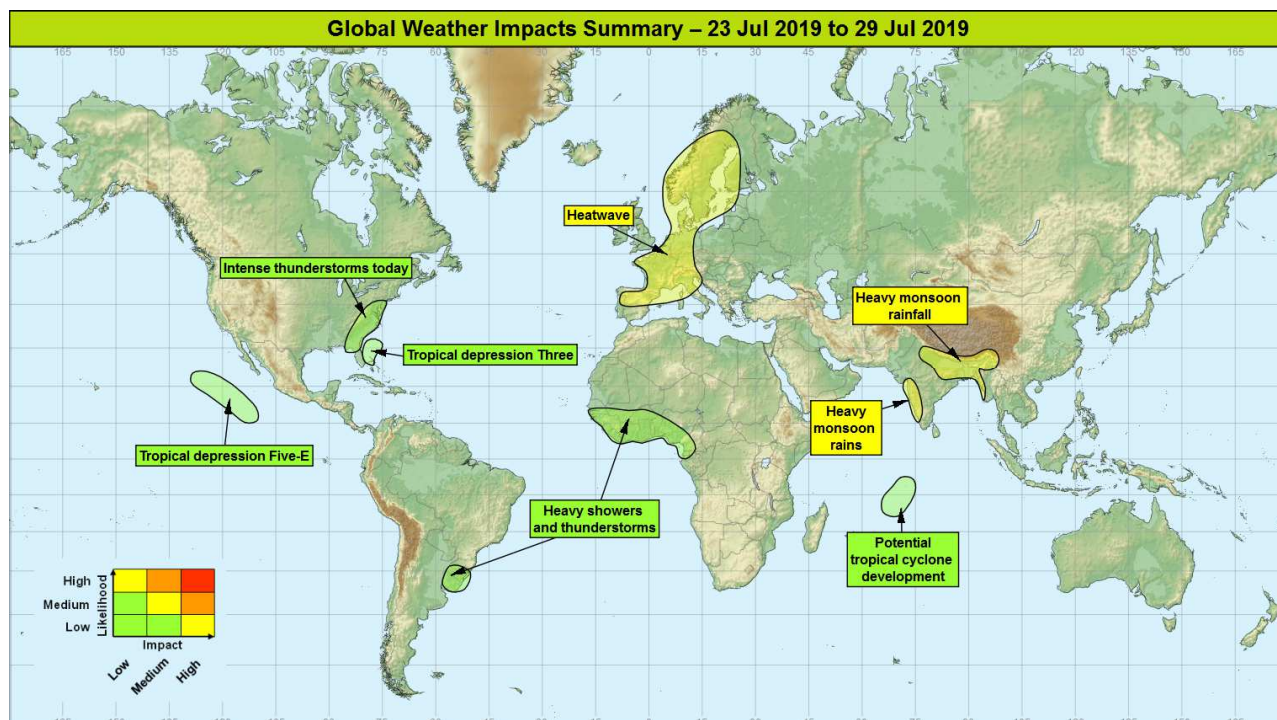


Global Weather Impacts – Tuesday 23rd to Monday 29th July 2019

Issued on Tuesday 23rd July 2019

HEADLINES

- A heatwave continues to develop across large parts of central and western Europe.
- Further intense monsoon rainfall for parts of the Indian sub-continent this week.



DISCUSSION

Tropical Cyclones

There are currently no active tropical cyclones. The following areas are being monitored for potential development:

Eastern North Pacific

Weather

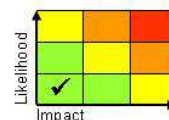
An area of thunderstorms located several hundred miles south of Baja California has become better organised and has now been designated tropical depression Five-E by the National Hurricane Centre. Further development is possible for a time through the next 24 to 48 hours, and this system may briefly become a tropical storm. However any development is likely to remain well away from land before moving over cooler waters and slowly weakening.

