

PyCAMA report generated by tropl2-proc

tropl2-proc

2025-10-17 (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]	0.606 ± 0.376	18788586	0.995	0.630	0.730	0.0	1.000
cloud fraction [1]	0.560 ± 0.342	18788586	0.995	0.719	0.526	3.593×10^{-4}	1.000
cloud top height [m]	$(0.386 \pm 0.271) \times 10^4$	18788586	1.425×10^3	3.775×10^3	3.242×10^3	0.0	2.000×10^4
cloud optical thickness [1]	21.0 ± 40.2	18788586	9.77	11.3	9.38	1.000	250
cloud fraction crb [1]	0.559 ± 0.342	18788586	0.995	0.718	0.525	6.075×10^{-4}	1.000
cloud height crb [m]	$(0.303 \pm 0.226) \times 10^4$	18788586	975	3.112×10^3	2.595×10^3	0.0	2.000×10^4
cloud albedo crb [1]	0.603 ± 0.222	18788586	0.995	0.292	0.581	0.0	1.000
surface albedo fitted [1]	0.240 ± 0.312	18788586	2.500×10^{-2}	0.296	5.673×10^{-2}	0.0	1.000
surface albedo fitted crb [1]	0.227 ± 0.296	18788586	1.500×10^{-2}	0.305	4.707×10^{-2}	0.0	1.000
fitted root mean square [1]	$(6.369 \pm 38.725) \times 10^{-4}$	18788586	5.000×10^{-5}	7.514×10^{-4}	3.844×10^{-4}	1.008×10^{-6}	1.94
fitted root mean square crb [1]	$(5.698 \pm 53.050) \times 10^{-4}$	18788586	5.000×10^{-5}	6.823×10^{-4}	2.904×10^{-4}	1.057×10^{-6}	3.75
wavelength shift [nm]	$(8.872 \pm 7.640) \times 10^{-3}$	18788586	3.000×10^{-4}	1.109×10^{-2}	8.311×10^{-3}	-0.283	1.000
cloud fraction apriori [1]	0.567 ± 0.347	18788586	0.995	0.758	0.539	0.0	1.000
reflectance blue ocra [1]	0.575 ± 0.237	18788586	0.255	0.410	0.547	0.120	2.11
reflectance green ocra [1]	0.522 ± 0.266	18788586	0.175	0.482	0.497	6.748×10^{-2}	2.22
reflectance continuum aband [1]	0.472 ± 0.290	18788586	4.500×10^{-2}	0.491	0.462	1.231×10^{-2}	6.68

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]	2.737×10^{-2}	6.949×10^{-2}	0.108	0.156	0.243	0.962	1.000	1.000	1.000	1.000
cloud top height [m]	229	674	1.011×10^3	1.300×10^3	1.714×10^3	5.489×10^3	6.670×10^3	7.647×10^3	8.959×10^3	1.149×10^4
cloud optical thickness [1]	1.000	2.17	3.36	4.34	5.48	16.8	26.2	40.2	77.2	250
cloud fraction crb [1]	2.687×10^{-2}	6.883×10^{-2}	0.107	0.155	0.243	0.961	1.000	1.000	1.000	1.000
cloud height crb [m]	0.0	295	583	842	1.207×10^3	4.320×10^3	5.356×10^3	6.285×10^3	7.426×10^3	9.490×10^3
cloud albedo crb [1]	3.740×10^{-2}	0.228	0.343	0.412	0.463	0.755	0.851	0.937	1.000	1.000
surface albedo fitted [1]	0.0	7.981×10^{-3}	1.393×10^{-2}	1.881×10^{-2}	2.584×10^{-2}	0.322	0.718	0.818	0.909	0.999
surface albedo fitted crb [1]	0.0	6.760×10^{-3}	1.087×10^{-2}	1.477×10^{-2}	2.049×10^{-2}	0.325	0.686	0.758	0.845	0.945
fitted root mean square [1]	1.450×10^{-5}	2.839×10^{-5}	4.590×10^{-5}	7.262×10^{-5}	1.263×10^{-4}	8.777×10^{-4}	1.175×10^{-3}	1.467×10^{-3}	1.890×10^{-3}	2.948×10^{-3}
fitted root mean square crb [1]	6.983×10^{-6}	1.623×10^{-5}	2.821×10^{-5}	4.659×10^{-5}	8.458×10^{-5}	7.669×10^{-4}	1.083×10^{-3}	1.390×10^{-3}	1.812×10^{-3}	2.773×10^{-3}
wavelength shift [nm]	-6.794×10^{-3}	-4.697×10^{-4}	2.270×10^{-4}	1.163×10^{-3}	2.962×10^{-3}	1.405×10^{-2}	1.658×10^{-2}	1.866×10^{-2}	2.136×10^{-2}	2.715×10^{-2}
cloud fraction apriori [1]	3.131×10^{-2}	6.616×10^{-2}	0.102	0.150	0.242	1.000	1.000	1.000	1.000	1.000
reflectance blue ocra [1]	0.231	0.256	0.282	0.313	0.366	0.775	0.838	0.881	0.940	1.15
reflectance green ocra [1]	0.151	0.172	0.192	0.218	0.271	0.754	0.829	0.877	0.935	1.11
reflectance continuum aband [1]	2.904×10^{-2}	5.210×10^{-2}	8.506×10^{-2}	0.132	0.219	0.710	0.796	0.852	0.920	1.10

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]	0.596 ± 0.385	8866213	0.700	0.760	0.0	1.000	0.250	0.950
cloud fraction [1]	0.589 ± 0.355	8866213	0.763	0.610	4.822×10^{-3}	1.000	0.233	0.996
cloud top height [m]	$(0.388 \pm 0.258) \times 10^4$	8866213	3.503×10^3	3.334×10^3	0.0	2.000×10^4	1.849×10^3	5.353×10^3
cloud optical thickness [1]	22.8 ± 39.0	8866213	14.5	10.2	1.000	250	5.99	20.4
cloud fraction crb [1]	0.588 ± 0.355	8866213	0.764	0.607	8.068×10^{-3}	1.000	0.232	0.996
cloud height crb [m]	$(0.324 \pm 0.223) \times 10^4$	8866213	3.057×10^3	2.839×10^3	0.0	2.000×10^4	1.443×10^3	4.500×10^3
cloud albedo crb [1]	0.569 ± 0.204	8866213	0.249	0.561	0.0	1.000	0.450	0.699
surface albedo fitted [1]	0.147 ± 0.192	8866213	0.172	5.741×10^{-2}	0.0	1.000	2.629×10^{-2}	0.198
surface albedo fitted crb [1]	0.143 ± 0.193	8866213	0.173	4.698×10^{-2}	0.0	1.000	2.075×10^{-2}	0.194
fitted root mean square [1]	$(4.602 \pm 6.499) \times 10^{-4}$	8866213	4.919×10^{-4}	2.402×10^{-4}	1.008×10^{-6}	0.131	9.419×10^{-5}	5.861×10^{-4}
fitted root mean square crb [1]	$(4.106 \pm 5.653) \times 10^{-4}$	8866213	4.839×10^{-4}	1.798×10^{-4}	1.057×10^{-6}	2.214×10^{-2}	5.468×10^{-5}	5.386×10^{-4}
wavelength shift [nm]	$(7.242 \pm 6.946) \times 10^{-3}$	8866213	9.925×10^{-3}	6.310×10^{-3}	-4.799×10^{-2}	6.871×10^{-2}	1.750×10^{-3}	1.167×10^{-2}
cloud fraction apriori [1]	0.594 ± 0.360	8866213	0.772	0.621	0.0	1.000	0.228	1.000
reflectance blue ocra [1]	0.537 ± 0.218	8866213	0.333	0.506	0.120	2.03	0.355	0.688
reflectance green ocra [1]	0.477 ± 0.244	8866213	0.398	0.445	6.748×10^{-2}	2.22	0.260	0.658
reflectance continuum aband [1]	0.429 ± 0.272	8866213	0.415	0.404	1.231×10^{-2}	6.68	0.206	0.621

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]	0.615 ± 0.368	9922373	0.590	0.700	0.0	1.000	0.330	0.920
cloud fraction [1]	0.534 ± 0.329	9922373	0.641	0.474	3.593×10^{-4}	1.000	0.249	0.890
cloud top height [m]	$(0.384 \pm 0.282) \times 10^4$	9922373	4.009×10^3	3.143×10^3	0.0	2.000×10^4	1.598×10^3	5.607×10^3
cloud optical thickness [1]	19.4 ± 41.1	9922373	8.88	8.83	1.000	250	5.17	14.1
cloud fraction crb [1]	0.534 ± 0.329	9922373	0.639	0.473	6.075×10^{-4}	1.000	0.250	0.889
cloud height crb [m]	$(0.284 \pm 0.227) \times 10^4$	9922373	3.140×10^3	2.326×10^3	0.0	2.000×10^4	1.019×10^3	4.159×10^3
cloud albedo crb [1]	0.633 ± 0.233	9922373	0.343	0.605	0.0	1.000	0.474	0.818
surface albedo fitted [1]	0.323 ± 0.370	9922373	0.715	5.602×10^{-2}	0.0	1.000	2.546×10^{-2}	0.740
surface albedo fitted crb [1]	0.302 ± 0.348	9922373	0.679	4.716×10^{-2}	0.0	1.000	2.025×10^{-2}	0.700
fitted root mean square [1]	$(7.948 \pm 52.883) \times 10^{-4}$	9922373	8.721×10^{-4}	5.780×10^{-4}	1.633×10^{-6}	1.94	1.976×10^{-4}	1.070×10^{-3}
fitted root mean square crb [1]	$(7.121 \pm 72.776) \times 10^{-4}$	9922373	8.039×10^{-4}	4.295×10^{-4}	2.309×10^{-6}	3.75	1.362×10^{-4}	9.401×10^{-4}
wavelength shift [nm]	$(1.033 \pm 0.793) \times 10^{-2}$	9922373	1.114×10^{-2}	1.035×10^{-2}	-0.283	1.000	4.532×10^{-3}	1.568×10^{-2}
cloud fraction apriori [1]	0.543 ± 0.333	9922373	0.668	0.489	0.0	1.000	0.252	0.920
reflectance blue ocra [1]	0.608 ± 0.247	9922373	0.445	0.603	0.131	2.11	0.378	0.823
reflectance green ocra [1]	0.562 ± 0.279	9922373	0.529	0.567	7.796×10^{-2}	2.10	0.286	0.815
reflectance continuum aband [1]	0.511 ± 0.301	9922373	0.535	0.539	1.317×10^{-2}	3.75	0.236	0.771

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]	0.665 ± 0.349	11961304	0.550	0.840	0.0	1.000	0.400	0.950
cloud fraction [1]	0.570 ± 0.352	11961304	0.759	0.568	3.593×10^{-4}	1.000	0.222	0.981
cloud top height [m]	$(0.349 \pm 0.261) \times 10^4$	11961304	3.193×10^3	2.785×10^3	0.0	2.000×10^4	1.542×10^3	4.735×10^3
cloud optical thickness [1]	19.5 ± 33.8	11961304	10.5	10.0	1.000	250	6.52	17.0
cloud fraction crb [1]	0.569 ± 0.352	11961304	0.759	0.566	6.075×10^{-4}	1.000	0.221	0.980
cloud height crb [m]	$(0.280 \pm 0.228) \times 10^4$	11961304	2.919×10^3	2.221×10^3	0.0	2.000×10^4	1.030×10^3	3.950×10^3
cloud albedo crb [1]	0.557 ± 0.192	11961304	0.234	0.539	0.0	1.000	0.446	0.680
surface albedo fitted [1]	0.111 ± 0.227	11961304	3.371×10^{-2}	3.178×10^{-2}	0.0	1.000	1.895×10^{-2}	5.266×10^{-2}
surface albedo fitted crb [1]	0.104 ± 0.220	11961304	2.868×10^{-2}	2.547×10^{-2}	0.0	1.000	1.487×10^{-2}	4.355×10^{-2}
fitted root mean square [1]	$(6.115 \pm 48.048) \times 10^{-4}$	11961304	7.482×10^{-4}	2.898×10^{-4}	1.008×10^{-6}	1.94	8.747×10^{-5}	8.357×10^{-4}
fitted root mean square crb [1]	$(5.960 \pm 66.135) \times 10^{-4}$	11961304	7.351×10^{-4}	2.575×10^{-4}	1.057×10^{-6}	3.75	6.439×10^{-5}	7.995×10^{-4}
wavelength shift [nm]	$(8.547 \pm 8.137) \times 10^{-3}$	11961304	1.192×10^{-2}	7.730×10^{-3}	-0.283	1.000	2.192×10^{-3}	1.411×10^{-2}
cloud fraction apriori [1]	0.574 ± 0.357	11961304	0.785	0.578	0.0	1.000	0.215	1.000
reflectance blue ocra [1]	0.527 ± 0.212	11961304	0.337	0.490	0.151	2.06	0.346	0.683
reflectance green ocra [1]	0.465 ± 0.240	11961304	0.408	0.426	7.654×10^{-2}	2.22	0.246	0.654
reflectance continuum aband [1]	0.393 ± 0.275	11961304	0.484	0.361	1.231×10^{-2}	6.68	0.136	0.620

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]	0.473 ± 0.401	5218488	0.890	0.590	0.0	1.000	0.0	0.890
cloud fraction [1]	0.504 ± 0.310	5218488	0.521	0.424	4.822×10^{-3}	1.000	0.258	0.779
cloud top height [m]	$(0.479 \pm 0.278) \times 10^4$	5218488	4.102×10^3	4.627×10^3	0.0	2.000×10^4	2.526×10^3	6.628×10^3
cloud optical thickness [1]	20.6 ± 47.2	5218488	8.90	6.54	1.000	250	4.24	13.1
cloud fraction crb [1]	0.505 ± 0.310	5218488	0.518	0.426	8.068×10^{-3}	1.000	0.260	0.778
cloud height crb [m]	$(0.358 \pm 0.215) \times 10^4$	5218488	3.119×10^3	3.345×10^3	0.0	2.000×10^4	1.849×10^3	4.967×10^3
cloud albedo crb [1]	0.701 ± 0.253	5218488	0.411	0.720	0.0	1.000	0.533	0.943
surface albedo fitted [1]	0.536 ± 0.308	5218488	0.598	0.563	0.0	1.000	0.229	0.827
surface albedo fitted crb [1]	0.507 ± 0.281	5218488	0.525	0.566	4.495×10^{-3}	1.000	0.225	0.750
fitted root mean square [1]	$(7.409 \pm 7.452) \times 10^{-4}$	5218488	6.984×10^{-4}	5.930×10^{-4}	1.633×10^{-6}	0.131	3.003×10^{-4}	9.987×10^{-4}
fitted root mean square crb [1]	$(5.598 \pm 7.518) \times 10^{-4}$	5218488	6.287×10^{-4}	3.807×10^{-4}	2.309×10^{-6}	0.846	1.517×10^{-4}	7.804×10^{-4}
wavelength shift [nm]	$(9.800 \pm 6.664) \times 10^{-3}$	5218488	9.720×10^{-3}	9.489×10^{-3}	-3.463×10^{-2}	6.539×10^{-2}	4.722×10^{-3}	1.444×10^{-2}
cloud fraction apriori [1]	0.517 ± 0.314	5218488	0.543	0.442	0.0	1.000	0.267	0.810
reflectance blue ocra [1]	0.679 ± 0.259	5218488	0.432	0.769	0.120	2.11	0.435	0.867
reflectance green ocra [1]	0.647 ± 0.285	5218488	0.505	0.745	6.748×10^{-2}	2.10	0.363	0.868
reflectance continuum aband [1]	0.638 ± 0.259	5218488	0.432	0.678	1.698×10^{-2}	3.75	0.406	0.838

3 Granule outlines

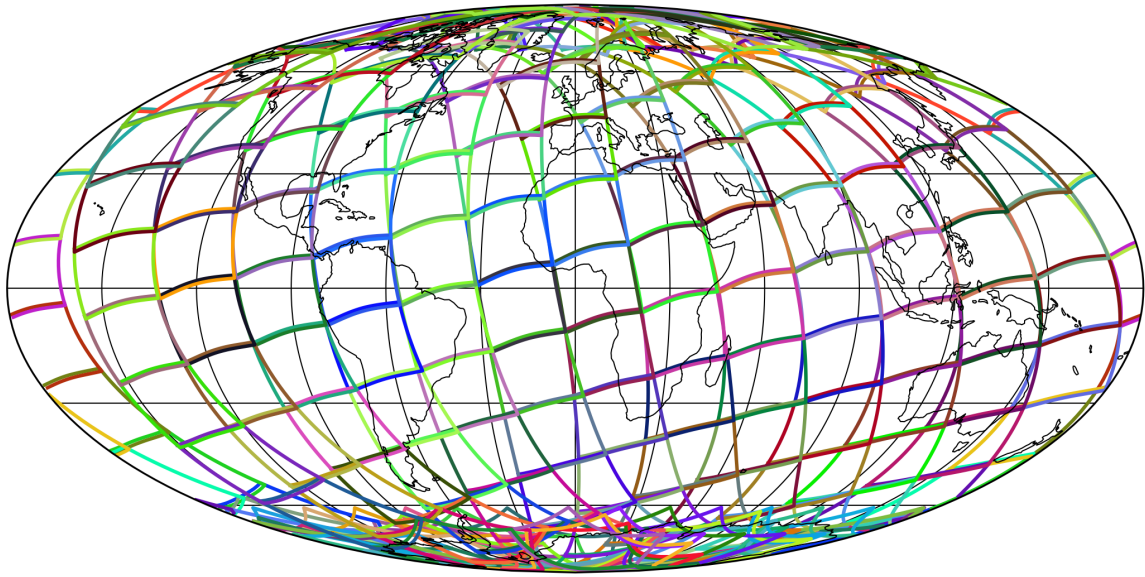


Figure 1: Outline of the granules.

