

PyCAMA report generated by tropl2-proc

tropl2-proc

2025-10-16 (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]	0.605 ± 0.376	18845297	0.995	0.630	0.720	0.0	1.000
cloud fraction [1]	0.565 ± 0.344	18845297	0.995	0.728	0.539	3.924×10^{-3}	1.000
cloud top height [m]	$(0.388 \pm 0.271) \times 10^4$	18845297	1.575×10^3	3.823×10^3	3.259×10^3	0.0	2.000×10^4
cloud optical thickness [1]	21.5 ± 40.9	18845297	9.77	11.6	9.53	1.000	250
cloud fraction crb [1]	0.565 ± 0.344	18845297	0.995	0.727	0.537	8.265×10^{-3}	1.000
cloud height crb [m]	$(0.306 \pm 0.226) \times 10^4$	18845297	975	3.205×10^3	2.619×10^3	0.0	2.000×10^4
cloud albedo crb [1]	0.605 ± 0.220	18845297	0.995	0.290	0.584	0.0	1.000
surface albedo fitted [1]	0.240 ± 0.310	18845297	2.500×10^{-2}	0.300	5.820×10^{-2}	0.0	1.000
surface albedo fitted crb [1]	0.228 ± 0.295	18845297	1.500×10^{-2}	0.306	4.814×10^{-2}	0.0	1.000
fitted root mean square [1]	$(6.116 \pm 8.830) \times 10^{-4}$	18845297	5.000×10^{-5}	7.405×10^{-4}	3.864×10^{-4}	1.058×10^{-6}	1.24
fitted root mean square crb [1]	$(5.359 \pm 14.287) \times 10^{-4}$	18845297	5.000×10^{-5}	6.789×10^{-4}	2.894×10^{-4}	1.115×10^{-6}	4.12
wavelength shift [nm]	$(8.830 \pm 7.335) \times 10^{-3}$	18845297	3.000×10^{-4}	1.098×10^{-2}	8.292×10^{-3}	-0.173	0.178
cloud fraction apriori [1]	0.572 ± 0.349	18845297	0.995	0.758	0.552	0.0	1.000
reflectance blue ocra [1]	0.578 ± 0.237	18845297	0.265	0.409	0.556	0.122	2.07
reflectance green ocra [1]	0.526 ± 0.266	18845297	0.185	0.482	0.508	7.389×10^{-2}	2.06
reflectance continuum aband [1]	0.477 ± 0.291	18845297	4.500×10^{-2}	0.487	0.471	9.004×10^{-3}	4.69

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]	2.730×10^{-2}	6.899×10^{-2}	0.108	0.156	0.243	0.971	1.000	1.000	1.000	1.000
cloud top height [m]	218	667	993	1.282×10^3	1.717×10^3	5.540×10^3	6.730×10^3	7.712×10^3	9.058×10^3	1.154×10^4
cloud optical thickness [1]	1.000	2.31	3.45	4.42	5.58	17.2	27.0	41.5	78.7	250
cloud fraction crb [1]	2.679×10^{-2}	6.829×10^{-2}	0.107	0.155	0.243	0.970	1.000	1.000	1.000	1.000
cloud height crb [m]	0.0	299	569	833	1.217×10^3	4.422×10^3	5.441×10^3	6.314×10^3	7.413×10^3	9.420×10^3
cloud albedo crb [1]	4.767×10^{-2}	0.232	0.346	0.414	0.466	0.757	0.851	0.936	1.000	1.000
surface albedo fitted [1]	0.0	8.150×10^{-3}	1.425×10^{-2}	1.931×10^{-2}	2.651×10^{-2}	0.326	0.713	0.810	0.900	0.999
surface albedo fitted crb [1]	0.0	7.154×10^{-3}	1.132×10^{-2}	1.525×10^{-2}	2.102×10^{-2}	0.327	0.684	0.756	0.844	0.945
fitted root mean square [1]	1.506×10^{-5}	2.952×10^{-5}	4.721×10^{-5}	7.458×10^{-5}	1.291×10^{-4}	8.695×10^{-4}	1.163×10^{-3}	1.461×10^{-3}	1.904×10^{-3}	2.987×10^{-3}
fitted root mean square crb [1]	7.679×10^{-6}	1.711×10^{-5}	2.921×10^{-5}	4.688×10^{-5}	8.521×10^{-5}	7.641×10^{-4}	1.078×10^{-3}	1.389×10^{-3}	1.837×10^{-3}	2.861×10^{-3}
wavelength shift [nm]	-6.458×10^{-3}	-4.580×10^{-4}	2.777×10^{-4}	1.198×10^{-3}	2.972×10^{-3}	1.395×10^{-2}	1.643×10^{-2}	1.850×10^{-2}	2.120×10^{-2}	2.699×10^{-2}
cloud fraction apriori [1]	3.051×10^{-2}	6.591×10^{-2}	0.102	0.151	0.242	1.000	1.000	1.000	1.000	1.000
reflectance blue ocra [1]	0.231	0.256	0.282	0.314	0.368	0.777	0.836	0.882	0.943	1.16
reflectance green ocra [1]	0.150	0.172	0.192	0.219	0.273	0.755	0.827	0.876	0.936	1.12
reflectance continuum aband [1]	2.870×10^{-2}	5.190×10^{-2}	8.645×10^{-2}	0.136	0.226	0.712	0.795	0.851	0.924	1.11

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]	0.591 ± 0.384	8977386	0.700	0.740	0.0	1.000	0.230	0.930
cloud fraction [1]	0.598 ± 0.354	8977386	0.756	0.633	3.924×10^{-3}	1.000	0.242	0.999
cloud top height [m]	$(0.391 \pm 0.261) \times 10^4$	8977386	3.545×10^3	3.373×10^3	0.0	2.000×10^4	1.872×10^3	5.416×10^3
cloud optical thickness [1]	24.1 ± 41.6	8977386	15.3	10.5	1.000	250	6.12	21.4
cloud fraction crb [1]	0.597 ± 0.354	8977386	0.758	0.631	8.265×10^{-3}	1.000	0.241	0.999
cloud height crb [m]	$(0.326 \pm 0.223) \times 10^4$	8977386	3.110×10^3	2.882×10^3	0.0	2.000×10^4	1.476×10^3	4.586×10^3
cloud albedo crb [1]	0.575 ± 0.206	8977386	0.253	0.567	0.0	1.000	0.454	0.707
surface albedo fitted [1]	0.153 ± 0.198	8977386	0.180	6.023×10^{-2}	0.0	1.000	2.705×10^{-2}	0.207
surface albedo fitted crb [1]	0.149 ± 0.198	8977386	0.181	4.930×10^{-2}	0.0	1.000	2.148×10^{-2}	0.203
fitted root mean square [1]	$(4.734 \pm 6.823) \times 10^{-4}$	8977386	5.058×10^{-4}	2.452×10^{-4}	1.058×10^{-6}	0.120	9.783×10^{-5}	6.036×10^{-4}
fitted root mean square crb [1]	$(4.198 \pm 5.836) \times 10^{-4}$	8977386	4.932×10^{-4}	1.802×10^{-4}	1.115×10^{-6}	3.828×10^{-2}	5.431×10^{-5}	5.475×10^{-4}
wavelength shift [nm]	$(7.244 \pm 6.851) \times 10^{-3}$	8977386	9.806×10^{-3}	6.324×10^{-3}	-4.939×10^{-2}	6.644×10^{-2}	1.802×10^{-3}	1.161×10^{-2}
cloud fraction apriori [1]	0.603 ± 0.359	8977386	0.762	0.645	0.0	1.000	0.238	1.000
reflectance blue ocrs [1]	0.545 ± 0.221	8977386	0.340	0.517	0.122	2.04	0.360	0.700
reflectance green ocrs [1]	0.486 ± 0.247	8977386	0.406	0.459	7.859×10^{-2}	2.06	0.264	0.670
reflectance continuum aband [1]	0.440 ± 0.277	8977386	0.416	0.416	9.096×10^{-3}	4.69	0.216	0.632

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]	0.617 ± 0.368	9867911	0.590	0.700	0.0	1.000	0.340	0.930
cloud fraction [1]	0.535 ± 0.332	9867911	0.657	0.477	4.380×10^{-3}	1.000	0.243	0.900
cloud top height [m]	$(0.386 \pm 0.279) \times 10^4$	9867911	4.058×10^3	3.129×10^3	0.0	2.000×10^4	1.595×10^3	5.653×10^3
cloud optical thickness [1]	19.1 ± 40.0	9867911	8.87	8.89	1.000	250	5.27	14.1
cloud fraction crb [1]	0.535 ± 0.332	9867911	0.655	0.476	8.488×10^{-3}	1.000	0.244	0.899
cloud height crb [m]	$(0.287 \pm 0.228) \times 10^4$	9867911	3.236×10^3	2.328×10^3	0.0	2.000×10^4	1.024×10^3	4.260×10^3
cloud albedo crb [1]	0.632 ± 0.230	9867911	0.333	0.606	0.0	1.000	0.477	0.809
surface albedo fitted [1]	0.320 ± 0.366	9867911	0.707	5.628×10^{-2}	0.0	1.000	2.605×10^{-2}	0.733
surface albedo fitted crb [1]	0.300 ± 0.346	9867911	0.675	4.706×10^{-2}	0.0	1.000	2.060×10^{-2}	0.695
fitted root mean square [1]	$(7.372 \pm 10.160) \times 10^{-4}$	9867911	8.432×10^{-4}	5.677×10^{-4}	5.340×10^{-6}	1.24	2.026×10^{-4}	1.046×10^{-3}
fitted root mean square crb [1]	$(6.415 \pm 18.881) \times 10^{-4}$	9867911	7.863×10^{-4}	4.215×10^{-4}	2.788×10^{-6}	4.12	1.387×10^{-4}	9.249×10^{-4}
wavelength shift [nm]	$(1.027 \pm 0.746) \times 10^{-2}$	9867911	1.101×10^{-2}	1.034×10^{-2}	-0.173	0.178	4.538×10^{-3}	1.555×10^{-2}
cloud fraction apriori [1]	0.543 ± 0.336	9867911	0.686	0.491	0.0	1.000	0.245	0.932
reflectance blue ocra [1]	0.608 ± 0.247	9867911	0.443	0.611	0.131	2.07	0.376	0.819
reflectance green ocra [1]	0.562 ± 0.278	9867911	0.524	0.575	7.389×10^{-2}	2.01	0.284	0.809
reflectance continuum aband [1]	0.511 ± 0.299	9867911	0.525	0.545	9.004×10^{-3}	3.90	0.238	0.764

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]	0.664 ± 0.351	11946810	0.550	0.840	0.0	1.000	0.400	0.950
cloud fraction [1]	0.578 ± 0.353	11946810	0.762	0.586	4.380×10^{-3}	1.000	0.227	0.989
cloud top height [m]	$(0.345 \pm 0.250) \times 10^4$	11946810	3.205×10^3	2.772×10^3	0.0	2.000×10^4	1.533×10^3	4.739×10^3
cloud optical thickness [1]	19.1 ± 31.8	11946810	10.6	10.1	1.000	250	6.66	17.3
cloud fraction crb [1]	0.577 ± 0.353	11946810	0.762	0.584	8.458×10^{-3}	1.000	0.226	0.988
cloud height crb [m]	$(0.278 \pm 0.224) \times 10^4$	11946810	2.983×10^3	2.188×10^3	0.0	2.000×10^4	1.020×10^3	4.003×10^3
cloud albedo crb [1]	0.560 ± 0.191	11946810	0.232	0.544	0.0	1.000	0.450	0.682
surface albedo fitted [1]	0.112 ± 0.225	11946810	3.418×10^{-2}	3.241×10^{-2}	0.0	1.000	1.940×10^{-2}	5.358×10^{-2}
surface albedo fitted crb [1]	0.104 ± 0.219	11946810	2.876×10^{-2}	2.593×10^{-2}	0.0	1.000	1.531×10^{-2}	4.407×10^{-2}
fitted root mean square [1]	$(5.675 \pm 9.440) \times 10^{-4}$	11946810	7.329×10^{-4}	2.922×10^{-4}	1.058×10^{-6}	1.24	8.980×10^{-5}	8.227×10^{-4}
fitted root mean square crb [1]	$(5.393 \pm 17.373) \times 10^{-4}$	11946810	7.277×10^{-4}	2.575×10^{-4}	1.115×10^{-6}	4.12	6.444×10^{-5}	7.921×10^{-4}
wavelength shift [nm]	$(8.505 \pm 7.691) \times 10^{-3}$	11946810	1.176×10^{-2}	7.727×10^{-3}	-0.173	0.178	2.224×10^{-3}	1.399×10^{-2}
cloud fraction apriori [1]	0.582 ± 0.358	11946810	0.778	0.596	0.0	1.000	0.222	1.000
reflectance blue ocra [1]	0.532 ± 0.214	11946810	0.346	0.498	0.152	2.04	0.347	0.693
reflectance green ocra [1]	0.470 ± 0.241	11946810	0.416	0.437	7.859×10^{-2}	1.94	0.248	0.664
reflectance continuum aband [1]	0.400 ± 0.276	11946810	0.487	0.376	1.017×10^{-2}	4.69	0.141	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]	0.479 ± 0.399	5264439	0.890	0.600	0.0	1.000	0.0	0.890
cloud fraction [1]	0.509 ± 0.315	5264439	0.550	0.429	5.512×10^{-3}	1.000	0.252	0.802
cloud top height [m]	$(0.498 \pm 0.291) \times 10^4$	5264439	4.130×10^3	4.805×10^3	0.0	2.000×10^4	2.675×10^3	6.804×10^3
cloud optical thickness [1]	22.9 ± 51.2	5264439	9.54	6.83	1.000	250	4.43	14.0
cloud fraction crb [1]	0.509 ± 0.314	5264439	0.547	0.430	8.265×10^{-3}	1.000	0.255	0.801
cloud height crb [m]	$(0.376 \pm 0.223) \times 10^4$	5264439	3.187×10^3	3.520×10^3	0.0	2.000×10^4	2.007×10^3	5.194×10^3
cloud albedo crb [1]	0.703 ± 0.251	5264439	0.409	0.723	0.0	1.000	0.533	0.942
surface albedo fitted [1]	0.531 ± 0.306	5264439	0.592	0.547	0.0	1.000	0.228	0.819
surface albedo fitted crb [1]	0.504 ± 0.281	5264439	0.524	0.552	6.043×10^{-3}	1.000	0.224	0.748
fitted root mean square [1]	$(7.471 \pm 7.578) \times 10^{-4}$	5264439	6.867×10^{-4}	5.909×10^{-4}	4.948×10^{-6}	0.120	3.048×10^{-4}	9.914×10^{-4}
fitted root mean square crb [1]	$(5.686 \pm 5.971) \times 10^{-4}$	5264439	6.254×10^{-4}	3.769×10^{-4}	2.650×10^{-6}	2.880×10^{-2}	1.579×10^{-4}	7.833×10^{-4}
wavelength shift [nm]	$(9.804 \pm 6.635) \times 10^{-3}$	5264439	9.593×10^{-3}	9.517×10^{-3}	-4.168×10^{-2}	5.497×10^{-2}	4.805×10^{-3}	1.440×10^{-2}
cloud fraction apriori [1]	0.520 ± 0.320	5264439	0.577	0.445	0.0	1.000	0.258	0.835
reflectance blue ocra [1]	0.680 ± 0.260	5264439	0.430	0.768	0.122	2.07	0.436	0.866
reflectance green ocra [1]	0.647 ± 0.285	5264439	0.498	0.744	7.389×10^{-2}	2.06	0.367	0.865
reflectance continuum aband [1]	0.640 ± 0.262	5264439	0.428	0.682	1.229×10^{-2}	4.57	0.409	0.836

3 Granule outlines

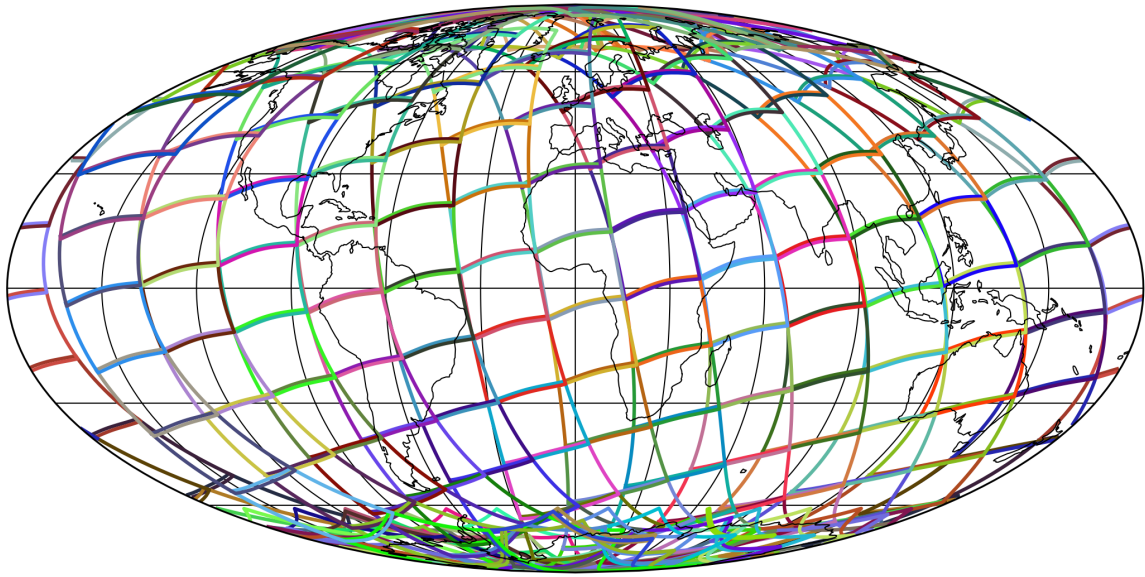


Figure 1: Outline of the granules.

