

PyCAMA report generated by tropl2-proc

tropl2-proc

2025-10-07 (03:15)

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]	0.642 ± 0.370	20668132	0.995	0.550	0.800	0.0	1.000
cloud fraction [1]	0.586 ± 0.347	20668132	0.995	0.738	0.580	2.463×10^{-3}	1.000
cloud top height [m]	$(0.392 \pm 0.273) \times 10^4$	20668132	1.425×10^3	3.793×10^3	3.254×10^3	0.0	2.000×10^4
cloud optical thickness [1]	22.9 ± 41.6	20668132	9.77	13.1	10.1	1.000	250
cloud fraction crb [1]	0.585 ± 0.347	20668132	0.995	0.737	0.578	1.297×10^{-3}	1.000
cloud height crb [m]	$(0.309 \pm 0.230) \times 10^4$	20668132	975	3.249×10^3	2.589×10^3	0.0	2.000×10^4
cloud albedo crb [1]	0.606 ± 0.211	20668132	0.995	0.272	0.585	0.0	1.000
surface albedo fitted [1]	0.221 ± 0.292	20668132	2.500×10^{-2}	0.263	5.438×10^{-2}	0.0	1.000
surface albedo fitted crb [1]	0.209 ± 0.277	20668132	1.500×10^{-2}	0.266	4.496×10^{-2}	0.0	1.000
fitted root mean square [1]	$(6.300 \pm 25.505) \times 10^{-4}$	20668132	5.000×10^{-5}	7.321×10^{-4}	3.917×10^{-4}	9.916×10^{-7}	1.40
fitted root mean square crb [1]	$(5.547 \pm 27.050) \times 10^{-4}$	20668132	5.000×10^{-5}	6.616×10^{-4}	2.987×10^{-4}	8.544×10^{-7}	1.47
wavelength shift [nm]	$(8.976 \pm 7.369) \times 10^{-3}$	20668132	9.000×10^{-4}	1.071×10^{-2}	8.582×10^{-3}	-0.243	0.785
cloud fraction apriori [1]	0.591 ± 0.352	20668132	0.995	0.747	0.593	0.0	1.000
reflectance blue ocra [1]	0.577 ± 0.231	20668132	0.285	0.393	0.562	0.131	2.05
reflectance green ocra [1]	0.526 ± 0.259	20668132	0.175	0.464	0.518	7.263×10^{-2}	2.02
reflectance continuum aband [1]	0.477 ± 0.284	20668132	4.500×10^{-2}	0.467	0.482	1.263×10^{-2}	5.46

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	0.400	0.950	1.000	1.000	1.000	1.000
cloud fraction [1]	2.802×10^{-2}	7.176×10^{-2}	0.112	0.164	0.256	0.993	1.000	1.000	1.000	1.000
cloud top height [m]	282	783	1.096×10^3	1.358×10^3	1.740×10^3	5.534×10^3	6.738×10^3	7.773×10^3	9.165×10^3	1.180×10^4
cloud optical thickness [1]	1.000	2.65	3.82	4.78	6.09	19.2	30.2	45.7	85.0	250
cloud fraction crb [1]	2.742×10^{-2}	7.089×10^{-2}	0.111	0.163	0.256	0.993	1.000	1.000	1.000	1.000
cloud height crb [m]	0.0	359	641	870	1.204×10^3	4.454×10^3	5.507×10^3	6.456×10^3	7.619×10^3	9.602×10^3
cloud albedo crb [1]	6.408×10^{-2}	0.258	0.368	0.427	0.473	0.745	0.835	0.922	1.000	1.000
surface albedo fitted [1]	0.0	8.739×10^{-3}	1.415×10^{-2}	1.880×10^{-2}	2.551×10^{-2}	0.289	0.655	0.765	0.860	0.986
surface albedo fitted crb [1]	0.0	7.294×10^{-3}	1.107×10^{-2}	1.469×10^{-2}	2.017×10^{-2}	0.286	0.624	0.717	0.807	0.926
fitted root mean square [1]	1.584×10^{-5}	3.032×10^{-5}	4.938×10^{-5}	7.888×10^{-5}	1.342×10^{-4}	8.663×10^{-4}	1.166×10^{-3}	1.467×10^{-3}	1.920×10^{-3}	2.999×10^{-3}
fitted root mean square crb [1]	8.388×10^{-6}	1.881×10^{-5}	3.200×10^{-5}	5.115×10^{-5}	9.190×10^{-5}	7.535×10^{-4}	1.070×10^{-3}	1.387×10^{-3}	1.859×10^{-3}	2.888×10^{-3}
wavelength shift [nm]	-6.683×10^{-3}	-3.905×10^{-4}	4.151×10^{-4}	1.402×10^{-3}	3.267×10^{-3}	1.397×10^{-2}	1.638×10^{-2}	1.843×10^{-2}	2.111×10^{-2}	2.698×10^{-2}
cloud fraction apriori [1]	3.182×10^{-2}	6.751×10^{-2}	0.105	0.157	0.253	1.000	1.000	1.000	1.000	1.000
reflectance blue ocra [1]	0.233	0.258	0.285	0.317	0.371	0.765	0.824	0.870	0.935	1.15
reflectance green ocra [1]	0.153	0.173	0.193	0.222	0.279	0.743	0.813	0.863	0.927	1.11
reflectance continuum aband [1]	3.080×10^{-2}	5.382×10^{-2}	8.787×10^{-2}	0.137	0.233	0.700	0.781	0.840	0.912	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]	0.640 ± 0.373	10234642	0.590	0.820	0.0	1.000	0.360	0.950
cloud fraction [1]	0.623 ± 0.353	10234642	0.728	0.689	2.463×10^{-3}	1.000	0.272	1.000
cloud top height [m]	$(0.401 \pm 0.259) \times 10^4$	10234642	3.617×10^3	3.466×10^3	0.0	2.000×10^4	1.923×10^3	5.540×10^3
cloud optical thickness [1]	24.2 ± 39.5	10234642	16.4	10.9	1.000	250	6.62	23.0
cloud fraction crb [1]	0.622 ± 0.353	10234642	0.729	0.687	1.297×10^{-3}	1.000	0.271	1.000
cloud height crb [m]	$(0.330 \pm 0.225) \times 10^4$	10234642	3.188×10^3	2.894×10^3	0.0	2.000×10^4	1.450×10^3	4.638×10^3
cloud albedo crb [1]	0.584 ± 0.196	10234642	0.242	0.576	0.0	1.000	0.467	0.710
surface albedo fitted [1]	0.160 ± 0.205	10234642	0.182	6.480×10^{-2}	0.0	1.000	2.685×10^{-2}	0.209
surface albedo fitted crb [1]	0.154 ± 0.204	10234642	0.183	5.221×10^{-2}	0.0	1.000	2.122×10^{-2}	0.204
fitted root mean square [1]	$(5.450 \pm 35.275) \times 10^{-4}$	10234642	5.598×10^{-4}	2.726×10^{-4}	9.916×10^{-7}	1.40	1.086×10^{-4}	6.684×10^{-4}
fitted root mean square crb [1]	$(5.041 \pm 37.738) \times 10^{-4}$	10234642	5.657×10^{-4}	2.156×10^{-4}	8.544×10^{-7}	1.47	6.439×10^{-5}	6.301×10^{-4}
wavelength shift [nm]	$(7.856 \pm 7.210) \times 10^{-3}$	10234642	1.009×10^{-2}	7.095×10^{-3}	-0.243	0.785	2.307×10^{-3}	1.240×10^{-2}
cloud fraction apriori [1]	0.628 ± 0.358	10234642	0.733	0.703	0.0	1.000	0.267	1.000
reflectance blue ocra [1]	0.552 ± 0.221	10234642	0.349	0.534	0.131	2.04	0.362	0.711
reflectance green ocra [1]	0.498 ± 0.246	10234642	0.414	0.483	7.263×10^{-2}	1.99	0.271	0.684
reflectance continuum aband [1]	0.452 ± 0.272	10234642	0.417	0.444	1.263×10^{-2}	5.46	0.229	0.646

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]	0.643 ± 0.368	10433490	0.550	0.800	0.0	1.000	0.400	0.950
cloud fraction [1]	0.549 ± 0.338	10433490	0.700	0.495	6.950×10^{-3}	1.000	0.245	0.945
cloud top height [m]	$(0.383 \pm 0.286) \times 10^4$	10433490	3.926×10^3	3.009×10^3	0.0	2.000×10^4	1.601×10^3	5.527×10^3
cloud optical thickness [1]	21.5 ± 43.4	10433490	10.3	9.55	1.000	250	5.64	15.9
cloud fraction crb [1]	0.549 ± 0.338	10433490	0.699	0.493	8.454×10^{-3}	1.000	0.246	0.944
cloud height crb [m]	$(0.288 \pm 0.233) \times 10^4$	10433490	3.213×10^3	2.228×10^3	0.0	2.000×10^4	1.031×10^3	4.244×10^3
cloud albedo crb [1]	0.628 ± 0.223	10433490	0.310	0.597	0.0	1.000	0.479	0.789
surface albedo fitted [1]	0.282 ± 0.346	10433490	0.649	4.759×10^{-2}	0.0	1.000	2.444×10^{-2}	0.673
surface albedo fitted crb [1]	0.263 ± 0.325	10433490	0.613	4.011×10^{-2}	0.0	1.000	1.924×10^{-2}	0.632
fitted root mean square [1]	$(7.134 \pm 8.165) \times 10^{-4}$	10433490	8.170×10^{-4}	5.378×10^{-4}	4.354×10^{-6}	0.291	1.926×10^{-4}	1.010×10^{-3}
fitted root mean square crb [1]	$(6.043 \pm 7.211) \times 10^{-4}$	10433490	7.170×10^{-4}	3.897×10^{-4}	2.094×10^{-6}	0.293	1.352×10^{-4}	8.522×10^{-4}
wavelength shift [nm]	$(1.007 \pm 0.736) \times 10^{-2}$	10433490	1.069×10^{-2}	1.016×10^{-2}	-4.084×10^{-2}	0.244	4.492×10^{-3}	1.519×10^{-2}
cloud fraction apriori [1]	0.555 ± 0.343	10433490	0.744	0.507	0.0	1.000	0.245	0.989
reflectance blue ocra [1]	0.601 ± 0.238	10433490	0.420	0.599	0.133	2.05	0.381	0.801
reflectance green ocra [1]	0.553 ± 0.269	10433490	0.497	0.563	8.408×10^{-2}	2.02	0.290	0.787
reflectance continuum aband [1]	0.502 ± 0.292	10433490	0.504	0.533	1.317×10^{-2}	4.32	0.239	0.742

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]	0.685 ± 0.346	13726961	0.570	0.860	0.0	1.000	0.400	0.970
cloud fraction [1]	0.586 ± 0.351	13726961	0.753	0.599	2.463×10^{-3}	1.000	0.239	0.993
cloud top height [m]	$(0.353 \pm 0.250) \times 10^4$	13726961	3.268×10^3	2.839×10^3	0.0	2.000×10^4	1.590×10^3	4.859×10^3
cloud optical thickness [1]	20.8 ± 34.9	13726961	11.8	10.5	1.000	250	6.90	18.7
cloud fraction crb [1]	0.585 ± 0.352	13726961	0.754	0.597	1.297×10^{-3}	1.000	0.238	0.992
cloud height crb [m]	$(0.283 \pm 0.224) \times 10^4$	13726961	3.008×10^3	2.231×10^3	0.0	2.000×10^4	1.056×10^3	4.064×10^3
cloud albedo crb [1]	0.564 ± 0.186	13726961	0.225	0.548	0.0	1.000	0.456	0.681
surface albedo fitted [1]	0.116 ± 0.225	13726961	3.594×10^{-2}	3.233×10^{-2}	0.0	1.000	1.944×10^{-2}	5.538×10^{-2}
surface albedo fitted crb [1]	0.108 ± 0.219	13726961	3.054×10^{-2}	2.592×10^{-2}	0.0	1.000	1.519×10^{-2}	4.573×10^{-2}
fitted root mean square [1]	$(5.811 \pm 30.666) \times 10^{-4}$	13726961	7.050×10^{-4}	2.967×10^{-4}	9.916×10^{-7}	1.40	9.568×10^{-5}	8.007×10^{-4}
fitted root mean square crb [1]	$(5.472 \pm 32.844) \times 10^{-4}$	13726961	6.858×10^{-4}	2.571×10^{-4}	8.544×10^{-7}	1.47	7.049×10^{-5}	7.562×10^{-4}
wavelength shift [nm]	$(8.629 \pm 7.731) \times 10^{-3}$	13726961	1.133×10^{-2}	7.971×10^{-3}	-5.337×10^{-2}	0.785	2.587×10^{-3}	1.392×10^{-2}
cloud fraction apriori [1]	0.589 ± 0.356	13726961	0.767	0.608	0.0	1.000	0.233	1.000
reflectance blue ocr [1]	0.536 ± 0.212	13726961	0.347	0.509	0.146	2.04	0.352	0.698
reflectance green ocr [1]	0.476 ± 0.239	13726961	0.417	0.452	8.757×10^{-2}	1.92	0.253	0.669
reflectance continuum aband [1]	0.406 ± 0.271	13726961	0.480	0.395	1.263×10^{-2}	5.46	0.147	0.627

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]	0.509 ± 0.407	5153101	0.900	0.650	0.0	1.000	0.0	0.900
cloud fraction [1]	0.536 ± 0.330	5153101	0.673	0.449	7.684×10^{-3}	1.000	0.255	0.928
cloud top height [m]	$(0.510 \pm 0.307) \times 10^4$	5153101	4.175×10^3	4.843×10^3	0.0	2.000×10^4	2.690×10^3	6.864×10^3
cloud optical thickness [1]	24.5 ± 52.0	5153101	11.3	7.64	1.000	250	4.77	16.1
cloud fraction crb [1]	0.537 ± 0.330	5153101	0.670	0.448	8.192×10^{-3}	1.000	0.257	0.927
cloud height crb [m]	$(0.386 \pm 0.236) \times 10^4$	5153101	3.414×10^3	3.604×10^3	0.0	2.000×10^4	1.953×10^3	5.367×10^3
cloud albedo crb [1]	0.708 ± 0.241	5153101	0.399	0.712	0.0	1.000	0.545	0.944
surface albedo fitted [1]	0.499 ± 0.294	5153101	0.554	0.399	0.0	1.000	0.219	0.773
surface albedo fitted crb [1]	0.471 ± 0.268	5153101	0.499	0.404	5.303×10^{-3}	1.000	0.214	0.712
fitted root mean square [1]	$(7.901 \pm 8.693) \times 10^{-4}$	5153101	7.158×10^{-4}	6.088×10^{-4}	3.696×10^{-6}	0.265	3.233×10^{-4}	1.039×10^{-3}
fitted root mean square crb [1]	$(5.983 \pm 6.580) \times 10^{-4}$	5153101	6.280×10^{-4}	3.863×10^{-4}	2.140×10^{-6}	0.110	1.644×10^{-4}	7.924×10^{-4}
wavelength shift [nm]	$(9.721 \pm 6.552) \times 10^{-3}$	5153101	9.404×10^{-3}	9.513×10^{-3}	-4.247×10^{-2}	5.807×10^{-2}	4.798×10^{-3}	1.420×10^{-2}
cloud fraction apriori [1]	0.546 ± 0.336	5153101	0.726	0.462	0.0	1.000	0.258	0.984
reflectance blue ocra [1]	0.677 ± 0.254	5153101	0.408	0.756	0.132	2.05	0.446	0.854
reflectance green ocra [1]	0.646 ± 0.278	5153101	0.468	0.730	7.835×10^{-2}	2.02	0.386	0.853
reflectance continuum aband [1]	0.640 ± 0.252	5153101	0.399	0.669	1.896×10^{-2}	4.32	0.425	0.824

3 Granule outlines

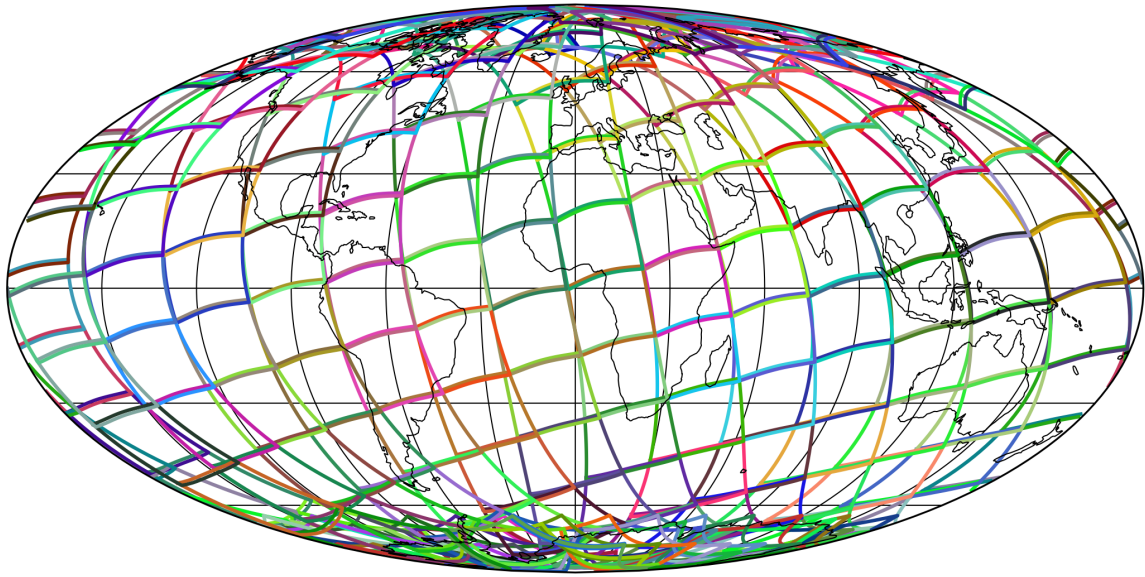


Figure 1: Outline of the granules.