4 Input data monitoring

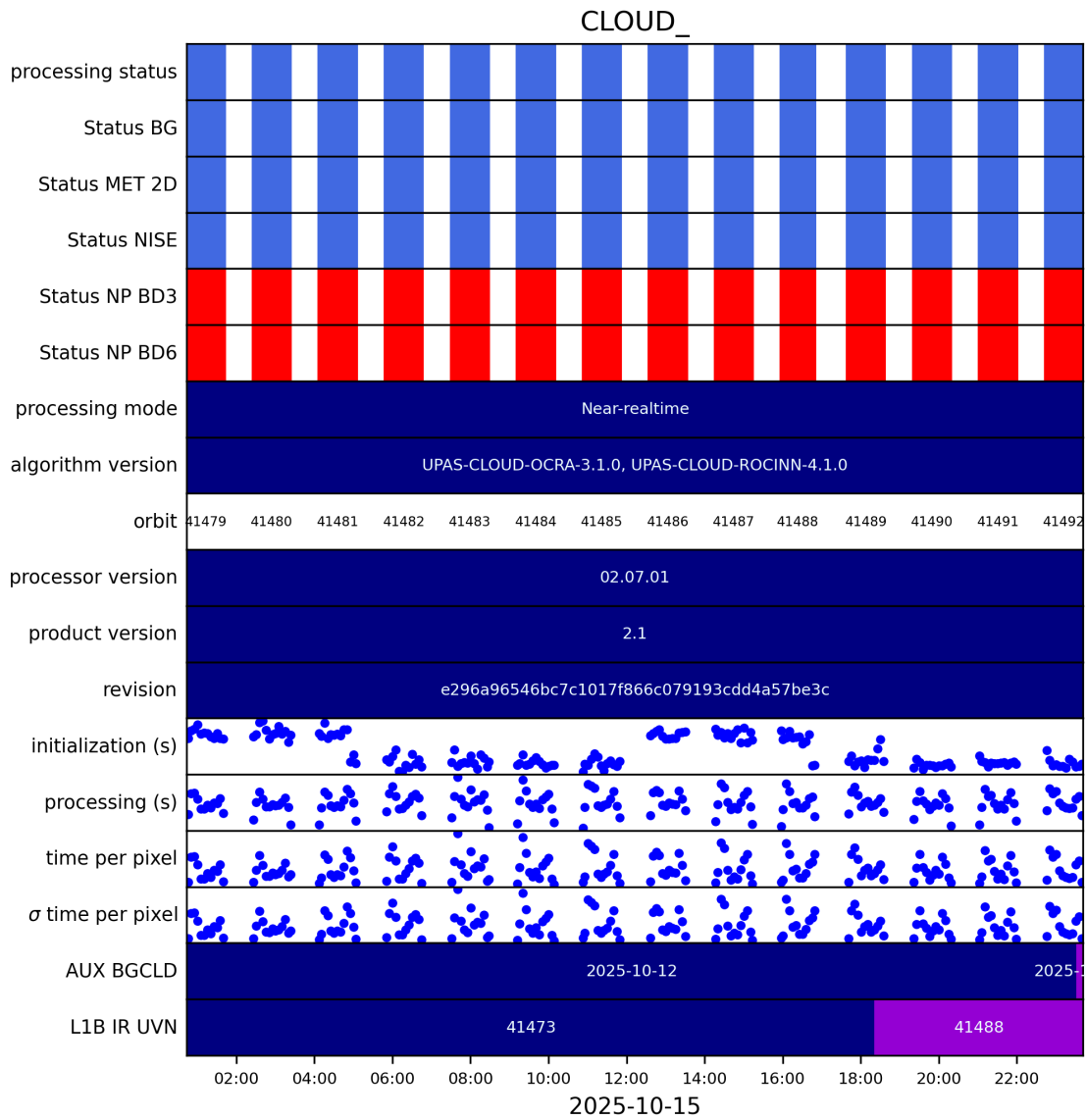


Figure 2: Input data per granule

5 Warnings and errors

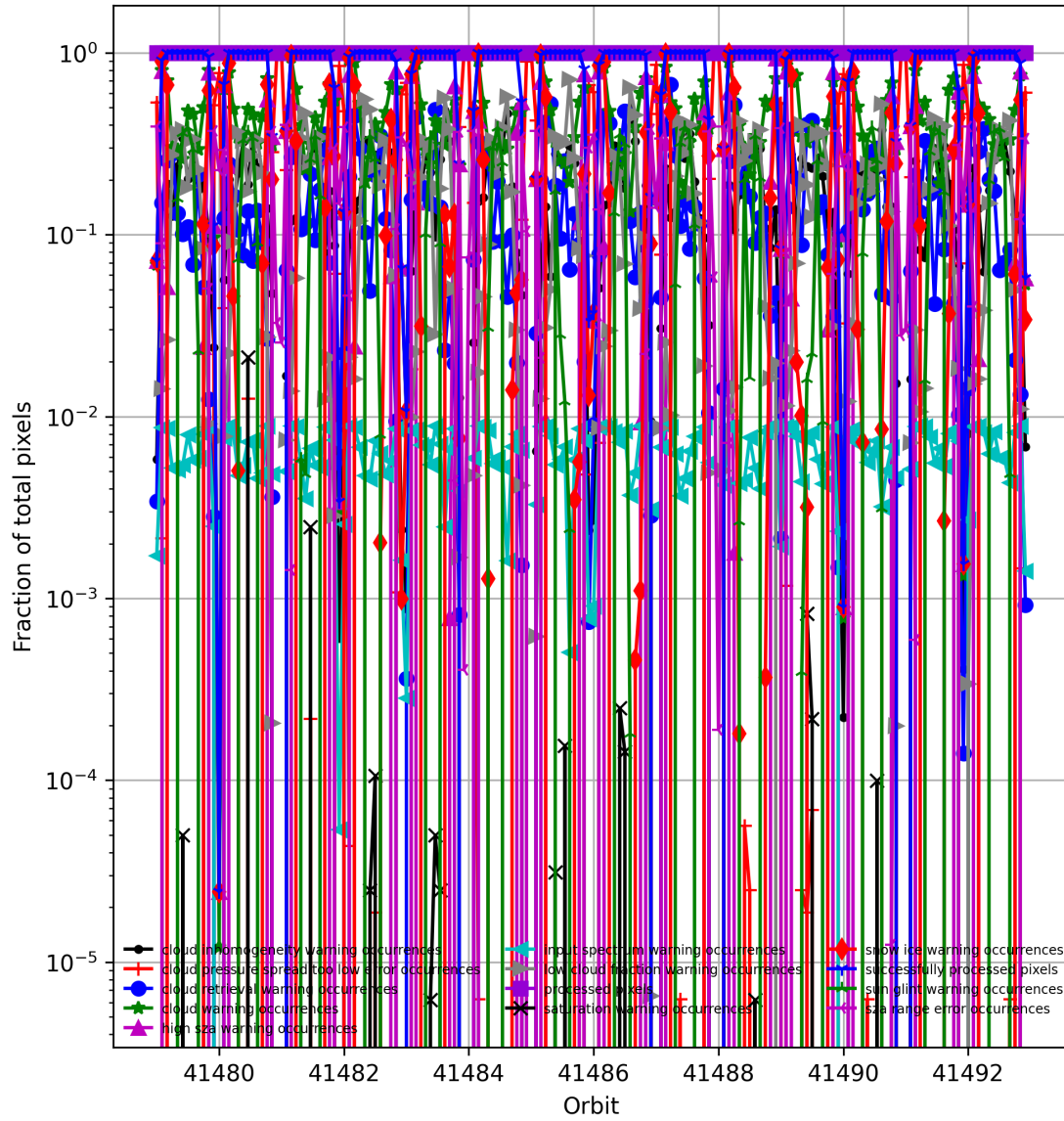


Figure 3: Fraction of pixels with specific warnings and errors during processing

6 World maps

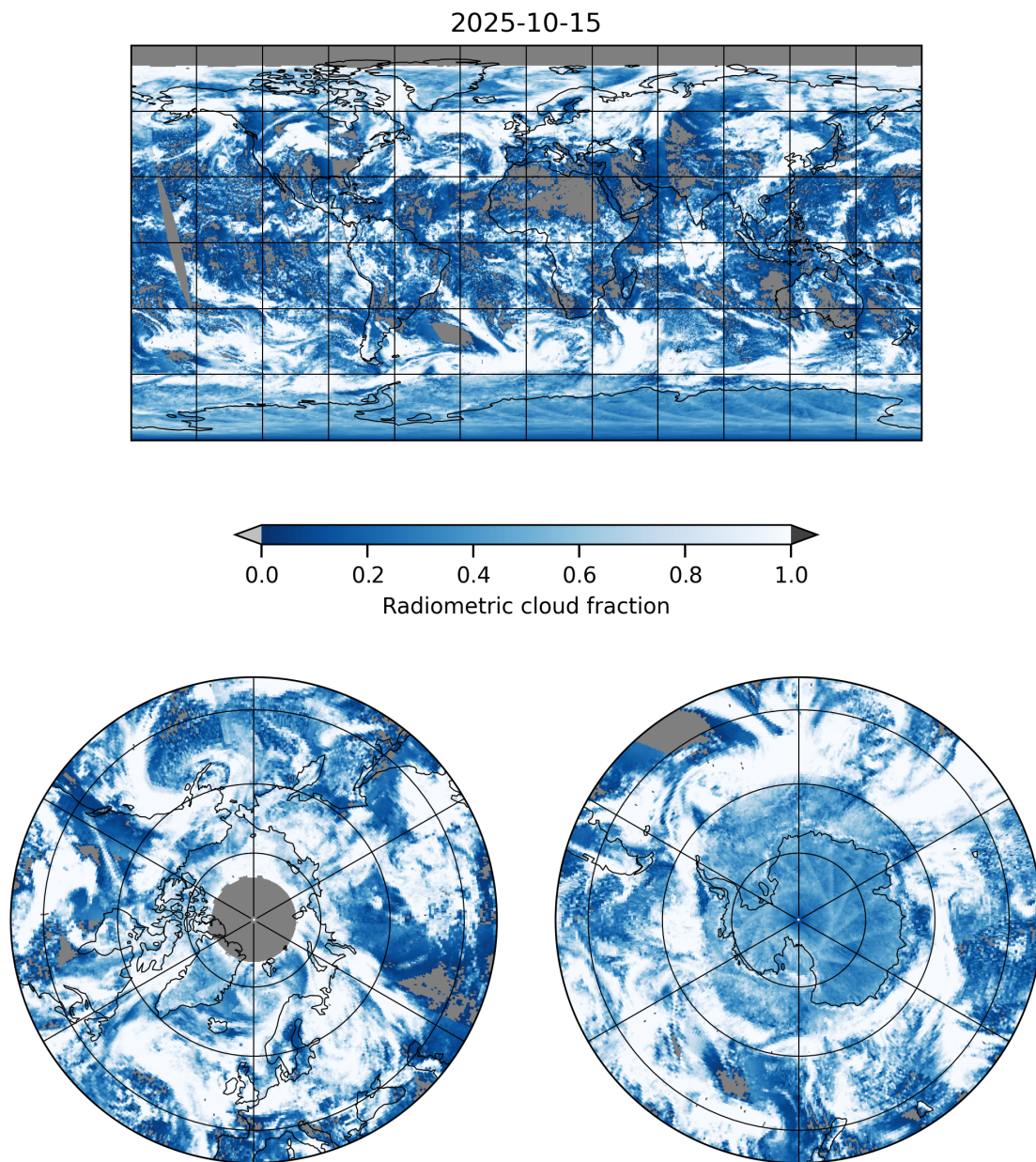


Figure 4: Map of “Radiometric cloud fraction” for 2025-10-15 to 2025-10-15

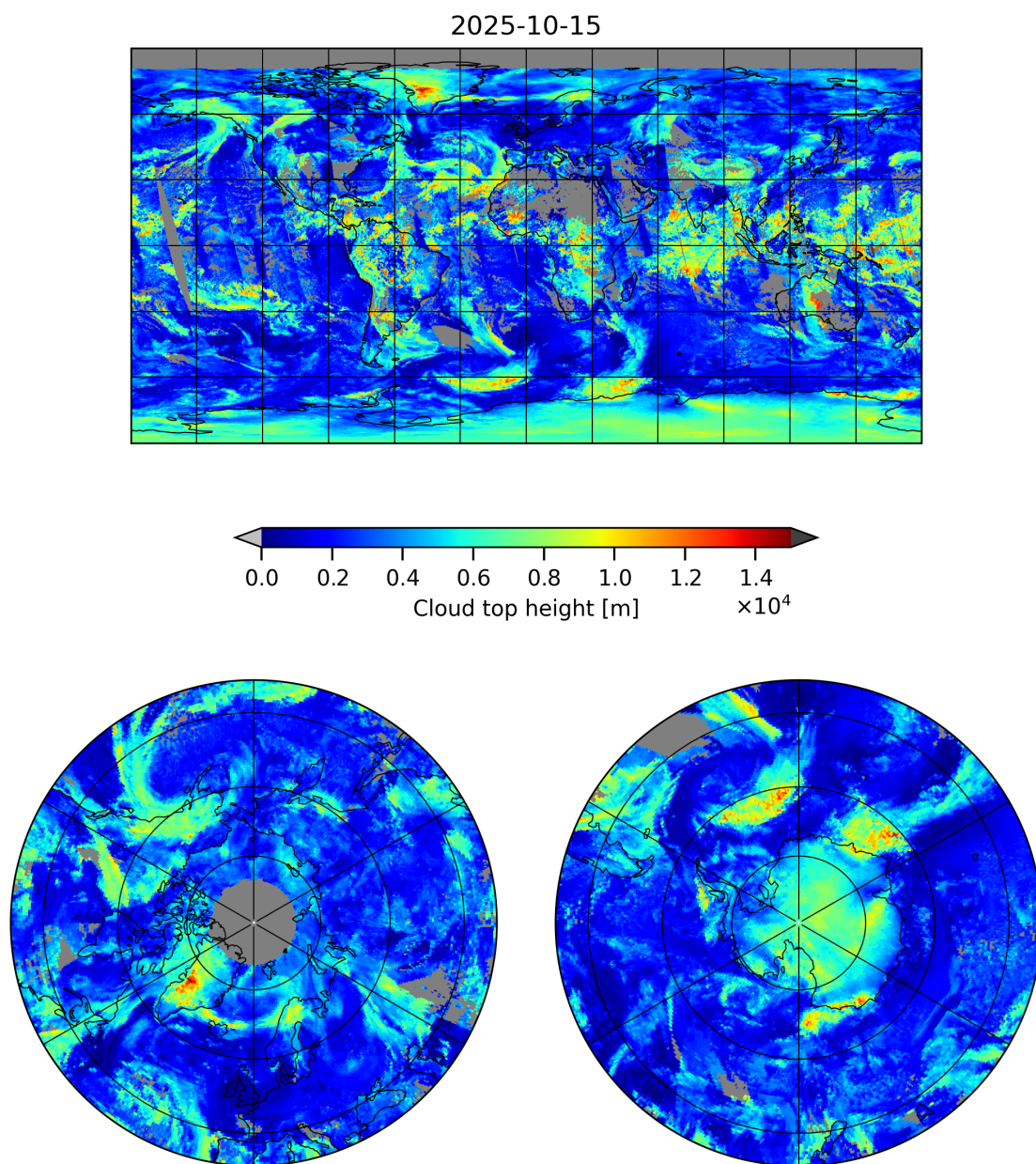


Figure 5: Map of “Cloud top height” for 2025-10-15 to 2025-10-15

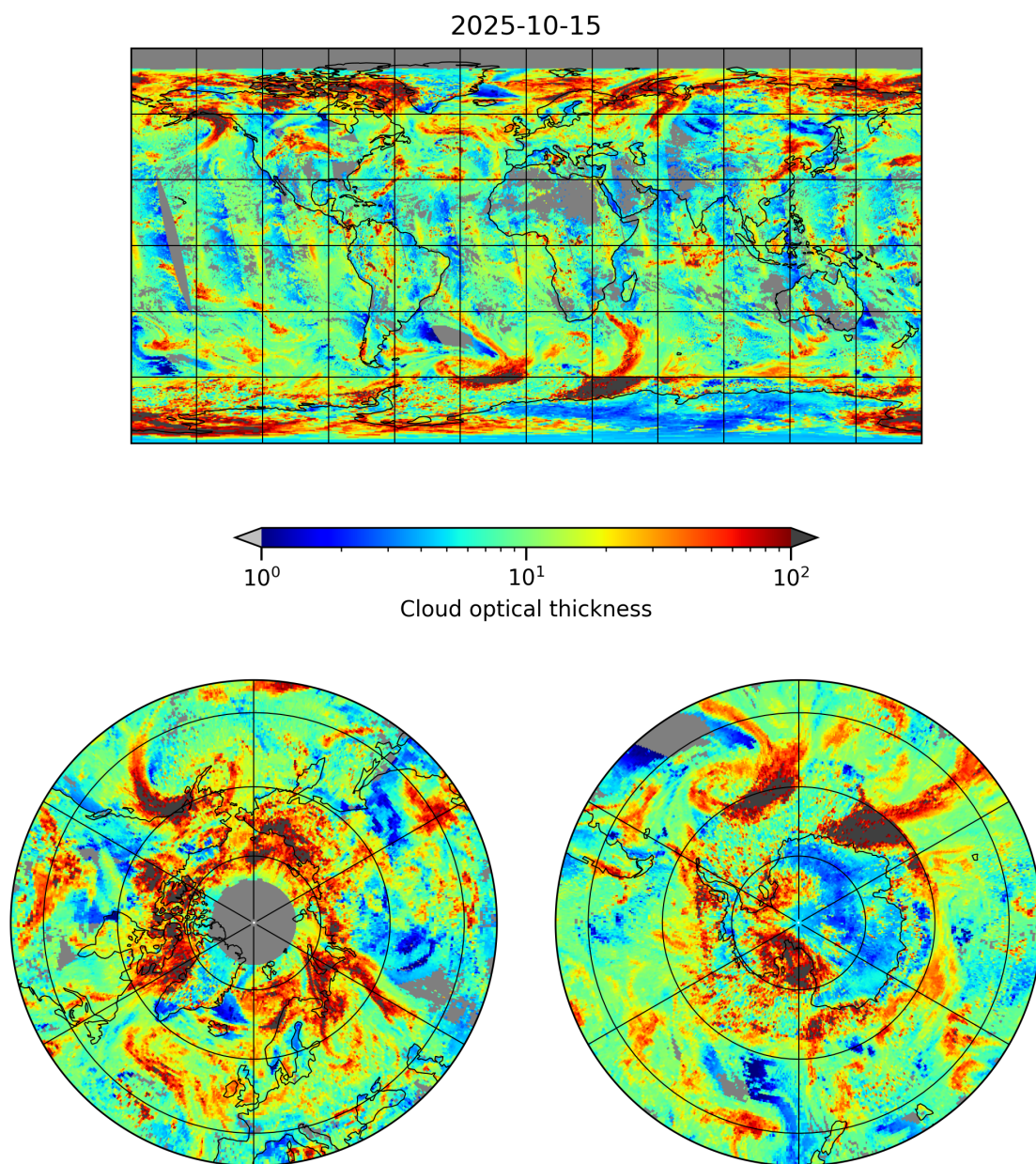


Figure 6: Map of “Cloud optical thickness” for 2025-10-15 to 2025-10-15

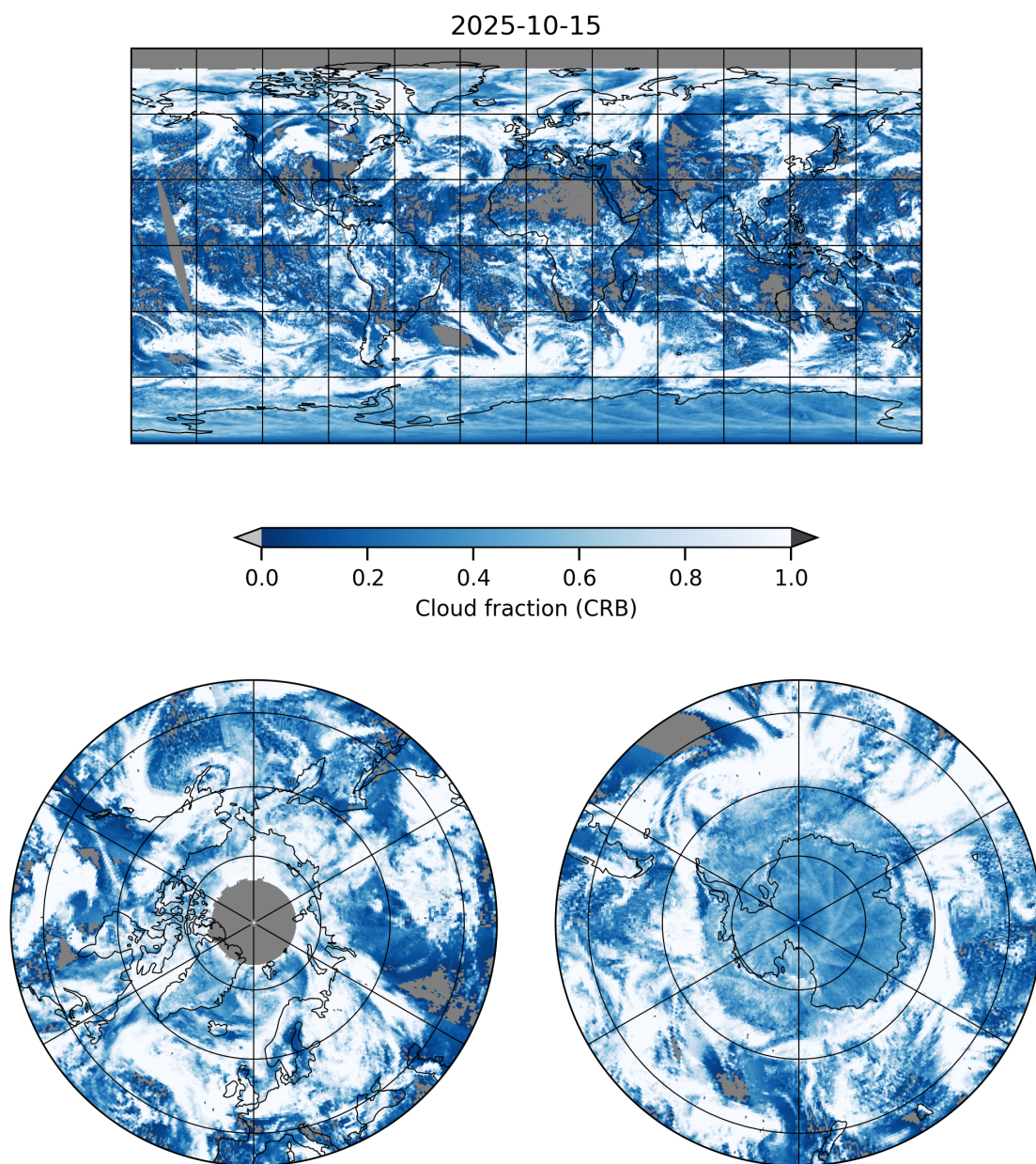


Figure 7: Map of “Cloud fraction (CRB)” for 2025-10-15 to 2025-10-15

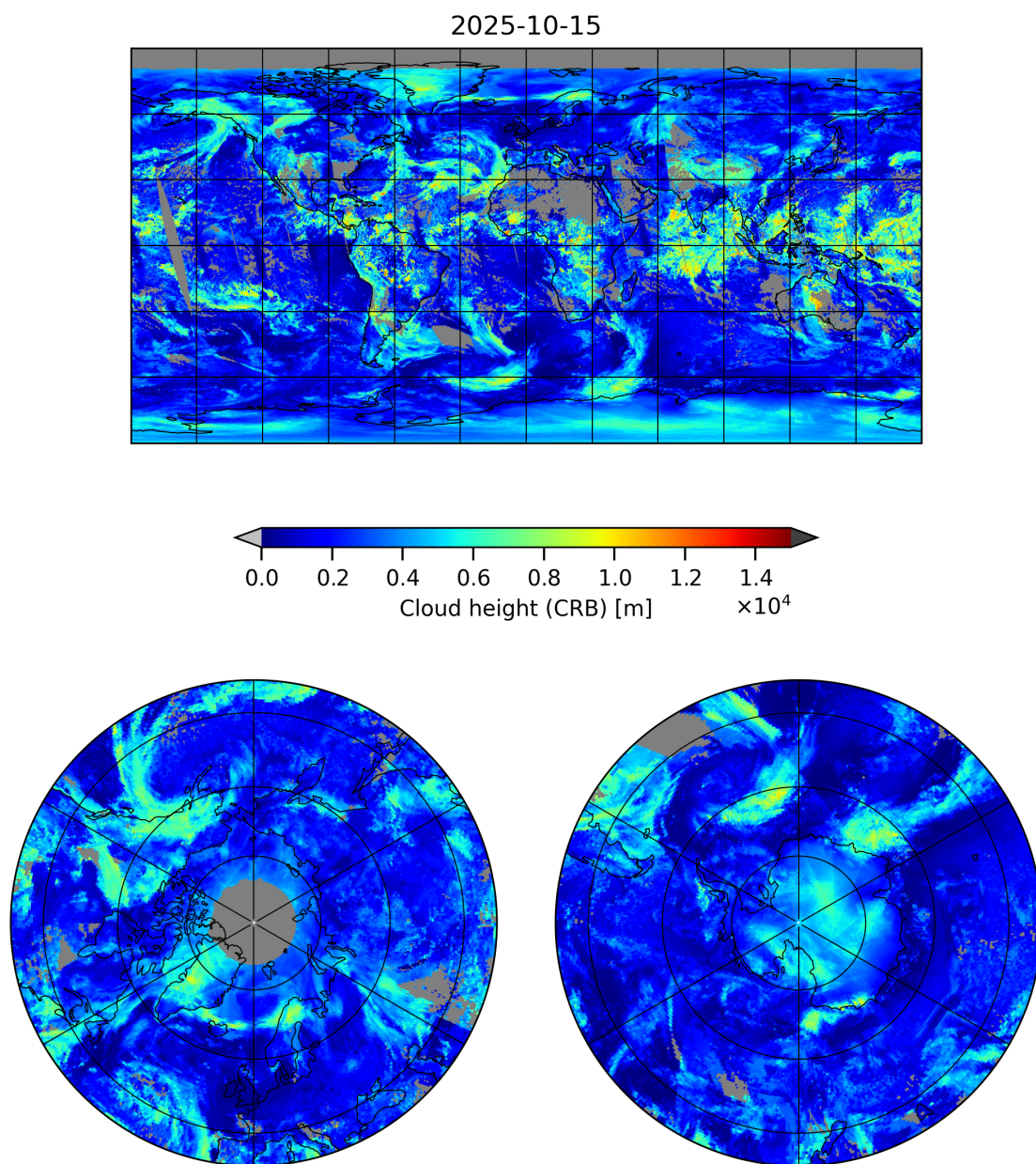


Figure 8: Map of “Cloud height (CRB)” for 2025-10-15 to 2025-10-15

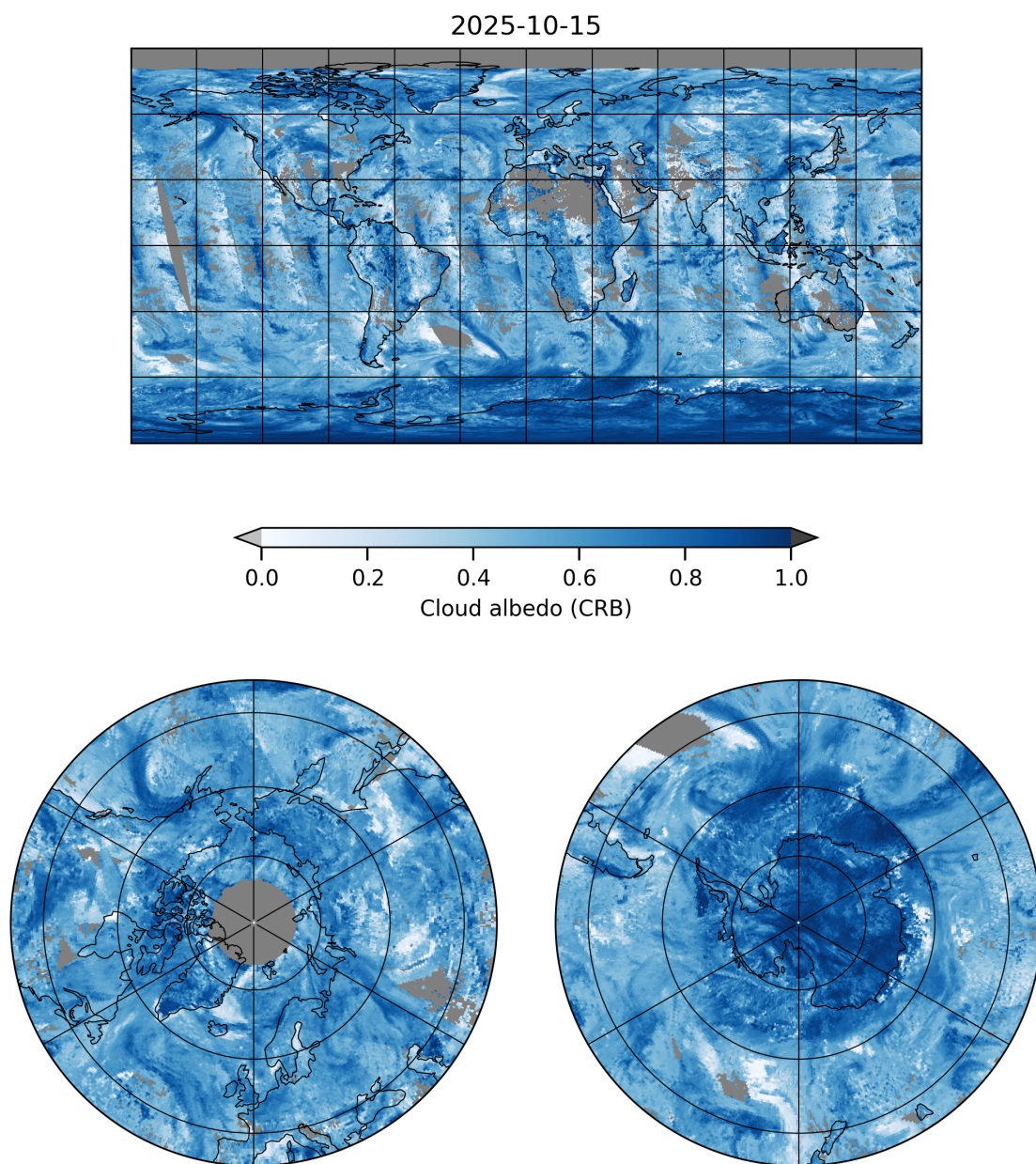


Figure 9: Map of “Cloud albedo (CRB)” for 2025-10-15 to 2025-10-15

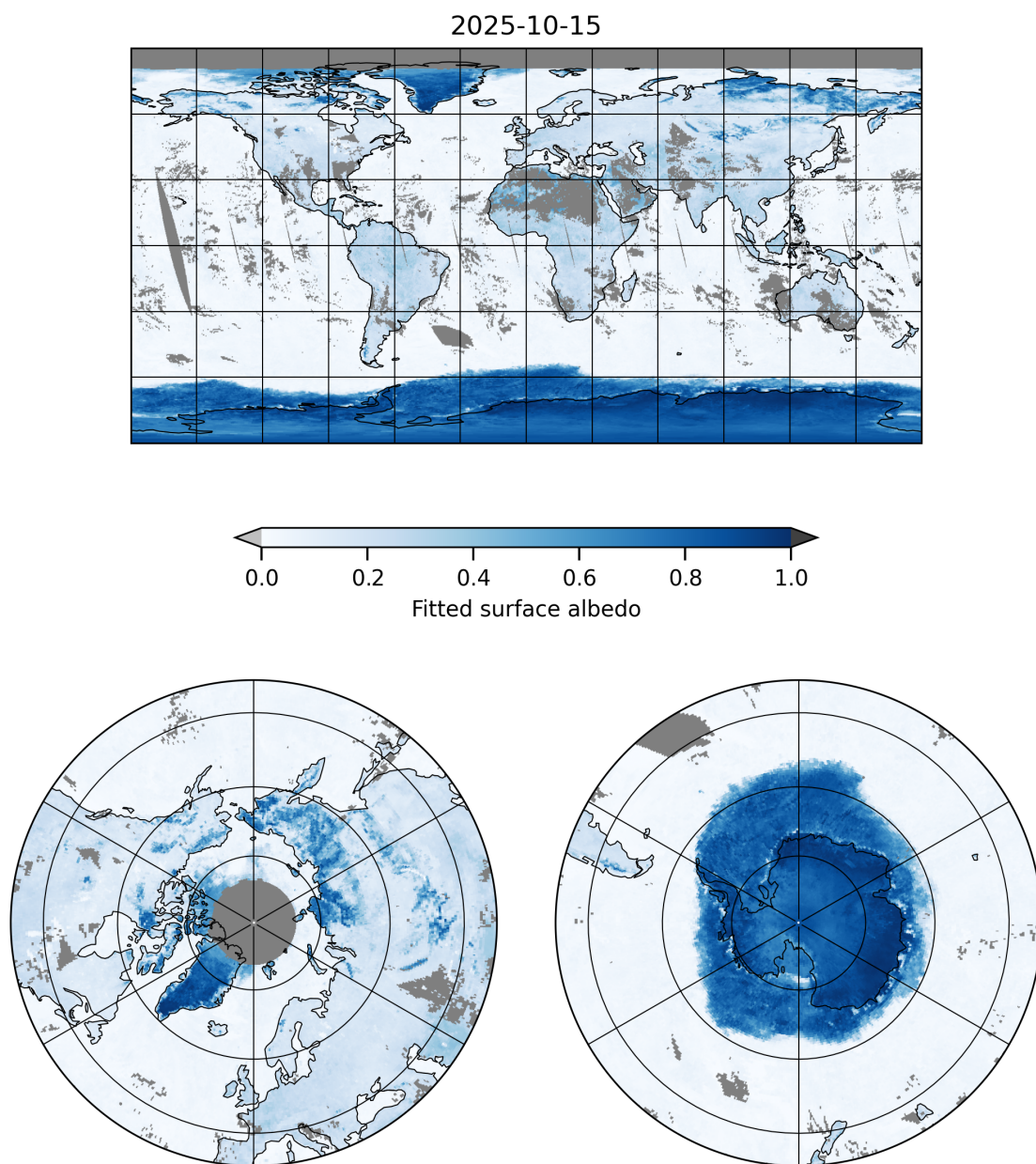


Figure 10: Map of “Fitted surface albedo” for 2025-10-15 to 2025-10-15

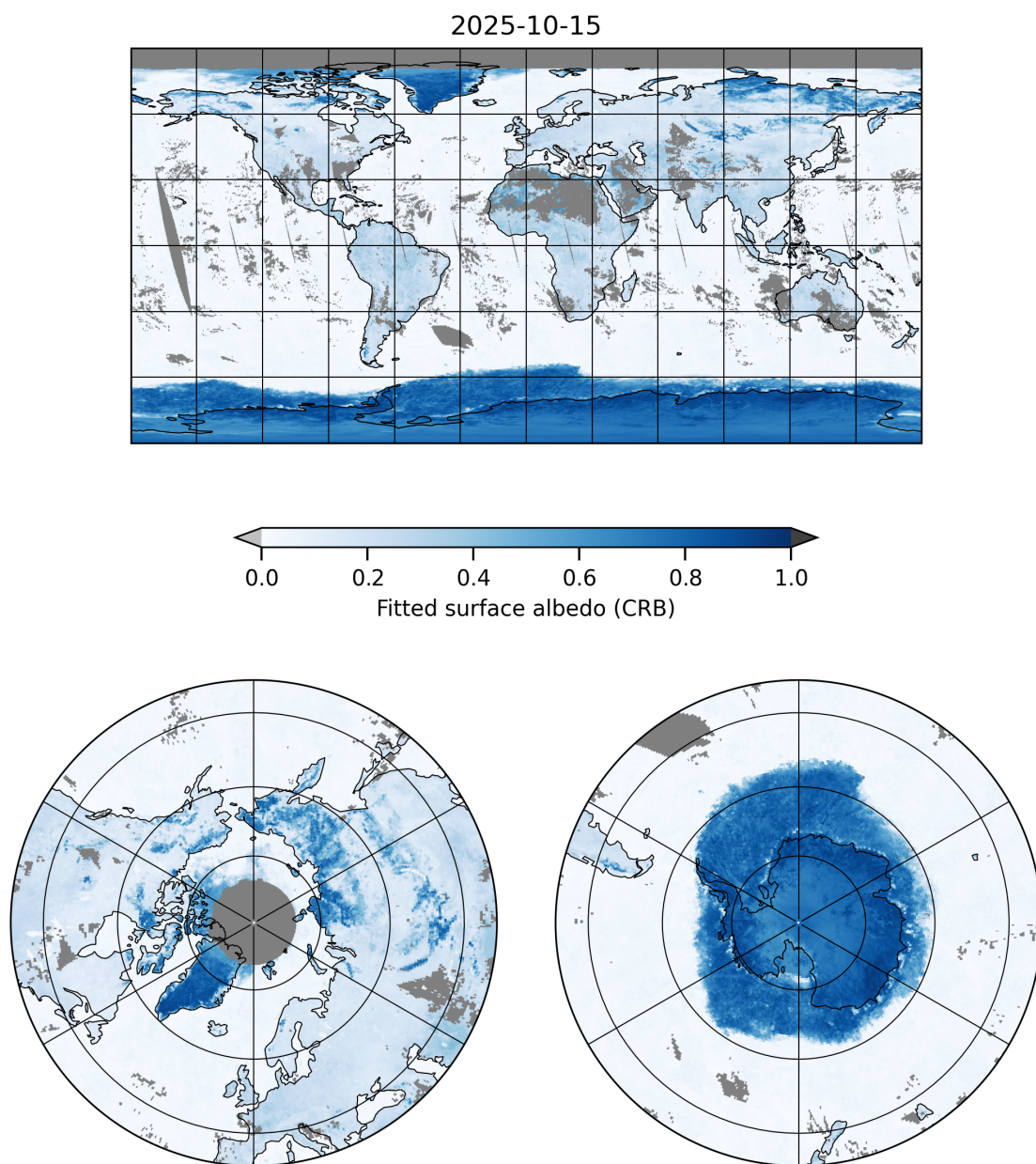


Figure 11: Map of “Fitted surface albedo (CRB)” for 2025-10-15 to 2025-10-15

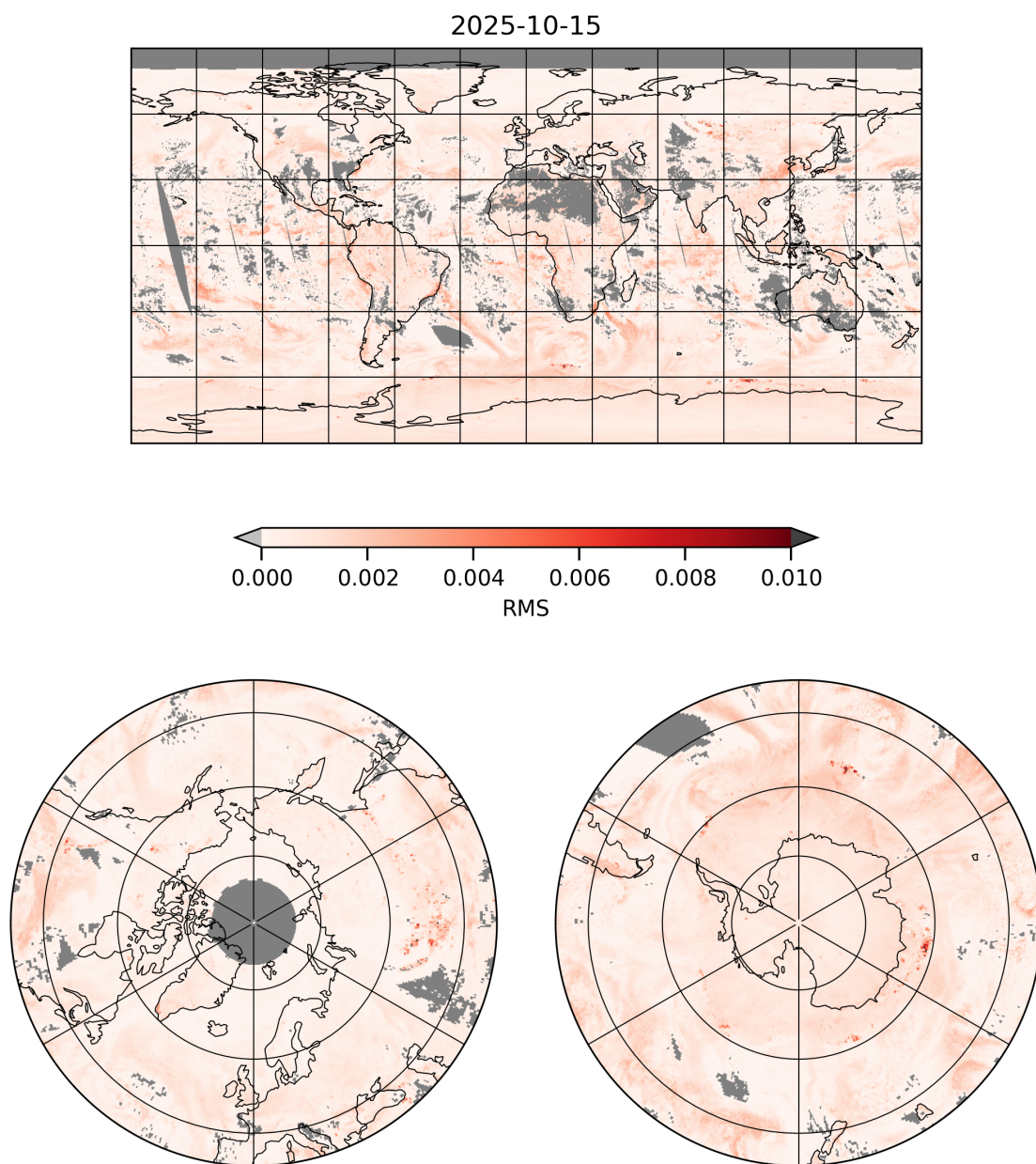


Figure 12: Map of “RMS” for 2025-10-15 to 2025-10-15

