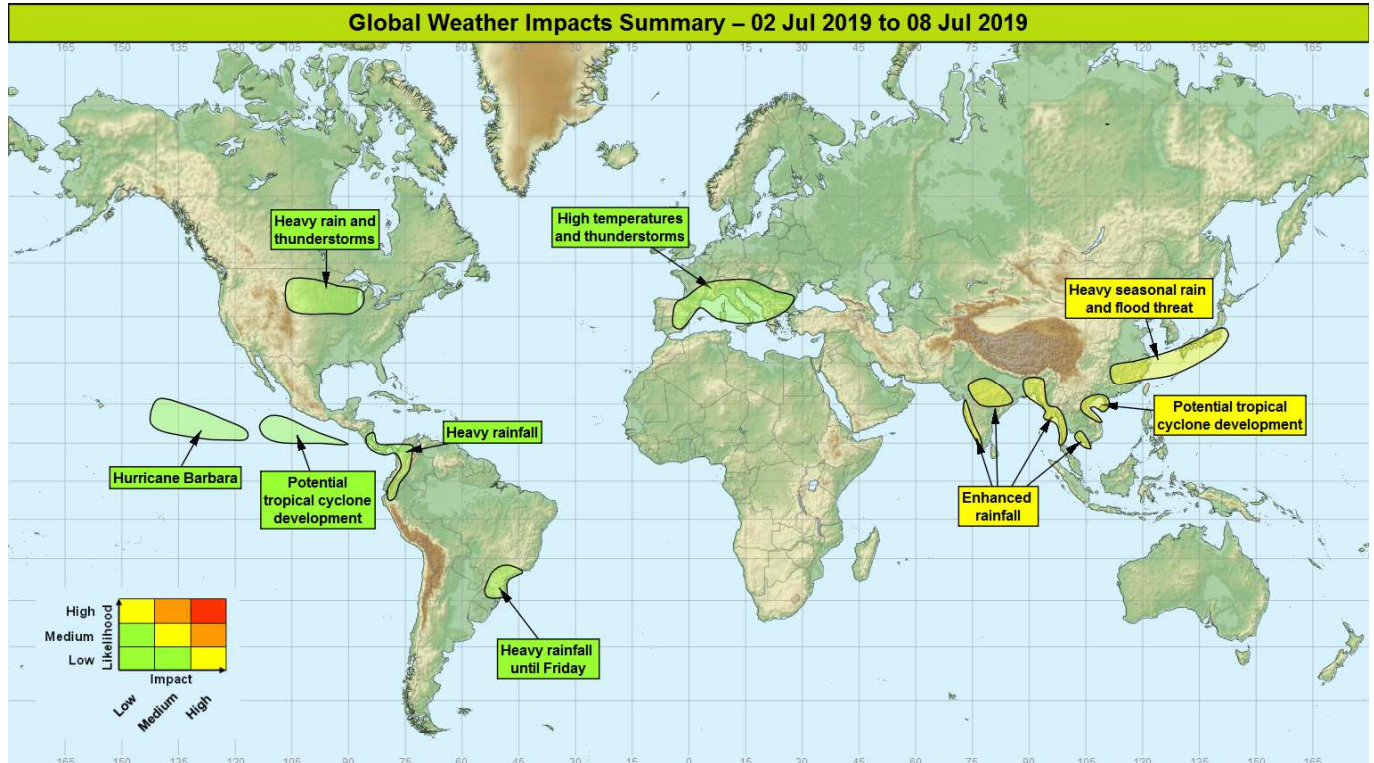


## Global Weather Impacts – Tuesday 2<sup>nd</sup> to Monday 8<sup>th</sup> July 2019

Issued on Tuesday 2<sup>nd</sup> July 2019

### HEADLINES

- Heavy monsoon rains continue across many parts of southern and eastern Asia.



