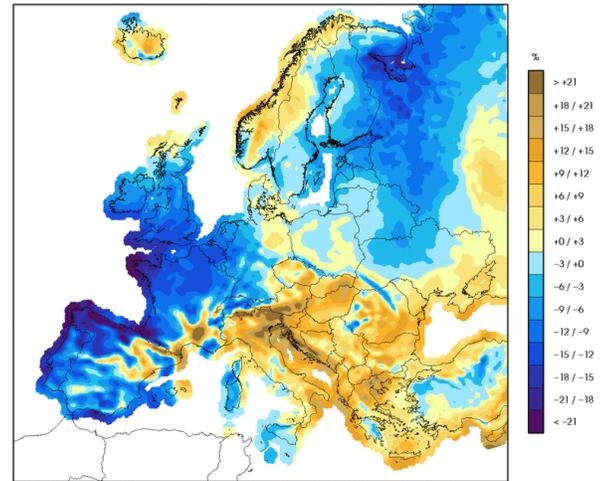


During the first quarter of 2012, much of Southeastern Europe experienced above-average wind speeds at 80 m above ground level relative to the long-term (1997 – 2012) average; below-normal wind speeds were observed throughout much of Western Europe and Northwest Russia (see inset map). The largest positive departures were observed near the Adriatic Sea and the Alps (+15% or more). Wind speeds were the furthest below-normal across the Northern Iberian Peninsula, Western France, and near the Barents Sea (-15% or less).



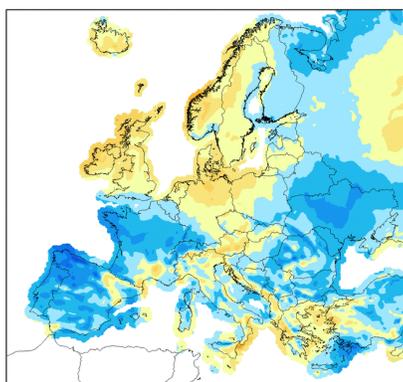
Wind Speed Anomaly Map: Q1 2012

The North Atlantic Oscillation (NAO) was in a neutral to slightly positive phase throughout the quarter. The Arctic Oscillation (AO) was neutral during January and February and became positive in March. Additionally, the Scandinavian pattern (SCAND) was slightly positive during January and February before becoming negative in March. These factors influenced the general circulation pattern over the continent, producing a strong ridge (high pressure) over extreme Western Europe and a trough (low pressure) over Central Europe. As a consequence, the storm track was displaced poleward into Scandinavia and then southeastward toward the Eastern Mediterranean and Black Sea basins, resulting in above-average wind speeds over Iceland, extreme Northern Scotland, Sweden, Norway, and most of Southeastern Europe, and below-normal speeds across Western Europe.

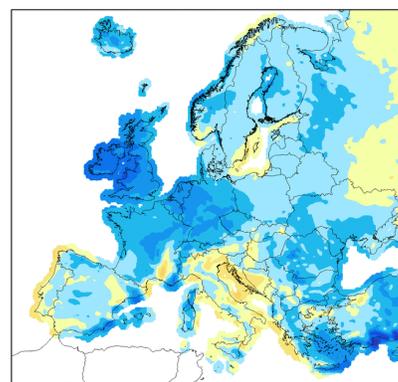
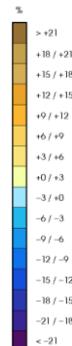
The first quarter was marked by varying wind speed patterns. During January, the combination of a stronger than normal Azores High and a slightly deeper Icelandic Low forced the primary storm track to stretch from the British Islands, through Central Europe, and into Turkey, resulting in mostly above-normal wind speeds (+5% to +15%). Below-normal wind speeds (-10% or more) were observed in many other regions across Europe. In February, the Azores high expanded northeastward into Western Europe and general zonal (west-to-east) flow set up to the north and south, resulting in normal wind speeds throughout Scandinavia, and well above-normal winds in Southern Europe (+10% to +20% or more). Central Europe and the British Islands experienced below-normal winds (-15% to -5% or lower). In March, high pressure became established over France, the British Islands, and the Western Mediterranean, producing below-average wind speeds over nearly all of Western and Southern Europe (-20% to -10% or lower). A narrow band of near to above-normal winds (0% to 10%) were observed along the predominant storm track from Iceland, to Scandinavia, towards Eastern Europe; northeast of those areas, below-normal winds (-15% to -5%) were present.

For the 12-month period from 1 April 2011 to 31 March 2012, the mean wind speeds were above-normal throughout much of Northern and Central Europe, and some locations near the Mediterranean Sea (see map below left). This marks a contrast to the below-average wind speeds observed the previous year.

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. To view additional bulletins and sign up for our Wind Trends mailing list, visit <http://www.awstruepower.com/knowledge-center/windtrends-bulletins/>.



Wind Speed Anomaly Map: Q2 2011 – Q1 2012



Wind Speed Anomaly Map: Q2 2010 – Q1 2011