

STORM EVENT

— 5th November 1916 —

Flooding in the Solent inundates a hospital



Severity Ranking

		3			
--	--	----------	--	--	--

Social	<u>Loss of life</u>	*
	<u>Residential property</u>	Residential properties flooded in Cowes, Isle of Wight and possibly in other locations within the Solent, Hampshire
	<u>Evacuation & Rescue</u>	*
Economic	<u>Cost</u>	*
	<u>Ports</u>	*
	<u>Transport</u>	Local roads were flooded in Portsmouth
	<u>Energy</u>	*
	<u>Public services</u>	Ground-floor level of Portsmouth hospital inundated by flood water
	<u>Water & wastewater</u>	*
	<u>Livestock</u>	*
	<u>Agricultural land</u>	*
Environmental	<u>Coastal erosion</u>	*
	<u>Natural environment</u>	*
	<u>Cultural heritage</u>	*
	<u>Coastal defences</u>	*

*No known sources of information available

Source	<p>The storm developed over the central North Atlantic during 3rd November 1916, moving relatively quickly following an easterly to north-easterly track towards to the UK. By 5th November the storm was centred over south-west England with a central low of around 960 mbar. Strong south-westerly winds were prevalent over the English Channel.</p> <p>The only available sea level data from the time of this event is from Newlyn, Cornwall where the sea level was 5.17 m CD – less than a 1 in 1 year return period sea level.</p> <p>We are unaware of any sources describing the wave conditions during this event.</p>
Pathway	<p>There are no known available sources providing specific details concerned with the flood pathways relevant to this event.</p>
Receptor & Consequence	<p>This event was associated with flooding along the south coast including at Portsmouth, Bournemouth and on the Isle of Wight at Cowes (Zong and Tooley, 2003). The only known available description of this event is provided by The Times (1916). In Portsmouth, some roads were reportedly inundated to 3 ft. [0.9 m] deep, and a hospital was also flooded which meant the lower floors could not be used. Several streets and residential properties were also flooded in Cowes, Isle of Wight.</p>

Table 1: High water levels (m CD) recorded at the UK National Tide Gauge sites that reached or exceeded a 1 in 5 year return level 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	05/11/1916 13:00	<1	5.17	4.89	0.28

