

From Fire to Floods

What a difference a week makes! I am not talking about politics, but about fires and floods.

On Sunday 13th September the largest fire of the year started on a day when most of the country was at red alert. A week later we experienced heavy rain, flooding and even a tornado in some areas, and eventually for a few hours only, the passing of sub-cyclone Alpha.

The weather forecasts and advice from the IPMA and ANEPC proved to be “spot on”, with the storms causing 309 weather related incidents across the country. On 18th sub-tropical storm Alpha entered mainland Portugal prompting the IPMA to hoist orange weather warnings: wind, precipitation and thunderstorms in the directly affected districts, Leiria and Coimbra. This will go down, however, as one of shortest named cyclones in history lasting less than 12 hours.

In fact this is not particularly unusual at this time of the year that we experience these sudden changes. The effects can be severe, however, with heavy rain falling on hardened ground, coupled with high winds causing foods and damage to property and worse.

This is the time of the year when we move from Fire to Floods. These can result from tropical cyclones have made it from warmer waters across the Atlantic usually dissipating in doing so, when the they reach cooler waters or landfall as in the case of Alpha.

Safe Communities Portugal closely monitors the approach of tropical cyclones to Portugal and provides situation reports from official sources such as the IPMA and US National Hurricane Centre, when they are likely to affect Portugal.

Ophelia 2017

One of these was in October 2017, when strong winds and heat from passing Hurricane Ophelia fanned wildfires in both Portugal and Spain. The wildfires claimed the lives of at least 49 individuals, including 45 in Portugal and four in Spain, and dozens more were injured. In Portugal, more than 4,000 firefighters battled around 150 fires. Air currents from Ophelia drew up ash from these fires and dust from the Sahara desert, basking cities like London in an eerie red glow. Ophelia stands out because of its location and trajectory as the farthest east a storm of its strength has ever formed.



Leslie 2018

In 2018 Storm Leslie, which was a category one hurricane, but weakened to a post-tropical storm as it made landfall late on 14th October, leaving 28 people with minor injuries. The regions around the capital Lisbon and the centre of the country at Coimbra and Leiria were worst hit with trees uprooted, cars and houses damaged and local flooding reported. Aveiro, Viseu and Porto in the north also suffered damage with rescue services reporting a total of 2,500 incidents.

Some 324,000 people were left without electricity while more than 60 people had to leave their damaged homes and flee to safety. Winds of 176 kilometres per hour.

Lorenzo 2019

The Azores islands are not strangers to hurricanes; indeed, there have been at least 14 recorded since 1893. But only one has made landfall as a Category 2 hurricane, in 1926, over the top of the capital on Sao Miguel Island.

Lorenzo in 2019, which affected the Azores, was a Category 5 hurricane - the strongest ever recorded in the central North Atlantic - with winds blowing at 259km/h (161 miles/h). It generated waves of 15 metres (49 feet) but with occasional rogue waves of 30 metres.

The first land to be affected by Hurricane Lorenzo was the western Azores. Waters around these islands are not warm enough to sustain a hurricane, so Lorenzo was already declining. However, it was still at Category 1 on the Saffir-Simpson scale of hurricane strength when its eye passed about 80km (50 miles) to the northwest of the Azores.

The islands of Corvo and Flores came within the band of hurricane-force winds and 0.5 metres storm surge. Trees and electricity lines were brought down, while damaging waves were measured at 17 metres. There is no history of such violent conditions over these islands in 125 years of records.

Will Alpha be the only tropical cyclone to affect Portugal this season?

Global warming may bring more tropical cyclones to northern latitudes, reaching our latitudes, but we will also have changes in the circulation of the atmosphere that make it difficult to make accurate predictions about what will happen.

We only know for the moment that yes, they will be more frequent at more northern latitudes than at present and also that they will tend to move more slowly.

Portugal will certainly not be on the "hurricane route", given that for this to happen extreme climate changes would be necessary to warm our waters to very high temperatures but, there may be more situations in which tropical cyclones coming from the lower latitudes end up reaching here.

Being Prepared

THE IPMA and ANEPC monitor these conditions daily so it is important that when Notices to the Population issued by the ANEPC about weather conditions that could affect life and property, that the advice is followed. These are translated by Safe Communities and published on our Facebook and website. There is further information on the IPMA site with the warnings in place.

Now is a good time to prepare by: Clearing rainwater drainage systems and removing aggregates and other objects that can be dragged or create obstacles to the free flow of water. Check loose structures, namely, scaffolding, placards and other suspended structures are properly secured. Also check the condition of trees near your home which could fall, and lastly the property itself especially roof tiles and chimneys.

In the event of an approaching storm then closely follow the advice provided, bearing in mind their destructive nature which we have seen in the past.