

PyCAMA report generated by tropl2-proc

tropl2-proc

2025-12-07 (01:30)

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]	0.607 ± 0.359	19054101	5.000×10^{-3}	0.550	0.700	0.0	1.000
cloud fraction [1]	0.582 ± 0.338	19054101	0.995	0.704	0.576	3.599×10^{-3}	1.000
cloud top height [m]	$(0.386 \pm 0.249) \times 10^4$	19054101	1.575×10^3	3.582×10^3	3.460×10^3	0.0	2.000×10^4
cloud optical thickness [1]	19.0 ± 35.7	19054101	8.91	10.4	8.95	1.000	250
cloud fraction crb [1]	0.581 ± 0.339	19054101	0.995	0.704	0.575	8.134×10^{-3}	1.000
cloud height crb [m]	$(0.293 \pm 0.215) \times 10^4$	19054101	75.0	2.931×10^3	2.582×10^3	0.0	2.000×10^4
cloud albedo crb [1]	0.619 ± 0.221	19054101	0.995	0.319	0.603	0.0	1.000
surface albedo fitted [1]	0.292 ± 0.349	19054101	2.500×10^{-2}	0.522	7.163×10^{-2}	0.0	1.000
surface albedo fitted crb [1]	0.278 ± 0.334	19054101	1.500×10^{-2}	0.531	5.840×10^{-2}	0.0	1.000
fitted root mean square [1]	$(7.750 \pm 9.254) \times 10^{-4}$	19054101	5.000×10^{-5}	9.907×10^{-4}	4.551×10^{-4}	1.005×10^{-6}	0.185
fitted root mean square crb [1]	$(6.929 \pm 8.091) \times 10^{-4}$	19054101	5.000×10^{-5}	9.575×10^{-4}	3.618×10^{-4}	7.441×10^{-7}	0.177
wavelength shift [nm]	$(9.107 \pm 7.350) \times 10^{-3}$	19054101	3.000×10^{-4}	1.118×10^{-2}	8.743×10^{-3}	-4.549×10^{-2}	7.238×10^{-2}
cloud fraction apriori [1]	0.591 ± 0.342	19054101	0.995	0.730	0.596	0.0	1.000
reflectance blue ocra [1]	0.595 ± 0.238	19054101	0.255	0.422	0.580	0.142	2.05
reflectance green ocra [1]	0.547 ± 0.268	19054101	0.175	0.497	0.540	7.809×10^{-2}	1.97
reflectance continuum aband [1]	0.500 ± 0.294	19054101	4.500×10^{-2}	0.510	0.506	1.049×10^{-2}	4.94

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	0.350	0.900	0.980	1.000	1.000	1.000
cloud fraction [1]	2.931×10^{-2}	7.369×10^{-2}	0.115	0.168	0.267	0.971	1.000	1.000	1.000	1.000
cloud top height [m]	277	758	1.101×10^3	1.381×10^3	1.807×10^3	5.389×10^3	6.372×10^3	7.310×10^3	8.598×10^3	1.085×10^4
cloud optical thickness [1]	1.000	2.44	3.54	4.44	5.37	15.8	24.3	36.5	66.2	250
cloud fraction crb [1]	2.882×10^{-2}	7.305×10^{-2}	0.115	0.168	0.267	0.971	1.000	1.000	1.000	1.000
cloud height crb [m]	0.0	247	542	810	1.188×10^3	4.119×10^3	5.019×10^3	5.957×10^3	7.176×10^3	9.152×10^3
cloud albedo crb [1]	4.880×10^{-2}	0.244	0.360	0.422	0.471	0.789	0.874	0.931	0.994	1.000
surface albedo fitted [1]	0.0	7.641×10^{-3}	1.351×10^{-2}	1.864×10^{-2}	2.621×10^{-2}	0.548	0.836	0.921	0.969	1.000
surface albedo fitted crb [1]	0.0	6.341×10^{-3}	1.028×10^{-2}	1.431×10^{-2}	2.064×10^{-2}	0.552	0.802	0.860	0.901	0.947
fitted root mean square [1]	1.428×10^{-5}	2.822×10^{-5}	4.708×10^{-5}	7.879×10^{-5}	1.427×10^{-4}	1.133×10^{-3}	1.585×10^{-3}	1.997×10^{-3}	2.514×10^{-3}	3.474×10^{-3}
fitted root mean square crb [1]	8.698×10^{-6}	1.860×10^{-5}	3.182×10^{-5}	5.141×10^{-5}	9.459×10^{-5}	1.052×10^{-3}	1.491×10^{-3}	1.880×10^{-3}	2.374×10^{-3}	3.275×10^{-3}
wavelength shift [nm]	-6.575×10^{-3}	-3.922×10^{-4}	3.971×10^{-4}	1.323×10^{-3}	3.194×10^{-3}	1.438×10^{-2}	1.676×10^{-2}	1.873×10^{-2}	2.124×10^{-2}	2.665×10^{-2}
cloud fraction apriori [1]	3.533×10^{-2}	7.026×10^{-2}	0.110	0.165	0.270	1.000	1.000	1.000	1.000	1.000
reflectance blue ocra [1]	0.232	0.259	0.287	0.321	0.380	0.803	0.872	0.912	0.947	1.09
reflectance green ocra [1]	0.152	0.175	0.197	0.228	0.290	0.786	0.864	0.909	0.945	1.05
reflectance continuum aband [1]	3.004×10^{-2}	5.585×10^{-2}	9.198×10^{-2}	0.143	0.243	0.753	0.832	0.880	0.927	1.06

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]	0.583 ± 0.387	7378052	0.720	0.700	0.0	1.000	0.220	0.940
cloud fraction [1]	0.551 ± 0.346	7378052	0.726	0.525	5.992×10^{-3}	1.000	0.218	0.944
cloud top height [m]	$(0.415 \pm 0.252) \times 10^4$	7378052	3.684×10^3	3.780×10^3	0.0	2.000×10^4	2.061×10^3	5.745×10^3
cloud optical thickness [1]	27.8 ± 48.0	7378052	18.2	10.1	1.000	250	5.95	24.1
cloud fraction crb [1]	0.549 ± 0.346	7378052	0.724	0.522	8.134×10^{-3}	1.000	0.217	0.942
cloud height crb [m]	$(0.346 \pm 0.219) \times 10^4$	7378052	3.189×10^3	3.201×10^3	0.0	1.969×10^4	1.629×10^3	4.818×10^3
cloud albedo crb [1]	0.589 ± 0.210	7378052	0.267	0.576	0.0	1.000	0.458	0.724
surface albedo fitted [1]	0.164 ± 0.182	7378052	0.224	6.966×10^{-2}	0.0	1.000	2.887×10^{-2}	0.253
surface albedo fitted crb [1]	0.157 ± 0.181	7378052	0.220	5.898×10^{-2}	0.0	1.000	2.256×10^{-2}	0.243
fitted root mean square [1]	$(4.036 \pm 5.498) \times 10^{-4}$	7378052	4.274×10^{-4}	2.335×10^{-4}	1.007×10^{-6}	5.330×10^{-2}	8.767×10^{-5}	5.151×10^{-4}
fitted root mean square crb [1]	$(3.372 \pm 4.688) \times 10^{-4}$	7378052	3.760×10^{-4}	1.524×10^{-4}	7.441×10^{-7}	1.602×10^{-2}	5.045×10^{-5}	4.264×10^{-4}
wavelength shift [nm]	$(6.610 \pm 6.654) \times 10^{-3}$	7378052	9.293×10^{-3}	5.515×10^{-3}	-4.464×10^{-2}	6.122×10^{-2}	1.460×10^{-3}	1.075×10^{-2}
cloud fraction apriori [1]	0.553 ± 0.352	7378052	0.765	0.528	0.0	1.000	0.211	0.977
reflectance blue ocra [1]	0.540 ± 0.213	7378052	0.322	0.515	0.142	2.01	0.361	0.683
reflectance green ocra [1]	0.480 ± 0.237	7378052	0.384	0.456	8.209×10^{-2}	1.94	0.269	0.653
reflectance continuum aband [1]	0.431 ± 0.270	7378052	0.411	0.411	1.049×10^{-2}	3.46	0.211	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]	0.623 ± 0.339	11676049	0.500	0.700	0.0	1.000	0.400	0.900
cloud fraction [1]	0.601 ± 0.332	11676049	0.684	0.604	3.599×10^{-3}	1.000	0.301	0.985
cloud top height [m]	$(0.368 \pm 0.245) \times 10^4$	11676049	3.500×10^3	3.260×10^3	0.0	2.000×10^4	1.664×10^3	5.165×10^3
cloud optical thickness [1]	13.5 ± 23.3	11676049	8.01	8.45	1.000	250	5.14	13.2
cloud fraction crb [1]	0.601 ± 0.332	11676049	0.684	0.605	8.488×10^{-3}	1.000	0.301	0.985
cloud height crb [m]	$(0.259 \pm 0.205) \times 10^4$	11676049	2.675×10^3	2.220×10^3	0.0	2.000×10^4	960	3.634×10^3
cloud albedo crb [1]	0.638 ± 0.226	11676049	0.347	0.629	0.0	1.000	0.478	0.825
surface albedo fitted [1]	0.373 ± 0.401	11676049	0.819	7.337×10^{-2}	0.0	1.000	2.461×10^{-2}	0.843
surface albedo fitted crb [1]	0.355 ± 0.382	11676049	0.786	5.790×10^{-2}	0.0	1.000	1.941×10^{-2}	0.806
fitted root mean square [1]	$(1.010 \pm 1.032) \times 10^{-3}$	11676049	1.294×10^{-3}	7.531×10^{-4}	1.005×10^{-6}	0.185	2.365×10^{-4}	1.530×10^{-3}
fitted root mean square crb [1]	$(9.176 \pm 8.938) \times 10^{-4}$	11676049	1.258×10^{-3}	6.618×10^{-4}	9.625×10^{-7}	0.177	1.754×10^{-4}	1.433×10^{-3}
wavelength shift [nm]	$(1.069 \pm 0.733) \times 10^{-2}$	11676049	1.070×10^{-2}	1.098×10^{-2}	-4.549×10^{-2}	7.238×10^{-2}	5.192×10^{-3}	1.589×10^{-2}
cloud fraction apriori [1]	0.614 ± 0.334	11676049	0.687	0.632	0.0	1.000	0.313	1.000
reflectance blue oca [1]	0.630 ± 0.247	11676049	0.456	0.651	0.144	2.05	0.397	0.854
reflectance green oca [1]	0.589 ± 0.278	11676049	0.534	0.624	7.809×10^{-2}	1.97	0.312	0.846
reflectance continuum aband [1]	0.544 ± 0.300	11676049	0.531	0.589	1.176×10^{-2}	4.94	0.277	0.808

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]	0.691 ± 0.331	11557488	0.550	0.850	0.0	1.000	0.400	0.950
cloud fraction [1]	0.602 ± 0.360	11557488	0.767	0.645	3.599×10^{-3}	1.000	0.233	1.000
cloud top height [m]	$(0.348 \pm 0.247) \times 10^4$	11557488	3.258×10^3	2.757×10^3	0.0	2.000×10^4	1.557×10^3	4.815×10^3
cloud optical thickness [1]	16.9 ± 27.4	11557488	9.36	9.70	1.000	250	6.43	15.8
cloud fraction crb [1]	0.601 ± 0.360	11557488	0.768	0.643	8.488×10^{-3}	1.000	0.231	1.000
cloud height crb [m]	$(0.274 \pm 0.224) \times 10^4$	11557488	3.003×10^3	2.116×10^3	0.0	2.000×10^4	974	3.977×10^3
cloud albedo crb [1]	0.557 ± 0.184	11557488	0.234	0.538	0.0	1.000	0.448	0.683
surface albedo fitted [1]	0.116 ± 0.224	11557488	3.599×10^{-2}	3.125×10^{-2}	0.0	1.000	1.811×10^{-2}	5.410×10^{-2}
surface albedo fitted crb [1]	0.111 ± 0.226	11557488	3.015×10^{-2}	2.490×10^{-2}	0.0	1.000	1.387×10^{-2}	4.402×10^{-2}
fitted root mean square [1]	$(7.213 \pm 9.622) \times 10^{-4}$	11557488	1.017×10^{-3}	3.359×10^{-4}	1.005×10^{-6}	0.185	9.086×10^{-5}	1.108×10^{-3}
fitted root mean square crb [1]	$(6.878 \pm 8.451) \times 10^{-4}$	11557488	1.007×10^{-3}	3.042×10^{-4}	7.441×10^{-7}	0.177	7.341×10^{-5}	1.080×10^{-3}
wavelength shift [nm]	$(8.564 \pm 7.692) \times 10^{-3}$	11557488	1.158×10^{-2}	7.806×10^{-3}	-4.549×10^{-2}	6.978×10^{-2}	2.452×10^{-3}	1.403×10^{-2}
cloud fraction apriori [1]	0.605 ± 0.366	11557488	0.775	0.655	0.0	1.000	0.225	1.000
reflectance blue oca [1]	0.521 ± 0.208	11557488	0.330	0.484	0.154	2.05	0.344	0.674
reflectance green oca [1]	0.461 ± 0.235	11557488	0.402	0.422	9.405×10^{-2}	1.97	0.246	0.648
reflectance continuum aband [1]	0.395 ± 0.272	11557488	0.483	0.368	1.176×10^{-2}	3.50	0.139	0.621

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]	0.457 ± 0.354	6001744	0.700	0.560	0.0	1.000	0.0	0.700
cloud fraction [1]	0.530 ± 0.286	6001744	0.456	0.501	5.992×10^{-3}	1.000	0.303	0.759
cloud top height [m]	$(0.459 \pm 0.234) \times 10^4$	6001744	2.908×10^3	4.541×10^3	0.0	2.000×10^4	2.982×10^3	5.890×10^3
cloud optical thickness [1]	18.8 ± 40.8	6001744	8.01	6.28	1.000	250	4.57	12.6
cloud fraction crb [1]	0.531 ± 0.286	6001744	0.457	0.502	8.134×10^{-3}	1.000	0.303	0.760
cloud height crb [m]	$(0.321 \pm 0.190) \times 10^4$	6001744	2.340×10^3	3.096×10^3	0.0	2.000×10^4	1.863×10^3	4.203×10^3
cloud albedo crb [1]	0.731 ± 0.240	6001744	0.347	0.789	0.0	1.000	0.580	0.928
surface albedo fitted [1]	0.635 ± 0.324	6001744	0.655	0.789	0.0	1.000	0.285	0.940
surface albedo fitted crb [1]	0.601 ± 0.299	6001744	0.594	0.761	3.074×10^{-3}	1.000	0.278	0.873
fitted root mean square [1]	$(9.118 \pm 8.616) \times 10^{-4}$	6001744	9.715×10^{-4}	6.433×10^{-4}	2.877×10^{-6}	8.864×10^{-2}	2.926×10^{-4}	1.264×10^{-3}
fitted root mean square crb [1]	$(7.435 \pm 7.640) \times 10^{-4}$	6001744	9.343×10^{-4}	4.830×10^{-4}	2.425×10^{-6}	9.146×10^{-2}	1.608×10^{-4}	1.095×10^{-3}
wavelength shift [nm]	$(1.037 \pm 0.667) \times 10^{-2}$	6001744	1.014×10^{-2}	1.052×10^{-2}	-3.922×10^{-2}	5.246×10^{-2}	5.114×10^{-3}	1.525×10^{-2}
cloud fraction apriori [1]	0.552 ± 0.288	6001744	0.466	0.532	0.0	1.000	0.322	0.788
reflectance blue ocra [1]	0.734 ± 0.233	6001744	0.336	0.818	0.142	2.01	0.571	0.907
reflectance green ocra [1]	0.710 ± 0.256	6001744	0.378	0.807	7.809×10^{-2}	1.94	0.531	0.908
reflectance continuum aband [1]	0.691 ± 0.242	6001744	0.378	0.765	1.276×10^{-2}	4.94	0.500	0.878

3 Granule outlines

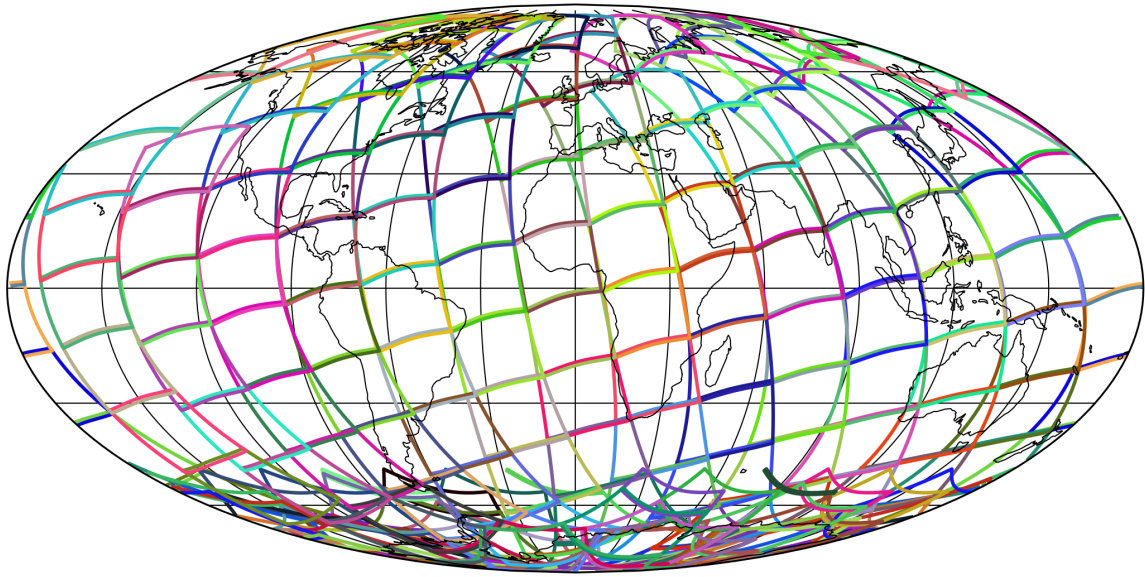


Figure 1: Outline of the granules.

