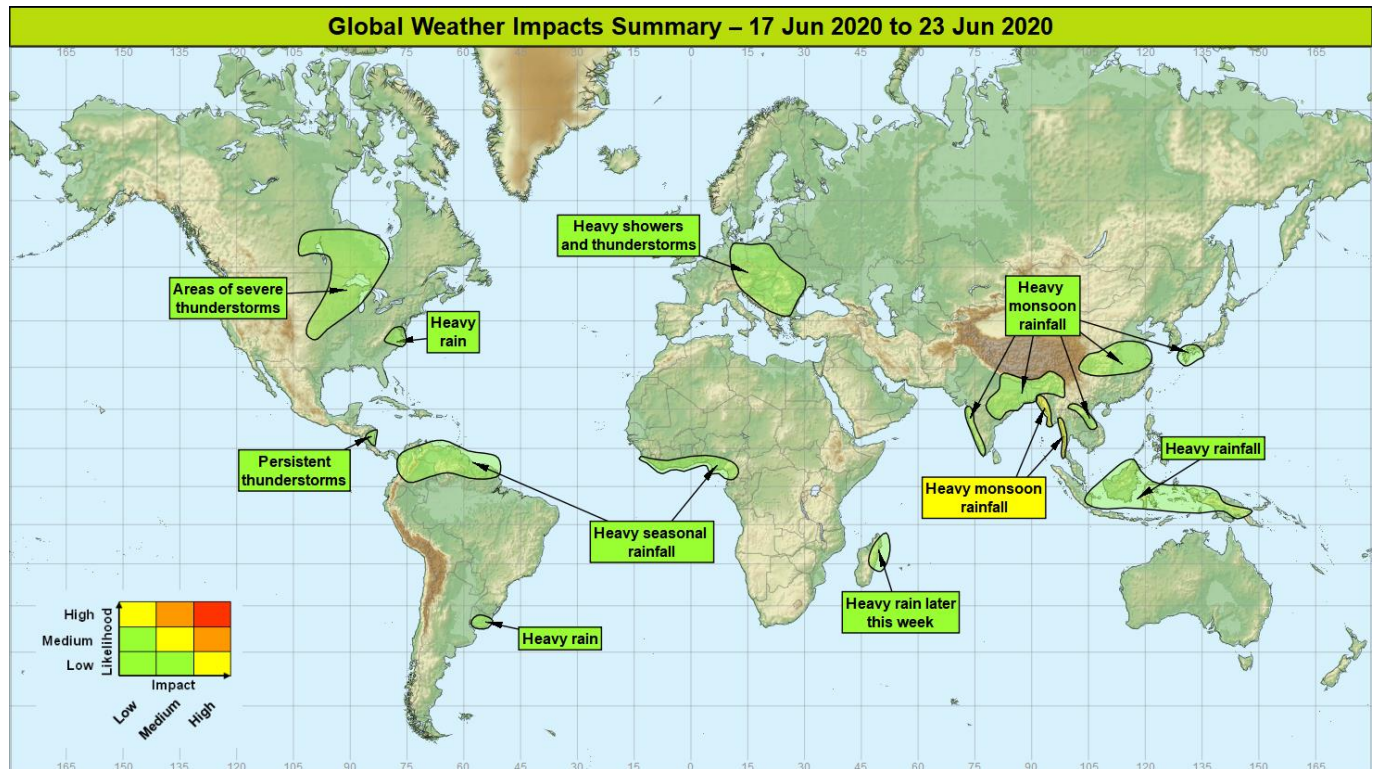


Global Weather Impacts – Wednesday 17th to Tuesday 23rd June 2020

Issued on Wednesday 17th June 2020

HEADLINES

- Very heavy monsoon rainfall for parts of South and East Asia including southeast Bangladesh.
- Heavy showers and severe thunderstorms expected over parts of continental Europe.



DISCUSSION

Tropical Cyclones

Nil.

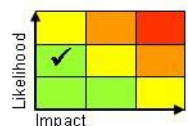
Europe

Central and south-east Europe

Weather

Further thunderstorms are expected across many parts of Europe through midweek but with time the focus across northern parts of the continent is expected to shift eastward. Initially, the focus will be across Germany and Poland, southeast towards Turkey and the Balkans. By the weekend though, this will shift to become confined mainly to eastern Europe (Baltic States to Turkey). Rainfall amounts will vary significantly from place to place but 20-40 mm locally 50-80 mm is possible in a few locations over 2-3 hours. A more organised band of thundery rain may bring 100-150 mm of rain to parts of Germany and Poland (twice the average for June) through Thursday and Friday.

