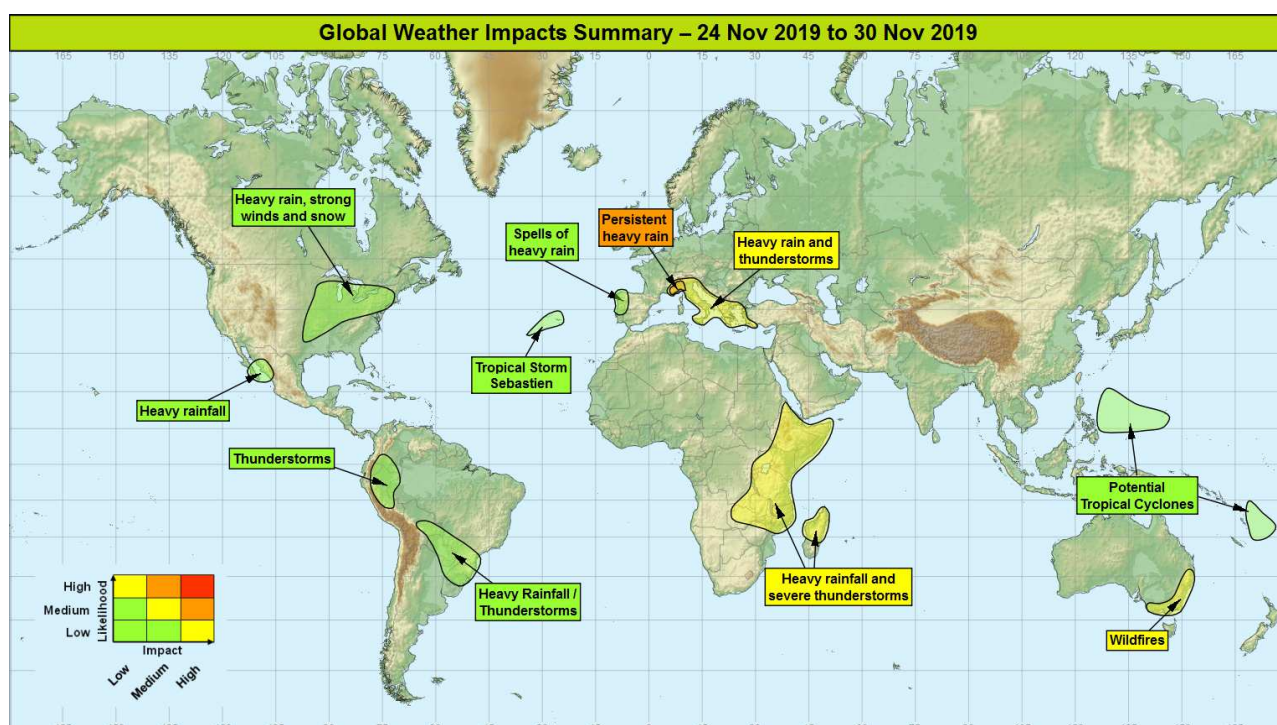


**Global Weather Impacts – Sunday 24<sup>th</sup> to Saturday 30<sup>th</sup> November 2019**

Issued on Sunday 24<sup>th</sup> November 2019

**HEADLINES**

- Remaining unsettled more widely across southern Europe over the next few days.
- Tropical Storm Sebastien brings heavy rain and strong winds to the Azores on Sunday.
- Large parts of Eastern Africa seeing above average rainfall over the next week.
- Wildfires continue in south-east Australia, and conditions remain conducive to further fires.



**DISCUSSION**

**Tropical Cyclones**

**Tropical Storm Sebastien**  
**Weather**

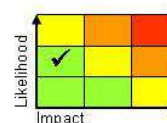
Tropical Storm Sebastien currently lies around 800 miles to the SW of the Azores with maximum sustained winds of around 65mph, and is expected to track NE'wards towards and across the islands on Sunday. Heavy rain and strong winds are expected to affect the islands.

**Discussion**

Every aspect of the forecast remains highly uncertain with the models extremely inconsistent in forecasting Sebastien in the last day or so. The latest indications are that Sebastien will move quickly northeastward today with little change in strength before it eventually begins to decay once to the NE of the Azores on Monday.

**Expected Impacts**

Increased risk of flash and coastal flooding, damaging winds and rough seas.



This forecast may be amended at any time

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*The following region is being monitored for possible impactful tropical cyclone development.*

## **South-western Pacific**

### **Weather**

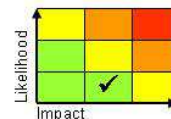
The development of a tropical cyclone looks likely in the next day or so, to the east of the Solomon Islands, and may go on to impact Vanuatu, with a lower risk for Fiji next week, bringing an increased risk of strong winds and heavy rain.

### **Discussion**

Models have consistently signalled tropical cyclogenesis from the mass of intense convection on the inner edge of the South Pacific Convergence Zone – this likely the result of enhancement due to the passage of an Equatorial Rossby Wave. Whilst the development and track is quite uncertain at this time, ensemble output highlights Vanuatu as the most likely area to experience an impact from this system. EC continues to produce quite an intense system, with other models less developed, and closest to Vanuatu on Monday/Tuesday.

