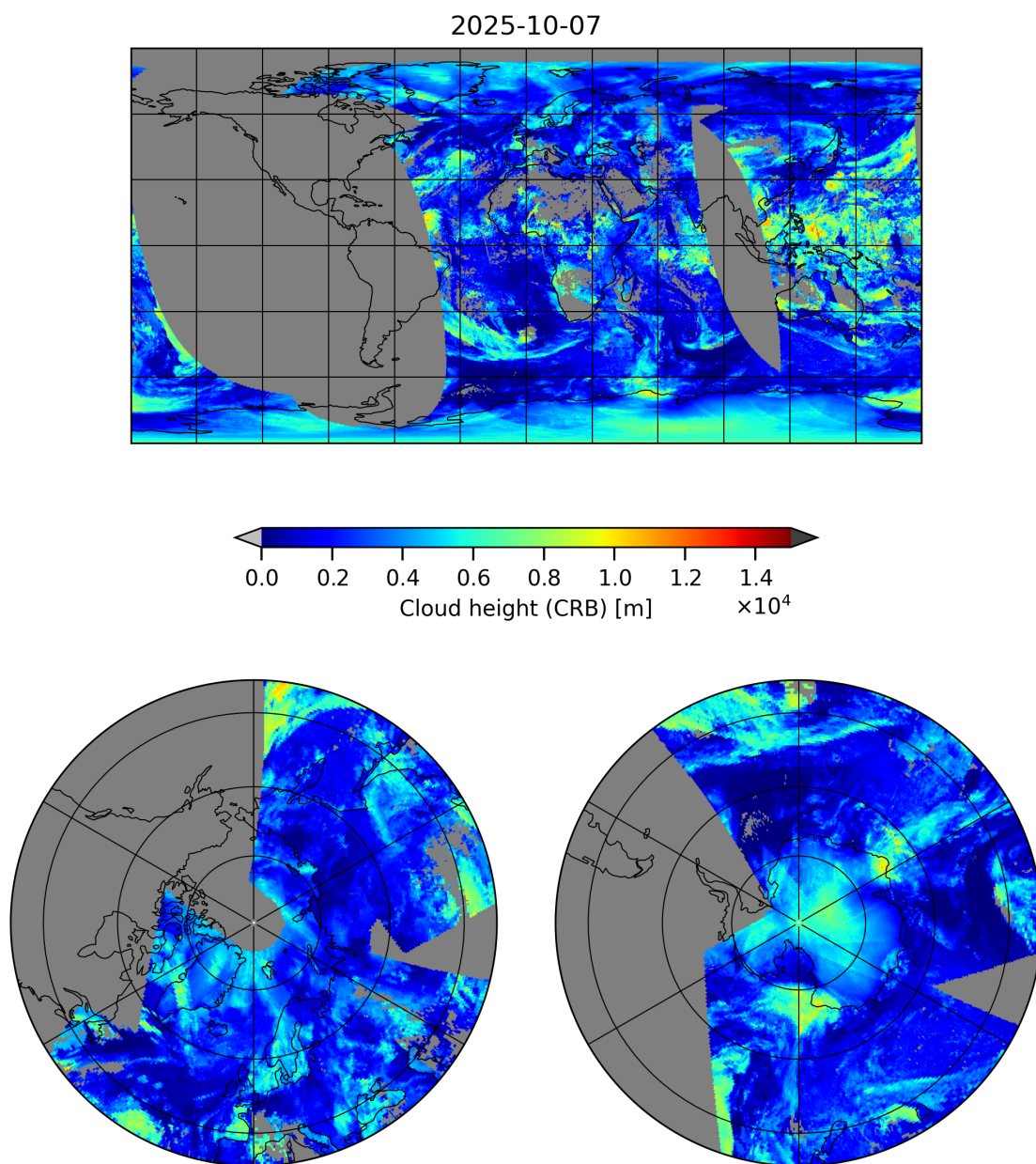


Figure 8: Map of “Cloud height (CRB)” for 2025-10-07 to 2025-10-07

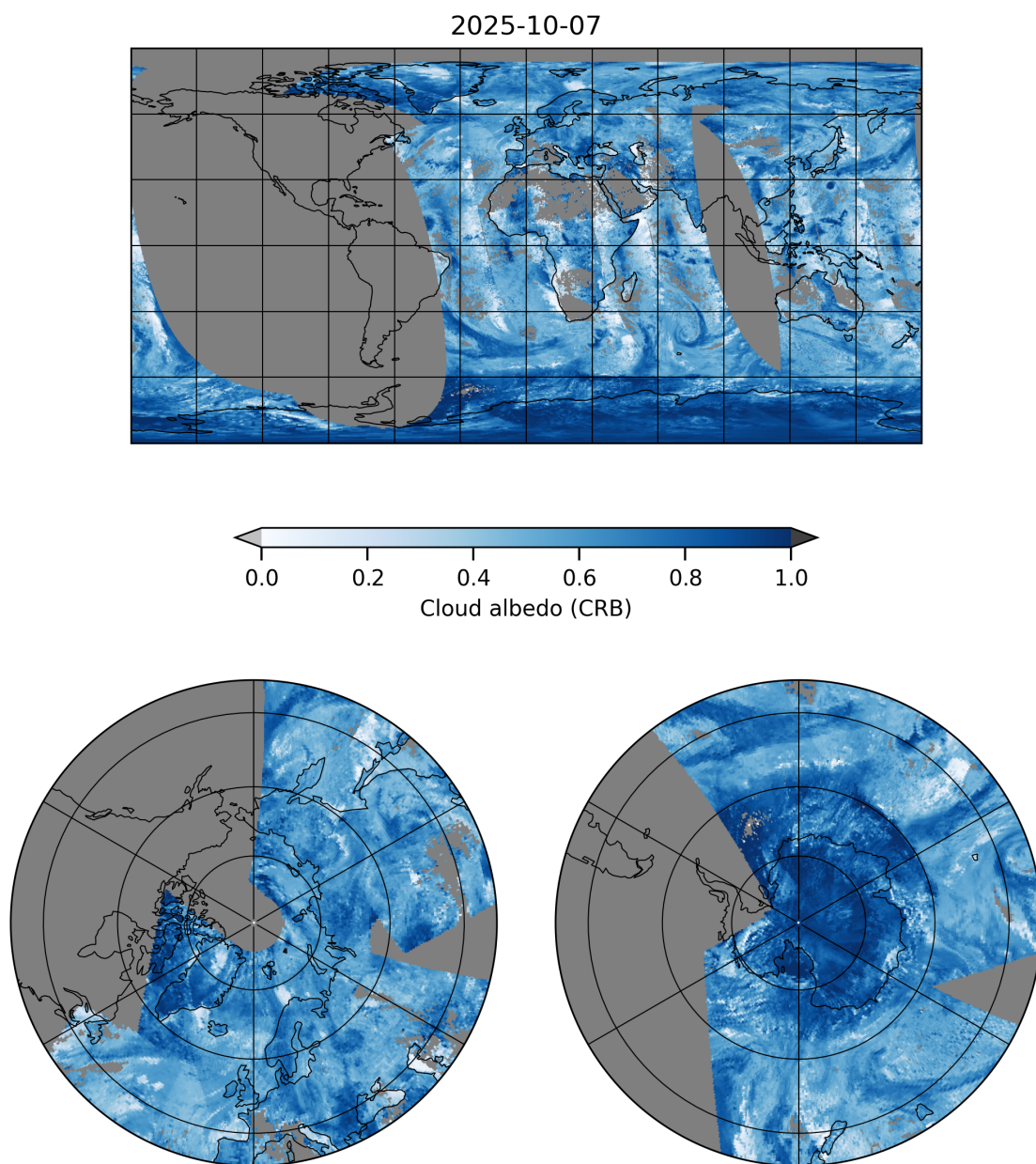


Figure 9: Map of “Cloud albedo (CRB)” for 2025-10-07 to 2025-10-07

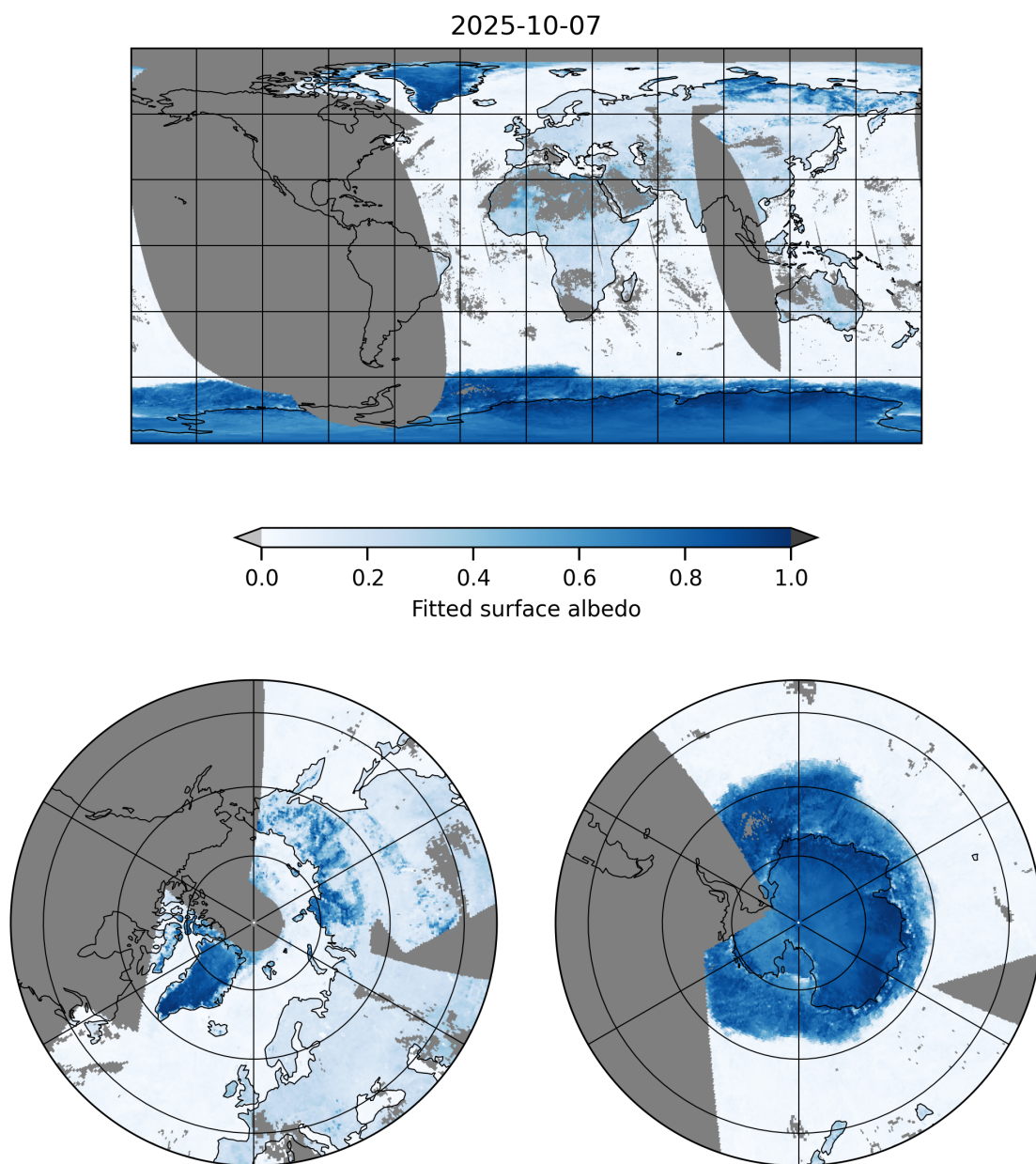


Figure 10: Map of “Fitted surface albedo” for 2025-10-07 to 2025-10-07

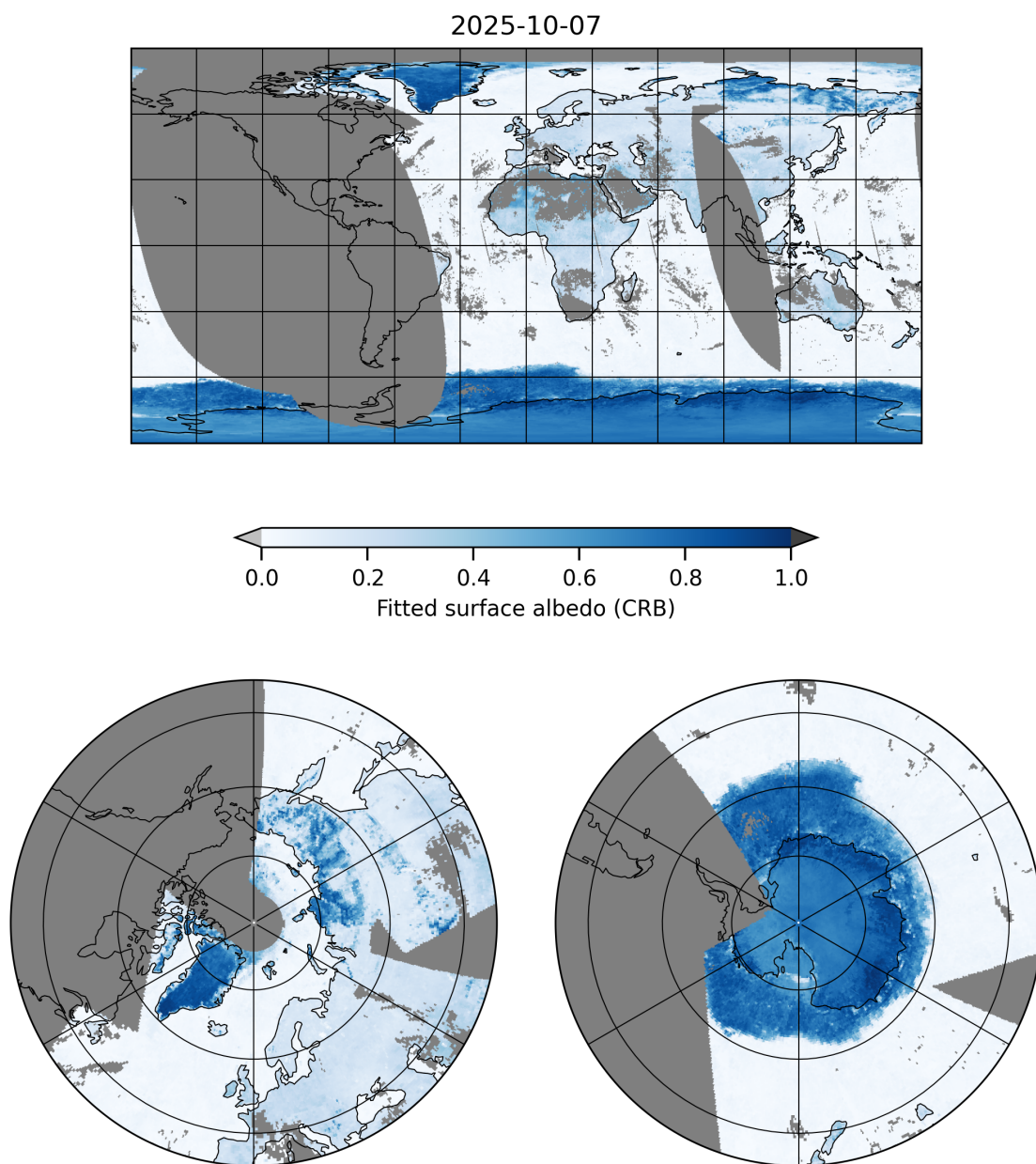


Figure 11: Map of “Fitted surface albedo (CRB)” for 2025-10-07 to 2025-10-07

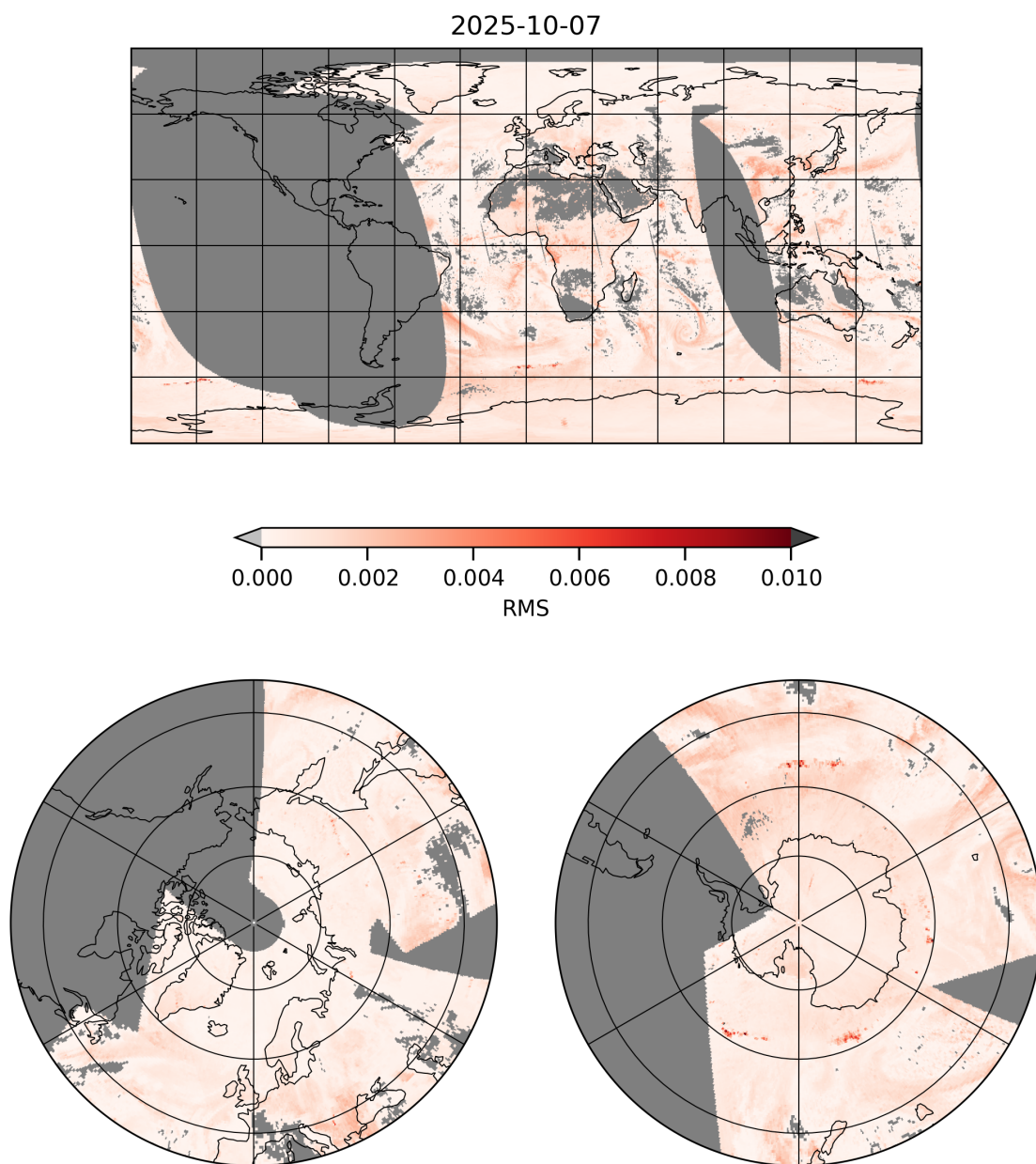


Figure 12: Map of “RMS” for 2025-10-07 to 2025-10-07

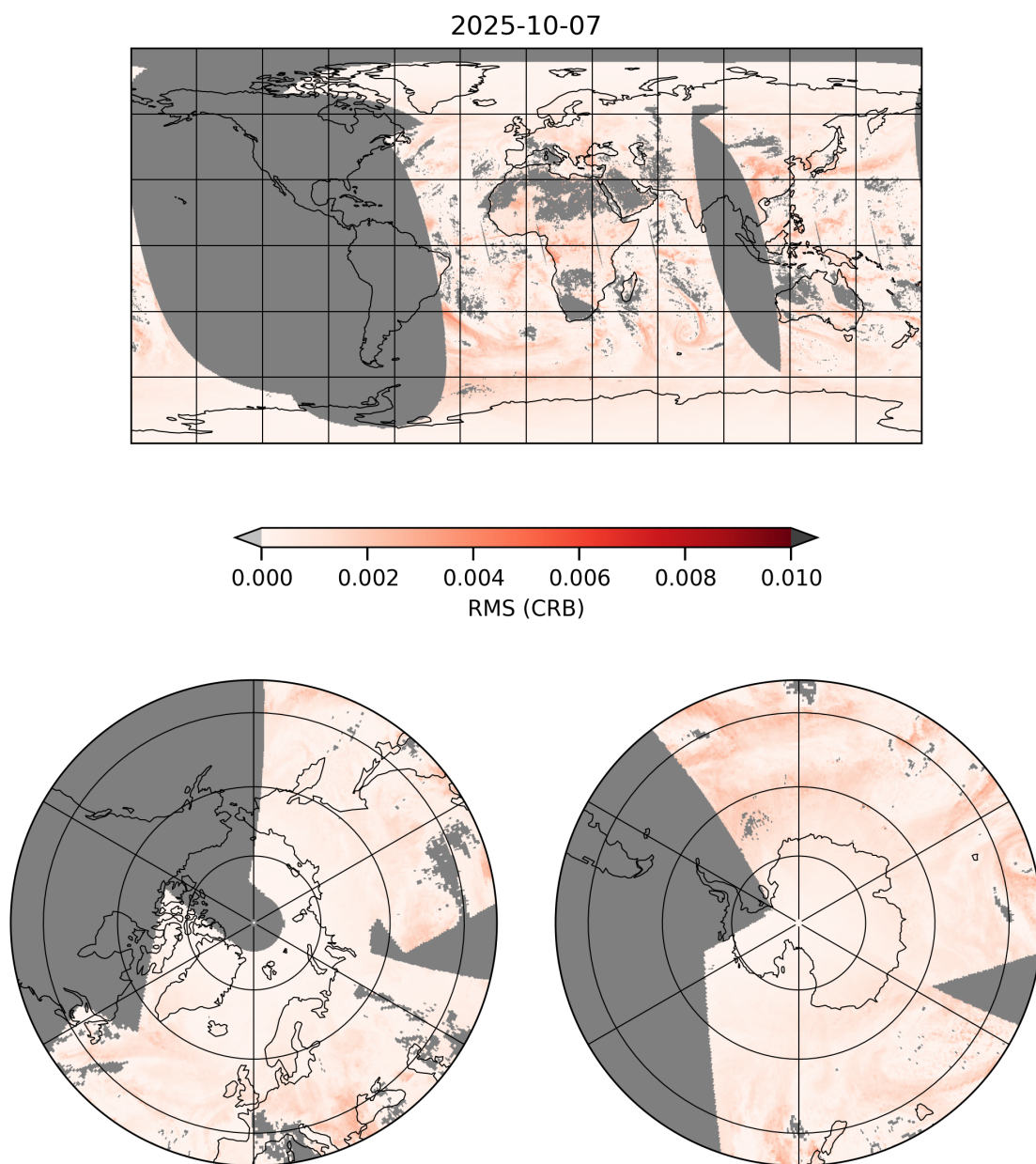


Figure 13: Map of “RMS (CRB)” for 2025-10-07 to 2025-10-07

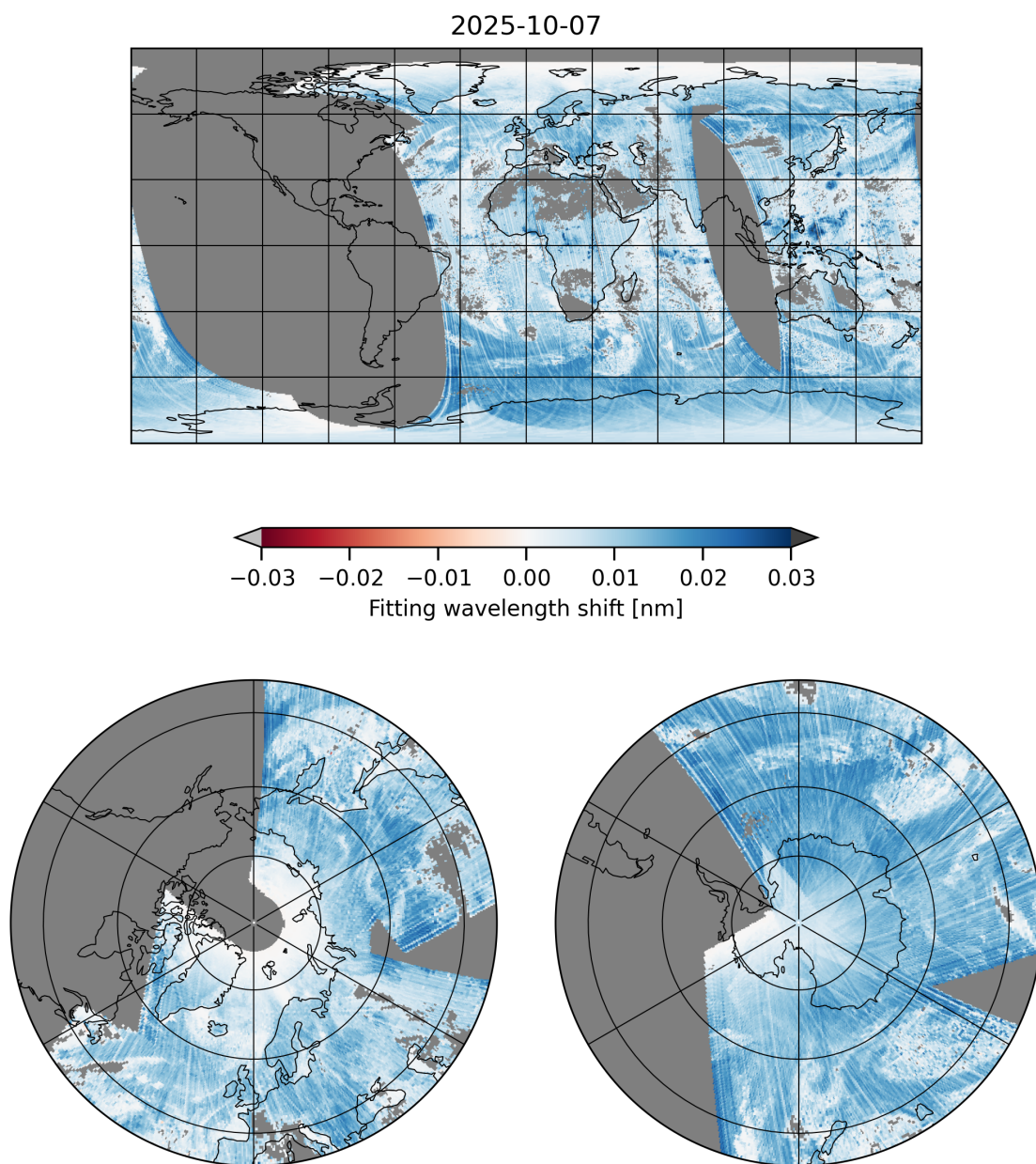


Figure 14: Map of “Fitting wavelength shift” for 2025-10-07 to 2025-10-07

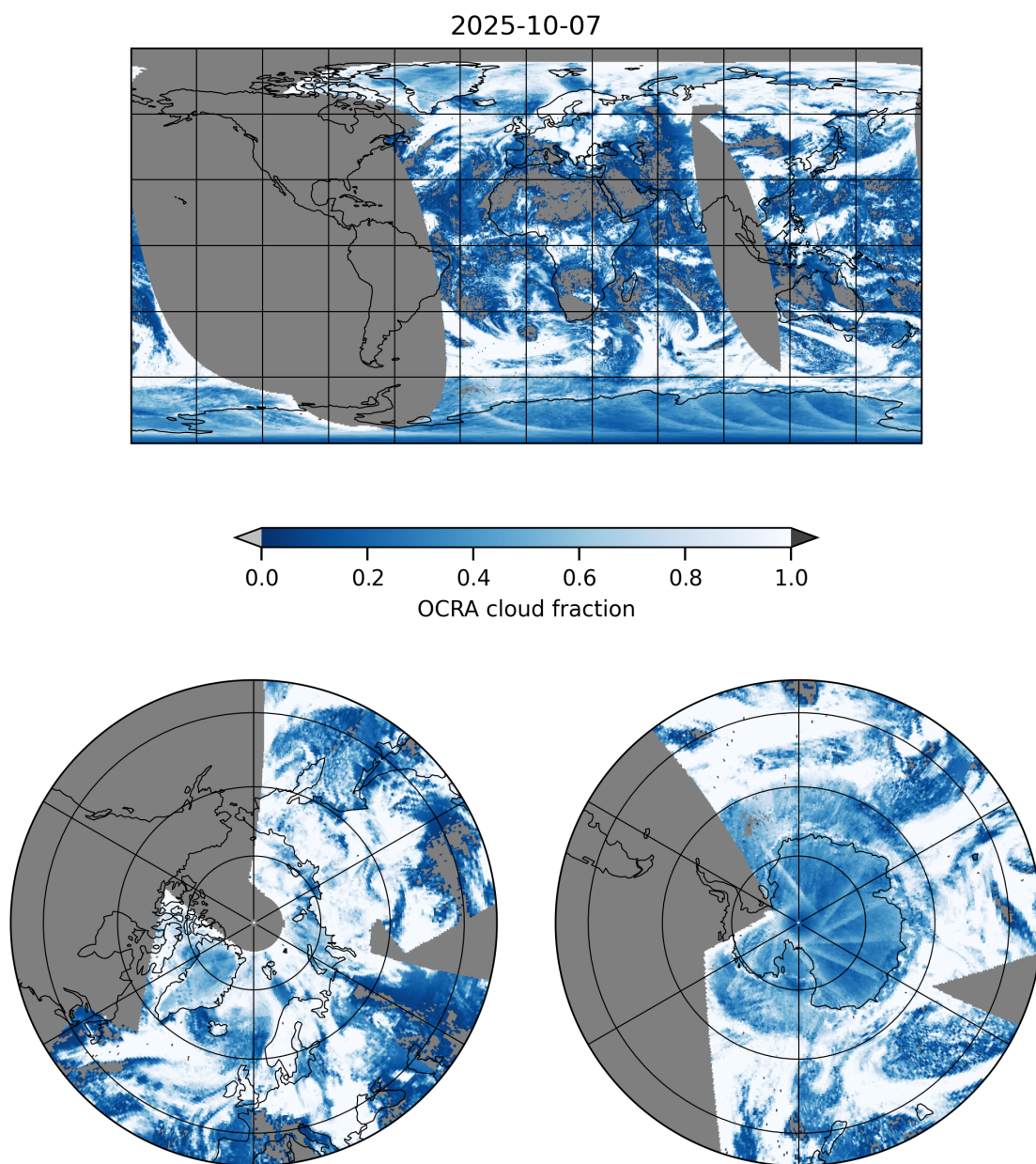


Figure 15: Map of “OCRA cloud fraction” for 2025-10-07 to 2025-10-07

