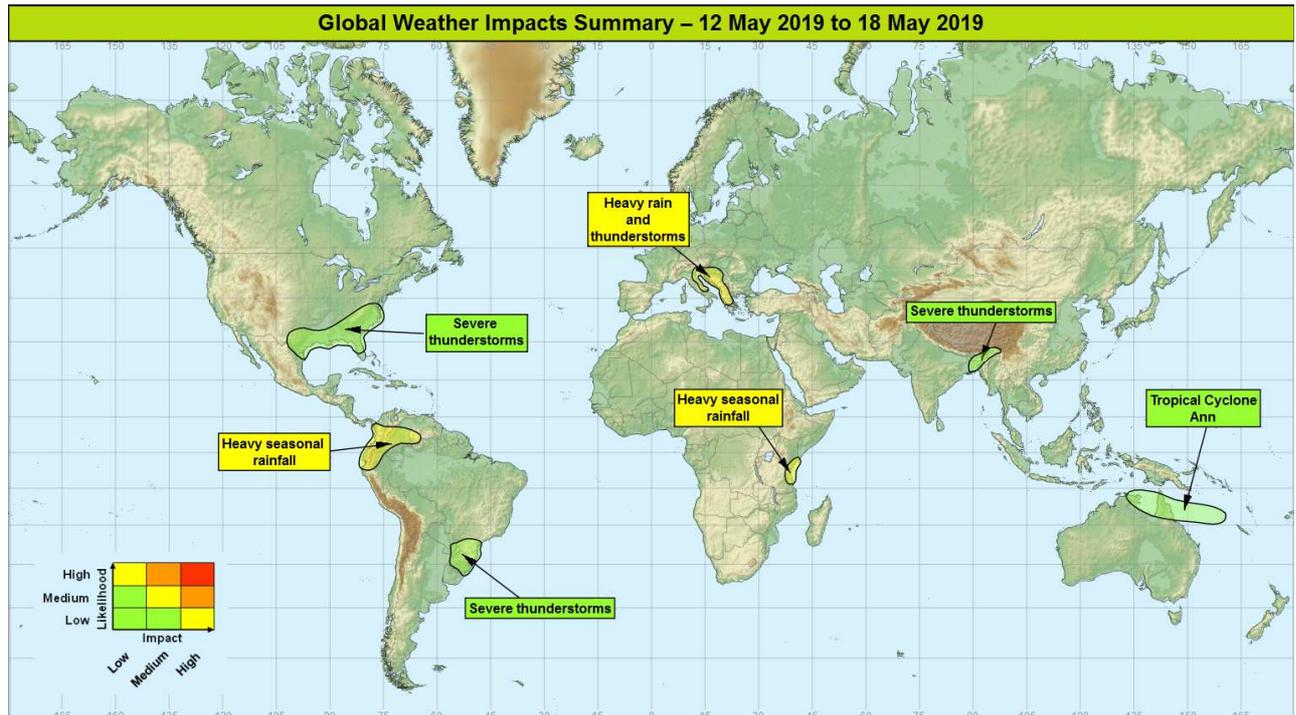


## Global Weather Impacts – Sunday 12<sup>th</sup> to Saturday 18<sup>th</sup> May 2019

Issued on Sunday 12<sup>th</sup> May 2019

### HEADLINES

- Heavy, and in places thundery, rain and strong winds affecting countries around the Adriatic.
- Heavy seasonal rainfall continuing in parts of East Africa and Northeast South America.
- Tropical Cyclone Ann forms over the Coral Sea, heading for Northern Queensland.



### DISCUSSION

#### Tropical Cyclones

#### Coral Sea, Queensland and Northern Territory – Tropical Cyclone Ann

##### Weather

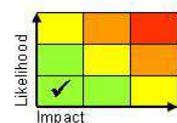
Tropical Cyclone Ann formed yesterday evening from the area of organised thunderstorms north-west of New Caledonia. Presently it looks like the system will remain fairly weak in terms of wind strength, with the main hazard coming from a period of heavy rainfall across parts of northern and northeast Australia early to mid next week.

##### Discussion

This development is the result of the southern portion of an ERW pair spawned by the MJO as it moved E away from this region. Model output generally retains a weak tropical cyclone over the coming days, with atmospheric and oceanic conditions appearing favourable to support gradual development. Any system is likely to be quite weak as it moves west towards the coast of north-eastern Australia, and there is currently very good agreement in the general westward motion from all the main models.

##### Expected Impacts

For the next few days rougher than usual seas and locally dangerous beach conditions can be expected on and to the E of the NE Queensland coastline. As the system moves westwards bringing enhanced rainfall, there is the potential for flash flooding although this region is more than used to these rainfall amounts during its monsoon season.