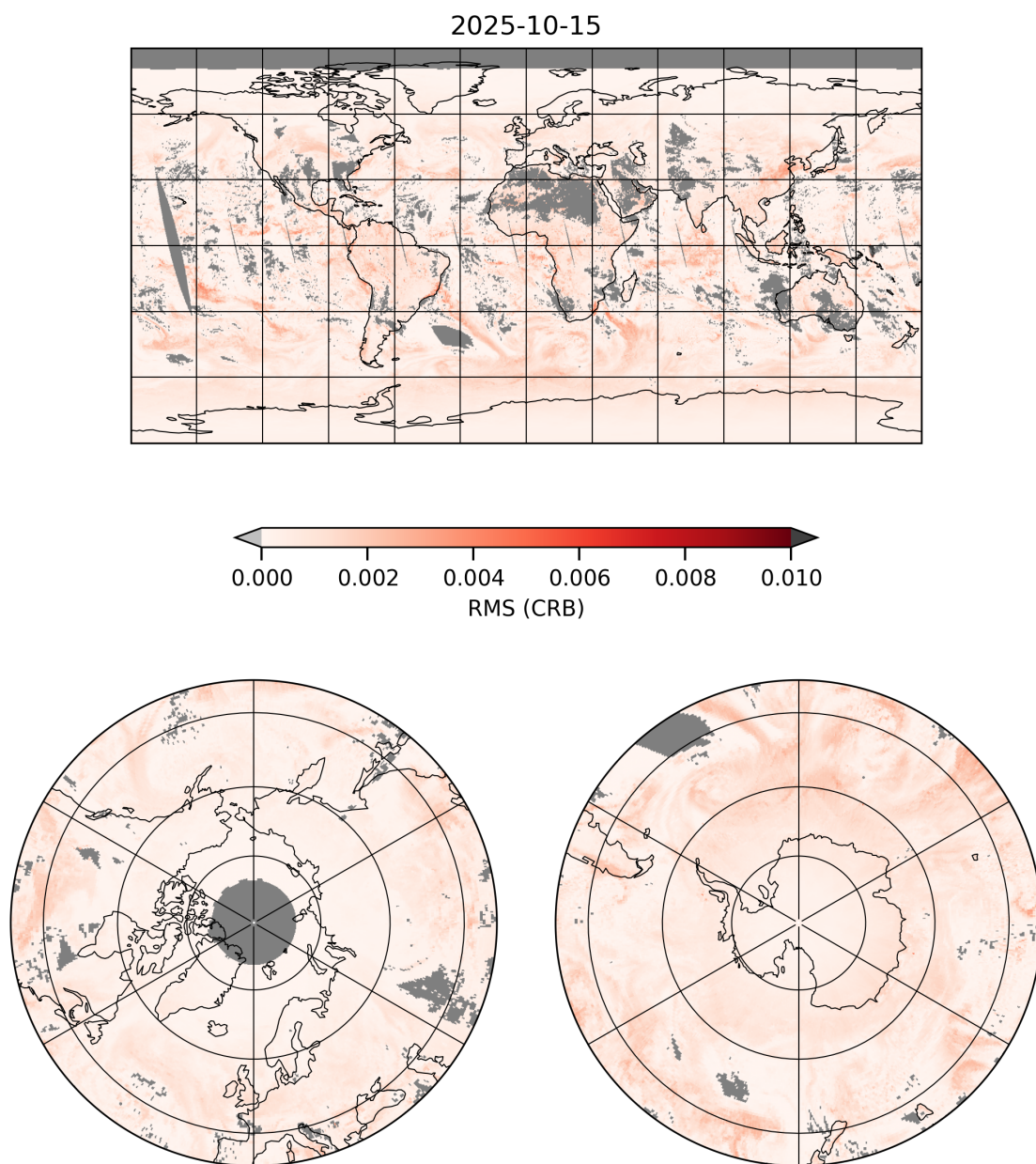


Figure 13: Map of “RMS (CRB)” for 2025-10-15 to 2025-10-15

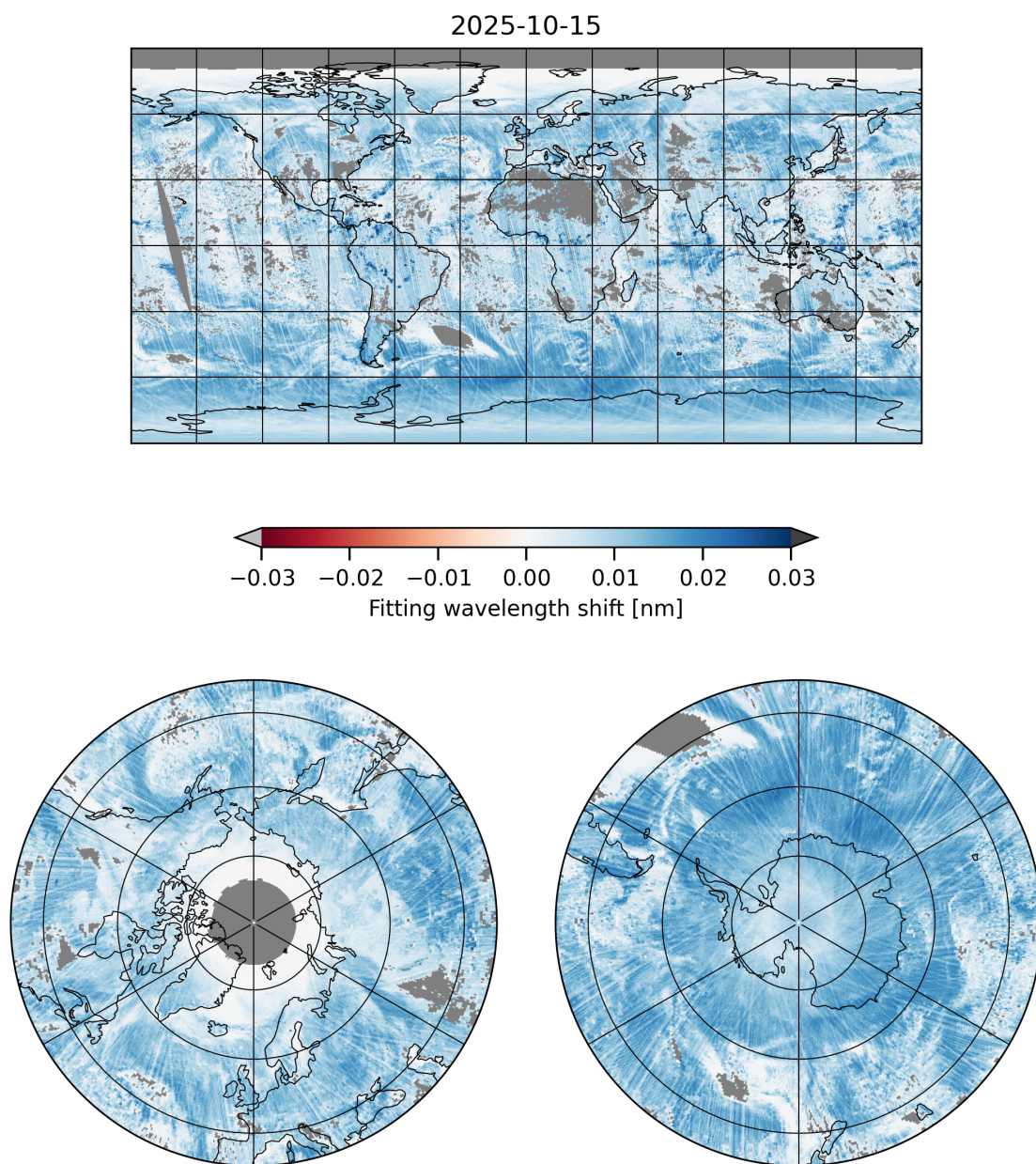


Figure 14: Map of “Fitting wavelength shift” for 2025-10-15 to 2025-10-15

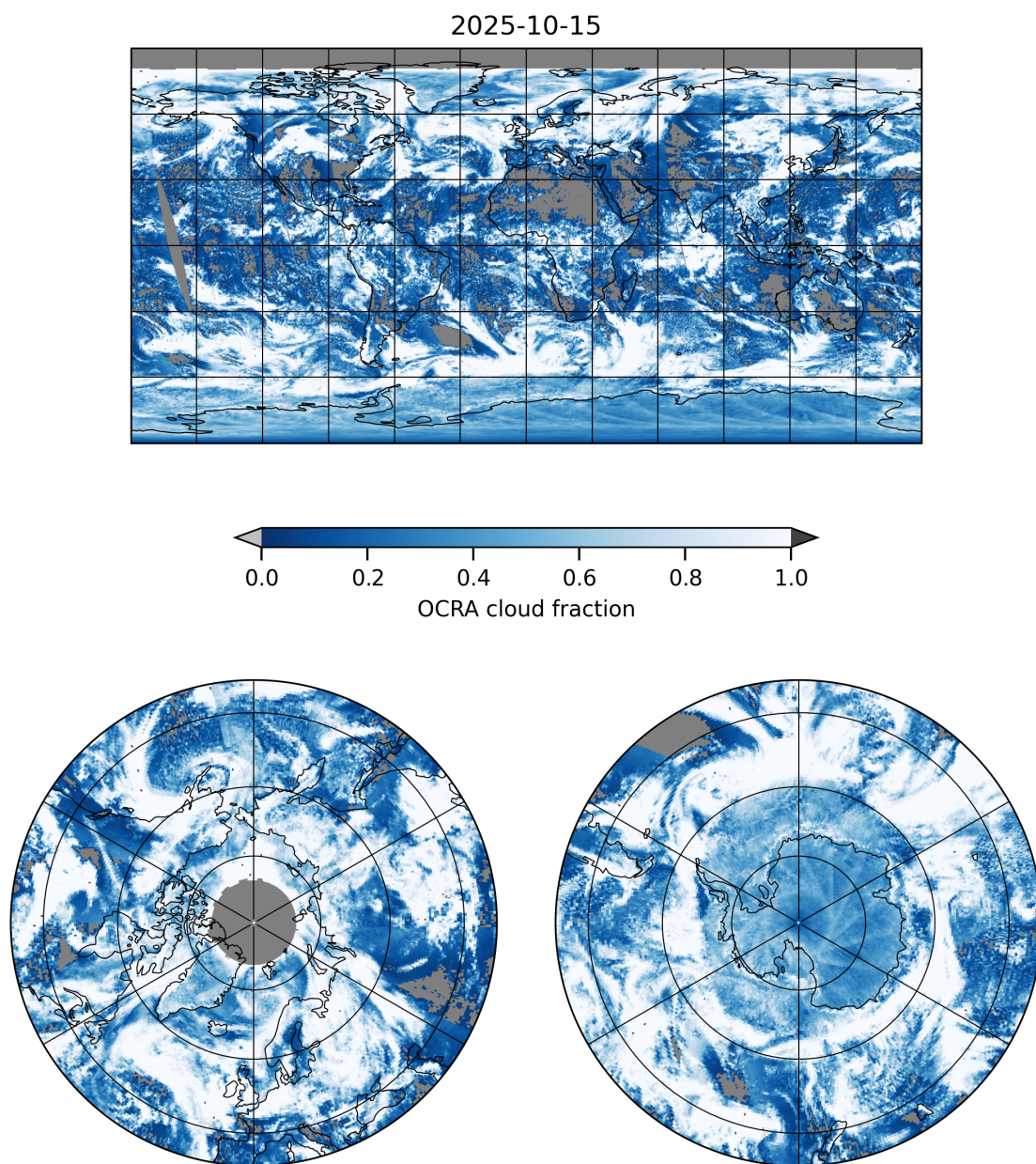


Figure 15: Map of “OCRA cloud fraction” for 2025-10-15 to 2025-10-15

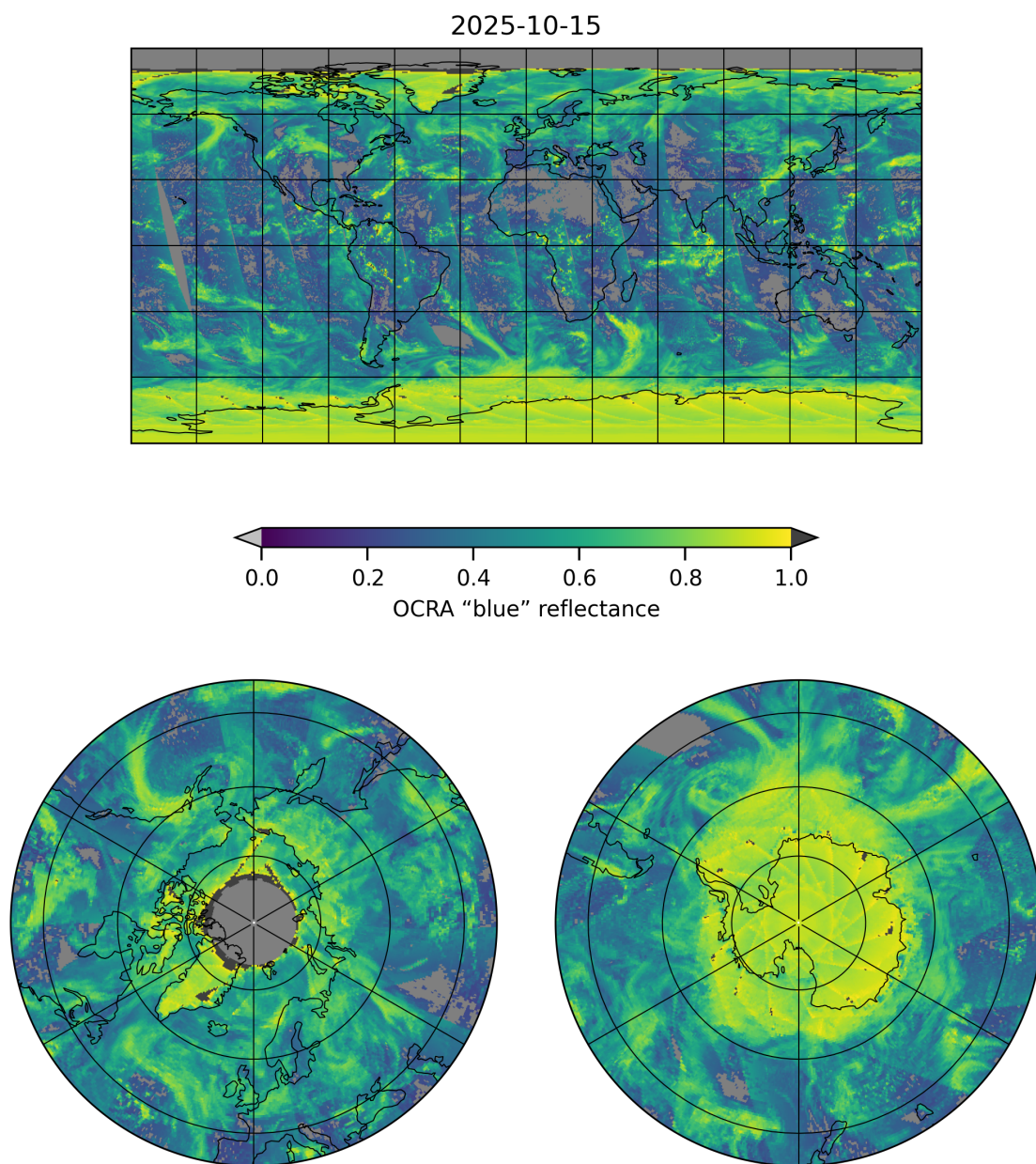


Figure 16: Map of "OCRA "blue" reflectance" for 2025-10-15 to 2025-10-15

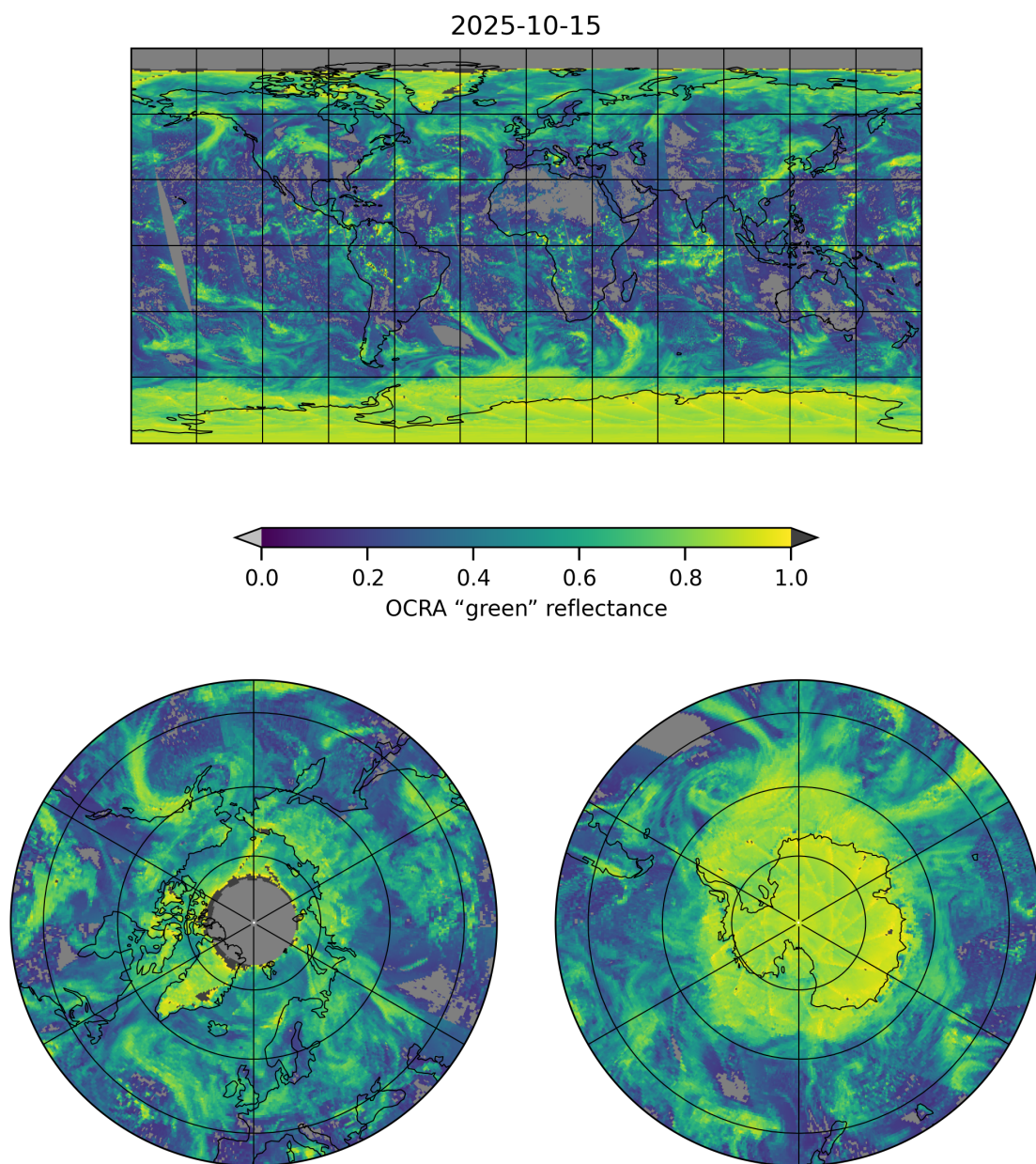


Figure 17: Map of "OCRA "green" reflectance" for 2025-10-15 to 2025-10-15

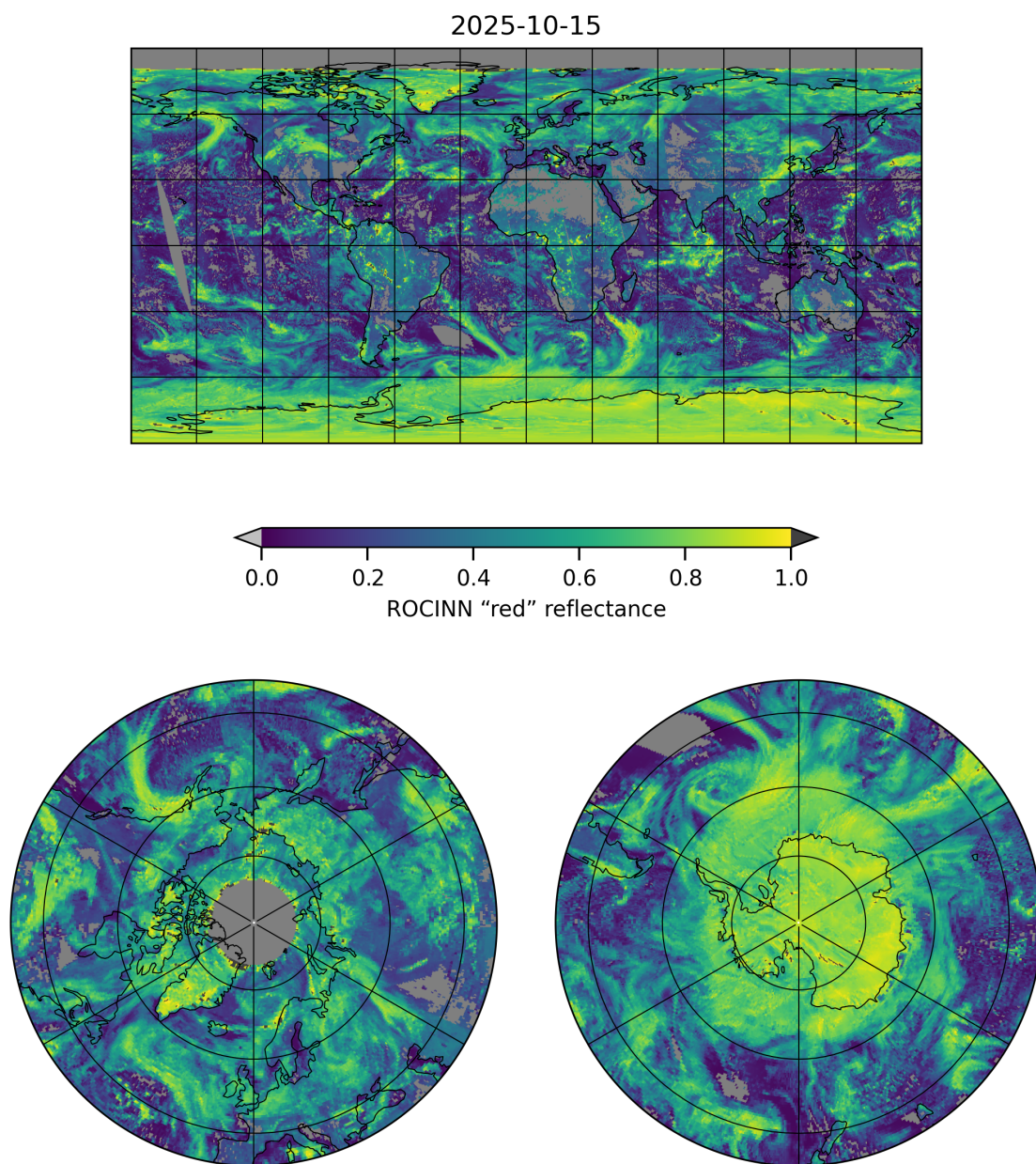


Figure 18: Map of "ROCINN "red" reflectance" for 2025-10-15 to 2025-10-15

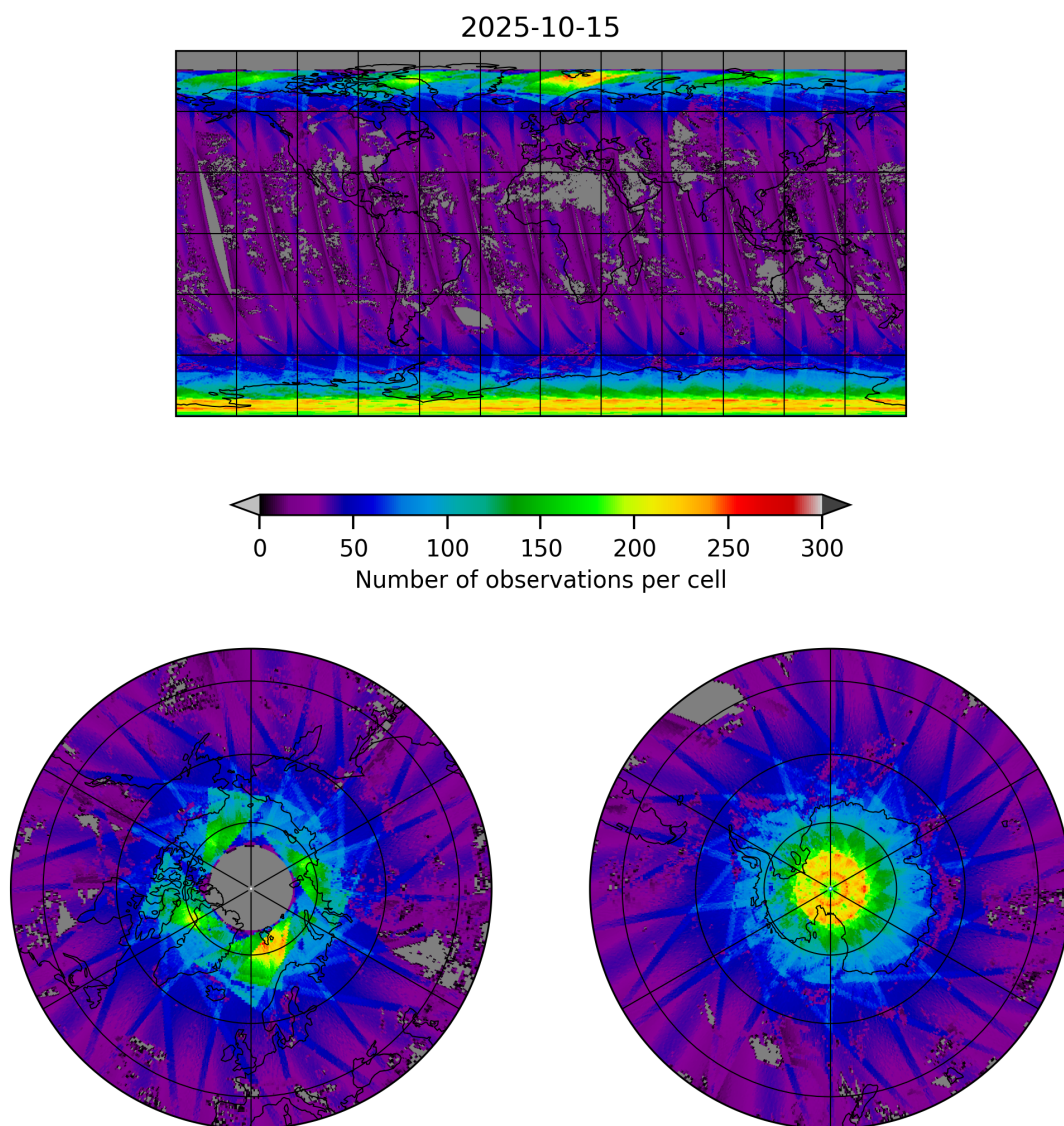


Figure 19: Map of the number of observations for 2025-10-15 to 2025-10-15

7 Zonal average

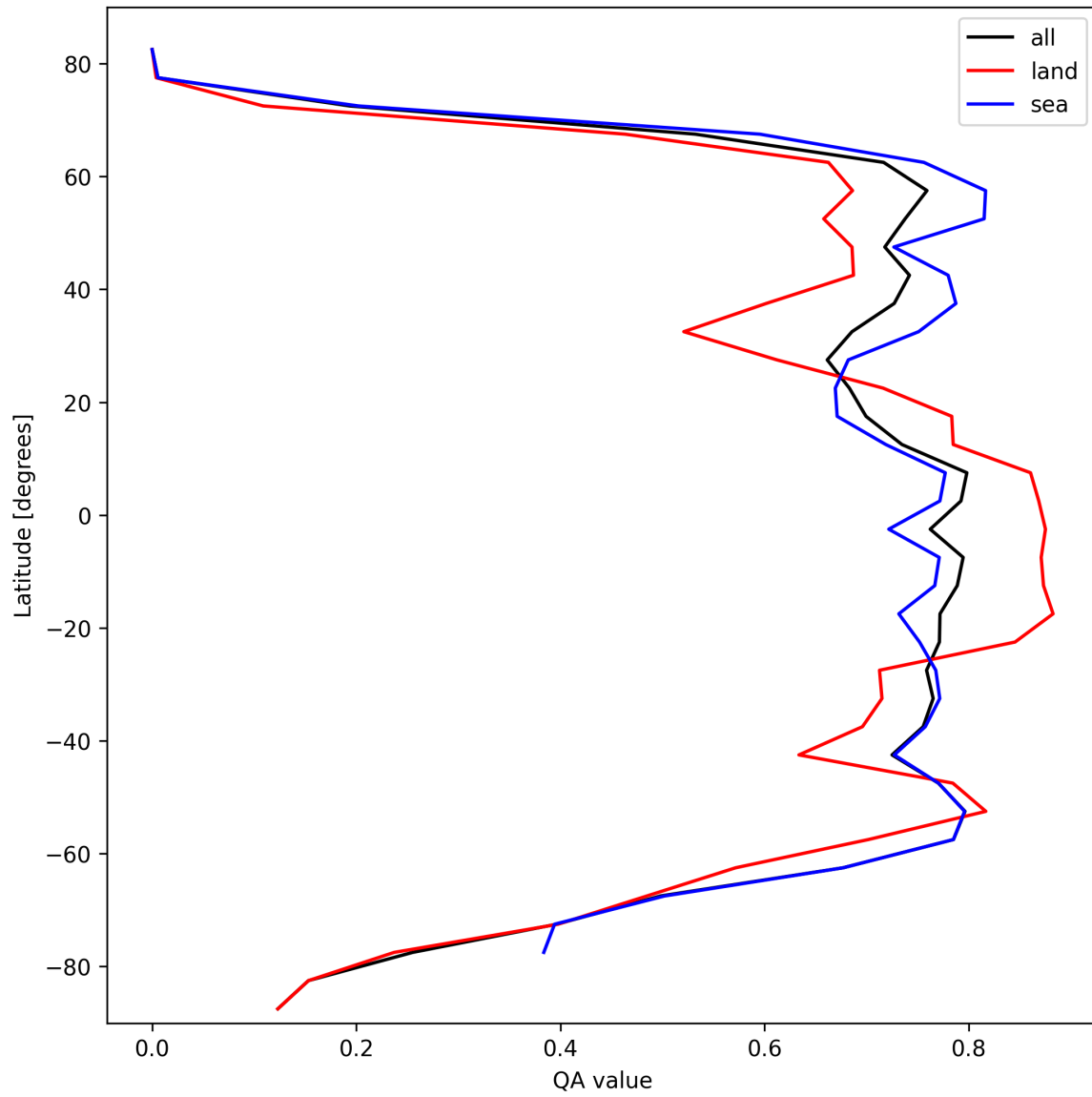


Figure 20: Zonal average of “QA value” for 2025-10-15 to 2025-10-15.

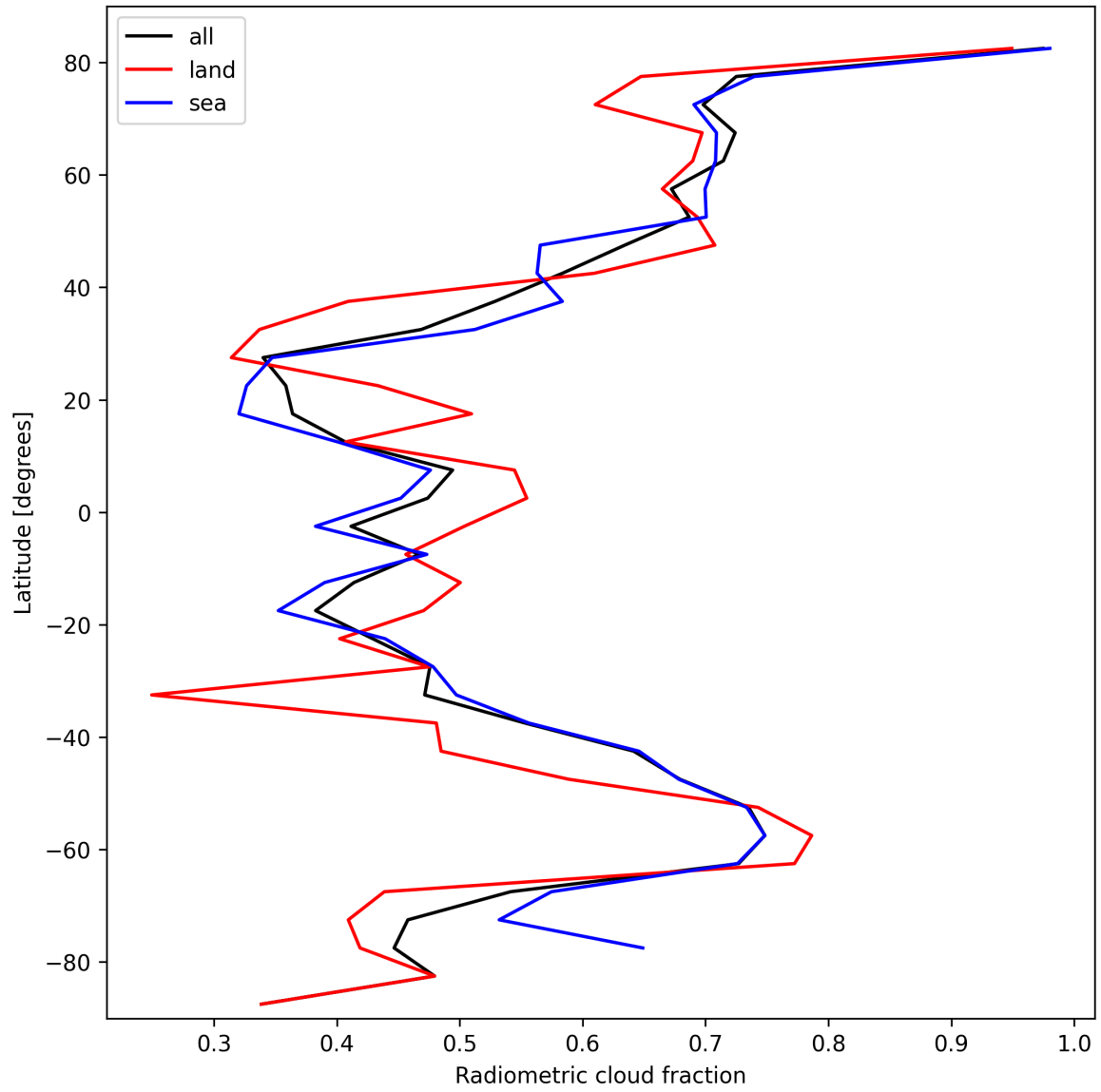


Figure 21: Zonal average of “Radiometric cloud fraction” for 2025-10-15 to 2025-10-15.

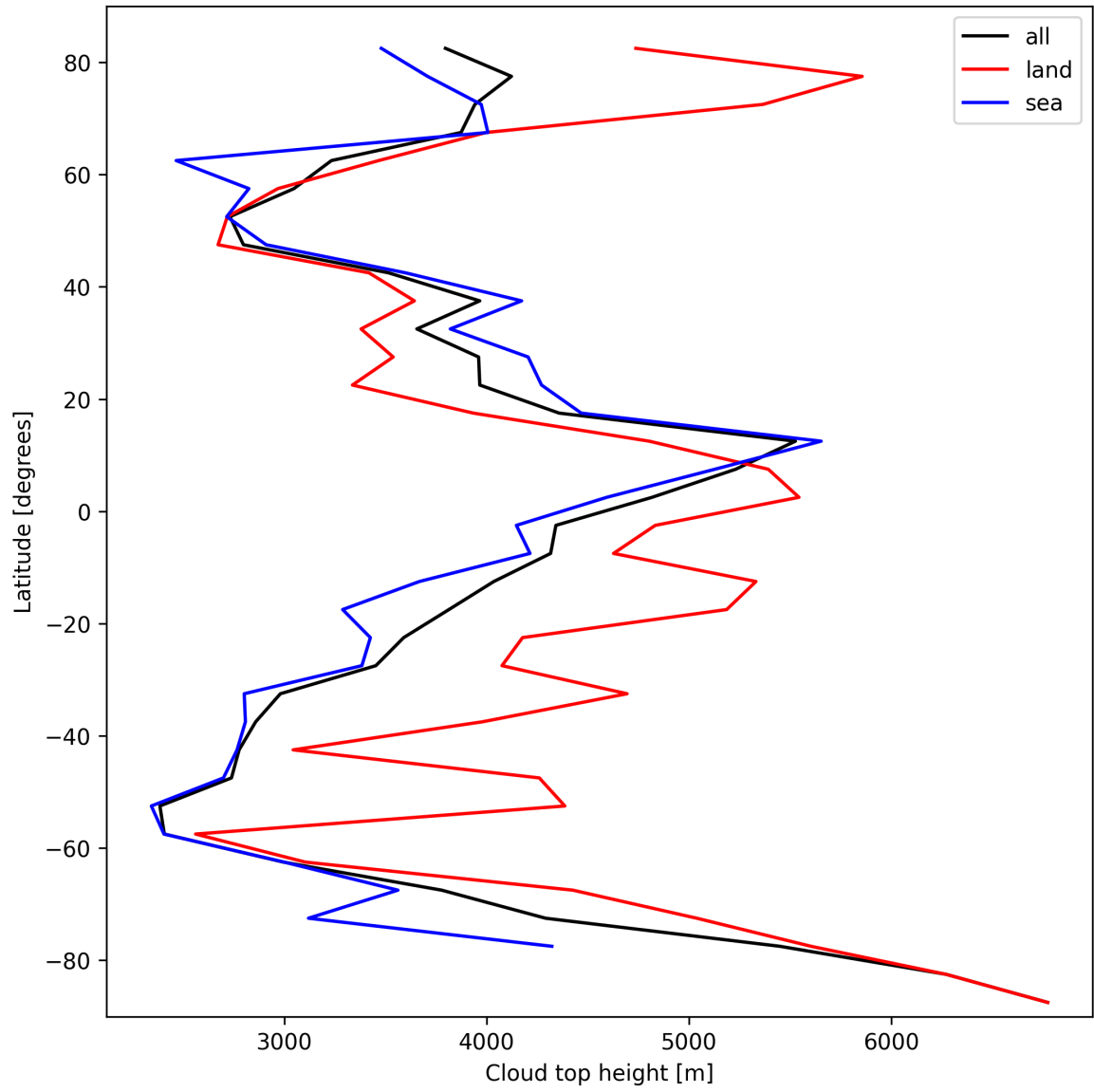


Figure 22: Zonal average of “Cloud top height” for 2025-10-15 to 2025-10-15.

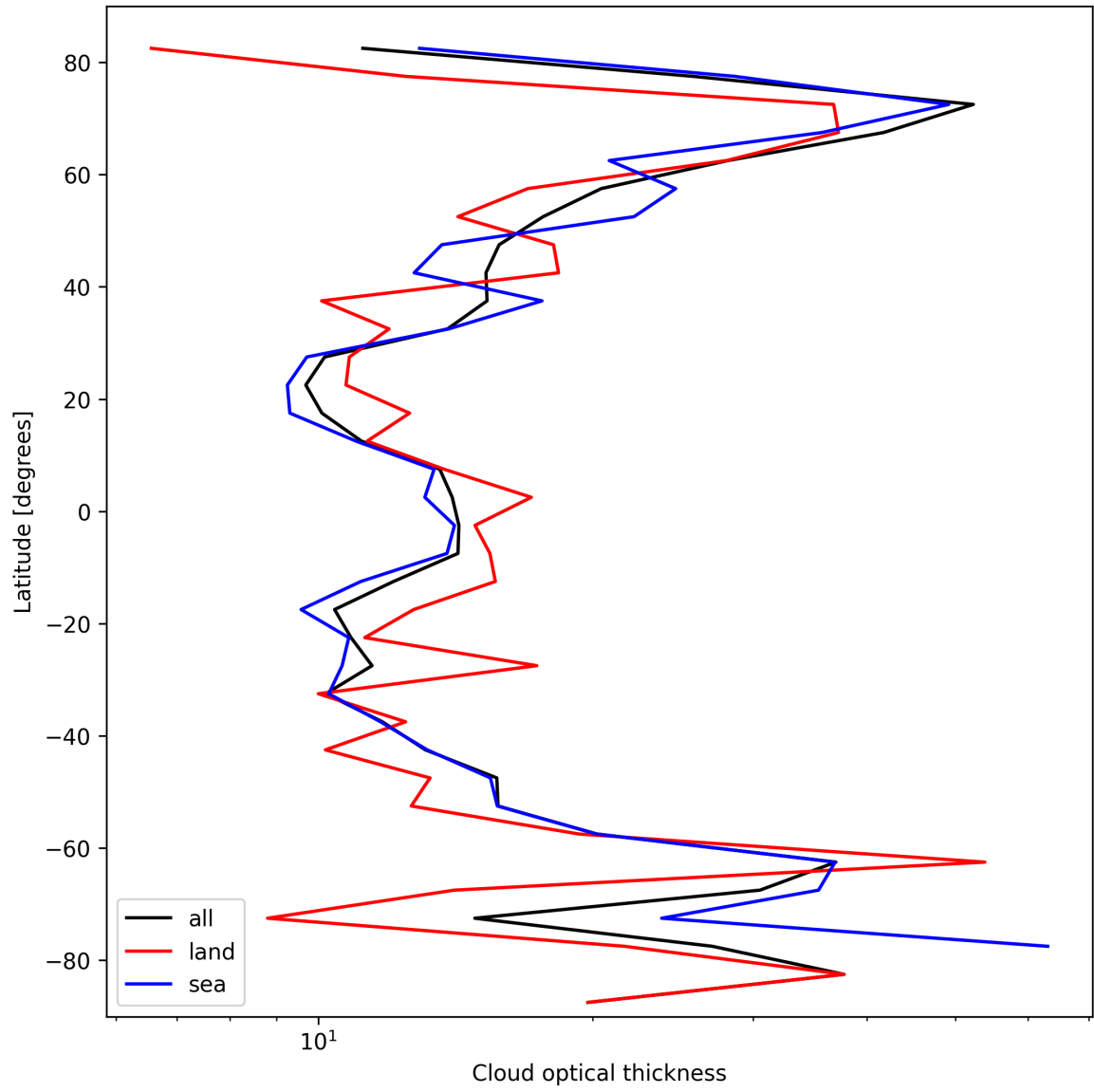


Figure 23: Zonal average of “Cloud optical thickness” for 2025-10-15 to 2025-10-15.

