SurgeWatch

STORM EVENT

1st December 1936

Several locations in southeast England were flooded, including London

Severity Ranking

		3			

Social	Loss of life	*
	Residential property	"Many" properties flooded
	Evacuation & rescue	*
Economic	Cost	*
	Ports	*
	Transport	The main railway line from Yarmouth to London was under water, and all services on the Colchester-Clacton main line between Hythe and Wivenhoe were stopped
	Energy	A gas power station at Wivenhoe ceased operation due to flood water
	Public services	*
	Water & wastewater	*
	Livestock	*
	Agricultural land	*
Environmental	Coastal erosion	Hundreds of tonnes of cliff eroded at Southwold
	Natural environment	*
	Cultural heritage	*
	Coastal defences	*

**No known sources of information available*

Source	The storm formed east of Newfoundland during 28th - 29th November 1926 and moved eastwards at around 65°N towards the British Isles. Having partly combined with another low-pressure system situated over the Norwegian Sea, the storm intensified while west of Scandinavia with a central air pressure of approximately 960 mbar. There were north-westerly winds over the North Sea during 30th November which later became a north to north-westerly orientation through the 1st December. We are unaware of any information regarding the sea level conditions during this event. Within the national tide gauge network, only the Newlyn and Aberdeen tide gauge were operational at the time, but these sites are away from the region of influence. At Newlyn and Aberdeen, the water level return periods were less than 1 year. The event occurred at peak spring tides. We are unaware of any sources of information describing the wave conditions during this event.
Pathway	We are unaware of information regarding the flood pathways for this event.
Receptor & Consequence	The Times (1936) reported a storm surge that caused widespread flooding along east and southeast coastal areas, including London, Lowestoft, Great Yarmouth, Southend and Ramsgate (Hickey, 1997; Zong and Tooley, 2003). Low-lying parts of Lowestoft were flooded. The main railway line from Yarmouth to London was under water, and all services on the Colchester-Clacton main line between Hythe and Wivenhoe were subsequently delayed. Many residential properties were flooded and occupants of caravans were left marooned. At Wivenhoe, on the banks of the Colne, the gas works were put out of action when flood water extinguished the fires in the retorts. Flooded buildings included a canning factory, an inn, the British Legion hall, and the council's pumping station. Hundreds of tonnes of cliff were eroded at Southwold. In Pakefield, Suffolk, part of a house in Beach Road was lost to the sea.

Table 1: High water levels (m CD) recorded at the UK National Tide Gauge sites that were available during the event.

Tide gauge Site	Date and time (GMT)	Return period (years)	Water level (m CD)	Astronomical tide (m CD)	Skew surge (m)
Newlyn	30/11/36 05:00	<1	5.49	5.67	-0.18
Aberdeen	30/11/36 14:00	<1	4.79	4.29	0.5