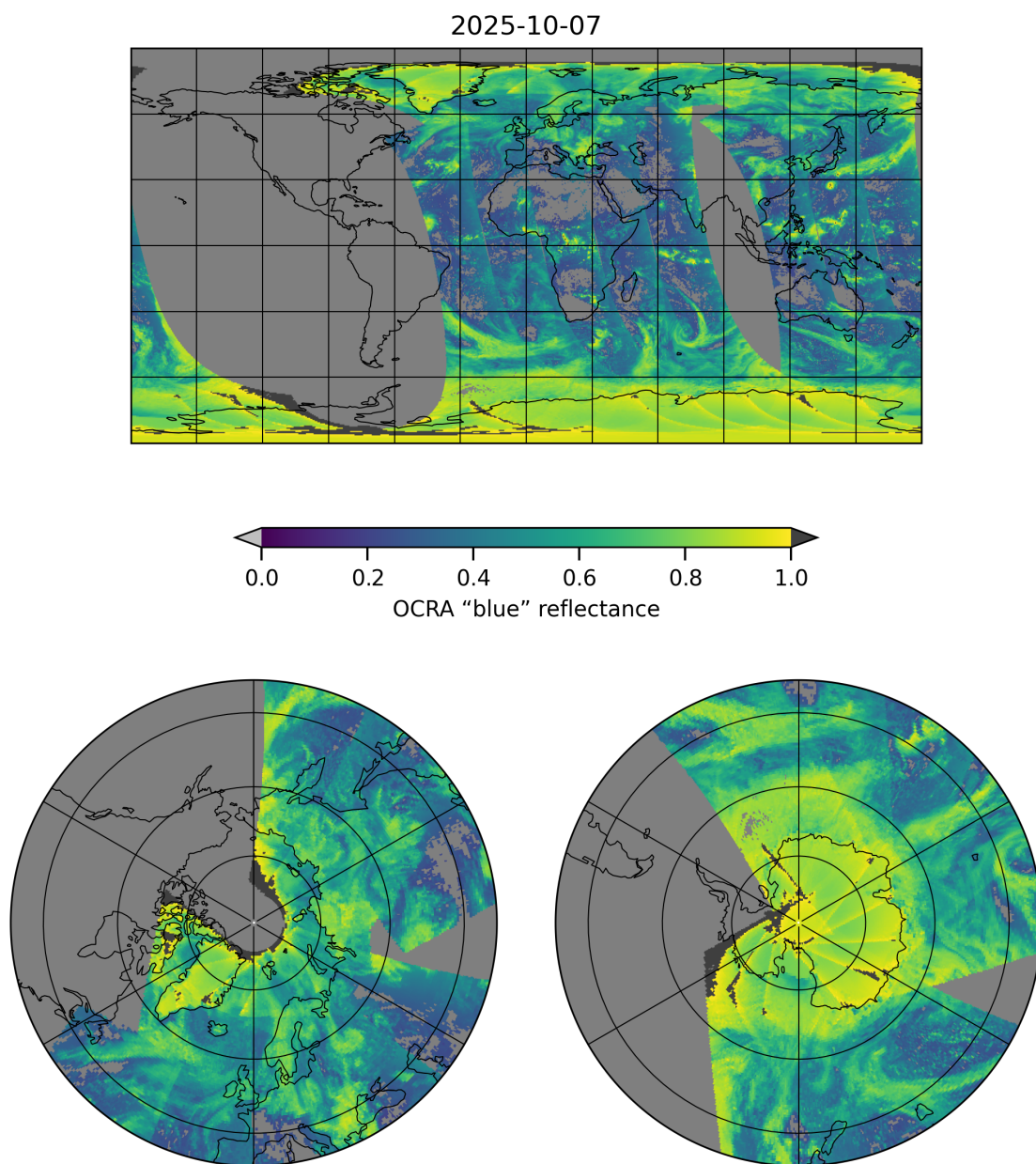


Figure 16: Map of "OCRA "blue" reflectance" for 2025-10-07 to 2025-10-07

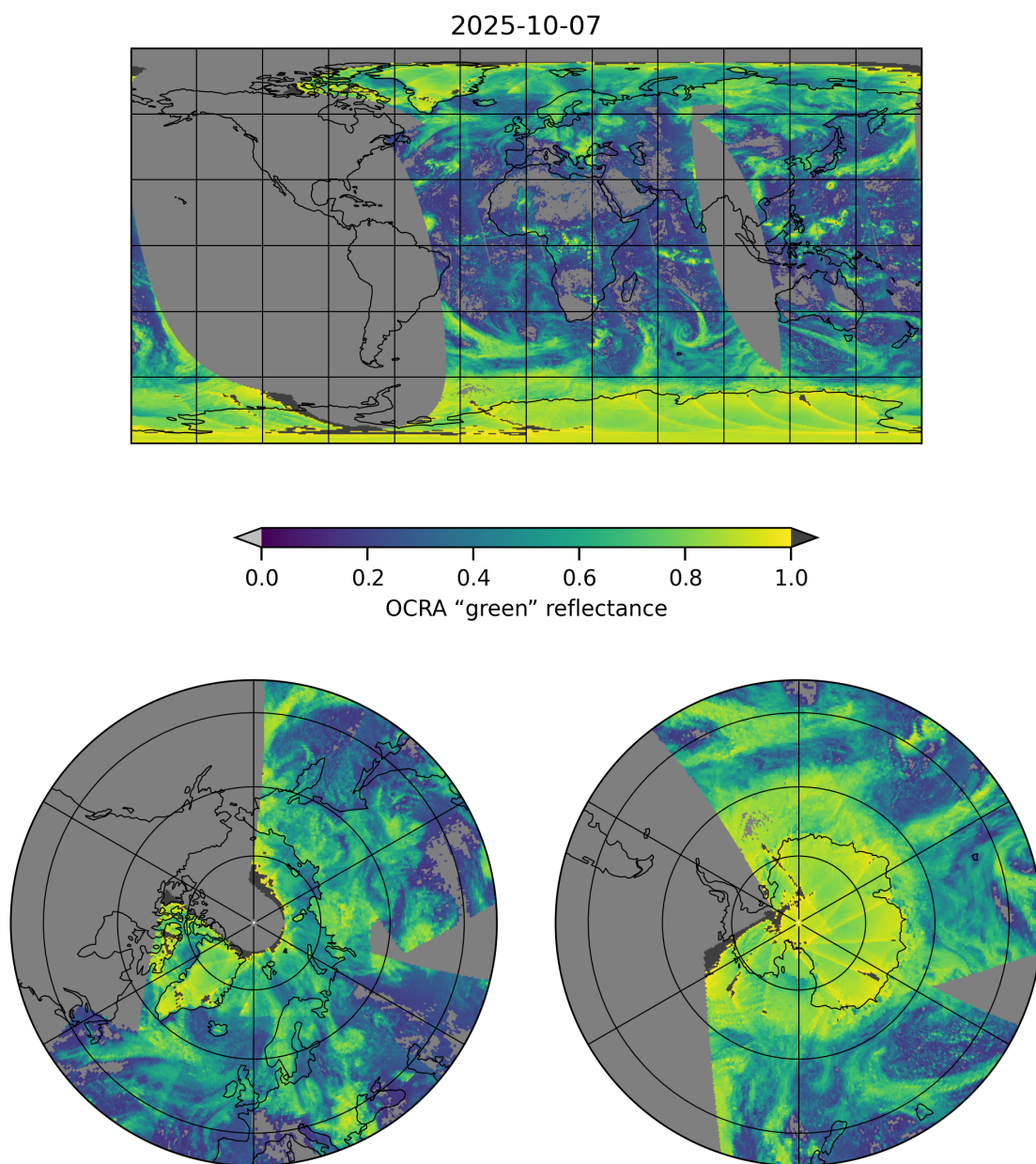


Figure 17: Map of "OCRA "green" reflectance" for 2025-10-07 to 2025-10-07

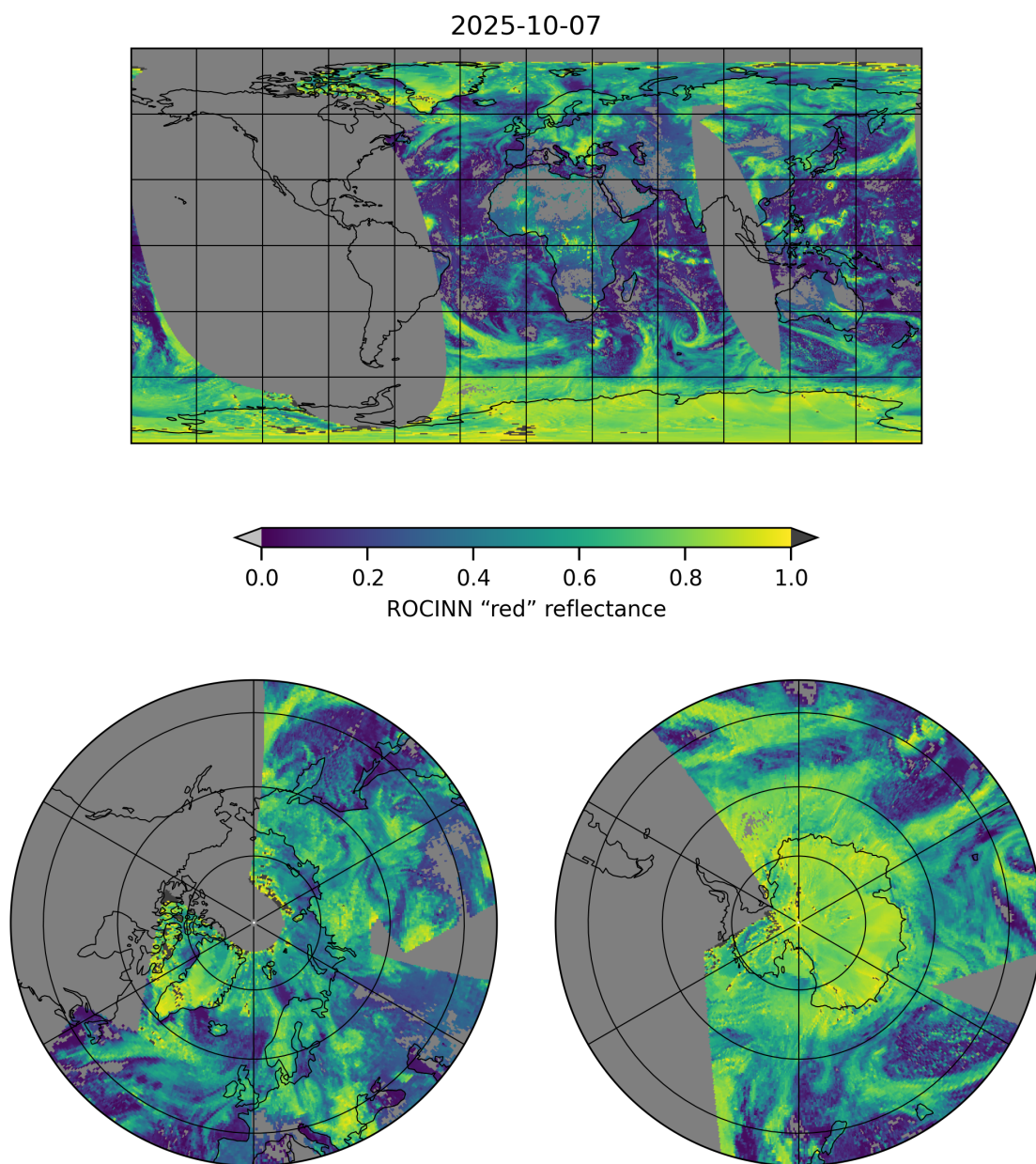


Figure 18: Map of "ROCINN "red" reflectance" for 2025-10-07 to 2025-10-07

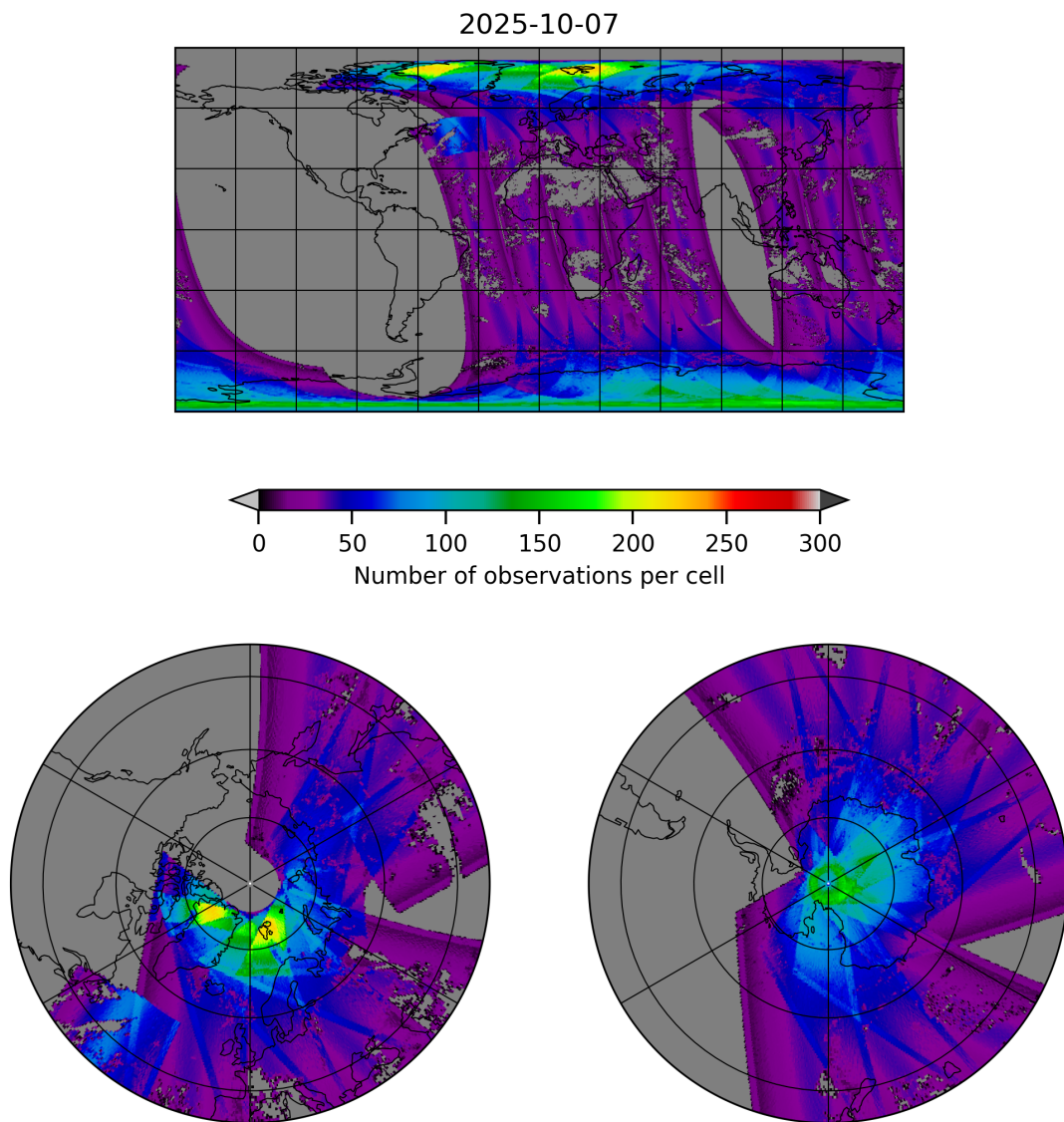


Figure 19: Map of the number of observations for 2025-10-07 to 2025-10-07

7 Zonal average

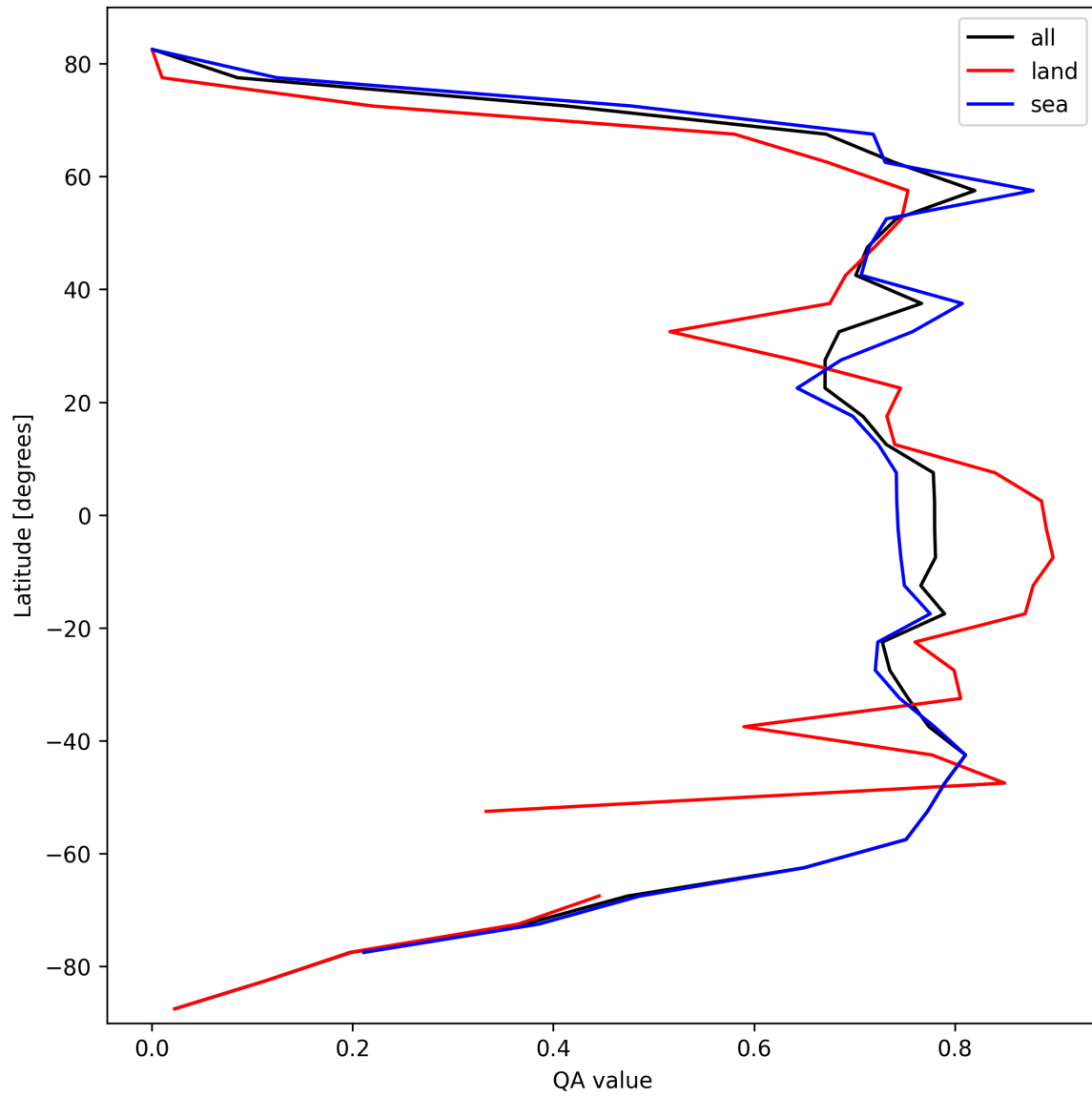


Figure 20: Zonal average of “QA value” for 2025-10-07 to 2025-10-07.

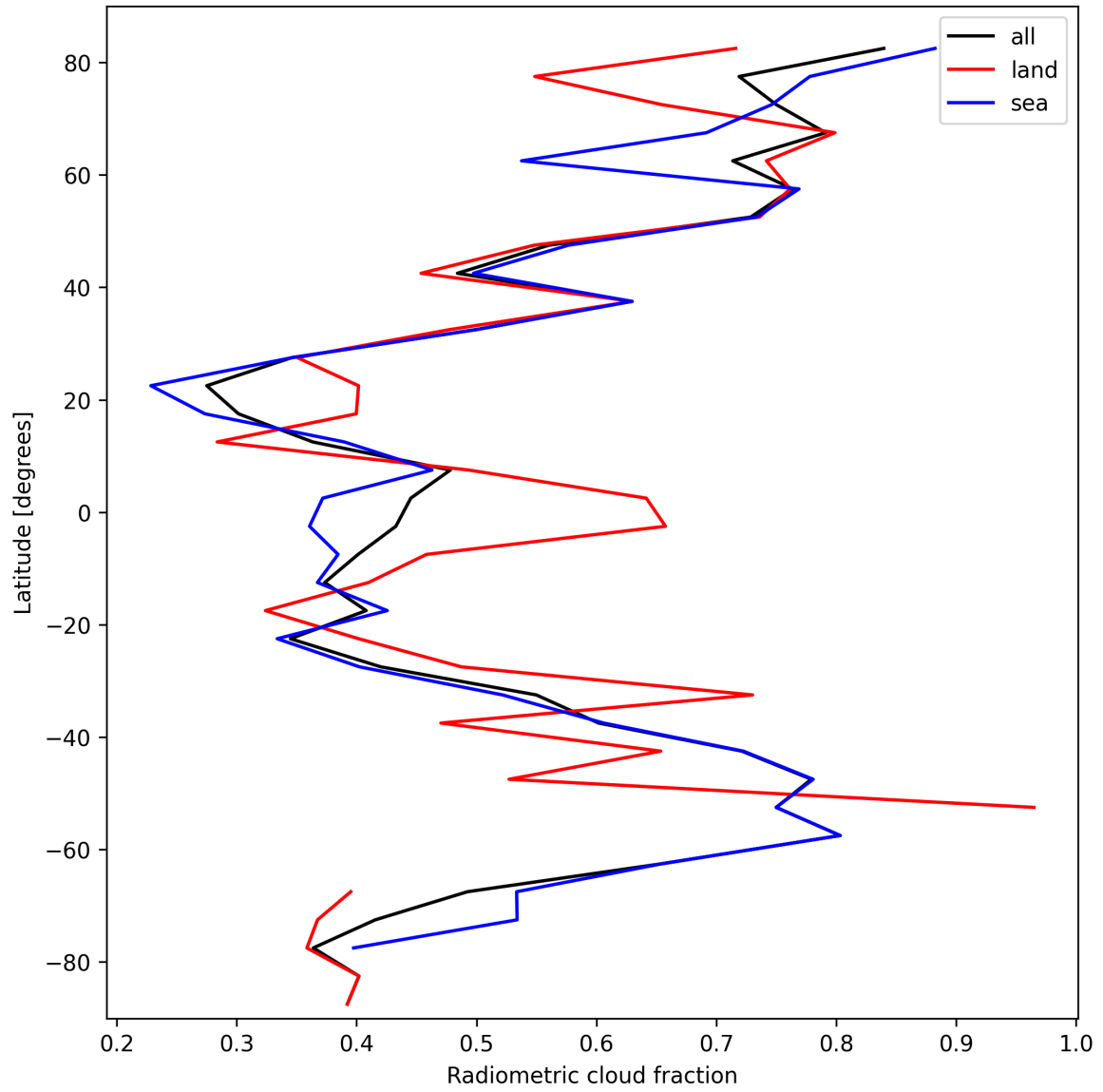


Figure 21: Zonal average of “Radiometric cloud fraction” for 2025-10-07 to 2025-10-07.

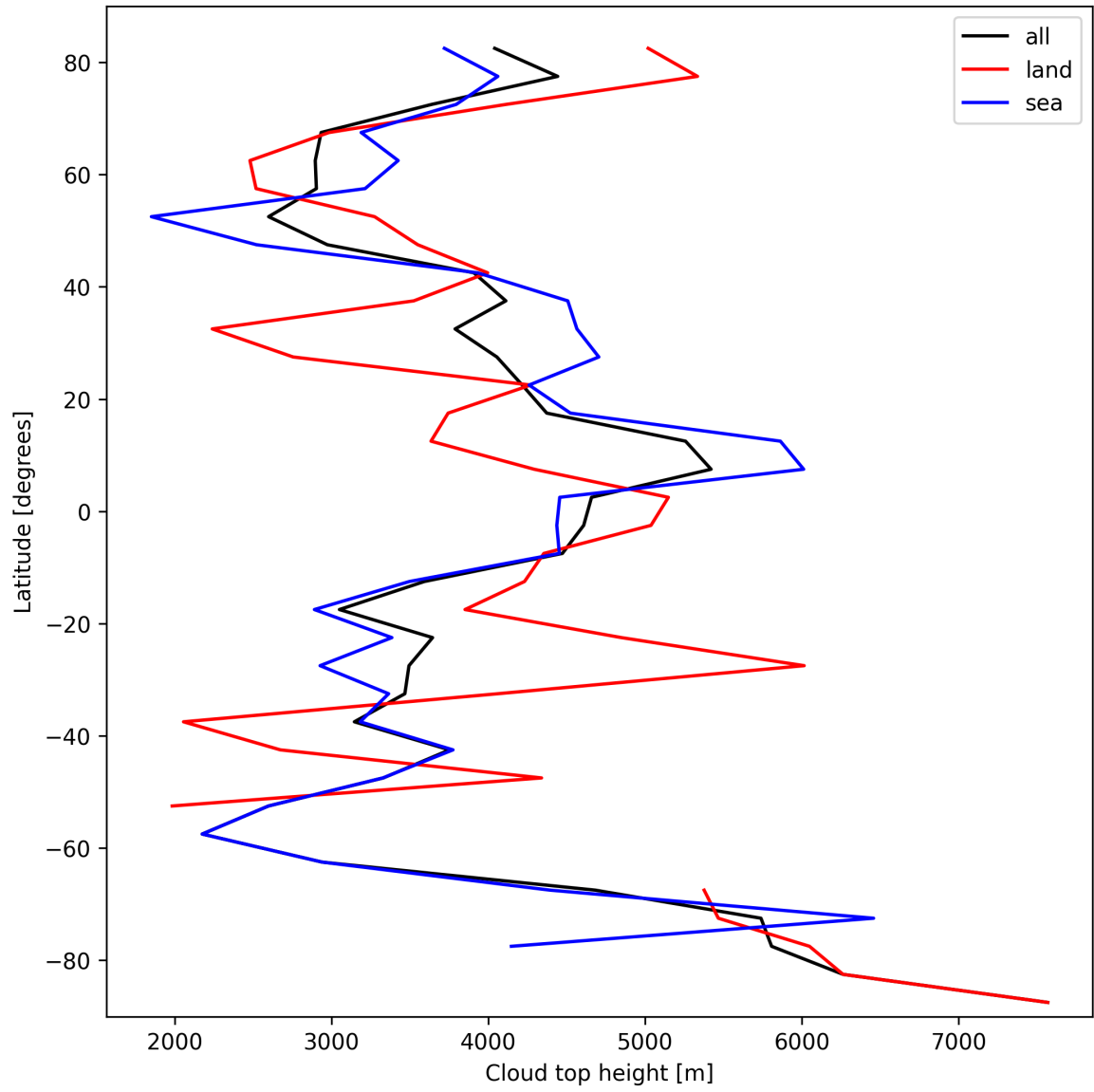


Figure 22: Zonal average of “Cloud top height” for 2025-10-07 to 2025-10-07.