### DISCUSSION

#### Tropical Cyclones

##### Hurricane Barbara Weather

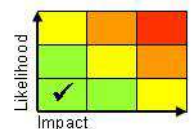
Barbara strengthened to a hurricane late on Monday, with sustained winds of 100 mph. Barbara is expected to strengthen further, reaching major hurricane status (category 4 with sustained winds of 130 mph) tonight or tomorrow, before weakening as it tracks further west-northwest across the East Pacific through the rest of the week.

##### Discussion

There is good model agreement that Barbara will continue to track westwards over the coming days and strengthen. This model agreement continues for the weakening phase later this week as Barbara continues to track west-northwest into cooler water and a higher wind shear environment.

##### Expected Impacts

Any impacts will be limited to maritime activities.



This forecast may be amended at any time

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*The following area is being monitored for possible tropical cyclone development:*

## **South China Sea (southern China and northern Vietnam)**

### **Weather**

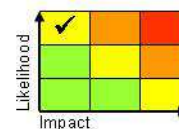
A tropical depression in the South China Sea, located close to Hainan (southern China), could strengthen into a tropical storm during the next few days before making landfall close to the China / Vietnam border. This system will produce the potential for up to 500 mm of rain during the next few days across parts of northern Vietnam. This would be around twice the average monthly rainfall for the time of year.

### **Discussion**

All models show a subtle strengthening of this system during the next few days, but the main impact will be from rainfall and not wind or surge.

### **Expected Impacts**

There will be a significant threat of flash flooding due to the potential intense rainfall, with a lower threat of landslides.



## **East North Pacific**

### **Weather**

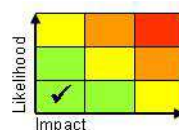
Further tropical storms could develop in the wake of Barbara through the next week in the Eastern North Pacific, although any system that does develop will remain offshore.

### **Discussion**

Good signal from all models for at least one more tropical storm development in this region along the ITCZ, influenced by African Easterly Waves and the close by MJO.

### **Expected Impacts**

Any impacts will be limited to maritime activities.



## **Europe**

### **Southern Europe**

#### **Weather**

The peak heat across Europe looks like being reserved for southern parts for much of the next week, mostly south of the Alps. Temperatures across southern parts of the continent are likely to remain around 5 °C above average through much of the coming week, and could still reach 35-40 °C in places. Thunderstorms will form in places each day, especially on Tuesday and Wednesday and again from Sunday. These could produce 30-50 mm of rainfall in a few hours, along with large hail, gusty winds and frequent lightning.

#### **Discussion**

There will be a sharp north-south divide across Europe regarding airmasses, with the anomalous heat restricted to southern parts. A transient upper ridge will greatly reduce the deep convection risk in the region for a time later this week.

#### **Expected Impacts**

High temperatures will bring heat health impacts to vulnerable populations, particularly given the spell of very warm nights (minima >20 °C), whilst placing strain on some utilities and transport networks (e.g. railways). Increased likelihood of wildfires. Flash flooding, large hail and damaging winds are possible where intense thunderstorms form.



## **North America**

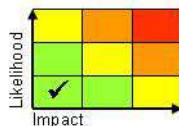
### **Northern part of the central USA**

#### **Weather**

Areas thunderstorms are expected through this region during the next week, with the potential for torrential rain (50-75 mm in a few hours). Some of these storms could be severe, resulting in large hail, damaging wind gusts and a very isolated threat of tornadoes.

#### **Discussion**

A series of upper troughs will engage the northern side of a high WBPT plume across the northern part of the central USA. Forecast profiles show large CAPE and reasonable wind shear that could result in a severe storm threat.



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## Expected Impacts

Primarily disrupting aviation, but very localised flash flooding and wind/hail damage is possible too.

## Central America and Caribbean

Nicaragua, Costa Rica and Panama – see *South America* section.

## South America

### Southeast Brazil

#### Weather

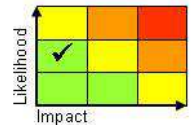
A band of heavy, thundery rain will move slowly north across southeastern Brazil through the rest of this week. Daily rainfall totals of 50 to 75 mm are likely, with some locations perhaps seeing in excess of 100 mm over the next few days. Frequent lightning and strong gusty winds will be additional hazards.

