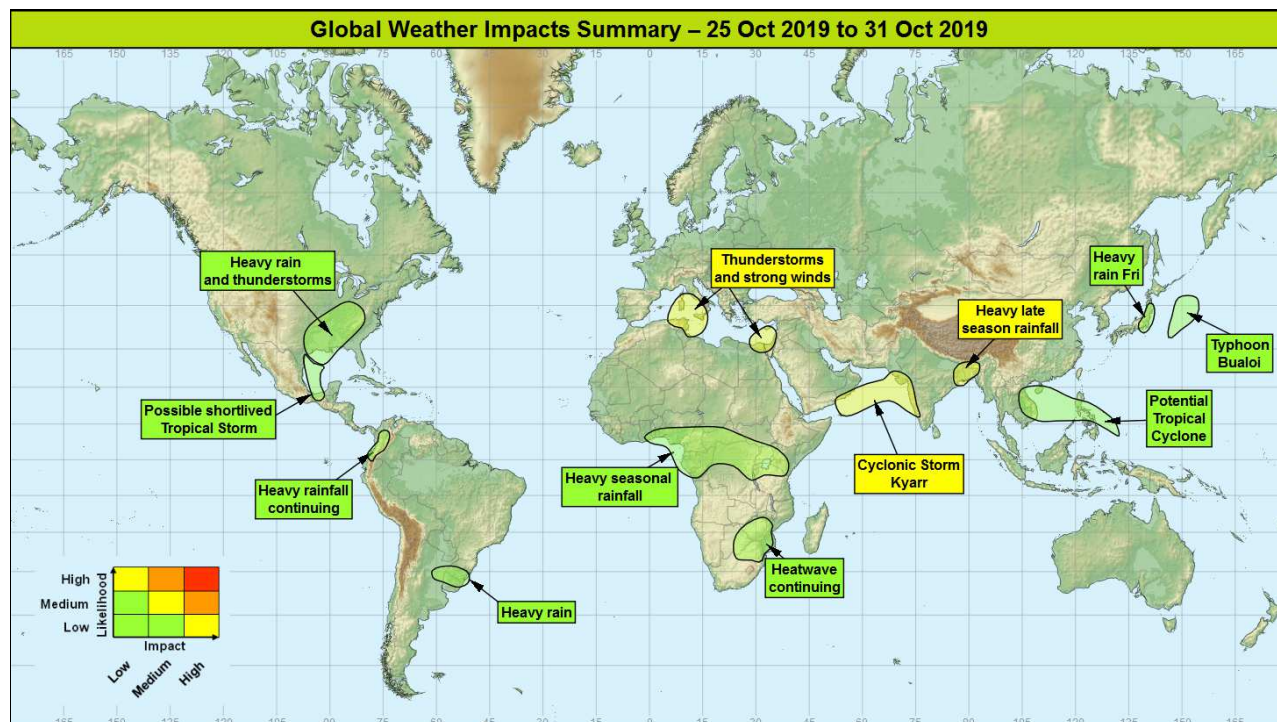


Global Weather Impacts – Friday 25th to Thursday 31st October 2019

Issued on Friday 25th October 2019

HEADLINES

- Remaining very unsettled across parts of the Mediterranean with further flash flooding possible.
- Heavy late season rainfall in parts of India and Bangladesh.
- Cyclonic Storm Kyarr has developed in the Arabian Sea, most probable track towards Oman.



DISCUSSION

Tropical Cyclones

Typhoon Bualoi (Northwest Pacific)

Weather

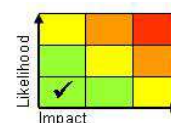
Typhoon Bualoi was located around 300 miles east of Tokyo on Friday morning. There remains a consistent signal for Bualoi to track north and then northeastwards and weaken over the coming days, staying well east of Japan.

Discussion

As Bualoi moves north it will encounter increased vertical wind shear and lowering SSTs will result in the system gradually weakening. Whilst there is still some uncertainty in its exact track, all output suggests Bualoi is very unlikely to make significant landfall.

Expected Impacts

Dangerous maritime conditions (large waves and rough seas) in the vicinity of Bualoi.