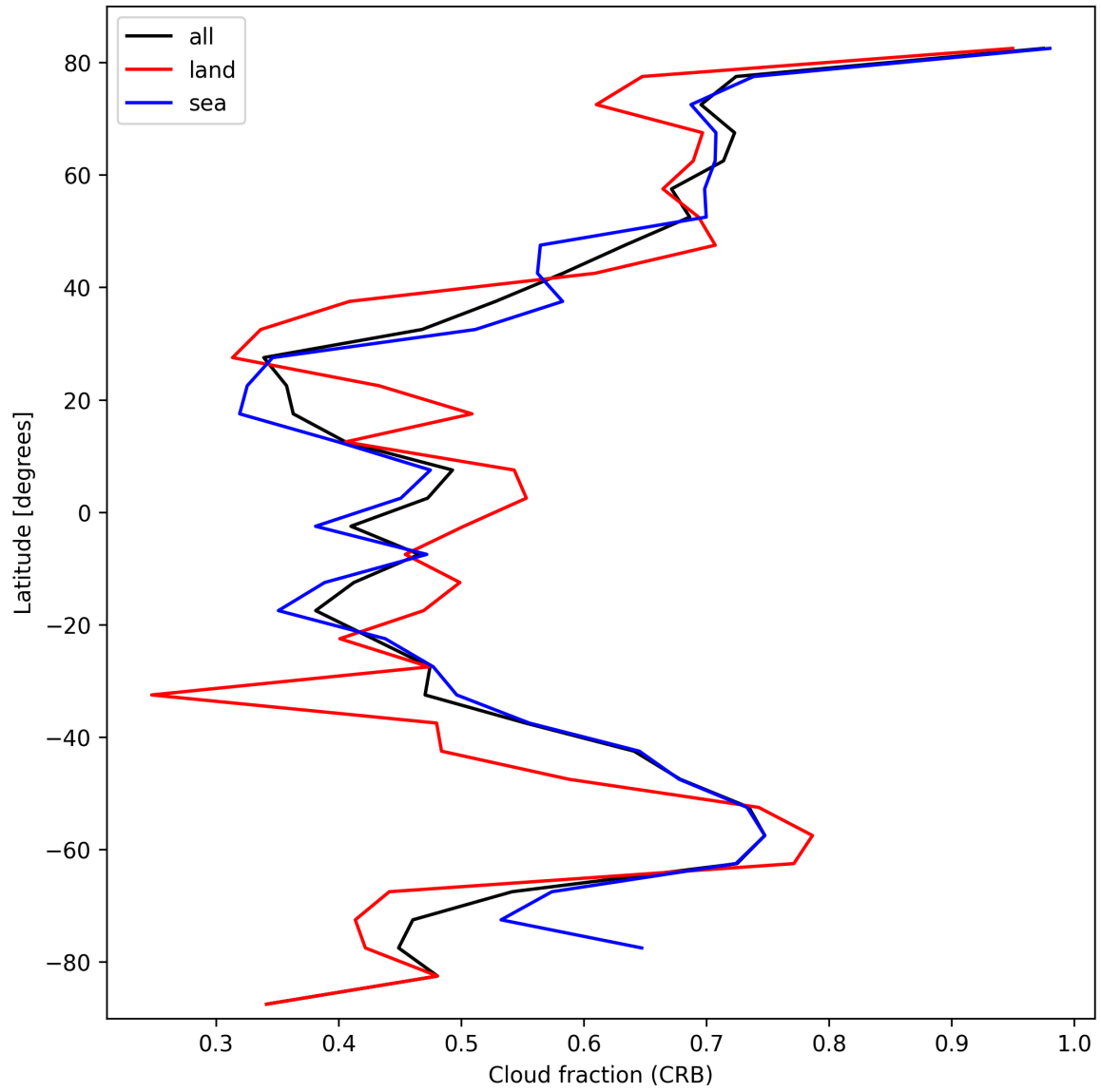


Figure 24: Zonal average of “Cloud fraction (CRB)” for 2025-10-15 to 2025-10-15.

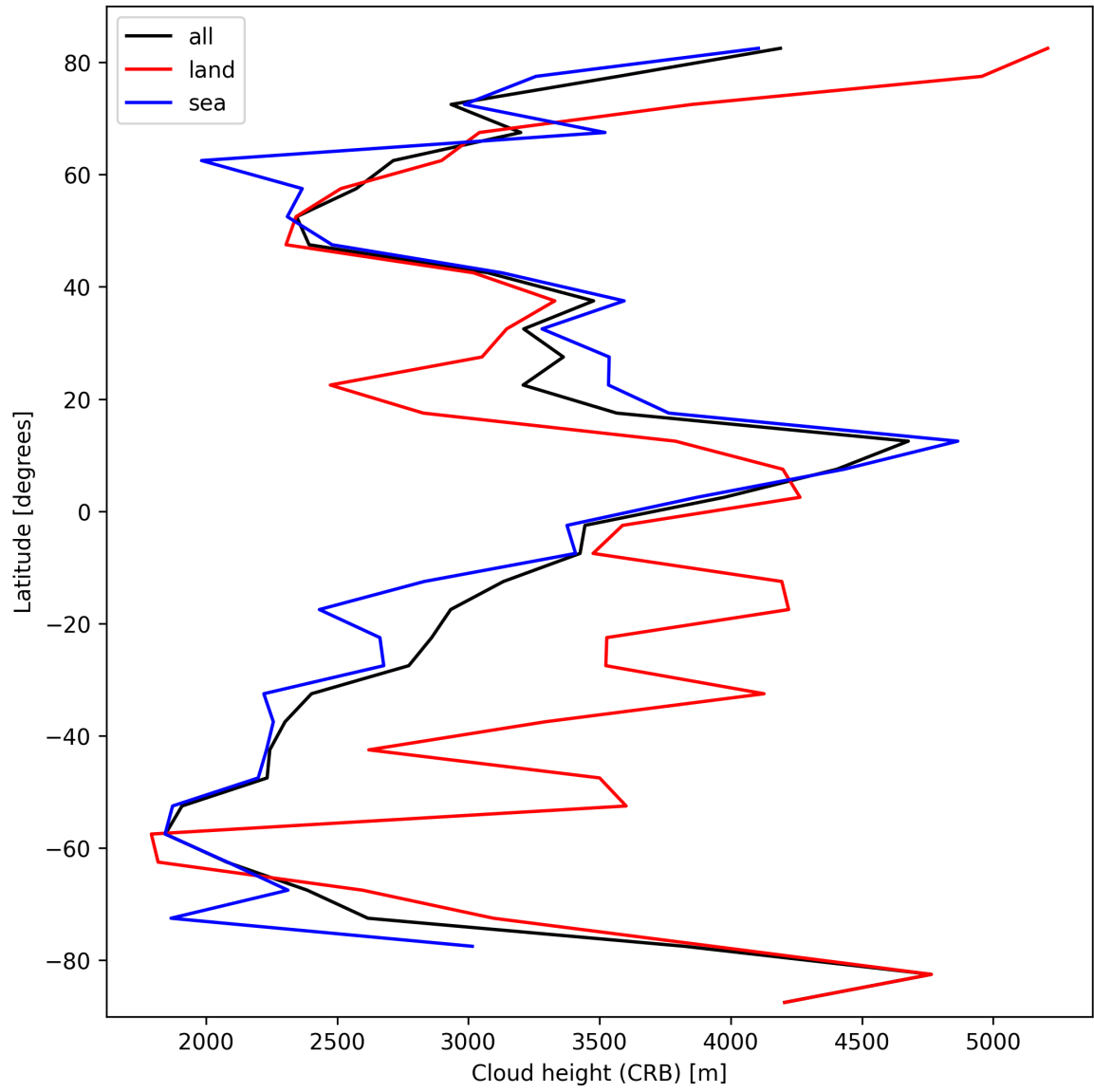


Figure 25: Zonal average of “Cloud height (CRB)” for 2025-10-15 to 2025-10-15.

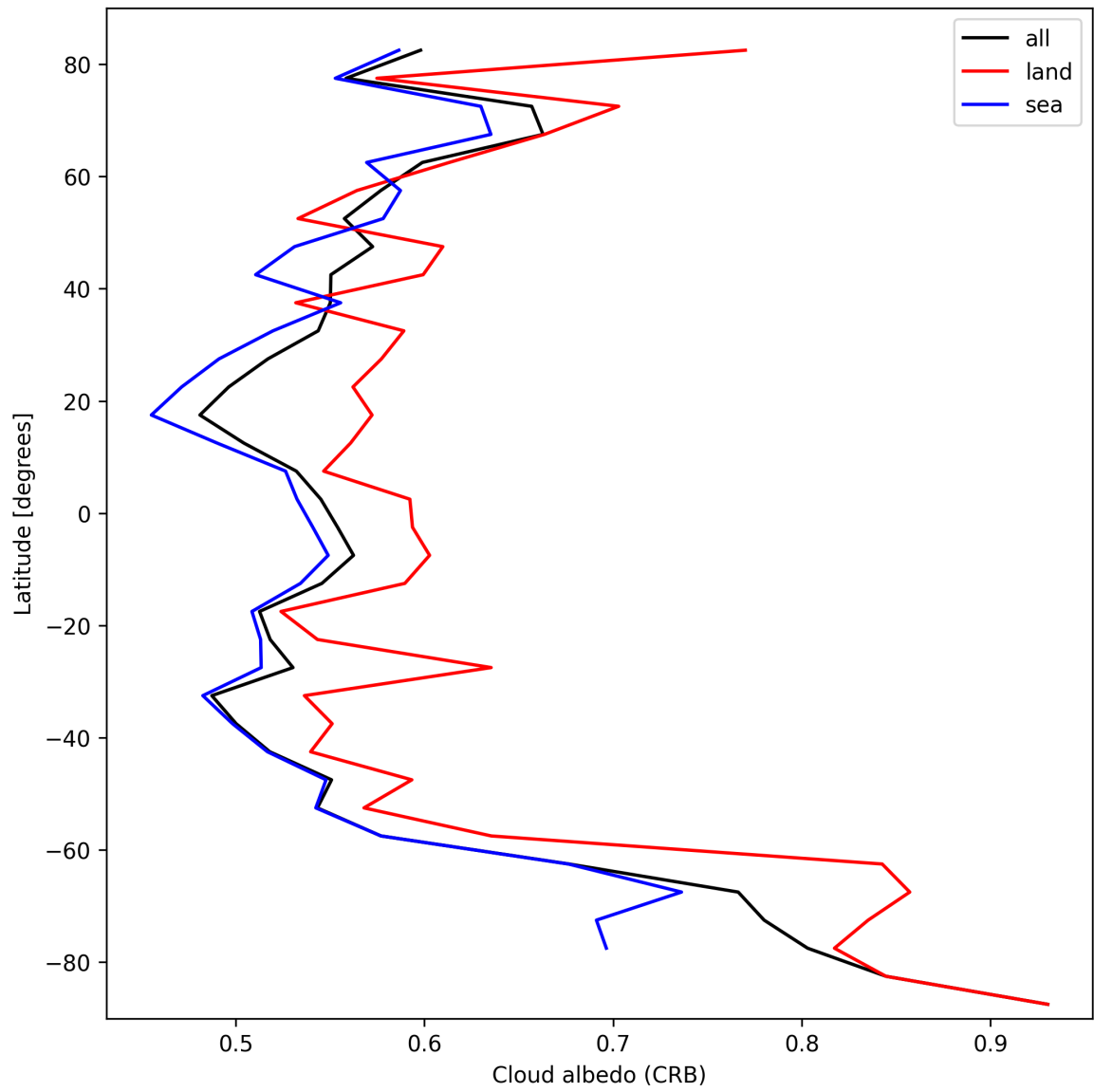


Figure 26: Zonal average of “Cloud albedo (CRB)” for 2025-10-15 to 2025-10-15.

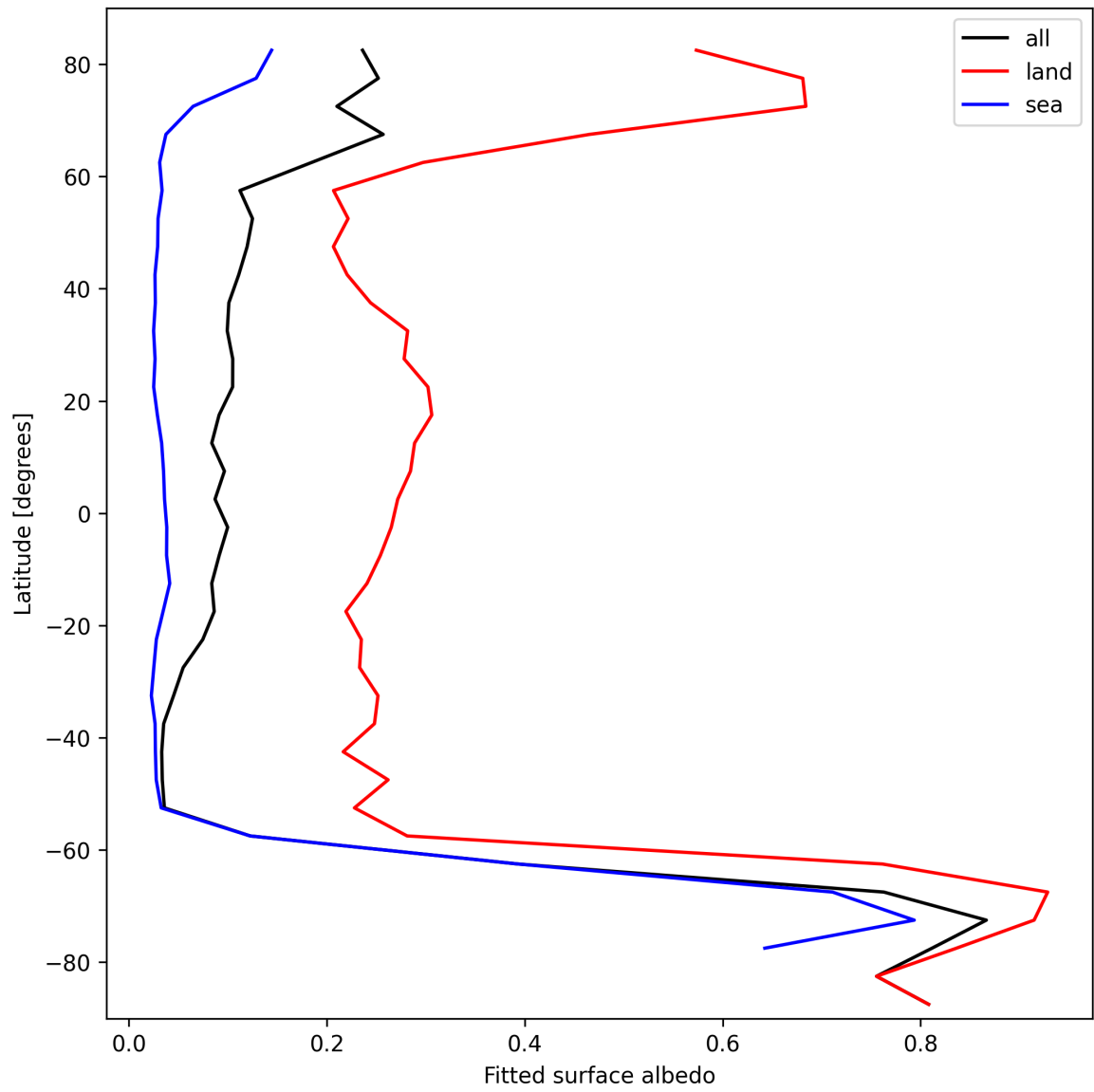


Figure 27: Zonal average of “Fitted surface albedo” for 2025-10-15 to 2025-10-15.

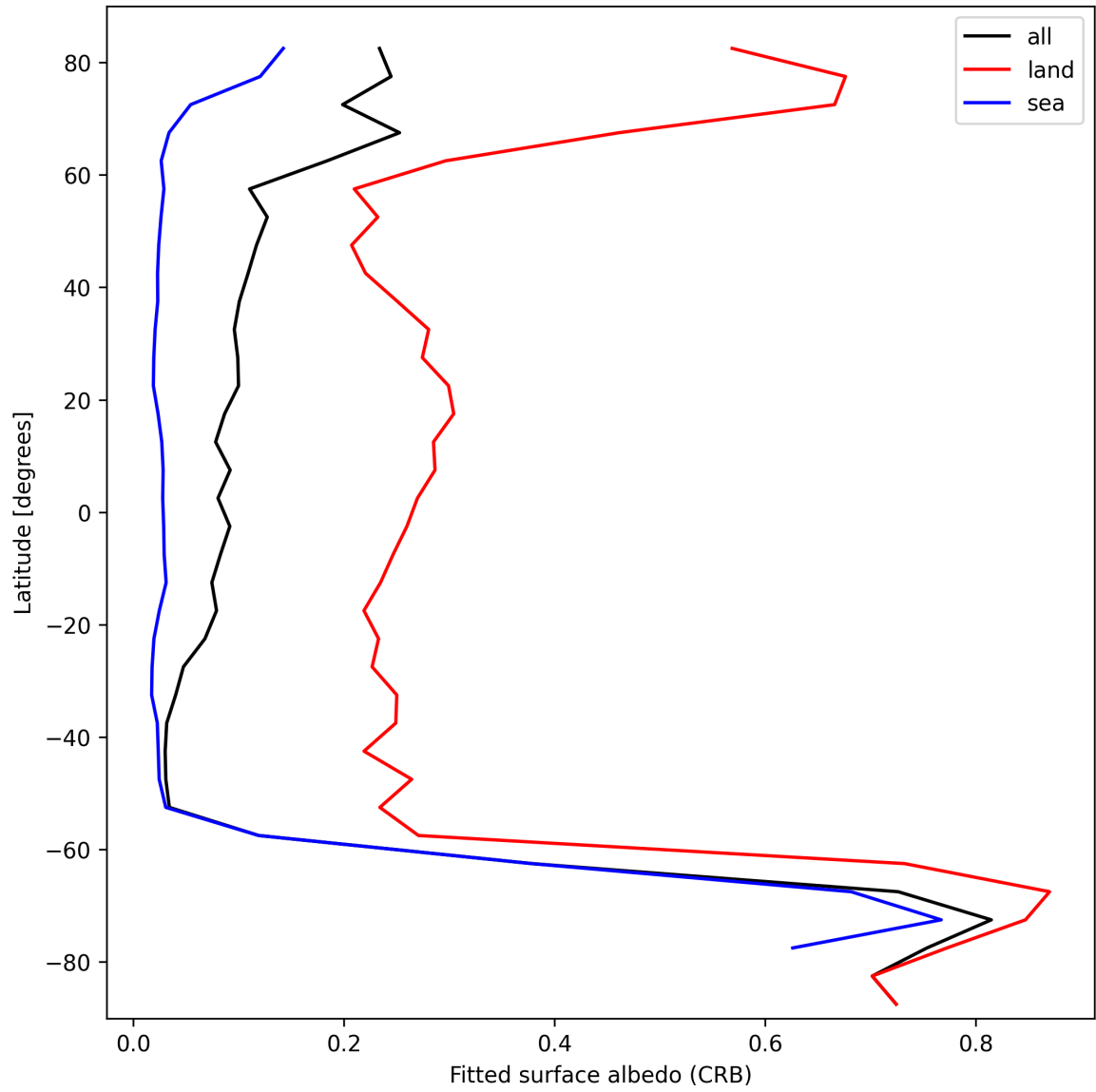


Figure 28: Zonal average of “Fitted surface albedo (CRB)” for 2025-10-15 to 2025-10-15.

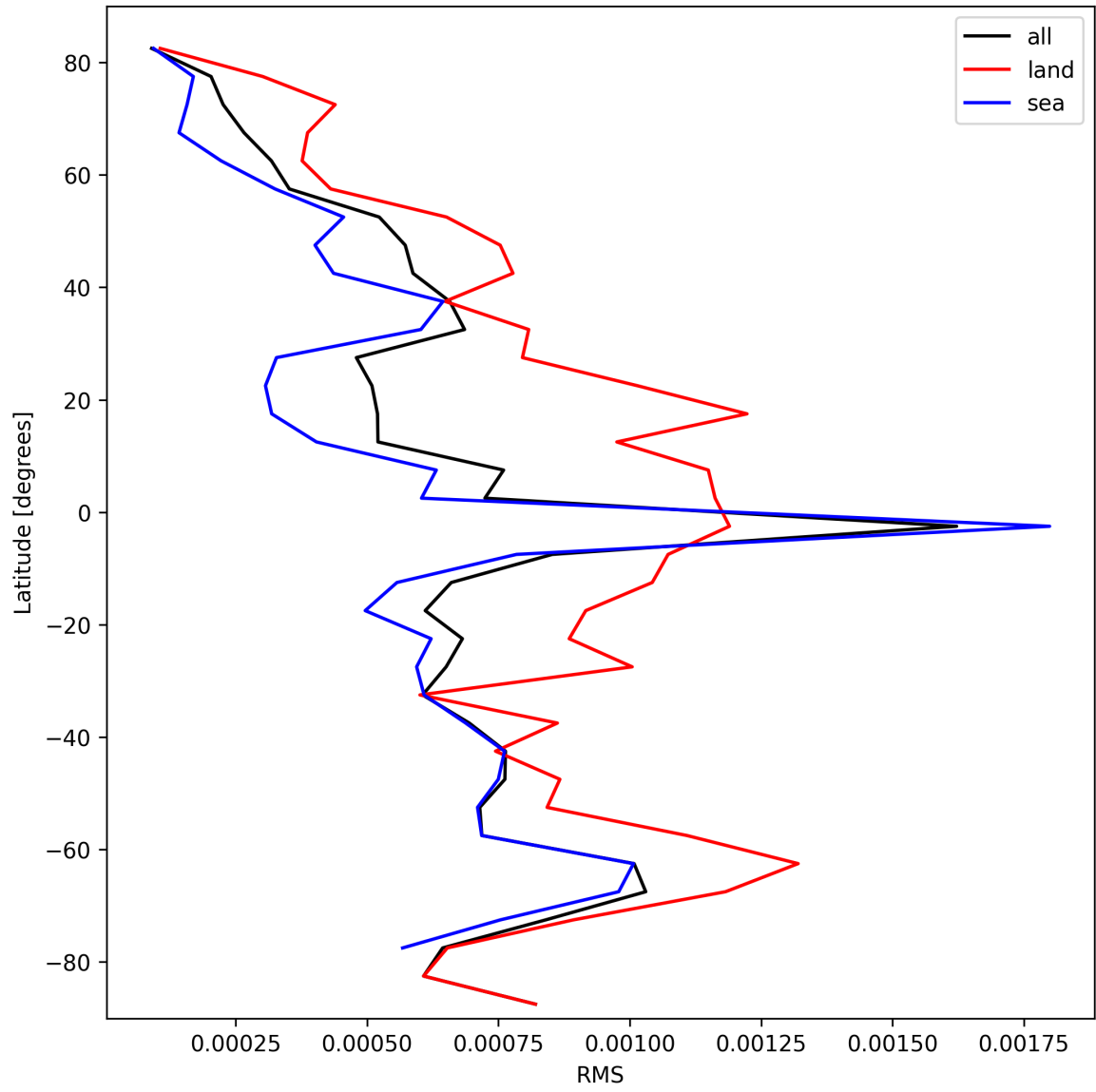


Figure 29: Zonal average of “RMS” for 2025-10-15 to 2025-10-15.

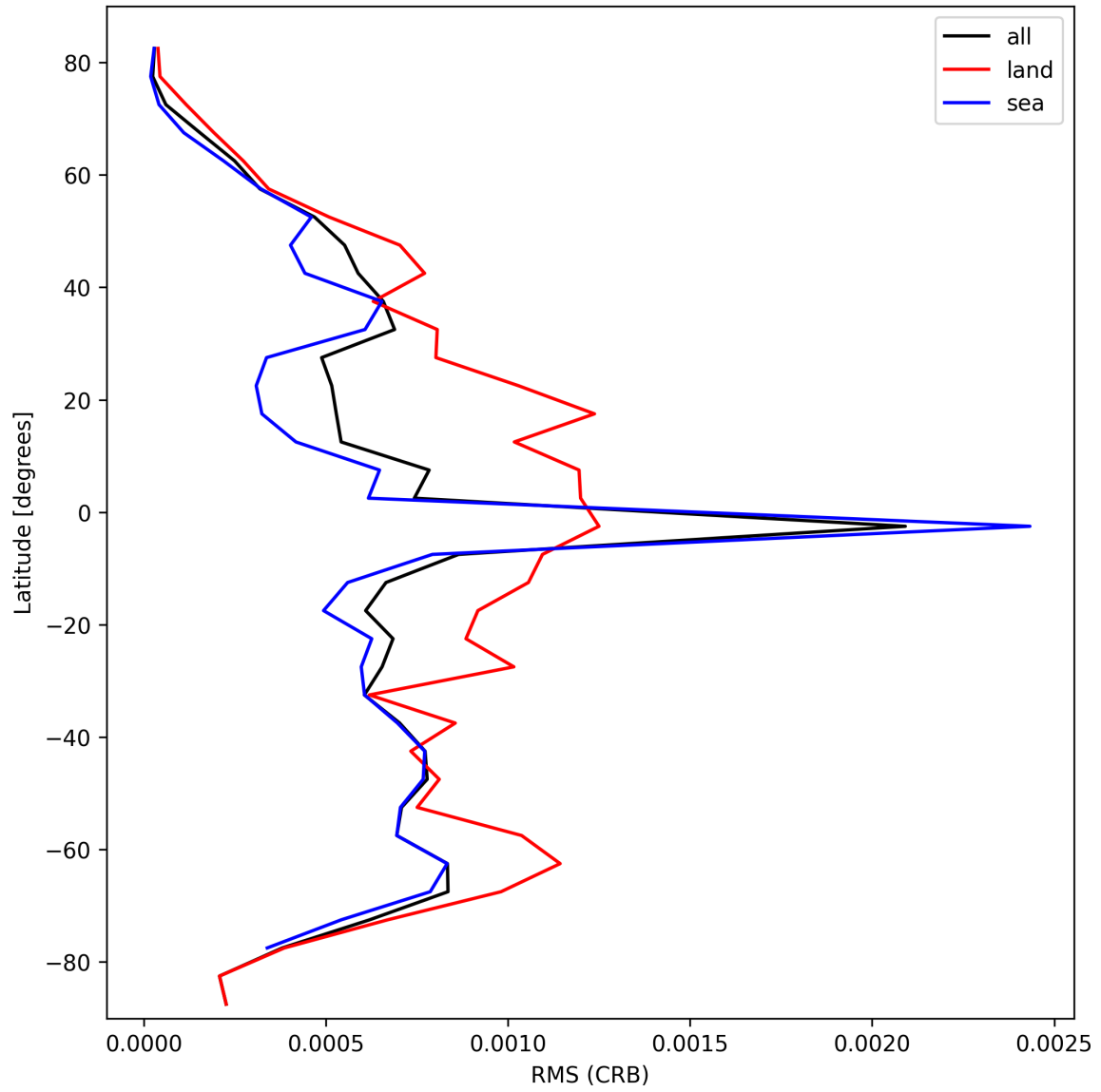


Figure 30: Zonal average of “RMS (CRB)” for 2025-10-15 to 2025-10-15.

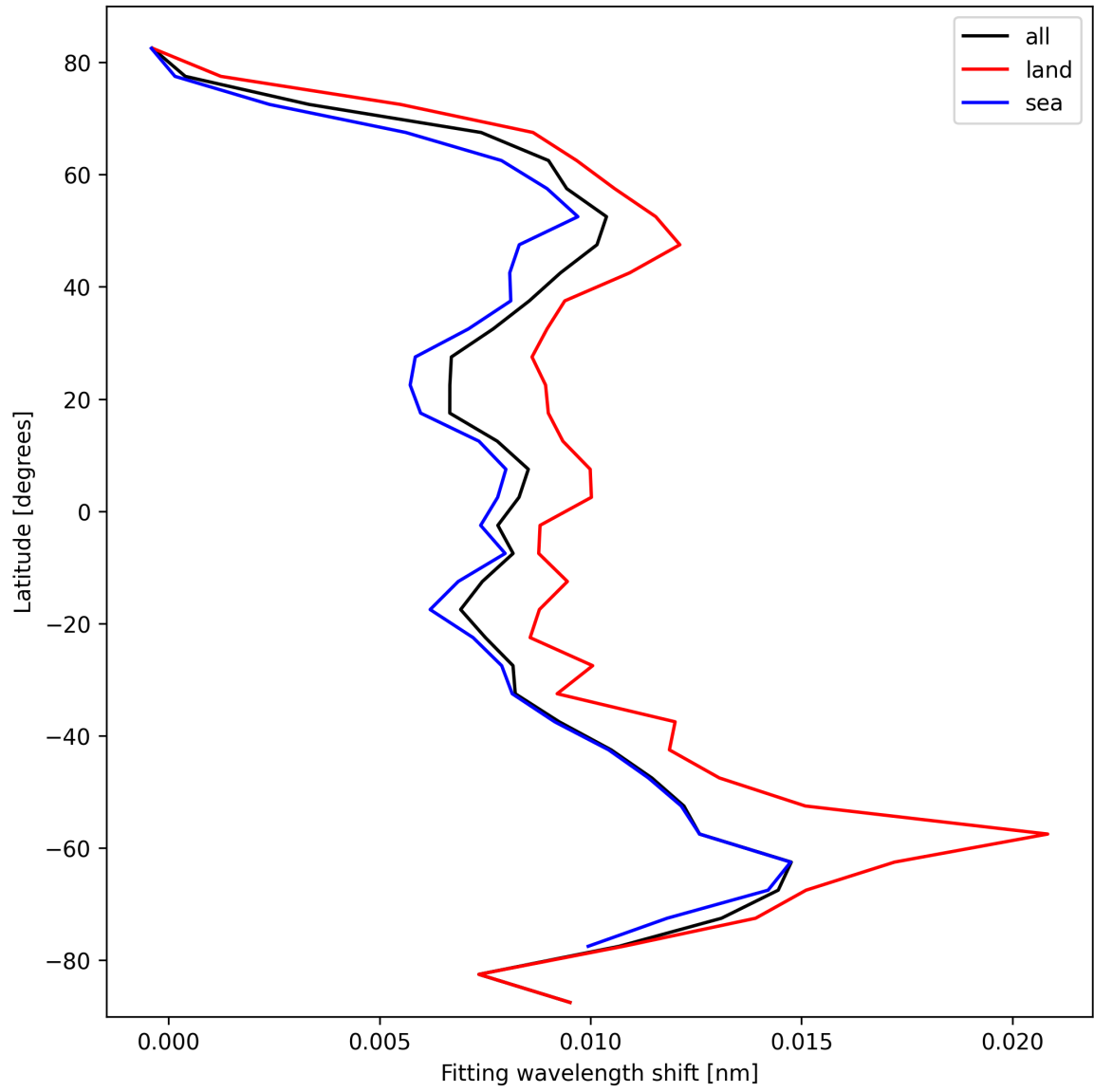


Figure 31: Zonal average of “Fitting wavelength shift” for 2025-10-15 to 2025-10-15.

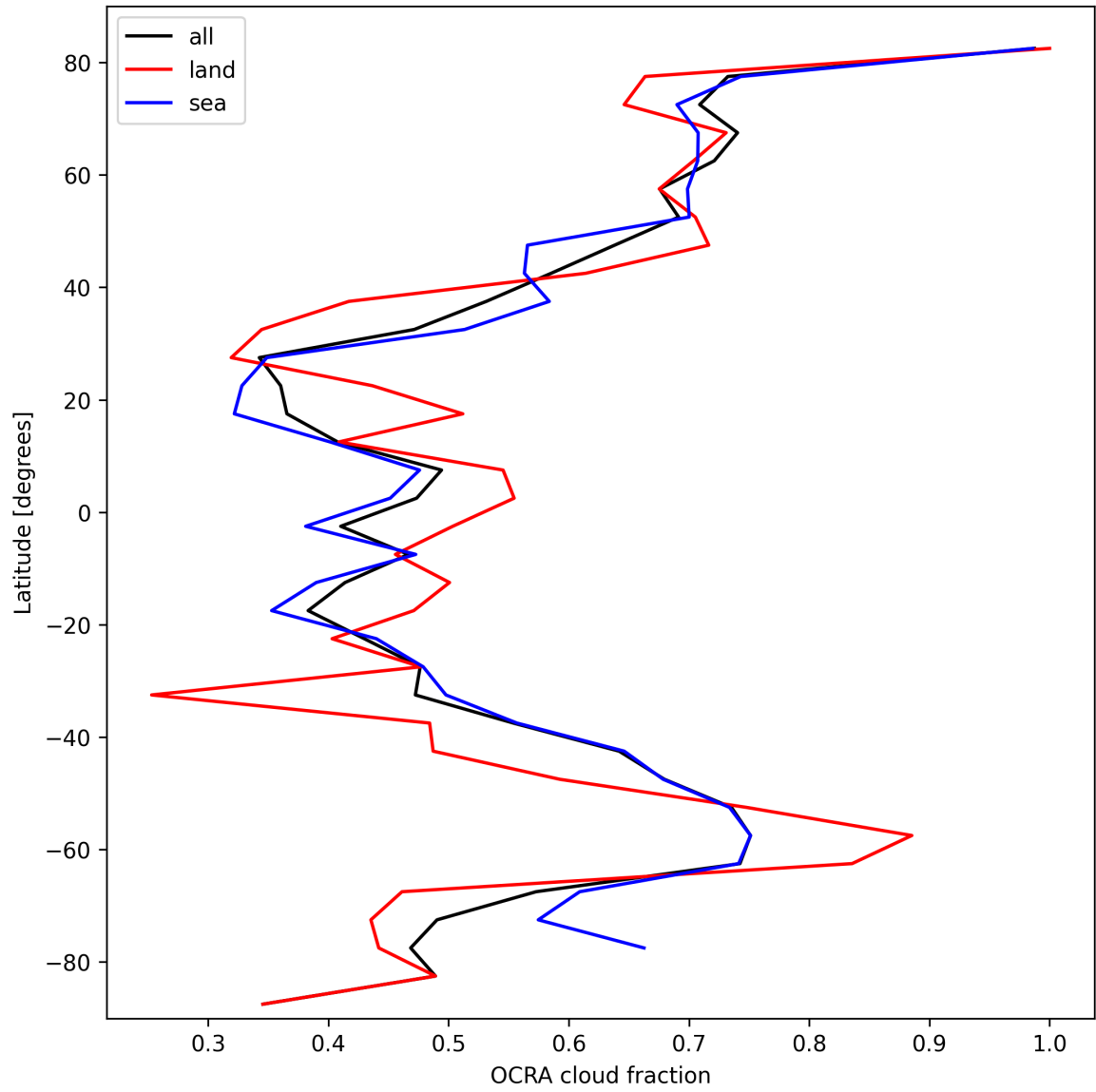


Figure 32: Zonal average of “OCRA cloud fraction” for 2025-10-15 to 2025-10-15.