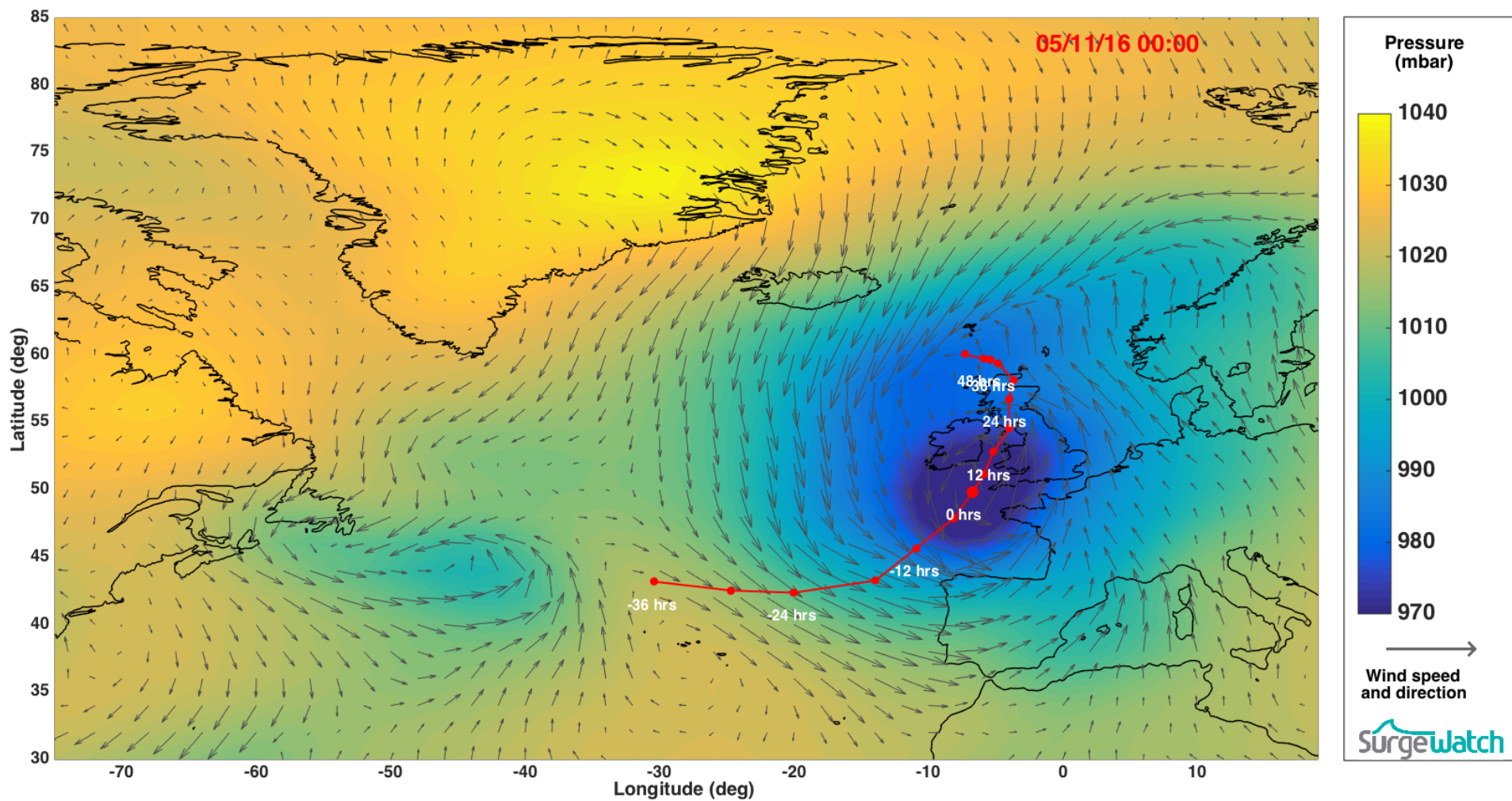


Figure 1: Meteorological conditions at time of maximum water level overlaid by the storm track