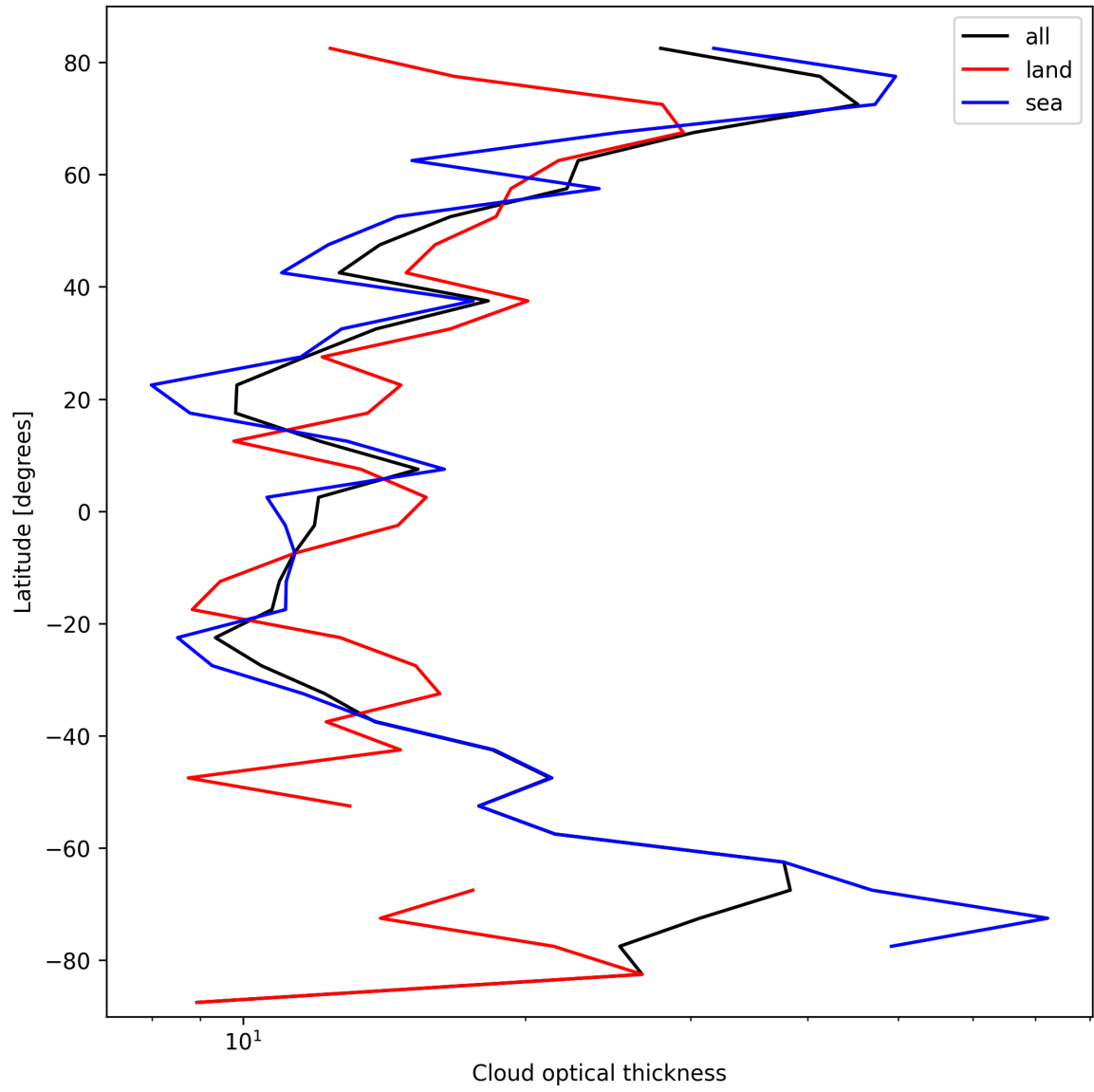


Figure 23: Zonal average of “Cloud optical thickness” for 2025-10-07 to 2025-10-07.

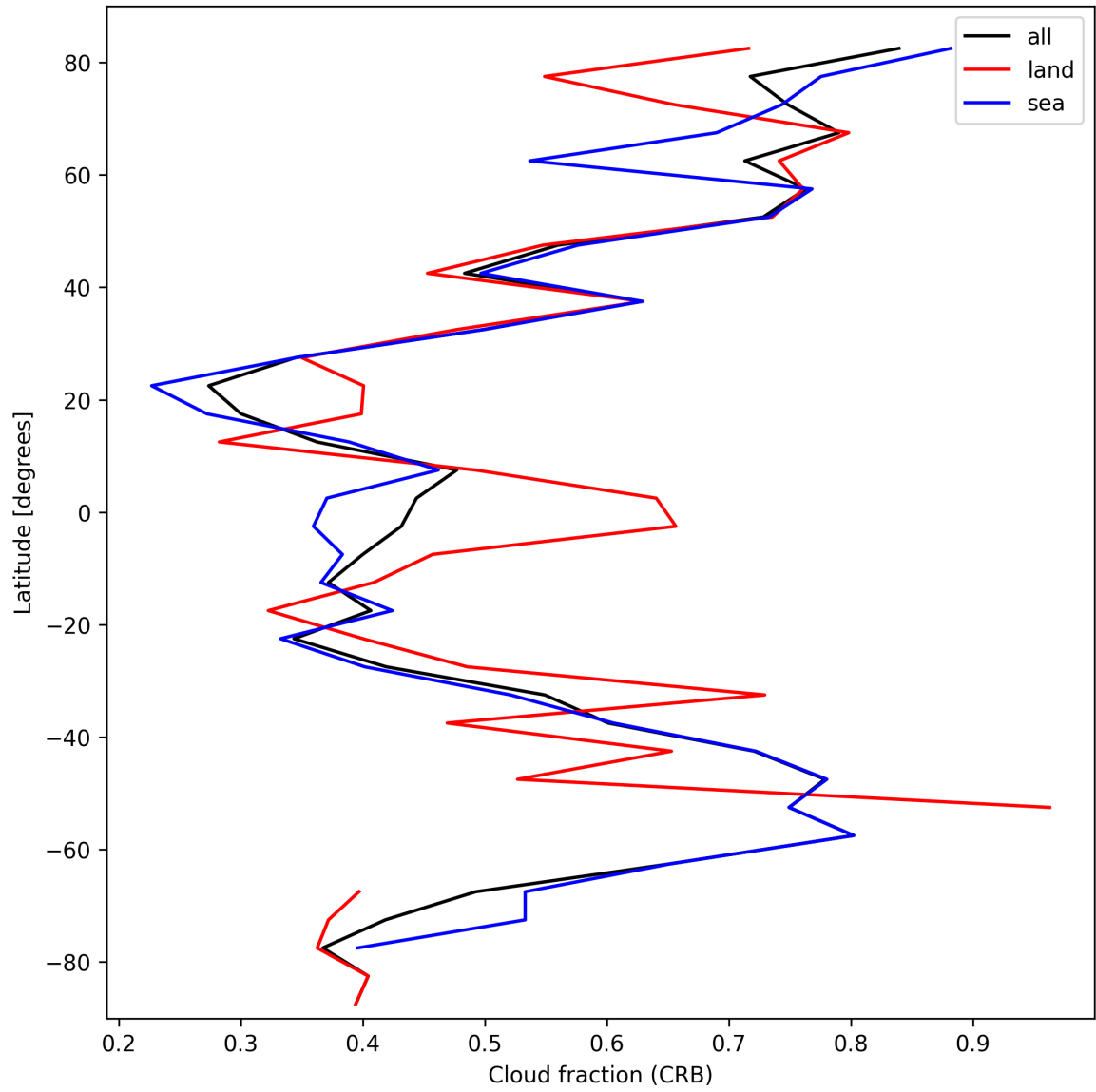


Figure 24: Zonal average of “Cloud fraction (CRB)” for 2025-10-07 to 2025-10-07.

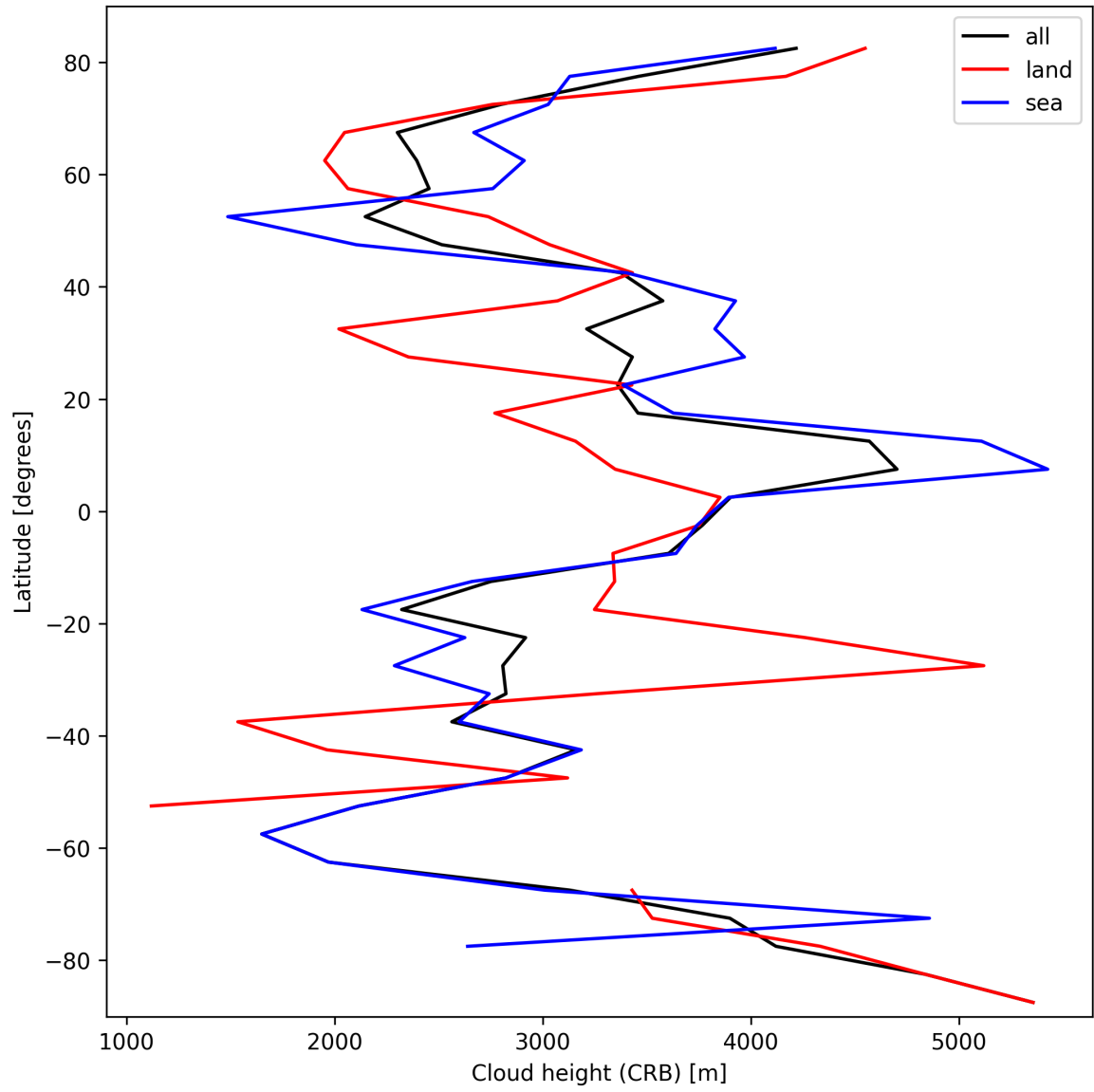


Figure 25: Zonal average of “Cloud height (CRB)” for 2025-10-07 to 2025-10-07.

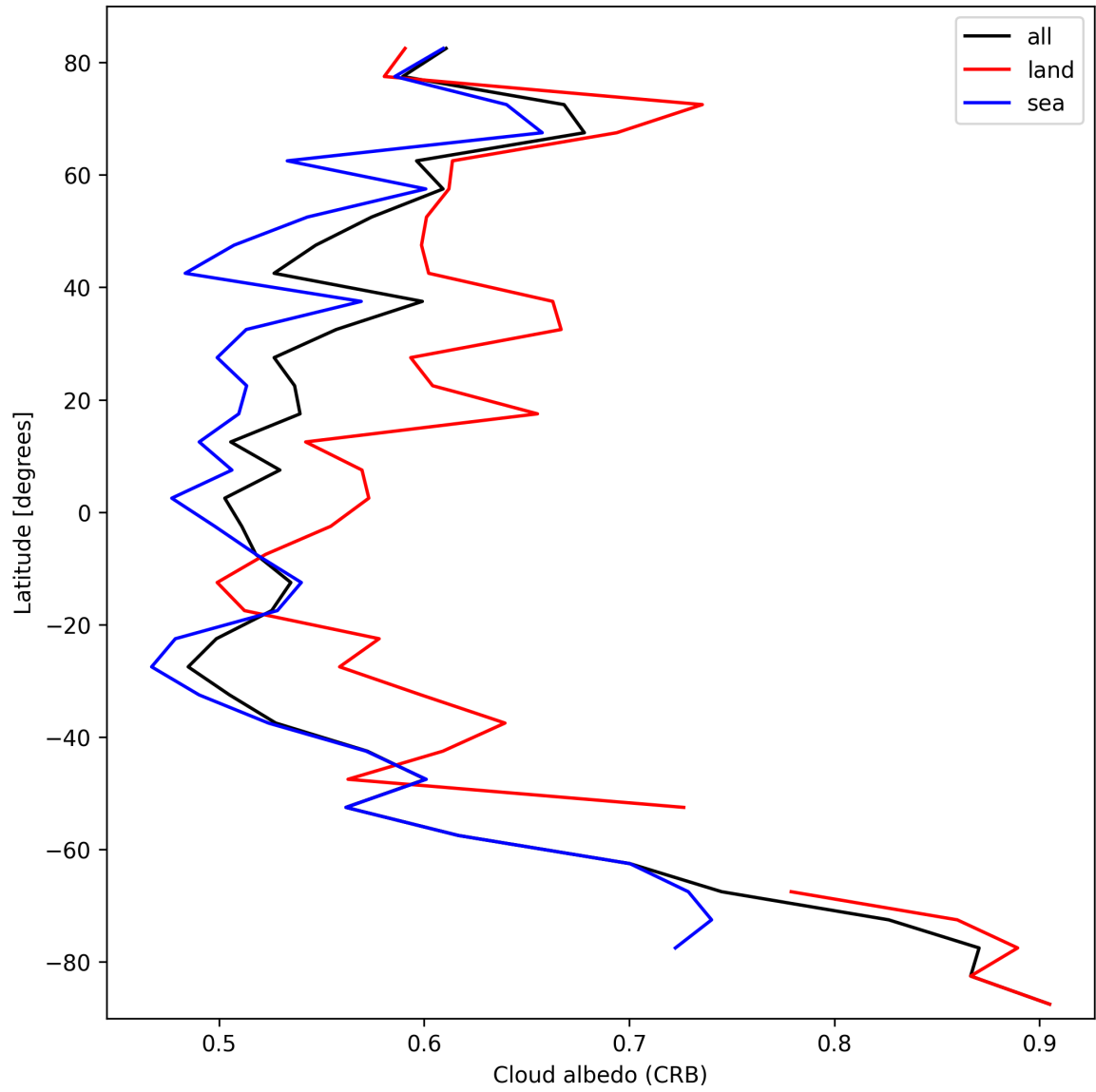


Figure 26: Zonal average of “Cloud albedo (CRB)” for 2025-10-07 to 2025-10-07.

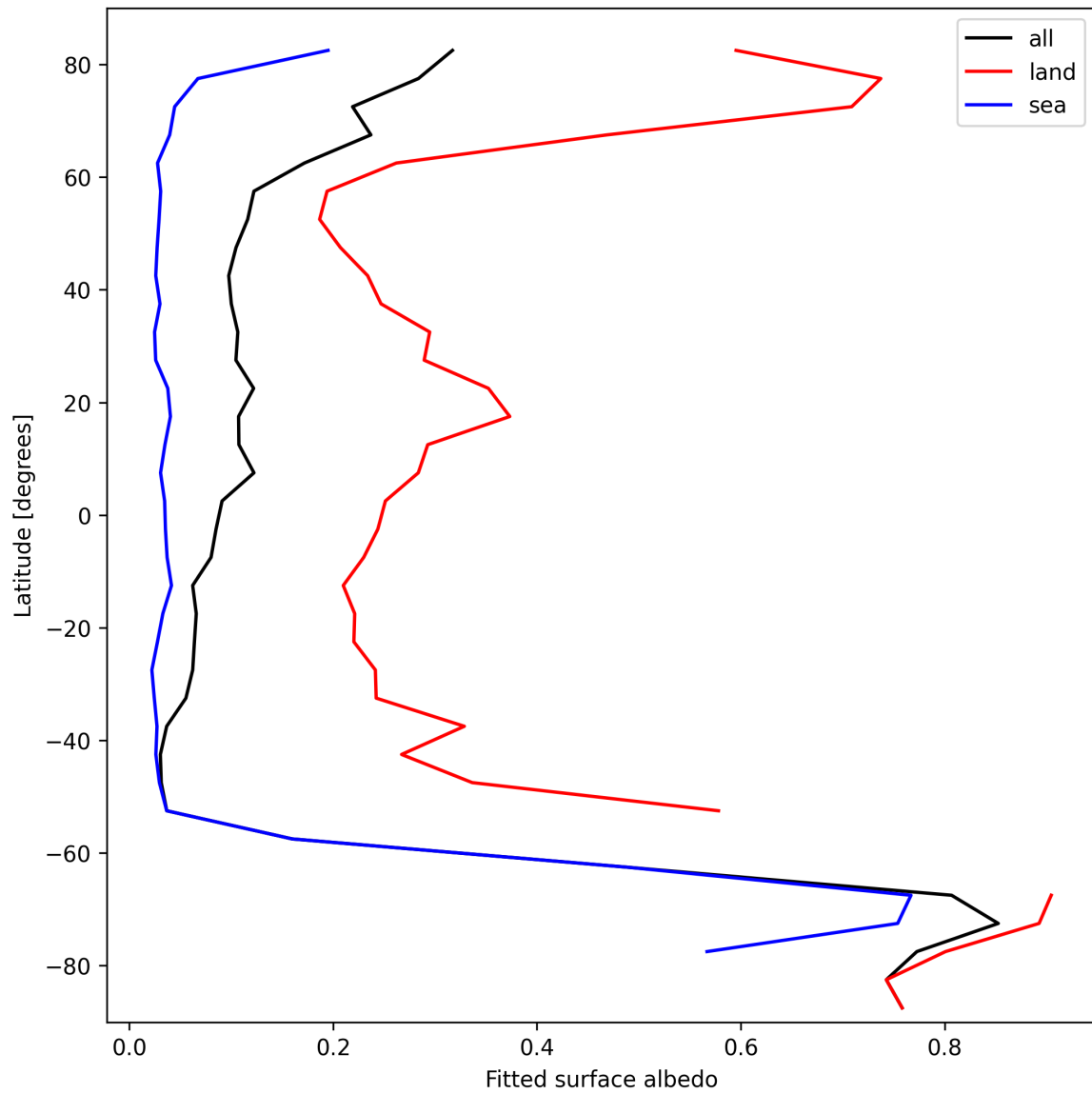


Figure 27: Zonal average of “Fitted surface albedo” for 2025-10-07 to 2025-10-07.

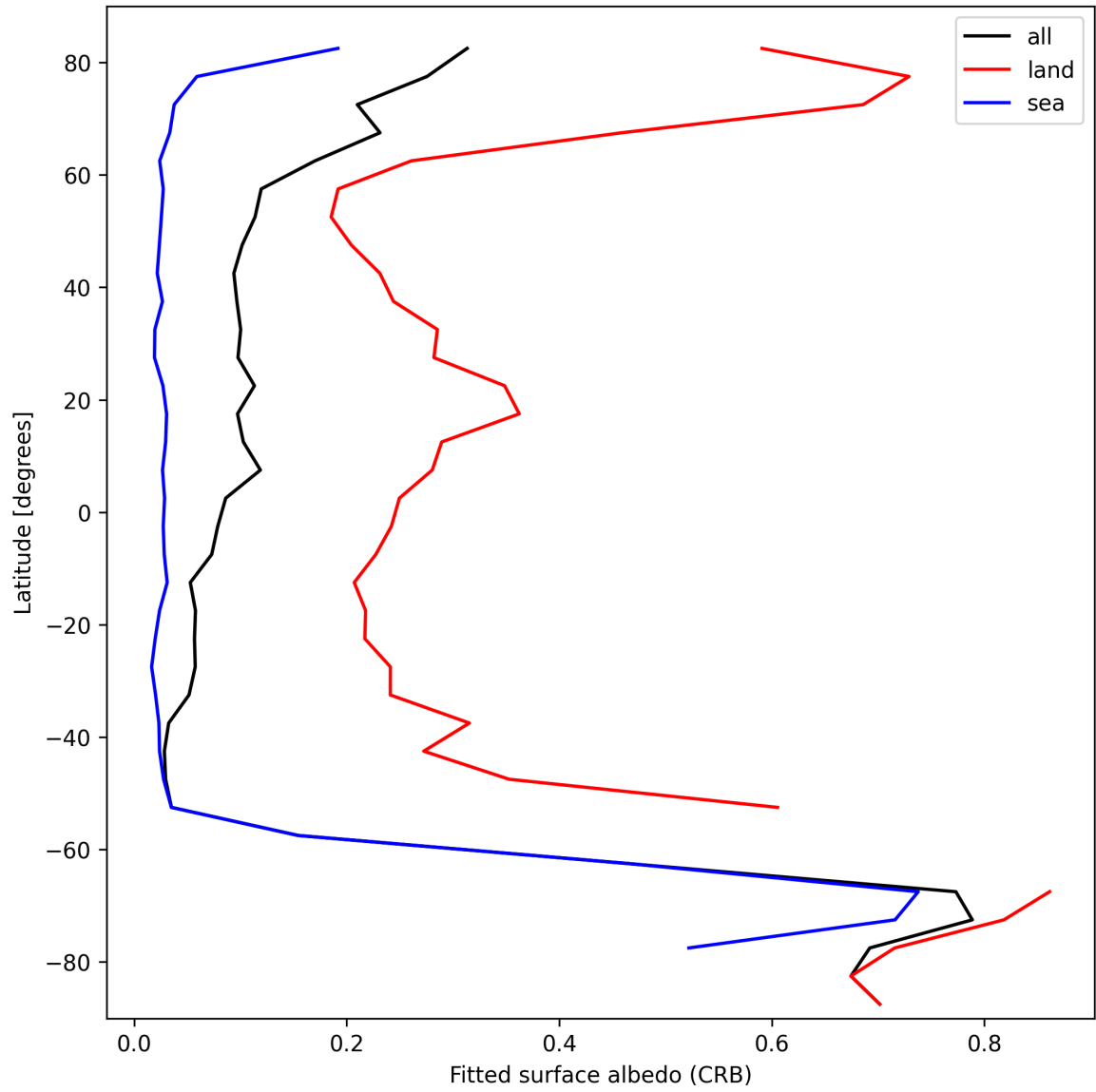


Figure 28: Zonal average of “Fitted surface albedo (CRB)” for 2025-10-07 to 2025-10-07.

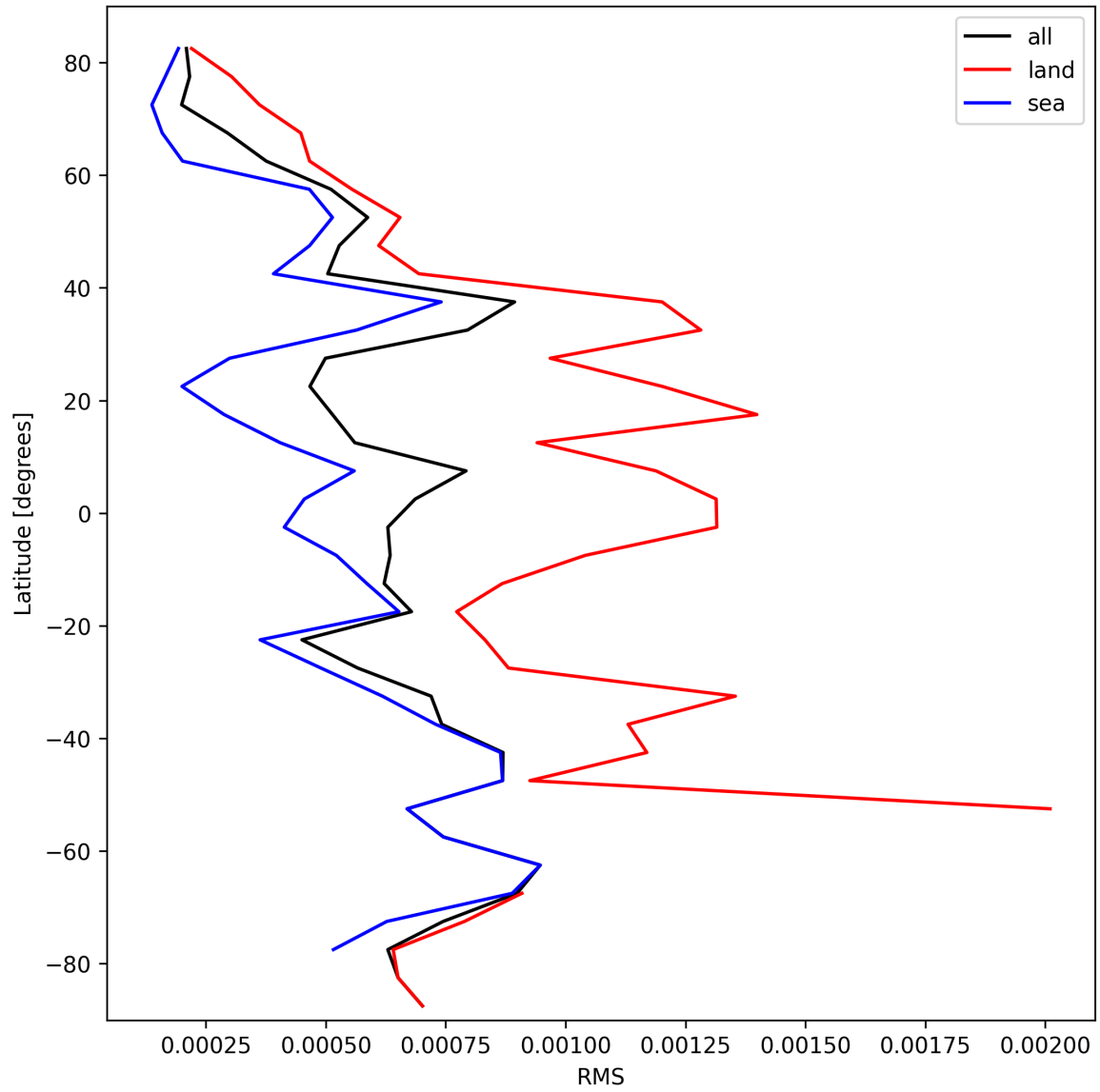


Figure 29: Zonal average of “RMS” for 2025-10-07 to 2025-10-07.