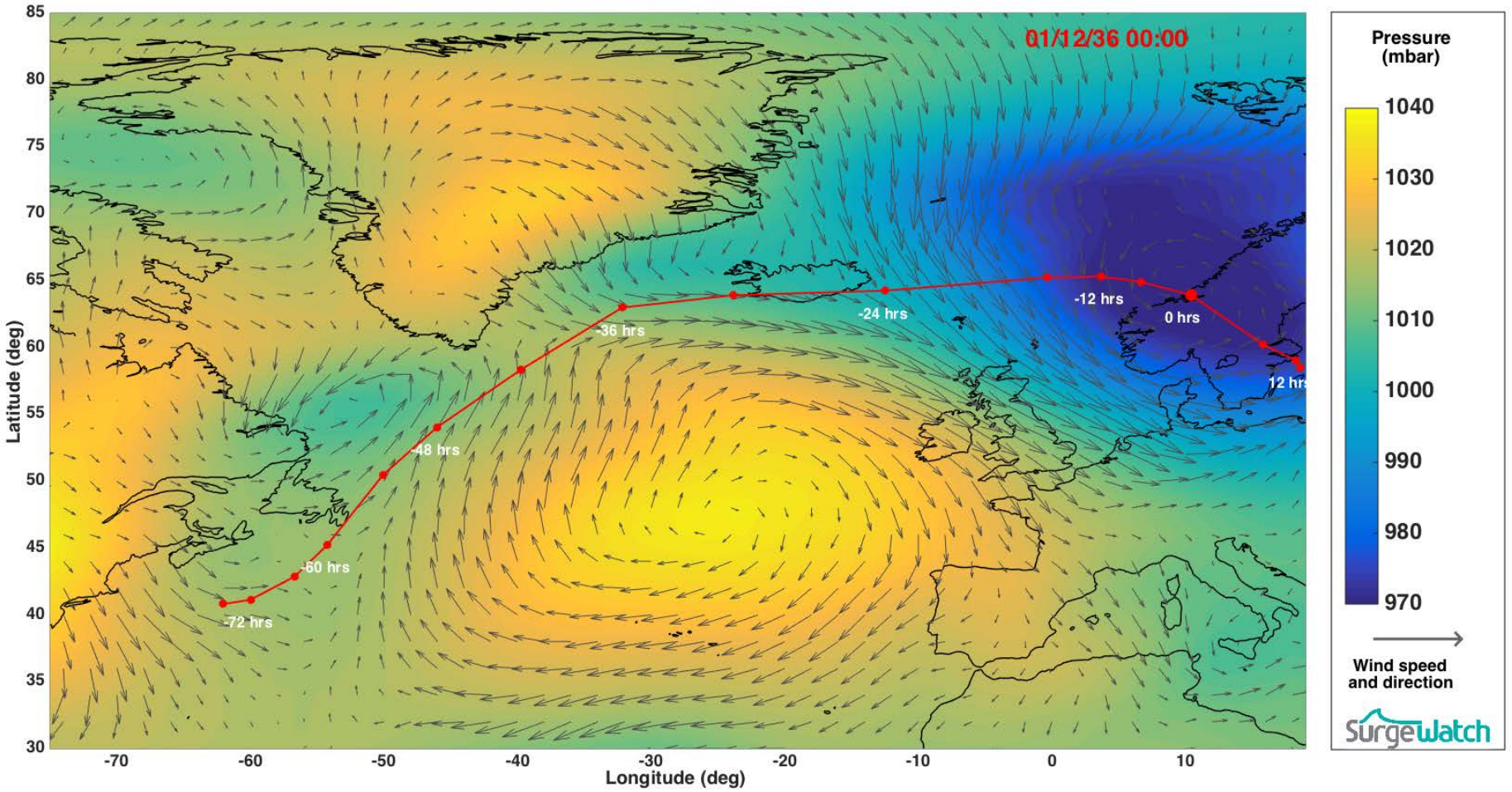

Figure 1: Meteorological conditions at time of maximum water level overlaid by the storm track

