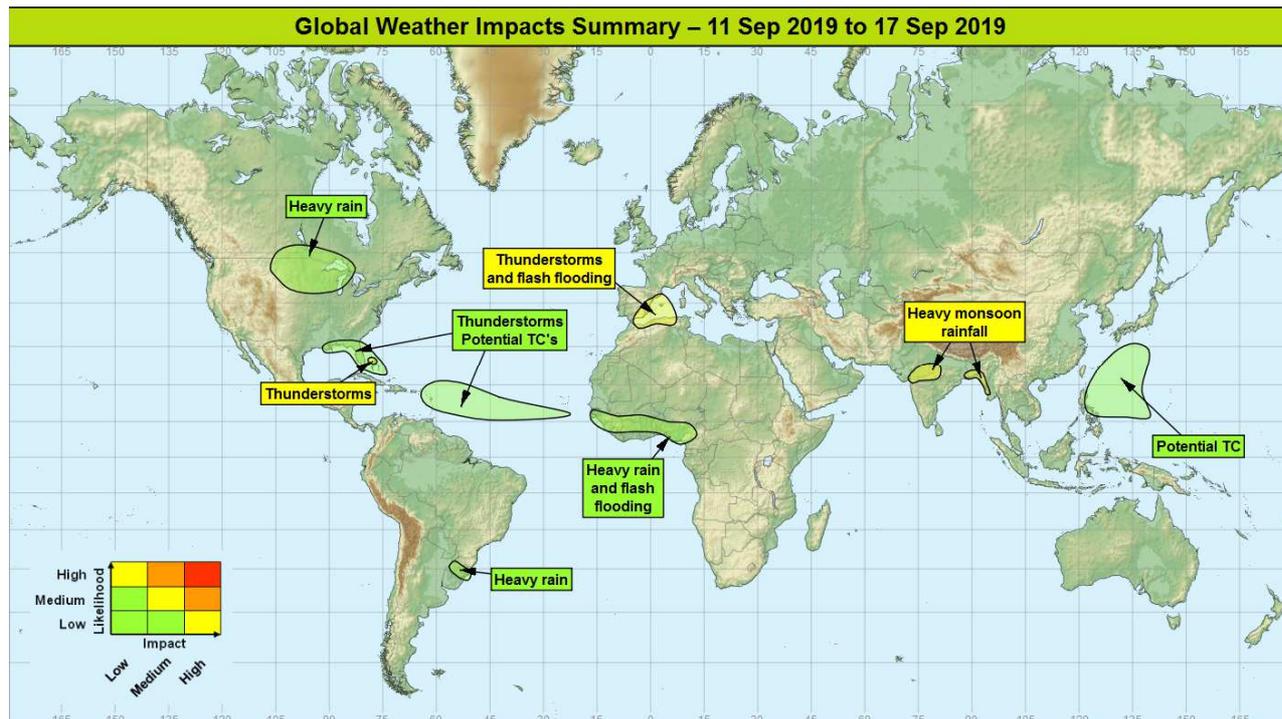


**Global Weather Impacts – Wednesday 11<sup>th</sup> to Tuesday 17<sup>th</sup> September 2019**

Issued on Wednesday 11<sup>th</sup> September 2019

**HEADLINES**

- Heavy rain/gusty winds affecting Abaco Islands and Grand Bahama Thursday/Friday.
- Thunderstorms bringing an increased risk of flash flooding to the western Mediterranean.
- Heavy monsoon rainfall continues across central India and northern Bay of Bengal coast.



**DISCUSSION**

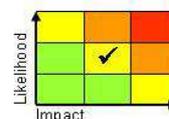
**Tropical Cyclones**

There are currently no active tropical cyclones. The following areas are being monitored for potential development:

**Bahamas, SE USA**

**Weather**

A broad area of low pressure associated with a tropical wave is expected to bring an area of enhanced shower and thunderstorm activity north-westward across the Bahamas later this week with around 50 to 100 mm of rain expected. As the system approaches Florida and the Eastern Gulf of Mexico later this week and into the weekend, conditions will be more supportive of tropical cyclone development.



