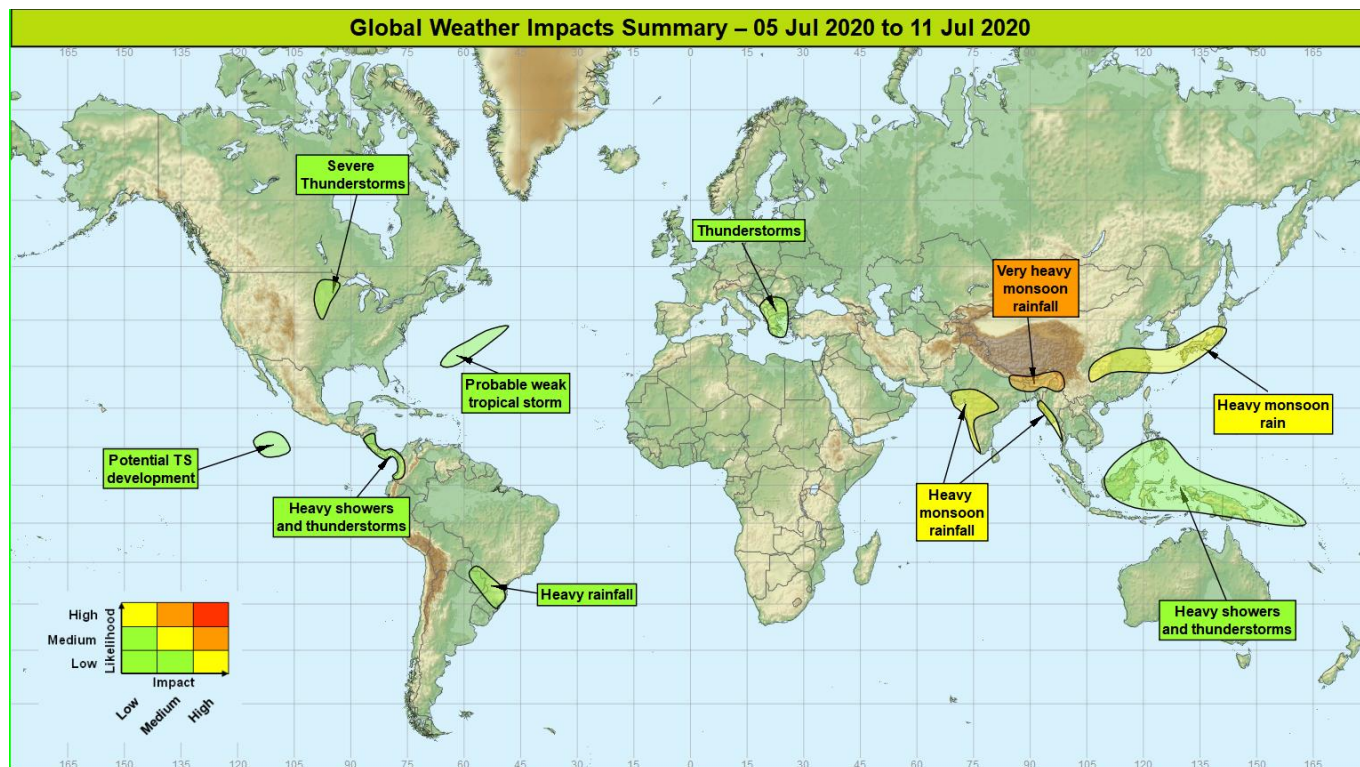


## Global Weather Impacts – Sunday 5<sup>th</sup> to Monday 11<sup>th</sup> July 2020

Issued on Sunday 5<sup>th</sup> July 2020

### HEADLINE

- Enhanced heavy monsoon rainfall continues for parts of South and East Asia.
- Weak tropical storm likely in the west Atlantic.



### DISCUSSION

#### Tropical Cyclones

There are currently no named tropical storms.

*The following areas are being monitored for possible formation.*

#### Western Atlantic Weather

An area of persistent showers and thunderstorms near Bermuda (Tropical Depression 5) has the potential to develop into a tropical storm later this morning. Should it develop, it would be named Edouard. The NHC forecasts only modest strengthening with maximum sustained winds between 40-45mph. The depression, or storm, is expected to bring heavy rain to Bermuda today (~50mm), before clearing north-east into the Atlantic where it will decay over the next few days.

