

# Impact of the Assimilation of Aquarius Sea Surface Salinity Data in the GEOS System

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We present a methodology to correct the biases and errors of along track Aquarius level 2 sea surface salinity (SSS) data (version 2.0). Observed SSS retrievals are mapped into bulk salinity and the bulk salinity data are assimilated into the GEOS iODAS system. The assimilation significantly reduces the bias and RMS observation minus forecast differences at Argo in-situ locations, especially in the tropical and Southern oceans.

The results demonstrate the complementarity of in-situ (Argo) and Aquarius SSS observations and highlight problems that arise during the assimilation of the Aquarius data.