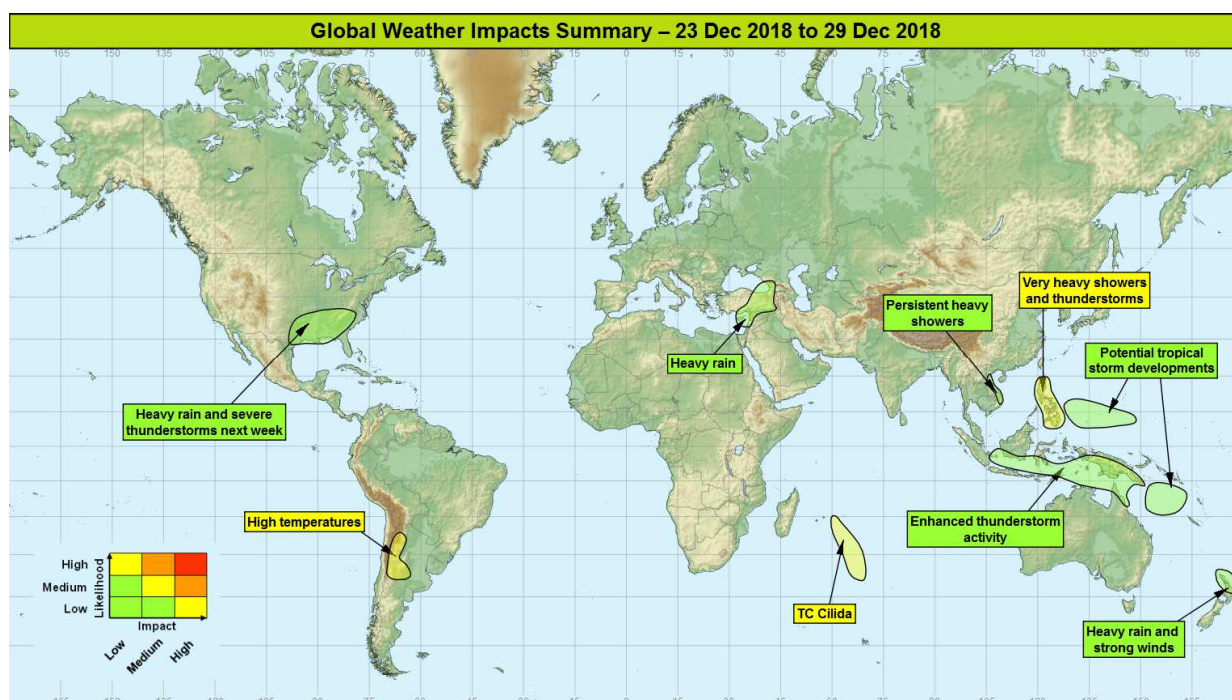


## **Global Weather Impacts – Sunday 23<sup>rd</sup> December to Saturday 29<sup>th</sup> December 2018**

Issued on Sunday 23<sup>rd</sup> December 2018

### HEADLINES

- Heavy rainfall in parts of the Philippines and wider Maritime Continent through much of the coming week.
- High temperatures across parts of Argentina.



### DISCUSSION

#### Tropical Cyclones

##### Tropical Cyclone Cilida (Southwest Indian Ocean)

#### Weather

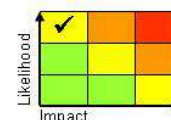
Cilida was located about half-way between the islands of Mauritius and Rodrigues this morning, and is expected to move southeastwards over the next few days and gradually weaken. Cilida is expected to remain over open water.

#### Discussion

Models are consistent in taking southeastwards over the next few days with gradual weakening expected as it moves south over cooler waters.

#### Expected Impacts

The main impacts will be from large waves along some coasts of Mauritius and Rodrigues.



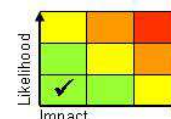
#### West Pacific

#### Weather

There is the potential for one or more tropical storms to develop to the east of the Philippines and in the Solomon Sea from Tuesday or Wednesday. However, at this stage confidence is low.

#### Discussion

As the MJO begins to propagate eastwards across the W Pacific there is the potential for equatorial Rossby waves in its wake to spawn one or more tropical storms. Ensemble forecasts suggest large uncertainty over exactly when storms may develop, but they should just about remain over open water during this period, with a minimal risk of one reaching the Philippines next weekend.



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

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**Expected Impacts**

Nil

**Europe****Cyprus, the Levant, north Syria, east Turkey and Georgia****Weather**

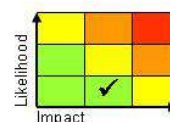
A band of heavy rain will move eastwards across the eastern Mediterranean and Black Sea on Tuesday and Wednesday, with the potential for some locations to see over 100 mm of rain in 24 hours, particularly Georgia, the higher ground areas of the Levant and east Turkey. Heavy snow is expected to fall across other parts of Turkey to the north of this, with 30-50 cm in places.

**Discussion**

An active cold front will move east across eastern Med and Black Sea region on Tuesday and Wednesday. The cold front will remain in phase with a complex upper trough disruption, and as the front becomes aligned with the upper S-SW flow, could lead to period of heavy rain, strong winds and embedded thunderstorms. Although there has been a recent settled spell of weather here, this area has seen a lot of disturbed weather and heavy rain over the past few months with conditions sensitive to further heavy rain.

