



CLIMATOLOGY OF THUNDER IN ICELAND

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The climate of Iceland is characterized by stable and cool airmasses, both in winter and summer. Severe thunderstorms that cause damage on structures do however occur.

Fifty years of meteorological observations are studied and the data reveals large seasonality in thunderstorm frequency, with two maxima, one in summer and one in mid-winter. The summer maximum is smaller than the winter-maximum and summertime thunderstorms are related to systems that develop over land, while the wintertime thunderstorms develop over the ocean and are advected over land. The summertime thunderstorms form in weak ambient winds, whereas the wintertime thunderstorms only occur in strong ambient winds. There is significant interannual variability in the occurrence of thunder. This can be attributed to variability in the general atmospheric circulation, and can be linked to similar variability elsewhere in the N-Hemisphere.