4 Input data monitoring

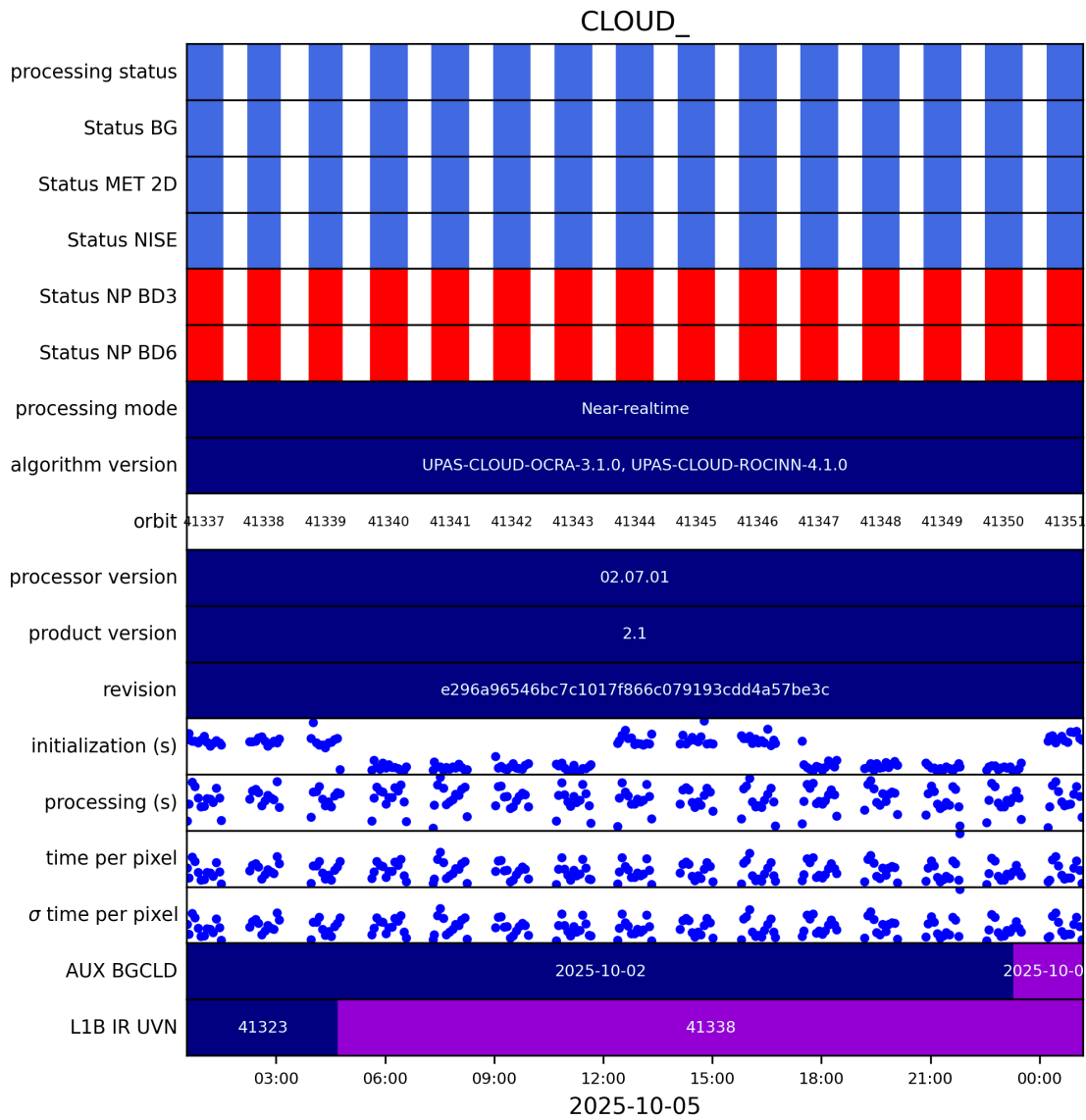


Figure 2: Input data per granule

5 Warnings and errors

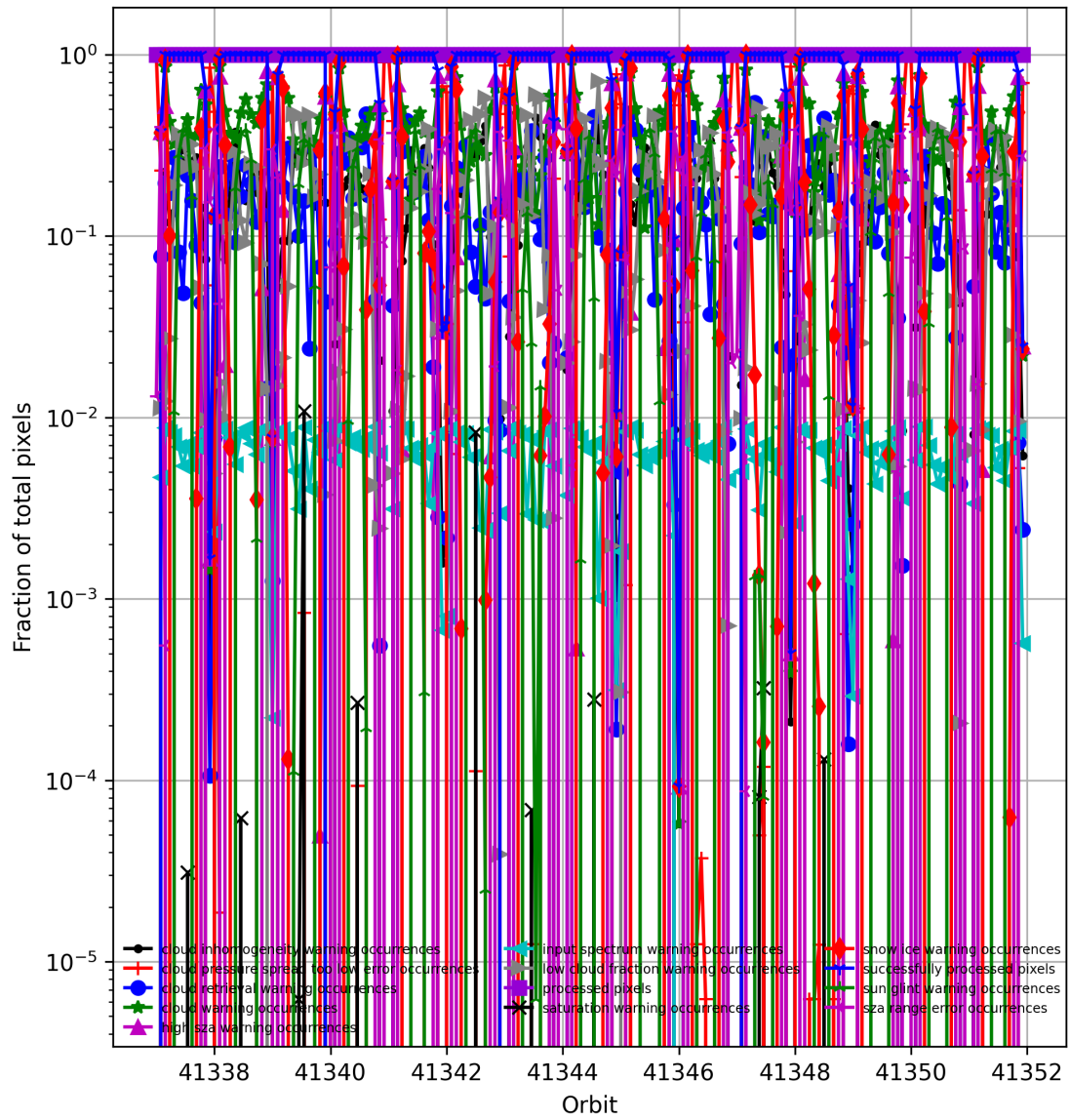


Figure 3: Fraction of pixels with specific warnings and errors during processing

6 World maps

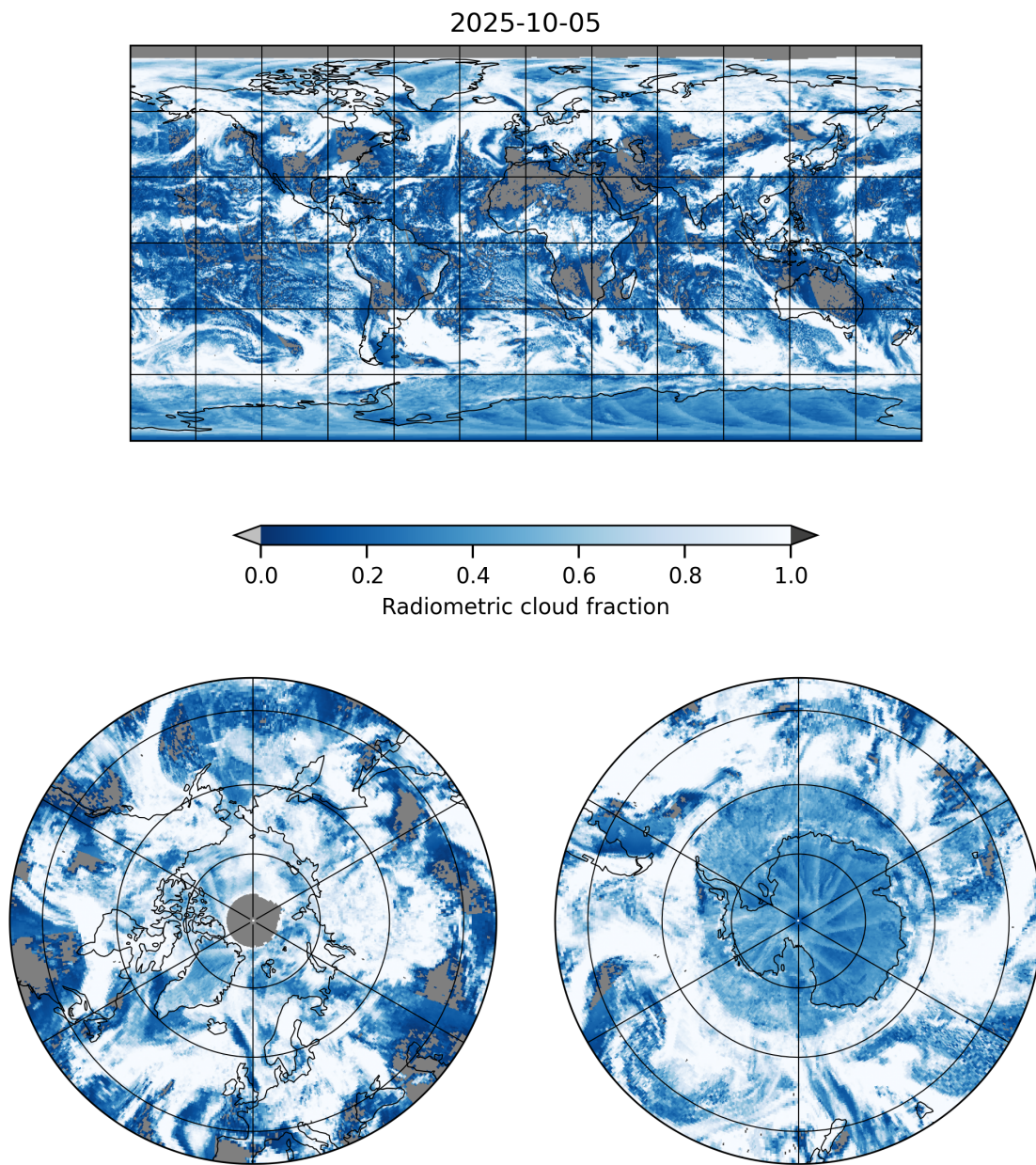


Figure 4: Map of “Radiometric cloud fraction” for 2025-10-05 to 2025-10-06

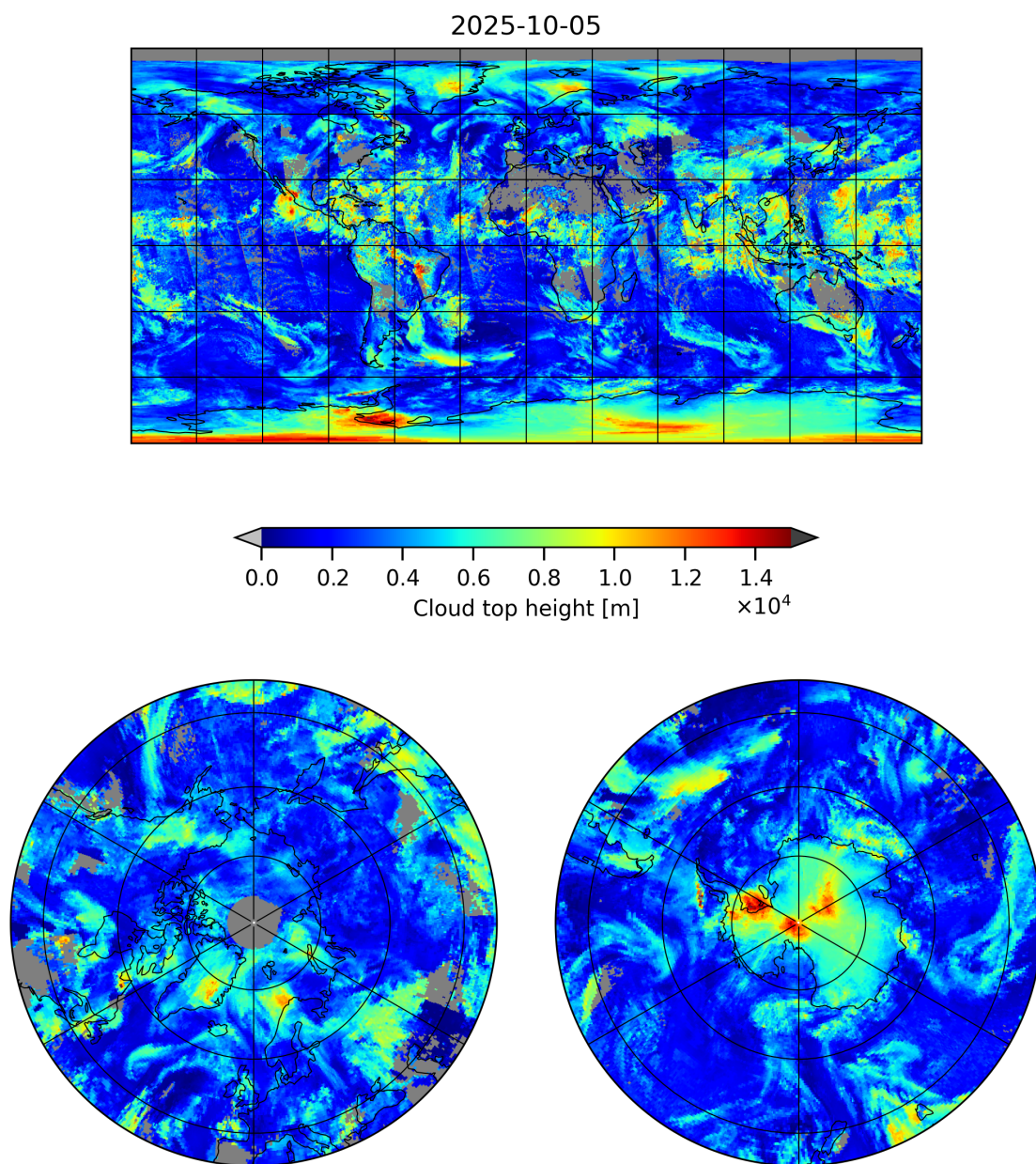


Figure 5: Map of “Cloud top height” for 2025-10-05 to 2025-10-06

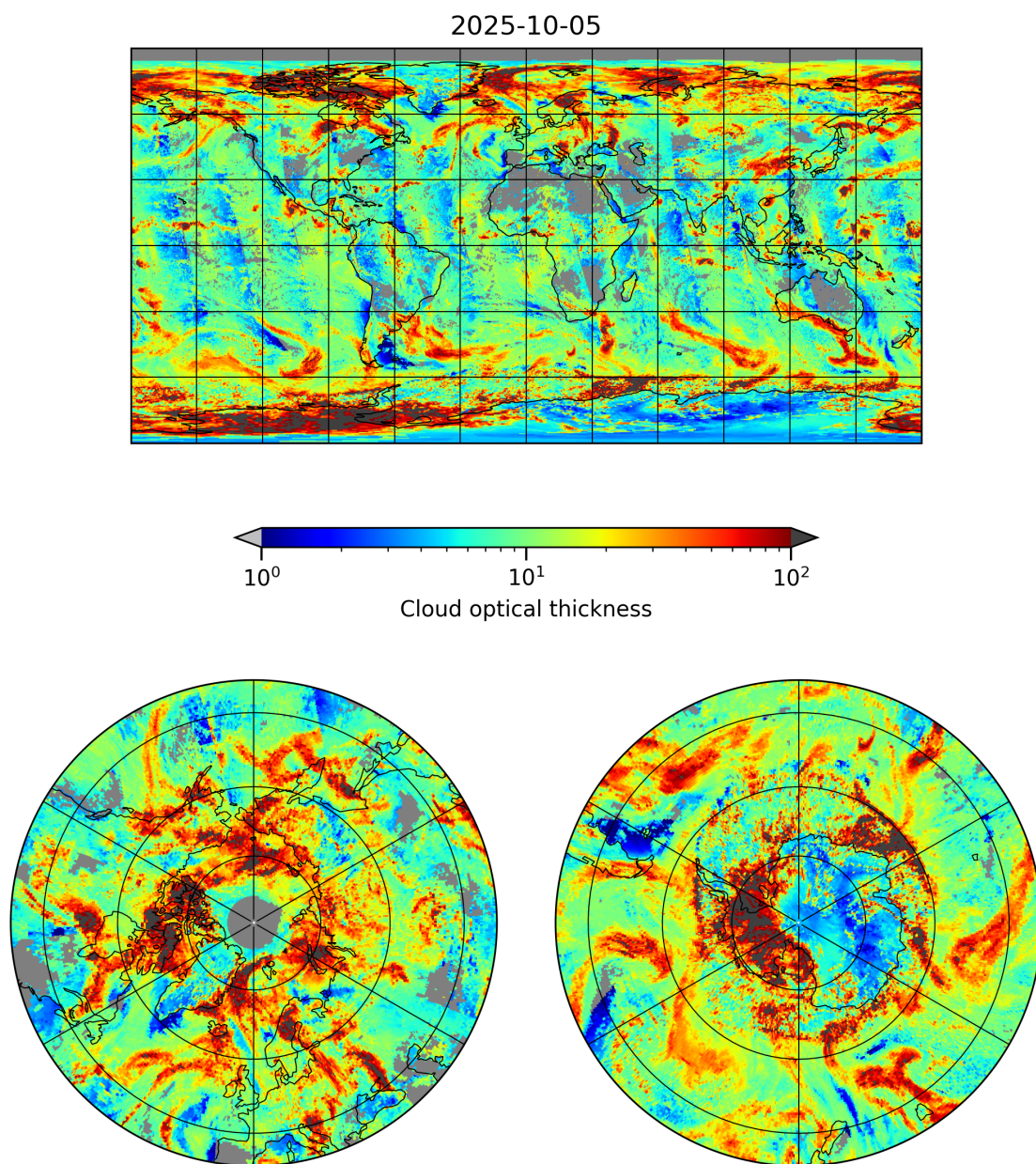


Figure 6: Map of “Cloud optical thickness” for 2025-10-05 to 2025-10-06

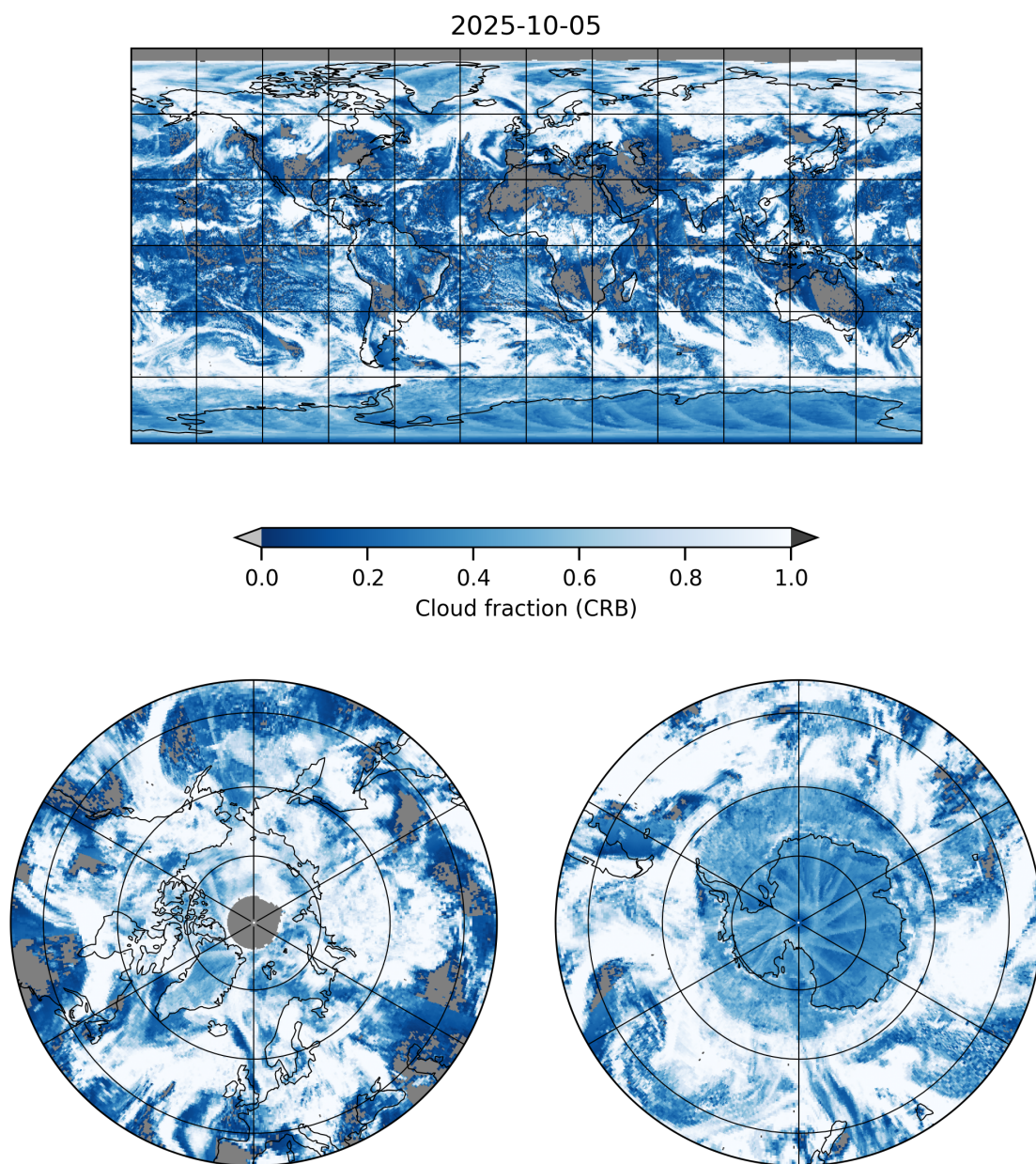


Figure 7: Map of “Cloud fraction (CRB)” for 2025-10-05 to 2025-10-06

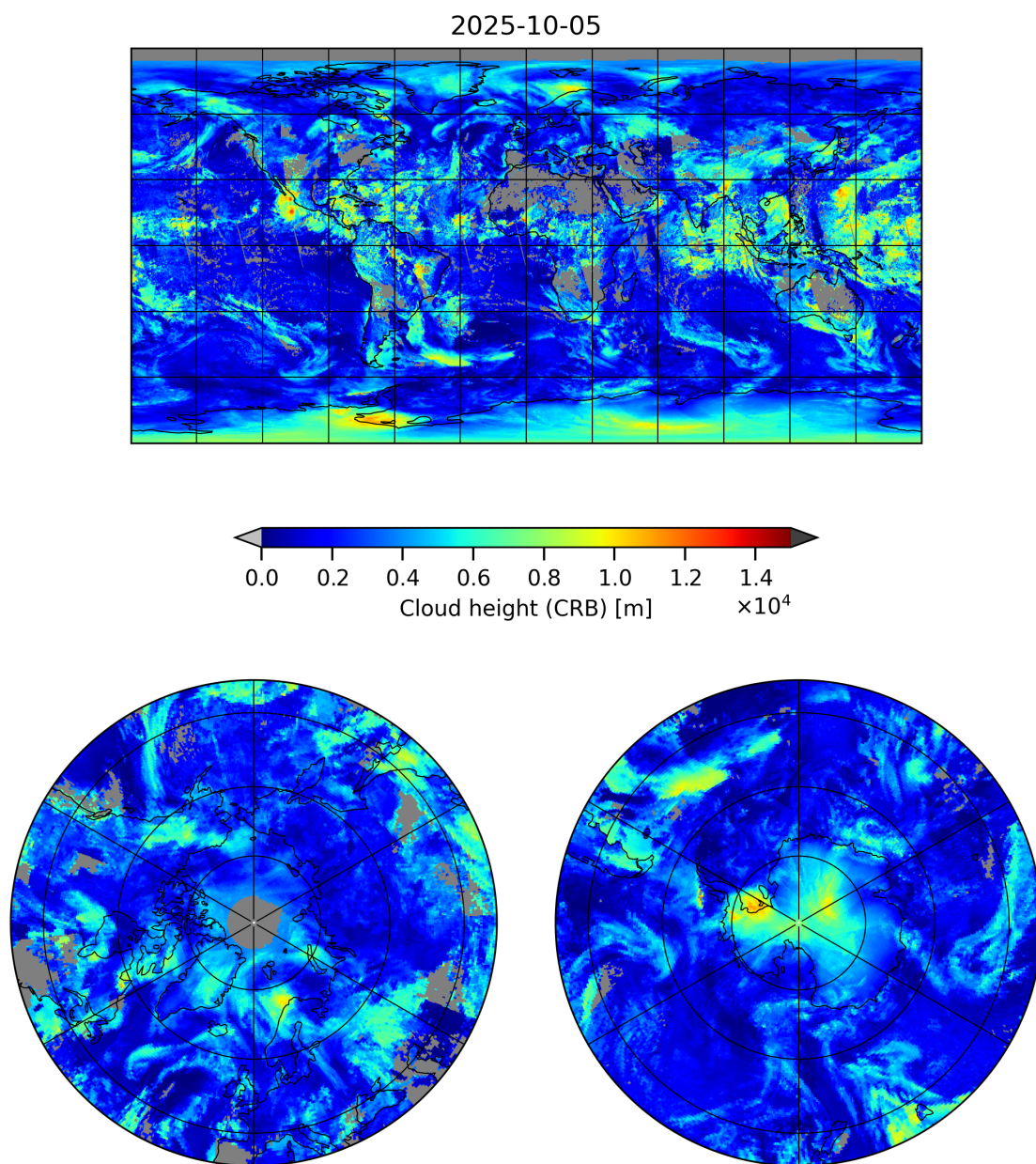


Figure 8: Map of “Cloud height (CRB)” for 2025-10-05 to 2025-10-06

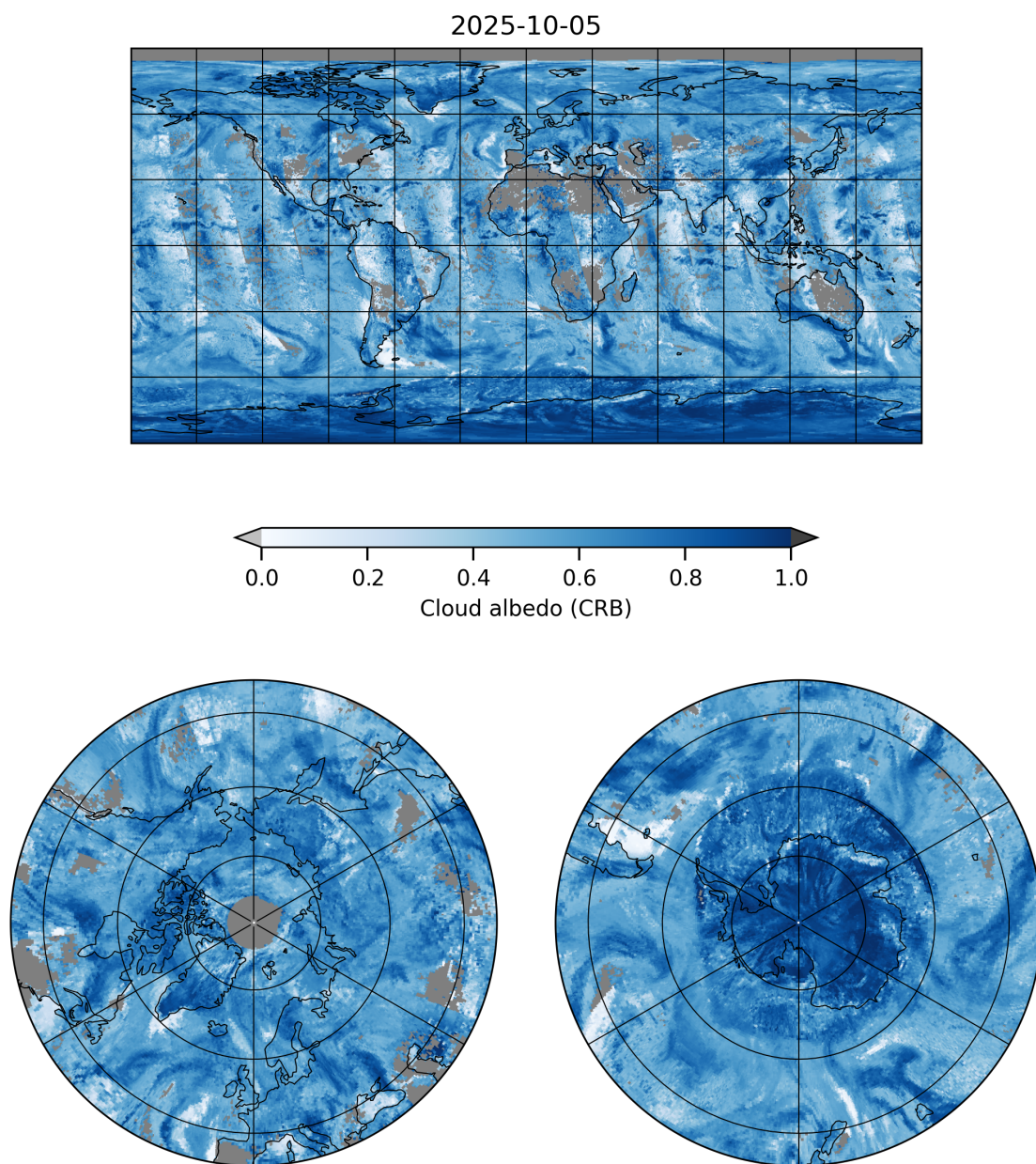


Figure 9: Map of “Cloud albedo (CRB)” for 2025-10-05 to 2025-10-06

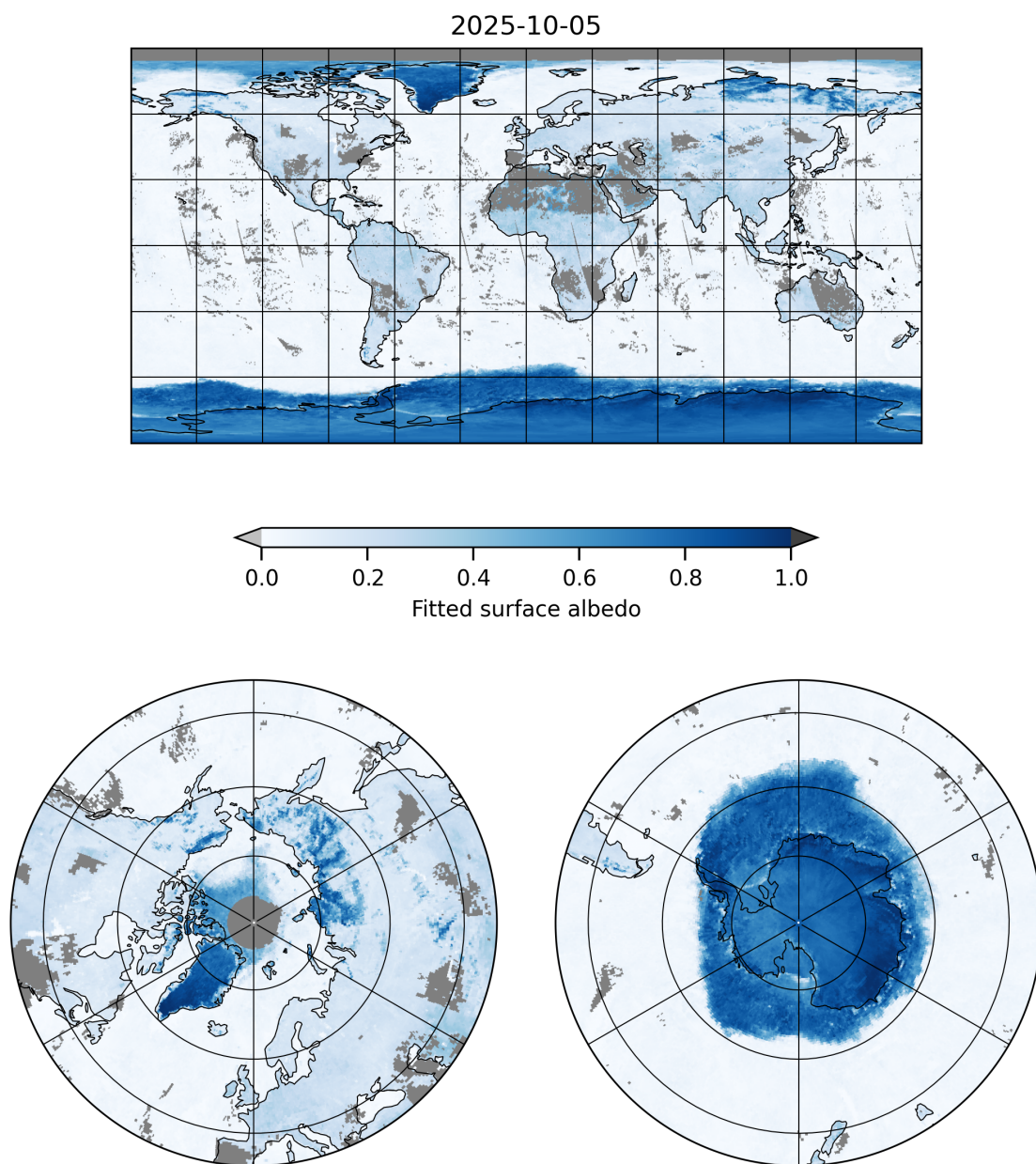


Figure 10: Map of “Fitted surface albedo” for 2025-10-05 to 2025-10-06

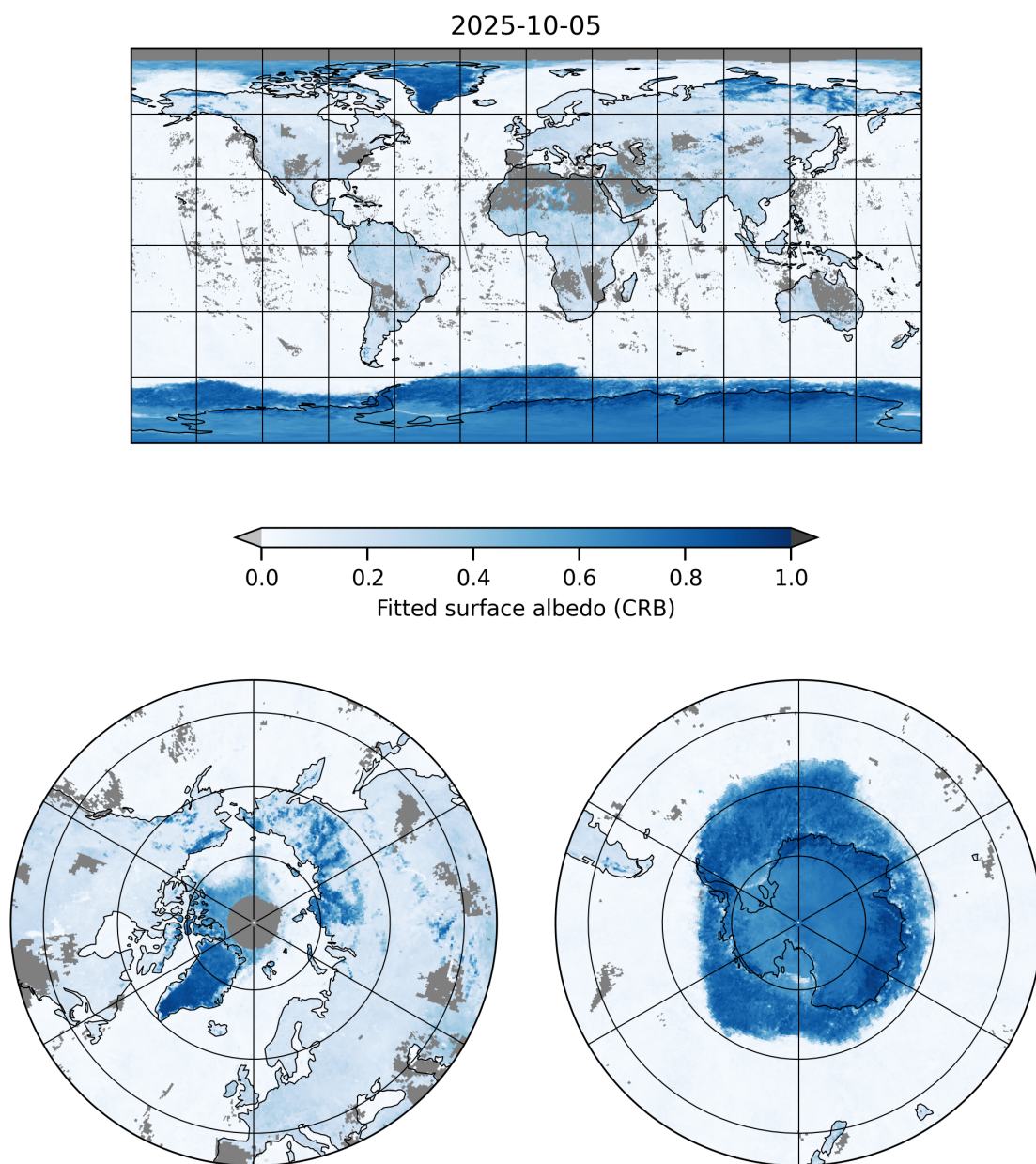


Figure 11: Map of “Fitted surface albedo (CRB)” for 2025-10-05 to 2025-10-06

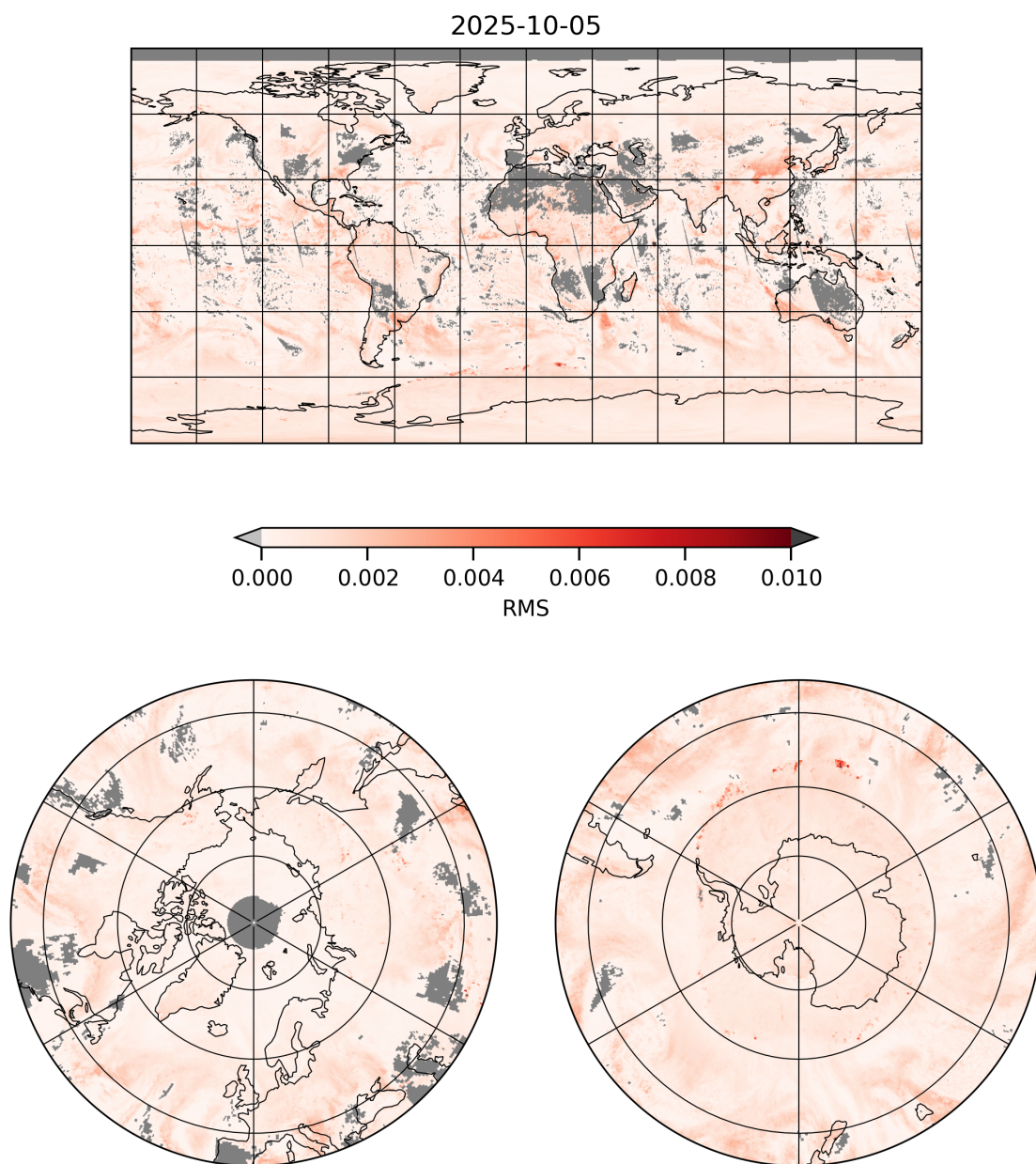


Figure 12: Map of “RMS” for 2025-10-05 to 2025-10-06

