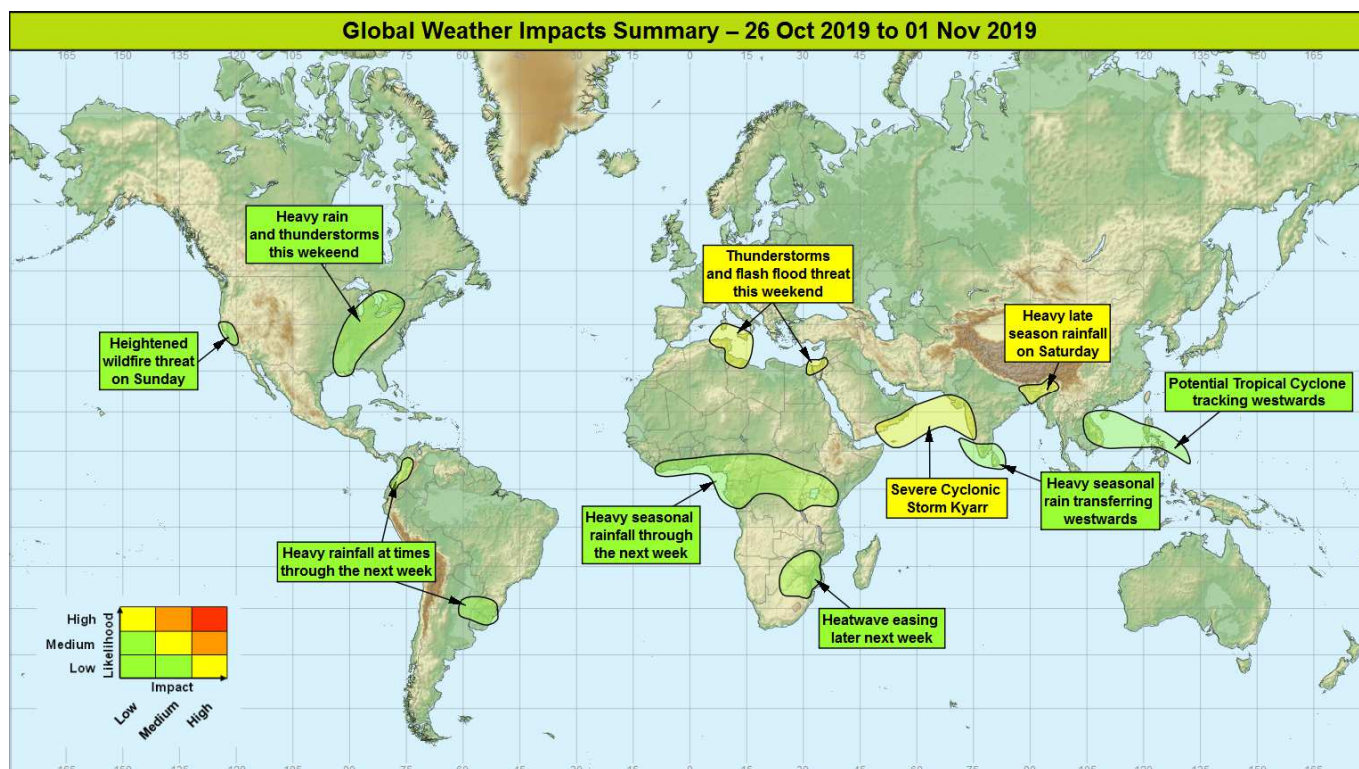


Global Weather Impacts – Saturday 26th October to Friday 1st November 2019

Issued on Saturday 26th 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 is towards Oman.

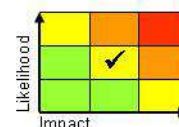


DISCUSSION

Tropical Cyclones

Very Severe Cyclonic Storm Kyarr Weather

Kyarr has intensified into a very severe cyclonic storm with maximum sustained winds of 75-80 mph and could intensify further over the next day or so. At 0300 UTC on Saturday Kyarr was located 200 miles southwest of Mumbai. Kyarr's most likely track is westwards away from India and towards the south coast of Oman and Yemen through the next 5 days. There remains a lower probability of the development turning north then east into India (Gujarat) early next week. This system will bring very heavy rainfall (up to 400 mm in a few days), with the western coast of India most likely to see heavy rain impacts in the short term, with a lower probability of southern Oman and southeast Yemen seeing heavy rainfall for a time next week. Hurricane force winds and dangerous seas are expected to develop across the Arabian Sea.



This forecast may be amended at any time

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: ggu@metoffice.gov.uk

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Discussion

An equatorial Rossby wave engaged the western portion of the retreating South Asian Monsoon leading to the development of this cyclone. The system is likely to remain in an area favourable for further intensification through the weekend and into next week. There is still a minority of deterministic (including recent GM runs) and ensemble (mainly MOGREPS) solutions that take Kyarr north towards Gujarat, but the majority of model output shows a westward track of a strengthening system. The model differences are associated with how far south an upper trough extends as it transfers east from the Arabian Peninsula late this weekend and early next week.

