



Surface load models and validation by space geodesy techniques

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Load effects are due to surface mass variations and affect directly station positioning. Some of these effects are usually taken into account in station positioning (like ocean tides loading), some others not, depending on the access easiness to load models. For instance meteorological atmospheric pressure variations are still not used generally in reference system computation; load from continental water or snow or oceanic non IB response are in the same way often neglected. However effects range from mm to cm.

On one hand, we propose to discuss the way to compute load deformations. This can be a critical point in some coastal areas depending on the resolution of the Green's function. On the other hand, we will show some validations of modelled loading effects through precise space geodetic techniques, mainly GPS, and estimate the impact in terms of global adjustment network.