4 Input data monitoring

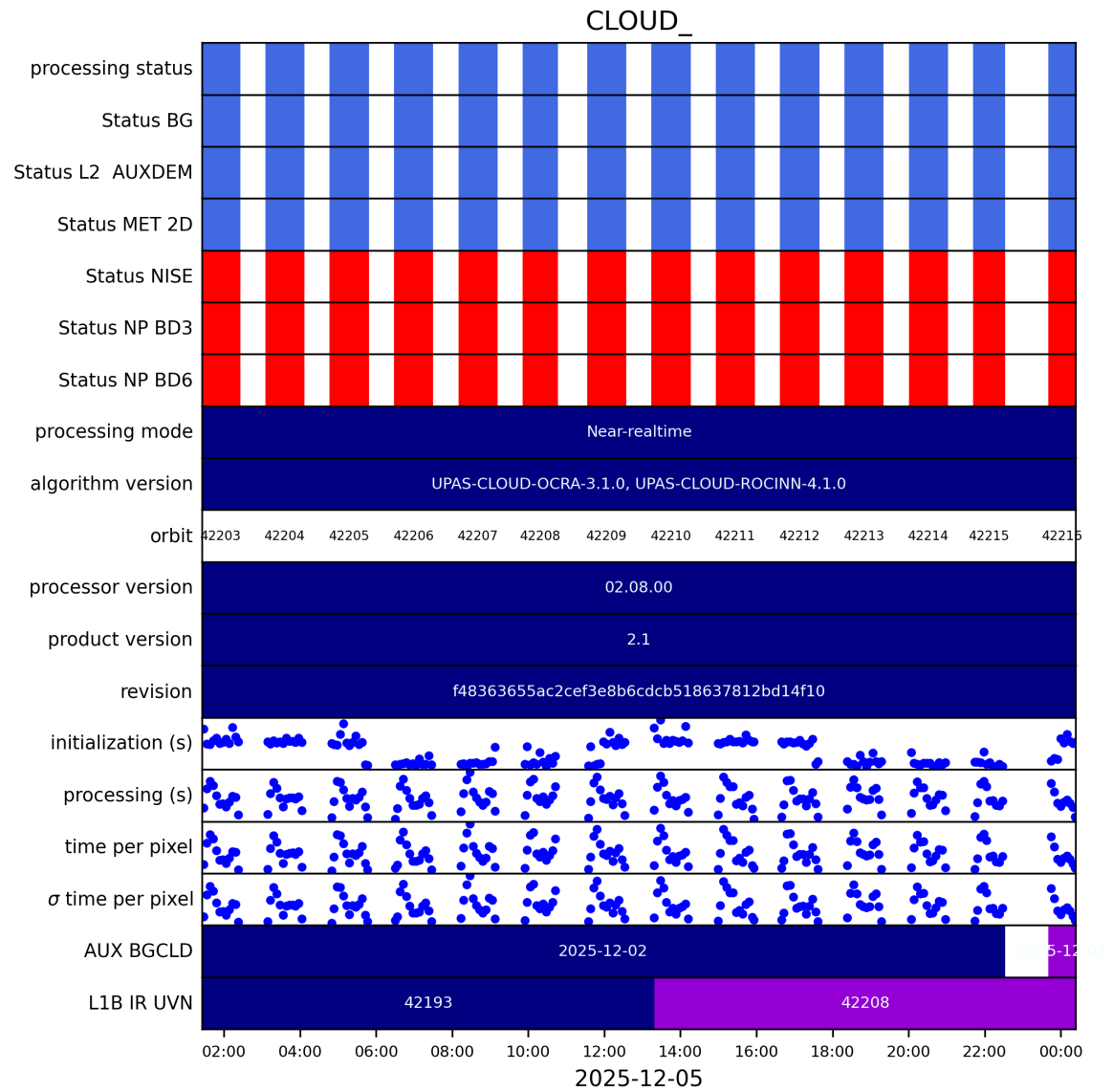


Figure 2: Input data per granule

5 Warnings and errors

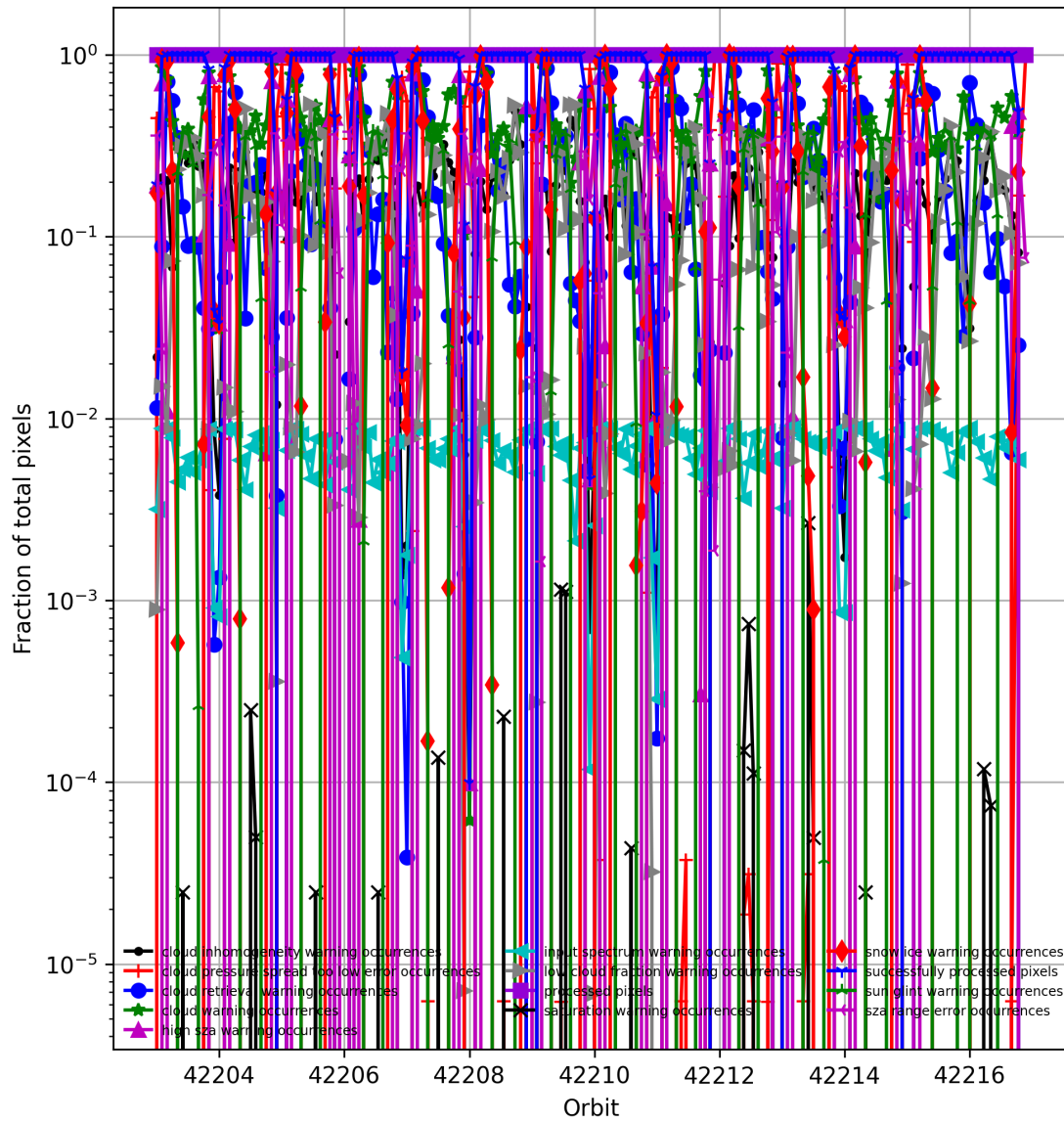


Figure 3: Fraction of pixels with specific warnings and errors during processing

6 World maps

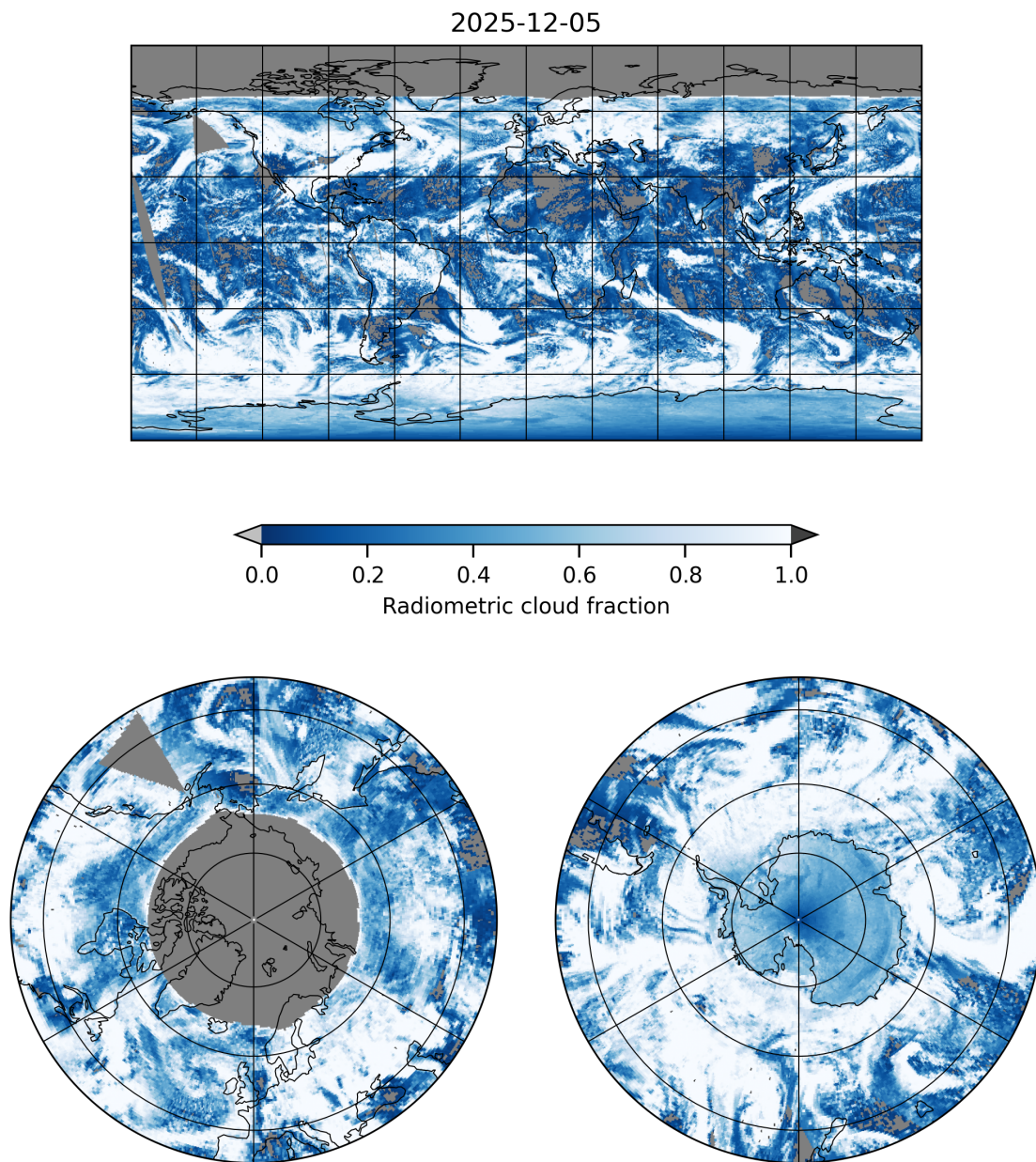


Figure 4: Map of “Radiometric cloud fraction” for 2025-12-05 to 2025-12-06

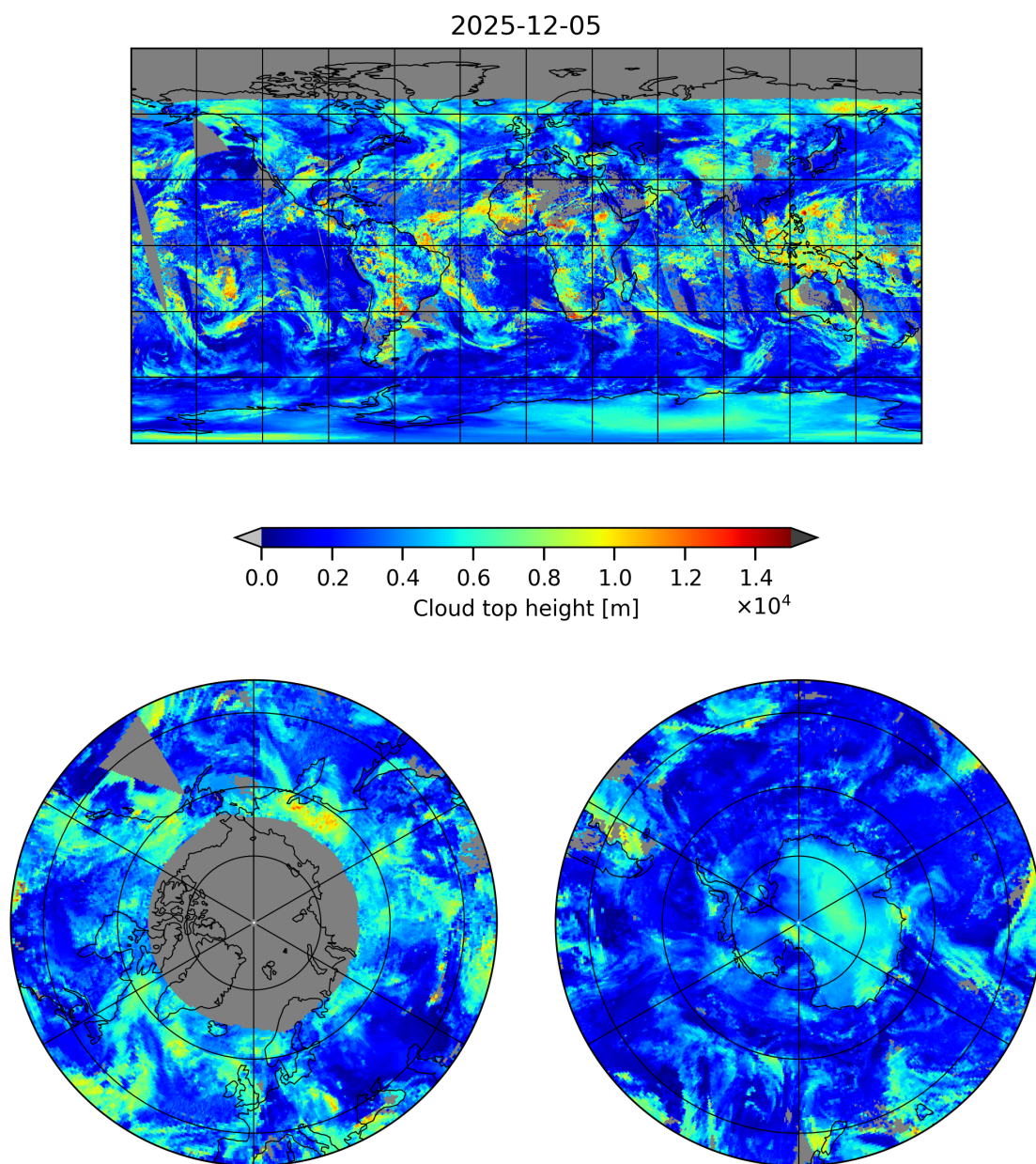


Figure 5: Map of “Cloud top height” for 2025-12-05 to 2025-12-06

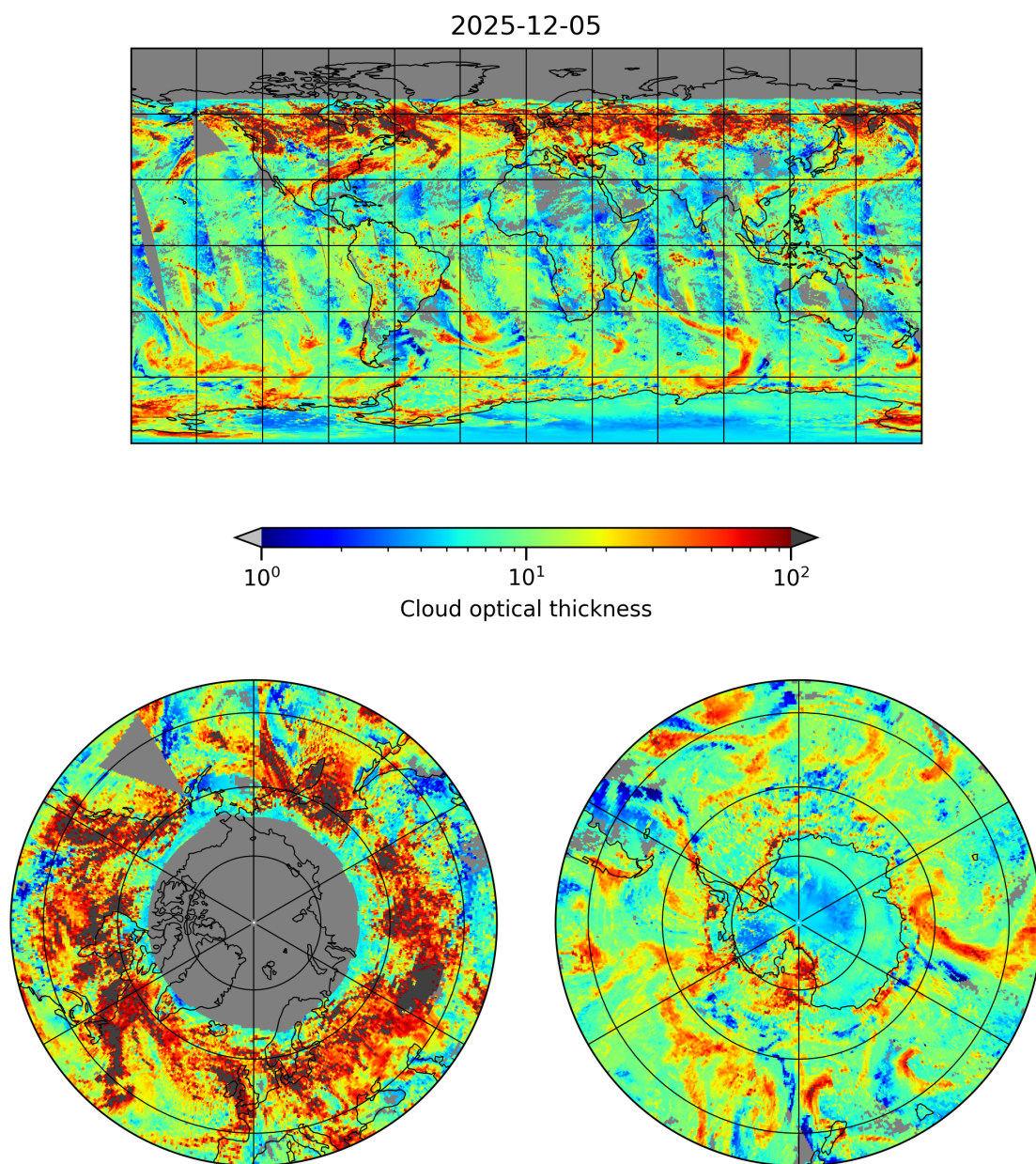


Figure 6: Map of “Cloud optical thickness” for 2025-12-05 to 2025-12-06

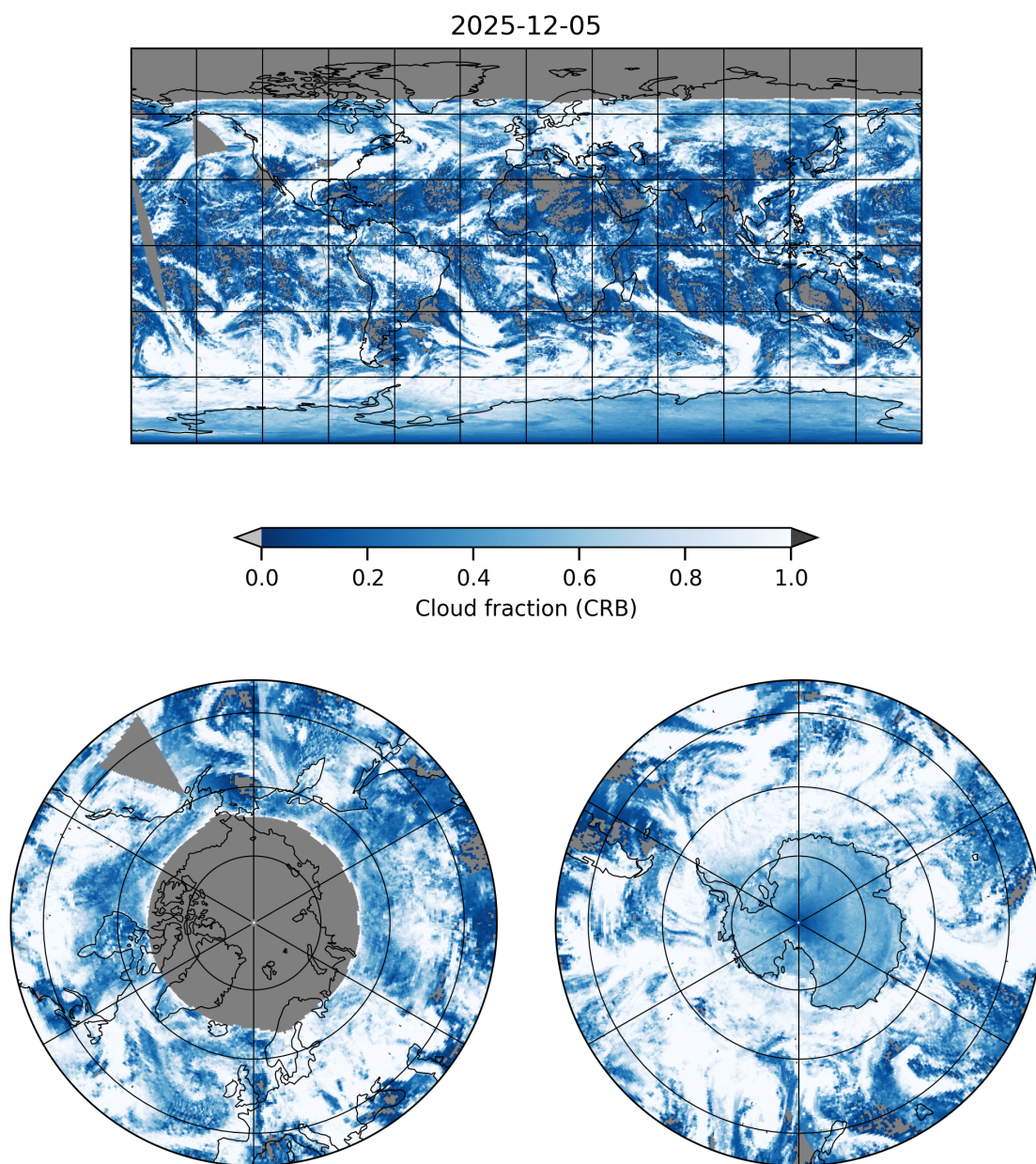


Figure 7: Map of “Cloud fraction (CRB)” for 2025-12-05 to 2025-12-06

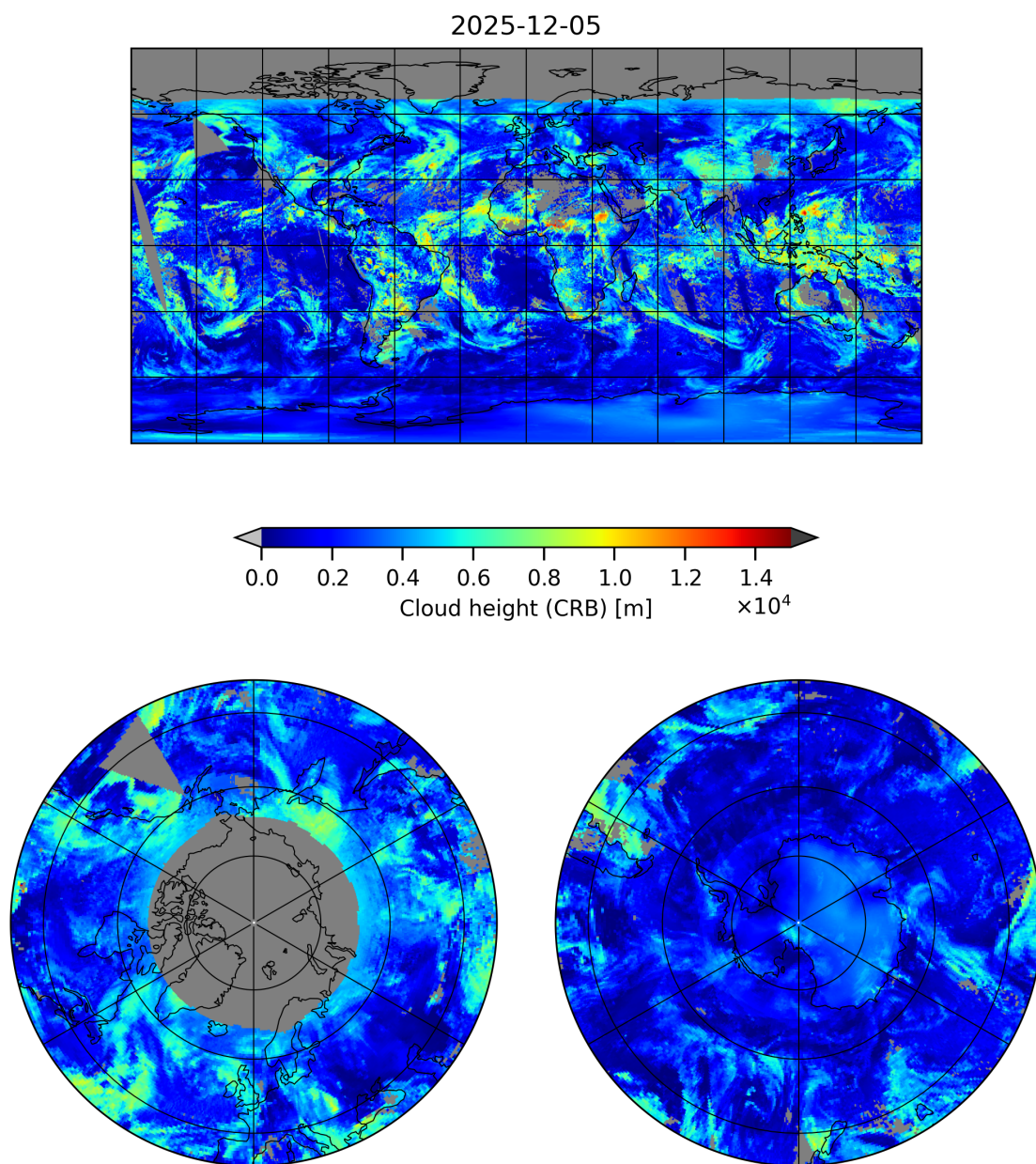


Figure 8: Map of “Cloud height (CRB)” for 2025-12-05 to 2025-12-06

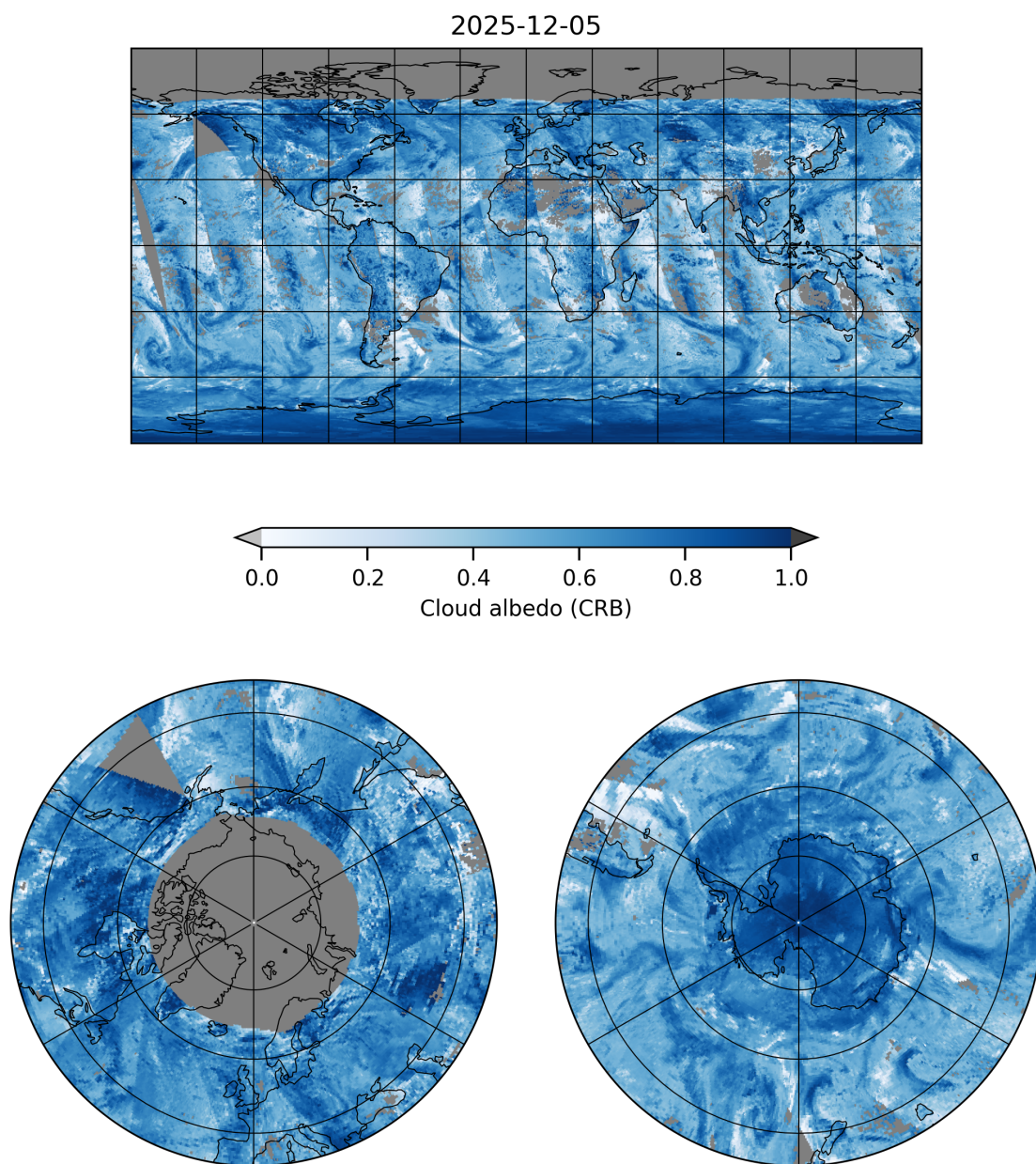


Figure 9: Map of “Cloud albedo (CRB)” for 2025-12-05 to 2025-12-06

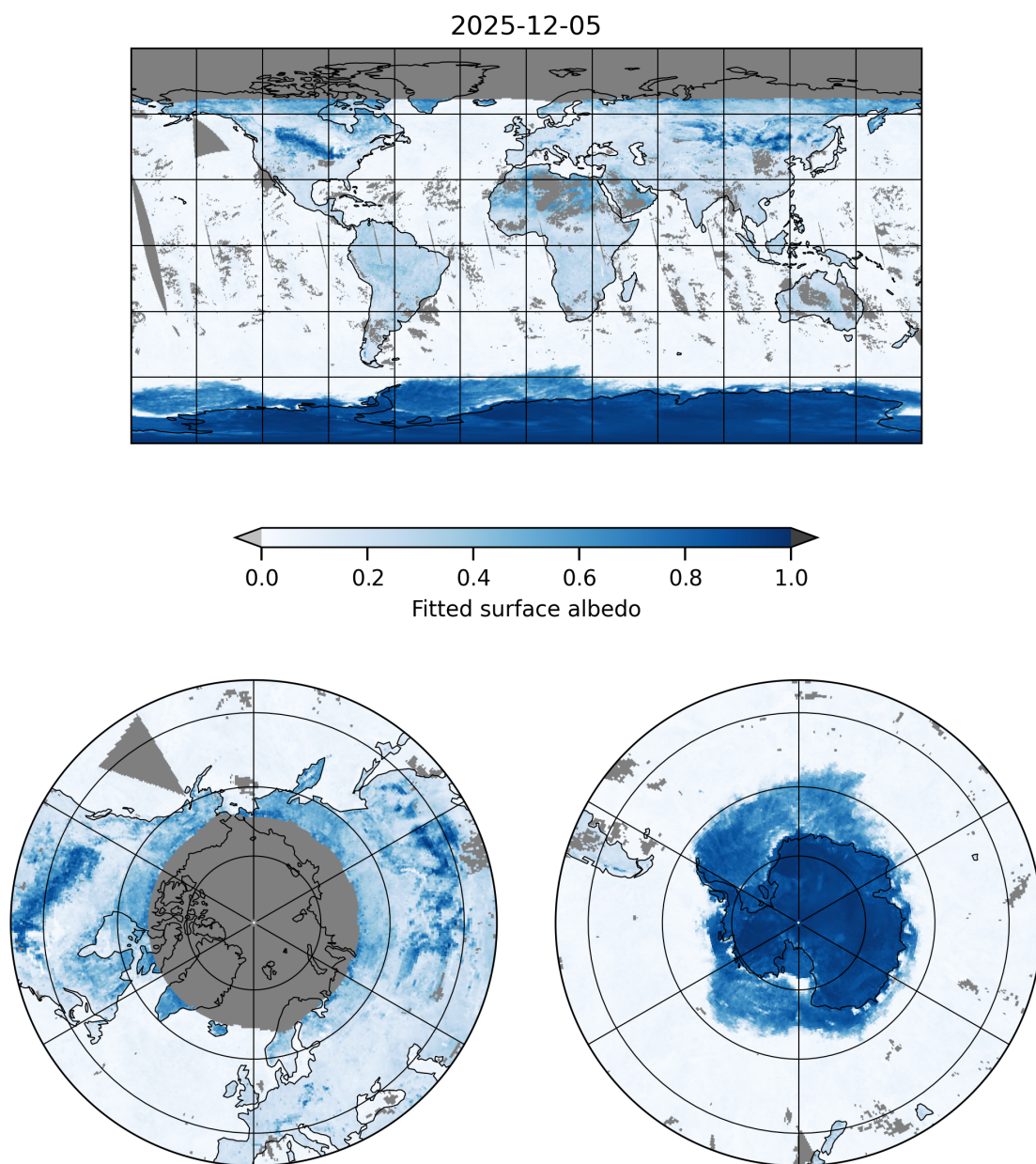


Figure 10: Map of “Fitted surface albedo” for 2025-12-05 to 2025-12-06

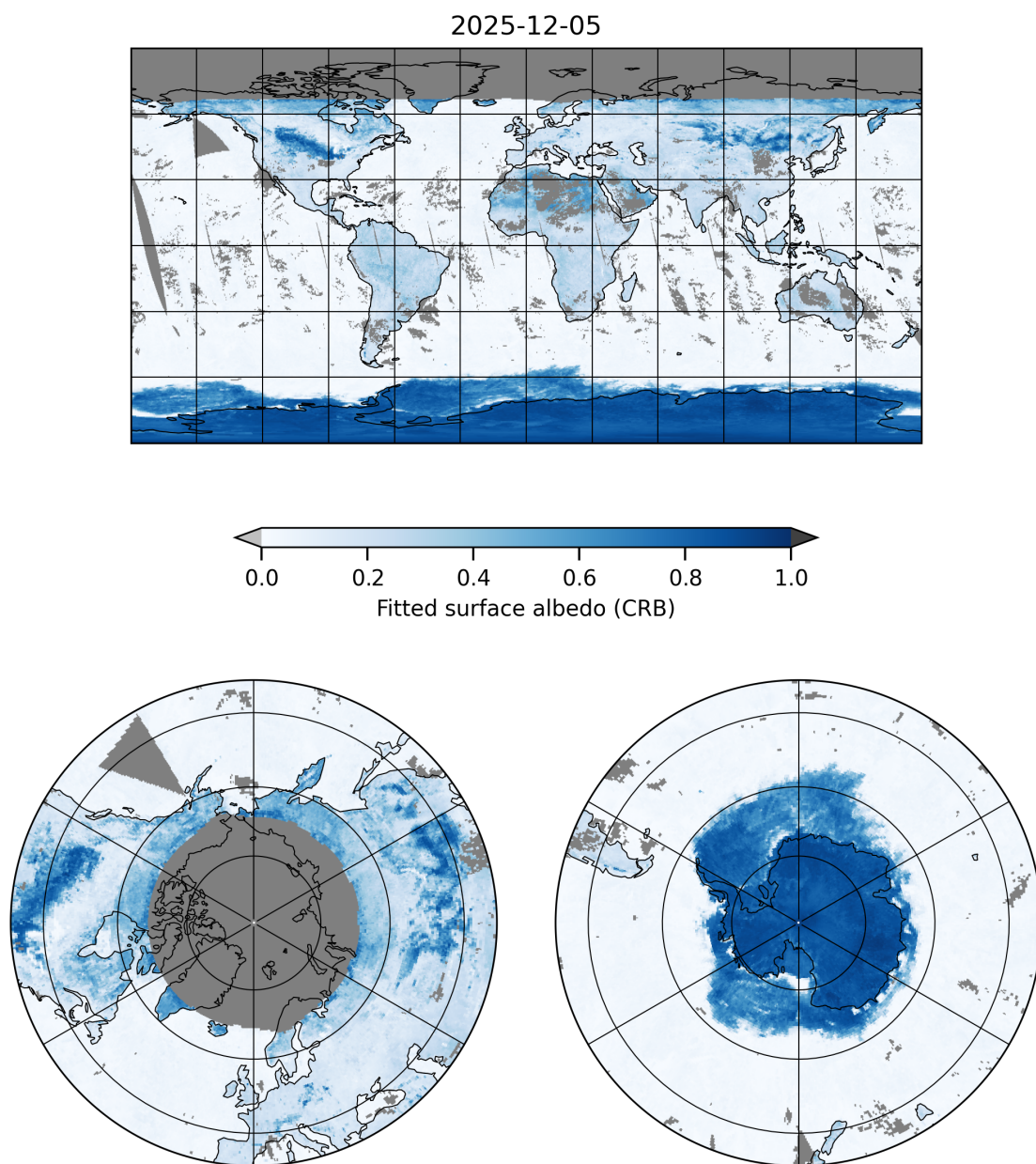


Figure 11: Map of “Fitted surface albedo (CRB)” for 2025-12-05 to 2025-12-06

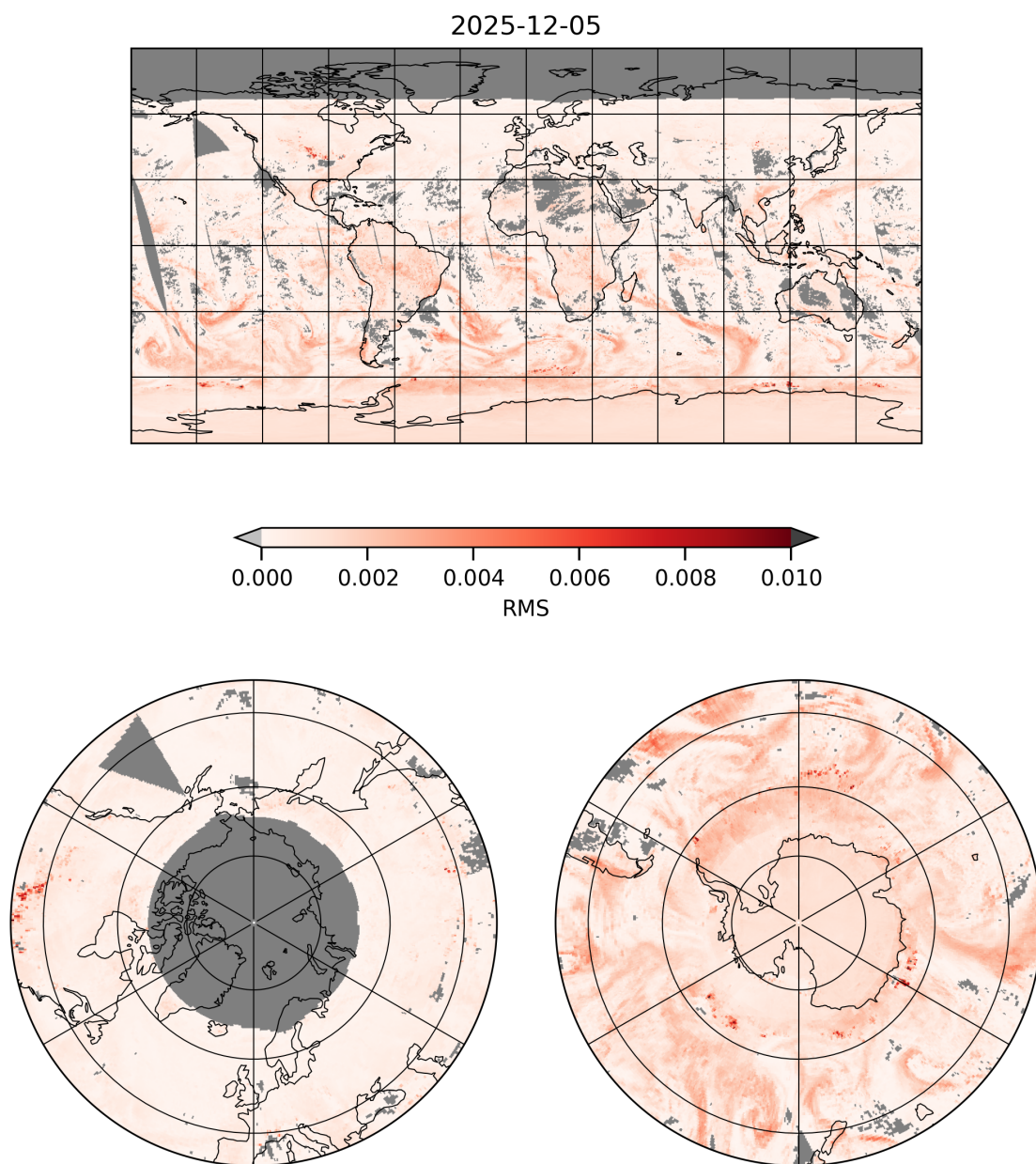