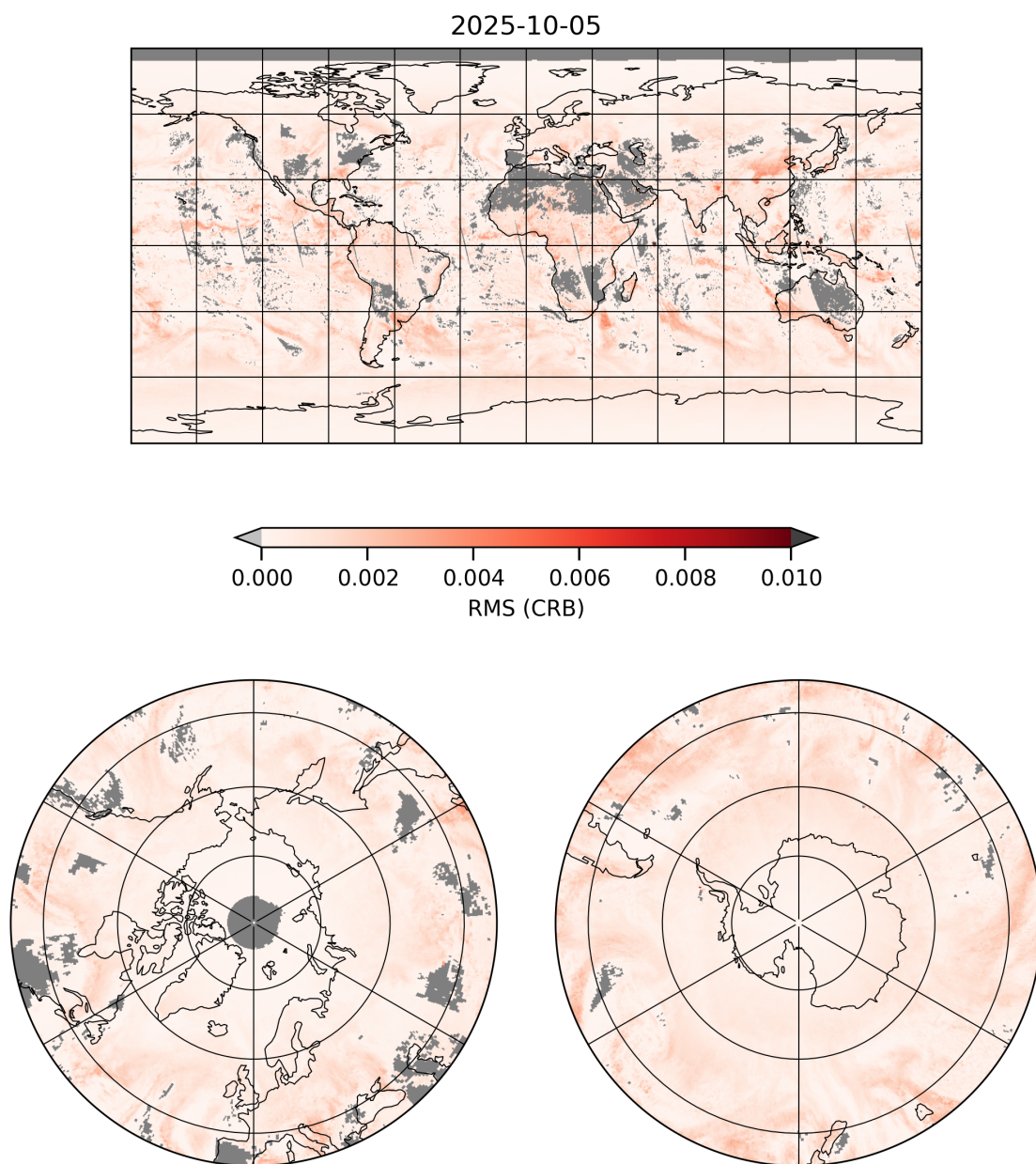


Figure 13: Map of “RMS (CRB)” for 2025-10-05 to 2025-10-06

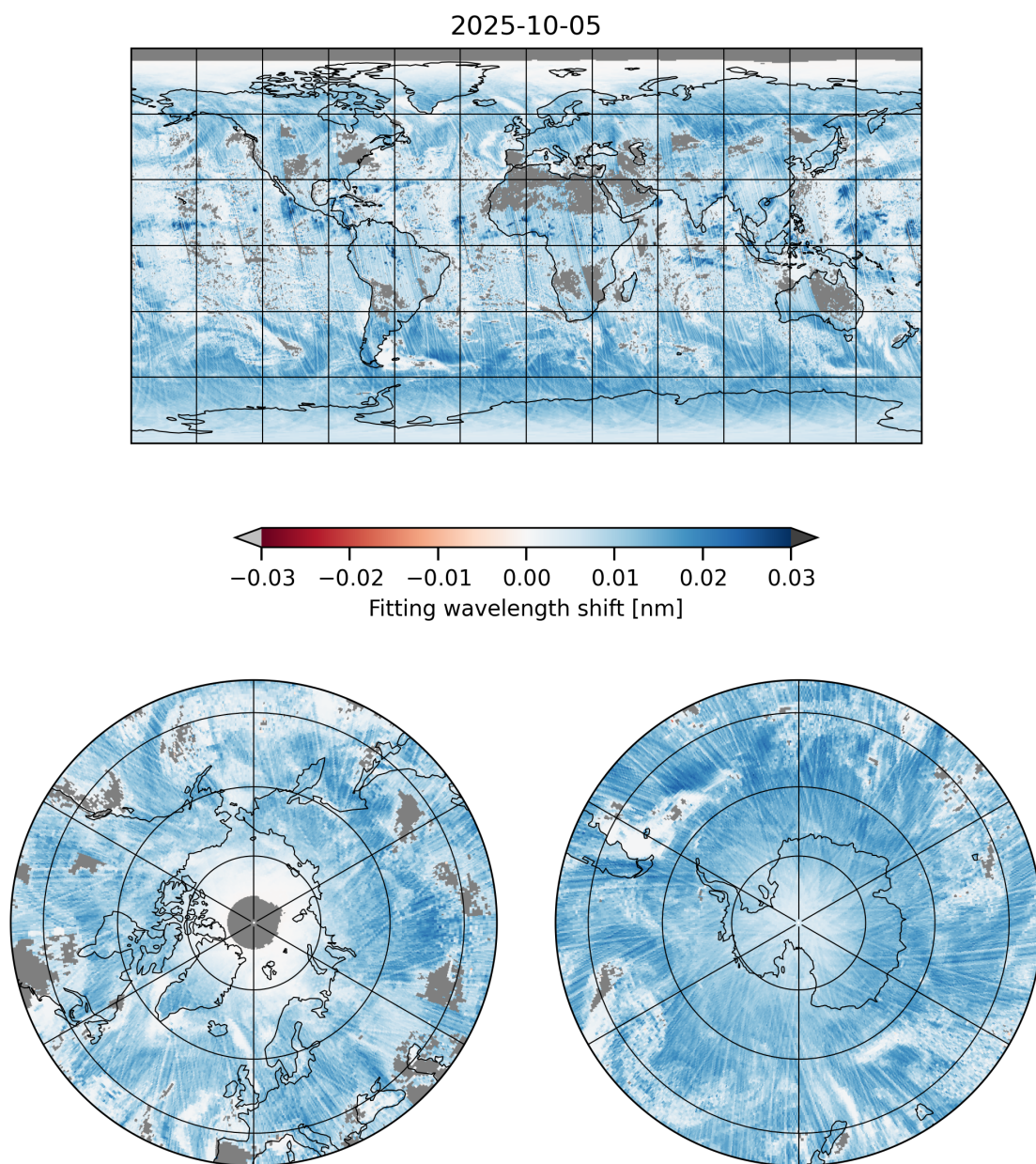


Figure 14: Map of “Fitting wavelength shift” for 2025-10-05 to 2025-10-06

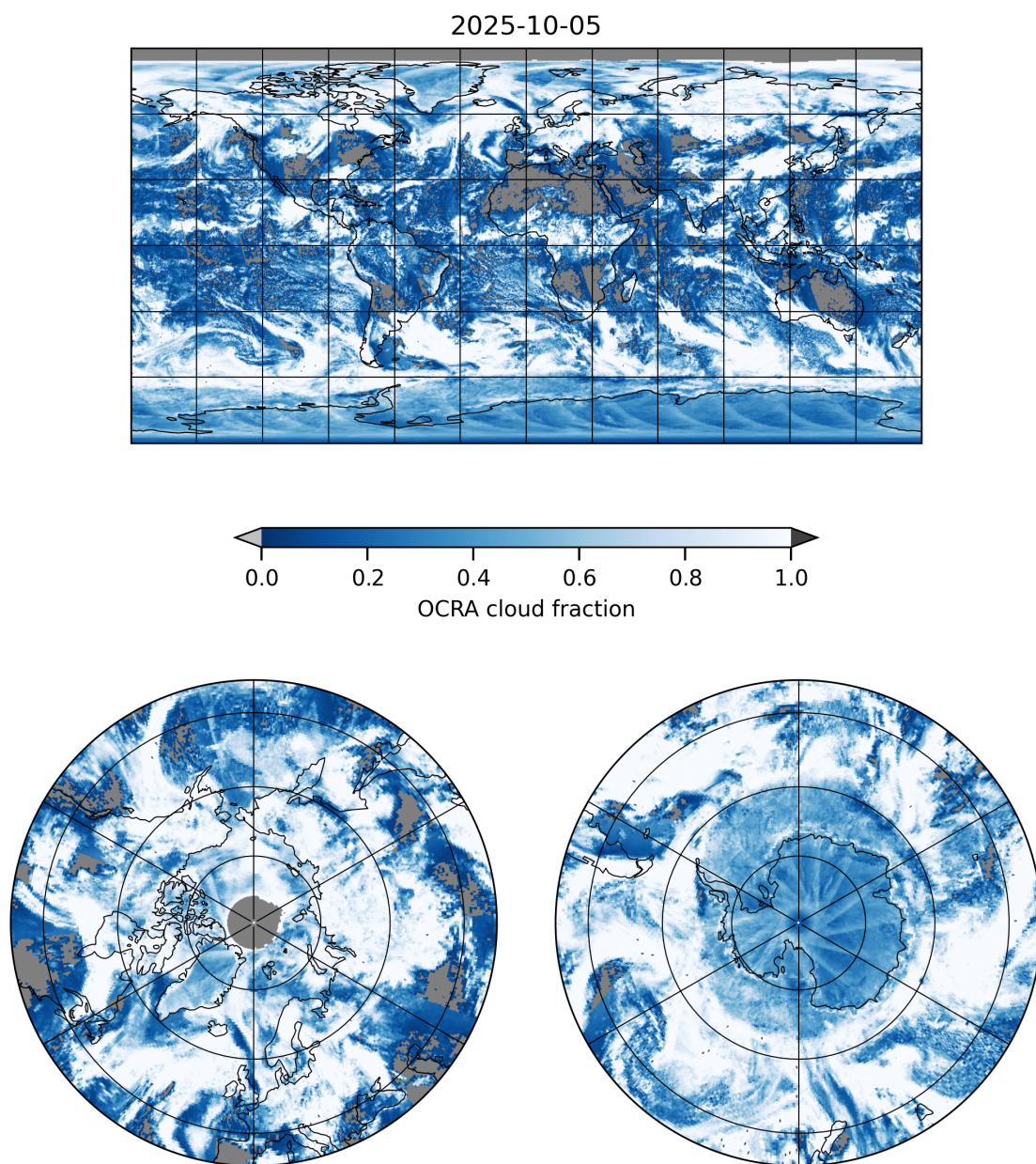


Figure 15: Map of “OCRA cloud fraction” for 2025-10-05 to 2025-10-06

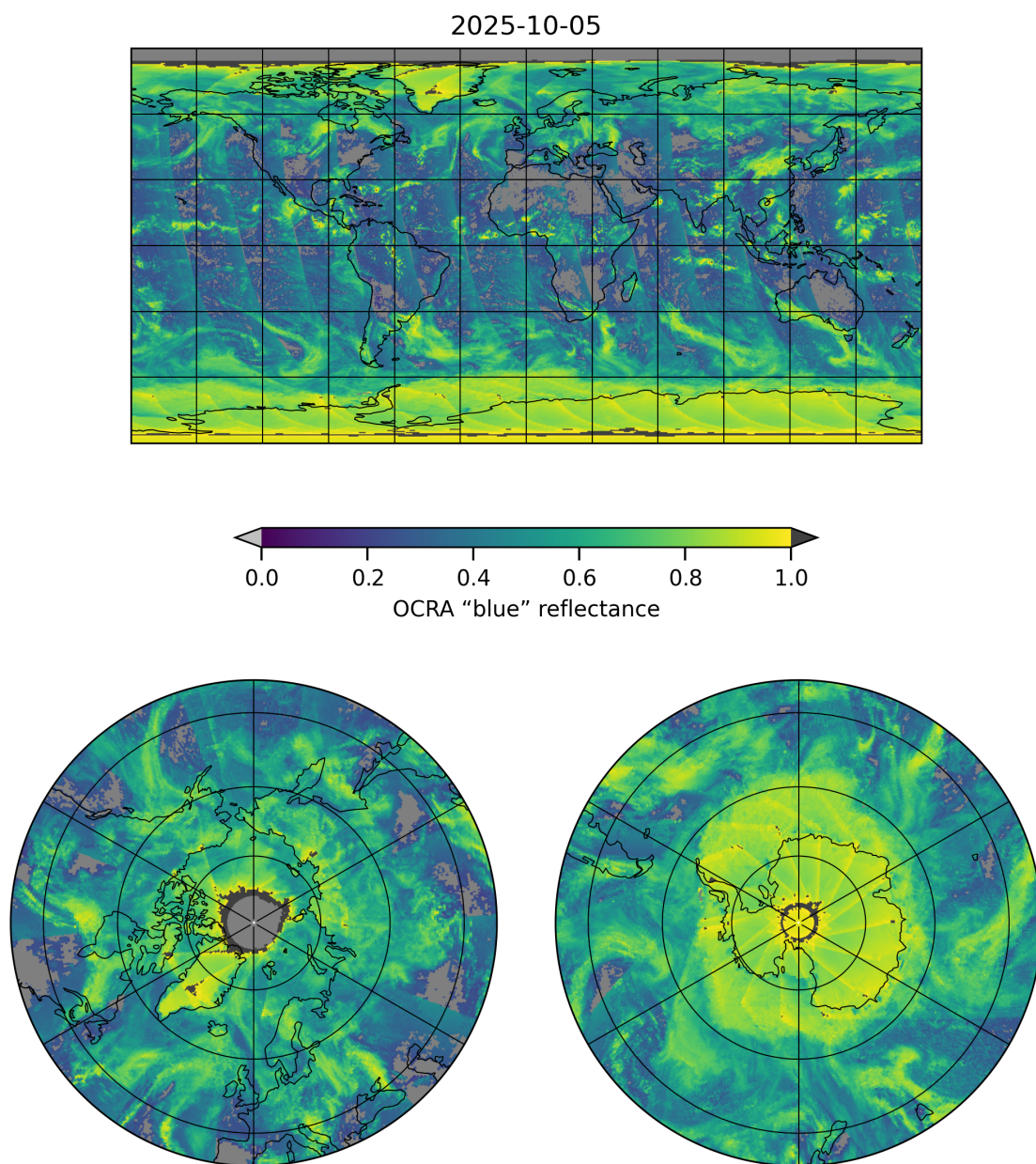


Figure 16: Map of "OCRA "blue" reflectance" for 2025-10-05 to 2025-10-06

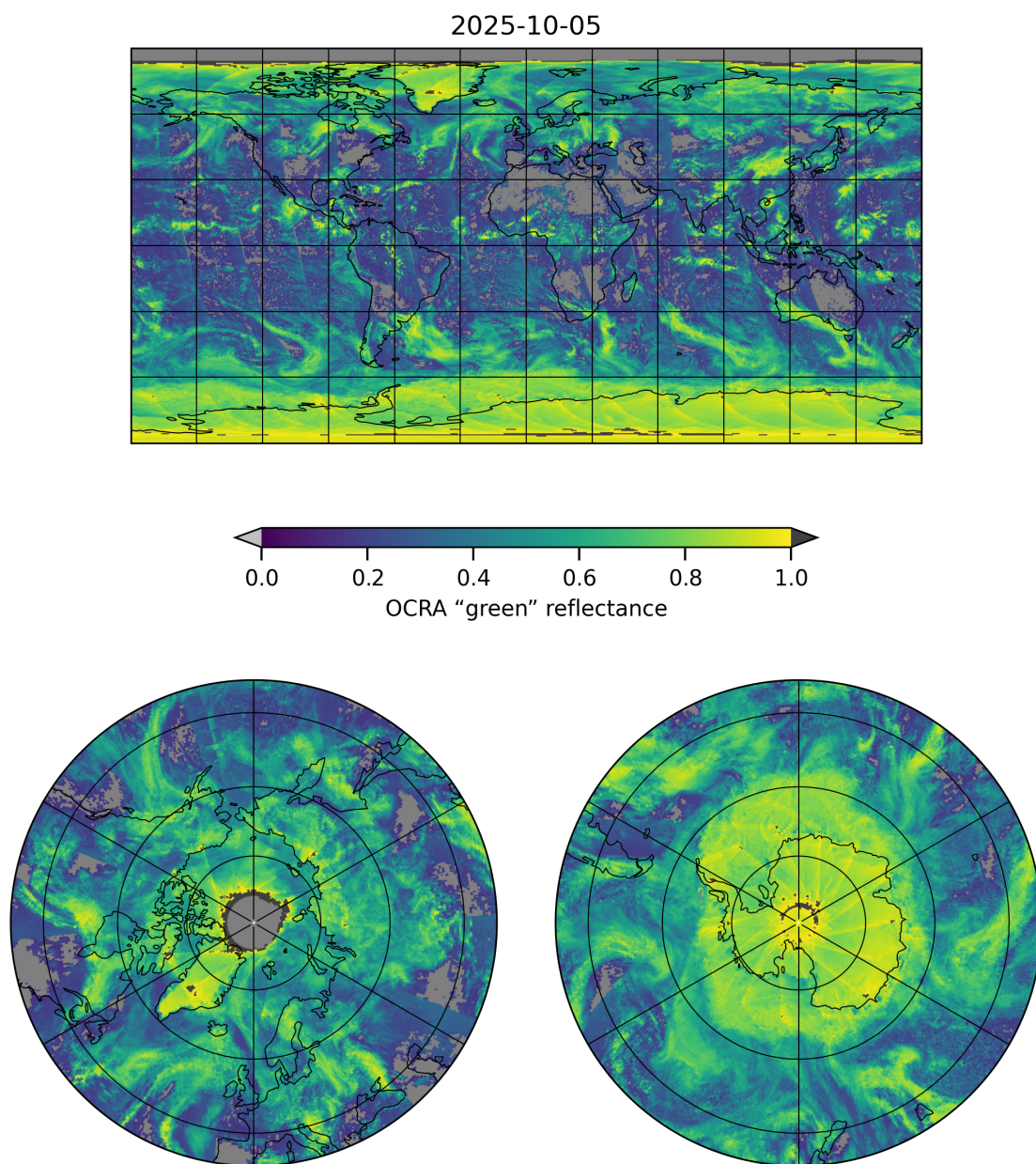


Figure 17: Map of "OCRA "green" reflectance" for 2025-10-05 to 2025-10-06

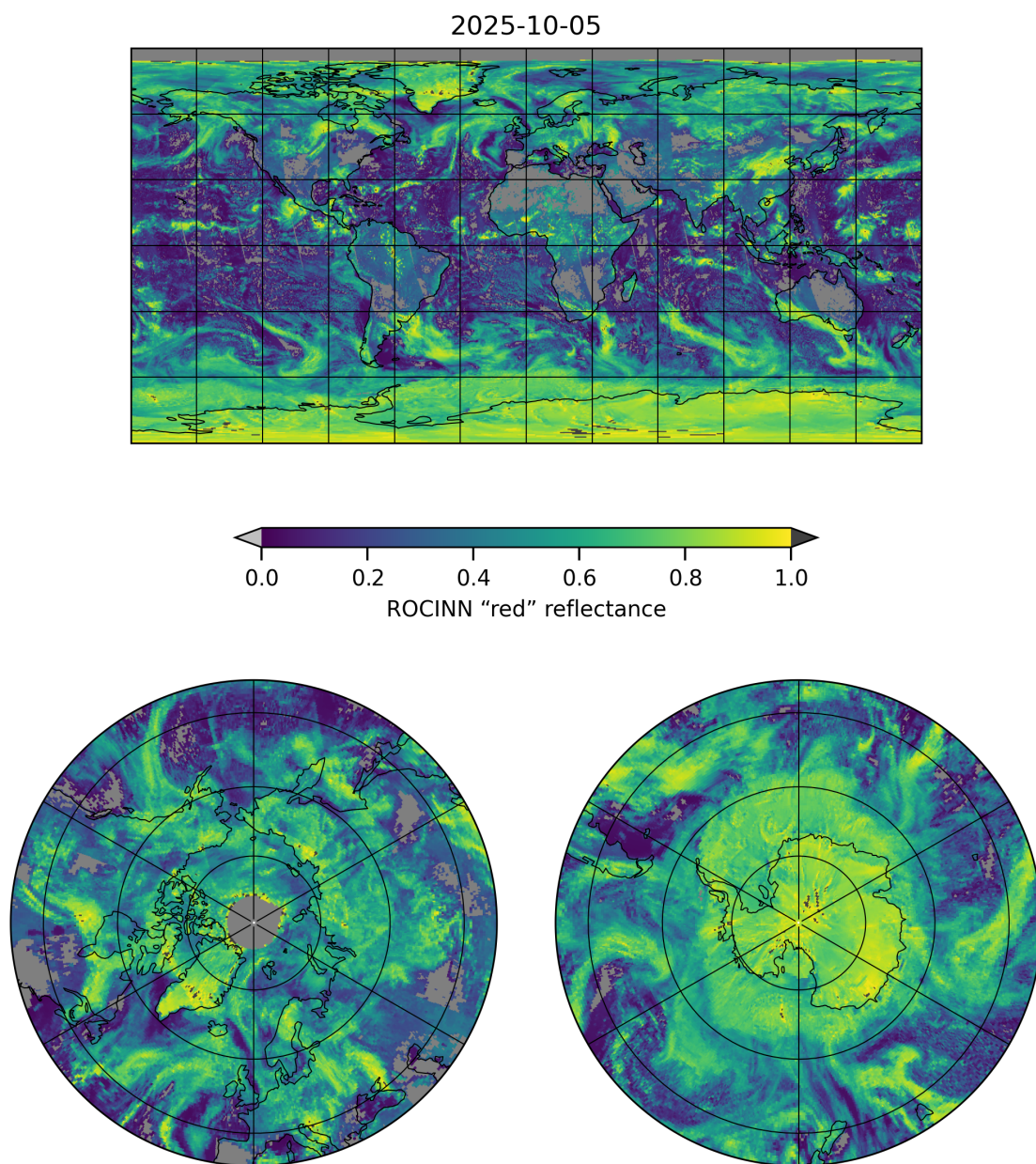


Figure 18: Map of "ROCINN "red" reflectance" for 2025-10-05 to 2025-10-06

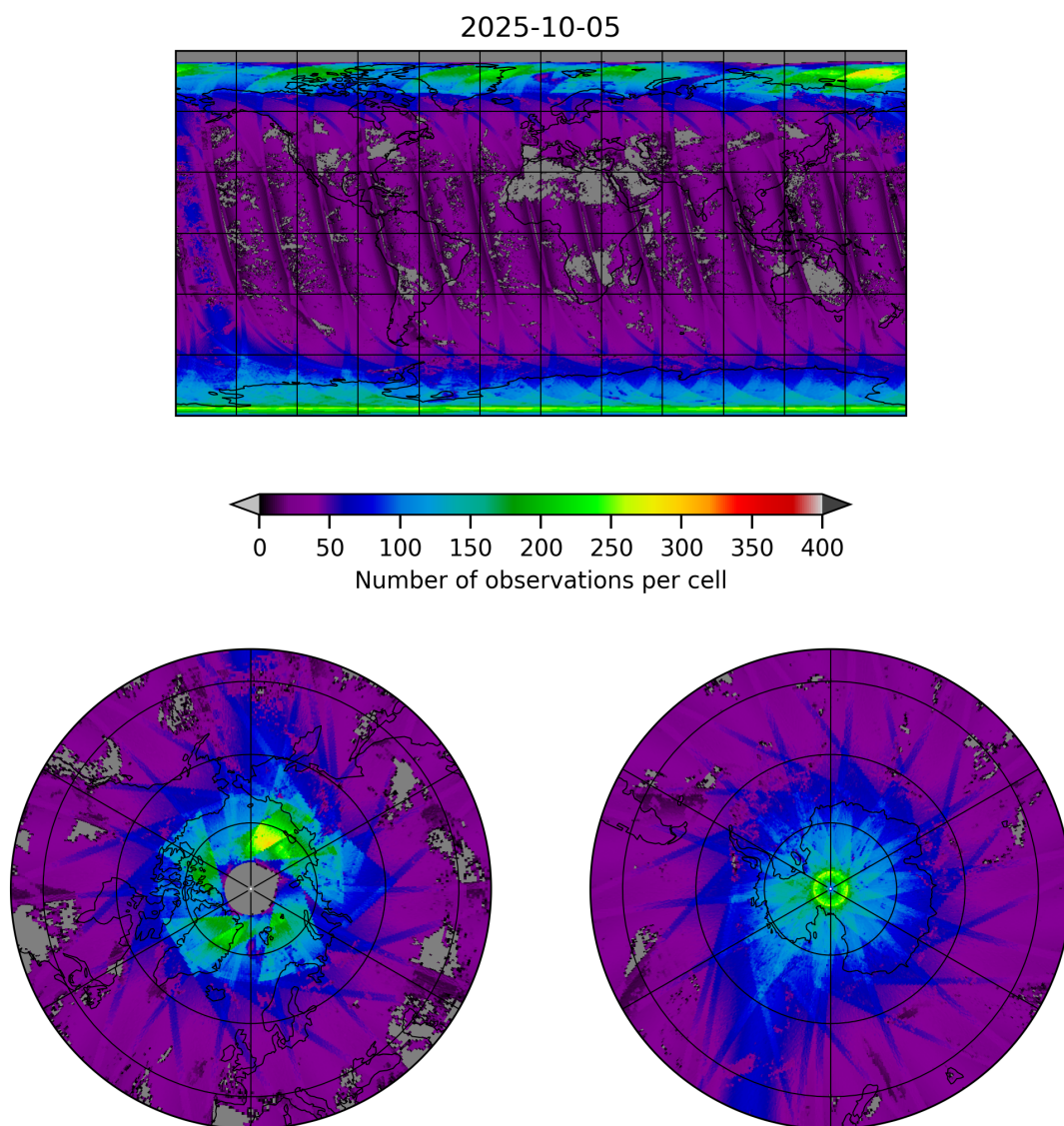


Figure 19: Map of the number of observations for 2025-10-05 to 2025-10-06

7 Zonal average

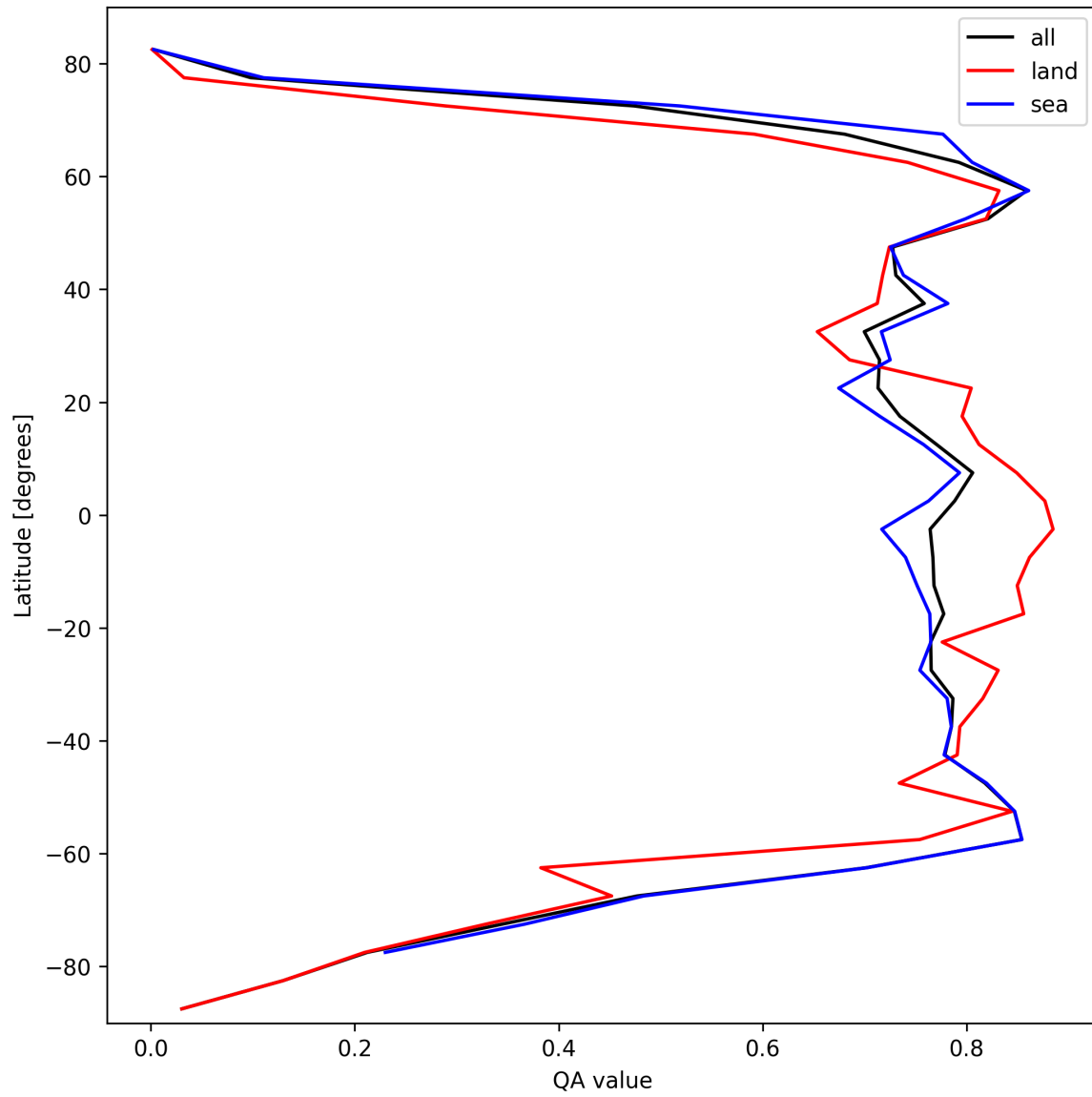


Figure 20: Zonal average of “QA value” for 2025-10-05 to 2025-10-06.

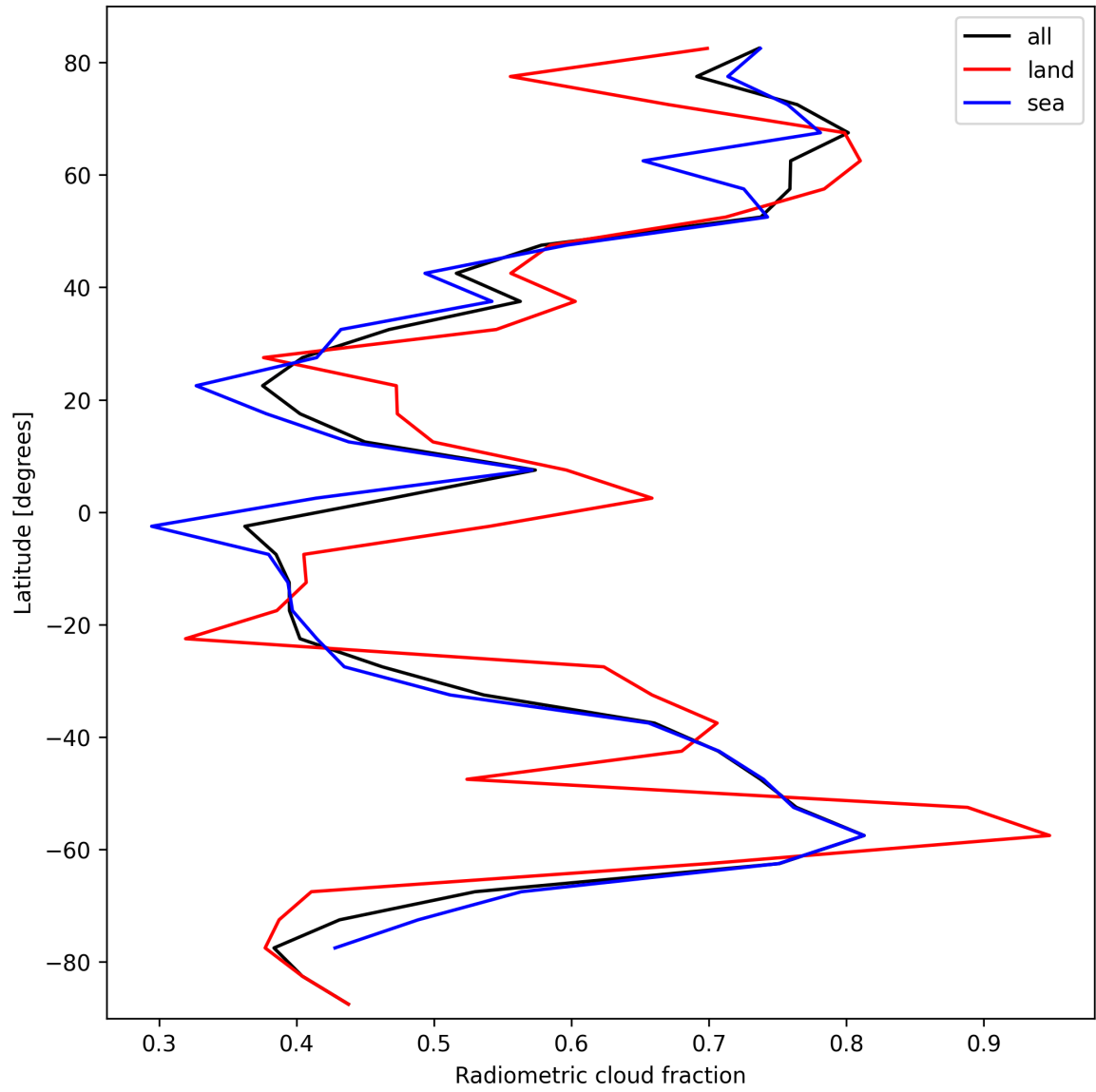


Figure 21: Zonal average of “Radiometric cloud fraction” for 2025-10-05 to 2025-10-06.

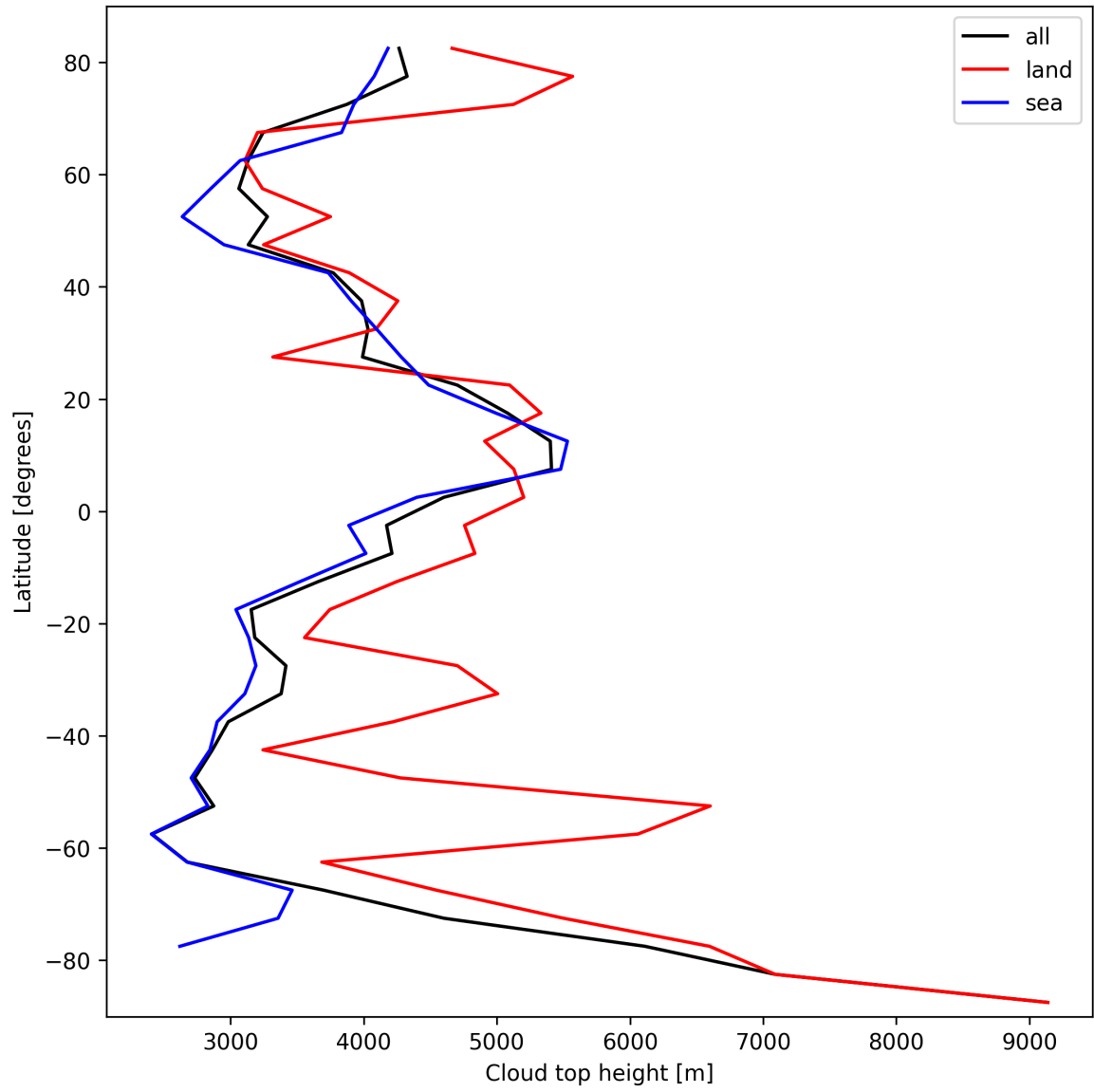


Figure 22: Zonal average of “Cloud top height” for 2025-10-05 to 2025-10-06.

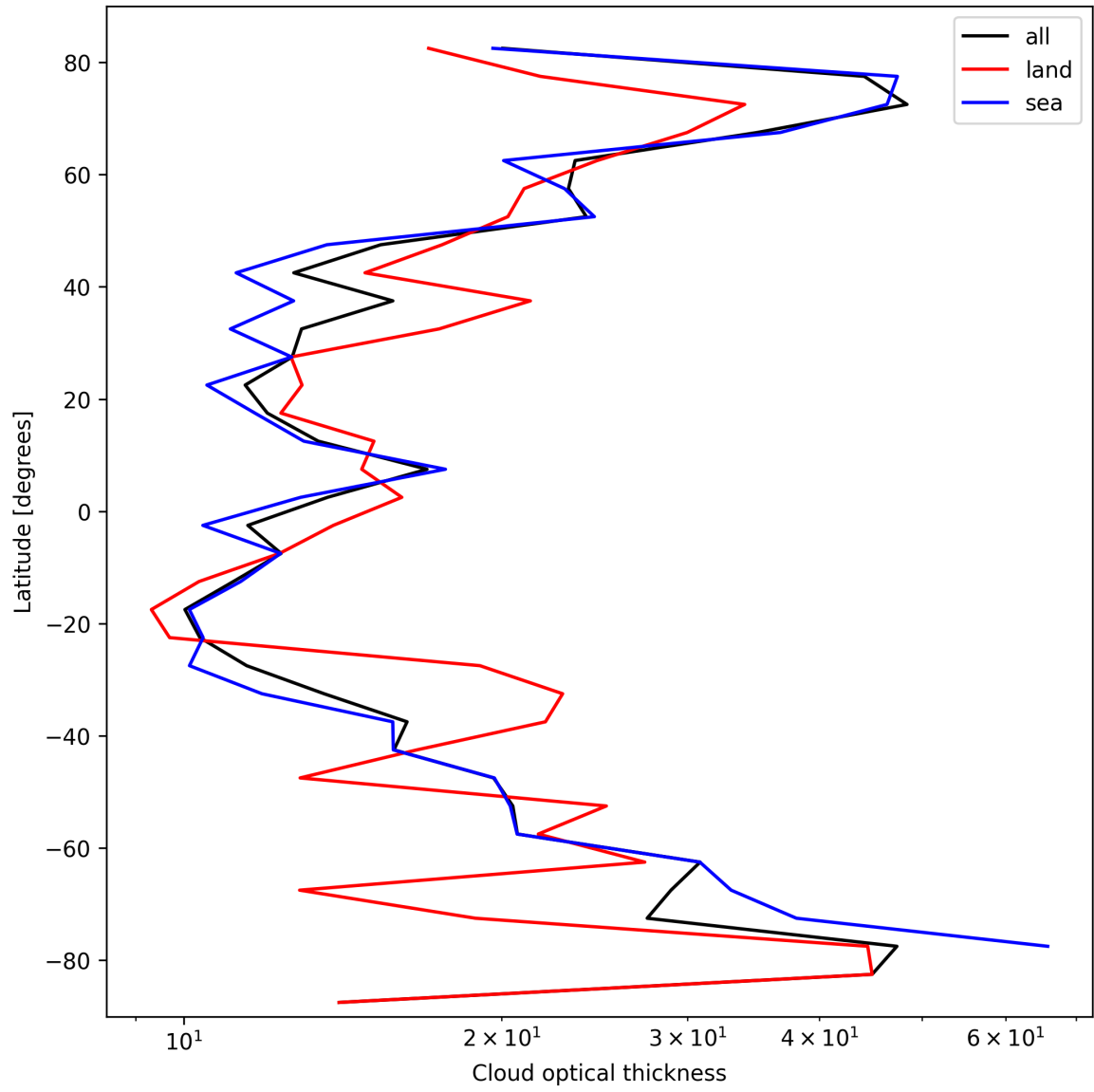


Figure 23: Zonal average of “Cloud optical thickness” for 2025-10-05 to 2025-10-06.

