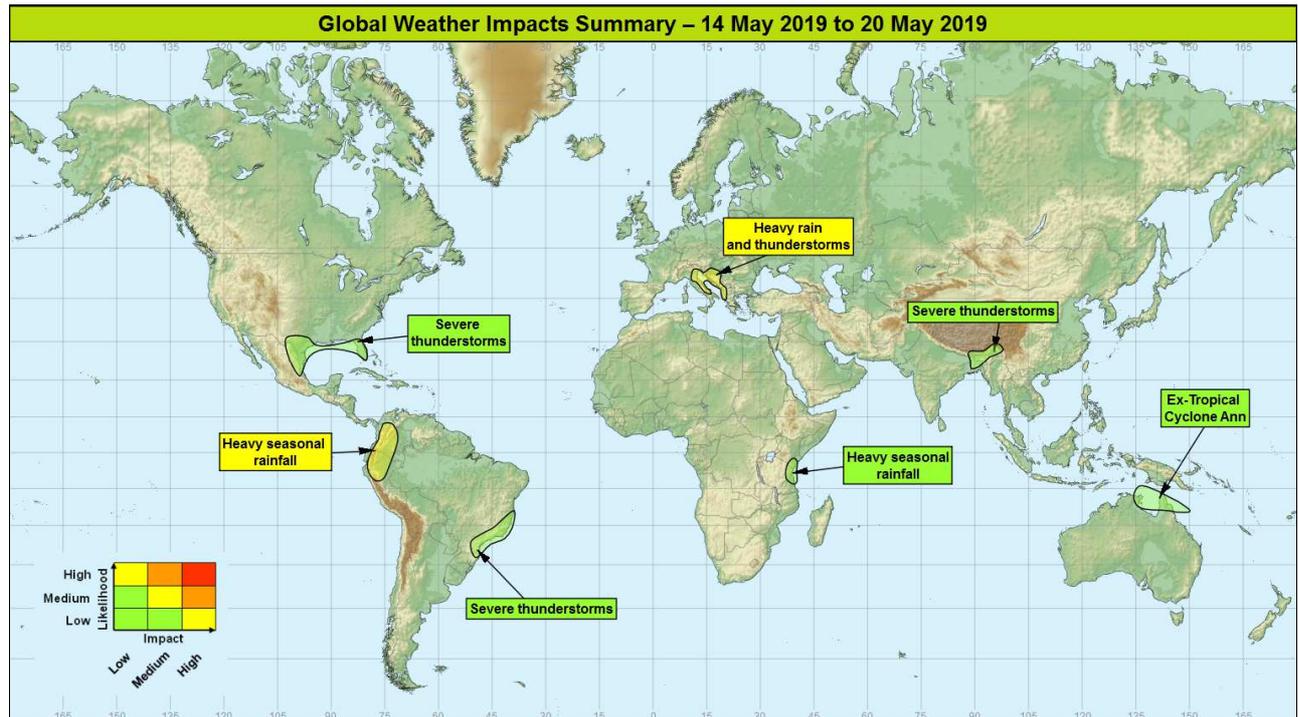


## Global Weather Impacts – Tuesday 14<sup>th</sup> to Monday 20<sup>th</sup> May 2019

Issued on Tuesday 14<sup>th</sup> May 2019

### HEADLINES

- Heavy rain and thunderstorms continue across central-southern Europe.
- Heavy seasonal rainfall across the northwest of South America.
- Ex-Tropical Cyclone Ann, will bring heavy rainfall to Northern Queensland.



### DISCUSSION

#### Tropical Cyclones

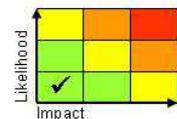
#### Coral Sea and far northeast Australia – Ex-Tropical cyclone Ann

##### Weather

Tropical Cyclone Ann that formed over the Coral Sea, has now weakened and been reclassified as an ex-cyclone. The remnants of the system will continue tracking slowly west over the Coral Sea towards Queensland, Australia and reach the coast here on late Tuesday (Wednesday morning Australian time). The main hazard is likely to come from a spell of heavy rain (100-150mm) over parts of northeast Australia, mainly the eastern side of Cape York Peninsula and possibly later in the week over the far northeast of the Northern Territory.