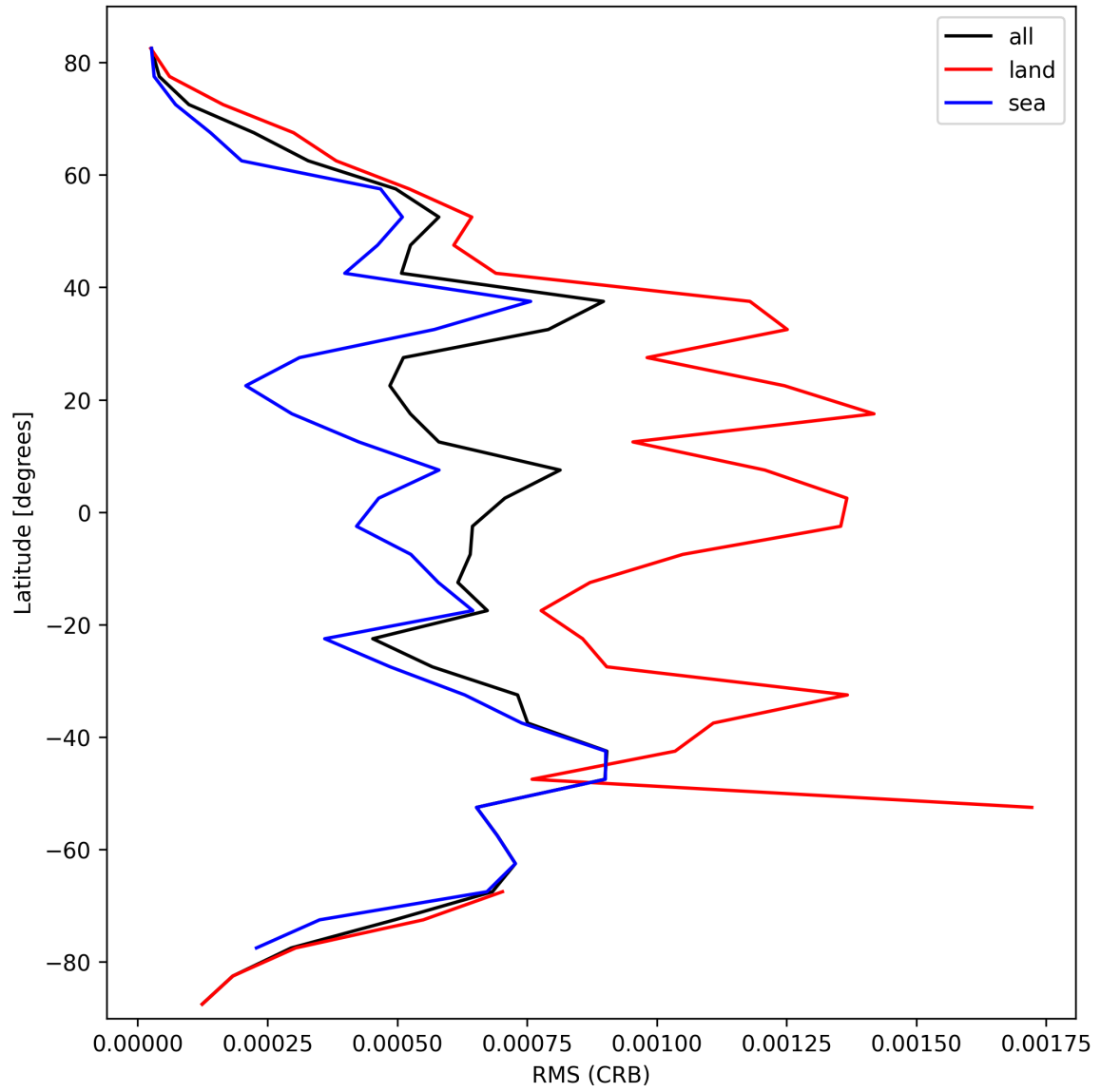


Figure 30: Zonal average of “RMS (CRB)” for 2025-10-07 to 2025-10-07.

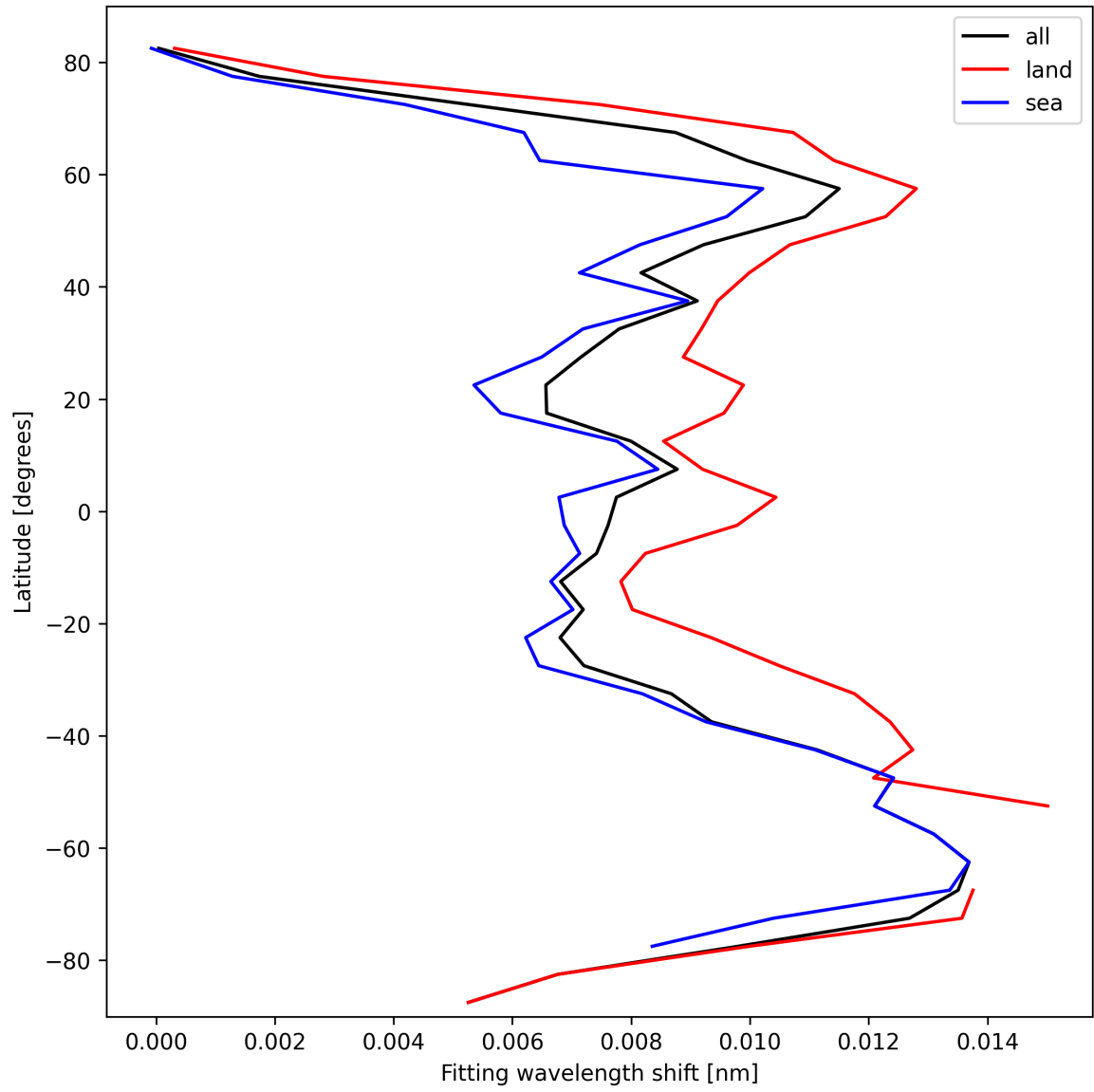


Figure 31: Zonal average of “Fitting wavelength shift” for 2025-10-07 to 2025-10-07.

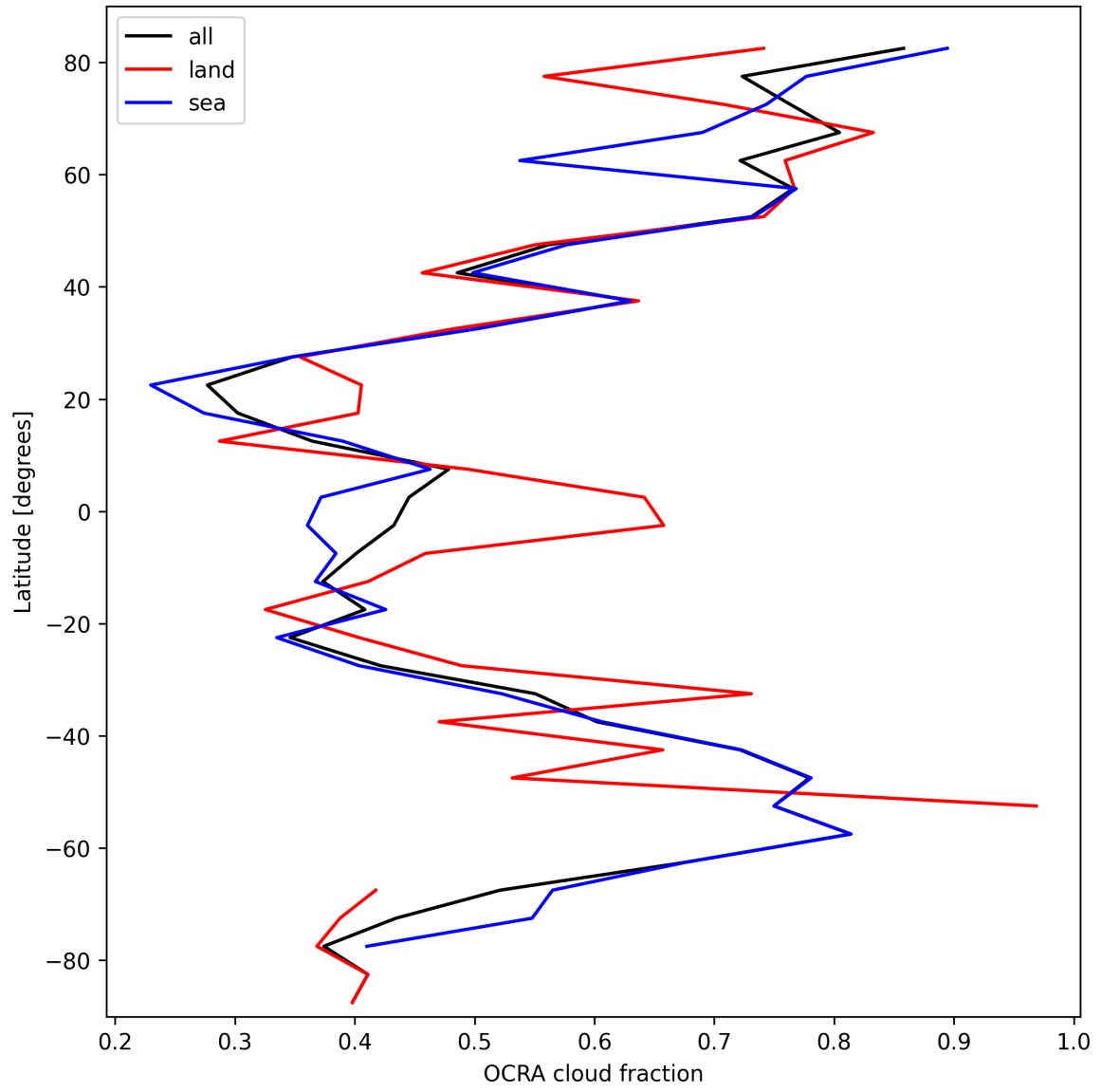


Figure 32: Zonal average of “OCRA cloud fraction” for 2025-10-07 to 2025-10-07.

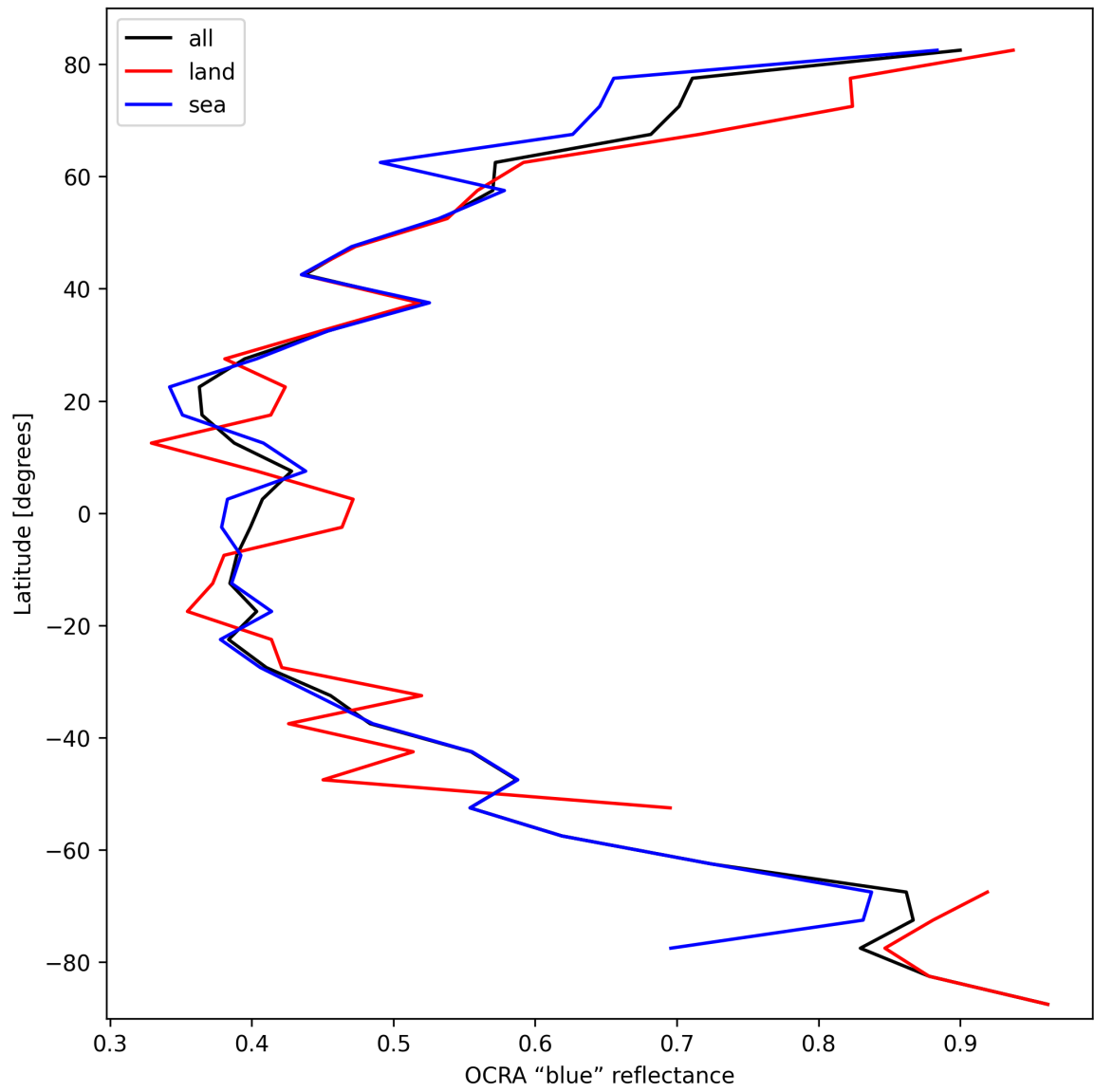


Figure 33: Zonal average of “OCRA “blue” reflectance” for 2025-10-07 to 2025-10-07.

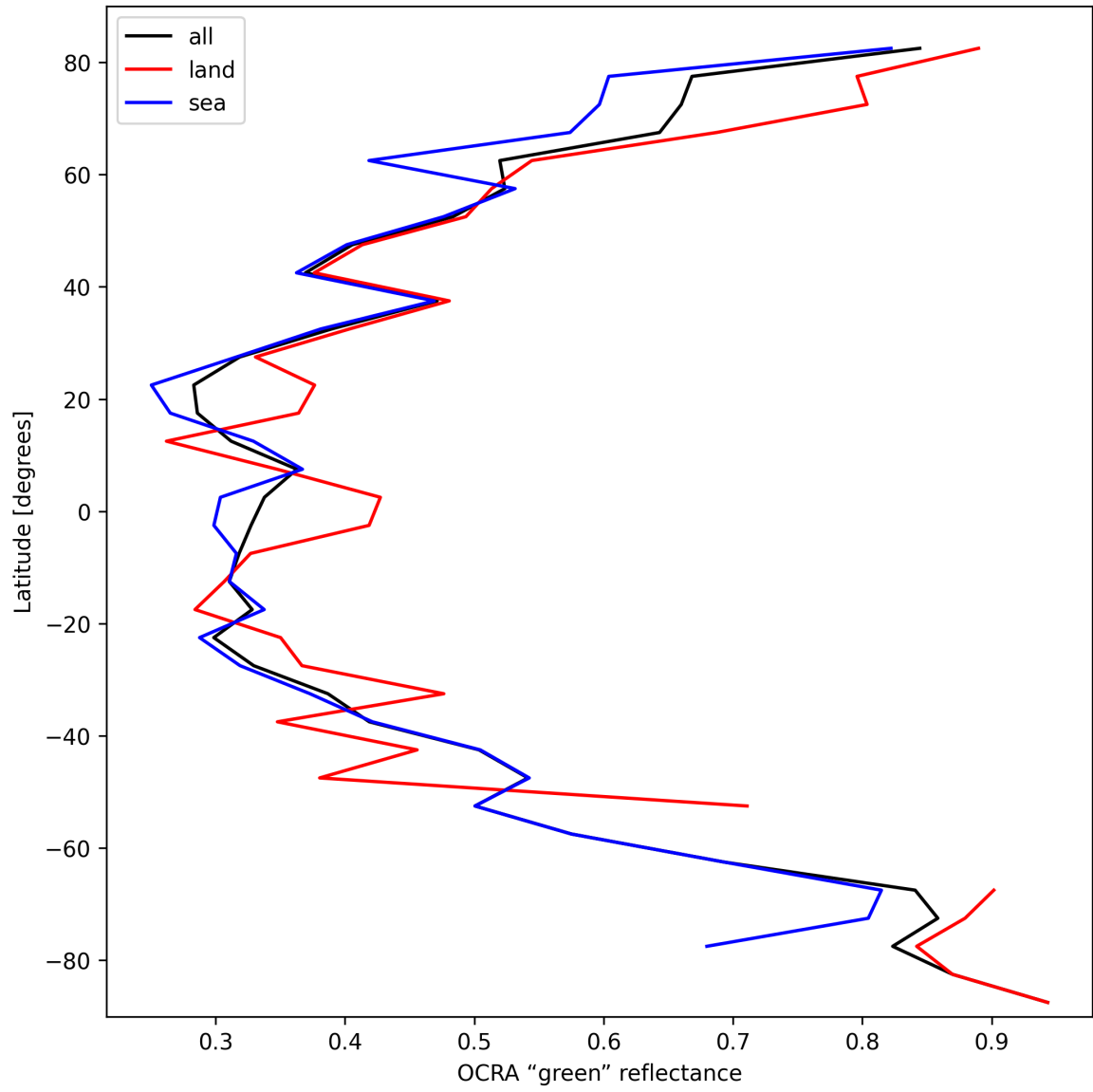


Figure 34: Zonal average of “OCRA “green” reflectance” for 2025-10-07 to 2025-10-07.

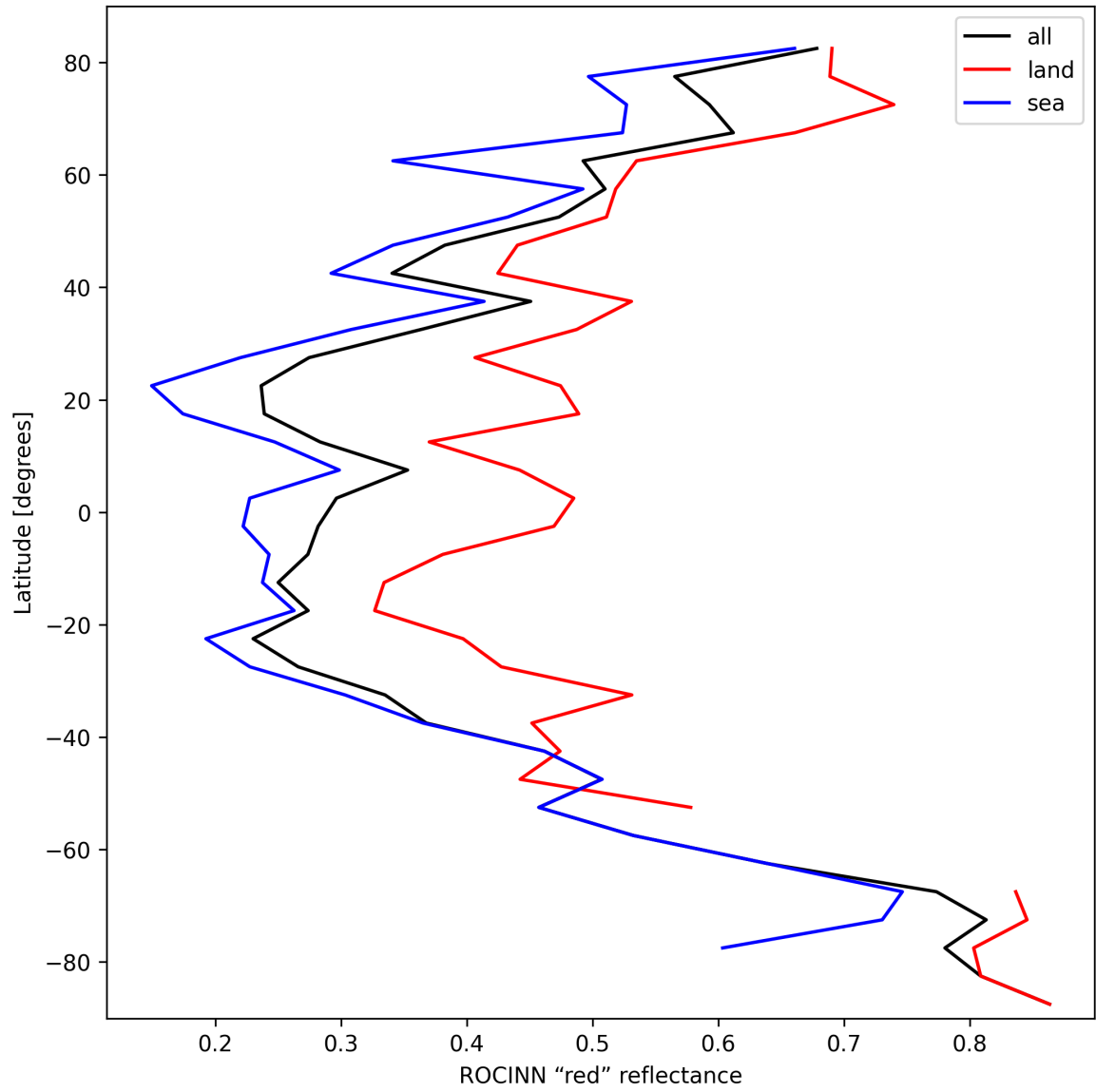


Figure 35: Zonal average of “ROCINN “red” reflectance” for 2025-10-07 to 2025-10-07.

8 Histograms

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

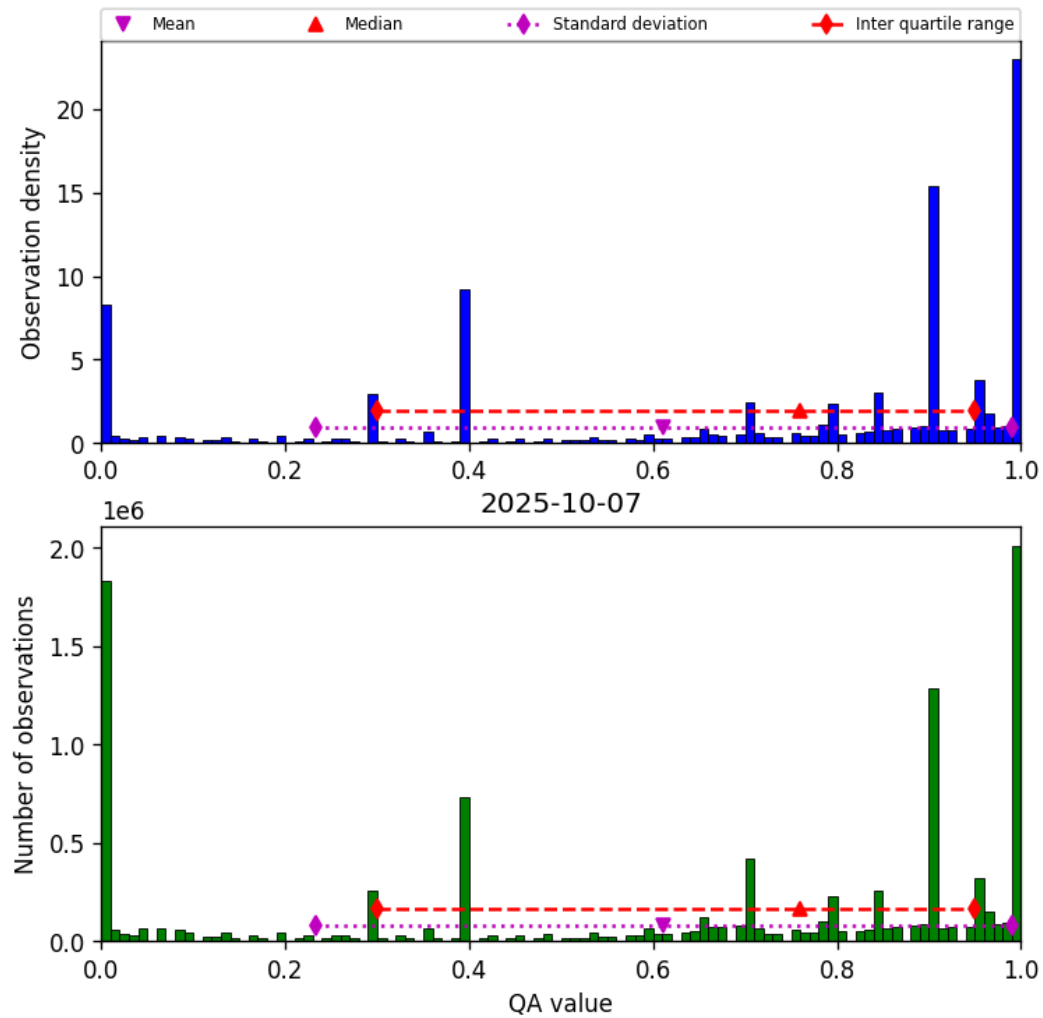


Figure 36: Histogram of “QA value” for 2025-10-07 to 2025-10-07

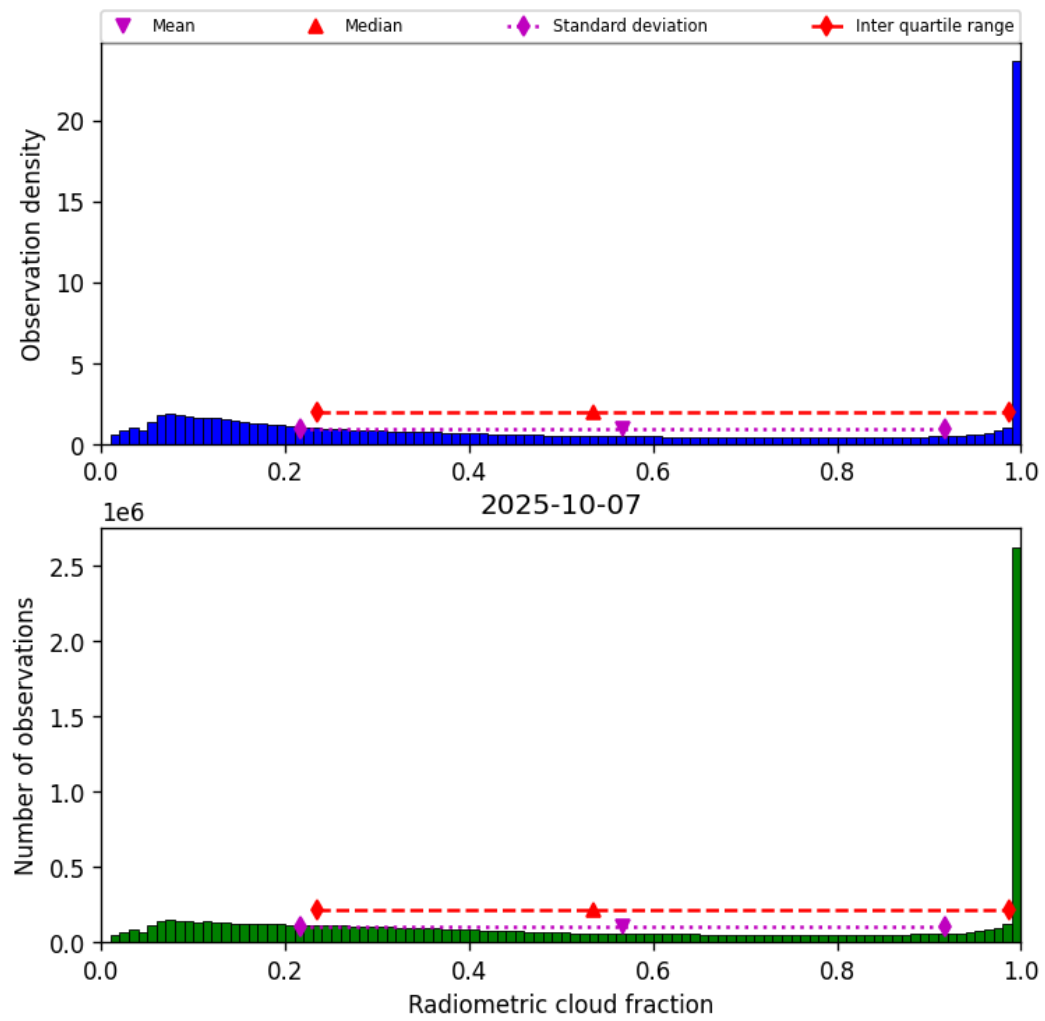


Figure 37: Histogram of "Radiometric cloud fraction" for 2025-10-07 to 2025-10-07