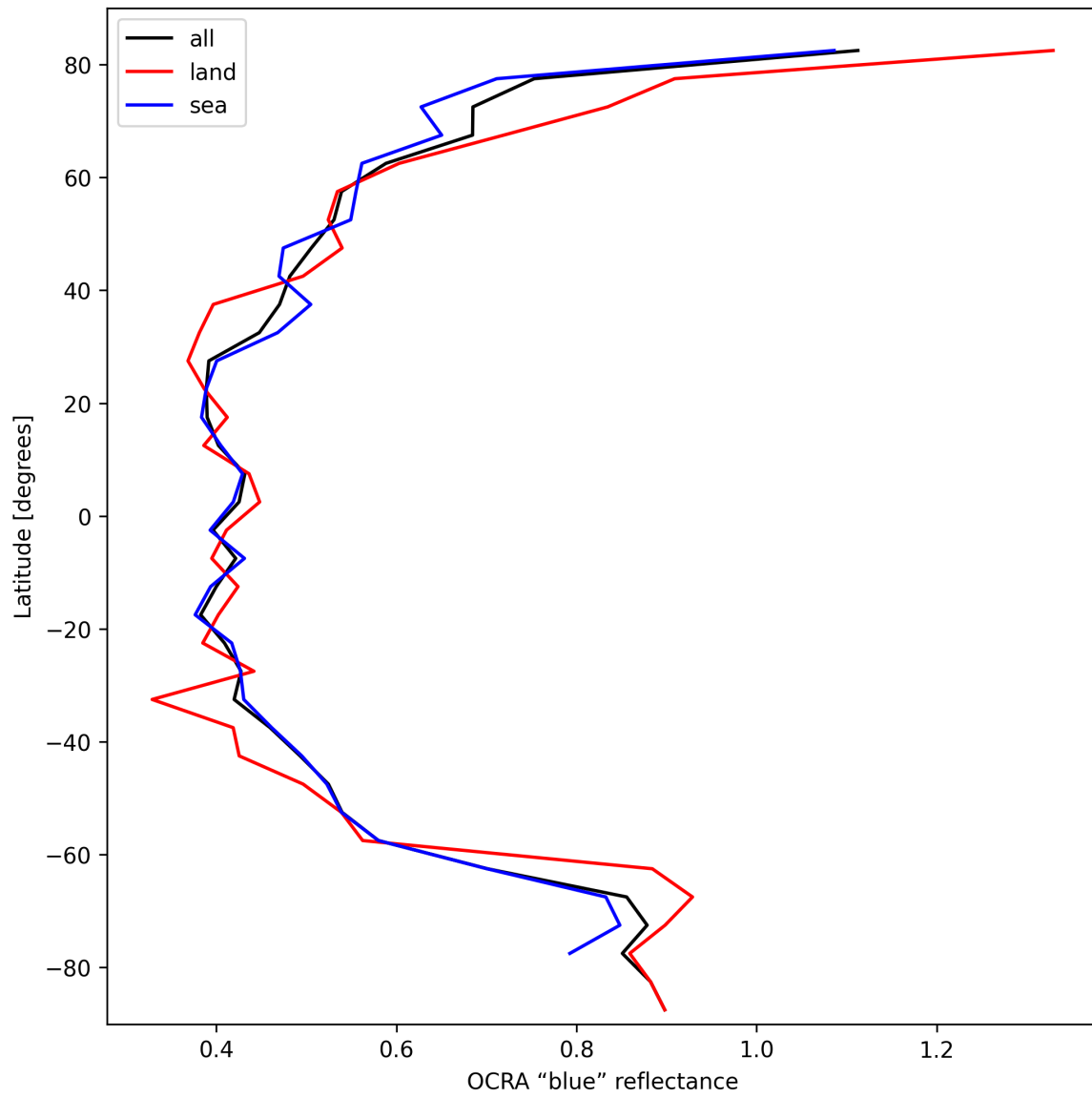


Figure 33: Zonal average of “OCRA “blue” reflectance” for 2025-10-15 to 2025-10-15.

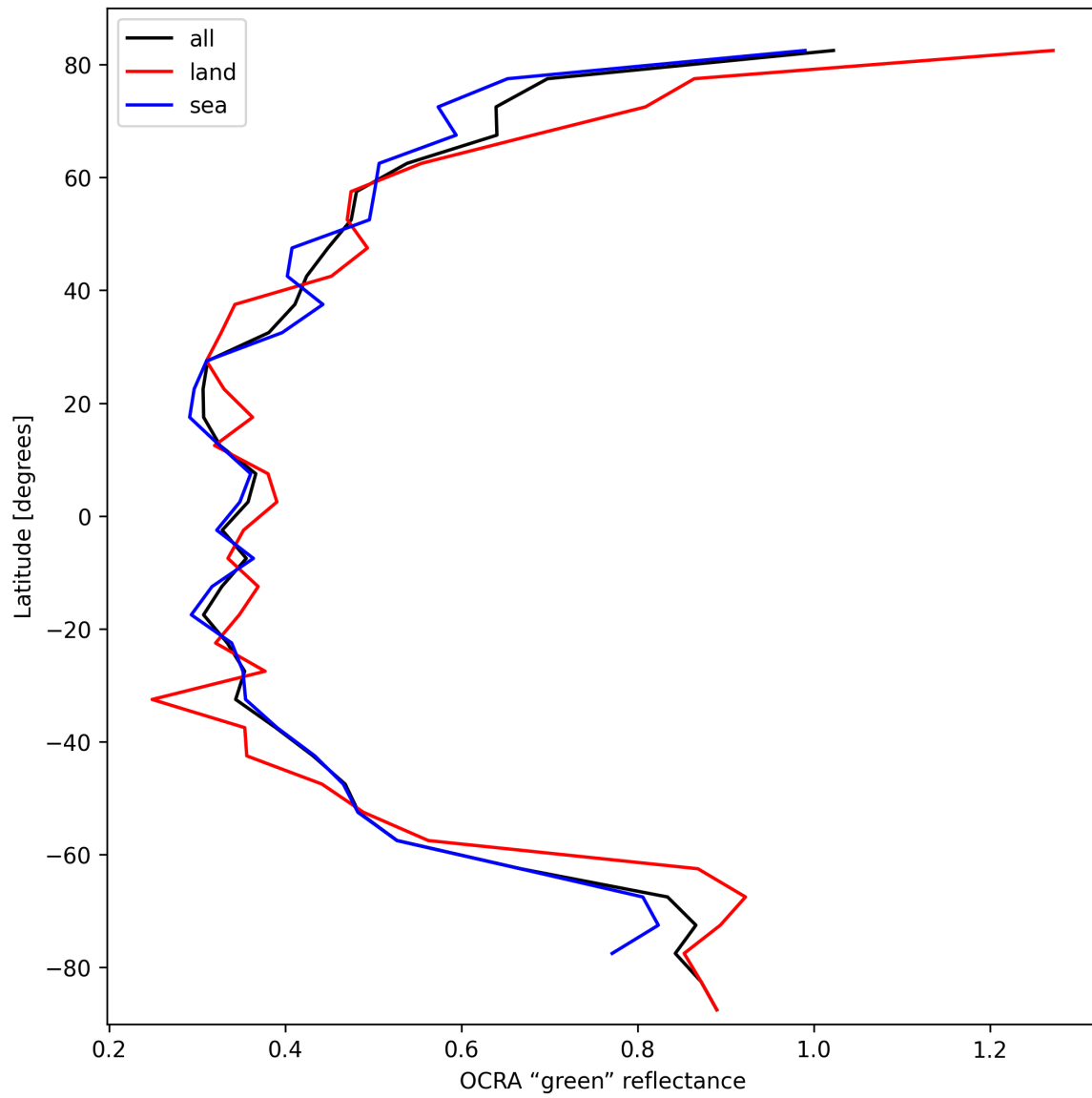


Figure 34: Zonal average of “OCRA “green” reflectance” for 2025-10-15 to 2025-10-15.

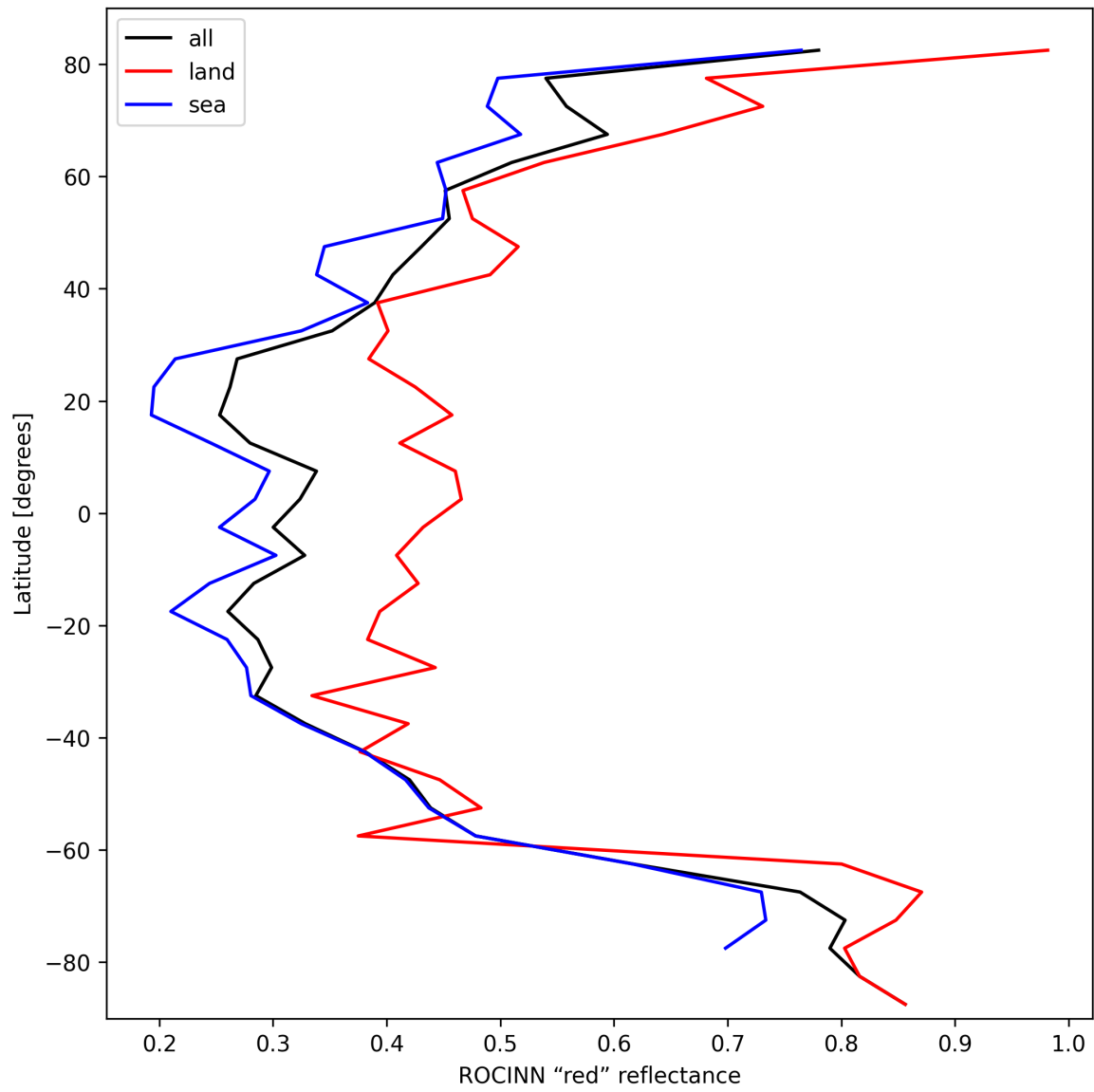


Figure 35: Zonal average of “ROCINN “red” reflectance” for 2025-10-15 to 2025-10-15.

8 Histograms

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

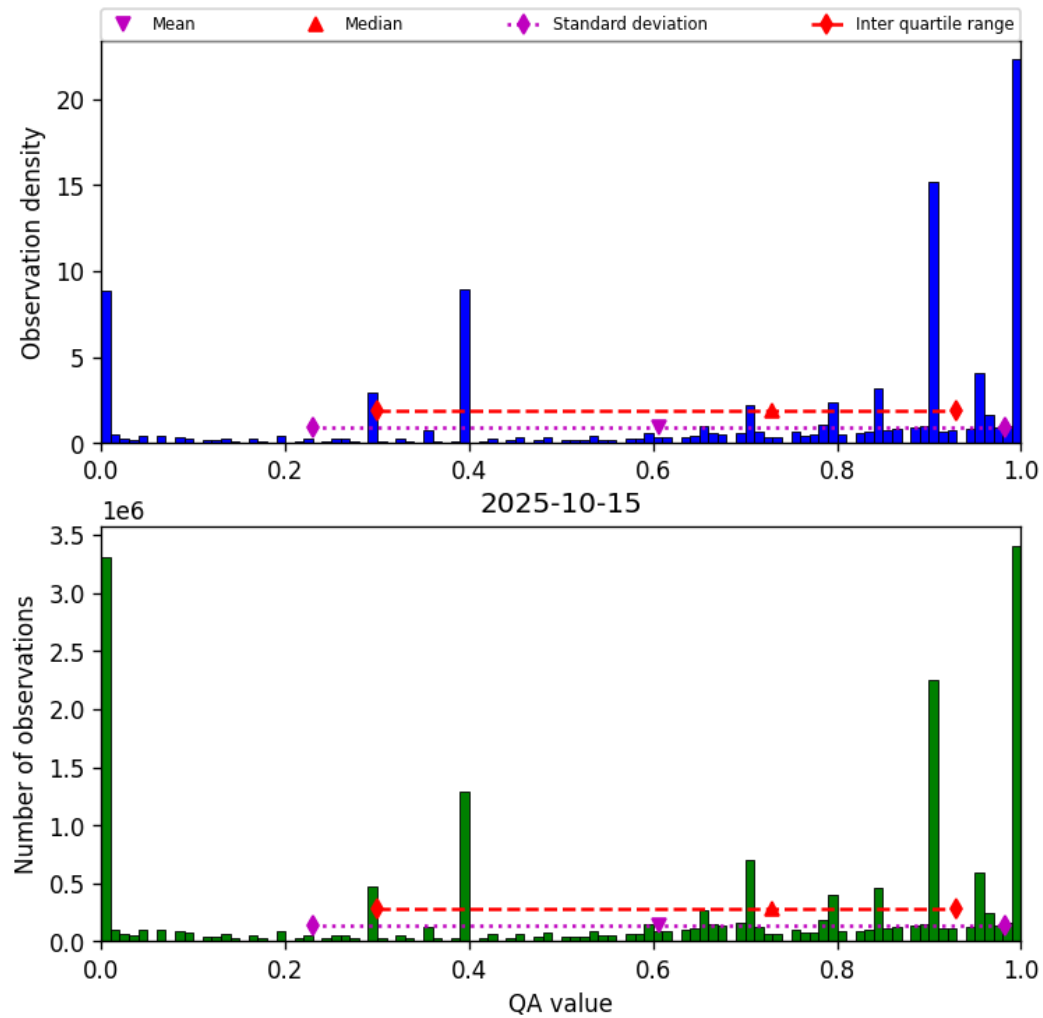


Figure 36: Histogram of “QA value” for 2025-10-15 to 2025-10-15

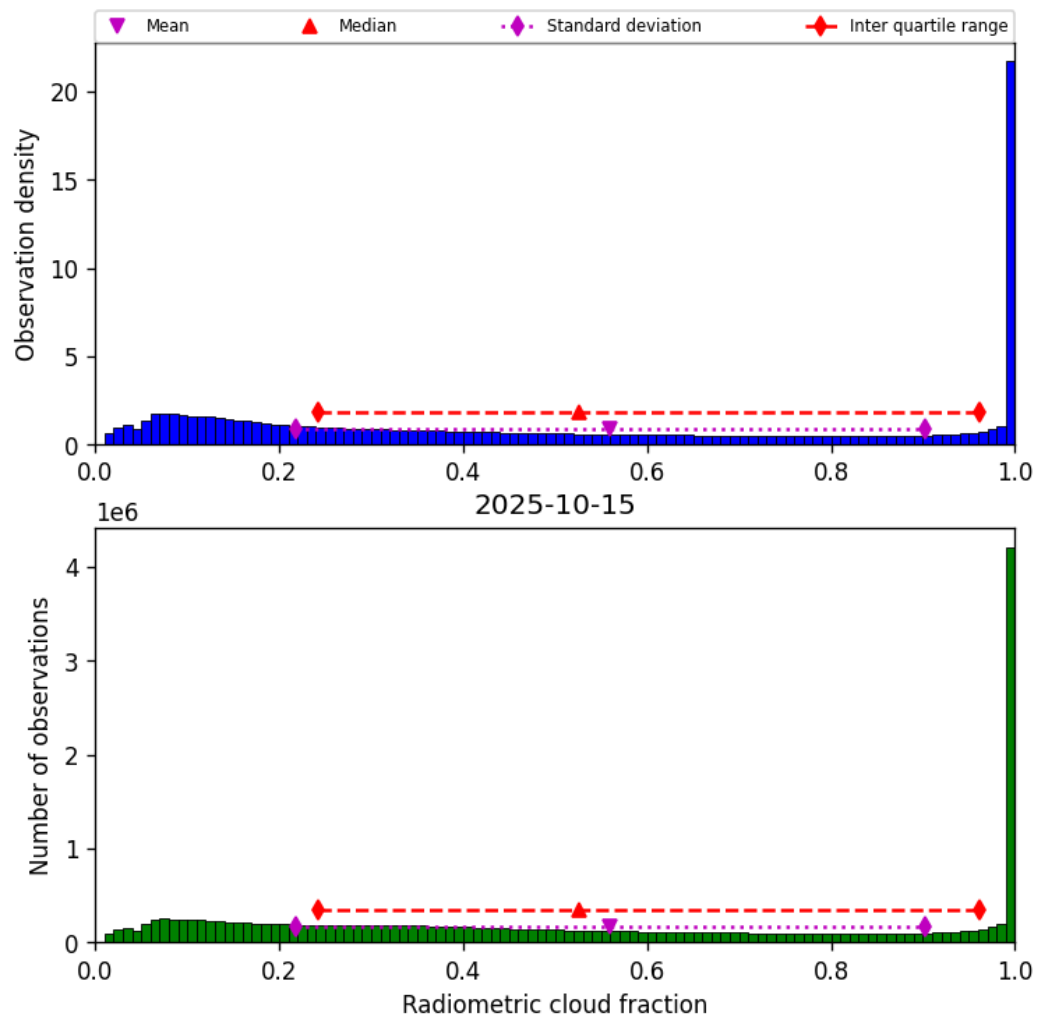


Figure 37: Histogram of “Radiometric cloud fraction” for 2025-10-15 to 2025-10-15