**Expected Impacts**

Localised flash and possible delayed river flooding likely to be the main impacts, with risk of landslides in the more mountainous areas. Strong winds to the rear of the system could lead to some dangerous sea conditions developing as the system clears away eastwards.

**North America****Central and eastern US, particularly states adjoining Gulf of Mexico.****Weather**

A deep area of low pressure looks likely to develop across this region during the middle part of next week, bringing a large zone of heavy rainfall, as well as heavy showers/thunderstorms with the risk of large hail and tornadoes to central and southeastern states. Although outside the area highlighted on the map, some fairly heavy snowfall is expected on the northwest flank of the low in a zone running from Colorado to the northwestern Great Lakes.

**Discussion**

Following a relatively benign and settled spell of weather over the next few days, all models signal a sharp/disrupting upper trough driving a low pressure system into the western States. The S'y flow ahead of this draws a very warm, moist plume north from the Gulf of Mexico that subsequently spawns a deep area of low pressure. With strong forcing and high precipitable water, large amounts of rain are possible, with models signalling 50-100 mm in association with the frontal zone, but of greater concern is the potential for larger totals (100-200 mm) in association with severe convection within the warm sector. As mentioned previously some snowfall will fall just to the northwest of this area.

**Expected Impacts**

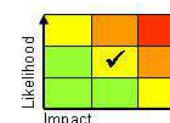
Within the area highlighted localised flooding is likely, especially across the southern Gulf states, where damage and disruption to transport, infrastructure and homes are possible given the threat of large hail and damaging winds.

**Central America and Caribbean**

Nil significant

**South America****Western Argentina****Weather**

High temperatures are expected to develop across western and northwestern parts of Argentina over the coming week. Temperatures are expected to be quite widely 10°C higher than average, with some places likely to see temperatures of 42-43°C which could break some local records.



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## Discussion

A combination of warm advection from the north and Fohn effects over the Andes will lead to high temperatures to the east of the Andes over the next week.

## Expected Impacts

High temperatures are not unusual at this time of the year, but heatwave conditions can lead to heat health problems among vulnerable populations and impacts to infrastructure and utilities. An additional hazard will be an increasing likelihood of wildfires towards the end of the week.

## Africa

Nil significant

## Middle East

**Syria, the Levant** - See Europe section

## Asia

### Philippines

#### Weather

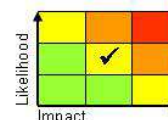
Periods of enhanced thunderstorm activity are expected through the period, likely peaking across Luzon on Sunday and then again across Mindanao mid to late next week ahead of a possible tropical storm. 50-80 mm is likely in the heavier showers each day, although up to 200 mm is possible very locally. Some places in east Luzon could see over 500 mm by early next week, twice the average December rainfall.

#### Discussion

A marked Equatorial Rossby Wave (ERW) close to the Philippines will slowly progress W, bringing enhanced shower and thunderstorms across the northern part of the Philippines over the next 2 to 3 days. Later next week, there is a signal for a second ERW to bring enhanced activity further south, although naturally this second feature carries lower confidence given the lead time.

#### Expected Impacts

Flash flooding and enhanced likelihood of landslides are the most likely impacts. The much heavier than usual rainfall could also produce river flooding too.



### Northern and Central Vietnam

#### Weather

A spell of enhanced showers and thunderstorms over the next week with the heaviest rainfall likely on Sunday and Thursday. Some places along the coast could see around 200 mm during this time.

#### Discussion

An enhanced E to NE'ly flow on the northern flank of a tropical wave and perhaps reinforced by a developing cold surge will impinge on the coastline of Central Vietnam and produce a steady feed of heavy showers. There is the potential for some locally very intense rainfall towards the end of the week.

#### Expected Impacts

Flooding of homes and businesses, disruption to transport, and increased potential for landslides in more mountainous areas.



### Parts of the Maritime Continent and northeast Australia

#### Weather

Heavy showers and thunderstorms are likely to bring above average rainfall to the region over the coming week. Up to 100 mm could fall in any one location in a 24 hour period, but many places will also remain dry. 200-300 mm is likely to accumulate in some places by the end of this period, which is roughly a month's worth of rain.



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## Discussion

The presence of the MJO in the region (Phase 5) is expected to enhance convection significantly, with an increase in equatorial Rossby wave and Kelvin wave activity. There is the potential that one of these may lead to the formation of a tropical storm in the Solomon Sea later next week, but confidence is low at this stage.

## Expected Impacts

Flash flooding and enhanced risk of landslides are the most likely impacts.

## Australasia

**Papua New Guinea** – see *Asia* section.

## New Zealand – North Island

### Weather

A deep, slow moving area of low pressure to the northwest of New Zealand will bring strong winds, heavy rain and thunderstorms across this region. Coastal gales are possible, whilst 100-150 mm of rain may fall in some places along the north coast.

### Discussion

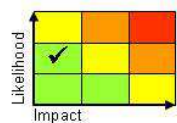
A disrupting upper trough has extruded a plume of tropical moisture across the north of the North Island, with a developing low pressure system to the northwest. High population areas such as Auckland are likely to be affected.

### Expected Impacts

The main impact is expected to be enhanced risk of flash flooding, particularly so for urban areas such as Auckland. Transport disruption is possible, and rough seas are also likely impacting marine traffic.

## Additional information

Nil.



**Issued at:** 230850 UTC    **Meteorologist:** Neil Armstrong

**Global Guidance Unit**

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

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