4 Input data monitoring

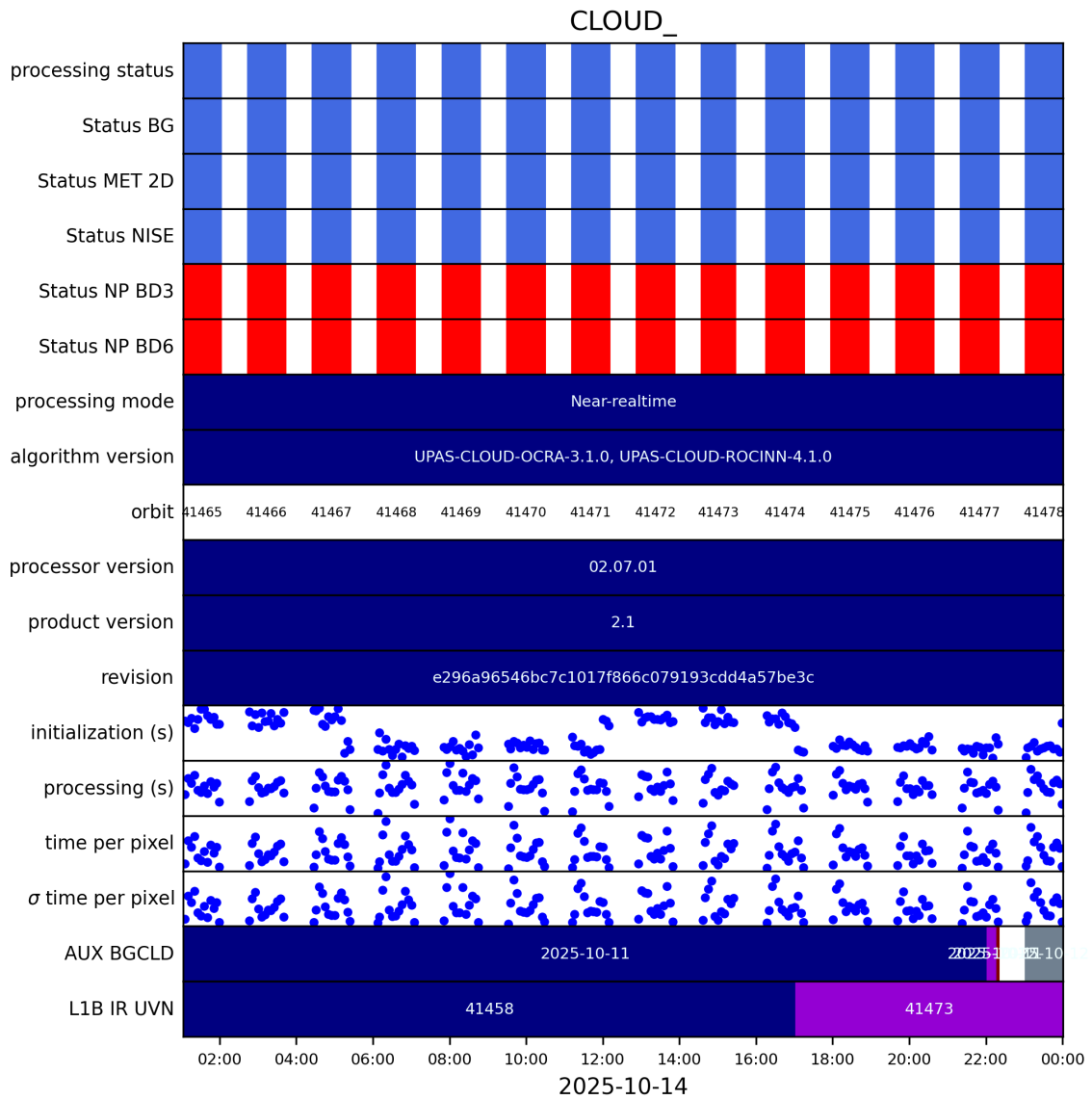


Figure 2: Input data per granule

5 Warnings and errors

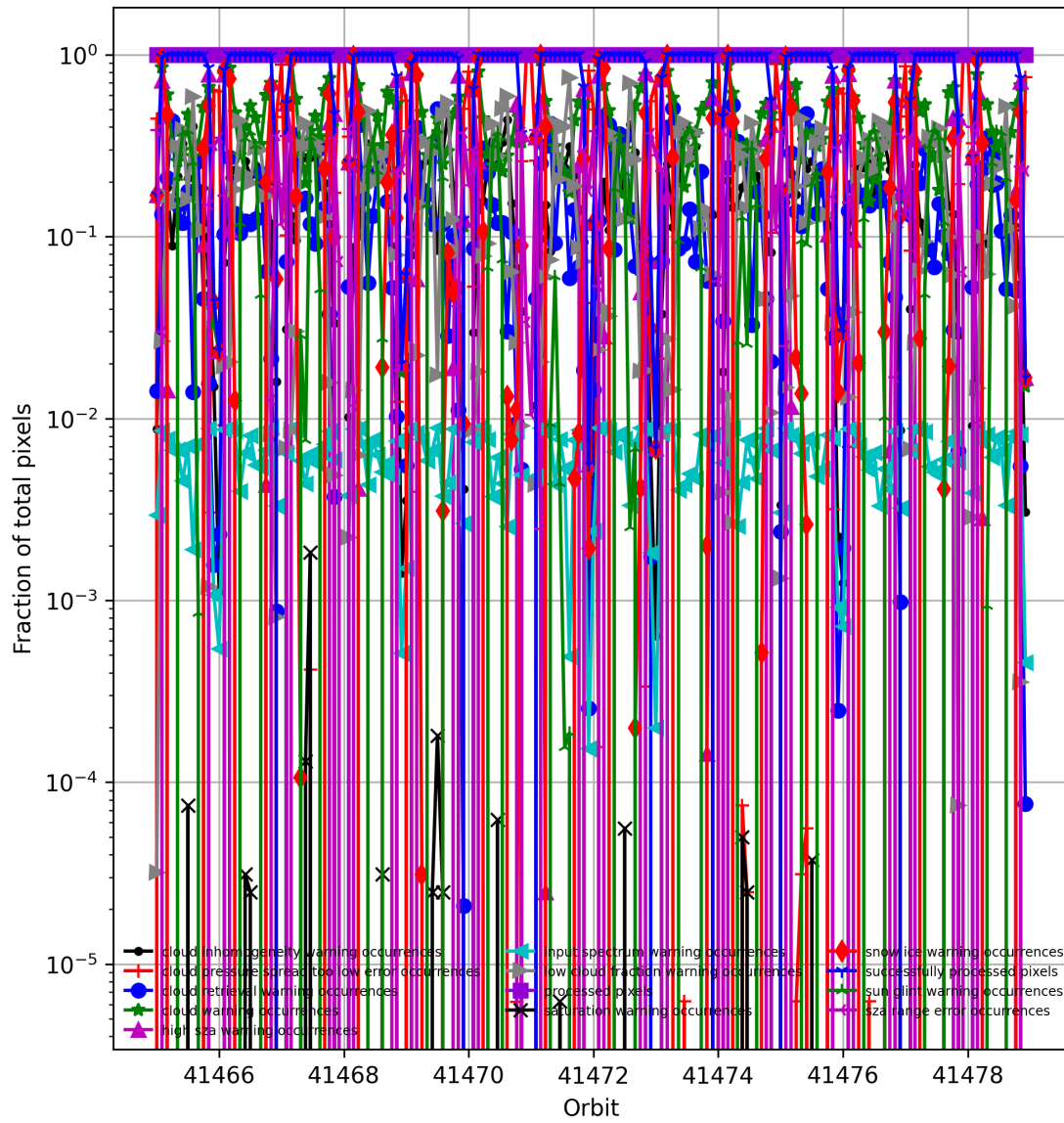


Figure 3: Fraction of pixels with specific warnings and errors during processing

6 World maps

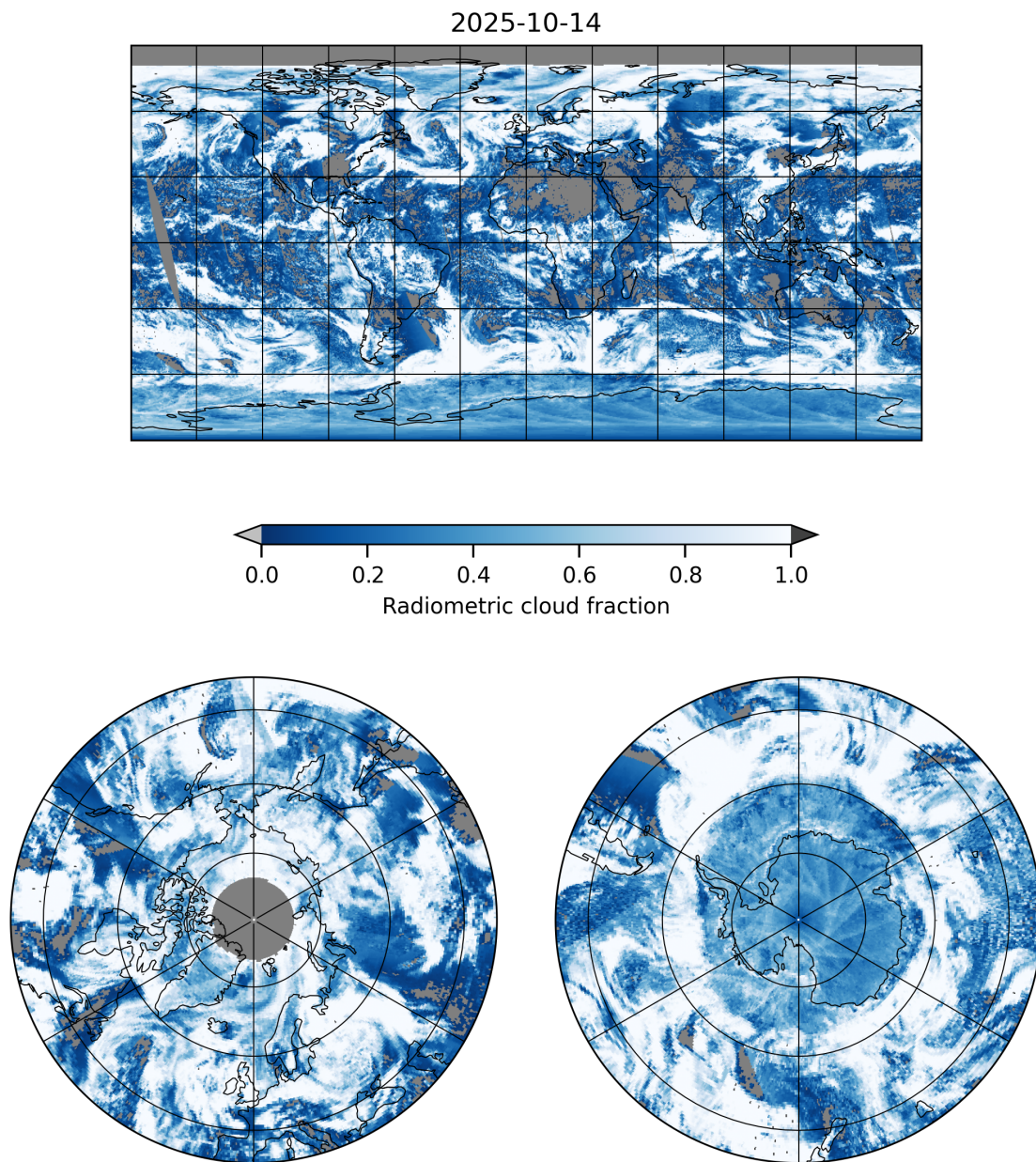


Figure 4: Map of “Radiometric cloud fraction” for 2025-10-14 to 2025-10-15

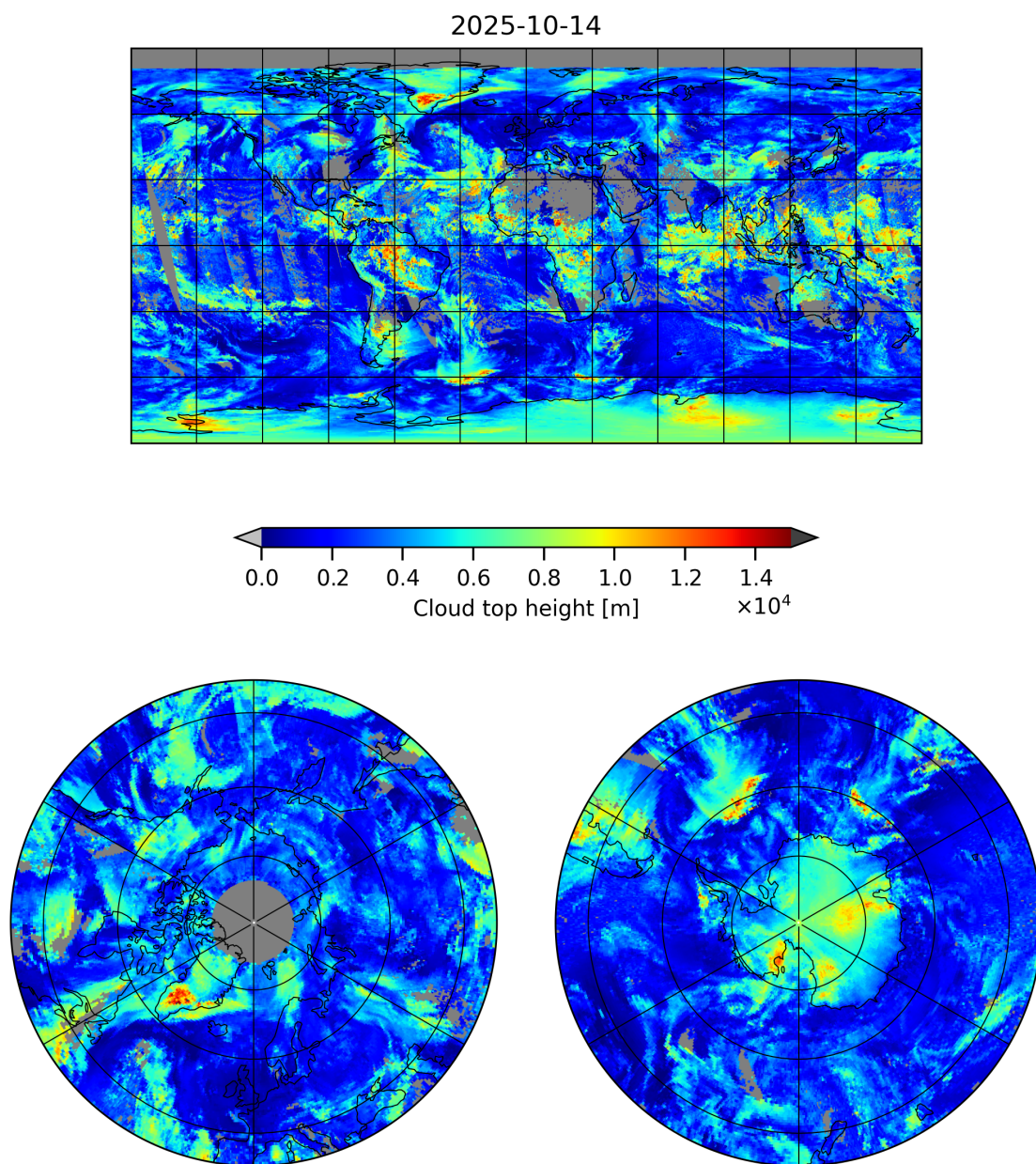


Figure 5: Map of “Cloud top height” for 2025-10-14 to 2025-10-15

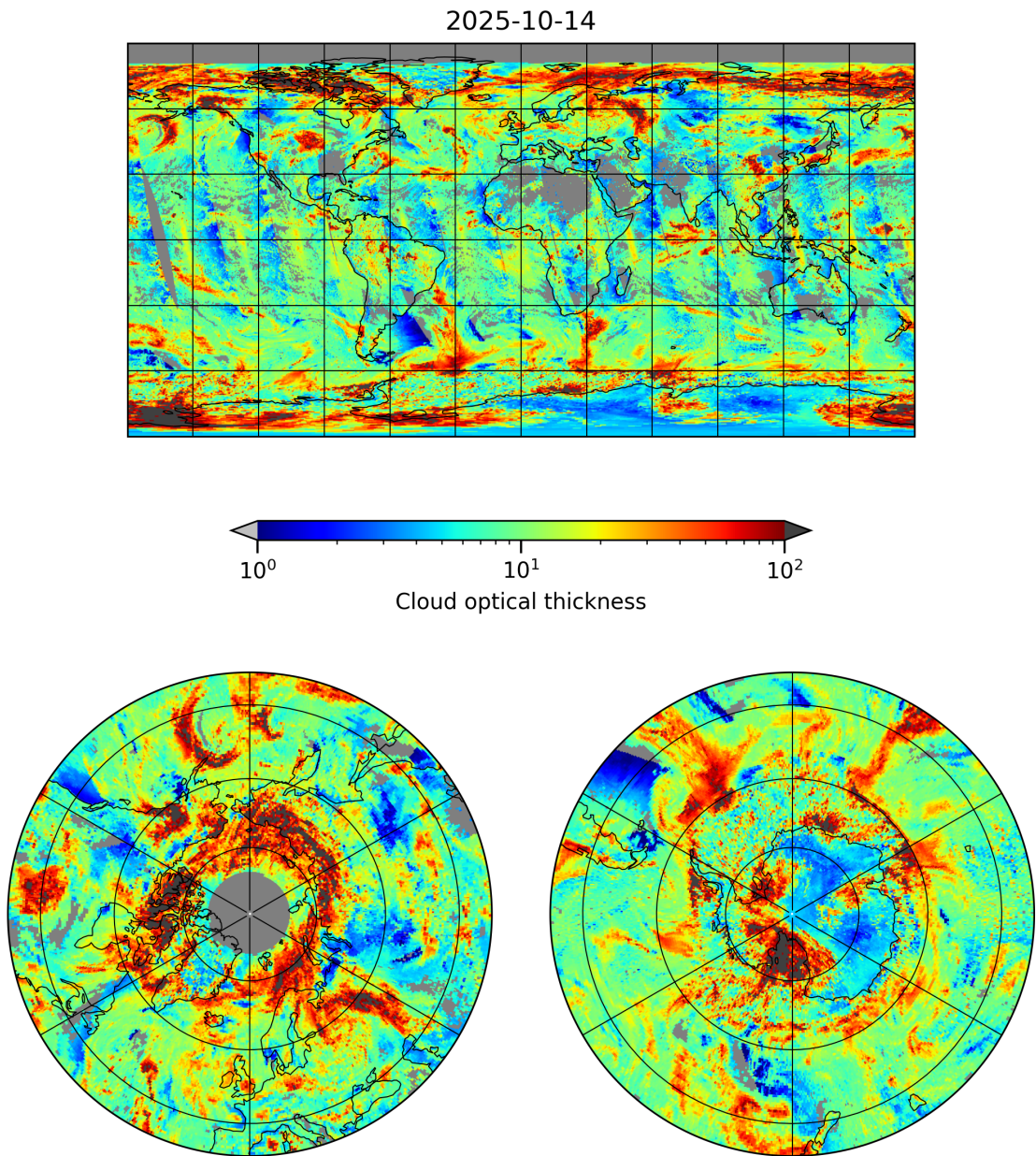


Figure 6: Map of “Cloud optical thickness” for 2025-10-14 to 2025-10-15

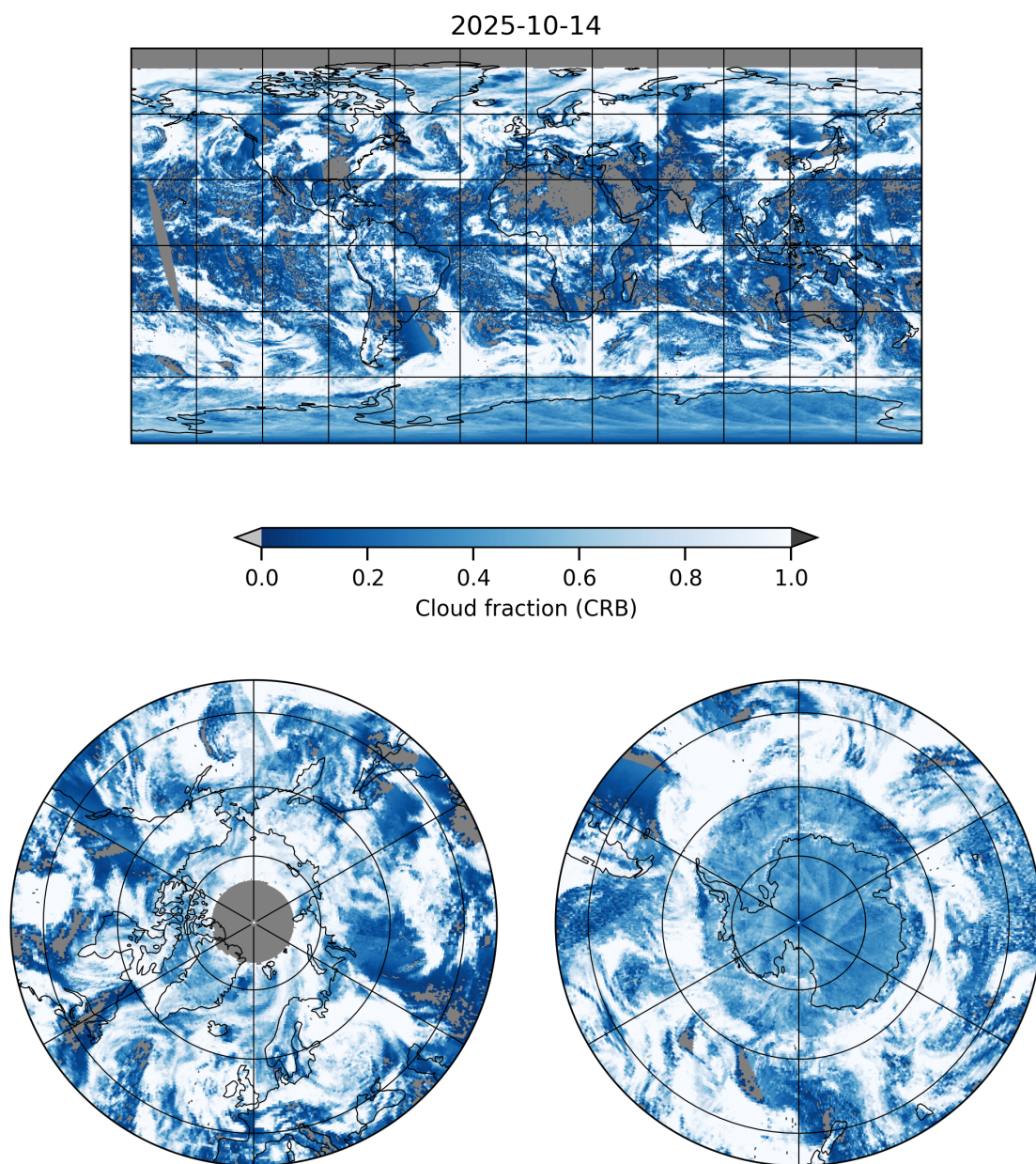


Figure 7: Map of “Cloud fraction (CRB)” for 2025-10-14 to 2025-10-15

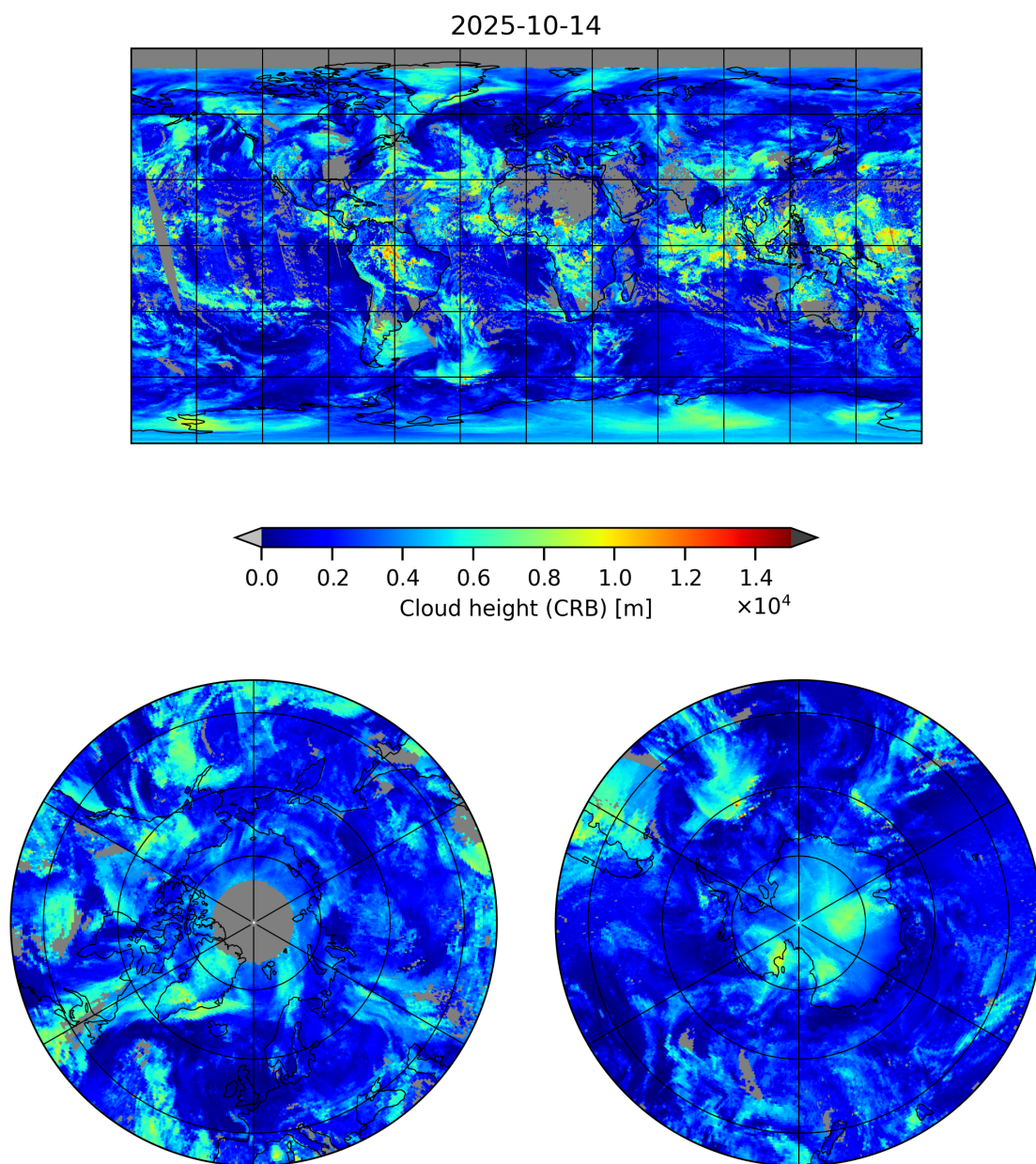


Figure 8: Map of “Cloud height (CRB)” for 2025-10-14 to 2025-10-15

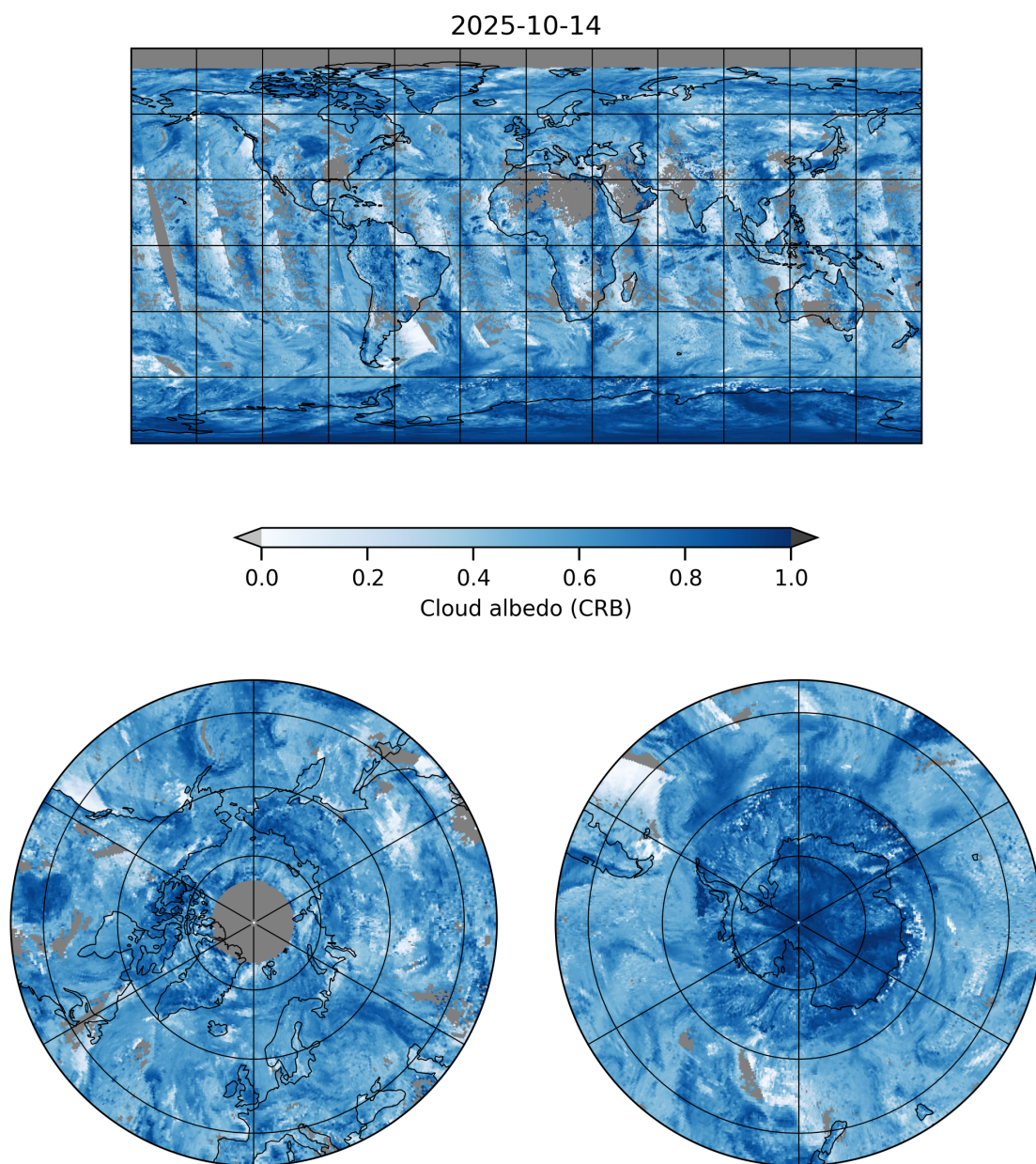


Figure 9: Map of “Cloud albedo (CRB)” for 2025-10-14 to 2025-10-15

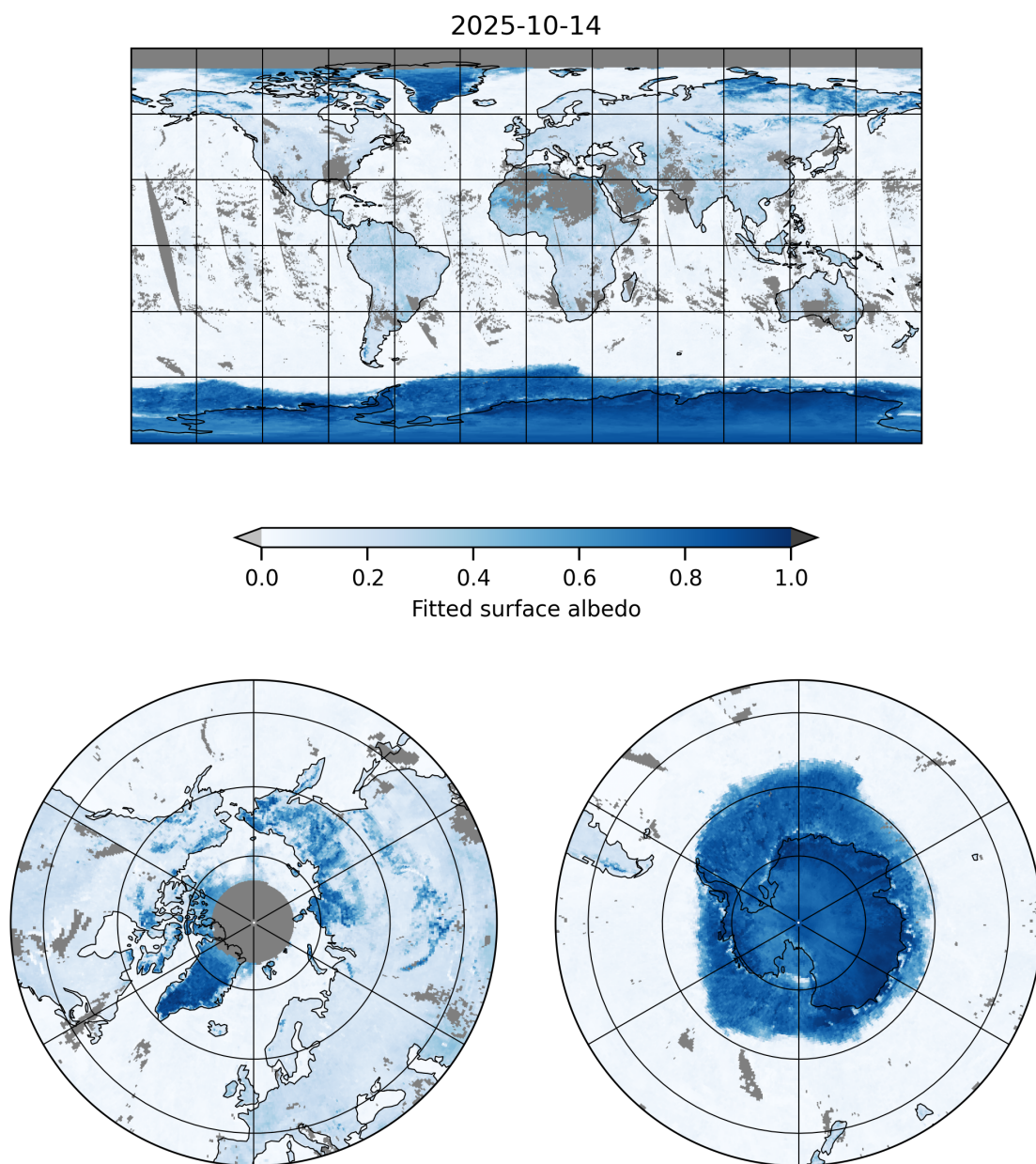


Figure 10: Map of “Fitted surface albedo” for 2025-10-14 to 2025-10-15

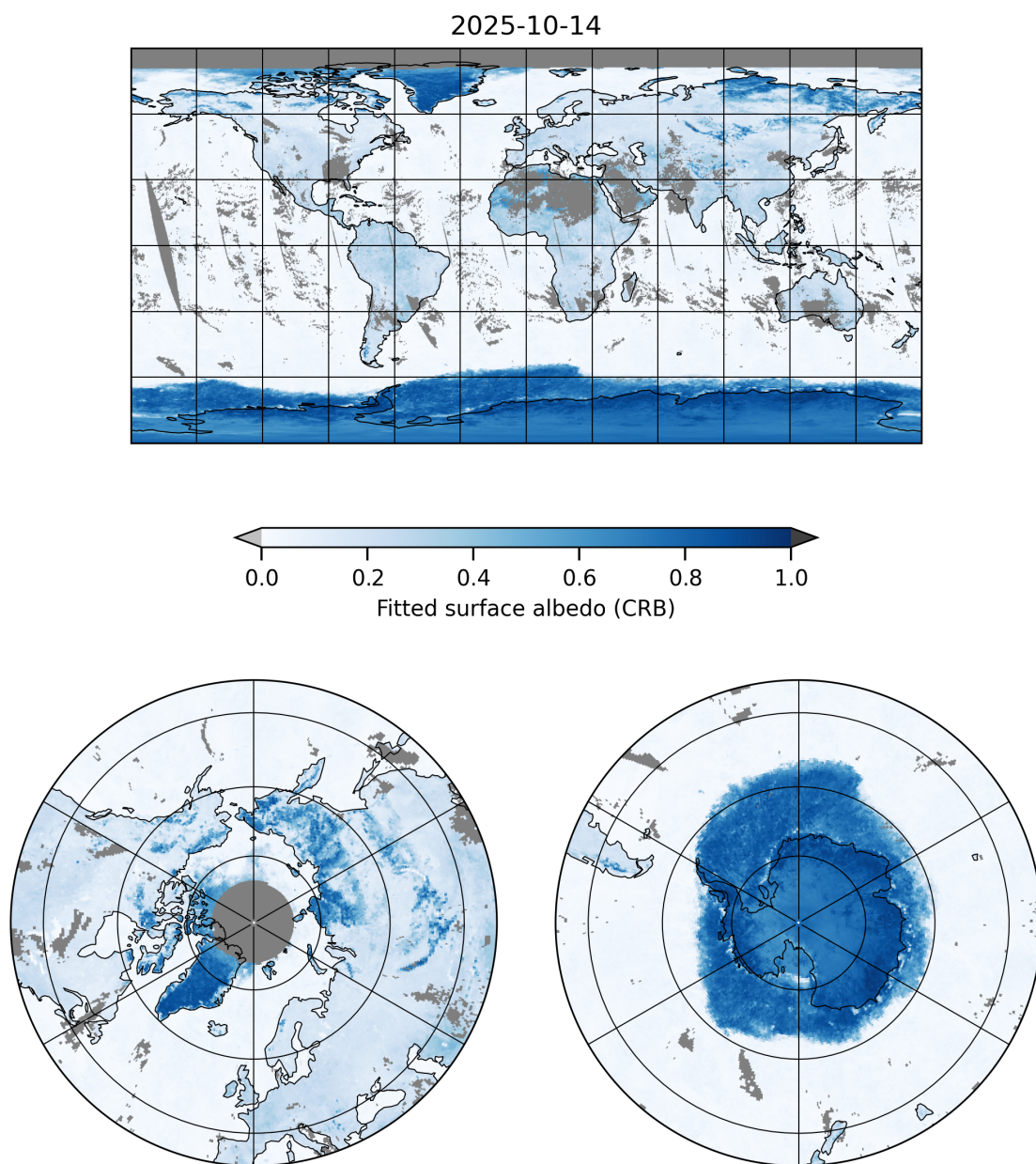


Figure 11: Map of “Fitted surface albedo (CRB)” for 2025-10-14 to 2025-10-15

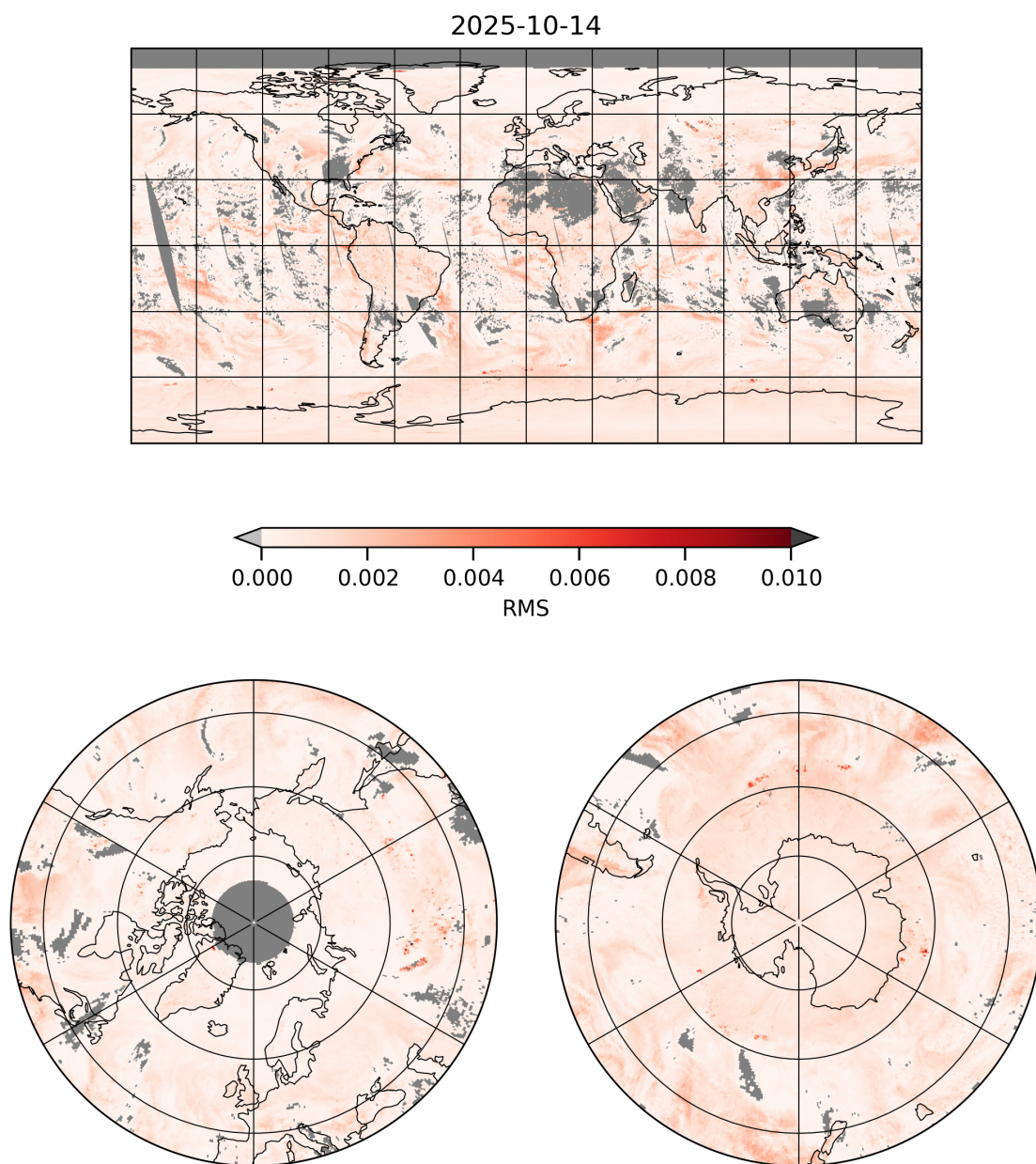


Figure 12: Map of “RMS” for 2025-10-14 to 2025-10-15