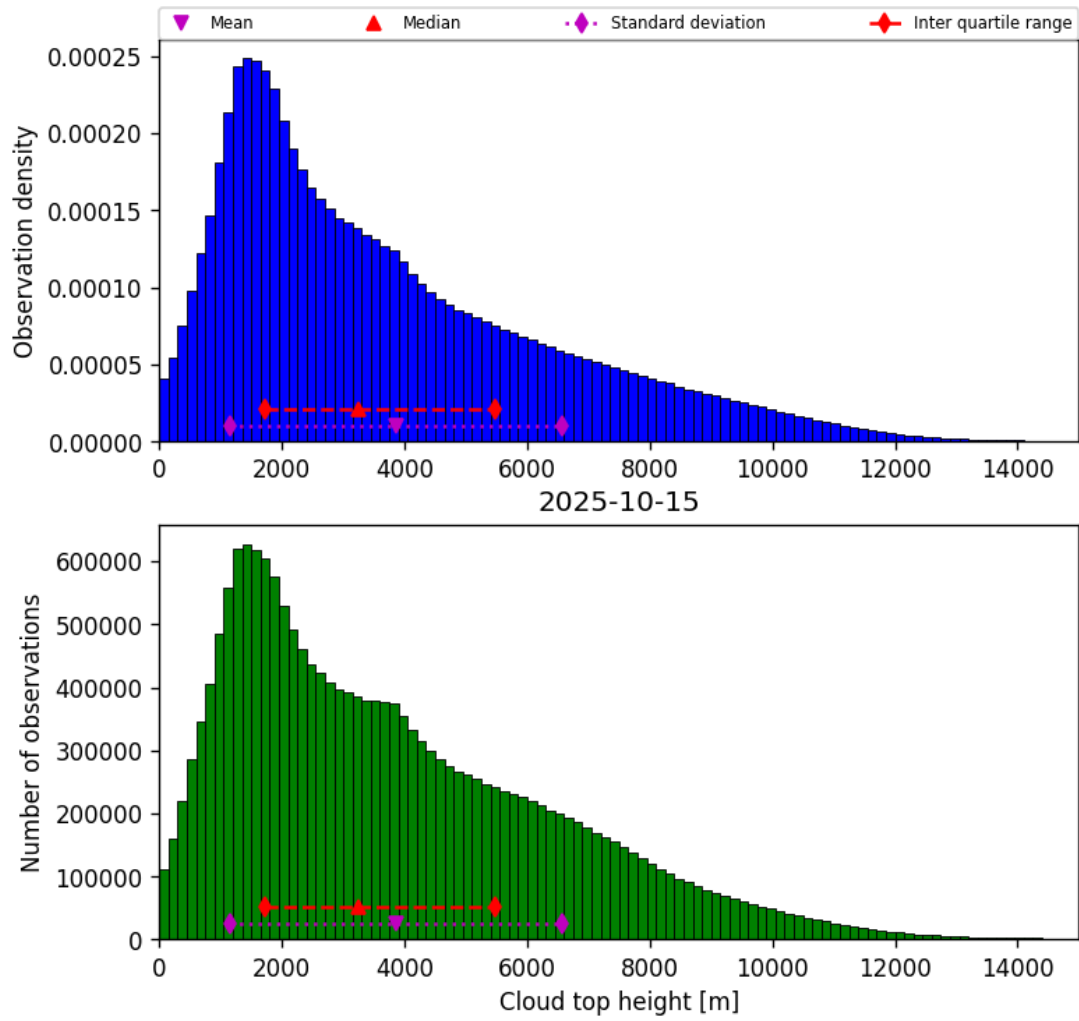


Figure 38: Histogram of “Cloud top height” for 2025-10-15 to 2025-10-15

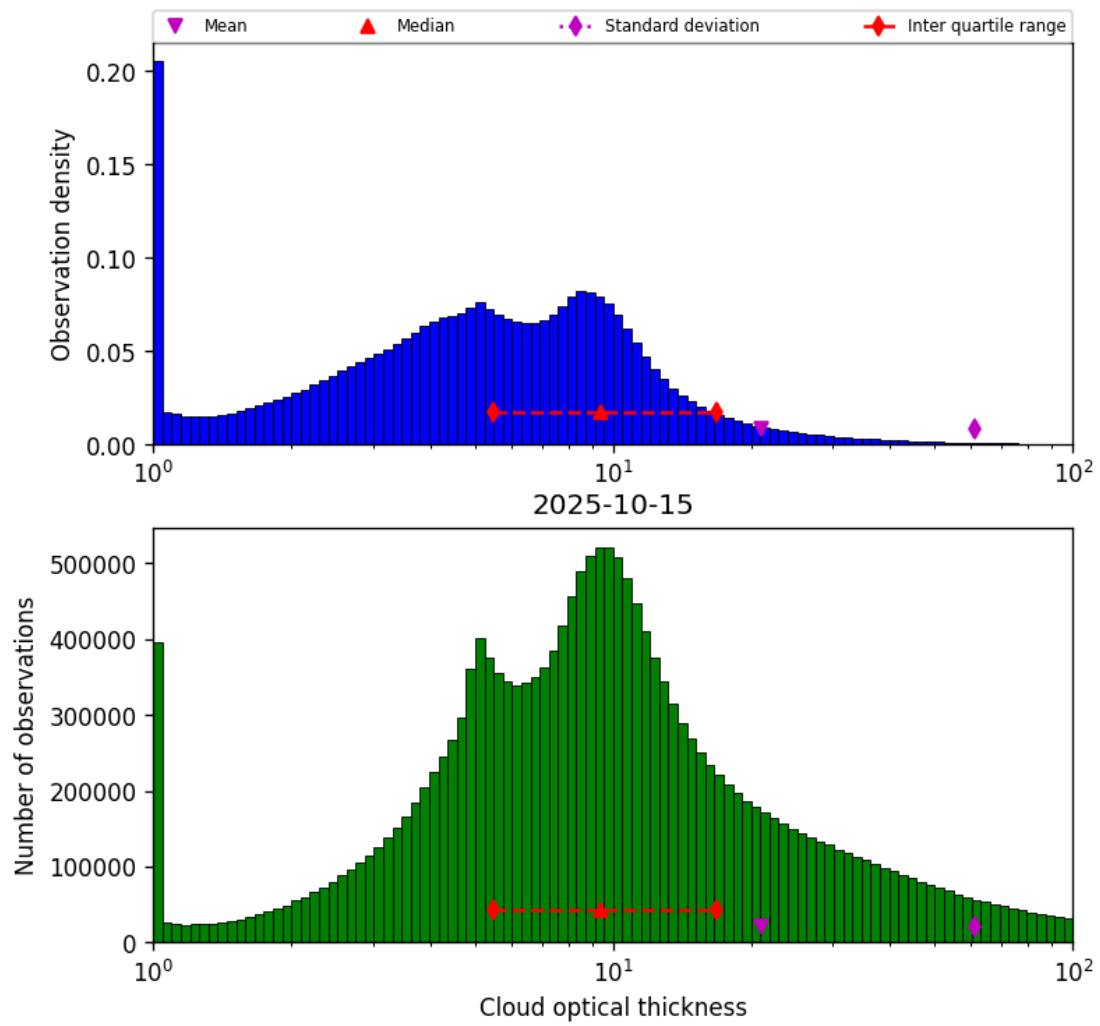


Figure 39: Histogram of “Cloud optical thickness” for 2025-10-15 to 2025-10-15

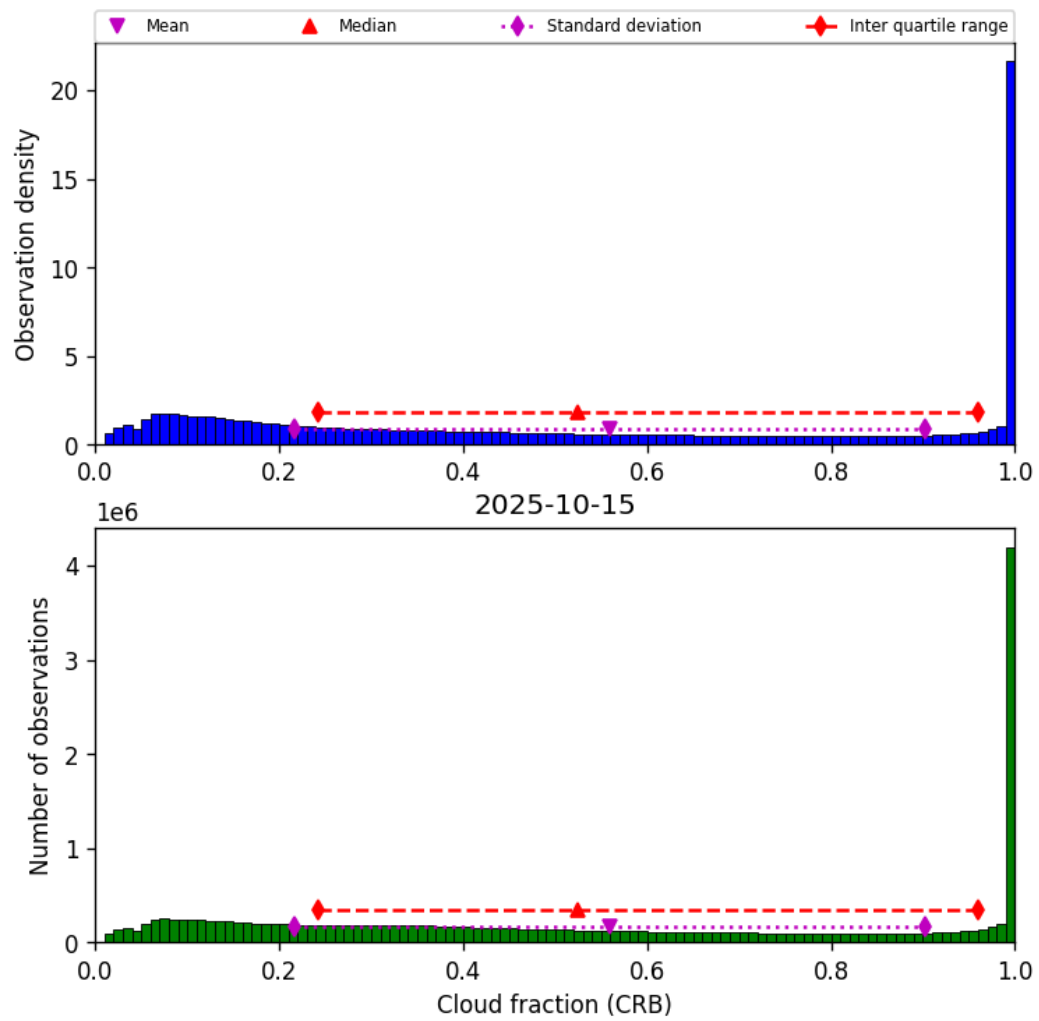


Figure 40: Histogram of “Cloud fraction (CRB)” for 2025-10-15 to 2025-10-15

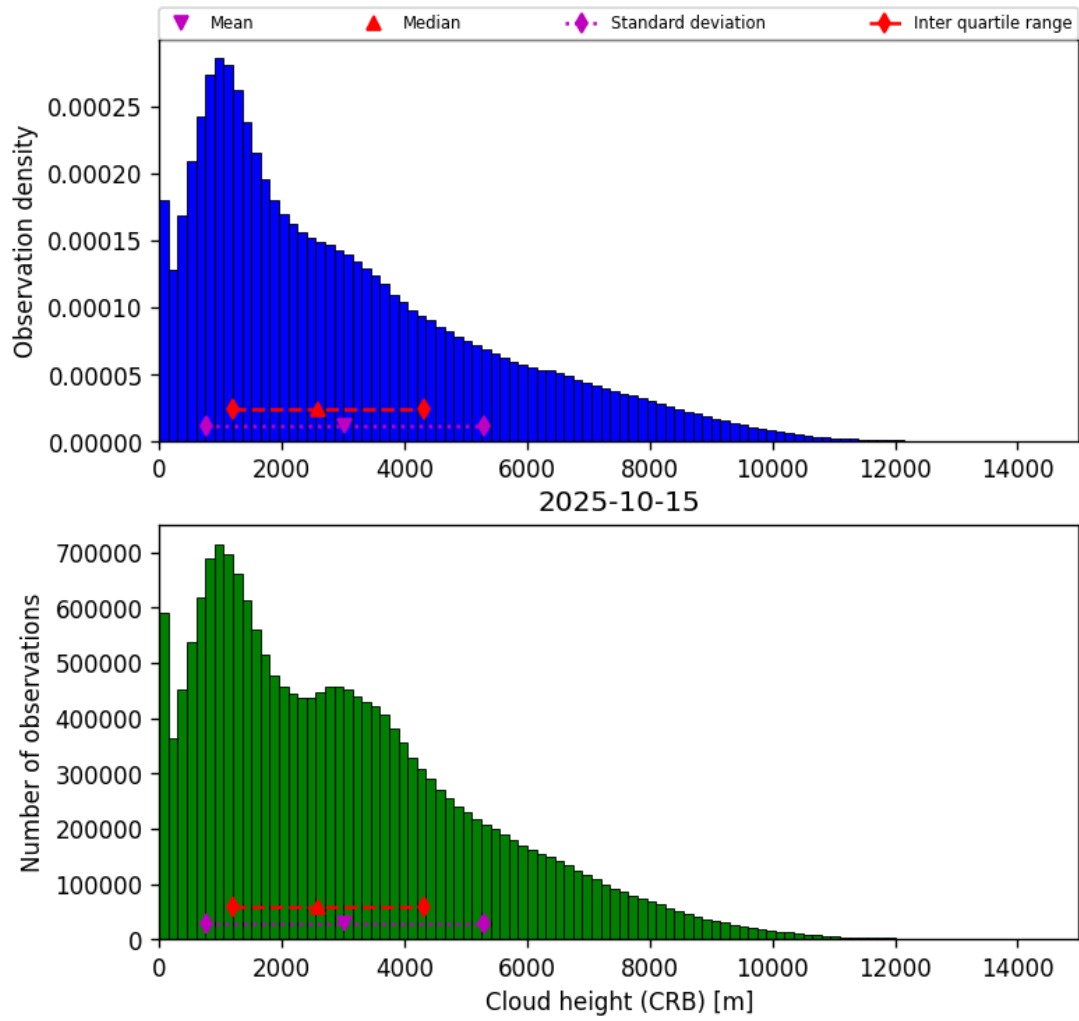


Figure 41: Histogram of “Cloud height (CRB)” for 2025-10-15 to 2025-10-15

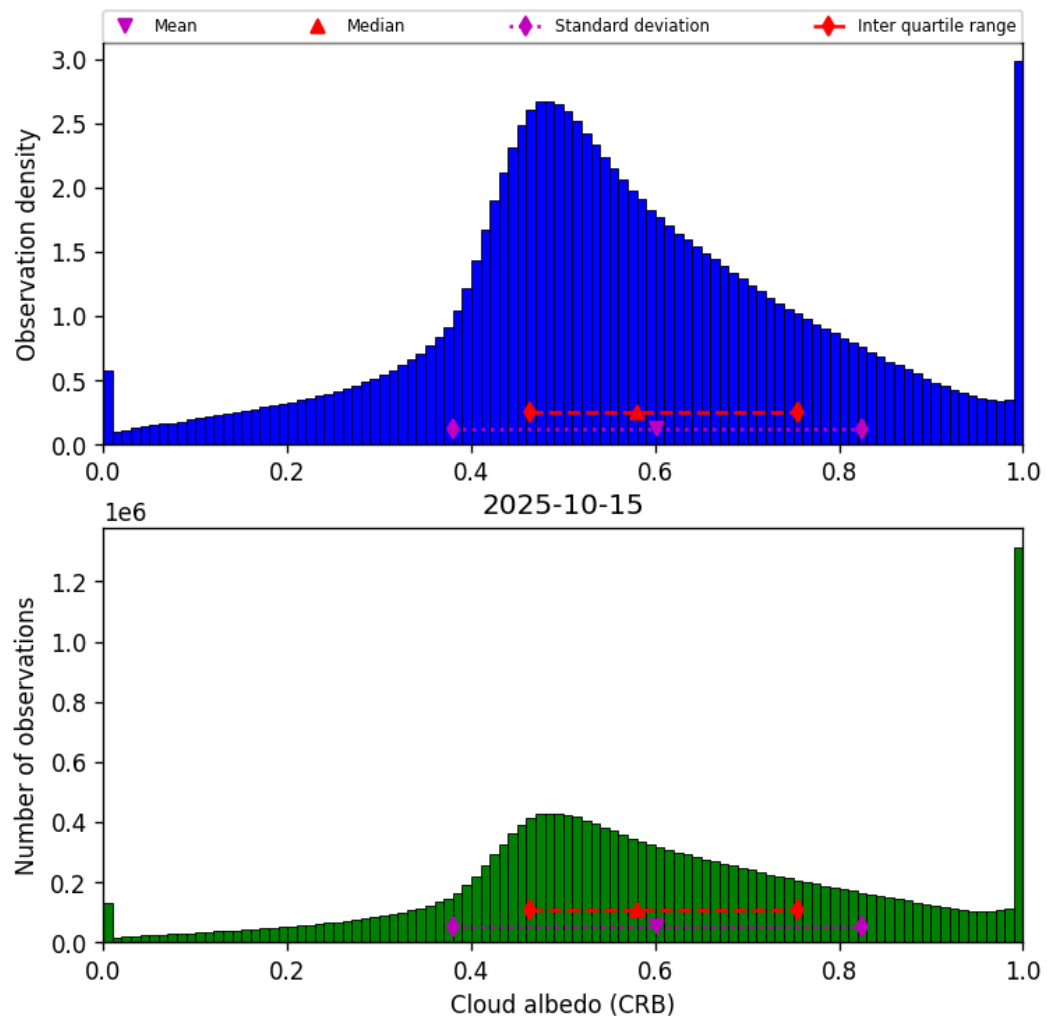


Figure 42: Histogram of “Cloud albedo (CRB)” for 2025-10-15 to 2025-10-15

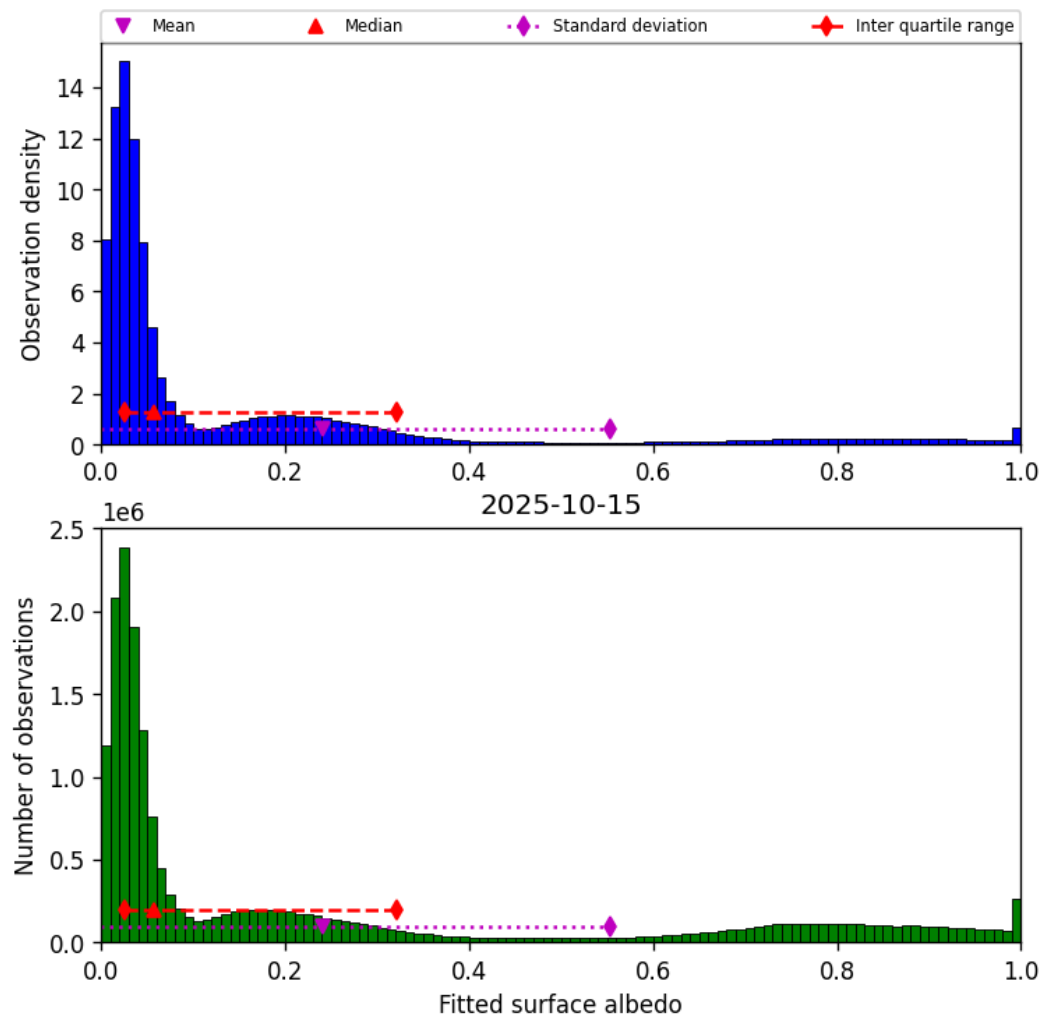


Figure 43: Histogram of “Fitted surface albedo” for 2025-10-15 to 2025-10-15

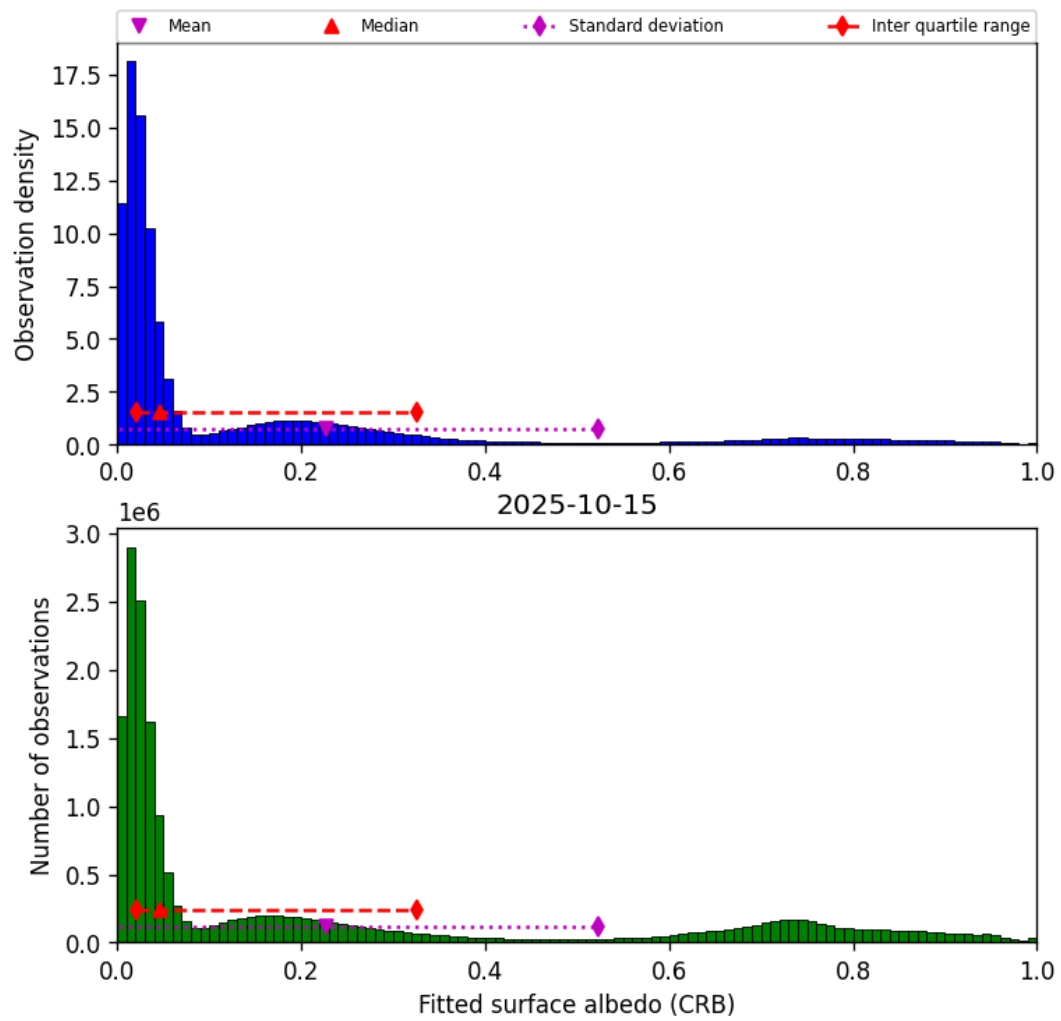


Figure 44: Histogram of “Fitted surface albedo (CRB)” for 2025-10-15 to 2025-10-15

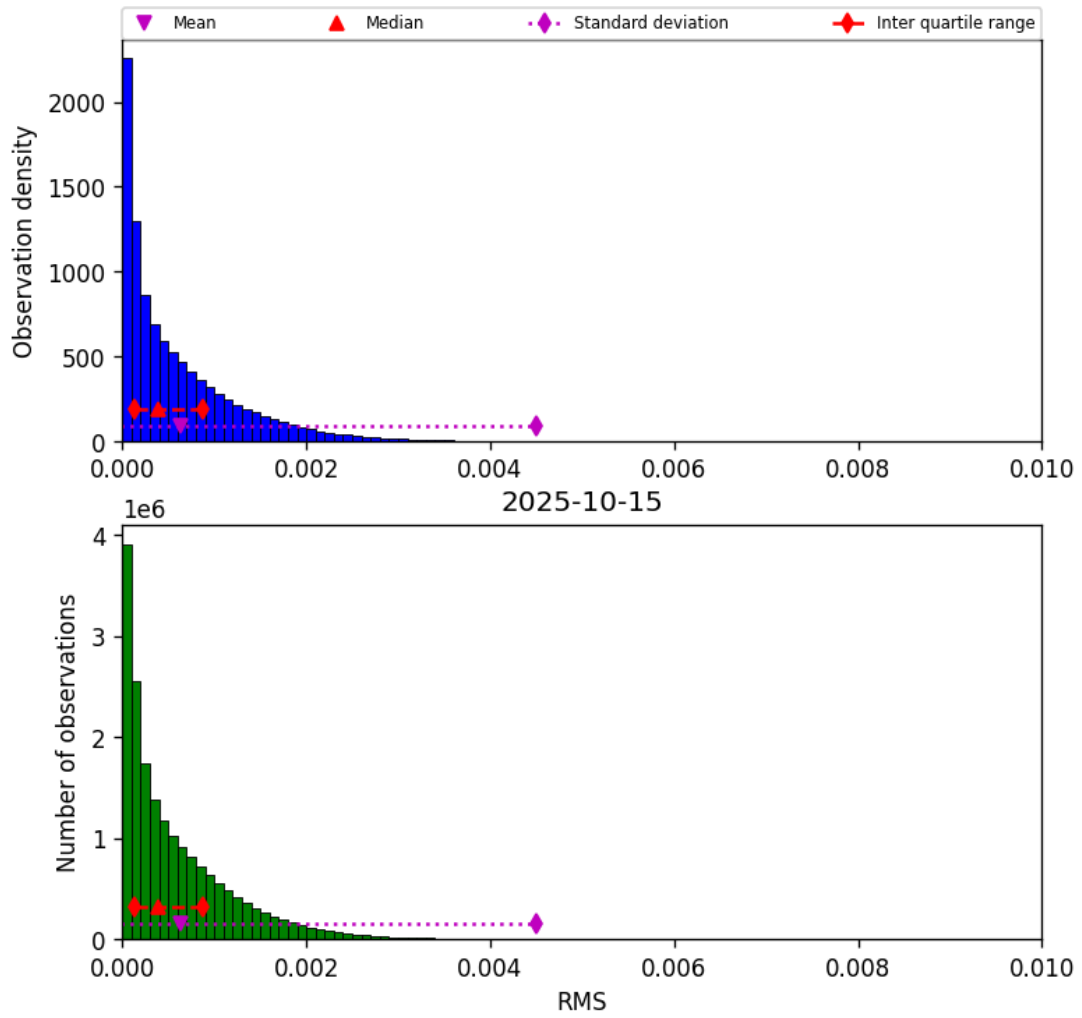


Figure 45: Histogram of “RMS” for 2025-10-15 to 2025-10-15

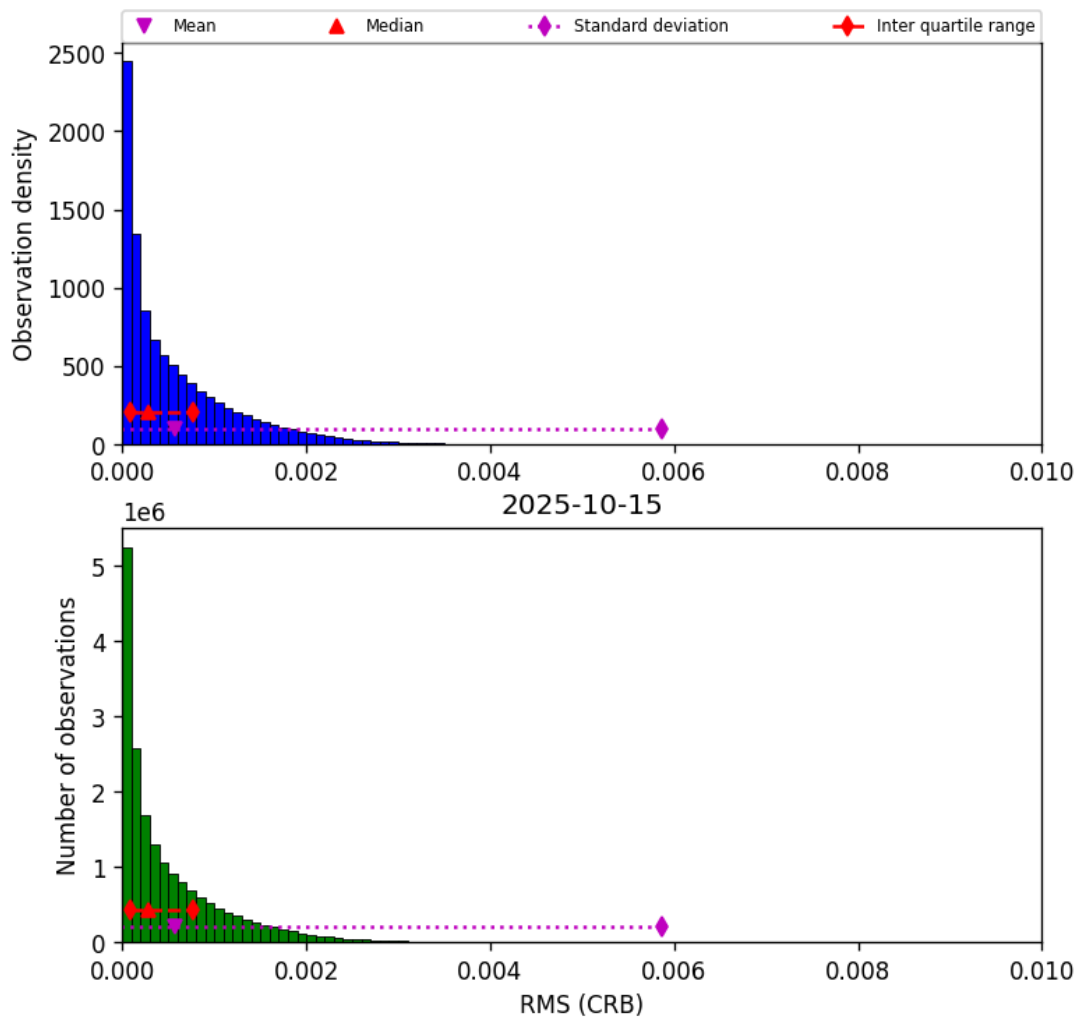


Figure 46: Histogram of “RMS (CRB)” for 2025-10-15 to 2025-10-15

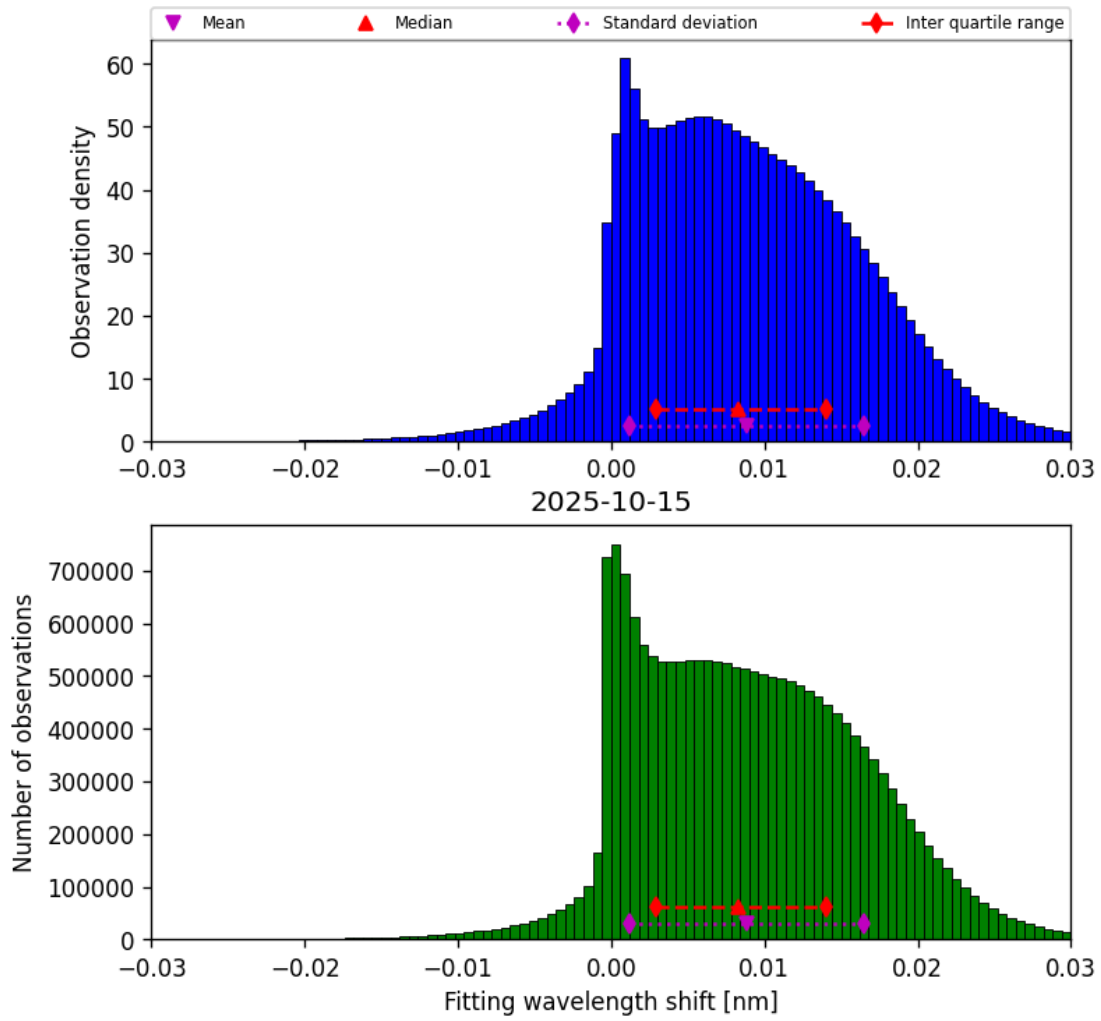


Figure 47: Histogram of “Fitting wavelength shift” for 2025-10-15 to 2025-10-15

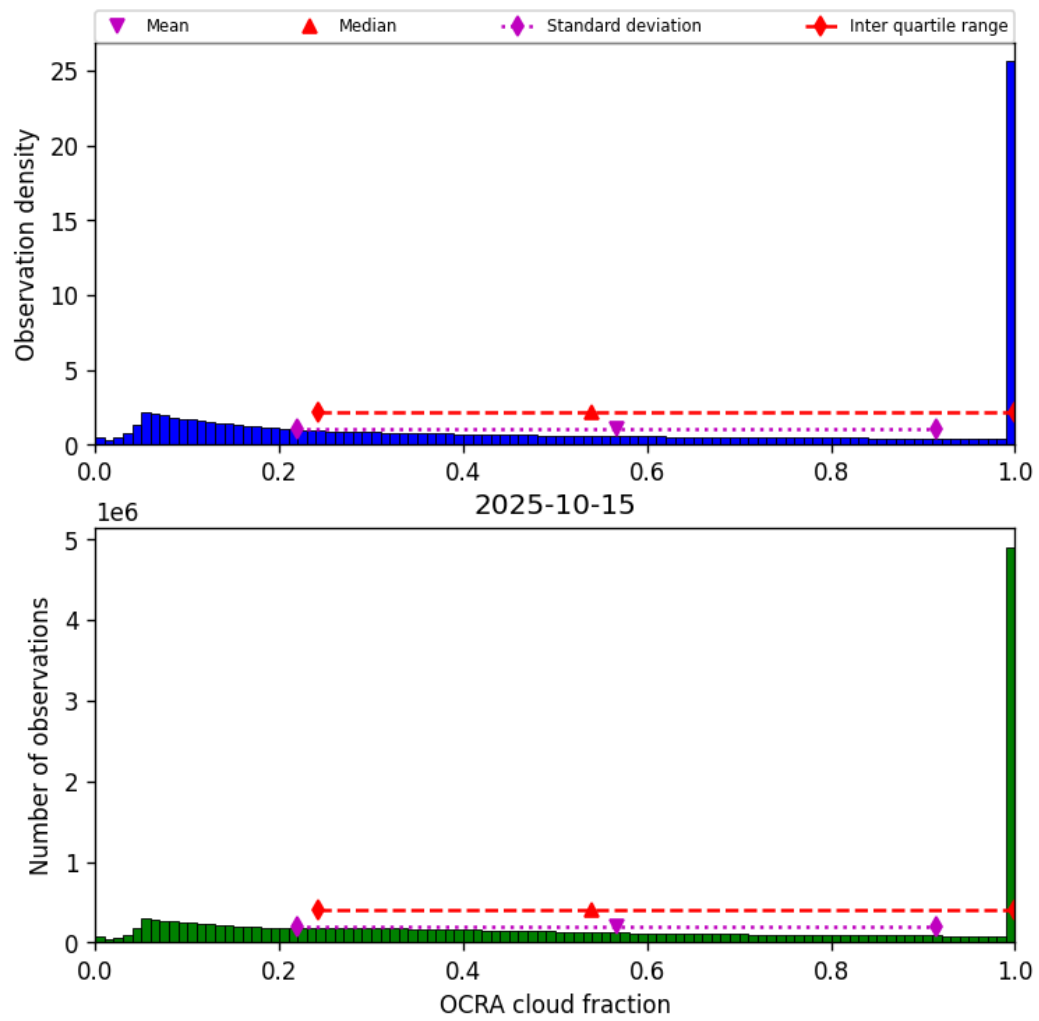


Figure 48: Histogram of “OCRA cloud fraction” for 2025-10-15 to 2025-10-15

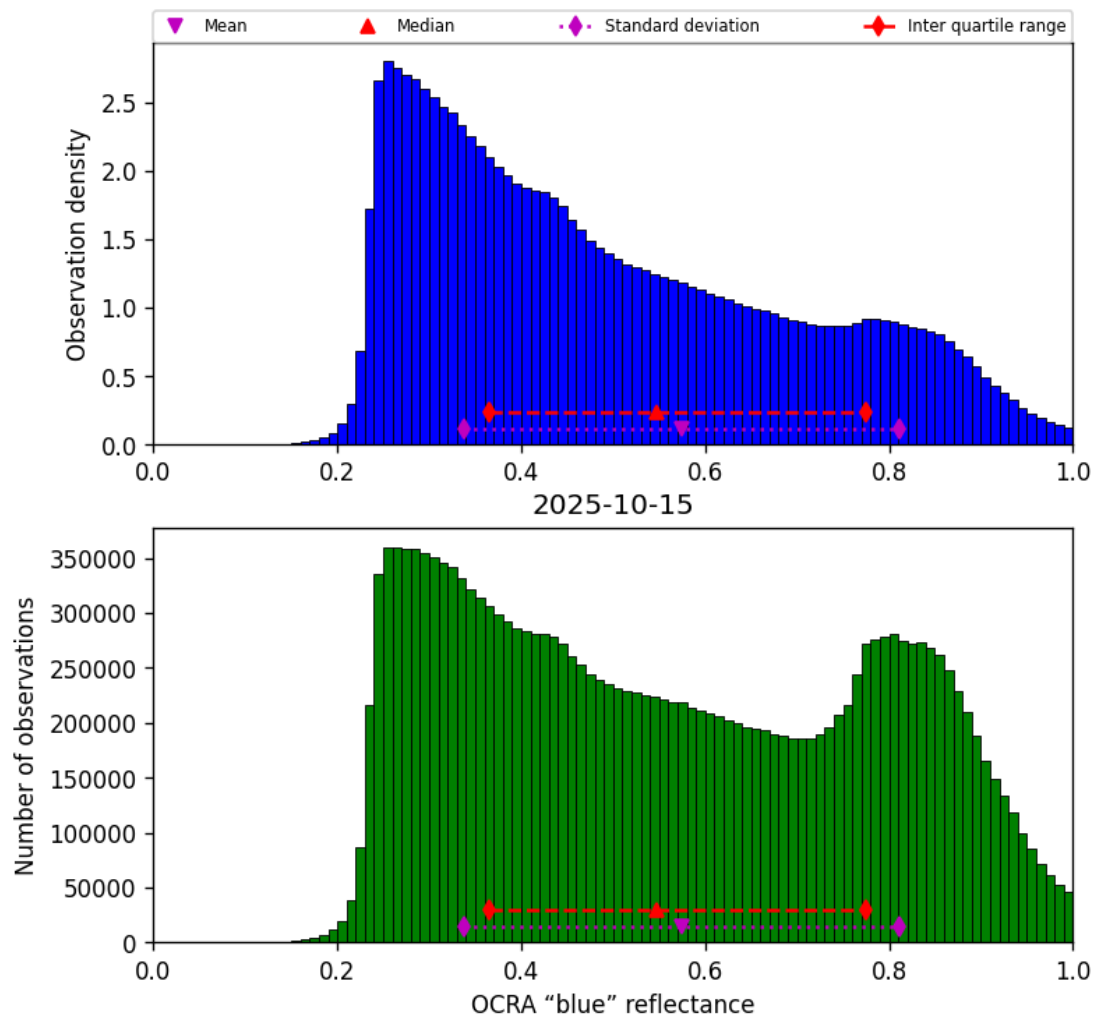


Figure 49: Histogram of “OCRA “blue” reflectance” for 2025-10-15 to 2025-10-15

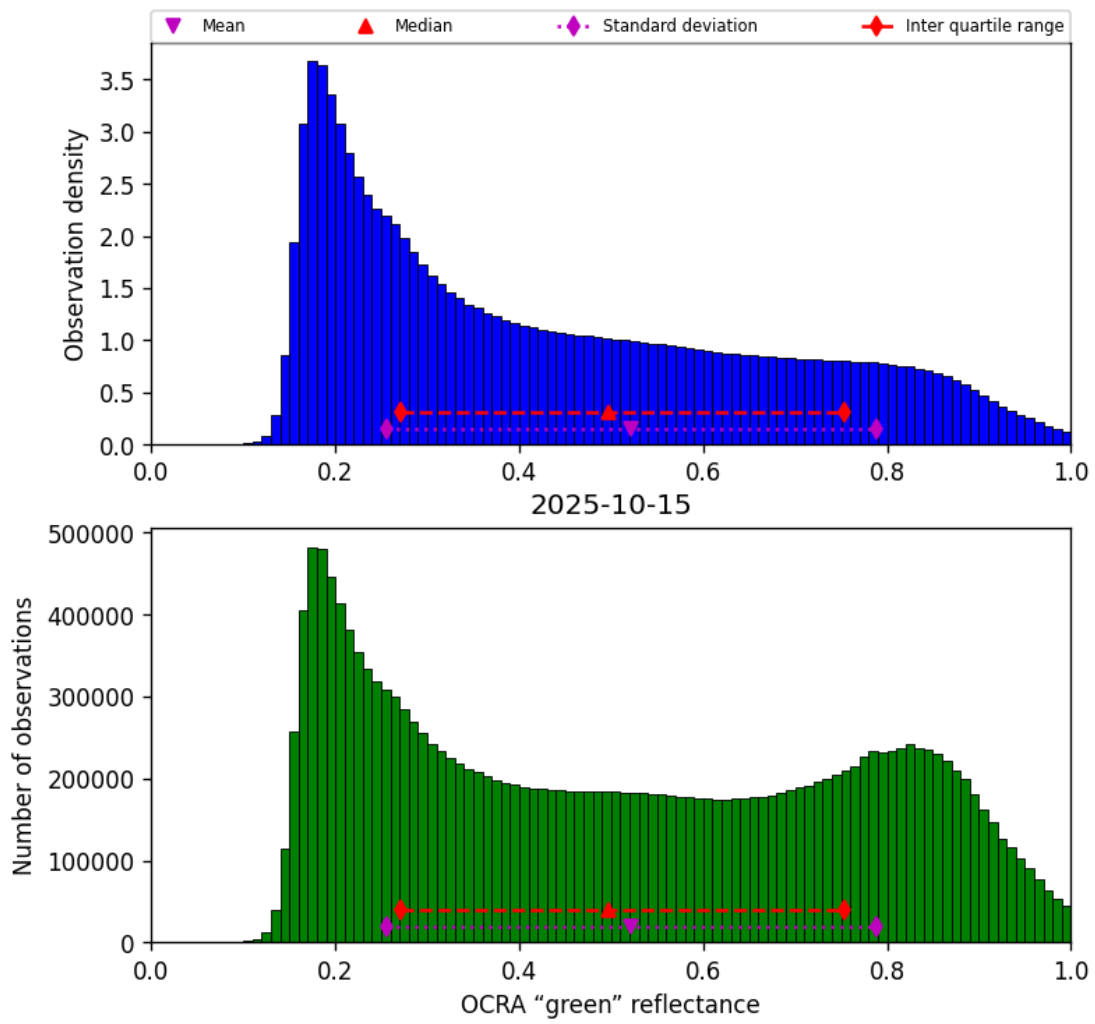


Figure 50: Histogram of “OCRA “green” reflectance” for 2025-10-15 to 2025-10-15

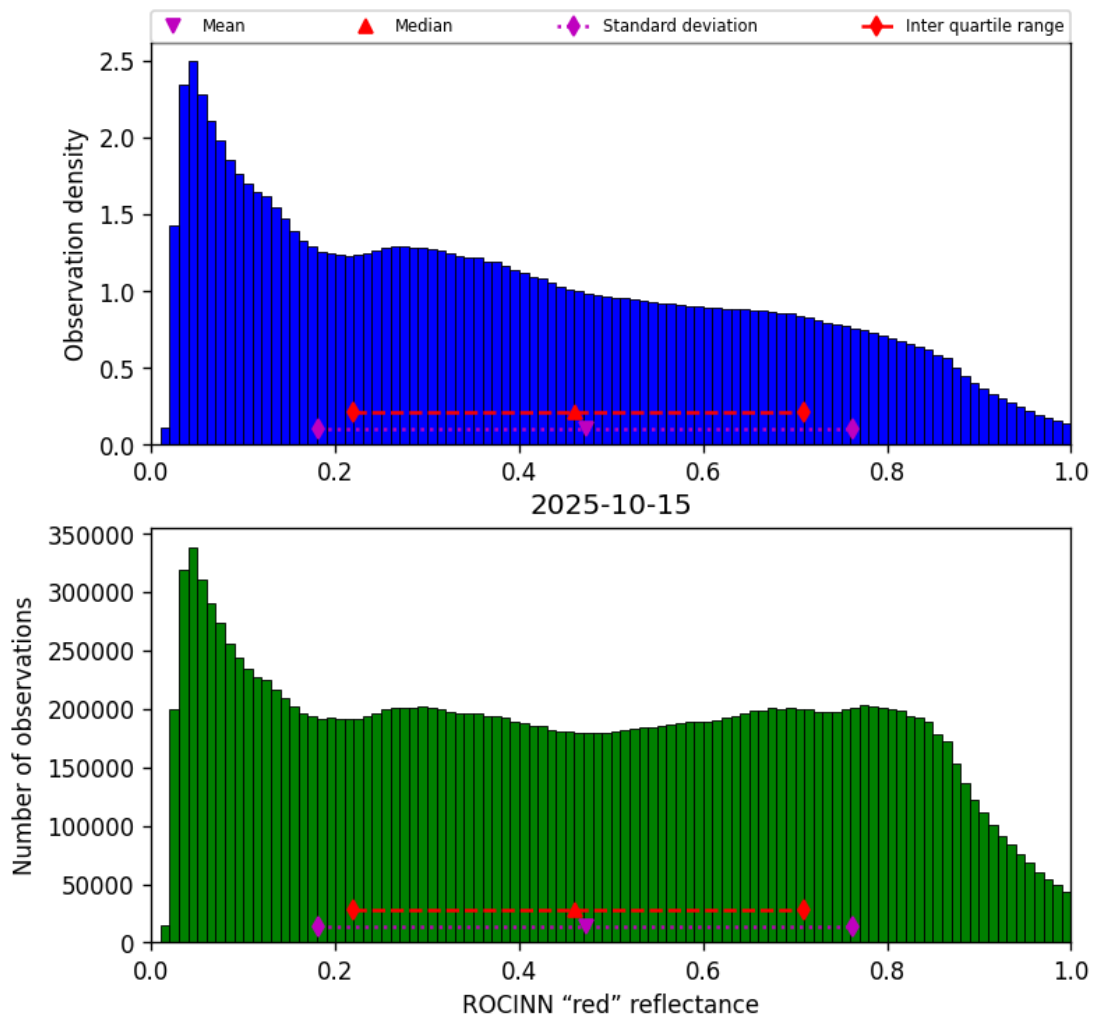


Figure 51: Histogram of “ROCINN “red” reflectance” for 2025-10-15 to 2025-10-15

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.

