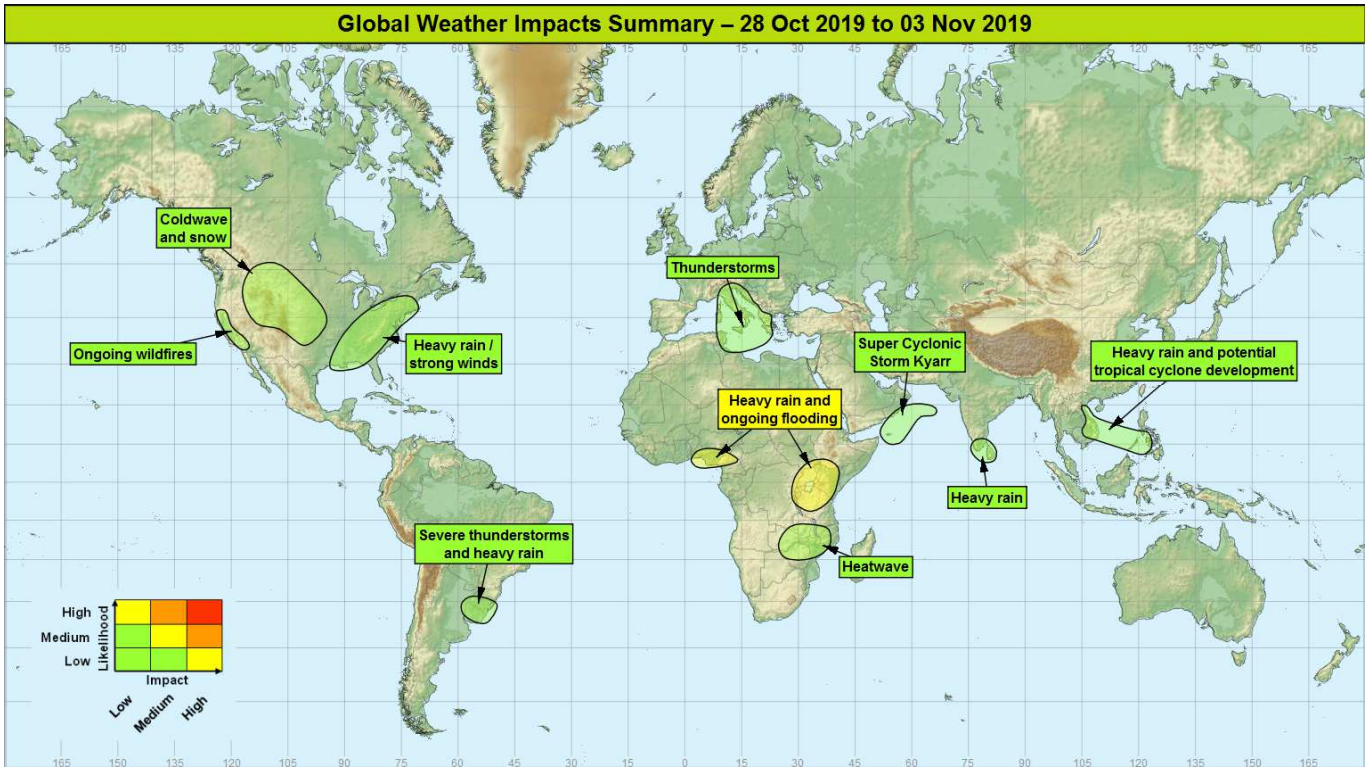
Met Office Daily Global Weather Impacts Assessment

Global Weather Impacts – Monday 28th October to Sunday 3rd November 2019

Issued on Monday 28th October 2019

HEADLINES

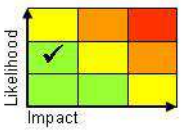
- Ongoing heavy rainfall across the Horn of Africa expected to bring further flooding impacts.
- Possible tropical cyclone development to bring heavy rain to Vietnam through midweek.
- Extremely critical fire weather conditions gradually easing across parts of California.



