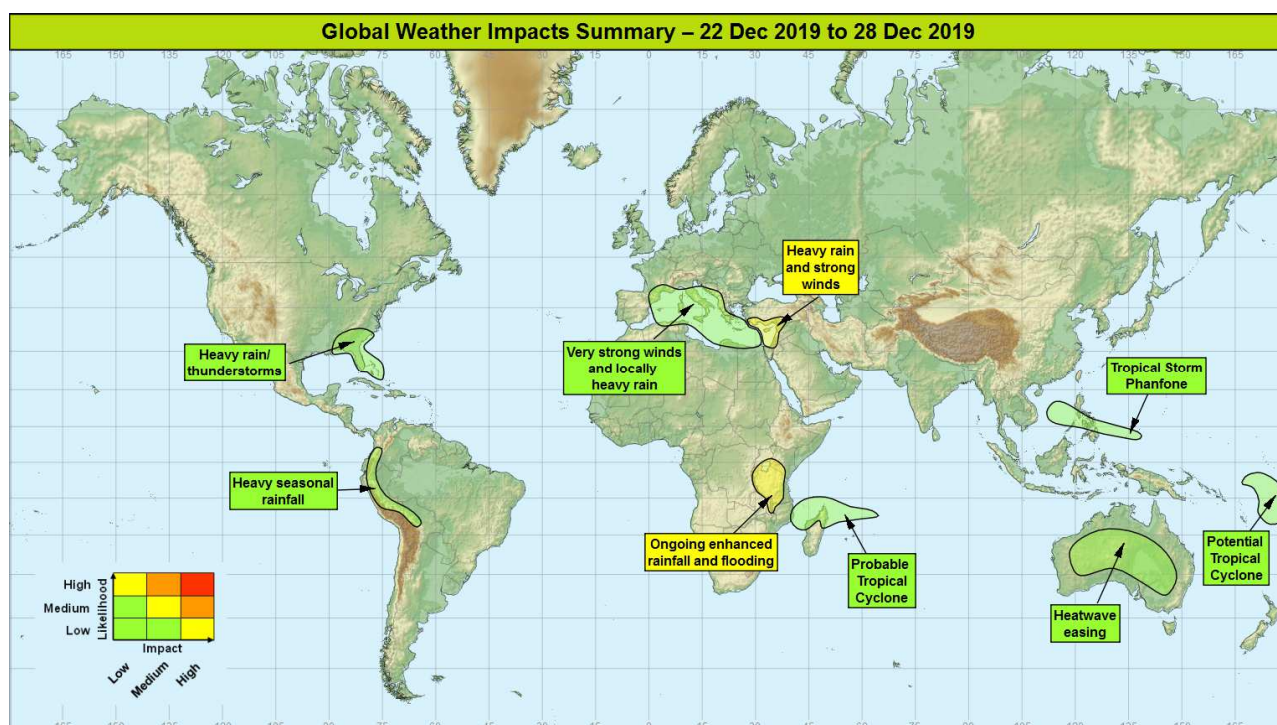


Global Weather Impacts – Sunday 22nd to Saturday 28th December 2019

Issued on Sunday 22nd December 2019

HEADLINES

- Remaining unsettled across the Mediterranean, with further strong winds and heavy rain.
- Above average rainfall and flooding continues across parts of eastern Africa.
- Risk of several significant tropical cyclones this coming week, particular concern for the potential system in the southwest Indian Ocean.



DISCUSSION

Tropical Cyclones

Philippine Sea: Tropical Storm Phanfone

Weather

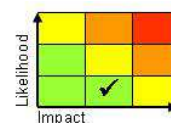
A region of enhanced thunderstorms over the southern Philippine Sea has become better organised on Sunday morning and has been named Phanfone by the Japanese Met Agency. Phanfone is forecast to deepen and move E to reach the central Philippines by Tuesday as Severe Tropical Storm, and perhaps a Typhoon. Here it could bring 100-200mm of rainfall, in addition to strong winds. Thereafter this system will likely track west-northwest into the South China Sea, where it will likely become slow moving for a time.

Discussion

One clear Equatorial Rossby Wave (ERW) has seen convection blossom and become organised around it over the past 24 hours. Satellite imagery shows a circulation has already formed, and this became Tropical Storm Phanfone this morning. This system will deepen due to shear and favourable sea surface temperatures and will be steered quickly north-northwestwards towards the central Philippines by Tuesday, with high confidence in forecast track.