This forecast may be amended at any time

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Cyclonic Storm Kyarr

Weather

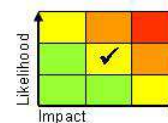
A slack area of low pressure developed into a tropical cyclone overnight. The most likely track of the system is westwards away from India and towards the south coast of Oman and Yemen later next week, probably strengthening into an intense cyclone. There remains a much lower probability of the development turning east and making landfall over India (Gujarat) early next week. Irrespective of whether a tropical cyclone forms or not, very heavy rainfall is expected along parts of the west Indian coastline with up to 400 mm possible in places over the next few days. Hurricane force winds and dangerous seas are likely to develop across the Arabian Sea.

Discussion

An equatorial Rossby wave has engaged the western portion of the retreating South Asian Monsoon leading to the development of a tropical low. The system looks to be in an area favourable for further intensification although the depression's proximity to the coast initially may complicate its development. There is now a much smaller model / ensemble spread in its track and intensity by early next week, with a growing trend for it to slowly track west over the Arabian Sea although a minority of solutions have landfall over India (e.g. 24/12Z GM).

Expected Impacts

Flash and river flooding possible in western India, including Mumbai. If a cyclone forms wind damage and dangerous marine conditions are also likely. If the cyclone takes its most probable westerly track, damaging winds and heavy rain may bring flooding to Oman and Yemen in the middle of next week.



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

Central Philippines and South China Sea

Weather

A tropical cyclone may develop just east of the Philippines later this weekend or early next week, likely tracking steadily westwards across the central Philippines during the early part of next week. This system will likely bring around 250 mm of rain in 24 hours during its transit across the central Philippines, which is close to the average October rainfall. Through the rest of next week this system could strengthen as it tracks west across the South China Sea towards Vietnam. If this system develops it would be named 'Matmo'.

Discussion

There is growing model evidence for the development of an Equatorial Rossby Wave in the West Pacific as it approaches the Philippines later this weekend, with reasonably good model agreement for a track across the Philippines and strengthening across the South China Sea.

Expected Impacts

Flash flooding and landslides are the most likely impacts for the Philippines, with increasingly dangerous marine conditions likely in the South China Sea next week.



Western Gulf of Mexico

Weather

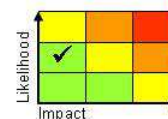
An area of thunderstorms located over the western Gulf of Mexico has a short period to organise into a weak tropical or sub-tropical cyclone, before being subsumed by mid-latitude flow. Regardless of development this area of storms will likely produce rainfall totals of up to 250 mm across parts of southern Mexico and US Gulf coastline. October is the wettest month of the year in this part of Mexico, with the average rainfall around 300-400 mm.

Discussion

The combination of an African Easterly Wave (AEW), slow moving cold front and upper vortex will produce conditions for deep convection at times through the next 24 hours across southern Mexico, and the US Gulf coastline. There remains a chance that a short-lived and weak tropical storm may form in this zone.

Expected Impacts

Flash flooding and landslides look like the most likely impacts.



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Europe

Western Mediterranean

Weather

Severe thunderstorms will continue to impact parts of the area over the coming days although any impacts should tend to become more isolated. The focus of severe thunderstorms will tend to shift to the coasts of Algeria and Tunisia as well as Sardinia, Sicily and Malta. There remains the potential for 50-100 mm of rain to fall within a few hours in places. Frequent lightning and large hail will be additional hazards and whilst strong winds are unlikely to be disruptive across much of the area there is a risk of isolated tornadoes. Conditions should tend to improve early next week.

Discussion

A cut off upper low will remain slow moving across these areas over the coming days, continuing to engage a marked low level WBPT plume although this will continue to gradually occlude with thunderstorms gradually becoming less severe and organised.

Expected Impacts

A continued threat of flash flooding but impacts probably less severe than observed over recent days. Frequent lightning, large hail and very strong winds possibly causing damage to property and infrastructure, as well as travel disruption. Landslides are also possible in areas of more steeply sided terrain.



Eastern Mediterranean

Weather

Heavy showers and thunderstorms have become more organised over parts of the eastern Mediterranean, affecting some adjacent coasts. Over the next day or so 50-100mm of rain could fall in places over short period and thunderstorms will also bring frequent lightning and gusty winds. There is also the potential for unusually strong winds to form more widely with gusts of 40-50mph possible in coastal areas (particularly north Egypt and Israel).

Discussion

A circulation has formed over the eastern Med with convection becoming more organised. This has some similar characteristics to a sub-tropical low; warm cored and fairly symmetrical in structure meaning if it develops further it could be describe as a 'Medicane'. The low should weaken significantly once it moves inland over the weekend. 'Medicanes' typical form to the west of Crete highlighting how unusual this formation is.

