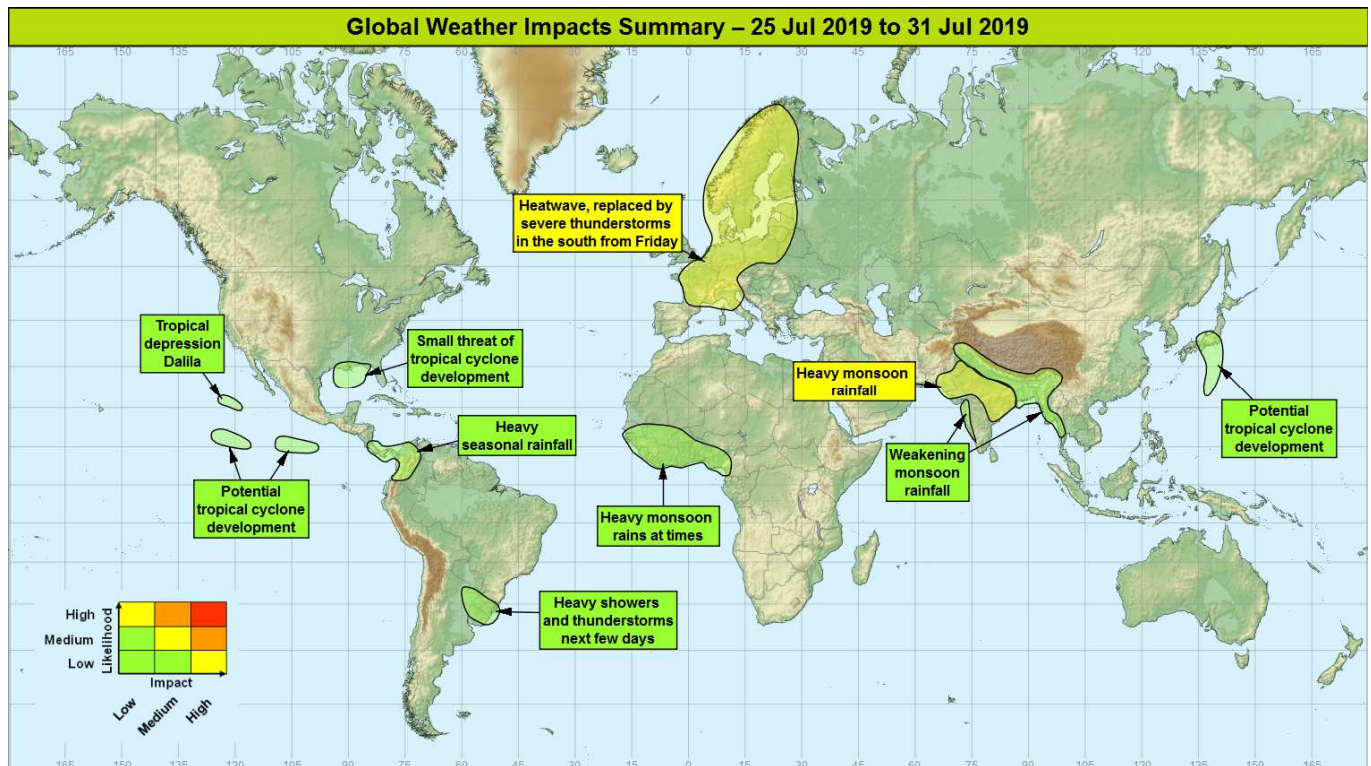


Global Weather Impacts – Thursday 25th to Wednesday 31st July 2019

Issued on Thursday 25th July 2019

HEADLINES

- An historic heatwave continues across large parts of central and western Europe, but will ease from the southwest from Friday.
- Intense thunderstorms likely to bring impacts to central and western Europe on Friday and Saturday.
- Further intense monsoon rainfall for parts of the Indian sub-continent this week.



DISCUSSION

Tropical Cyclones

There are currently no active tropical cyclones, but the following areas are being monitored for potential development:

Tropical Depression Dalila (Eastern North Pacific)

Weather

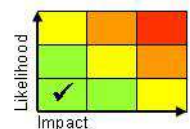
Dalila is located several hundred miles southwest of Baja California and weakened to a tropical depression through Wednesday, with further weakening expected on Thursday.