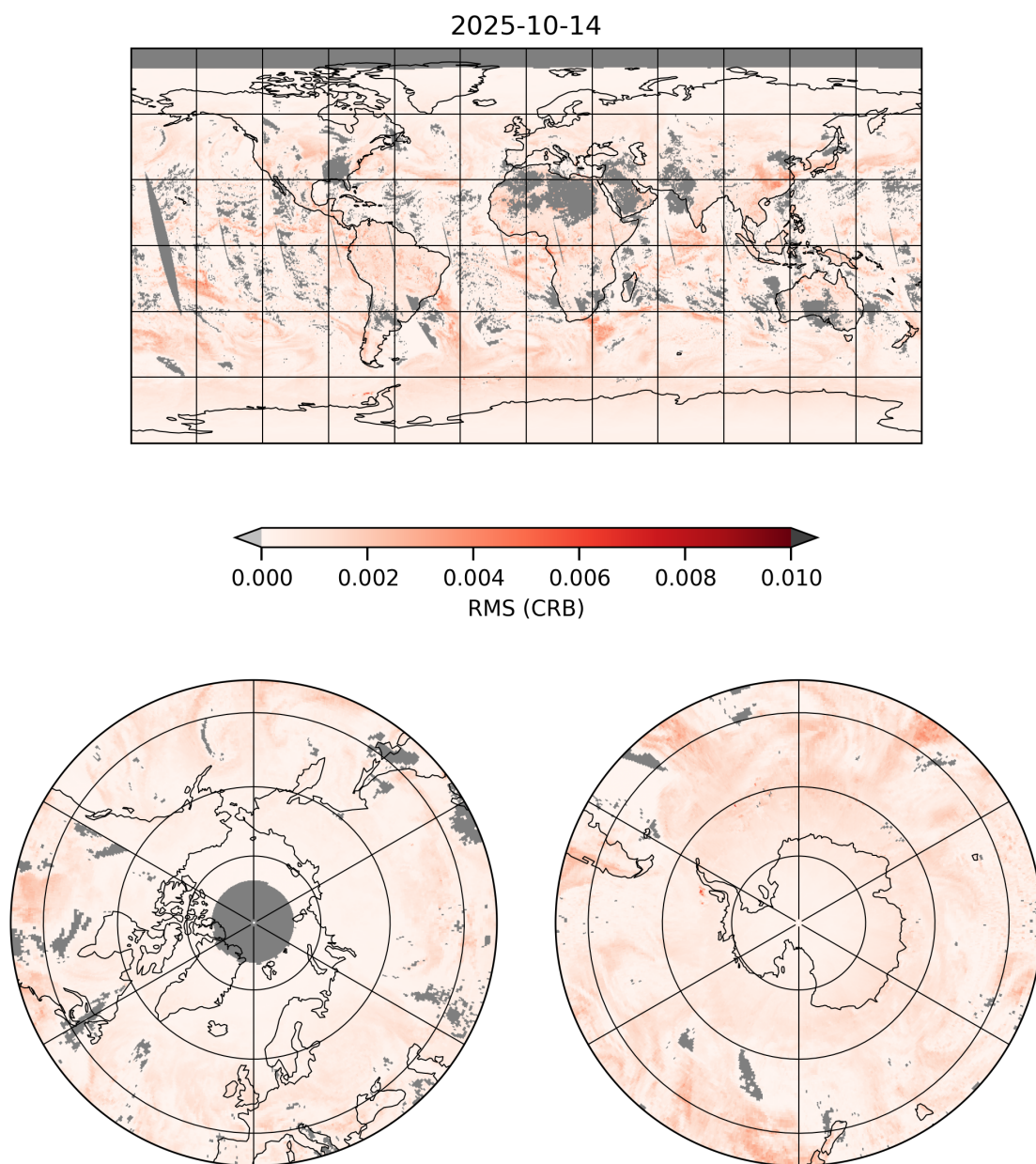


Figure 13: Map of “RMS (CRB)” for 2025-10-14 to 2025-10-15

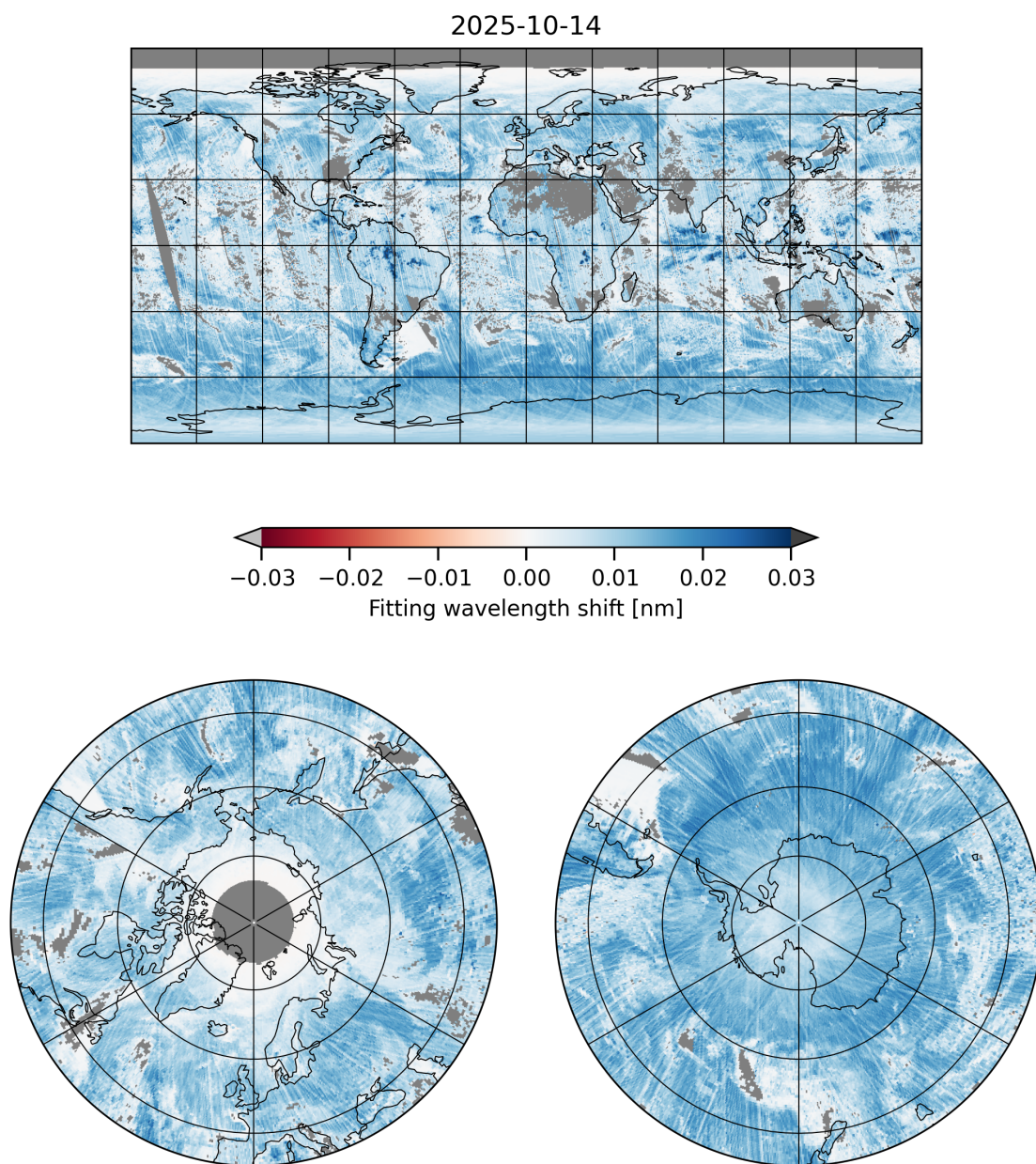


Figure 14: Map of “Fitting wavelength shift” for 2025-10-14 to 2025-10-15

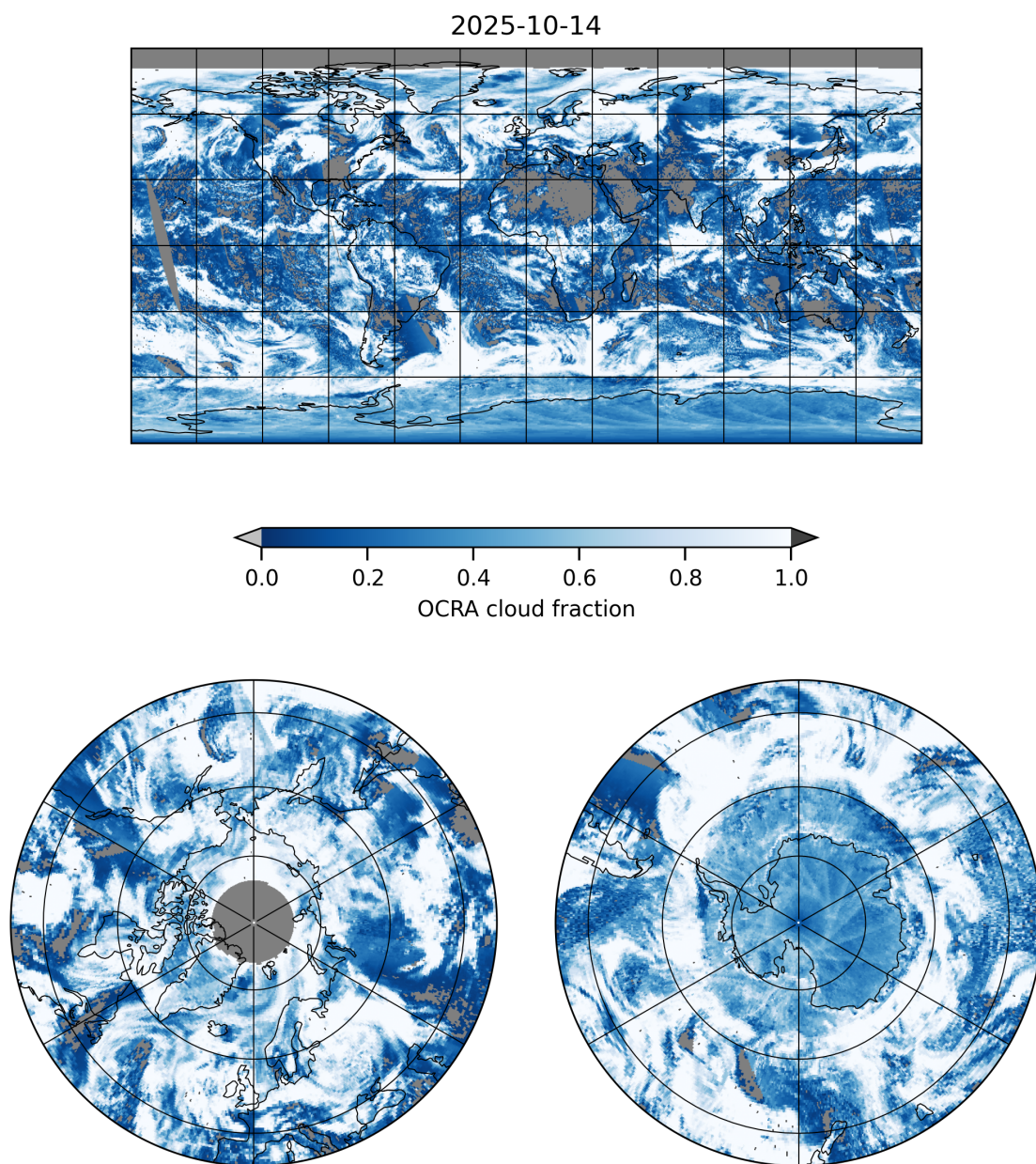


Figure 15: Map of “OCRA cloud fraction” for 2025-10-14 to 2025-10-15

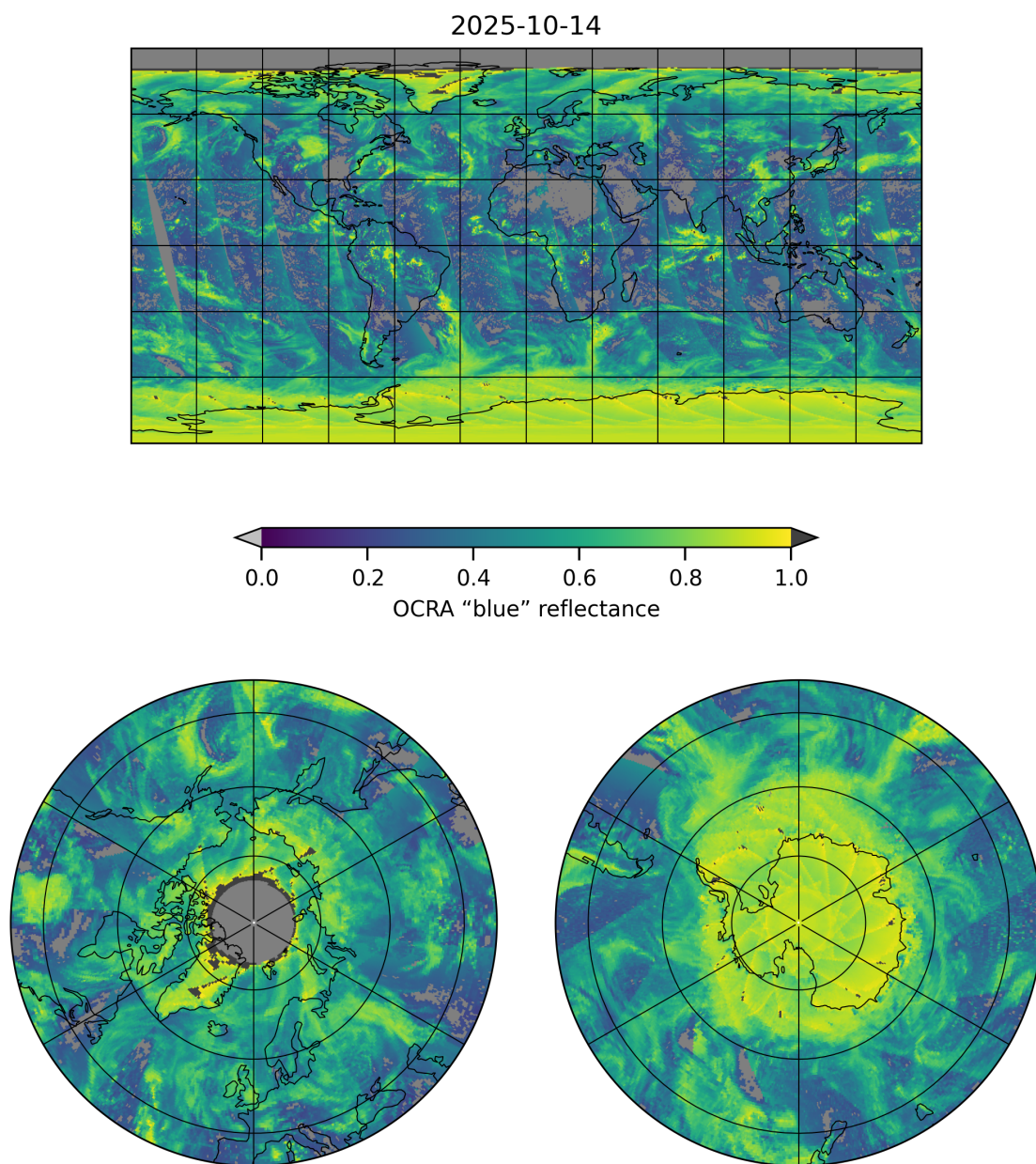


Figure 16: Map of "OCRA "blue" reflectance" for 2025-10-14 to 2025-10-15

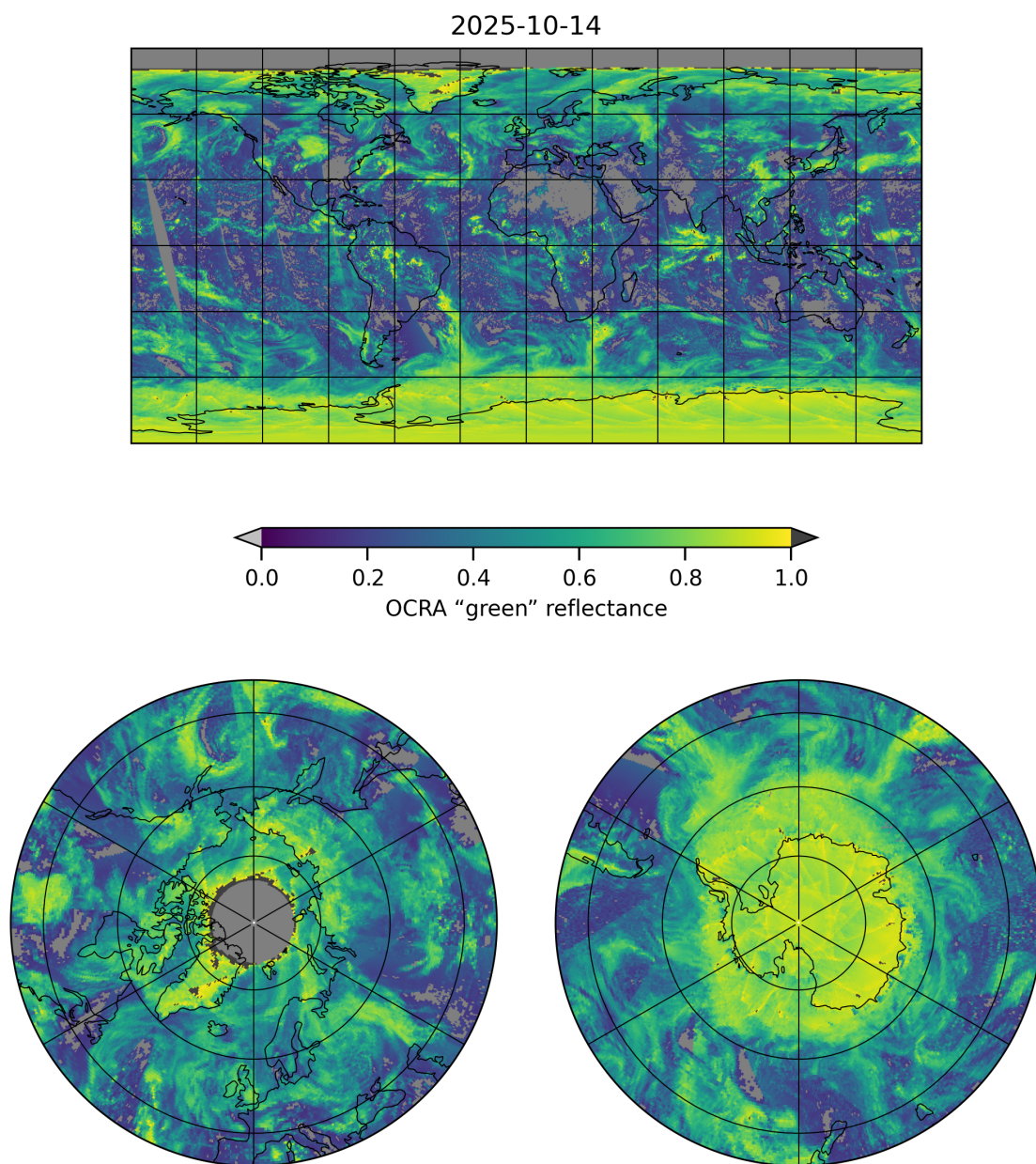


Figure 17: Map of "OCRA "green" reflectance" for 2025-10-14 to 2025-10-15

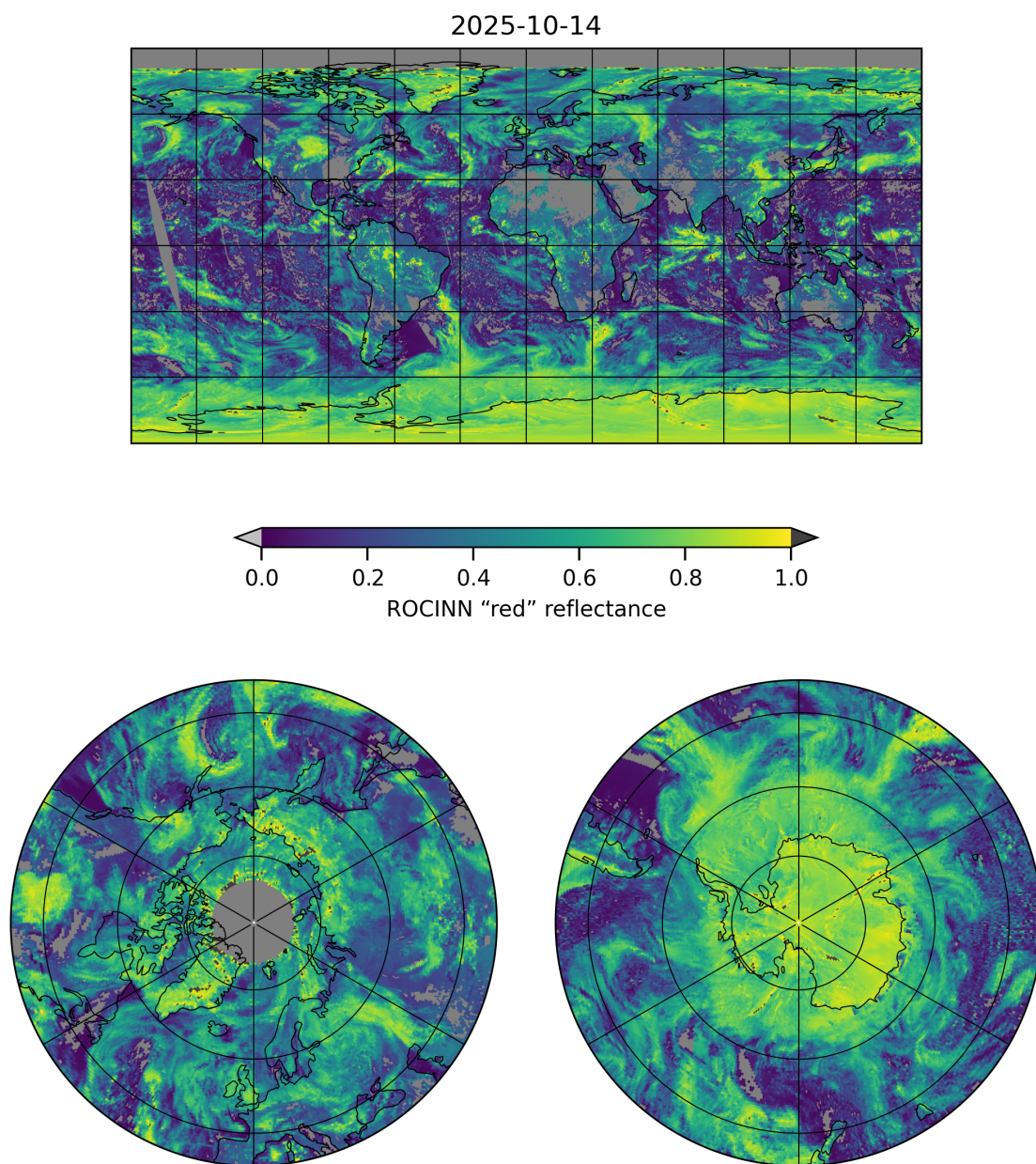


Figure 18: Map of "ROCINN "red" reflectance" for 2025-10-14 to 2025-10-15

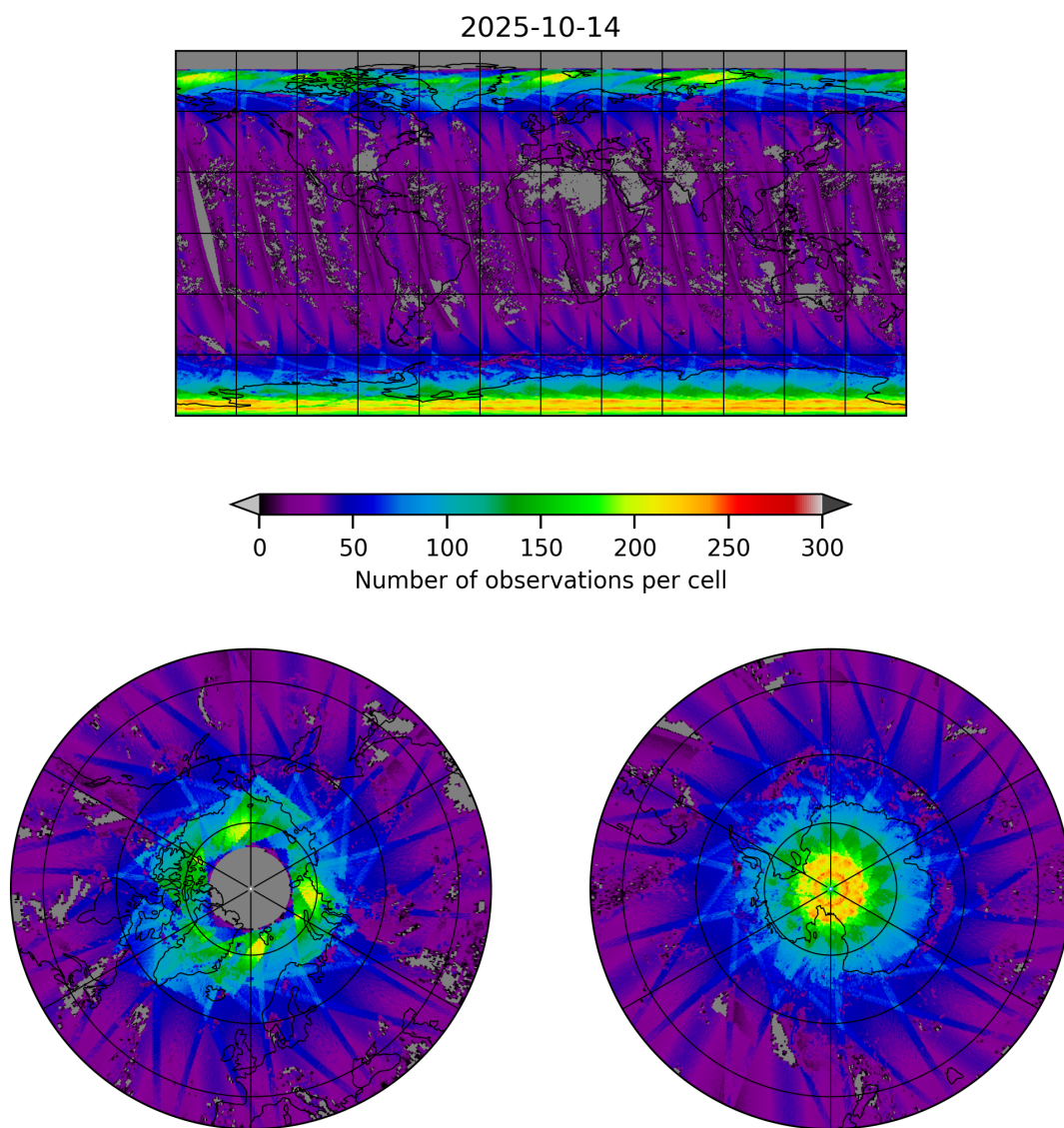


Figure 19: Map of the number of observations for 2025-10-14 to 2025-10-15

7 Zonal average

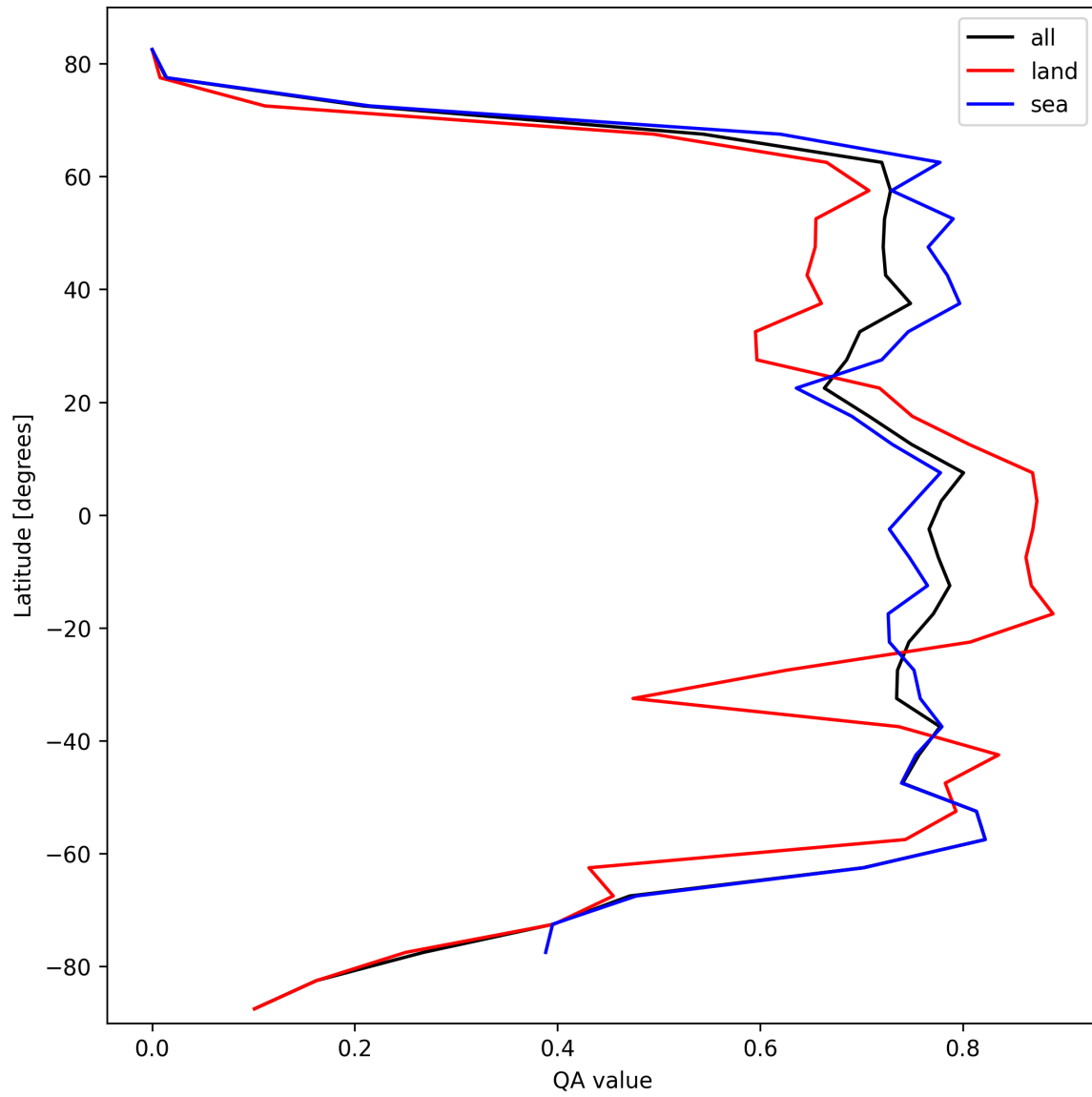


Figure 20: Zonal average of “QA value” for 2025-10-14 to 2025-10-15.

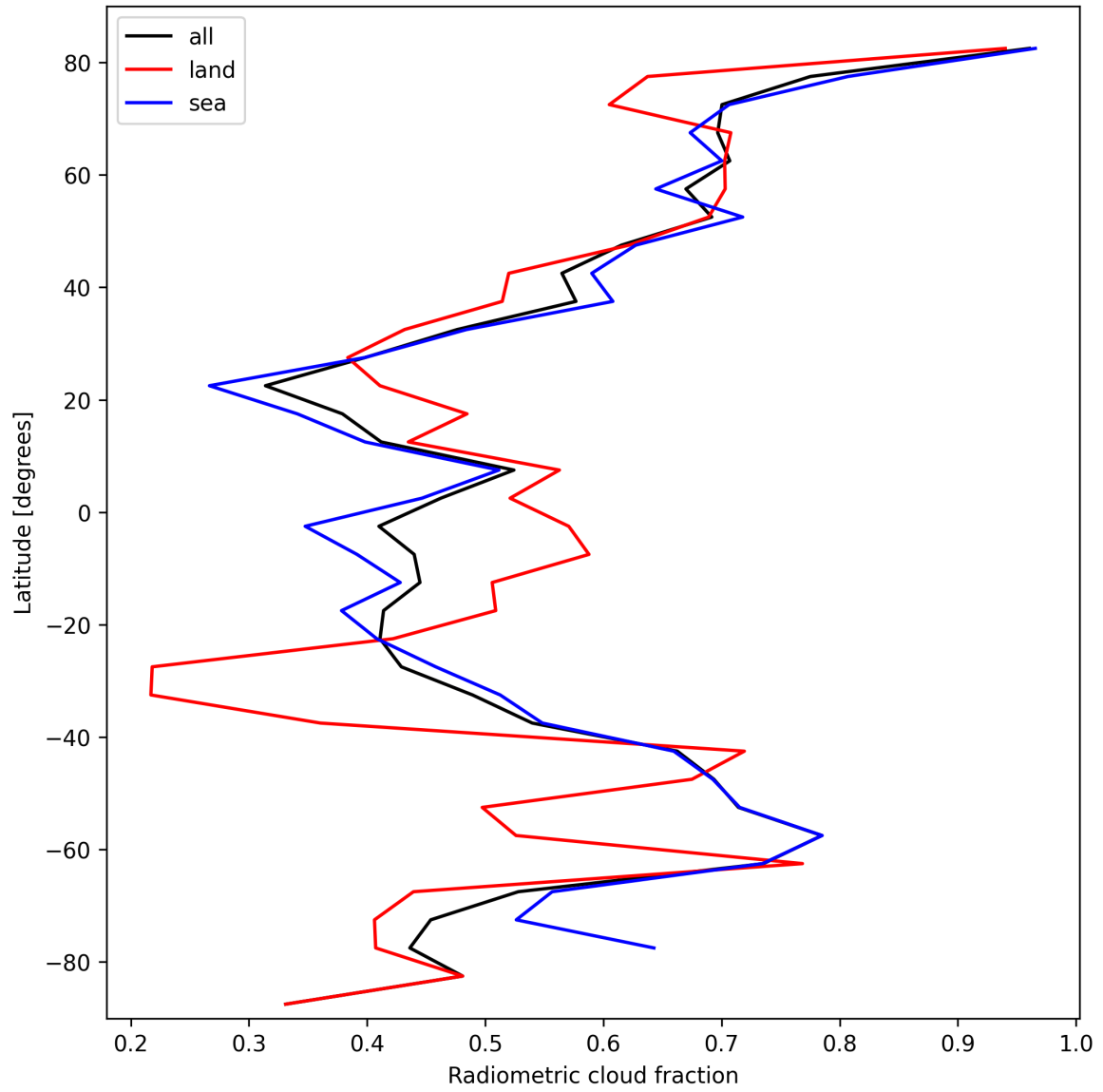


Figure 21: Zonal average of “Radiometric cloud fraction” for 2025-10-14 to 2025-10-15.

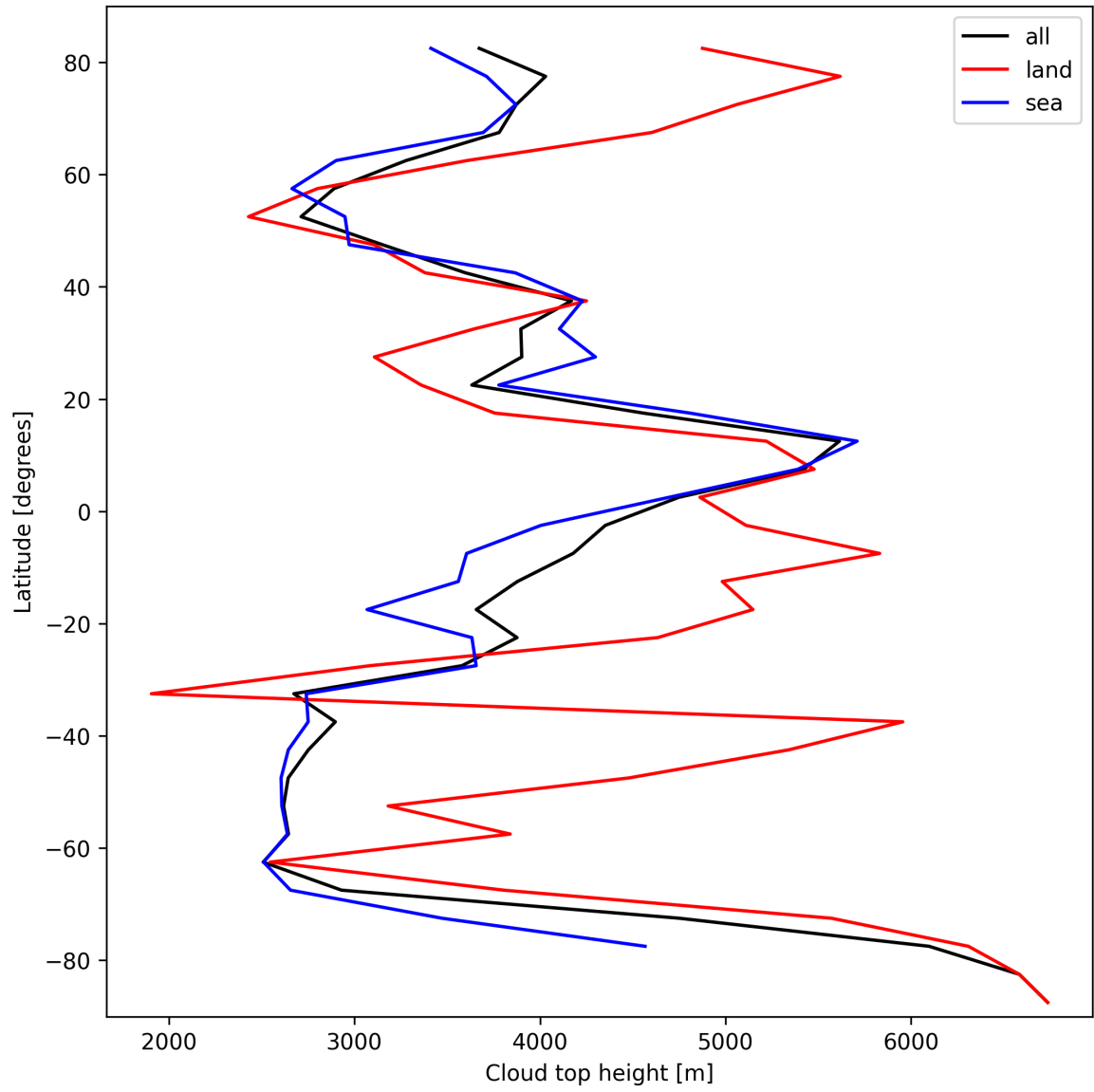


Figure 22: Zonal average of “Cloud top height” for 2025-10-14 to 2025-10-15.

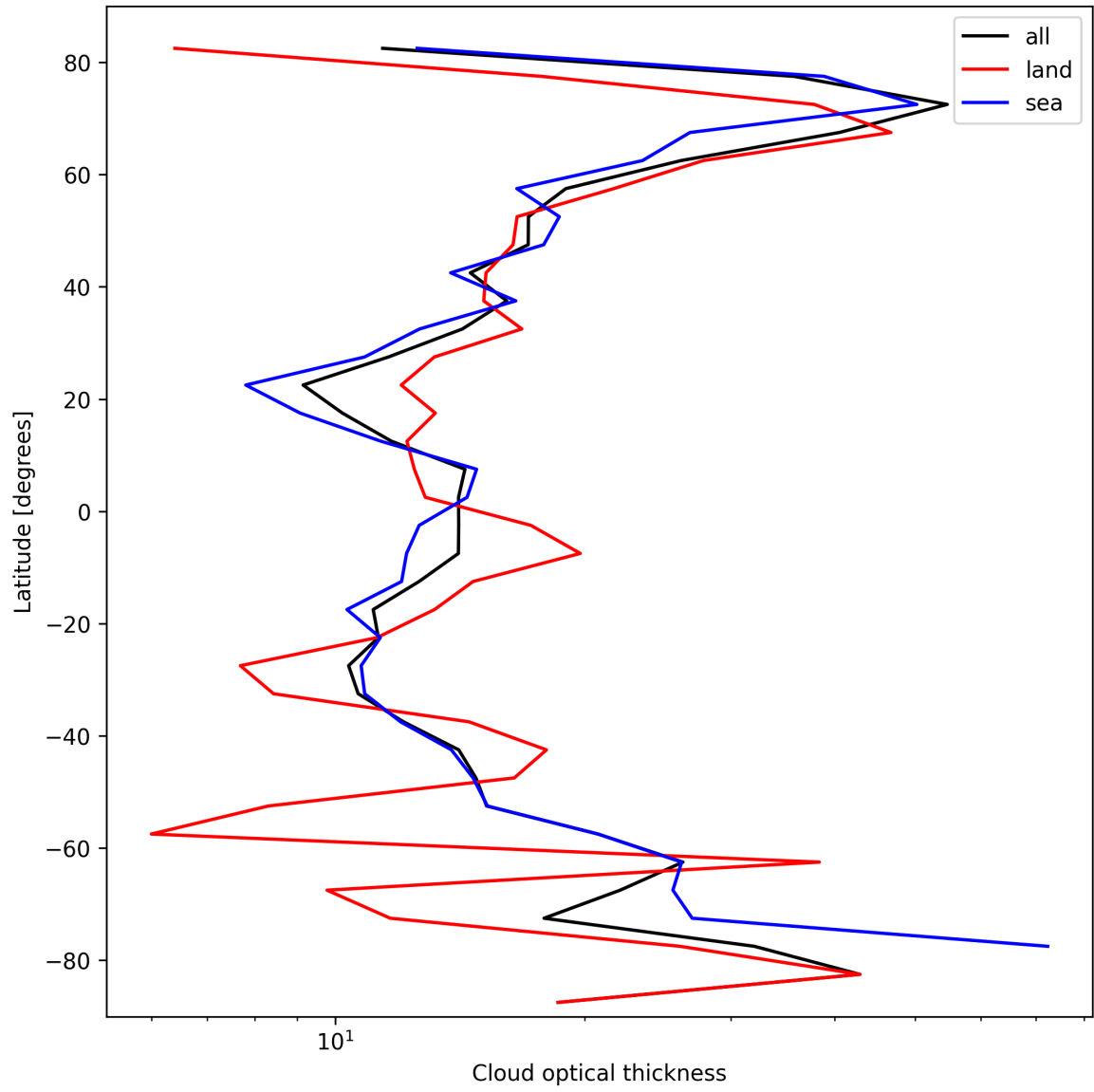


Figure 23: Zonal average of “Cloud optical thickness” for 2025-10-14 to 2025-10-15.