### **Expected Impacts**

Increased risk of flash flooding, lower (but still increased) risk of damaging winds.



## **Western Pacific**

### **Weather**

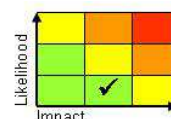
There is the potential for the development of a tropical cyclone to the west of the Northern Mariana islands, western Pacific next week. There is much uncertainty to the formation and evolution of this potential cyclone, but this may either remain over the open water, or track towards the Philippines by next weekend. This would bring an increased risk of strong winds and heavy rain.

### **Discussion**

There has been a consistent signal from the models for a tropical cyclone somewhere in the vicinity of the Northern Mariana islands, western Pacific Models next week. However there is much uncertainty as to the location of this, then subsequent evolution. The GM and GFS signal for a cyclone to develop, then remain over the open waters of the western Pacific. However EC develops this a day or so later and further west than the others, and then tracks a tropical cyclone towards the central Philippines by next weekend. The most likely scenario is for any cyclone to remain over the open water, but there is a low probability for this to head towards the Philippines by next Sunday, bringing the risk of heavy rains and strong winds.

### **Expected Impacts**

Risk of flash flooding and damaging winds.



## **Europe**

### **South-east France, North-west Italy**

### **Weather**

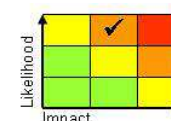
Further heavy rain and thunderstorms (predominantly coasts) is expected to affect this region today. A further 100-150mm of rain is expected across similar areas that saw torrential rainfall yesterday (Saturday). Monte Settepani, Liguria, Northern Italy reported 257mm on Saturday. Major centres such as Genoa, Turin, Milan, Nice and Marseille continue to be at risk of significant flooding. Heavy snowfall is likely above 1500m, and likely to settle above 1800m. This system will slowly clear eastwards today, with a steady improvement in conditions.

### **Discussion**

A major trough extension and a strong warm conveyor flow has been the catalyst for heavy and persistent rainfall across this region both yesterday and today. As the trough swings away south and eastwards today conditions will improve.

### **Expected Impacts**

Significant flash flooding in areas downstream of high ground, with a lower risk of impacts from lightning.



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## **Much of southern and south-east Europe**

### **Weather**

A spell of heavy rain and strong winds, along with increasing frequency of thunderstorms (particularly coastal areas and more generally Greece/western Turkey) is expected both in the coming few days, then again later in the week. Parts of the Balkans, Greece and Turkey could see as much as 150mm of rain in 24-36 hours, mainly associated with frequent or severe thunderstorms. These will be accompanied by strong gusts of wind, and a localised threat of hail and tornadoes. Heavy snow is an increasing risk above 2000m.

### **Discussion**

The major trough extension is expected to drive an active front across the region in the coming days, with further similar less active system by Thursday. Heavy showers and frequent thunderstorms with the risk of MCS development are associated with the active frontal systems, especially in the next few days across Greece and western Turkey. Precipitation will also be modulated by orography, and with WBFL generally above 2300m the main snow risk will be confined to elevations above 2000m.

### **Expected Impacts**

Increased likelihood of flash flooding causing damage to property and infrastructure. Frequent lightning strikes, large hail and tornadoes/waterspouts could also produce localised significant damage.



## **Portugal, north-west Spain**

### **Weather**

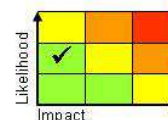
Bands of rain are expected to push through this region from the Atlantic on Tuesday, and could deliver 40-60mm in a few hours, and could be accompanied by coastal gales. This follows recent heavy rain across this region.

### **Discussion**

An active Atlantic frontal zone is expected to bring above average rainfall for the time of year on Tuesday. Rainfall totals may be sufficient to cause some localised issues, with antecedent conditions also wetter than normal.

### **Expected Impacts**

Increased risk of localised flash flooding, and minor coastal impacts from strong winds.



## **North America**

### **Eastern United States**

### **Weather**

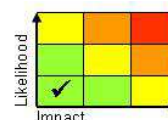
A strong area of low pressure is expected to run north-northeast from Northern Texas on Tuesday to the Great Lakes by Thursday. This brings the risk of strong winds and heavy rain, with snow on its northern flank to a wide area next week.

### **Discussion**

There is good model agreement for an area of low pressure to run north-northeast across the central/eastern USA next week which has the potential to bring widespread heavy rain, strong winds and snow to a wide area.

### **Expected Impacts**

Where the heavy snow falls, temporary travel disruption (particularly roads/aviation), along with power cuts and loss of other utilities.



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**Central America and Caribbean****North Mexico****Weather**

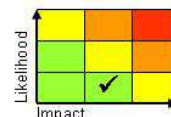
A spell of heavy and persistent rain looks likely to transfer from the eastern Pacific by Tuesday. Many areas seeing 100mm of rain in the space of a couple of days, with potential for around 500mm of rain over some prone, mainly high ground areas. Major urban areas such as Culiacan are at greatest risk of significant impacts. This should both decay and clear by Friday.

