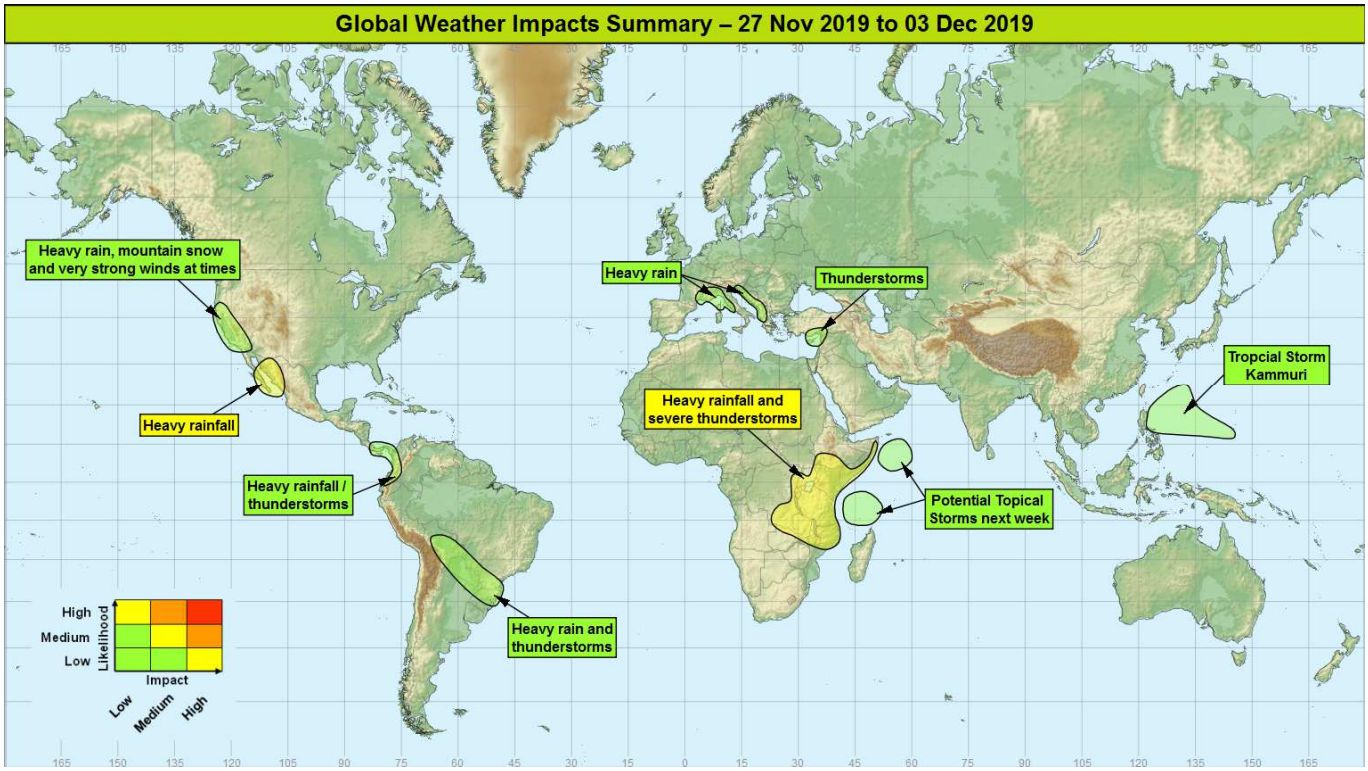
Met Office Daily Global Weather Impacts Assessment

Global Weather Impacts – Wednesday 27th November to Tuesday 3rd December 2019

Issued on Wednesday 27th November 2019

HEADLINES

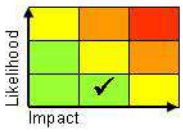
- Enhanced rainfall over large parts of eastern Africa set to continue.
- Further spells of unsettled weather at times for parts of the Mediterranean over the week.
- Potential for flash flooding in Mexico.
- Potential for Kammuri to be a significant typhoon for the Philippines next week.



DISCUSSION

Tropical Cyclones

Severe Tropical Storm Kammuri



Weather

Tropical storm Kammuri currently lies around 200 miles southwest of Guam. Over the next week Kammuri is expected to slowly drift west or northwest. Kammuri looks very likely to intensify into a strong typhoon during this period. Kammuri's most likely track would see it reaching the Philippines during the middle of next week (most likely Tuesday 3rd or Wednesday 4th), potentially bringing significant impacts although this very uncertain at this range. In the shorter term, this system could produce 200-300 mm of rainfall across the Northern Mariana Islands through the week, which is the equivalent of the whole November rainfall.

