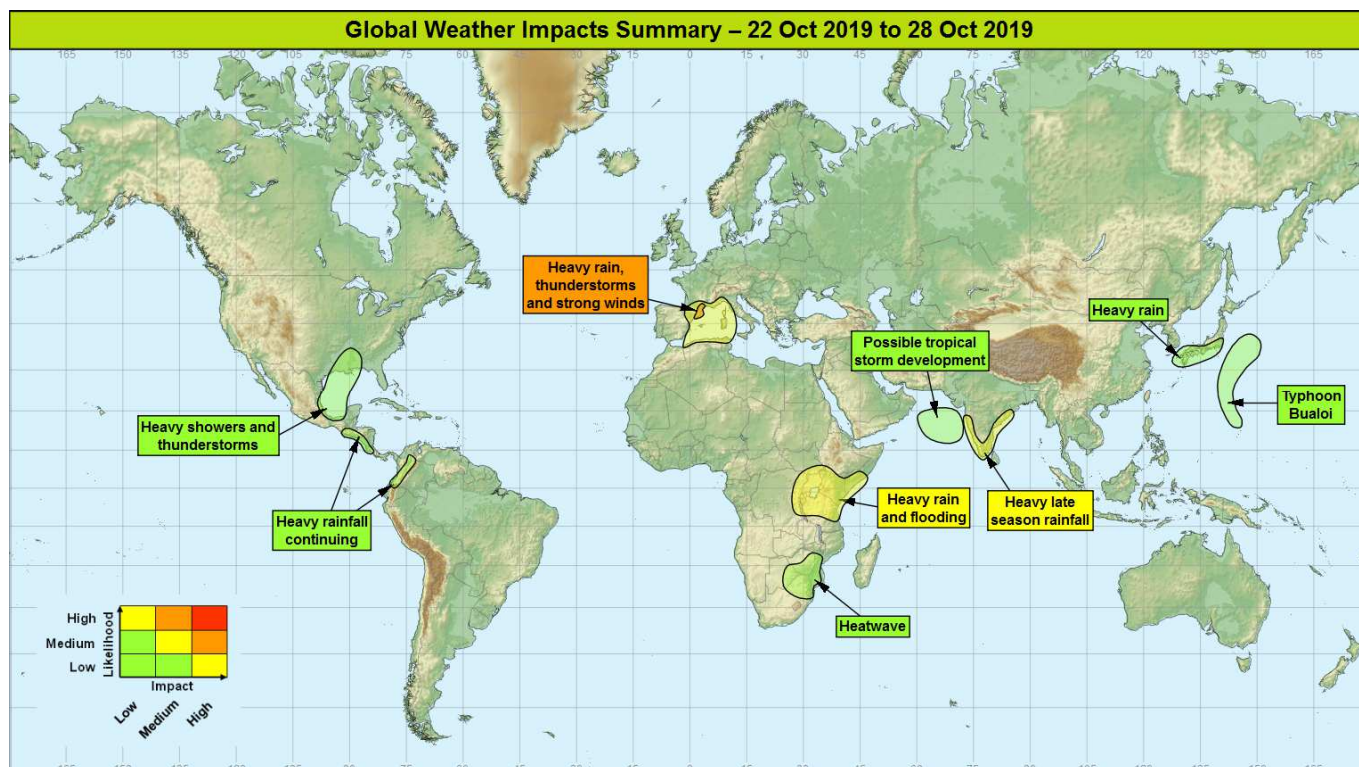


Global Weather Impacts – Tuesday 22nd to Monday 28th October 2019

Issued on Tuesday 22nd October 2019

HEADLINES

- Heavy rain and severe thunderstorms affecting southwest Europe, particularly northeast Spain and southern France over the next couple of days.
- Heavy end-of-season monsoon rainfall affecting southern India.
- Above average rainfall continuing across parts of East Africa.



DISCUSSION

Tropical Cyclones

Typhoon Bualoi (Northwest Pacific)

Weather

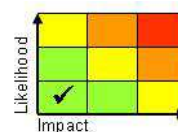
Typhoon Bualoi was located around 1200 miles south of Tokyo on Tuesday morning having passed across the Mariana Islands on Monday night. Bualoi is expected to begin turning towards the northeast through midweek and remain clear of Japan.

Discussion

Bualoi remains in an environment conducive to further strengthening over the next day or two as it moves away from the Mariana Islands. However, there is high model confidence in the system not impacting mainland Japan due to the presence of a strong westerly jet over Honshu which will steer the system towards the east of the country by Friday.

