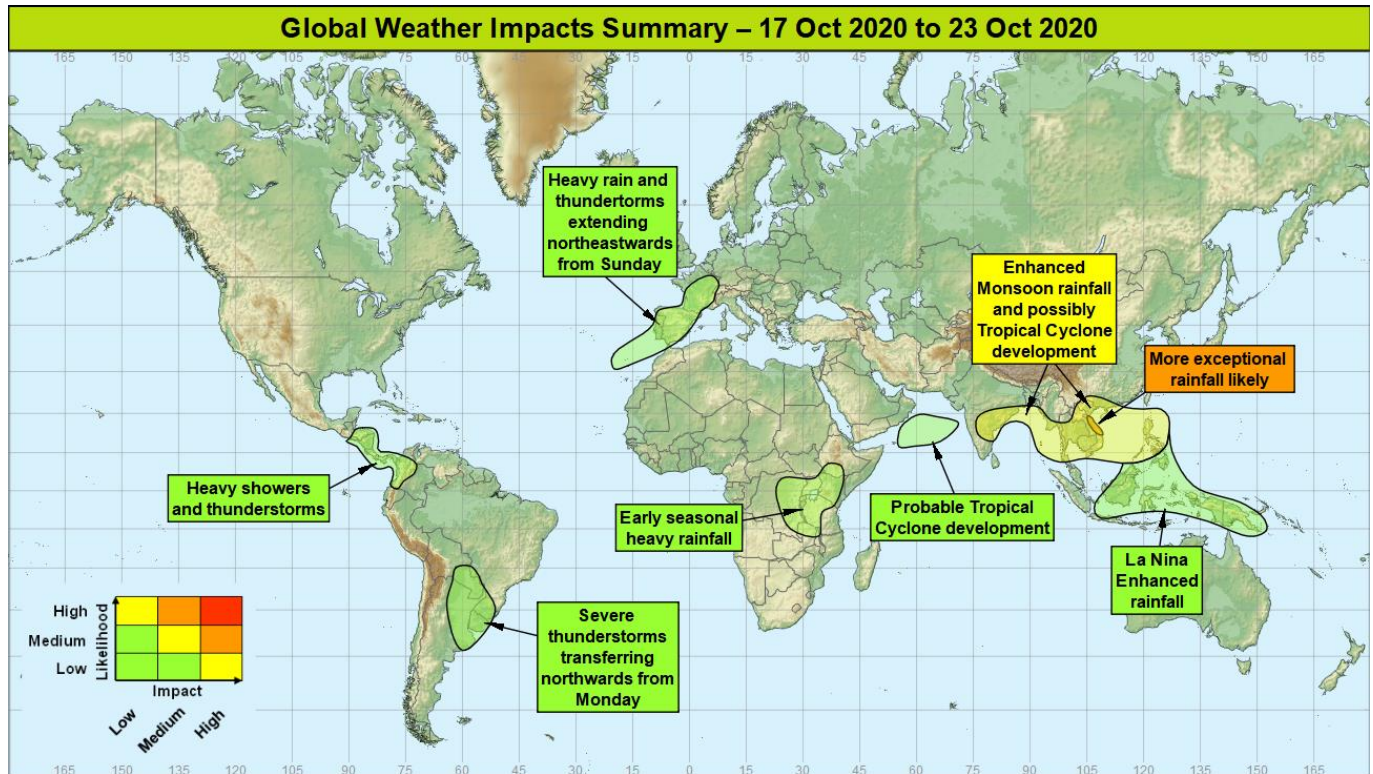


## Global Weather Impacts – Saturday 17<sup>th</sup> to Friday 23<sup>rd</sup> October 2020

Issued on Saturday 17<sup>th</sup> October 2020

### HEADLINES

- Vietnam likely to see further severe/exceptional flooding impacts due to continued extreme rainfall.
- Further heavy rain and potential tropical cyclone developments more widely over south and southeast Asia.
- Potential for a severe weather event to develop across southwestern Europe early next week.



### Tropical Cyclones

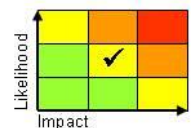
There are no tropical cyclones impacting land presently.

*The following areas are being monitored for potential impactful tropical cyclone development:*

### Northern Philippines, South China Sea, Southeast Asia, Bay of Bengal and southern India **Weather**

This region of southern Asia will continue to see areas of active monsoon rainfall and also the potential for weak tropical cyclone developments at times which will likely form just to the east of the Philippines, the South China Sea or Bay of Bengal before tracking westwards to affect the Philippines, Southeast Asia and southern India. Any tropical cyclone activity could produce 200-300mm in a day, with widespread 7 day rainfall totals of 75-200mm likely across the region. Much higher rainfall totals are likely in places, especially in parts of southeastern India (up to 350mm), central Vietnam (up to 1000mm) and northeastern Philippines (up to 500mm). There is also the potential for strong winds, but in general sustained winds should not exceed 50mph in any of the tropical cyclone developments.

