



Mixing of the Faroe Bank Channel overflow by convective events

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From May 2008 to May 2009, an Acoustic Doppler Current Profiler (ADCP) was deployed in a frame on the bottom of the Faroe Bank Channel (FBC). The frame was located on the northeastern slope of the channel in the overflow layer and recorded velocity profiles every 20 minutes. In the comprehensive data set acquired, a number of events can be identified with extreme vertical velocities in the overflow layer. These events have a pronounced asymmetric character and may have vertical velocities exceeding 10 cm/s upwards for several hours, implying that they are not caused solely by internal waves. The overflow layer in the FBC has a high degree of vertical homogeneity and it has been hypothesized that this is associated with the helical circulation system that has been shown in several studies. The presentation discusses, to what extent the events observed can be interpreted as convective mixing events associated with this circulation and quantifies their ability to mix the overflow layer.