Expected Impacts

Heavy rain, rough seas and damaging winds affecting the Mariana Islands should soon decrease.



The following area is being monitored for tropical storm development that may affect land in the next 7 days:

This forecast may be amended at any time

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Arabian Sea

Weather

A slack area of low pressure is expected to develop during the week across the Arabian Sea, and there are some signals that this could develop into a tropical storm towards the weekend. However, there is a lot of uncertainty over track of any subsequent development.

Discussion

An equatorial Rossby wave is expected to engage the western portion of the retreating SAM leading to the development of a tropical low. Should a system develop, it will be in an environment conducive to further strengthening. Indeed, a significant minority of ensemble members, as well as deterministic models develop a major tropical storm, though there is huge spread with respect to track and timing of any development.

Expected Impacts

Uncertain, due to large spread in possible storm tracks, though heavy rain, strong winds and rough seas could be expected from any development.



Europe

Western Mediterranean

Weather

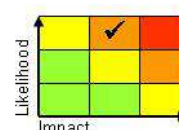
Further episodes of heavy rain and thunderstorms are expected to affect the region through the remainder of the week. Through Tuesday and Wednesday, the area most at risk is northeast Spain, the Balearics and southern France. The coastal region from Barcelona to Montpellier appears to be at greatest risk of seeing event totals widely of 50-100 mm locally 300-400 mm. Thereafter, the focus transfers slowly east into northwest Italy, Corsica and Sardinia on Thursday and then move south to include Algeria and Tunisia on Friday and the weekend. Here, event rainfall totals are likely to be lower but potential still exists for 100-200 mm to fall in 24 hours. Some thunderstorms are likely to be severe producing a combination of large hail, frequent lightning and a few tornadoes in addition to heavy rain.

Discussion

A disrupting upper trough forming a slow-moving cut-off low over Iberia is expected to engage a warm plume being drawn from northwest Africa over the next several days. This plume is expected to remain near-stationary over the next 36 hours before slowly migrating east and eventually south through the remainder of the week. Forecast profiles support upscale growth of thunderstorms into one or more MCSs with backbuilding likely along the coast acting to enhance rainfall here.

Expected Impacts

Flash flooding, with frequent lightning, hail and very strong winds causing damage to property and infrastructure, as well as travel disruption for aviation, and marine transport due to rough seas. Landslides are also possible in areas of more steeply sided terrain.



North America

Southern USA and eastern Mexico

Weather

An area of heavy showers and thunderstorms is expected to develop through midweek over the southwest Gulf of Mexico and move slowly north towards the USA coast, including the states of Louisiana to the Florida Panhandle by the weekend. Many areas are likely to see 75-150 mm of rainfall, locally 250 mm during this period.

Discussion

A tropical wave is expected to track across the Yucatan Peninsula into the Gulf of Mexico with heavy showers and thunderstorms affecting adjoining coastal regions. There is a very small chance of tropical cyclone development but irrespective of development, the wave is expected to be drawn northeast within the developing southwesterly upper flow towards the weekend bringing further heavy rain to portions of the Deep South.

Expected Impacts

Flash flooding resulting in some damage to property and infrastructure as well as landslides in areas of more steeply sided terrain.



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Central America and Caribbean

Guatemala, El Salvador and Nicaragua

Weather

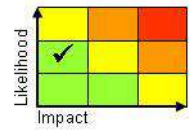
Above average rainfall is expected to continue affecting the western coastline of Central America from Guatemala to Nicaragua. Some locations are likely to receive a further 75-125 mm of rain over the next week and follows a period of above average rainfall with increased susceptibility to further impacts from flooding.

Discussion

Tropical waves, many of which with origins from Africa, are expected to maintain the likelihood of further episodes of heavy showers and thunderstorms. Above average rainfall has affected this region over the past month with some locations receiving 300% of the monthly average.

Expected Impacts

Continuation of flooding impacts is likely across the region with more mountainous areas at heightened risk of landslides due to saturated ground.



South America

Western Colombia and northern Ecuador

Weather

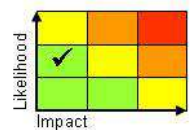
Further frequent heavy showers and thunderstorms are expected over northwestern parts of South America over the coming week. This follows a period of above average rainfall over the past month with some locations recording double their October rainfall. Over the next week, much of the area is likely to receive a further 75-125 mm of rain, locally 250-300 mm.

