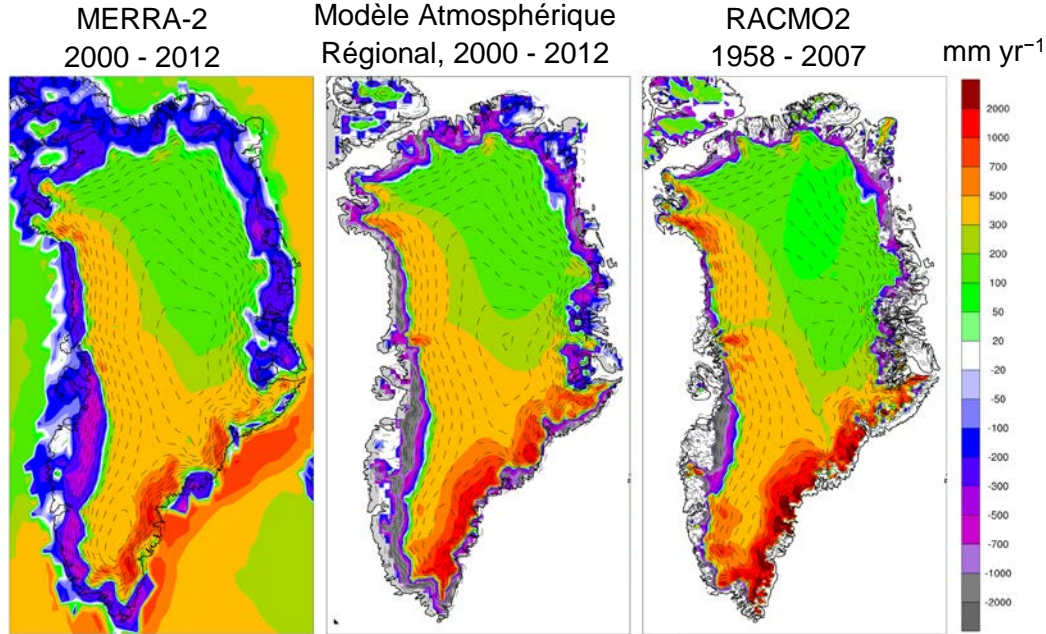


MERRA-2: Greenland Ice Sheet Surface Mass Balance



The Greenland Ice Sheet surface mass balance in **MERRA-2** compares favorably with that in higher-resolution regional climate models MAR and RACMO2: this applies to both the spatial distribution and the temporal variability.

Surface mass balance (precipitation minus evaporation and runoff) is an important climate variable for understanding polar ice sheets and their contribution to sea-level rise.

The representation of polar ice sheets in **MERRA-2** includes surface hydrology processes including fractional snow cover, spatially-varying albedo, and meltwater percolation, refreezing and runoff.