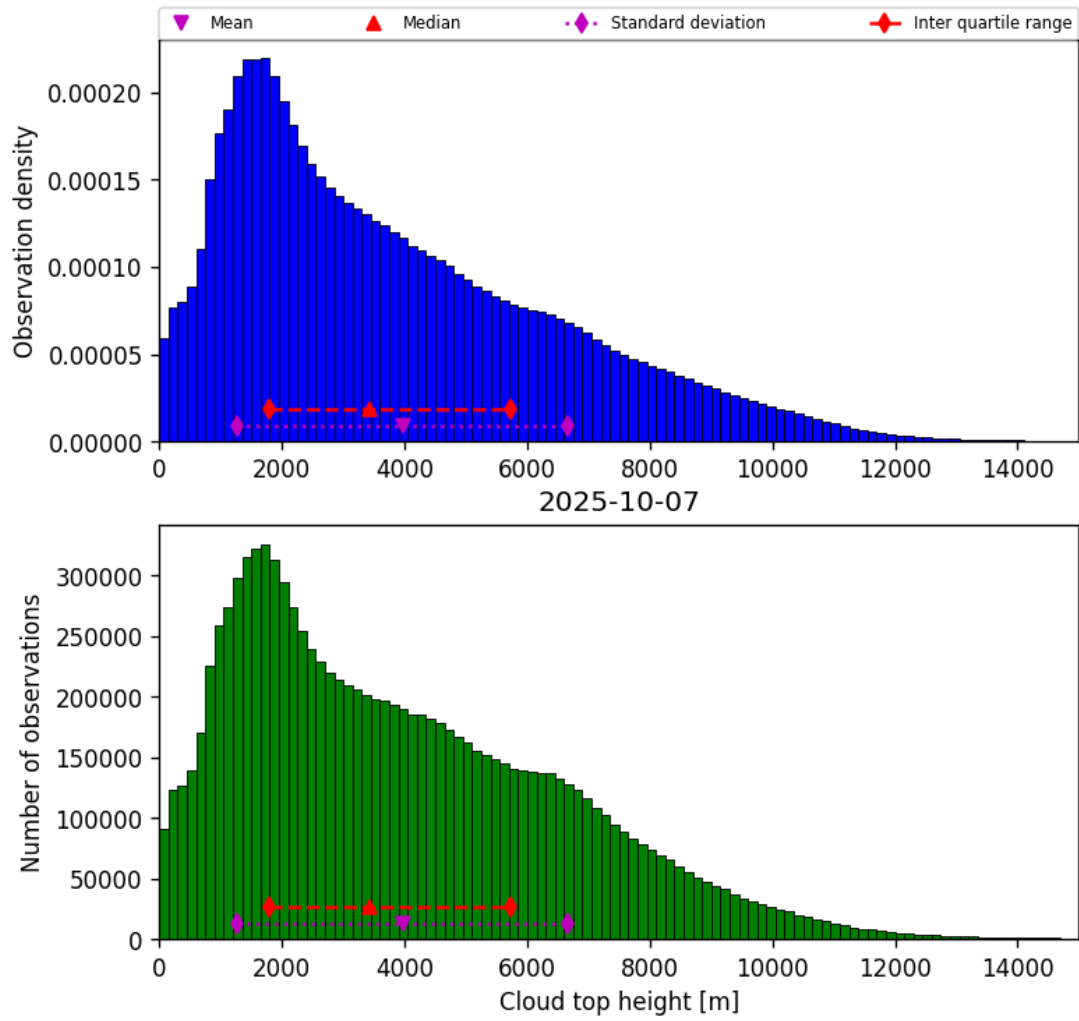


Figure 38: Histogram of “Cloud top height” for 2025-10-07 to 2025-10-07

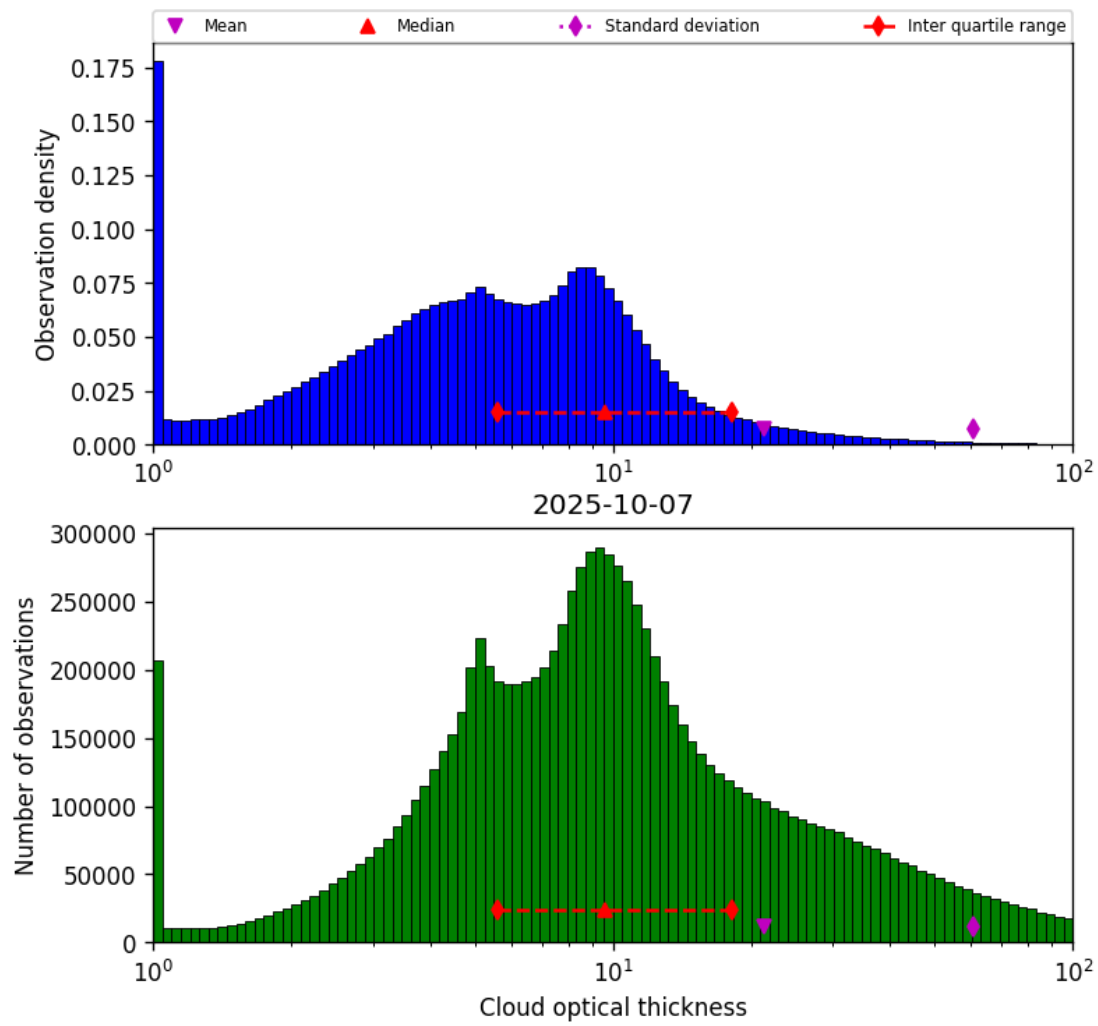


Figure 39: Histogram of “Cloud optical thickness” for 2025-10-07 to 2025-10-07

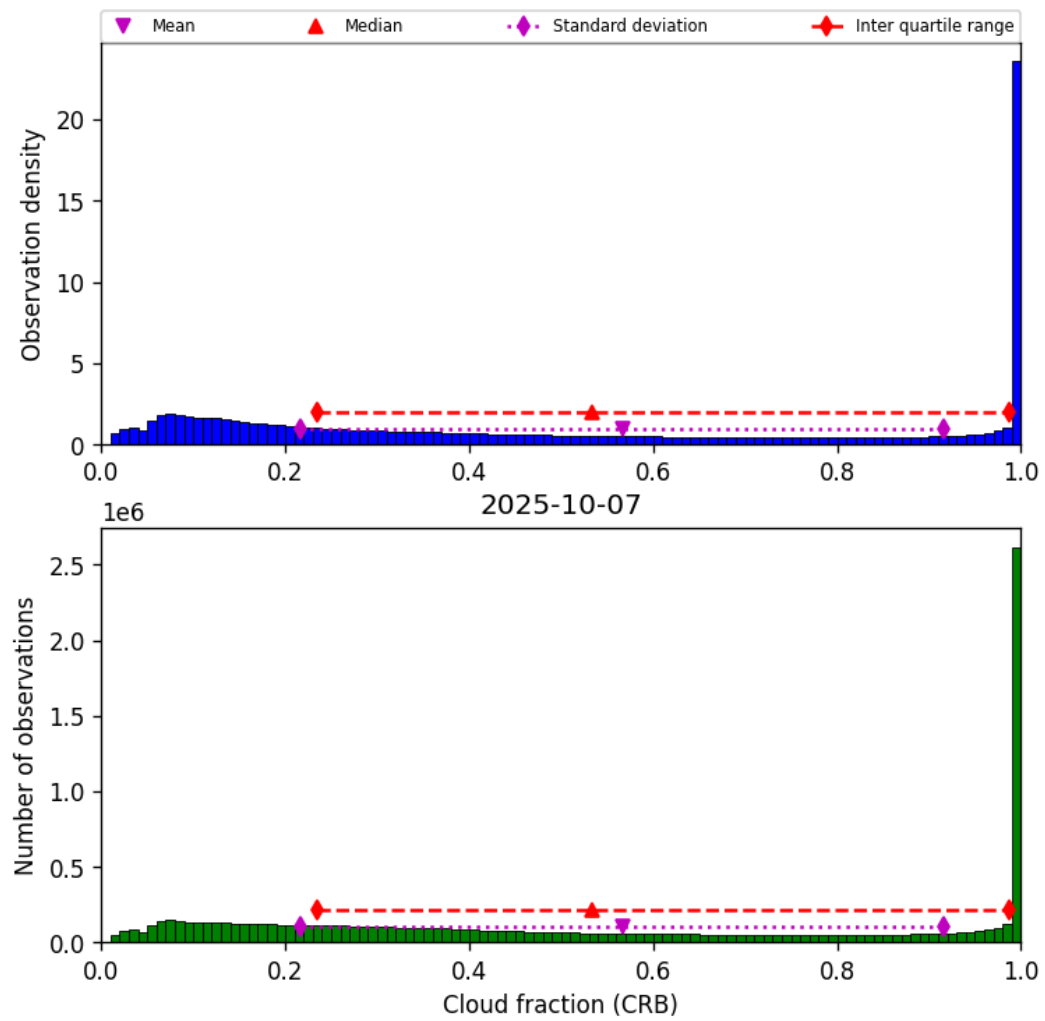


Figure 40: Histogram of "Cloud fraction (CRB)" for 2025-10-07 to 2025-10-07

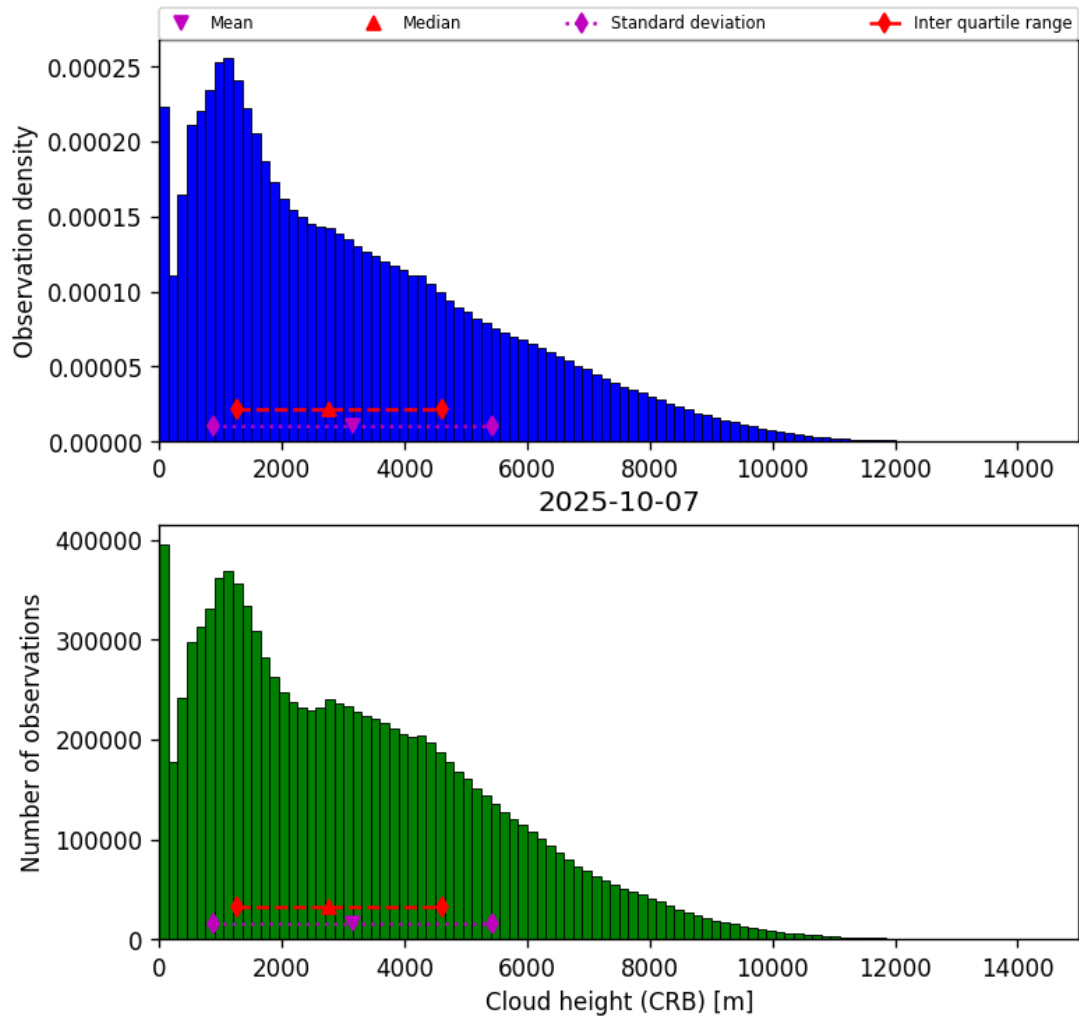


Figure 41: Histogram of “Cloud height (CRB)” for 2025-10-07 to 2025-10-07

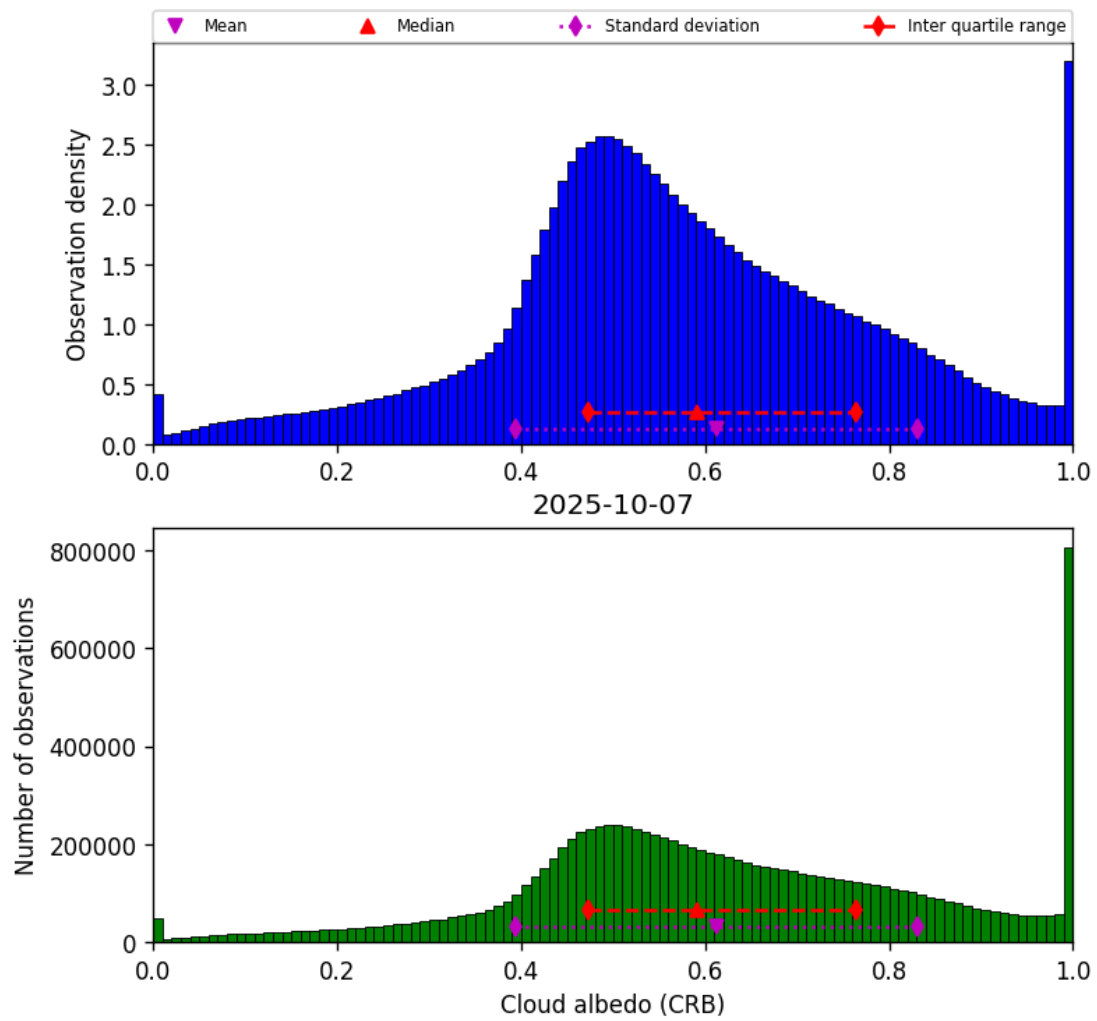


Figure 42: Histogram of “Cloud albedo (CRB)” for 2025-10-07 to 2025-10-07

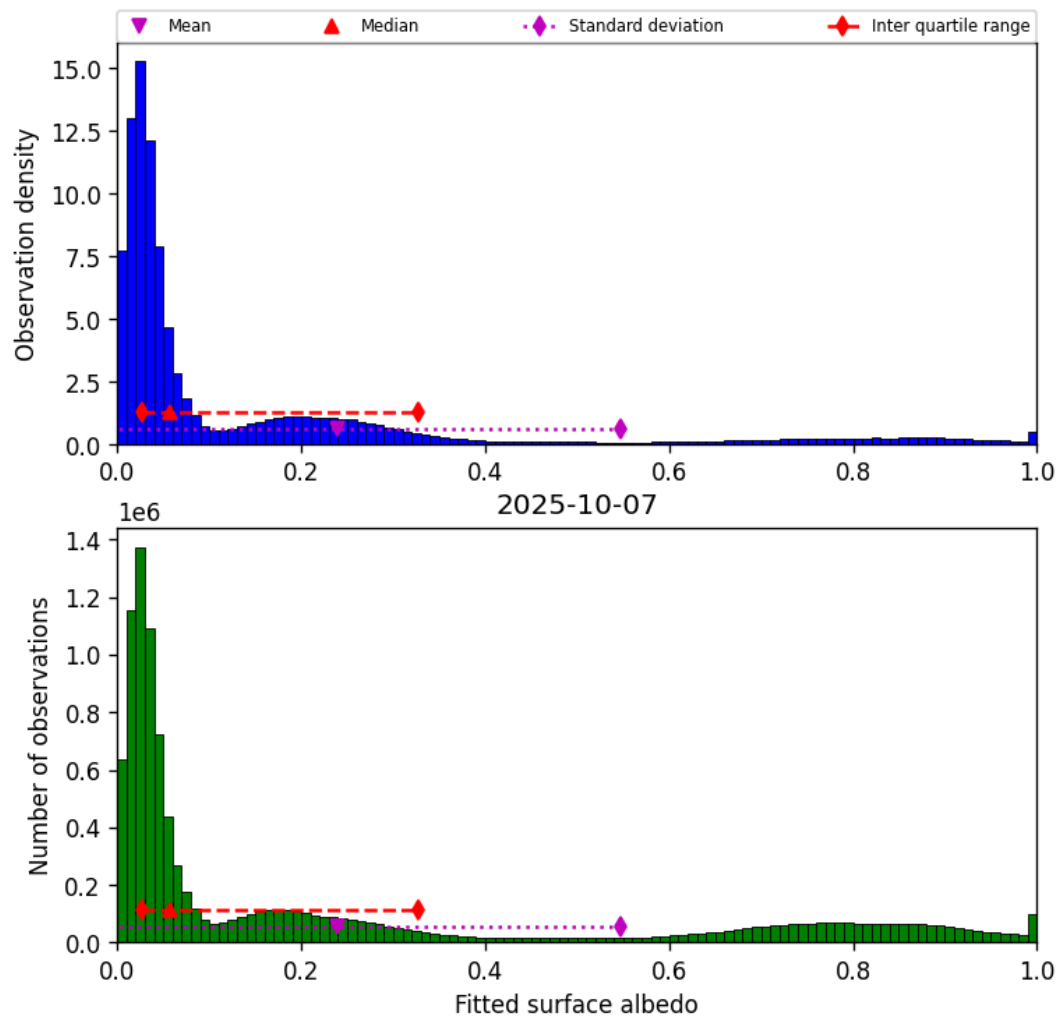


Figure 43: Histogram of “Fitted surface albedo” for 2025-10-07 to 2025-10-07

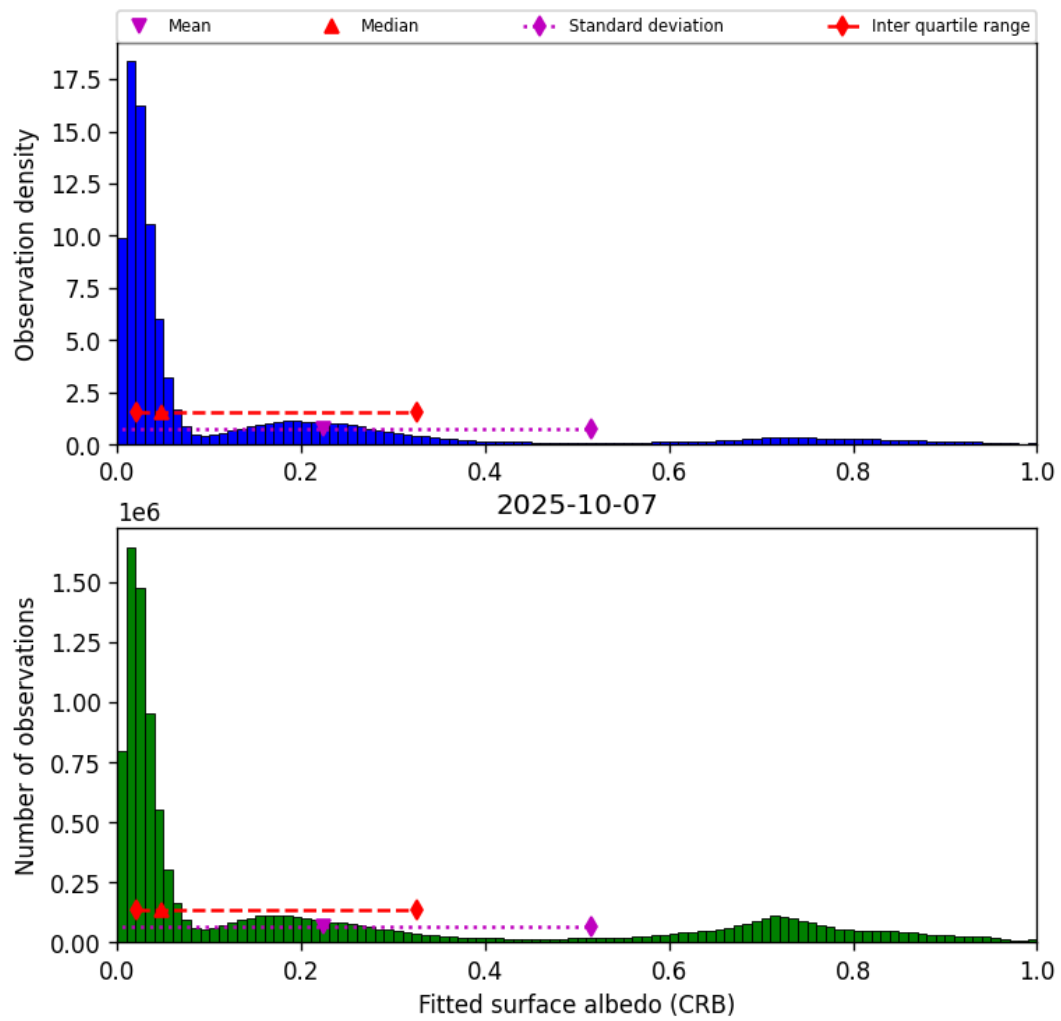


Figure 44: Histogram of “Fitted surface albedo (CRB)” for 2025-10-07 to 2025-10-07

