



## Abstract View

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## The Salinity Effect in a Mixed Layer Ocean Model

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### ABSTRACT

A model of the thermally mixed layer in the upper ocean as developed by Kraus and Turner and extended by Denman is further extended to investigate the effects of salinity. In the tropical and subtropical Atlantic Ocean rapid increases in salinity occur at the bottom of a uniformly mixed surface layer. The most significant effects produced by the inclusion of salinity are the reduction of the deepening rate and the corresponding change in the heating characteristics of the mixed layer. If the net surface heating is positive, but small, salinity effects must be included to determine whether the mixed layer temperature will increase or decrease. Precipitation over tropical oceans leads to the development of a shallow stable layer accompanied by a decrease in the temperature and salinity at the sea surface.

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