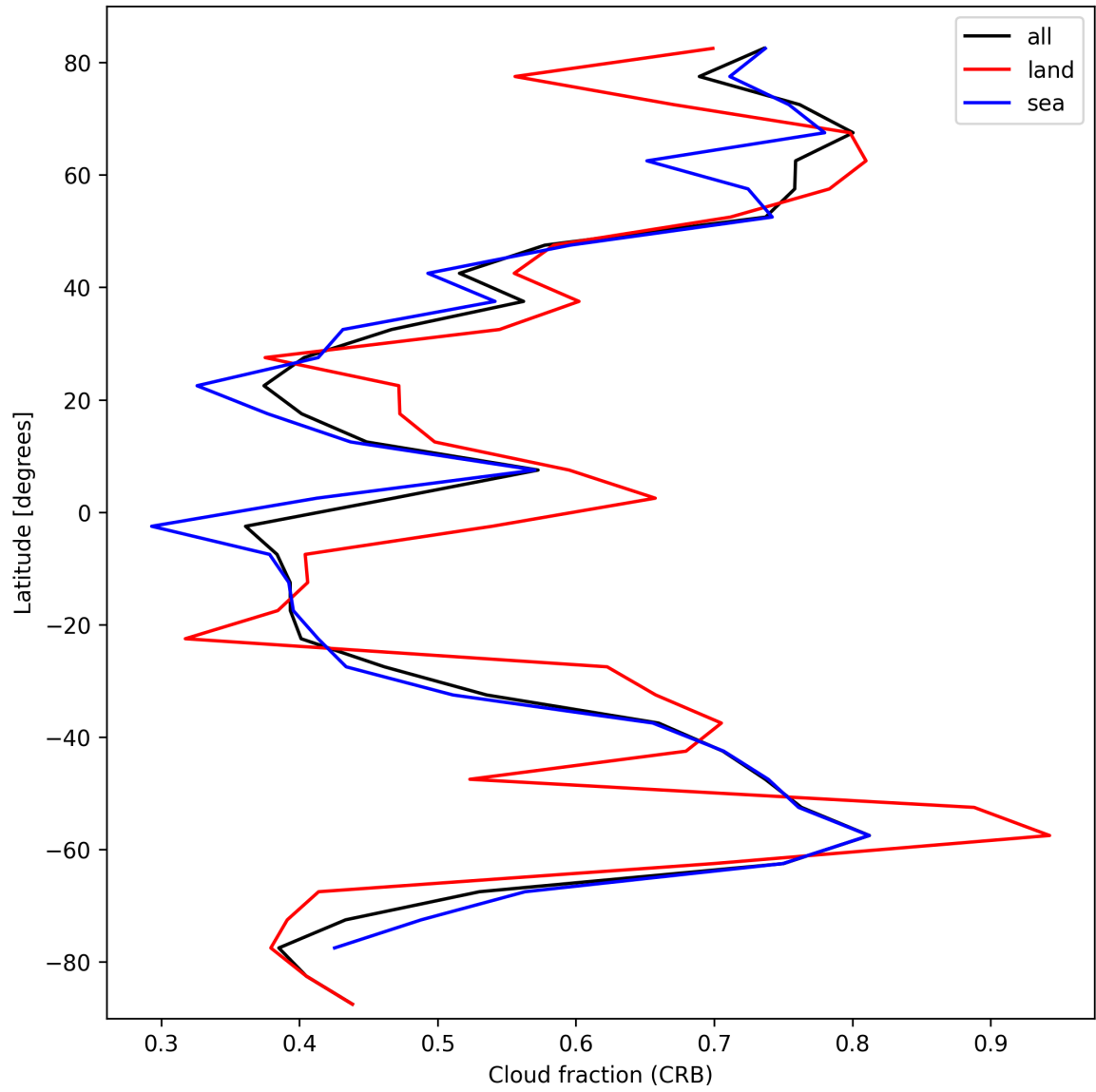


Figure 24: Zonal average of “Cloud fraction (CRB)” for 2025-10-05 to 2025-10-06.

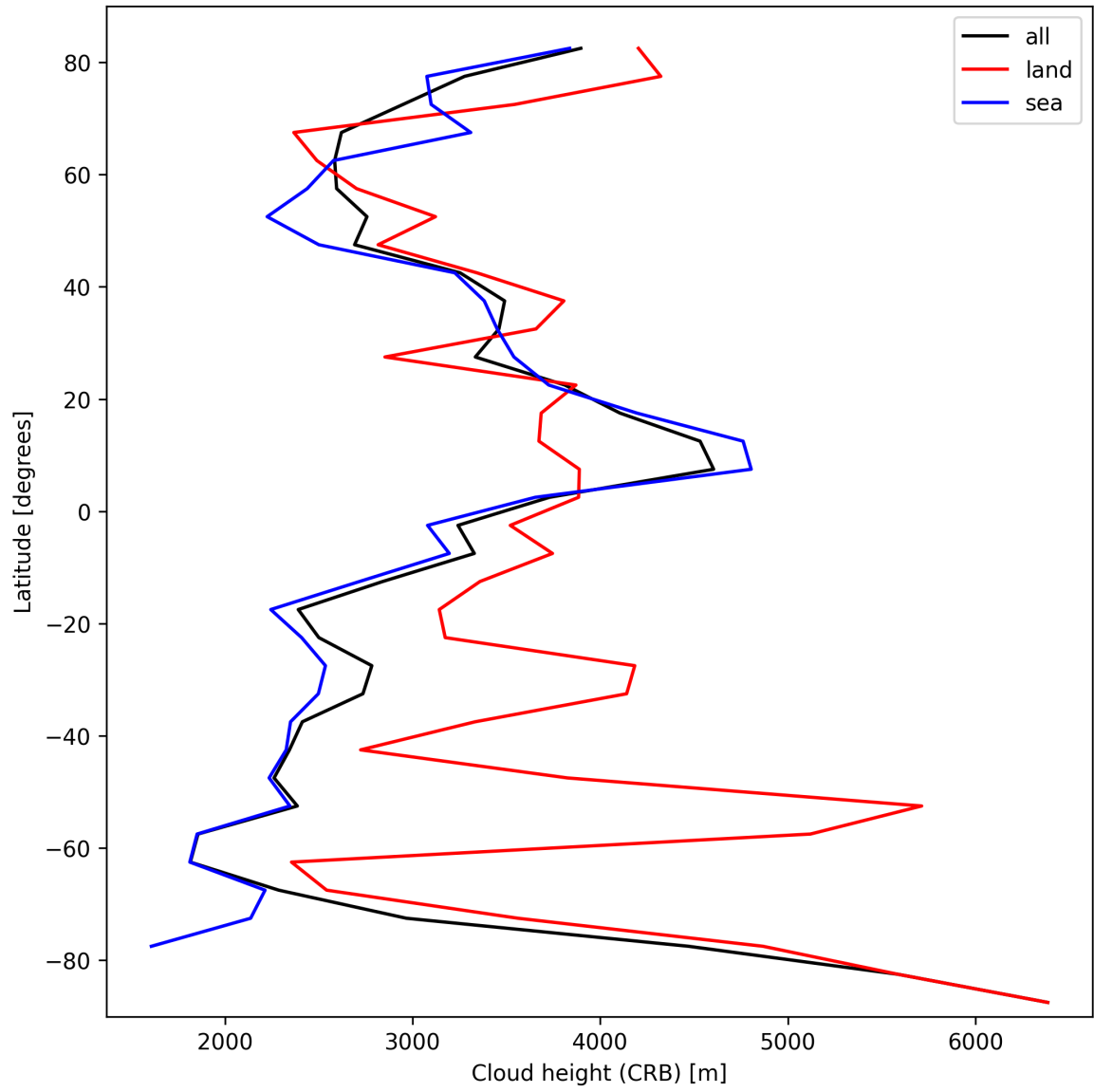


Figure 25: Zonal average of “Cloud height (CRB)” for 2025-10-05 to 2025-10-06.

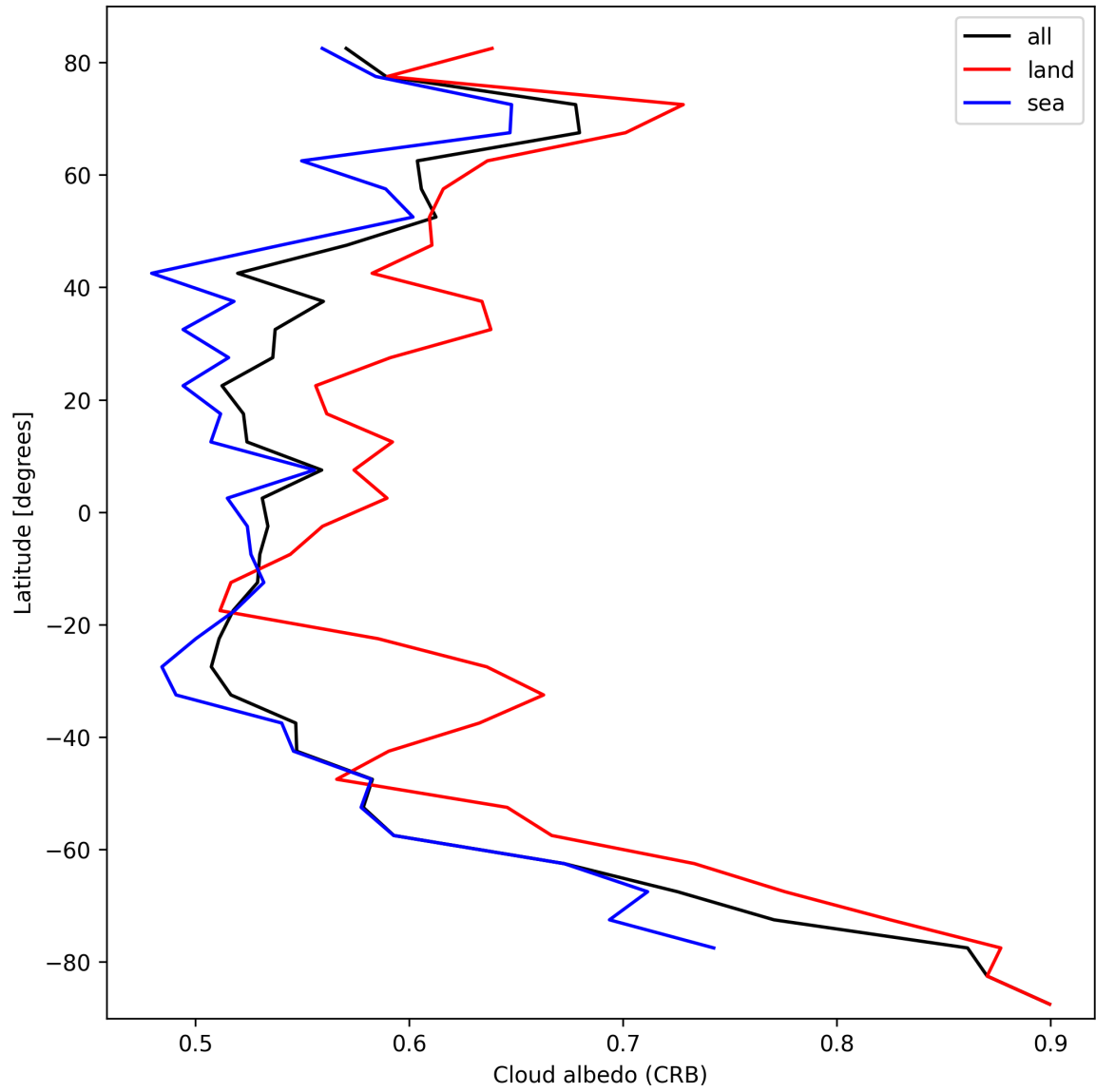


Figure 26: Zonal average of “Cloud albedo (CRB)” for 2025-10-05 to 2025-10-06.

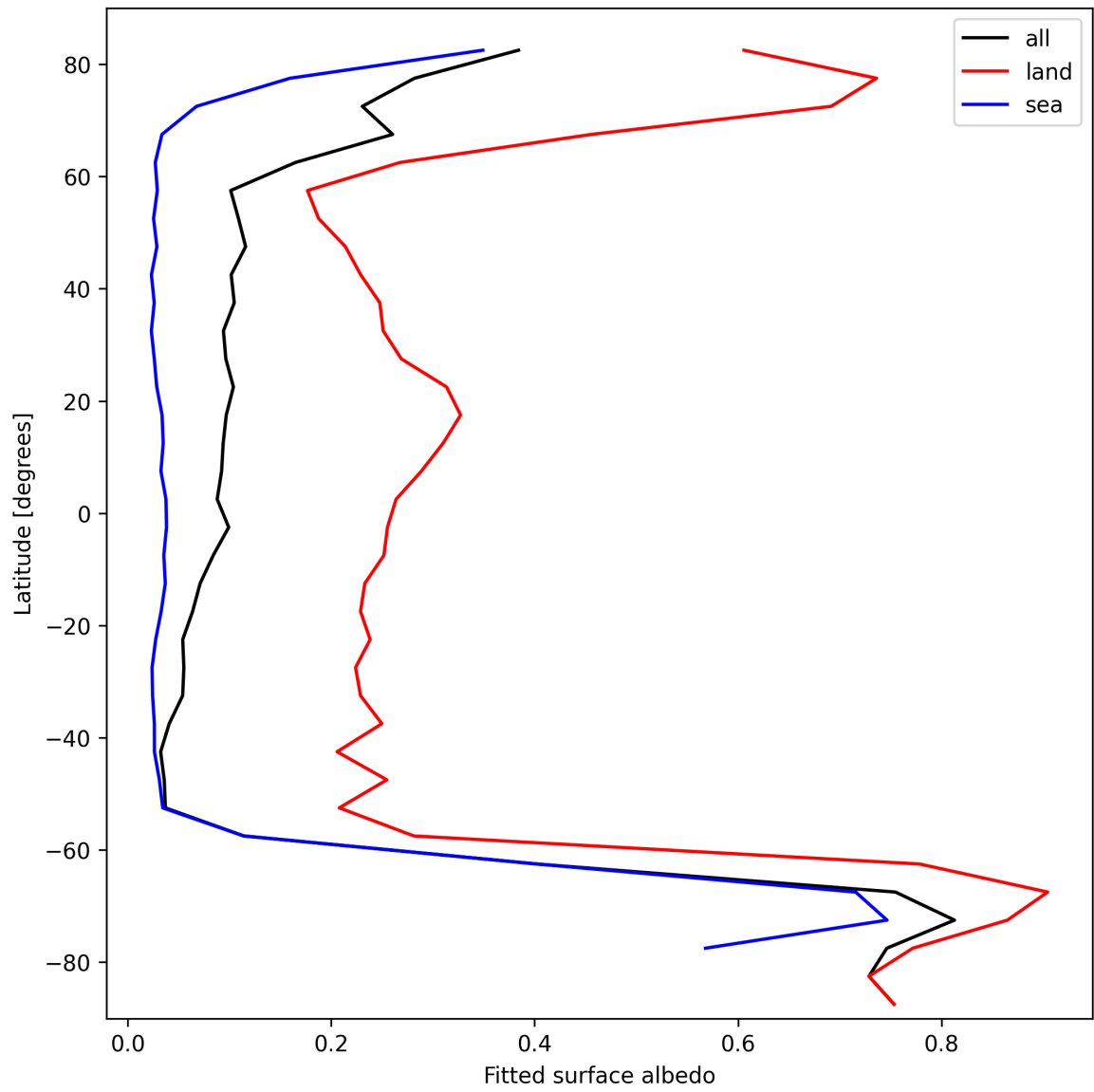


Figure 27: Zonal average of “Fitted surface albedo” for 2025-10-05 to 2025-10-06.

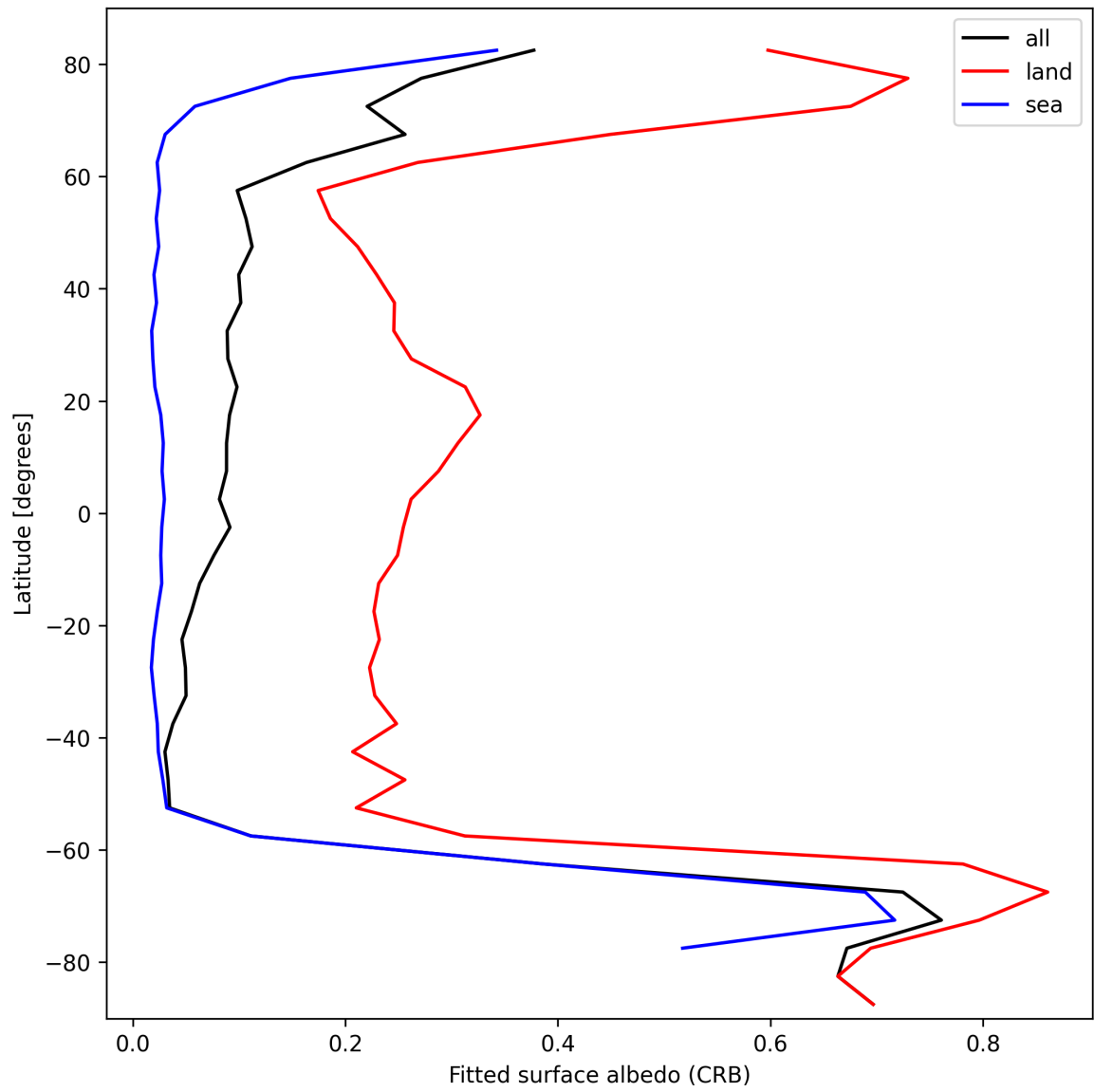


Figure 28: Zonal average of “Fitted surface albedo (CRB)” for 2025-10-05 to 2025-10-06.

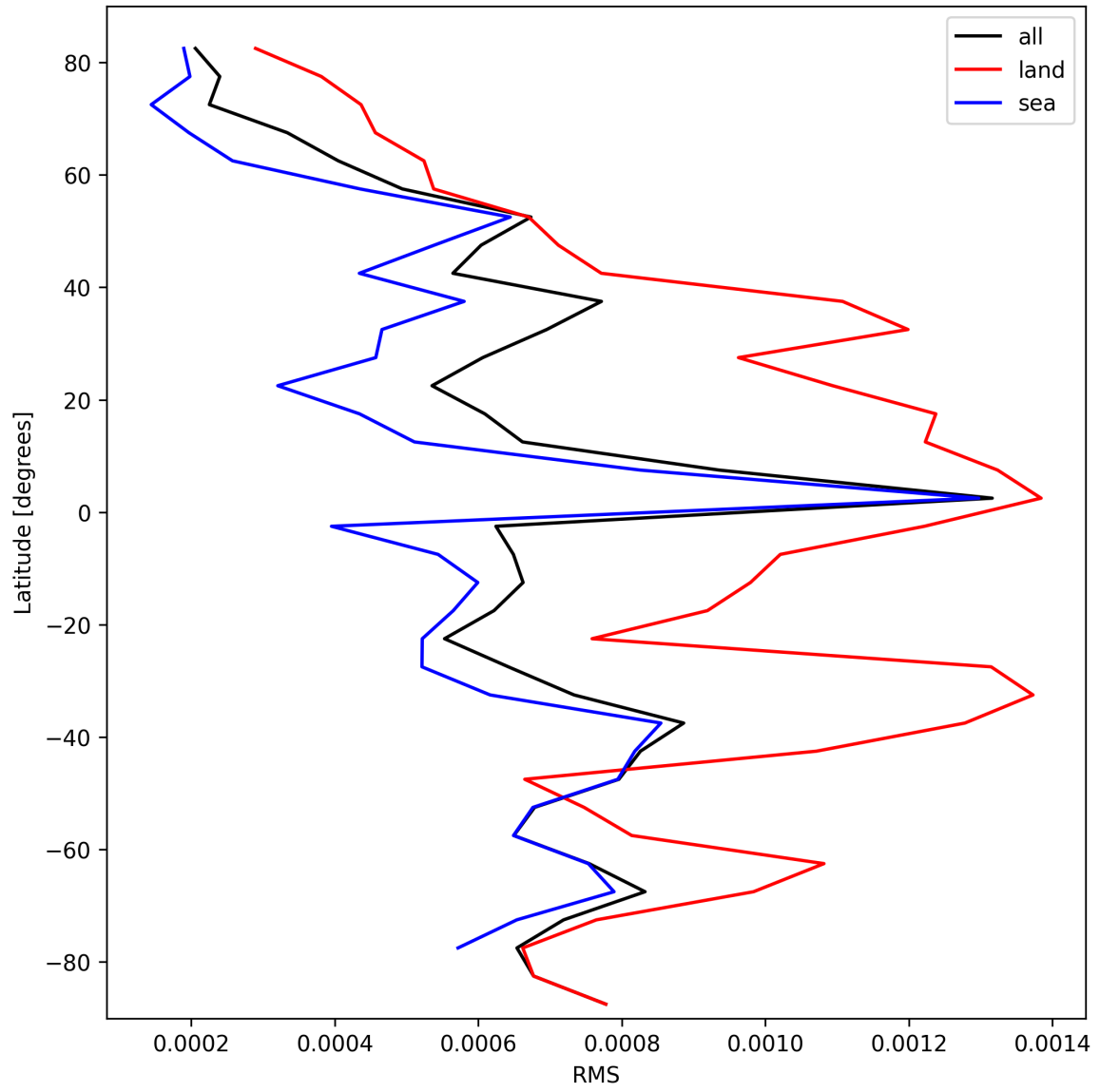


Figure 29: Zonal average of “RMS” for 2025-10-05 to 2025-10-06.

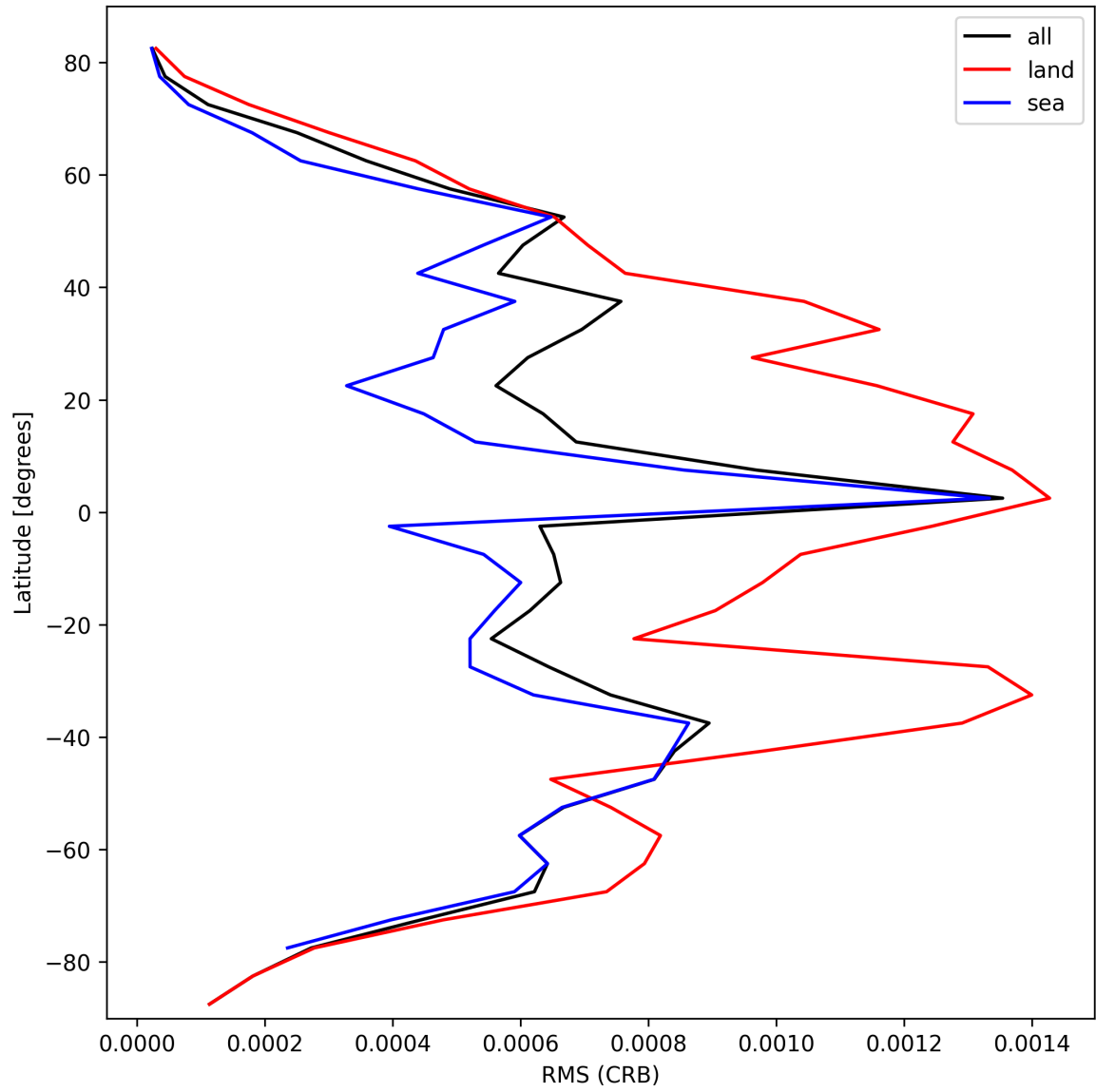


Figure 30: Zonal average of “RMS (CRB)” for 2025-10-05 to 2025-10-06.

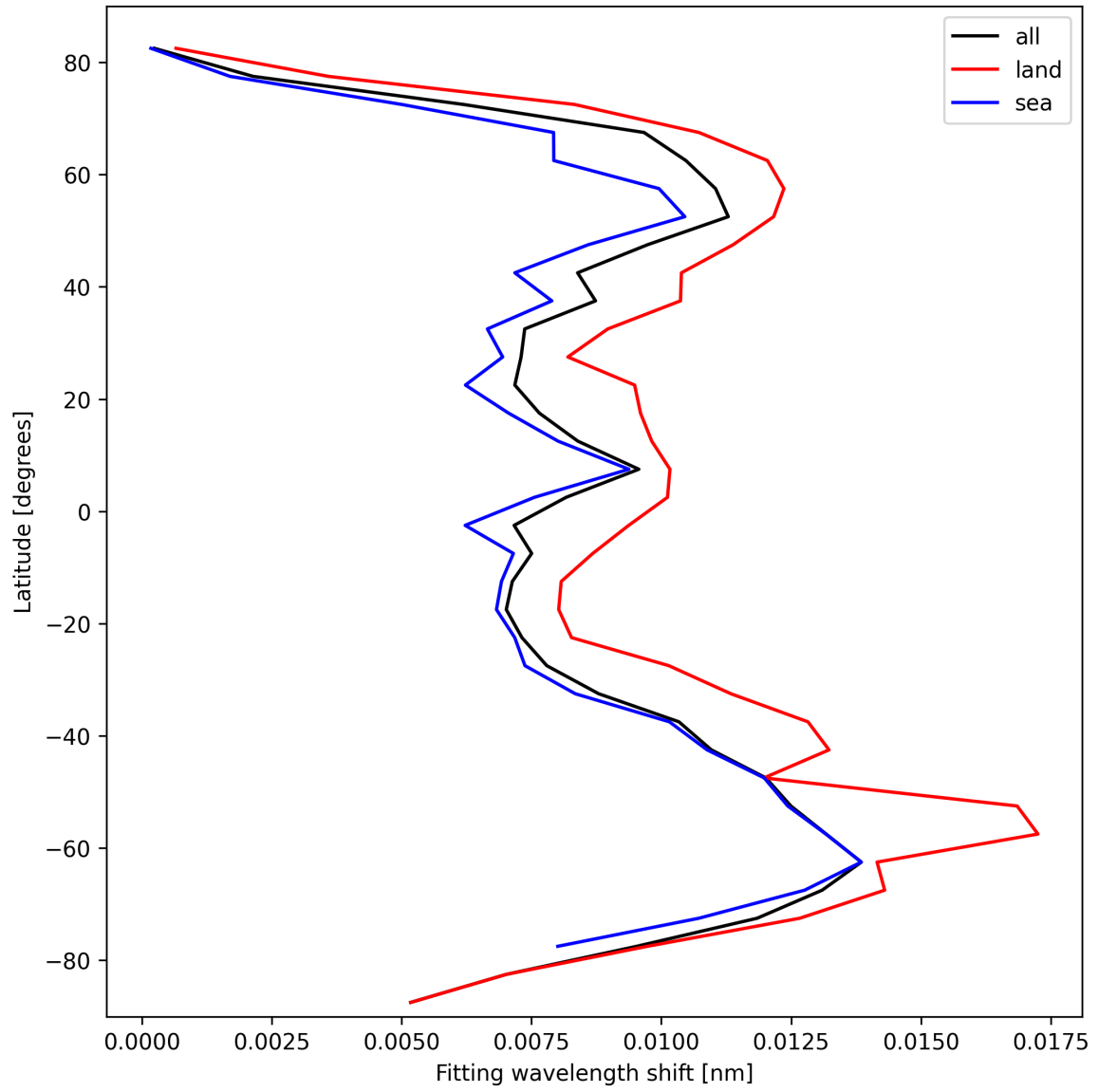


Figure 31: Zonal average of “Fitting wavelength shift” for 2025-10-05 to 2025-10-06.

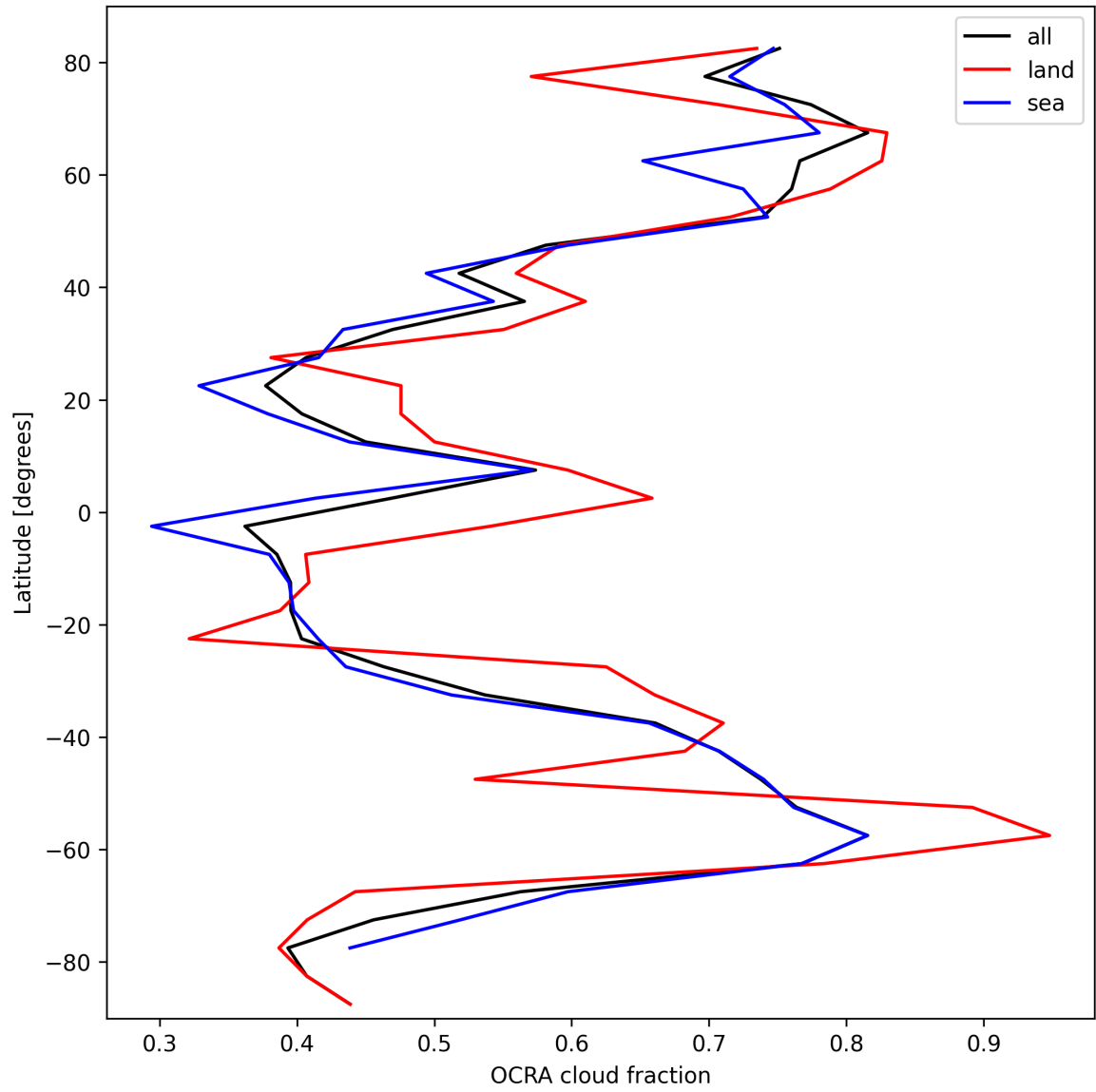


Figure 32: Zonal average of “OCRA cloud fraction” for 2025-10-05 to 2025-10-06.