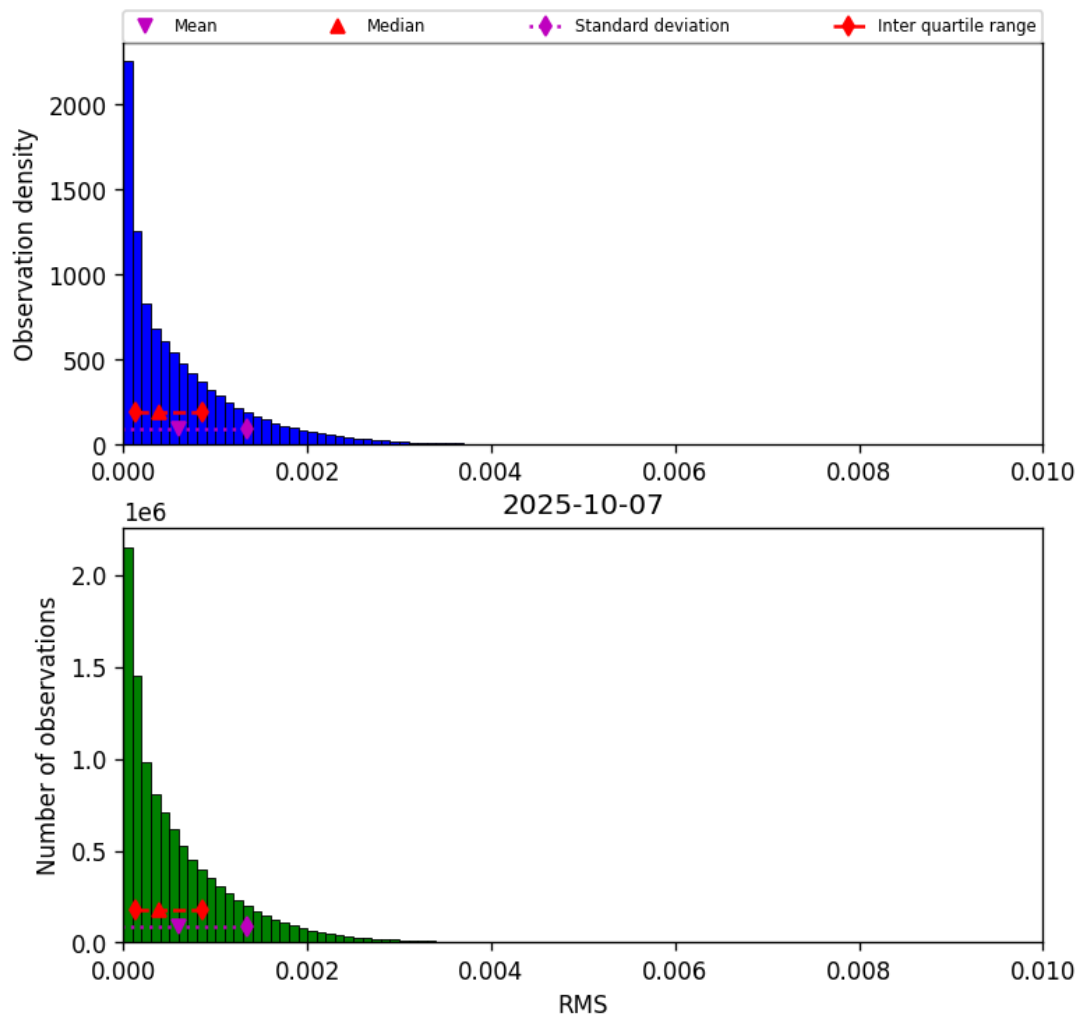


Figure 45: Histogram of “RMS” for 2025-10-07 to 2025-10-07

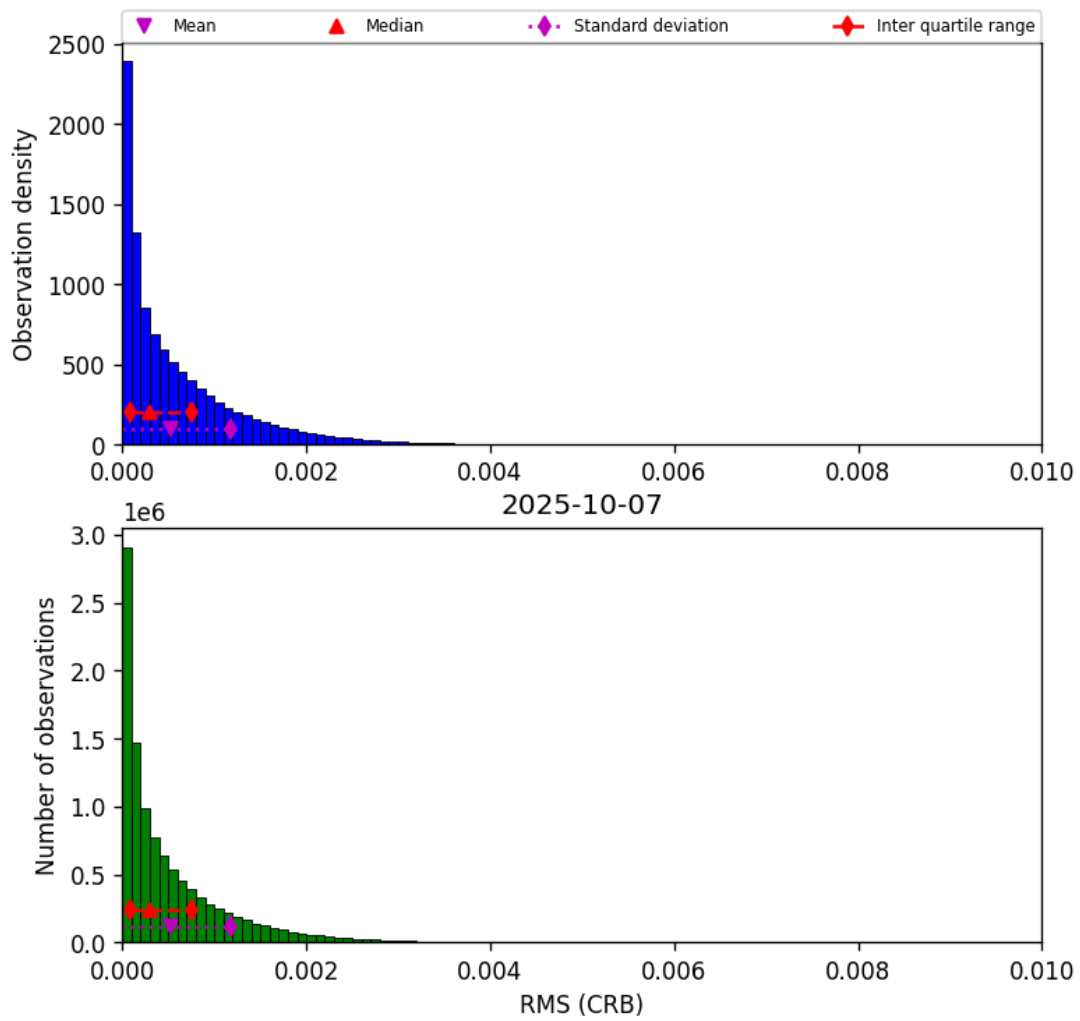


Figure 46: Histogram of “RMS (CRB)” for 2025-10-07 to 2025-10-07

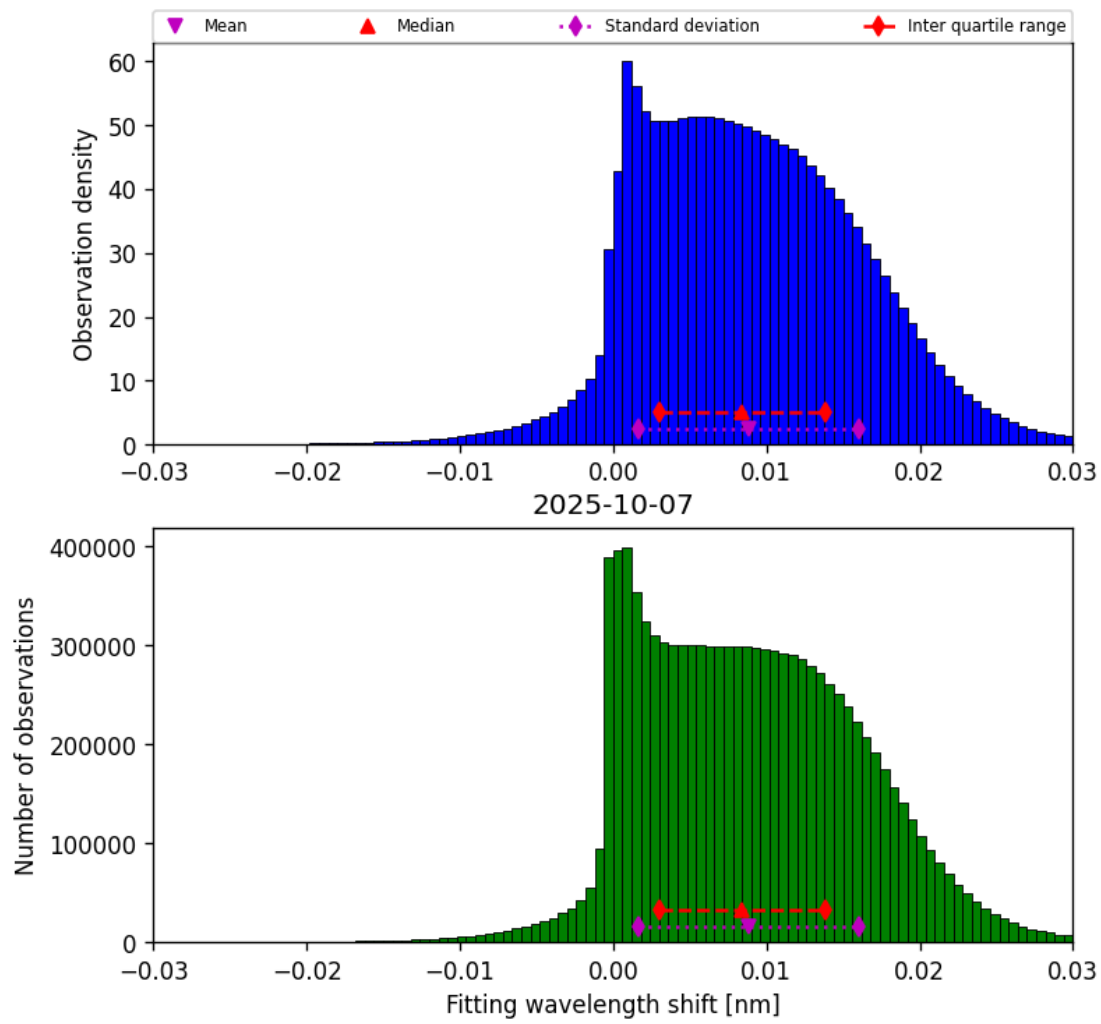


Figure 47: Histogram of “Fitting wavelength shift” for 2025-10-07 to 2025-10-07

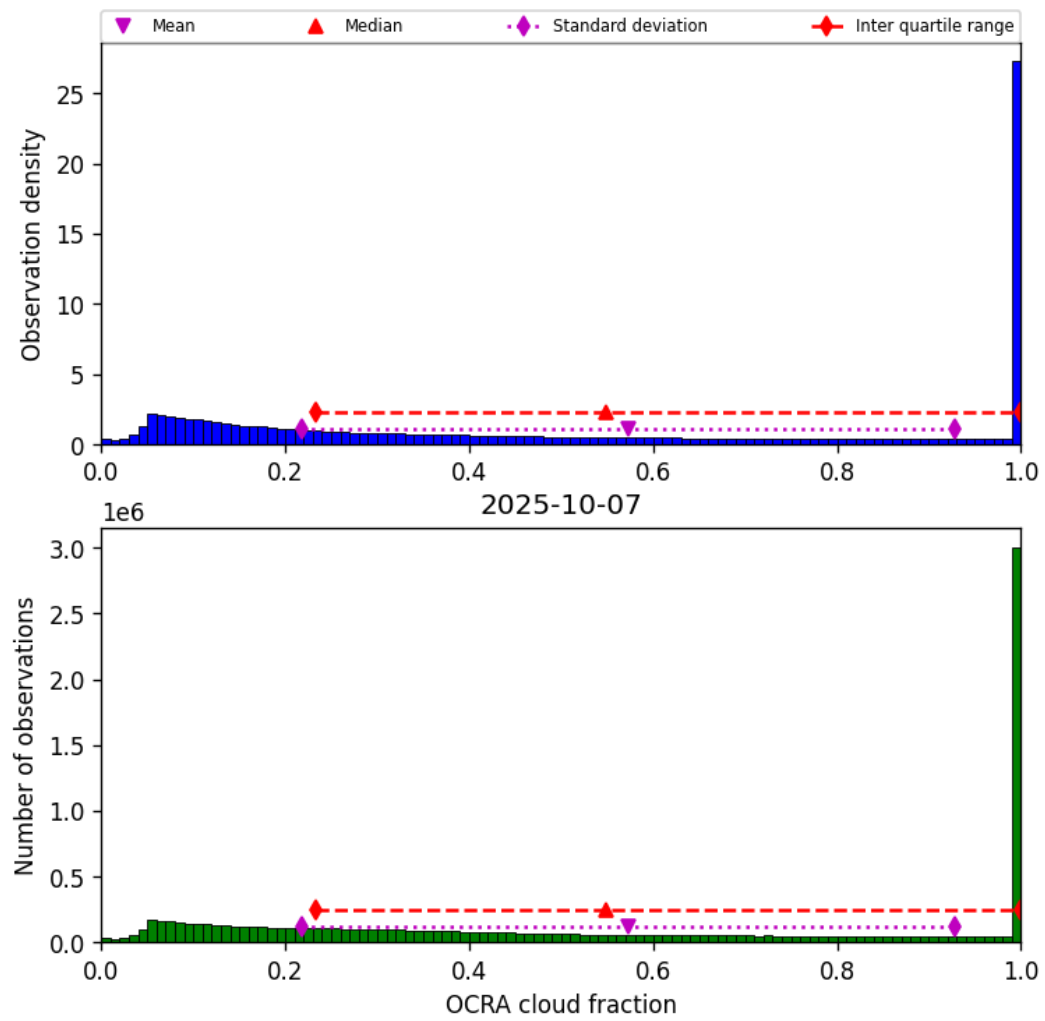


Figure 48: Histogram of “OCRA cloud fraction” for 2025-10-07 to 2025-10-07

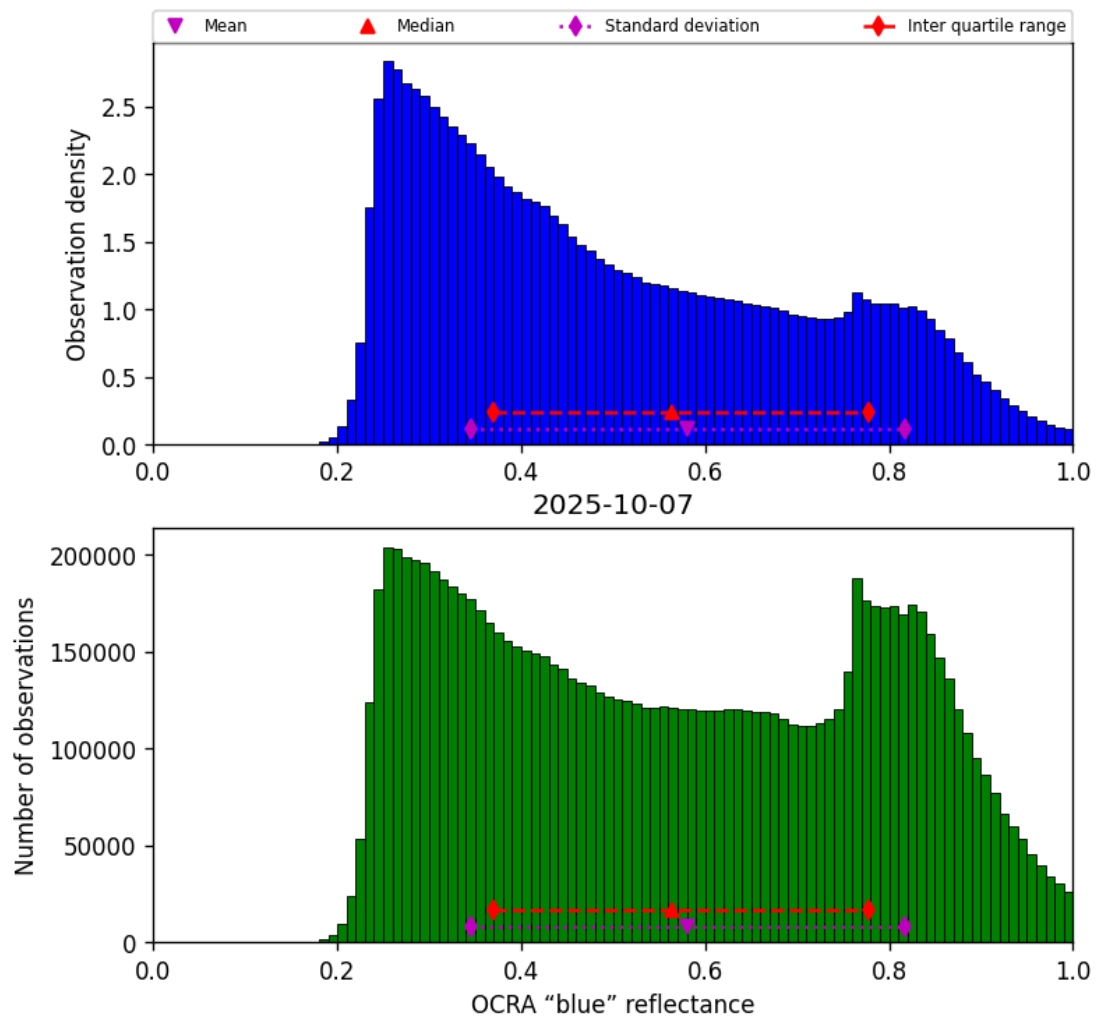


Figure 49: Histogram of “OCRA “blue” reflectance” for 2025-10-07 to 2025-10-07

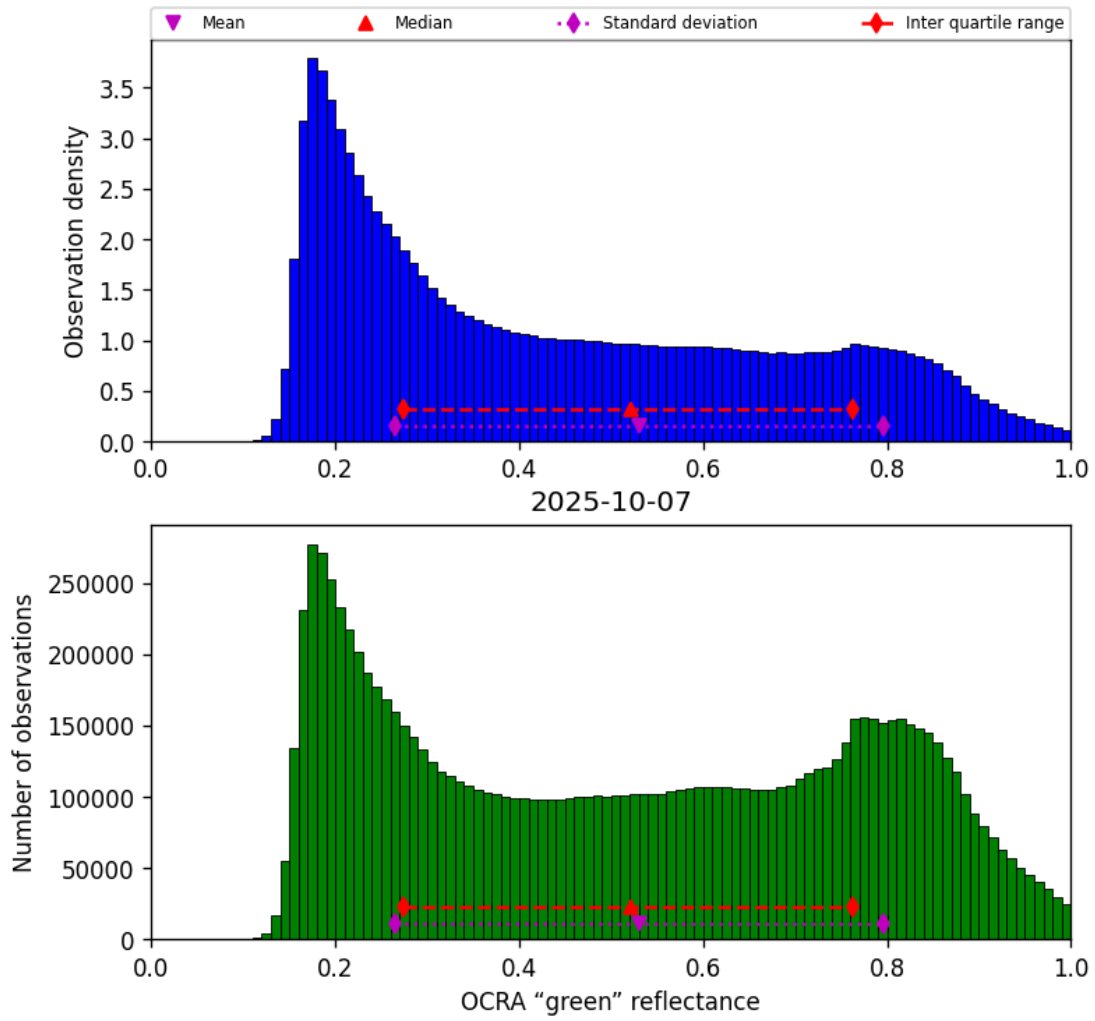


Figure 50: Histogram of “OCRA “green” reflectance” for 2025-10-07 to 2025-10-07

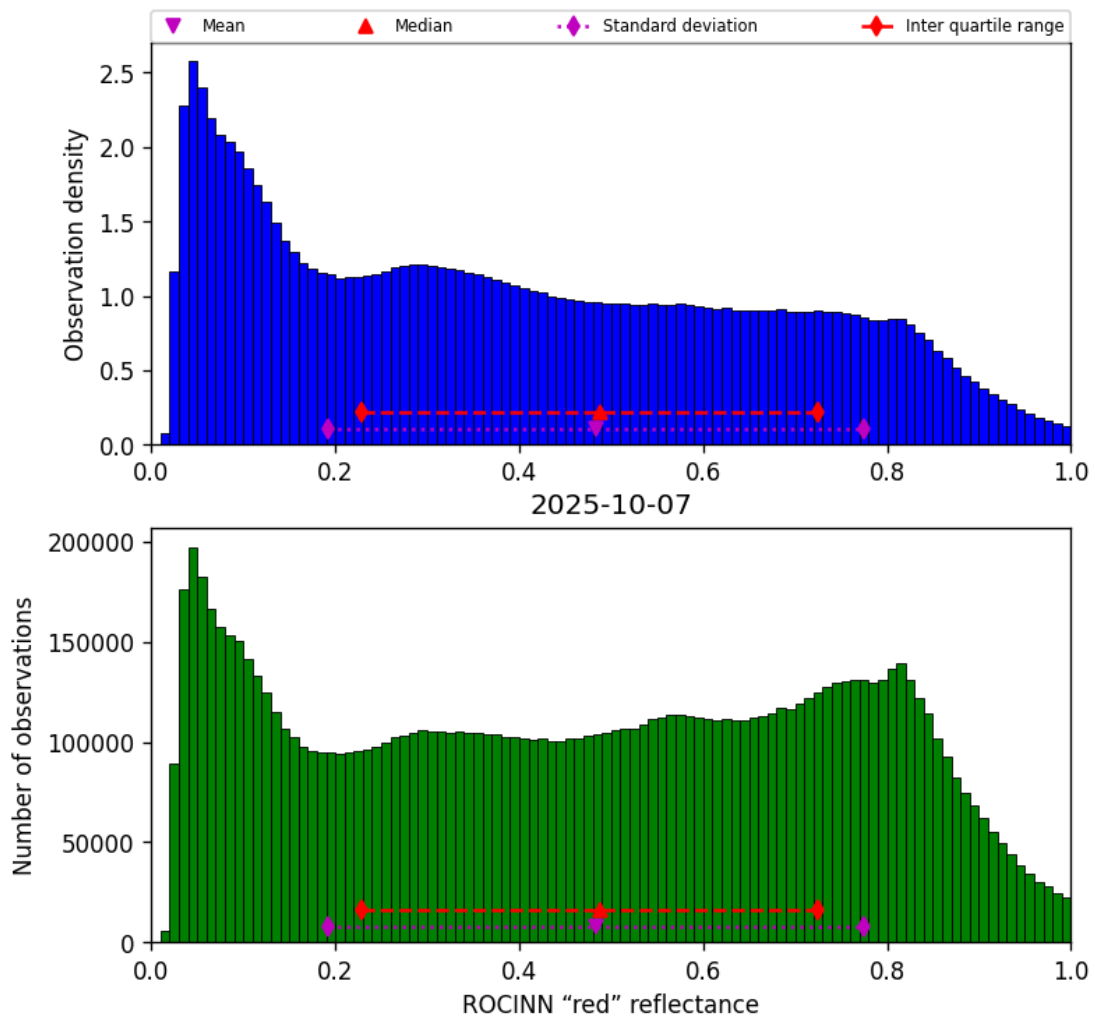


Figure 51: Histogram of “ROCINN “red” reflectance” for 2025-10-07 to 2025-10-07

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.

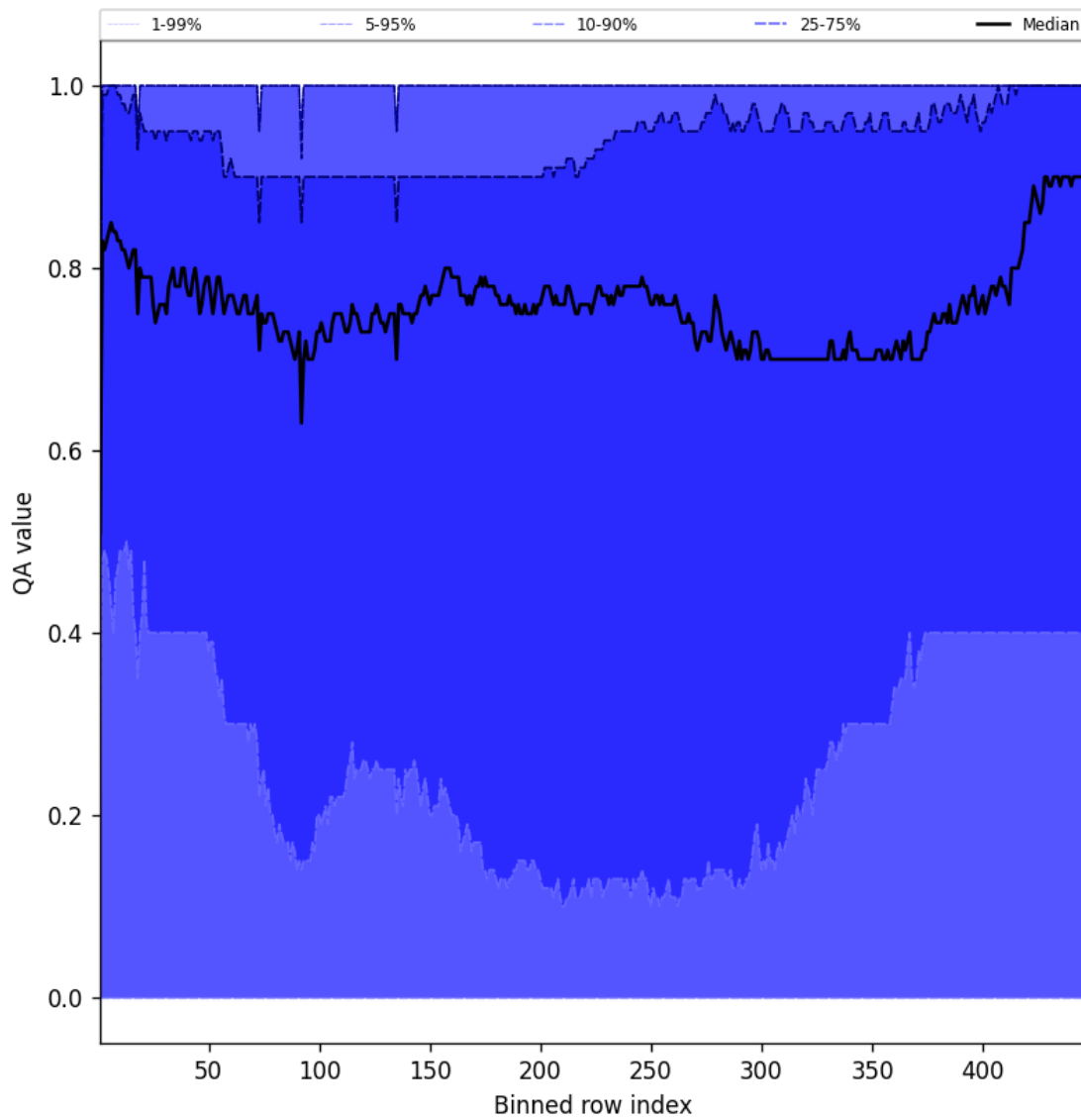


Figure 52: Along track statistics of “QA value” for 2025-10-07 to 2025-10-07

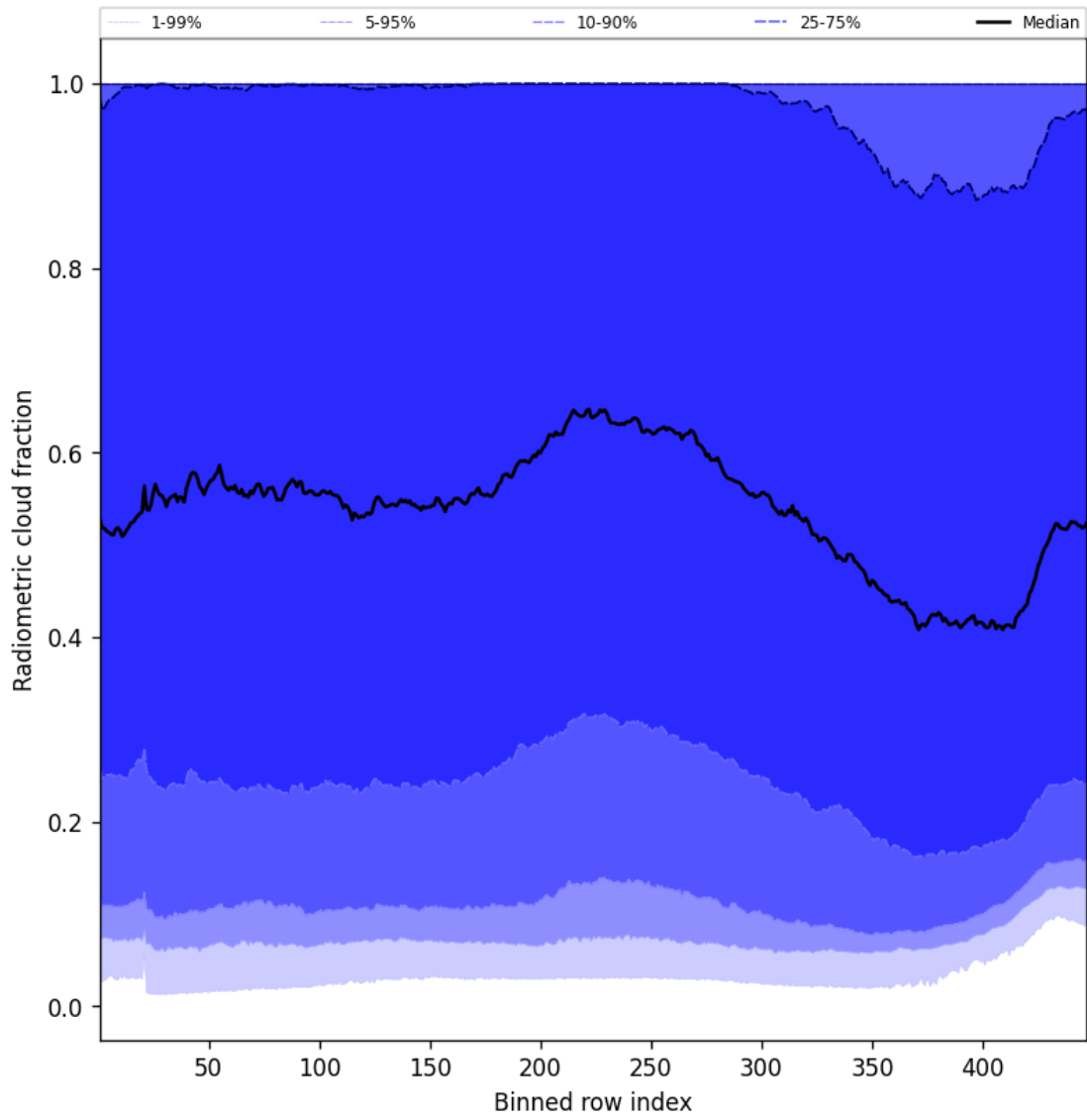


Figure 53: Along track statistics of “Radiometric cloud fraction” for 2025-10-07 to 2025-10-07

