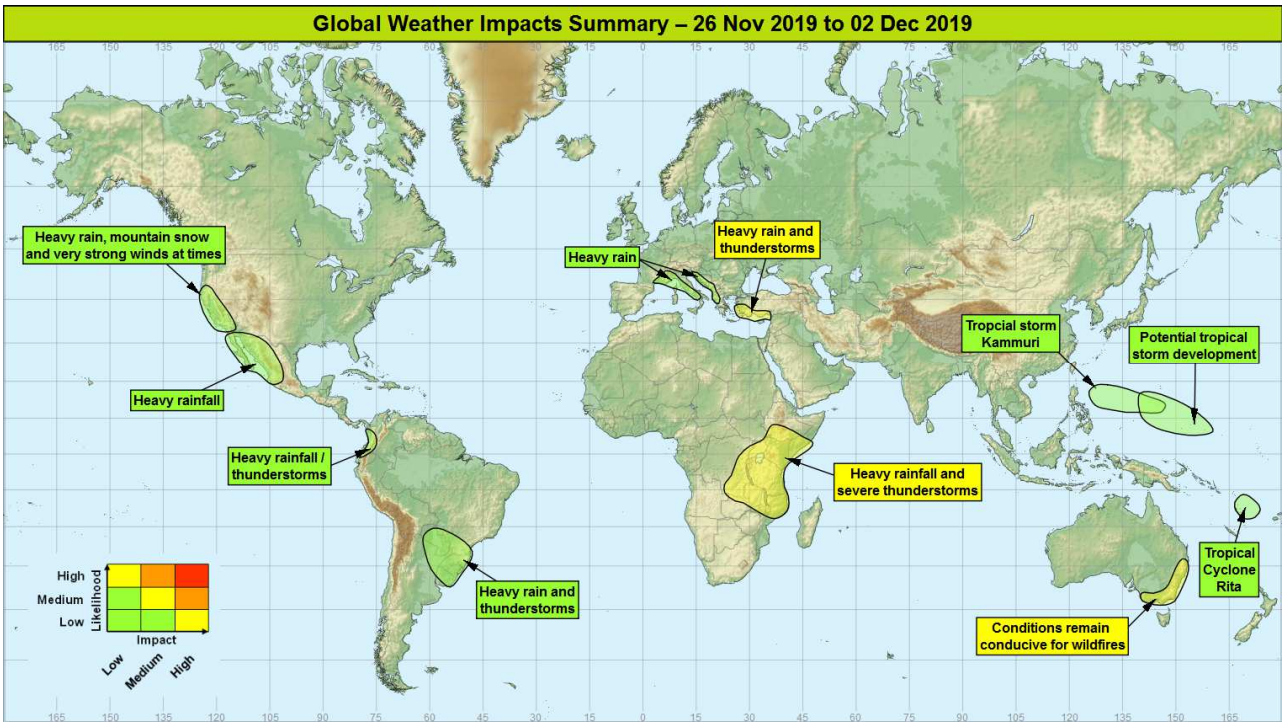
Daily Global Weather Impacts Assessment

Global Weather Impacts – Tuesday 26th November to Monday 2nd December 2019

Issued on Tuesday 26th November 2019

HEADLINES

- Enhanced rainfall over large parts of eastern Africa over the next week.
- Further spells of unsettled weather at times for parts of the Mediterranean over the week.
- Wildfires continue in south-east Australia with environmental conditions remaining conducive to further wildfires.

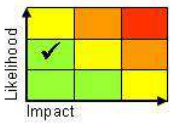


DISCUSSION

Tropical Cyclones

Tropical cyclone Rita

Weather



Tropical cyclone Rita formed over the weekend, and is currently just northeast of Vanuatu. Rita has sustained winds of 55-72 mph. During Tuesday and Wednesday Rita is expected to readily weaken as environmental conditions become much less conducive for it to maintain its strength and integrity. During this time Rita may bring 25-50 mm of rainfall to the northern islands of Vanuatu, but this is nothing exceptional for this region.

Discussion

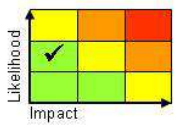
Rita formed from the southern portion of an Equatorial Rossby Wave (ERW) couplet on Sunday as this wave was able to take advantage of favourable environmental conditions. A modest tropical cyclone has formed, however this feature is expected to be short-lived. Through Tuesday increasing vertical windshear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

Expected Impacts

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

Tropical storm Kammuri

Weather



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Tropical storm Kammuri developed well to the east of the Philippines overnight Monday and into Tuesday. It is expected to drift west to north-west through the next week, steadily strengthening as it does so, likely into a strong typhoon, but remaining east of the Philippines until at least early next week. However, this system could produce 200-300 mm of rainfall across the Northern Mariana Islands through the rest of this week, which is the equivalent of the whole November rainfall.

Discussion

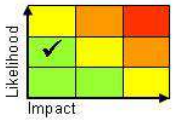
An active area of thunderstorms was disturbed further by a Rossby Wave through Monday, allowing the development of tropical storm Kammuri. Whilst in the time-scale of this forecast document the storm is expected to stay over open water, extended range models do allow Kammuri to pose a significant risk of the Philippines by the middle of next week.