Expected Impacts

Potential for torrential rainfall, flash flooding, and enhancing the risk of landslides. Strong winds may damage some poorly built structures and hinder travel (especially marine).



This forecast may be amended at any time

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The following areas are being monitored for potential development:

Southwest Indian Ocean

Weather

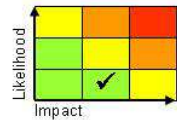
An area of thunderstorms in the southwest Indian Ocean may develop into a weak tropical cyclone as they are steered west and likely to reach northern Madagascar early next week. Regardless of development heavy rainfall is expected across northern Madagascar with 125-250mm possible by the middle of next week. Thereafter the system is signalled to be steered southwest into the Mozambique Channel; here there are signals it could develop into a strong storm.

Discussion

An Equatorial Rossby Wave (ERW) is organising thunderstorms, with this cluster being steered west by the prevailing trade winds. As this occurs some gradual development, due to dry air and moderate wind shear initially tapering development. However if this system is able to pass northern Mozambique and move into the Mozambique Channel later this week, here conditions are signalled to be excellent for development of a strong cyclone, aided by the above average sea surface temperatures associated with the positive Indian Ocean Dipole. This system will have to be monitored carefully over the coming days.

Expected Impacts

Over the next 5 days flash flooding and an enhanced risk of landslides for northern Madagascar. Thereafter the potential for strong destructive winds, large waves and very heavy rainfall to cause a multitude of hazards in and around the Mozambique Channel.



Southwest Pacific

Weather

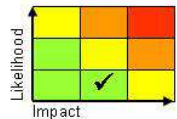
An area of enhanced thunderstorm activity close to the equator is expected to slowly drift southeast over the coming week. As this occurs a tropical cyclone may form in this region, also over the next 7 days any system would remain across the open southwest Pacific Ocean.

Discussion

A Kelvin Wave moving east towards the dateline will likely spawn a pair of ERW over the coming days. The wave in the southwest Pacific will come to sit in an area favourable for development of a tropical cyclone. Over the next 7 days this feature will likely remain offshore.

Expected Impacts

Locally strong winds and rough seas over a portion of the southwest Pacific.



Europe

Central Med and many adjacent countries

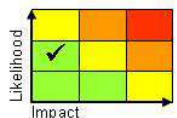
Weather

An area of very strong winds will push east across the region through Sunday and Monday with mean wind speeds reaching 40-50 mph over sea areas, and locally stronger over exposed land areas. In addition to the wind heavy rainfall will affect parts of southern Italy, the southwestern Balkans, and western Greece. Perhaps some prone locations could see 75-150 mm of rainfall fall in 24-36 hours. Where the strong winds fringe northern Africa they are likely to lift some dense areas of sand and dust, with these perhaps being drawn northeast into parts of southeast Europe.

Discussion

A strong and south-shifted Atlantic jet stream will produce a squeeze in pressure that transits east across the central Mediterranean over the next couple of days. This feature will also engage a WBPT plume, which in part will aid the squeeze in the winds, and lead to some heavy rainfall.

Expected Impacts



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Strong winds are likely to cause disruption to travel and some property/infrastructure damage. Large waves bring the potential for dangerous sea conditions across the central Med. Rainfall may lead to some flash flooding in the areas highlighted. Lifted dust and sand, may cause travel and air quality issues.

Eastern Mediterranean, Cyprus, Turkey, Syria, Lebanon and Israel

Weather

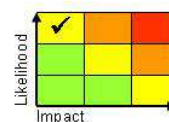
The disturbed weather across the central Mediterranean on preceding days, will reach this region through Monday into Tuesday. Here, however, the heavy rain and thunderstorms will likely become longer lived, not clearing the region until late next week, by which time 150-300mm of rainfall could have fallen in some spots. As a result of the event being of a longer duration in this area, and these areas generally being more arid than those further west, the chance of impacts is judged to be higher.

Discussion

The strong south-shifted jet will amplify a trough extension taking place just to the west of this region early next week. This will lead to a slowly evolving pattern with 3-4 days of fairly frequent shower and thunderstorm activity. Only late next week when the trough begins to edge away to the east will conditions become more benign in this zone.

