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On the Circulation of the Warm Water of the Subtropical Gyres

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ABSTRACT

A ventilated thermocline model is used to discuss the circulation of the warm water of the subtropical gyre. It is suggested on theoretical grounds that the warm water layers that outcrop well south of the zero wind-stress curl line are completely replenished by the mass flux pumped down from the upper Ekman layer while recirculation of mass through the western boundary current plays a relatively insignificant role for these layers. The recirculation seems, instead, to be confined to the deeper layers of the thermocline.

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