Discussion

Whilst AEW activity is reducing there is a consistent signal for an enhanced westerly flow near the Pacific coast of Columbia and Ecuador. This combined with slightly above average SSTs will help focus frequent heavy showers and thunderstorms over coastal areas and nearby mountains.

Expected Impacts

Continuation of flooding impacts is likely across the region with more mountainous areas at heightened risk of landslides due to saturated ground.



Africa

Parts of East Africa

Weather

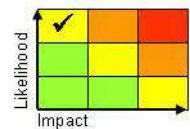
Above average rainfall is expected to continue through the next 7 days across the region with frequent heavy showers and thunderstorms. Whilst rainfall amounts will inevitably vary from place to place, some locations may receive their entire average October rainfall in a few hours.

Discussion

A strong positive Indian Ocean Dipole (IOD) event continues. This is probably responsible for the above average rainfall signal in these areas over the coming week. Based on the strength of the positive IOD event (largest since at least 2001) this could lead to above average rainfall in these areas for the next 2 to 3 months which may gradually make impacts more likely.

Expected Impacts

Continued increased likelihood of flash flooding along with land/mudslides in areas of more steeply-sided terrain.

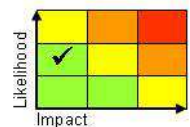


South Africa, Eswatini, Botswana, Zimbabwe and Mozambique

Weather

Temperatures are widely some 5-10, locally 15°C above average across parts of southern Africa. Whilst temperatures will fall back closer to average over the next couple of days, by Thursday the heatwave is expected to resume. Within the area highlighted maximum temperatures are expected to exceed 35°C, and in some places 40°C (especially northeast South Africa, south Mozambique, south Zimbabwe and eastern Botswana), over the next week. Whilst these temperatures are normal for mid-summer, falling this early in the season makes it near record breaking, particularly over parts of South Africa.

Discussion



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The IOD is causing excessive rain to fall in east Africa close to the equator, and keeping the weather dry, hot and sunny in much of SE Africa, especially the northeast of South Africa. With light winds this will make the heat feel quite oppressive.

Expected Impacts

Utilities will be under strain due to high air conditioning requirements, and water demands will be high in a region still waiting for the first rains of the spring/summer season. Increased potential for health impacts for vulnerable demographics. Severe wildfire conditions will be present across large tracts of this area too.

Middle East

Nil.

Asia

Southern India **Weather**

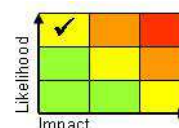
Whilst the monsoon is now retreating across India, above average shower and thunderstorm activity is expected to continue across the southern half of the country through this week. Many locations are likely to receive a further 100-200 mm of rain during this time with the highest accumulations likely over Karnataka, Kerala and Tamil Nadu.

Discussion

Whilst the South Asian Monsoon commenced its withdrawal some 49 days later than normal across northwest India the retreat has accelerated over the past week. That said, above average rainfall compared to a usual withdrawal is expected over the coming 7 days, this perhaps a function of the MJO emerging from the lower frequency IOD event.

Expected Impacts

Increased likelihood of surface water and river flooding along with land/mudslides in areas of more steeply-sided terrain. Coming at the end of the monsoon season this event will contribute to increased sensitivity.



Southern Japan

Weather

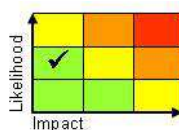
A spell of heavy rain is expected to move northeast across the southern half of Japan from Wednesday through Friday, including areas impacted by Typhoon Hagibis earlier in the month. A further 100-200 mm of rainfall could fall across southern portions of Honshu in a 24-36 hour period.

Discussion

Subtropical moisture is expected to be again drawn north towards Japan through midweek ahead of a series of upper troughs which are expected to support an area of heavy rain which will run eastward over the following days. Whilst Typhoon Bualoi is expected to remain away from land, its passage is expected to provide a continued supply of moisture into Honshu as the system clears east on Friday.

Expected Impacts

Increased sensitivity following the passage of Typhoon Hagibis is likely to lead to greater impacts than otherwise expected. Flash flooding and renewed river flooding are possible, in addition to landslides in areas of more steeply-sided terrain.



Australasia

Nil.

Additional Information

Nil.

Issued at: 220715 UTC **Meteorologists:** Matthew Lehnert and Chris Bulmer **Global Guidance Unit**

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