Expected Impacts

Flash and river flooding possible in western India, including Mumbai. 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 southern Oman and southeastern Yemen by 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, South China Sea and Vietnam

Weather

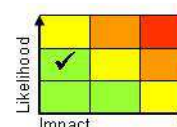
A tropical cyclone is likely to develop just east of the Philippines later this weekend, likely tracking steadily westwards across the central Philippines during the early part of next week. This system will likely bring around 250 mm of rain in 24 hours during its transit across the central Philippines, 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.



Europe

Western Mediterranean

Weather

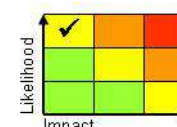
Thunderstorms will continue to impact parts of the area over the coming days although any impacts should tend to become more isolated. The focus for these thunderstorms will tend to shift to the coasts of Algeria, Tunisia and northwest Libya as well as Sardinia, Sicily and Malta. There is the potential for 30-75 mm of rain to fall within a few hours in places. Frequent lightning and large hail may be additional hazards. Conditions should improve early next week.

Discussion

A cut off upper low will remain slow moving across this region 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 is expected, but impacts 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.



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VPN: n6225 4319 Email: ggu@metoffice.gov.uk

North America

Central USA into parts of southern Canada

Weather

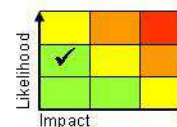
An area of heavy showers and thunderstorms (associated with short-lived ex-tropical storm Olga) will transfer northeast across central parts of the USA and the eastern Great Lakes region into southern Ontario, Canada this weekend. Up to 100-150 mm of rain could fall in 24 hours (up to twice the average 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 from the Gulf coast to the Great Lakes this weekend.

Expected Impacts

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



California

Weather

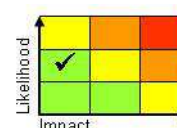
The passage of a cold front will introduce very strong, dry Santa Ana (east to northeasterly) winds across central and northern California on Sunday. There are already several wildfires in this region, with the likelihood of more widespread and / or severe wildfires developing and spreading in response to these weather conditions. Winds should ease early next week allowing the wildfire conditions to improve.

Discussion

There is good model agreement for the synoptic set up for gale force Santa Ana to develop on Sunday, producing critical wildfire conditions in parts of California.

Expected Impacts

Enhanced threat of severe wildfire impacts to property, people and infrastructure.



Central America and Caribbean

Nil.

South America

Western Colombia and northern Ecuador

Weather

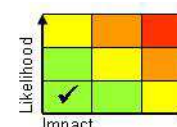
Further frequent heavy showers and thunderstorms will continue over north-western parts of South America. This follows a period of above average rainfall over the past month with some locations recording double their October rainfall. Over the next week, much of the area is likely to receive a further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



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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

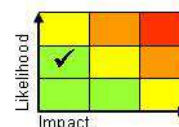
Rainfall is expected to return closer to average over the next week although may still remain enhanced in places with frequent heavy showers and thunderstorms. Whilst rainfall amounts will inevitably vary from place to place, some locations may receive their entire average October rainfall in a few hours.

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.



Parts of southern Africa

Weather

Temperatures are widely some 5-10 °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. A cold front will track NE across South America, introducing increased cloud and some showers which will allow temperatures to return closer to average.

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.



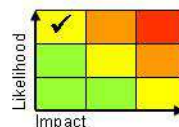
Northeast Egypt, Israel and western Jordan

Weather

Heavy showers and thunderstorms will likely affect this region through much of Saturday, with up to 30-75 mm of rain of rain falling in places over short period.

Discussion

A circulation formed over the eastern Mediterranean on Thursday with convection becoming more organised, forming a warm cored and fairly symmetrical structure that resembled a 'Medicane', which is a very rare event this far east in the Mediterranean. The low has weakened as it has moved south towards NE Egypt through Friday, and will decay on Saturday as it moves across the dry landmass, but will pose a threat of intense thunderstorms across usually dry areas.



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Expected Impacts

Flash flooding looks like the main impact as the strong winds and rough seas ease.

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

Middle East

Israel and western Jordan – See the Africa section.

Southern Oman and southeastern Yemen – See the Tropical Cyclones section.

Asia

Western India, Philippines and Vietnam – See the Tropical Cyclones section.

Far northeast India and Bangladesh**Weather**

An area of heavy rainfall and thunderstorms will transfer northeast across the far northeast of India and Bangladesh on Saturday producing up to 200 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 will continue 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.

**Southern India and Sri Lanka****Weather**

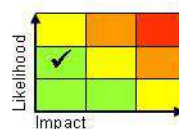
An area of widespread heavy showers and thunderstorms will transfer westwards across this region through the next 5 days, bringing heavy rainfall (up to 300 mm in a day or two) across the region, which would equate to or just above the average October rainfall in this region.

Discussion

The MJO is likely influencing the development of Equatorial Rossby Waves that form the basis for westward transferring areas of enhanced deep convection. There is the potential for this area to develop into a tropical cyclone in the Arabian Sea in a weeks time.

Expected Impacts

Flash flooding and landslides are the most likely impacts.

**Australasia**

Nil.

Additional Information

Nil.

Issued at: 260300UTC **Meteorologists:** Paul Hutcheon

Global Guidance Unit

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