DISCUSSION

Tropical Cyclones

Super Cyclonic Storm Kyarr (Arabian Sea)



Weather

Super Cyclonic Storm Kyarr became the joint strongest tropical cyclone in the Arabian Sea on Sunday (based on maximum sustained winds of 150 mph). Kyarr is expected to be slow moving for the next few days, likely drifting west then southwest to lie south of Oman toward the end of the week. The heaviest rainfall and strongest winds are expected to remain offshore although a much weakened Kyarr may affect Socotra by the weekend. Nevertheless, the outer rainbands are likely to bring some locally heavy rainfall to the east coast of Oman and perhaps Socotra in addition to large swells and waves.

Discussion

Kyarr achieved an estimated minimum pressure of 915 hPa on Sunday, surpassing Super Cyclonic Storm Gonu in 2007. The intensity, based on official advisories from IMD, equalled that of Gonu. Some fluctuations in intensity are likely over the next couple of days before a gradual weakening trend commences through the rest of the week. Although there is still a large spread in forecast track by midweek, the threat to Oman appears to have diminished but may affect Socotra by the weekend.

Expected Impacts

This forecast may be amended at any time
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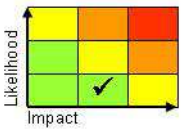
Dangerous swells and rip currents are likely to affect much of the Arabian Sea coastline this week. Although the centre of Kyarr is expected to remain offshore, there is still a risk of flash flooding from thunderstorms across eastern Oman and later Socotra, as well as strengthening winds capable of lifting dust across the southeast Arabian Peninsula.

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

South China Sea (including Philippines, Vietnam, Laos and Cambodia)



Weather

An area of heavy shower and thunderstorm activity currently affecting the central Philippines is expected to move into the South China Sea where there is a moderate likelihood of tropical cyclone development through midweek. Should a tropical cyclone develop, landfall would likely occur in the South Central Coast region of Vietnam on Wednesday or Thursday. The main hazard will likely be rainfall though with 100-200 mm of rain possible in parts of the Philippines, Cambodia, Laos and Vietnam. However, coastal Vietnam from Nha Trang northwards could receive up to 500 mm, exceeding the average monthly rainfall in 48 hours.

Discussion

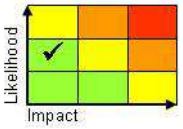
An equatorial Rossby wave currently crossing the Philippines will emerge into the South China Sea over the next 24 hours with several models suggesting tropical cyclone development through Tuesday and Wednesday. However, its duration over water is likely to be limited with the main impact being enhanced onshore flow combined with frequent heavy showers and thunderstorms resulting in large rainfall totals along much of the Vietnam coast.

Expected Impacts

An increased likelihood of flash flooding and landslides across the central Philippines should ease over the next couple of days before the focus transfers to the Indochina Peninsula, in particular the central and northern coastal region of Vietnam.

Europe

Central Mediterranean (including Malta, Tunisia, Italy and The Adriatic)



Weather

Further heavy showers and thunderstorms are expected to affect the region through this week. On Monday into Tuesday, the focus will be around Malta and Tunisia before expanding to include Italy, The Adriatic and Greece from Thursday onwards. Isolated 50-75 mm of rainfall is possible in a couple of hours, in addition to large hail, strong winds and one or two tornadoes.

Discussion

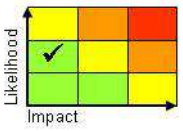
A cut-off low slow-moving over Tunisia is expected to spawn further thunderstorms, locally severe, during Monday and Tuesday across the central Mediterranean. Forecast profiles support isolated supercell capable of producing all convective hazards. The cyclonic upper pattern persists through the remainder of the week, maintaining the likelihood of further heavy showers and thunderstorms across a wider area.

Expected Impacts

Increased likelihood of flash flooding causing damage to property and infrastructure. Lightning strikes, large hail and tornadoes could also produce localised significant damage.

North America

Central USA and Rockies



Weather

Widely below average temperatures are expected to affect the northwestern half of the USA and the far south of Canada through the next 3-4 days. Daytime maximum temperatures are expected to be some 15-20 °C below average across the eastern Rockies and Central Plains. Some heavy snow is also expected, particularly over Colorado and Wyoming through to Wednesday where up to 30 cm of snow is possible.

Discussion

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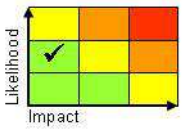
An upper trough has introduced a Canadian airmass across the Rockies and Great Basin into the northern and central Plains. However, this will be reinforced by a colder airmass of arctic origin through Tuesday. Along each of these transitions, heavy snow is possible with the greatest likelihood of this affecting Colorado, including the Denver Metro.