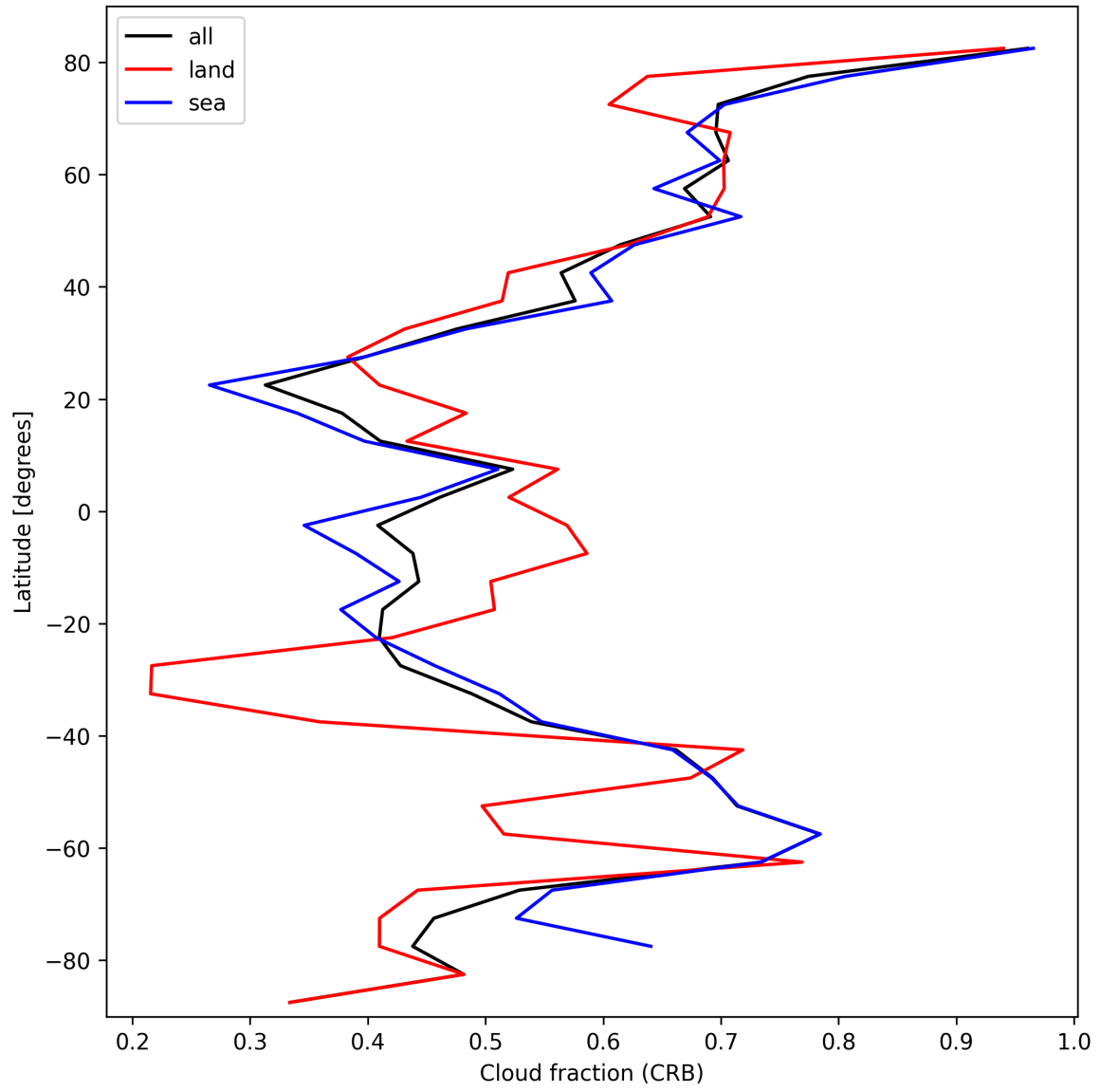


Figure 24: Zonal average of “Cloud fraction (CRB)” for 2025-10-14 to 2025-10-15.

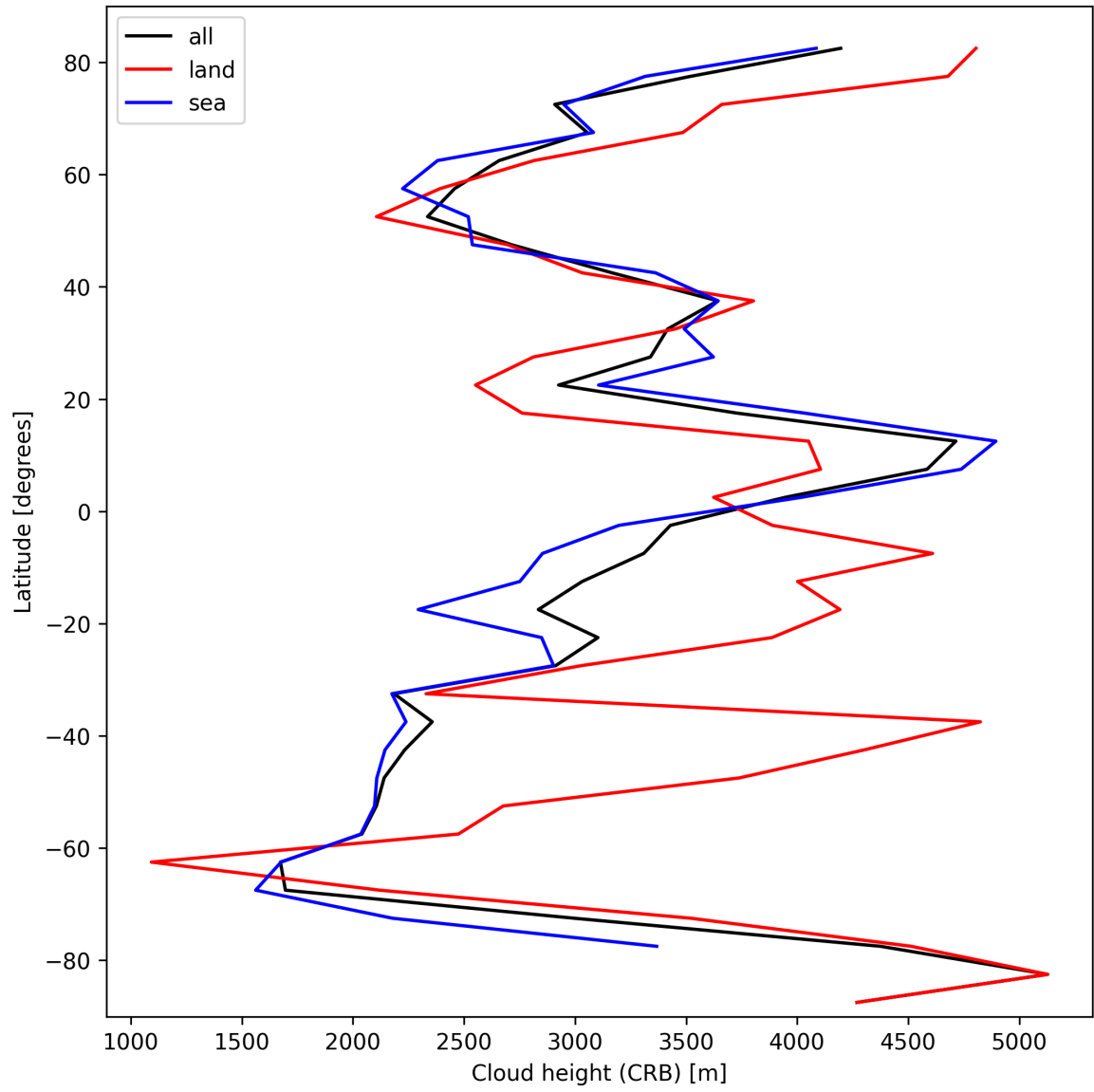


Figure 25: Zonal average of “Cloud height (CRB)” for 2025-10-14 to 2025-10-15.

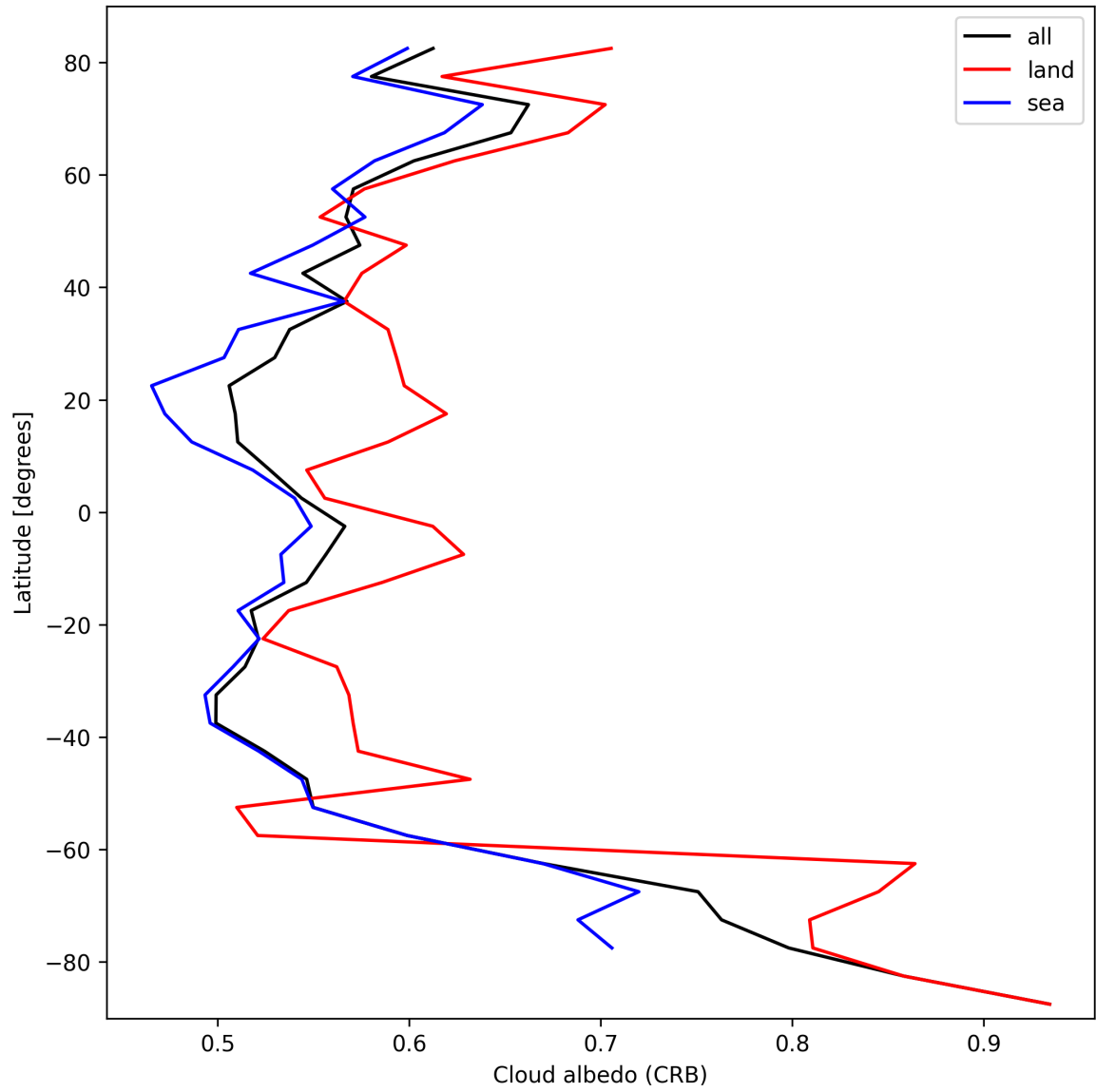


Figure 26: Zonal average of “Cloud albedo (CRB)” for 2025-10-14 to 2025-10-15.

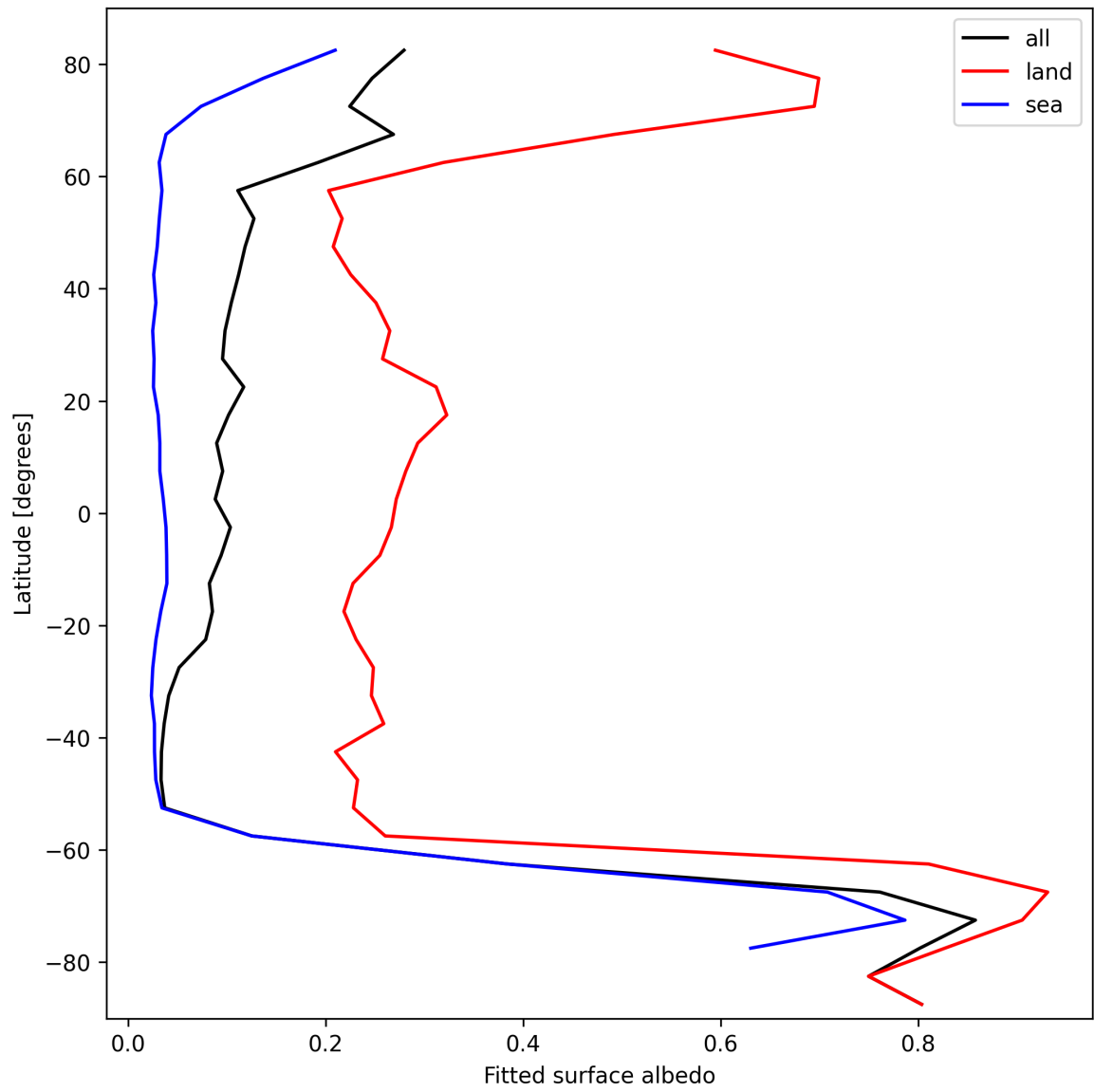


Figure 27: Zonal average of “Fitted surface albedo” for 2025-10-14 to 2025-10-15.

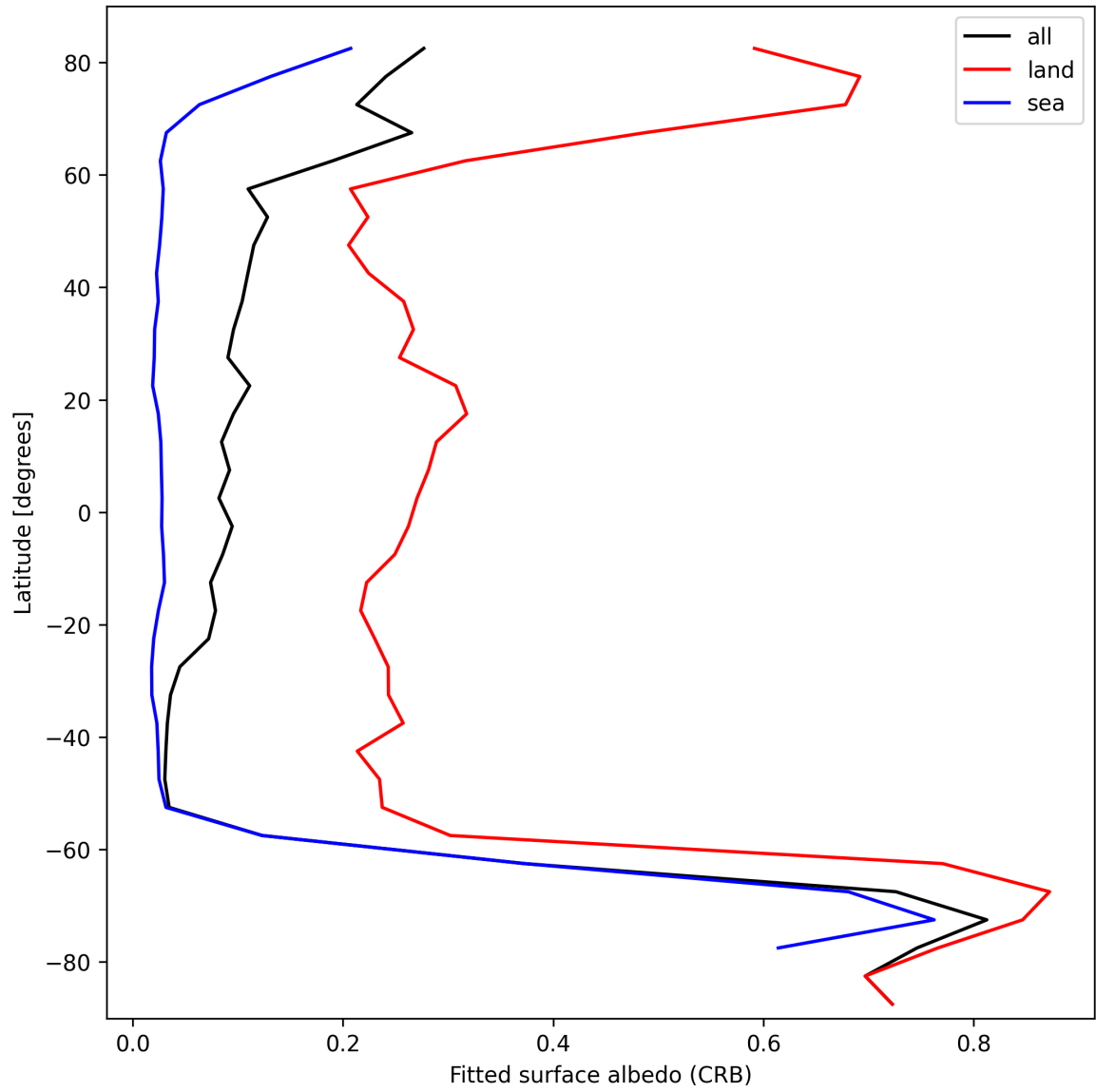


Figure 28: Zonal average of “Fitted surface albedo (CRB)” for 2025-10-14 to 2025-10-15.

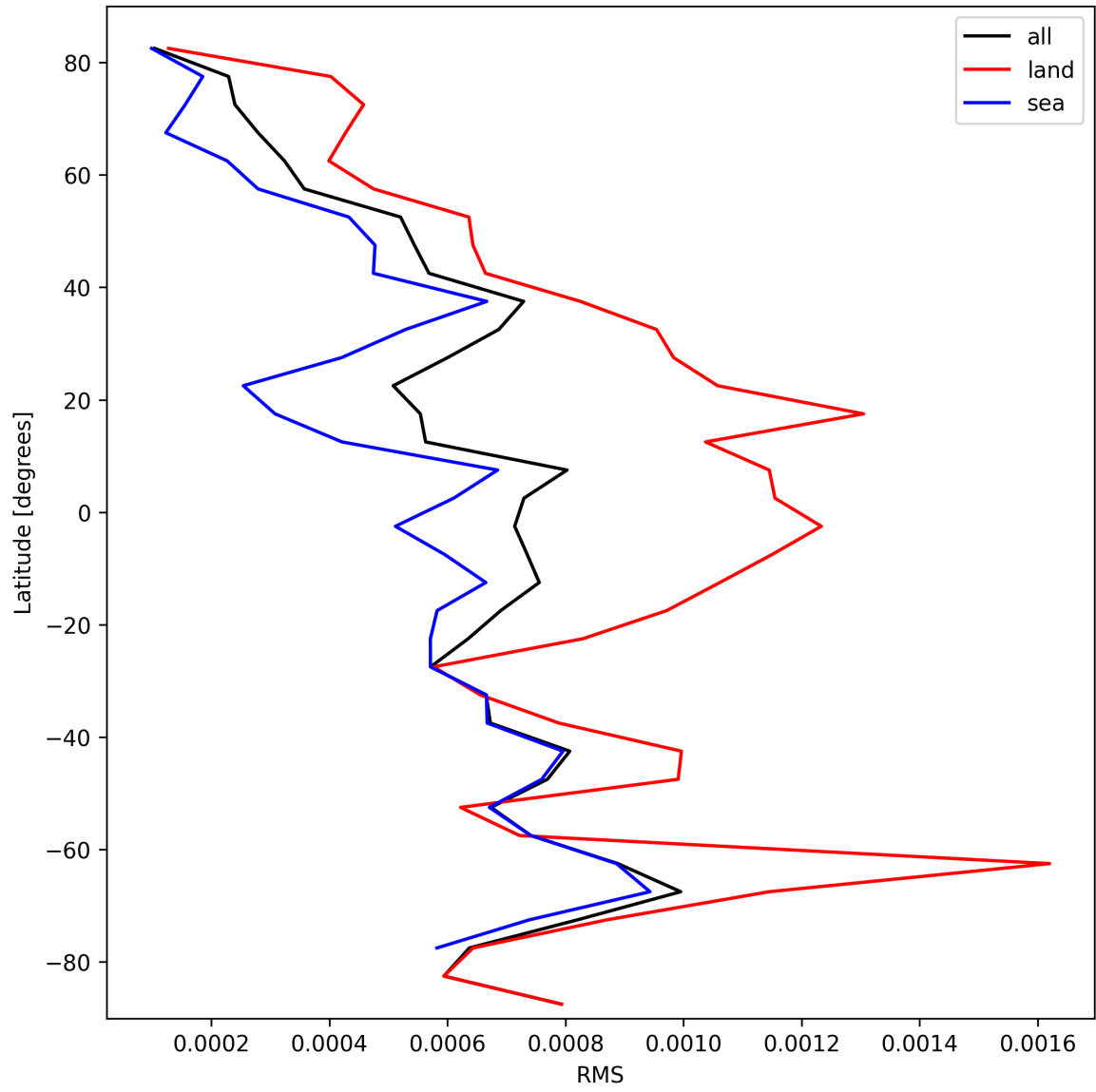


Figure 29: Zonal average of “RMS” for 2025-10-14 to 2025-10-15.

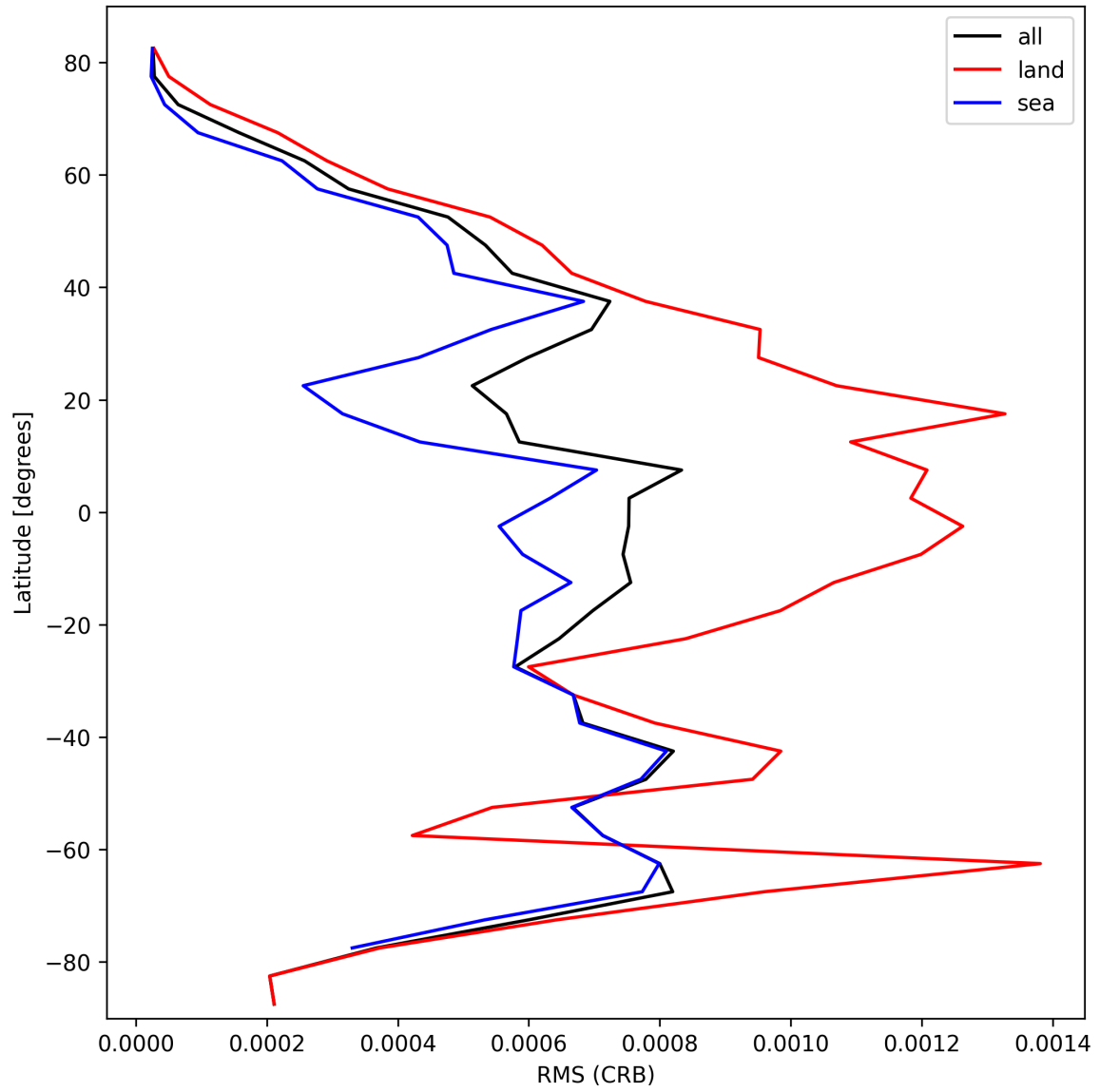


Figure 30: Zonal average of “RMS (CRB)” for 2025-10-14 to 2025-10-15.

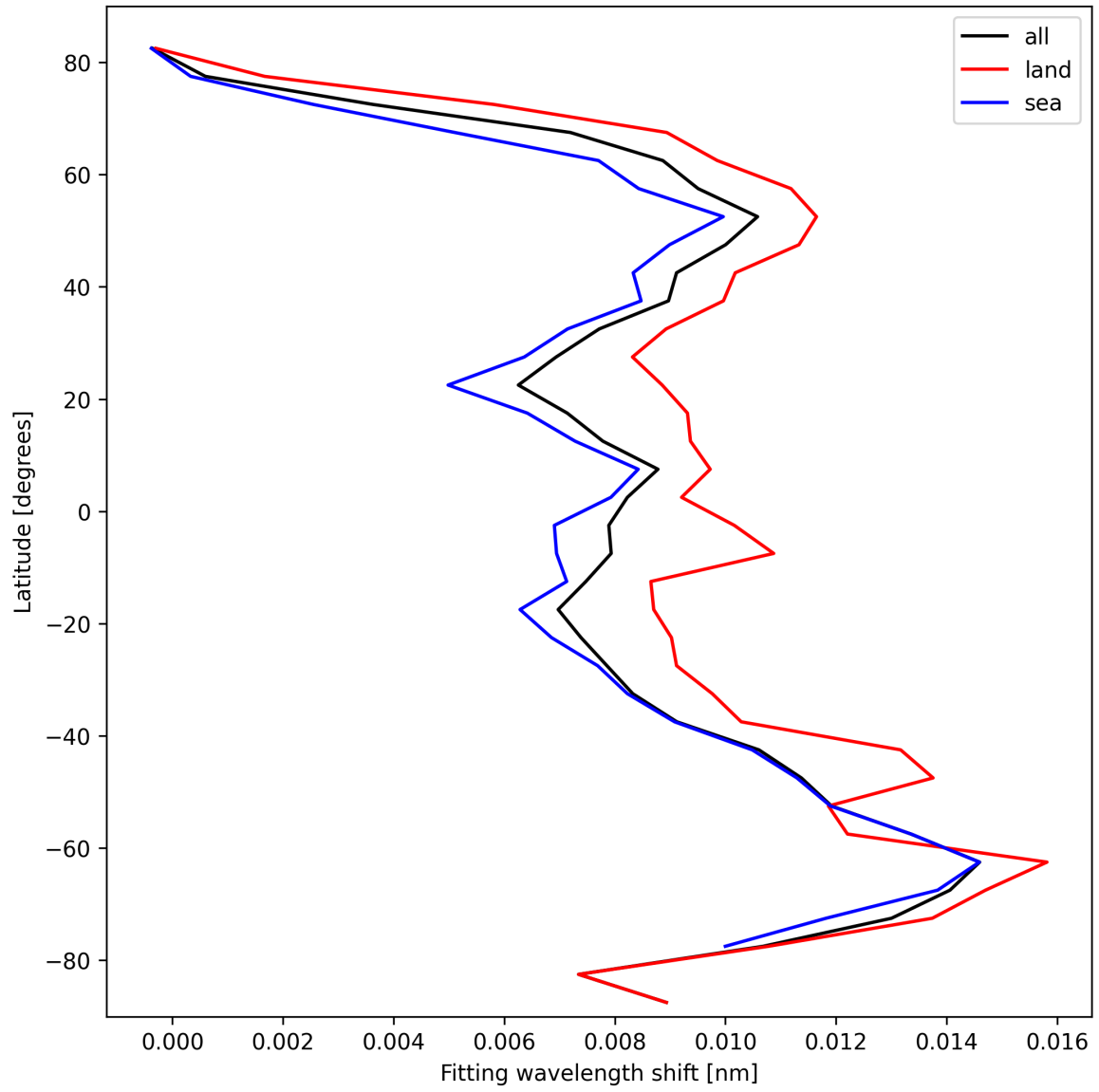


Figure 31: Zonal average of “Fitting wavelength shift” for 2025-10-14 to 2025-10-15.

