

Haixa
Liu
Poster
NA

3. Evaluation of the CSR Data and Quality Control

The ABI_G16 CSR data quality has been evaluated through studying the statistical characteristics of the CSR data, compared with the simulated model equivalence (Dmf) using the operational Global Forecast System (GFS) model. Results have been fed back to the CSR algorithm developers. Several versions of the CSR data have been tested at NCEP/NCAR. The most important change during the CSR algorithm development is the cloud mask update from the baseline cloud mask to the so-called enterprise channel dependent cloud mask. A comparison of the Dmf statistics from both the baseline and Enterprise cloud mask CSRs is shown in Fig. 2 for the window channel, which clearly demonstrates that the Enterprise CSR removes more cloudy pixels than does the baseline CSR. Thus, both the Dmf bias and standard deviation decrease significantly for the window channel as shown in the histogram plot of the Dmf (Fig. 3d). For the water vapor channels, the Dmf biases from the Enterprise CSRs move to the positive side compared to those from the baseline CSRs (Fig. 3a-c).

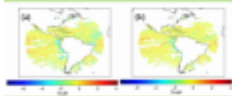


Fig. 2. (a) is the CF difference between the baseline CSR data and the simulated model equivalence (Dmf) for the window channel. (b) is the same as (a) but for the enterprise CSR data.

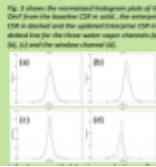


Fig. 3 shows the normalized histogram plots of the Dmf from the baseline CSR in solid, the enterprise CSR in dashed and the uniform histogram CSR in dotted line for the water vapor channels (a), (b), (c) and the window channel (d).

Poster PDF

[ABI_G16_CSR_JCSDA2019.pdf](#)

[Download to PDF](#)