#### Discussion

The South Atlantic Convergence Zone will be active through this period, moving slowly and erratically northward. Strong low level wind convergence combined with strong mid-high level flow roughly parallel to the front will support training of thunderstorms along the slow moving boundary, and thus potential for large rainfall totals to accumulate in the high PWAT airmass north of the front.

#### Expected Impacts

Localised flash flooding, potentially of urban areas, and localised wind/lightning damage.



## Western Colombia, Ecuador, Nicaragua, Costa Rica and Panama

#### Weather

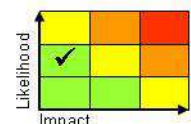
Increased frequency of heavy showers and thunderstorms are expected in this region through the next week, although Ecuador will not likely see this until the weekend. Up to 300 mm of rain could fall in places, which is in excess of an average monthly rainfall at this time of year in southern parts of Central America, and well above the average monthly rainfall further south, especially in Ecuador where it is now the drier season.

#### Discussion

The combination of an approaching active MJO phase and the westward progression of African Easterly Waves will enhance seasonal rainfall in this region through the next week.

#### Expected Impacts

An enhanced threat of flash flooding and landslides will be the most likely impacts this week.



## Africa

Nil.

## Middle East

Nil.

## Asia

Southern China and northern Vietnam – see *Tropical Cyclones* section.

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**Large parts of India, western Myanmar, southeast Bangladesh and Cambodia****Weather**

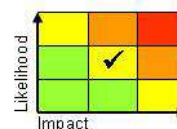
Heavy monsoon rain is expected in these locations through the coming week, with many areas seeing in excess of 200 mm. Perhaps the most anomalously heavy rainfall will be across parts of central India, where a monsoon low pressure system is expected to track slowly west-northwest through the next 4 or 5 days. This system is expected to bring widely 200-300 mm along its path, and very locally up to 800 mm. This amounts to around three month's worth for central India, much of this falling in a few days. Meanwhile, heavier than normal monsoon rainfall will continue across parts of western India, with 300-500mm of rain signalled in places over the next coming week, which is getting close to a month's worth of rain for somewhere like Mumbai. Parts of western Myanmar and southeast Bangladesh are likely to see 200-400 mm through the next week, which would be up to twice the average weekly rainfall at this wet time of year.

**Discussion**

The Indian Summer Monsoon is expected to continue in an active phase over the next week due to the MJO continuing to slowly move through the Pacific. There is a strong model signal for a monsoon depression to slowly track west-northwest across central India through the rest of the week. This system also responsible for the enhanced south-westerly winds will pile frequent heavy showers onto the western coast of Myanmar and southeast Bangladesh, as well as into Cambodia further east. Heavier and more frequent than normal showers/thunderstorms are also signalled over the next week for the far west of India, again associated with enhanced monsoon flow as the monsoon slowly marches northwards.

**Expected Impacts**

Heavy and torrential rain will increase the threat of flooding and landslides, with an enhanced threat to Cox's Bazar during the next week.

**Central China and southwestern Japan****Weather**

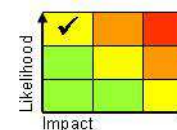
Torrential rain and severe thunderstorms associated with the seasonal rains will affect this region through much of the next week, with 200-400 mm, locally 700 mm falling over the next week. This is around a month to two month's worth of rain for some locations.

**Discussion**

Strong convergence along the Mei-yu/Baiu front will continue to provide a focus for intense rainfall and a threat of severe storms. Semi-permanent upper troughing across the northeast of China will engage the monsoon frontal plume through much of the coming week, resulting in persistent, heavy rains in places.

**Expected Impacts**

Both fluvial and flash flooding is possible, with an additional risk of landslides in mountainous areas. Disruption to transport and infrastructure is likely in what is a densely populated area due to the slow moving seasonal heavy rainfall.

**Australasia**

Nil.

**Additional information**

Nil.

**Issued at:** 020705 UTC    **Meteorologists** Paul Hutcheon / Matthew Lehnert

**Global Guidance Unit**

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