Discussion

The development of this system is inhibited by upper level shear at present. Other environmental conditions are favourable however, and it's likely that the system will briefly become a weak tropical storm as it is steered north-westwards. By Wednesday the system is expected to be over cooler sea surface temperatures, and this should induce a gradual weakening and eventual dissipation.

Expected Impacts

None.



This forecast may be amended at any time

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Western tropical North Atlantic (The Bahamas)

Weather

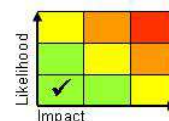
An area of heavy showers and thunderstorms is affecting the north-western Bahamas, and has been designated as tropical depression Three. However, this system is not expected to develop further and should dissipate in the next day or two. Regardless of development, this system could bring 25 mm of rainfall to the NW Bahamas on Tuesday.

Discussion

Environmental conditions are increasingly hostile towards any further development of this system as it moves north over the next 24 hours.

Expected Impacts

Flash flooding is a low probability.



Central southern Indian Ocean (close to the British Indian Ocean Territories)

Weather

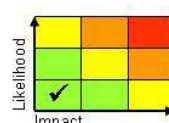
There is a low likelihood that a weak tropical cyclone will form in this region and track south-westward away from the islands that comprise the British Indian Ocean Territories over the next few days. Any system that does form is most likely to be weak and move over open ocean.

Discussion

This system will continue to track south-westward, moving away from any populated islands. Although environmental conditions appear favourable for development, global models only allow a modest degree of development before it moves into a more hostile environment later this week.

Expected Impacts

Now moving away from land further impacts from this system are not expected.



Europe

Western and north-western Europe

Weather

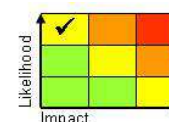
Very high temperatures will become increasingly widespread through this week, with the peak heat transferring northeastwards through the next few days as Benelux, Germany and large swathes of Scandinavia become anomalously hot. Temperatures will rise widely into the mid- to high-30s°C, with low 40s°C possible in some locations. Some all time national maximum temperature records will be under threat, especially in the Benelux region and possibly also Paris. The end of the hot spell across western parts is likely to be accompanied by some locally severe thunderstorms.

Discussion

An upper ridge is firmly in place across central Europe allowing fine, dry weather with prolonged periods of sunshine. This will allow a gradual rise in temperatures through the result of strong day-on-day sensible heating, and warming through large-scale subsidence. This airmass will become increasingly unstable towards the later part of this week into the weekend as an upper trough encroaches into the west, with severe thunderstorms expected to become frequent.

Expected Impacts

The main impact is likely to be health implications with an increased risk of heat and sunstroke (and other heat related conditions), with particular concern for vulnerable groups such as the elderly, very young, and people not acclimatised. Through the area there is likely to be an enhanced risk of wildfires and there is the potential for disruption to transport systems, especially rail transport. Towards the end of the week and into the weekend a variety of impacts from thunderstorms are likely to become more prevalent.



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North America

Eastern USA

Weather

Intense thunderstorms remain a threat across this region of the USA on Tuesday. These storms could produce 50-80 mm of rain in a few hours, as well as producing hail, damaging winds and possibly even isolated tornadoes.

Discussion

An upper trough crossing the Great Lakes region on Tuesday will maintain activity within the plume across the eastern USA. The trough should drive the cold front east into the Atlantic by Wednesday.

Expected Impacts

Flash flooding and isolated damaging gusts look to be the most likely impacts, but with the additional hazard of frequent lightning. Some travel disruption seems likely, particularly to aviation into and through the region.



Central America and Caribbean

The Bahamas – see *Tropical Cyclones* section

South America

Uruguay and South Brazil

Weather

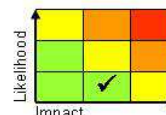
Rain, often heavy, will persist across the region through much of this week. The heaviest rainfall is likely between Tuesday and Thursday when around 100-200 mm could accumulate (the average rainfall for July in this region is 100-150 mm). Occasional thunderstorms will also develop in places, giving short spell of intense rainfall with 50-100 mm possible in a day.