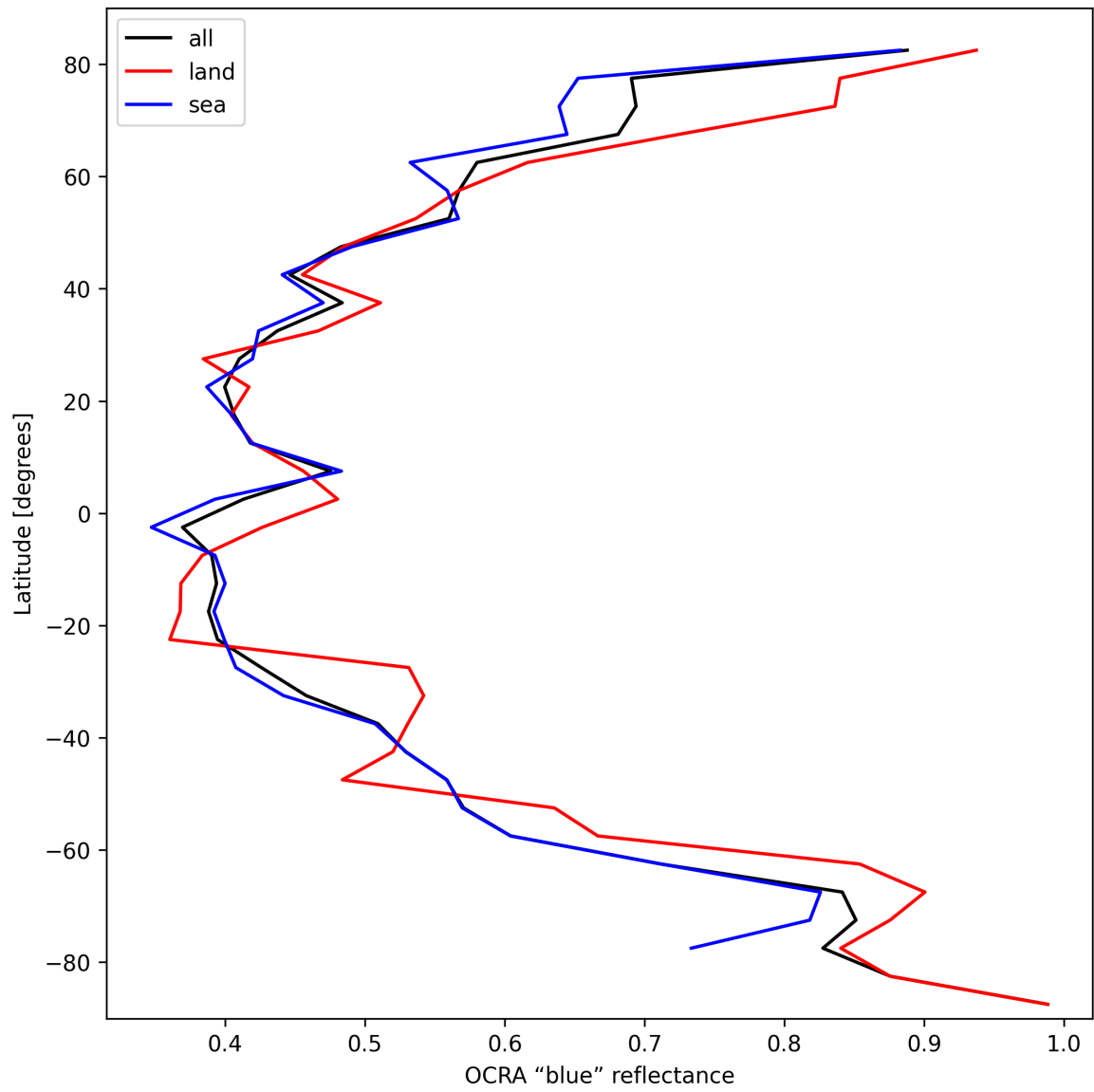


Figure 33: Zonal average of “OCRA “blue” reflectance” for 2025-10-05 to 2025-10-06.

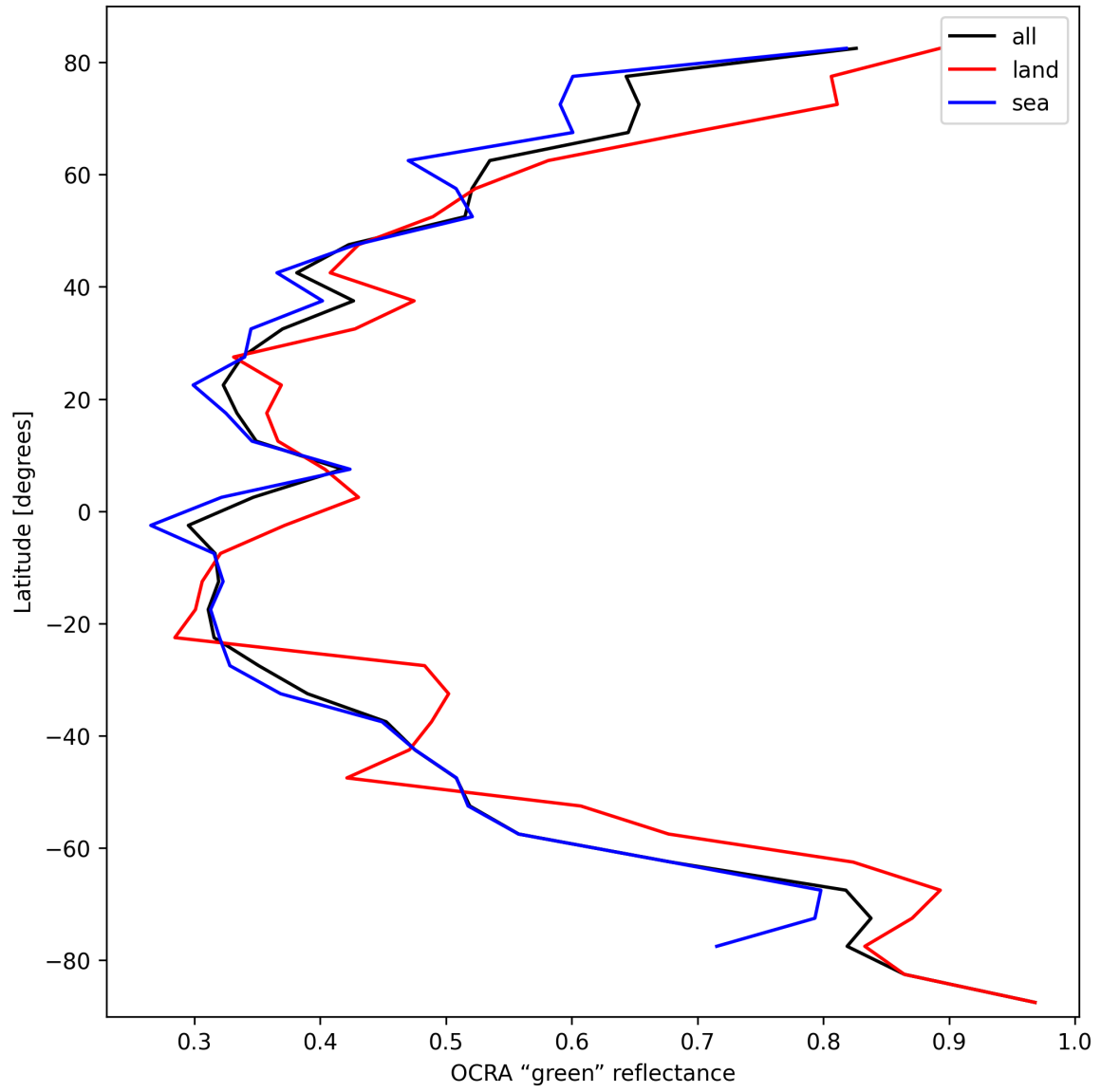


Figure 34: Zonal average of "OCRA "green" reflectance" for 2025-10-05 to 2025-10-06.

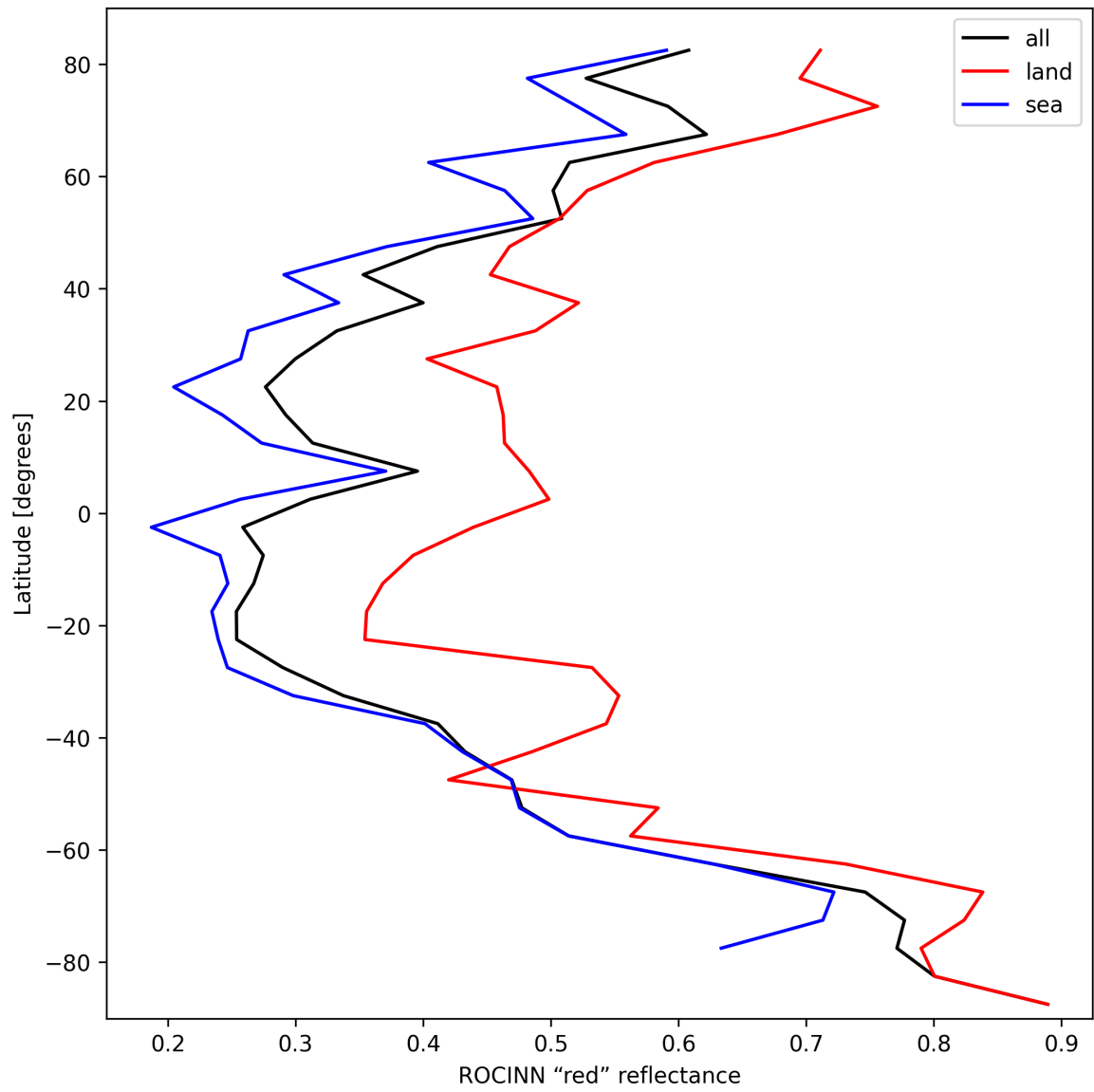


Figure 35: Zonal average of “ROCINN “red” reflectance” for 2025-10-05 to 2025-10-06.

8 Histograms

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

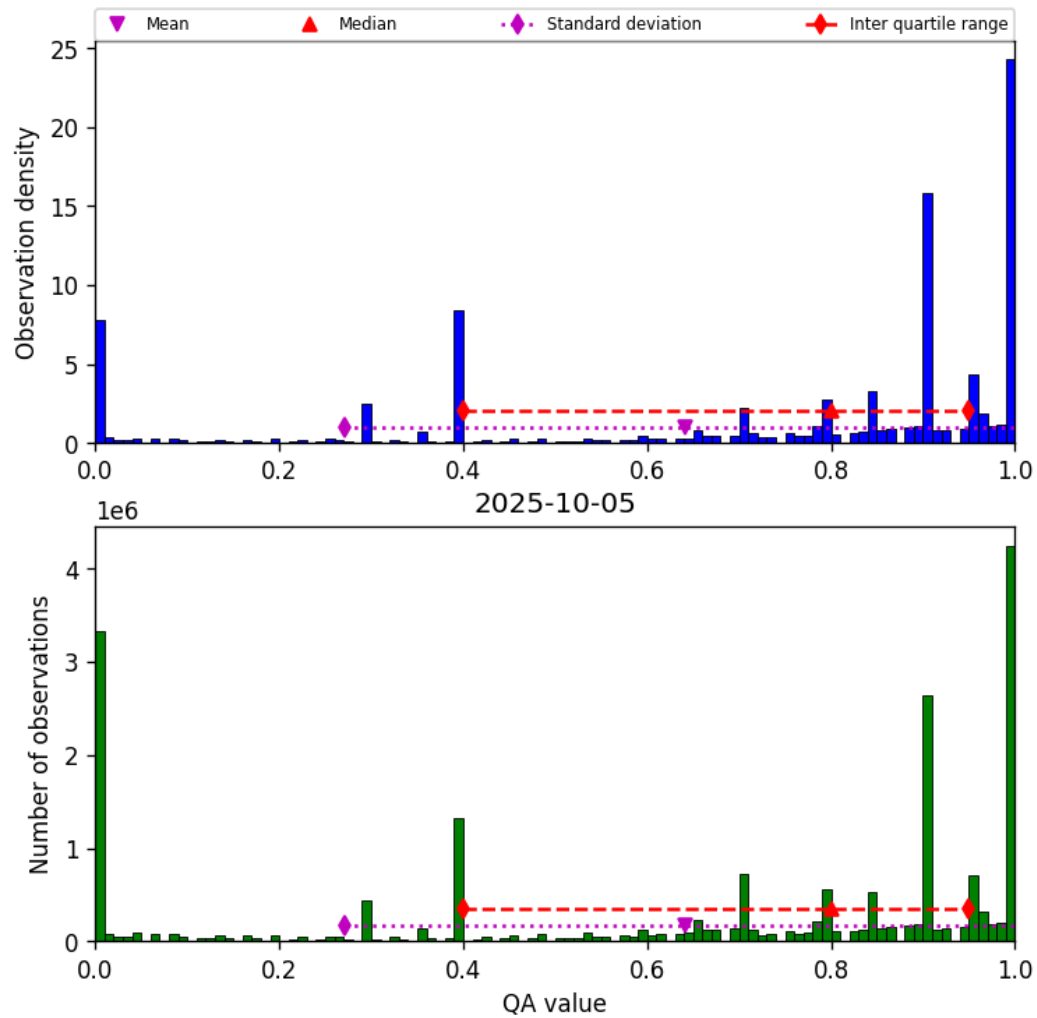


Figure 36: Histogram of “QA value” for 2025-10-05 to 2025-10-06

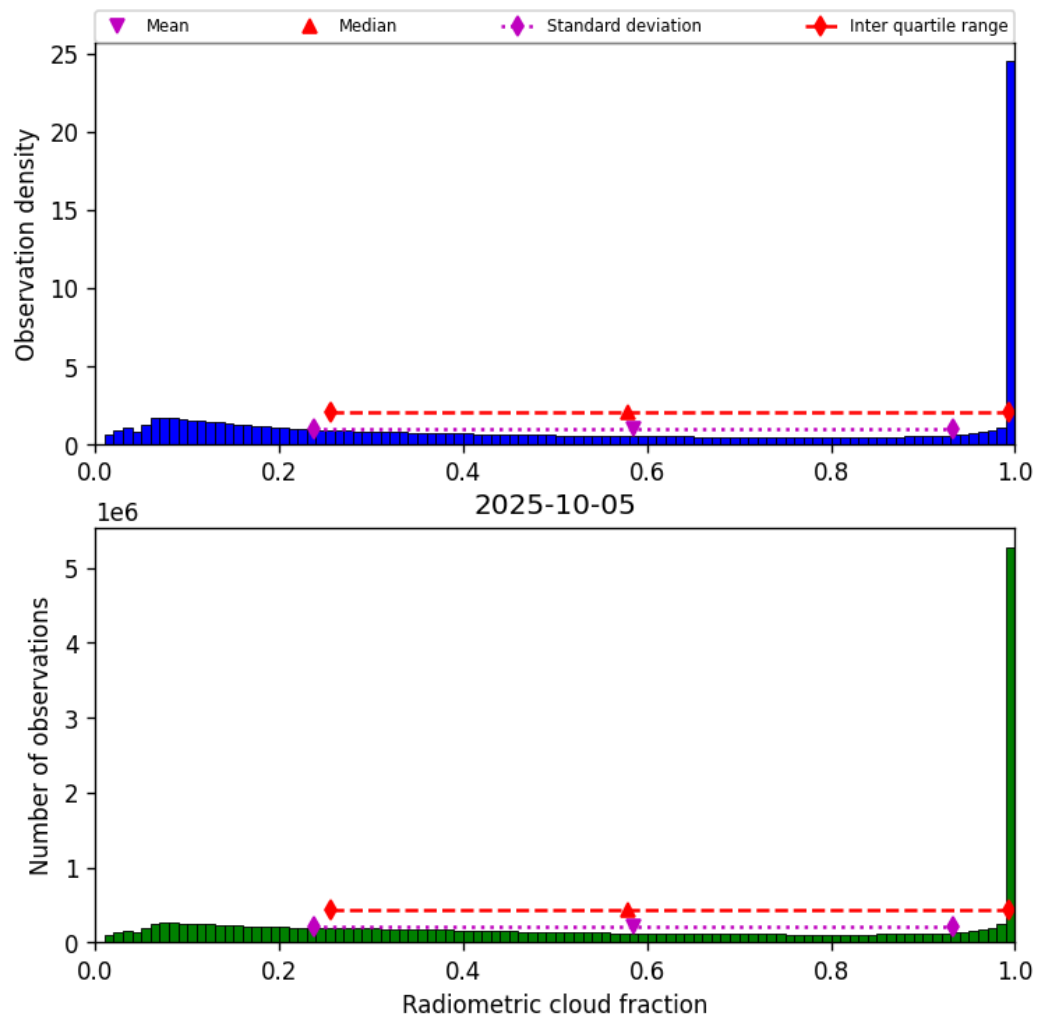


Figure 37: Histogram of “Radiometric cloud fraction” for 2025-10-05 to 2025-10-06