**Discussion**

A marked, low latitude trough extension this weekend over the Eastern Pacific will induce the northward extrusion of a tropical plume towards Baja California Sur. Early next week, a major pattern amplification over the Pacific looks likely to sweep up both the cut-off vortex, and low-level plume generating heavy and persistent rainfall over this region – the extending trough backing the flow and allowing this to become slow moving for a couple of days. Global models highlight some spots of 500mm of rain over higher ground in 48 hours.

**Expected Impacts**

Should this system develop as forecast, flash flooding is highly likely, with an increased risk of landslides in steeper terrain too.

**South America****Western Colombia, Ecuador, Peru, western Brazil and northern Bolivia****Weather**

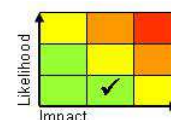
Further heavy showers are expected in this region over the next couple of days, with activity steadily declining back to normal levels through next week. 50-100mm is likely to fall in a few places on each day, whilst this region has generally seen much wetter than normal conditions over the past 7 days.

**Discussion**

A combination of enhanced convection signalled by the models, and wetter than normal antecedent conditions, has helped to identify this region as the most likely to see impacts. Overall, activity is declining, with ensemble output indicating a relatively dry spell developing in this region from early next week.

**Expected Impacts**

Some further flash and river flooding with landslides possible in mountainous areas. This follows on from a recent wet period across the region with significant river flooding reported over the last couple of weeks.

**Bolivia, Paraguay, Northern Argentina, Southern Brazil****Weather**

Heavy showers and embedded thunderstorms are likely to develop by Tuesday. 50 to 75 mm of rainfall in a few hours is possible with a few places perhaps seeing 150-200 mm over a period of a couple of days before this largely clears on Thursday. Frequent lightning, large hail and a risk of tornadoes will also be present.

**Discussion**

Lee cyclogenesis to the east of the Andes over the weekend will draw a plume of tropical air anomalously far south, which will then be engaged by an upper trough leading to the development of heavy rain and deep embedded convection. This is likely to be a relatively short lived burst of activity however with a cold front expected to sweep north-eastwards on Thursday.

**Expected Impacts**

Risk of flash flooding.



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## Africa

### Parts of eastern Africa, including Madagascar

#### **Weather**

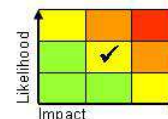
Showers and thunderstorms will be heavier than normal through the next week. The heaviest rainfall is expected to be across the Kenyan Highlands, western Tanzania, Rwanda, Burundi and eastern DRC, plus the coastal Somalia. 200-300 mm of rain could accumulate through the next week (over a month's worth of rain). Elsewhere, rainfall accumulations will be lower, but still above average.

#### **Discussion**

A combination of the MJO moving across Africa and the positive IOD phase continuing, will promote above-average rainfall across this region in the coming week. Across the south of the region (including Madagascar), a warm plume will be the focus for further deep convection. Serious multi-year droughts have affected parts of this region, and to a degree this rain will be welcome; however the short duration over which large amounts of precipitation are likely to accumulate may well cause some serious localised issues, with wetter than average conditions already experienced in parts of Tanzania and Madagascar in particular.

#### **Expected Impacts**

An increased risk of flash flooding and landslides in the region, with further river flooding possible in Somalia. This is also true of regions in the south of the area which have been experiencing drought conditions. Frequent lightning is also likely, along with large hail and strong wind gusts.



## Asia

Nil.

## Australasia

### Parts of eastern and south-eastern Australia

#### **Weather**

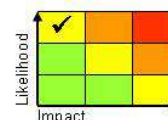
Numerous significant wildfires continue across parts of New South Wales, SE Queensland, and Victoria and into SE South Australia as hot and generally dry conditions continue. Temperatures are however coming down across Victoria with some showers expected here early next week, whilst further east and north temperatures remain high but with an increasing threat of thunderstorms which could initially ignite further fires.

#### **Discussion**

This early season wildfire event, reminiscent of conditions more typical in mid austral summer, has already claimed a number of lives and burned over 2.5 million acres of land. Much of these areas are sparsely populated, but more than 600 homes have been destroyed in the New South Wales alone. Multiple monthly temperature records have been broken, with maxima into the low to mid 40's of Celsius. A cold front has pushed through much of Victoria and into New South Wales, allowing temperatures to fall, and introducing a cooler, eventually more showery airmass and further fronts follow on a more mobile stream. The warm plume ahead of the initial cold front looks likely to become fairly stationary over NSW and Queensland, with daily round of thunderstorms developing.

#### **Expected Impacts**

Fires will bring a danger to life and environmental damage across a wide area. Smoke will bring dangerously poor air quality to densely populated urban centres, such as Brisbane, Sydney and Melbourne.



## Additional Information

**Issued at:** 240330 UTC **Meteorologists:** Tony Wardle

**Global Guidance Unit**

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

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