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STORM EVENT

1ST MARCH 1949

A major North Sea storm surge caused what was described as the worst flooding in 65 years. This was forewarning to the disaster that followed 4 years later

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SEVERITY

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Source

The storm was initiated around 27th February 1949 southeast of Greenland and moved eastward. While centred over the North Sea, the storm maintained a central air pressure of around 980 mbar. Although not particularly intense, the Met Office reported a deep depression with a steep northerly gradient over Denmark during 1st March, moving eastwards and generating northerly gales over the North Sea.

A wind field of such orientation is particularly favourable for generating a storm surge in the relatively shallow North Sea basin. There were “exceptionally” high tides in the Thames Estuary ([Met Office, 1949](#)). Within the national tide gauge network, only the three tide gauges (Newlyn, Aberdeen and North Shields) were operational at the time. At these sites the return periods were less than 1 year. At North Shields the maximum skew surge was 0.81 m. The event occurred at peak spring tides.

We are unaware of any sources of information describing the wave conditions during this event

Pathway

There was “considerable” damage to defences along the east coast during this event, although information concerning specific flood pathways is limited.

Receptor and Consequence

A North Sea storm surge was associated with serious flooding in many locations in southeast England, including London, Sheerness, Margate, Ramsgate, Southend, Whitstable, Sheerness, Boston and King’s Lynn ([The Times, 1949](#)); ([Zong and Tooley, 2003](#))). This event was described as the worst flooding in 65 years, and tellingly described as the missed wake-up call prior to the catastrophic event of 1953 ([Baxter, 2005](#)), The total estimated cost of damages in the county of Norfolk alone was £500,000, which is equivalent to about £16 million today ([Cairns Post, 1949](#)). There was considerable damage to coastal defences with extensive lengths of sea walls cracked, crests damaged, backing material washed out, and even some breaching ([Summers, 1978](#)). The Thames estuary was also affected, with a photograph showing evidence of flooding close to Buckingham Palace as defences in central London were overtopped. Properties were flooded in Ramsgate, Whitstable, King’s Lynn (including St. Margaret’s church) and Sheerness ([The Times, 1949](#)); ([The Times, 1949](#))). At Cley-next-the-sea (Norfolk) the flood water reached a depth of 2.1 m and the main coastal road between Cromer and Wells was impassable ([The Times, 1949](#)); ([The Times, 1949](#))). The railway station at Woodbridge

was also flooded and held up traffic for some time. Beach chalets were washed away at Frinton and Walton-on-the-Naze (*The Times, 1949**The Times (1949)*).

In Frankfurt, Germany at least 20 persons were killed and 38 severely injured as gales blew down weakened post-war structures (*News, 1949*). The strong gales and heavy seas also caused considerable trouble at sea, and scores of crew members were rescued from three vessels, including one which sank (*News, 1949*).

We rely on submissions from the public to maintain these images. If you witnessed this event, please help by uploading your photos.

Contribute photos

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The logo for SurgeWatch features the word "Surge" in a white, sans-serif font, followed by "watch" in a dark teal, sans-serif font. A thick, dark teal line starts above the 'S' in "Surge", curves over the top of the letters, and ends above the 'h' in "watch".

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References

Met Office, 1949. Monthly Weather Report of the Meteorological Office. Monthly Weather Report, 66(3). Available at: <http://www.metoffice.gov.uk/learning/library/archive-hidden-treasures/monthly-weather-report-1940s>.

The Times, 1949. Widespread gale and floods. Times Newspapers Limited.

The Times, 1949. Widespread gale and floods. Times Newspapers Limited.

Zong, Y. & Tooley, M.J., 2003. A Historical Record of Coastal Floods in Britain: Frequencies and Associated Storm Tracks. Natural Hazards, 29(1), pp.13–36. Available at: <http://link.springer.com/article/10.1023/A%3A1022942801531> [Accessed March 5, 2015].

Baxter, P.J., 2005. The east coast Big Flood, 31 January-1 February 1953: a summary of the human disaster. Philosophical transactions. Series A, Mathematical, physical, and engineering sciences, 363(1831), pp.1293–312. Available at:

<http://rsta.royalsocietypublishing.org/content/363/1831/1293> [Accessed March 5, 2015]

Cairns Post, 1949. Flood Waters Recede. Cairns Post. Available at:

<http://trove.nla.gov.au/ndp/del/article/42617101>

Summers, D., 1978. The east coast floods, Newton Abbot, Devon: David & Charles

News, 1949. Gale's grim toll over Europe. News. Available at:

<http://trove.nla.gov.au/ndp/del/article/130249956>

Download all the data we have about this event. The data has been made available for re-use and you're free to make use of it as long as attribution is given.

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