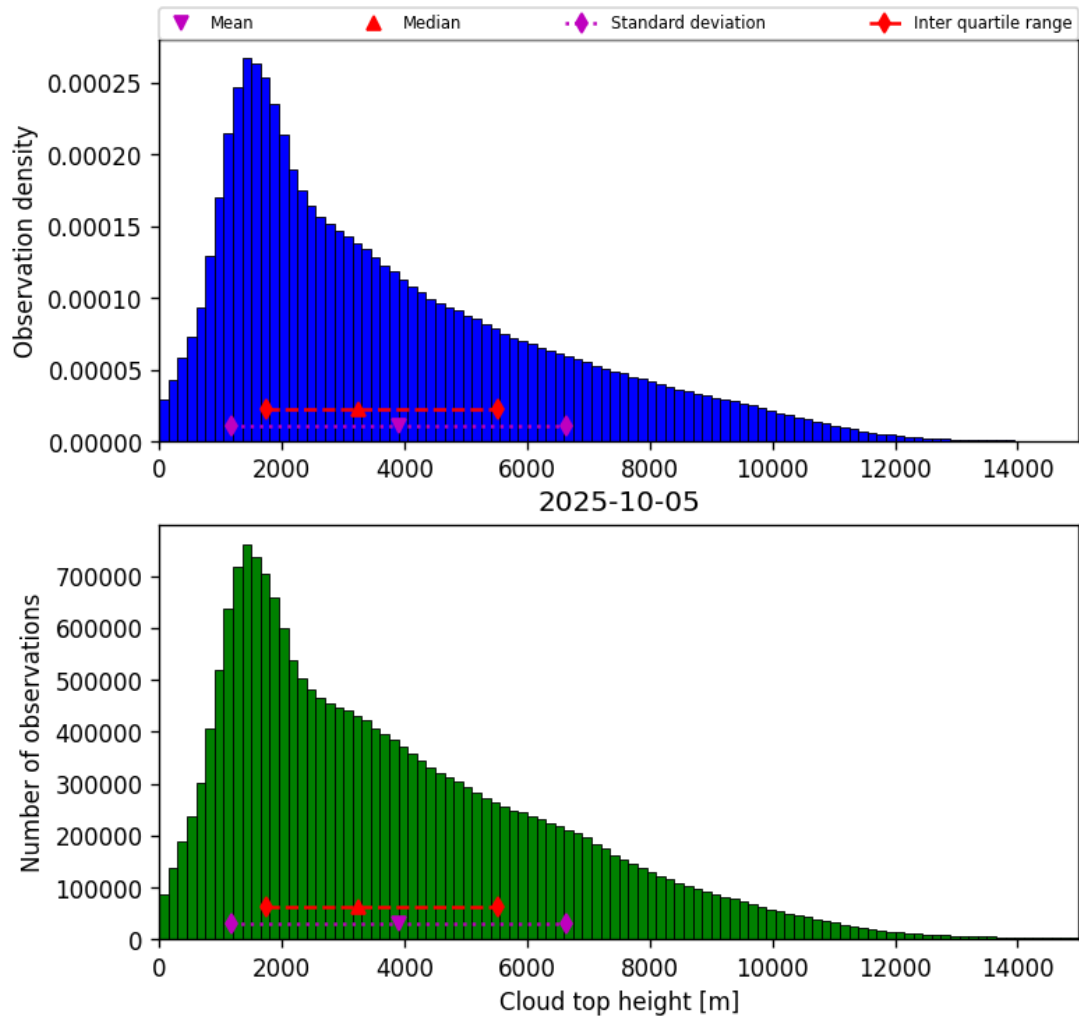


Figure 38: Histogram of “Cloud top height” for 2025-10-05 to 2025-10-06

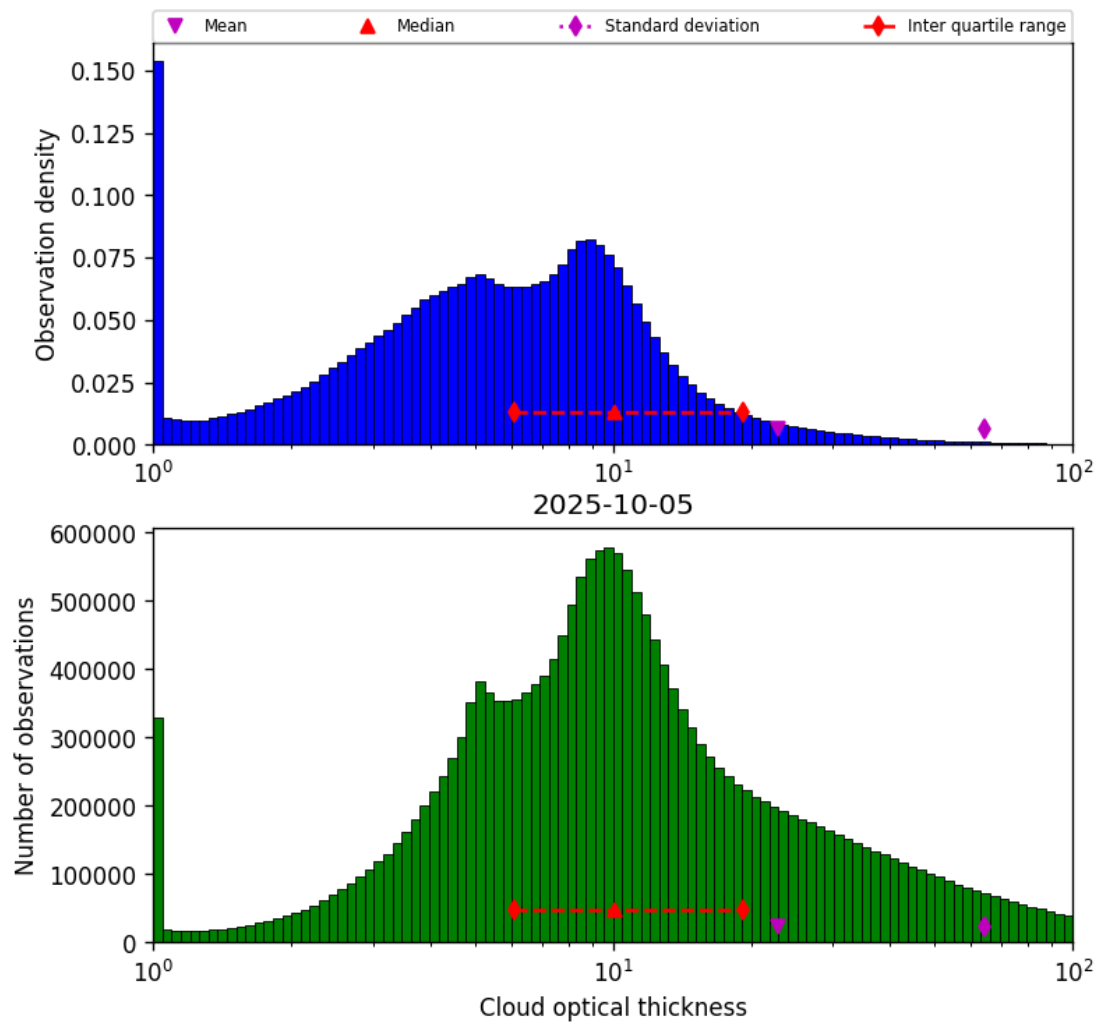


Figure 39: Histogram of “Cloud optical thickness” for 2025-10-05 to 2025-10-06

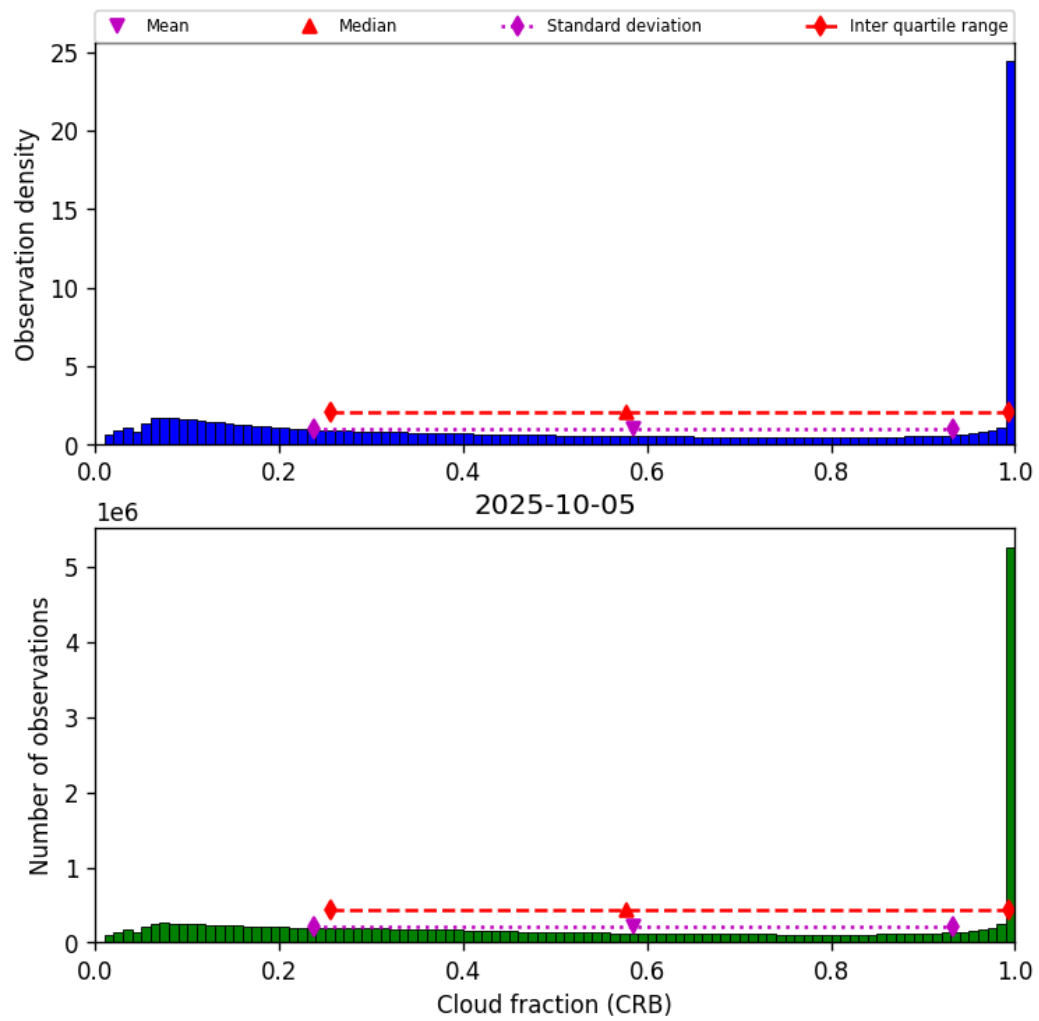


Figure 40: Histogram of “Cloud fraction (CRB)” for 2025-10-05 to 2025-10-06

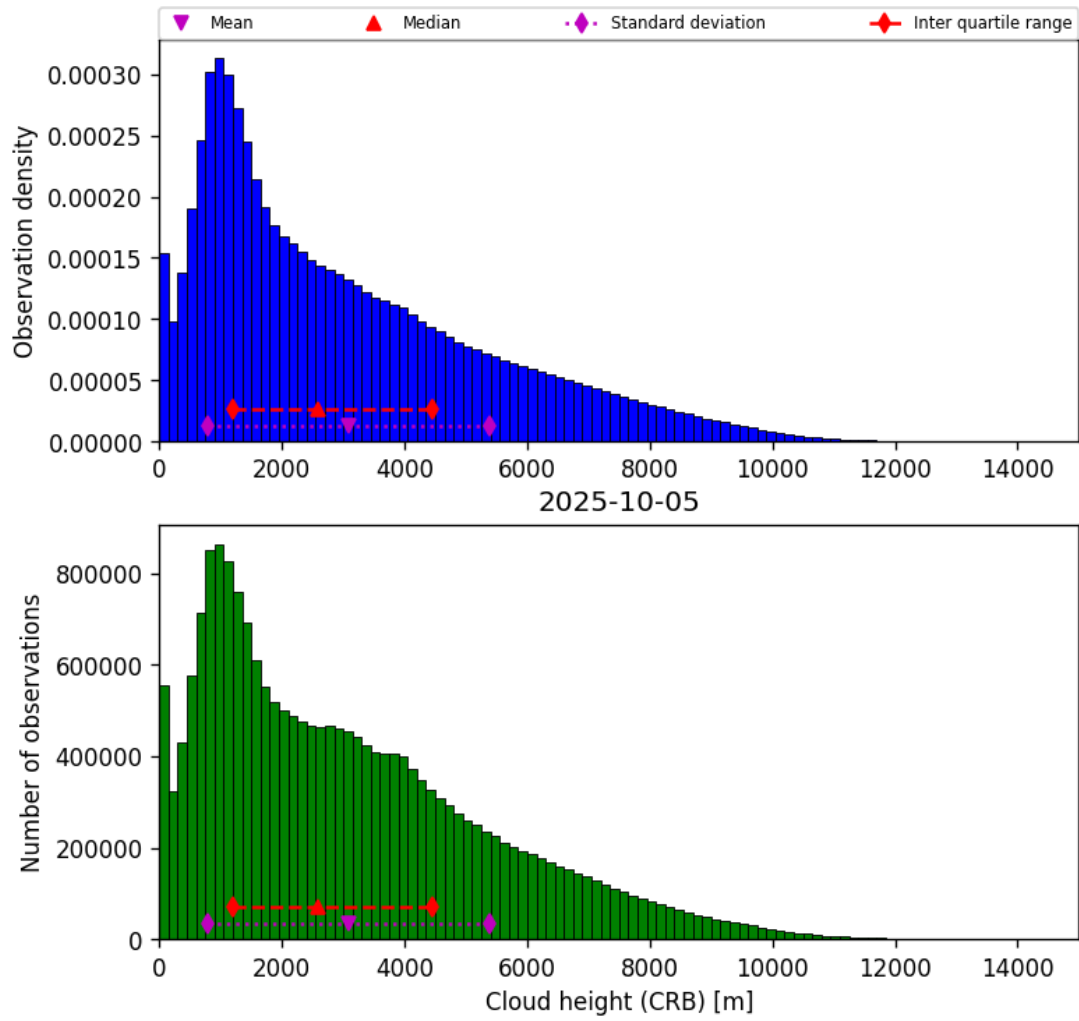


Figure 41: Histogram of “Cloud height (CRB)” for 2025-10-05 to 2025-10-06

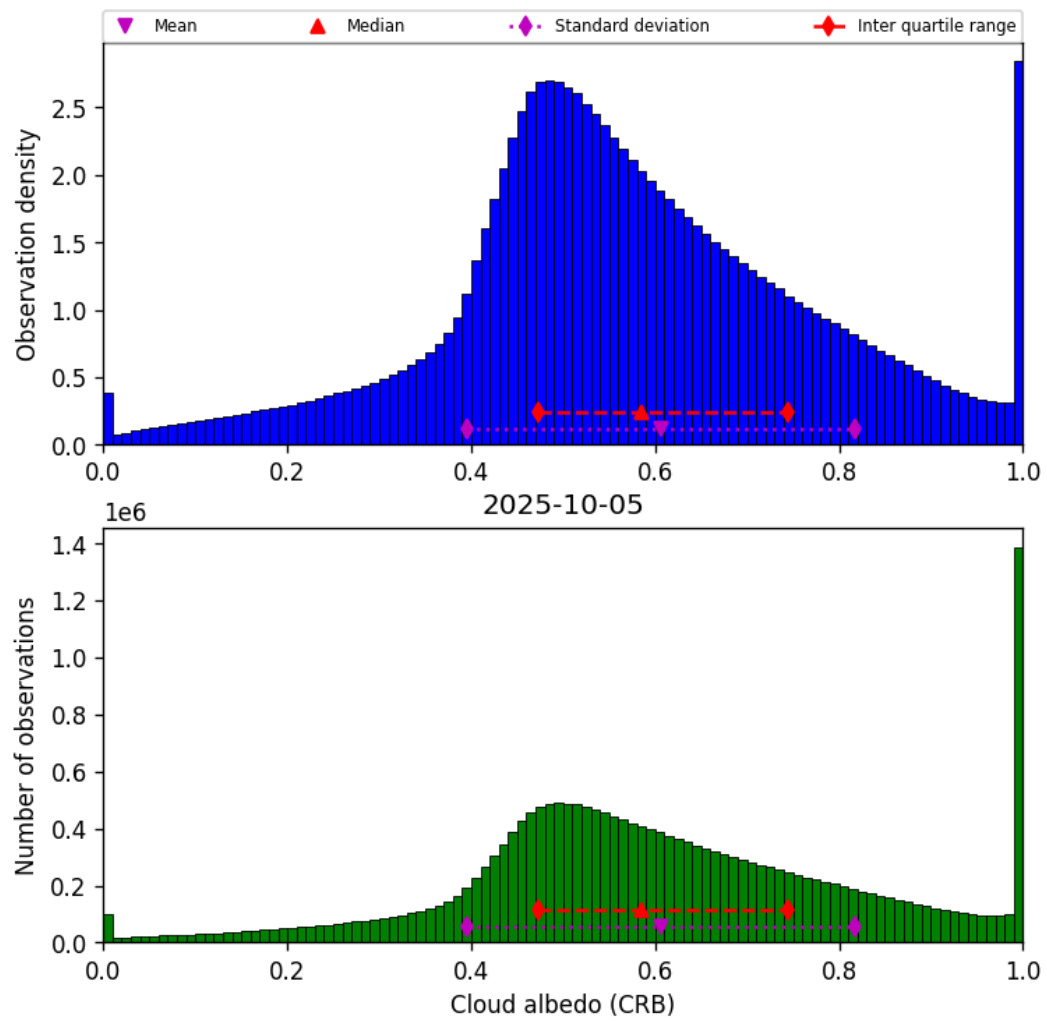


Figure 42: Histogram of “Cloud albedo (CRB)” for 2025-10-05 to 2025-10-06

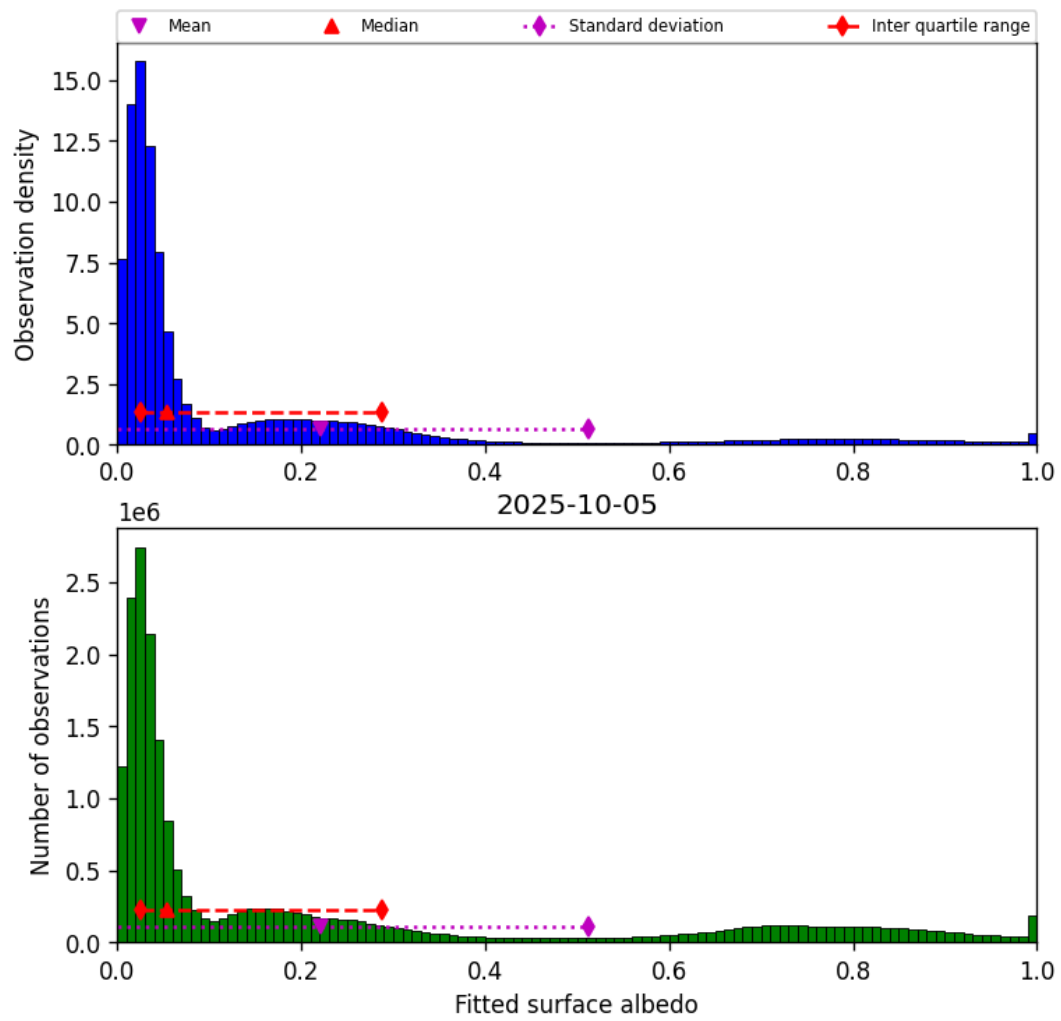


Figure 43: Histogram of “Fitted surface albedo” for 2025-10-05 to 2025-10-06

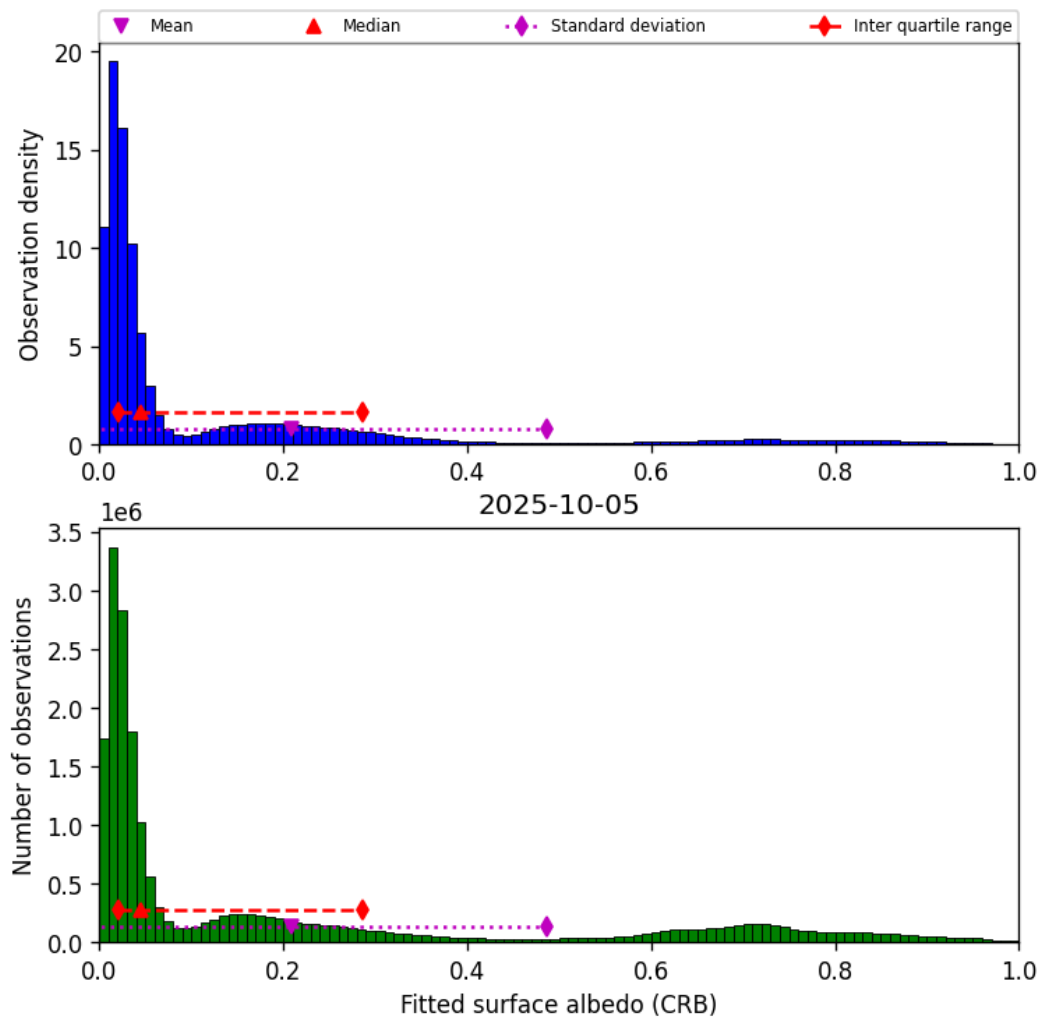


Figure 44: Histogram of “Fitted surface albedo (CRB)” for 2025-10-05 to 2025-10-06

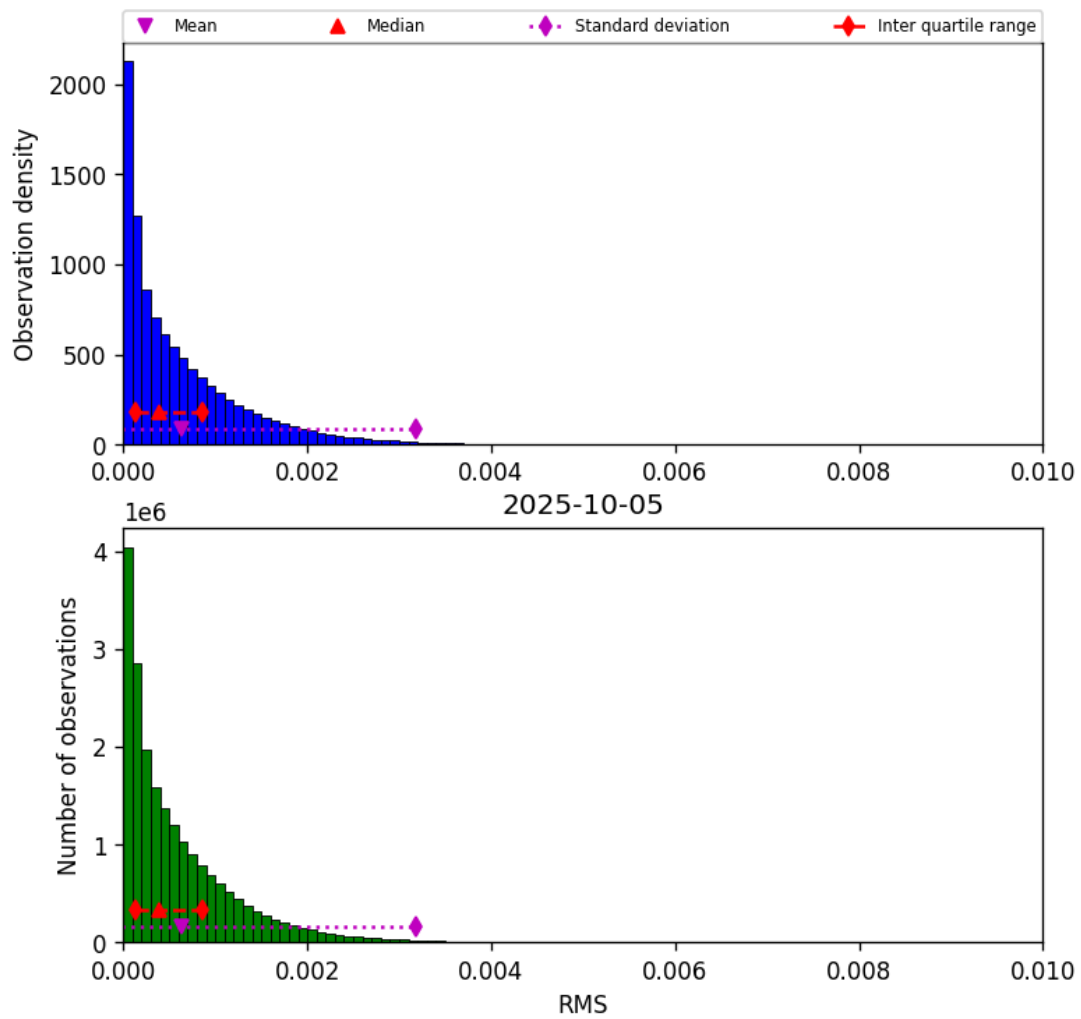


Figure 45: Histogram of “RMS” for 2025-10-05 to 2025-10-06

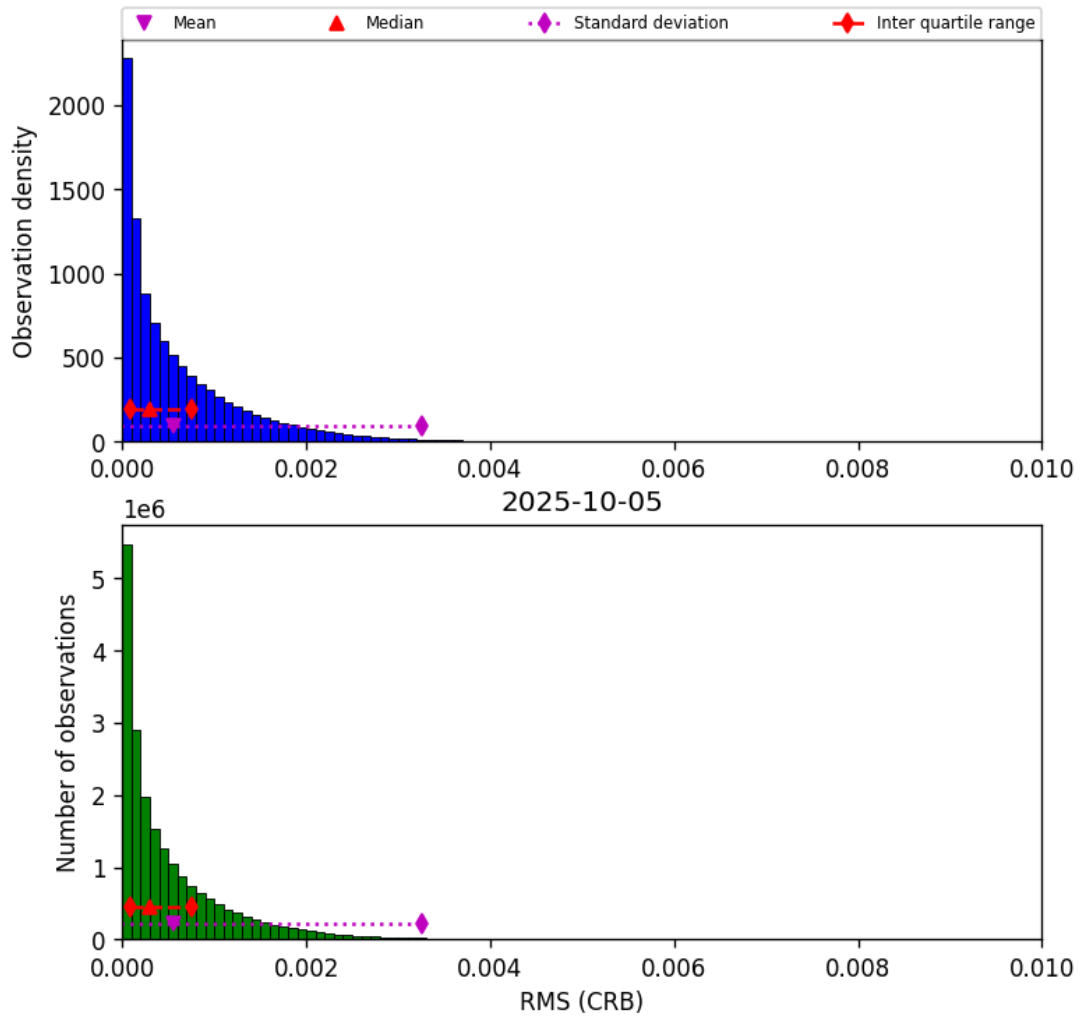


Figure 46: Histogram of “RMS (CRB)” for 2025-10-05 to 2025-10-06

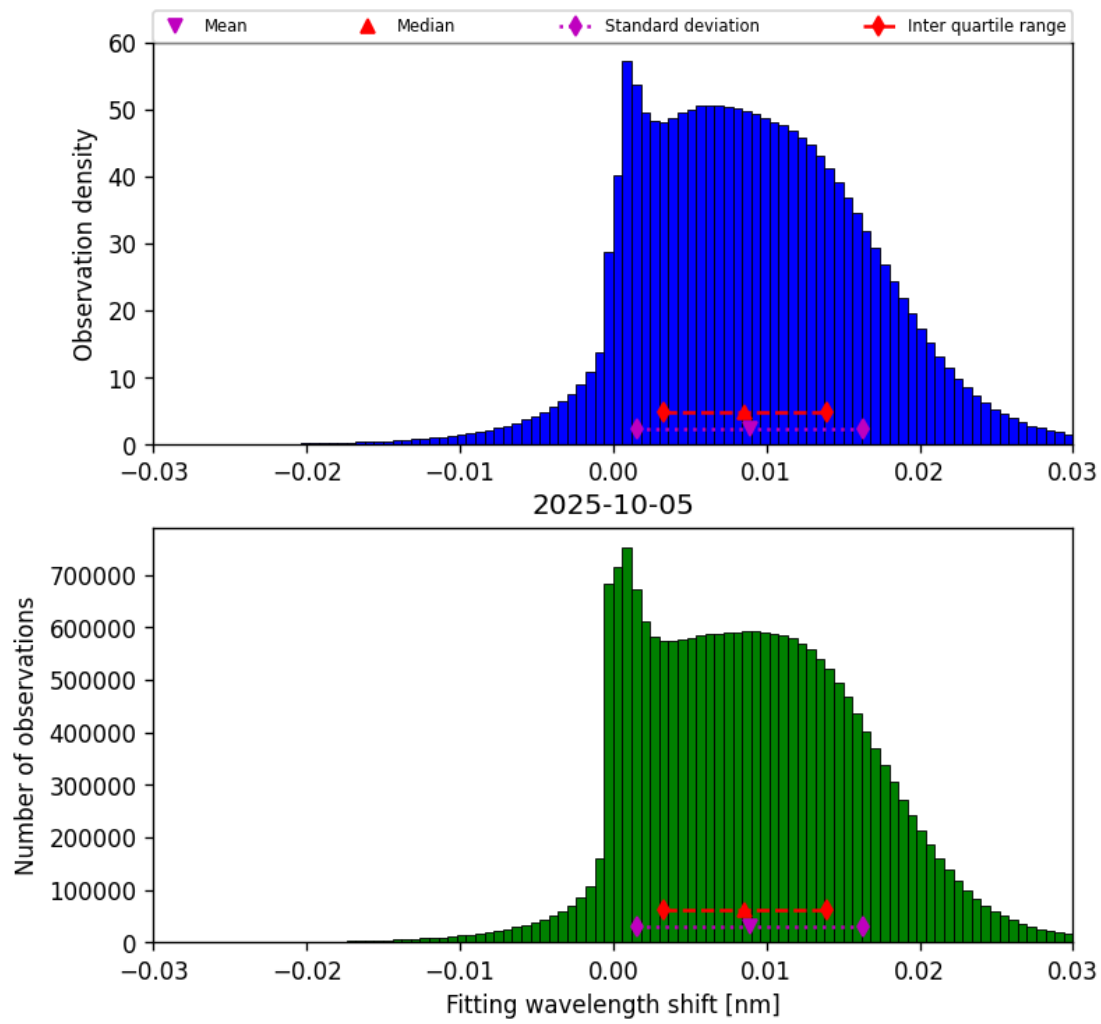


Figure 47: Histogram of “Fitting wavelength shift” for 2025-10-05 to 2025-10-06

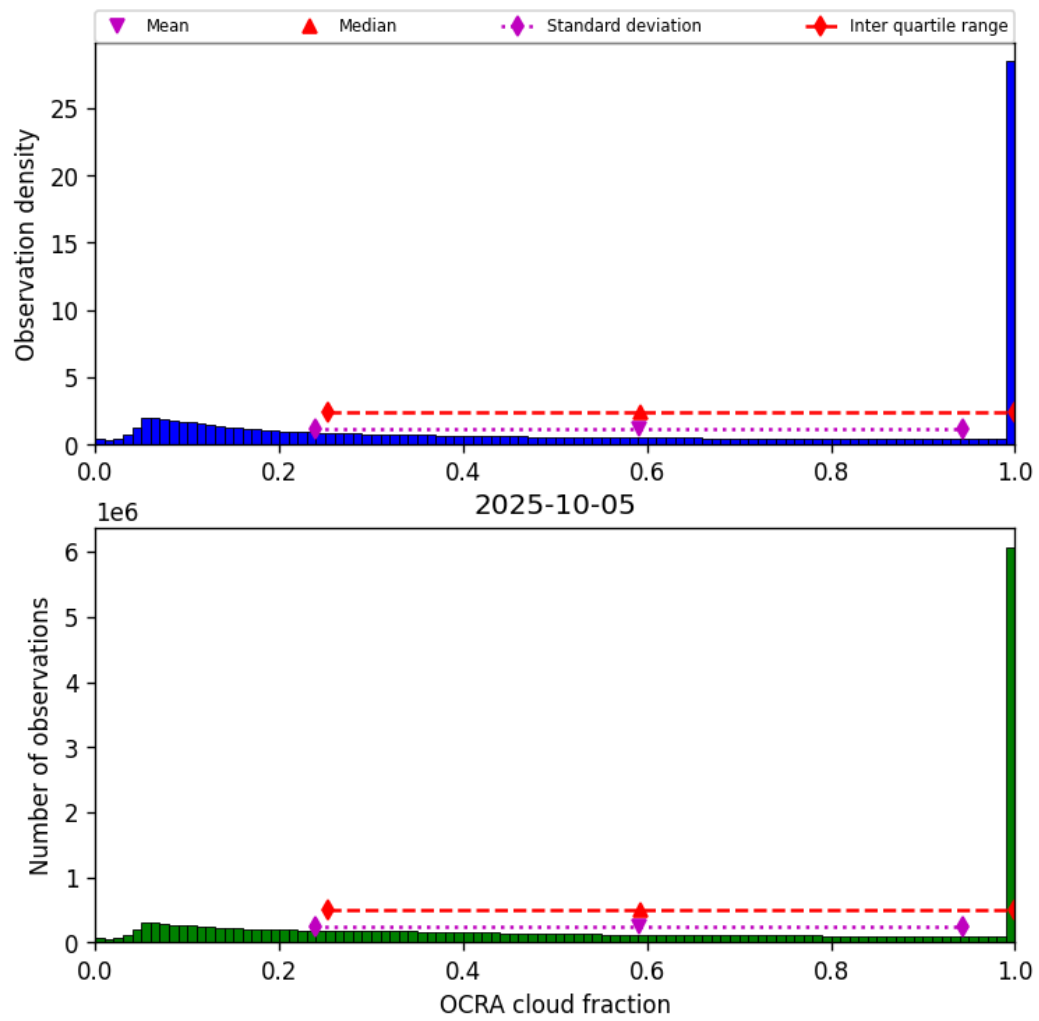


Figure 48: Histogram of “OCRA cloud fraction” for 2025-10-05 to 2025-10-06

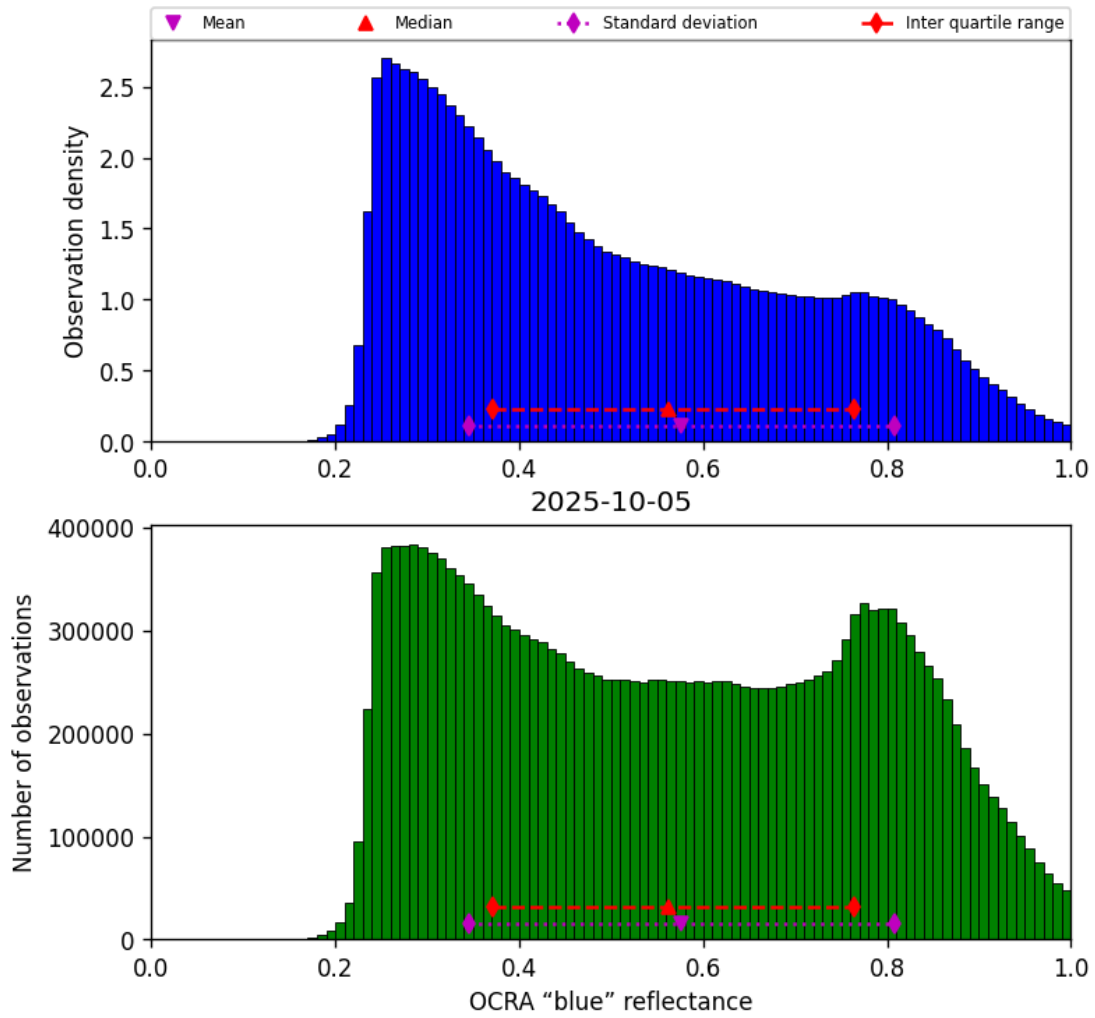


Figure 49: Histogram of “OCRA “blue” reflectance” for 2025-10-05 to 2025-10-06

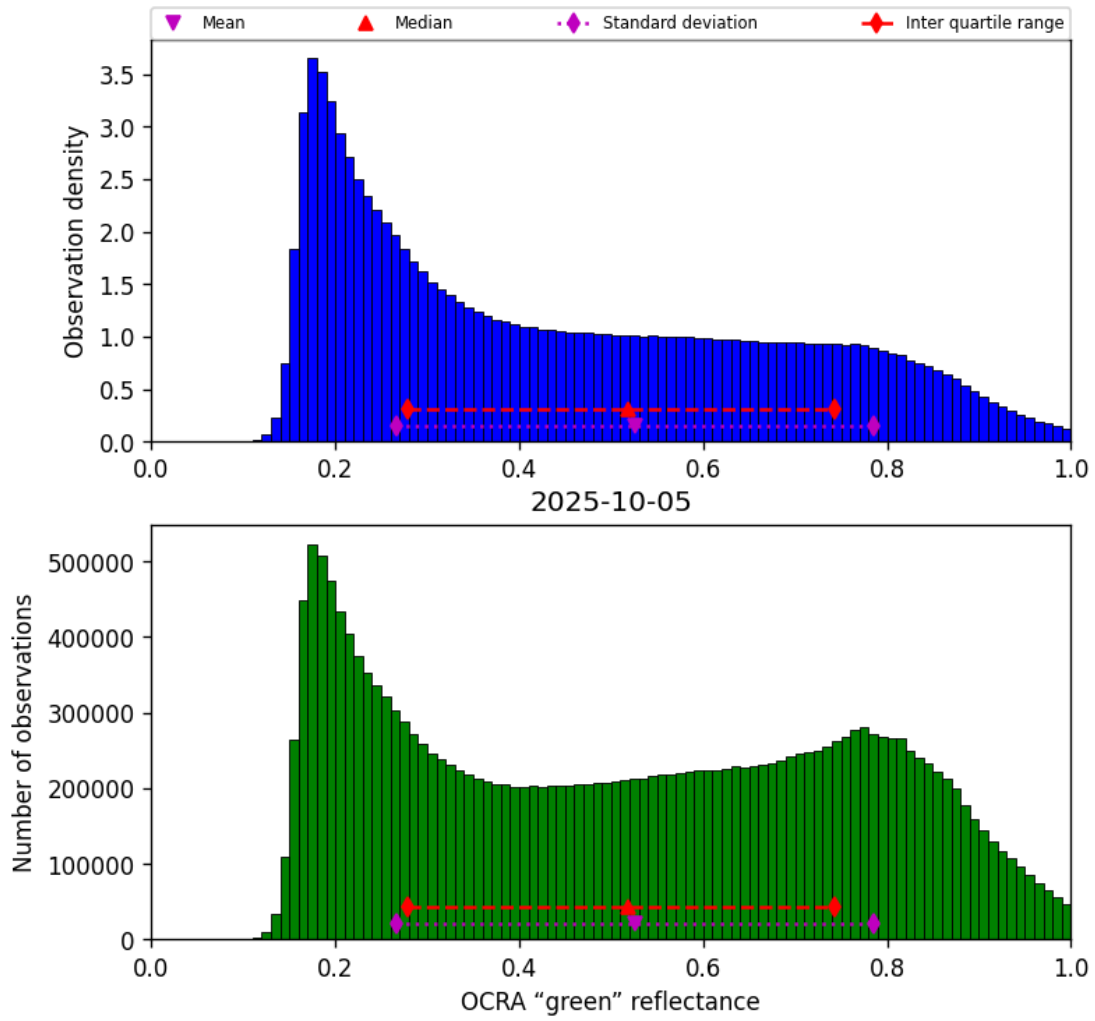


Figure 50: Histogram of “OCRA “green” reflectance” for 2025-10-05 to 2025-10-06

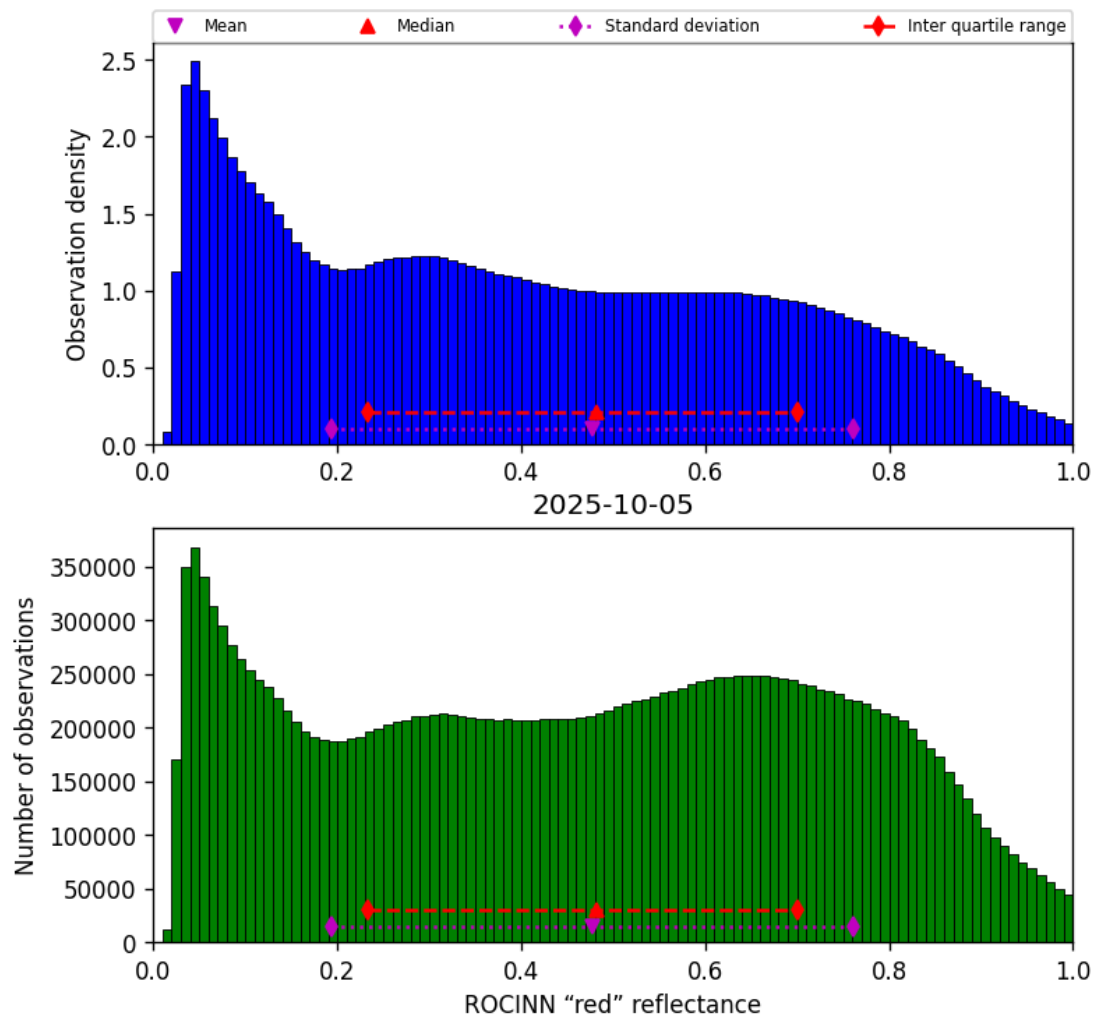


Figure 51: Histogram of “ROCINN “red” reflectance” for 2025-10-05 to 2025-10-06

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.

