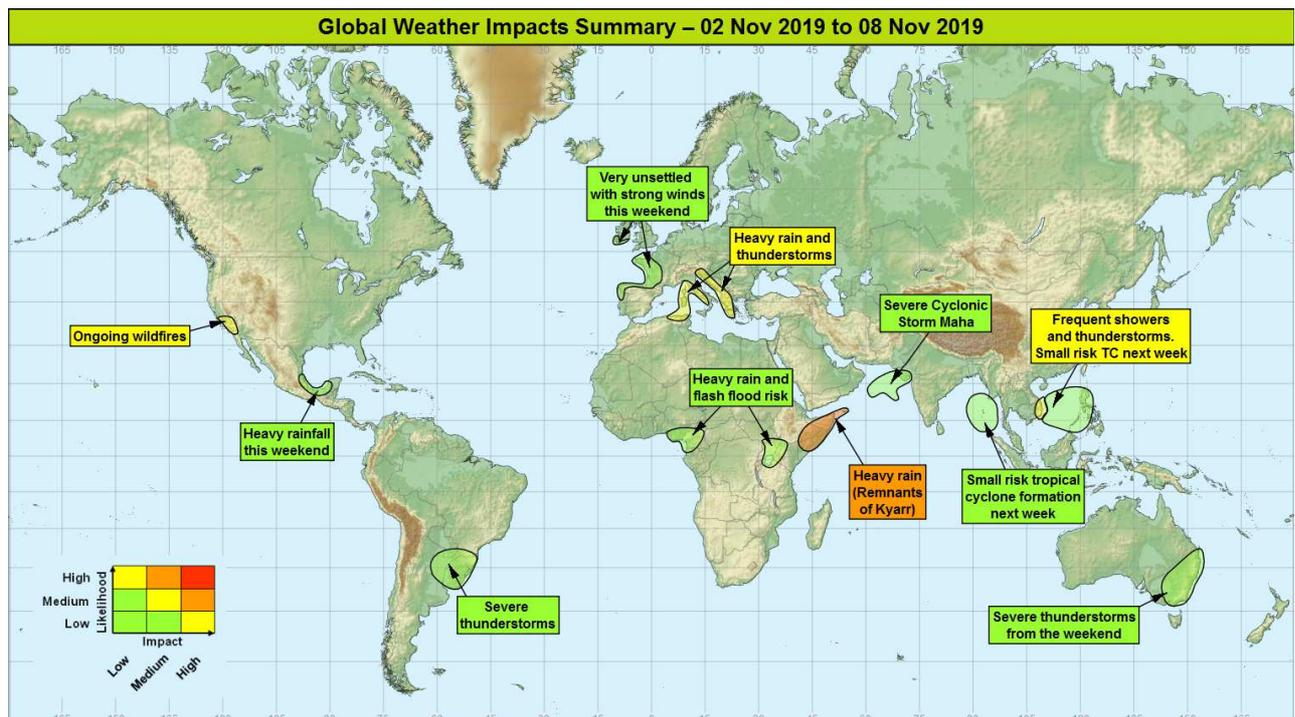


Global Weather Impacts – Saturday 2nd to Friday 8th November 2019

Issued on Saturday 2nd November 2019

HEADLINES

- The remnants of Kyarr continue southwest and bring very heavy rainfall across Socotra (Yemen) and then parts of Somalia and eastern Ethiopia, with significant flooding expected.
- Frequent showers and thunderstorms around the South China Sea, especially for Vietnam.
- Remaining very unsettled across the central Mediterranean over the coming week.
- Elevated wildfire conditions continue across southwest California for a further day or so.



DISCUSSION

Tropical Cyclones

Severe Cyclonic Storm Maha (Arabian Sea)

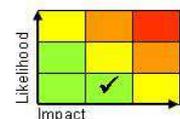
Weather

Maha remains a severe cyclonic storm, and is expected to slowly intensify over the coming 24 hours as it moves slowly northwest across the open Arabian Sea, eventually becoming classified as a very severe cyclonic storm. The storm will likely become slow moving across the central Arabian Sea early next week; the track thereafter is open to some uncertainty. However it looks increasingly likely the storm will now turn east, and approach northwest India as a much weekend system later next week, with the potential for some locally heavy rainfall.

Discussion

Maha formed in response to the organisation of an area of deep convection by an Equatorial Rossby Wave. Environmental conditions favour a gradual intensification of the system over the coming few days, the system will overrun the cold water wake left by Kyarr, and as it becomes slow moving suffer weakening as a result of its own wake. Towards the middle of next week a trough extension across Iran will lead to strong upper level westerly winds in this region, these will have the impact of steering the system towards the east, but also producing a hostile environment (due strong vertical windshear) that will weaken the cyclone.

Expected Impacts



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As Maha strengthens large swells/rip-currents could affect Arabian Sea coastlines. Very low likelihood rain related impacts across parts of northwest India later next week.

The following areas are being watched for tropical cyclone formation over the next 7 days.