##### Discussion

This development was the result of the southern portion of an ERW pair spawned by the MJO as it moved east away from this region last week. Overnight Anne as weakened, this believed to be largely due to dry mid-level air that became entrained within the cyclone (as sampled by the 14/0000 Z radiosonde from Willis Island). The low level circulation associated with the system is visible in satellite imagery, with deep convection only occasionally flaring to the south of the centre. Continued unfavourable environmental conditions are likely to prevent any re-development of the system as it continues westwards towards the Queensland coastline.



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

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### Expected Impacts

Rougher than usual seas and locally dangerous beach conditions can be expected on and to the east of the northeast Queensland coastline. As the system moves westwards bringing enhanced rainfall, there is the potential for flash flooding although currently forecast rainfall amounts are not particularly unusual for this part of Australia.

### Europe

#### Italy, Croatia, Bosnia & Herzegovina, Montenegro and Albania

##### Weather

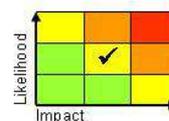
Remaining unsettled for much of the week with outbreaks of heavy rain and thunderstorms across the area. The heaviest rain is expected to continue on Tuesday with some places potentially seeing rainfall of around 100mm over 24 hours. The heaviest rain is expected to have eased by Wednesday but further heavy showers and thunderstorms will persist for the remainder of the week. Over several days (including rain that has already fallen) the wettest parts could see as much as 200-300mm fall in total. For context, these areas typically see 50-100mm of rain on average during May. In addition, strong winds are expected over parts of the Adriatic which may lead to rough seas.

##### Discussion

A cut-off upper low remains slow-moving over Italy and is expected to remain here for much of the week. Embedded upper short wave troughs will interact with a high WBPT plumes on the eastern flank of the vortex where the most intense and organised thunderstorms are likely to be (mainly over the Balkans). A brisk E'ly flow developing on the N flank of the associated surface depression will lead to significant orographic enhancement over the E facing upslopes of the Apennines in central Italy. This system will also generate significant Mistral, Tramontane and Bora winds.

##### Expected Impacts

Flash flooding is likely in places. Thunderstorms are also expected to be associated with frequent lightning and a threat of hail. Some disruption to marine activities is possible over the Adriatic Sea.



### North America

#### Far south of the USA and far northeast of Mexico

##### Weather

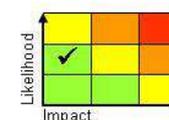
Further outbreaks of severe thunderstorms are possible across the far south of the USA (mainly Texas and Florida) and the far northeast of Mexico during Tuesday and possibly Wednesday. These thunderstorms bringing a range of hazards including heavy rain, large hail and strong winds as well as a risk of isolated tornadoes. These storms could produce very intense rain (75-150 mm) over a short time period (less than 6 hours). A lull in activity is then expected through the rest of the week but there are signals that the chance of severe thunderstorms will increase again across the central and southern plains of the US over the coming weekend.

##### Discussion

Further heavy showers and thunderstorms will develop in the high WBPT plume which will become increasingly confined to the far south over the next 24 hours. Whilst activity should tend to decrease the main exception will be across Texas on Tuesday with a consensus in model output that an upper short wave will re-engage the low level plume in situ.

##### Expected Impacts

Flash flooding will be the main hazard. There is still a low risk, lower than during last week, of isolated tornadoes, large hail and wind damage.



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## Central America and Caribbean

Far northeast of Mexico – see North America section.

