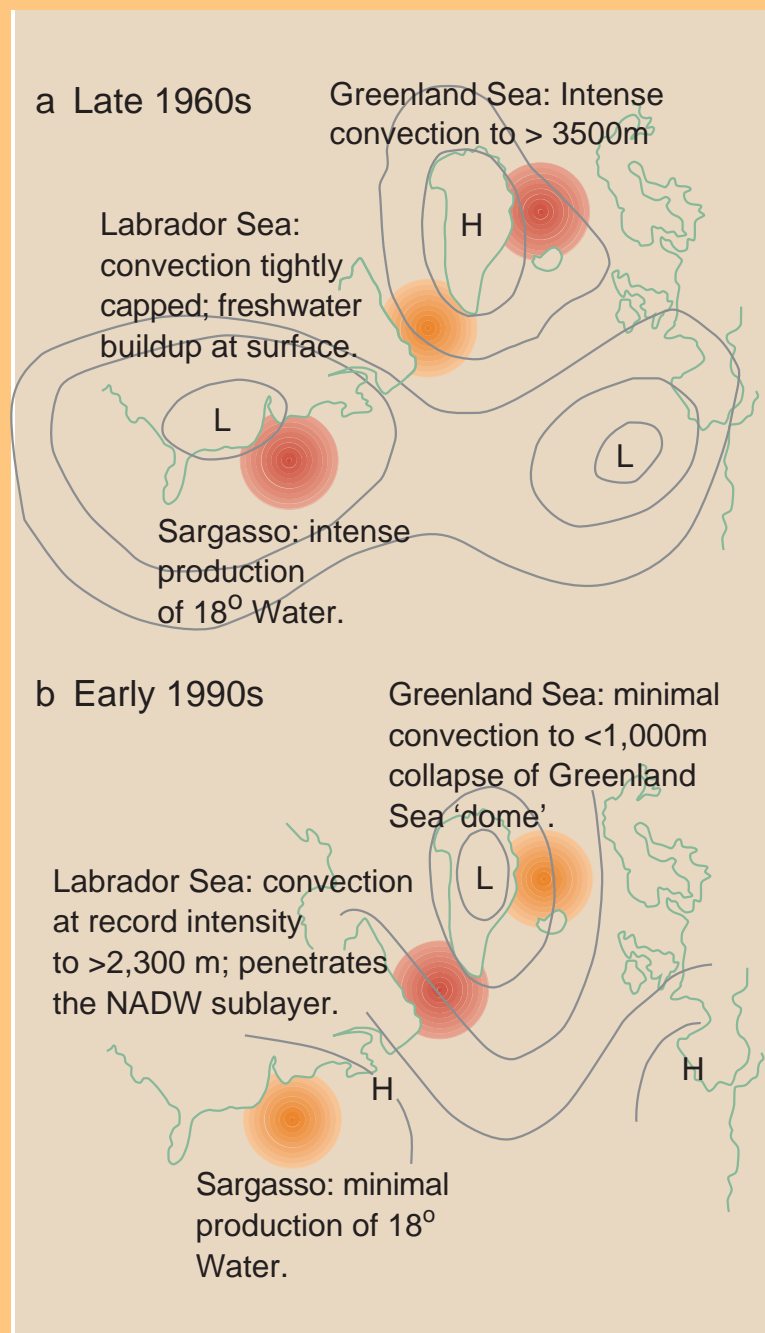


The Thermohaline Circulation and the NAO - A coupled Phenomenon ? -



Depiction of the changes in the distribution of winter convective activity in the North Atlantic during contrasting extreme states of the North Atlantic Oscillation (NAO). The main convective centres are in the Greenland, Labrador and Sargasso Seas.

a) Represents the 'low-index' NAO conditions of the late 1960s; b) the 'high-index' state of the early 1990s. A representative mean pressure anomaly field is indicated for each case. 'Mode waters' are formed in winter at each of the three sites, are vertically homogeneous, and through horizontal spreading provide a mechanism for carrying the signal of climate change throughout the North Atlantic basin. '18° Water' is the mode water of the Sargasso Sea. NADW is North Atlantic Deep Water. The Greenland Sea 'dome' is the place where a cyclonic basin circulation brings dense water closest to the surface, promoting convective instability (Dickson R., 1997, *Nature*, 386, 649-650)