Figure 12: Map of “RMS” for 2025-12-05 to 2025-12-06

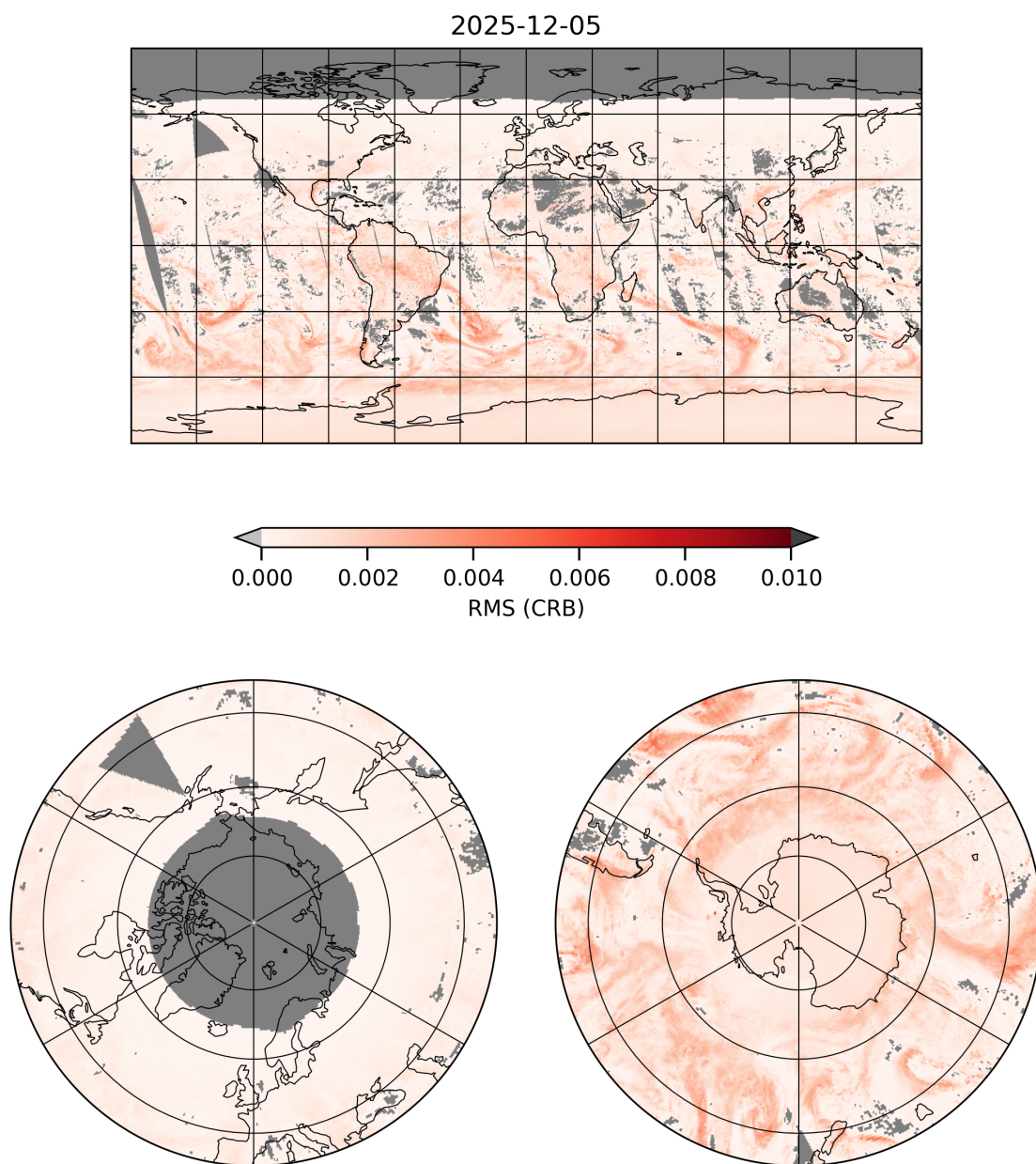


Figure 13: Map of “RMS (CRB)” for 2025-12-05 to 2025-12-06

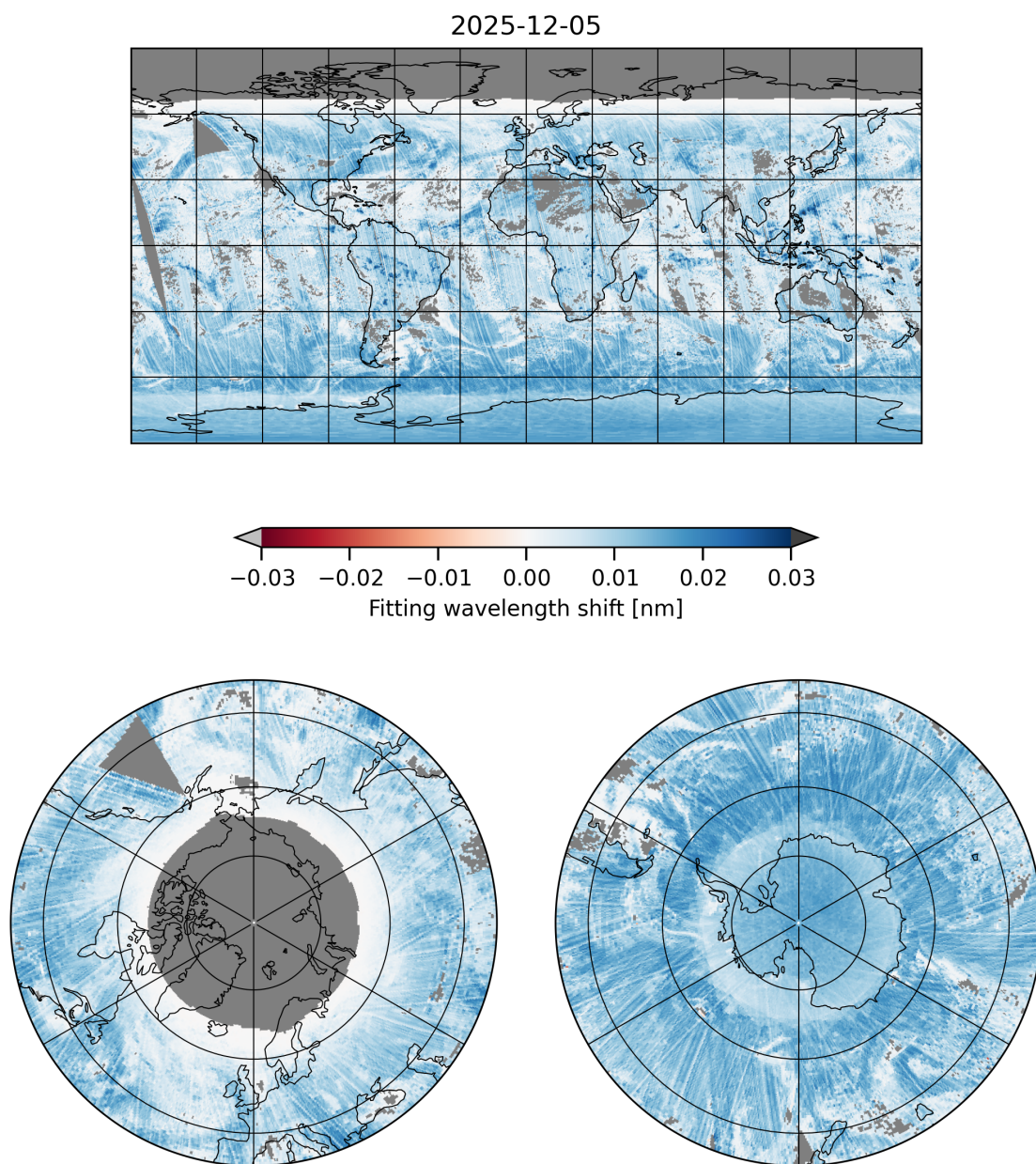


Figure 14: Map of “Fitting wavelength shift” for 2025-12-05 to 2025-12-06

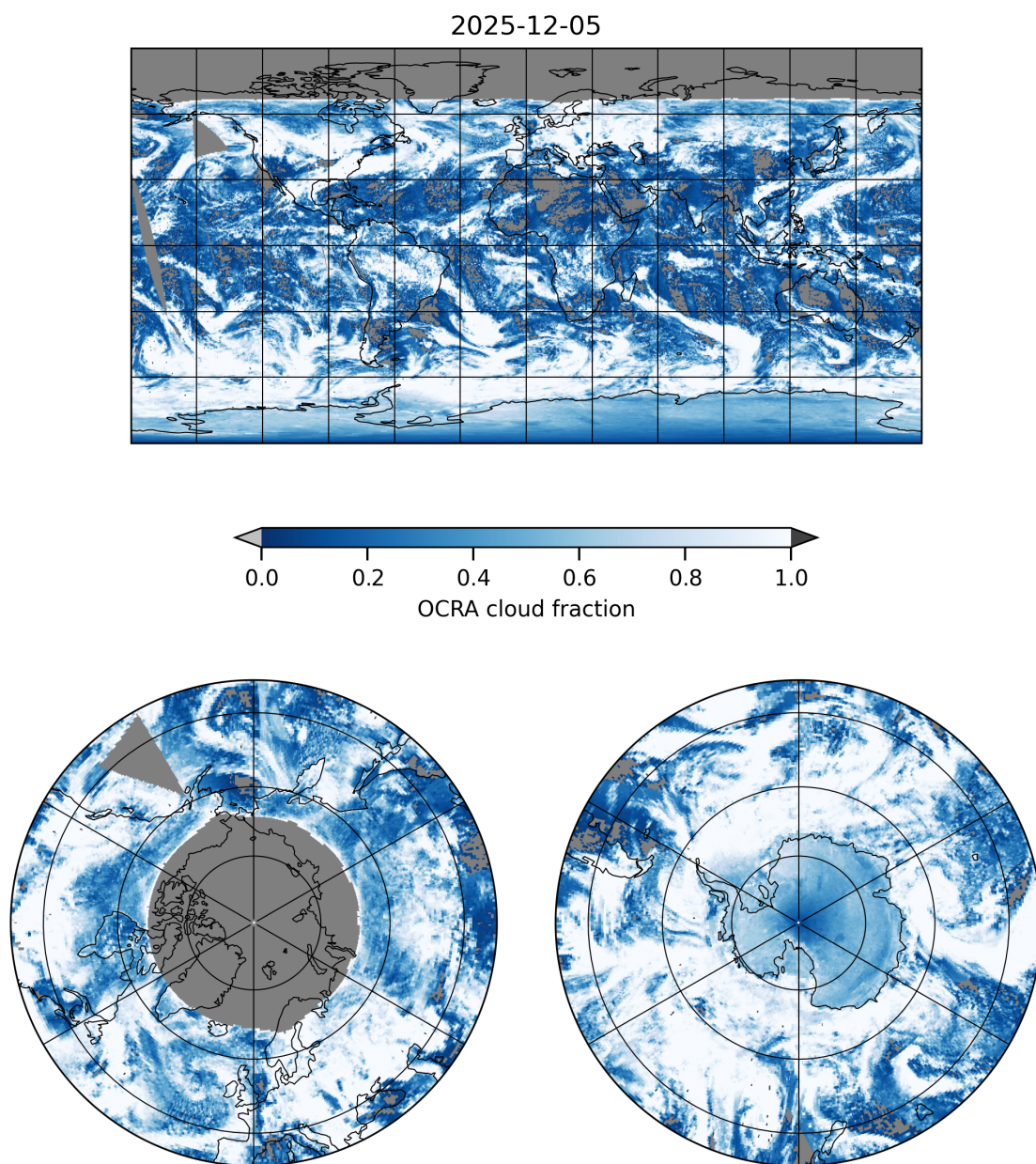


Figure 15: Map of “OCRA cloud fraction” for 2025-12-05 to 2025-12-06

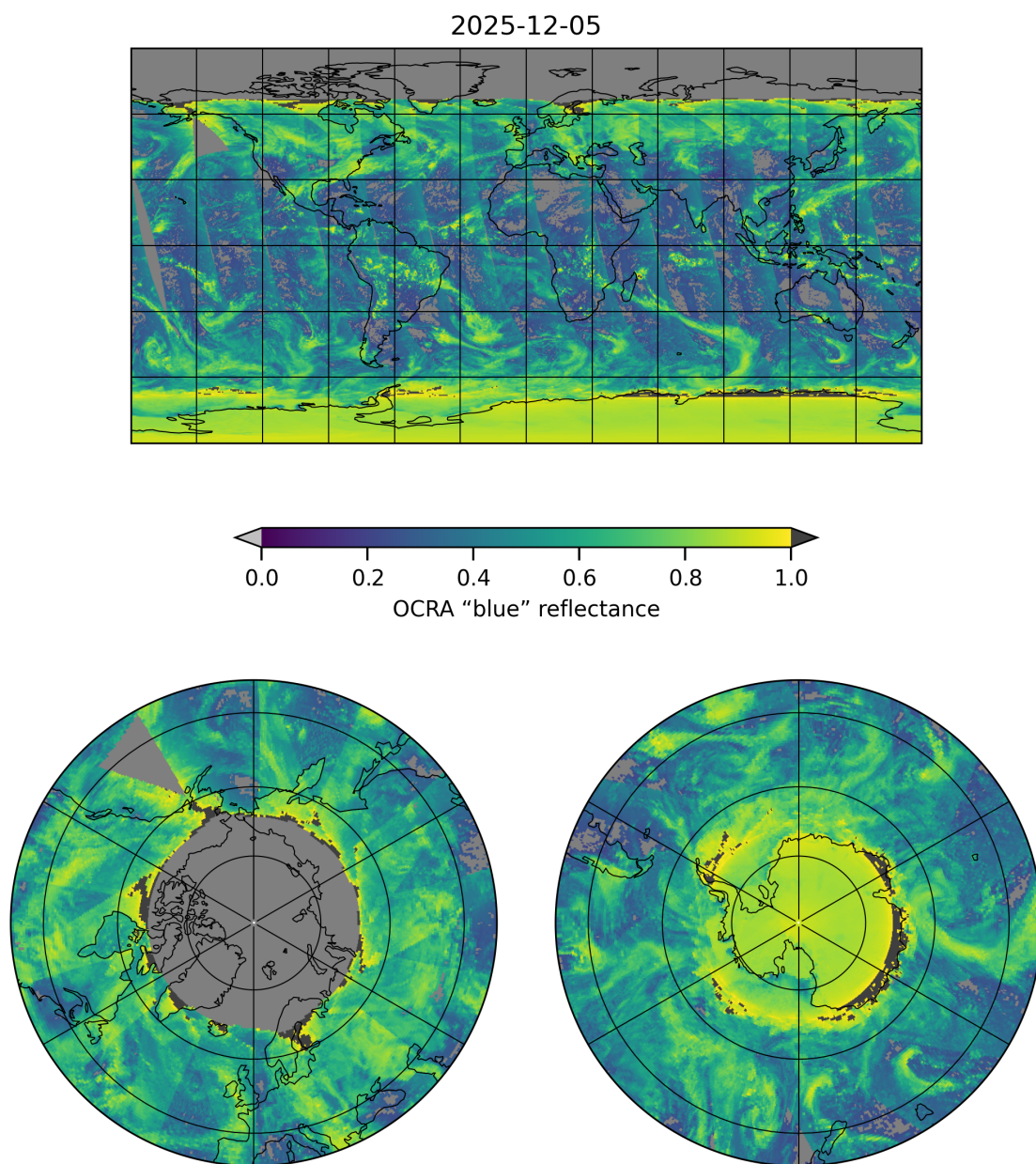


Figure 16: Map of "OCRA "blue" reflectance" for 2025-12-05 to 2025-12-06

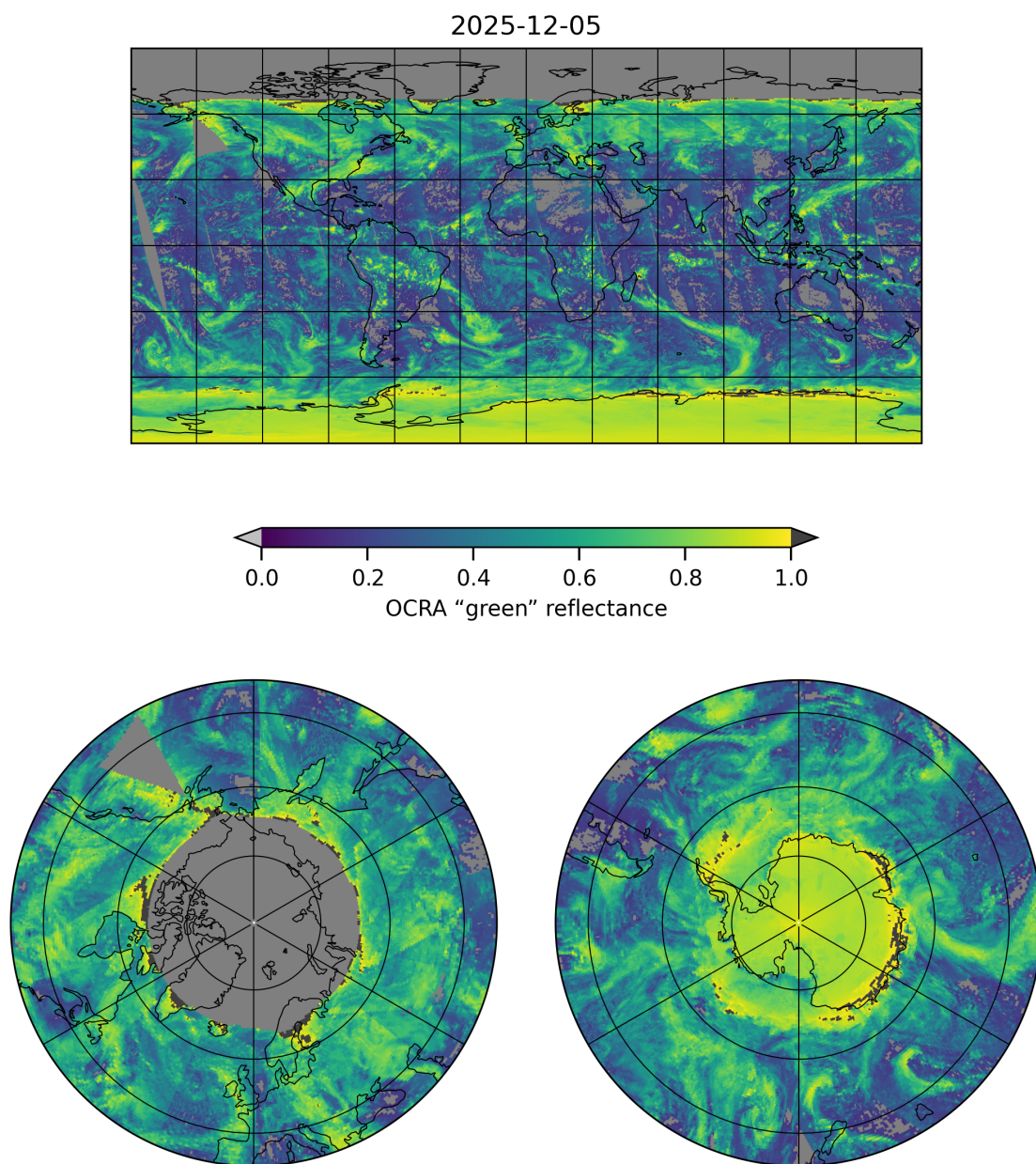


Figure 17: Map of "OCRA "green" reflectance" for 2025-12-05 to 2025-12-06

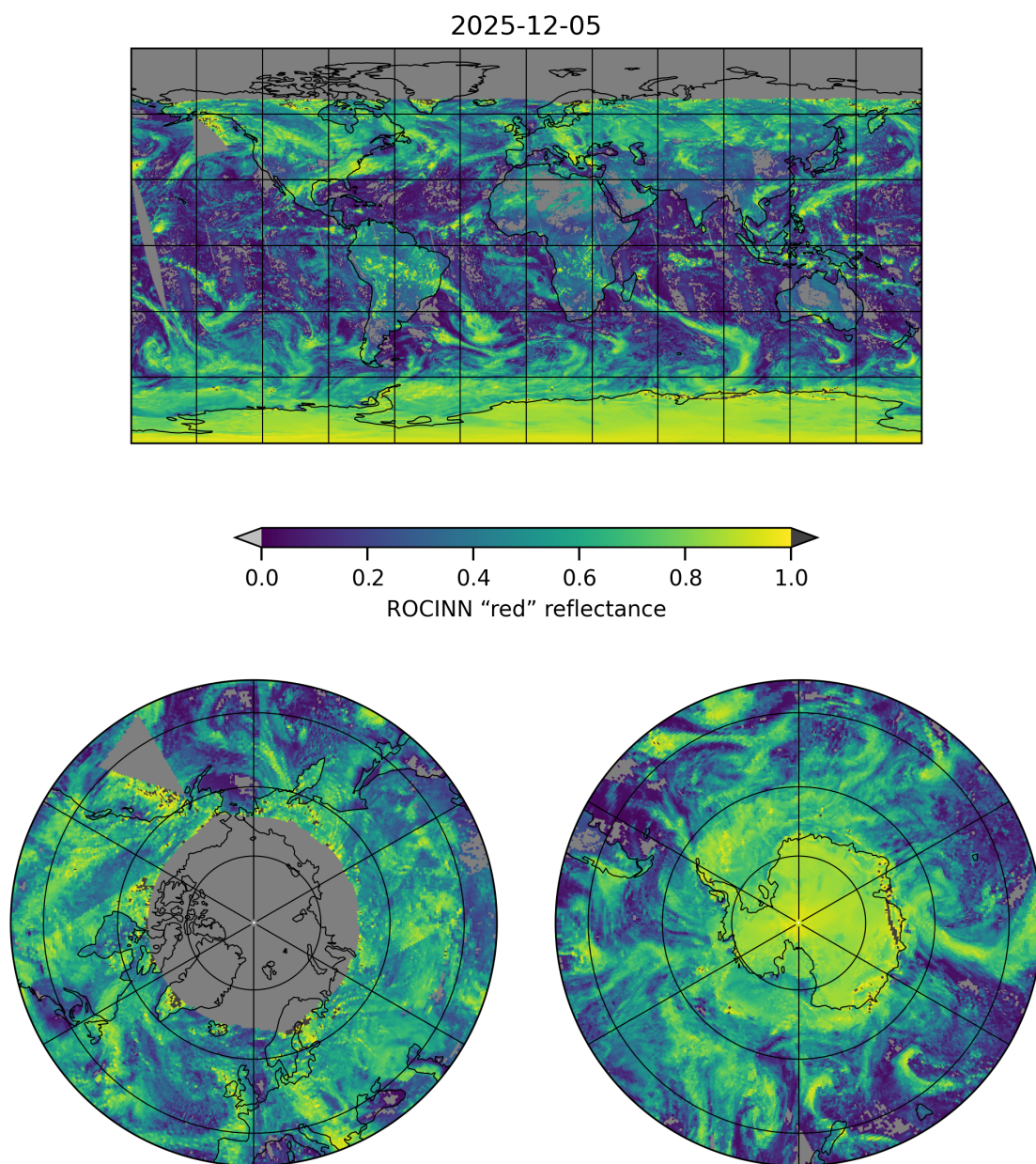


Figure 18: Map of "ROCINN "red" reflectance" for 2025-12-05 to 2025-12-06

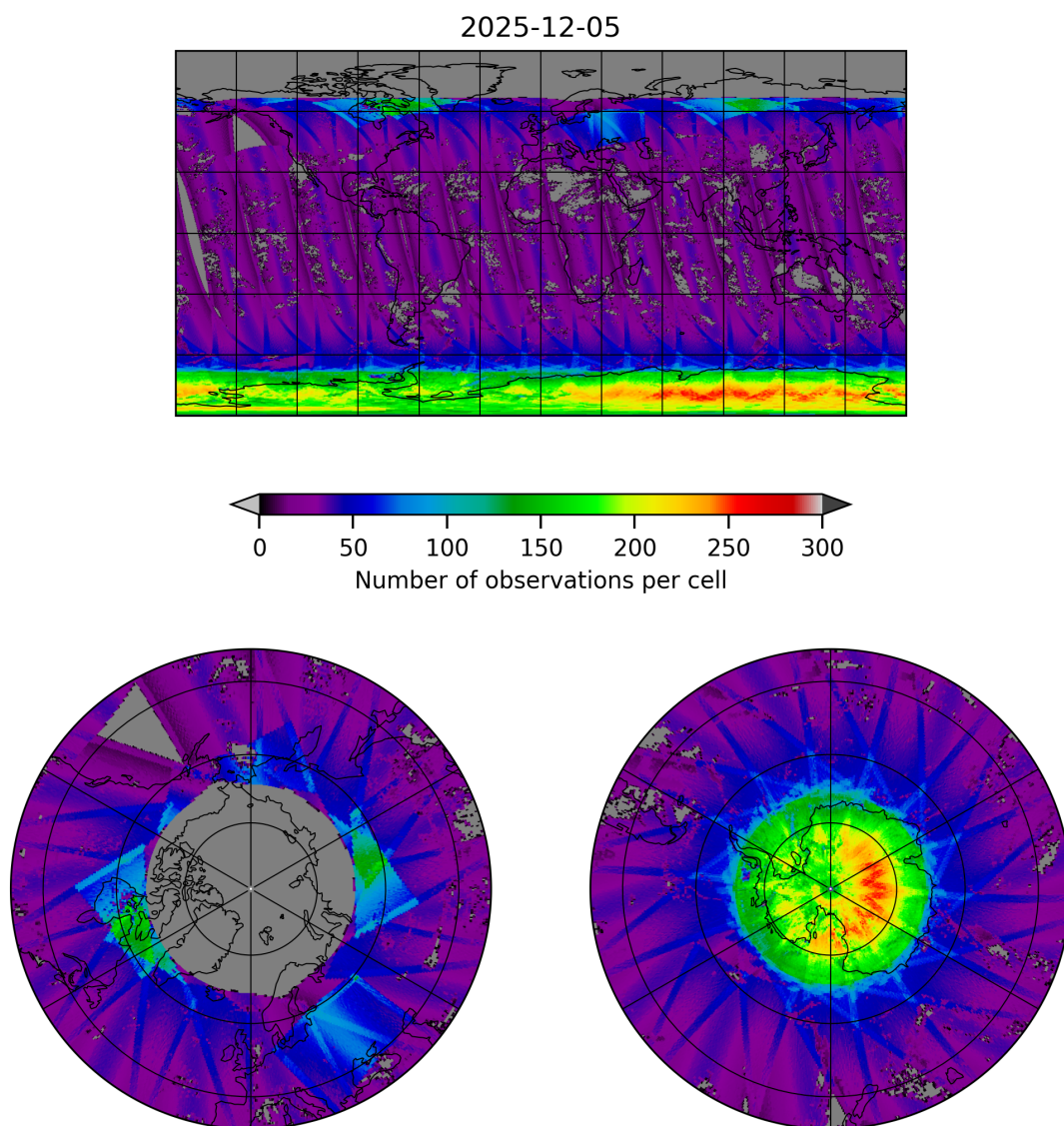


Figure 19: Map of the number of observations for 2025-12-05 to 2025-12-06

7 Zonal average

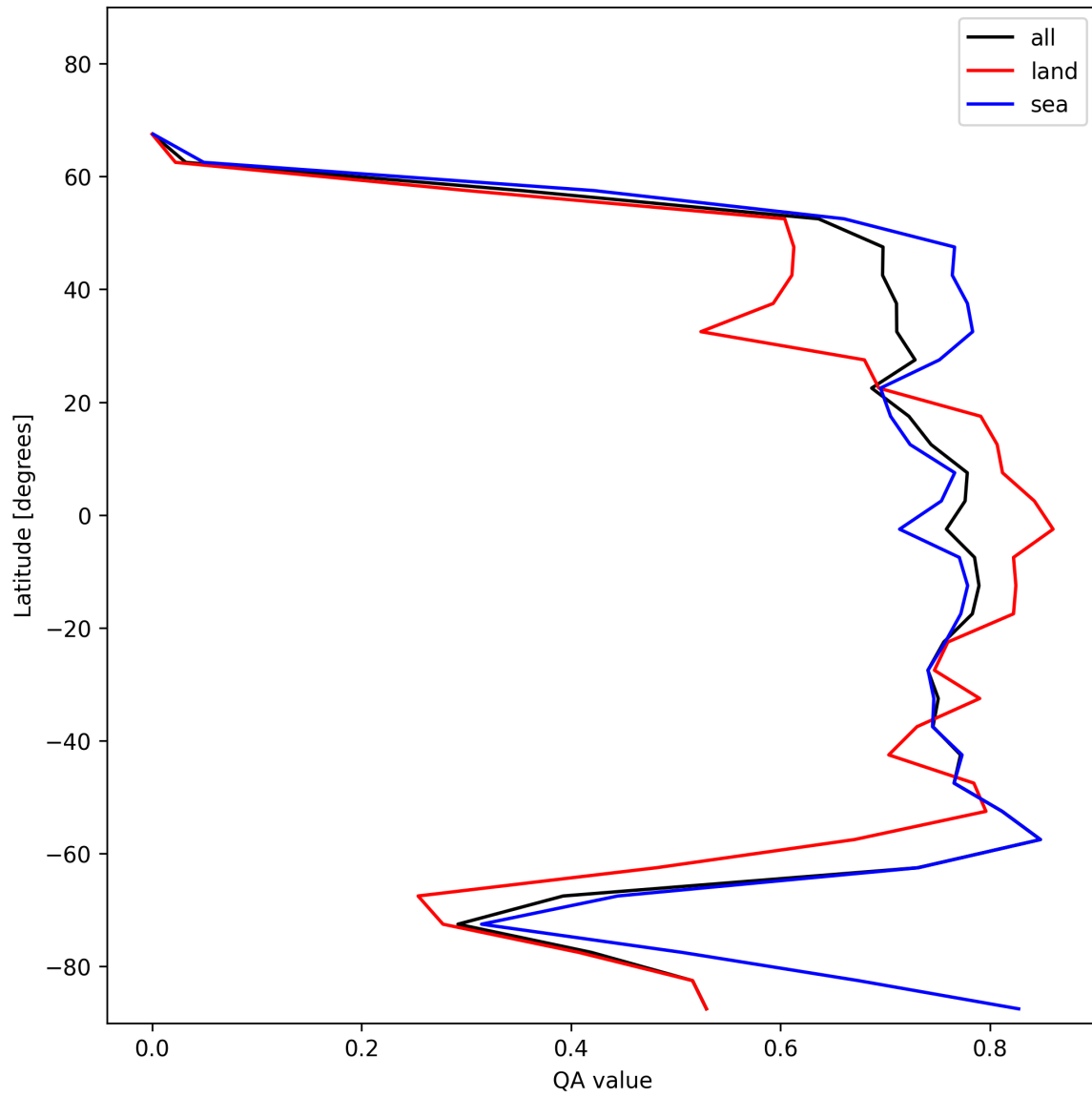


Figure 20: Zonal average of “QA value” for 2025-12-05 to 2025-12-06.

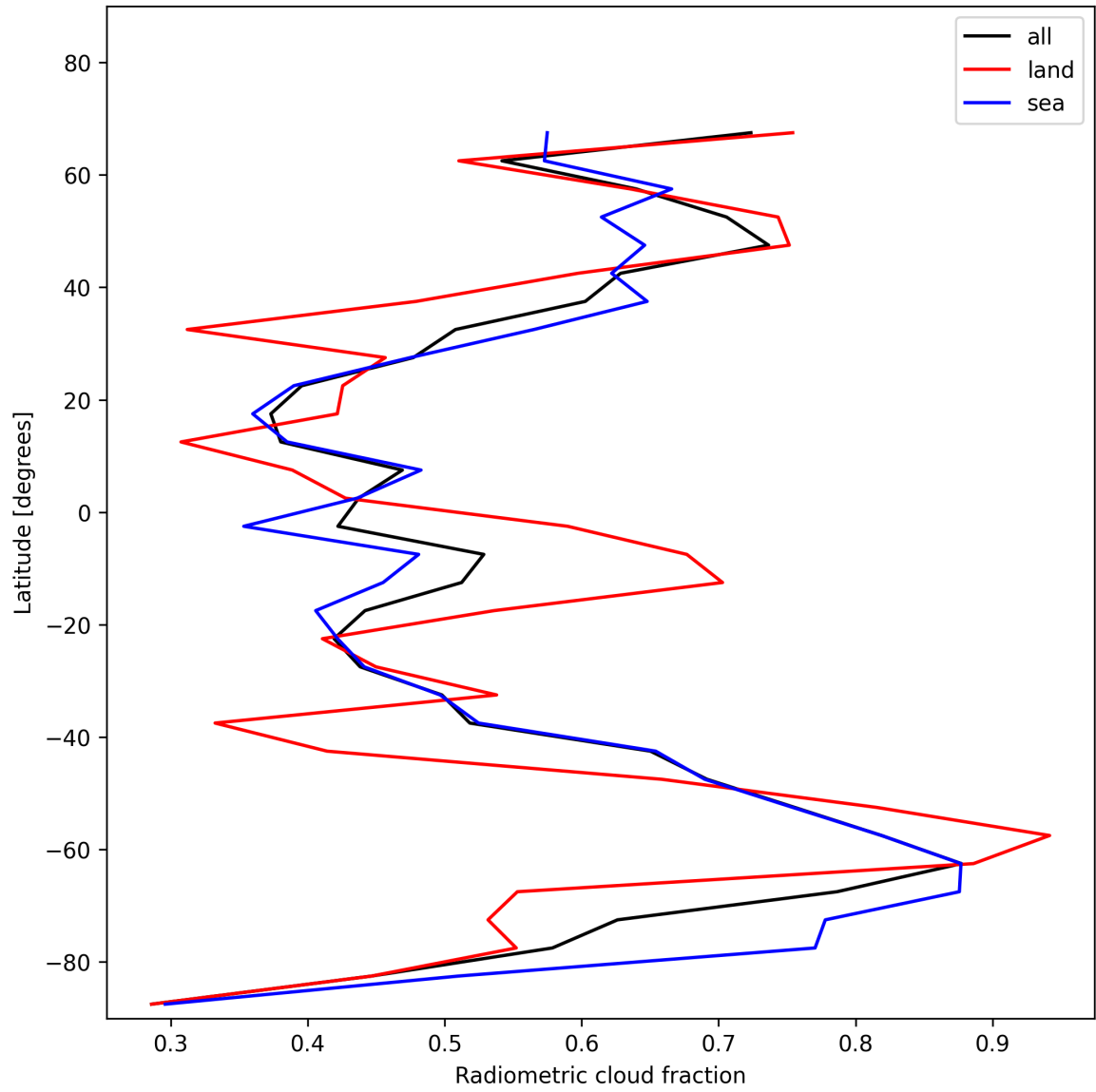


Figure 21: Zonal average of “Radiometric cloud fraction” for 2025-12-05 to 2025-12-06.

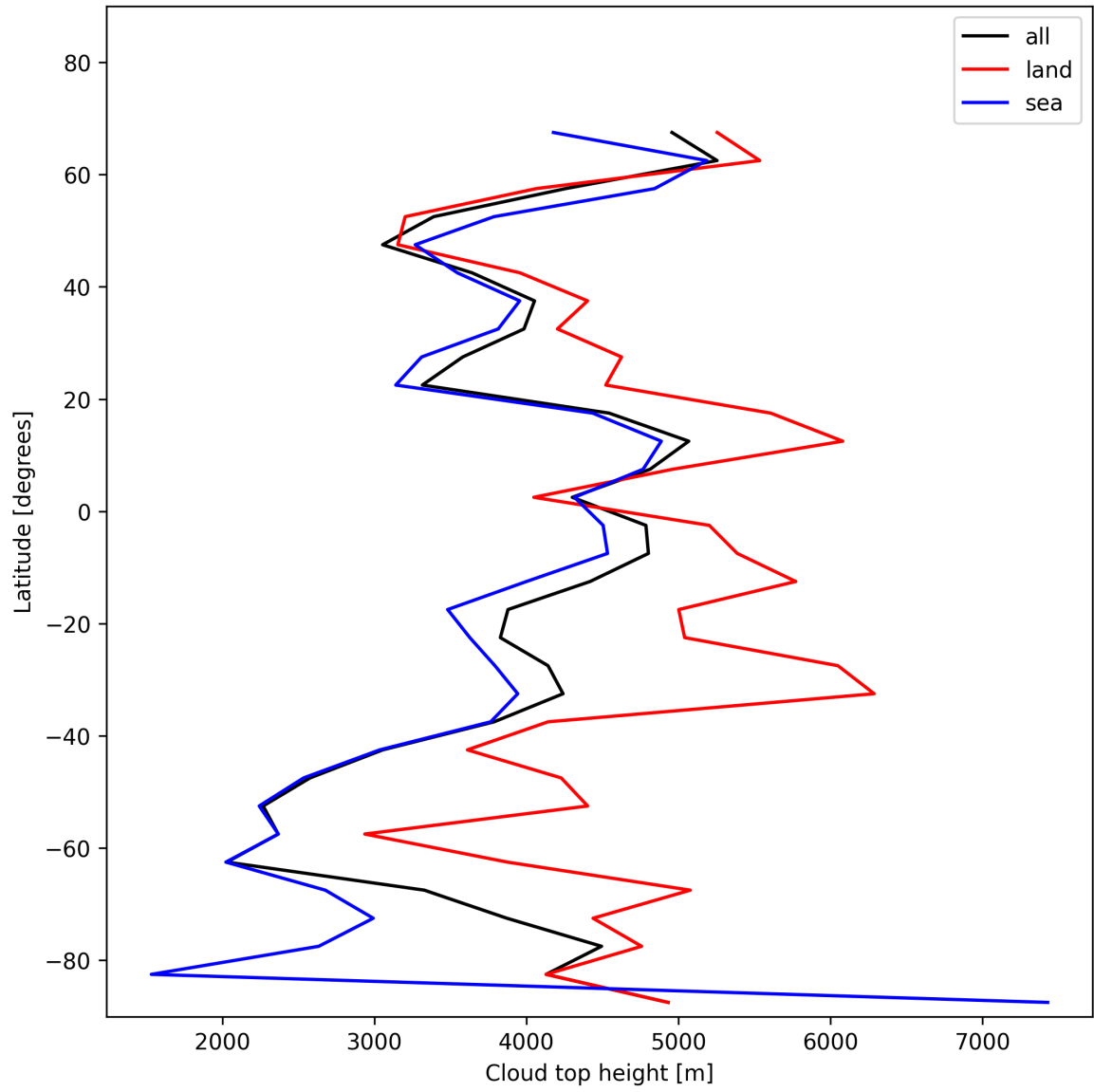


Figure 22: Zonal average of “Cloud top height” for 2025-12-05 to 2025-12-06.

