

Interactive comment on “A model for predicting changes in the electrical conductivity, practical salinity, and absolute salinity of seawater due to variations in relative chemical composition” by R. Pawlowicz

Anonymous Referee #1

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This manuscript is part of an ongoing project, largely within the purview of SCOR WG-127, to return the definition of salinity from electrical conductivity to dissolved material per unit mass of seawater. Eventually we can expect a new definition of salinity, and maybe a new (or suitably modified) equation of state for seawater. As such this is a very well-written manuscript which can be accepted as is, with one tiny complaint: section 2.3 lines 2-3 (p 2872), "As a particular parcel of seawater is advected through the ocean within the thermohaline circulation ...". Why the THC only? The THC is the buoyancy-driven circulation. Why is the wind-driven circulation excluded? As wind-driven ocean

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gyres can span a few tens of degrees of latitude, with associated temperature and salinity changes, this qualification appears gratuitous. Simply delete the phrase "within the thermohaline circulation". Otherwise a fine achievement.

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