

**Objective analyses of temperature and salinity for the world ocean on a 1/4  
degree grid**

Boyer T., J. Antonov, H. Garcia, S. Levitus, R. Locarnini, and C. Stephens  
NOAA-NODC Ocean Climate Laboratory, Silver Spring, MD, USA  
E-mail: Hernan.Garcia@noaa.gov

Objectively analyzed mean temperature and salinity fields have been calculated and quality controlled both on annual and seasonal time scales on a 1/4° grid using techniques previously used to compute the 1° gridded mean fields in the World Ocean Atlas 2001.

The quarter degree analyzed fields retain the large-scale oceanic features that exist in the one degree analysis while better resolving smaller scale features such as the Loop Current in the Gulf of Mexico and the Agulhas Retroflexion. Quality control of the quarter degree analysis has also enhanced the one degree analysis as well. However, limitations exist in the quarter degree analysis at deeper depths due to lack of data available.