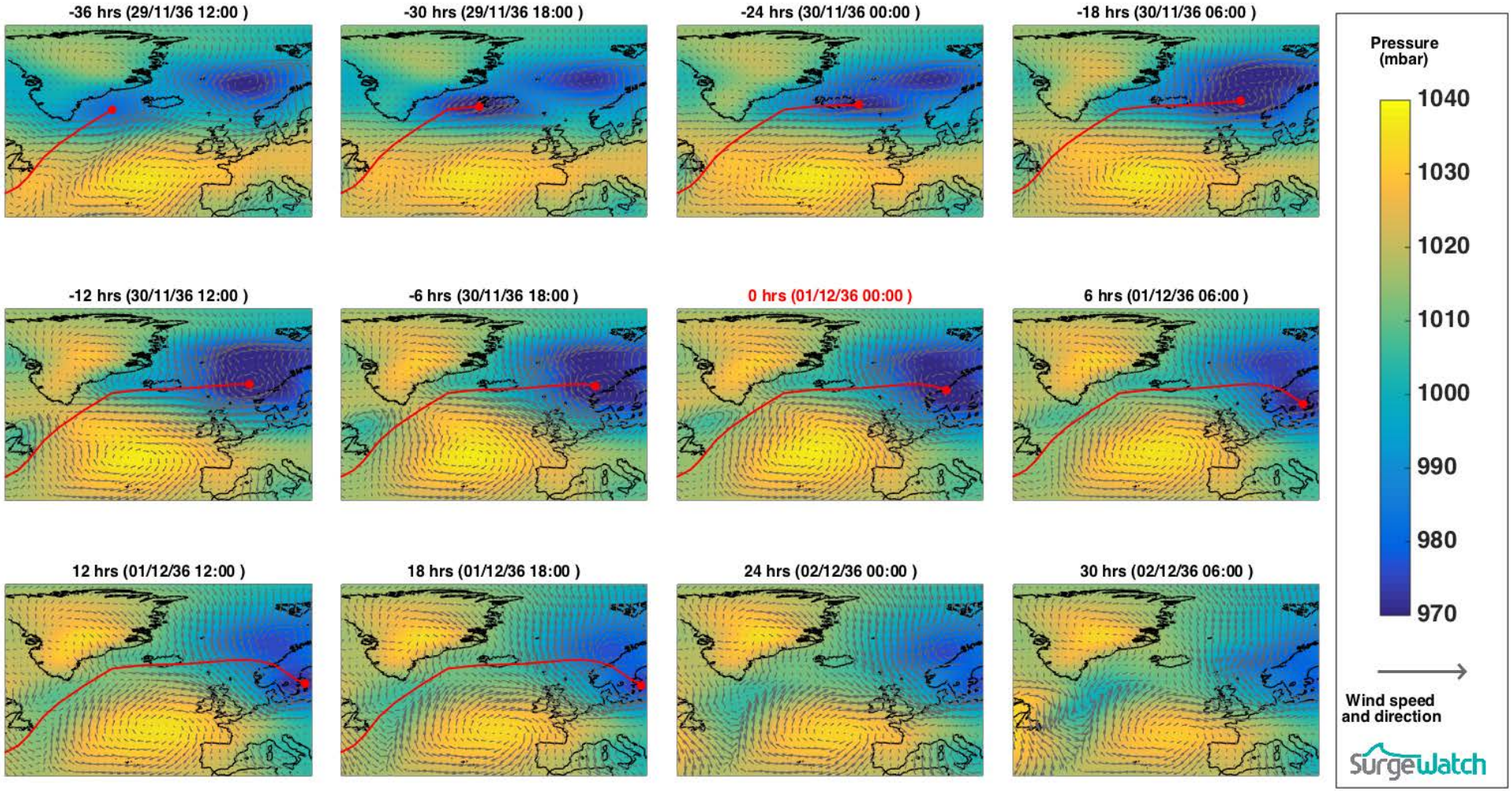

Figure 2: Meteorological conditions during event

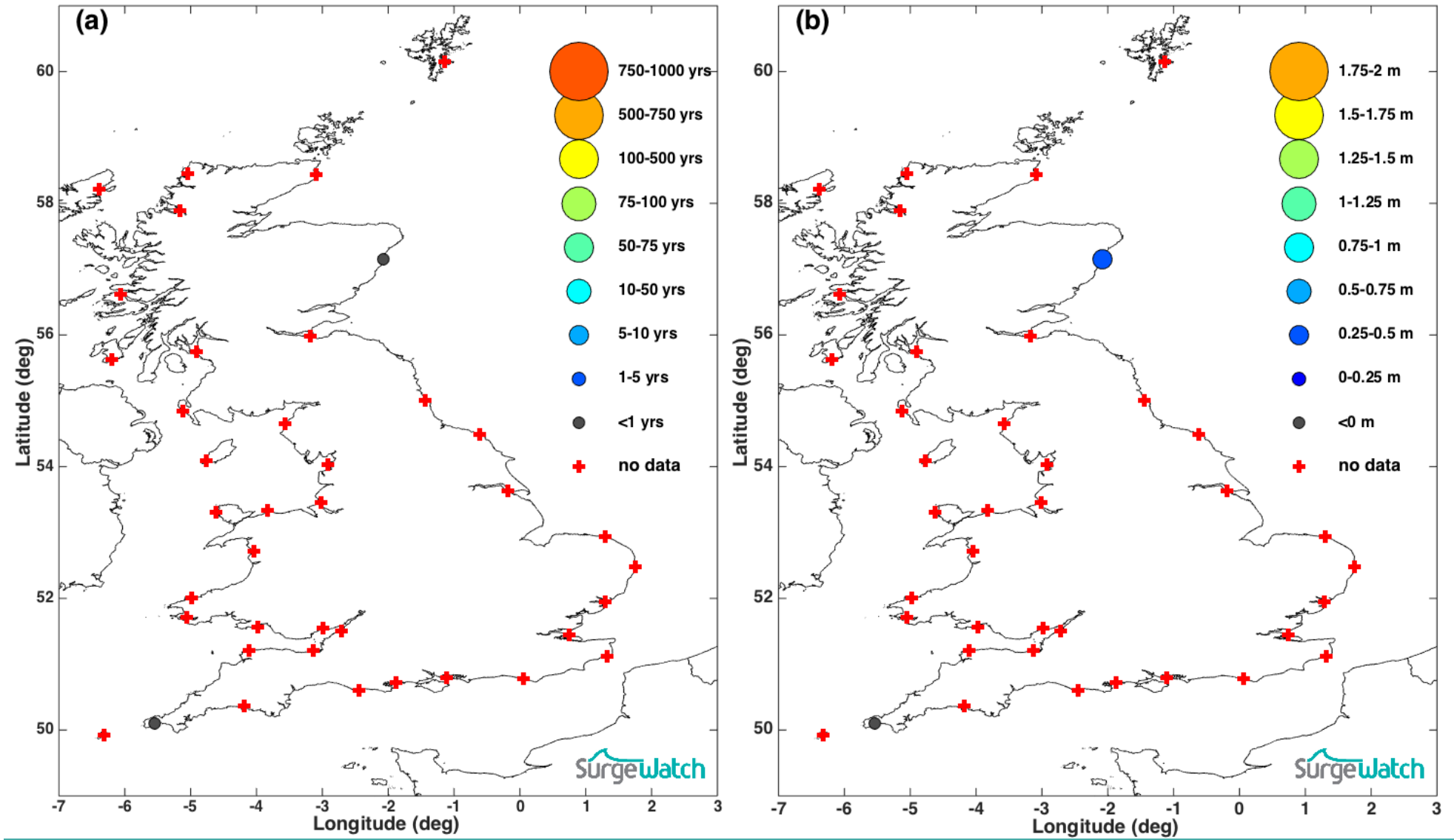

Figure 3: (a) Water level return period; (b) Skew surge levels

References

Hickey, K.R., 1997. *Documentary records of coastal storms in Scotland, 1500-1991 A.D.* Coventry University. Available at: https://curve.coventry.ac.uk/open/items/aa6dfd04-d53f-4741-1bb7-bdf99fb153be/1/.

The Times, 1936. East coast damage; Main line train service stopped. *Times Newspapers Limited* [London, England]. The Times Digital Archive.

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].

Additional sources of information

Met Office, 1936. Monthly Weather Report of the Meteorological Office. *Monthly Weather Report*, 53(12). Available at: http://www.metoffice.gov.uk/learning/library/archive-hidden-treasures/monthly-weather-report-1930s.