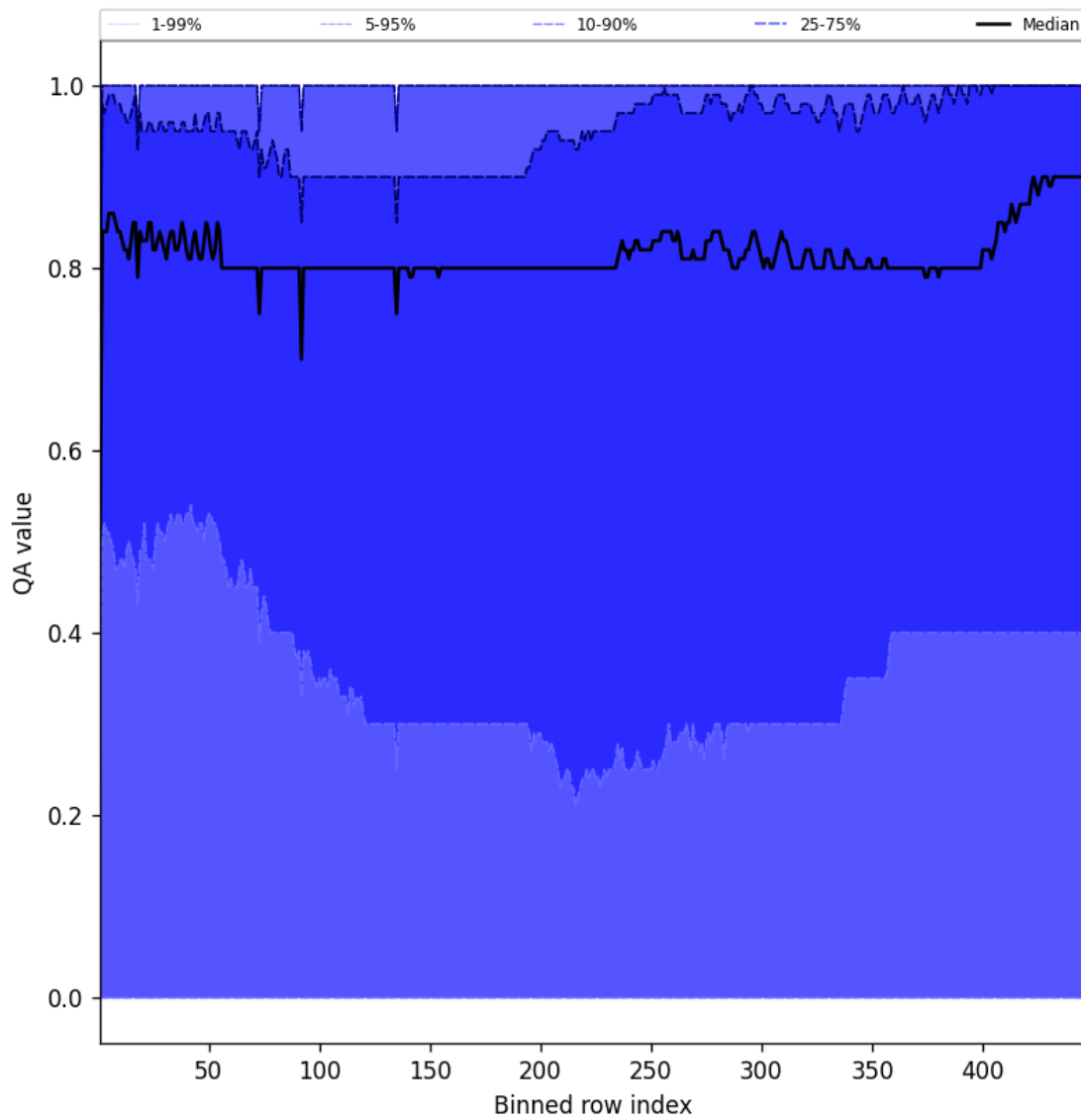


Figure 52: Along track statistics of “QA value” for 2025-10-05 to 2025-10-06

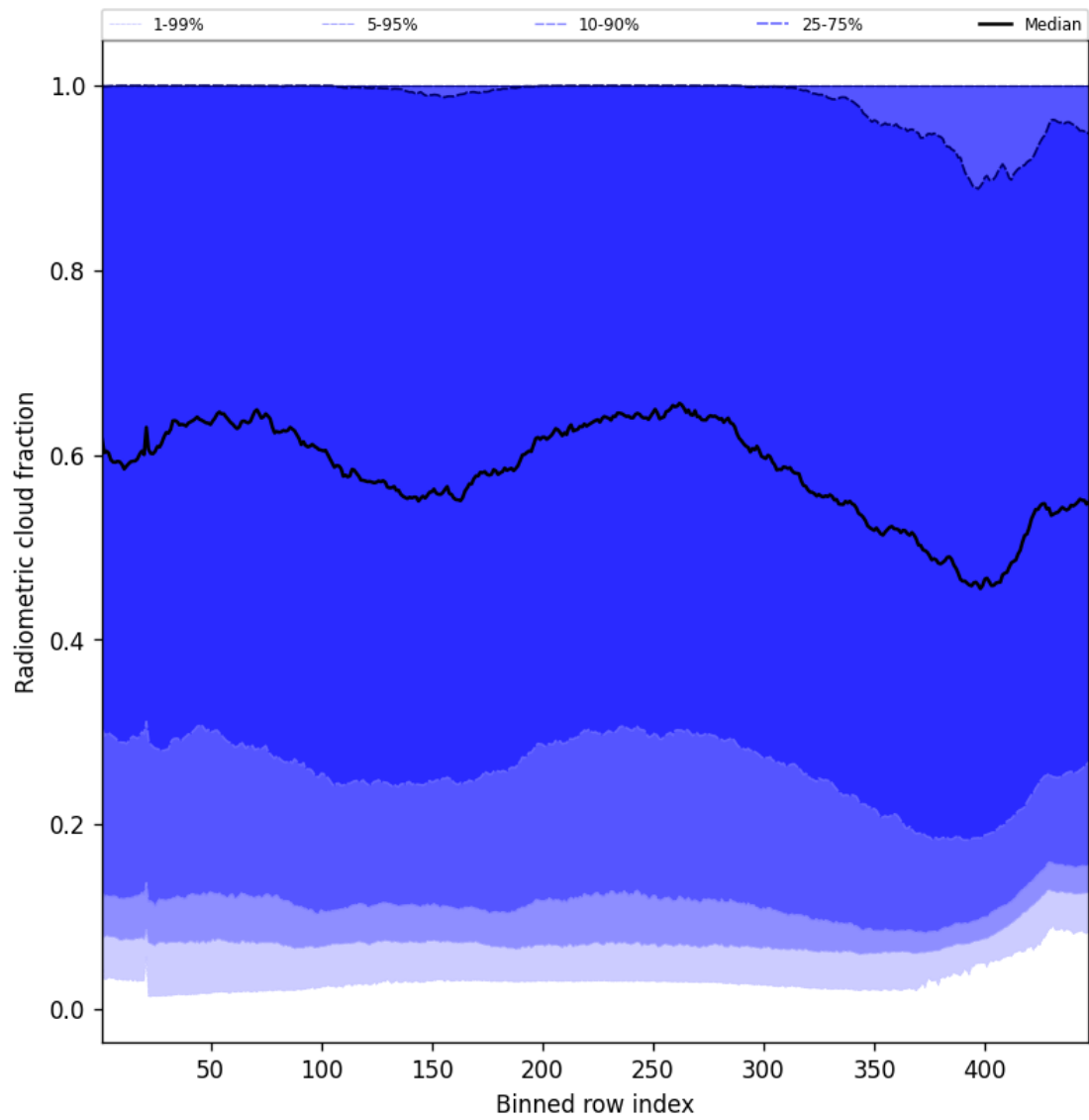


Figure 53: Along track statistics of “Radiometric cloud fraction” for 2025-10-05 to 2025-10-06

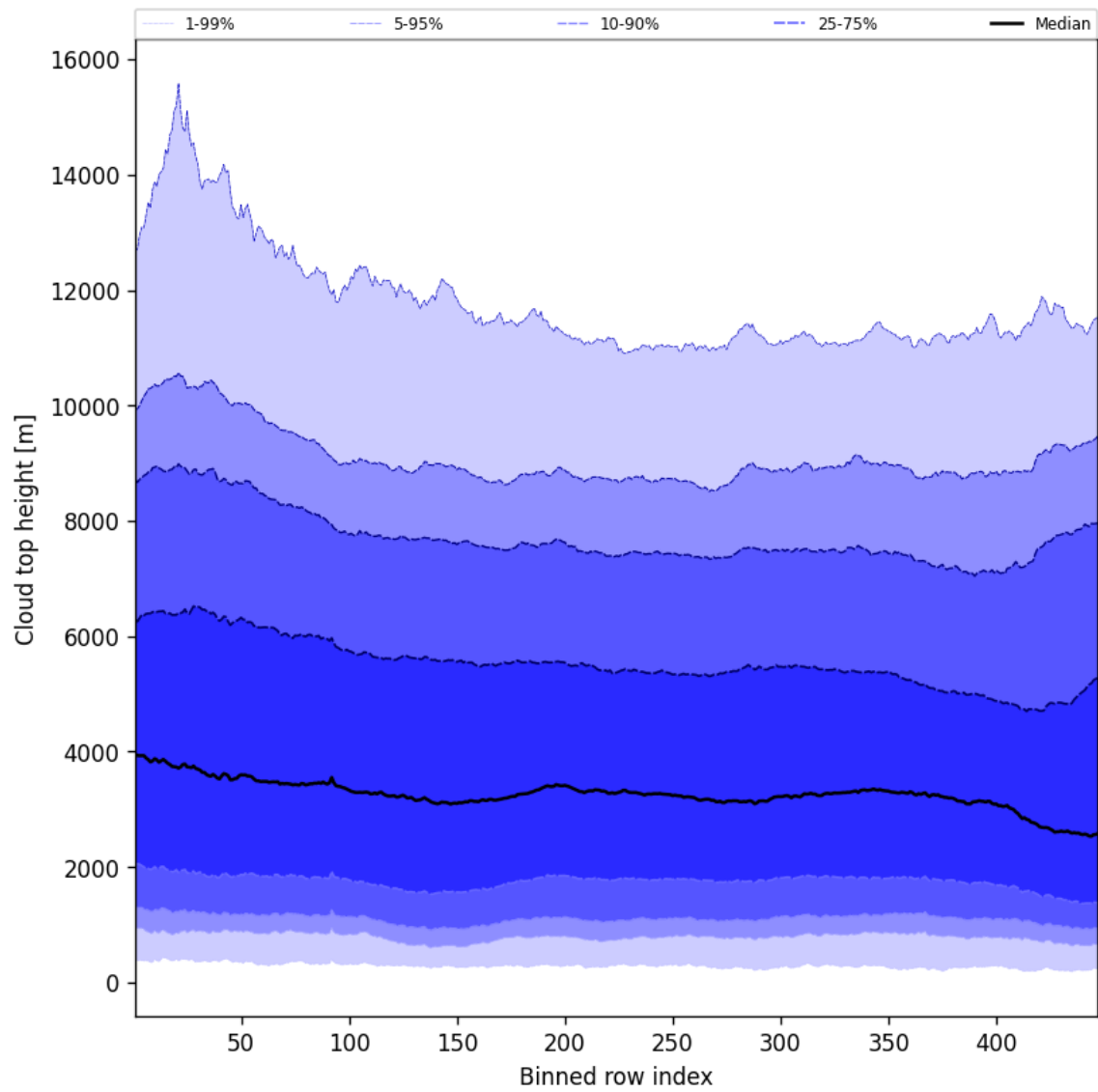


Figure 54: Along track statistics of “Cloud top height” for 2025-10-05 to 2025-10-06

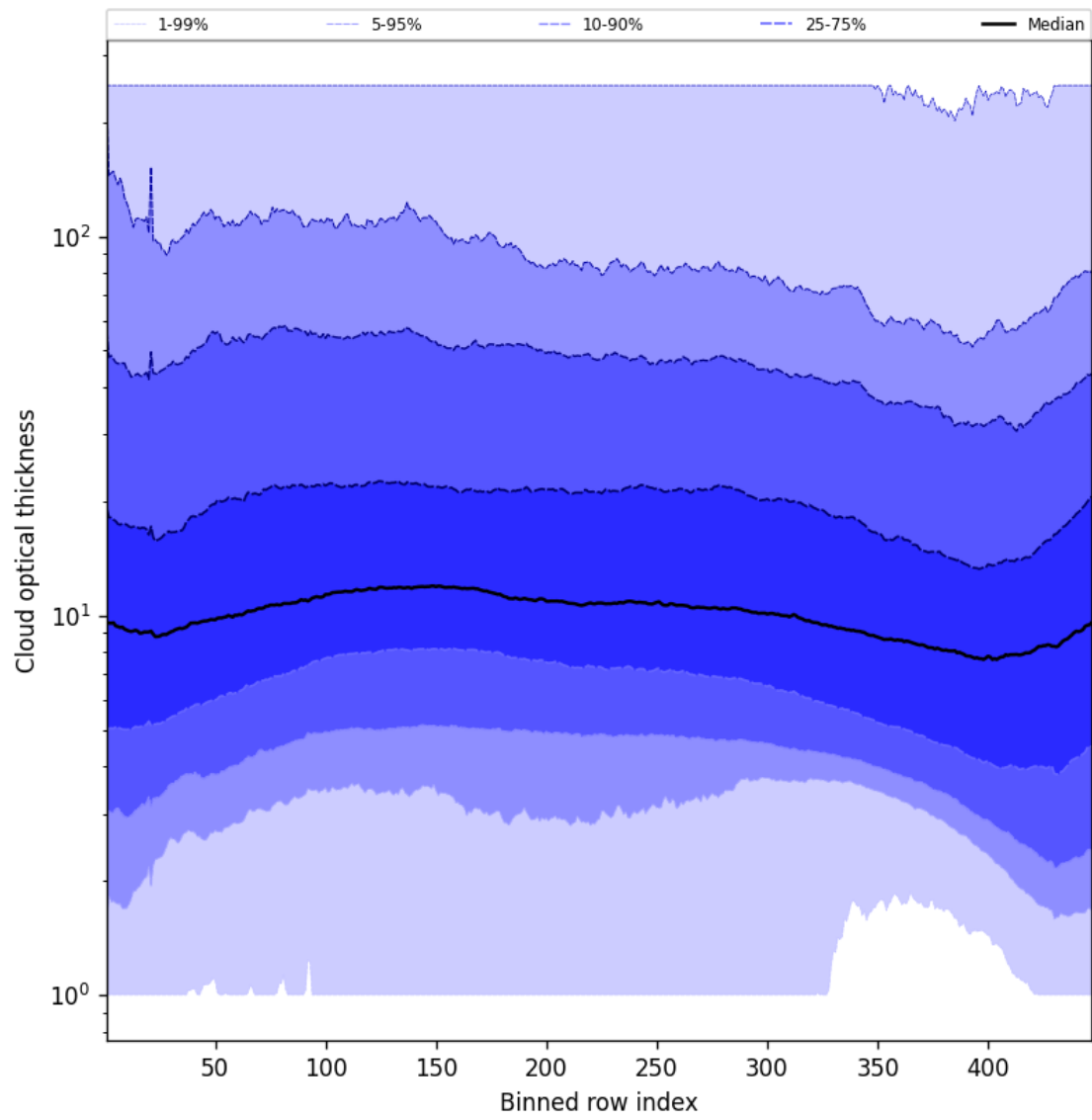


Figure 55: Along track statistics of “Cloud optical thickness” for 2025-10-05 to 2025-10-06

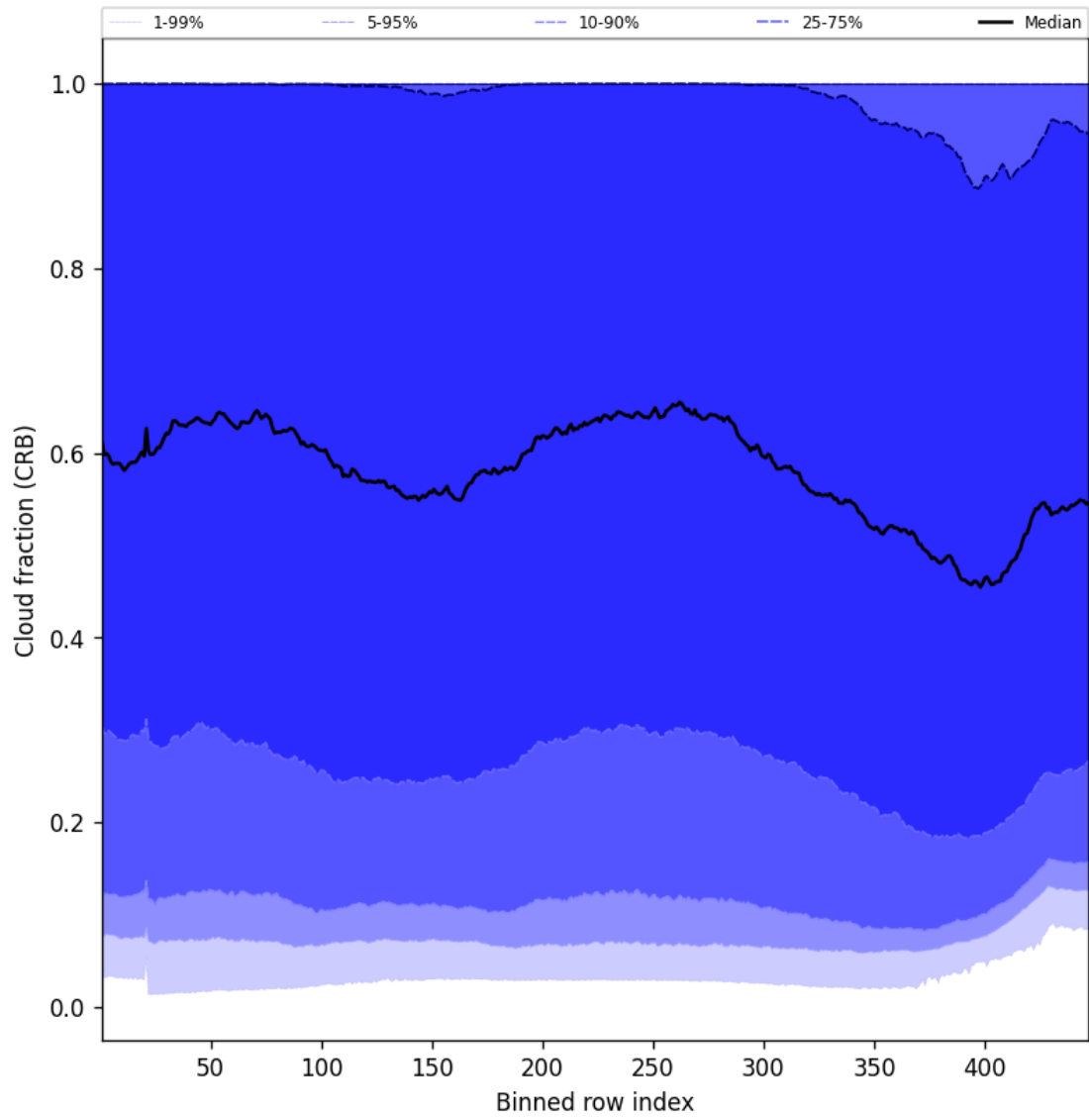


Figure 56: Along track statistics of “Cloud fraction (CRB)” for 2025-10-05 to 2025-10-06

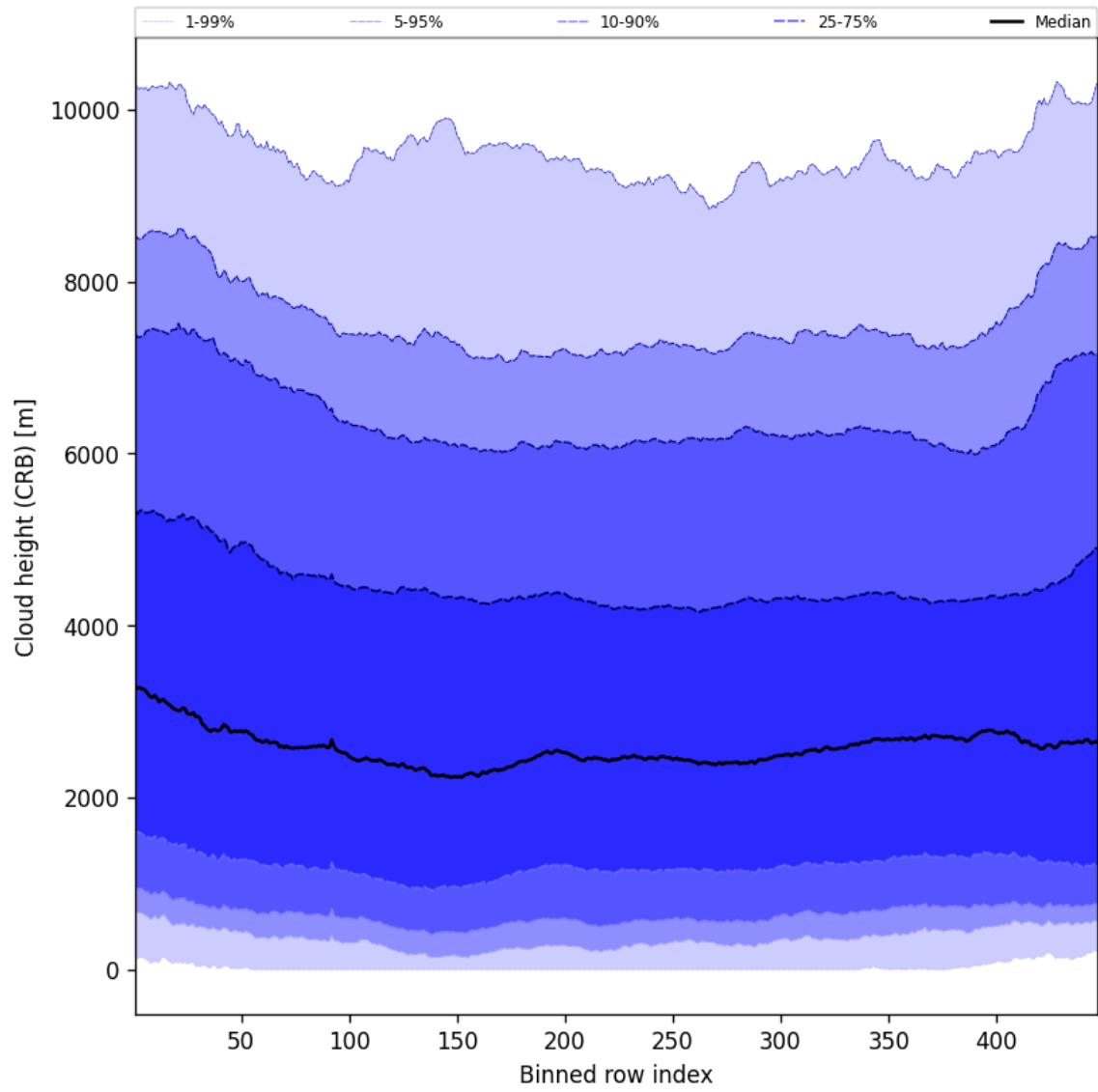


Figure 57: Along track statistics of “Cloud height (CRB)” for 2025-10-05 to 2025-10-06

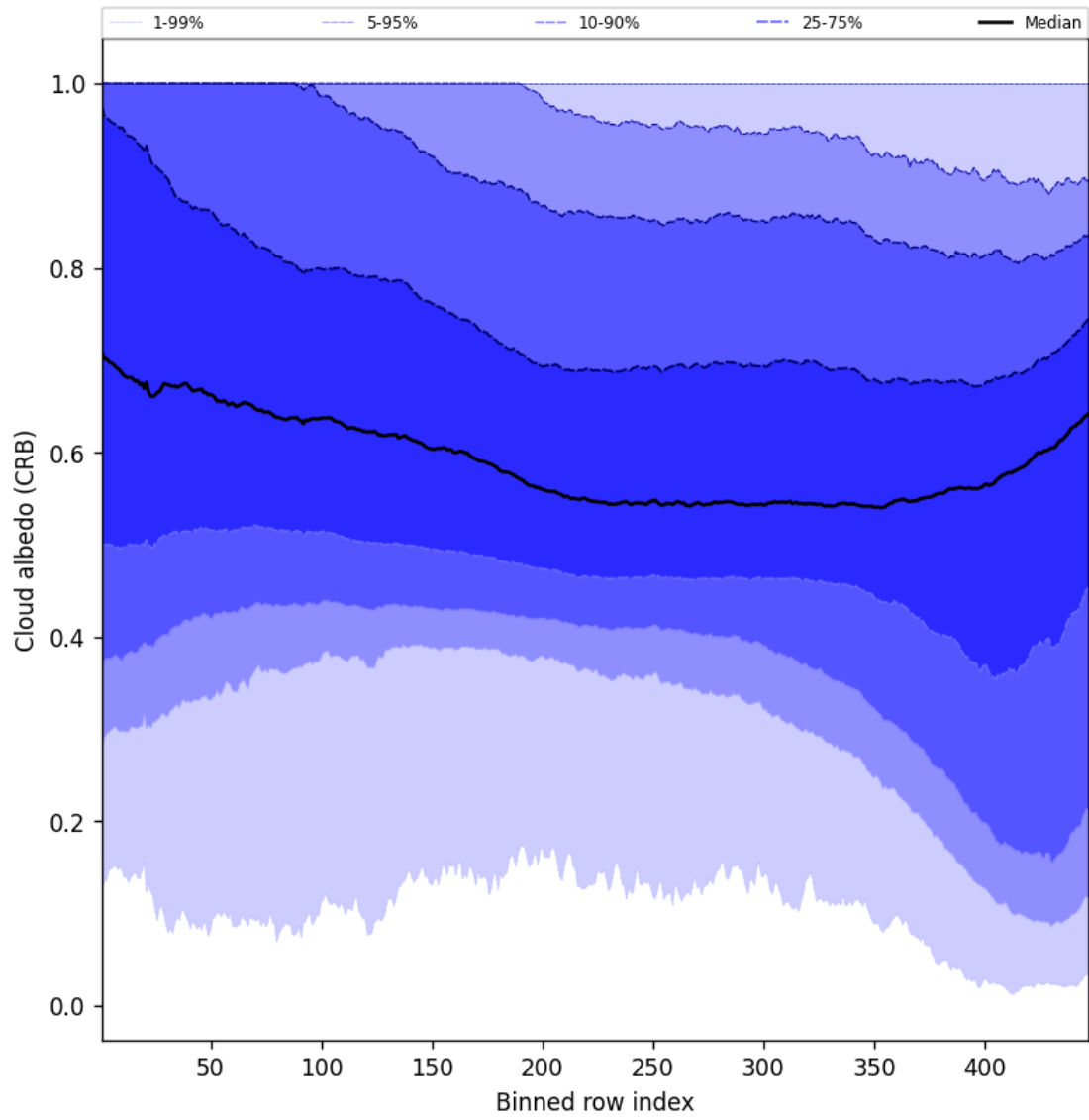


Figure 58: Along track statistics of “Cloud albedo (CRB)” for 2025-10-05 to 2025-10-06

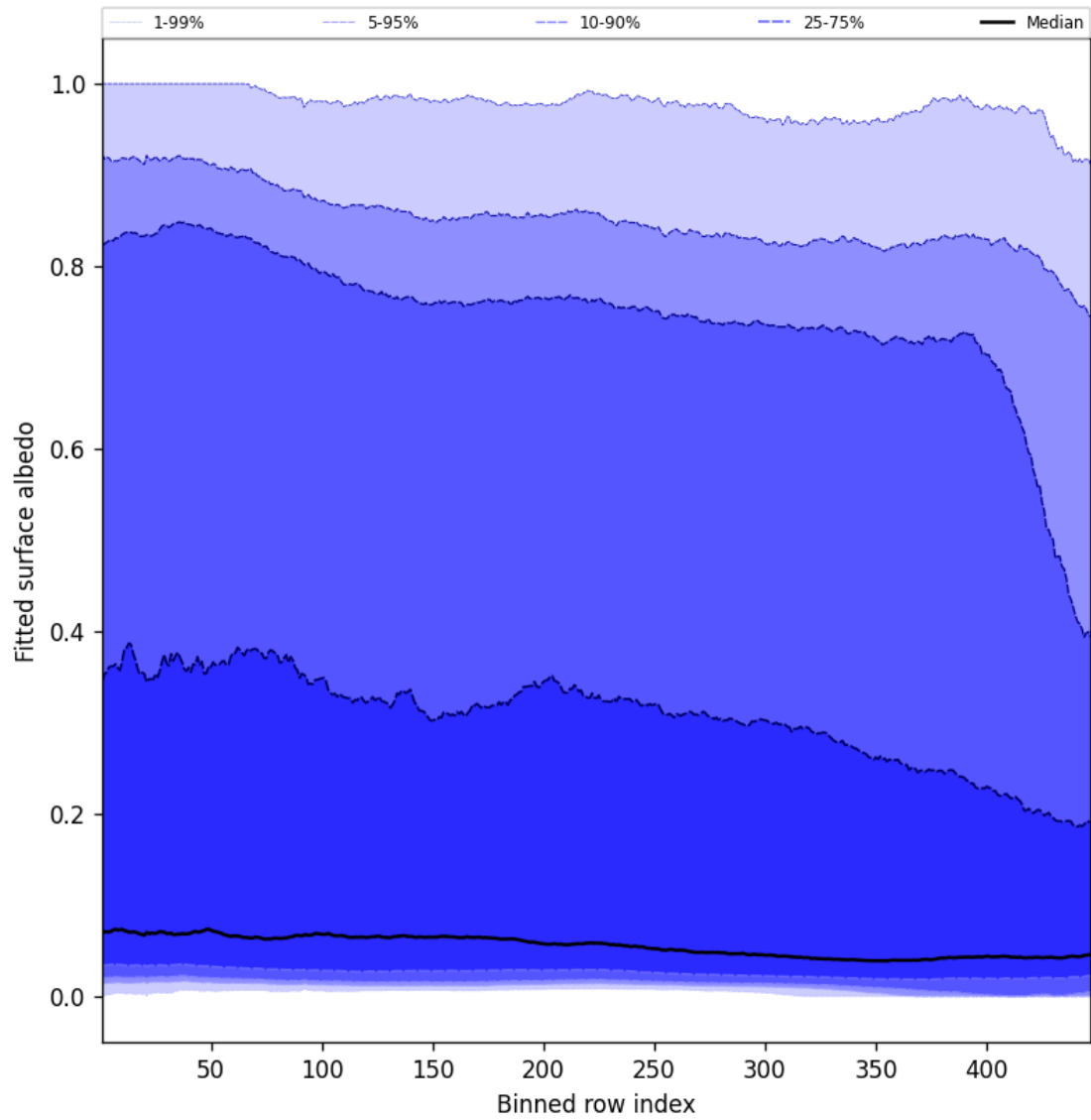


Figure 59: Along track statistics of “Fitted surface albedo” for 2025-10-05 to 2025-10-06