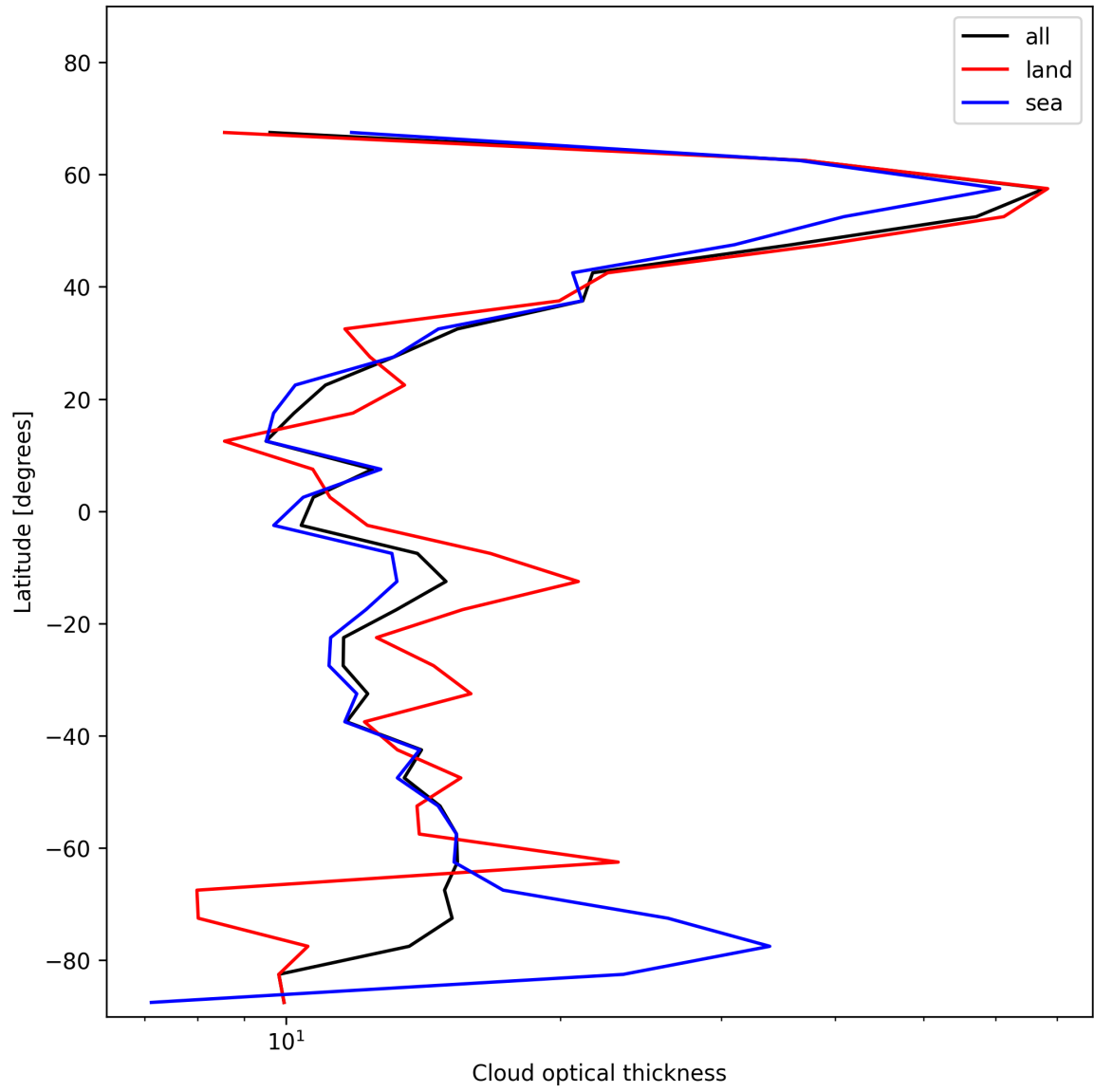


Figure 23: Zonal average of “Cloud optical thickness” for 2025-12-05 to 2025-12-06.

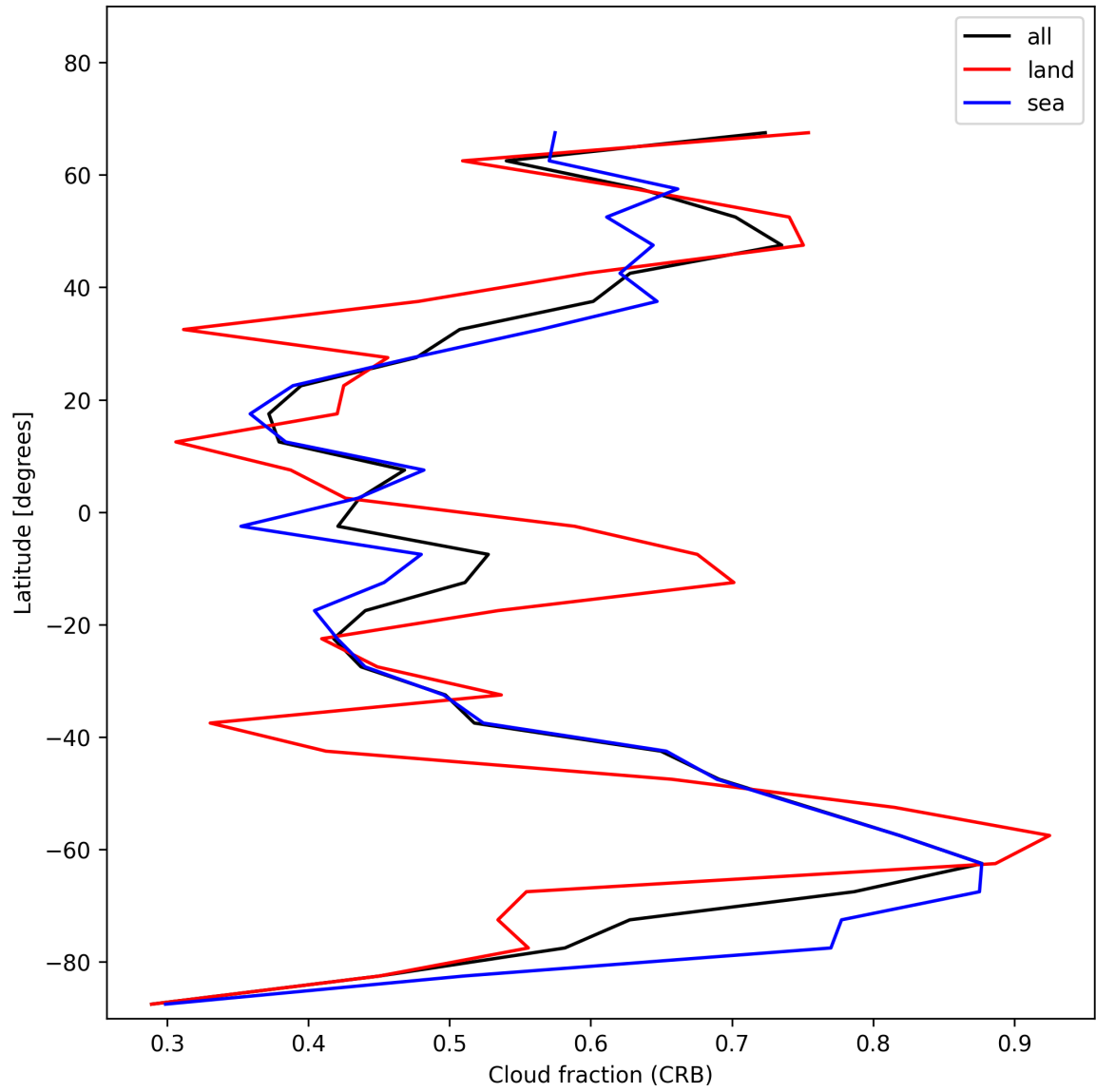


Figure 24: Zonal average of “Cloud fraction (CRB)” for 2025-12-05 to 2025-12-06.

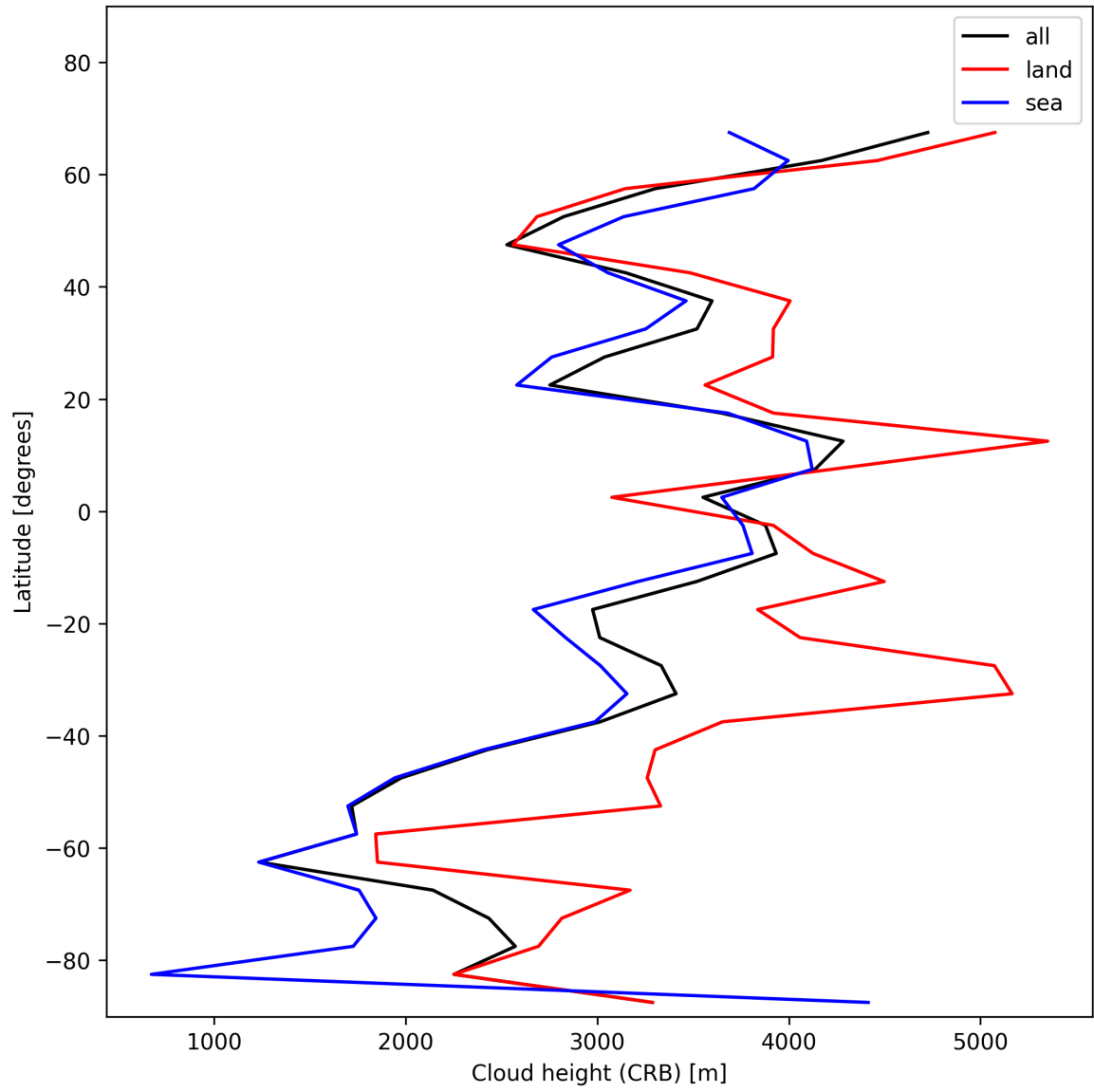


Figure 25: Zonal average of “Cloud height (CRB)” for 2025-12-05 to 2025-12-06.

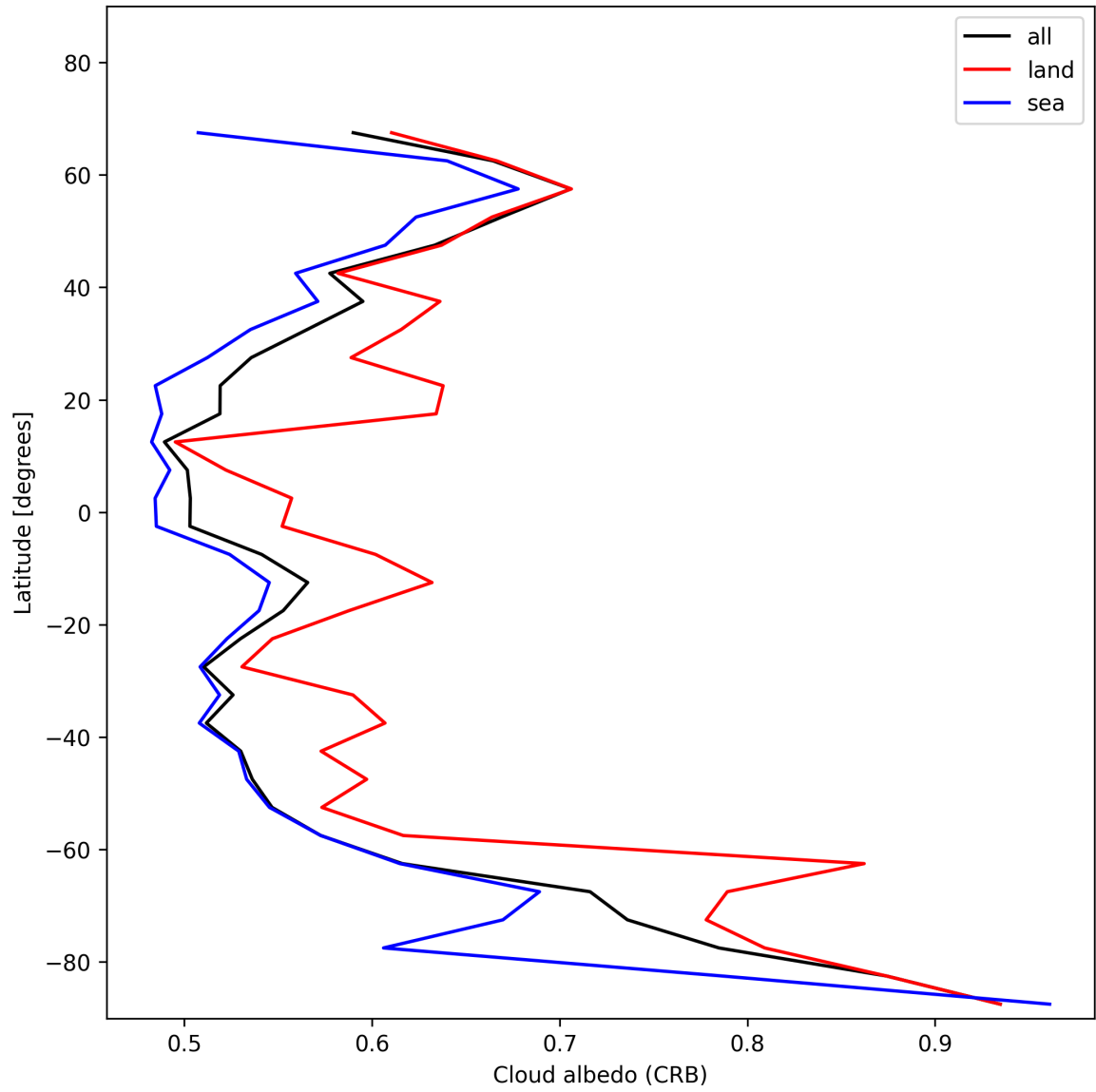


Figure 26: Zonal average of “Cloud albedo (CRB)” for 2025-12-05 to 2025-12-06.

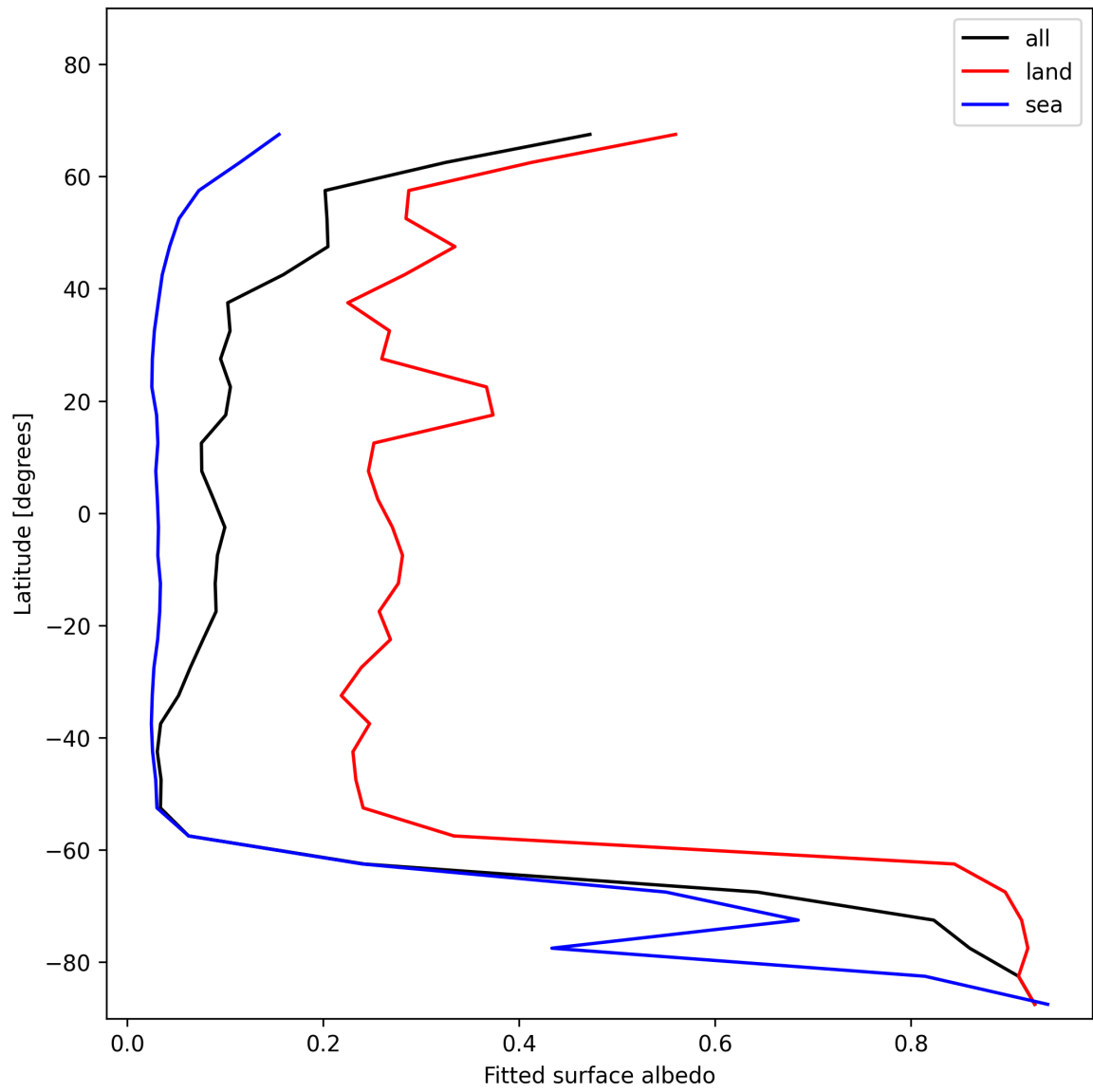


Figure 27: Zonal average of “Fitted surface albedo” for 2025-12-05 to 2025-12-06.

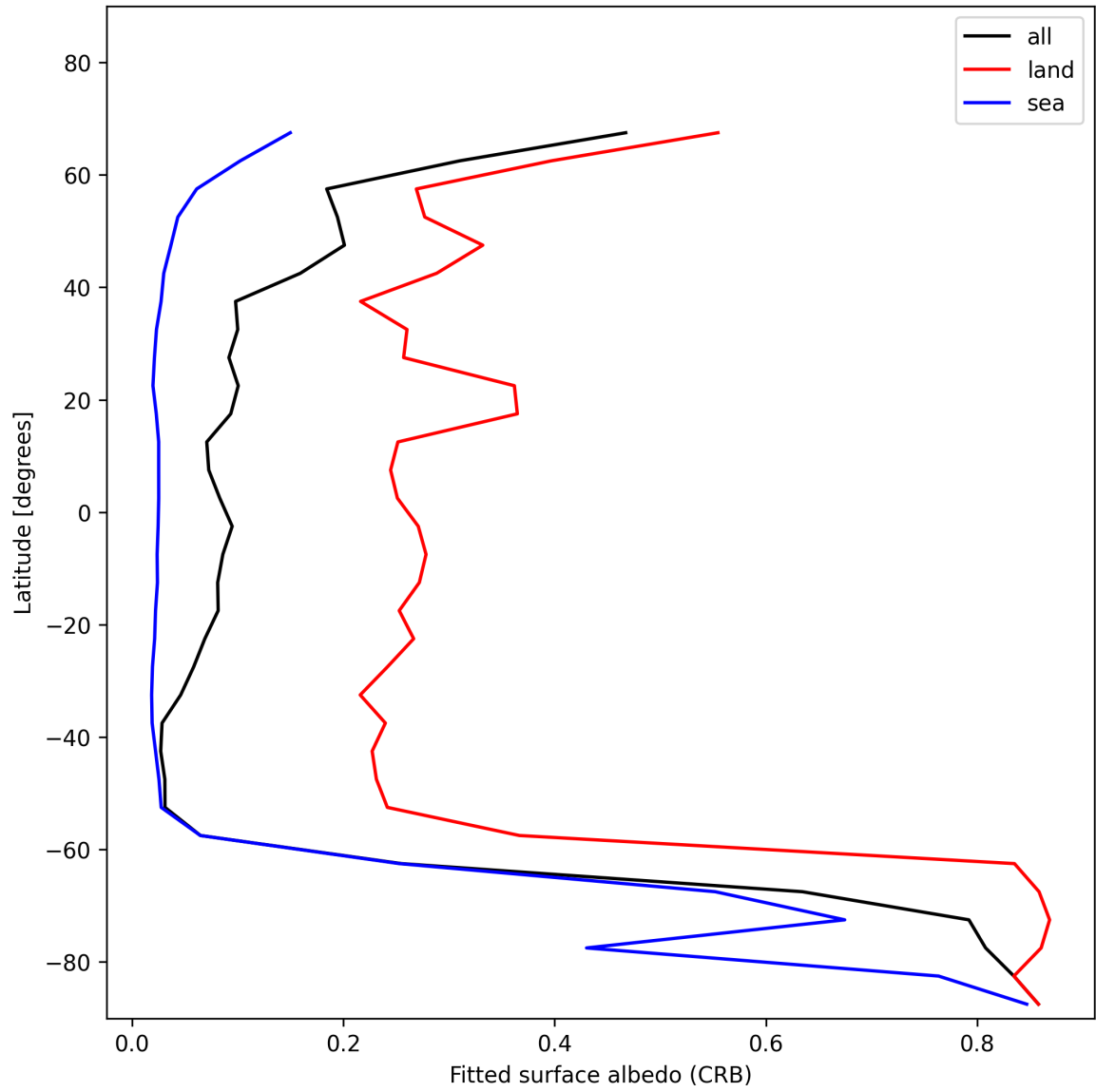


Figure 28: Zonal average of “Fitted surface albedo (CRB)” for 2025-12-05 to 2025-12-06.

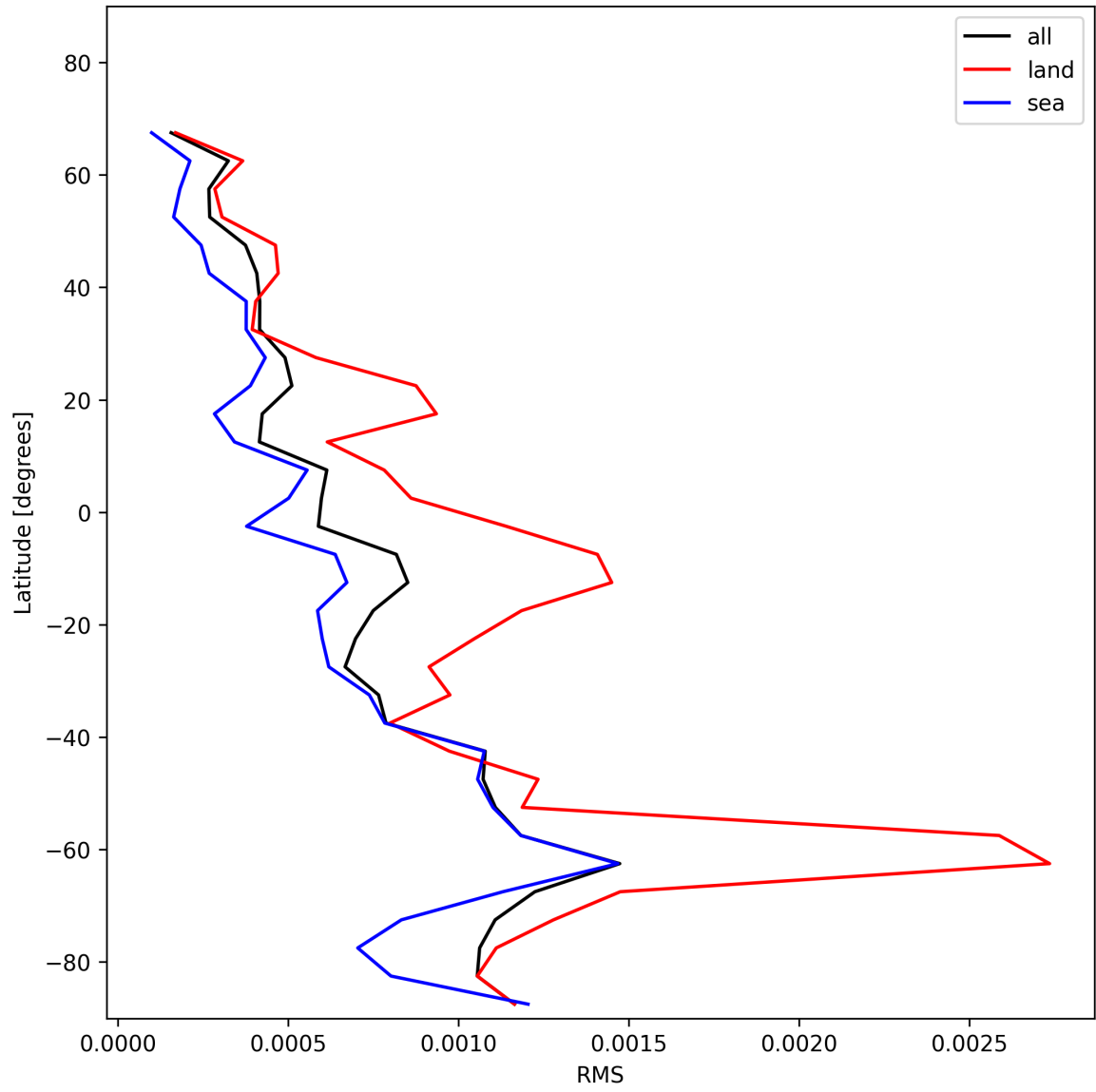


Figure 29: Zonal average of “RMS” for 2025-12-05 to 2025-12-06.

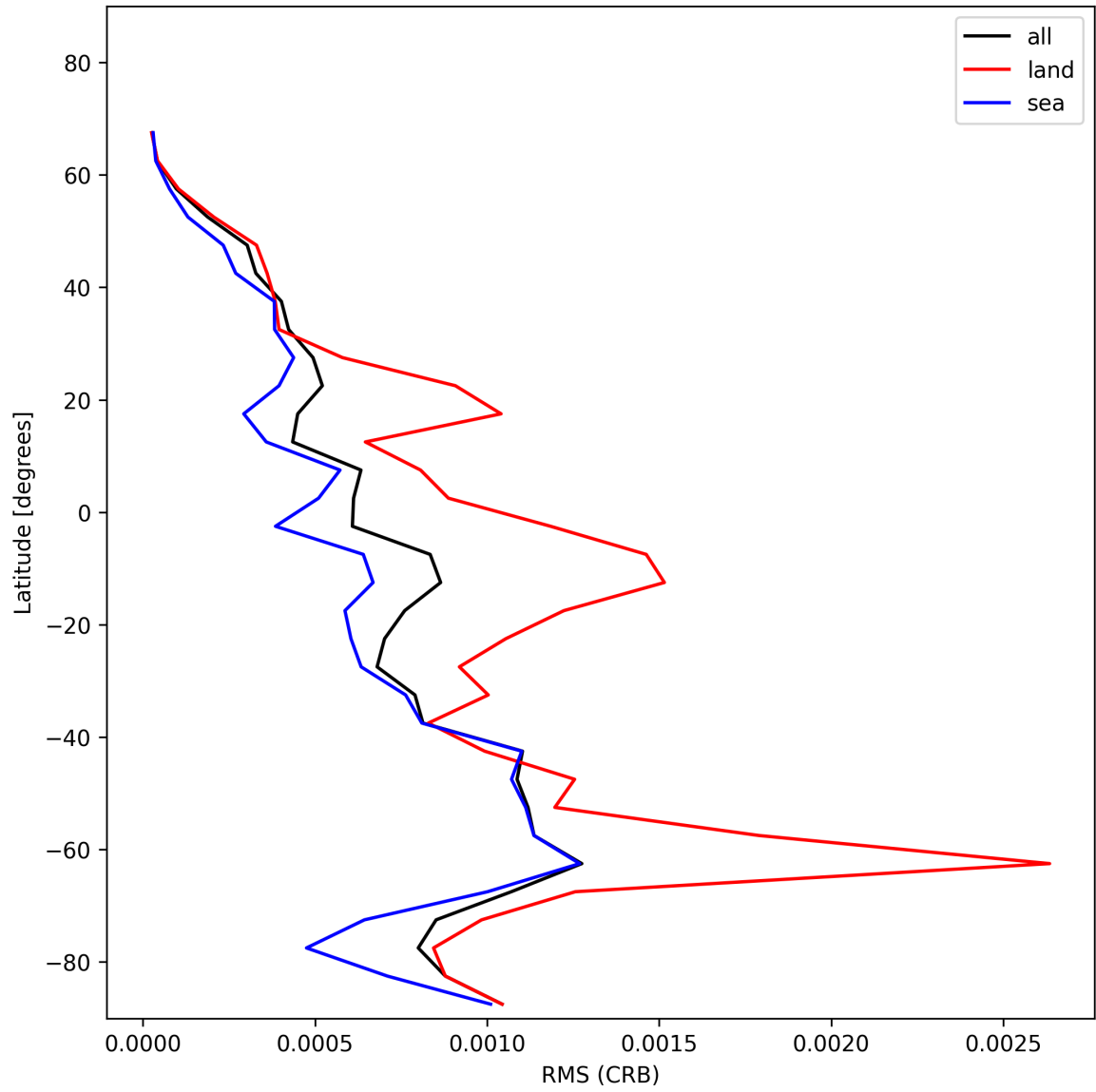


Figure 30: Zonal average of “RMS (CRB)” for 2025-12-05 to 2025-12-06.

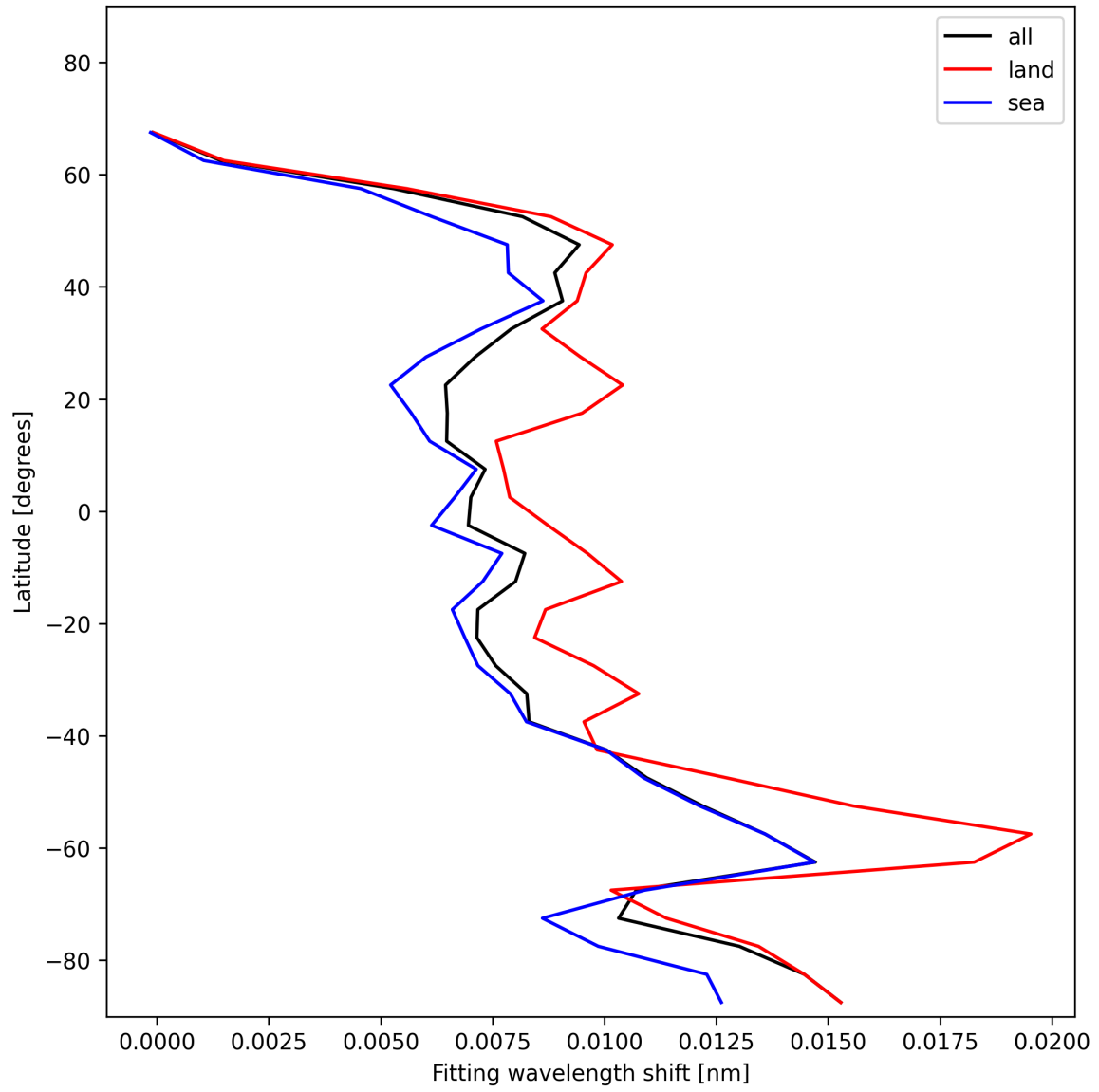


Figure 31: Zonal average of “Fitting wavelength shift” for 2025-12-05 to 2025-12-06.

