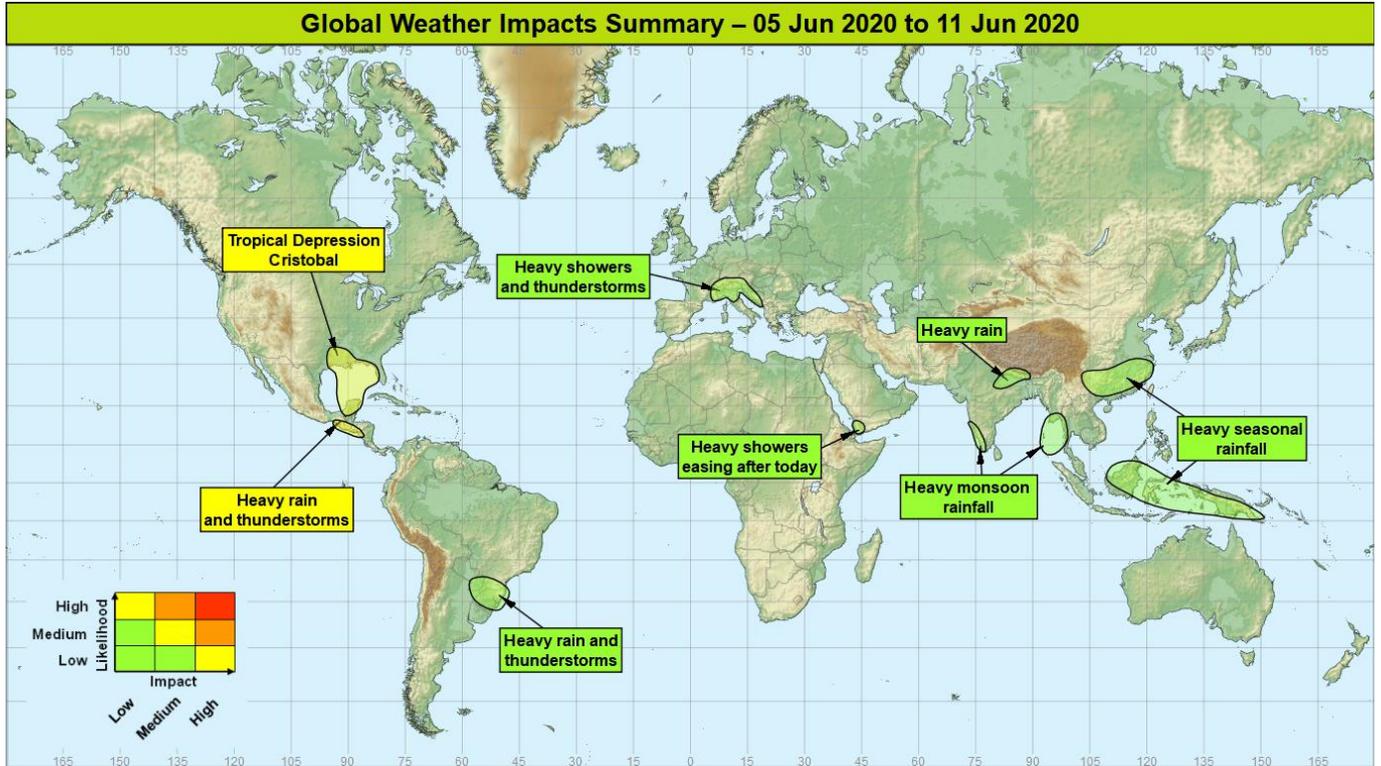


## Global Weather Impacts – Friday 5<sup>th</sup> to Thursday 11<sup>th</sup> June 2020

Issued on Friday 5<sup>th</sup> June 2020

### HEADLINES

- Further flooding possible for parts of southern Mexico and Central America over the next few days.



### DISCUSSION

#### Tropical Cyclones

#### Tropical Depression Cristobal - Gulf of Mexico (southeast Mexico and southern USA)

##### Weather

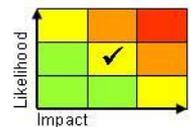
Cristobal (which developed out of the remnants of Amanda) has weakened from a tropical storm to a tropical depression over the last 24 hours while it has been over land across southeast Mexico. The system will remain slow-moving before moving out over the Gulf of Mexico later today and into Saturday. Before the system clears north, further heavy rainfall is expected over southeast Mexico with many areas seeing another 50-100 mm and up to 150-200 mm in the wettest areas - roughly equivalent to a month's worth of rainfall in the wettest areas. Once over the Gulf of Mexico some intensification is likely with official guidance (from NOAA NHC) suggesting landfall over southern USA (most likely Louisiana) during Sunday night or early Monday morning at tropical storm strength.