Expected Impacts

Flash-flooding and an enhanced risk of landslides are likely. Strong winds will also likely impact transport and damage some poorly constructed structures. From midweek snowfall will likely be seen across the higher mountains in the region.



North America

Southeast United States, Bahamas and Cuba

Weather

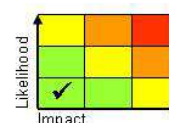
Heavy rain and thunderstorms are expected to affect the area through the next 2 to 3 days, bringing 40-80mm of rainfall fairly widely, and perhaps as much as 150mm for parts of Florida. The storms will also affect the Bahamas on Monday and Tuesday. As much of the rainfall will be in the form of heavy showers and thunderstorm, perhaps large amounts of precipitation is likely to fall in a short duration.

Discussion

Ongoing heavy showers and thunderstorms will remain active as a mid-latitude cut-off upper trough is steered slowly southeast across the area. This will likely lead to the development of a low close to northwest Florida on Sunday, that gradually transfers east across the Atlantic by Tuesday. This feature is expected to show virtually no tropical characteristics.

Expected Impacts

Flash flooding is likely, especially in urban areas.



Central America

Nil

South America

Ecuador, western Colombia, Peru and Bolivia

Weather

Frequent heavy showers and thunderstorms will affect these regions through the next 7 days, with the showers each day bringing 50-75mm in just a few hours, with some locations receiving over 200mm (around the December average rainfall). As is the nature of showers, spatial coverage on any one day will be highly variable.

Discussion



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With the South American Monsoon now extending well southward, daily rounds of showers and thunderstorms are expected to form to the west of the Andes of Colombia and Ecuador, and to the east of the Andes further south. The region highlighted has seen above average rainfall during the past weeks, and is also forecast to receive the highest rainfall totals.

Expected Impacts

Flash flooding likely, with increased likelihood of landslides.

Africa

Parts of eastern/central Africa

Weather

Continued heavy showers and thunderstorms associated with the seasonal rains are expected to be heavier than normal in the coming 3 to 5 days, with a further 100-150 mm of rain falling in places. This is close to the average rainfall in this region for the whole of December, with this area having already seen 200-400% of the usual rainfall over the past few weeks. Whilst the area affected and severity of showers and thunderstorms is beginning to ease, further heavy showers and antecedent conditions mean further impacts are likely.

Discussion

Enhanced seasonal rainfall in association with the strong positive Indian Ocean Dipole event which, although declining, is still influencing the large scale shower distribution. Large tracts of eastern Africa have seen well above average rainfall over the past few months. The combination of all these factors dramatically increases the likelihood of further flash and river flooding along with further deadly landslides. There are signs that the area of enhanced rainfall is slowly waning, with totals offered by extended models also slowly reducing.

Expected Impacts

A continued increased threat of flash flooding and landslides in the region, with further river flooding likely.



Madagascar and Mozambique Channel

Weather

See *Tropical Storms* section above.

Middle East

Western Levant

See *Europe* section.

Asia

Philippines

Weather

See *Tropical Storms* section above.

Australasia

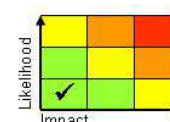
Parts of central/southern Australia

Weather

Following the recent extreme heatwave experienced across much of Australia, conditions are now beginning to cool towards near normal across the majority of the large population centres around the coasts. The heatwave will become displaced to the centre of the continent, where it is still possible that some all time station maximum temperature records could be broken.

Discussion

Temperatures have now reduced across the main population centres as a weak cold front has pushed inland across southern Australia and the high that has built with the cold advection in its wake generating a cooling onshore breeze across eastern New South Wales. The hot air will remain across the continent, but has been displaced away from the main population centres.



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Daily Global Weather Impacts Assessment

Expected Impacts

Continued enhanced risk of bushfires.

Fiji

Weather

See *Tropical Storms* section above.

Additional Information

Southern and eastern Australia

Numerous bush fires continue across parts of Victoria, eastern New South Wales, Queensland and Australian Capital Territory with dry conditions persisting for most of next week, some showers are likely across northeastern New South Wales and eastern Queensland over the next week. Whilst fire weather conditions have improved relative to recent days, the sheer size of many ongoing fires will continue to produce large amounts of small particulates that will contribute to very poor air quality for several weeks to come.

Issued at: 220530 UTC **Meteorologists:** Nick Silkstone / Chris Tubbs

Global Guidance Unit

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