

## Storm Agnes, 27 to 28 September 2023

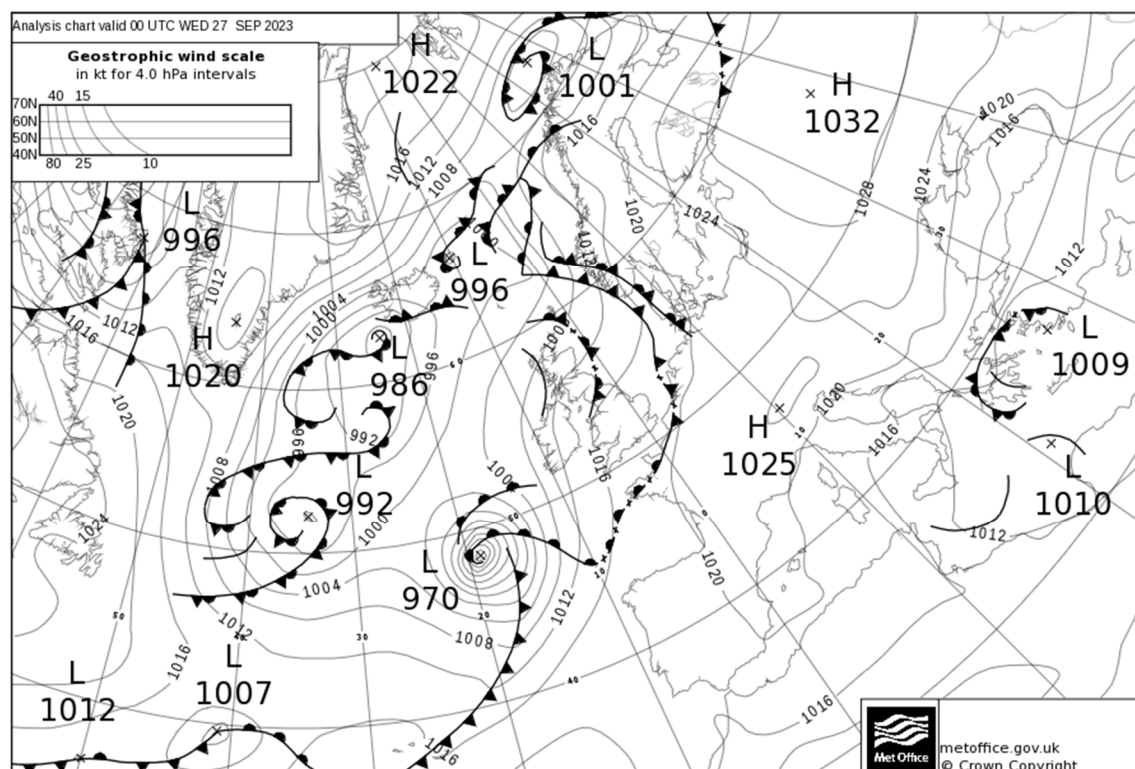
Storm Agnes was the first named storm of the 2023-2024 storm season (which begins in September). Agnes was an intense area of low pressure enhanced by energy from Tropical Storm Ophelia which affected the north-east coast of the US and caused serious flooding in New York. Fortunately, Agnes was weakening by the time it reached the UK, but nevertheless it brought strong winds and heavy rain, with gusts of over 50Kt (58mph). A gust of 73Kt (84mph) was recorded at Capel Curig (Conwy), the equal-highest September gust for Wales on record.

