

STORM EVENT

— 4th–5th January 1979 —

Devastating floods hit South Devon villages



Severity Ranking



Social	<u>Loss of life</u>	*
	<u>Residential property</u>	Houses and seafront cafes damaged/destroyed by waves
	<u>Evacuation & rescue</u>	All seafront homes evacuated at the two main affected Devon villages: Torcross and Beesands (300 and 200 persons, respectively)
Economic	<u>Cost</u>	*
	<u>Ports</u>	*
	<u>Transport</u>	The Slapton Railway line closed for a number of days
	<u>Energy</u>	*
	<u>Public services</u>	*
	<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>On 3rd January 1979, a storm was approaching the south coast from the Atlantic. The storm passed into the English Channel, causing blizzards in the Channel Islands, and strong easterly winds in southern England. By January 5th, it was reported that: "mountainous" seas generated by force nine gales "smashed" through walls and windows (West, 2014).</p> <p>Although local sea level data is unavailable, we are aware that the sea level return period at Newlyn was less than a 1 in 1 years (there was, however, a 0.5 m non-tidal residual during the morning of 4th January).</p> <p>We are unaware of any sources describing the wave conditions during this event.</p>
Pathway	<p>There are no sources describing the specific details of the flood pathways during this event.</p>
Receptor & Consequence	<p>Villagers in the South Devon resorts of Torcross and Bessands battled with "the worst sea storms and onslaught in living memory" as during the morning high tide waves of 30 ft. [9.1 m] waves picked up and hurled "massive boulders" (West, 2014). Water depths reached several ft. [around a metre] through many homes, and residents in both villages battered down windows and moved furniture and carpets to the relative safety of upstairs rooms; but the force of the ice-cold sea proved too much to cope with (West, 2014). Newspaper reports mention that in Torcross 300 people were evacuated. On January 5th, the sea had reduced some buildings to "rubble" and "floating planks of wood". In Beesands, 200 people were evacuated, initially, as men from the fishing community stayed on to try and salvage what they could. An early casualty was a £70,000 house which was completely destroyed. Distraught residents of Beesands recalled the woe that had befallen their "sister" village of Hallsands (which was completely engulfed and destroyed by the sea in 1917, also during southerly gales combined with spring times).</p> <p>Zong and Tooley (2003) report an event dated 4th January 1978 impacting Beesands and Torcross, however it is likely that the year was misreported and it is actually in reference to this event in 1979.</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	03/01/79 08:00	<1	5.92	5.57	0.35
Milford Haven	03/01/79 09:00	<1	7.54	7.09	0.45
Fishguard	03/01/79 10:00	<1	5.12	4.83	0.29
Heysham	02/01/79 14:00	<1	10.11	9.99	0.12
Portpatrick	03/01/79 15:00	<1	4.46	4.07	0.39
Stornoway	03/01/79 10:00	<1	5.00	4.94	0.06
Lerwick	03/01/79 14:00	<1	2.20	2.30	-0.10
Wick	03/01/79 15:00	<1	3.65	3.63	0.02
North Shields	02/01/79 18:00	<1	5.14	5.30	-0.16
Immingham	02/01/79 20:00	<1	7.46	7.41	0.05
Lowestoft	05/01/79 01:00	<1	2.65	2.54	0.11
Dover	03/01/79 02:00	<1	6.92	6.80	0.12

