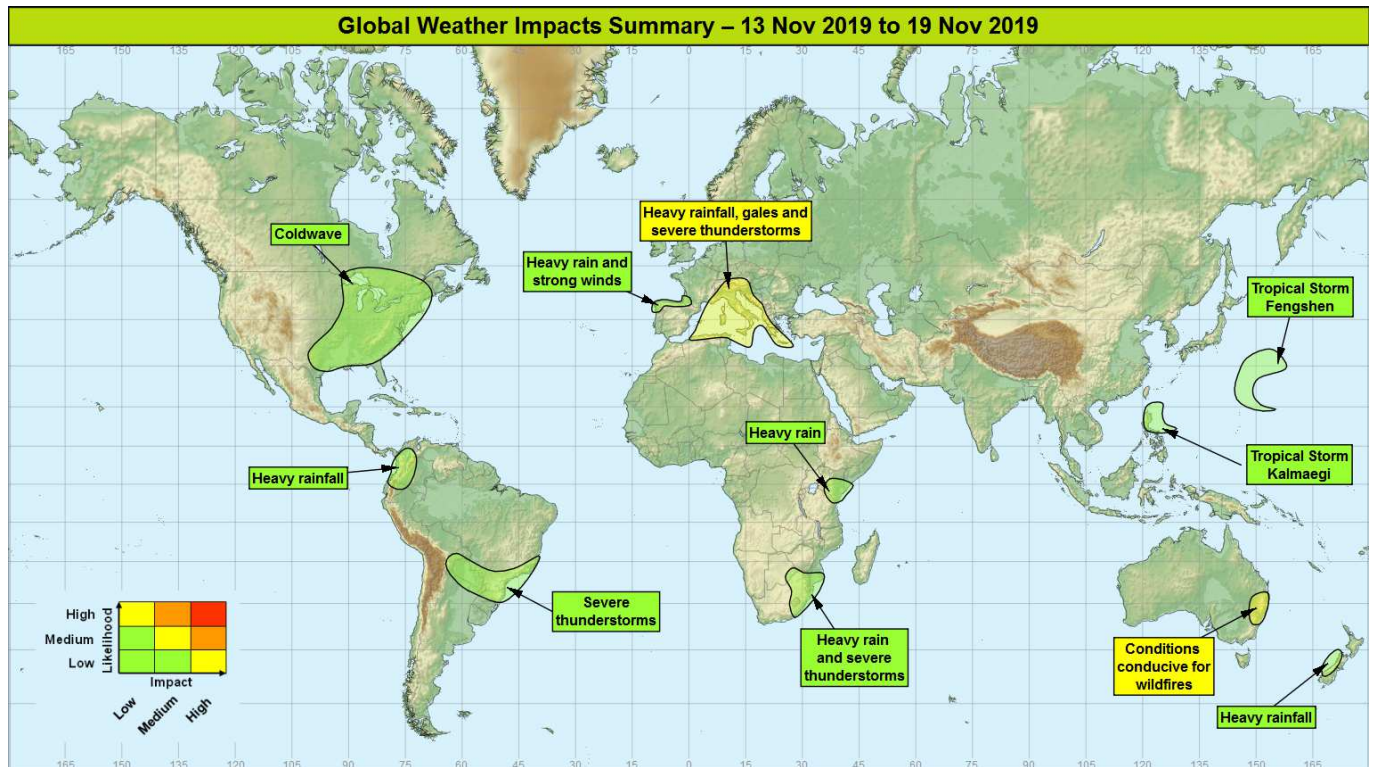


Global Weather Impacts – Wednesday 13th to Tuesday 19th November 2019

Issued on Wednesday 13th November 2019

HEADLINES

- Remaining extremely unsettled around the west and central Mediterranean this week.
- Weather conditions across eastern Australia remain conducive for wildfires.



DISCUSSION

Tropical Cyclones

Tropical Storm Fengshen, Northwest Pacific

Weather

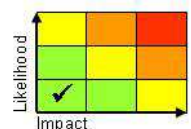
Tropical Storm Fengshen is slowly tracking west over the northwest Pacific. Fengshen will continue west-northwest over the next couple of days and is likely to intensify, perhaps into a typhoon, then pass close to the northern Mariana Islands on Friday. Thereafter Fengshen will re-curve to the northeast and heading out into the open northwest Pacific Ocean where it will decay.

Discussion

A very marked ERW has aided the development of this system. As it tracks west-northwest over the day or so this system is expected to strengthen into a typhoon. However as it approaches the Mariana Islands, increasing south-westerly shear will weaken the system and also steer the system northeast away from land areas.

Expected Impacts

The northern Mariana Islands are unpopulated. However the system could produce some large swells and rough seas around the populated southern islands.