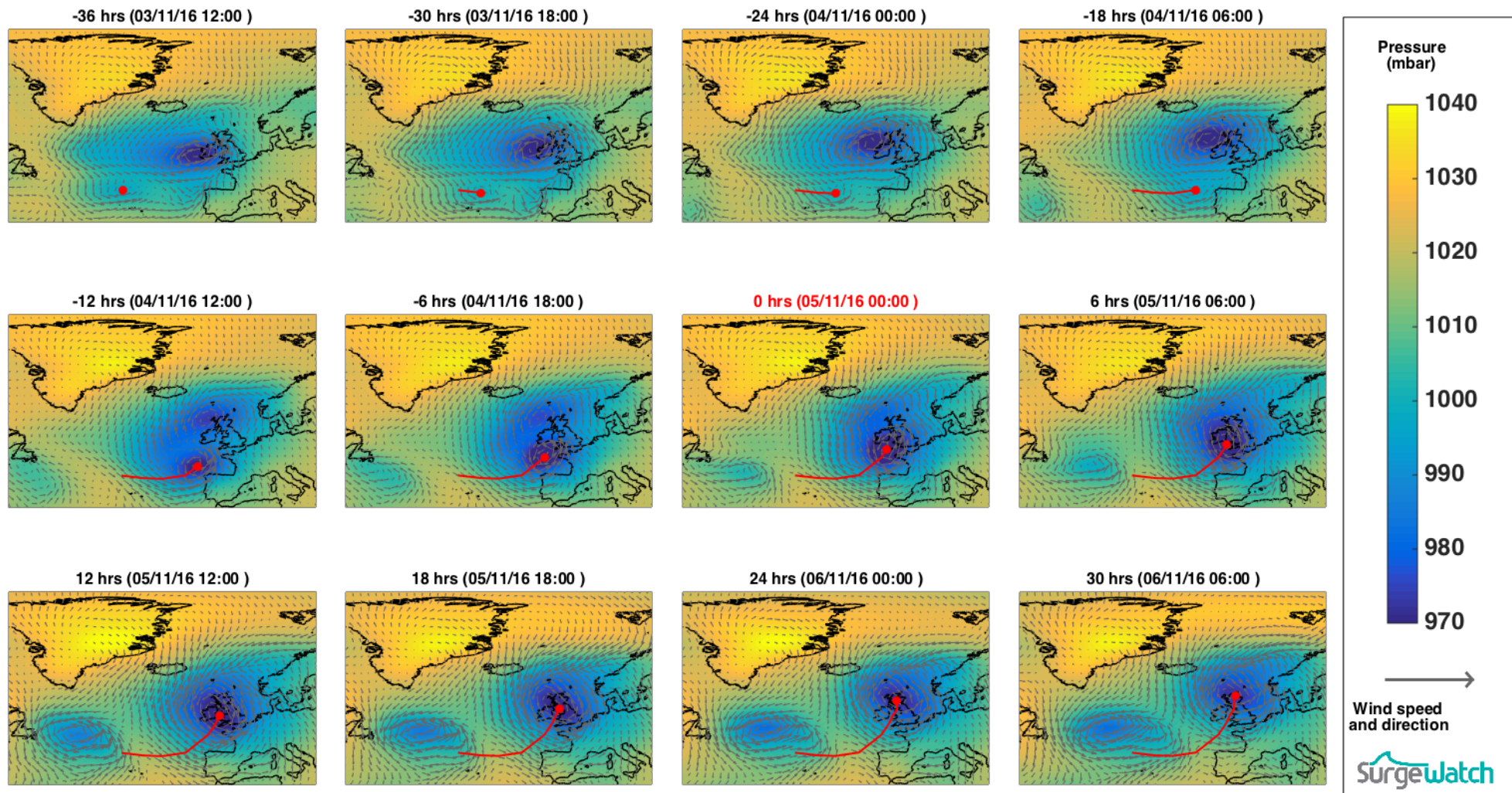


Figure 2: Meteorological conditions during event

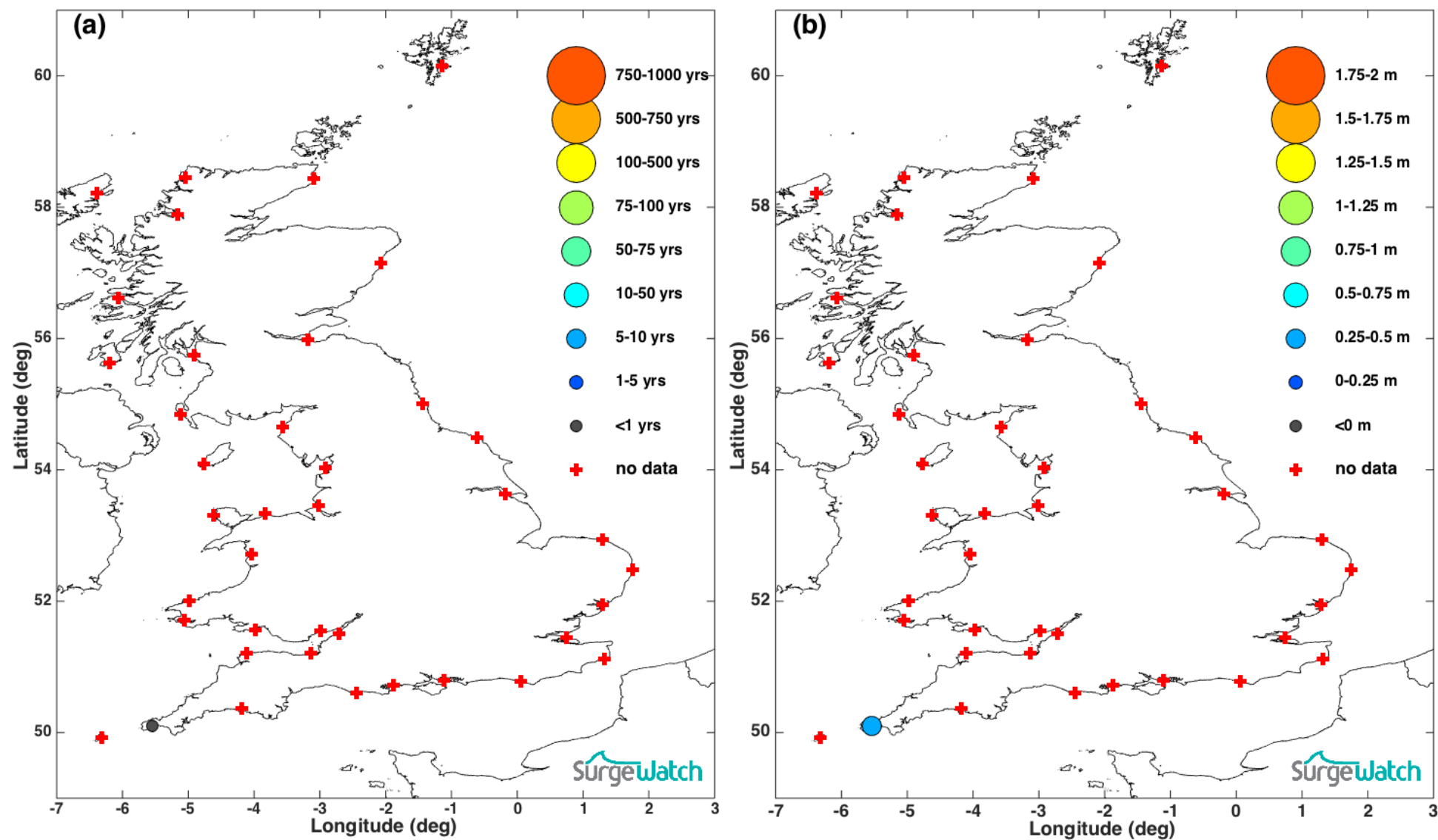


Figure 3: (a) Water level return period; (b) Skew surge levels

References

The Times, 1916. A Stormy Week-End. *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].

Additional sources of information