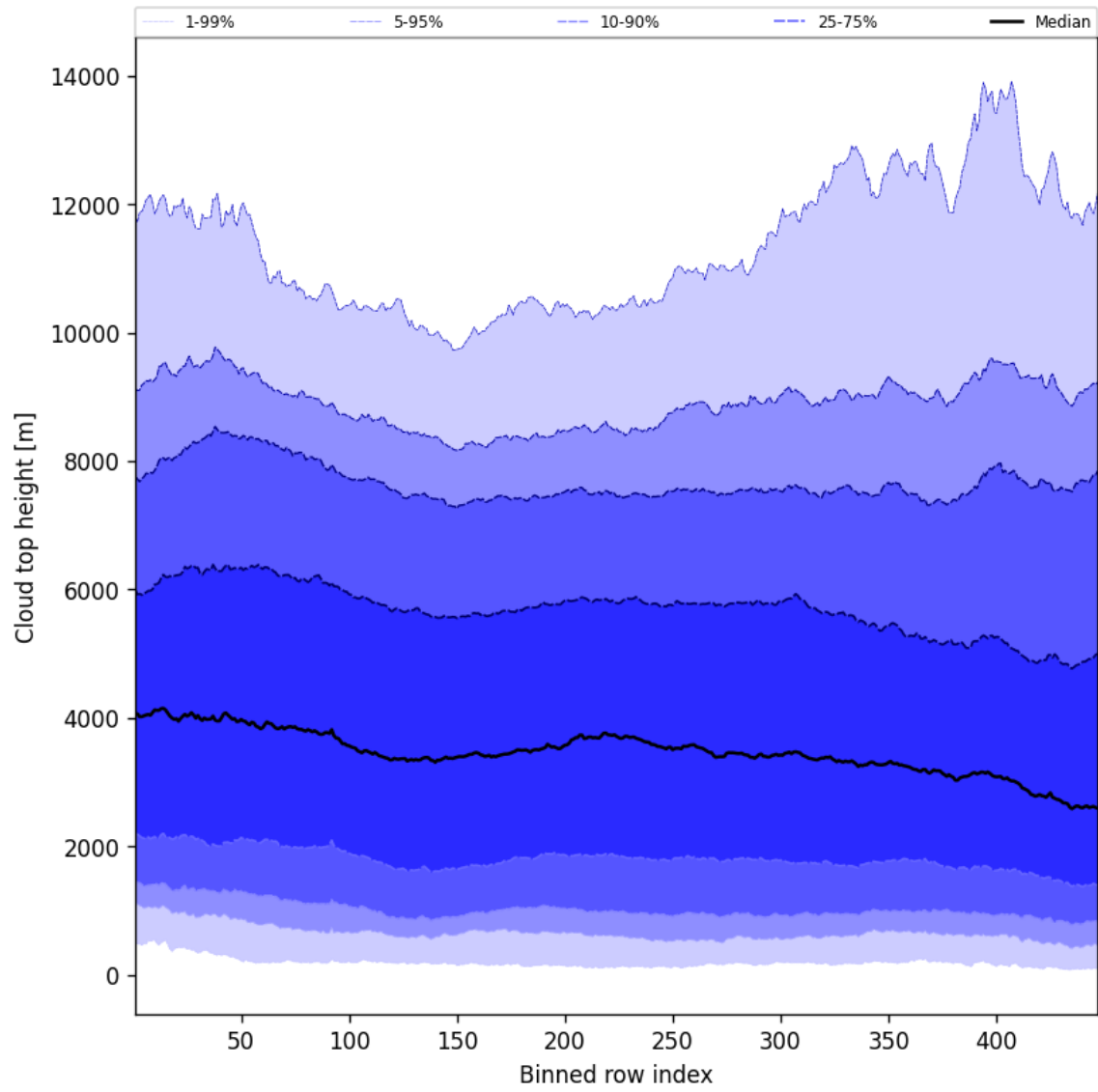


Figure 54: Along track statistics of “Cloud top height” for 2025-10-07 to 2025-10-07

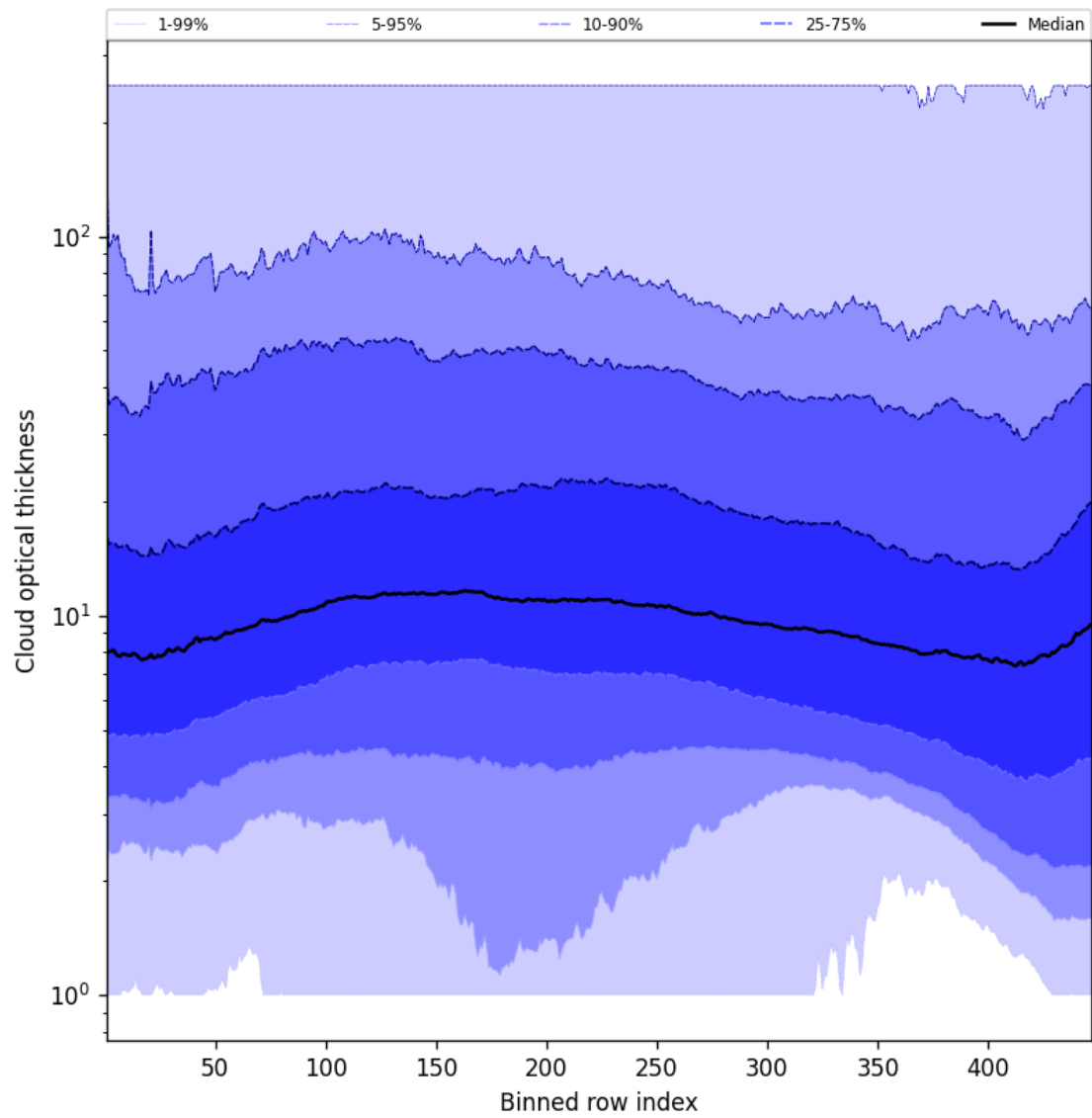


Figure 55: Along track statistics of “Cloud optical thickness” for 2025-10-07 to 2025-10-07

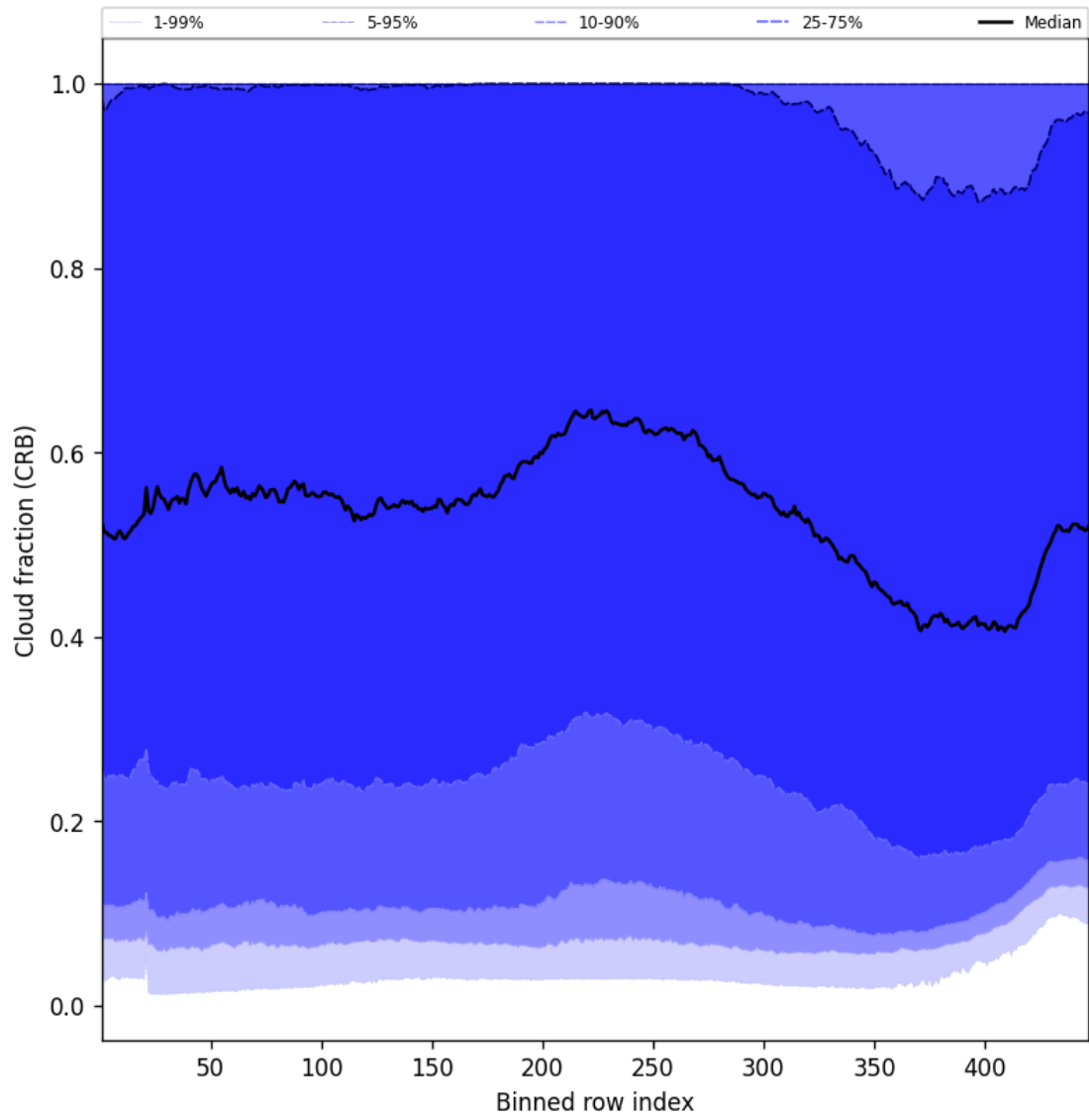


Figure 56: Along track statistics of “Cloud fraction (CRB)” for 2025-10-07 to 2025-10-07

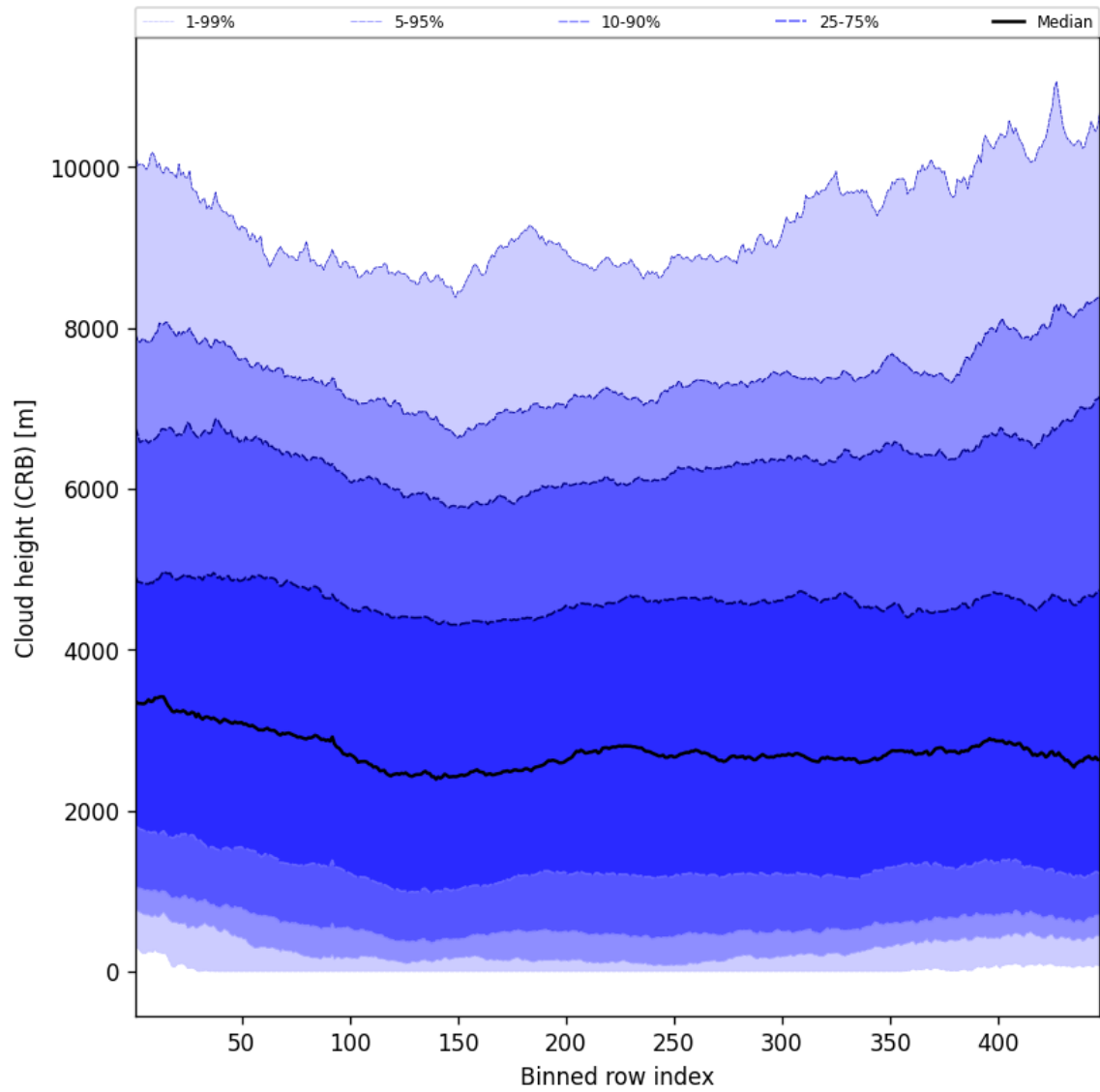


Figure 57: Along track statistics of “Cloud height (CRB)” for 2025-10-07 to 2025-10-07

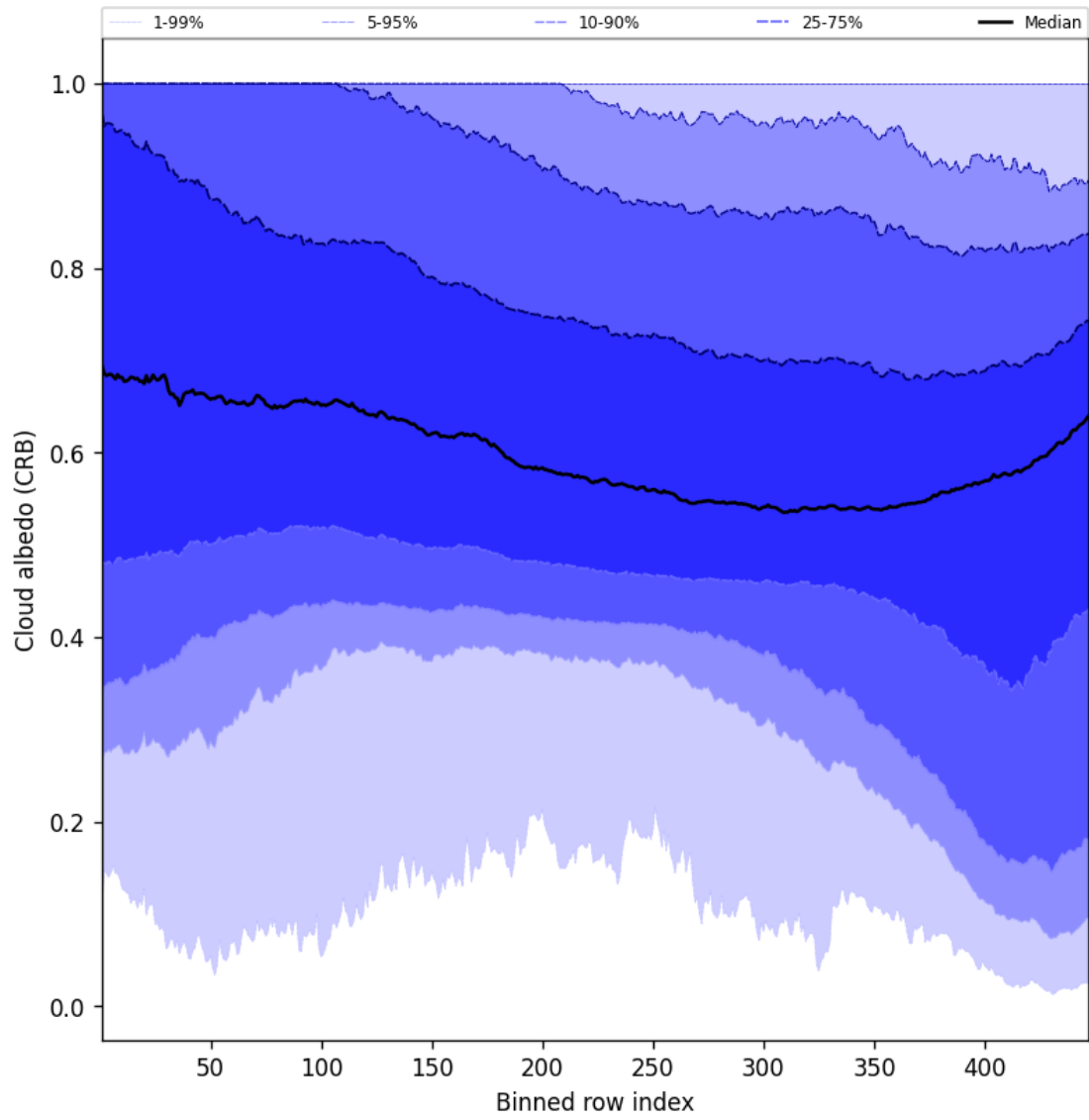


Figure 58: Along track statistics of “Cloud albedo (CRB)” for 2025-10-07 to 2025-10-07

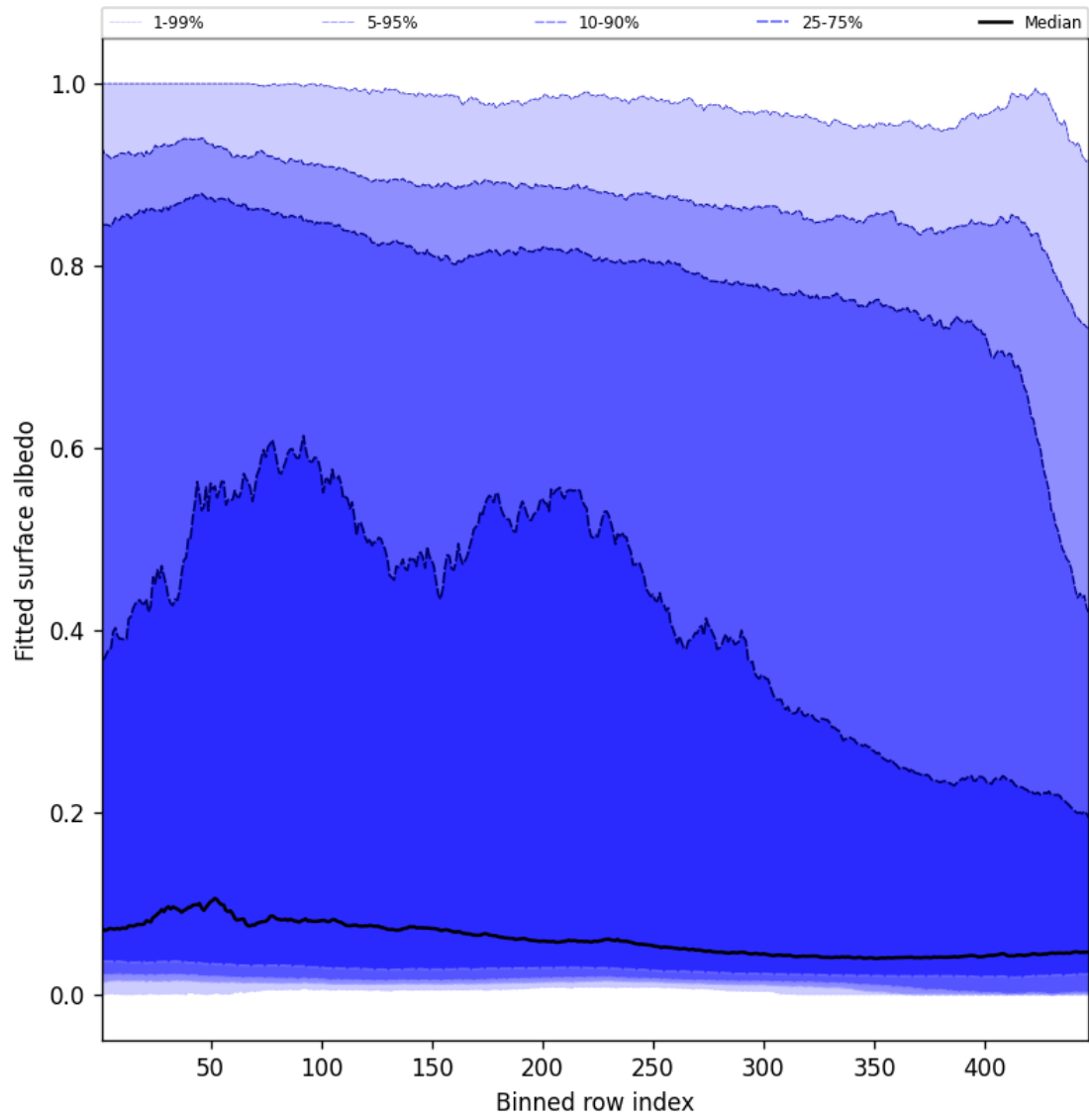


Figure 59: Along track statistics of “Fitted surface albedo” for 2025-10-07 to 2025-10-07