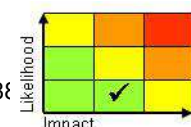


Tropical Storm Kalmaegi, Philippines Sea

This forecast may be amended at any time

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Weather

Tropical Storm Kalmaegi formed overnight on the Philippines Sea and is presently around 500 miles east of Manila. The system is likely to move slowly north-westwards over the coming days, most likely toward north-eastern Luzon by the weekend. Kalmaegi could bring very heavy rainfall to Luzon later in the week with the potential for up to 500mm in some locations, but more likely just to the east of the island. Although some strengthening is expected, it looks unlikely the system will develop into a typhoon during this period so significant impacts from strong winds are not anticipated.

Discussion

Environmental conditions are marginal for further intensification of Kalmaegi, with warm sea surface temperatures offset by strong shear and entrainment of dry air. At this point it is likely to become slow-moving close to the mountainous island of Luzon (northern Philippines), with a large spread in tracks emerging later this week leading to low confidence in amounts of rainfall and likely impacts for Luzon.

Expected Impacts

Potential for flash flooding and landslides. Strong winds and dangerous seas for the north and east coasts of Luzon.

There are no other regions being monitored for tropical cyclone development at this time.

Europe

Italy, the southern Alps, Corsica, Malta, Greece, Crete, western parts of the Balkans, Tunisia and northern Algeria

Weather

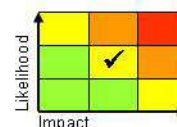
The prolonged very unsettled conditions looks set to continue over the next week with further active weather systems moving across this region bringing further bouts of heavy rain, severe thunderstorms, gale force winds and some lifted dust (from North Africa). The heaviest rain is likely to be focussed on southwest facing high ground of Italy, the southern Alps and the Balkan region where some locations could see as much as 200-300 mm of precipitation over the coming week.

Discussion

A strongly cyclonic upper pattern will dominate through much of the next week leading to a continuation of very unsettled conditions as significant upper forcing engages warm plumes drawn northwards across the region. Upscale growth of thunderstorms into one or more MCS is expected with precipitation modulated by orography and will act as a focus for the heaviest rainfall accumulations.

Expected Impacts

Increased likelihood of flash flooding causing damage to property and infrastructure. Lightning strikes, large hail and tornadoes/waterspouts could also produce localised significant damage. Dangerous marine conditions are also expected in the region. Lifted dust may produce some locally poor air quality. Some significant snowfalls are expected across the Alps, especially towards the end of the week which could disrupt transport. A combination of spring tides and strong southerly winds in the Adriatic Sea resulted in Venice, Italy recording its highest tide since 4th November 1966.



Northern Spain, far north of Portugal and far southwest of France

Weather

Conditions will also remain unsettled across this region at times over the next week with further spells of strong winds and heavy rain/thunderstorms. Up to 150-200 mm of precipitation may accumulate through the 7-day period (falling as snow at times over high ground). These totals are the equivalent to a month's worth of rain in November. Winds will be strong and gusty at times, particularly towards the end of the week with severe gales possible.

Discussion

South-shifted Atlantic mobility and then a marked amplification of the Atlantic pattern will steer a number of active Atlantic systems into south-western Europe through the coming week.

Expected Impacts



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Increased threat of flash and river flooding in association with heavy rain. Risk of landslides in steep terrain, and snow falling down to 600-800 metres above sea level. Strong winds may bring impacts to travel and power supplies later in the week.

North America

Central & eastern USA and south-eastern Canada

Weather

A marked cold air outbreak is now established over eastern parts of North America. The cold will be record breaking in places with temperatures initially 10-15 °C below average before recovering by the end of the week. In areas around the Great Lakes, lake effect snowfall may lead to some significant snowfall accumulations.

Discussion

Air of Canadian arctic origin has followed a marked cold front bringing unseasonably cold conditions here for early to mid-November. A week warm front moving northeast later in the week will help temperatures recover closer to average.

Expected Impacts

Travel disruption is possible, with some significant disruption from snowfall in and around the Great Lakes. Damage to crops in the south is likely due to unusual and harsh overnight frosts this early in the winter season. Increased likelihood of health impacts of vulnerable demographics.



Central America and Caribbean

Nil.

South America

Western Colombia and northern Ecuador

Weather

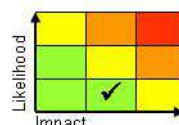
Continued enhanced shower and thunderstorm activity is likely across this region through much of the next week. Up to 100 mm of rainfall is possible each day, with some places seeing as much as 400-500 mm in total by the early part of next week (equivalent to the average November rainfall), although these totals are likely to be very localised.

