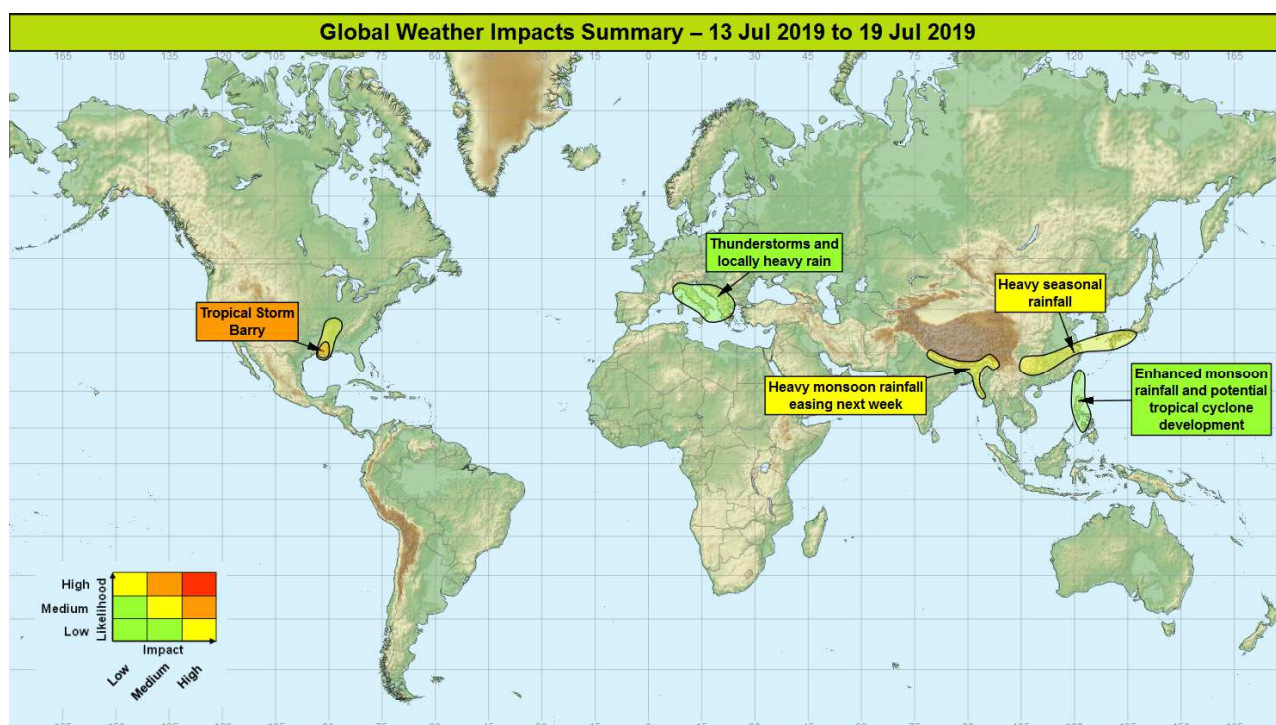


Global Weather Impacts – Saturday 13th to Friday 19th July 2019

Issued on Saturday 13th July 2019

HEADLINES

- Tropical Storm Barry to make landfall along the central Louisiana coast, possibly as a Category 1 Hurricane, this afternoon with significant flooding and storm surge inundation likely.
- Continued heavy rainfall and flooding across parts of south and east Asia, although conditions improving across Bangladesh through early next week.



DISCUSSION

Tropical Cyclones

Tropical Storm Barry (Gulf of Mexico and southern USA)

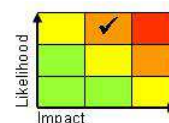
Weather

Tropical Storm Barry is located around 125 miles southwest of New Orleans, Louisiana this morning (Saturday) and is expected to make landfall today in south-central Louisiana. Barry looks likely to briefly attain Category 1 Hurricane status before landfall (sustained winds of 75 mph) but it is the combination of storm surge inundation and long duration heavy rainfall which are of primary concern. Once Barry moves onshore, the system is expected to bring heavy rain well inland through the Lower Mississippi Valley into early next week whilst wind and storm surge impacts will quickly diminish.

Discussion

Recent imagery has shown a steadily improving satellite presentation suggesting modest deepening and the reduction of the northerly shear which has impeded its development thus far. Taking this into consideration, it now looks more likely that Barry will briefly attain hurricane status before landfall.. Barry is moving erratically northwest but is expected to move more concertedly northward over the next 24 hours, with relatively small model differences in the track (especially compared to recent model output) where greatest impact exists across the Lower Mississippi Valley.

Expected Impacts



This forecast may be amended at any time

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Prolonged heavy rainfall is expected with 250-500 mm, isolated 600 mm of rain expected across south-central and southeast Louisiana and southwest Mississippi leading to significant flooding. By means of context, 500 mm falling in 3 days in this region represents a depth-duration-frequency of around 200 years. A dangerous storm surge (1-2 metres) and the tide will cause normally dry areas of the coast to be flooded by rising sea water moving inland from the coast. Hurricane force winds and a few tornadoes may exacerbate infrastructure and property damage from flooding.