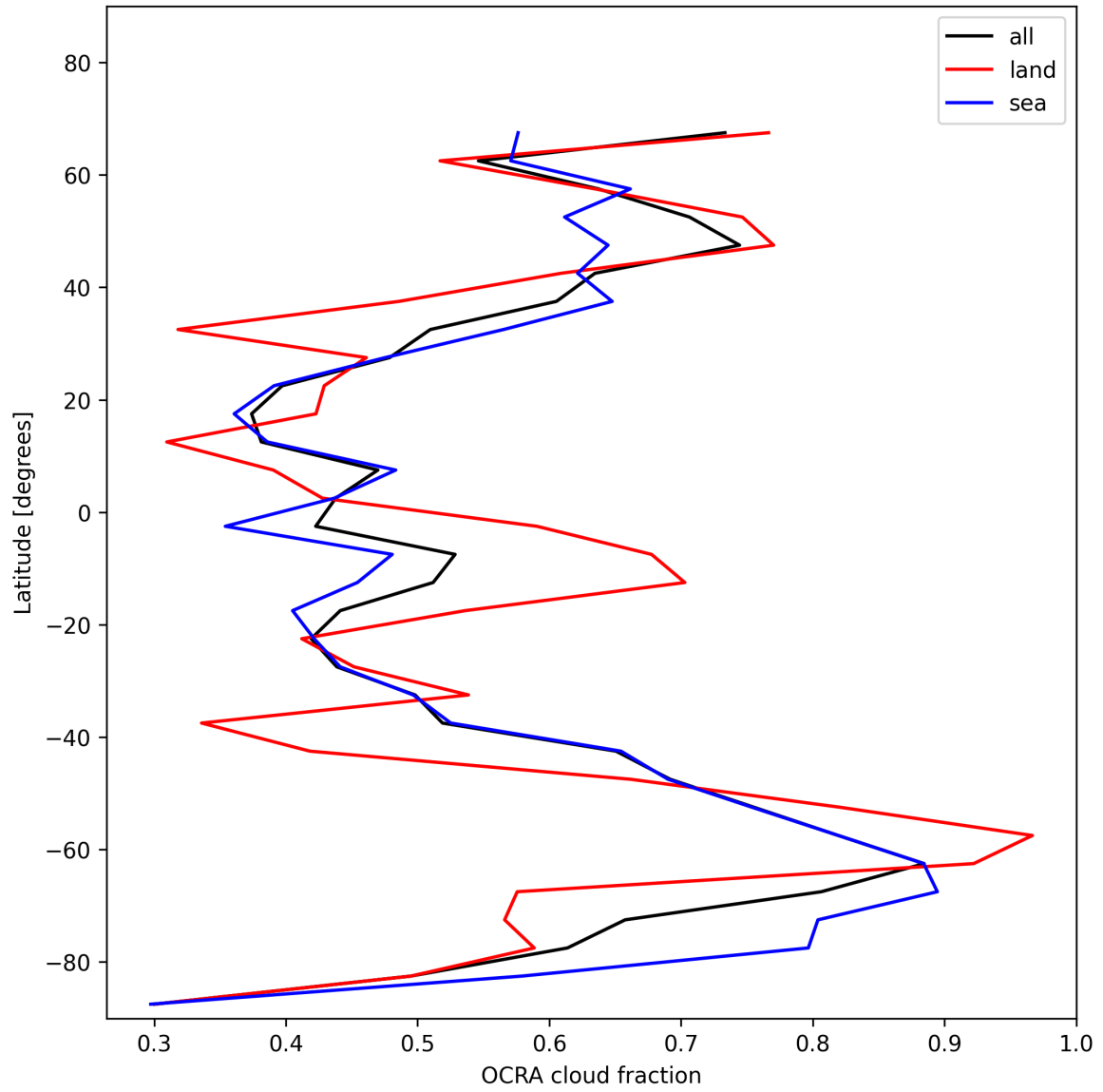


Figure 32: Zonal average of “OCRA cloud fraction” for 2025-12-05 to 2025-12-06.

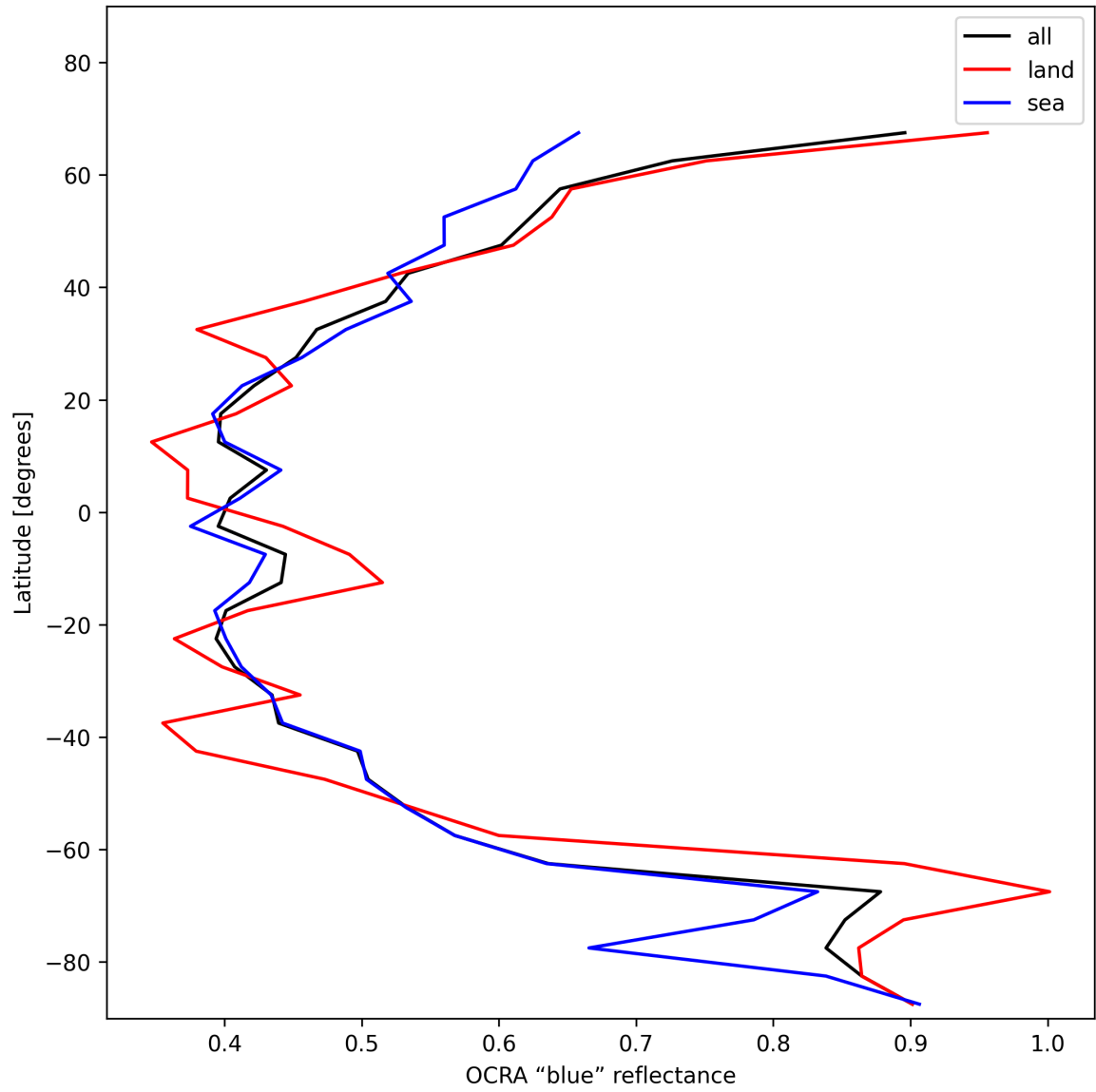


Figure 33: Zonal average of “OCRA “blue” reflectance” for 2025-12-05 to 2025-12-06.

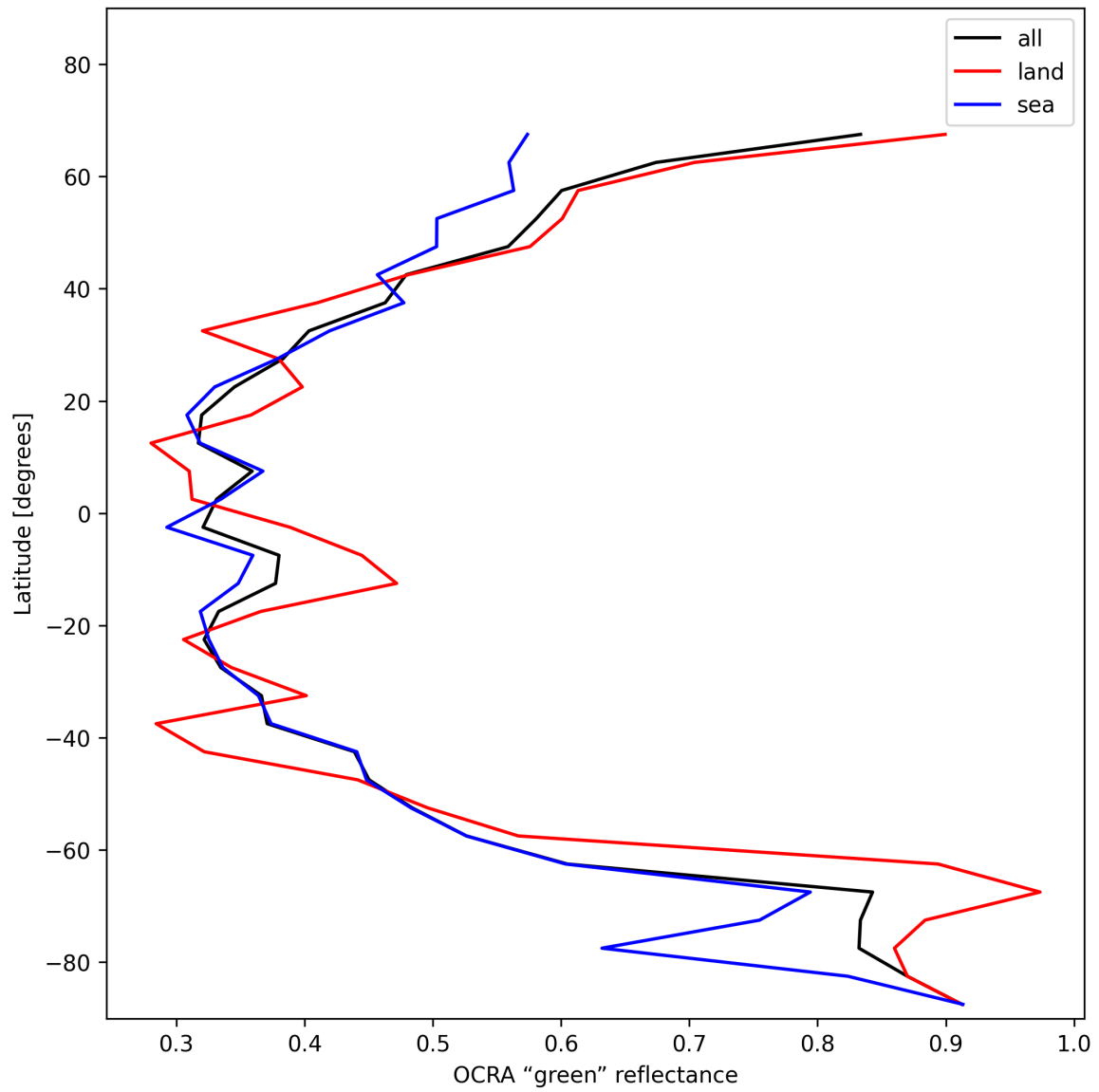


Figure 34: Zonal average of “OCRA “green” reflectance” for 2025-12-05 to 2025-12-06.

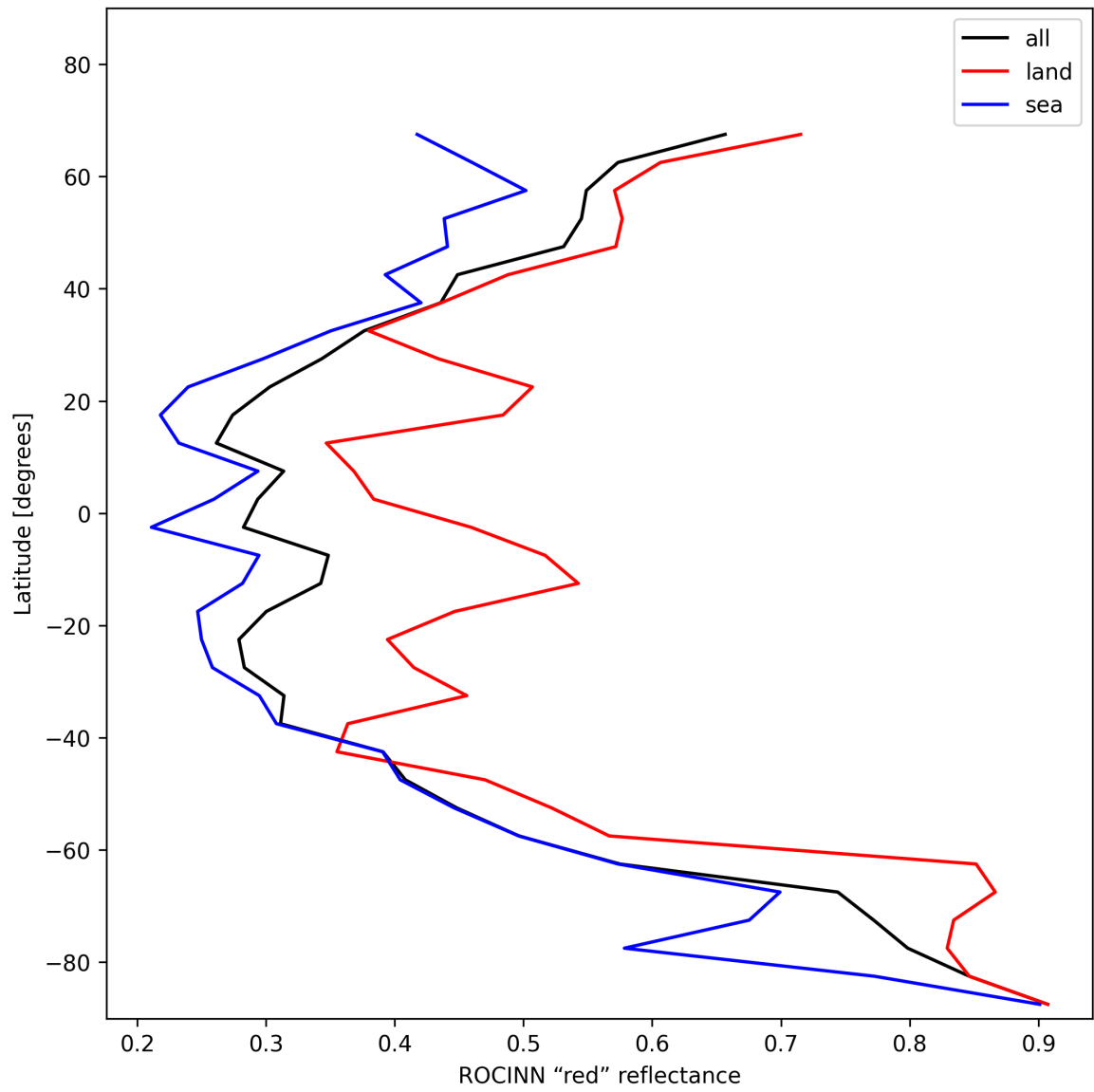


Figure 35: Zonal average of “ROCINN “red” reflectance” for 2025-12-05 to 2025-12-06.

8 Histograms

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

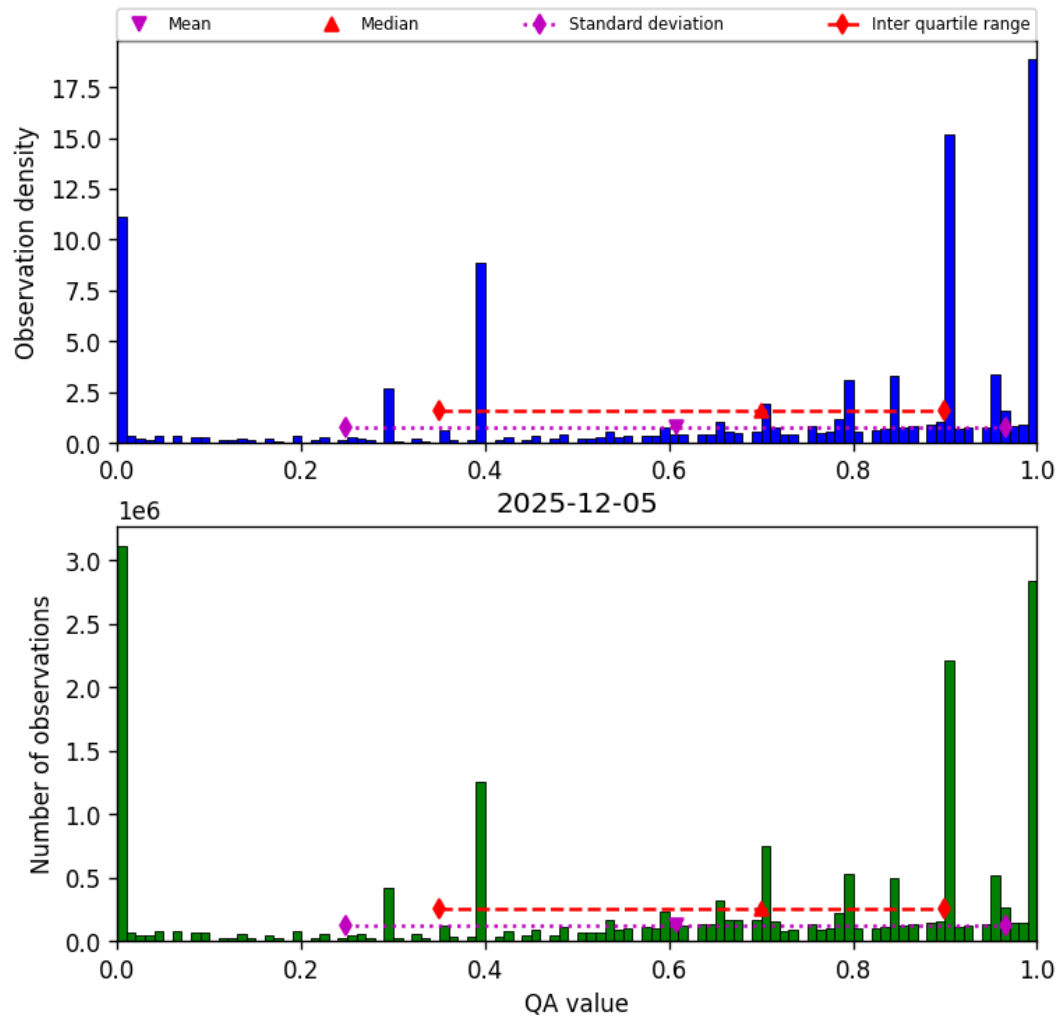


Figure 36: Histogram of “QA value” for 2025-12-05 to 2025-12-06

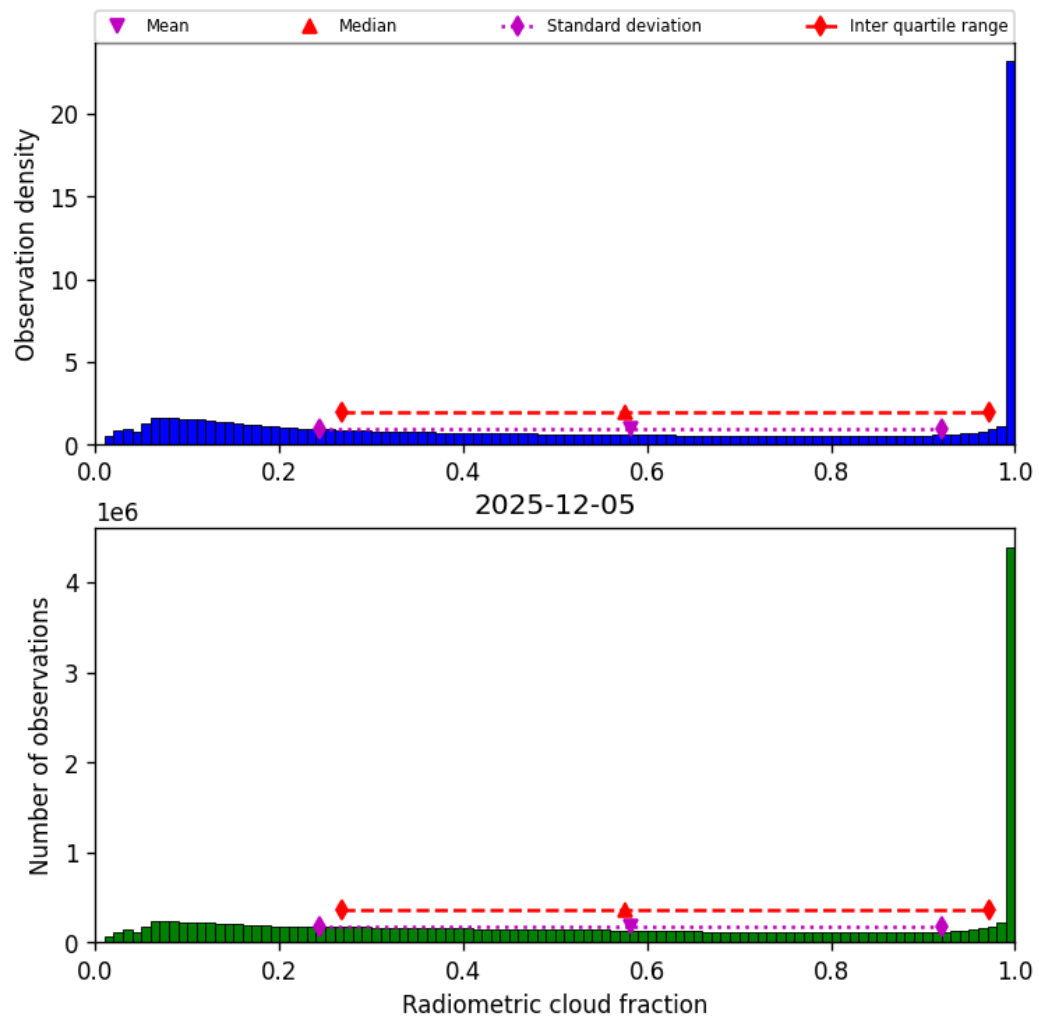


Figure 37: Histogram of “Radiometric cloud fraction” for 2025-12-05 to 2025-12-06