#### Discussion

Tropical depression 5 moved over warm waters of the western Atlantic, and is in an environment moderately favourable for further development. Should the storm be named it would be the earliest fifth named storm on record in the Atlantic basin in the satellite era.

#### Expected Impacts

Localised flash flooding and strong winds for Bermuda today, otherwise nil.



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

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## Eastern Pacific

### **Weather**

Showers and a few thunderstorms, associated with a broad area of low pressure located several hundred miles south of Manzanillo, Mexico may show some signs for gradual development into a tropical storm in the coming days.

### **Discussion**

The NHC are suggesting a 10-20% risk for the formation of a tropical storm in the next 5 days. There is good model consensus for any system to move west-northwest and remain across the open water.

### **Expected Impacts**

Nil expected.



## Europe

### Southern and South-eastern Europe

### **Weather**

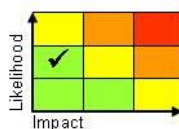
Further heavy showers and in places severe thunderstorms are expected across parts of SE Europe, predominately Greece, until Tuesday. Potential for some torrential rain (50 mm) with thunderstorms, large hail, frequent lightning and strong gusts of wind. Some locations could see their average July rainfall in a few hours with perhaps the focus for the most severe storms across northern Italy.

### **Discussion**

A plume of high WBPT air will continue to be engaged by disrupting upper trough in the next day or so producing areas of heavy showers and thunderstorms. Forecast profiles support CAPE in excess of 1800 j/kg in places, with the potential for some organisation of storms. The upper trough/vortex is expected to diminish and clear east on Tuesday.

### **Expected Impacts**

Risk of flash flooding. Damage to crops from large hail is possible. Possible disruption to power supplies.



## North America

### Central North USA

### **Weather**

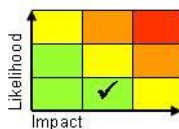
Further isolated but intense thundery showers are likely today (Sunday) and perhaps on Monday across the Northern and Central High Plains of the USA. Whilst some places will see fairly small amounts of rainfall, the heaviest showers will bring localised totals of 75mm along with lightning and large hail.

### **Discussion**

A plume of very warm, moist Gulf of Mexico air has been drawn north. This has led to higher surface temperatures into the low to mid-30's, and to some destabilisation of the environment. Profiles show large amounts of CAPE and high PWAT values, plus relatively slack steering winds. This will bring potentially severe convection with large hail and heavy rain the primary hazards.

### **Expected Impacts**

Flash flooding and disruption to transport, localised hail damage to homes and agriculture.



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**Central America and Caribbean****Costa Rica, Panama, Nicaragua and western Colombia****Weather**

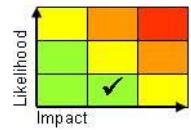
Above-average shower and thunderstorm activity will occur across this region in the coming few days. Showers and thunderstorms could bring up to 50mm of rainfall over a short duration, especially this weekend, with up to 250 mm possible throughout the week across the mountains of Central America and as much as 300-400mm across the Colombian Andes. By mid-week there are signs for the shower activity to return to more normal.

**Discussion**

The ITCZ is expected to remain fairly active across this region, with the passage of several African Easterly Waves (AEW), or the remnants of AEWs, bringing one to two day periods of enhanced activity to Central America, and days with less precipitation between these features. Further south enhanced low-level moisture convergence across the Colombian Andes will lead to enhanced activity on most days, hence the higher rainfall accumulations signalled here.

**Expected Impacts**

An enhanced risk of flash flooding and landslides.

**South America****Western Colombia – See Central America and Caribbean section****Paraguay, South-Eastern Brazil****Weather**

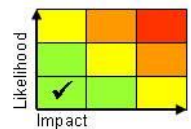
A period of heavy rainfall is likely to develop from Monday across the region, peaking on Wednesday. 50-100 mm of rainfall is possible in 24 hours, with some places seeing over 150 mm (around the average July rainfall) through a period of a few days.

**Discussion**

The South Atlantic Convergence Zone looks likely to become active across this region early next week. This in response to the northward shifted jet inducing activity across the strong baroclinic zone. Associated cyclogenesis across the Atlantic, may bring some strong winds for a time mid-week.

**Expected Impacts**

Increased risk of flash flooding and landslides.

**Africa**

Nil.

**Middle East**

Nil.

