

Abstract

Sea surface temperatures (SST) have been changing in all world's oceans in the last decades; these changes have an impact on the continental climate. This bachelor thesis focuses on the recent changes of SST in the North Atlantic and their influence on the climate change in Europe. The first part of the thesis describes the physical-geographical characteristics of the North Atlantic. It consists of its divisions, bottom and coastal characteristics, spatial distributions of the water temperature and a water salinity. It also includes a description of the atmospheric circulation that occurs over the North Atlantic and the circulation inside of the North Atlantic. The second part of the bachelor thesis focuses on the SST and its measurement, Atlantic Multidecadal Oscillation (AMO) and a long-term changes which occur, and furthermore on the impact of these changes on the climate change in Europe. The results of the studies have shown that the biggest impact of SST changes in the North Atlantic is visible during summer months. These are the times of the greatest anomalies in the temperatures and precipitation, either on the positive or negative scale, depending on the phase of AMO or North Atlantic Oscillation.

Key words: air temperature, Europe, North Atlantic, precipitation, sea surface temperature