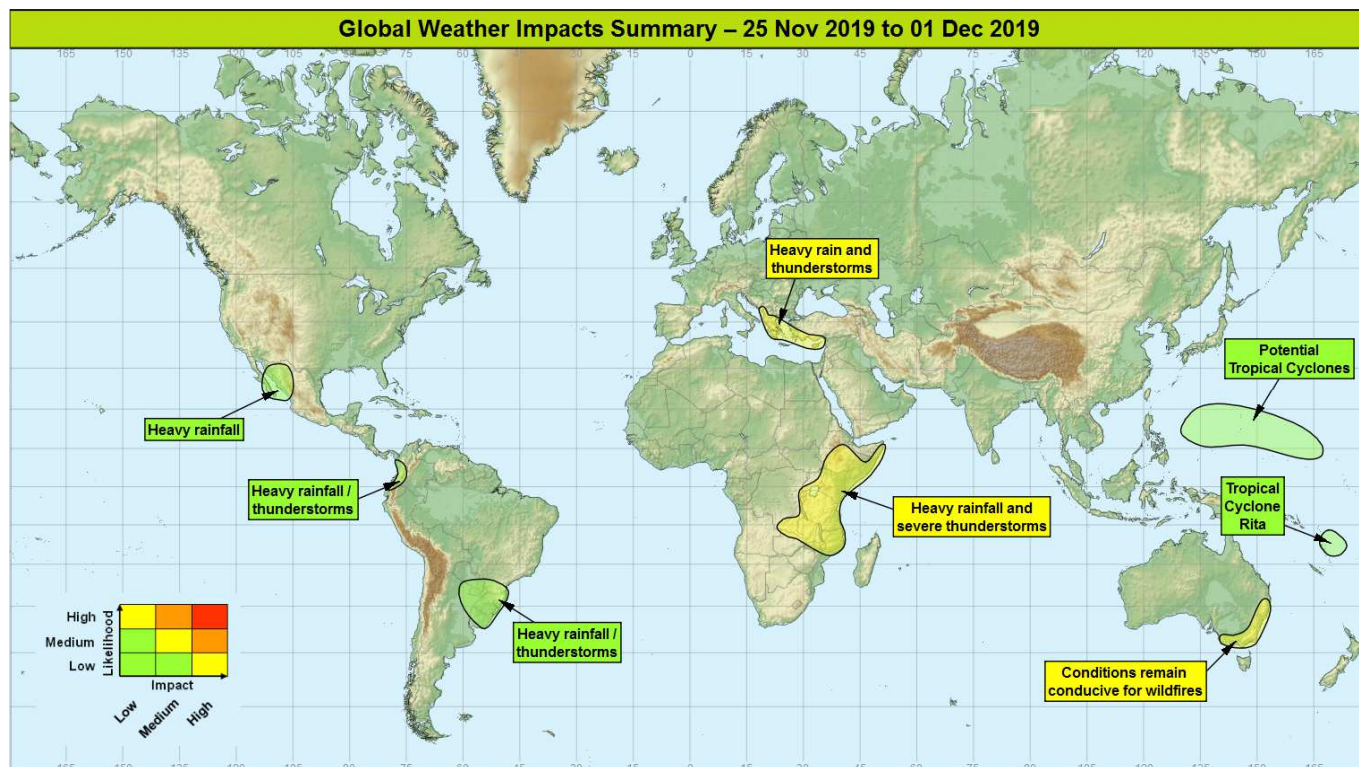


Global Weather Impacts – Monday 25th November to Sunday 1st December 2019

Issued on Monday 25th November 2019

HEADLINES

- Enhanced rainfall over large parts of eastern Africa over the next week.
- Heavy rain and thunderstorms across the eastern Mediterranean over the next few days.
- Wildfires continue in south-east Australia with environmental conditions remaining conducive.



DISCUSSION

Tropical Cyclones

Tropical Cyclone Rita

Weather

Tropical Storm Rita formed early on Sunday, and is currently around 250 miles northeast of Vanuatu. Rita currently has sustained winds of 70-75 mph, and may strengthen further in the short term. However, during Tuesday and Wednesday is then expected to readily weaken as environmental quickly become hostile to the system. During this time Rita may bring 50-100mm of rainfall to the northern islands of Vanuatu, but this is nothing exceptional for this region.

Discussion

Rita formed from the southern portion of an Equatorial Rossby Wave (ERW) couplet on Sunday as this wave was able to take advantage of favourable environmental conditions. A modest tropical cyclone has formed, however this feature is expected to be shortlived. Through Monday into Tuesday increasing vertical windshear and ingestion of dry air into the west of the circulation will likely lead to decay of the system into a remnant low.

Expected Impacts

Rough seas, and the potential for some localised flash flooding.



This forecast may be amended at any time

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

Northwestern Pacific

Weather

There is the potential for the development of at least one tropical cyclone in the northwest Pacific this week. One such area of thunderstorms is already showing some signs of organisation, with a further development signalled in this area later in the week. Either development will remain over open seas during this timeframe, with the only threat to land being across the isolated islands of Micronesia and Palau.

Discussion

The northern portion of the ERW couplet that lead to the development of Rita in the southern hemisphere is also acting to organise an area of thunderstorms. As this wave moves into the Philippine Sea it will likely be able to take advantage of favourable environmental conditions and develop into a tropical cyclone. This cyclone would then be steered towards the west, but remain over open ocean during the next week. An additional ERW will likely track into a similar area later in the week, but development of this feature remains uncertain.