Discussion

An active area of thunderstorms was disturbed further by an Equatorial 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, although there is considerable spread in ensembles.

Expected Impacts

This forecast may be amended at any time
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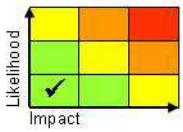
Dangerous conditions for marine transport, and a threat of flash flooding in the Northern Mariana Islands. Increasing risk of flash flooding and damaging, or even destructive winds, for the Philippines next week.

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

Western India Ocean



Weather

From the weekend and into next week there is the potential for tropical storms to form in the west Indian Ocean both north and south of the equator. The more likely area to see development is within an area of convection presently to the north-east of Madagascar. Irrespective of whether tropical storms form, these areas are likely to help enhance rainfall across parts of east Africa (see section below).

Discussion

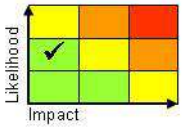
There is a signal from models for development of a Tropical Cyclone to the north-east of Madagascar early next week, with a weaker signal for development east of Somalia. With the MJO now moving east over the Indian Ocean, this is likely to result in westward propagating waves in its wake (ERWs) which may help trigger storm formation. In addition, elevated SSTs due to the ongoing positive IOD will also help favour tropical cyclogenesis in these areas.

Expected Impacts

Nil at this stage although may enhance rainfall over east Africa (see section below).

Europe

South Turkey, Cyprus and northwest Syria



Weather

Severe thunderstorms and locally strong winds will move east across this area today. These bring the potential for 50-100 mm to fall very locally within a few hours which would be the equivalent to over a month's rainfall.

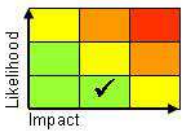
Discussion

A trough will start to relax away to the east allowing conditions to improve although another day of severe thunderstorms is possible in the area highlighted.

Expected Impacts

Increased likelihood of flash flooding. Frequent lightning strikes and large hail are also possible with a lower risk of tornadoes/waterspouts which could also produce localised damage.

Southeast France, Corsica, western Italy as well as the western Balkans and northwest 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 today. 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 weeks. 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.

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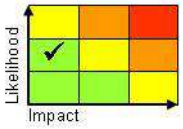
North America

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 now over the Oregon / California border, bringing gale force winds 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.

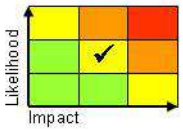
Discussion

A marked jet left exit has resulted in explosive cyclogenesis just offshore of southwestern Oregon on Tuesday, resulting in the potential for a record low pressure area which is now moving onshore. 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 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 200-300 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 300mm of rain over higher ground in 48 hours.

Expected Impacts

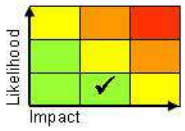
Both flash and river flooding is likely, with an increased risk of landslides in steeper terrain.

Central America and Caribbean

Nil significant.

South America

Parts of Colombia, northern Ecuador and Panama



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.

This forecast may be amended at any time
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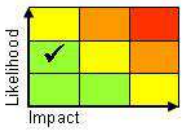
Expected Impacts
Flash and river flooding with landslides possible in mountainous areas. This follows on from a recent wet period across the region with significant river flooding reported over the last couple of weeks.

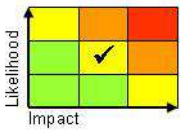
Bolivia, Paraguay, northeast Argentina and southern Brazil



Weather
Heavy showers and thunderstorms will develop again today (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 (including Tuesday) 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.

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 and northern Mozambique. 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. In addition, during next week there is the potential for enhanced heavy rainfall over coastal Somalia and Tanzania and northern Mozambique associated with potential tropical storms.
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. The MJO is likely to spawn further ERW in the western Indian Ocean over the next week or so. These helping to enhanced showers/thunderstorms and could lead to tropical cyclogenesis.
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

Syria – see Europe section

Asia

Northern Mariana Islands and Philippines – see *Tropical Cyclones* section

Australasia

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Nil significant

Additional Information

Australia – Wildfire: Improved conditions are expected over the coming week, especially over eastern parts NSW with spells of rain likely in this area. Based on the latest advice from Bureau of Meteorology the highest bushfire risk (severe) is now over parts of Western Australia.

Issued at: 270810 UTC **Meteorologists:** Chris Bulmer and Mark Sidaway **Global Guidance Unit**

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