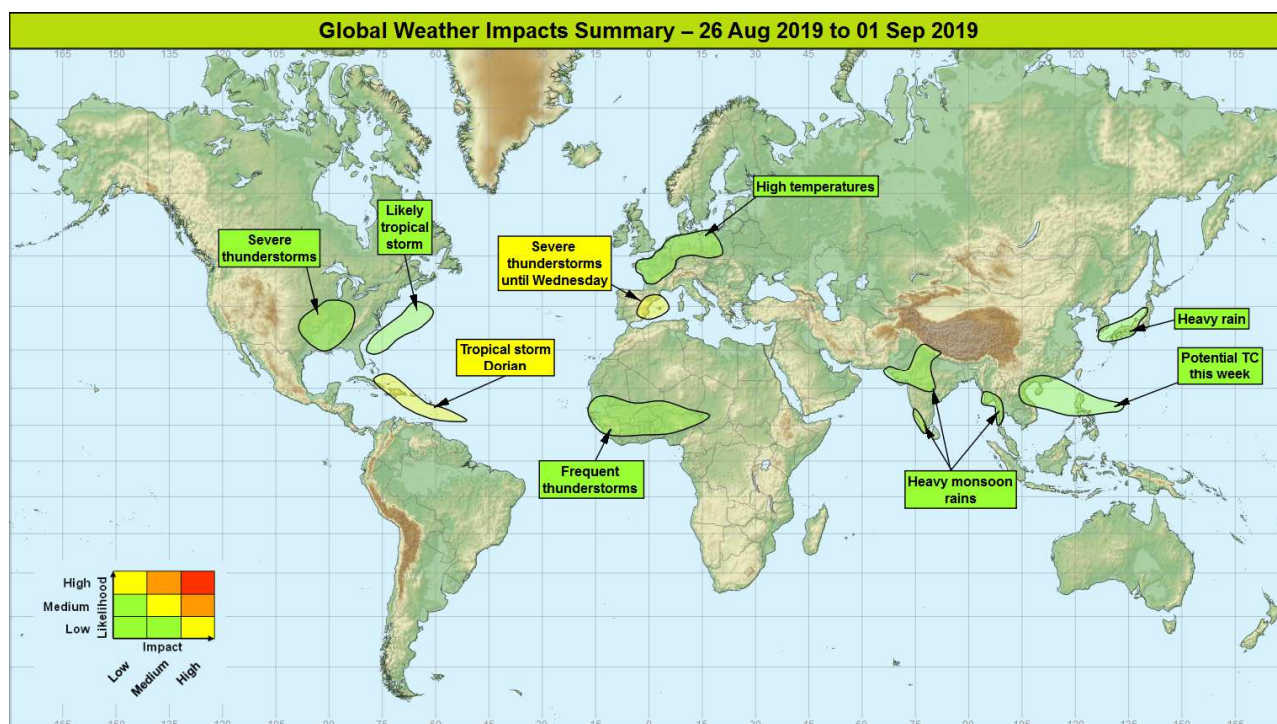


**Global Weather Impacts – Monday 26<sup>th</sup> August to Sunday 1<sup>st</sup> September 2019**

Issued on Monday 26<sup>th</sup> August 2019

**HEADLINES**

- Tropical Storm Dorian expected to track across parts of Lesser Antilles and into the Caribbean Sea.
- Severe thunderstorms until midweek for eastern Spain and the Balearic Isles.
- Enhanced monsoon rainfall across parts of West Africa and South/Southeast Asia.



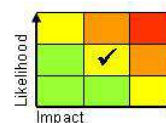
**DISCUSSION**

**Tropical Cyclones**

**Tropical Storm Dorian – Tropical Atlantic & eastern Caribbean Sea Weather**

Dorian is located near 12N 55W at 26/0300Z and is moving west at 14 mph, with sustained winds of 50 mph. Dorian is expected to continue to strengthen as a tropical storm before tracking over parts of the Lesser Antilles (most likely the Windward Islands) through Tuesday. There is a chance, although this aspect is uncertain, that Dorian will reach hurricane strength once over the Caribbean Sea, before weakening as it tracks across Puerto Rico, Dominican Republic or Haiti later this week. There is the potential for Dorian to continue tracking northwestwards close to the Turks and Caicos Islands through the weekend, most likely as a weak tropical storm. Heavy rainfall from intense thunderstorms could produce 100 mm of rain in a day along the track of Dorian.

**Discussion**



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

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An area of organised thunderstorms in the tropical Atlantic became more consolidated over the weekend as it interacted with an African Easterly Wave. The National Hurricane Centre upgraded the tropical low to tropical storm Dorian on Saturday evening. Dorian is expected to continue west-northwest through this week, strengthening as it does, as environmental conditions become more and more favourable – limited shear and high SSTs. There is still a decent spread in both Dorian's exact track and intensity. There is currently only a minority of model solutions which see Dorian intensifying to hurricane strength once reaching the Caribbean.

## **Expected Impacts**

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.

*The following areas are being monitored for potential/likely tropical cyclone developments:*

### **Western Atlantic**

#### **Weather**

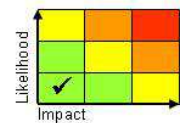
An area of enhanced thunderstorms just northeast of the Bahamas is expected to undergo some development over the next few days as it tracks north to northeastwards. The likelihood of it developing into a named tropical storm remains high. However, any development is expected to remain over open waters.

