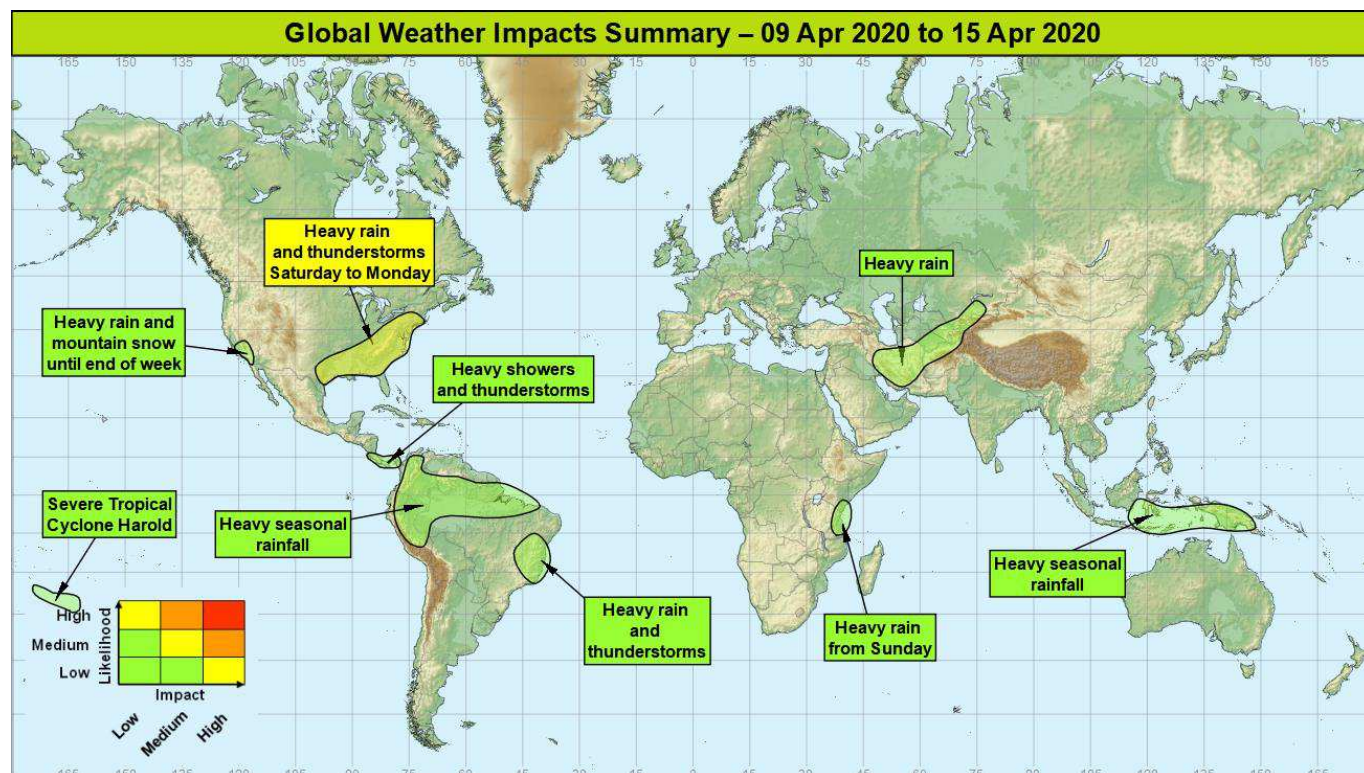


## Global Weather Impacts – Thursday 9<sup>th</sup> to Wednesday 15<sup>th</sup> April 2020

Issued on Thursday 9<sup>th</sup> April 2020

### HEADLINES

- Severe thunderstorms developing across southern and eastern USA this weekend and early next week.
- Tropical Cyclone Harold poses no further threat to land having passed close to Tonga overnight.



### DISCUSSION

#### Tropical Cyclones

##### Severe Tropical Cyclone Harold (Southwest Pacific Ocean)

#### Weather

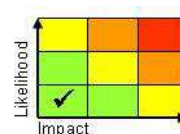
Harold passed just to the south of Tonga overnight and is now clearing southeast into the open ocean of the South Pacific. This tropical cyclone is now longer expected to affect any land areas.

#### Discussion

Increasing vertical wind shear and lower SSTs will cause Harold to further weaken as the cyclone moves southeast across the Pacific Ocean.

#### Expected Impacts

No further impacts expected.



#### Europe

Nil.

This forecast may be amended at any time

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## North America

### Southern California, USA

#### **Weather**

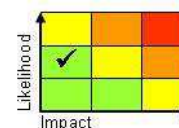
Further heavy rain and mountain snow is expected to affect parts of southern California during the next few days. San Diego could see 50-80mm during this time, with snow (~0.5m) over 1600m across the far south of the Sierra Nevada range.

#### **Discussion**

A slow moving cut-off vortex will remain close or across the area in the next few days. This will interact with a slow moving frontal zone bringing persistent, and at times heavy rain and mountain snow.

#### **Expected Impacts**

Localised flash flooding and mudslides, particularly in burn scar regions. Heavy snow may affect some transport routes.



### Southern and eastern parts of the USA

#### **Weather**

Severe thunderstorms are probable over the south and west of this region this coming weekend, with associated hazards including intense rainfall (up to 150 mm in 24 hours), large hail, damaging winds and tornadoes. Heavy rainfall (50-80 mm) and thunderstorms are then expected to develop further north and east on Monday, probably affecting much of the Eastern Seaboard, including New York. The average April rainfall in the southern states is 100-150 mm, with the Eastern Seaboard usually seeing 50-100 mm through April.