### Impacts

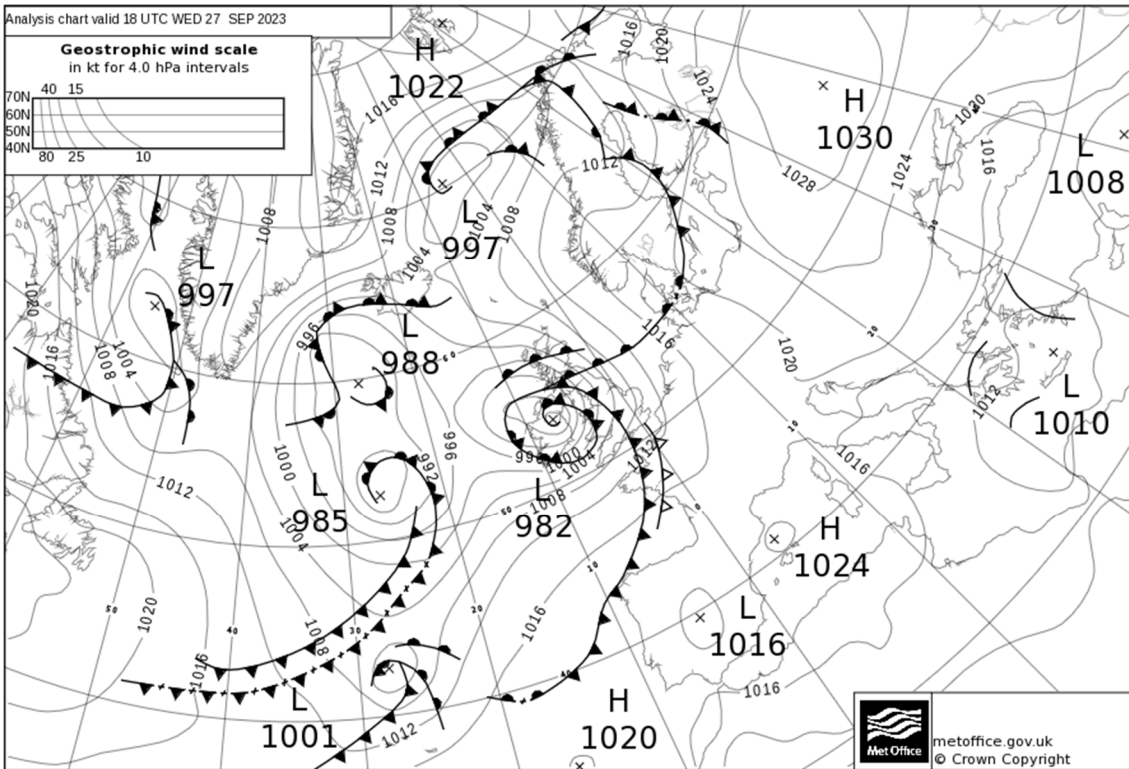
Storm Agnes caused disruption to Irish Sea ferry services. There were some power outages, trees felled and disruption on roads in Cumbria and south-west Scotland, while flights were delayed at Belfast City Airport. However, for the UK overall, weather impacts from the storm were relatively modest.

