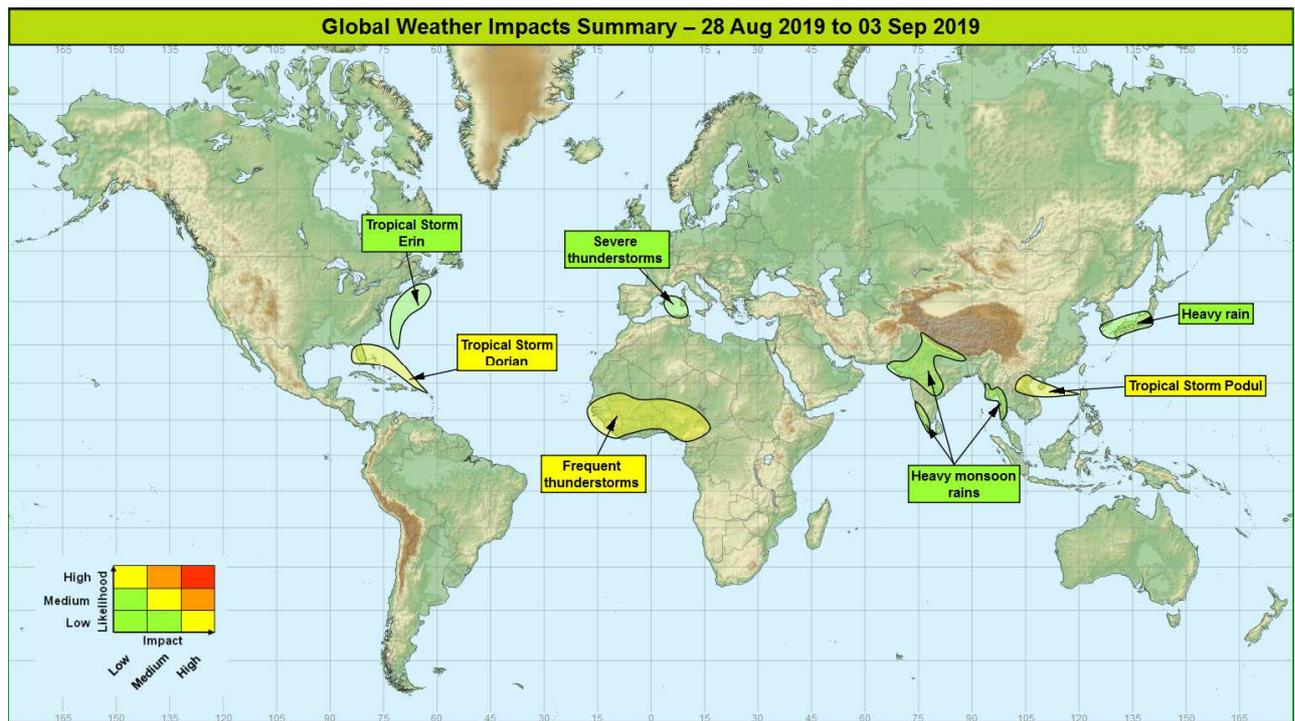


**Global Weather Impacts – Wednesday 28<sup>th</sup> August to Tuesday 3<sup>rd</sup> September 2019**

Issued on Wednesday 28<sup>th</sup> August 2019

**HEADLINES**

- Tropical storm Dorian affecting parts of the Caribbean this week, possibly Florida at the weekend. Furthermore, tropical storm Erin has formed in the western Atlantic.
- Tropical storm Podul likely to affect Hainan then Vietnam later this week.
- Intense thunderstorms continuing across tropical western Africa.



**DISCUSSION**

**Tropical Cyclones**

**Tropical storm Dorian (Tropical Atlantic & eastern Caribbean Sea)**

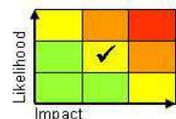
**Weather**

Dorian is now crossing the north-eastern Caribbean Sea with sustained winds of 50mph, and is expected to continue to track north-westwards during the coming days, reaching Puerto Rico and/or Hispaniola later today. Dorian is expected to slowly strengthen but it remains very unclear whether or not it will attain hurricane status as it nears the Bahamas, and the coast of Florida, later this week. Heavy rainfall from intense thunderstorms could produce 150-200 mm of rain in a day along its predicted track.

**Discussion**

Dorian has been disrupted somewhat by a passage directly across St Lucia in the past 24 hours. Whilst there is decent agreement regarding its track over the next 2 to 3 days, Dorian's intensity is much more uncertain. Environmental conditions remain favourable – limited vertical wind shear and high SSTs, but despite this most dynamical models suggests a lesser intensity than official guidance, which is midway between these weaker solutions and the statistical SHIPS model.

**Expected Impacts**



**This forecast may be amended at any time**

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The most likely impact will be flash flooding (and landslides in the more mountainous islands) from the heavy rainfall. Storm surge and destructive winds are possible but are a much lower likelihood than flash flooding.

### **Tropical storm Erin (Western Atlantic)**

#### **Weather**

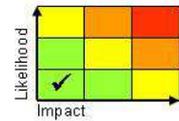
Tropical Storm Erin formed overnight with sustained winds of 40mph. Some modest strengthening is expected as the system tracks across the Atlantic roughly parallel to the Eastern Seaboard of the US, before it becomes post-tropical whilst bringing heavy rain and strong winds to parts of Nova Scotia and Newfoundland on Friday.