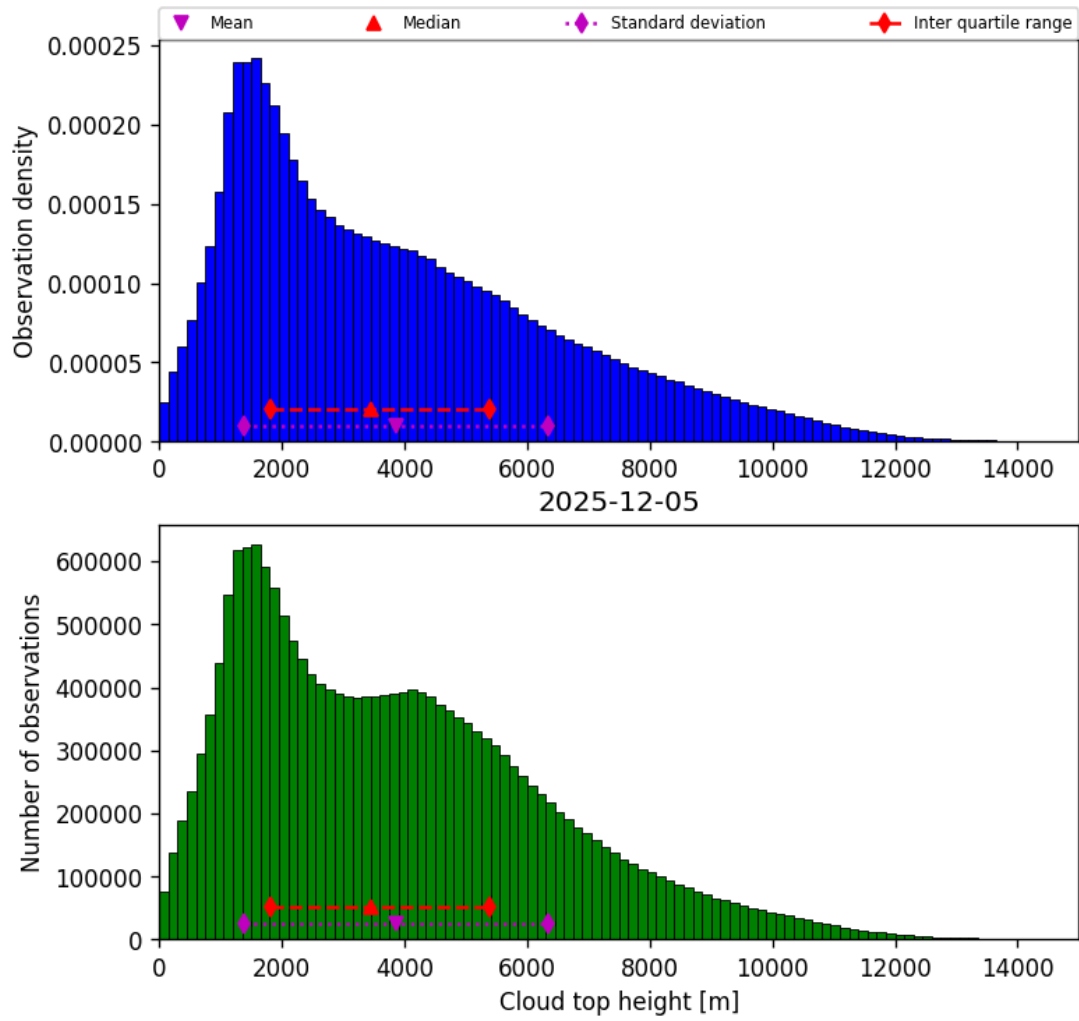


Figure 38: Histogram of “Cloud top height” for 2025-12-05 to 2025-12-06

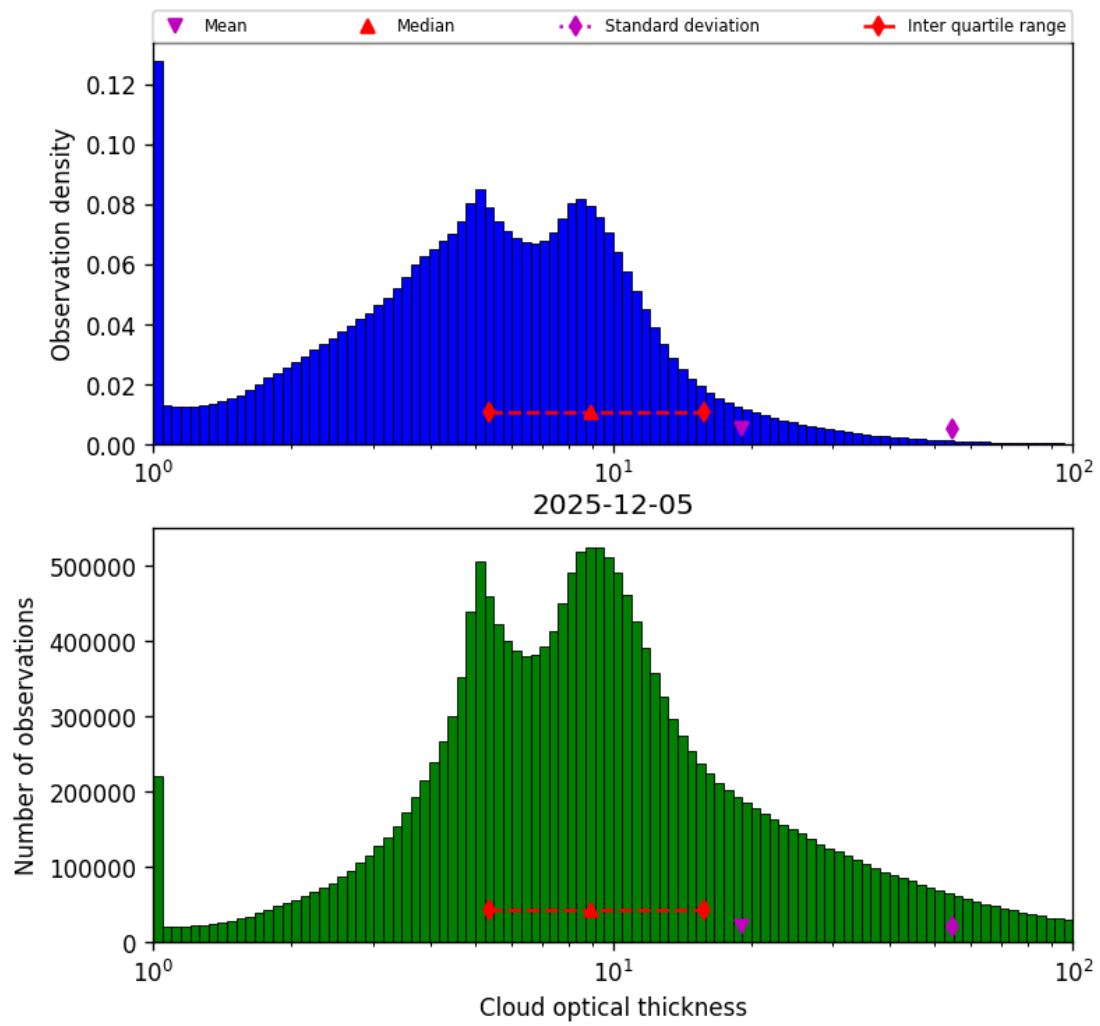


Figure 39: Histogram of “Cloud optical thickness” for 2025-12-05 to 2025-12-06

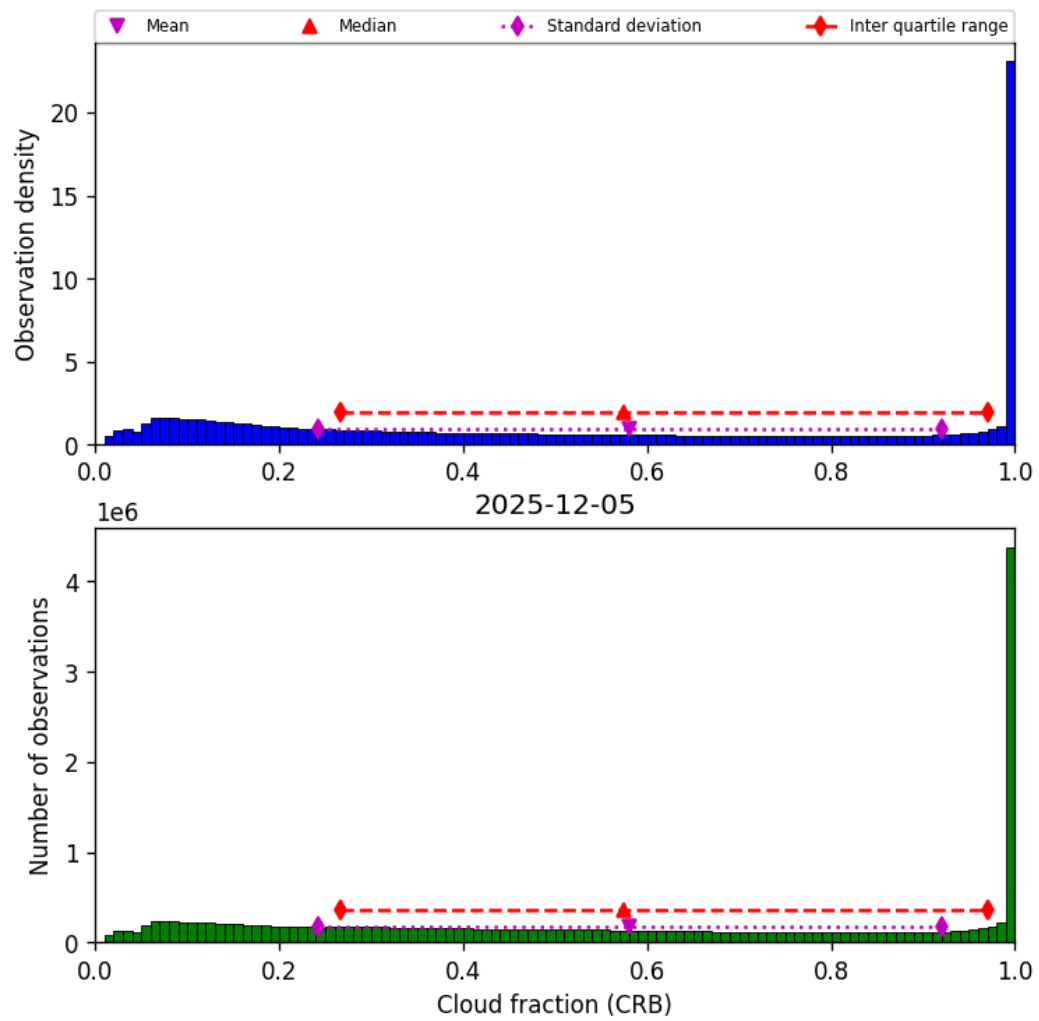


Figure 40: Histogram of “Cloud fraction (CRB)” for 2025-12-05 to 2025-12-06

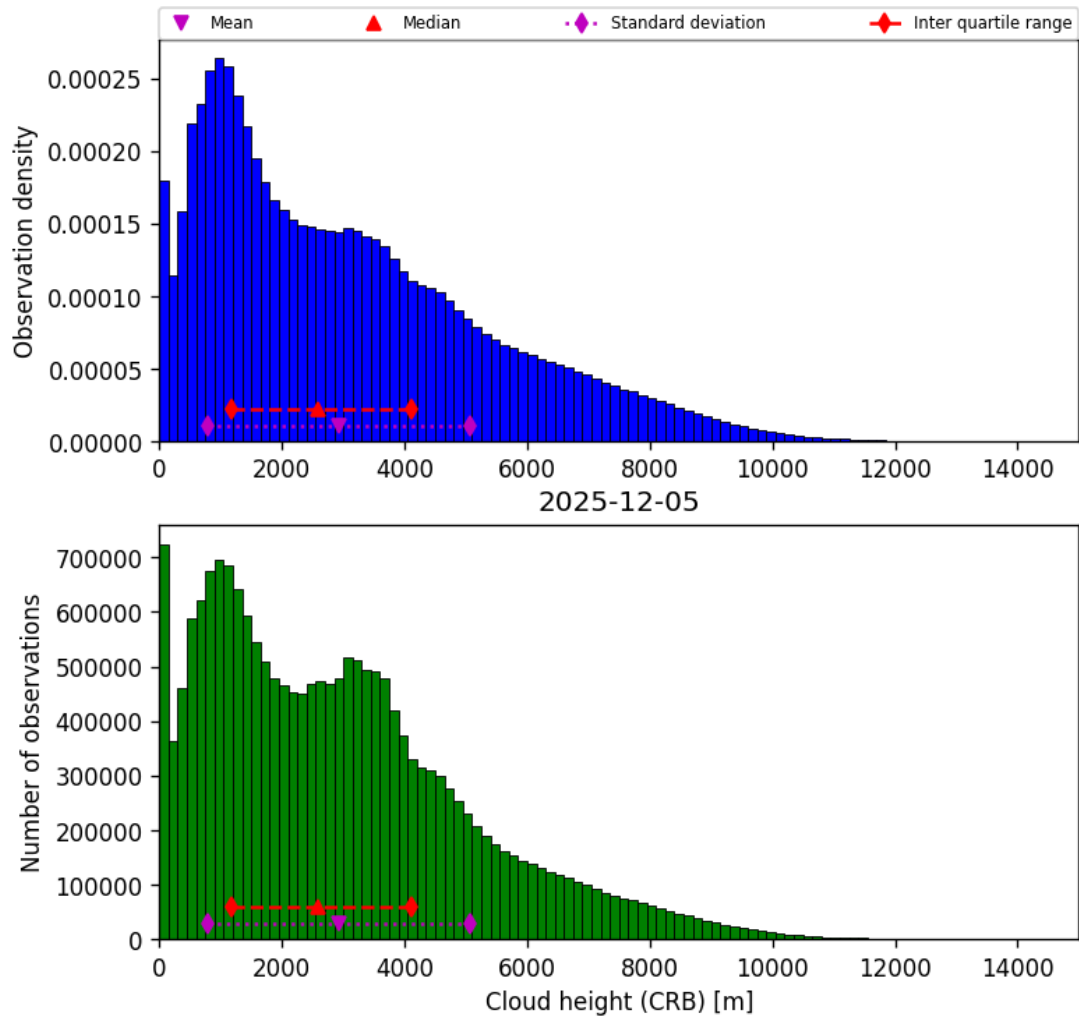


Figure 41: Histogram of “Cloud height (CRB)” for 2025-12-05 to 2025-12-06

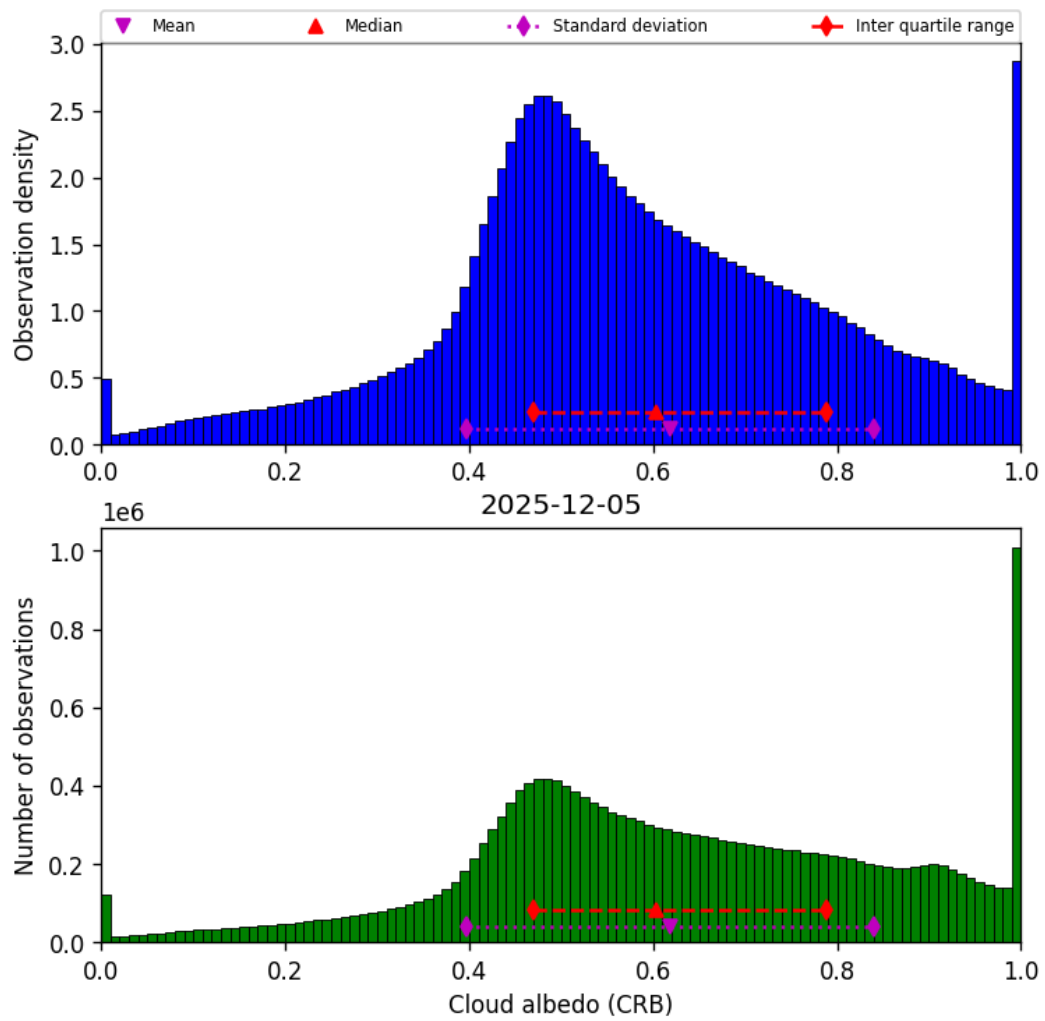


Figure 42: Histogram of “Cloud albedo (CRB)” for 2025-12-05 to 2025-12-06

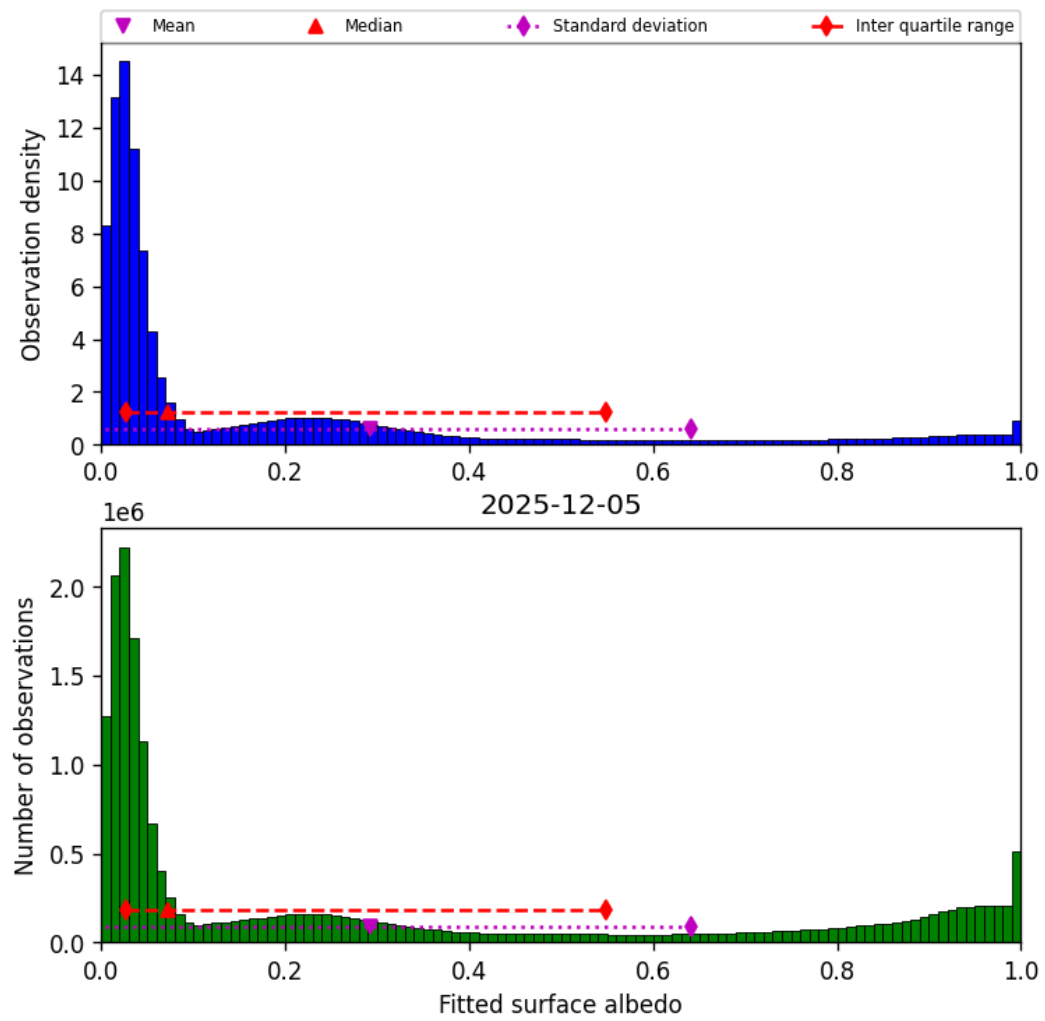


Figure 43: Histogram of “Fitted surface albedo” for 2025-12-05 to 2025-12-06

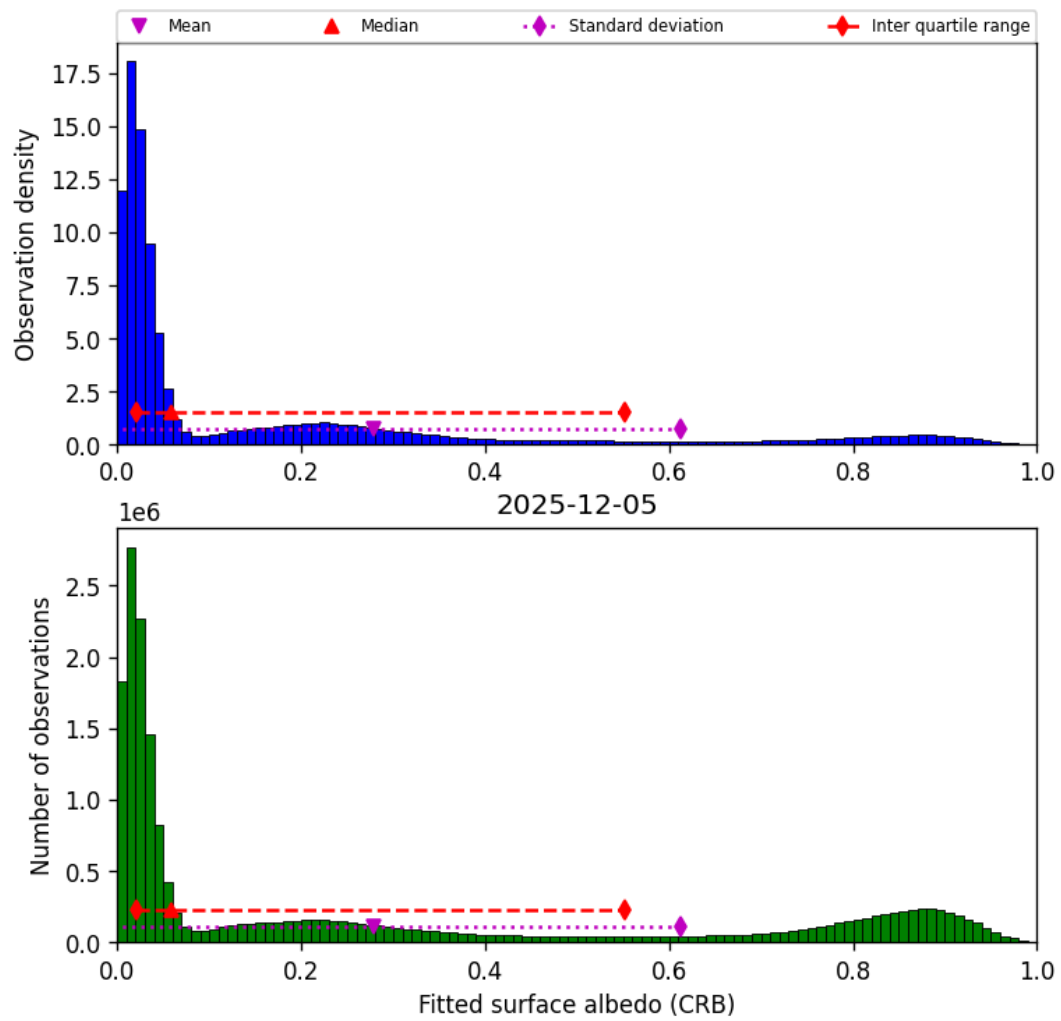


Figure 44: Histogram of “Fitted surface albedo (CRB)” for 2025-12-05 to 2025-12-06

