



Meteorology in the Middle Ages

H. Ólafsson (1,2) and H. Ágústsson (3)

(1) University of Iceland and the Icelandic Meteorological Office, Reykjavik, Iceland, (2) Bergen School of Meteorology, Geophysical Institute, University of Bergen, Bergen, Norway (haraldur68@gmail.com), (3) University of Iceland and Institute for Meteorological Research

Several documents written in Iceland and Norway in the Middle Ages have been investigated in order to establish to what extent navigators and other educated people in the 10th to 13th centuries knew or did not know about mountain meteorology.

In the 10th century, Egils Saga describes flow from land as katabatic. In some textbooks published in the 20th century, similar flows are explained as the inverse of sea-breeze (land-breeze). Numerical simulations of similar flows as in Egils Saga reveal on the other hand, that its author was right about the katabatic nature of the flows.

In the documents describing the discovery of Greenland in the late 10th century, Bjarni Herjólfsson navigated erroneously, as he entered the Greenland barrier jet. Apparently, he did not foresee that the foggy southeasterly winds would inevitably turn left as they approached Greenland.

A few years later, a ship is wrecked in a windstorm at the coast of W-Iceland. The windstorm is described in detail in Laxdaela Saga and resembles very much a downslope windstorm. Until now, an error in translation into English may have prevented such an interpretation of the windstorm.