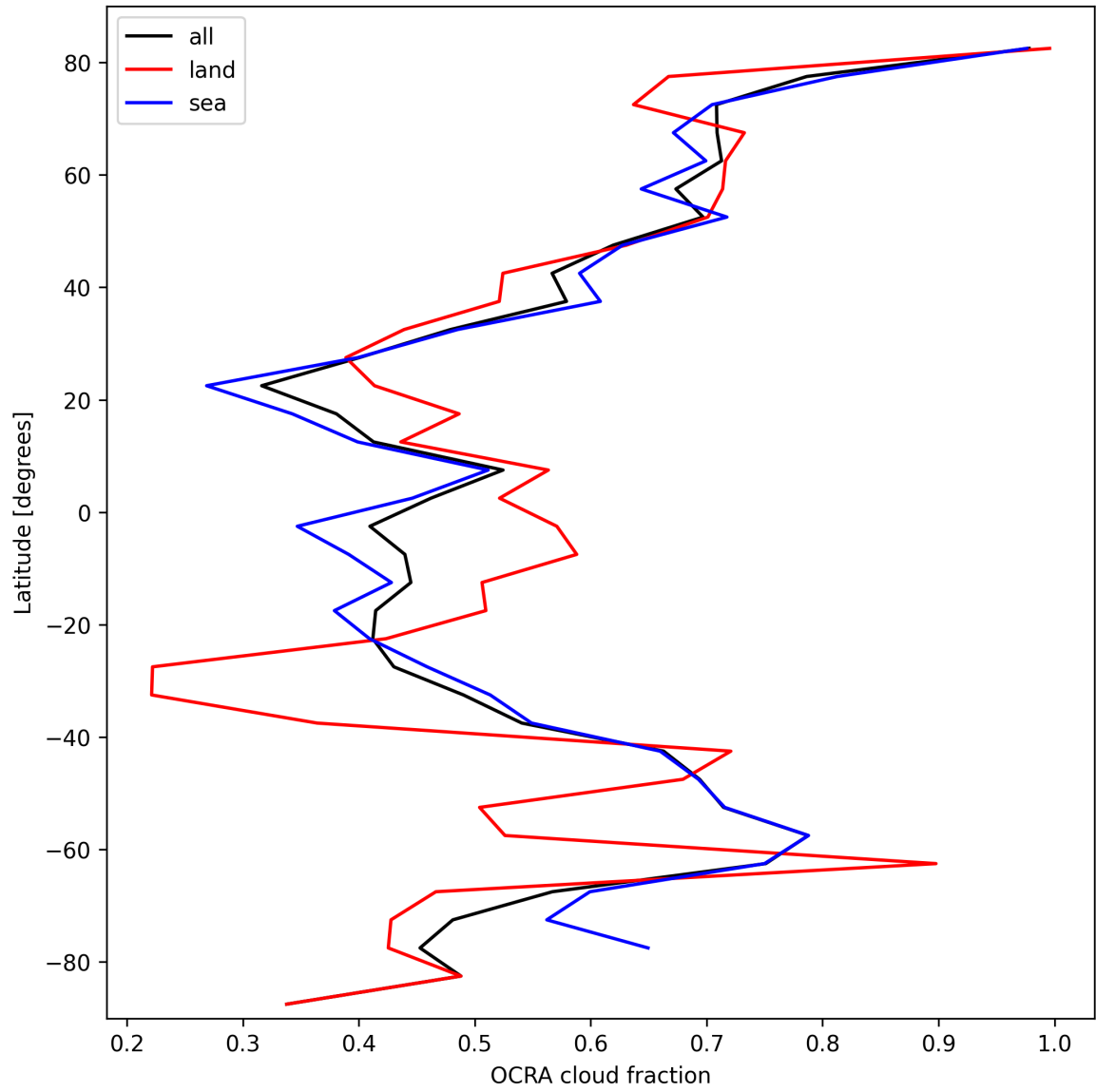


Figure 32: Zonal average of “OCRA cloud fraction” for 2025-10-14 to 2025-10-15.

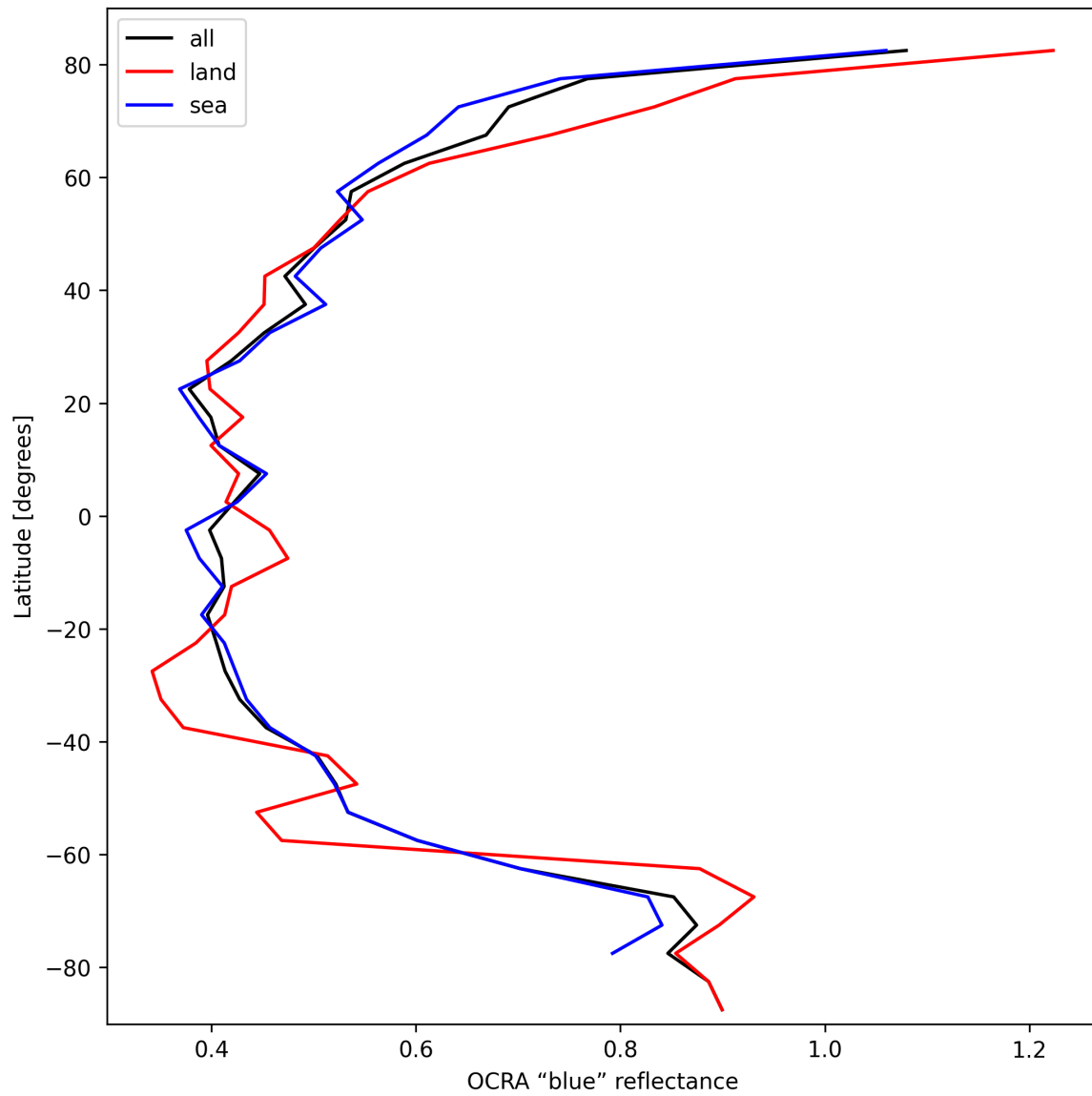


Figure 33: Zonal average of “OCRA “blue” reflectance” for 2025-10-14 to 2025-10-15.

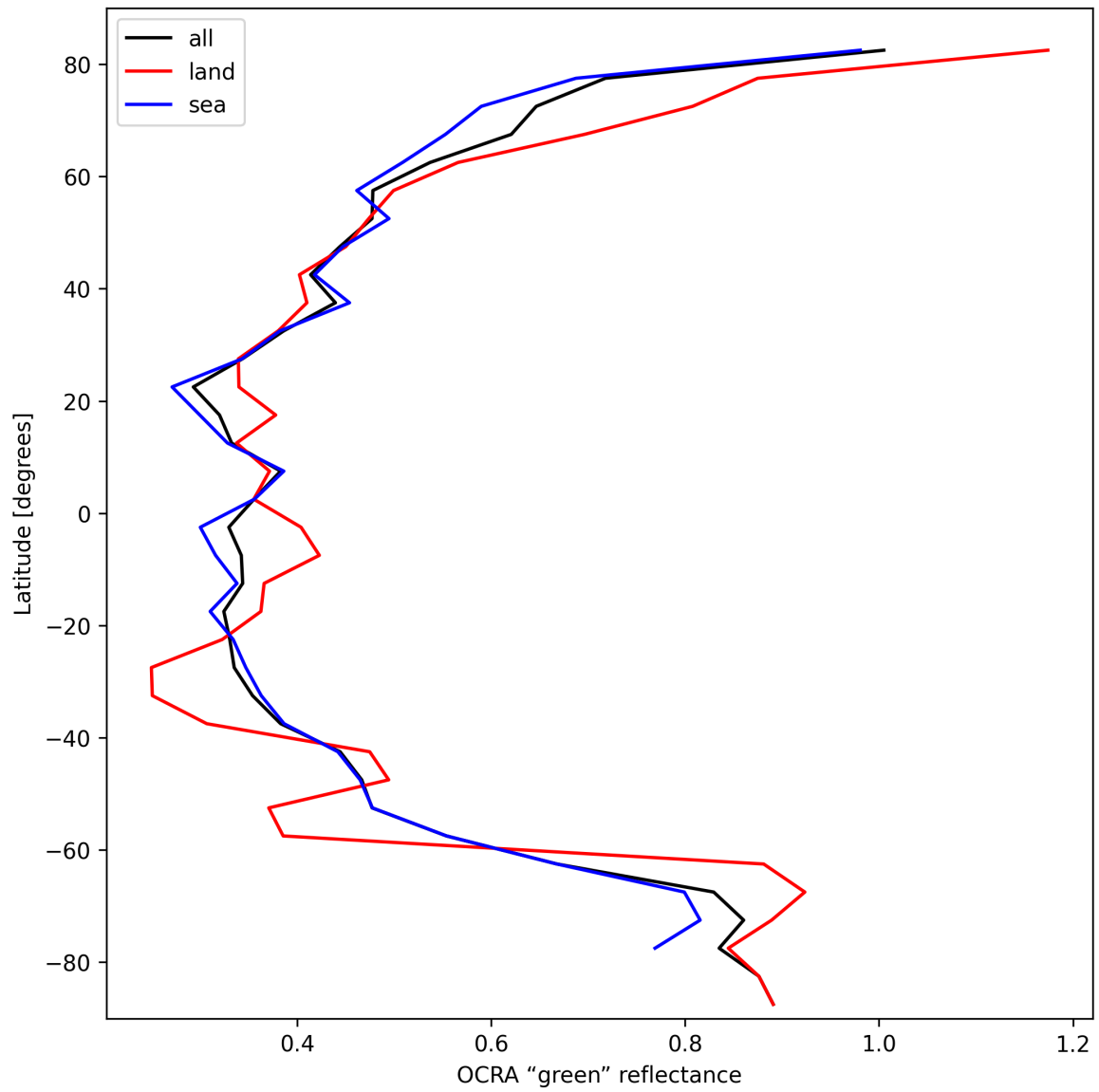


Figure 34: Zonal average of “OCRA “green” reflectance” for 2025-10-14 to 2025-10-15.

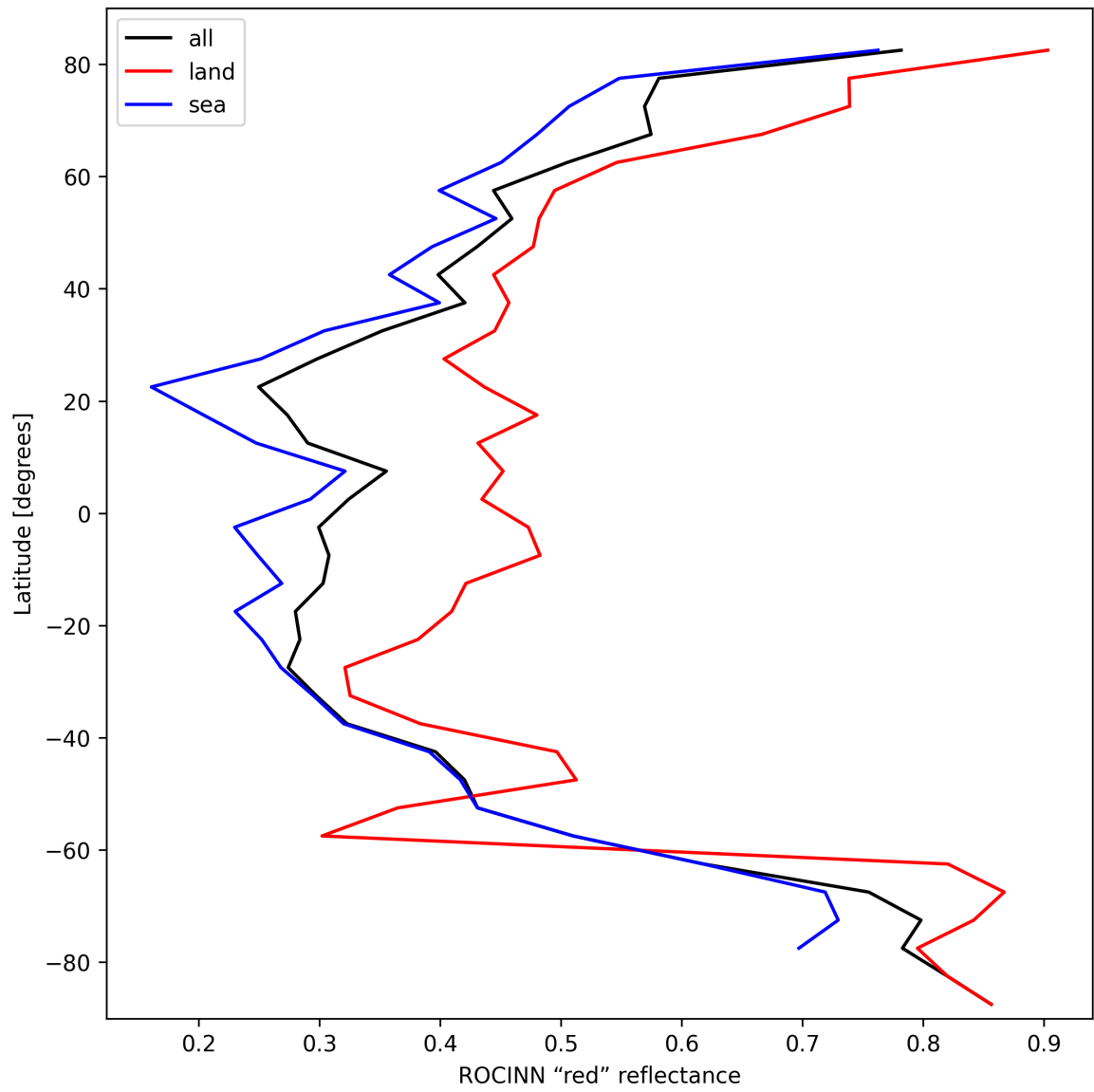


Figure 35: Zonal average of “ROCINN “red” reflectance” for 2025-10-14 to 2025-10-15.

8 Histograms

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

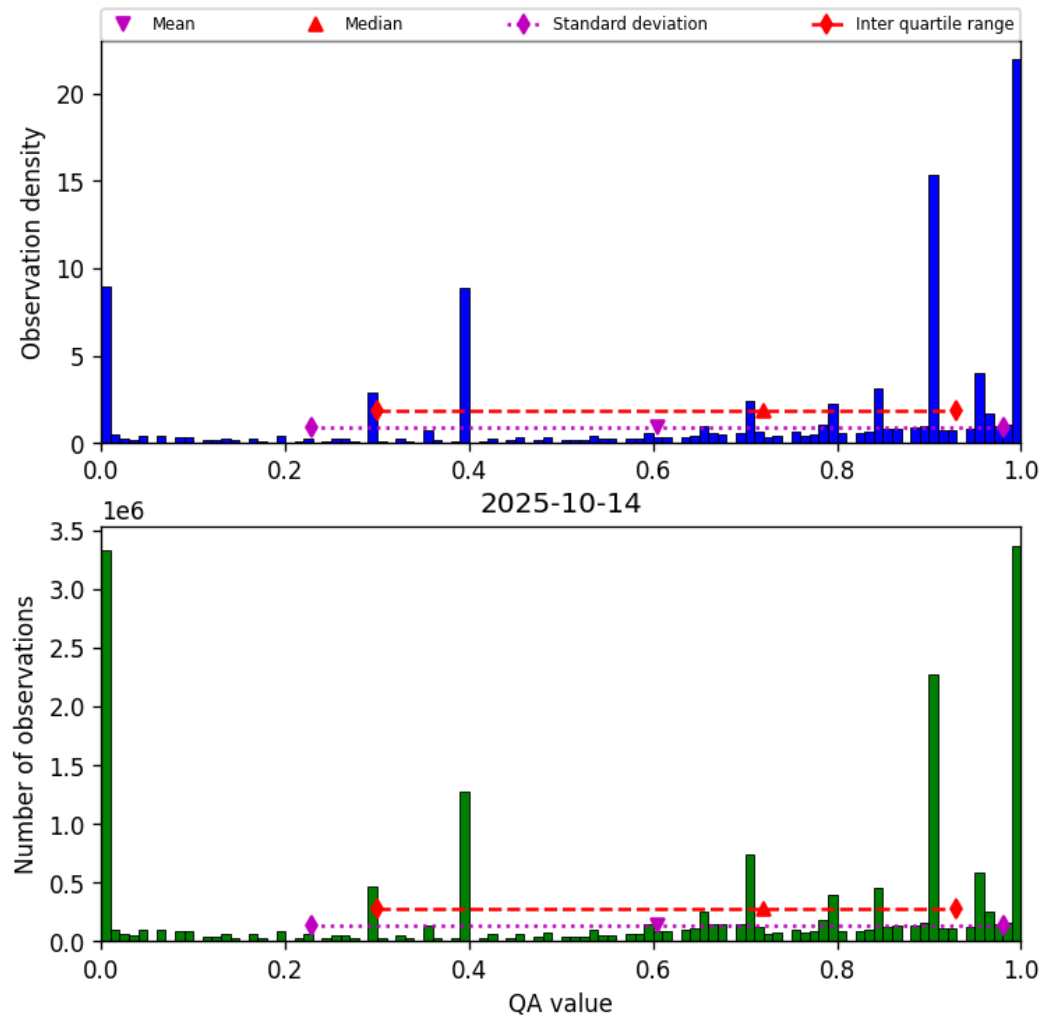


Figure 36: Histogram of “QA value” for 2025-10-14 to 2025-10-15

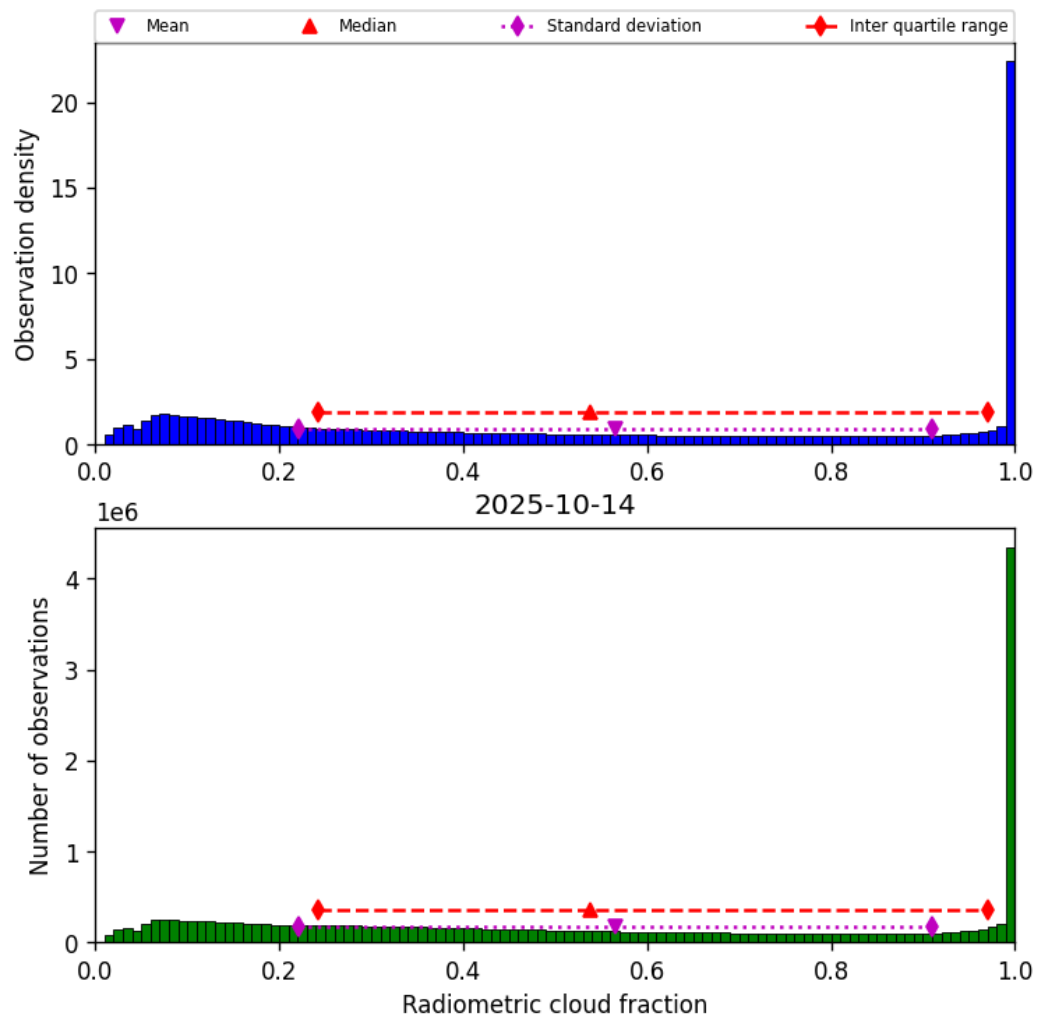


Figure 37: Histogram of “Radiometric cloud fraction” for 2025-10-14 to 2025-10-15

