1 Figures

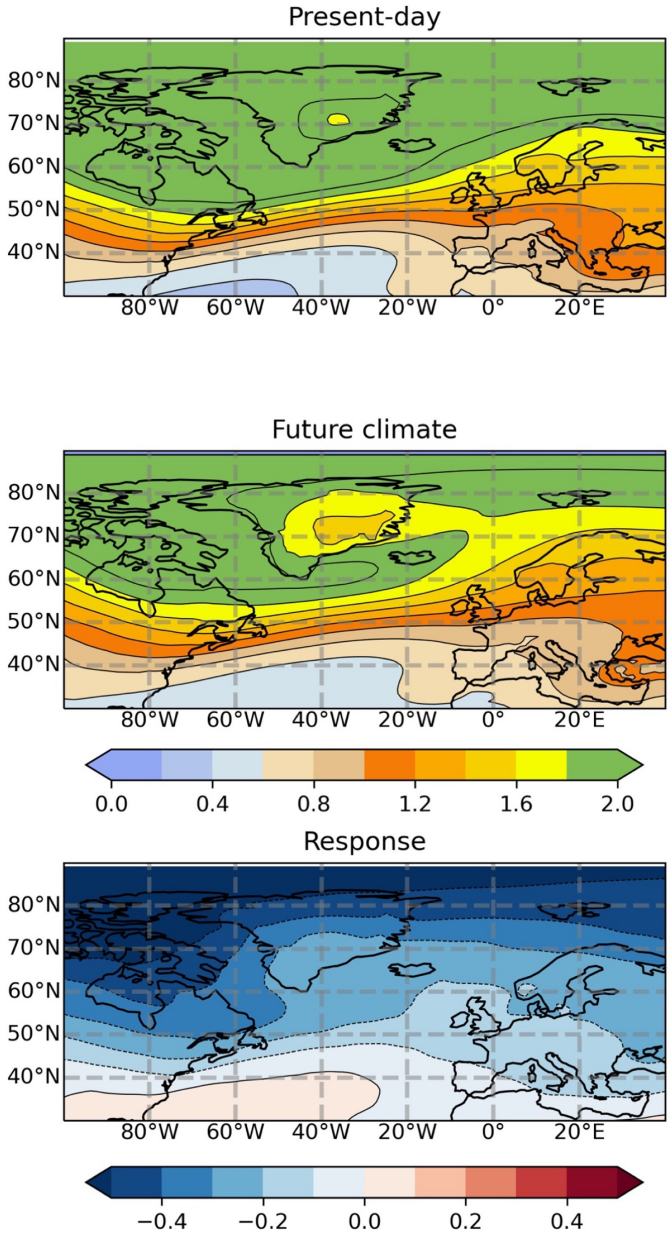

Figure S1. PV climatology for the extended winter in the North Atlantic region in the present-day, future climate and their difference (response to climate warming).

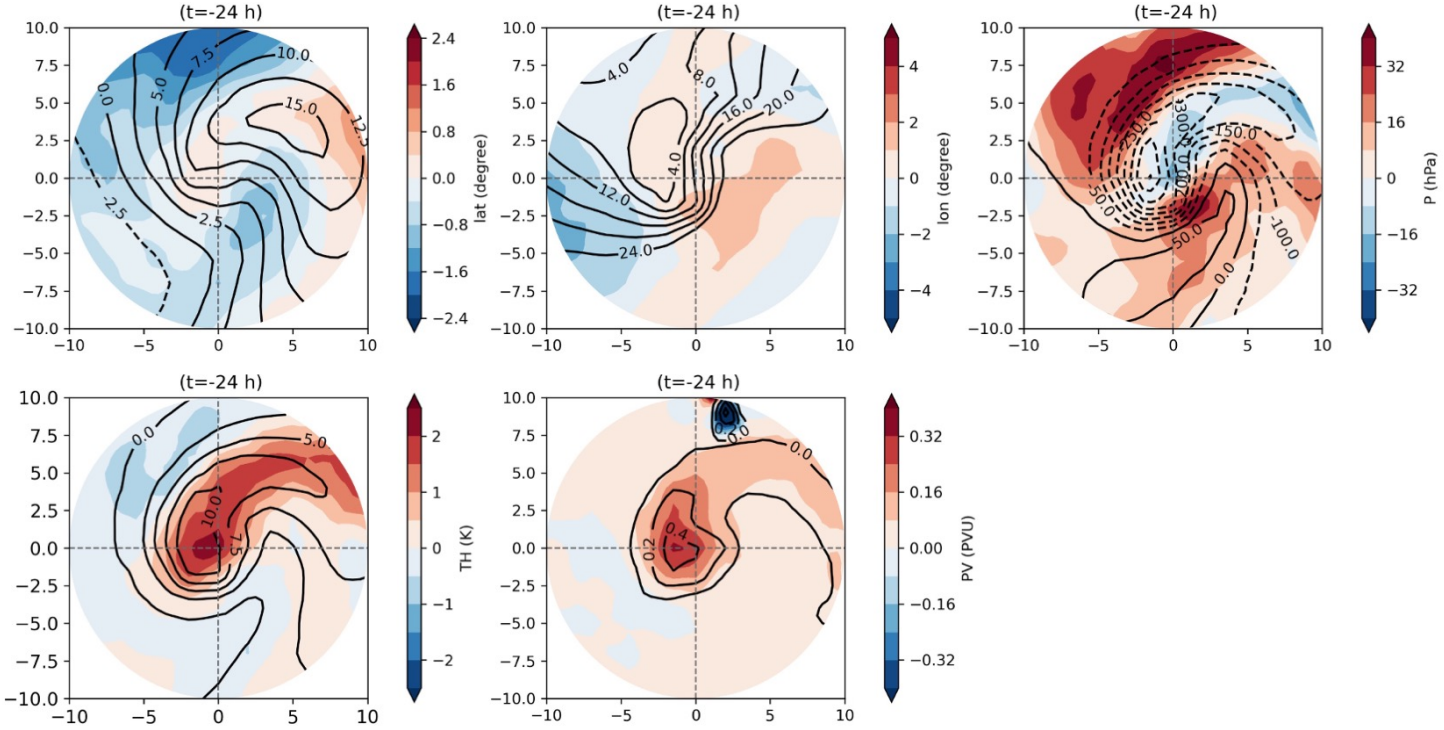

Figure S2. Composites of Lagrangian tendencies along backward trajecoties initialized at 500 hPa in the last 24 hours before arrival in the cyclone area of (a) latitude, (b) longitude, (c) pressure, (d) potential temperature and (e) PV. Contours show present-day Lagrangian tendencies and the color shading indicates the response to future climate change (difference in the Lagrangian tendencies between future and present-day climate).