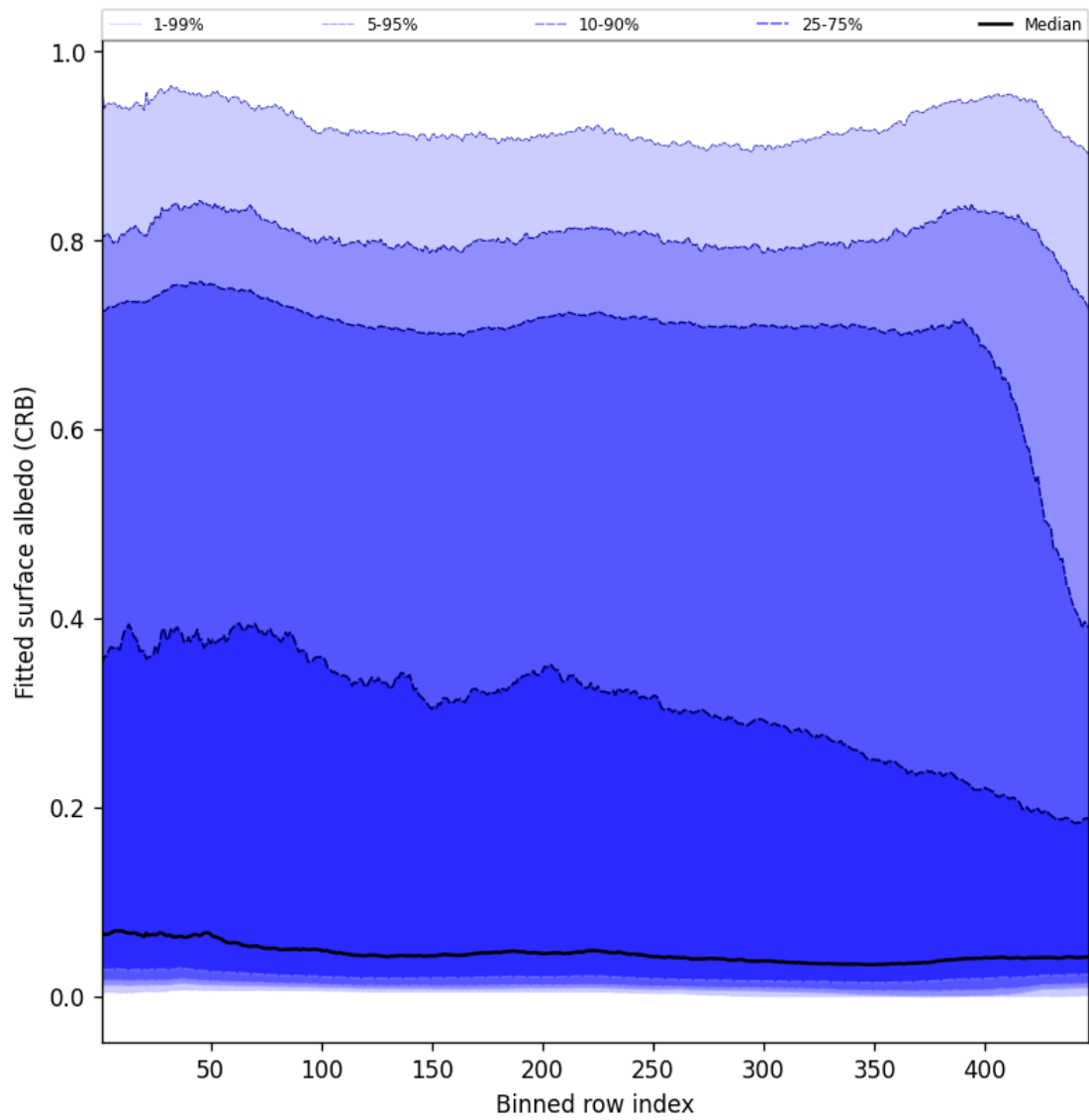


Figure 60: Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-05 to 2025-10-06

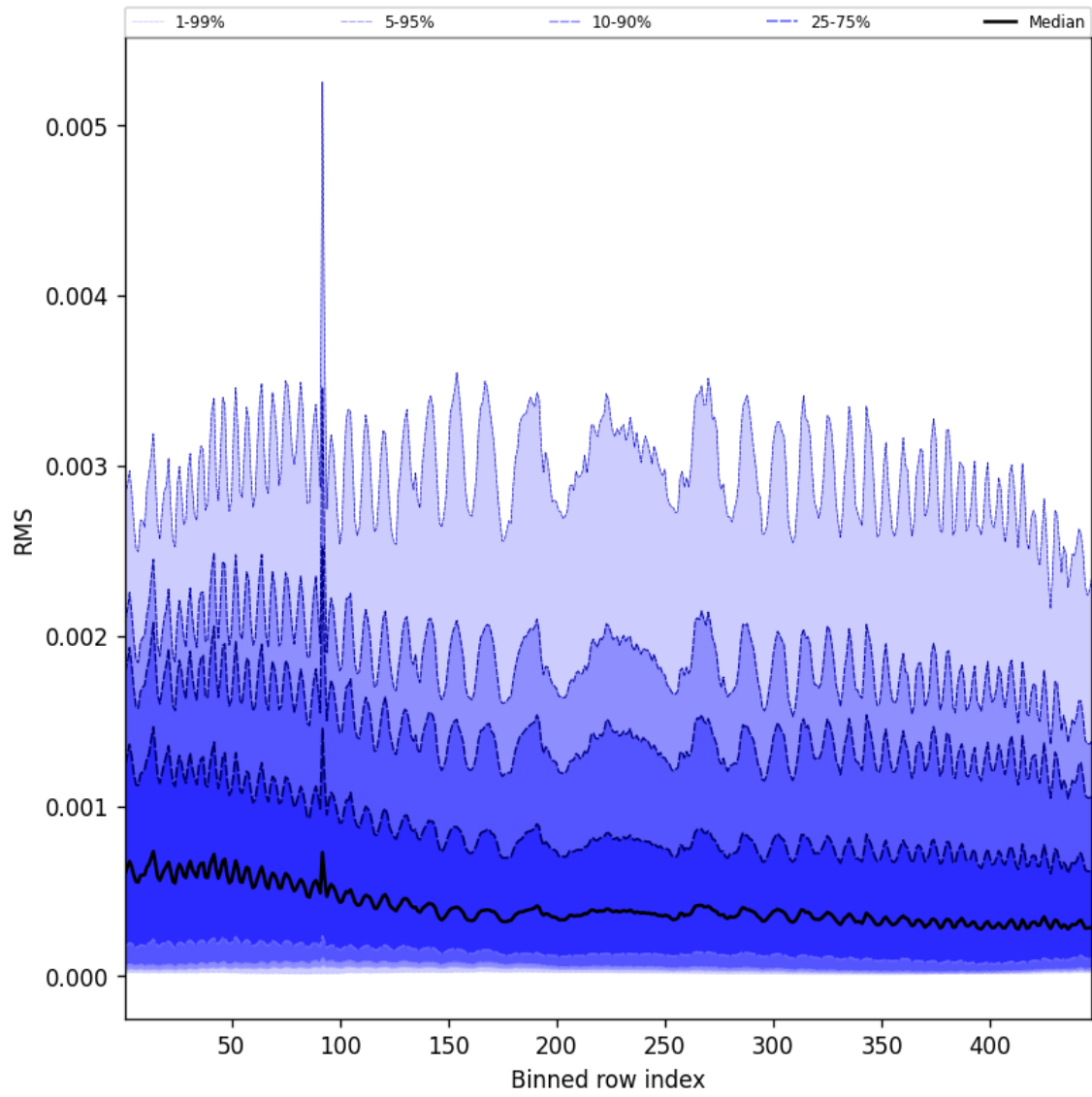


Figure 61: Along track statistics of “RMS” for 2025-10-05 to 2025-10-06

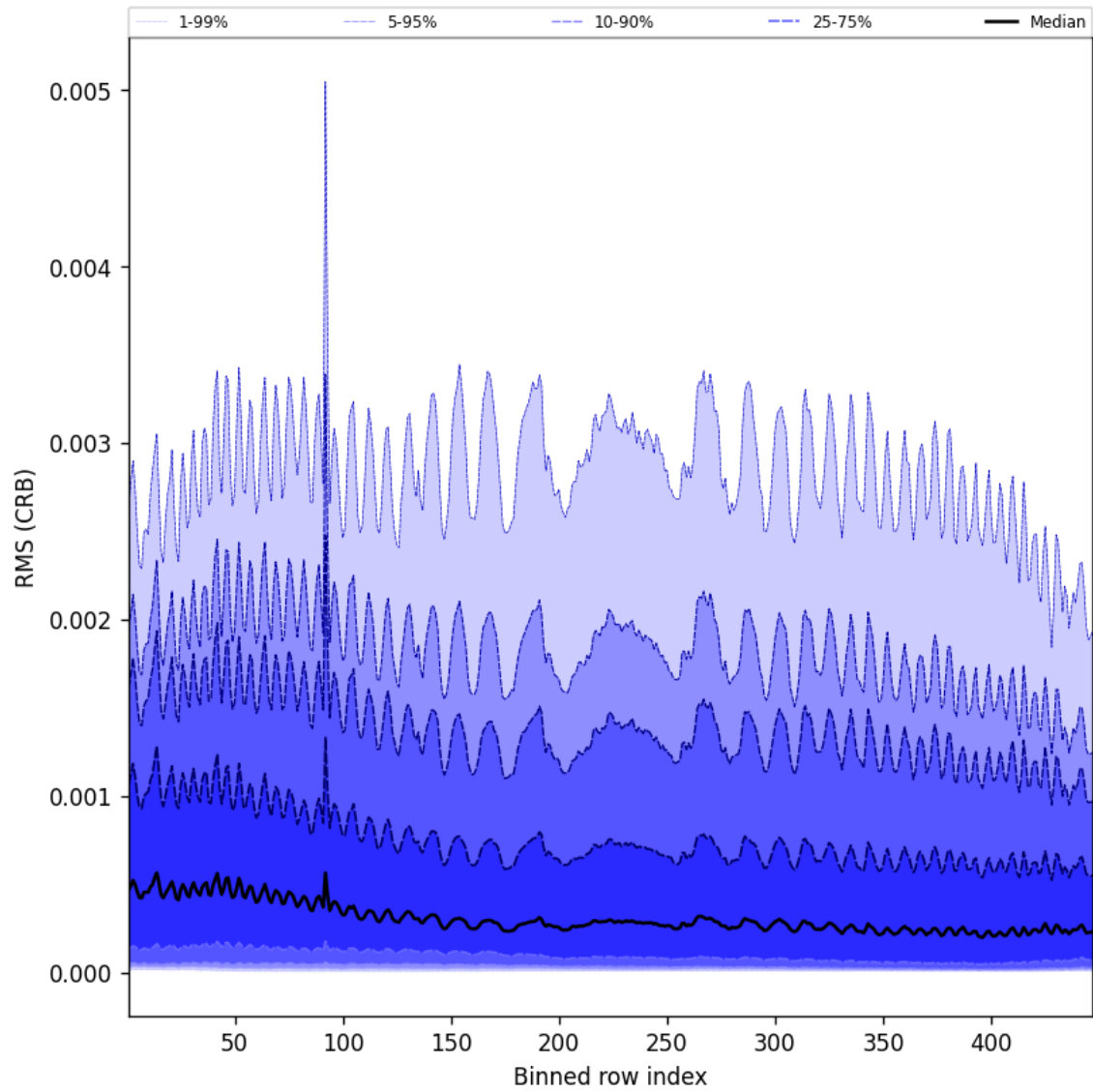


Figure 62: Along track statistics of “RMS (CRB)” for 2025-10-05 to 2025-10-06

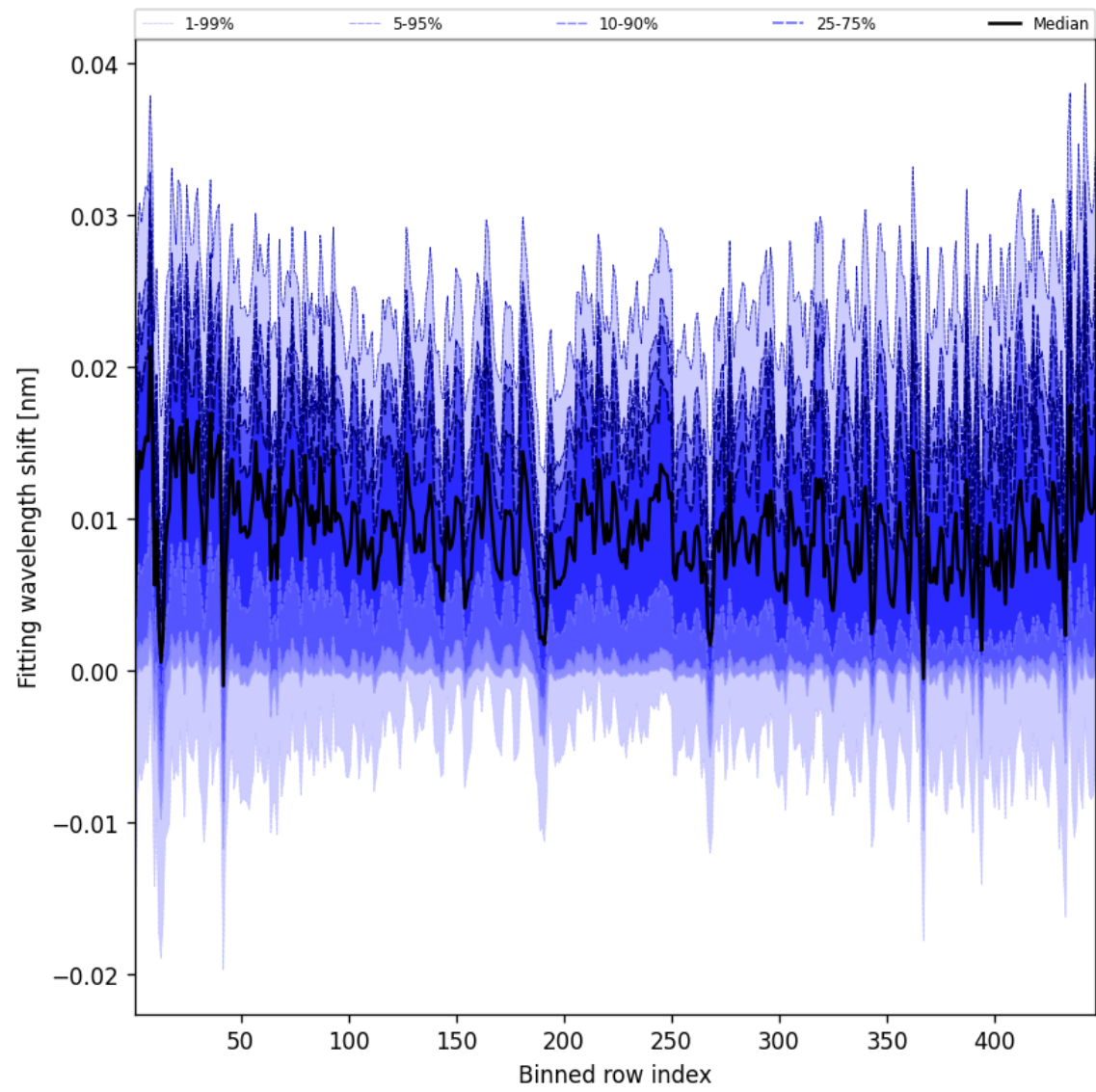


Figure 63: Along track statistics of “Fitting wavelength shift” for 2025-10-05 to 2025-10-06

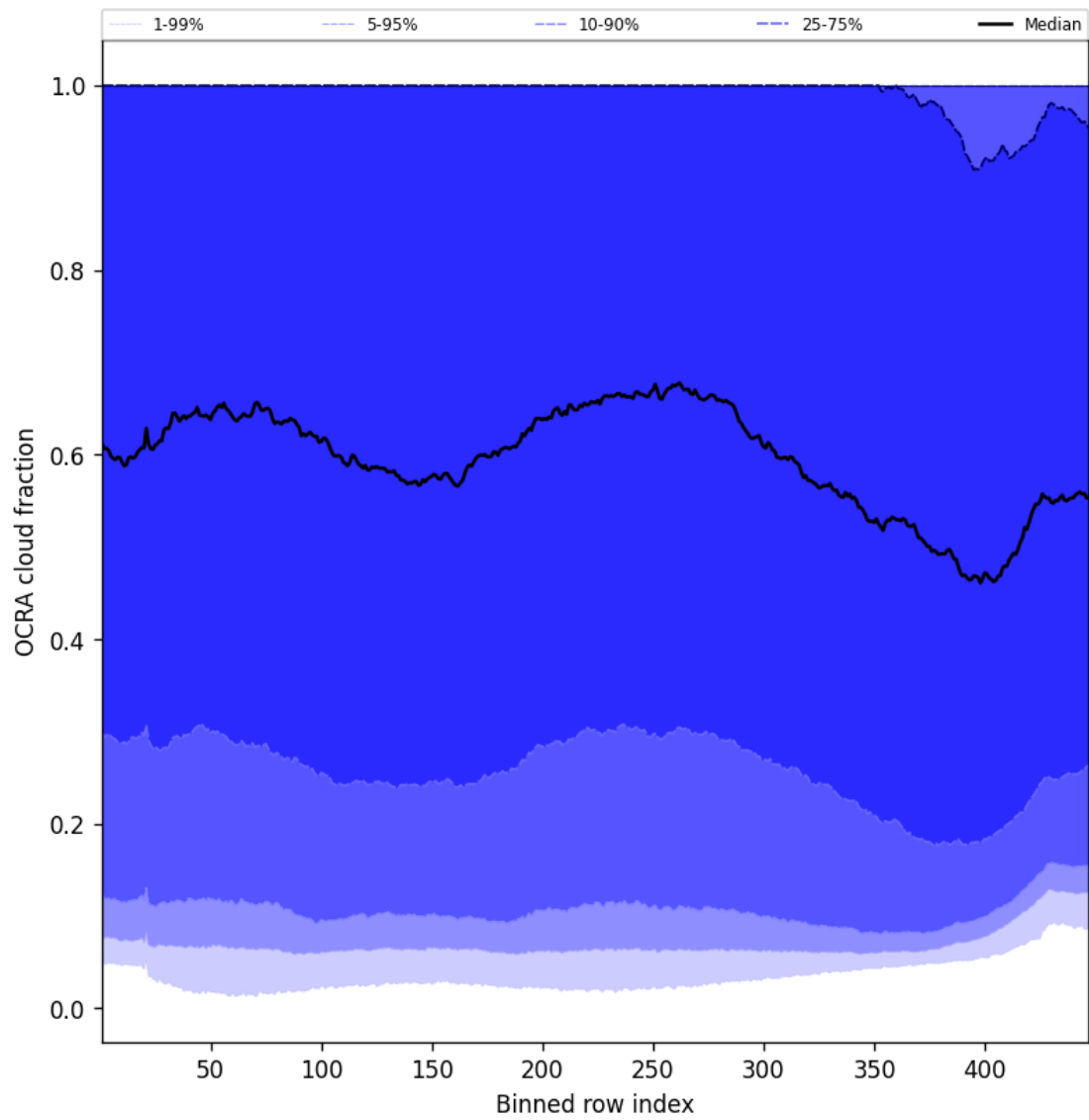


Figure 64: Along track statistics of “OCRA cloud fraction” for 2025-10-05 to 2025-10-06

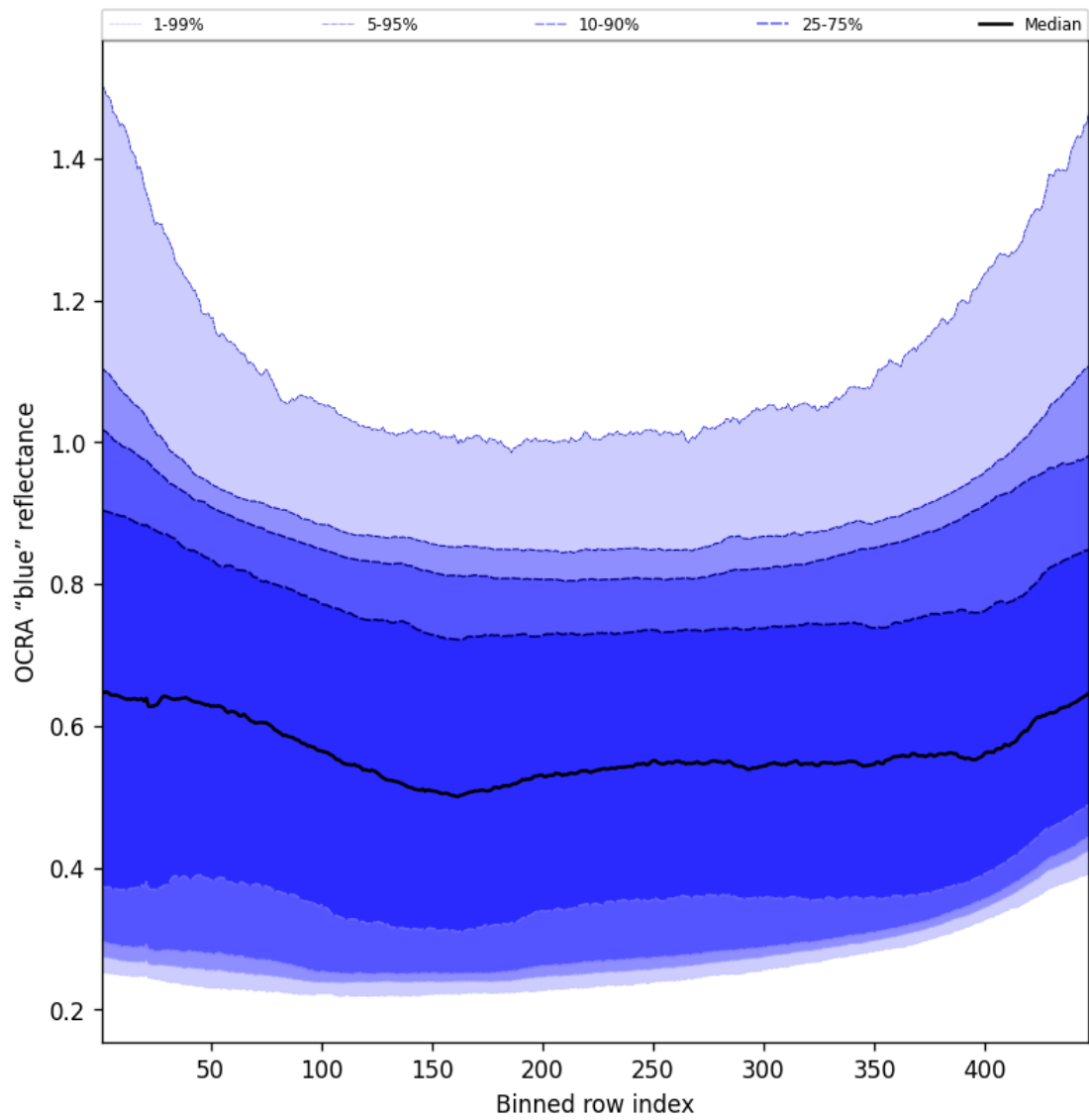


Figure 65: Along track statistics of “OCRA “blue” reflectance” for 2025-10-05 to 2025-10-06

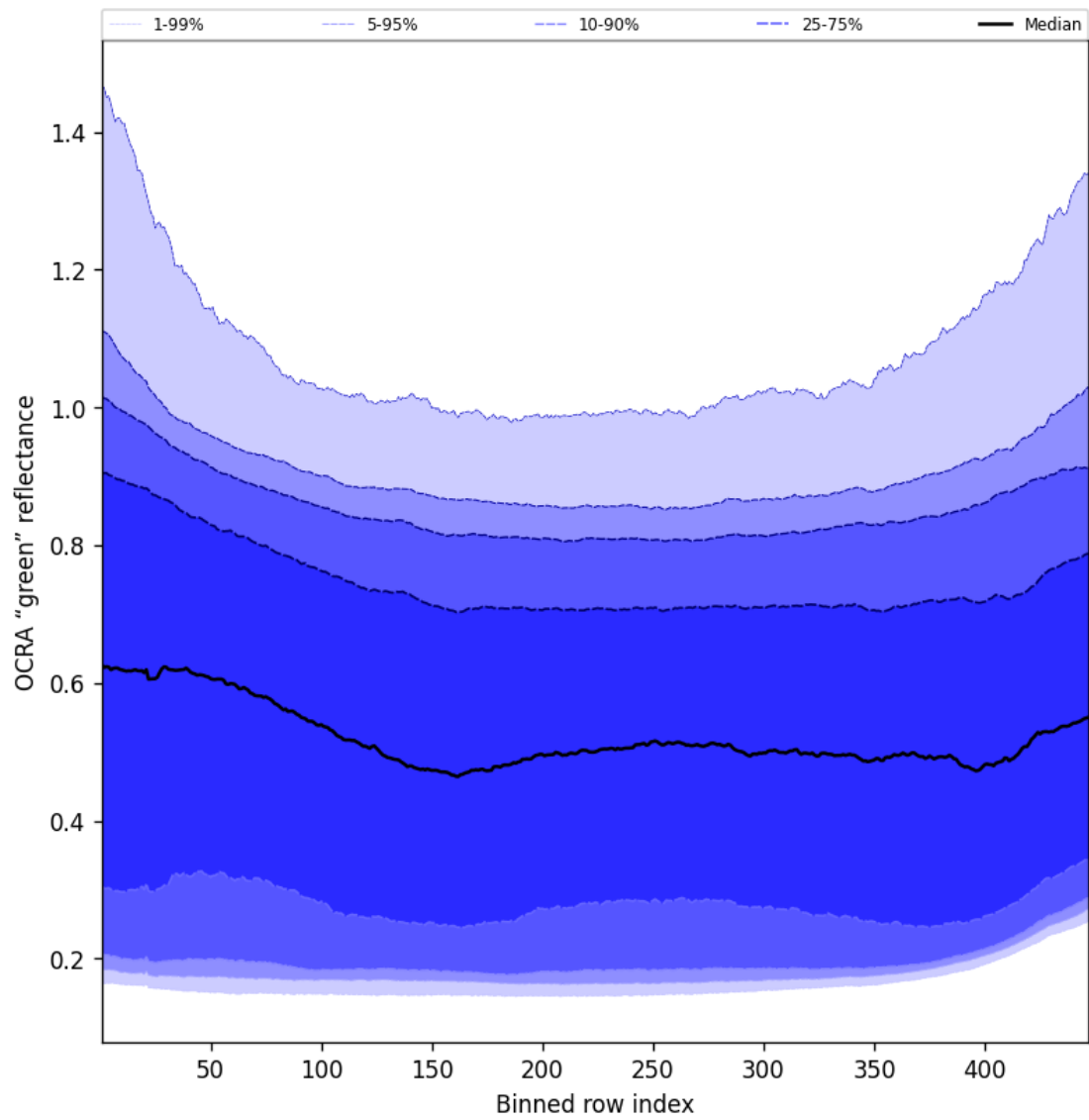


Figure 66: Along track statistics of “OCRA “green” reflectance” for 2025-10-05 to 2025-10-06

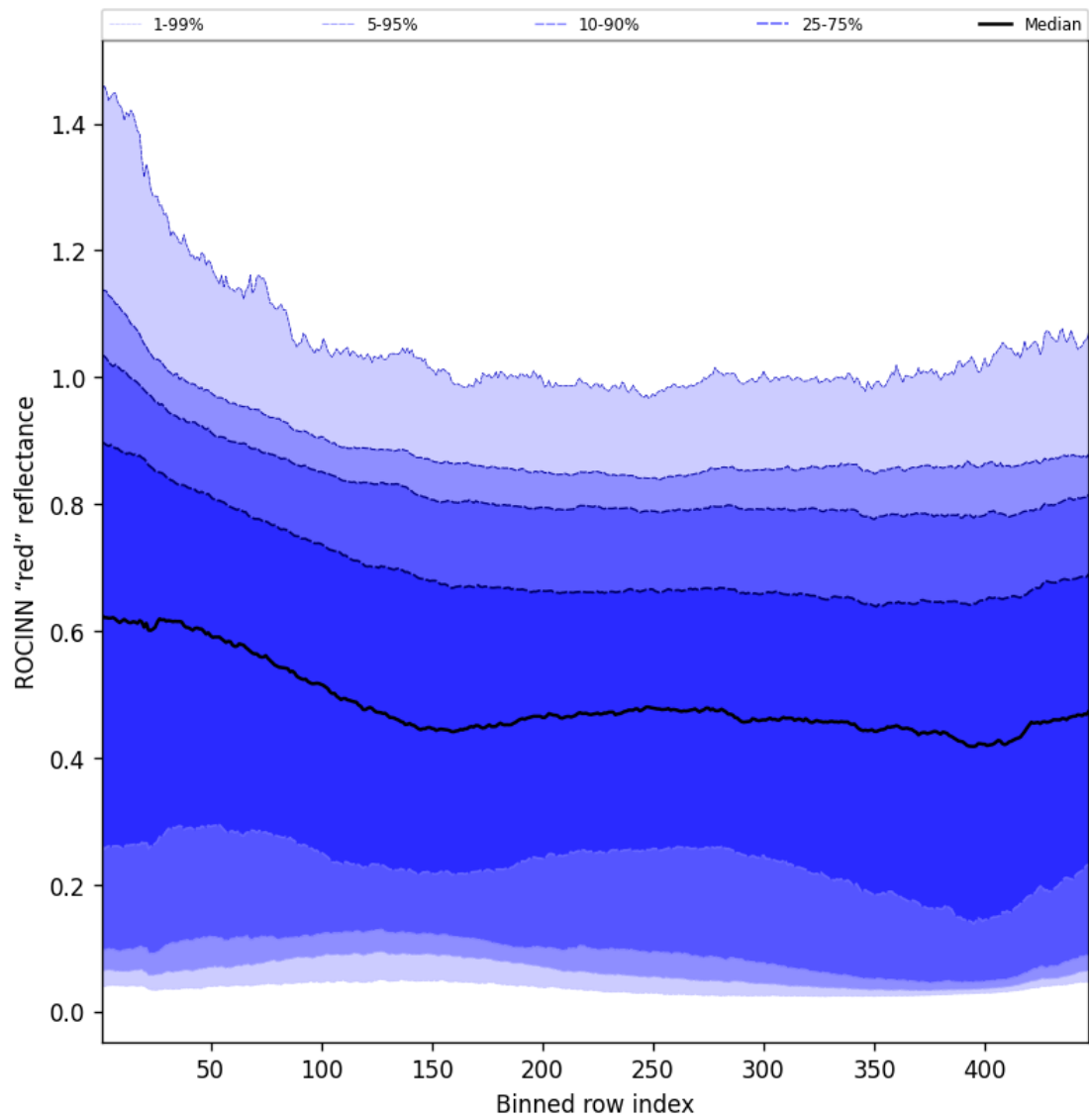


Figure 67: Along track statistics of "ROCINN "red" reflectance" for 2025-10-05 to 2025-10-06

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 2025-10-05 to 2025-10-06	11
5	Map of “Cloud top height” for 2025-10-05 to 2025-10-06	12
6	Map of “Cloud optical thickness” for 2025-10-05 to 2025-10-06	13
7	Map of “Cloud fraction (CRB)” for 2025-10-05 to 2025-10-06	14
8	Map of “Cloud height (CRB)” for 2025-10-05 to 2025-10-06	15
9	Map of “Cloud albedo (CRB)” for 2025-10-05 to 2025-10-06	16
10	Map of “Fitted surface albedo” for 2025-10-05 to 2025-10-06	17
11	Map of “Fitted surface albedo (CRB)” for 2025-10-05 to 2025-10-06	18
12	Map of “RMS” for 2025-10-05 to 2025-10-06	19
13	Map of “RMS (CRB)” for 2025-10-05 to 2025-10-06	20
14	Map of “Fitting wavelength shift” for 2025-10-05 to 2025-10-06	21
15	Map of “OCRA cloud fraction” for 2025-10-05 to 2025-10-06	22
16	Map of “OCRA “blue” reflectance” for 2025-10-05 to 2025-10-06	23
17	Map of “OCRA “green” reflectance” for 2025-10-05 to 2025-10-06	24
18	Map of “ROCINN “red” reflectance” for 2025-10-05 to 2025-10-06	25
19	Map of the number of observations for 2025-10-05 to 2025-10-06	26
20	Zonal average of “QA value” for 2025-10-05 to 2025-10-06.	27
21	Zonal average of “Radiometric cloud fraction” for 2025-10-05 to 2025-10-06.	28
22	Zonal average of “Cloud top height” for 2025-10-05 to 2025-10-06.	29
23	Zonal average of “Cloud optical thickness” for 2025-10-05 to 2025-10-06.	30
24	Zonal average of “Cloud fraction (CRB)” for 2025-10-05 to 2025-10-06.	31
25	Zonal average of “Cloud height (CRB)” for 2025-10-05 to 2025-10-06.	32
26	Zonal average of “Cloud albedo (CRB)” for 2025-10-05 to 2025-10-06.	33
27	Zonal average of “Fitted surface albedo” for 2025-10-05 to 2025-10-06.	34
28	Zonal average of “Fitted surface albedo (CRB)” for 2025-10-05 to 2025-10-06.	35
29	Zonal average of “RMS” for 2025-10-05 to 2025-10-06.	36

30	Zonal average of “RMS (CRB)” for 2025-10-05 to 2025-10-06.	37
31	Zonal average of “Fitting wavelength shift” for 2025-10-05 to 2025-10-06.	38
32	Zonal average of “OCRA cloud fraction” for 2025-10-05 to 2025-10-06.	39
33	Zonal average of “OCRA “blue” reflectance” for 2025-10-05 to 2025-10-06.	40
34	Zonal average of “OCRA “green” reflectance” for 2025-10-05 to 2025-10-06.	41
35	Zonal average of “ROCINN “red” reflectance” for 2025-10-05 to 2025-10-06.	42
36	Histogram of “QA value” for 2025-10-05 to 2025-10-06	43
37	Histogram of “Radiometric cloud fraction” for 2025-10-05 to 2025-10-06	44
38	Histogram of “Cloud top height” for 2025-10-05 to 2025-10-06	45
39	Histogram of “Cloud optical thickness” for 2025-10-05 to 2025-10-06	46
40	Histogram of “Cloud fraction (CRB)” for 2025-10-05 to 2025-10-06	47
41	Histogram of “Cloud height (CRB)” for 2025-10-05 to 2025-10-06	48
42	Histogram of “Cloud albedo (CRB)” for 2025-10-05 to 2025-10-06	49
43	Histogram of “Fitted surface albedo” for 2025-10-05 to 2025-10-06	50
44	Histogram of “Fitted surface albedo (CRB)” for 2025-10-05 to 2025-10-06	51
45	Histogram of “RMS” for 2025-10-05 to 2025-10-06	52
46	Histogram of “RMS (CRB)” for 2025-10-05 to 2025-10-06	53
47	Histogram of “Fitting wavelength shift” for 2025-10-05 to 2025-10-06	54
48	Histogram of “OCRA cloud fraction” for 2025-10-05 to 2025-10-06	55
49	Histogram of “OCRA “blue” reflectance” for 2025-10-05 to 2025-10-06	56
50	Histogram of “OCRA “green” reflectance” for 2025-10-05 to 2025-10-06	57
51	Histogram of “ROCINN “red” reflectance” for 2025-10-05 to 2025-10-06	58
52	Along track statistics of “QA value” for 2025-10-05 to 2025-10-06	59
53	Along track statistics of “Radiometric cloud fraction” for 2025-10-05 to 2025-10-06	60
54	Along track statistics of “Cloud top height” for 2025-10-05 to 2025-10-06	61
55	Along track statistics of “Cloud optical thickness” for 2025-10-05 to 2025-10-06	62
56	Along track statistics of “Cloud fraction (CRB)” for 2025-10-05 to 2025-10-06	63
57	Along track statistics of “Cloud height (CRB)” for 2025-10-05 to 2025-10-06	64
58	Along track statistics of “Cloud albedo (CRB)” for 2025-10-05 to 2025-10-06	65
59	Along track statistics of “Fitted surface albedo” for 2025-10-05 to 2025-10-06	66
60	Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-05 to 2025-10-06	67
61	Along track statistics of “RMS” for 2025-10-05 to 2025-10-06	68
62	Along track statistics of “RMS (CRB)” for 2025-10-05 to 2025-10-06	69
63	Along track statistics of “Fitting wavelength shift” for 2025-10-05 to 2025-10-06	70
64	Along track statistics of “OCRA cloud fraction” for 2025-10-05 to 2025-10-06	71
65	Along track statistics of “OCRA “blue” reflectance” for 2025-10-05 to 2025-10-06	72
66	Along track statistics of “OCRA “green” reflectance” for 2025-10-05 to 2025-10-06	73
67	Along track statistics of “ROCINN “red” reflectance” for 2025-10-05 to 2025-10-06	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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