### **Discussion**



This forecast may be amended at any time

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The La Nina ENSO state is likely influencing the very active seasonal rainfall in this region, with the additional influence of a developing MJO. The associated active Equatorial Rossby Waves will be a focus for tropical cyclone development, although there is little signal for any particular intense tropical cyclone development until later next week in the South China Sea, although confidence by that time is low.

## Expected Impacts

Flash and river flooding can be expected anywhere in this area, but the most significant flash and river flooding will continue to be in Vietnam (see the dedicated event in *Asia* section). Landslides also highly likely, but with a much lower likelihood of wind or coastal flooding impacts from any tropical cyclone developments.

## Arabian Sea Weather

A cluster of thunderstorms associated with a tropical depression that crossed India will continue westwards over the Arabian Sea through the weekend and early next week, perhaps strengthening to become a named tropical cyclone for a time. There is a small chance of this system bringing strong winds and some heavy rain to the coastal fringe of southern Oman and the island of Socotra for a time, but there is a greater likelihood of the impacts remaining offshore.

## Discussion

The remains of a tropical depression associated with another Equatorial Rossby Wave will continue to bring frequent heavy showers within the very high PWAT air mass. This previously brought high hourly and daily totals over India with associated deadly flooding impacts. The expected track of this system across the Arabian Sea in the coming days should keep it offshore. There is a reasonable model signal for this system to strengthen for a time across the anomalously warm water of the Arabian Sea, perhaps bringing some rain to the usually dry Oman early next week and perhaps later into Socotra.

## Expected Impacts

Increased threat of tropical cyclone impacts (strong winds and dangerous coastal conditions) for Arabian Sea coasts. The likelihood of any rainfall or wind impacts for southern Oman and Socotra look very low at this stage.

*The following area is being monitored with no land impacts currently expected:*

There is a medium likelihood of a tropical or sub-tropical storm to develop across the Tropical Atlantic in the coming 5 days, but likely remaining to the south or east of Bermuda.

\*\*\*\*\*

## Europe

### Southwestern Europe, including Madeira

## Weather

A period of very heavy rain and thunderstorms looks likely to affect Madeira from Sunday, extending into Iberia on Monday then into parts of France on Tuesday and Wednesday as conditions improve further southwest. There is the potential for 100-150mm in just 24 hours, especially on higher ground, with 2-3 day rainfall accumulations of up to 200-250mm possible. The average October rainfall in this region is 50-100mm in low ground sites and 100-150mm in higher level sites. In addition to the very heavy rainfall strong winds or gales are possible, especially over high ground and around some coasts.

## Discussion

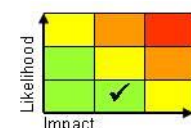
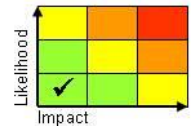
An active frontal zone will move into Madeira on Sunday, with this frontal zone extending northeast across Iberia and France next week. Meanwhile the frontal zone will become slow moving as an Atlantic upper trough extends south, backing the upper flow. This will result in a risk of active frontal waves, with increased upper forcing resulting in a threat of embedded deep convection and thunderstorm development. There will also be an aspect of orographic enhancement of the rainfall on high ground exposed to the strong SW'ly flow, with a very moist warm conveyor likely becoming set up.

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## Expected Impacts

Flash flooding and land/rockslides are a significant threat, with a lower likelihood of large scale river flooding due to long period rainfall, coastal impacts due to high seas and wind impacts.

## North America

Nil.

## Central America and Caribbean

### Southern parts of Central America and western Colombia

#### Weather

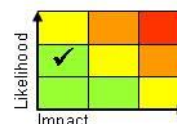
The next 7 days will see areas of heavy showers and thunderstorms affect this region, with the focus gradually transferring southwards. 24 hour rainfall of up to 100mm is likely in places, with peak 7 day accumulations of 150-200mm in a few places.

#### Discussion

It is likely that through the next 3 or 4 days a Central American Gyre will develop across the south of Central America. These systems tend to result in increasingly widespread and heavier showers and thunderstorms, perhaps even developing weak tropical storms.

#### Expected Impacts

Increasing threat of flash flooding and landslides.



## South America

### Western Colombia

See *Central America and Caribbean*.

### Paraguay, Uruguay, southeast Brazil and northern Argentina

#### Weather

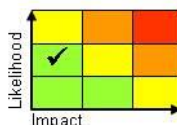
An area of intense showers and severe thunderstorms will transfer north across the region from Monday, producing 50-75mm of rain in just a few hours, with a threat of strong winds, large hail and frequent lightning.