## South America

### Colombia, Ecuador, and Peru

#### **Weather**

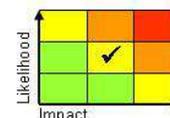
Heavy seasonal rainfall is expected across this region through the coming week with daily rounds of frequent heavy showers and thunderstorms. Where the showers occur most frequently a further 300-400 mm of rain could accumulate, which is close to the average for the whole of May in the wetter Colombian sites.

#### **Discussion**

Good model agreement for another spell of heavy seasonal rainfall. This active period of weather is likely to be due to the passage of a Kelvin wave followed by the MJO across the region.

#### **Expected Impacts**

Further flash flood and landslide events seem increasingly likely through next week, threatening transport infrastructure and settlements in the region.



## Southeast Brazil

#### **Weather**

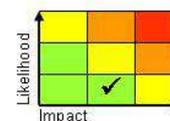
Heavy showers and severe thunderstorms will continue across parts of southeast Brazil over the coming week. Each day the focus of the heaviest rainfall should tend to drift northwards. Whilst not all areas will see the most intense rainfall each day, 50-100mm of rain could fall in places within a few hours. The average rainfall in this region for May is 100-200 mm.

#### **Discussion**

The South Atlantic Convergence Zone will remain active as it is driven northeastwards over the coming days. An upper trough which has been engaging the low level plume will tend to relax away over the next 24 hours. Thereafter SSTs will be sufficiently high to trigger deep convection and with an onshore flow this will mean the heaviest and most frequent rain will tend to be focused near the coast.

#### **Expected Impacts**

Localised flash flooding and increased chance of landslides in mountainous areas. Large hail, strong winds and frequent lightning are additional hazards which may cause damage to property and disruption to transport and utilities. Parts of this region have seen a wetter than usual rainy season, and so further rainfall could result in river flooding. Although exactly where the heaviest rain will fall is uncertain the area does include the most densely populated parts of Brazil (includes Sao Paulo and Rio de Janeiro).



## Africa

### Eastern parts of Tanzania and Kenya

#### **Weather**

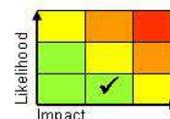
Heavy seasonal rains continue, with numerous showers and thunderstorms drifting into coastal regions off the Indian Ocean. Both Zanzibar and Mombasa have reported 24 hour rainfall totals in the order of 70-100mm over recent days. Whilst some heavy rain will continue across eastern parts of Tanzania and southern Kenya over the coming week rainfall totals are likely to ease to some degree compared to the last week or so.

#### **Discussion**

The inter-tropical convergence zone will maintain the focus for frequent heavy showers and thunderstorms across eastern Tanzania and the extreme southeast of Kenya. Increasing south-westerly flow to the south of the ITCZ, associated with developing monsoonal flow in the Indian Ocean Basin, will also contribute to the enhancement of showers and thunderstorms in this region, but models are consistent in taking the worst off the showers offshore by Tuesday.

#### **Expected Impacts**

Further flash flooding and damage to property and infrastructure in large cities like Dar es Salaam and Mombasa, plus the popular tourist destination of Zanzibar.



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**Middle East**

Nil significant.

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

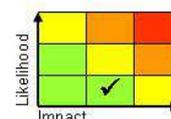
Severe thunderstorms are likely to affect the region during the next week. As well as intense rainfall (up to 150mm daily although many areas will miss the heaviest rain), large hail and strong winds are possible.

**Discussion**

A slow-moving upper trough over northern India and Nepal will lead to destabilisation of the air mass and the development of diurnal thunderstorms. High CAPE and vertical wind shear will aid the development of severe, long-lasting storms, with hail and strong winds additional hazards.

**Expected Impacts**

Localised flash flooding and increased chance of landslides in mountainous areas. Large hail, strong winds and frequent lightning are additional hazards which may cause damage to property and disruption to transport and utilities.

**Australasia****Far northeast of Australia** – see *Tropical Cyclones* section.**Additional information**

Nil.

**Issued at:** 140735 UTC **Meteorologists:** Chris Bulmer / Nick Silkstone**Global Guidance Unit**

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