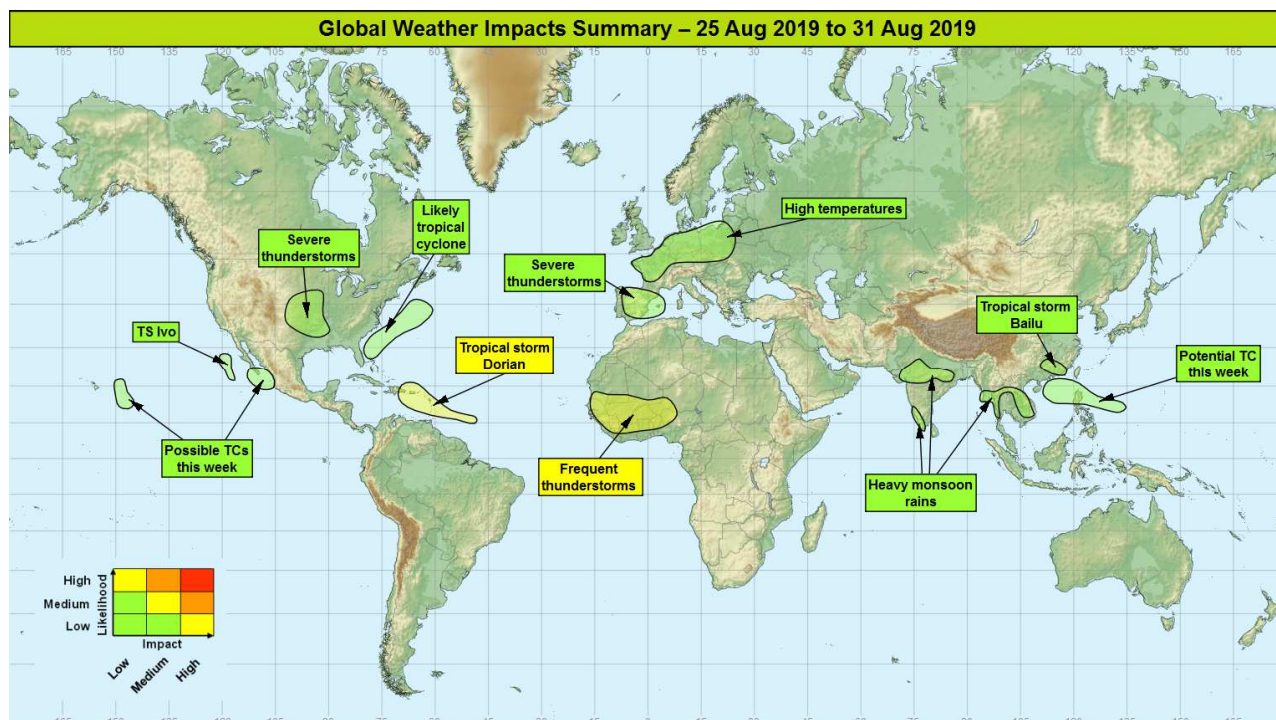


## Global Weather Impacts – Sunday 25<sup>th</sup> to Saturday 31<sup>st</sup> August 2019

Issued on Sunday 25<sup>th</sup> August 2019

### HEADLINES

- Tropical storm Dorian expected to intensify into a hurricane before affecting parts of Lesser Antilles into next week.
- Enhanced monsoon rainfall across parts of West Africa.



### DISCUSSION

#### Tropical Cyclones

##### Tropical Dorian – Tropical Atlantic & eastern Caribbean Sea Weather

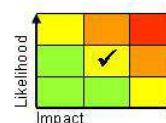
Dorian is located near 10.9N 50.4W and is moving west at 15 mph, with sustained winds of 40mph. Dorian is expected to continue strengthening into next week, becoming a hurricane as it approaches, then crosses, the Lesser Antilles later Tuesday and into Wednesday.

##### **Discussion**

An area of organised thunderstorms in the tropical Atlantic became more consolidated last night as it interacted with an African Easterly Wave. The National Hurricane Centre upgraded the tropical low to tropical storm Dorian on Saturday night. Dorian is expected to continue west-northwest into next week, strengthening as it does, as environmental conditions become more and more favourable – limited shear and high SSTs. Dorian is expected to be a hurricane by the time it reaches the Lesser Antilles later Tuesday, though the track/intensity of Dorian will remain open to some uncertainty for the next few days.

##### **Expected Impacts**

Heavy rain, storm surge and potentially destructive winds are all possible. The NHC is also highlighting the risk that Dorian could intensify more rapidly than currently forecast, highlighting further the uncertainties in detail regarding the storm's evolution.



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

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## **Tropical Depression Baliu – Northwest Pacific**

### **Weather**

Having brought torrential rain to Taiwan on Saturday, Baliu will weaken further as it slowly moves across mainland parts of southeast China, bringing further heavy rain here for the next few days. Around 200-350mm of additional rainfall is expected across parts of south-eastern China over the next few days.

### **Discussion**

Good model agreement for Baliu to continue weakening as it moves slowly west or northwest across southeast China over the next few days.

### **Expected Impacts**

The main impacts will likely come from the heavy rainfall, resulting in flash flooding and a threat of landslides.



## **Tropical Storm Ivo – Eastern North Pacific**

### **Weather**

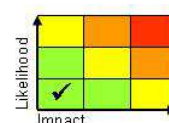
Ivo is currently around 350 miles west-southwest of the southern tip of Baja California, with sustained winds of 40 mph. Ivo is expected to weaken into a depression during Sunday morning whilst continuing to move in a north-northwesterly direction. The system should dissipate within a few days.