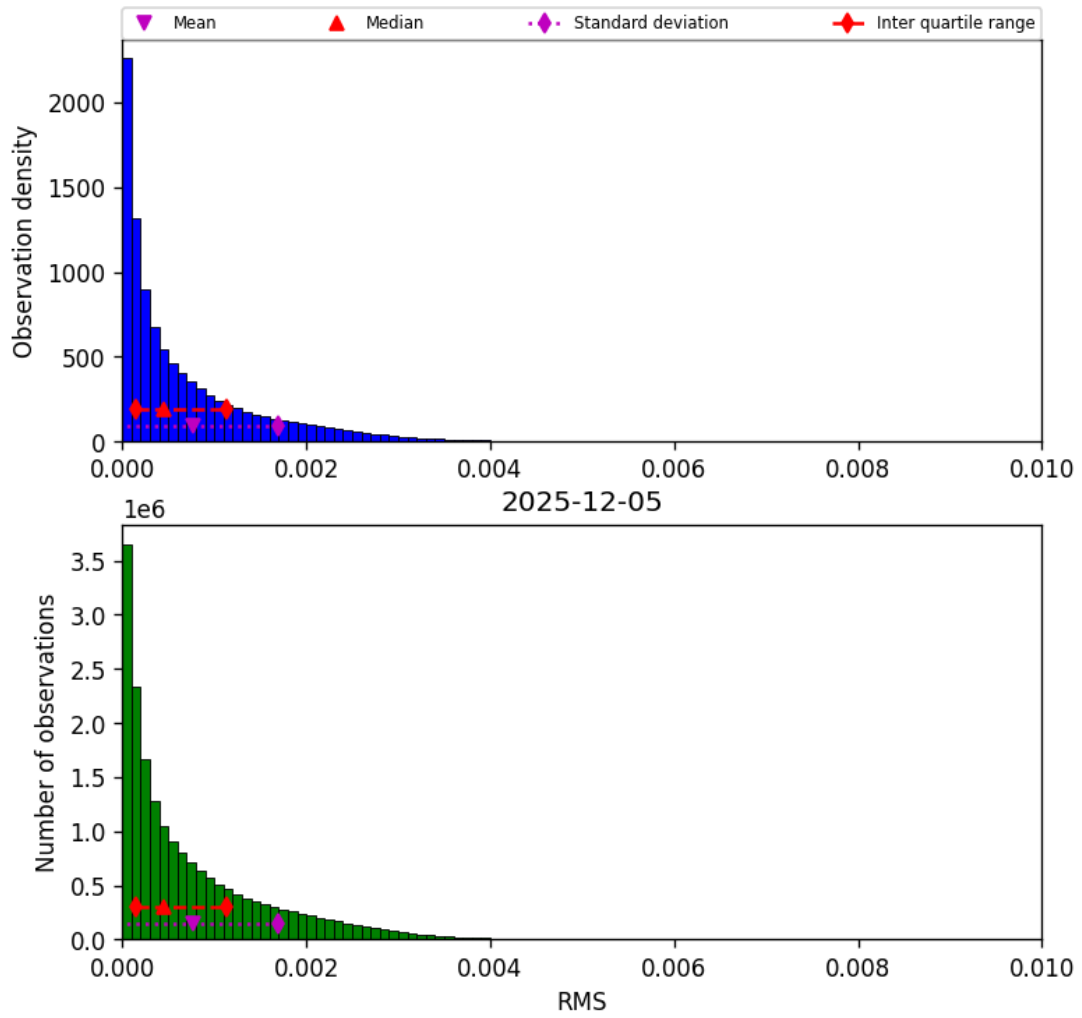


Figure 45: Histogram of “RMS” for 2025-12-05 to 2025-12-06

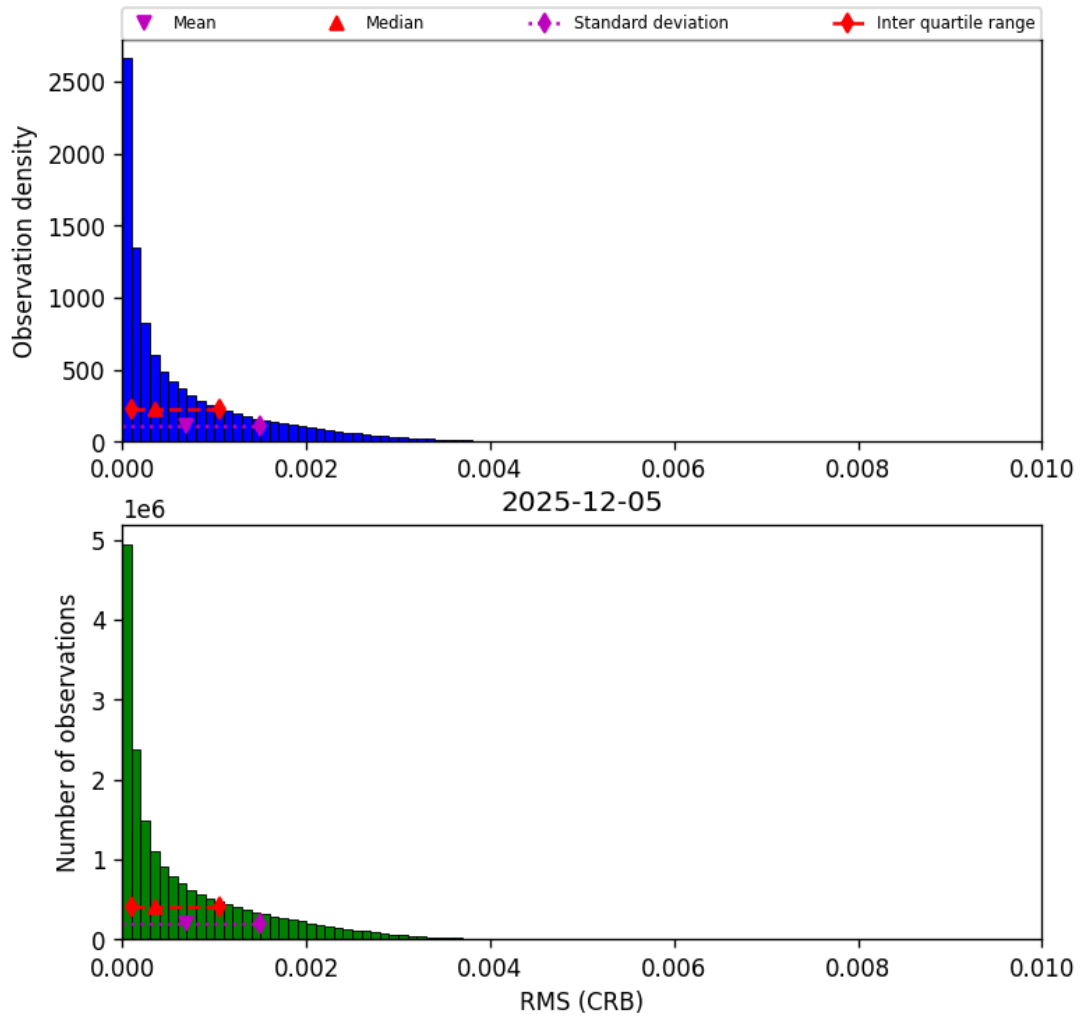


Figure 46: Histogram of “RMS (CRB)” for 2025-12-05 to 2025-12-06

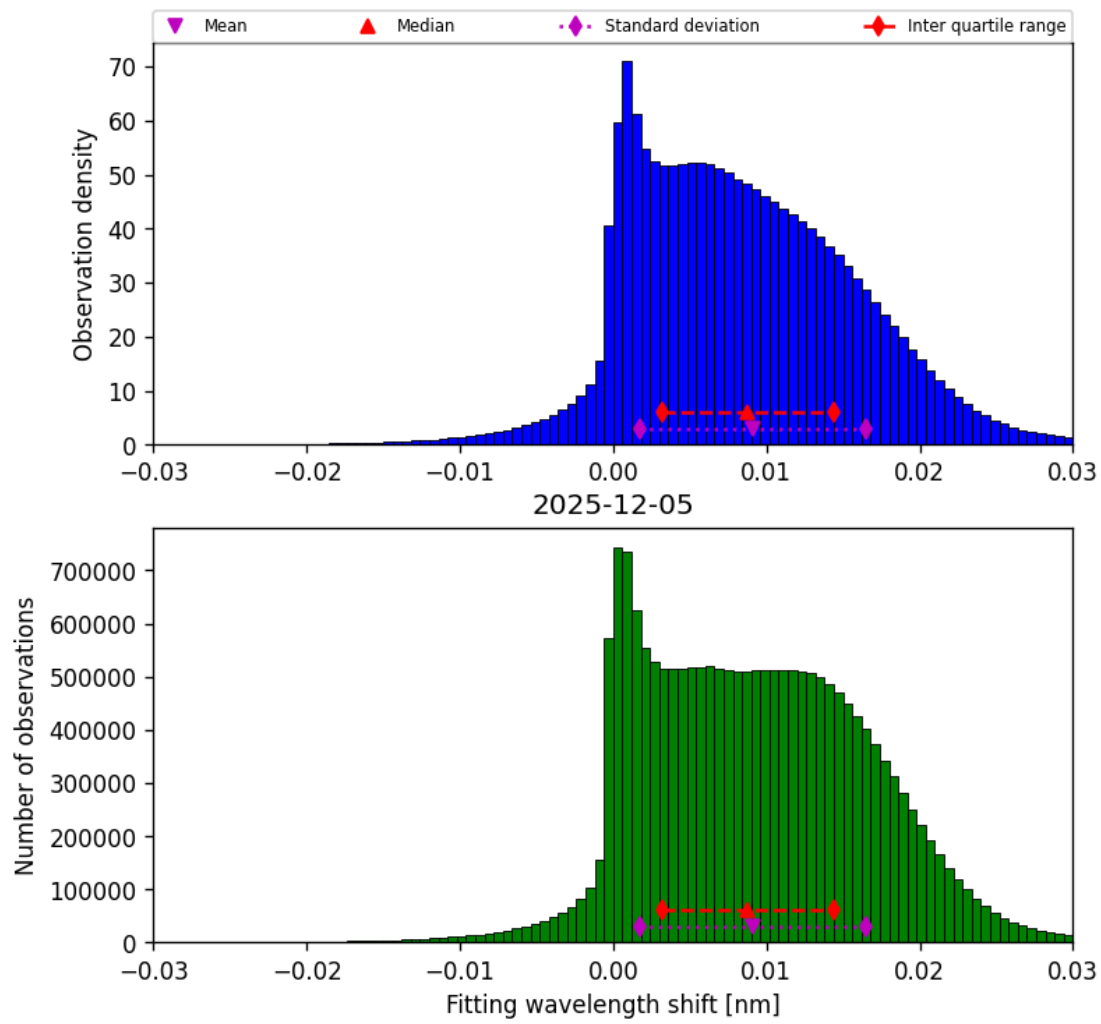


Figure 47: Histogram of “Fitting wavelength shift” for 2025-12-05 to 2025-12-06

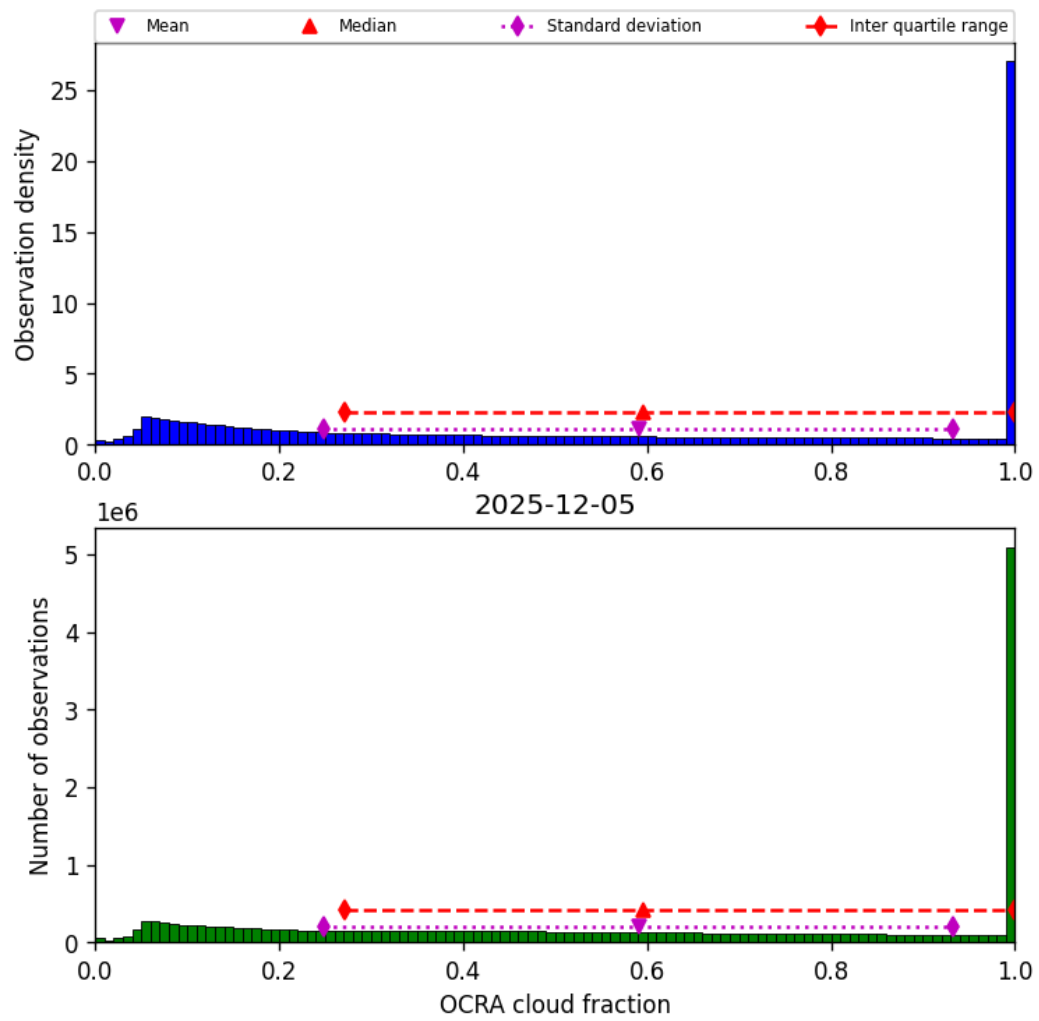


Figure 48: Histogram of “OCRA cloud fraction” for 2025-12-05 to 2025-12-06

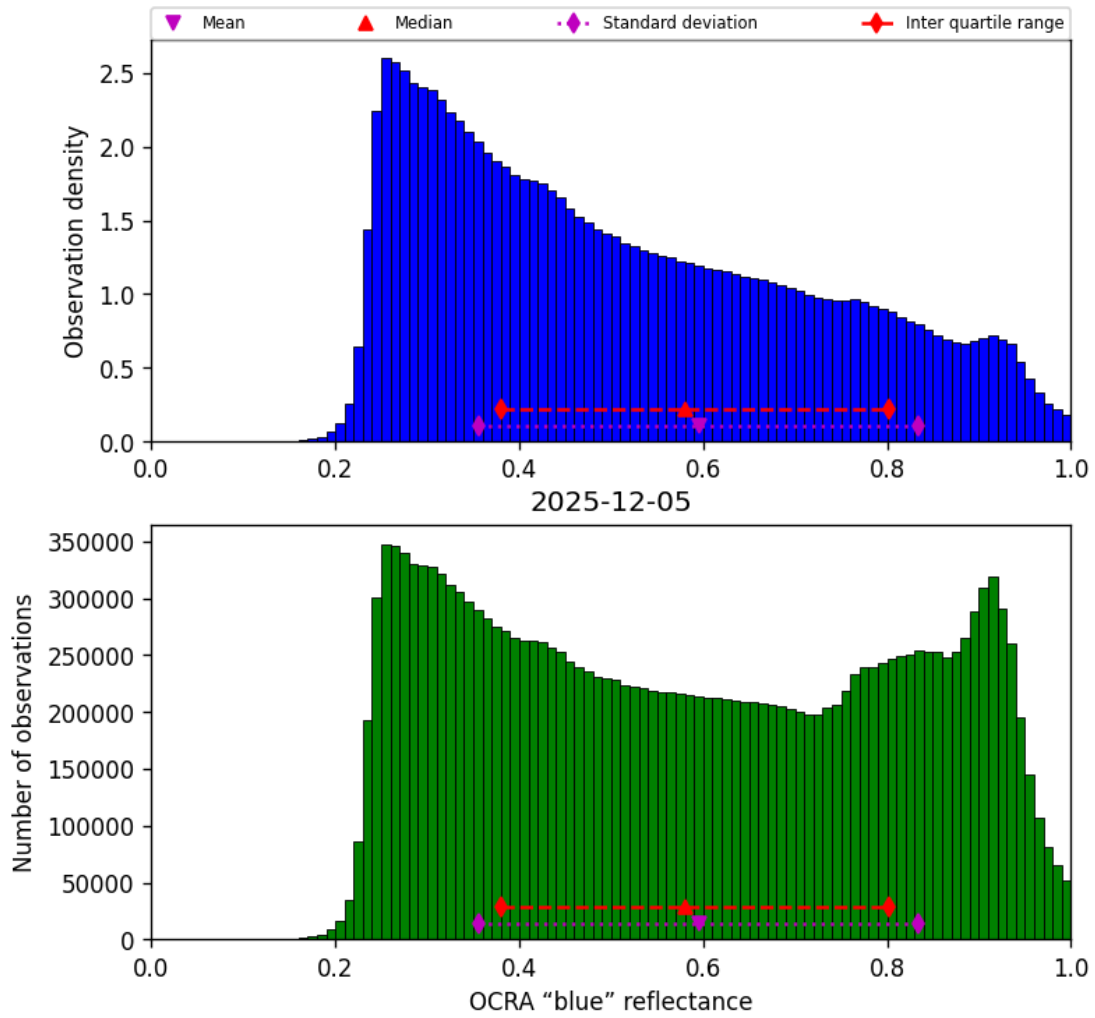


Figure 49: Histogram of “OCRA “blue” reflectance” for 2025-12-05 to 2025-12-06

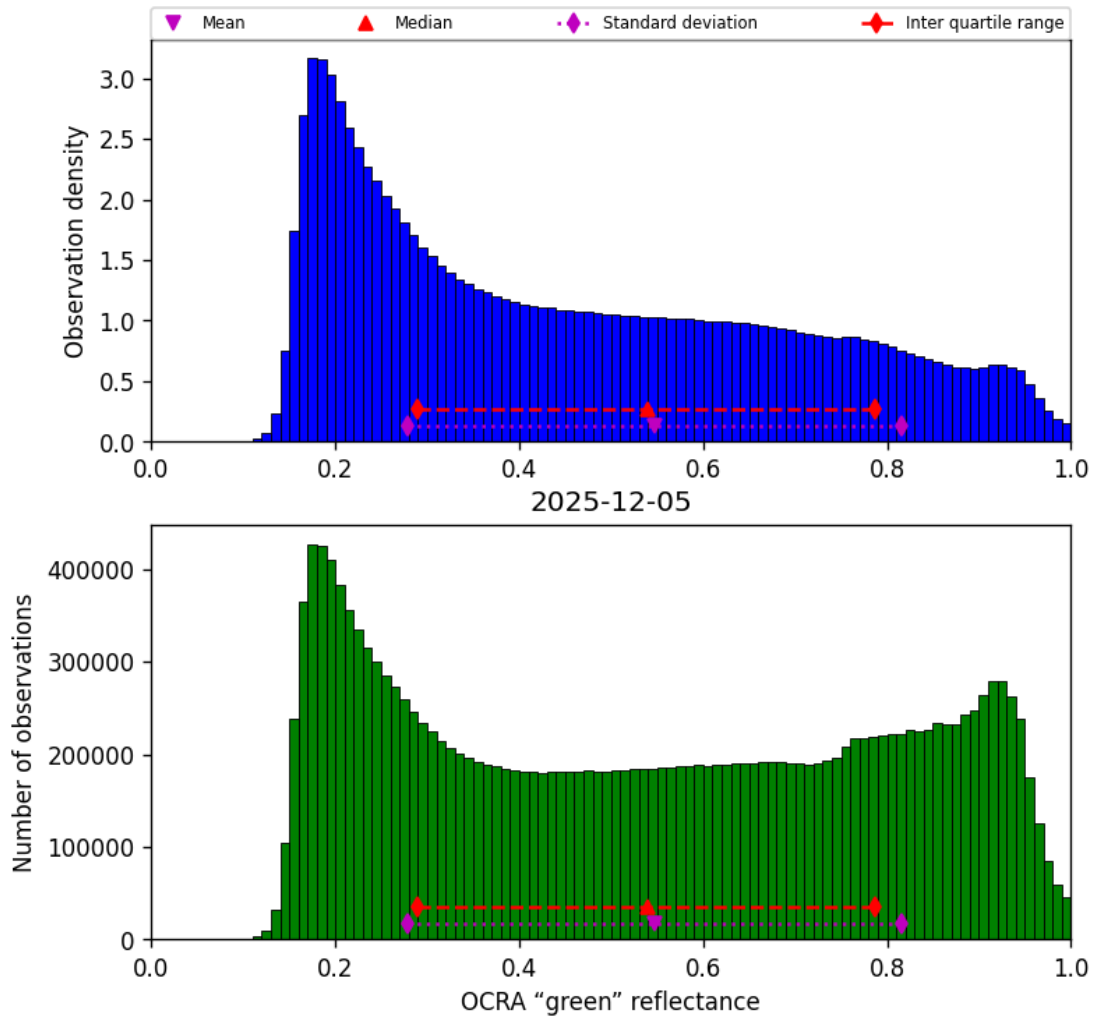


Figure 50: Histogram of “OCRA “green” reflectance” for 2025-12-05 to 2025-12-06

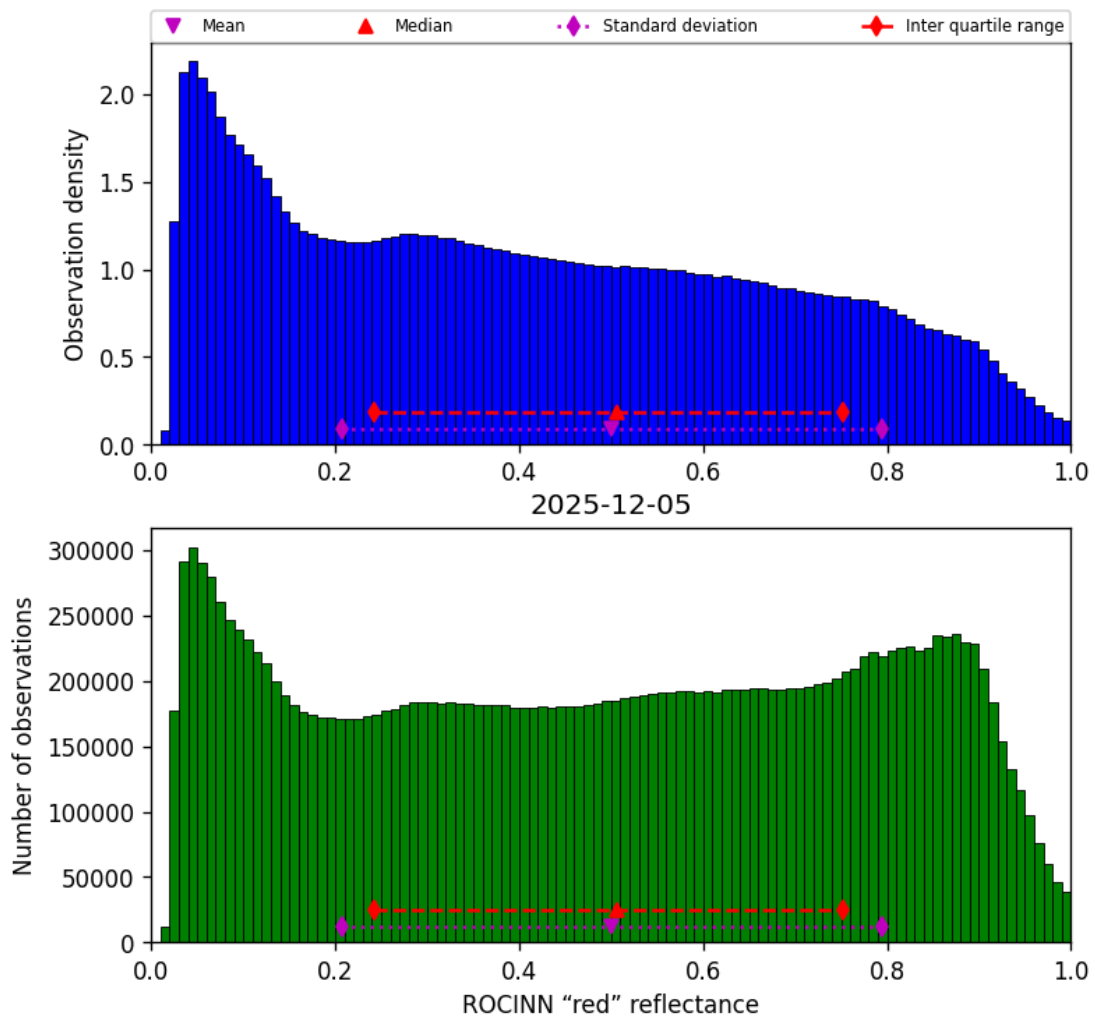


Figure 51: Histogram of “ROCINN “red” reflectance” for 2025-12-05 to 2025-12-06

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.

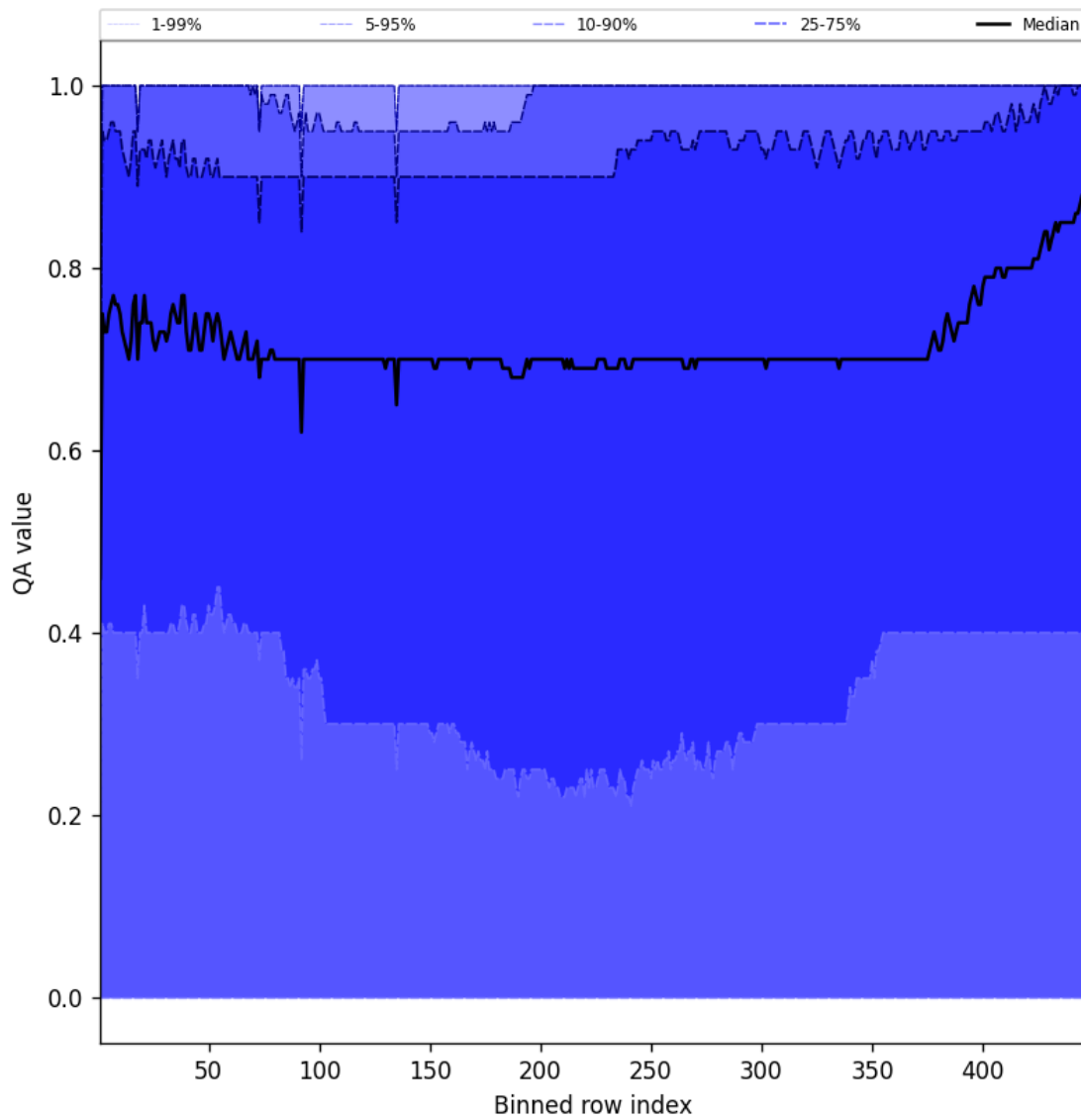


Figure 52: Along track statistics of “QA value” for 2025-12-05 to 2025-12-06

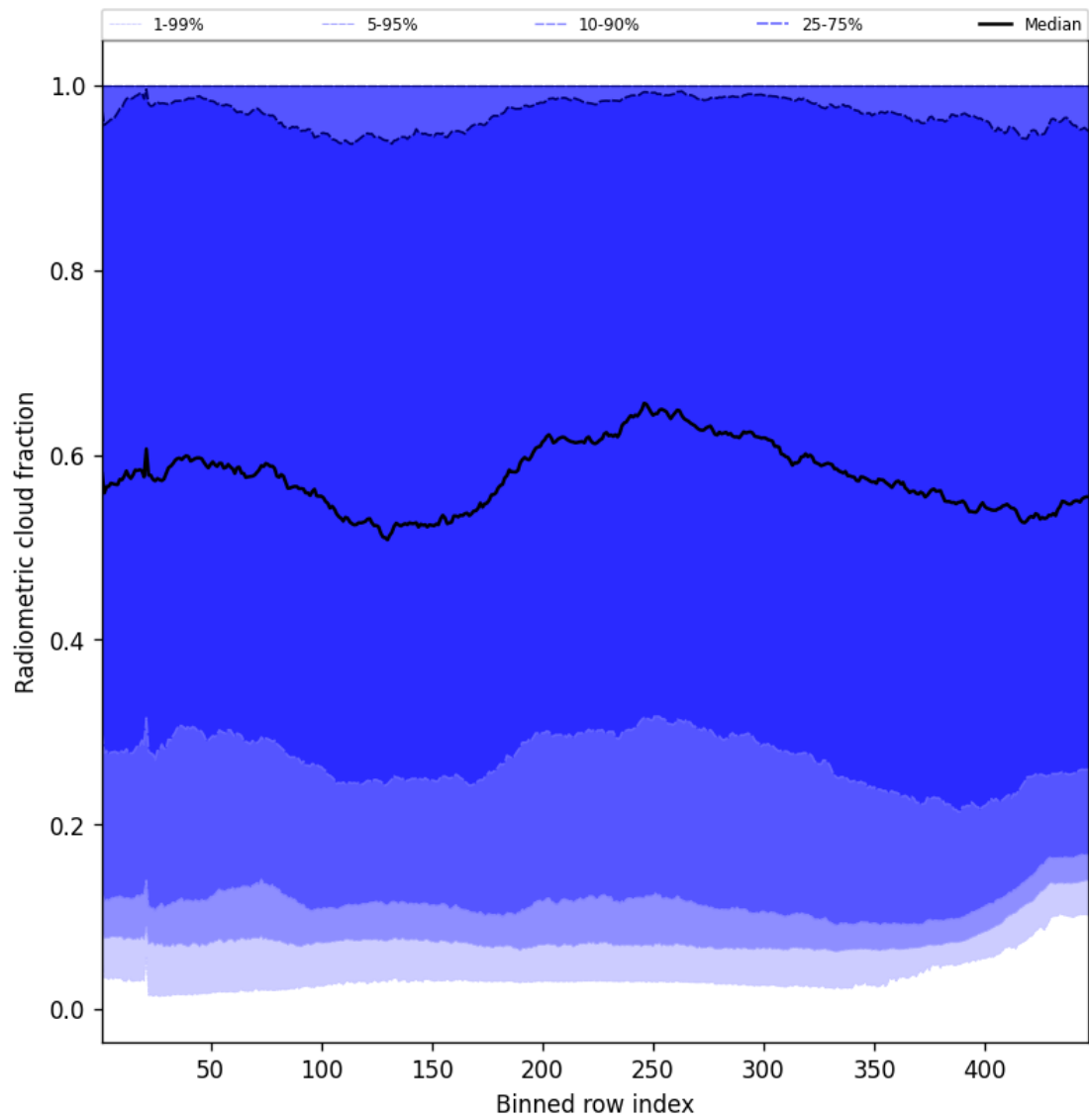


Figure 53: Along track statistics of “Radiometric cloud fraction” for 2025-12-05 to 2025-12-06

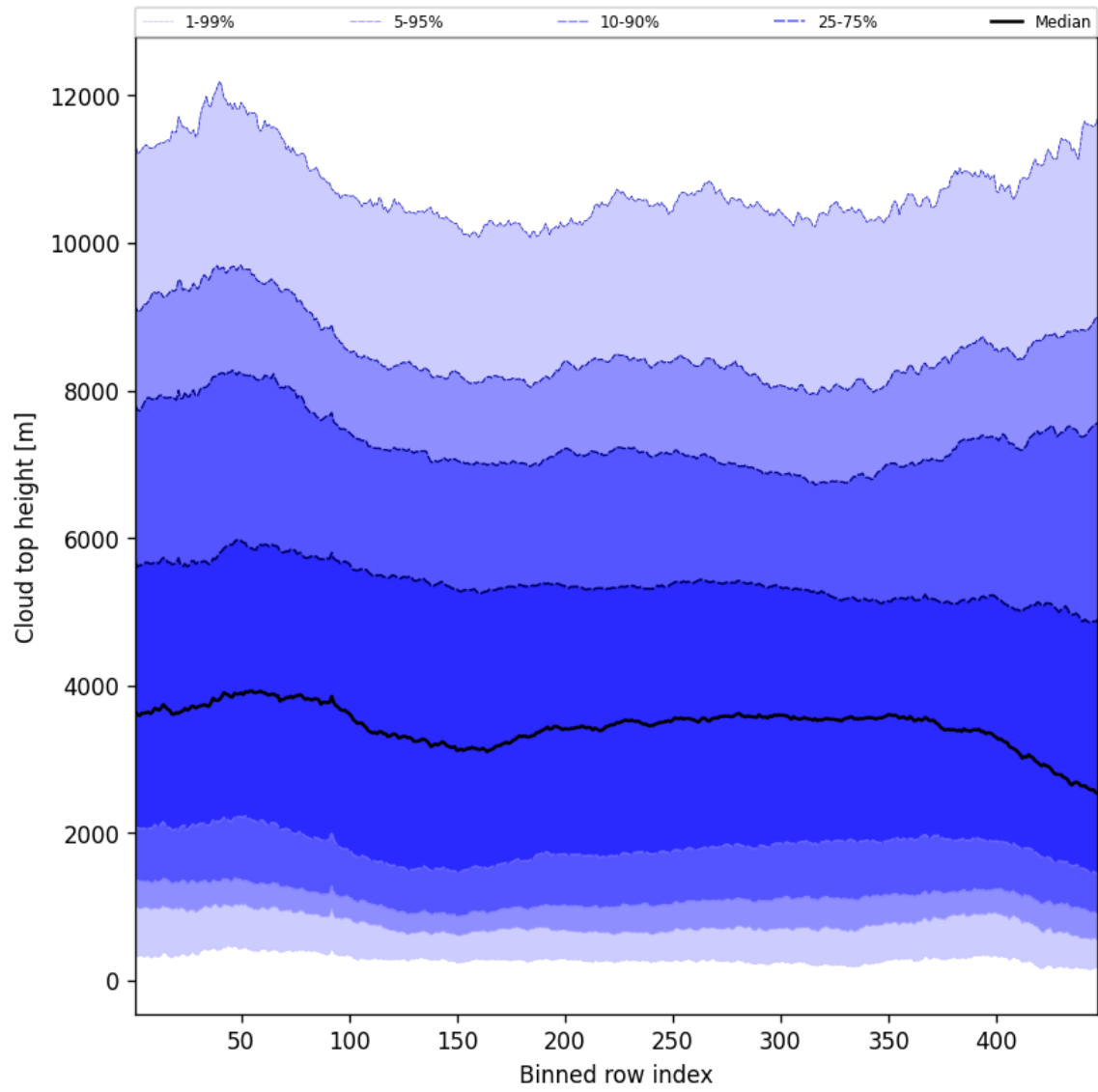


Figure 54: Along track statistics of “Cloud top height” for 2025-12-05 to 2025-12-06

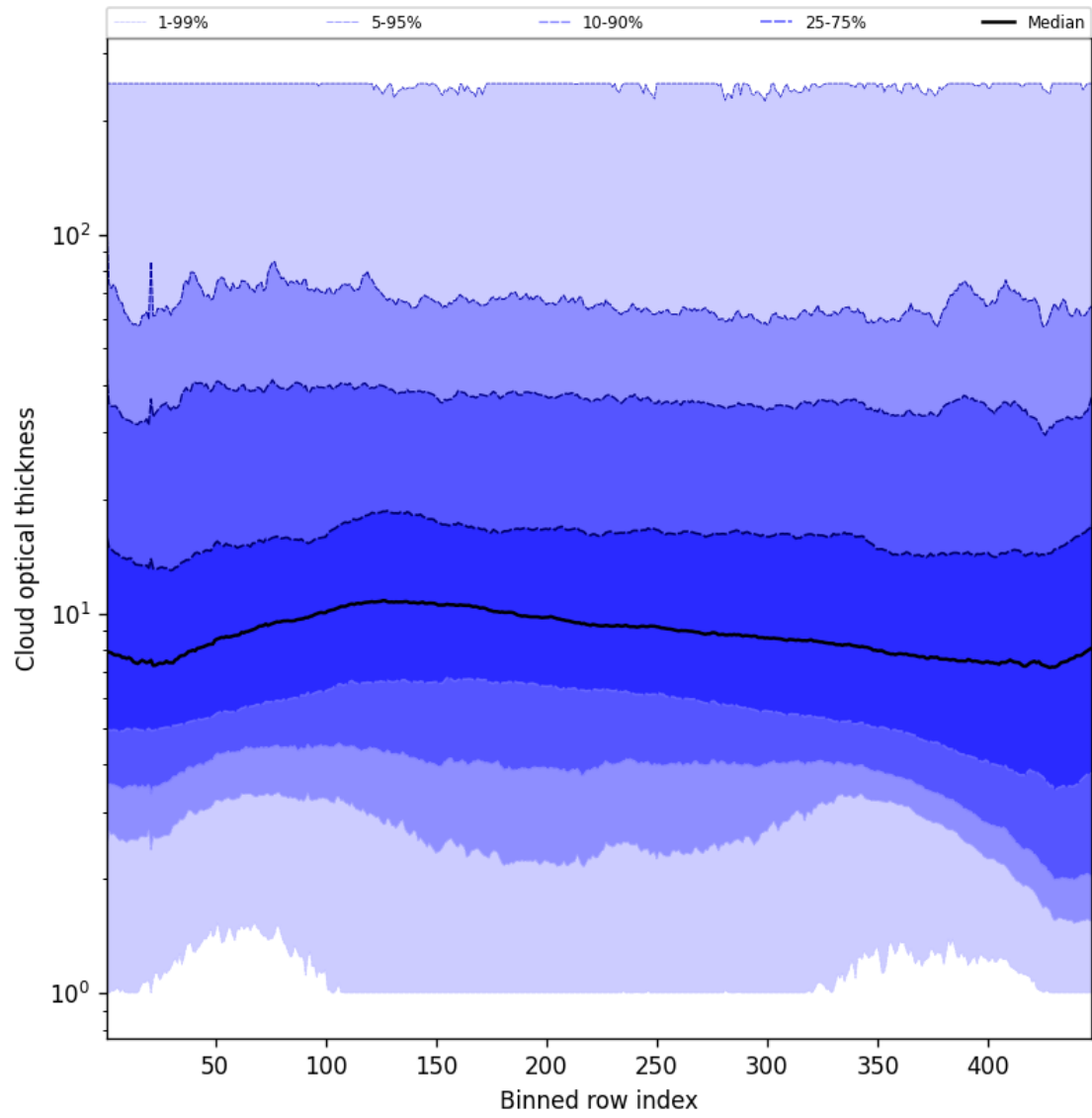


Figure 55: Along track statistics of “Cloud optical thickness” for 2025-12-05 to 2025-12-06

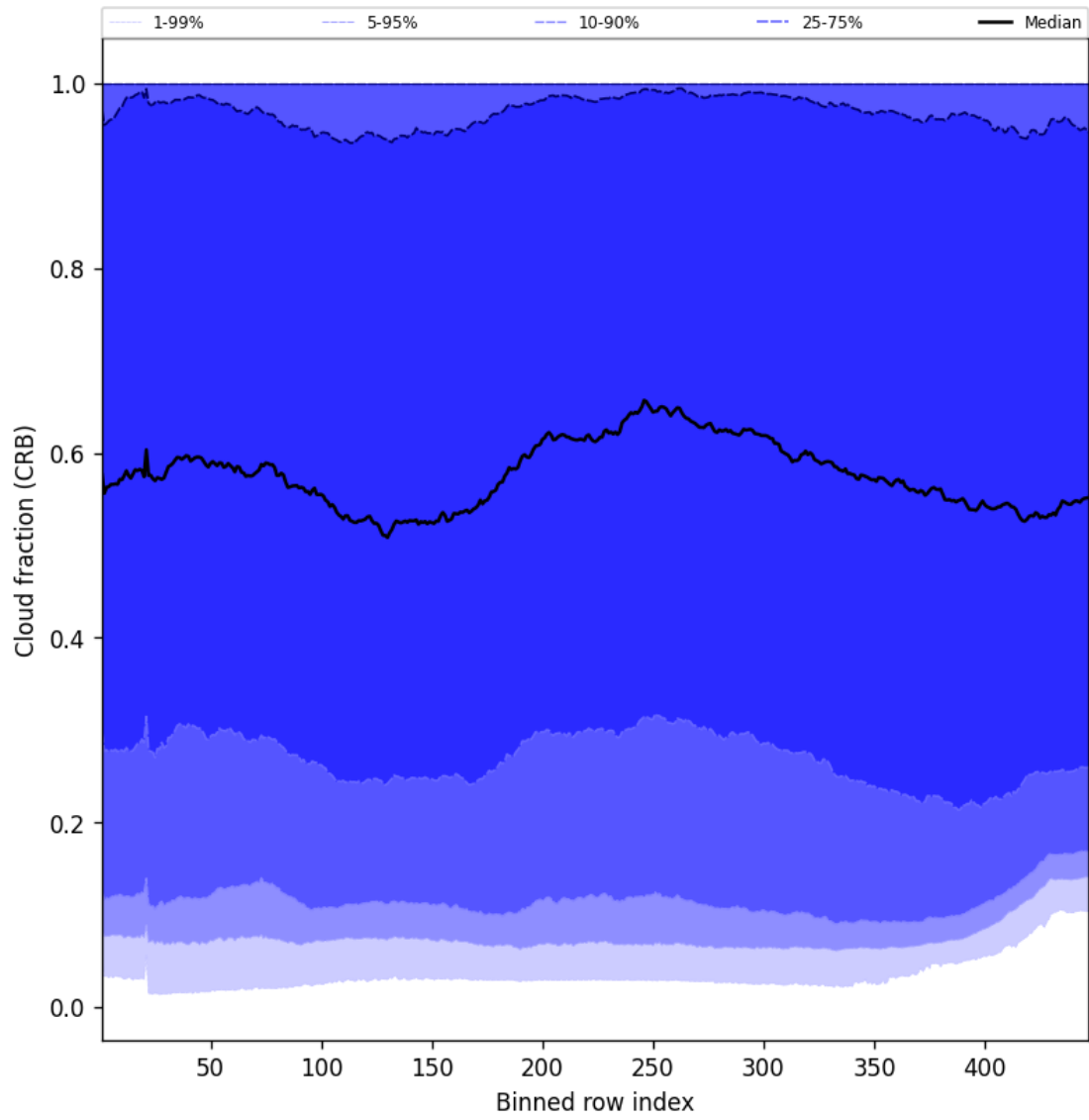


Figure 56: Along track statistics of “Cloud fraction (CRB)” for 2025-12-05 to 2025-12-06

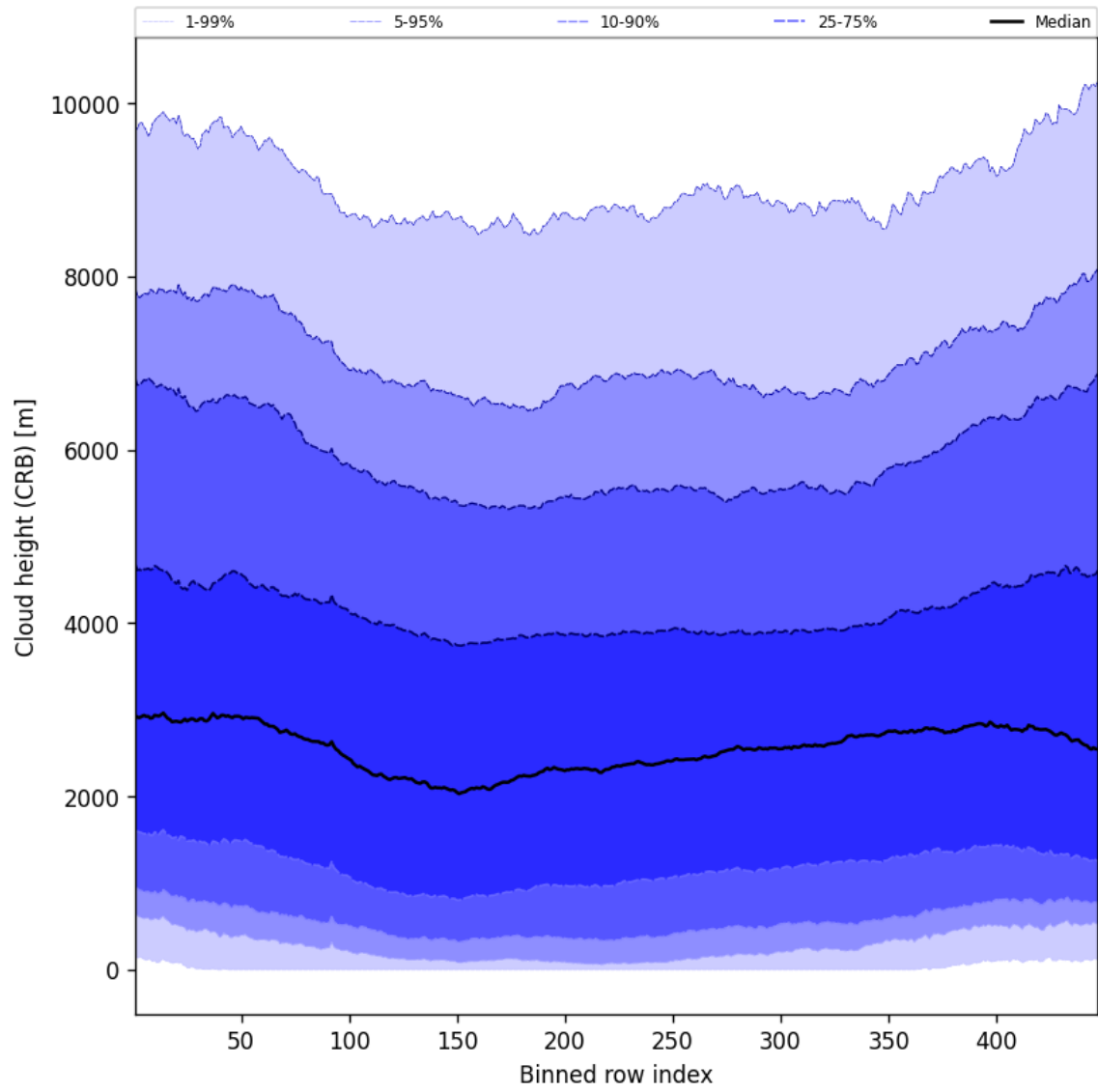


Figure 57: Along track statistics of “Cloud height (CRB)” for 2025-12-05 to 2025-12-06

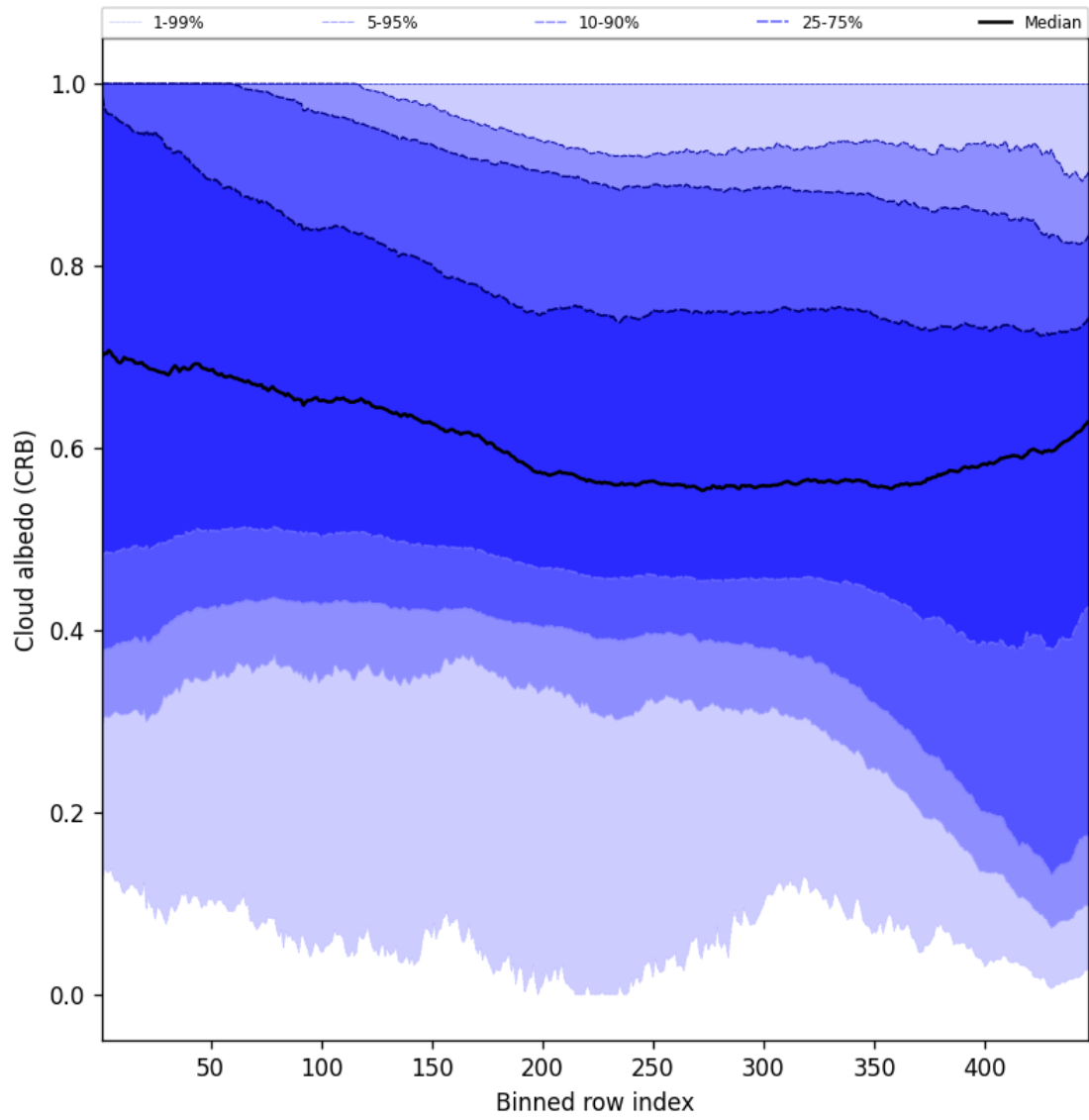


Figure 58: Along track statistics of “Cloud albedo (CRB)” for 2025-12-05 to 2025-12-06