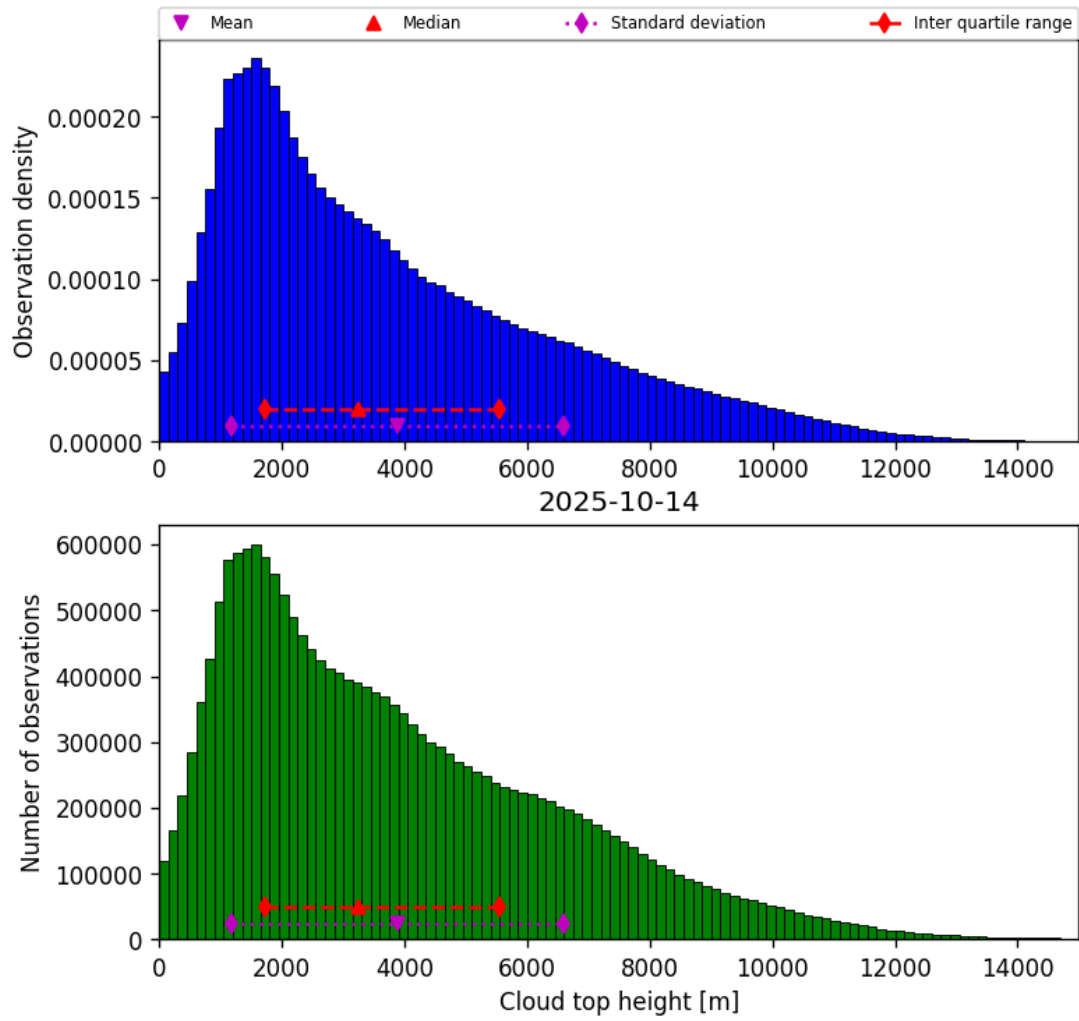


Figure 38: Histogram of “Cloud top height” for 2025-10-14 to 2025-10-15

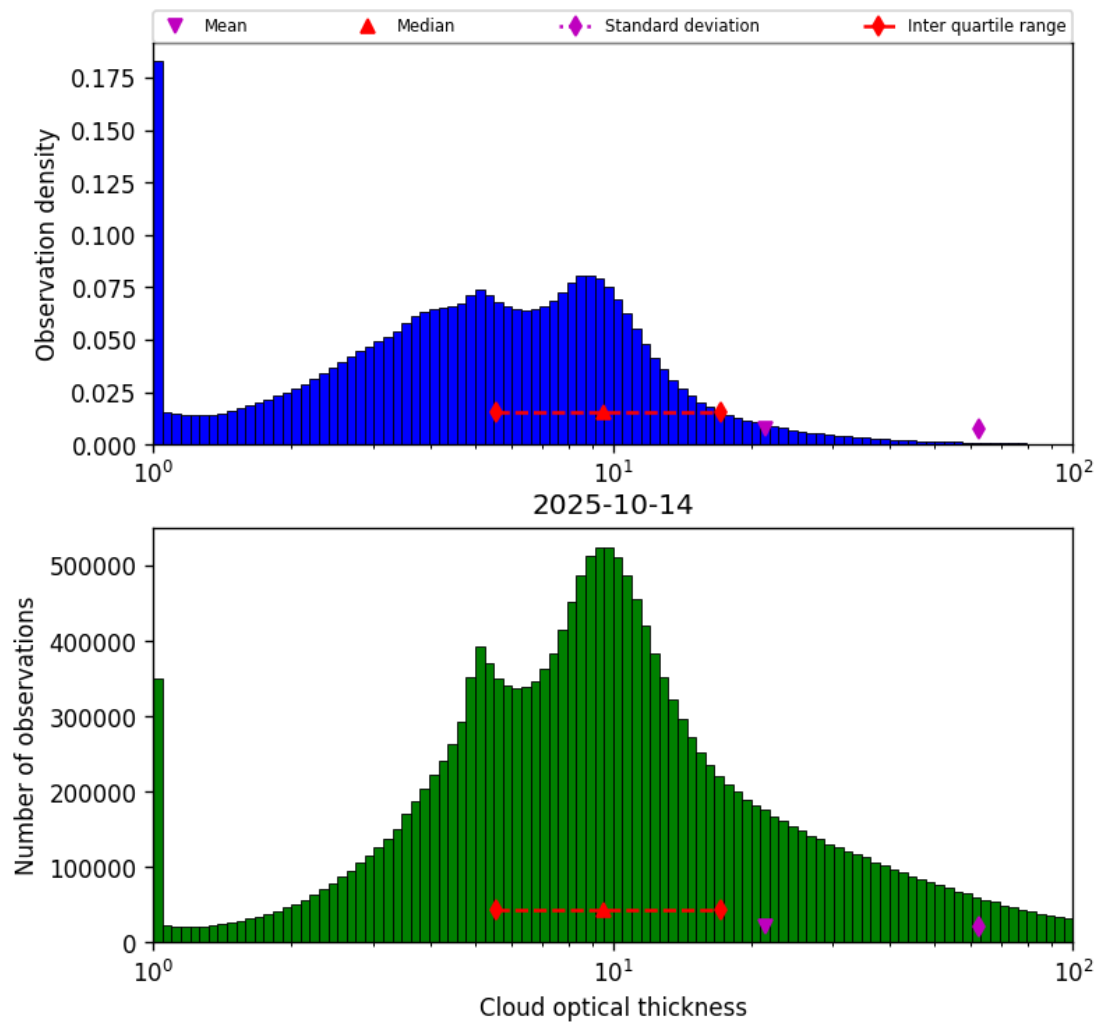


Figure 39: Histogram of “Cloud optical thickness” for 2025-10-14 to 2025-10-15

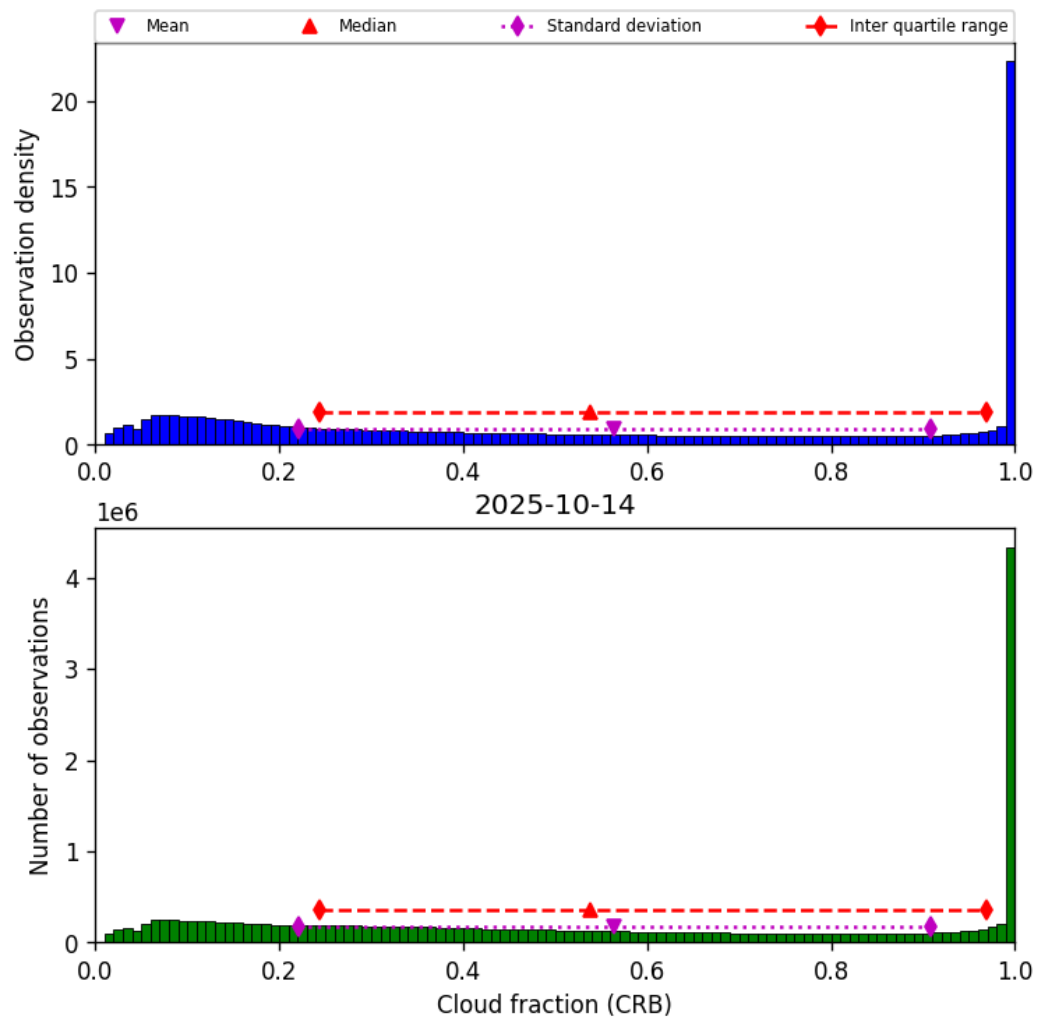


Figure 40: Histogram of “Cloud fraction (CRB)” for 2025-10-14 to 2025-10-15

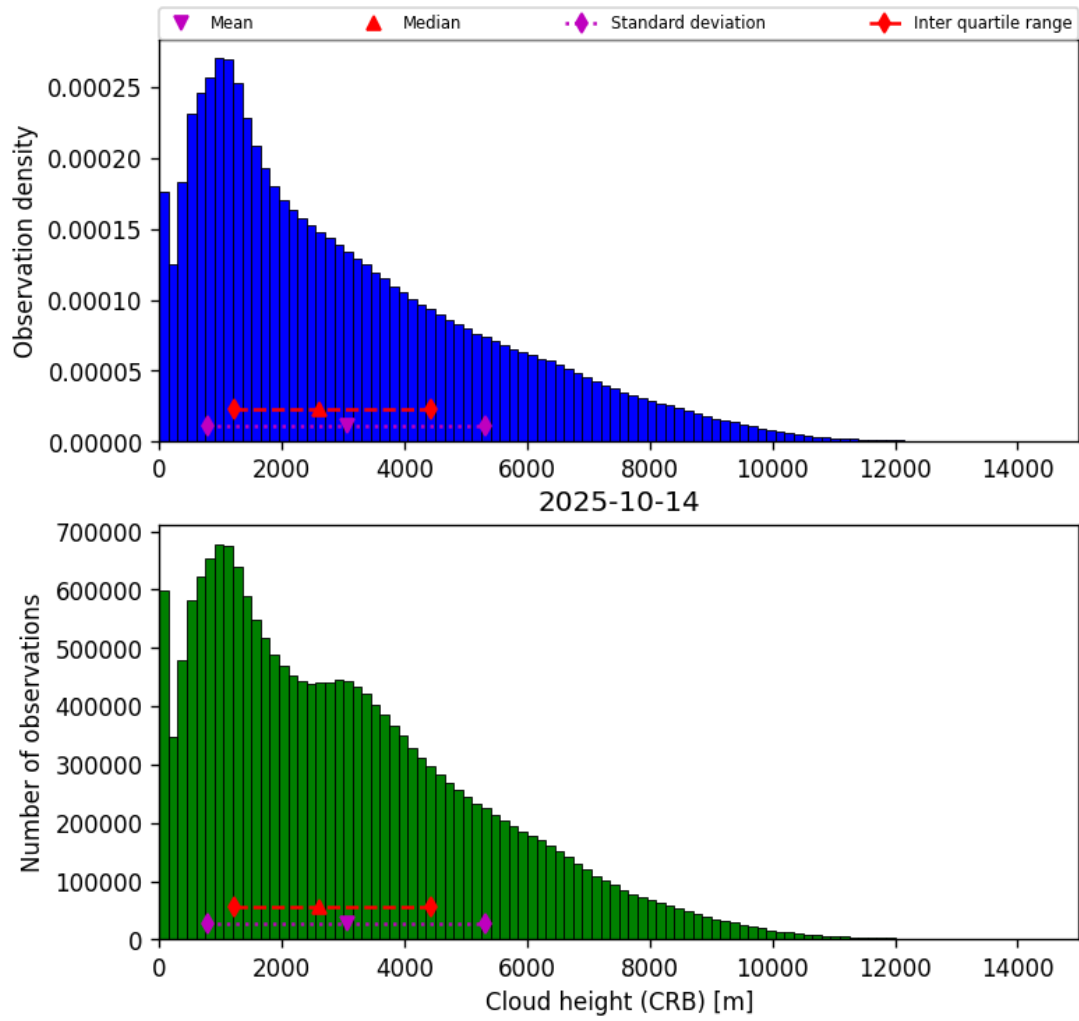


Figure 41: Histogram of “Cloud height (CRB)” for 2025-10-14 to 2025-10-15

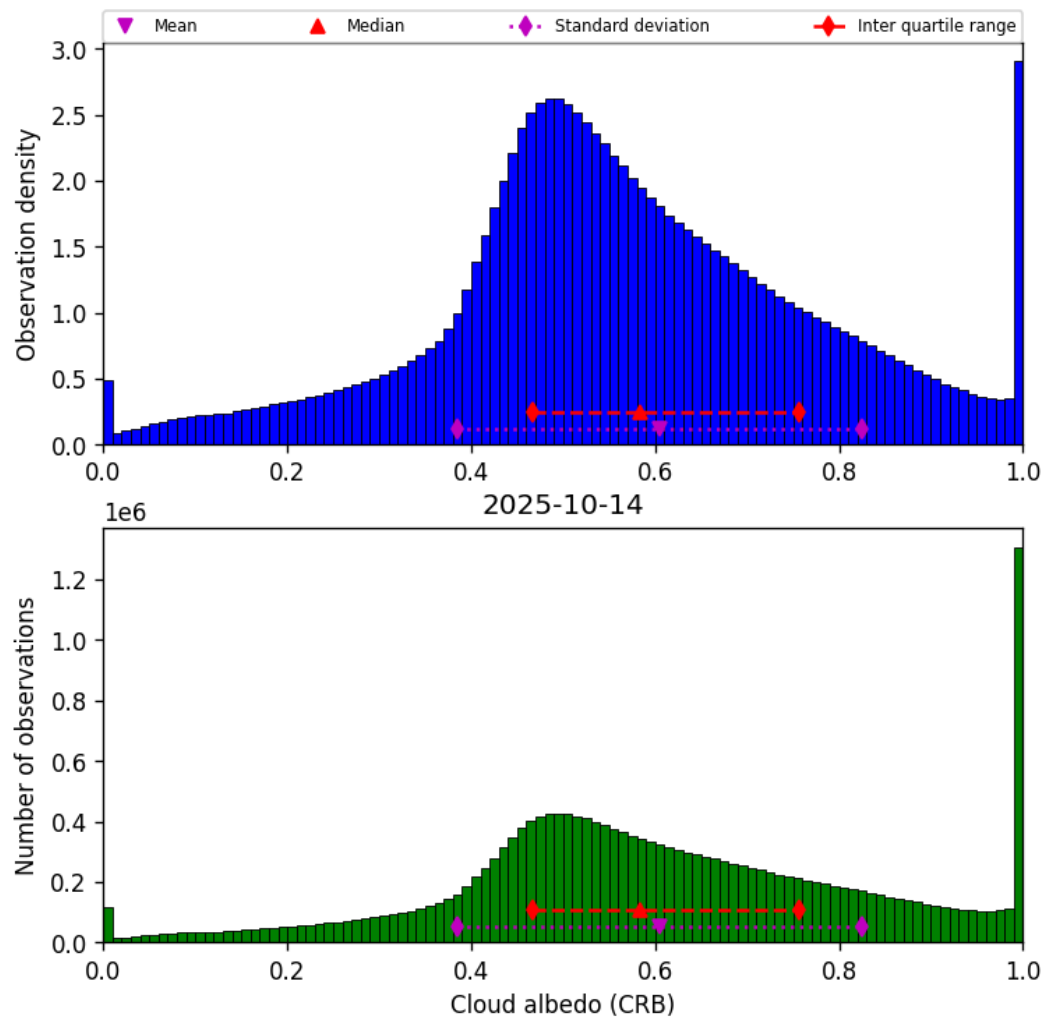


Figure 42: Histogram of “Cloud albedo (CRB)” for 2025-10-14 to 2025-10-15

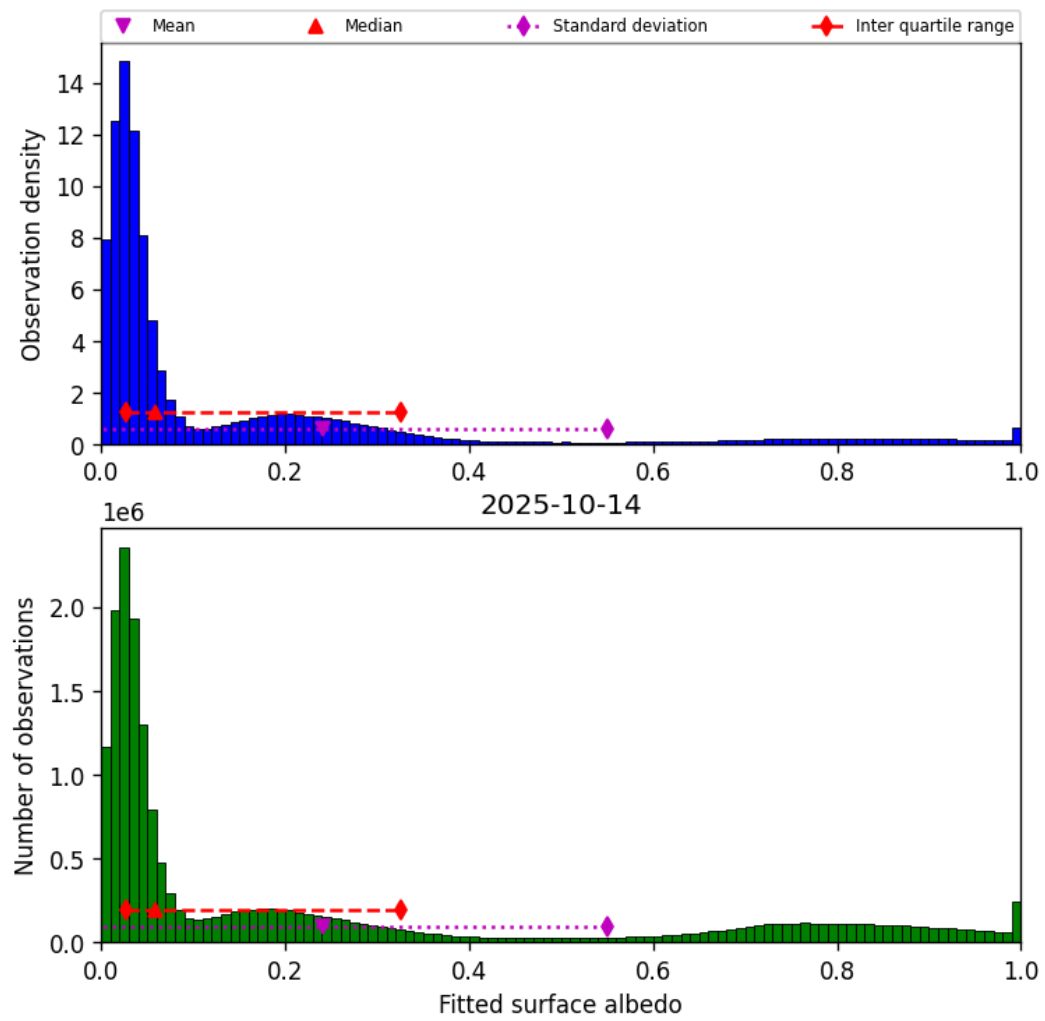


Figure 43: Histogram of “Fitted surface albedo” for 2025-10-14 to 2025-10-15

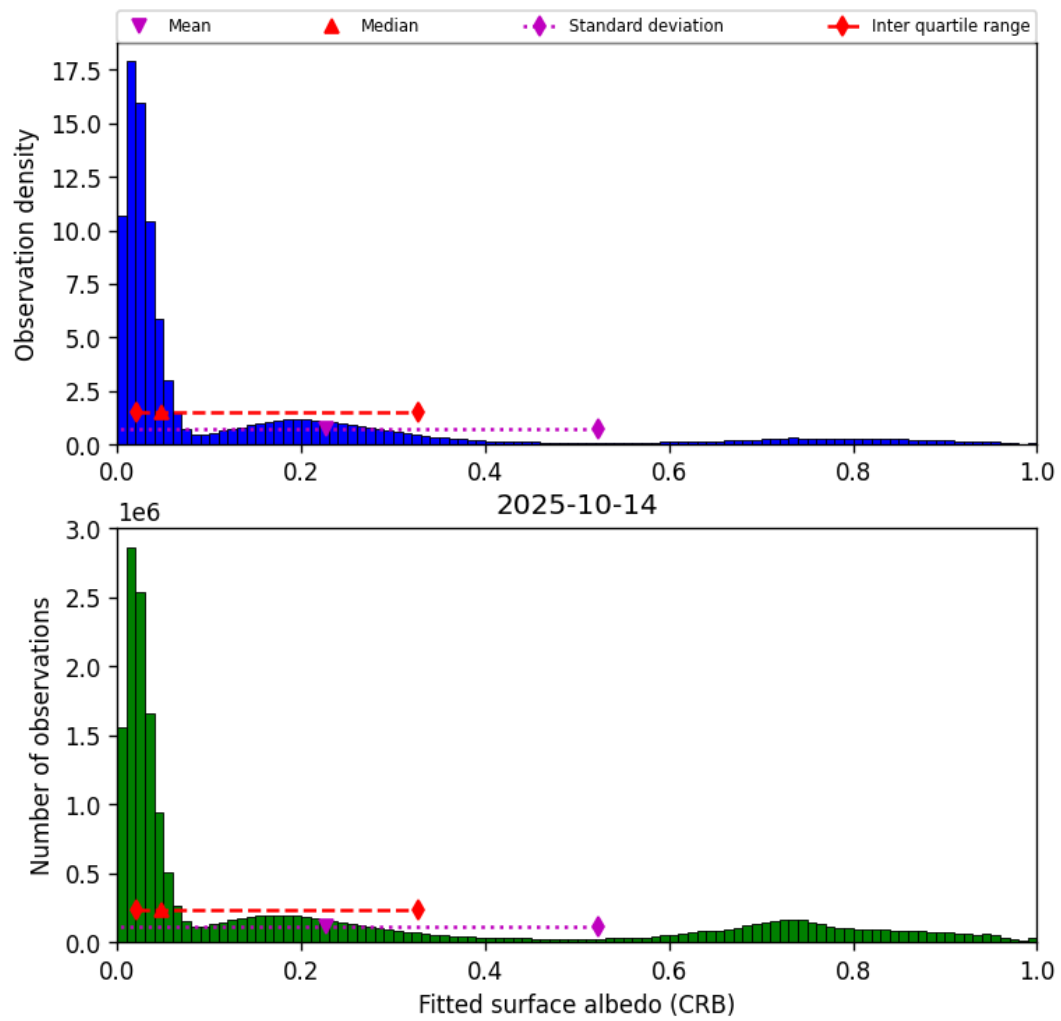


Figure 44: Histogram of “Fitted surface albedo (CRB)” for 2025-10-14 to 2025-10-15

