Dear Editor,

Thank you for taking the time to further improve our paper. Since this is the official first release, the simulator is at version 1.0 and is now depicted in the title. We have removed a few of the abbreviations which only appeared once or twice. However, we decided to keep some of the abbreviations that only appeared once but are related to models, since abbreviations such as IFS=integrated forecast system are mostly known by their abbreviation only. Regarding figure 3, we agree that the description of what is actually shown, especially in the center column needed to be clarified both in the caption and the text. We have now made the following changes. The original text is changed from:

Using the basic cloud variable TCF, we demonstrate the combined effect of temporal sampling and removing clouds too thin to be retrieved in the Cloud_cci CDR. Fig. 3 shows separately these two important effects of the simulator: sampling the data at the correct satellite overpass time as described in the previous section (left), removing clouds too thin to be retrieved in Cloud_cci (centre), and their combined effect which is the translation from model TCF into simulated TCF (right).

to:

Using the basic cloud variable TCF, we demonstrate the combined effect of temporal sampling and removing clouds which are too thin to be retrieved in the Cloud_cci CDR. Fig. 3 shows separately these two important effects of the simulator. The leftmost columns show the difference between sampling the data at the correct satellite overpass time and not sampling in this way. The center column shows the added benefit of removing the modeled clouds too thin to be detected by Cloud_cci compared to just sampling the model data correctly. And the rightmost column shows the combined effect of temporal sampling and simulating the cloud sensitivity of Cloud_cci, i.e., the simulated Cloud_cci TCF, minus the TCF directly from the model. This column shows the total impact of the simulator on TCF.

The caption has been changed from:

The simulated TCF minus the model TCF. The leftmost column shows the impact of sampling the model to match the EOT of the satellites in a similar way as in Fig. 2, but this time for TCF and using the EOT shown in Fig. 1 (sampled model minus unsampled model), the middle column shows the simulated lack of sensitivity of the AVHRR sensor to optically very thin clouds ($\tau_c < 0.2$) (simulated Cloud_cci - sampled model), and the rightmost column shows the combined impact on these two effects (simulated Cloud_cci - unsampled model). The top row is valid for DJF, and the bottom is for JJA. The data covers the period 1982–2014.

to:

The simulated TCF minus the direct model output of TCF. The leftmost column shows the impact of sampling the model to match the EOT of the satellites in a similar way as in Fig. 2, but this time for TCF and using the EOT shown in Fig. 1. It is the temporally sampled direct model output minus the direct model output (sampled-unsampled). The middle column shows the simulated lack of sensitivity of the AVHRR sensor to optically very thin clouds ($\tau_c < 0.2$).

Specifically it shows the simulated Cloud_cci minus the temporally sampled direct model output (simulated-sampled). The rightmost column shows the combined impact on these two effects, i.e., clouds removed and temporal sampling, compared to the direct model output (simulated-unsampled). The top row is valid for DJF, and the bottom is for JJA. The data covers the period 1982–2014. Also the following sentence has been updated from:

...between the simulated cloud_cci and the unsampled model. There are two important features to mention...

to:

...between the simulated cloud_cci and the unsampled model. This can be seen as most of the difference between the simulated TCF and the TCF straight from the model can be seen in the center column.

There are two important features to mention ...