The ECCO 1° global WOCE Synthesis: Estimates of Surface Fluxes
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Summary
Ocean state estimates is a powerful tool to improve estimates of surface momentum, heat and freshwater fluxes, available from many projects. Further fluxes of stress, heat and moisture are included in the current version of the ECCO global ocean state estimation and are adjusted in a way that they are consistent with our own observations. As such, the geoid values (10 m) are adjusted to ocean current variability. So far, the model also shows good agreement with the NOCE observations.

Methodology
An ECCO model state estimate is obtained over an 1° spatial grid over the 36-year period 1960-1995. It is being forced by the most realistic and consistent forcing and initial conditions. The final error field is used for the model simulation (Timmerman et al., 1999). The adjustment component is obtained from the final model state estimate. The error field contains the model's most significant systematic errors. The ECCO model is used for the model simulation (Timmerman et al., 1999). The final error field is used for the model simulation (Timmerman et al., 1999). The adjustment component is obtained from the final model state estimate.

Surface Heat and Freshwater Fluxes

Wind Stress Estimates
Wind stress fields also adjust in a way consistent with differences between NEMP and ENSO in surface winds over the ocean.

References