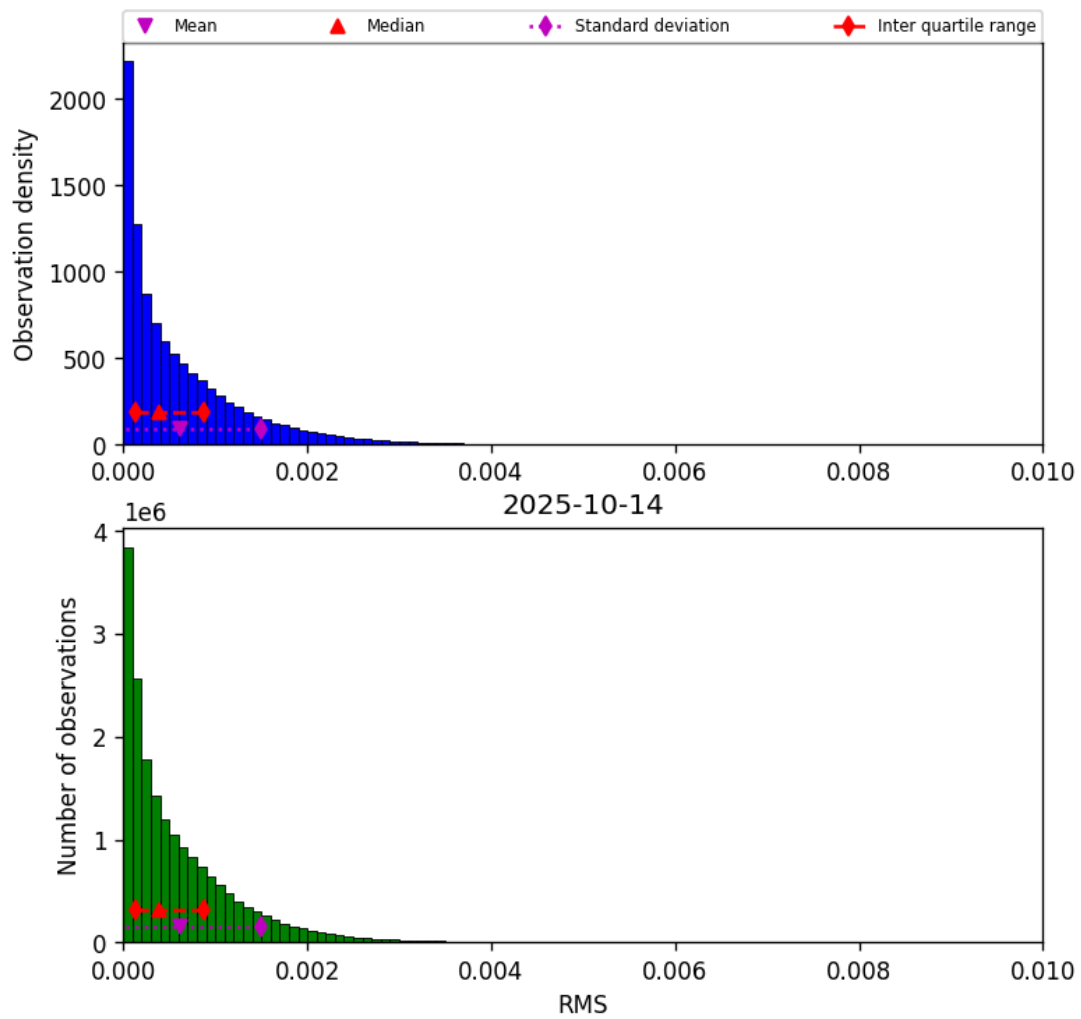


Figure 45: Histogram of “RMS” for 2025-10-14 to 2025-10-15

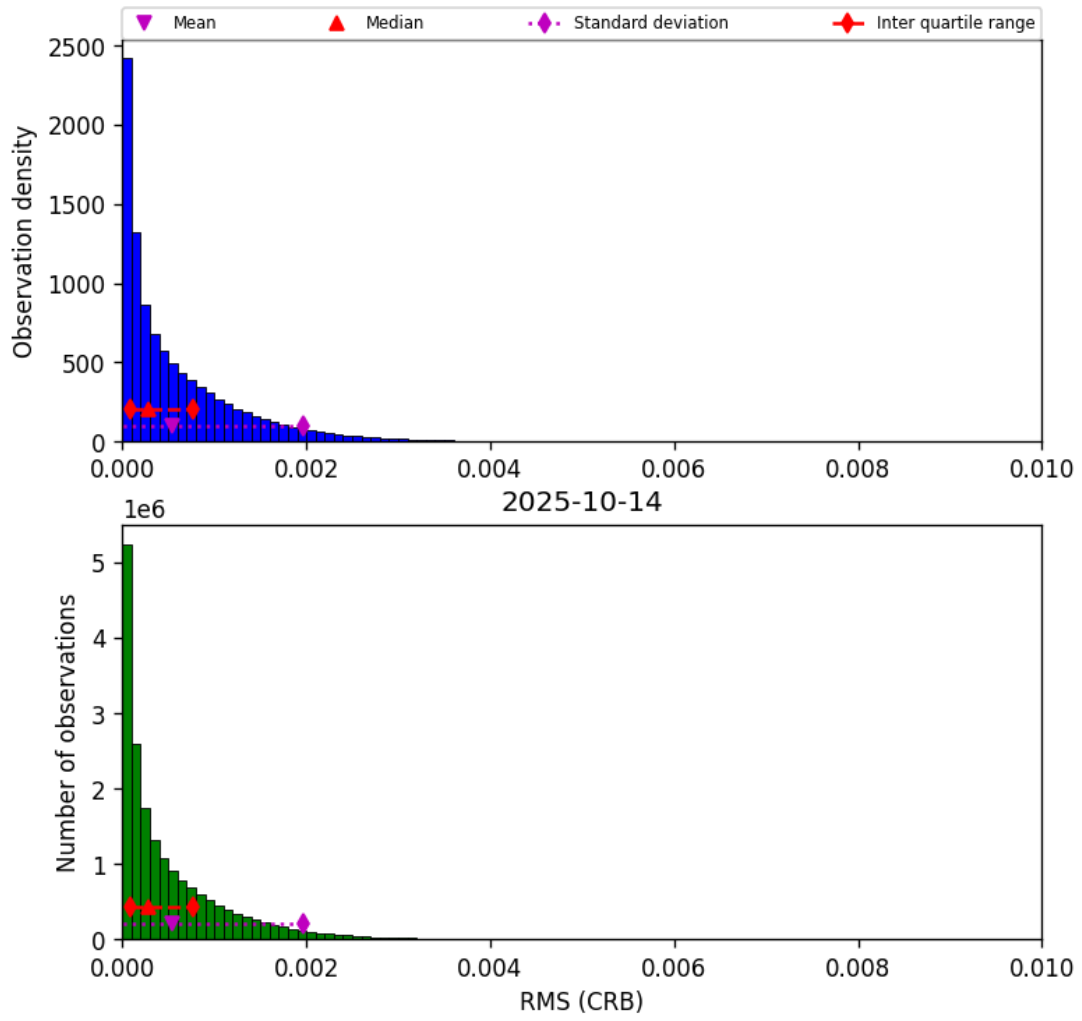


Figure 46: Histogram of “RMS (CRB)” for 2025-10-14 to 2025-10-15

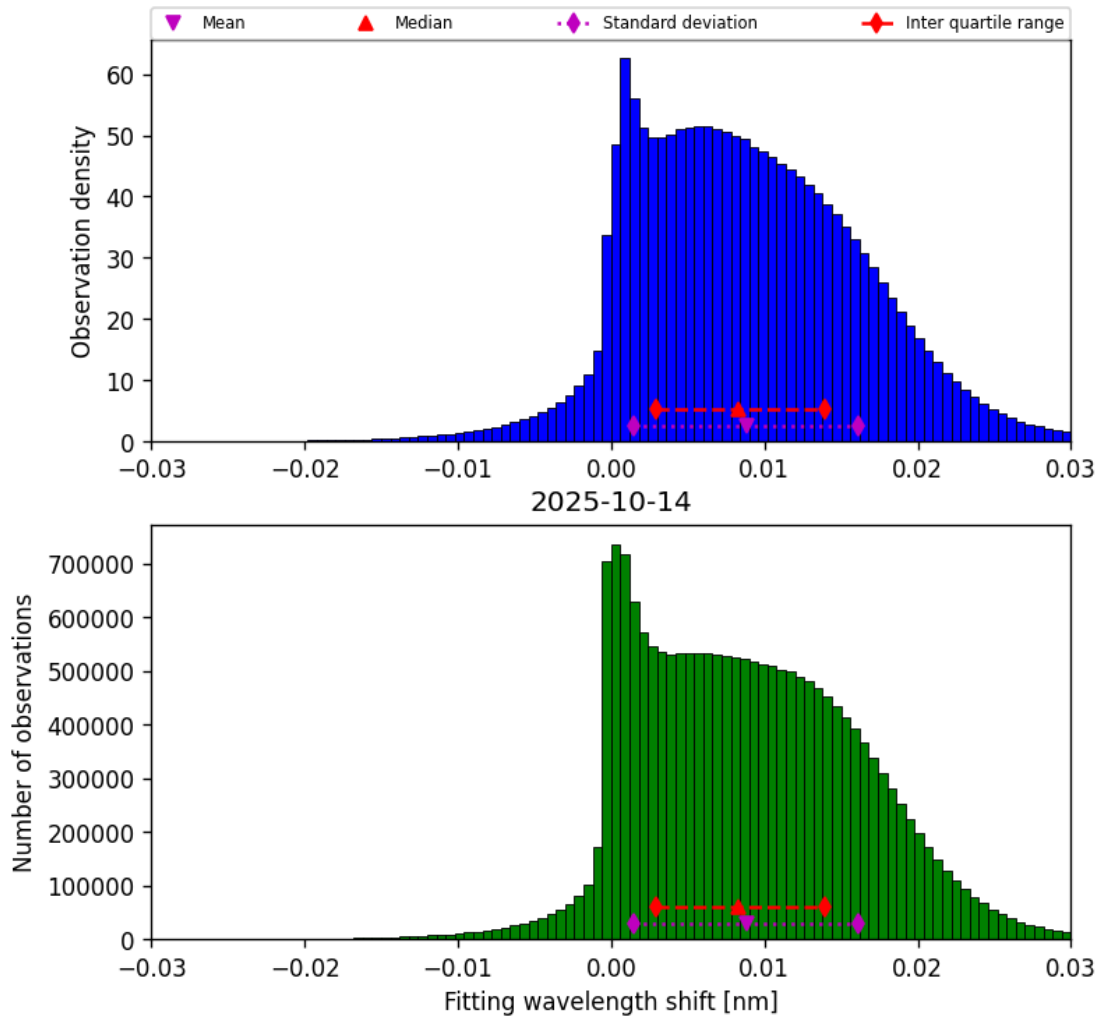


Figure 47: Histogram of “Fitting wavelength shift” for 2025-10-14 to 2025-10-15

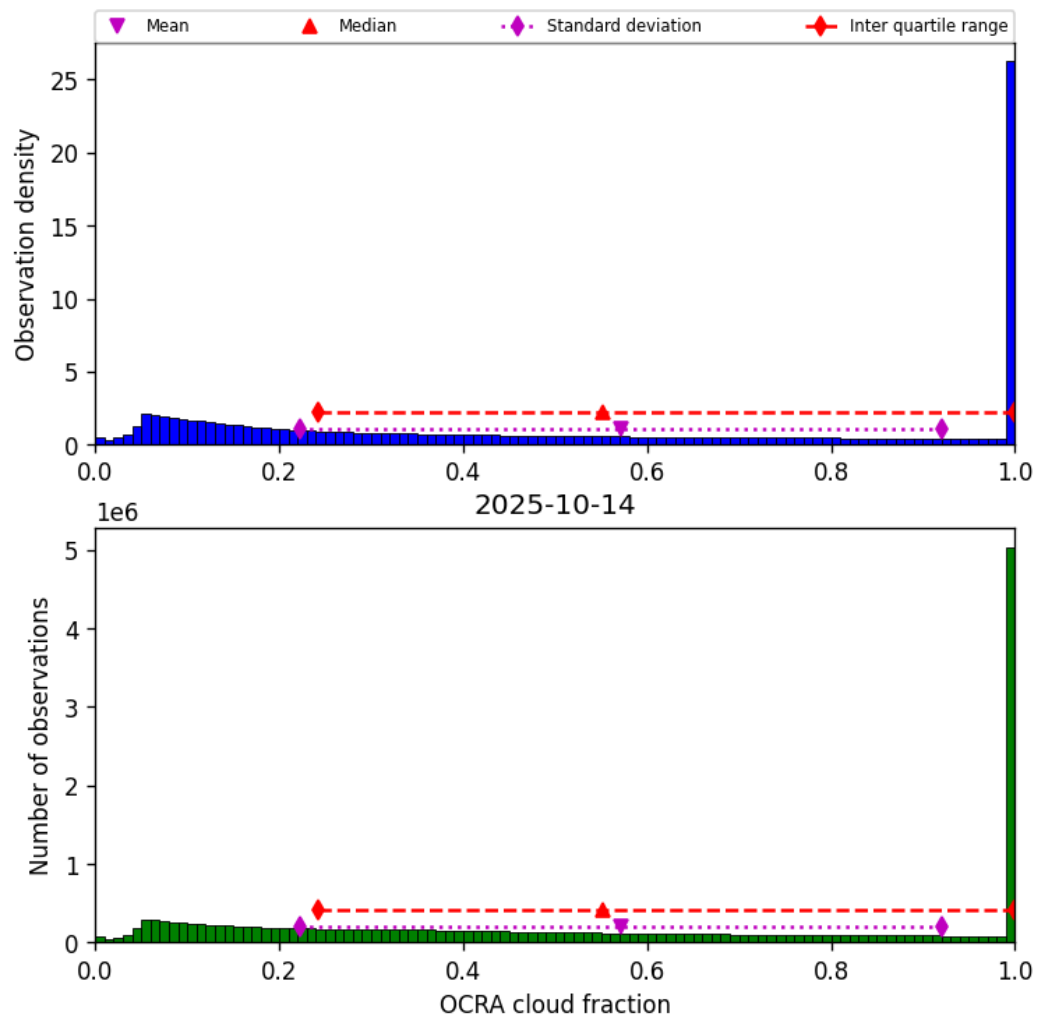


Figure 48: Histogram of “OCRA cloud fraction” for 2025-10-14 to 2025-10-15

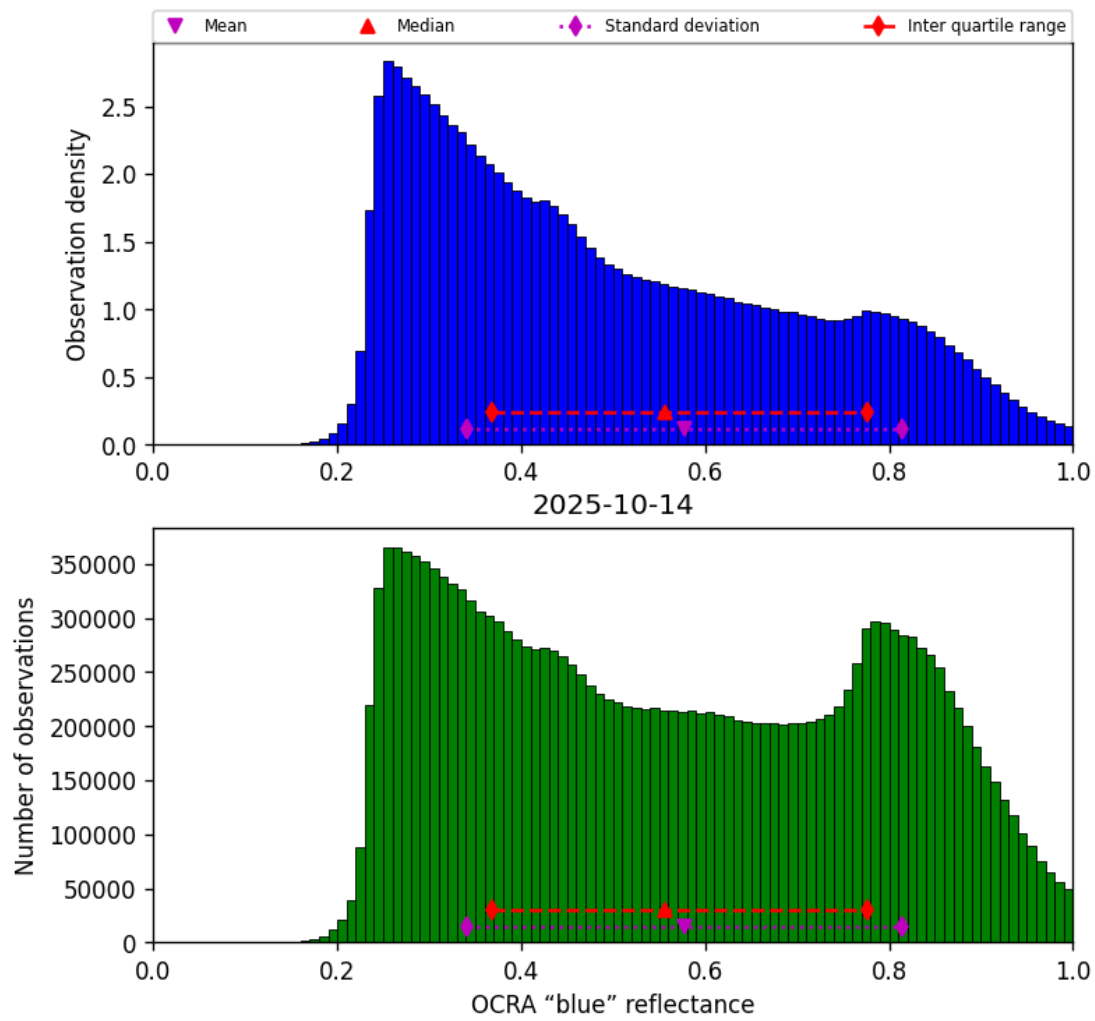


Figure 49: Histogram of “OCRA “blue” reflectance” for 2025-10-14 to 2025-10-15

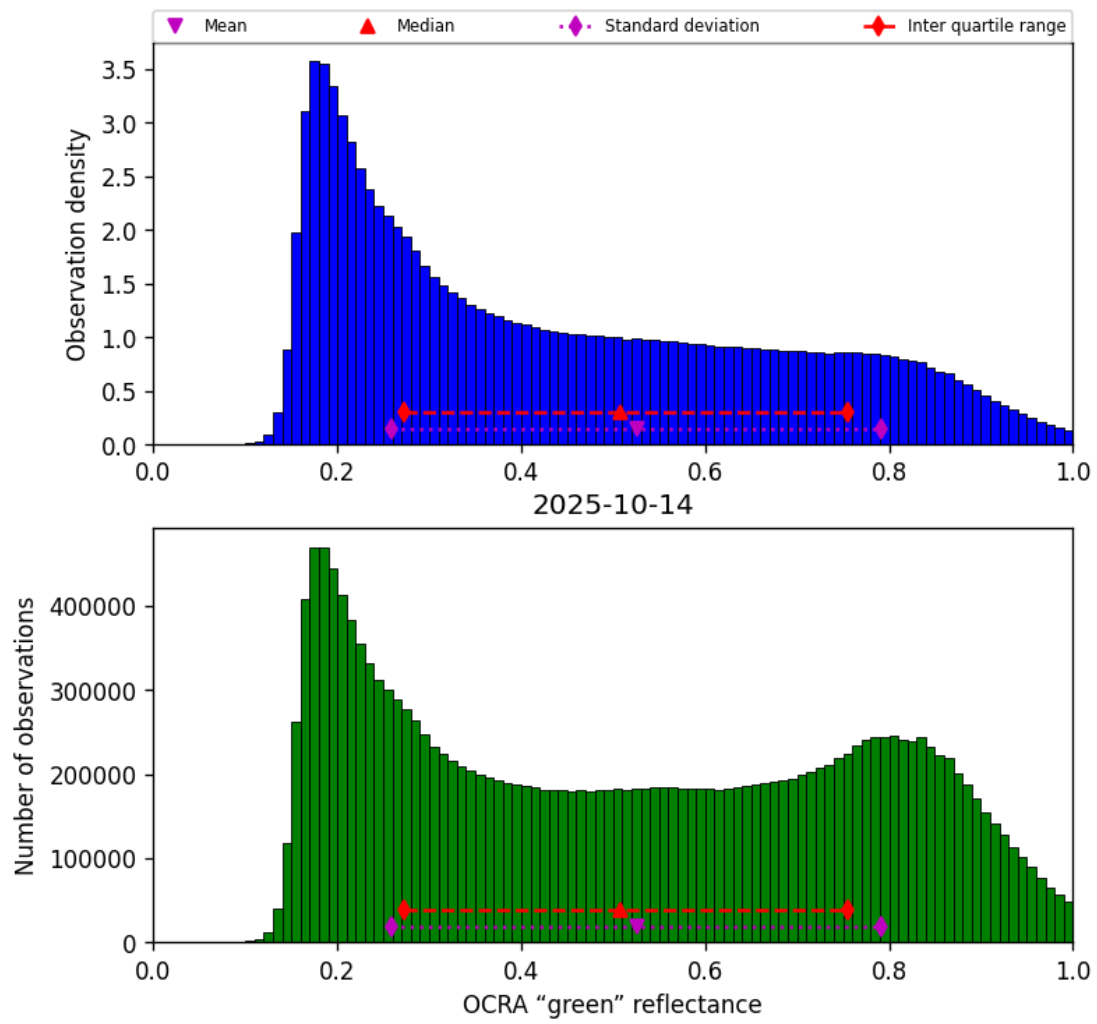


Figure 50: Histogram of “OCRA “green” reflectance” for 2025-10-14 to 2025-10-15

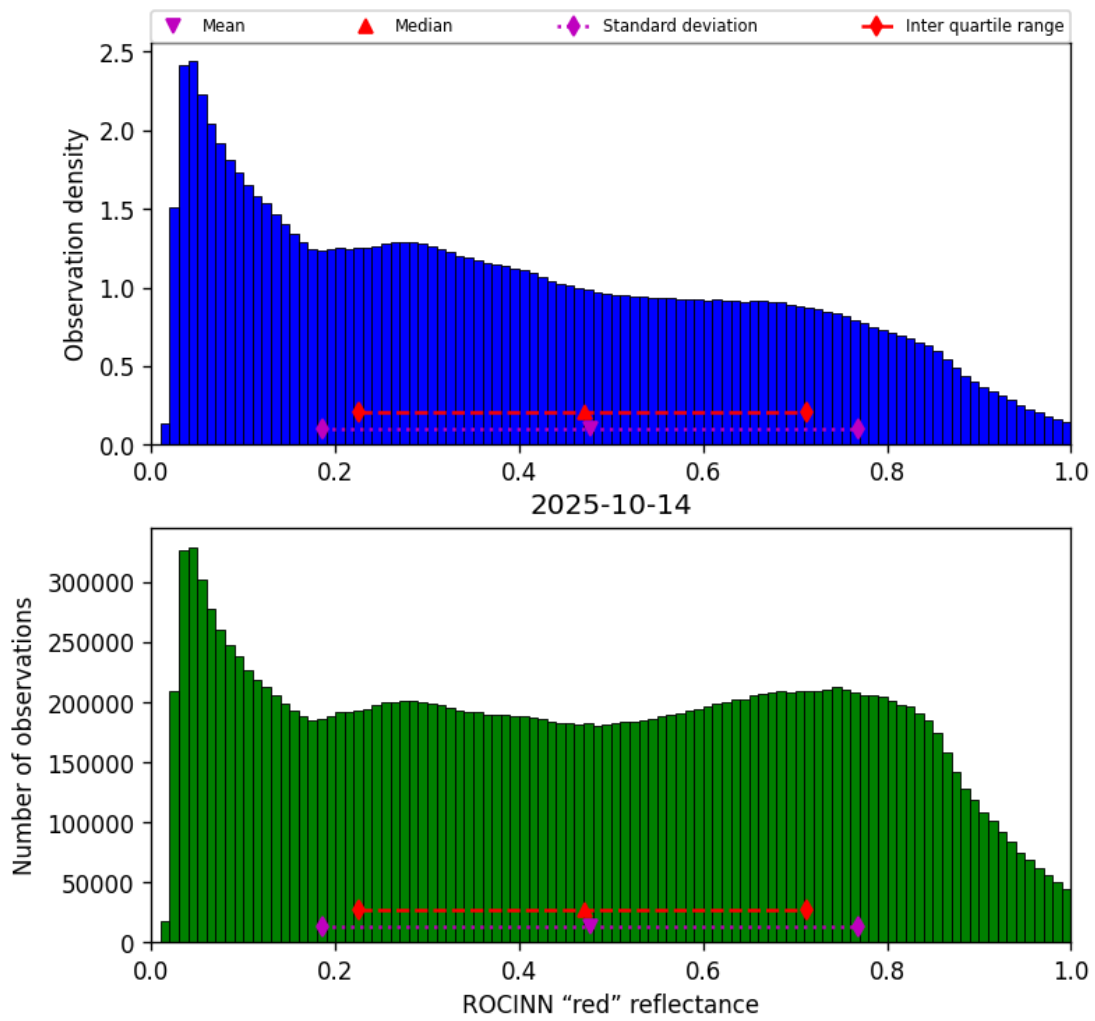


Figure 51: Histogram of "ROCINN "red" reflectance" for 2025-10-14 to 2025-10-15

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.

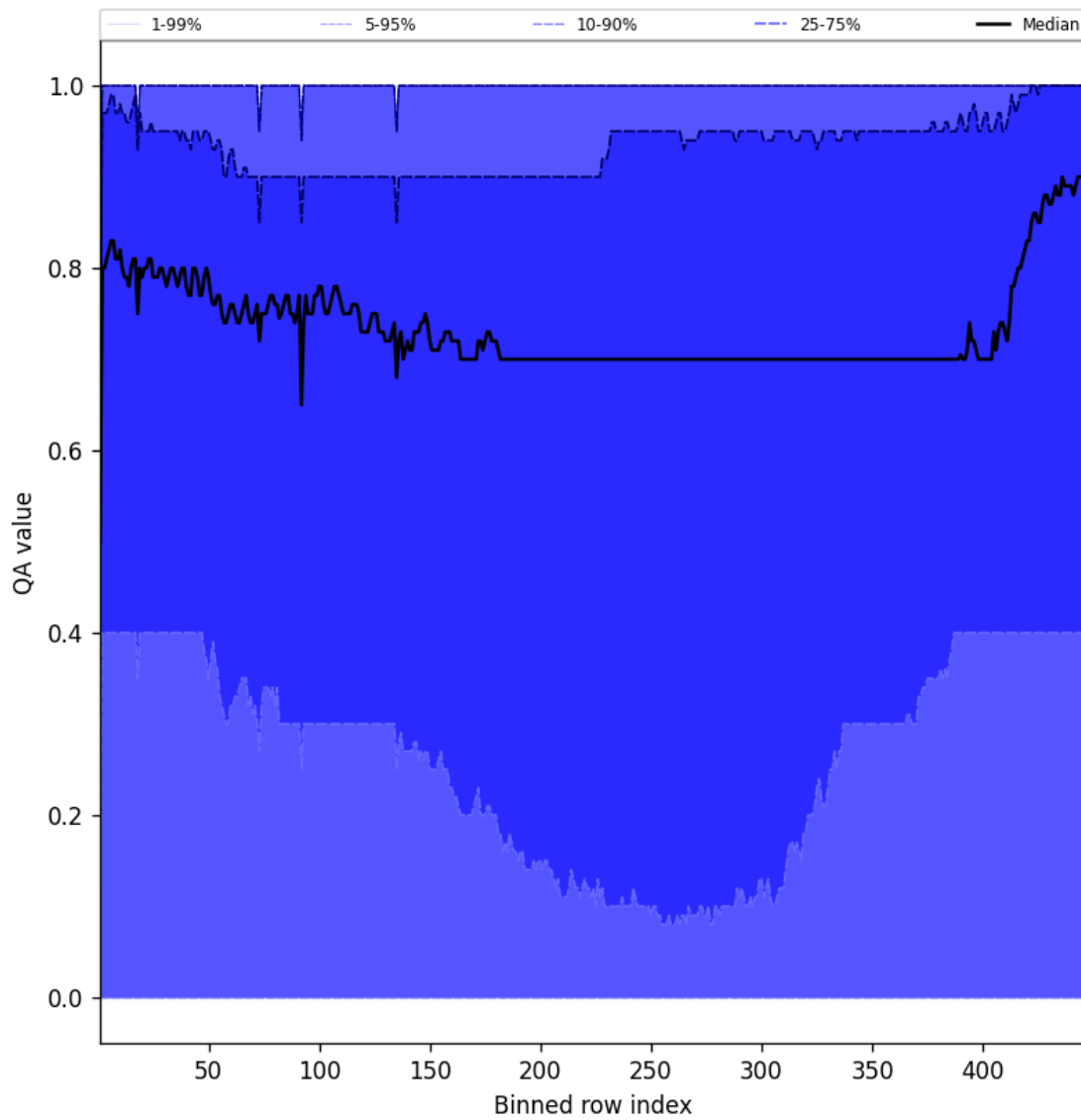


Figure 52: Along track statistics of “QA value” for 2025-10-14 to 2025-10-15

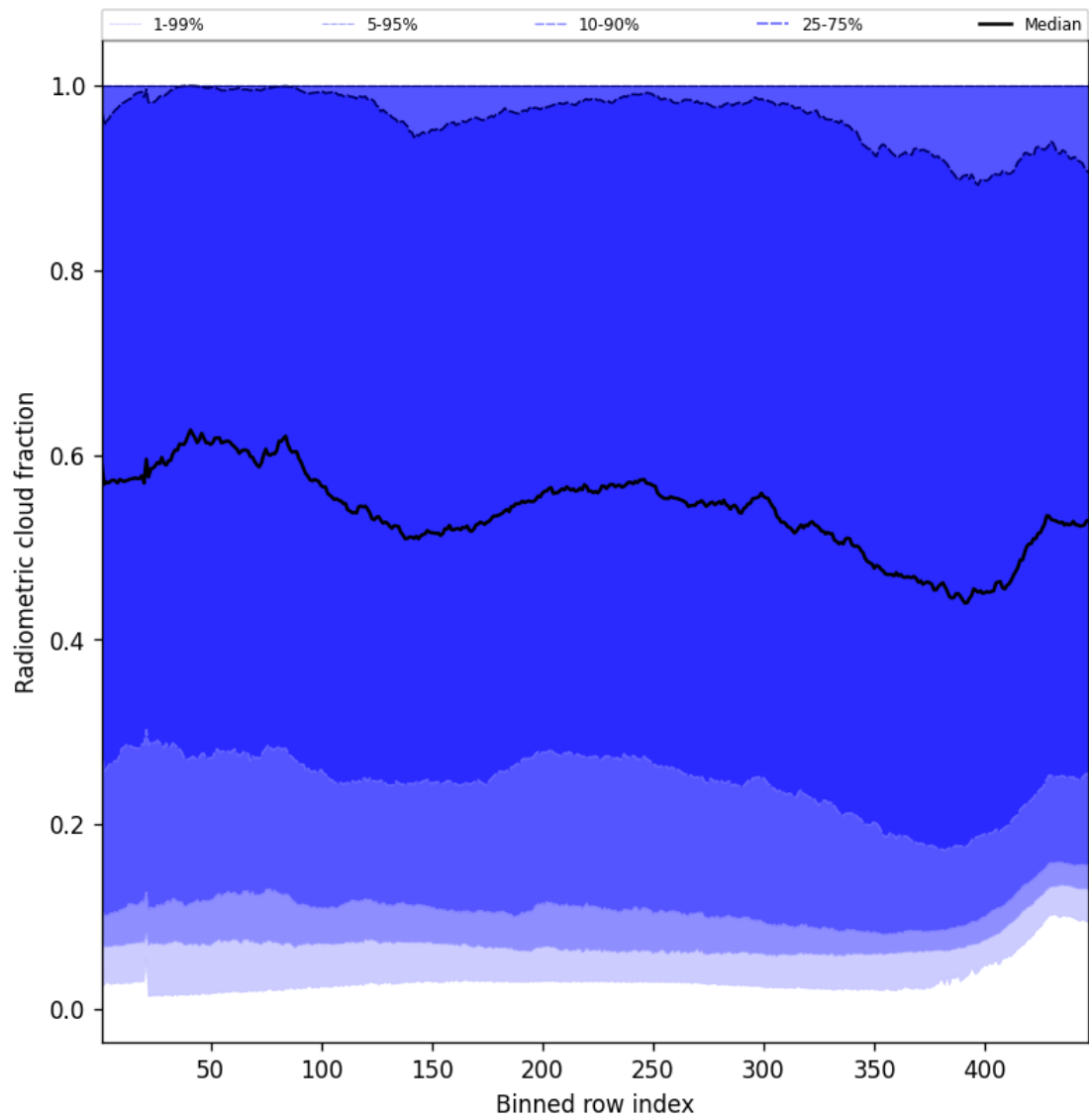


Figure 53: Along track statistics of “Radiometric cloud fraction” for 2025-10-14 to 2025-10-15

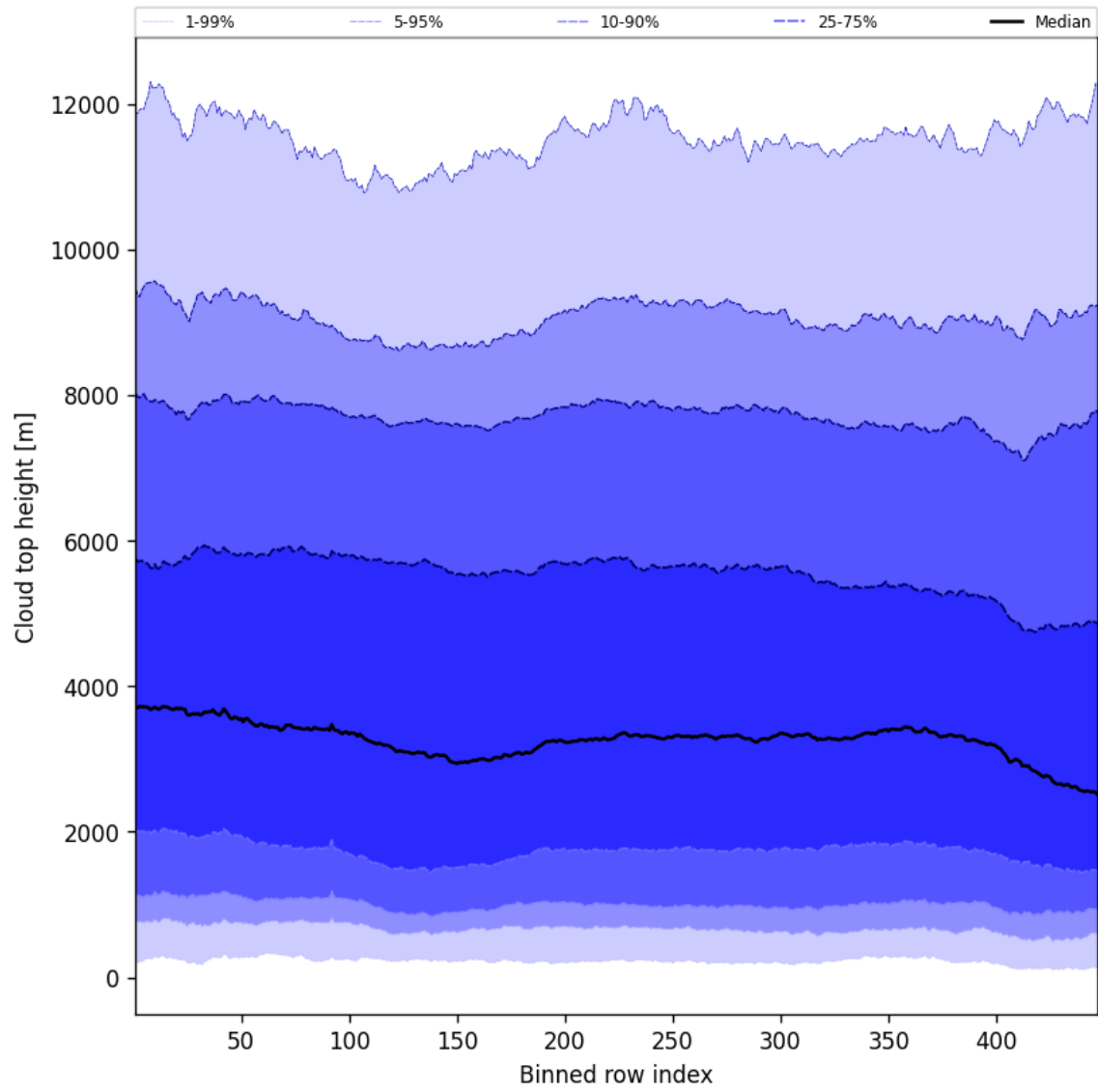


Figure 54: Along track statistics of “Cloud top height” for 2025-10-14 to 2025-10-15

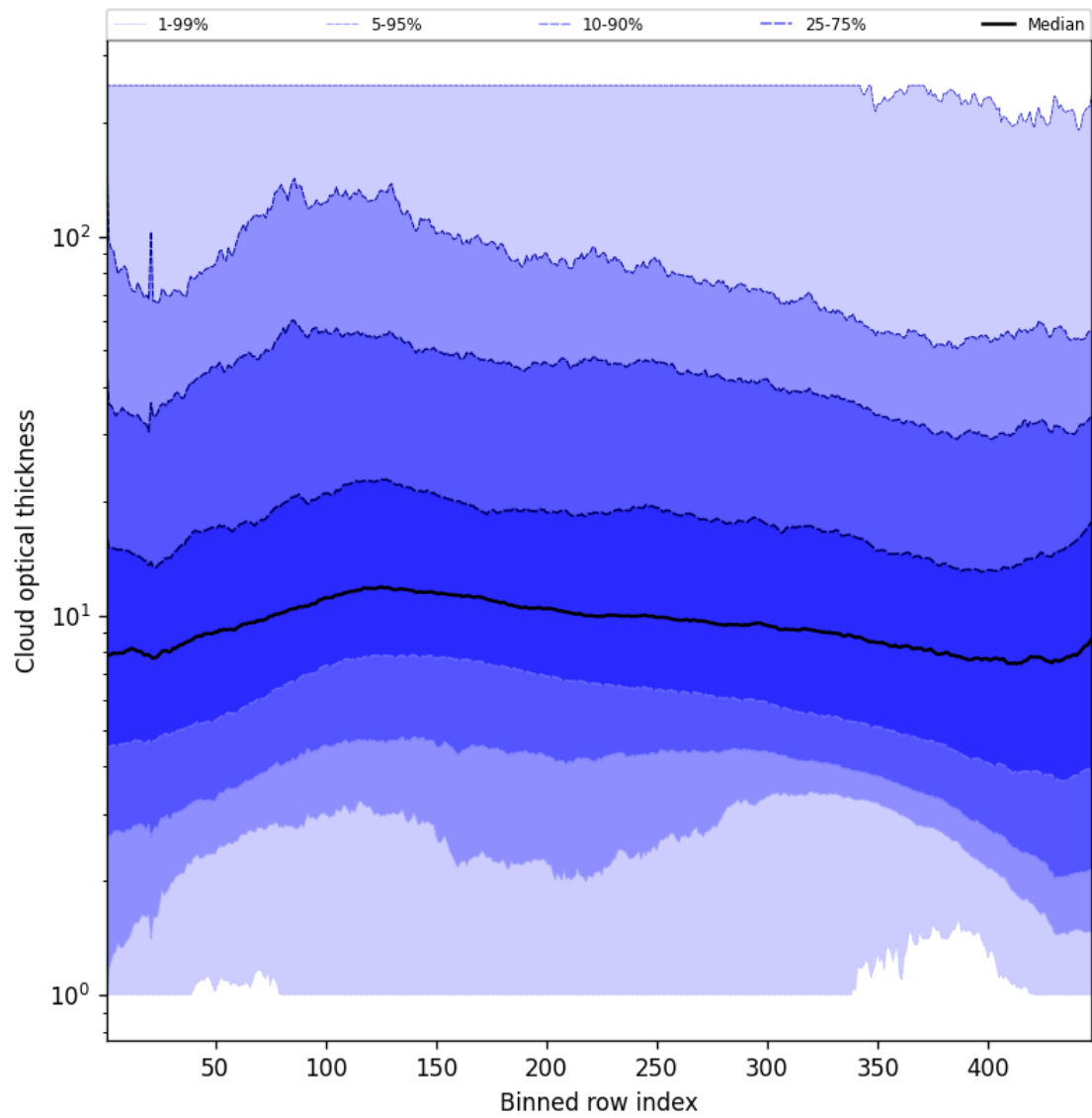


Figure 55: Along track statistics of “Cloud optical thickness” for 2025-10-14 to 2025-10-15

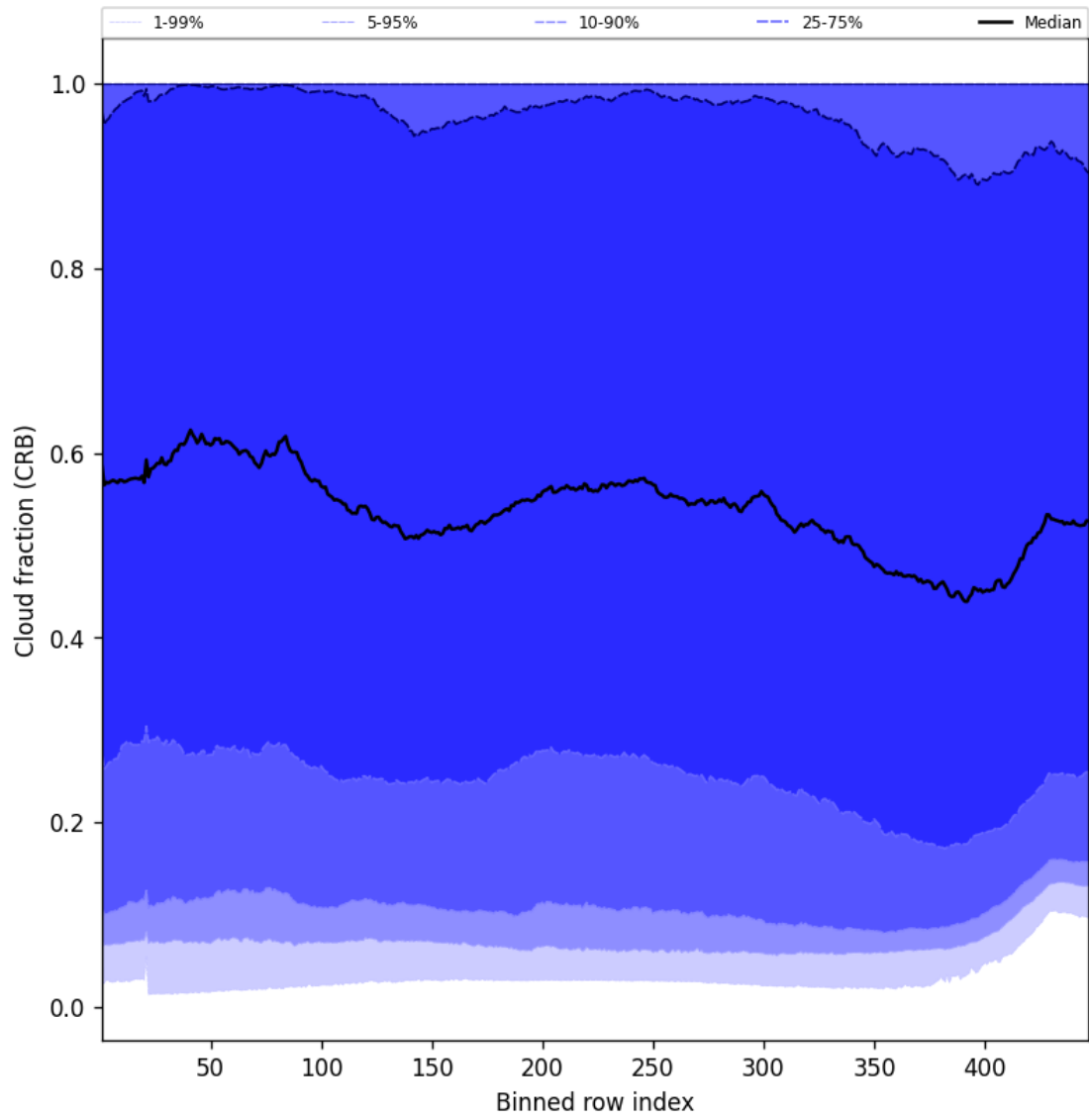


Figure 56: Along track statistics of “Cloud fraction (CRB)” for 2025-10-14 to 2025-10-15

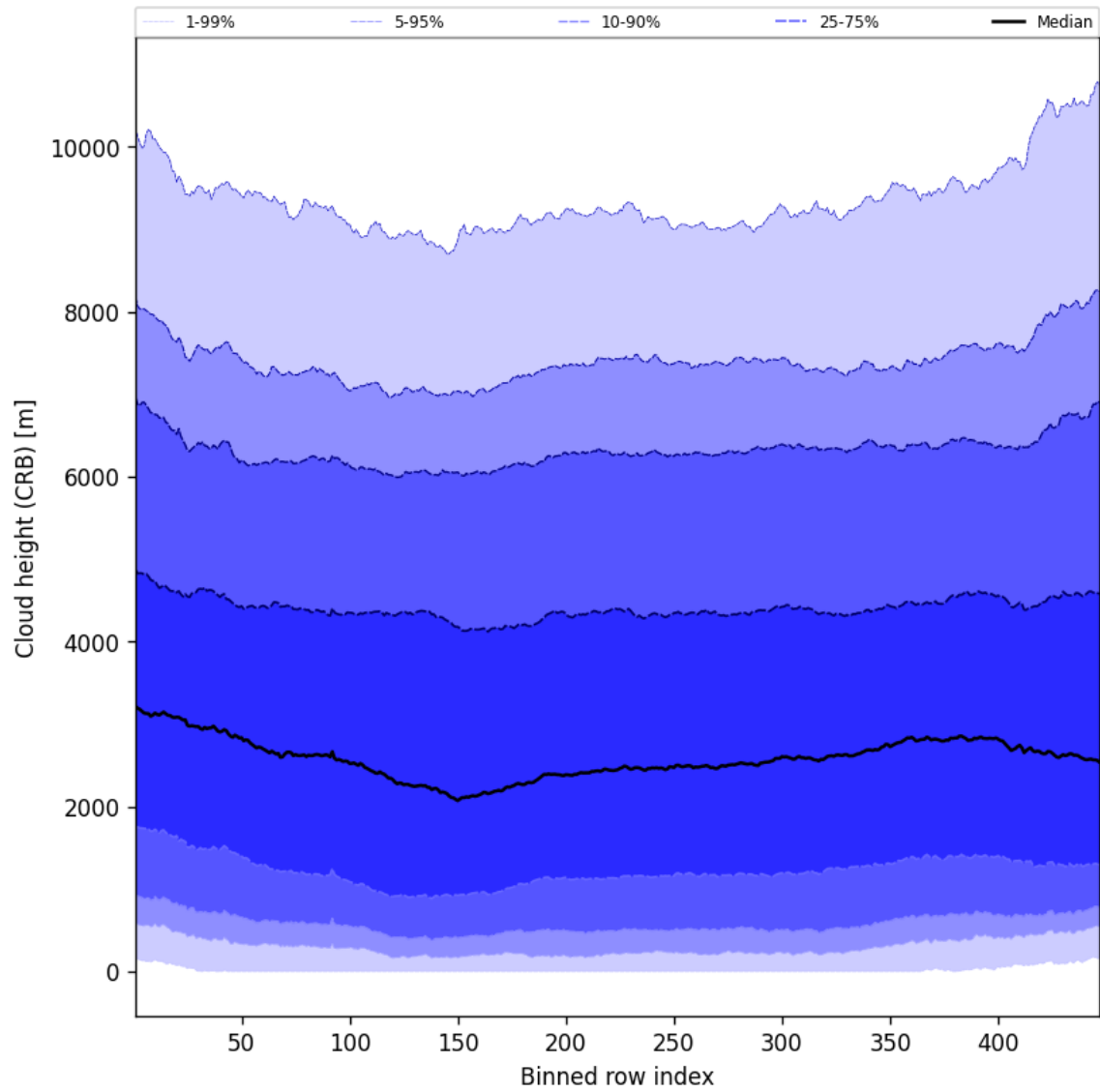


Figure 57: Along track statistics of “Cloud height (CRB)” for 2025-10-14 to 2025-10-15

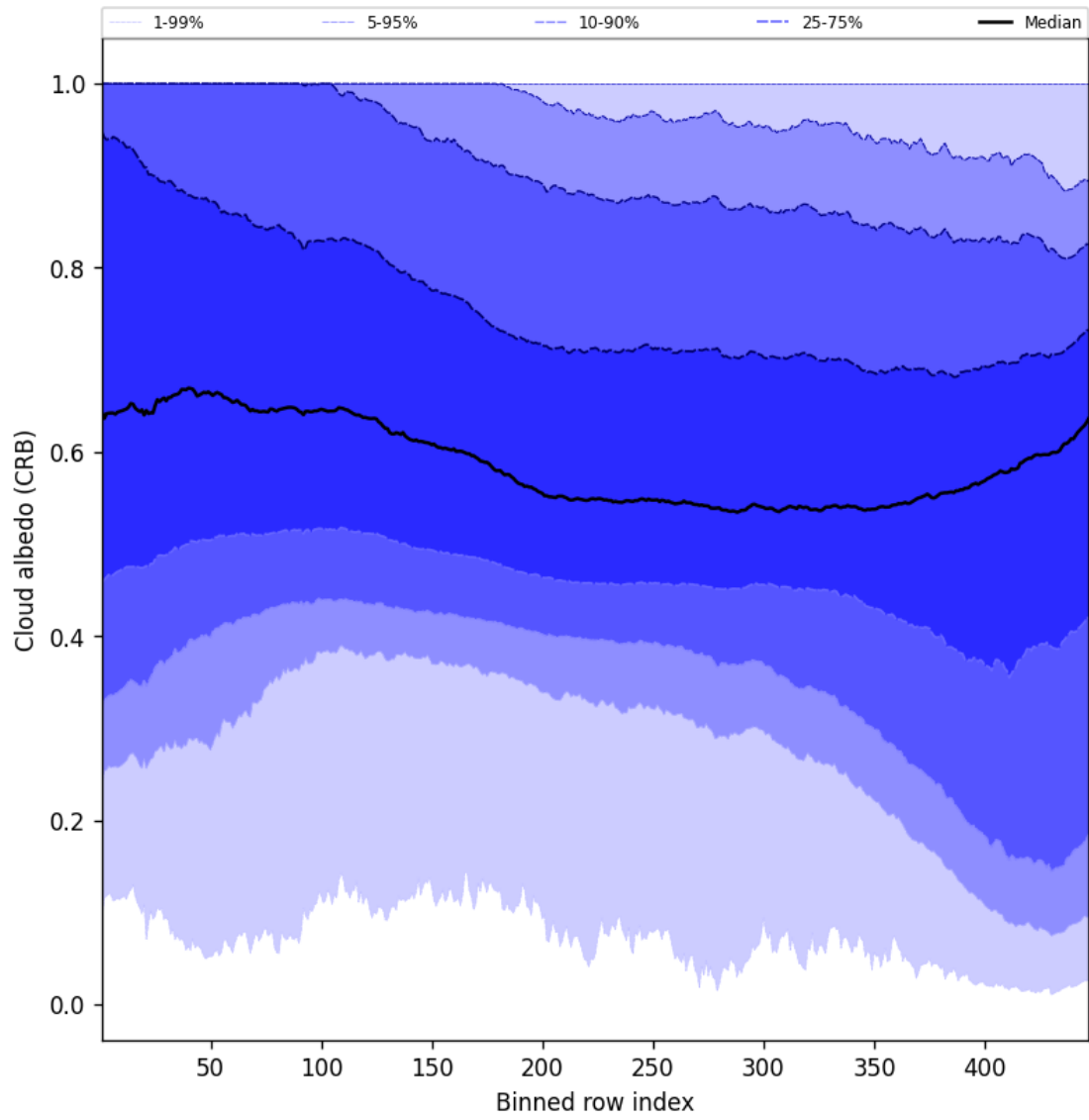


Figure 58: Along track statistics of “Cloud albedo (CRB)” for 2025-10-14 to 2025-10-15

