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Correction to "Recent cooling of the upper ocean"

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[1] Two systematic biases have been discovered in the ocean temperature data used in "Recent cooling of the upper ocean" by John M. Lyman, Josh K. Willis, and Gregory C. Johnson (*Geophysical Research Letters, 33*, L18604, doi:10.1029/2006GL027033). These biases are both substantially larger than sampling errors estimated by *Lyman et al.* [2006], and appear to be the cause of the rapid cooling reported in that work.

[2] Most of the rapid decrease in globally integrated upper (0–750 m) ocean heat content anomalies (OHCA) between 2003 and 2005 reported by *Lyman et al.* [2006] appears to be an artifact resulting from the combination of two different instrument biases recently discovered in the in situ profile data. Although *Lyman et al.* [2006] carefully estimated sampling errors, they did not investigate potential biases among different instrument types. One such bias has been identified in a subset of Argo float profiles. This error will ultimately be corrected. However, until corrections have been made these data can be easily excluded from OHCA estimates (see http://www.argo.ucsd.edu/ for more details). Another bias was caused by eXpendable Bathy-Thermograph (XBT) data that are systematically warm compared to other instruments [*Gouretski and Koltermann*, 2007]. Both biases appear to have contributed equally to the spurious cooling.

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