CONVEKTIVE ACTIVITY WITHIN THE GREENLAND SEA DURING WINTER 2001/2002

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As part of the EU Fifth Framework Programme project CONVECTION an acoustic mooring was deployed for the period October 2001 until April 2002 at Vesteris Banken (73° 32 N, 9° W). Following the hydrographic conditions of this field experiment a non-hydrostatic convection/sea ice model was applied to get deeper insight in the convective process. The model was applied for both the whole laying period of the mooring and a short period in February in which remote sensing data indicated that local ice formation occurred at Vesteris Banken. Model domain is a vertical ocean slice with an isotropic grid size of 5 meters, vanishing gradients normal to the plane and with cyclic boundary conditions. Observed stratifications from Vesteris Banken were prescribed as background fields. NCEP/NCAR atmospheric data were used for the calculation of momentum and heat fluxes for the long simulation period. Model forcing for the short period were obtained from shipbourne meteorological observations of RV Lance. A statistical analysis on convective activity will be presented and the model results will be compared to the results from the mooring experiment.