**Discussion**

Thunderstorms with heavy rain and locally gusty winds are expected to affect the Bahamas over the next couple of days; conditions initially look unsupportive of tropical cyclogenesis nonetheless given conditions in the north Bahamas in the wake of Hurricane Dorian

**Expected Impacts**

Heavy rain and locally gusty winds may cause further impacts to the vulnerable islands of NW Bahamas on Thursday and Friday, with recovery efforts in the wake of Hurricane Dorian likely to be hampered. Elsewhere, localised flooding is possible, with a lower risk of wind damage.

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

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### Atlantic Ocean

#### **Weather**

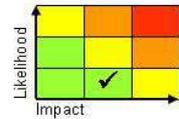
A couple of tropical waves have the potential to develop as they move west across the tropical Atlantic Ocean this week. Should these develop, they would likely track near or across the Lesser Antilles over the coming weekend. However, the chance of a tropical storm forming in these areas is low. Instead areas of enhanced shower and thunderstorm activity are more likely which is typical for September in the Caribbean.

#### **Discussion**

Further AEWs will move west across the tropical Atlantic, with a low likelihood of these being sources for tropical cyclogenesis. Given a largely unresponsive MJO background state (phase 6), development of these features are expected to be gradual with only statistical models (e.g. SHIPS) and a minority of dynamical models developing tropical cyclones.

#### **Expected Impacts**

Some localised flash flooding possible from increase heavy shower and thunderstorm activity from Friday. Very low likelihood of tropical cyclone impacts (heavy rain, damaging winds and storm surge).



### Western North Pacific

#### **Weather**

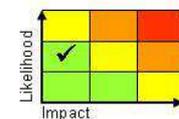
A tropical depression west of Guam may develop into a tropical cyclone through this week as it drifts north-westwards over open water. Any development may affect Taiwan, Philippines and/or the Ryukyu Islands by the end of the week.

#### **Discussion**

An equatorial Rossby wave near Guam has spawned a surface low which has the potential to intensify into a tropical storm over the coming days. SSTs remain favourable for development but vertical wind shear may be a limiting factor with most models only favouring very gradual organisation and intensification.

#### **Expected Impacts**

Increased risk of flash flooding, mainly for the Philippines. Low risk of damaging winds.



### Europe

#### Western Mediterranean including eastern Spain (and the Balearic Islands)

#### **Weather**

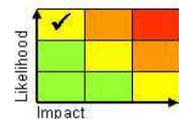
Heavy showers and thunderstorms will continue across this area during the remainder of the week before conditions improve over the weekend. There is potential for some locations to receive 100-150mm in a few hours in addition to large hail, strong winds and possible tornadoes/waterspouts. The heaviest and most prolonged rainfall looks likely to be focused on coastal parts of east and southeast Spain with 250-300mm possible in places by the end of the week.

#### **Discussion**

A cut off upper low continues to move south before becoming slow-moving across northern Algeria and Morocco for the remainder of the week. This and the combination of abundant low level moisture in the western Mediterranean and steep lapse rates being drawn north from the Sahara will trigger several rounds of severe thunderstorms across the region this week. Near the cut-off low centre and where thunderstorms impinge on favourable terrain, some quasi-stationary thunderstorms are likely which would bring a heightened flash flood risk.

#### **Expected Impacts**

Primary hazard is expected to be localised flash flooding bringing a risk to life and damage to property and infrastructure. Landslides and rock-falls are possible in areas of more steeply sided terrain. Frequent lightning, large hail and squally winds may also cause some localised damage to property and infrastructure.



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

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**North America**

**Northern USA and far southern Canada**

**Weather**

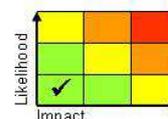
A succession of weather systems are expected to bring heavy rain to parts of the Great Lakes, upper Mississippi Valley and Northern Plains over the next few days. By the end of the week, many areas are likely to receive between 50-100 mm locally 200 mm of rain. For context, Minneapolis and Fargo (North Dakota) typically receive 78 mm and 65 mm respectively during the month of September.

