



Storm Tilo over Europe in November, 2007: Meteorology and impacts on societal and energy infrastructure.

Anthony Kettle

Ireland (ajkettle1@hotmail.com)

Storm Tilo on 8-9 November 2007 ranks among the serious winter storms in northern Europe over the past 20 years. Its low pressure center passed across the northern North Sea, and this led to a cold air outbreak in northwest Europe. Strong north winds across the North Sea contributed to a high storm surge that was particularly serious for coastal regions in eastern England, the Netherlands and Germany. There were reports of unusually high waves that were linked to shipping accidents and damage to some offshore energy infrastructure. This report presents an overview of the meteorological conditions and traces the progress of the storm surge around the North Sea using data from national tide gauge networks. A spectral analysis of the tide gauge data is used to isolate the high frequency component of water level variation and investigate possible correspondence with wave-related accident reports. A literature survey is presented for information on storm impacts on societal and energy infrastructure. The storm surge for Tilo is compared with other serious regional storms of recent decades.