Discussion

The South Atlantic Convergence Zone will be rather active through this week, particularly over the next couple of days. In addition to heavy rainfall, thunderstorms will develop, mainly in the north of the region, where there is abundant CAPE and some evidence of sufficient wind shear to organise storms.

Expected Impacts

The main impact is likely to be from flash flooding, although hail and wind damage is also possible to crops and property.



Africa

West Africa

Weather

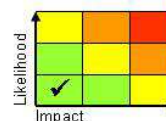
Areas of thunderstorms will progress westward across this zone through the coming week. These storms may bring in excess of 50 mm of rainfall in a short period of time, with 150-250 mm possible if a location experiences several storms. In addition to heavy rainfall, strong damaging winds may be associated with this area, especially towards the Sahel.

Discussion

Several active AEW are forecast to transfer across the area stretching from the Sahel to down to the Gulf of Guinea coastline. These features are likely to remain fairly coherent through to their exit into the Atlantic, with a circulation evident on the latest NWP output, although at this time there is little signal for this to form any sort of tropical system.

Expected Impacts

Flash flooding from short duration heavy rainfall is possible, especially if the rainfall affects any urban centres. The rainfall will also enhance the risk of landslides where terrain is steep. In the north of the region strong winds may also accompany storms, these able to damage poorly built structures and lift areas of dense sand and dust.



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Middle East

Nil.

Asia**Northern and north-eastern India, Nepal, Bhutan, parts of Bangladesh and northern Myanmar****Weather**

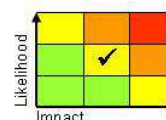
Following a short respite in the very wet period, a resurgence of heavy shower and thunderstorm activity is already developing, with an increased frequency of storms again capable of producing in excess of 100 mm per day in some locations (especially over the southern slopes of the Himalayas). It's possible that the storms could extend as far south as New Delhi towards the end of the week, then develop across much of north-eastern India and also parts of Bangladesh later this week with accumulated rainfall of up to 600 mm in places.

Discussion

There is good model agreement for an increase in rainfall due to a strengthening southwesterly flow which will again draw heat and moisture northwards from the Bay of Bengal. As the reaches the foothills of the Himalayas, the forced ascent will release deep skinny CAPE, with high precipitable water (PWAT) allowing these fairly frequent cells to produce large precipitation accumulations. The shallow monsoon low (see following section) could enhance precip around New Delhi later in the week, with deep moist convection raising the risk of torrential downpours and thunderstorms here, and other parts of NE India. Enhanced flow in its wake could bring an increase in rainfall to northern Myanmar and parts of Bangladesh, possibly including Cox's Bazar.

Expected Impacts

After a very wet period, flooding and landslides have been reported across a wide area. Although rainfall has eased over the last few days, reports of impacts from river flooding are likely to continue. The return of heavy showers and thunderstorms will once more enhance the threat of flash flooding and landslides, and will increase the likelihood of further river flooding.

**Western India****Weather**

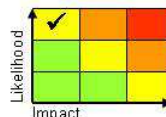
Heavy monsoon rains will continue through the rest of the week, with rainfall accumulations reaching 600 mm in places, although more typically in the range 150-250 mm. At the same time, a weak monsoon depression over the centre of the country will focus heavy showers/severe thunderstorms to bring 100-150mm in places.

Discussion

There is a consistent signal from all models for a continued strong southwest monsoon flow, aided across India by a shallow monsoon low pressure system. Within this system, potential for extremely deep convection (tops as high as 55,000ft) to bring torrential downpours and thunderstorms over the weekend.

Expected Impacts

Some localised flash and fluvial flooding will be likely, with an enhanced risk of landslides in mountainous regions.

**Australasia**

Nil.

Additional information

Nil.

Issued at: 230710 UTC **Meteorologist:** Mark Sidaway / Paul Hutcheon**Global Guidance Unit**

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