### Weather data

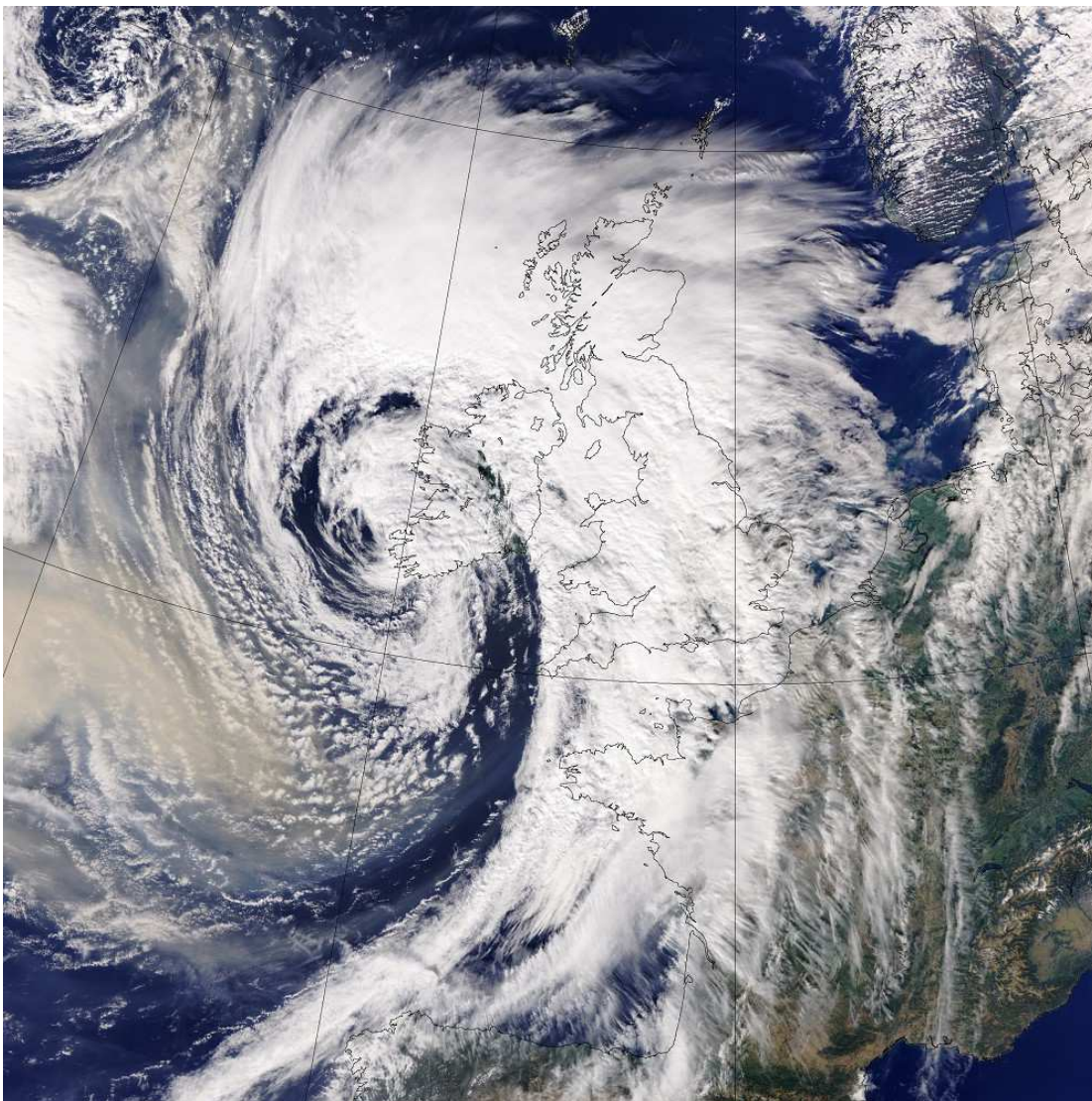
The analysis chart at 0000UTC 27 September 2023 shows storm Agnes as a deep area of low pressure to the south-west of Ireland. At this stage the storm was at its most powerful, fortunately, 18 hours later, it had weakened significantly by the time it tracked across the UK.



The analysis chart at 1800UTC 27 September 2023 – i.e. 18 hours later – shows storm Agnes centred over Ireland with associated fronts across the UK. By this stage the storm had weakened and filled with the central pressure changing from 970hPa to 982hPa. The low's central pressure typically corresponds to the intensity of the storm, how closely packed the isobars are, and therefore wind speeds at the surface.