##### Discussion

By Saturday Cristobal is expected to emerge into the Gulf of Mexico with SSTs currently around 28-29C, so some re-strengthening is predicted as it moves steadily north although vertical wind shear will limit this to some degree. There is a general consensus for the timing and location of landfall, most likely Louisiana – but surrounding states are certainly still at risk. Most models have a core of strong winds (>45kts) to the south of the centre, with the GM being one of the strongest solutions.

##### Expected Impacts

Severe flash flooding and mud/landslides events are likely to continue across southeast Mexico until Saturday. For the southern USA impacts are likely to be less severe but still with the risk of heavy rain, storm surge and wind damage. Rough seas expected over the Gulf of Mexico.



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

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## Europe

### France, Switzerland, Austria, Slovenia, Croatia, Bosnia and Montenegro

#### **Weather**

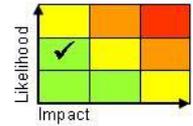
Unsettled conditions are expected fairly widely over central and southern Europe over the coming days with many areas seeing heavy showers and/or thunderstorms. Recent heavy rain and thunderstorms are now clearing southeast of these areas. Another bout of heavy showers and thunderstorms is likely to run southeast over similar areas during Sunday and Monday. The heaviest and most frequent showers are expected over parts of northern Italy and Austria with the potential for 150-200 mm (equivalent to a month's worth of rain) to build up in places over the coming days. However, each day there is the potential for 50-100 mm to fall in places within a few hours. As well as heavy rainfall, frequent lightning, hail, and locally strong wind gusts are likely, with thunderstorms likely persisting well into the night-time period.

#### **Discussion**

A major upper trough extension/disruption is taking place across western Europe today, engaging the resident warm plume. This will generate an area of significant destabilisation leading to frequent, and potentially severe thunderstorms with MCS development possible. This upper trough will then clear east by the weekend, but another major upper trough extension is likely later in the weekend.

#### **Expected Impacts**

Flash flooding looks possible in places, along with an increased threat of landslides in mountainous terrain. Hail and wind damage looks like a lower likelihood than flash flooding.



## North America

Southeast Mexico and southern USA – see *Tropical Cyclones* section

Southern Mexico – see *Central America* section

## Central America and the Caribbean

### Southern Mexico, Guatemala, El Salvador, southern Honduras and western Nicaragua

#### **Weather**

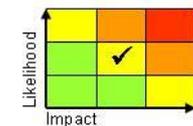
Heavy rain and thunderstorms are expected to continue to affect this region before easing by the start of next week. Up to 300 mm of rainfall will build up in places, especially over higher ground, this coming on top of very heavy rainfall in the past few days. The average June rainfall in this region is 150-300 mm.

#### **Discussion**

A broad cyclonic circulation (Central American Gyre) remains resident across Central America. The very moist winds associated with the gyre will continue to enhance the heavy rain and thunderstorm activity until the weekend. However, the likely northward track of Tropical Storm Cristobal will result in the breakdown of the gyre and weakening of rainfall across the region by the start of next week.

#### **Expected Impacts**

Flash flooding and mud/landslides, especially in area of mountainous terrain.



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## South America

### Southern Brazil, far northeast Argentina and eastern Paraguay

#### **Weather**

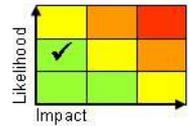
An area of heavy rain and thunderstorms is likely to become more widespread through Friday and Saturday, with up to 50-100mm quite widely, perhaps 150-200 mm falling in some places in a few days (most likely southern Brazil).

#### **Discussion**

Broadly speaking, a slow moving baroclinic zone will stretch across parts of South America and will become much more active as an upper trough disrupts and the resultant vortex slowly tracks east across the region.

#### **Expected Impacts**

Flash flooding is possible with a threat of landslides in more mountainous areas.



## Africa

Nil significant.

## Middle East

### Western Yemen

#### **Weather**

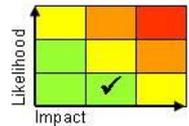
Further heavy showers and thunderstorms are possible over western areas today although the heaviest thunderstorms now look to be clearing west. Over parts of the Western Highlands there's still potential for 30-60mm of rain to fall in places, much of this within a few hours. Drier conditions expected from Saturday with any showers very isolated and much lighter in intensity.