#### Discussion

Through the weekend there will be a southward extension of the very warm, moist monsoon plume into northern Argentina, which will be engaged by an upper trough on Monday to produce high CAPE, marked wind shear deep convection. The resultant area of severe thunderstorms will then be pushed further northwards across South America as the upper trough and associated cold front continue northeastwards.

#### Expected Impacts

Local flash flooding probable with a lower likelihood of damage from hail, wind and lightning.



## Africa

### Parts of Central and East Africa

#### Weather

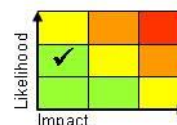
Early seasonal heavy rainfall in the form of daily heavy showers and thunderstorms is expected across this area over the coming week. Most areas will avoid the heaviest downpours but there is still the potential for up to 50-75 mm of rain in a few hours, with some places seeing 150-200mm through the next 7 days. Thunderstorms may also bring the additional hazard of localised strong, gusty winds.

#### Discussion

Tropical air is now starting to leak southwards across Africa, signalling the early part of the 'short-rains' season.

#### Expected Impacts

The enhanced rainfall comes ahead of the typical start of the wet season thus reducing this likelihood of flash flooding although this can't be ruled out.



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## Middle East

### Arabian Sea

See *Tropical Cyclones*.

## Asia

### Northern Philippines, South China Sea, Southeast Asia, Bay of Bengal and southern India

See *Tropical Cyclones*.

## Central Vietnam

### Weather

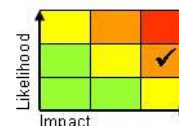
Further exceptional rainfall is likely across central parts of Vietnam through the weekend and early part of next week with some places seeing as much as 1000mm from persistent intense rainfall and thunderstorms. There is also the potential for weak tropical cyclone developments that could bring strong winds and very intense periods of rainfall. From the middle of next week the rains should finally ease.

### Discussion

Strong signal from all models for another period of exceptional rainfall for the already badly impacted central Vietnam region. It may be that the heaviest rain falls just north of previously worst impacted parts, but this would result in a greater areal coverage of flooding across Vietnam. The reason for the continued intense rainfall will be the continued active monsoon trough with potential tropical cyclone developments. These are likely to be weak, but there is the potential for a more significant tropical cyclone development in the South China Sea by the middle of next week which is likely to push the monsoon trough south of Vietnam, allowing less warm and drier air to significantly ease the rainfall.

### Expected Impacts

Further severe flash and river flooding is expected with a very high likelihood of landslides. These Impacts perhaps occurring a little further north than recent events, extending the severe flooding impacts that have already seen at least 130,000 homes inundated by flood water, and at least 40 people losing their lives.



## Indonesia, Malaysia, southern Philippines and Papua New Guinea

### Weather

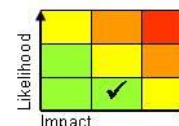
More frequent than usual showers and thunderstorms are expected during the next week over this region. Some places could receive 75-100mm in 3-6 hours, and overall widely 50-100mm will fall across the region.

### Discussion

La Nina makes showers and thunderstorms more likely to be frequent across the Maritime Continent, which has support from model output. Monthly anomalies across this region are generally positive too, particularly across Sulawesi, making impacts more likely than usual.

### Expected Impacts

Localised flash flooding in places, and increased risk of landslides in higher terrain.



## Australasia

Nil

## Additional Information

### Cox's Bazar, southeast Bangladesh

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Through the weekend and early part of the week there will be an increase in heavy shower / thunderstorm development in the northern Bay of Bengal, which will produce a threat of a heavy rainfall in Cox's Bazar, although there is only a low likelihood of flash flooding impacts up to Tuesday. From Wednesday there is an increased threat of intense showers and thunderstorms and an associated increased threat of flash flooding and landslide impacts.

#### **Yemen**

The development of isolated heavy showers is possible over the Western Highlands (especially in the south) through the next few days, but with this risk lowering next week. There is the chance of a tropical depression or storm to affect Socotra later next week, but there is low confidence in this aspect of the forecast. There is far more confidence that we are now well into the dry season, with most places expected to be dry throughout.

#### **Sudan/South Sudan**

Apart from the far south, Sudan will stay dry, which is usual for this time of year. Daily showers and thunderstorms will continue across the far south of Sudan and more especially South Sudan, although to a lesser extent than recent weeks – weekly totals could approach 50-75mm in a few places.

#### **Parts of the western USA, including California.**

The continued dry conditions will maintain the wildfire threat, especially across California through the next week. The near record high temperatures for the time of year are likely to lower next week, but still likely remaining significantly above the average for October. The continued heat and threat of strong winds at times will maintain an extremely high threat of further wildfire development across this region.

**Issued at:** 170300 UTC      **Meteorologists:** Paul Hutcheon

**Global Guidance Unit**

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