**Discussion**

A longwave upper trough over the western USA is expected to spawn frontal systems to the lee of the Rockies that are most active across northern portions of the USA and the far south of Canada over the next several days. There is good model agreement for the depression now clearing east to be replaced by another system arriving from the west during Wednesday.

**Expected Impacts**

Cumulative impact of rainfall across the region by the end of the week is likely to lead to some flash flooding and flooding of streams and minor rivers.



**Central America and Caribbean**

**Lesser Antilles** – See *Tropical Cyclones* section.

**South America**

**Far south of Brazil**

**Weather**

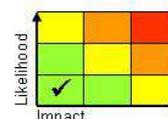
Heavy rainfall and thunderstorms will continue in this area over the next couple of days before activity wanes. A further 50-75mm is likely quite widely with 125-150mm possible in places.

**Discussion**

A slow-moving frontal zone will be the focus for a similarly slow-moving area of rain to persist across the region through the couple of days. Activity will ease later in the week as an upper ridge builds over the region.

**Expected Impacts**

Risk of flash flooding causing some travel disruption and localised damage to property and infrastructure.



**Africa**

**Northeast Morocco, northern Algeria and northern Tunisia** – See *Europe* section.

**West Africa**

**Weather**

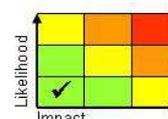
Above average rainfall has affected many parts of this region during the summer monsoon season, particularly over the last month. Whilst conditions will return closer to average there will still be frequent thunderstorm activity followed by a few days of drier conditions. Some locations receiving a further 100-150 mm in a few hours associated with the most intense thunderstorms.

**Discussion**

African Easterly Wave activity will continue to bring organised bands of deep convection westward through the next week with activity likely contribute to above average rainfall across West Africa. However, the areas identified are those where heightened sensitivity exists following already anomalous rainfall this season.

**Expected Impacts**

Ongoing enhanced risk of flash flooding and high river levels. Some further damage to property and infrastructure is possible.



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**Middle East**

Nil.

**Asia**

**Philippines and Ryukyu Islands** – See *Tropical Cyclones* section.

**Central India**

**Weather**

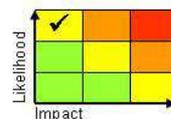
An area of frequent torrential showers and thunderstorms will remain slow-moving across central portions of India through this week. Most of the region, including large cities such as Bhopal and Nagpur, is likely to receive in excess of 100-200 mm over the next 5 days with some locations receiving 500-700 mm during this time. This region typically receives around 185 mm during September.

**Discussion**

A monsoon low pressure system has formed along the monsoon trough in central India but is expected to remain slow-moving through the next week. The state of Madhya Pradesh has been consistently signalled by model output to receive the highest rainfall totals.

**Expected Impacts**

Flash flooding events are likely, including in large population centres in Madhya Pradesh. There is also an increasing likelihood of river flooding and landslides.



**Southern Bangladesh and western Myanmar**

**Weather**

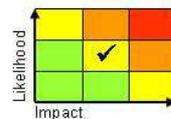
Frequent intense showers and thunderstorms are expected to continue, producing up to 150 mm in a 24-hour period, with up to 200-400 mm accumulating in places this week. This would result in the average monthly rainfall falling in a week in places. The rainfall is likely to affect southeast Bangladesh, including Cox's Bazar. Rain will tend to ease by the weekend.

**Discussion**

A strong monsoonal flow will bring heavy rainfall to southern Myanmar and southern Bangladesh, due to the persistence of a monsoon low pressure system across central India. Southwest-facing upslopes will be most threatened by enhanced rainfall due to orographic uplift of the very moist airmass. The strong monsoonal flow will gradually ease by the weekend.

**Expected Impacts**

Flash flooding events are likely, with an increasing likelihood of river flooding and landslides.



**Australasia**

Nil.

**Additional information**

Nil.

**Issued at:** 110750 UTC

**Meteorologists:** Chris Bulmer / D J Harris

**Global Guidance Unit**

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