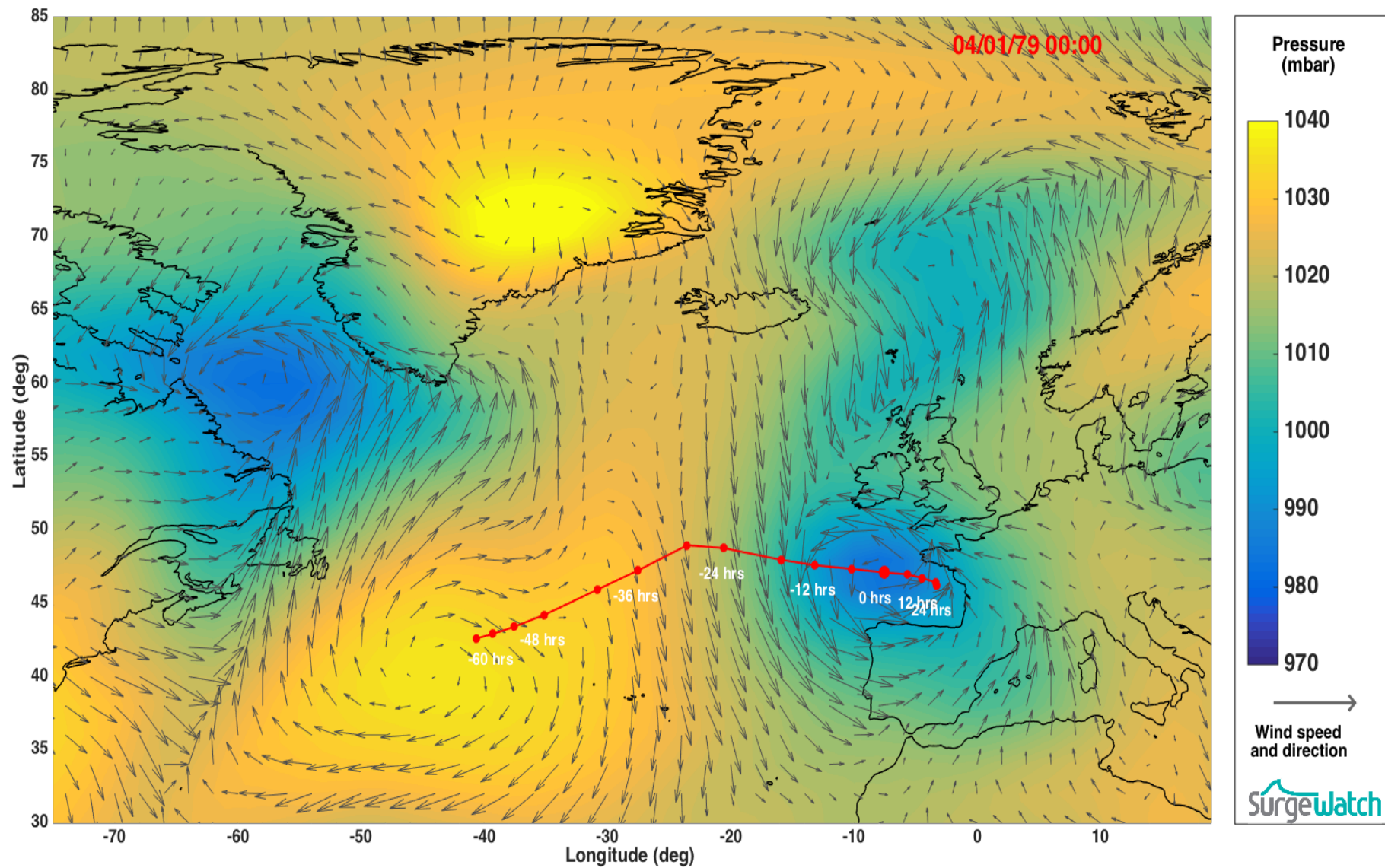


Figure 1: Meteorological conditions at time of maximum water level overlaid by the storm track