### **Discussion**

Ivo is being affected by an area of marked northeasterly shear. Although this is expected to decrease, a transit over cool SSTs into a more stable environment will retard any further significant development and Ivo is expected to weaken steadily over the next few days.

### **Expected Impacts**

Nil.



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

## **Western Atlantic**

### **Weather**

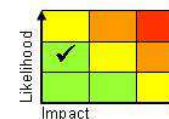
An area of enhanced thunderstorms just offshore of The Bahamas is expected to undergo some development over the next few days as it tracks north to northeastwards. The likelihood of it developing into a named tropical storm remains high. However, any development is expected to remain over open waters.

### **Discussion**

The region of enhanced thunderstorms between Florida and The Bahamas has a 90% 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.

### **Expected Impacts**

Initially, impacts from thunderstorms across the north-western Bahamas and central and southern parts of the Florida peninsula. However, the system is expected to track over open water as it develops over the next few days, with no further significant impacts anticipated.



## **Eastern North Pacific**

### **Weather**

An area of low pressure is expected to develop just off the west-central Mexico coast near the southern tip of Baja California over the next five days. Some development of this system is possible thereafter as it moves slowly west or west-north-westward away from the coast.

### **Discussion**

An African Easterly Wave is expected to assist in the development of an area of low pressure, which could then go on to strengthen into a tropical cyclone. The NHC currently rates chances of development in the next five days as 30%.

### **Expected Impacts**

Nil, as any system is expected to remain over open water.



## **Central Pacific**

### **Weather**



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A disorganised area of showers and thunderstorms around 1000 miles east-southeast of the Big Island of Hawaii may develop into a tropical cyclone over the next five days.

A

## Discussion

An African Easterly Wave is expected to interact with a surface trough potentially inducing tropical cyclone development as the trough moves north-westward into a more favourable environment. The NHC currently rates chances of development in the next five days as 20%.

## Expected Impacts

Nil, as any system is expected to remain over open water.

## Northwest Pacific

### Weather

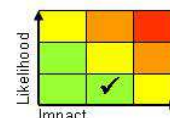
By the middle of the coming week there is the potential for a developing tropical cyclone to affect the northern Philippines, possibly bringing heavy rains and strong winds.

### Discussion

There is still enough model spread to reduce confidence in this event, although some models do produce a fairly strong-looking system that tracks westwards into the northern Philippines by Wednesday. Currently the favourable SSTs are being offset by the only marginally favourable environment with moderate shear. Regardless of development a spell of very heavy rain is likely, possibly affecting densely populated Manila.

### Expected Impacts

Flash flooding and landslides will be the most likely impacts, with a lower likelihood of significant surge issues.



## Europe

### Southwest Europe

#### Weather

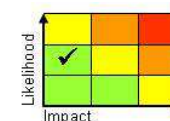
Intense thunderstorms are likely to develop across parts of south-western France, Portugal and Spain during Monday and Tuesday, producing up to 30-50 mm of rain in a few hours, along with large hail and strong winds. However, many places will avoid these storms.

#### Discussion

A disrupting upper trough is expected to move in off the Atlantic, tracking east across Iberia early next week. Steep lapse rates with large CAPE will allow some intense downpours, with large hail, to develop in response to diurnal heating.

#### Expected Impacts

Flash flooding will be the main impact, with frequent lightning strikes perhaps leading to an increased risk of power outages.



## France to Poland

### Weather

High temperatures are expected to become more widespread, affecting large parts of northern Europe from France through Benelux, Germany and into parts of Denmark and Poland. 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. Cooler conditions will spread to France by midweek, with the heat becoming confined to Poland by next weekend.

### Discussion

A combination of strong subsidence and gentle warm advection from Iberia will allow temperatures to gradually rise over the next few days. By Monday models predict large swathes of partial thickness >141Dm, quite noteworthy for late-August. A cold front will gradually introduce cooler and fresher conditions from the west through the second half of the week.

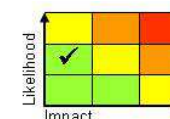
### Expected Impacts

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



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Potential for severe thunderstorms to affect the region until around 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 early part of the week. This will interact with several upper 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.

**Mexico** – see *Tropical Cyclones* section

## Central America and Caribbean

**Bahamas** – see *Tropical Cyclones* section.

**Lesser Antilles & eastern Caribbean** – see *Tropical Cyclones* section.

## South America

Nil.

## Africa

### West Africa

#### Weather

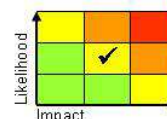
Enhanced shower and thunderstorm activity for this region over the next week. Thunderstorms are likely to produce locally 50 to 100mm of rain in a short period, with up to 350 mm possible in places during this period. The focus for the largest rainfall totals looks likely to be around coastal areas in the west, along with southern parts of Mali over the next couple of days. This comes on top of wetter than average conditions for many parts over the summer monsoon so far – around 125-150% of climatology since mid May.

## 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 likely together with an increased risk of landslides and river flooding. Risk of some dense lifted dust on the northern periphery of the thunderstorms.



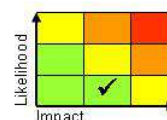
## Middle East

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, and up to 350 mm through the next week in places. 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 northwest across central and northern India 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. Enhanced convection is also expected over the higher ground of Laos and western Vietnam, with a consistent model signal for above average rainfall here too. Rainfall should ease, as the monsoonal flow weakens, later in the week.

**Expected Impacts**

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

**Taiwan and southeast China** – see *Tropical Cyclones* section.

**Philippines** – see *Tropical Cyclones* section.

**Australasia**

Nil.

**Additional information**

Nil.

**Issued at:** 250430 UTC      **Meteorologist:** Brent Walker / Jason Kelly

**Global Guidance Unit**

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