The ECCO 1 degree global WOCE Synthesis: Data Constraints and Data Errors

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Summary

The ECCO 1 degree global WOCE data set covers the period 1994−2001. This data set has been used to generate climatological fields of temperature and salinity, and these fields have been compared with other data sets to assess the accuracy of the ECCO data.

The Forcing: Marine assimilation of model errors is the main contributor to the errors in the climatological fields.

T-S Errors

The T-S model includes a climatological and a dynamical component. The dynamical component is used to estimate the errors in the climatological fields.

Scattering Data

The scattering of the T-S model is used to estimate the errors in the climatological fields.

Sea Surface Temperature

The SeaWifs and MODIS (1997−1999) SST data are used to generate the climatological fields.

Sea Surface Salinity

The sea surface salinity (SSS) data is used to generate the climatological fields.

Sea Surface Height

The satellite altimeter and model data are used to generate the climatological fields.

P-ALACE and ARGO T-S Profiles

The P-ALACE and ARGO T-S profiles are used to estimate the errors in the climatological fields.

Time-mean Surface Drifter Velocity

The time-mean surface drifter velocity is used to estimate the errors in the climatological fields.

References


November 22, 2002