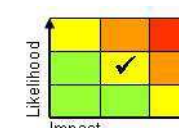
There is also the potential for isolated severe storms in southern Texas today, but this event is likely to be localised and less impactful.

#### **Discussion**

Models are in good broad agreement that a large mass of very warm, moist Gulf of Mexico air will be advected northwards across this region, to become engaged by the relaxing cut-off upper vortex (described in previous section) as it accelerates eastwards ahead of a larger scale upper trough. Strong upper level winds on the periphery of relaxing vortex, and strong vertical wind shear will provide significant lift and instability to promote persistent and severe storms, and likely supercells.

#### **Expected Impacts**

Localised flash flooding, hail damage, and wind damage, in the vicinity of the severe storms. Flash flooding also looks a threat for the Eastern Seaboard, perhaps impacting large cities.



## Central America

### Costa Rica, Nicaragua and Panama

#### **Weather**

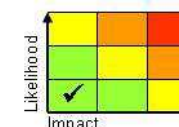
Showers and thunderstorms are likely to become more frequent and intense next week. Daily accumulations of 50-100 mm are possible, with up to 250 mm in a few locations by midweek. This is a very start of the wet season, with rainfall typically increasing rapidly at this time of year. However, for many locations this would represent close to a month's worth of rain.

#### **Discussion**

The ITCZ will surge northwards this week. Combined with an active MJO in the western hemisphere is likely to lead to enhanced rainfall next week across the region.

#### **Expected Impacts**

Flash flooding likely along with an increased risk of landslides.



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## South America

### Colombia, Peru, Ecuador, northern Brazil, Suriname, Guyana and Venezuela

#### **Weather**

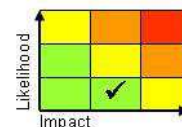
Enhanced shower and thunderstorm activity are signalled to continue across much of the northern Andes and Amazon through this period. A further 150-300mm of rainfall is likely to fall across the area. This represents locally more than double the average rainfall for parts of this region which have been very wet over recent weeks and months.

#### **Discussion**

Convective activity is forecast to remain well above average across the northern Andes over the next week. For Colombia and Ecuador, above average near shore SSTs are likely contributing to the increased activity, with onshore winds/orographic lift triggering convection on western upslopes of the Andes.

#### **Expected Impacts**

Continued threat of landslides and flash flooding, particularly in the steep terrain of the northern Andes.



## Eastern Brazil

#### **Weather**

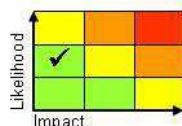
Slow-moving heavy showers and thunderstorms are expected to develop across eastern parts of Brazil over the next 2 or 3 days before activity gradually eases over the weekend. Coastal areas likely to see the heaviest rain though this should remain north of Rio de Janeiro. As much as 100-150mm of rain could fall in a few places each day. This is roughly equivalent to a month's worth of rainfall.

#### **Discussion**

An active pulse in the SACZ develop yesterday (Wednesday) which will help focus heavy rain and thunderstorms across eastern parts of Brazil before activity is focused offshore.

#### **Expected Impacts**

Increased threat of flash flooding as well as landslides in areas of steep terrain.



## Africa

### Eastern parts of Tanzania and Kenya

#### **Weather**

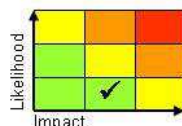
There is the potential for heavy rainfall from thunderstorms to develop along the coast of Kenya and/or eastern Tanzania associated with a weak tropical depression from Sunday to Tuesday. Up to 200 mm of rain could fall in just a few days, which would be around the average for the whole of April. Details are still subject to low confidence at the moment.

#### **Discussion**

Most models produce a weak tropical cyclonic circulation, possibly in association with an Equatorial Rossby Wave, which moves in from the Indian Ocean later this weekend and into next week to produce a threat of enhanced heavy showers and thunderstorms to this part of the region, but timing and location details are still fairly low confidence with this feature.

#### **Expected Impacts**

Flash flooding in the major coastal cities is a threat during this event.



## Middle East

Nil.

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**Asia****Iran, Afghanistan, Uzbekistan, Tajikistan and Kyrgyzstan****Weather**

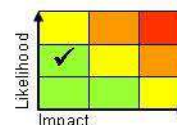
Further spells of persistent and locally heavy rain are expected to affect this region at times through the next week, with thunderstorms also expected. Across many parts of the areas highlighted 40-60 mm of rainfall will build up with as much as 100-150 mm possible over high ground. This equivalent to more than a month's worth of rainfall in the wettest areas.

**Discussion**

A succession of Western disturbances embedded within the STJ will continue to transfer east across this region over the next week with the associated upper forcing engaging the northern side of the warm plume to produce areas of rain and thunderstorms.

**Expected Impacts**

Flash flooding looks like the main threat in this region.

**Indonesia and New Guinea****Weather**

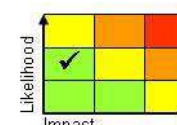
Shower and thunderstorm activity is expected to remain more widespread than normal over this week with many places receiving 50-100 mm during this time, with 200 mm for a few spots.

**Discussion**

Whilst the MJO is now moving east across the Pacific Ocean, the ITCZ remains quite active across parts of the Maritime Continent and is likely to be periodically enhanced by Kelvin waves running eastwards over the next few days.

**Expected Impacts**

Increased risk of flash flooding and landslides, particularly in areas that have been affected by recent heavy rainfall.

**Australasia**

Nil.

**Additional Information:**

Nil.

**Issued at:** 090700 UTC **Meteorologists:** Brent Walker / Paul Hutcheon

**Global Guidance Unit**

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