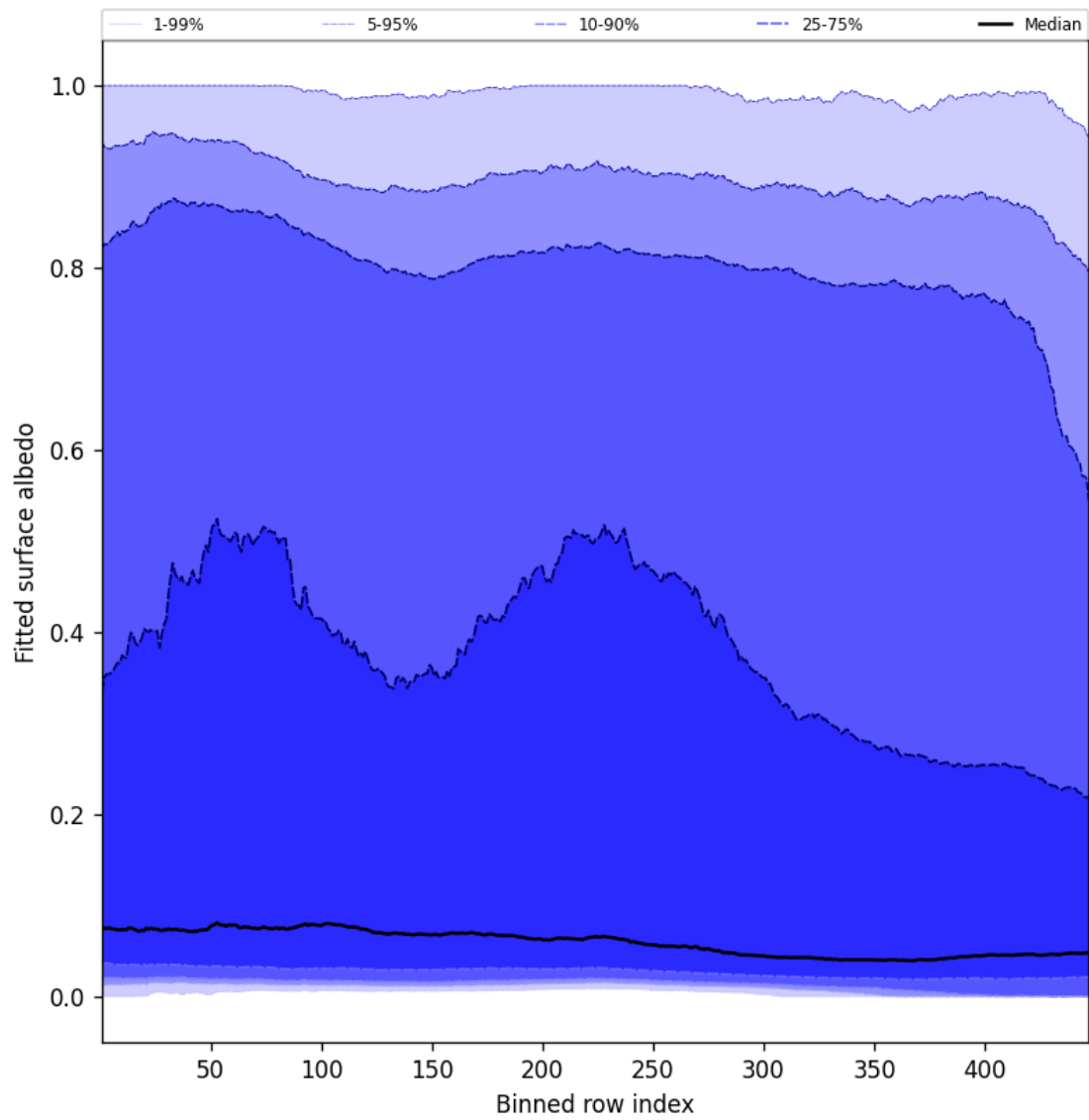


Figure 59: Along track statistics of “Fitted surface albedo” for 2025-10-14 to 2025-10-15

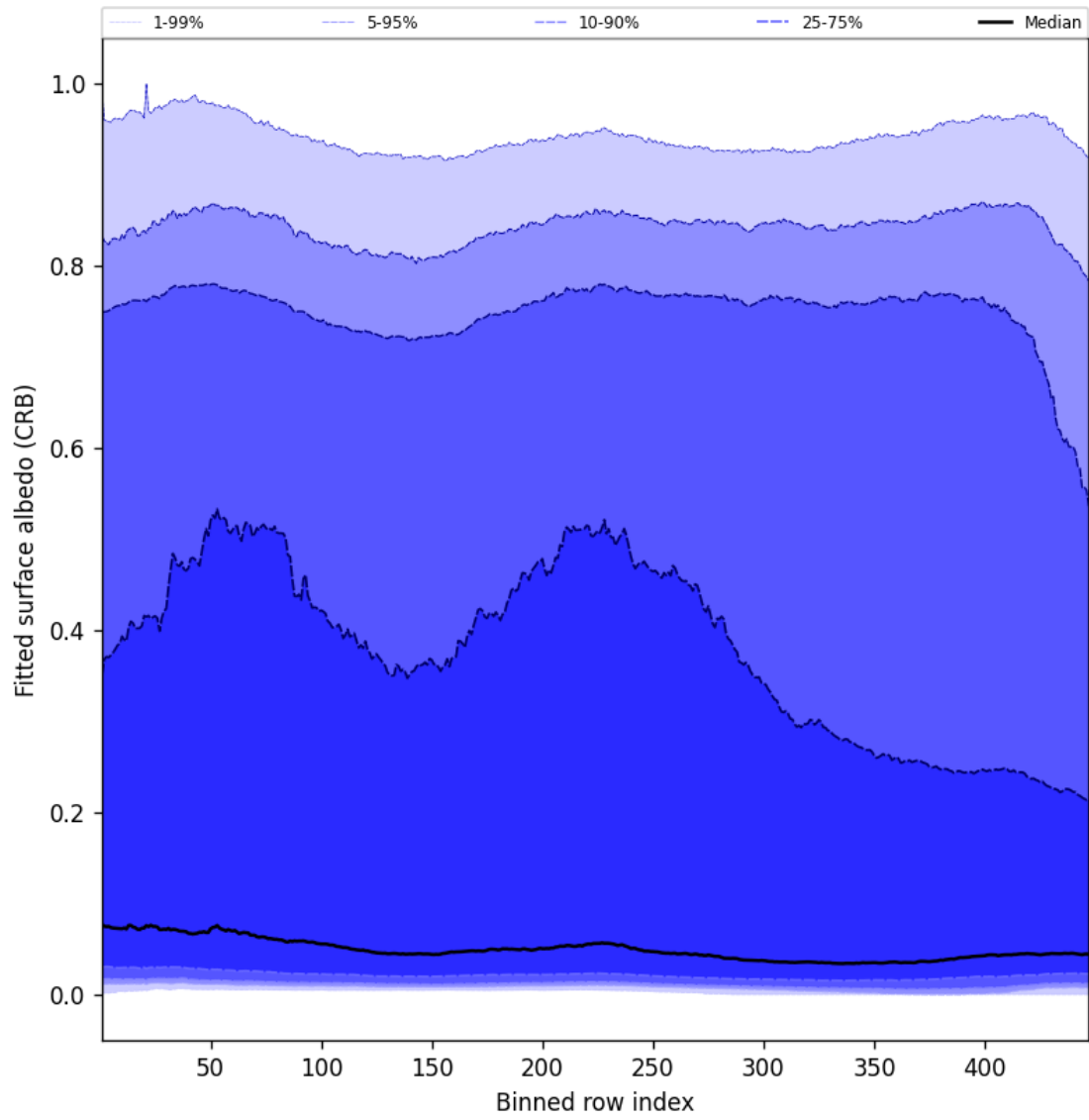


Figure 60: Along track statistics of “Fitted surface albedo (CRB)” for 2025-10-14 to 2025-10-15

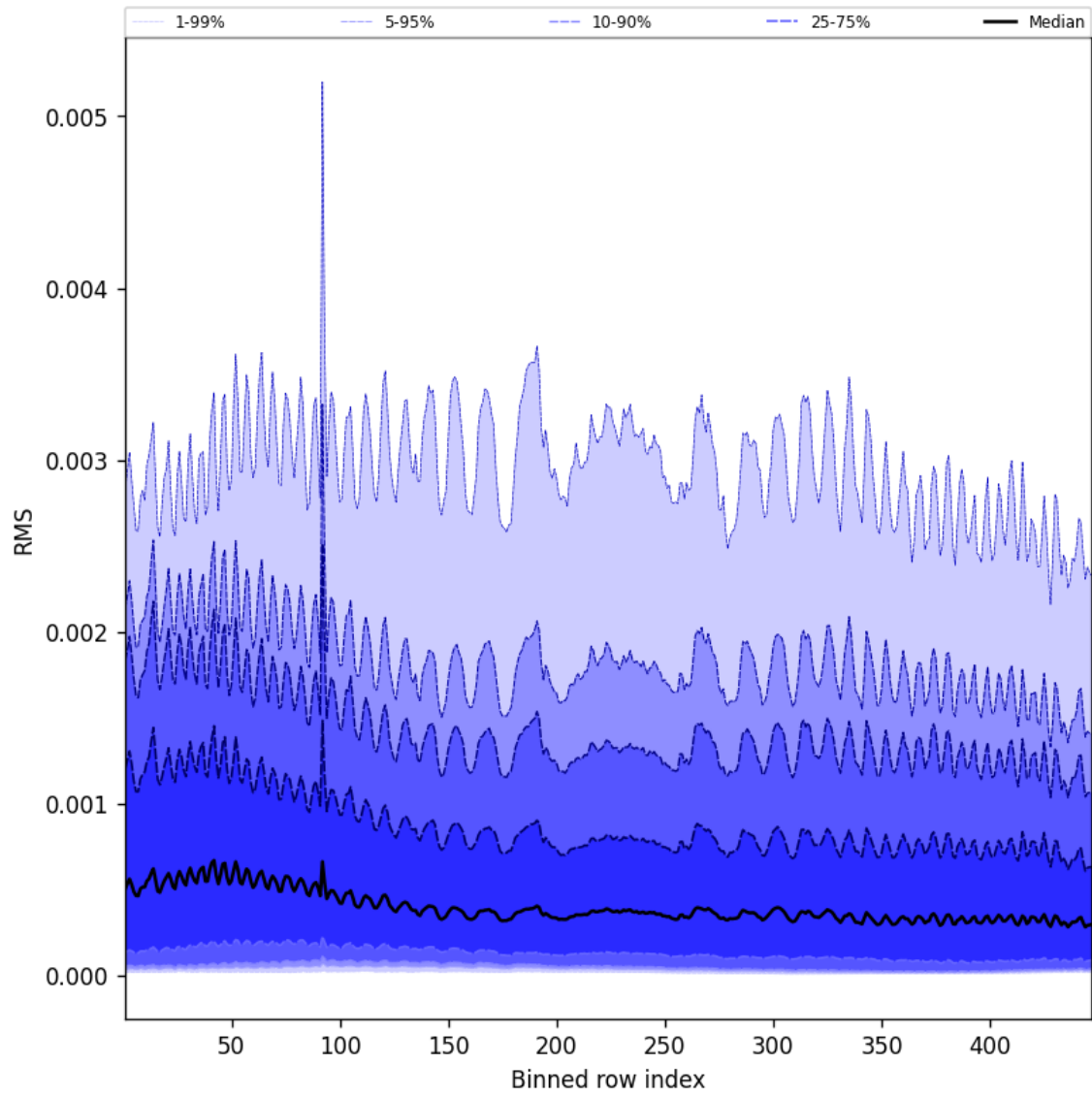


Figure 61: Along track statistics of “RMS” for 2025-10-14 to 2025-10-15

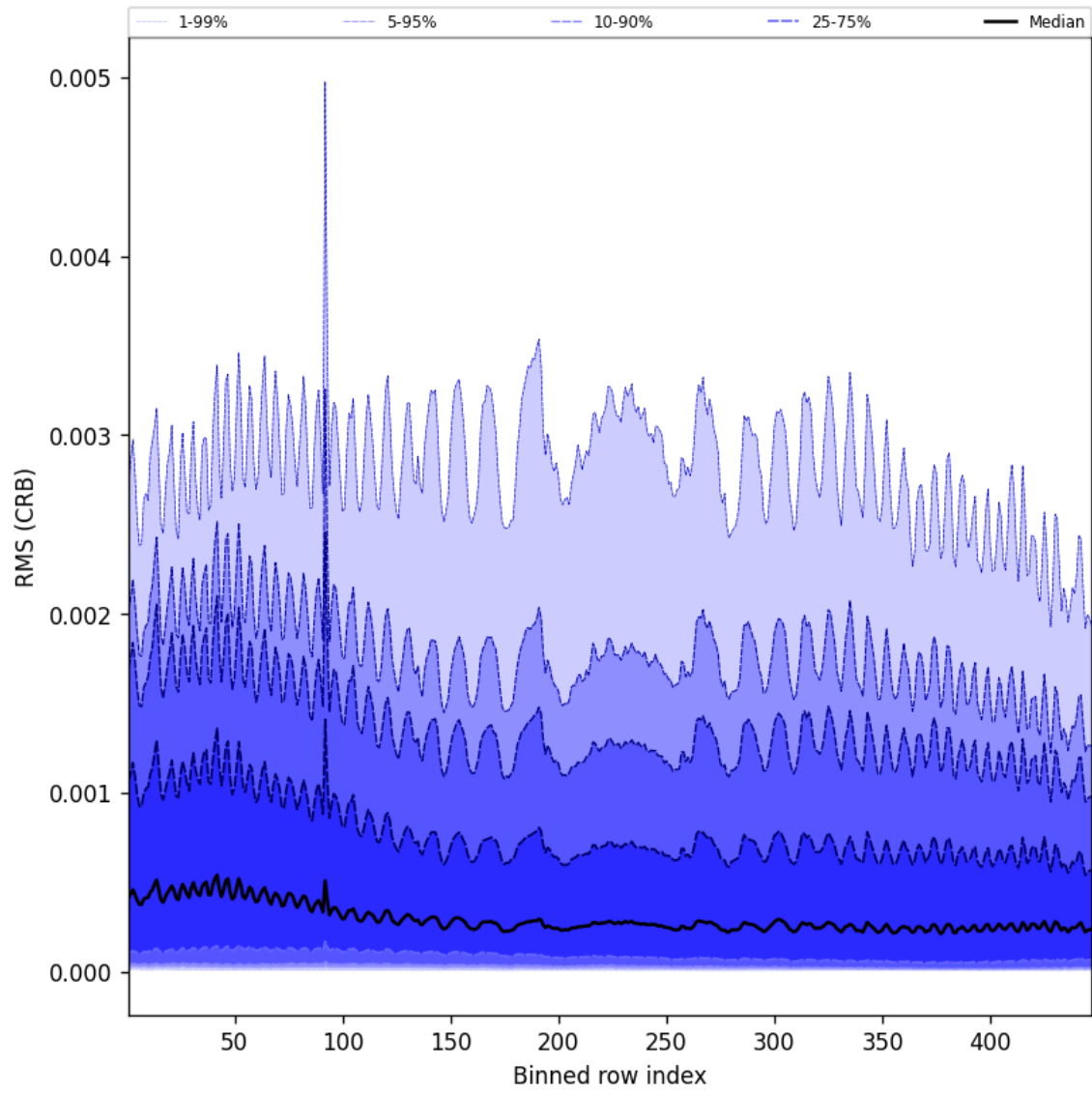


Figure 62: Along track statistics of “RMS (CRB)” for 2025-10-14 to 2025-10-15

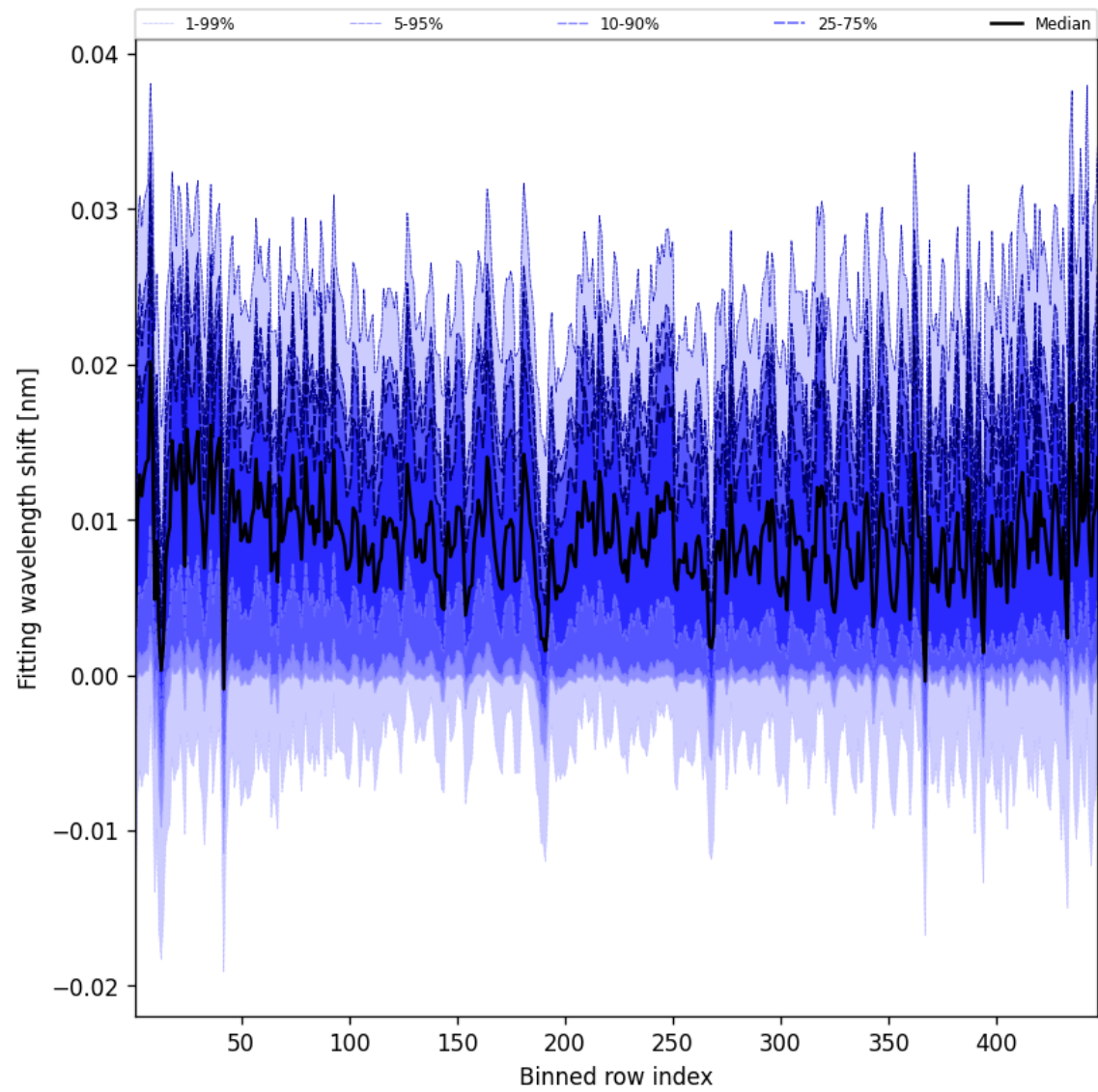


Figure 63: Along track statistics of “Fitting wavelength shift” for 2025-10-14 to 2025-10-15

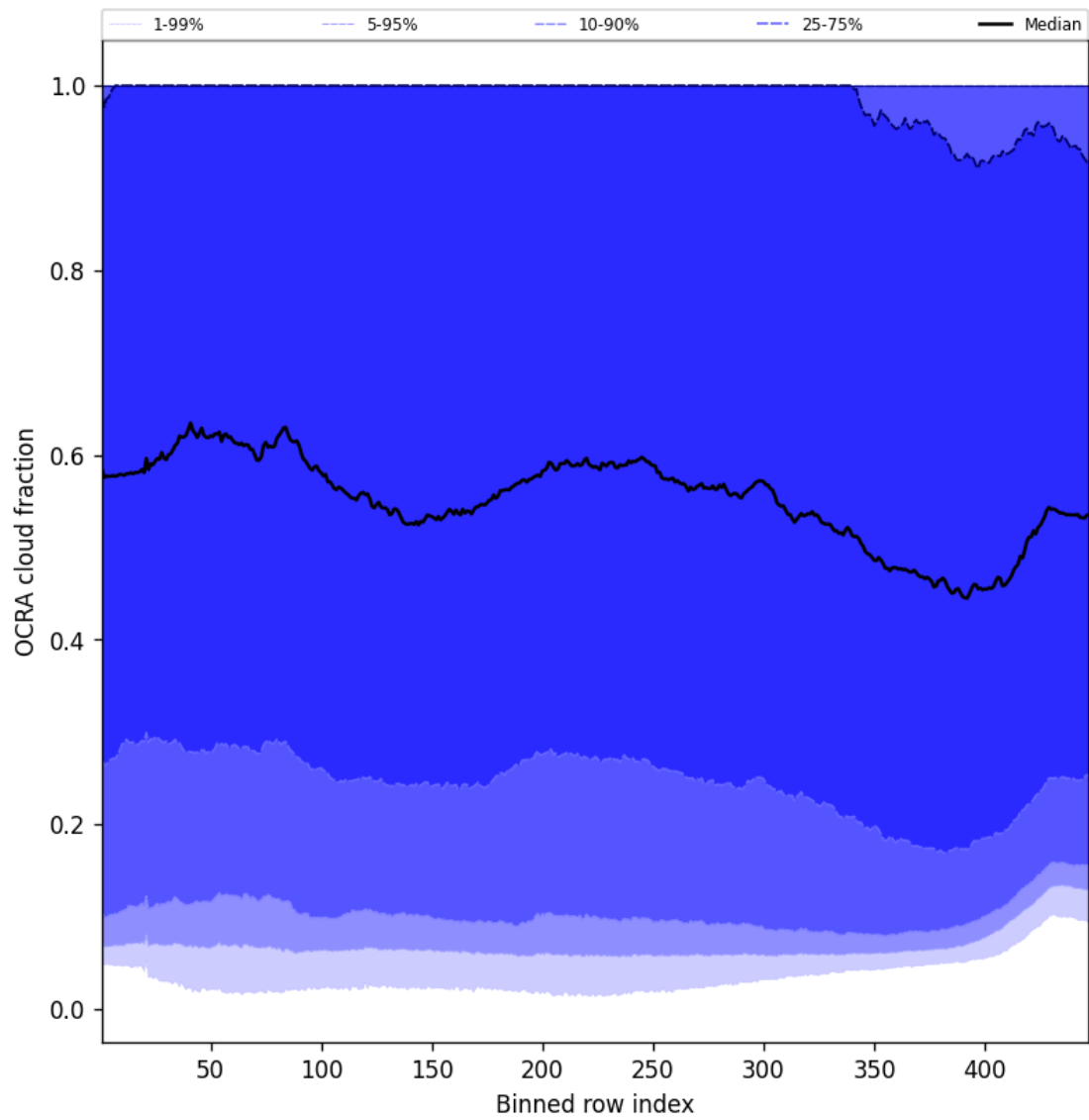


Figure 64: Along track statistics of “OCRA cloud fraction” for 2025-10-14 to 2025-10-15

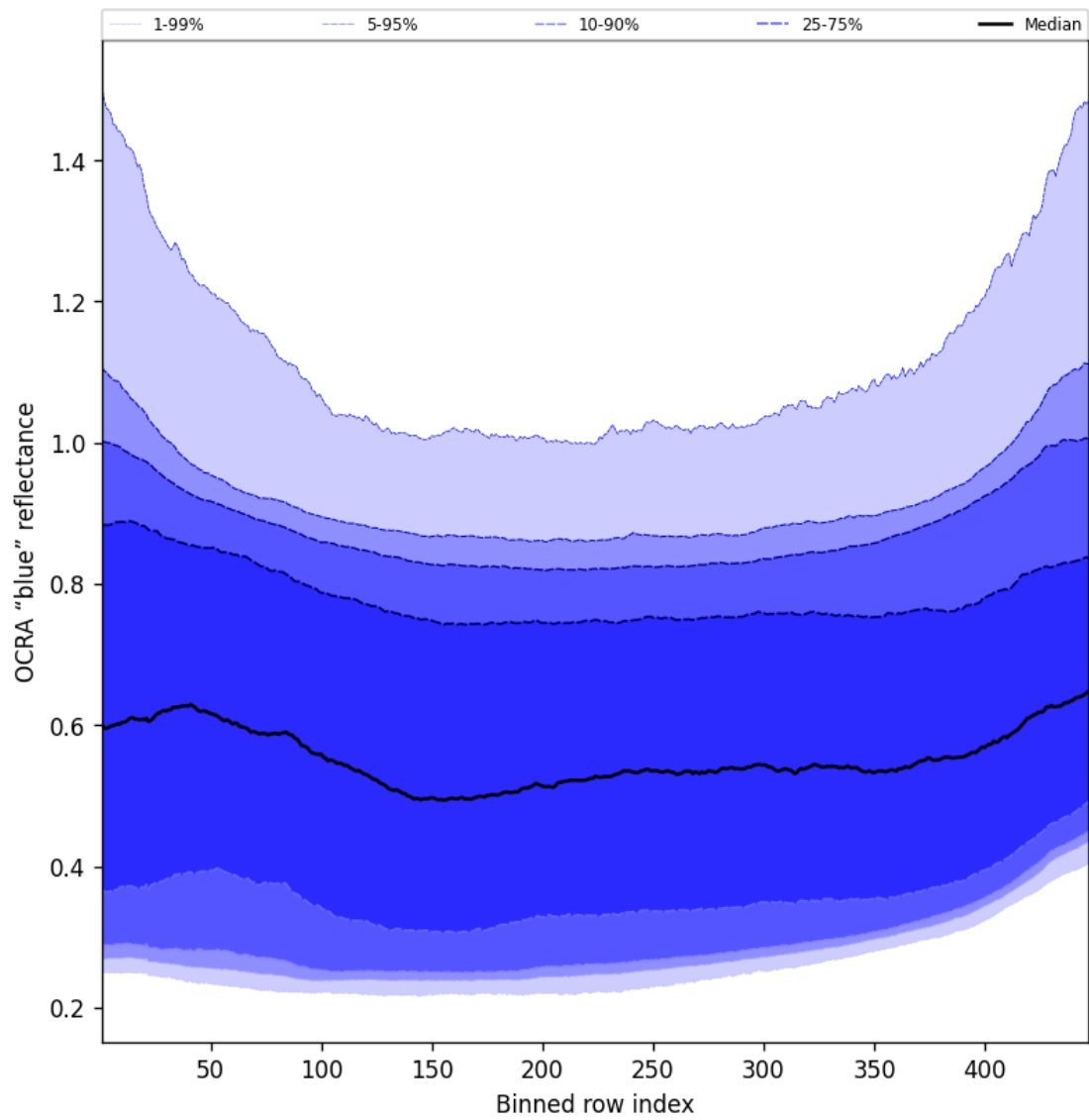


Figure 65: Along track statistics of “OCRA “blue” reflectance” for 2025-10-14 to 2025-10-15

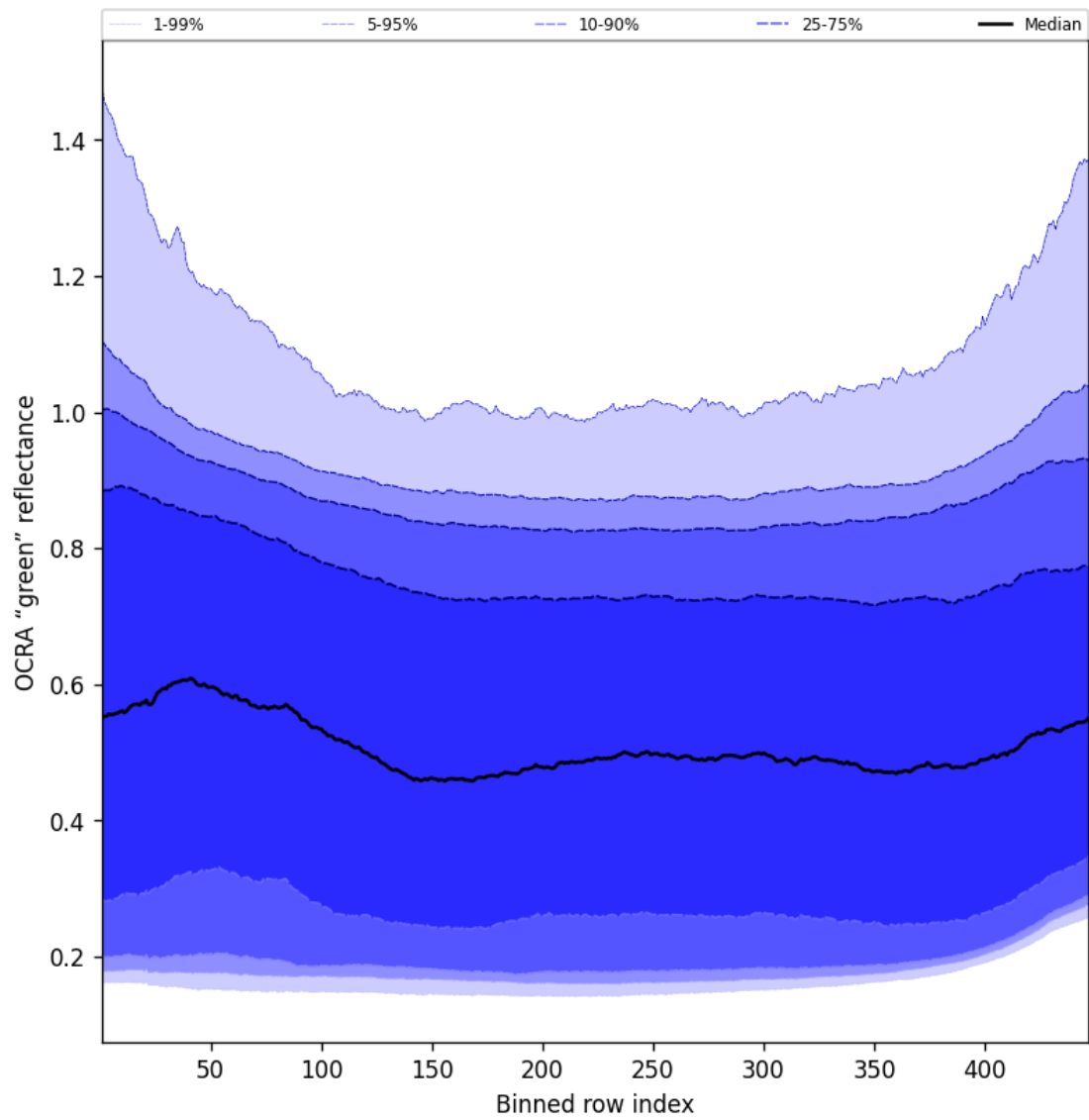


Figure 66: Along track statistics of "OCRA "green" reflectance" for 2025-10-14 to 2025-10-15

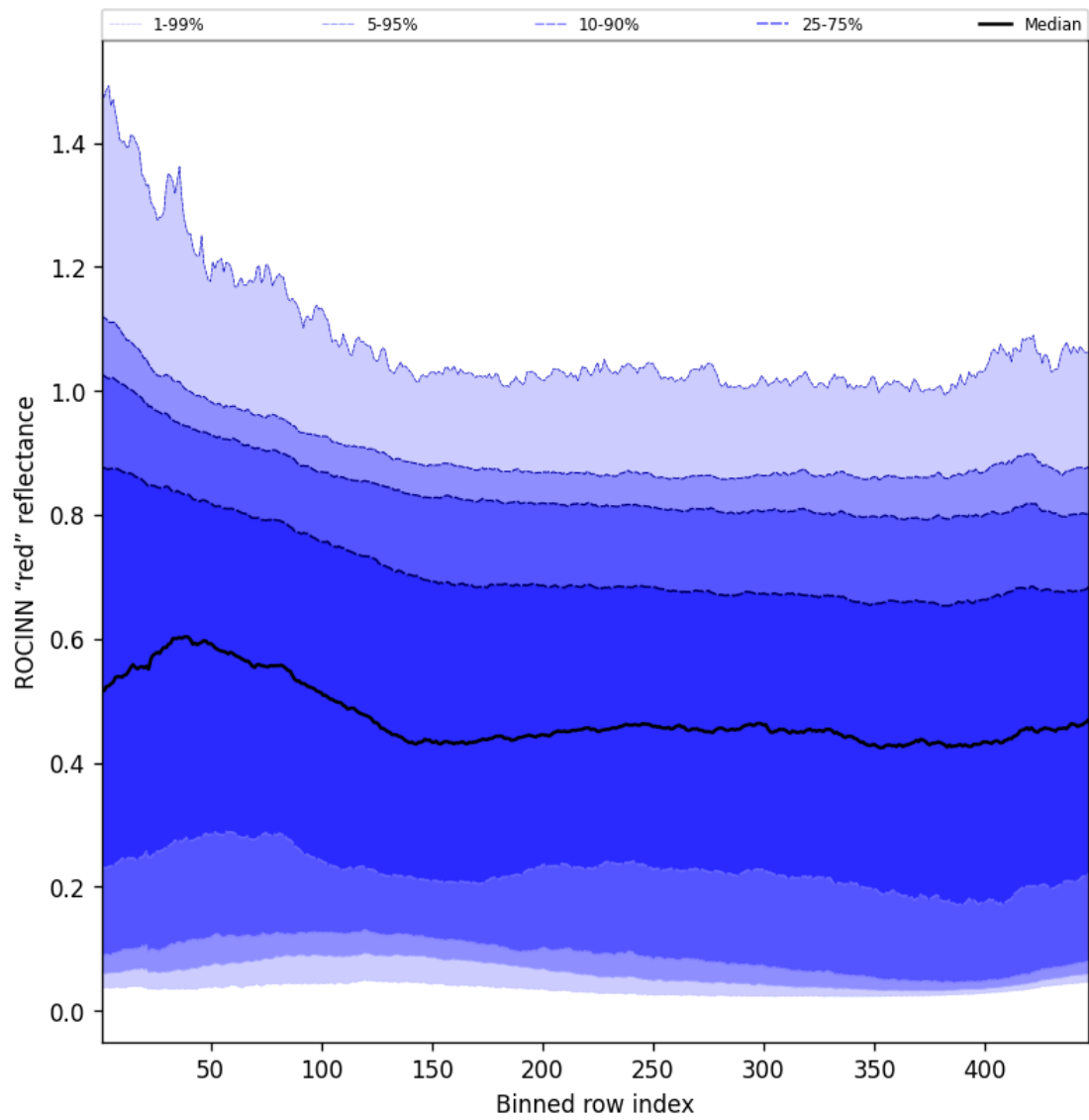


Figure 67: Along track statistics of "ROCINN "red" reflectance" for 2025-10-14 to 2025-10-15

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.

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