The following areas are also being monitored for potential Tropical Cyclone development:

Western North Pacific (including Taiwan and northern Philippines)

Weather

An area of organised thunderstorms north of Papua New Guinea may undergo a slow development over the next few days, possibly strengthening into a tropical storm as it approaches the northern Philippines or Taiwan around the middle of next week. Irrespective of development, it is likely that increased shower and thunderstorm activity will contribute to some locally heavy rainfall during this time.

Discussion

Organised convection associated with an Equatorial Rossby Wave has good agreement from the main forecast models that slow development into a tropical cyclone is likely by early to mid next-week. This is backed up by moderate support from the ensembles, with a tighter than normal spread of tracks at this stage.

Expected Impacts

Primary impact would likely be from heavy rain (flooding, risk of landslides), but damaging winds could develop should the system develop towards the stronger end of model guidance.



Central Atlantic: An area of shower and thunderstorm activity associated with an African Easterly Wave is unlikely to develop into a tropical cyclone as it moves slowly westward across the tropical Atlantic. However, it may produce locally heavy rainfall through the middle next week across the Windward Islands.

Eastern North Pacific: Tropical Depression Four-E developed on Friday night a few hundred miles south of the southwestern coast of Mexico but is expected to move west-northwest well away from the coast over the next couple of days before dissipating. There is a very small window of opportunity for it to become a Tropical Storm today. A separate area of thunderstorms to the west of this system is unlikely to develop through the next few days.

Europe

Southern and southeast Europe

Weather

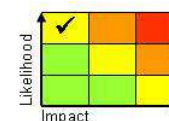
Further scattered heavy showers and thunderstorms are likely in this region until Tuesday. On Saturday, the focus for locally severe thunderstorms is expected to be through the Adriatic and adjoining coastal regions. 50-75 mm of rain is possible in a few places but heavy rain will also be accompanied by frequent lightning, squally winds, large hail and one or two tornadoes. Thereafter, the focus transfers towards northern Italy before extending south again through early next week.

Discussion

A northwesterly upper flow aloft and associated forcing will engage the resident warm plume across southern Europe. Forecast profiles on Saturday support isolated supercells moving south through the Adriatic and adjoining coasts. A trough disruption through early next week is expected to trigger further thunderstorms before more benign conditions develop in response to a ridge building in its wake through midweek.

Expected Impacts

Although impacts from severe thunderstorms are typically isolated, flash flooding, property and infrastructure damage, power interruptions and a threat to life are possible.



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North America

Gulf of Mexico and southern USA – see *Tropical Cyclones* section.

Central America and Caribbean

Nil significant.

South America

Nil significant.

Africa

Nil significant.

Middle East

Nil significant.

Asia

Northern Philippines and Taiwan – see *Tropical Cyclones* section.

Northern India, Nepal, northern/eastern Bangladesh, Bhutan and northern/western Myanmar

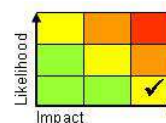
Frequent torrential thunderstorms are expected to affect the region over the next week, with daily rainfall accumulations expected to peak over the weekend before decreasing early next week, particularly across Myanmar and Bangladesh. Whilst rainfall amounts will vary significantly from location to location, 200-400 mm of rain is expected quite widely over the next week (including the Chittagong-Cox's Bazar region) with the southern foothills of the Himalayas potentially receiving around 1000 mm of rain.

Discussion

Anomalous persistent and strong southwesterly flow across the Bay of Bengal over the next few days will maintain above average shower and thunderstorm activity across the region as it impinges on the southern upslopes of the Himalayas, Naga Hills and Chittagong Hills. This comes on top of what has already been a very wet July, with many places in the vulnerable, Rohingya refugee camps already reporting daily totals in excess of 200mm and around 1000mm from July 1st. Further north, over 200,000 people have been affected by floods, with the Brahmaputra already exceeding flood limits in some districts.

Expected Impacts

With the focus of the Indian Summer Monsoon now signalled to transfer further north into a much more mountainous region, landslides become an increasing threat. Severe flash and river flooding impacts are also possible. Significant impacts on refugee camps possible, despite efforts to mitigate against the weather.



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Southern China and southwestern Japan

Weather

Torrential rain and severe thunderstorms associated with the seasonal rains will affect this region through the next week, with 150-250 mm widely, locally as much as 400 mm falling. This is around a month to two month's worth of rain for some locations.

Discussion

Strong convergence along the Mei-yu (Baiu) front will continue to provide a focus for intense rainfall and a threat of severe storms. A succession of upper troughs will engage the northern edge of the monsoon frontal plume through much of the coming week, resulting in persistent, heavy rains in places.

Expected Impacts

Both fluvial and flash flooding is possible, with an additional risk of landslides in mountainous areas. Disruption to transport and infrastructure is likely in what is a densely populated area due to the slow-moving seasonal heavy rainfall.



Australasia

Nil.

Additional information

The record-breaking heatwave across Alaska which resulted in temperatures widely into the high 20s °C to low, locally mid 30s °C is now declining. However, further thunderstorms are expected which may trigger further forest fires across the Interior and maintain areas of dense smoke and poor air quality. Cooler temperatures are expected to become more widely established through next week.

Issued at: 130500 UTC **Meteorologists** Matthew Lehnert and D J Harris

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