Expected Impacts

Travel is likely to be impacted due to ice, snow covered roads and low visibility. Significant wind chill could cause frostbite for those exposed to very low temperatures.

Southern and Eastern USA



Weather

Spells of heavy rain are expected to affect the southeastern half of the USA through to Friday. Much of the region is expected to receive around 40-60 mm of rain over the next 5 days but parts of the Deep South northeastward across the Appalachians and Boston-Washington corridor could receive 100-125 mm (equivalent to the October monthly average). In addition to heavy rainfall, a developing are of low pressure could bring gales to a wide area of the NW USA and SE Canada toward the end of the week.

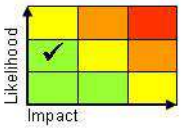
Discussion

A moisture-laden airmass from the Gulf of Mexico is expected to be drawn northeast ahead of a positively tilted upper trough that will slowly translate eastward through the working week. The warm conveyor belt is expected to bring widespread rain across the region, culminating in a potentially very wet and windy spell at the end of the week.

Expected Impacts

Increased likelihood of flash flooding causing some property and infrastructure damage, and transport disruption. Some additional disruption due to strong winds is possible at the end of the week.

California



Weather

Critical fire weather conditions are expected to develop during Monday and may exacerbate ongoing efforts to contain existing wildfires in the region as well as contribute to the rapid development of any new fires that occur. From Tuesday onwards, fire weather conditions should improve leading to more effective containment.

Discussion

High pressure has strengthened again across the Great Basin and will lead to a stronger offshore gradient to develop through Monday morning. Relative humidity of under 10% will persist across parts of California although winds should ease in response to daytime heating and reduce the threat of large fire growth.

Expected Impacts

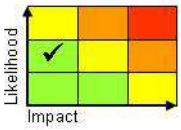
Extensive damage to property and infrastructure in areas where wildfires develop. Power interruptions are also possible, in part as a preventative measure to reduce wildfire triggering.

Central America and Caribbean

Nil.

South America

Uruguay, northeast Argentina and southern Brazil



Weather

From spells of heavy rain and severe thunderstorms are expected to affect this region through this week. 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 South America. This will allow a mixture of surface based and elevated (triggered by minor upper short waves) severe thunderstorms across the area.

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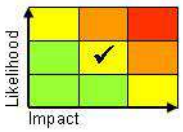
Expected Impacts
Flash flooding, disruption to transport and a small risk of damage to property from hail and wind gusts.

Africa

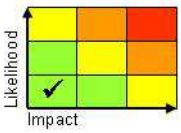
Tunisia – See *Europe* section.

Parts of central and eastern Africa



Weather
Although rainfall is expected to be less extreme over the coming week, it will likely still remain above average for much of the area highlight. 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 slightly 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 both flash flooding and flooding along some of the regions rivers. In additional there will be an enhanced risk of land/mudslides in areas of steep terrain.

Parts of southern Africa



Weather
Temperatures are widely some 5-10 ºC above average across parts of southern Africa. Within the area highlighted maximum temperatures are expected to exceed 35ºC, and in some places exceed 40ºC (especially northern Zimbabwe, southern Zambia and western Mozambique) through the next couple of days before returning to nearer normal. 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. A cold front will track northeast across southern Africa through the next couple of days, allowing temperatures to fall back to nearer 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 tracts of this area too.

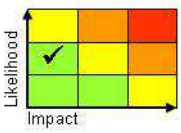
Middle East

Oman and Yemen – See *Tropical Cyclones* section.

Asia

Philippines, Vietnam, Laos and Cambodia – See *Tropical Cyclones* section.

Southern India and Sri Lanka



Weather
An area of widespread heavy showers and thunderstorms will transfer west across this region through the next 2-3 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.
Discussion

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An equatorial Rossby wave has developed following the passage of the MJO across the Indian Ocean, the northern portion of this couplet crossing Sri Lanka on Monday and the southern tip of India on Tuesday before moving into the Arabian Sea by Wednesday. Once over the Arabian Sea it's possible the area could develop into a tropical storm, although any development is unlikely to affect land.

Expected Impacts

Flash flooding and landslides are the most likely impacts.

Australasia

Nil.

Additional Information

Nil.

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