Discussion

This system continues to be inhibited by upper level shear and increasingly cooler seas, and will therefore continue to weaken into a remnant low and decay over open ocean.

Expected Impacts

Nil significant.



This forecast may be amended at any time

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Gulf of Mexico (perhaps affecting Louisiana to the Florida Panhandle)

Weather

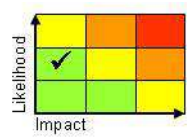
A weak low pressure area is expected to form on Thursday from a slow-moving area of showers in the northwestern Gulf of Mexico. There is a very low likelihood that this will develop into a subtropical or tropical system before it tracks north into the USA Gulf coastline by the end of the week.

Discussion

A weak, slow-moving frontal boundary is supporting development of deep convection in the area of interest. The development of a weak cyclonic circulation is likely as it drifts slowly near the Gulf coast, however it looks unlikely that significant development of this system will occur due to dry air and unfavourable upper-level winds.

Expected Impacts

Regardless of any tropical development, rainfall totals of 100-150mm, locally 200mm are possible along the Gulf coast from Louisiana eastwards and across the Florida Panhandle over during Friday and the weekend as the system slowly drifts northwards. This could cause localised flooding.



Eastern North Pacific

Weather

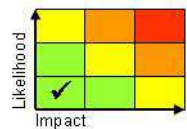
Two further areas of heavy showers and thunderstorms moving westwards from Central America may form into tropical cyclones in the areas highlighted. It is possible that conditions will become more favourable for development of these areas through the coming weekend.

Discussion

AEWs exiting westwards from Central America will move into an environment favourable for the development of tropical cyclones. SSTs will remain favourable throughout, good outflow conditions will prevail on both the equatorial and poleward sides of the potential systems, and the wind shear profile will improve.

Expected Impacts

Nil significant.



Northwest Pacific (perhaps affecting central Japan)

Weather

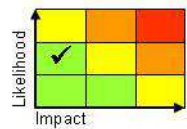
A tropical cyclone may develop from a subtropical low during the next few days. A northward track will bring this system into central parts of Japan. Even if a tropical storm does not form, heavy rainfall (300 mm in 24-36 hours) could affect parts of central Japan from Friday to Sunday. The average rainfall for July in this part of Japan is around 150-200 mm).

Discussion

A subtropical low is expected to move into an environment (>26°C SST and weak vertical wind shear) favourable for potential development into a tropical cyclone over the next day or so. However, there remain significant model differences regarding the amount of development and exact track.

Expected Impacts

Flash flooding and landslides would be the main impacts if central Japan was affected.



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Europe

Western, central and northwestern Europe

Weather

Belgium, Germany and the Netherlands reported their highest ever temperature on Wednesday. However, the peak of the heatwave across central and western Europe will be Thursday, with temperature records quite likely to fall again in these countries, and perhaps also Paris as temperatures rise into the high 30s or low 40s degrees Celsius.

From Friday the heatwave conditions will ease across western Europe, but will continue from northern Germany up across much of Scandinavia, and perhaps extend east into Poland and the Baltic States.

The end of the heatwave in western Europe will be accompanied by severe thunderstorms that will affect parts of France eastwards into Belgium the western Alps and perhaps the Netherlands and western parts of Germany from Friday to Sunday. These storms could produce intense rainfall (50-75 mm in a few hours), large hail, frequent lightning, strong winds (up to 70 mph) and a risk of isolated tornadoes.

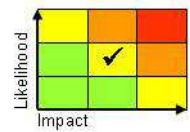
Discussion

An upper ridge is firmly in place across central Europe allowing fine, dry weather with prolonged 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 air mass will become increasingly unstable later this week into the weekend as an upper trough encroaches from the west, with severe thunderstorms expected to become more frequent.

Expected Impacts

The main impact of the heatwave is likely to be health implications with an increased likelihood 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.

Severe storms will produce a threat of flash flooding, damaging hail, power outages, transport disruption (especially aviation) and wind damage.



North America

Louisiana to the Florida Panhandle – see *Tropical Cyclones* section.

Central America and Caribbean

Costa Rica, Panama and western Colombia

Weather

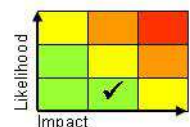
Heavier than average rainfall is expected through the next week in this region, in the form of intense showers and thunderstorms. Up to 300 mm of rain could fall in places (which is around the average July rainfall) through the next week.