Andaman Sea and Bay of Bengal

Weather

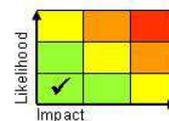
The much weakened circulation associated with the remnants of Tropical Storm Matmo will continue west across the Indochina Peninsula and emerge into the Andaman Sea on Sunday. Over the following few days the circulation will lie in a region marginally favourable to allow thunderstorms to gradually develop into a tropical cyclone as it moves northeast.

Discussion

The circulation associated with Matmo, remains a distinct feature as it crosses the Indochina Peninsula. This circulation will continue to promote thunderstorm activity surrounding it, and as it moves into the Andaman Sea/Bay of Bengal underlying sea surface temperatures will increase to over 30°C, providing even more energy for convection, however windshear is expected to be marginally favourable.

Expected Impacts

Some isolated flash flooding possible in urban areas around the Andaman Sea. If a cyclone develops rough seas will also develop in the region.



Europe

Italy, Greece, western parts of the Balkans, parts of northern Africa

Weather

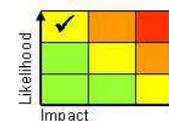
Following recent heavy rainfall in this region, further active weather systems are expected to move across this region over the coming week bringing persistent, heavy rain and thunderstorms focussed on south-west facing high ground of Italy, the Balkan region, and western Greece. Many places will see 25-50 mm on wetter days, with some prone spots seeing as much as 200 mm per day. This will be accompanied by strong wind gusts, especially around coasts. Later next week more settled conditions are expected to develop in this region

Discussion

A cyclonic upper pattern will persist through the next week leading to a continuation of unsettled conditions. As upstream mobility increases this will see a number of Atlantic plumes drawn across the region from Saturday which will see precipitation increasingly modulated by orography and act as a focus for heavy rain and thunderstorms. Although towards the end of next week the upper pattern remains cyclonic, lower WBPT air will likely overspread the basin and significantly reduce the energy of convection, and consequently precipitation totals.

Expected Impacts

Increased likelihood of flash and river flooding causing damage to property and infrastructure. Lightning strikes, large hail and tornadoes/waterspouts could also produce localised significant damage, particularly in the south of this region.



Southwest Ireland, western France, northern Spain and Portugal

Weather

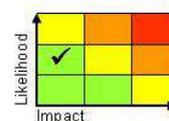
Conditions remain unsettled across this region with spells of very strong winds and heavy rain. Around 50-100mm of rain will fall quite widely with parts of southwest France and northwest Spain potentially having 200mm. Winds will be strong at times over the weekend, with gusts widely 50-60 mph in coastal areas, perhaps reaching 80 mph in a few locations.

Discussion

South-shifted Atlantic mobility will steer a number of active Atlantic systems into northwest Europe. With the PFJ axis likely to become established near 45 North there will be the potential for several deep low pressure systems to develop on its cold side bringing a risk of stormy conditions into the southwestern British Isles initially and then later Biscay and adjacent coasts.

Expected Impacts

Strong winds may bring disruption to transport and damage to infrastructure which could lead to power outages. Dangerous coastal conditions due to large waves and spray. Increased, but low likelihood of flooding.



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North America

California

Weather

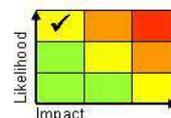
Although fire weather conditions continue to be much improved compared to previous days numerous wildfires continue to burn across the region. Through Saturday the elevated fire weather risk is likely to only be confined to a small region around Los Angeles. Thereafter, conditions that support rapid growth and expansion of fires are forecast to ease, with much improved conditions next week. A combination of low humidity, dry fuel and strong winds are responsible for this situation.

Discussion

A strong pressure gradient generated by the cold dense air overspreading the Rockies (tied in with the recent cold plunge which brought snow to North-Central US) continues to bring strong, dry Santa Ana and “Diablo” winds, with humidities generally less than 10%. Some diurnal relaxation of the gradient will occur as warming of the cold air mass takes place. Through the weekend the pressure gradient reduces significantly, in addition to the gradual trend to less strong winds as the continental air mass experiences net warming.

Expected Impacts

Extensive damage/destruction of forest, property and infrastructure in areas affected, with buildings razed to the ground. Power interruptions are also likely, in part as a preventative measure to reduce wildfire triggering. Poor air quality will be an additional hazard.



Central America and Caribbean

Southeast Mexico

Weather

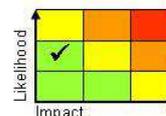
The Gulf of Mexico coastline of southern Mexico will likely see intense rainfall through the next couple of days with up to 200-300 mm expected in places. Intense thunderstorms could produce as much as 50-100 mm in a few hours.

Discussion

A cold front will become slow moving across south-eastern Mexico. The moisture plume from this front will remain slow moving in the area producing prolonged heavy rainfall with embedded deep convection feeding in on the brisk northeasterly breeze. Well above average sea surface temperatures of the Gulf of Mexico and Bay of Campeche, will help feed and maintain this active convection

Expected Impacts

Flash flooding and landslides look like the most impactful events in this region.