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

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## Europe

### Countries surrounding the Adriatic Sea

#### **Weather**

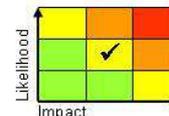
Heavy rain and thunderstorms are expected to affect this part of southern and central Europe from Sunday through to Wednesday. Up to 120 mm of rain could fall in a 24 hour period, with some areas, particularly in the northern parts of the Adriatic perhaps having around 250-300 mm in total. This would be close to a month's worth of rain in one day. Sunday and Monday are likely to see the largest rainfall totals, before the system subsequently slowly weakens and clears east.

#### **Discussion**

A marked trough extension across central Europe is underway, culminating in formation of an upper vortex in the central Mediterranean. A high WBPT plume will be drawn north on the eastern flank of the vortex and widely destabilise, with intense and organised thunderstorms developing (mainly Balkans), along with areas of heavy dynamic pptn. 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 and Tramontaine winds, although these are unlikely to cause impacts.

#### **Expected Impacts**

Flash flooding is likely in places, with areas in the northern Adriatic perhaps most prone, along with the threat of frequent lightning. Strong winds could cause some disruption to marine transport in the region.



## North America

### Southern and Eastern USA

#### **Weather**

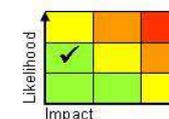
Rounds of heavy showers and thunderstorms are likely to continue across the far south-east of the US today and tomorrow, before possibly redeveloping further west over Texas. Heavy rain is expected to be the primary hazard, with storms capable of large hail, strong winds or tornadoes expected to be very isolated. These storms are capable of producing very intense rainfall (75-150 mm) over a short time period (less than 6 hours).

#### **Discussion**

Further heavy showers and thunderstorms will develop in the high WBPT plume lying through the south-eastern states, with the main hazard intense rainfall. On Sunday, the risk of severe thunderstorms increases again a little as an upper trough approaches from the west and deep layer shear increases. Combined with an increase in low-level flow associated with the formation of a depression, suggests that isolated severe storms, with the usual hazards of large hail, strong winds and tornado risk are possible from roughly Louisiana up to North Carolina. The cold front will clear SE from all but Florida by Monday, but another shortwave trough at low latitudes cutting across the far S of the US could engage a trailing portion of the front over Texas later Mon and through Tues to produce a separate area of storms.

#### **Expected Impacts**

Flash flooding will be the major hazard. There is still a risk, albeit lower than earlier in the week, of isolated tornadoes, large hail and wind damage, mainly on Sunday.



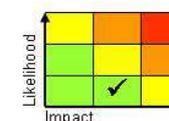
## Central America and Caribbean

Nil significant.

## South America

### Far south-east Paraguay, far north-east Argentina, far south of Brazil.

#### **Weather**



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

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Intense, slow moving heavy showers and thunderstorms will continue today along the sharp boundary demarcating tropical moisture from much cooler air further south. Rainfall totals of 50-100 mm are probable through the next couple of days before the system clears east into the Atlantic. Parts of Paraguay most affected over the past few days (Pilar seeing 300 mm of rain in 30 hours to 1800Z on the 10<sup>th</sup> for example) can expect much smaller amounts of rain as conditions here improve. 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 next two days. Convective activity should be less severe today as the driving trough disrupts and necking takes place over the region, but the resulting cut off vortex looks likely to re-engage the plume of Monday generating another area of heavy rain across the far S of Brazil before clearing.

### 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.

## Colombia, Venezuela, Ecuador, and Peru

### Weather

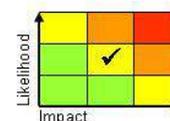
Heavy seasonal rainfall is expected across this region next week (from Monday), with daily rounds of frequent heavy showers and thunderstorms. Where the showers occur most frequently a further 250-350 mm of rain could accumulate, which is close to the average for the whole of May in the wetter Colombian sites.

### Discussion

Good model agreement for another spell of heavy seasonal rainfall that will increase the threat of further flood and landslide events in the region. This active period of weather is likely to be due to the passage of a fairly active 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.



## Africa

### Eastern parts of Tanzania and Kenya

### Weather

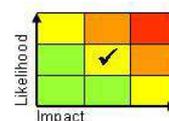
Heavy seasonal rains continue, with numerous showers and thunderstorms drifting into coastal regions off the Indian Ocean. Zanzibar reported a further 70+ mm yesterday. Above average shower and thunderstorm activity is expected to continue across eastern parts of Tanzania and southern Kenya over at least the next two days. A further 50-75 mm of rainfall is possible per day, but some locations could receive as much as a further 200 mm of rain by early next week, before conditions improve.

### 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.



## Middle East

Nil significant.

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

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**Asia**

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

**Weather**

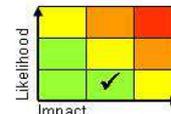
Severe thunderstorms are likely to affect the region over the next 7 days. As well as intense rainfall (up to 150mm daily), large hail and strong winds are possible.

**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**

**Northern Queensland, and Northern Territory, Australia** – see *Tropical Cyclones* section.

**Additional information**

Nil.

**Issued at:** 120530 UTC    **Meteorologists:** D J Harris / Brent Walker

**Global Guidance Unit**

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

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