**Asia****Central and eastern China, South Korea and Japan****Weather**

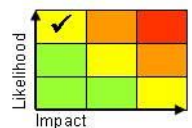
The monsoon front that extends from Central China to Japan is expected to be in an active phase in the coming week. Extensive heavy and persistent rainfall, will bring widespread 150-300mm of rain per day, perhaps up to 500mm over parts of China and the higher ground of Japan. Thunderstorms will bring some significant rain in a short period, with hail and strong winds also expected. This follows recent heavy rain, especially across parts of China.

**Discussion**

An active Beiu monsoon front is expected this week as the upper flow becomes more cyclonic across the region. This will combine with the very warm and moist airmass (PWAT > 75mm) and will generate torrential downpours from showers and thunderstorms, with significant orographic component. This event is early in the monsoon season, but follows flooding and associated widespread population displacement in the last few weeks. Media reports suggest that parts of China are currently experiencing the worst flooding in over 70 years.

**Expected Impacts**

Widespread surface and continued river flooding, and likelihood of landslides in the higher terrain.



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**Northeast India, Nepal, northern Bangladesh, Bhutan, and northern Myanmar****Weather**

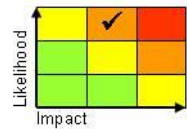
Heavy monsoon rainfall is expected through the coming 7 days across parts of the region, with totals widely in excess of 400mm and potential in excess of 800mm across Assam and parts of Northern Bangladesh. This compares to the typical average at this time of year of 200-500mm per month. This follows recent heavy rainfall that has already lead to some severe flooding across parts of the region.

**Discussion**

An anomalously strong southerly to south-westerly monsoon flow across the Bay of Bengal is leading to very active monsoon front across the region. This will generate further torrential downpours from showers and thunderstorms, with significant orographic component. Despite this occurring relatively early in the monsoon season, flooding and widespread population displacement has already been widely reported, and is likely to worsen over the coming 7 days. River flooding may become more prevalent over the coming week further south as the rainfall filters down into the wide and heavily populated flood plains of northeast India and Bangladesh.

**Expected Impacts**

Significant risk of riverine flooding, and an increased likelihood of landslides.

**Western India, central India and western Myanmar and Thailand****Weather**

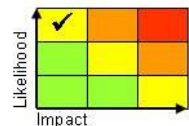
Further heavy monsoon rainfall is expected across these this regions in the coming week. Widespread heavy showers and thunderstorms. 50-150 mm of rainfall per day is possible, with some places seeing 250-400 mm over a period of a few days, representing about a weeks' rainfall at this time of year.

**Discussion**

An anomalously strong southerly to south-westerly monsoon flow, plus a monsoon trough across northern India is expected to bring further enhanced rainfall across the parts of this region. This will generate further torrential downpours from showers and thunderstorms, with significant orographic component.

**Expected Impacts**

Flash flooding and an increased landslide risk.

**Parts of Malaysia, Philippines, Indonesia, Papua New Guinea and the Solomon Islands****Weather**

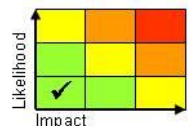
Above average rainfall will continue across this region in the form of heavy showers and thunderstorms. These will be capable of locally bringing 50-100 mm of precipitation in a short duration, with some locations likely to see 150-250 mm through the coming days, although some mountainous parts of the island of New Guinea could see over twice this amount. Average precipitation accumulations at this time of year across this region is around 250 mm.

**Discussion**

Strong and consistent signal from NWP for enhanced rainfall across this region. Profiles in the area show large amounts of PWAT, and large skinny CAPE so heavy rainfall likely to be the most disruptive element.

**Expected Impacts**

An increased risk of flash flooding and landslides in regions where terrain is steep.

**Australasia**

Nil.

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**Additional Information****Cox's Bazar, southeast Bangladesh**

Scattered shower and thunderstorm activity with storms blowing in from the Bay of Bengal. Strengthening monsoonal flow over the weekend should see the most frequent, heaviest showers falling here. Around 200-350mm is likely during the course of the coming 5-7 days. This may lead to some flash flooding.

**Western Yemen**

An increased risk of thundery showers breaking out over western Yemen today (Sunday). 30-50mm in the heavier showers are most probable. Showers should ease down from Monday.

**Issued at:** 050600UTC      **Meteorologist** Tony Wardle

**Global Guidance Unit**

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