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## Predicting the 2015 North Atlantic Cold Blob

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Leading up to and during the summer of 2015 sea surface temperatures (SSTs) in the eastern North Atlantic Subpolar Gyre reached anomalously low values while in the subtropical gyre just to the SSTs were anomalously warm. Recent observation and modelling studies have found evidence showing that these SST anomalies can be linked to the heat wave experienced over Europe that summer. The latest observation based data still shows anomalously cold temperatures, as well as the anomalously fresh conditions that went along the 2015 cold blob in the upper layers of the eastern North Atlantic Subpolar gyre. A second heat wave over Europe occurred in the summer of 2018 where the SSTs reached another minimum value. Therefore, being able to predict the development, enhancement and persistence of such an anomaly is essential for good seasonal and longer predictions. At present several modelling systems have had difficulties in simulating/maintaining the 2015 cold blob. In this work we apply a novel initialization technique using anomalous initialization from a forced ocean simulation to simulate the 2015 cold blob. Initial results show that the model is able to maintain the cold blob as well as have a strengthening of the cold blob, however, it has difficulties capturing the timing of this strengthening.