#### **Discussion**

The remnants of the tropical disturbance which brought very heavy rain to parts of Oman and eastern Yemen has now nearly clearer to the west. However, deep surface based convection remains likely over parts of the Western Highlands today before conditions improve further.

#### **Expected Impacts**

Threat of flash flooding and landslides will be increased which is very rare in these areas.



## Asia

### Northern India and Nepal

#### **Weather**

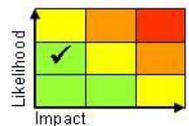
The remnant moisture associated with Ex-Nisarga, is continuing its journey north-eastwards over India and Nepal; and it is still producing large amounts of rainfall. Many parts of the highlighted area will see 50-100 mm of rain over the next couple of days with 150-200 mm in a few locations. This equivalent to average June rainfall in the wettest areas but is more typical rainfall normally seen in July associated with the arrival of the monsoon.

#### **Discussion**

The system is now continuing its north-eastwards journey over land with heavy rain the main hazard. The system has already largely lost its identity but its remnant moisture will act as a focus for heavy showers over the next couple of days.

#### **Expected Impacts**

Localised flash flooding possible in places. Landslides are an additional threat for Nepal.



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## Western Ghats of India

### Weather

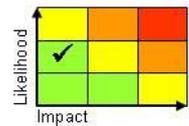
An active first pulse of the Indian Summer Monsoon rains will cross the Western Ghats of India, with persistent heavy rain and thunderstorms expected to continue before easing early next week. A further 100-200 mm is likely to fall in places with perhaps the wettest areas seeing 250-300 mm. This is typically the start of the wet season here with rainfall in June normally in the order of 600-700 mm.

### Discussion

The deep layer, very moist southwesterly monsoon flow has become established in the wake of Cyclonic Storm Nisarga, marking the commencement of the 2020 Indian Summer Monsoon (right on the climatological date – 1<sup>st</sup> of June). The Indian Summer Monsoon has progressed further north over SW India in the last few days (as-per climatology), but still remains a little slower than normal in the Bay of Bengal.

### Expected Impacts

Despite monsoon rainfall being usual in June across the Western Ghats of India, this monsoon pulse looks very active and could result in an early season flood event.



## Southern Myanmar and Andaman Islands

### Weather

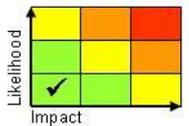
Frequent heavy showers and thunderstorms in this area over the coming week with the potential for 200-250 mm of rain to build up in places. This is typically the start of the wettest time of the year in these areas and although these sort of totals aren't exceptional it does look likely to be an active pulse of monsoon rainfall.

### Discussion

The Southeast Asia monsoon continues to move north leading to increased, very moist, deep layer southwesterly flow, which marks the start of the wet season in these areas.

### Expected Impacts

Increased chance of flash flood and landslides.



## Southern China

### Weather

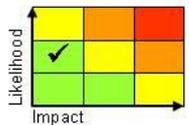
Heavy monsoon rainfall is expected over the coming week. Some places are likely to see 100-150mm per day in association with heavy and persistent rain across quite a wide area of southern China. 300-500mm of rainfall is most likely in total across the wettest areas, which is around or just above the average June rainfall in this region. There is also the potential for intense short period rainfall from thunderstorms.

### Discussion

Increasing monsoon southerly flow into southern China will enhance moisture and wind convergence associated with the seasonal Mei-yu front, leading to episodes of heavy rain and thunderstorms. Whilst the upper flow is not especially conducive so large scale development, a number of short-waves embedded within the flow will continue to trigger rainfall across a similar area along the quasi-stationary front, leading to large rainfall accumulations building up.

### Expected Impacts

Increased threat of flash flooding and landslides.



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**Parts of Malaysia, Indonesia and Papua New Guinea****Weather**

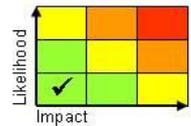
Showers and thunderstorms are expected to be more frequent than normal across these area over the next week with a few places possibly seeing the average June rainfall (150-250 mm) in just a week.

**Discussion**

Kelvin wave activity running east across the area is expected to lead to heavier than normal rainfall across parts of the Maritime Continent over the coming week.

**Expected Impacts**

Slightly increased likelihood of flash flooding and landslides.

**Australasia**

Nil.

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

There will be a threat of a heavy shower or thunderstorm most days, especially through the daytimes, but with only a low likelihood of any flash flooding impacts. This activity is likely to be below what is usually expected for early June.

**Western Yemen**

See section in main text.

**Issued at:** 05/0800UTC **Meteorologist:** Chris Almond / Chris Bulmer

**Global Guidance Unit**

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

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