Discussion

The progression of the MJO (currently in phase 7) has allowed on uptick in convection across equatorial South America over the week. Each day, diurnal heating is able to release deep and energetic convection, leading to slow and locally severe storms each day. Marked upper level divergence is evident across Columbia and Ecuador which will aid the longevity of severe convection across the region.

Expected Impacts

Increased threat of flash and river flooding with landslides increasingly likely 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, southeast Bolivia, northwest Argentina and southeast Brazil

Weather

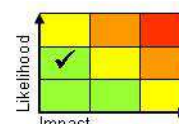
From Wednesday, areas of heavy rain and locally severe thunderstorms are forecast become fairly frequent across this region. Rainfall totals of 50-100 mm in 24 hours are possible in places, with locally frequent lightning, large hail and strong wind gusts being additional hazards.

Discussion

The South Atlantic Convergence Zone will remain active during this period, enhanced by a southward extension of tropical air over central South America engaged by a shortwave trough in the subtropical jet. This will allow a mixture of heavy dynamic precipitation (with some elevated convection elements), and also surface based deep convection. Severe thunderstorms are most probable towards the northeast edge of the zone of convection; these could bring large hail and a strong, gusty wind threat

Expected Impacts

Flash flooding possible, especially if any severe storms affect large urban areas. A threat of property damage from frequent lightning, hail and strong wind gusts.



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Africa

Northern Algeria and Tunisia – See *Europe* section.

South Africa, Lesotho, Eswatini, Botswana and Mozambique**Weather**

Heavy showers and severe thunderstorms are expected to affect this region through much of the next week, producing frequent lightning, large hail and strong, gusty winds. 50-100mm of rain could fall in a day (equivalent to the November average), with some significant totals in a few hours.

Discussion

An upper trough in the sub-tropical jet will disrupt across southern Africa and then edge slowly northeast. As this occurs it will engage the resident high WBPT plume across the southeast of the continent and promote the development of heavy showers and severe thunderstorms through much of the coming week. 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 will likely cause some serious localised issues.

Expected Impacts

Although drought conditions are affecting this region and rainfall in-part welcome, the intensity of rain over a short period will likely cause flash flooding, with a risk of property damage from frequent lightning, large hail and strong wind gusts.

**East Africa, including parts of Somalia, Kenya and Tanzania****Weather**

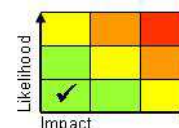
Rainfall across this region is likely to be around or drier than average over the coming days. That said it is possible parts of Kenya mainly will see a further 100-150 mm of rainfall in places. The recent wet weather in this region will make it highly susceptible to impacts from any additional rainfall.

Discussion

The strong Indian Ocean Dipole is beginning to slowly abate, but is likely to take several weeks to do so. Over the next few days the effects of this are likely offset by other drivers. In the longer term (in a week or so) the progression of the MJO, currently in Phase 7, will likely see a return of above average rainfall across the region.

Expected Impacts

Both flash and some minor river flooding is possible over the coming week, with an enhanced risk of landslides in regions where the terrain is steep.

**Middle East**

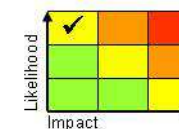
Nil.

Asia

Philippines and Mariana Islands – See *Tropical Cyclone* section.

Australasia**Parts of eastern Australia****Weather**

Numerous wildfires are already affecting parts of New South Wales and Queensland, between Sydney and Brisbane. With no significant rainfall expected through the next few days, along with likely strong wind events at times, the wildfire threat will remain very high in the region.

Discussion

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This early season wildfire event has already claimed a number of lives, with good model agreement for dry and at times windy conditions to continue through the next week. Friday in particular looks to be high impact in this region, when high temperatures and likely to combine with strong and dry north-westerly winds promoting the rapid development and expansion of fires.

Expected Impacts

Fires will bring a danger to life and environmental damage across a wide area. Smoke could bring poor air quality to densely populated urban centres, with a risk of some impacts in the Sydney region possible this week.

New Zealand

Weather

Successive bands of heavy rain and strong winds will move east across New Zealand from Thursday, the most unsettled conditions focused on the South Island. Over the course of 3 or 4 days 100-150 mm will build up quite widely on western parts of the Southern Alps with more isolated totals of 300-400 mm possible. Whilst these amounts of rainfall are not particularly unusual in these areas this follows on from a wet period making impacts more likely.

Discussion

A mobile pattern will see a succession of active frontal zones run east across New Zealand maintain unsettled conditions. As is normally the case, orographic enhancement of rainfall over western parts of the Southern Alps will see high rainfall totals build up here.

Expected Impacts

Increased threat of flooding and landslides which could primarily cause transport disruption.



Additional Information

Nil.

Issued at: 120830 UTC **Meteorologists:** Chris Bulmer / Mark Sidaway

Global Guidance Unit

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