Discussion

A succession of active African Easterly Waves will bring periods of more frequent thunderstorms than usual through the next week. There is also the potential for a Central American Gyre to form across the south of Central America, again providing an additional trigger for more widespread, intense convection.

Expected Impacts

Flash flooding and an increased likelihood of landslides.



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South America

Western Colombia – see *Central America and Caribbean* section.

Uruguay, northeastern Argentina and Southeastern Brazil

Weather

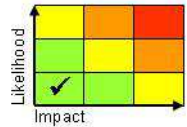
Rain, often heavy and at times thundery, will persist across the region until Friday. The heaviest rainfall will continue through to Thursday, by which time around 100-200 mm of rainfall could have accumulated (the average rainfall for July in this region is 100-150 mm). Rain will become lighter on Friday and will move away into the South Atlantic by the weekend.

Discussion

As a marked upper trough engages a high WBPT plume in this region the South Atlantic Convergence Zone will be rather active over the next couple of days. In addition to heavy rainfall, isolated thunderstorms will develop, however these generally elevated with no great amounts of CAPE available.

Expected Impacts

The main impact is likely to be from flash flooding and fluvial flooding, although given that this event is occurring outside the usual season for these events (so it has been quite dry recently), impacts are most likely to be slight.



Africa

West Africa

Weather

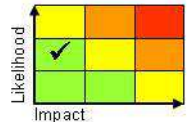
Further areas of organised thunderstorms will progress westward across this zone through the coming week. These storms may bring in excess of 50 mm of rainfall in a short period of time, with 150-250 mm possible if a location experiences several storms. In addition to heavy rainfall, strong damaging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

Discussion

Another few African Easterly Waves are forecast to transfer across the area stretching from the Sahel to down to the Gulf of Guinea coastline exiting into the Atlantic. These features are again signalled to remain fairly coherent as it moves out into the Atlantic, with a circulation still evident on the latest NWP output, however no developments are expected in the Atlantic due to high wind shear, and dry Saharan air to the north of the 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.



Middle East

Nil.

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Asia

Parts of central and northern India along with southeastern Pakistan

Weather

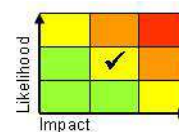
Periods of widespread, intense showers and thunderstorms will transfer from the east to west across this region through the next week, producing up to 350 mm of rain in a 24 hour period, with a threat of up to 600 mm through the next week in a few places. This means that some places could see several times their average July rainfall in a few days. There are some very large cities in this region that could see intense rainfall events during the next week.

Discussion

The main driver behind the severe monsoon conditions through the next week will be a succession of monsoon low pressure systems that will track from east to west across this region. This will result in most rainfall falling in the space of a few days, with longer drier periods in between. Forecast profiles show deep skinny CAPE, with high precipitable water (PWAT) allowing these fairly frequent cells to produce large precipitation accumulations.

Expected Impacts

High likelihood of flash flooding, and an increasing threat of river flooding. An increasing likelihood of landslides in hillier regions. Densely populated regions of India and Pakistan (including some large cities) could be impacted this coming week.



Northern Pakistan, far north and northeast of India, southwestern India, Bangladesh and western Myanmar

Weather

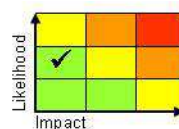
These areas will see a gradual easing of the monsoon rains through the next 5 days. However, intense rainfall from showers and thunderstorms could still produce up to 150-200 mm of rain in a 24 hour period during the next few days.

Discussion

The easing of the monsoon southwesterly flow into southwestern India will result in weakening rains through the weekend. The other areas to the north and northeast will see weakening rains as a result of monsoon low pressure systems further south focusing the peak rainfall away from the Himalayan foothills and the northeast Bay of Bengal region.

Expected Impacts

Continued flash and river flood threat along with a high likelihood of landslides during the next few days. However, the likelihood of these impacts decreasing from the weekend.



Central Japan – see *Tropical Cyclones* section.

Australasia

Nil.

Additional information

Nil.

Issued at: 250630 UTC

Meteorologist: Paul Hutcheon / Laura Ellam

Global Guidance Unit

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