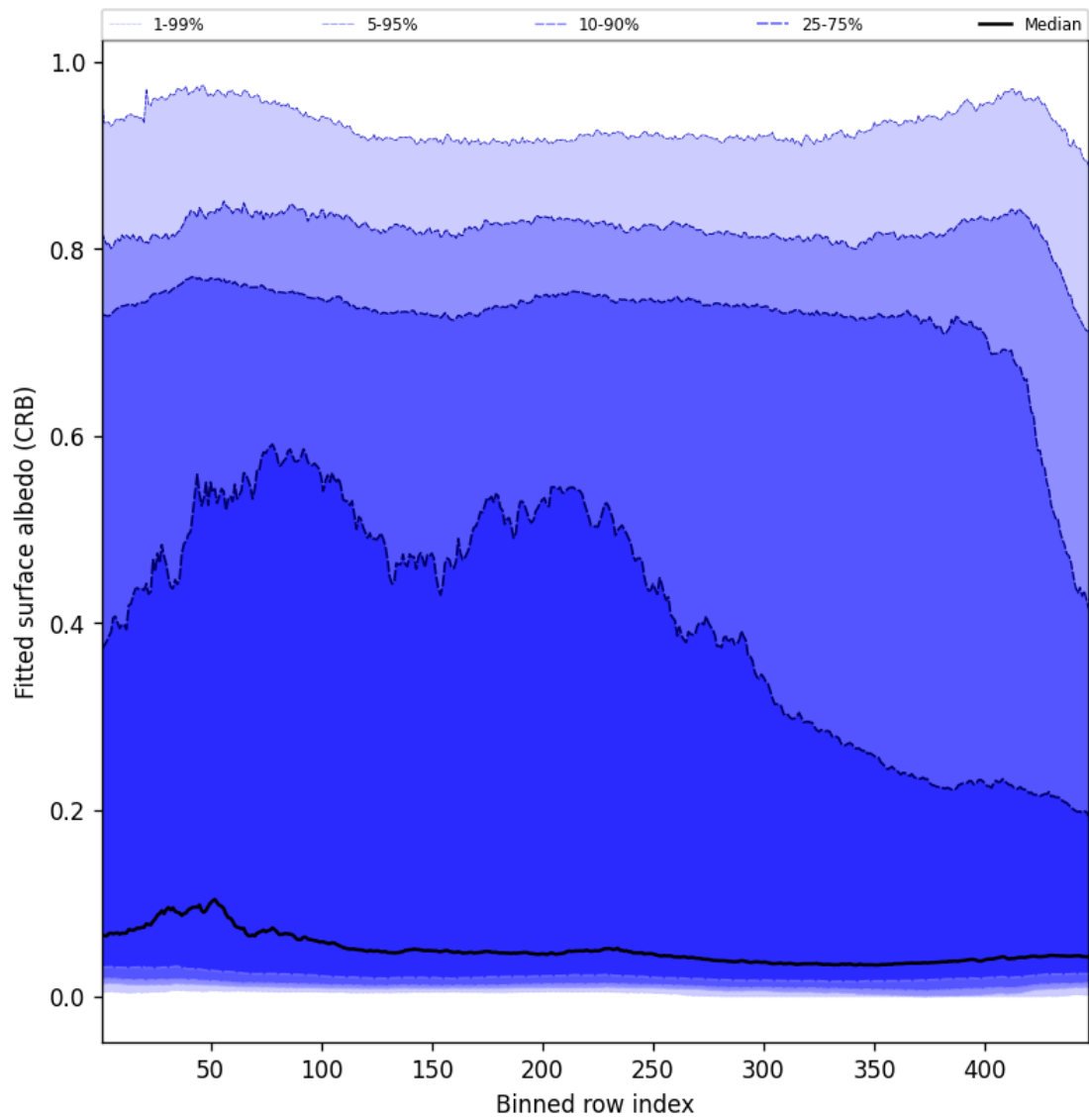


Figure 60: Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-07 to 2025-10-07

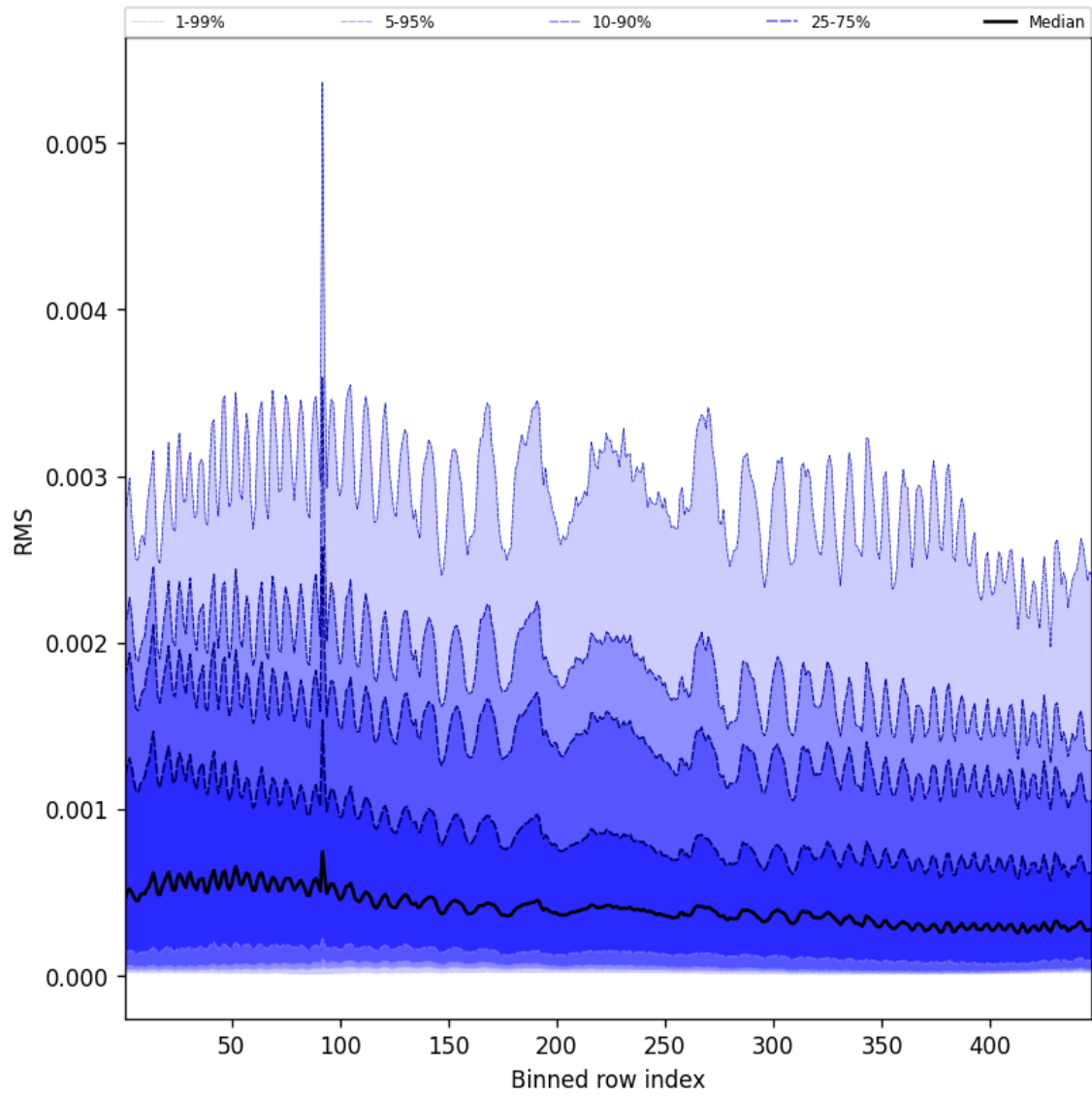


Figure 61: Along track statistics of “RMS” for 2025-10-07 to 2025-10-07

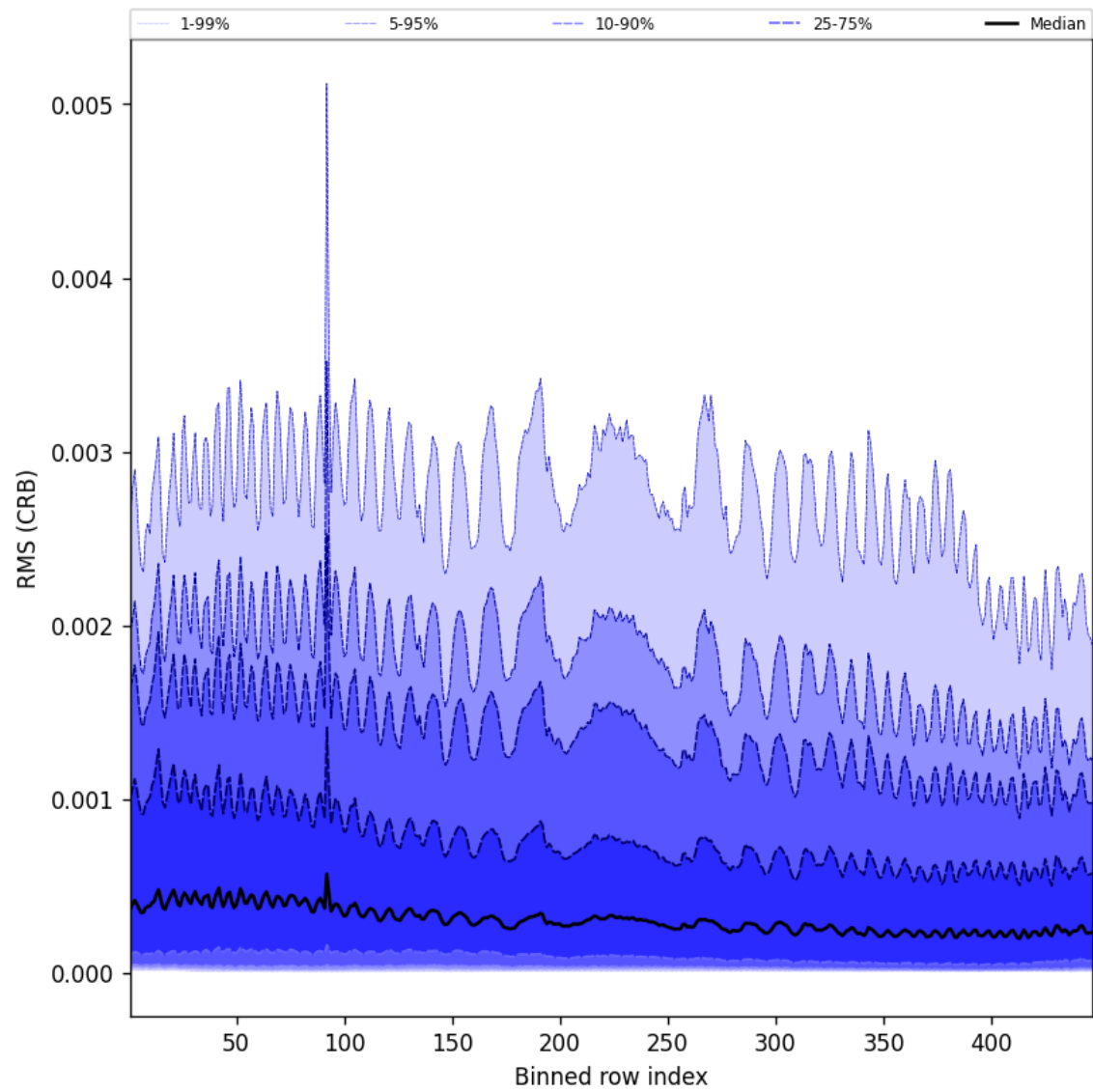


Figure 62: Along track statistics of “RMS (CRB)” for 2025-10-07 to 2025-10-07

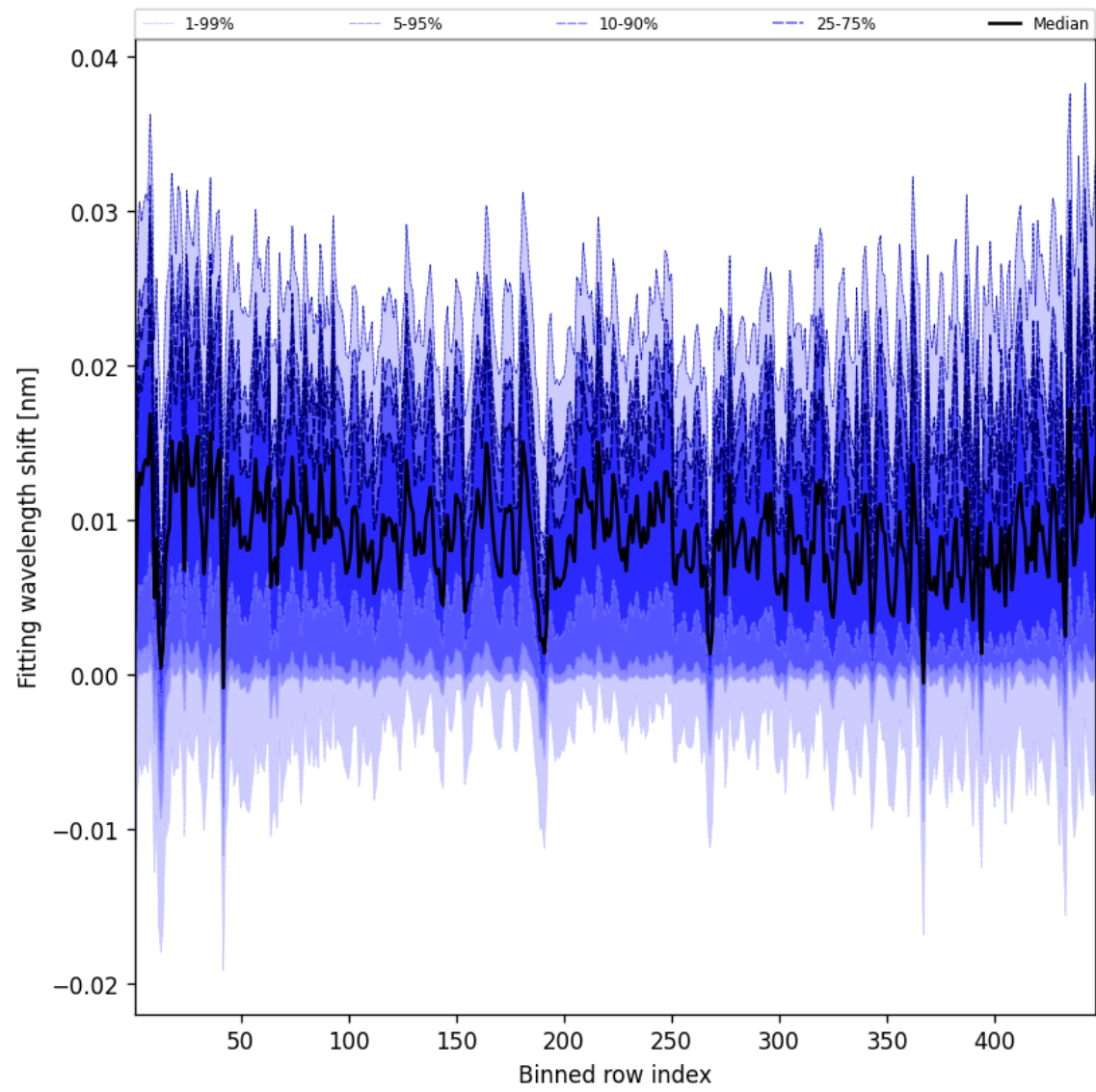


Figure 63: Along track statistics of “Fitting wavelength shift” for 2025-10-07 to 2025-10-07

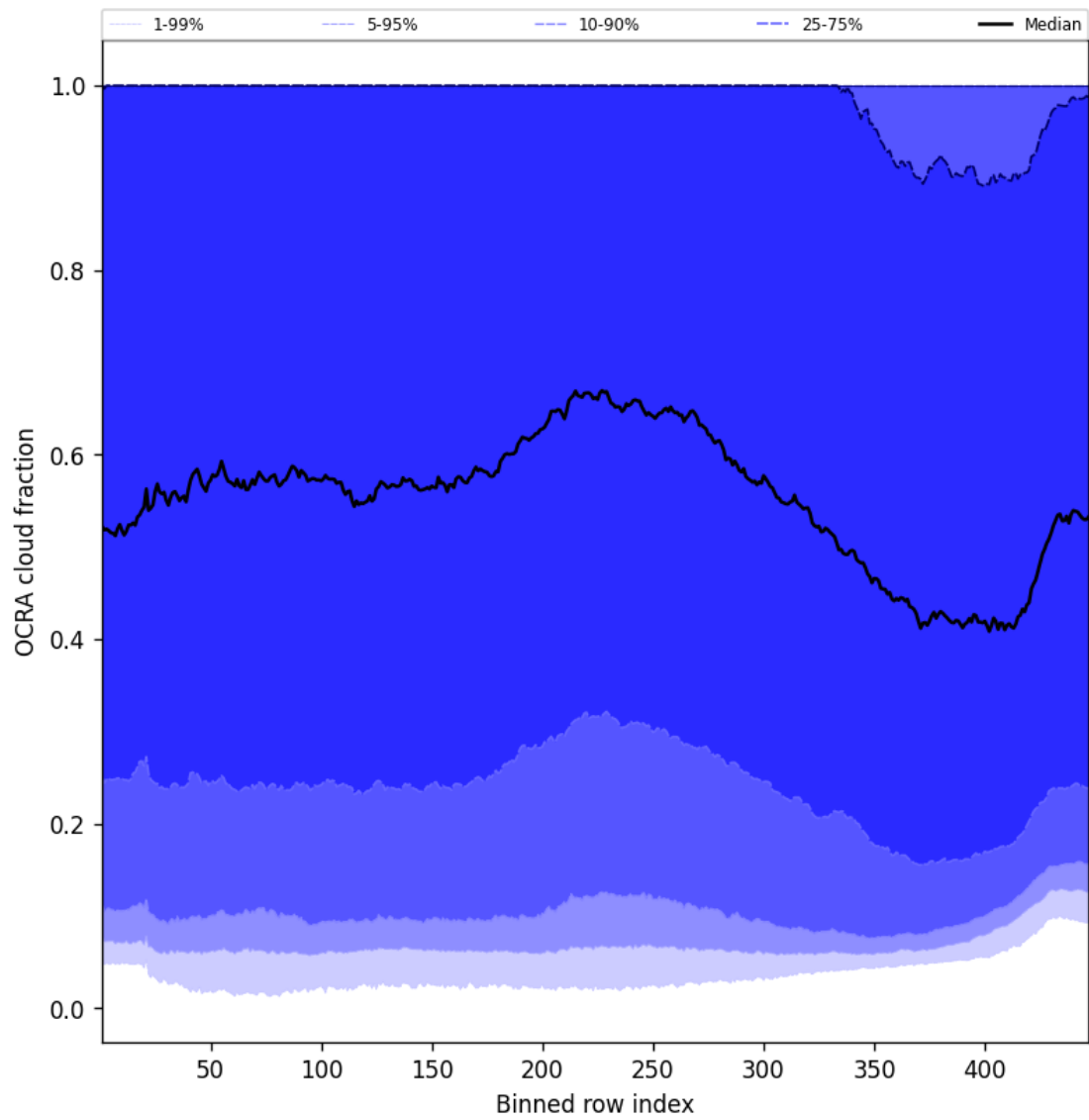


Figure 64: Along track statistics of “OCRA cloud fraction” for 2025-10-07 to 2025-10-07

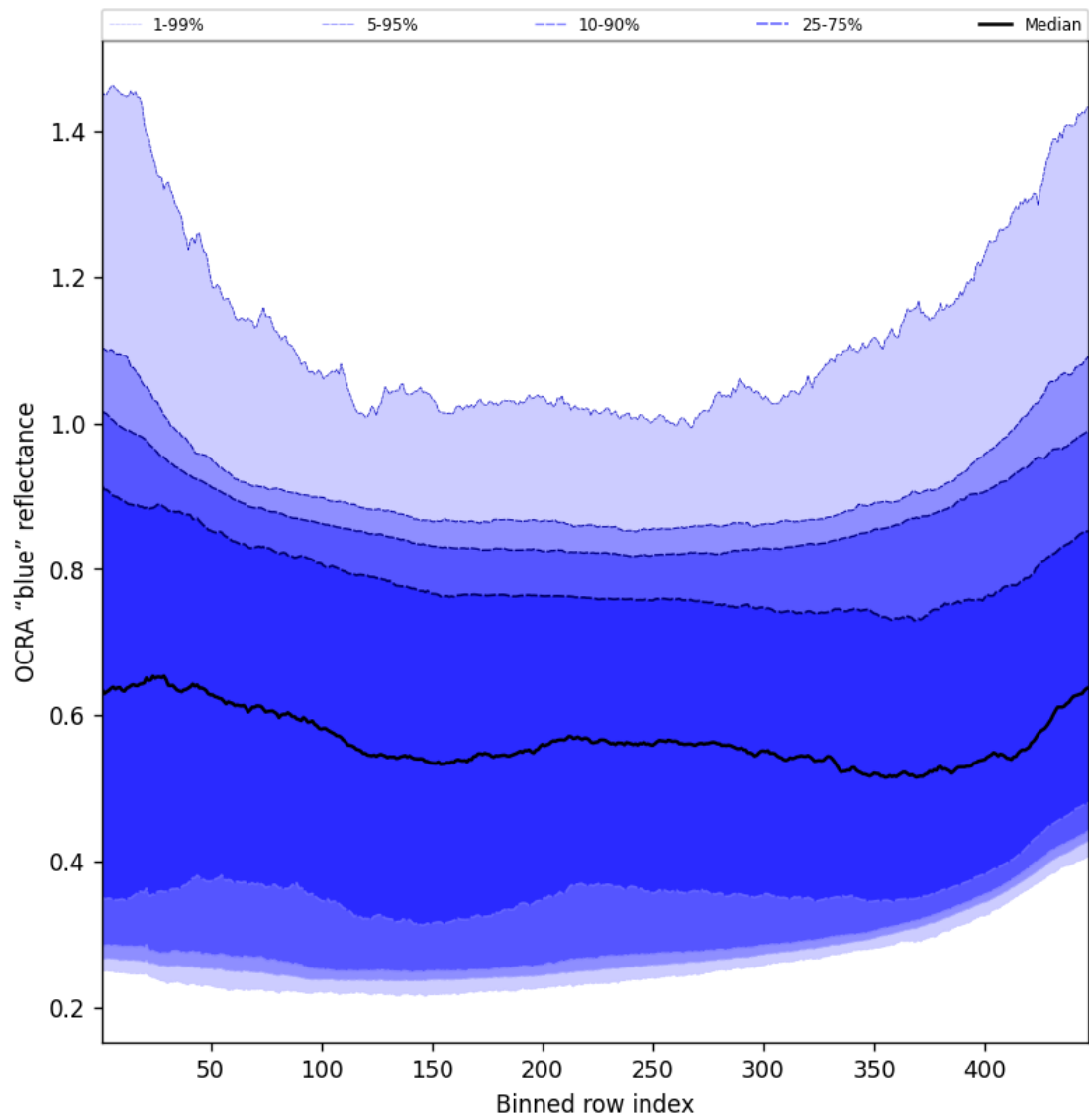


Figure 65: Along track statistics of "OCRA "blue" reflectance" for 2025-10-07 to 2025-10-07

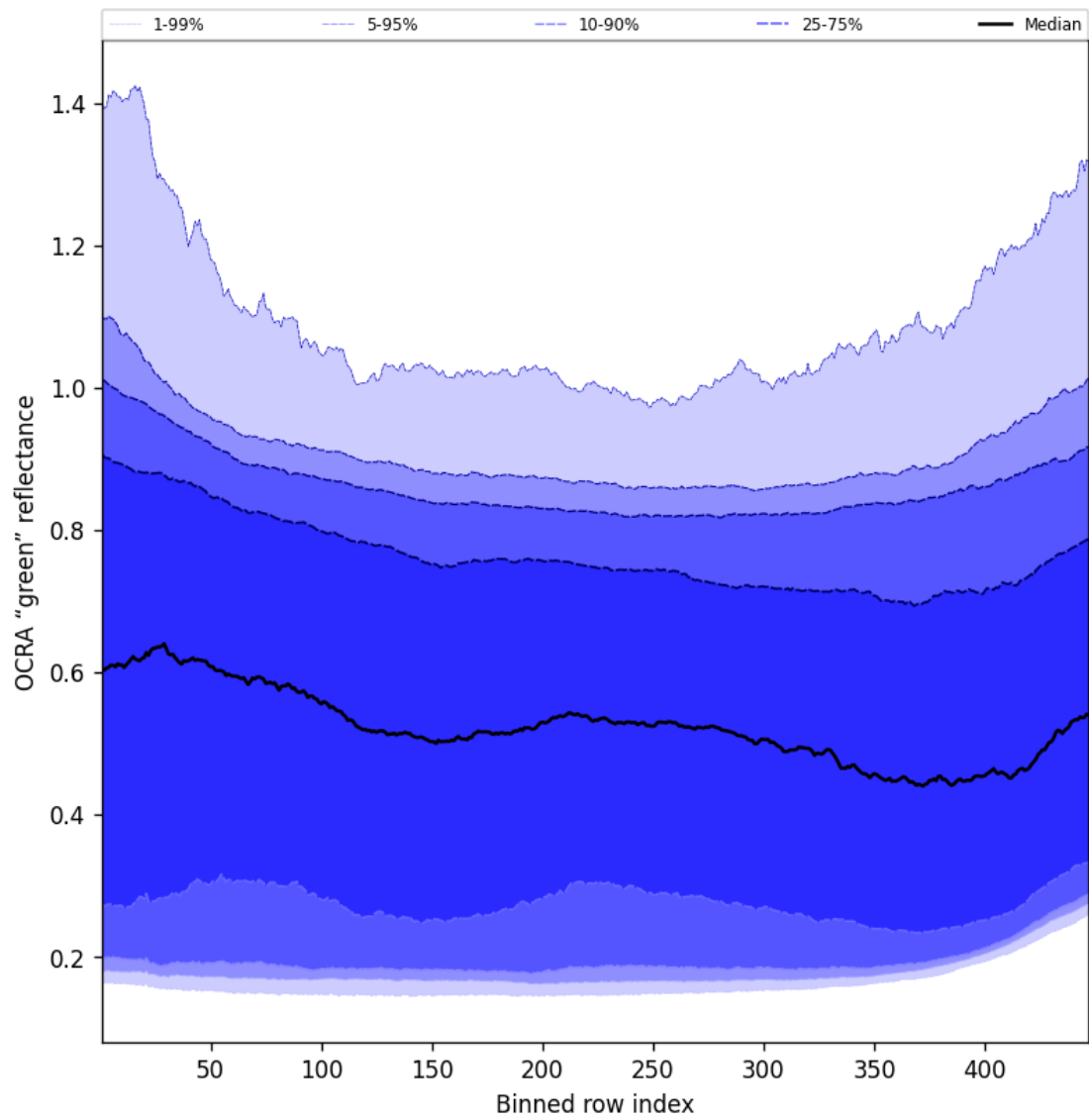


Figure 66: Along track statistics of “OCRA “green” reflectance” for 2025-10-07 to 2025-10-07

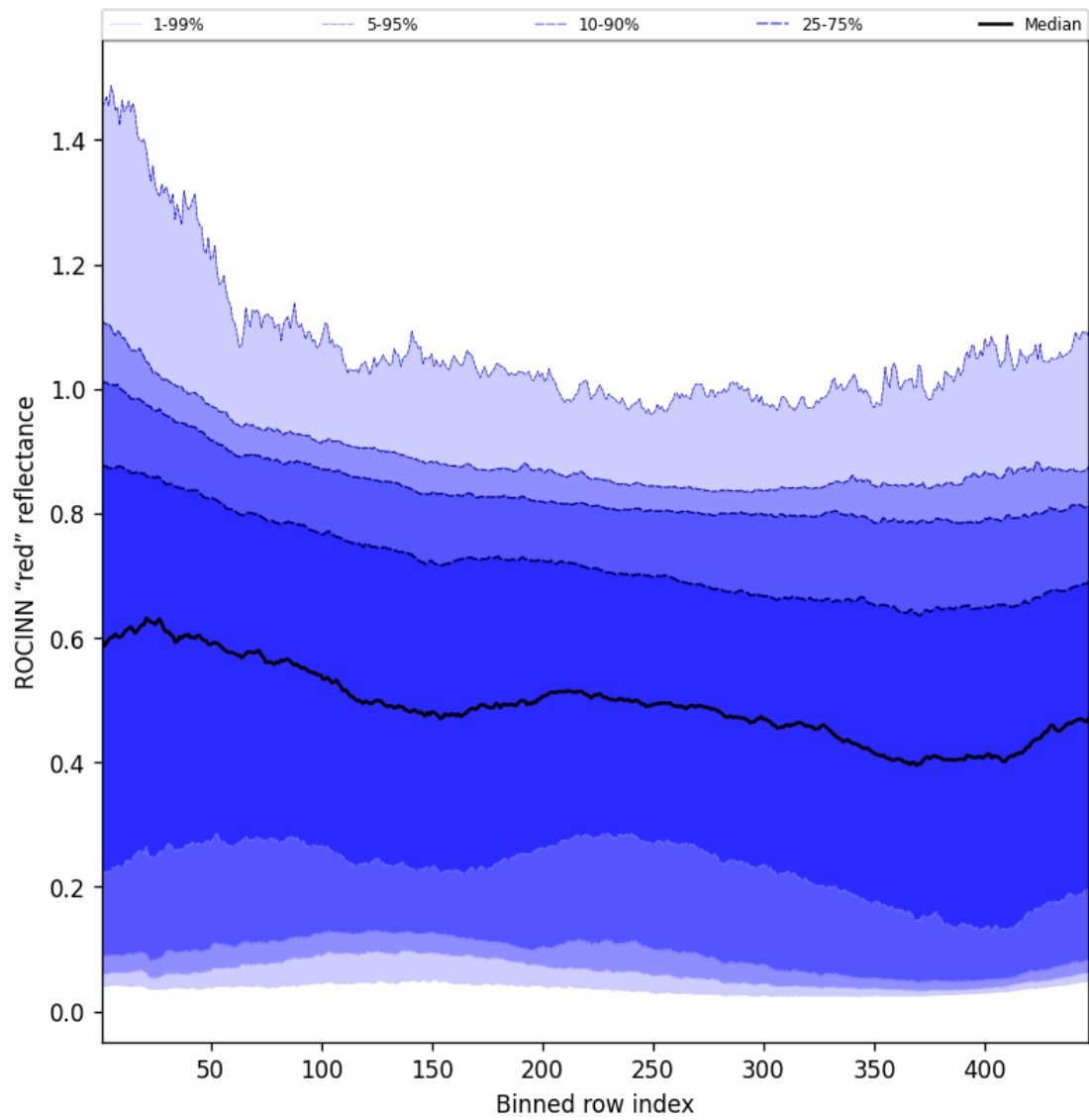


Figure 67: Along track statistics of “ROCINN “red” reflectance” for 2025-10-07 to 2025-10-07

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).