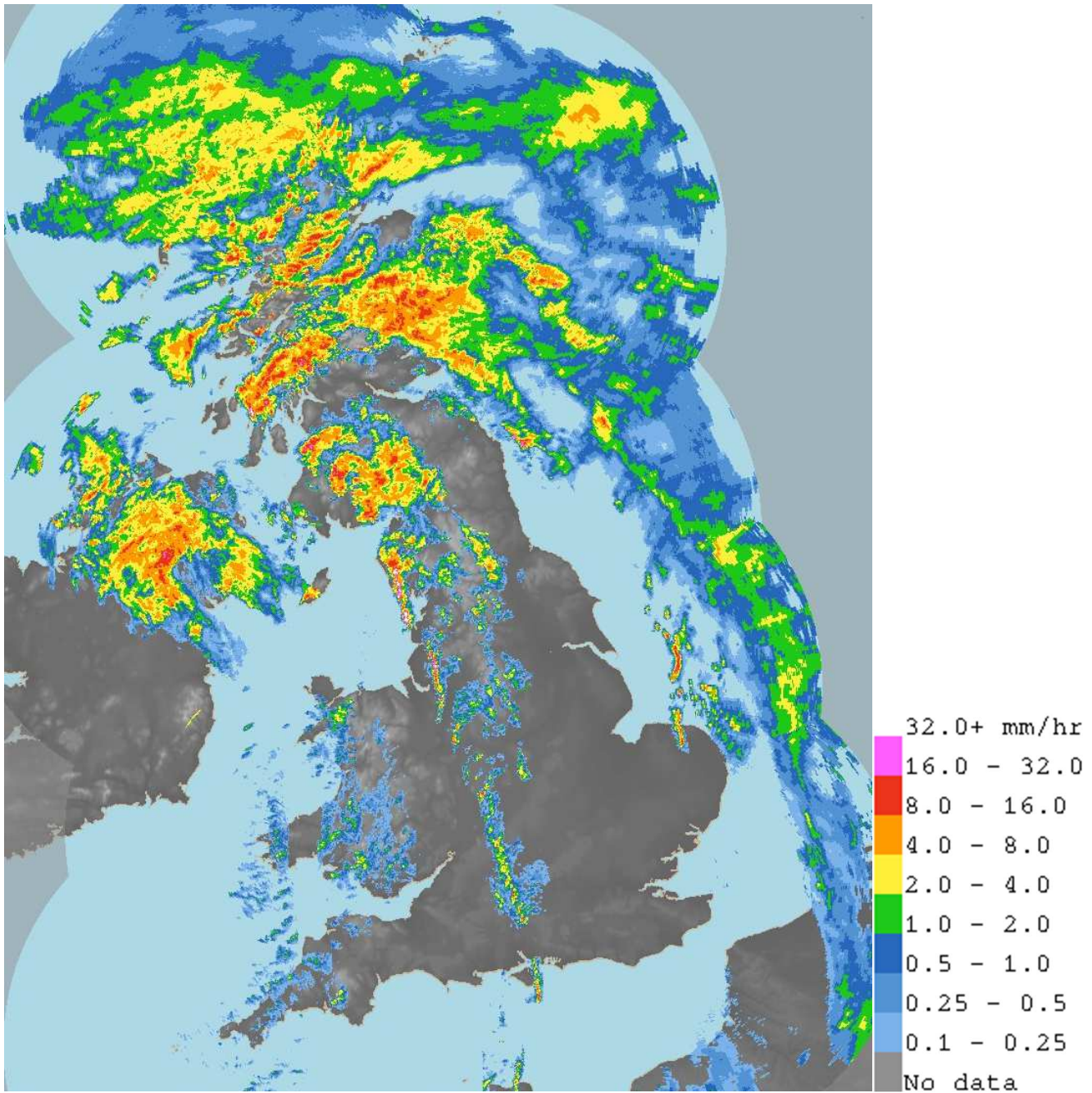


The satellite image at 1259UTC 27 September 2023 shows storm Agnes to the west of Ireland, with associated fronts swathing the UK. Clearly visible in brown to the west of the storm centre is smoke from wildfires across Canada. Image copyright Met Office / NOAA / NASA.