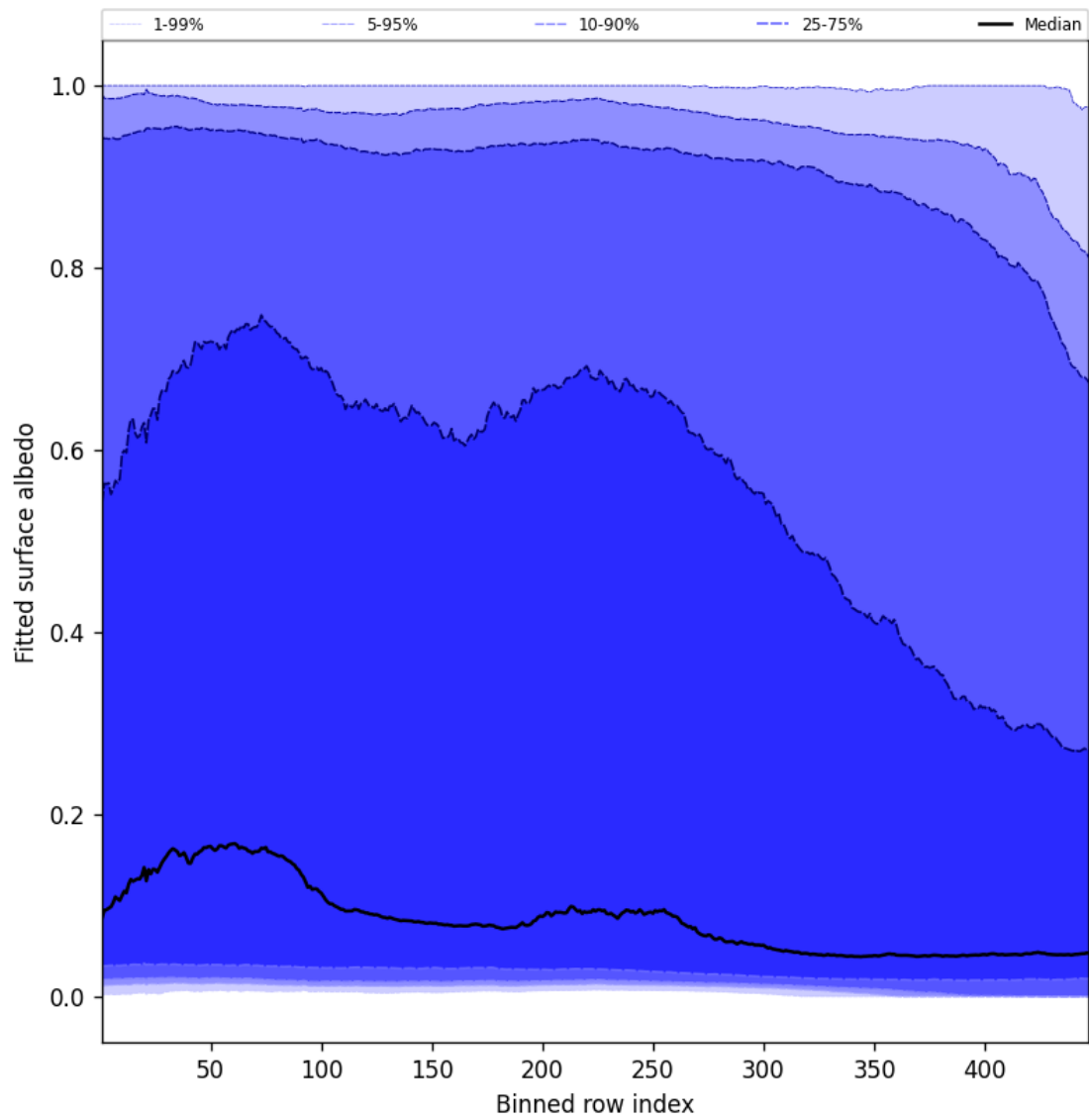


Figure 59: Along track statistics of “Fitted surface albedo” for 2025-12-05 to 2025-12-06

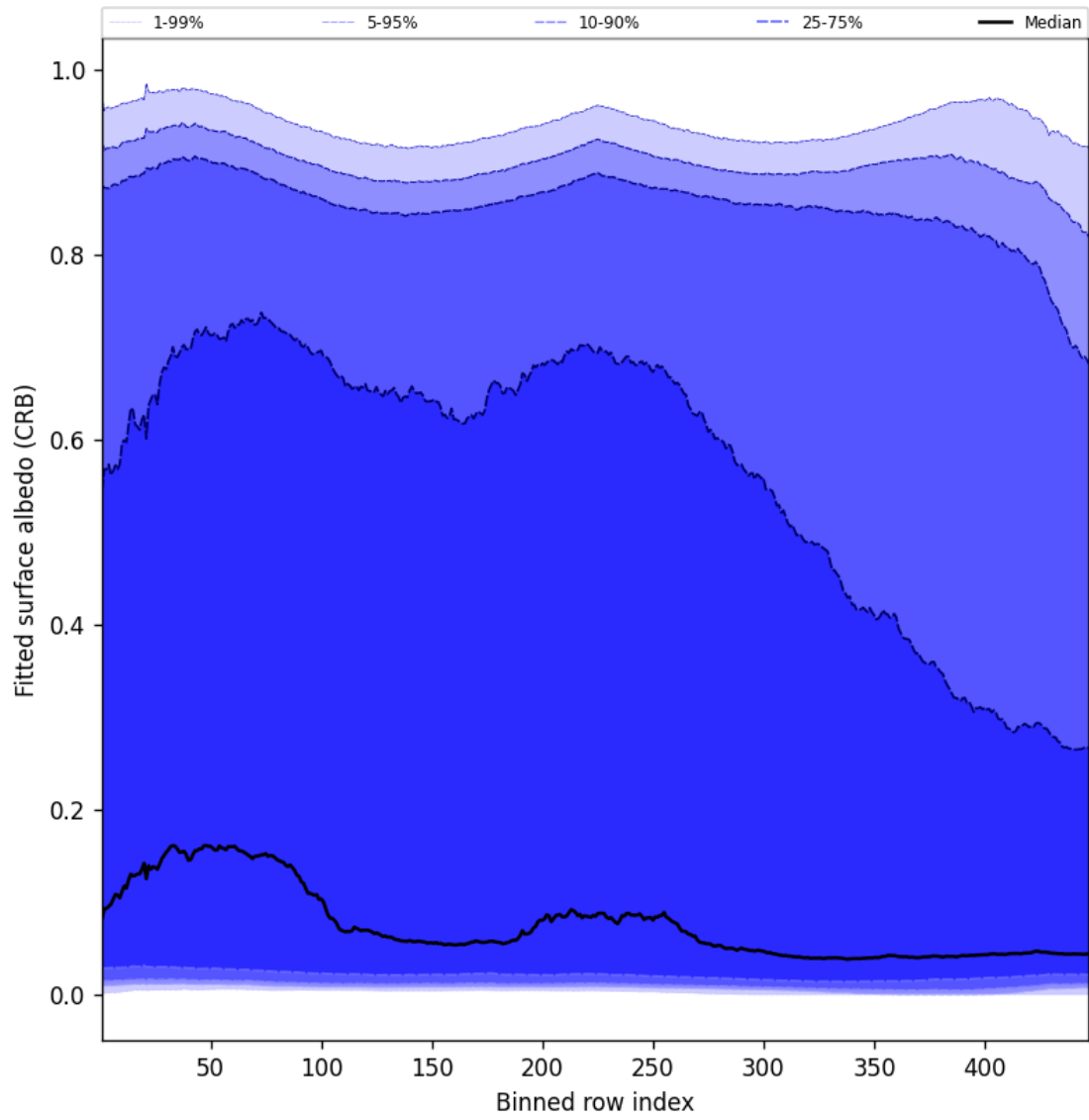


Figure 60: Along track statistics of “Fitted surface albedo (CRB)” for 2025-12-05 to 2025-12-06

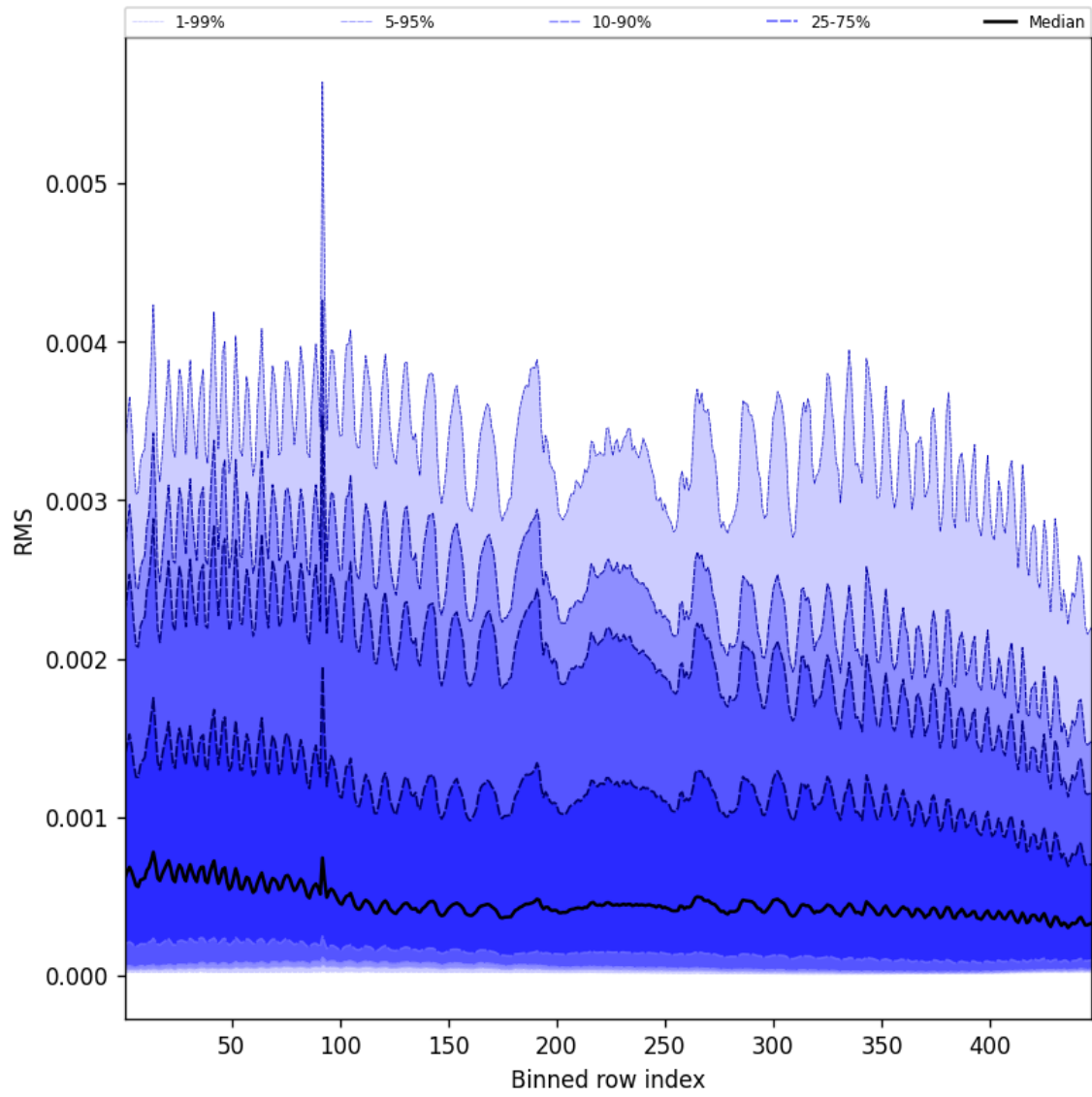


Figure 61: Along track statistics of “RMS” for 2025-12-05 to 2025-12-06

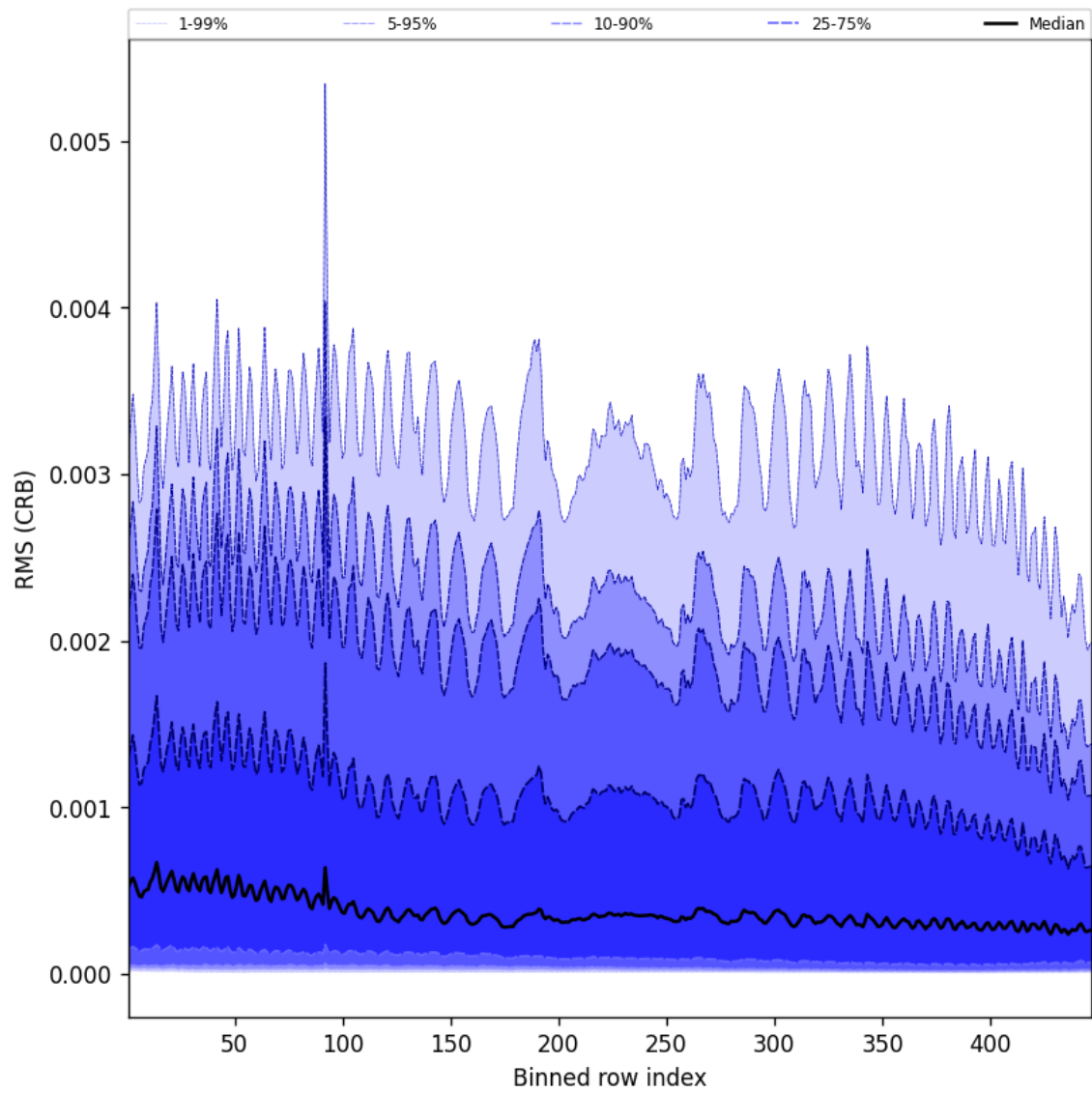


Figure 62: Along track statistics of “RMS (CRB)” for 2025-12-05 to 2025-12-06

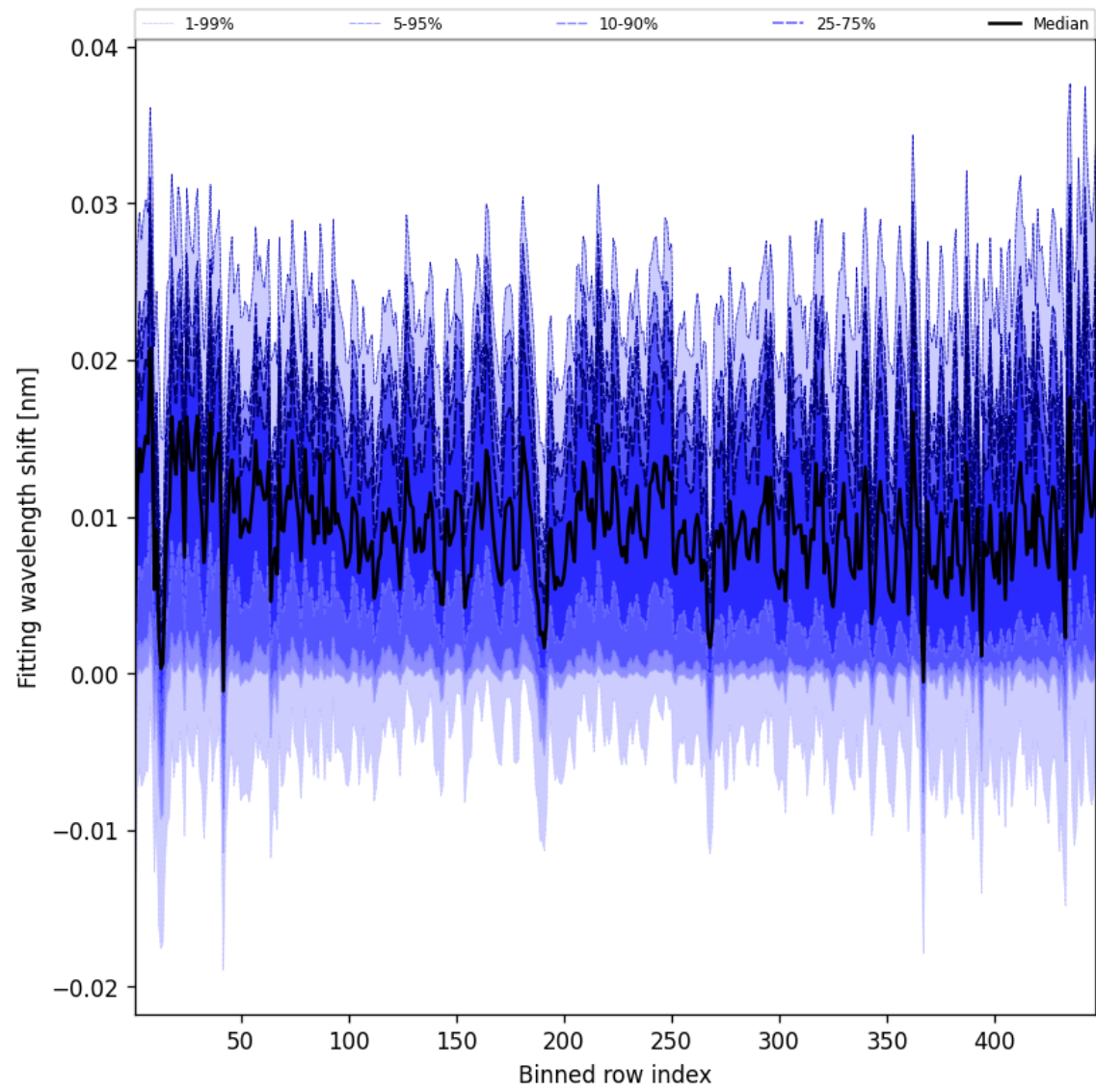


Figure 63: Along track statistics of “Fitting wavelength shift” for 2025-12-05 to 2025-12-06

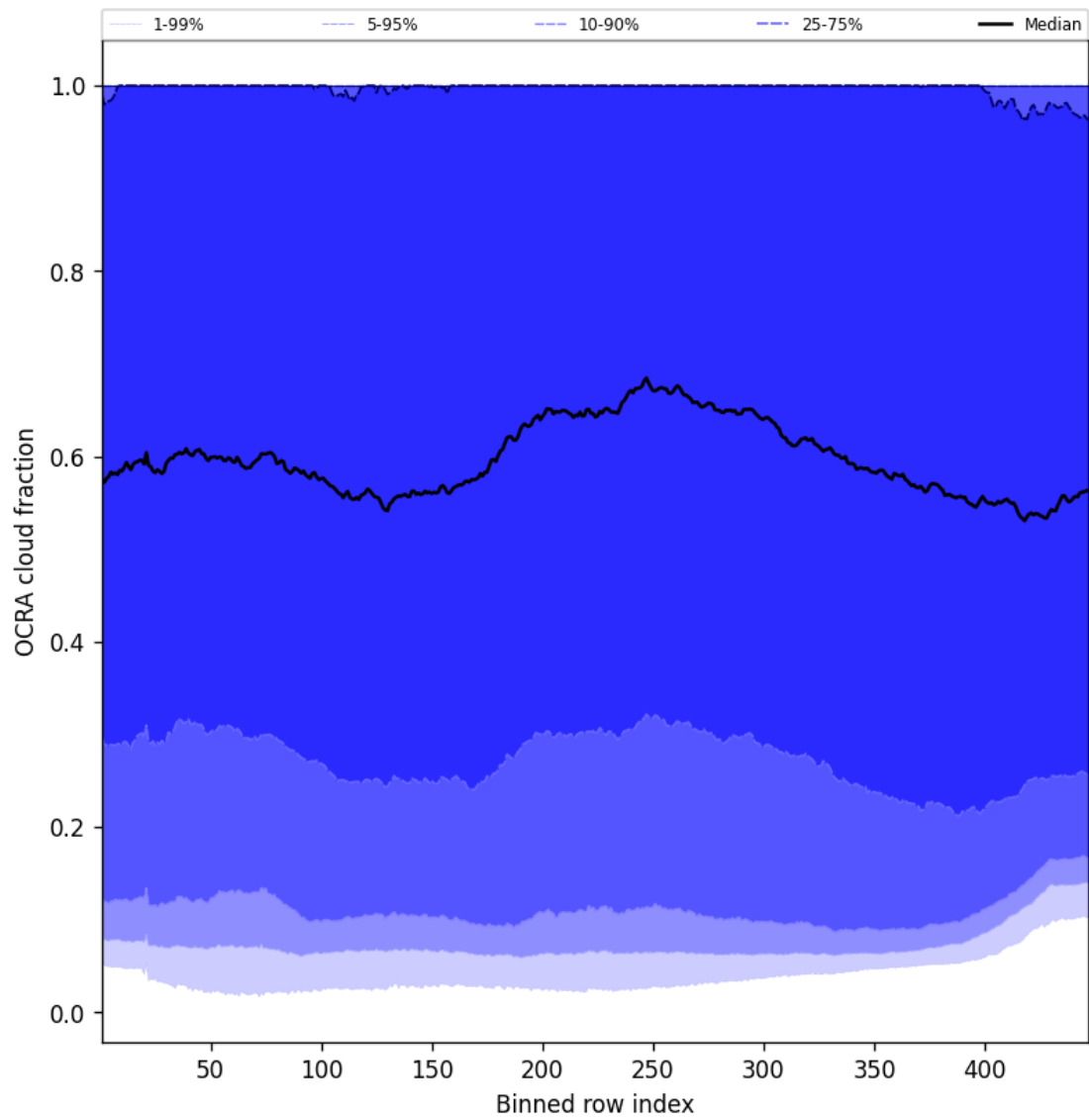


Figure 64: Along track statistics of “OCRA cloud fraction” for 2025-12-05 to 2025-12-06

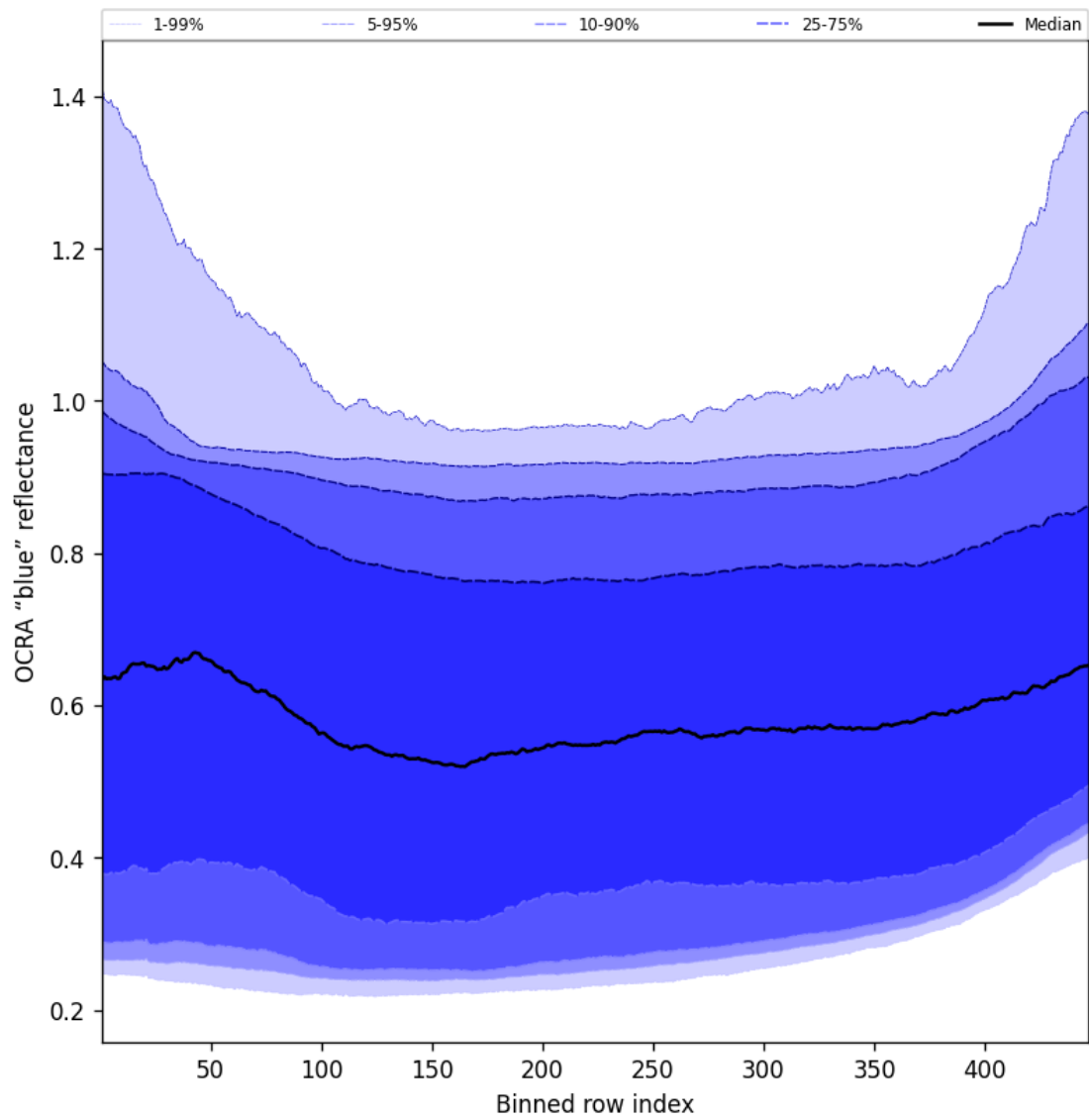


Figure 65: Along track statistics of “OCRA “blue” reflectance” for 2025-12-05 to 2025-12-06

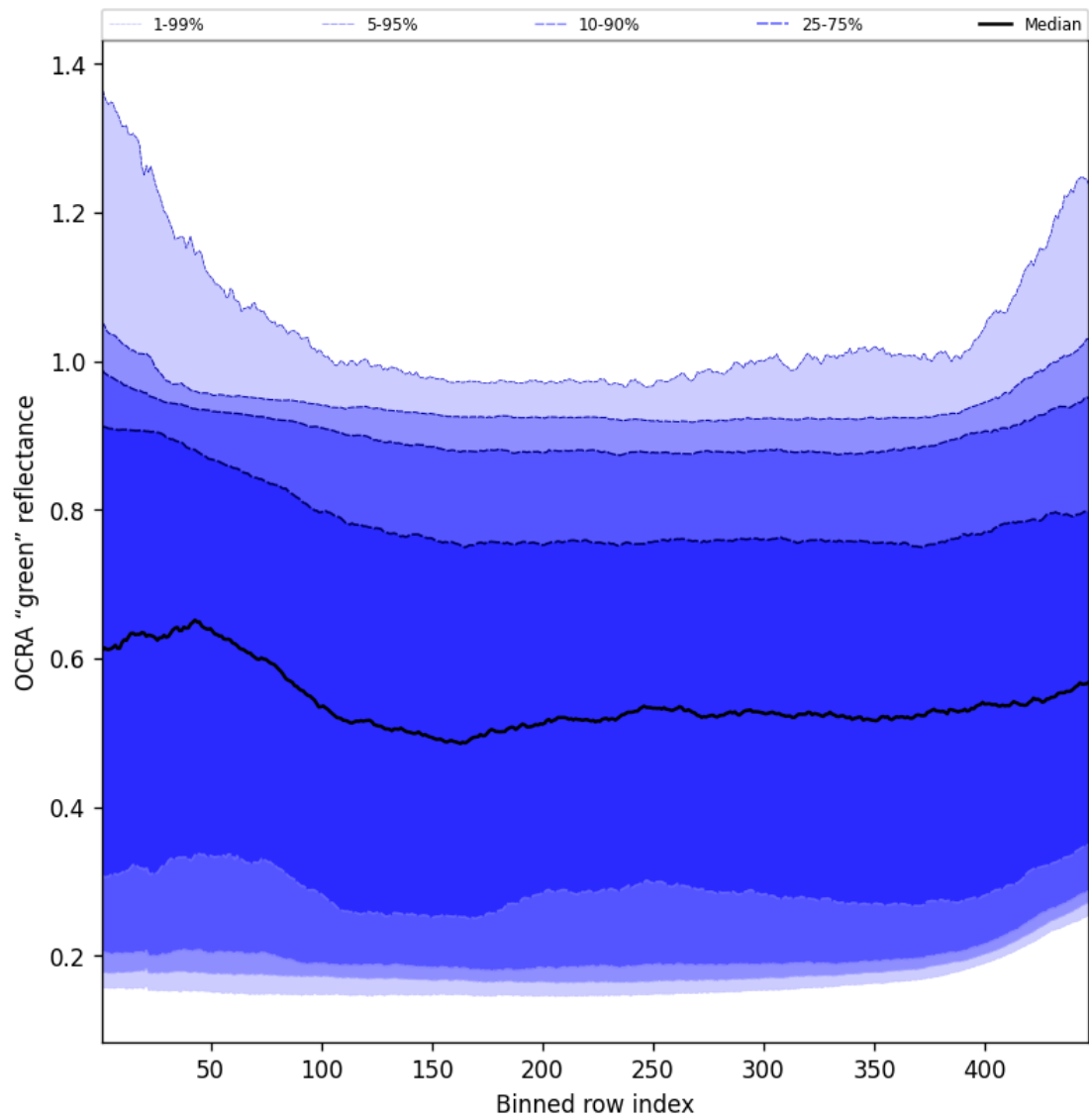


Figure 66: Along track statistics of “OCRA “green” reflectance” for 2025-12-05 to 2025-12-06

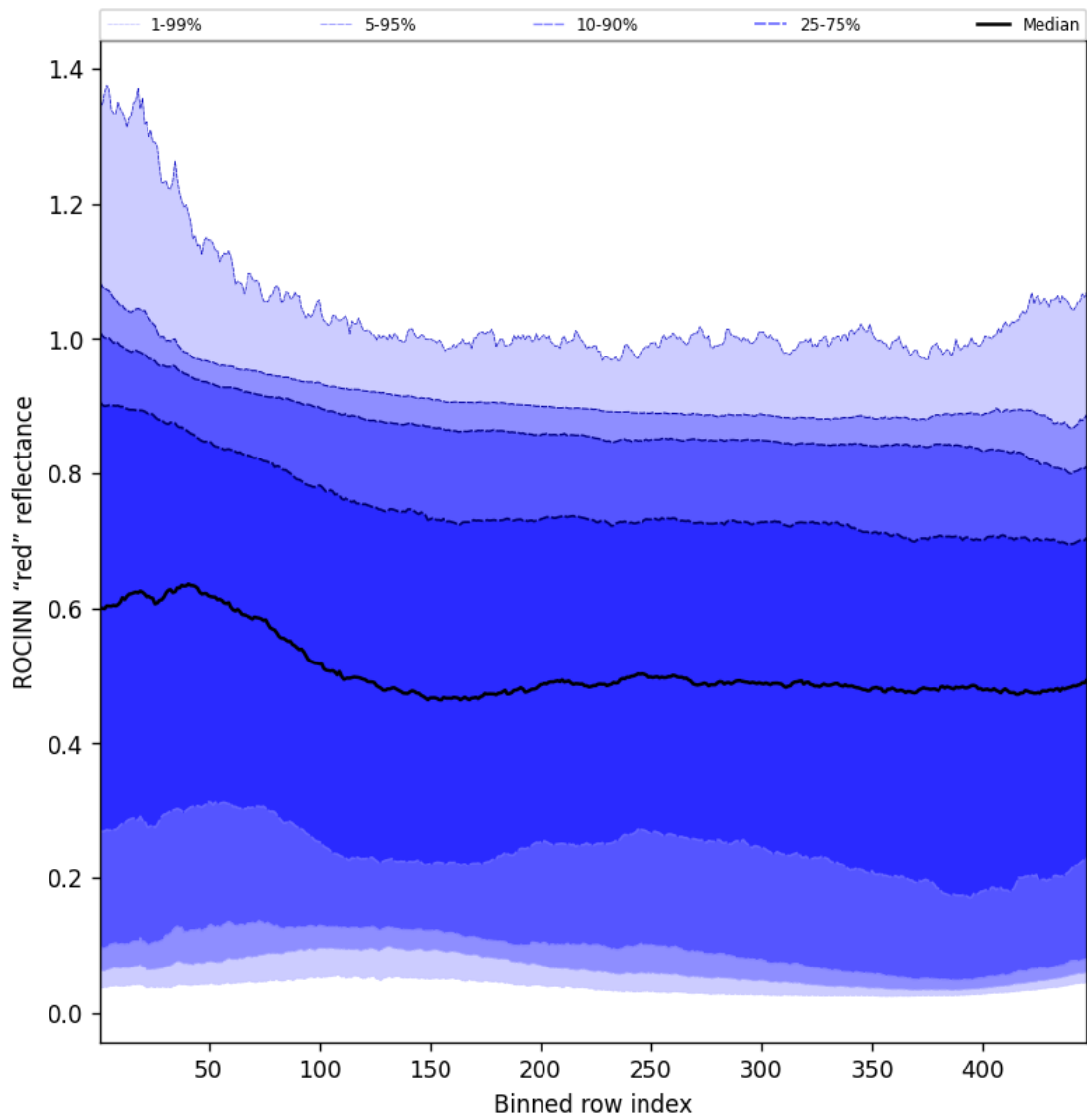


Figure 67: Along track statistics of "ROCINN "red" reflectance" for 2025-12-05 to 2025-12-06

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.

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