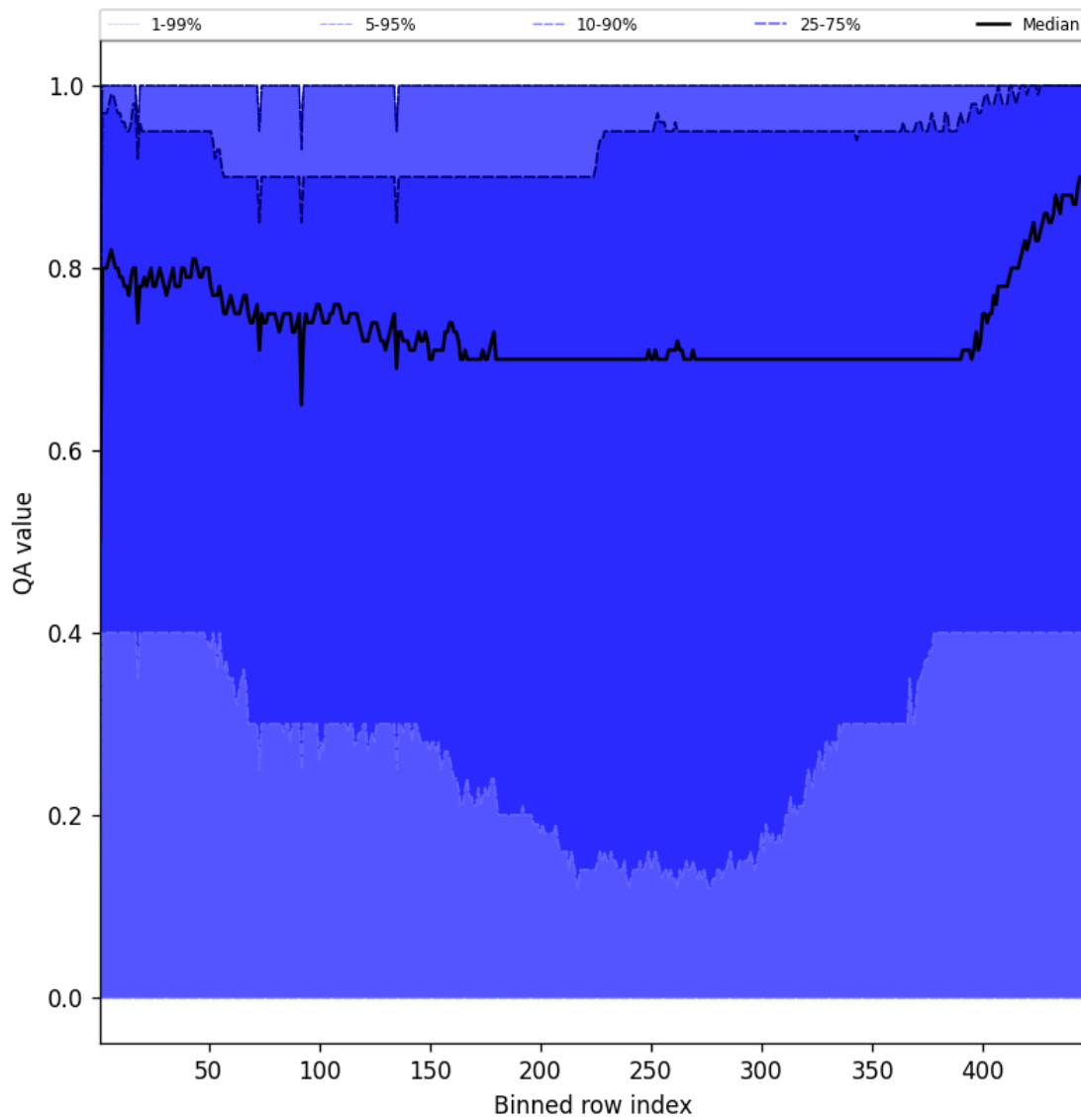


Figure 52: Along track statistics of "QA value" for 2025-10-15 to 2025-10-15

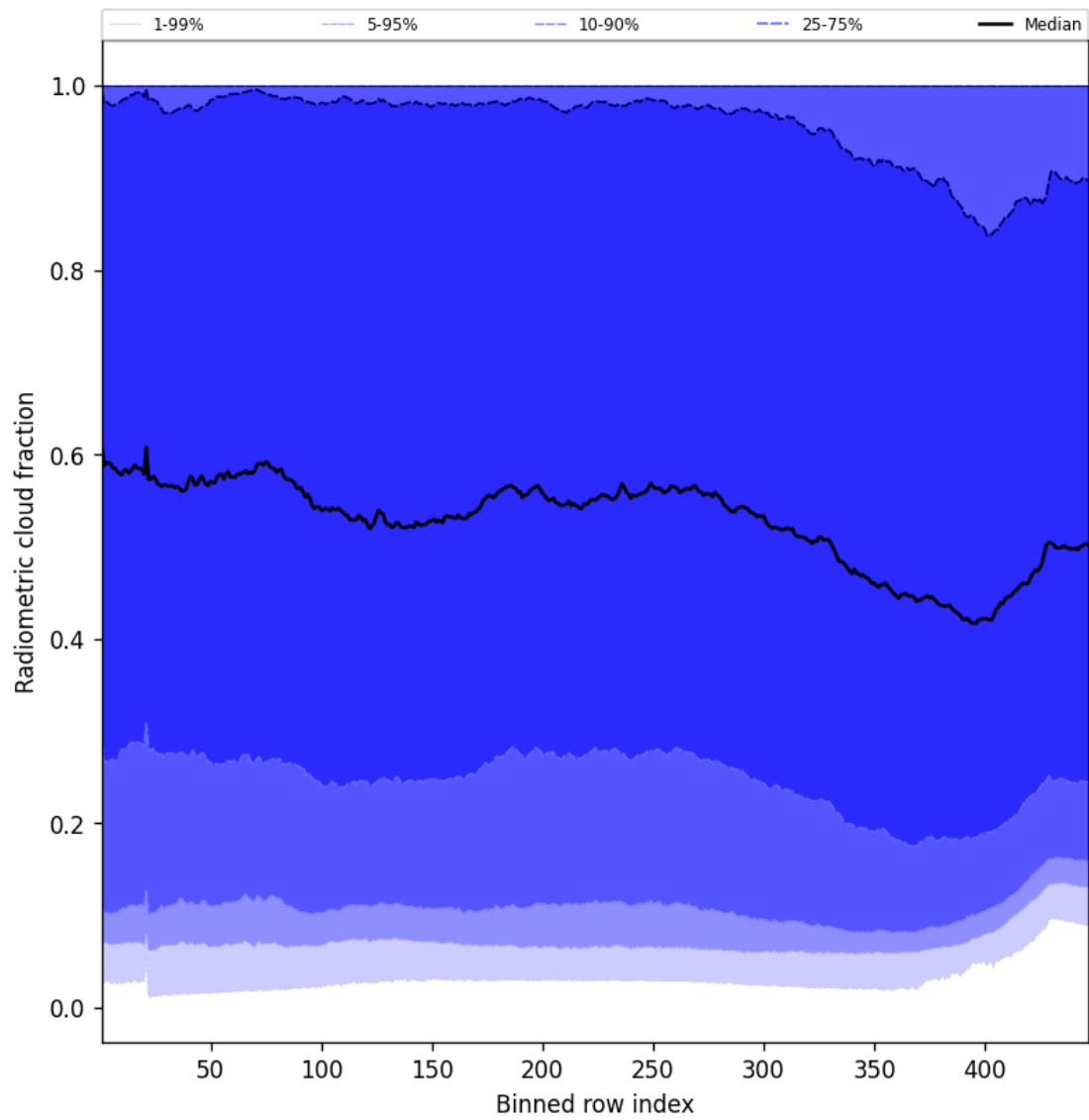


Figure 53: Along track statistics of “Radiometric cloud fraction” for 2025-10-15 to 2025-10-15

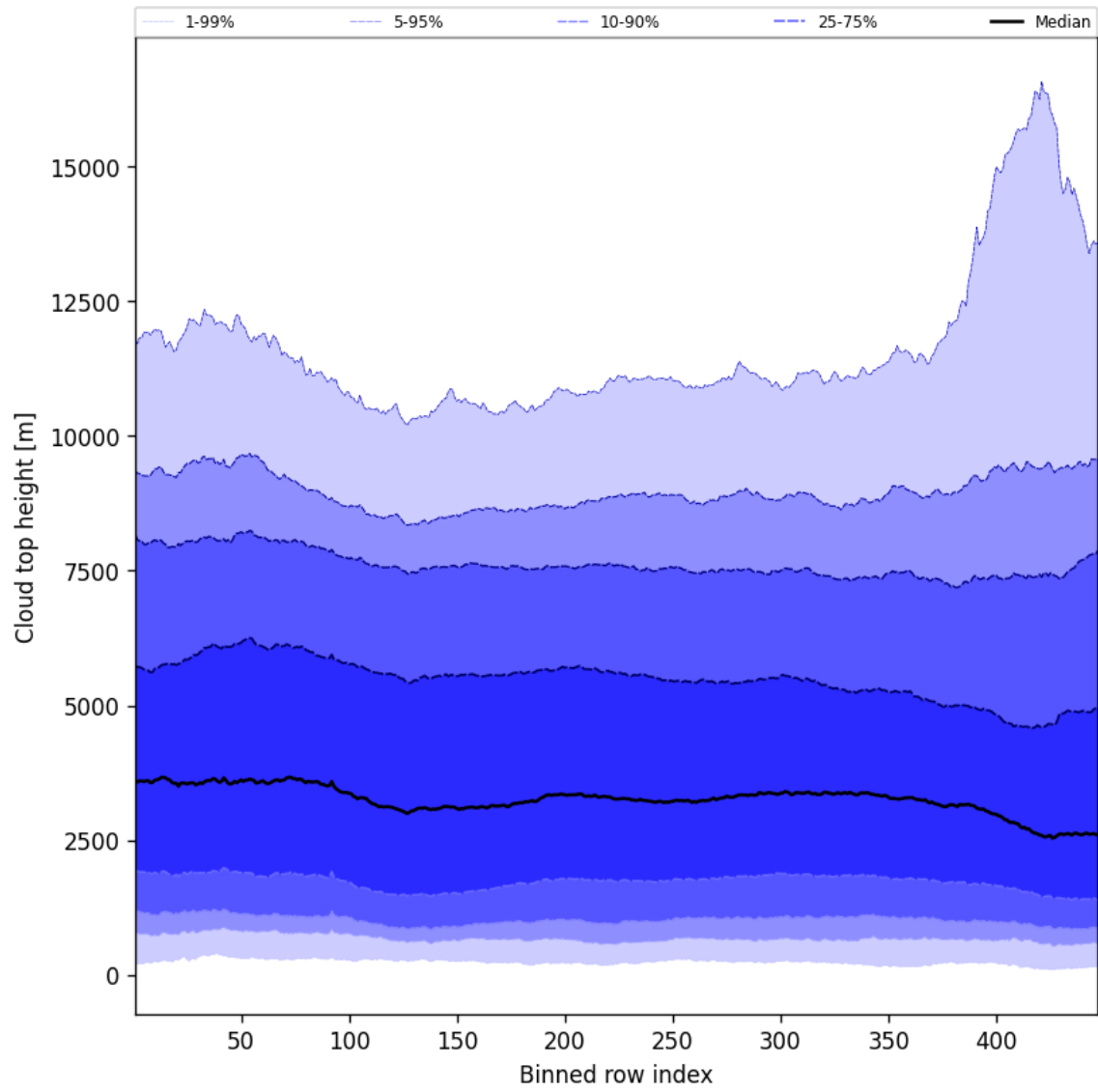


Figure 54: Along track statistics of “Cloud top height” for 2025-10-15 to 2025-10-15

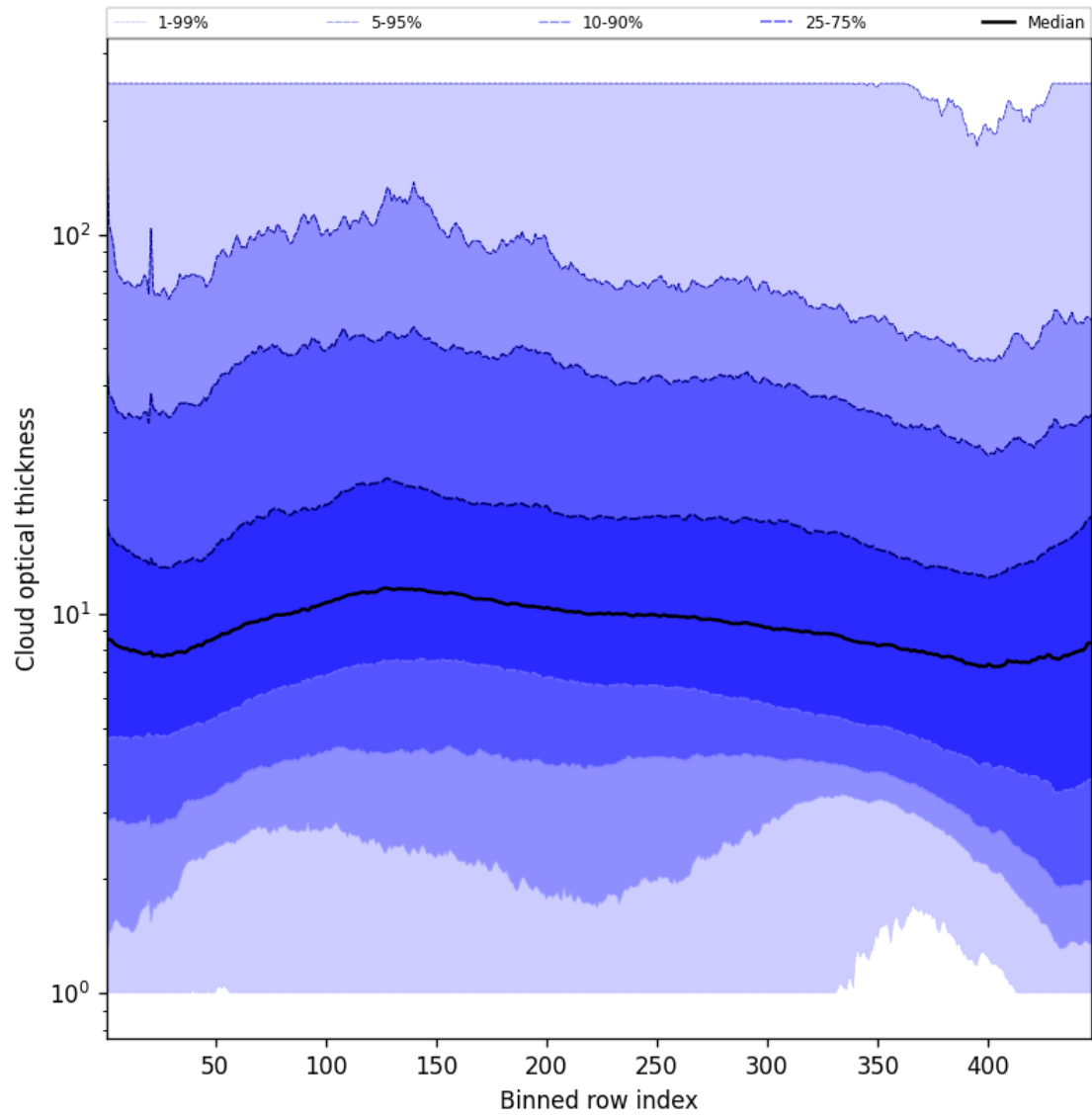


Figure 55: Along track statistics of “Cloud optical thickness” for 2025-10-15 to 2025-10-15

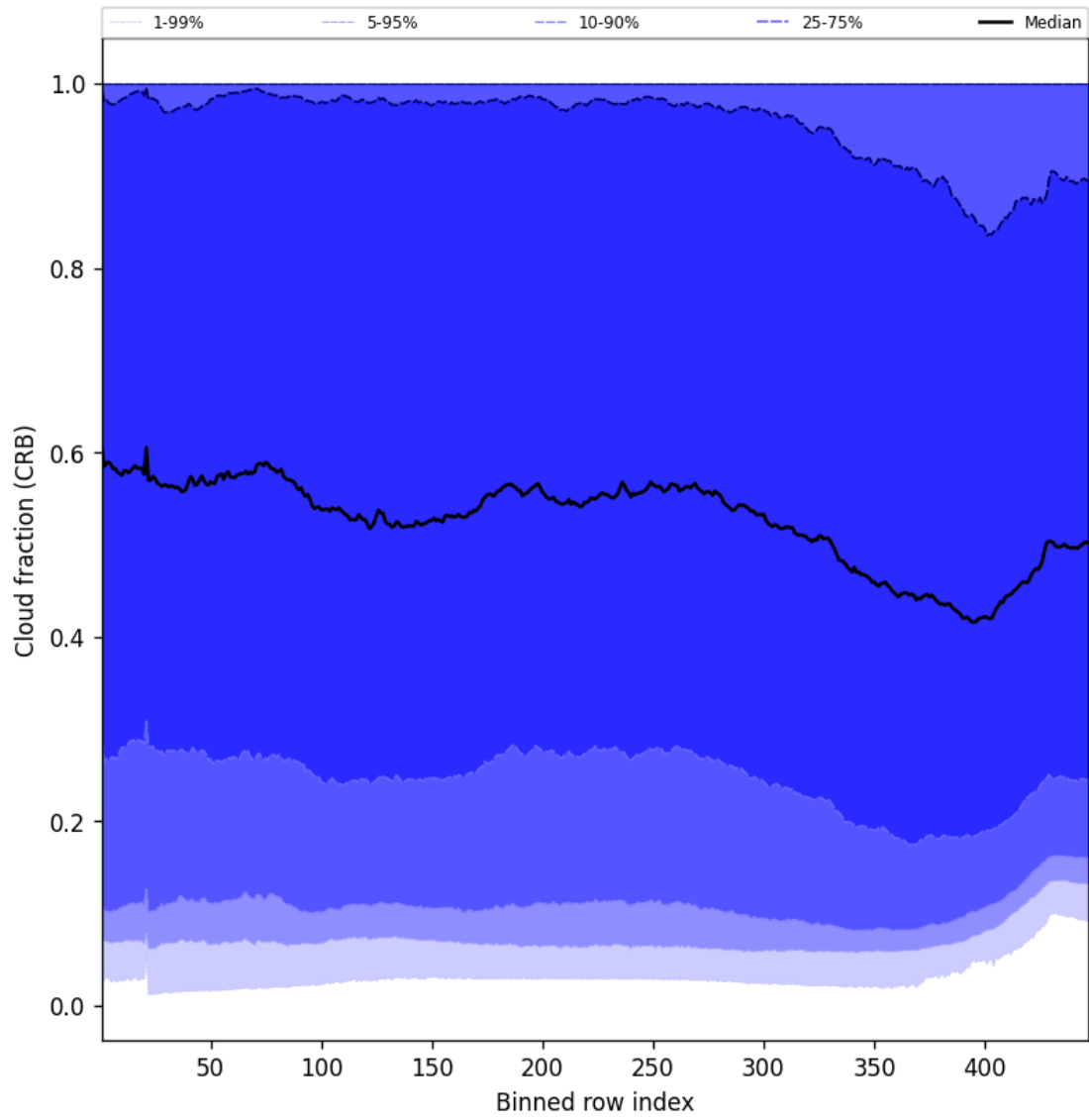


Figure 56: Along track statistics of “Cloud fraction (CRB)” for 2025-10-15 to 2025-10-15

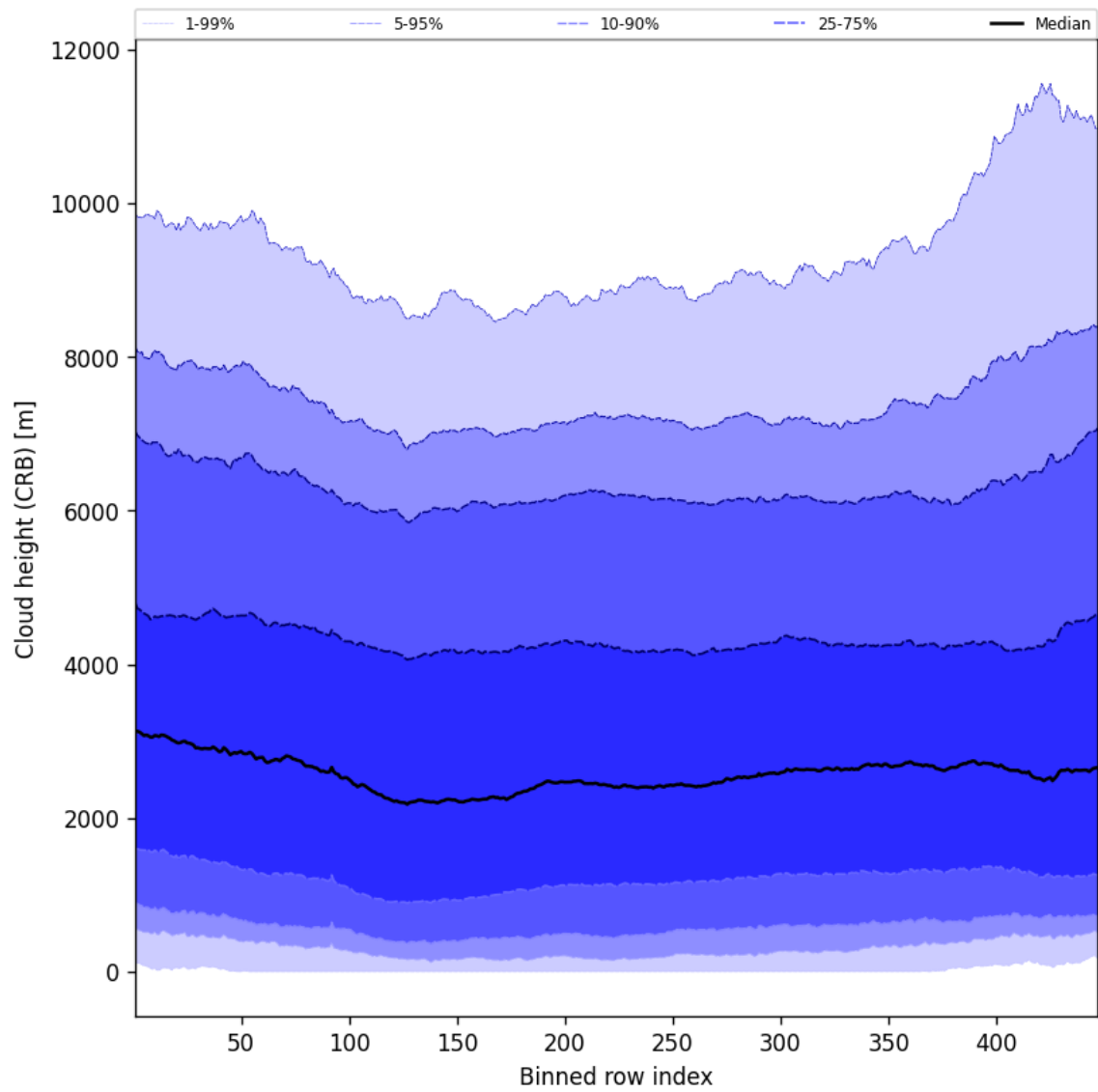


Figure 57: Along track statistics of “Cloud height (CRB)” for 2025-10-15 to 2025-10-15

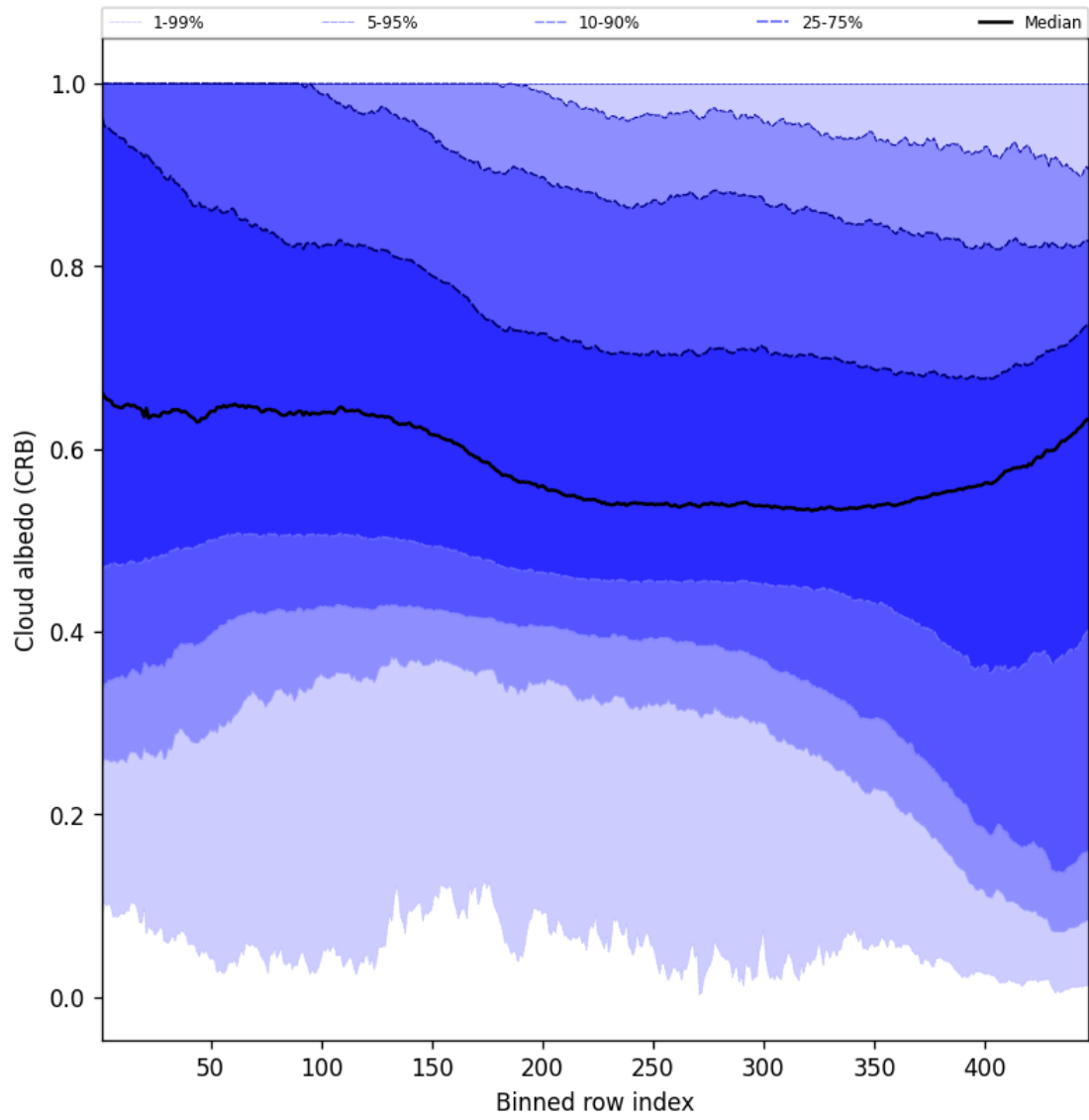


Figure 58: Along track statistics of “Cloud albedo (CRB)” for 2025-10-15 to 2025-10-15

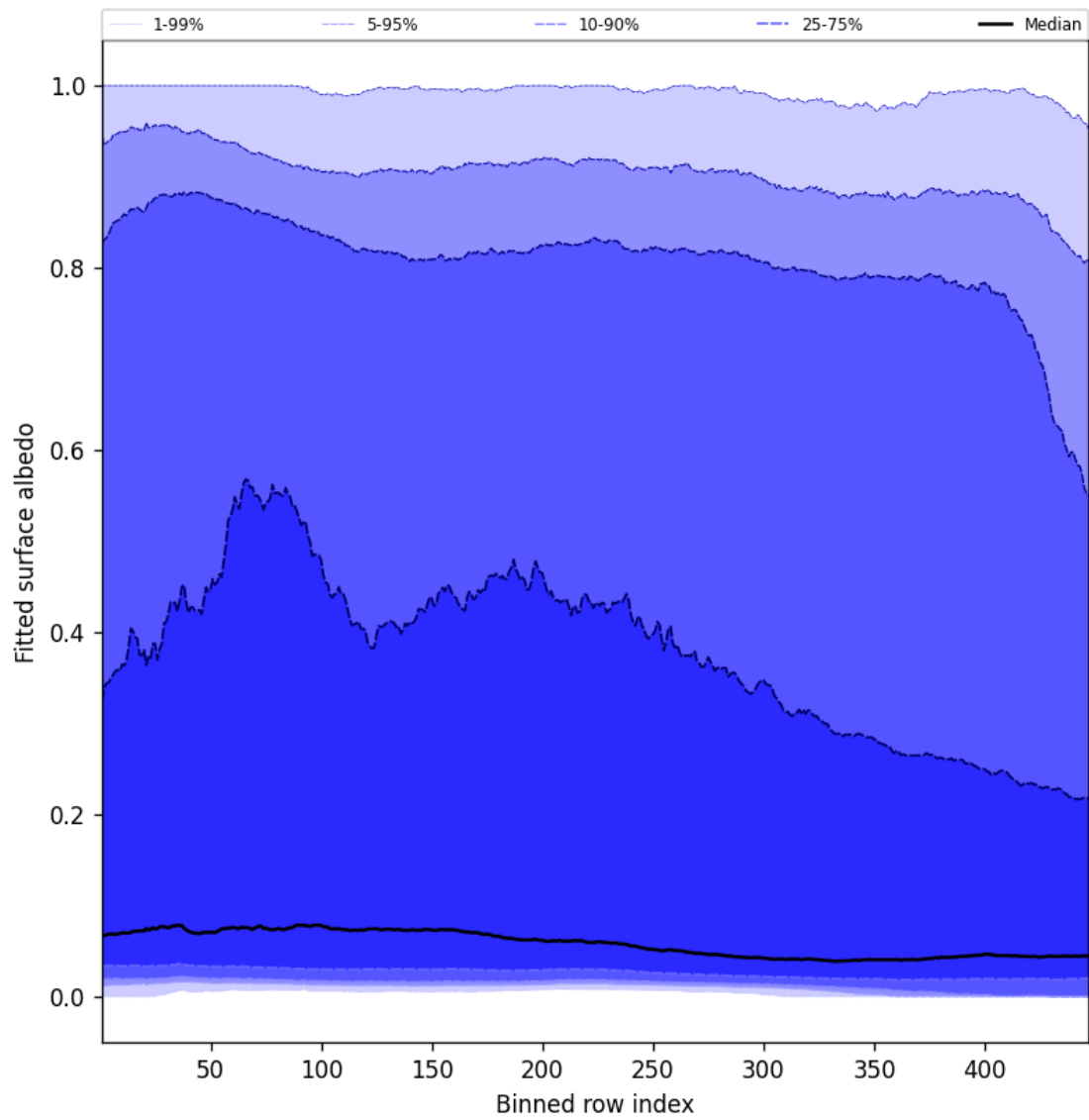


Figure 59: Along track statistics of “Fitted surface albedo” for 2025-10-15 to 2025-10-15