#### **Discussion**

This region of enhanced thunderstorms has an 80% likelihood of development into a tropical storm in the next five days according to the NHC. Global model output continues to remain relatively spread with respect to the development of the system and if anything models have trended away from a vigorous system forming.

#### **Expected Impacts**

The system (and associated thunderstorms) is expected to track over open water as it develops over the next few days, with no further significant impacts anticipated.



### **Northwest Pacific**

#### **Weather**

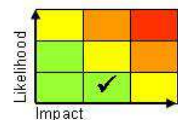
Through Tuesday and Wednesday there is the potential for a developing tropical cyclone to affect the northern Philippines, possibly bringing heavy rains (up to 250 mm in 24-36 hours) and strong winds. Later in the week and into the weekend this system is likely to strengthen, possibly into a typhoon, affecting the far south of China and parts of Vietnam.

#### **Discussion**

There is reasonable model agreement for a weak tropical storm to track westwards across the northern Philippines towards the middle of this week, before strengthening across the South China Sea. There is less agreement on track as the system heads towards SE Asia, but southern China 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 southern China later in the week and through the weekend.



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## Europe

### Eastern Spain and the Balearic Isles

#### **Weather**

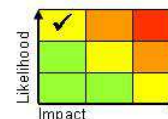
Intense thunderstorms are likely to develop across parts of eastern Spain during Monday and Tuesday. These producing up to 30-70 mm of rain in places in a few hours, along with large hail and strong winds. However, many parts will avoid these thunderstorms.

#### **Discussion**

An upper vortex will continue tracking east across Iberia into the western Mediterranean during the first part of this week. Steep lapse rates with large CAPE will allow some intense downpours, with large hail, to develop in response to diurnal heating. Marked wind shear will allow for the MCS type convection that will result in long lived storms that could persist overnight.

#### **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.



### France to Poland

#### **Weather**

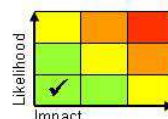
High temperatures will persist through much of France through Benelux, Germany and into parts of Denmark and Poland until the latter part of the week when cooler, Atlantic air arrives. Temperatures are expected to widely reach the low- to mid-30s°C; whilst this is much lower than the record breaking spell in July, it is still noteworthy for late-August.

#### **Discussion**

A combination of strong subsidence and gentle warm advection from Iberia will allow temperatures to continue to rise over the next few days. By Monday models predict large swathes of partial thickness >141Dm, quite noteworthy for late-August. Good agreement for a cold front to spread E later in the week although this could stall before reaching central Europe.

#### **Expected Impacts**

Increased heat stress particularly for vulnerable populations. Perhaps some minor disruption to transport but not on the scale of the event in July.



## North America

### USA Plains

#### **Weather**

Potential for severe thunderstorms to affect the region until midweek. Torrential downpours with 50-75 mm of rain falling in a few hours are possible, along with large hail, strong winds and possibly a few tornadoes.

#### **Discussion**

A high WBPT plume will gradually take on stronger baroclinic characteristics as it moves slowly east through the next couple of days. This will interact with various upper short wave troughs to produce severe thunderstorms. CAPE remains large and with higher wind shear than recently, discrete supercell development and modest upscale growth into more organised features, possibly small MCS is likely. Profiles support the idea of isolated tornadoes, especially across the Central and Southern Plains on Sunday. Large hail, frequent lightning strikes and strong, gusty winds are also likely.

#### **Expected Impacts**

Flash flooding will be the main impact with some damage to crops and property possible from large hail, strong winds and isolated tornadoes.



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## Central America and Caribbean

Eastern Caribbean – see *Tropical Cyclones* section.

## South America

Nil.

## Africa

### West Africa

#### Weather

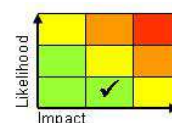
Frequent heavy showers and thunderstorms will continue across this region over the coming week although rainfall is signalled to be less heavy compared to recent days. Thunderstorms are likely to produce locally 50 to 100mm of rain in a short period, with up to 250 mm possible in places during this period. 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

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 northwest India and 300-400mm in parts of southern Myanmar. This would result in the average August rainfall falling in a week in places.

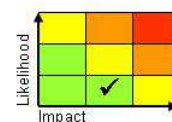
#### Discussion

Convection associated with a developing monsoon depression will slowly move west across central and northern India then into southern Pakistan over the next few days, being the focus for heavy showers/thunderstorms. A break in the rains is then expected around midweek, before another depression potentially forms and takes a similar track west or northwest across central India.

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. Rainfall should ease, as the monsoonal flow weakens, later in the week.

#### Expected Impacts

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



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**Japan and South Korea****Weather**

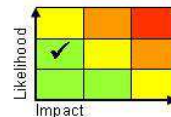
Prolonged heavy rainfall is expected across southern parts of South Korea as well as central and southern parts of Japan through this week. Parts of southwest Japan are likely to be wettest with 100-150 mm of rainfall possible in places each day and the potential for 400-500 mm through the week. The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

**Discussion**

Remnants of tropical storm Bailu will drift north to affect these areas over the next couple of days leading to enhanced rainfall. Then during the middle of the week 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 much more uncertainty over the far south of South Korea.

**Expected Impacts**

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



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

**Australasia**

Nil.

**Additional information**

Nil.

**Issued at:** 260655 UTC

**Meteorologist:** Chris Bulmer / Paul Hutcheon

**Global Guidance Unit**

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