



Decadal variability of NADW formation and ventilation

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Transient tracer observations from GLODAPv2 and more recent data are used to compute transit time distributions (TTDs). These TTDs are then integrated basinwide over the whole Atlantic, which allows to infer ventilation and formation rates for the different components of North Atlantic Deep Water, i.e. Labrador Sea Water (LSW) and Overflow Waters. The variability in these formation and ventilation rates will be discussed with special focus on the variability of LSW. Between 1996 and 2013 the denser layers of these water mass have hardly been reached by deep convection, whereas in the years before and also since 2014 large amounts of denser LSW have been formed. We will also compare the formation rates derived from the TTDs with those calculated directly from CFC/SF6 inventories.