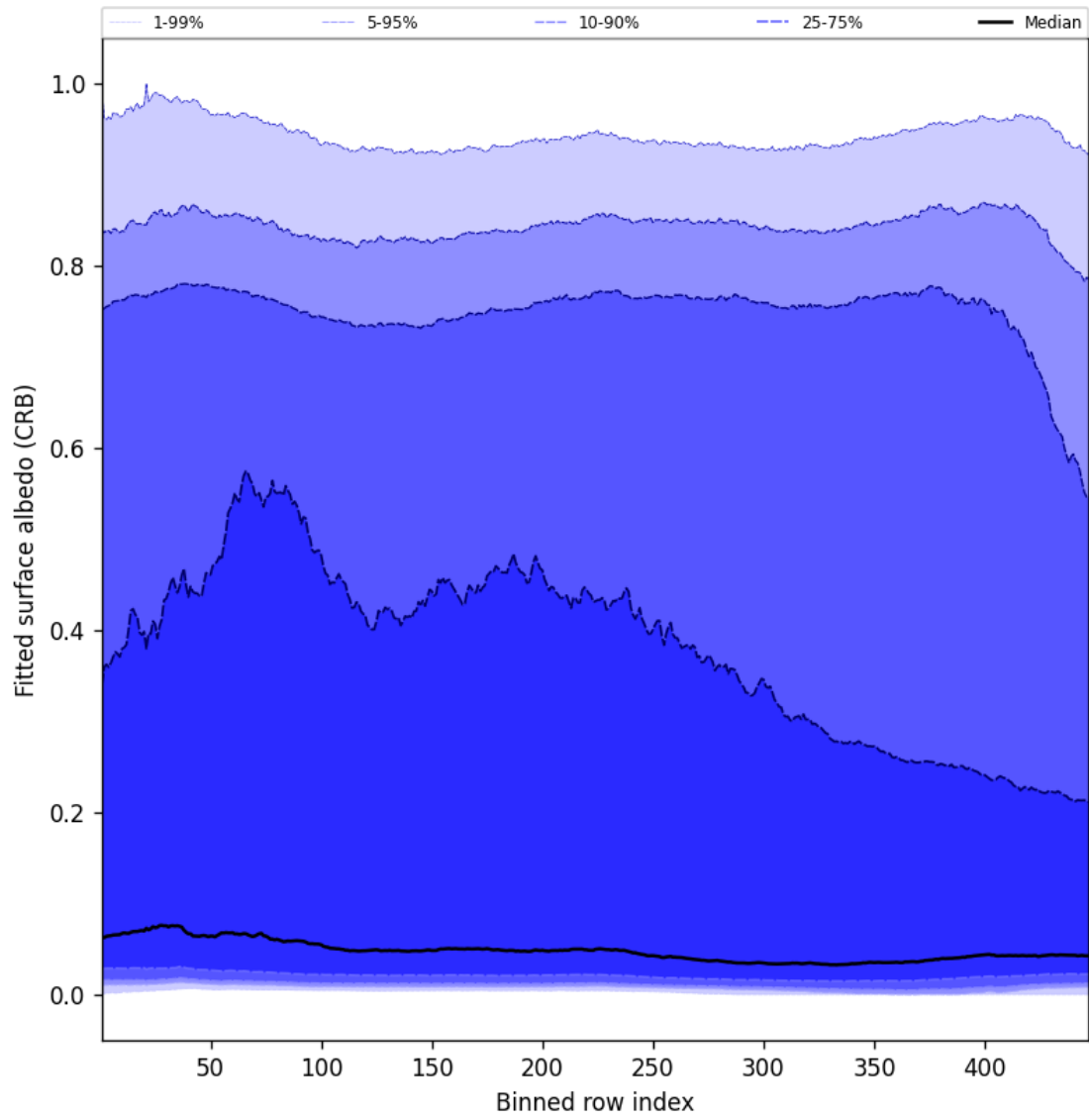


Figure 60: Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-15 to 2025-10-15

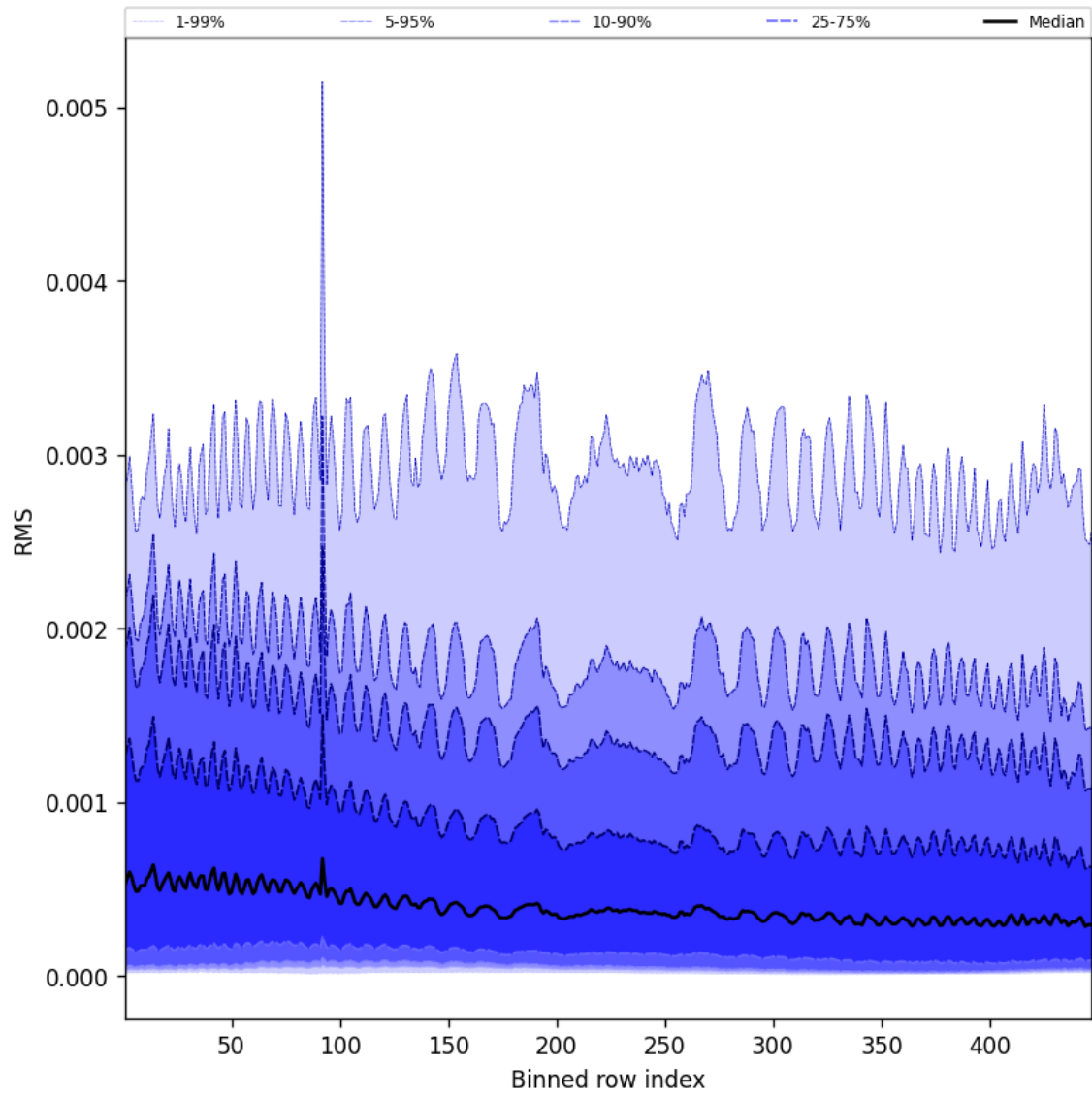


Figure 61: Along track statistics of “RMS” for 2025-10-15 to 2025-10-15

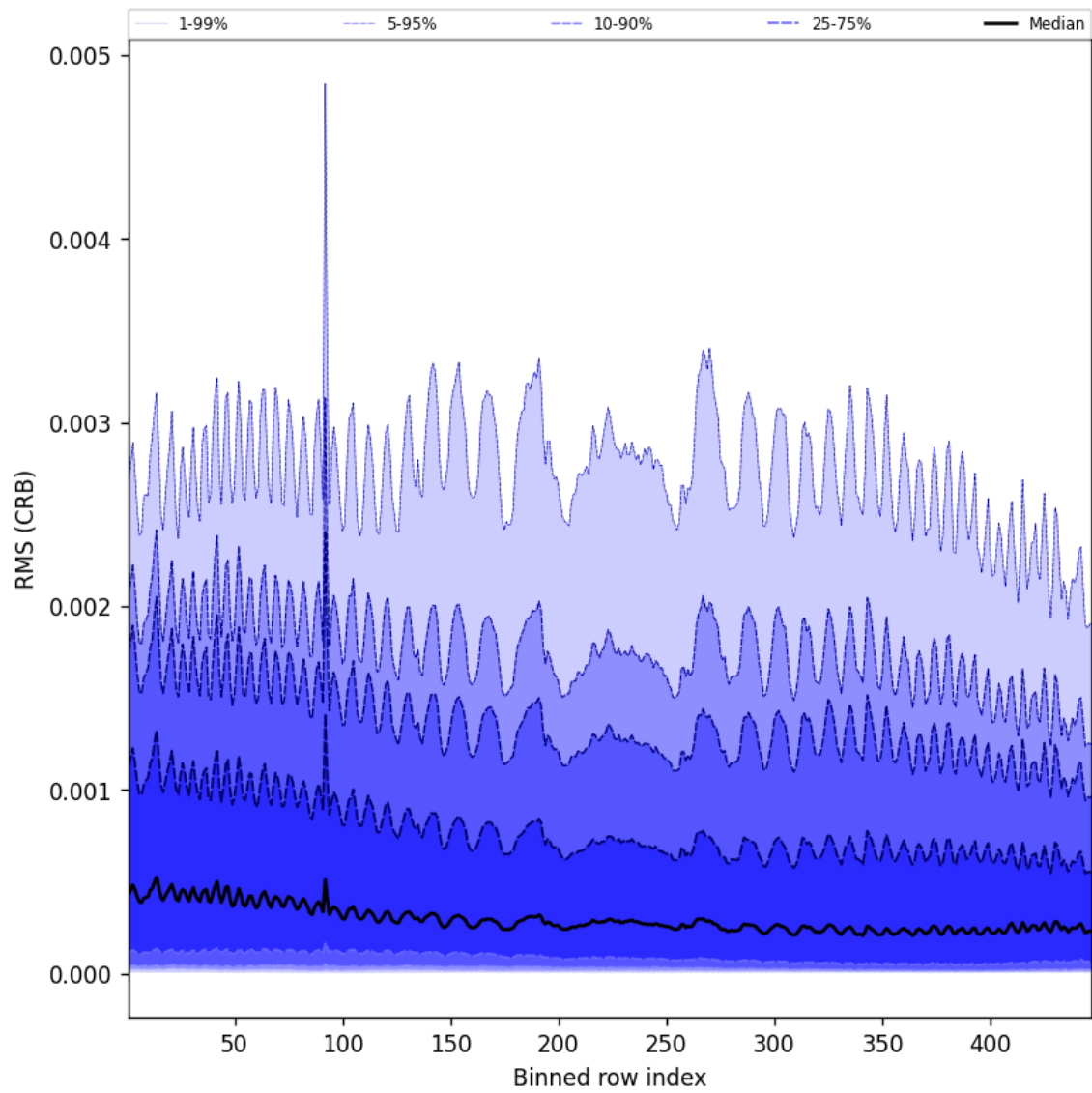


Figure 62: Along track statistics of “RMS (CRB)” for 2025-10-15 to 2025-10-15

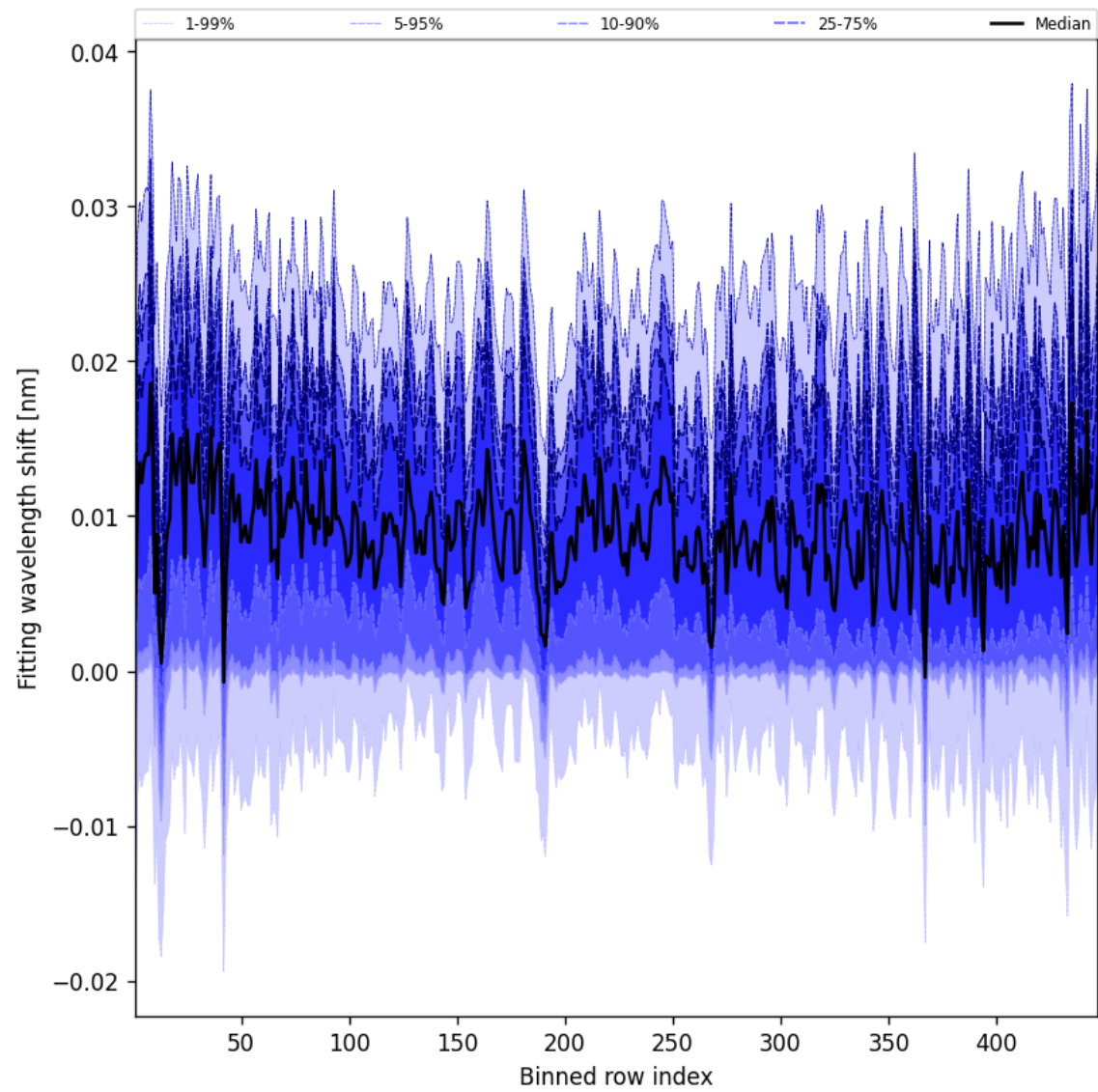


Figure 63: Along track statistics of “Fitting wavelength shift” for 2025-10-15 to 2025-10-15

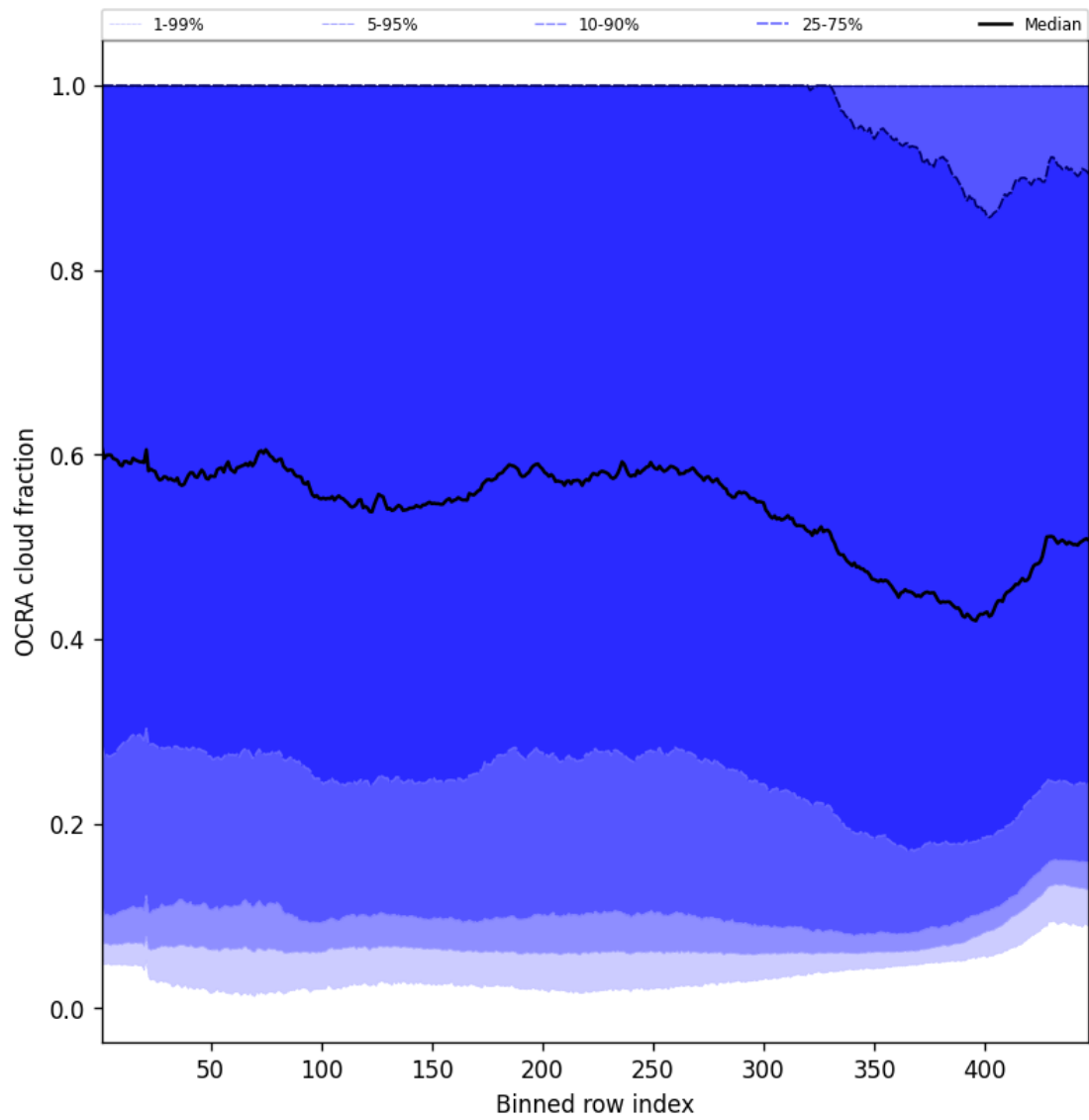


Figure 64: Along track statistics of “OCRA cloud fraction” for 2025-10-15 to 2025-10-15

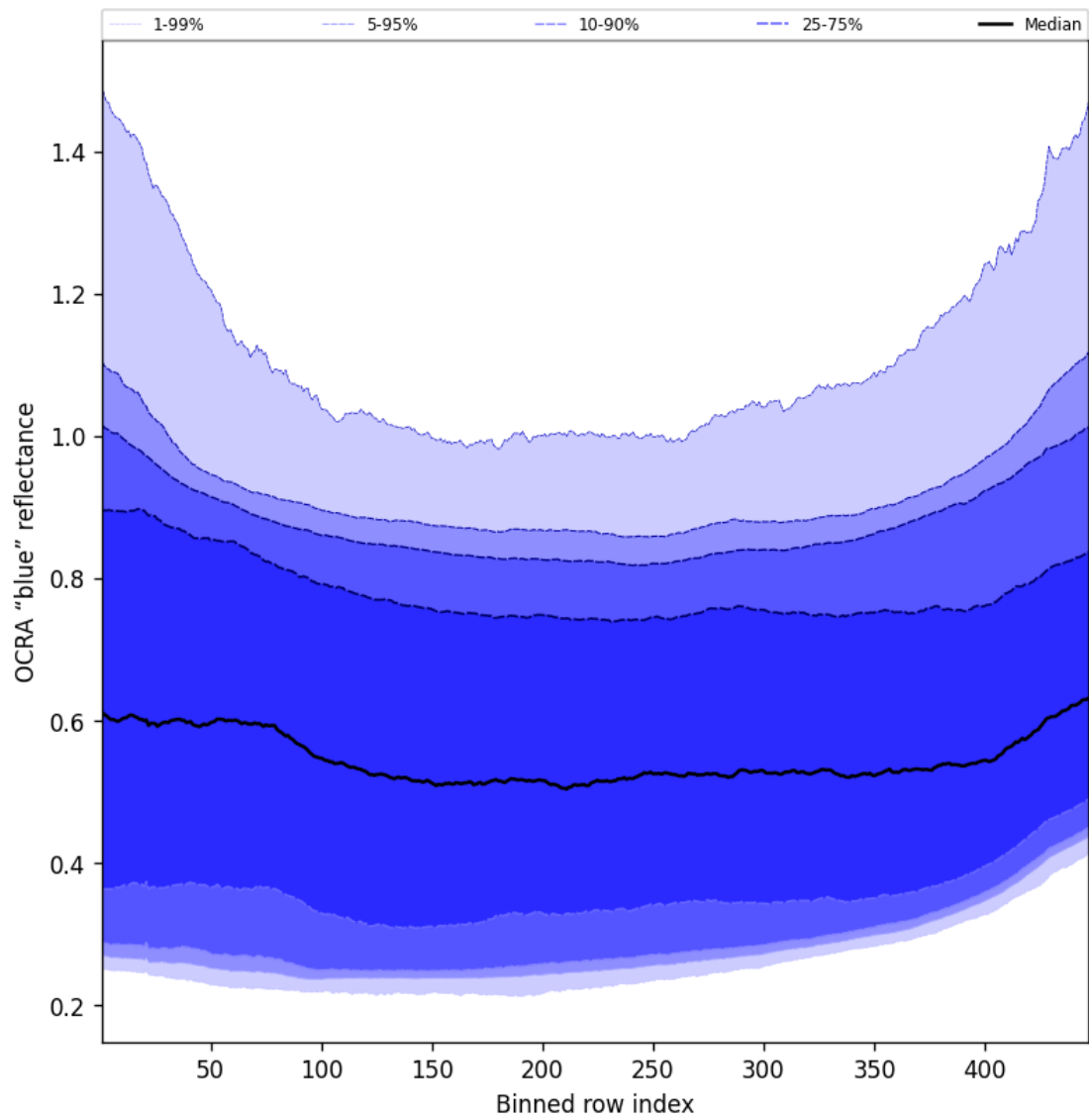


Figure 65: Along track statistics of “OCRA “blue” reflectance” for 2025-10-15 to 2025-10-15

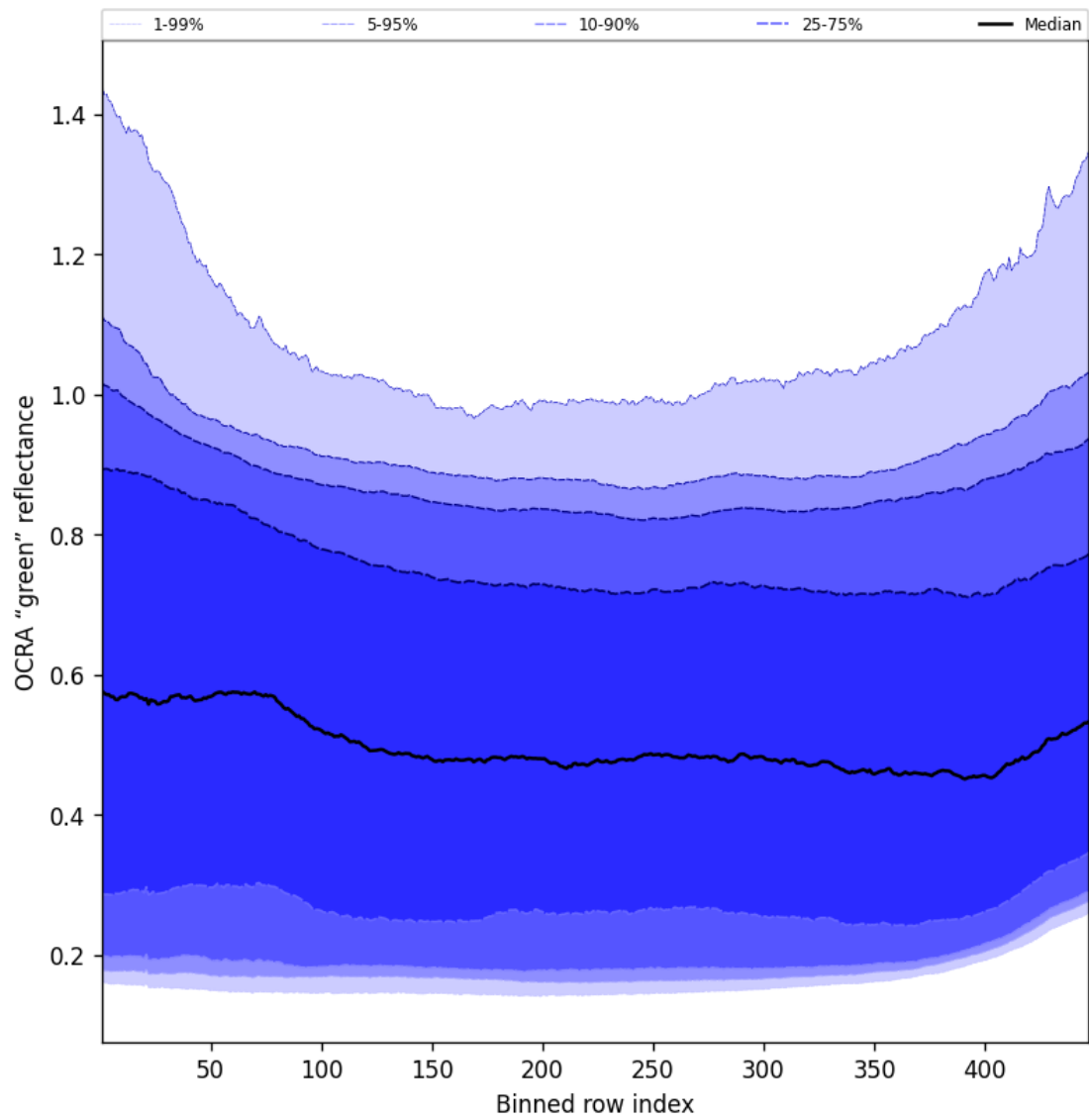


Figure 66: Along track statistics of “OCRA “green” reflectance” for 2025-10-15 to 2025-10-15

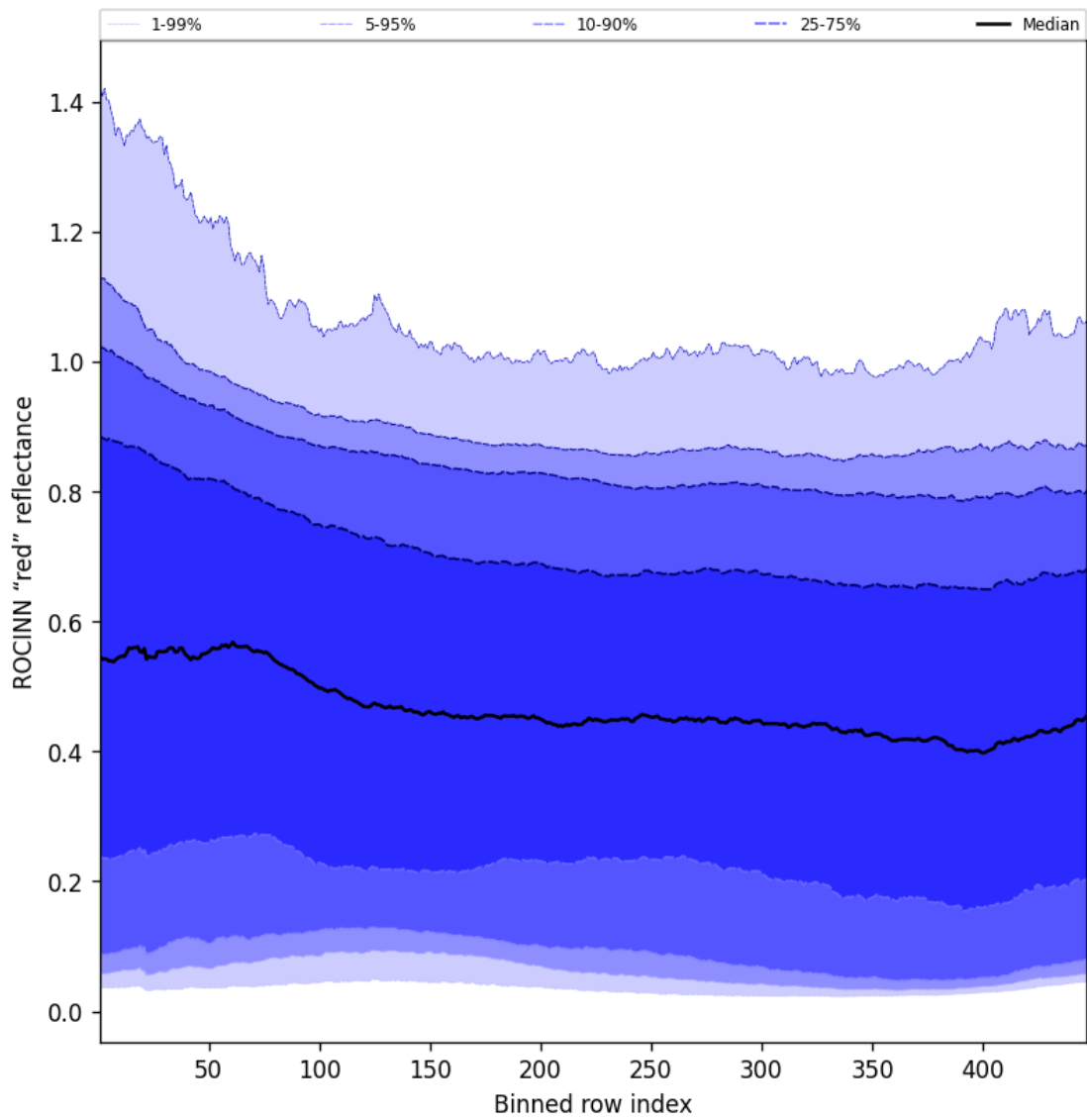


Figure 67: Along track statistics of "ROCINN "red" reflectance" for 2025-10-15 to 2025-10-15

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.

Contents

1	Short Introduction	1
1.1	The list of parameters	1
2	Definitions	1
3	Granule outlines	8
4	Input data monitoring	9
5	Warnings and errors	10
6	World maps	11
7	Zonal average	27
8	Histograms	43
9	Along track statistics	59
10	Coincidence density	75
11	Copyright information of ‘PyCAMA’	75

List of Figures

1	Outline of the granules.	8
2	Input data per granule	9
3	Fraction of pixels with specific warnings and errors during processing	10
4	Map of “Radiometric cloud fraction” for 2025-10-15 to 2025-10-15	11
5	Map of “Cloud top height” for 2025-10-15 to 2025-10-15	12
6	Map of “Cloud optical thickness” for 2025-10-15 to 2025-10-15	13
7	Map of “Cloud fraction (CRB)” for 2025-10-15 to 2025-10-15	14
8	Map of “Cloud height (CRB)” for 2025-10-15 to 2025-10-15	15
9	Map of “Cloud albedo (CRB)” for 2025-10-15 to 2025-10-15	16
10	Map of “Fitted surface albedo” for 2025-10-15 to 2025-10-15	17
11	Map of “Fitted surface albedo (CRB)” for 2025-10-15 to 2025-10-15	18
12	Map of “RMS” for 2025-10-15 to 2025-10-15	19
13	Map of “RMS (CRB)” for 2025-10-15 to 2025-10-15	20
14	Map of “Fitting wavelength shift” for 2025-10-15 to 2025-10-15	21
15	Map of “OCRA cloud fraction” for 2025-10-15 to 2025-10-15	22
16	Map of “OCRA “blue” reflectance” for 2025-10-15 to 2025-10-15	23
17	Map of “OCRA “green” reflectance” for 2025-10-15 to 2025-10-15	24
18	Map of “ROCINN “red” reflectance” for 2025-10-15 to 2025-10-15	25
19	Map of the number of observations for 2025-10-15 to 2025-10-15	26
20	Zonal average of “QA value” for 2025-10-15 to 2025-10-15.	27
21	Zonal average of “Radiometric cloud fraction” for 2025-10-15 to 2025-10-15.	28
22	Zonal average of “Cloud top height” for 2025-10-15 to 2025-10-15.	29
23	Zonal average of “Cloud optical thickness” for 2025-10-15 to 2025-10-15.	30
24	Zonal average of “Cloud fraction (CRB)” for 2025-10-15 to 2025-10-15.	31
25	Zonal average of “Cloud height (CRB)” for 2025-10-15 to 2025-10-15.	32
26	Zonal average of “Cloud albedo (CRB)” for 2025-10-15 to 2025-10-15.	33
27	Zonal average of “Fitted surface albedo” for 2025-10-15 to 2025-10-15.	34
28	Zonal average of “Fitted surface albedo (CRB)” for 2025-10-15 to 2025-10-15.	35
29	Zonal average of “RMS” for 2025-10-15 to 2025-10-15.	36

30	Zonal average of “RMS (CRB)” for 2025-10-15 to 2025-10-15	37
31	Zonal average of “Fitting wavelength shift” for 2025-10-15 to 2025-10-15	38
32	Zonal average of “OCRA cloud fraction” for 2025-10-15 to 2025-10-15	39
33	Zonal average of “OCRA “blue” reflectance” for 2025-10-15 to 2025-10-15	40
34	Zonal average of “OCRA “green” reflectance” for 2025-10-15 to 2025-10-15	41
35	Zonal average of “ROCINN “red” reflectance” for 2025-10-15 to 2025-10-15	42
36	Histogram of “QA value” for 2025-10-15 to 2025-10-15	43
37	Histogram of “Radiometric cloud fraction” for 2025-10-15 to 2025-10-15	44
38	Histogram of “Cloud top height” for 2025-10-15 to 2025-10-15	45
39	Histogram of “Cloud optical thickness” for 2025-10-15 to 2025-10-15	46
40	Histogram of “Cloud fraction (CRB)” for 2025-10-15 to 2025-10-15	47
41	Histogram of “Cloud height (CRB)” for 2025-10-15 to 2025-10-15	48
42	Histogram of “Cloud albedo (CRB)” for 2025-10-15 to 2025-10-15	49
43	Histogram of “Fitted surface albedo” for 2025-10-15 to 2025-10-15	50
44	Histogram of “Fitted surface albedo (CRB)” for 2025-10-15 to 2025-10-15	51
45	Histogram of “RMS” for 2025-10-15 to 2025-10-15	52
46	Histogram of “RMS (CRB)” for 2025-10-15 to 2025-10-15	53
47	Histogram of “Fitting wavelength shift” for 2025-10-15 to 2025-10-15	54
48	Histogram of “OCRA cloud fraction” for 2025-10-15 to 2025-10-15	55
49	Histogram of “OCRA “blue” reflectance” for 2025-10-15 to 2025-10-15	56
50	Histogram of “OCRA “green” reflectance” for 2025-10-15 to 2025-10-15	57
51	Histogram of “ROCINN “red” reflectance” for 2025-10-15 to 2025-10-15	58
52	Along track statistics of “QA value” for 2025-10-15 to 2025-10-15	59
53	Along track statistics of “Radiometric cloud fraction” for 2025-10-15 to 2025-10-15	60
54	Along track statistics of “Cloud top height” for 2025-10-15 to 2025-10-15	61
55	Along track statistics of “Cloud optical thickness” for 2025-10-15 to 2025-10-15	62
56	Along track statistics of “Cloud fraction (CRB)” for 2025-10-15 to 2025-10-15	63
57	Along track statistics of “Cloud height (CRB)” for 2025-10-15 to 2025-10-15	64
58	Along track statistics of “Cloud albedo (CRB)” for 2025-10-15 to 2025-10-15	65
59	Along track statistics of “Fitted surface albedo” for 2025-10-15 to 2025-10-15	66
60	Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-15 to 2025-10-15	67
61	Along track statistics of “RMS” for 2025-10-15 to 2025-10-15	68
62	Along track statistics of “RMS (CRB)” for 2025-10-15 to 2025-10-15	69
63	Along track statistics of “Fitting wavelength shift” for 2025-10-15 to 2025-10-15	70
64	Along track statistics of “OCRA cloud fraction” for 2025-10-15 to 2025-10-15	71
65	Along track statistics of “OCRA “blue” reflectance” for 2025-10-15 to 2025-10-15	72
66	Along track statistics of “OCRA “green” reflectance” for 2025-10-15 to 2025-10-15	73
67	Along track statistics of “ROCINN “red” reflectance” for 2025-10-15 to 2025-10-15	74

List of Tables

1	Parameterlist and basic statistics for the analysis	2
2	Percentile ranges	3
3	Parameterlist and basic statistics for the analysis for observations in the northern hemisphere	4
4	Parameterlist and basic statistics for the analysis for observations in the southern hemisphere	5
5	Parameterlist and basic statistics for the analysis for observations over water	6
6	Parameterlist and basic statistics for the analysis for observations over land	7

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