South America

Uruguay, southern Paraguay, northeast Argentina and southern Brazil

Weather

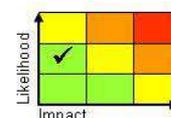
Spells of heavy rain and severe thunderstorms are expected to gradually edge northeastwards across this region over the next five days. Rainfall totals of 100-150 mm are possible in places each day. This equivalent to over a month’s worth of rainfall (although this will only be in a few isolated locations). Frequent lightning, large hail and strong wind 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 which will be engaged by various minor upper troughs in the subtropical jet. This will allow a mixture of surface based and elevated convection with severe thunderstorms most probable towards the northern edge on zone of convection.

Expected Impacts

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



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Africa

Somalia, Eastern Ethiopia and Socotra (Yemen)

Weather

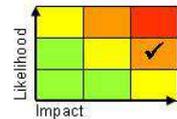
The remnants of Cyclonic Storm Kyarr will continue to be pushed southwestwards across Socotra through Saturday and then onwards across Somalia/Ethiopia from Sunday. This will bring a short period of heavy rainfall across Socotra where 100-200mm of rainfall could be seen on Saturday. From Sunday onwards a more prolonged rainfall event to usually dry parts of Somalia/Ethiopia where frequent thunderstorms could bring in excess of 100mm of rainfall over the coming week (this is equivalent to 6 months worth of rain for many parts of this region).

Discussion

Kyarr has now degraded into a remnant low, with very light winds around the system. However areas deep convection continues in the moisture plume surrounding the circulation. These areas of deep convection will likely bring impactful rain to Socotra on Saturday, before continuing southeast and promoting enhanced and frequent shower and thunderstorm activity over Somalia and parts of eastern Ethiopia from Sunday. Given recent media reports documenting severe flooding along the Jubba and Shabelle river catchments, this additional rainfall is likely to further worsen the situation in this region.

Expected Impacts

The main impact from Kyarr is expected to be over Socotra, northeast Somalia and the far east of Ethiopia from this weekend from the heavy rainfall that will exacerbate significant flooding that is currently ongoing across the region.



Parts of central (inc. Cameroon) and eastern (inc. Tanzania) Africa

Weather

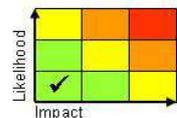
Conditions are expected to be close to or even drier than normal over the coming days so whilst there will be heavy showers and thunderstorms in places any areas seeing above average rainfall will be very localised. However, with recent reports of impacts due to flooding in these regions there is likely to be heightened sensitivity following a wetter than average period recently.

Discussion

A strong positive Indian Ocean Dipole (IOD) event continue although with the MJO now in Phase 3/4 this may be temporarily reducing the rainfall signal over east Africa. Based on the strength of the positive IOD event (largest since at least 2001) above average rainfall is likely to return over the coming weeks.

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.



Northern Algeria and Tunisia – See *European* section.

Middle East

Socotra (Yemen) – See *Africa* section.

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Asia

Areas around the South China sea, especially Vietnam

Weather

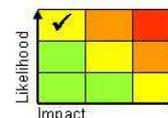
Prolonged heavy showers and thunderstorms are expected to affect central Vietnam for several days potentially bringing 200-400mm of rainfall to some locations. Other locations surrounding the South China Sea could see 100-200mm of rainfall over the coming week (with a lower likelihood of impacts in these spots). Competing environmental factors make it difficult to determine whether or not the gradual formation of a tropical cyclone will occur, regardless the rainfall from this system is expected to be the principle hazard.

Discussion

An Equatorial Rossby Wave (ERW) is emerging from the central Philippines into the South China Sea. A cold surge progresses southwest along the western South China Sea coast and is likely to generate strong winds to the west of this circulation (increasing low level vorticity). The cold surge is however signalled to remain isolated from the centre of the circulation where deep organised thunderstorm activity is likely to continue. Although some environmental factors such as warm underlaying SSTs, low wind shear and good upper level outflow will promote cyclone formation, dry air to the west of the circulation (associated with the cold surge) will act to impinge this.

Expected Impacts

Some flash flooding is probable across the region, and is considered very likely across central parts of Vietnam. In addition central Vietnam has recently experienced very wet weather from Tropical Storm Matmo leading to an increased likelihood of some significant rivers flooding too. If a tropical cyclone does develop some stronger winds and rougher seas are likely in the region next week.



Australasia

South-eastern Australia

Weather

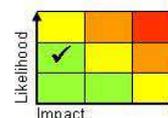
Severe thunderstorm activity is expected to transfer northeastwards across south-eastern parts of Australia this weekend. In some isolated locations up to 100 mm of rain could fall in a few hours, with large hail, frequent lightning and strong winds also likely. Ahead of the storms temperatures will be 5-10 Celsius above average, but temperatures will fall back to average or even below average in the wake of the storms.

Discussion

An active cold front will push northwards across south-eastern parts of Australia, with strong forcing from a sharp upper trough combining with very warm pre-cold frontal air to produce conditions for severe thunderstorm development,

Expected Impacts

Danger to life from flash flooding, large hail and frequent lightning. Aviation and power network disruption also likely.



Additional Information

Nil

Issued at: 020300UTC **Meteorologists:** Nick Silkstone / Paul Hutcheon **Global Guidance Unit**

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