#### **Discussion**

There is still a fairly large spread in tracks in global model/ensemble output – the official guidance from NHC is in accord with the model consensus which keeps the system offshore until it accelerates NE ahead of an extending mid-latitude trough. At this point Erin will undergo extra-tropical transition, and is likely to bring heavy rain/gales to the extreme E of Canada

#### **Expected Impacts**

Heavy rainfall/thunderstorms, and locally disruptive winds possible for parts of the E Canada, and much lower likelihood the far north-east of the USA. Extensive low cloud may impact on aviation for a time as the system brushes close to main hubs such as Boston.



### **Tropical Storm Podul (Northwest Pacific)**

#### **Weather**

After crossing Luzon on Tuesday, Podul has now strengthened again as it move across the South China Sea. Podul may strengthen further but looks unlikely to become a typhoon before reaching Hainan, Vietnam and/or the far south of China during Thursday or Friday.

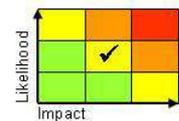
Podul is likely to bring heavy rainfall along it's path, with 300-500 mm possible in affected parts of Vietnam, southern China and perhaps Laos as it tracks inland (average September rainfall in this region is around 250-450 mm).

#### **Discussion**

There is reasonable model agreement for the system to strengthen as it crosses the South China Sea, There is less agreement on track as the system heads towards SE Asia, but Hainan and Vietnam look likely to be the region that sees landfall of this system.

#### **Expected Impacts**

Flash flooding and landslides will be the most likely impacts, although there will also be a threat of damaging winds, dangerous seas and significant surge issues for parts of Vietnam and Hainan later in the week and through the weekend.



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**Europe**

**The Balearic Isles, Sardinia and Northern Tunisia**

**Weather**

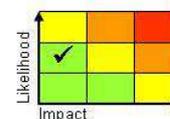
Intense thunderstorms are likely to continue across the central Mediterranean, including parts of the Balearics and Sardinia. These could deliver up to 30-50 mm of rain in places in a few hours, along with large hail and strong winds. However, many parts will avoid these thunderstorms.

**Discussion**

The vortex driving these storms will tend to relax as it crosses the Balearics on Wednesday with activity easing by Thursday. However large CAPE will allow some intense downpours, with large hail, to develop in response to diurnal heating through Wednesday. Marked wind shear could allow for some organised and long lasting storms to develop.

**Expected Impacts**

Flash flooding will be the main impact, with frequent lightning strikes perhaps leading to an increased risk of power outages. There is a lower likelihood of impacts from strong winds and large hail.



**North America**

**Florida, Nova Scotia and Newfoundland** – see *Tropical Cyclones* section.

**Central America and Caribbean**

**Eastern Caribbean** – see *Tropical Cyclones* section.

**South America**

Nil.

**Africa**

**West Africa**

**Weather**

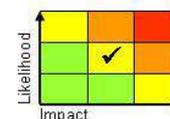
Frequent heavy showers and thunderstorms will continue across this region over the coming week. Thunderstorms are likely to produce locally 50 to 100mm of rain in a short period, with up to 250 mm possible in places during this period. The focus for the largest rainfall totals looks likely to be around coastal areas in the west. This comes on top of wetter than average conditions for many parts over the summer monsoon season so far – around 125-150% of climatology.

**Discussion**

Enhanced seasonal rainfall continues to be signalled with above normal totals expected in this region. This will likely come in the form of MCS developments, organised at times by African Easterly Waves, with impacts especially likely should these affect any of the more urbanised regions within this zone.

**Expected Impacts**

Flash flooding is possible in places together with an increased risk of landslides and river flooding. Risk of some dense lifted dust on the northern periphery of the thunderstorms.



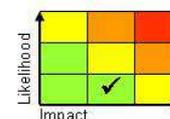
**Middle East**

Nil.

**Asia**

**Parts of South and Southeast Asia**

**Weather**



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Frequent intense showers and thunderstorms are expected to continue through the coming week, producing up to 75-150 mm in a 24-hour period. 200-300mm could fall through the week across parts of west and northwest India and 300-500mm in parts of southern Myanmar. This would result in the average August rainfall falling in a week in places.

**Discussion**

Convection associated with a developing monsoon depression will continue to move west across central and northern India then into southern Pakistan over the next few days, being the focus for heavy showers/thunderstorms. Another depression then potentially forms and takes a similar track west or northwest across central India later this week and into the weekend.

Meanwhile, a strong monsoonal flow will bring heavy rainfall to southern Myanmar and parts of Thailand. Southwest facing upslopes will be most threatened by enhanced rainfall due to orographic uplift of the very moist airmass.

**Expected Impacts**

Flash flooding events are likely, with an increasing likelihood of river flooding and landslides.

**Japan and South Korea**

**Weather**

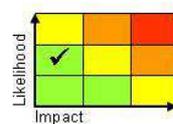
Prolonged heavy rainfall is expected across southern parts of South Korea through Wednesday, as well as central and southern parts of Japan through the rest of this week. Parts of southwest Japan are likely to be wettest with 100-150 mm of rainfall possible in places each day and the potential for 400-500 mm through the week. The heaviest, torrential downpours are likely to be associated with thunderstorms which could also produce frequent lightning.

**Discussion**

An extending upper trough from the mid-latitudes is signalled to extend and engage the in-situ moist, tropical air across these areas leading to particularly heavy rainfall. The heaviest rains expected over Japan with South Korea likely only impacted on Wednesday.

**Expected Impacts**

Flash and river flooding are possible with an increased threat of landslides in mountainous areas.



**Vietnam, Laos, Southern China and Philippines** – see *Tropical Cyclones* section.

**Australasia**

Nil.

**Additional information**

Nil.

**Issued at:** 280650 UTC      **Meteorologist:** Mark Sidaway / Jason Kelly      **Global Guidance Unit**

**This forecast may be amended at any time**

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