

During the second quarter of 2012, much of Western Europe experienced above-average wind speeds at 80 m above ground level relative to the long-term (1997 – 2011) average for the same period, while below-normal wind speeds were observed throughout much of Eastern Europe, Great Britain, and Iceland (see Figure 1). The largest positive departures from average were observed across Northern Spain and the Aegean Sea (20% or more), Central France and the Alps (15% to 20%), Baltic Sea area and the English Channel (10% to 15%) and the Adriatic Sea (5 to 10%). Wind speeds were the furthest below-normal over Southern Turkey (-20% or less), Iceland (-15% to 20%), Scotland and Norway (-15%), and regions surrounding the Sea of Azov (-15% to -10%). Germany and Central Europe experienced near-normal winds.

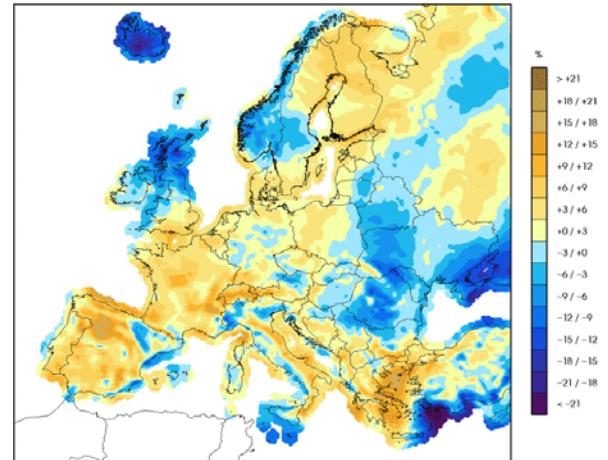


Figure 1. Wind Speed Anomaly Map: Q2 2012

The North Atlantic Oscillation (NAO) transitioned from a neutral phase to a strongly negative phase during the quarter. The Arctic Oscillation (AO) was neutral during April and May, changing to a slightly negative phase in June. As is typical during negative NAO and AO events, the general storm-track was displaced into Southern Europe, resulting in the distribution of wind speed anomalies described above and characterized in Figure 1. The Scandinavian pattern (SCAN) was negative during the entire quarter, which is often associated with storms in the Scandinavian Peninsula and Western Russia, reducing wind speeds in Romania, Moldova, and Ukraine.

Typical climatic behavior during spring in Europe is the gradual establishment of the Azores High over the southwest of the continent producing a decrease of the pressure gradient to the north. In April, however, low values of SCAN and neutral NAO and AO were indicative of a weak Azores high and low pressure systems were displaced to the south, resulting in above-average wind speeds over much of Southwestern Europe (15% to 30%). In May, the storm track moved unusually far north, enhancing winds over Northern Scandinavia (20% to 35%) and decreasing them around the Black Sea (-15% to -30%). In June, the Azores high continued to be weaker than usual, with highly negative phases of the SCAN and NAO contributing to above-average winds in Southern and Central Europe (15% to 20% in the English Channel and west of the Iberian Peninsula) and below-average in Iceland (-30%).

The year ending 30 June 2012 (Q3 2011 – Q2 2012) exhibited above-normal wind speeds compared to the long-term average throughout much of Northern Europe (Baltic and North Sea areas) and in the Aegean Sea. This is in contrast with the previous year (ending 30 June 2011), when below-normal wind speeds were observed over almost all of Europe (see Figures 2 and 3). This pattern change is linked with a drift of the NAO and AO index from the negative phases during 2010 to more positive values during 2011.

This analysis was conducted by AWS Truepower’s meteorology team. It is based on a computer simulation of weather conditions dating back to 1997, which results in a comprehensive and detailed weather snapshot at multiple heights above ground for every hour. Project assessments, maps, data and monthly reports are available. For more information on customized analyses for your project portfolio, data or subscription options, please contact us: info@awstruepower.com.

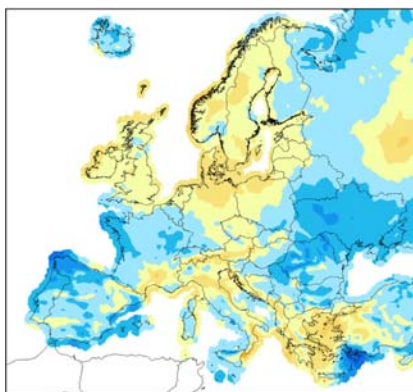


Figure 2. Wind Speed Anomaly Map: Q3 2011 – Q2 2012

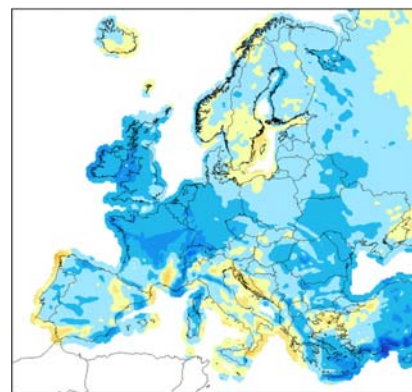
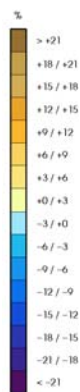


Figure 3. Wind Speed Anomaly Map: Q3 2010 – Q2 2011