Expected Impacts

Dangerous conditions for marine transport, and a threat of flash flooding in the Northern Mariana Islands.

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

Central Pacific



Weather

A tropical storm may develop to the east of Kammuri late in the week, but is signalled to remain over open waters whilst being generally slow moving.

Discussion

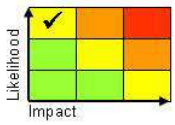
Models suggest the development of a secondary tropical system across the central-western Pacific by the end of the week. Its longevity and intensity are open to a lot of uncertainty, with both potentially being affected by the previous passage of Kammuri mixing colder water to the surface via overturning.

Expected Impacts

Nil, as the system is expected to remain over open water.

Europe

Southwest Turkey



Weather

A spell of heavy rain, severe thunderstorms and locally strong winds will move east across this region today (Tuesday) and Wednesday. Heavy rainfall will possibly bring 100-200mm in some locations, with much of this likely falling within a few hours. This would represent more than November's average rainfall for some locations.

Discussion

A major trough extension will drive an active front and following heavy showers/thunderstorms across the region in the coming few days. Heavy showers and frequent thunderstorms with risk of MCS development likely along the active frontal system. 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.

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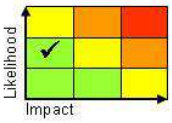
South-east France, northern Corsica, western Italy as well as the western Balkans and north-west Greece



Weather

After a brief lull in the very disturbed weather pattern, further pulses of heavy rain and strong winds are likely to affect these areas from Wednesday. With strong west to south-westerly winds, rainfall will be heaviest on exposed coasts and hills. Whilst most areas will see 20-40 mm through up until the weekend, exposed coasts and hills could see a further 100-150 mm on top of the heavy rain many of these areas have seen in recent days. Furthermore, above about 1500-1800 metres, precipitation will fall as snow, with significant accumulations likely, enhancing avalanche risk.

Discussion

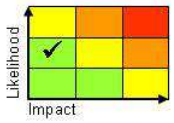
Low-latitude mobility is expected to continue, bringing a series of frontal zones east across these areas. Precipitation will likely be heavily orographically modulated, with areas exposed to the prevailing westerly flow likely to see the largest totals. A recovery in gph toward the weekend should see a gradual improvement from west to east.

Expected Impacts

Flash-flooding, landslides and increased avalanche risk.

North America

California and southern Oregon



Weather

Two periods of very unsettled weather are expected to affect much of western USA through the next week.

The first period will be associated with a very deep depression which will sweep into the Oregon / California border through Tuesday night / Wednesday, bringing storm force winds (coastal gusts to 60-70 mph) along with heavy rain and mountain snowfall, with the rain and mountain snowfall transferring south during Wednesday and Thursday.

The next system will follow this weekend and will produce less in the way of wind, but plenty of rain and mountain snowfall, with the focus being California.

Rainfall accumulations of up to 250 mm are likely across parts of California (at least twice the average monthly rainfall), resulting in very large snowfall in the mountains.

Discussion

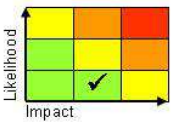
A marked jet left exit will result in explosive cyclogenesis just offshore of southwestern Oregon on Tuesday, resulting in the potential for a record low pressure area moving onshore overnight or into tomorrow.

A lower latitude upper trough is then expected to engage a warm plume to produce an active precipitation bearing system through the weekend.

Expected Impacts

Wind damage is possible through the next few days, with flash flooding and landslides and increasing threat. Mountain snowfall will result in an increased avalanche threat in the Sierra Nevadas and could produce significant transport issues on mountain passes.

Northwest Mexico



Weather

A spell of heavy and persistent rain looks likely to transfer across this region from the eastern Pacific from today (Tuesday) to and Friday, before clearing by the weekend. During this time many areas in the region may see at least 100 mm of rain, with potential for around 500 mm 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 likely to be 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.

This forecast may be amended at any time

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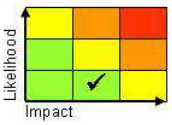
Expected Impacts
Both flash and river flooding is likely, with an increased risk of landslides in steeper terrain.

Central America and Caribbean

Nil significant.

South America

Parts of Colombia and northern Ecuador

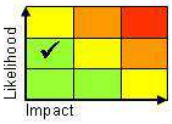


Weather
Further heavy showers are expected in this region over the coming week, with activity expected to increase to back above normal levels through next week. 50-100 mm is likely to fall in a few places on each day, with the potential for over 300 mm in a few spots of the week. This region has been 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 today (Tuesday), and then move northeast across the highlighted region during Wednesday. 40-80 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 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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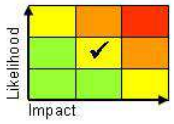
Africa

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 likely. 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

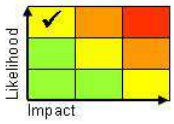
Nil significant.

Asia

Northern Mariana Islands – see *Tropical Cyclones* section

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. Later in the week and into the weekend there is the potential for more rainfall that could help dampen the 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 40s 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.

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Additional Information
Nil.

Issued at: 260745 UTC **Meteorologists:** Jason Kelly/Paul Hutcheon **Global Guidance Unit**

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