Expected Impacts

Rough seas developing, with the risk of heavy rainfall and strong winds for the islands of Micronesia and Palau.



Europe

Greece, Turkey, Cyprus, North Macedonia, Albania and Montenegro

Weather

A spell of heavy rain, severe thunderstorms and locally strong winds will move east across this region between Monday and Wednesday. Gale force winds are likely across the Aegean Sea through Monday. Heavy rainfall during Monday and the following days will possibly bring 100-200mm in some locations, with much of this possibly falling within a few hours. This would represent more than November's average rainfall for some locations.

Discussion

The major trough extension is expected to drive an active front and following heavy showers/thunderstorms across the region in the coming few days. Heavy showers and frequent thunderstorms with MCS development likely along the active frontal system, especially in the across Greece and western Turkey today. Precipitation will be in part modulated by orography, and with WBFL generally above 2500m the main snow risk will be confined to elevations above 2200m (hence only the very highest ground).

Expected Impacts

Increased likelihood of flash flooding causing a danger to life, damage to property and infrastructure. Frequent lightning strikes and large hail are also likely, with a lower risk of tornadoes/waterspouts could also produce localised significant damage.



North America

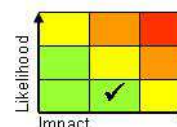
Northwest Mexico

Weather

A spell of heavy and persistent rain looks likely to transfer across this region from the eastern Pacific between Tuesday and Friday, before clearing by the weekend. During this time Many areas in the region may see at least 100mm of rain, with potential for around 500mm of rain over some prone areas, more especially high ground. Although these totals are extreme for November, these represent typical conditions during the wetter summer months.

Discussion

A cut-off upper vortex from the subtropical jet is steered northeast into western Mexico as a marked trough extension occurs in the polar front jet across the eastern Pacific. This will induce the northward extrusion of a tropical plume towards Baja California Sur, almost pulling the ITCZ north in this locality generating heavy and persistent rainfall over this region. Global models highlight some spots of 500mm of rain over higher ground in 48 hours.



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Expected Impacts

Both flash and river flooding is likely, with an increased risk of landslides in steeper terrain.

Central America and Caribbean

Nil significant.

South America

Colombia and northern Ecuador

Weather

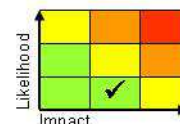
Further heavy showers are expected in this region over the coming week, with activity expected to increase to back above normal levels through next week. 50-100mm is likely to fall in a few places on each day, with the potential for over 300mm in a few spots of the week. This region has been slightly wetter than usual over the past month, and rainfall amounts over the coming week represent around a further month's worth of rainfall for the wettest spots.

Discussion

A combination of continued enhanced convection, and wetter than normal antecedent conditions, has helped to identify this region as the most likely to see impacts. The upper ridge in this region is eroded by upper troughing from an extrusion from the sub-tropical jet across the North Atlantic, this weakness will allow convection to remain above average.

Expected Impacts

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.



Paraguay, northeast Argentina, Uruguay and southern Brazil

Weather

Heavy showers and embedded thunderstorms are likely to develop on Tuesday, and then move northeast across the highlighted region during Wednesday. 40 to 80 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, deep embedded convection, and the potential for discrete supercell storms in the warm sector. As the cold front continues northeastwards on Thursday, it will lose contact with the forcing from the upper trough and thunderstorms become less severe and organised beyond that point.

Expected Impacts

Increased likelihood of flash flooding causing a danger to life, damage to property and infrastructure. Frequent lightning strikes and large hail are also possible, with a lower risk of tornadoes could also produce localised significant damage.



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**Africa****Parts of eastern Africa****Weather**

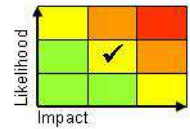
Showers and thunderstorms will be heavier than normal through the next week. The heaviest rainfall is expected to be across the Kenyan Highlands, western Tanzania, Rwanda, Burundi and eastern DRC, plus the coastal Somalia. 200-300 mm of rain could accumulate through the next week (well over a month's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

Discussion

A combination of the MJO moving across East Africa and the positive IOD phase continuing, will promote above-average rainfall across this region in the coming week. In addition to the MJO appears to have spawned two ERW in the western Indian Ocean, with these features moving west into Africa and bringing well above average shower and thunderstorm activity to coastal parts Somalia and Tanzania 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 far south of the area which have been experiencing drought conditions. Frequent lightning is also likely, along with large hail and strong wind gusts.

**Middle East**

Nil significant.

Asia

Nil significant.

Australasia**Parts of eastern and south-eastern Australia****Weather**

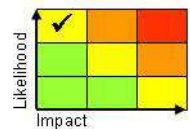
Numerous significant wildfires continue across parts of New South Wales, southeast Queensland, and Victoria as hot and generally dry conditions continue. Temperatures are however coming down across Victoria, whilst further east and north temperatures remain high but with an increasing threat of thunderstorms which could initially ignite further fires. Winds on Tuesday in particular look primed across NSW to promote the rapid development and spread of any showers.

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 will push through much of Victoria and into New South Wales today, producing strong northwesterly winds ahead of this, and then allowing temperatures to fall, and introducing a cooler, eventually more showery airmass.

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**

Nil.

Issued at: 250830 UTC **Meteorologists:** Nick Silkstone / Chris Bulmer

Global Guidance Unit

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