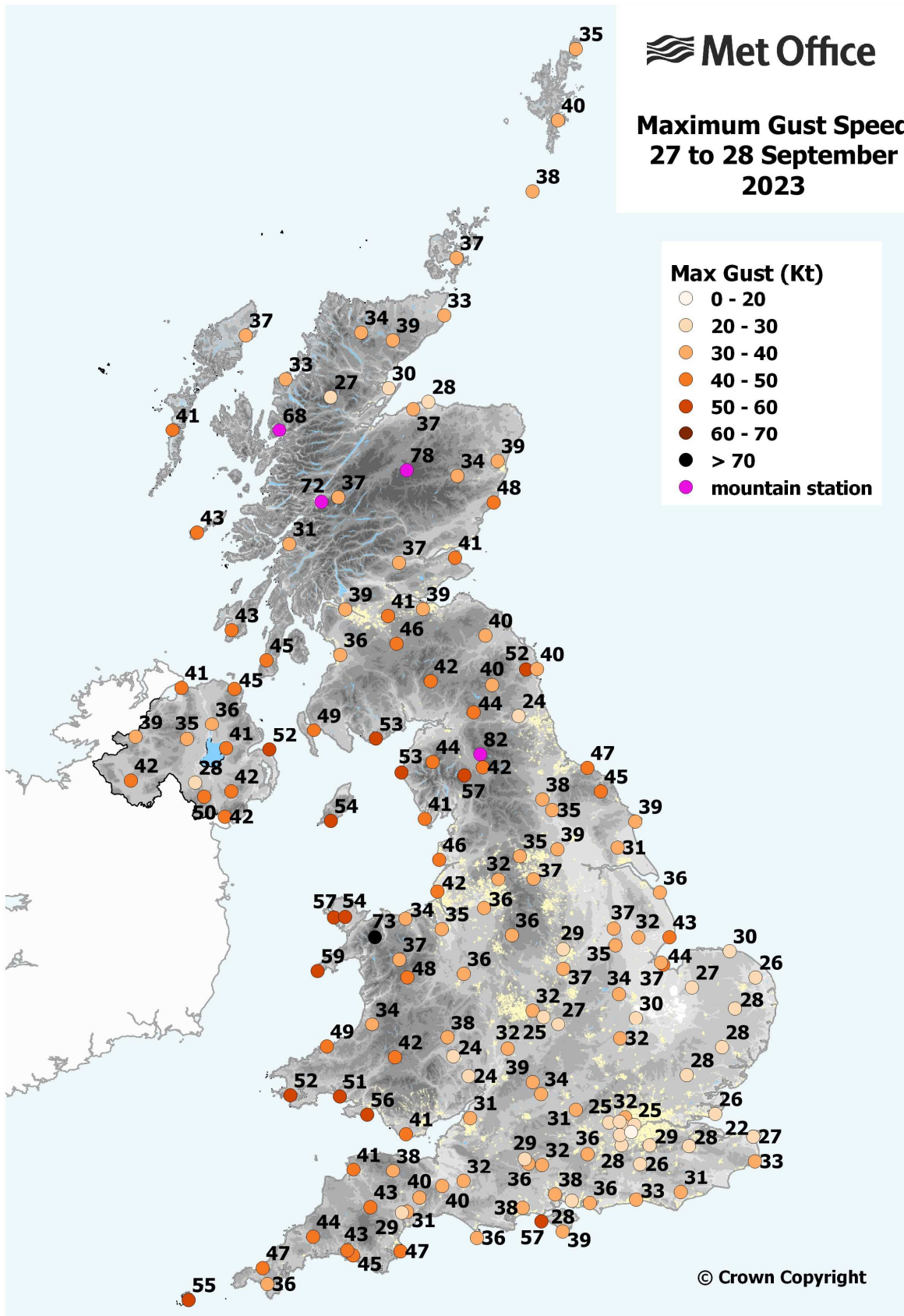




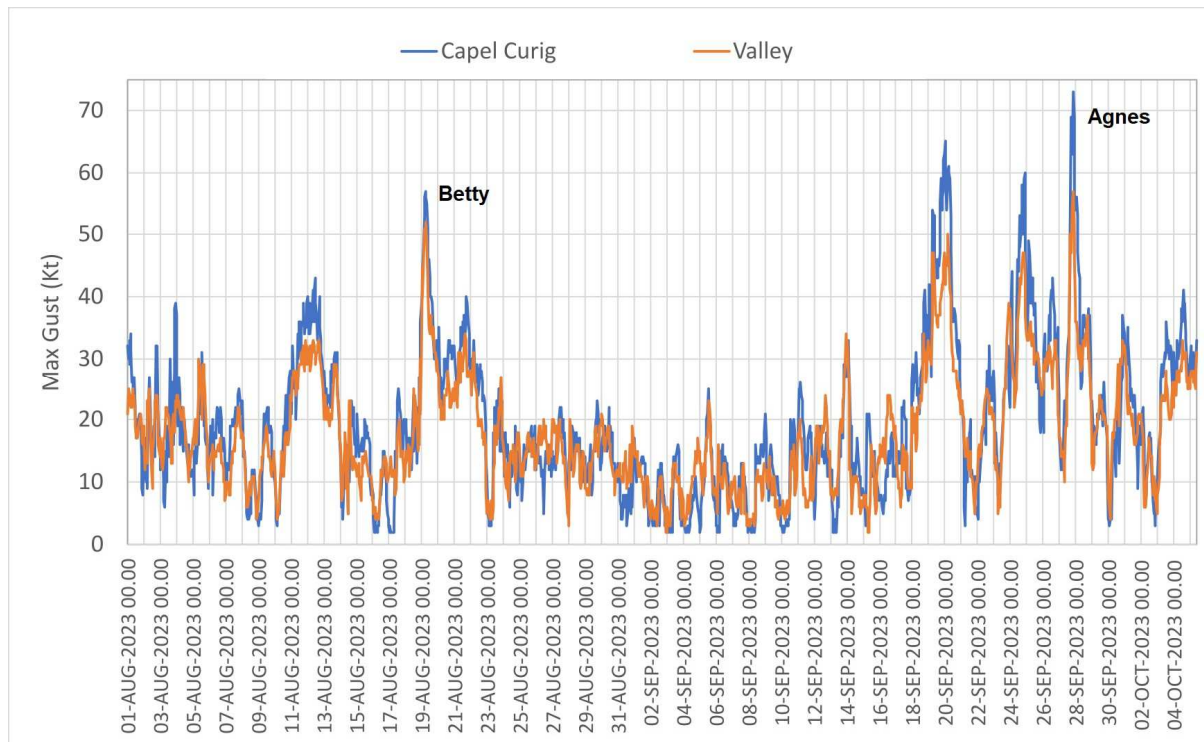
The rain-radar image at 1800UTC 27 September 2023 shows rainfall from storm Agnes, with the rain in northern and eastern Scotland from warm fronts and the narrow band of intense rainfall stretching from Cumbria through Lancashire to the Isle of Wight marking the back edge of the cold front associated with the storm.



The map below shows maximum gust speeds from storm Agnes on 27 to 28 September 2023. The strongest winds were around Irish Sea coasts, with gusts of over 50Kt (58mph). Capel Curig (Conwy) recorded a gust of 73Kt (84mph). This was the equal-highest September gust on record for Wales, shared with Valley (Anglesey) on 5 September 1967.



The chart below shows hourly maximum gust speeds for Capel Curig (Conwy) and Valley (Anglesey) from August to October 2023, with storms Betty (18 to 19 August) and Agnes (27 to 28 September) marked. A calm spell from late August to mid-September is prominent, corresponding to a prolonged period of settled weather and high pressure established over the UK. This spell is then followed by an abrupt change in mid-September to much more unsettled conditions with several autumnal Atlantic low pressure systems – including storm Agnes – bringing much windier and wetter weather to the UK.



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