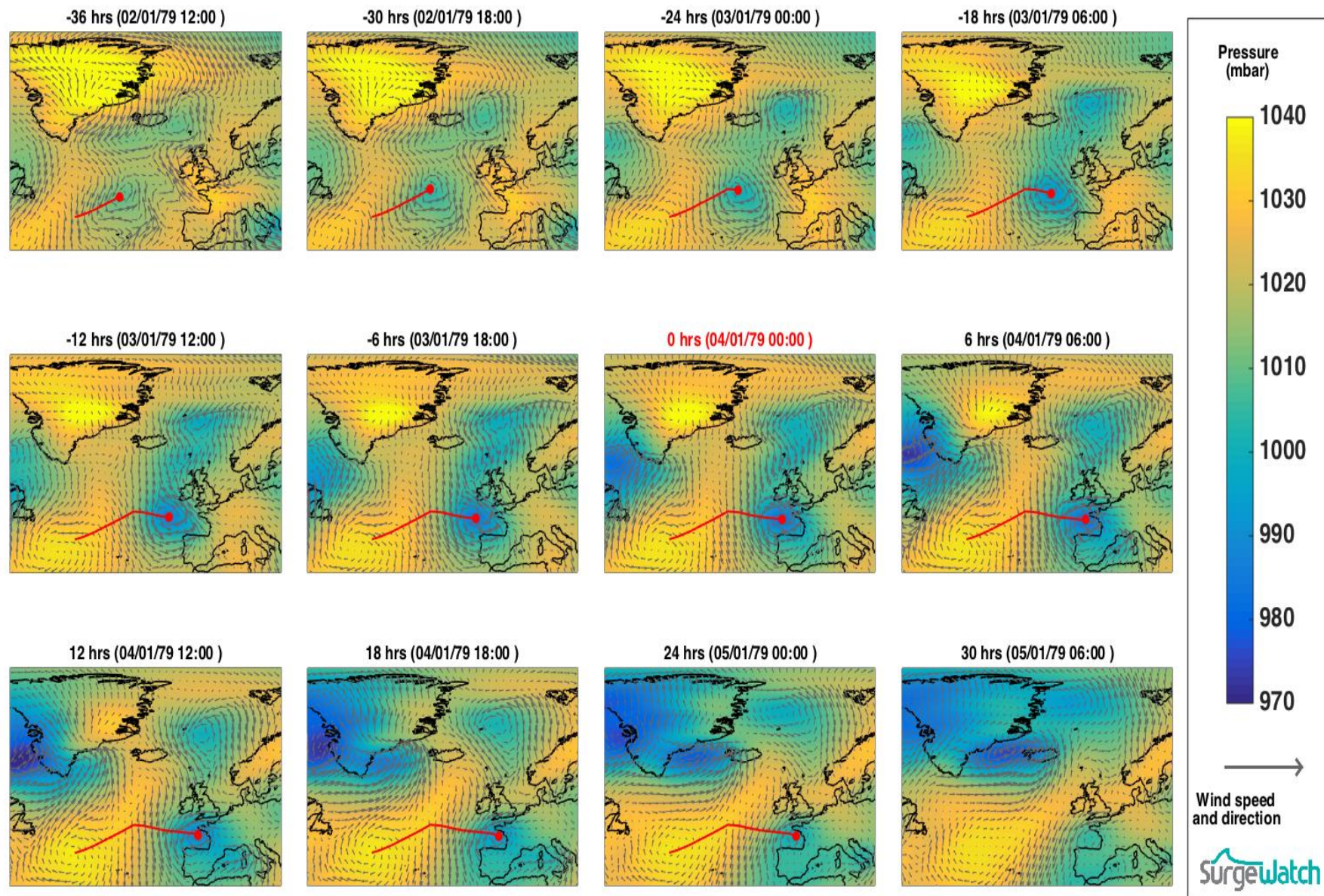


Figure 2: Meteorological conditions during event

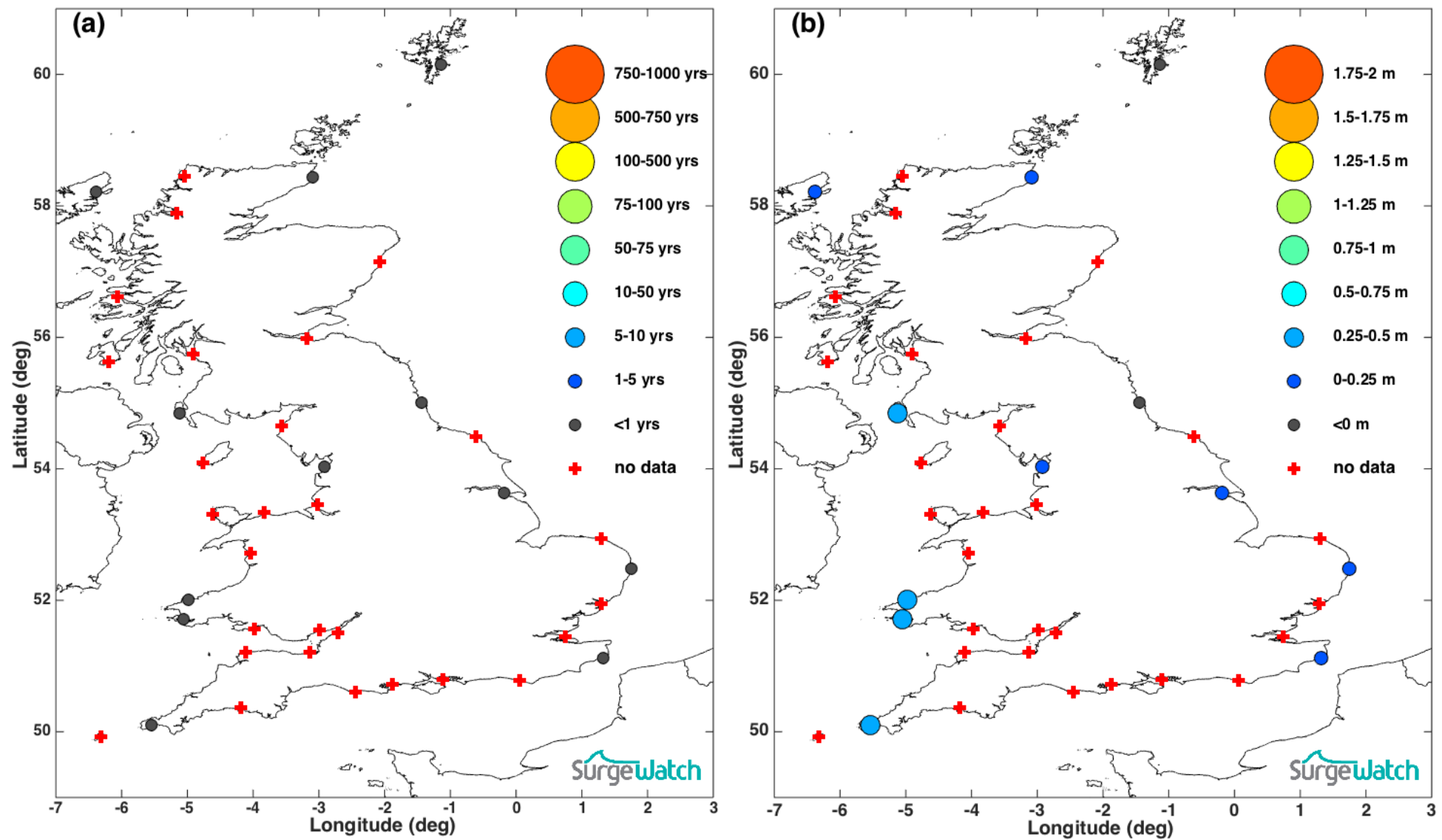


Figure 3: (a) Water level return period; (b) Skew surge levels

References

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- West, I.W., 2014. Chesil Beach - Hurricanes, Storms, and Storm Surges. *Geology of the Wessex Coast of Southern England*. Available at: <http://www.southampton.ac.uk/~imw/chestorm.htm> [Accessed March 8, 2015].
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Additional sources of information

- BBC, 1986. BBC Domesday Reloaded; Coastal Defences. Available at: <http://www.bbc.co.uk/history/domesday/dblock/GB-280000-39000/page/3> [Accessed September 20, 2015].
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