

2004 Ocean Sciences Meeting
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Cite abstracts as *Eos Trans. AGU*, 84(52),
Ocean Sci. Meet. Suppl., Abstract xxxxx-xx, 2003

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HR: 0830h
AN: **OS31E-02**
TI: **Monitoring the Meridional Overturning Circulation in the Irminger Sea: cruise data assimilation**
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AB: This work examines the branch of the meridional overturning circulation in the Irminger Sea using variational data assimilation into a 10-km resolution regional general circulation model (the MITgcm). The scientific issues are to: 1) Estimate the Arctic/Sub-Arctic exchange of mass, heat and freshwater through Denmark Strait and 2) Diagnose the water mass transformation in the Irminger Sea. Here we assimilate observations from the WHOI Oceanus cruise OC 395-3 (27 July - 10 August 2003) and remotely sensed sea surface temperature and sea surface height observations from the same time period. We analyse the effectiveness of these data in addressing the scientific questions on these short timescales. And we address the possibilities of near real-time data assimilation in the light of preliminary attempts that were made during this cruise.
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