Expected Impacts

Flash flooding looks like the main impact. Strong winds and rough seas will likely impact the transport network and perhaps also damage temporary or poorly built structures.



North America

Central and eastern USA

Weather

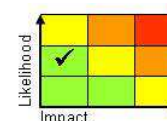
An area of heavy showers and thunderstorms (associated with the potential tropical cyclone development) will arrive across some southern US States late Friday, and then extend north and east through the weekend, before clearing east into the Atlantic early next week. Up to 200 mm of rain could fall in 24 hours (twice the average October rainfall), with frequent lightning and large hail possible.

Discussion

An extending upper trough from the Rockies will engage a low latitude warm plume (including potential tropical cyclone remnants) to produce an increasingly active frontal wave that will track northeast across the eastern half of the USA.

Expected Impacts

Flash flooding is the most likely impact, but power and transport disruption from lightning also likely.



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Central America and Caribbean

Southern Mexico – See Tropical Cyclone Section.

South America

Western Colombia and northern Ecuador

Weather

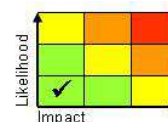
Further frequent heavy showers and thunderstorms will continue over north-western parts of South America. This follows a period of above average rainfall over the past month with some locations recording double their October rainfall. Over the next week, much of the area is likely to receive a further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

Discussion

There is a continued model signal for above average rainfall in this mountainous region of north-western South America.

Expected Impacts

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



Uruguay, northeast Argentina and southern Brazil

Weather

From Sunday and into early next week spells of heavy rain and severe thunderstorms are expected to develop in this area. Rainfall totals of 100-150 mm are possible in places each day. This equivalent to over a month's worth of rainfall (although will only be in a few isolated locations). Frequent lightning, large hail and strong winds gusts will be additional hazards.

Discussion

The SACZ will become increasingly active during this period, enhanced by a southward extension of tropical air over central S America over the weekend. This will allow a mixture of surface based and elevated (triggered by minor upper short waves) severe thunderstorms to be triggered across the area.

Expected Impacts

Flash flooding and a landslide threat in mountainous areas. Disruption to transport. Small risk of damage to property from hail and wind gusts.



Africa

Parts of central Africa

Weather

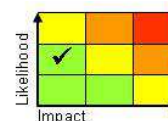
Rainfall is expected to return closer to average over the next week although may still remain enhanced in places with frequent heavy showers and thunderstorms. Whilst rainfall amounts will inevitably vary from place to place, some locations may receive their entire average October rainfall in a few hours.

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.



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Parts of southern Africa

Weather

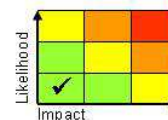
Temperatures are widely some 5-10, locally 15°C above average across parts of southern Africa. Within the area highlighted maximum temperatures are expected to exceed 35°C, and in some places 40°C (especially northeast South Africa, south Mozambique, south Zimbabwe and eastern Botswana) until early next week. Temperatures are likely to return to near normal by the middle of 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

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 south-eastern Africa, especially the north 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.



Northern parts of Algeria, Tunisia and Egypt – See the Europe section.

Middle East

Levant coastline – See the Europe section.

Asia

Western India – See the Tropical Cyclones section.

Northeast India and Bangladesh

Weather

An area of heavy rainfall and thunderstorms will transfer northeast across northeastern India and Bangladesh through the next couple of days producing up to 300 mm of rain at a time of year when rainfall totals usually lower due to the monsoon withdrawal. So up to twice the average October rainfall could fall in one day. Drier conditions look likely to become established again from Sunday.

Discussion

An area of low pressure in the Monsoon trough is expected to be steered northeast around the sub-tropical ridge to bring unseasonably heavy rainfall to this part of the Indian sub-continent.

Expected Impacts

Flash flooding and landslides look like the most likely impacts, especially with this heavy rain event coming at the end of the summer monsoon season.



Japan

Weather

A spell of heavy rain is expected to move northeast across much of Japan during Thursday and Friday. This includes areas impacted by Typhoon Hagibis earlier this month. A further 100-200 mm of rainfall is likely in a 24-36 hour period.

Discussion

An upper trough will engage a plume to steer a frontal wave northeast across Japan through the rest of this week, bringing a period of heavy rainfall across many parts of Japan.

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.

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Additional Information

Nil.

Issued at: 250750UTC **Meteorologists:** Chris Bulmer and Nick Silkstone **Global Guidance Unit**

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