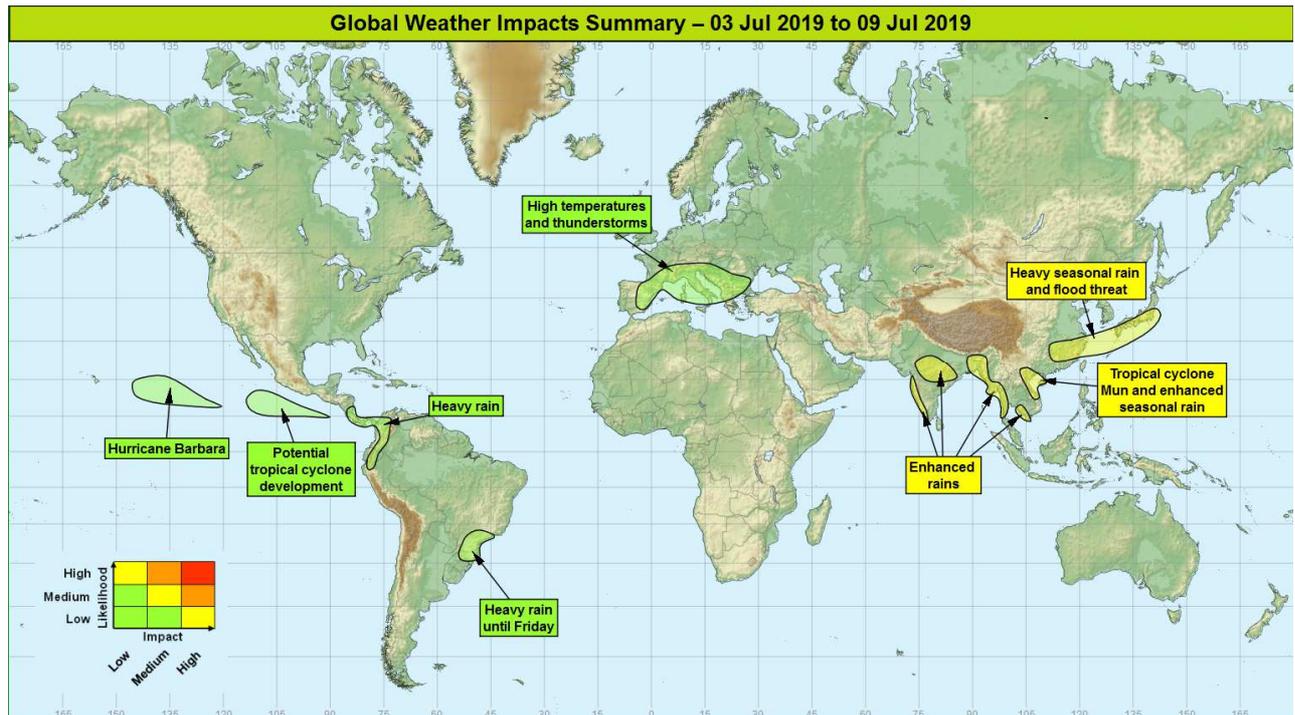


## Global Weather Impacts – Wednesday 3<sup>rd</sup> to Tuesday 9<sup>th</sup> July 2019

Issued on Wednesday 3<sup>rd</sup> July 2019

### HEADLINES

- Heavy monsoon rains continue across many parts of southern and eastern Asia.
- Cyclone Mun will bring heavy rain to parts of Hainan and eventually Vietnam.



### DISCUSSION

#### Tropical Cyclones

##### Hurricane Barbara – eastern Pacific

###### Weather

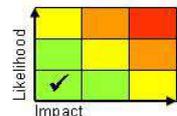
Barbara is a major hurricane, with sustained winds of 140 mph (category 4 on the Saffir-Simpson Scale). Barbara is expected remain a major hurricane until later in the week before weakening steadily into the weekend.

###### Discussion

There is good model agreement that Barbara will continue to track west to north-westwards over the coming day, initially maintaining major hurricane strength. The storm should start to quickly weaken into the weekend as it encounters cool SSTs as well as strong shear.

###### Expected Impacts

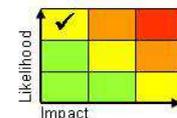
Any impacts will be limited to maritime activities.



##### Tropical cyclone Mun - South China Sea (southern China and northern Vietnam)

###### Weather

Tropical cyclone Mun developed on Monday, with sustained winds of 40mph. Mun is expected to track west-northwestwards, making landfall across north-east Vietnam on Thursday. Once over land, the system should weaken quickly. Despite this, there is the potential for up to 500mm of rain from the system.



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

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## Discussion

Imagery suggests an exposed low-level circulation, with the main convection having sheared to the north and west. This suggests Mun should not strengthen much in the coming days, with the main impact being from heavy rain.

## Expected Impacts

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

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

## East North Pacific

### Weather

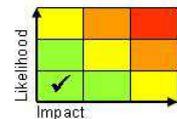
Further tropical storms could develop in the wake of Barbara through the next week in the Eastern North Pacific, although any system that does develop will remain offshore.

### 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 weak MJO.

### Expected Impacts

Any impacts will be limited to maritime activities.



## Europe

### Southern Europe

#### Weather

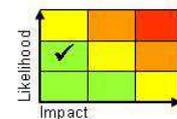
Anomalously high temperatures are now focused across southern Europe, predominantly south of the Alps, with an initial focus across the Balkans. Temperatures across southern parts of the continent are likely to remain around 5 °C above average through much of the coming week, and could still reach 35-40 °C in places. Thunderstorms will form in places each day, especially 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 anomalously 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

Nil.

## Central America and Caribbean

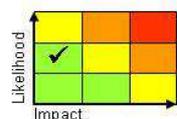
Nicaragua, Costa Rica and Panama – see *South America* section.

## South America

### Southeast Brazil

#### Weather

A band of heavy, thundery rain will move slowly north across south-eastern 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.



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## Discussion

The South Atlantic Convergence Zone is expected to be active through this period, moving 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

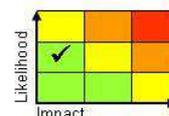
Increased frequency of heavy showers and thunderstorms are expected in this region through the next week, although Ecuador will not likely see this until the weekend. Up to 250 mm of rain could fall in places, which is in excess of an average monthly rainfall at this time of year in southern parts of 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.

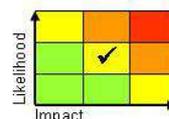
## Large parts of India, western Myanmar, southeast Bangladesh and Cambodia

### 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 3 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 coming week, which is 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.



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

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**Expected Impacts**

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 south-western Japan****Weather**

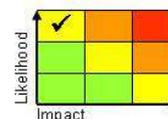
Torrential rain and severe thunderstorms associated with the seasonal rains will affect this region through much of the next week, with 200-400 mm, locally 700 mm falling over the next week. This is around a month to two month's worth of rain for some locations.

**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:** 030735 UTC **Meteorologists** Jason Kelly / Nick Silkstone

**Global Guidance Unit**

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

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