Discussion



This forecast may be amended at any time

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319

VPN: n6225 4319 Email: GGU@metoffice.gov.uk

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A warm plume resident across eastern Europe has been responsible for occasional showers and thunderstorms triggered by insolation as well as a slow-moving upper low through the first half of the week. However, the large scale vortex in the vicinity of the UK will elongate and extend southeast through the coming days resulting in some progression eastward of this regime. In doing so, the upper trough will likely be responsible for some upscale development of convection, potentially acquiring frontal characteristics as baroclinicity increases across central Europe. Ahead of this, high precipitable water and instability lends a high likelihood of some locally severe thunderstorms.

Expected Impacts

Flash flooding events looks likely, with a risk of some hail and wind damage too. Lightning impacts on transport and power networks are likely.

North America

Eastern USA

Weather

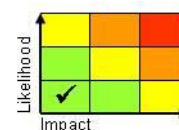
Heavy rain is expected to continue affecting the Mid-Atlantic region on today (Wednesday), particularly North Carolina and southeast Virginia. A further 30-50 mm of rainfall is likely with locally 75-100 mm possible along parts of the North Carolina coast.

Discussion

A cut-off vortex over SE US has induced cyclogenesis just offshore of South Carolina and this is providing a moist and deeply unstable E'ly flow onto the coast of North Carolina. A succession of heavy showers and thunderstorms, merging into persistent rain, will affect this region, before the system occludes out and drift northwards later Wednesday whilst slowly fading.

Expected Impacts

Localised flash flooding is the primary hazard, particularly in the vicinity of Raleigh.



Great Plains USA to southern Canada

Weather

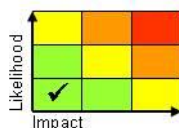
Strong to locally severe thunderstorms are expected to affect the region over the next few days, although this risk will likely subside through the weekend. In addition to locally heavy rain, large hail and strong winds as well as a low risk of a tornado are possible with the more severe thunderstorms. Through midweek, the focus of activity will be across Canada and the northern Plains, but is likely to extend south later in the week.

Discussion

An upper trough over the Rockies is inducing warm advection on its eastern flank with a surface low lifting north into Canada through midweek. The upper trough remains relatively slow-moving and is expected to elongate later in the week providing greater forcing to trigger locally severe thunderstorms further south into the central and southern Plains. With increasing mobility upstream, this encourages progression in the upper pattern over the weekend and early next week resulting in a downturn in the convective threat.

Expected Impacts

Areas of flash flooding are possible, with urban areas mainly at risk. Localised hail and wind damage, both from straight line winds and also isolated tornadoes.



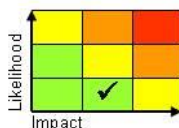
Central America and Caribbean

Nicaragua (especially Caribbean Sea coast)

Weather

A steady stream of thundery showers running west from the Atlantic will bring fairly persistent heavy rain to large parts of Nicaragua, with a focus on the eastern coast. Some places will see 50-75mm in a day, and there is a chance that some locations could see in excess of 200mm over the next 5 days, which is close to a month's worth of rain for this location.

Discussion



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VPN: n6225 4319 Email: GGU@metoffice.gov.uk

A number of African Easterly Waves are expected to run across or to the north of this region over the next few days, bringing enhanced easterly flow in their wake and concentrating moisture and showers/thunderstorms in the convergent flow as it slows inland.

Expected Impacts

Areas of flooding, mainly flash flooding, are possible, along with landslides in elevated terrain. Some parts of Nicaragua may be more sensitive given the impacts from Tropical Storm Amanda earlier this month.

South America

Colombia, Venezuela, Guyana, Suriname and French Guiana

Weather

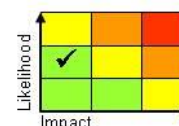
Showers and thunderstorms will be more widespread and intense than usual across the region over the next week. Widespread daily accumulations of 50-75 mm are expected with some regions having up to 250 mm by early next week.

Discussion

The ITCZ across northern parts of South America will be more active than normal over the next week, mainly due to high SSTs in the tropical Atlantic Ocean.

Expected Impacts

Increased risk of flash flooding across the region.



Uruguay

Weather

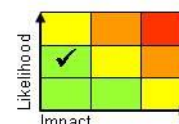
Spells of heavy rain and thunderstorms are expected to develop across Uruguay through Thursday to Sunday with central and southern parts of the country likely to receive 75-125 mm widely by the end of the week. Typically, Montevideo receives around 85 mm of rain during June.

Discussion

A succession of shortwave troughs embedded within the zonal upper pattern across South America will draw upon the reservoir of subtropical moisture to the north spawning a number of frontal waves that then develop as they move into the South Atlantic. The high WBPT airmass will also contain the threat of embedded thunderstorms.

Expected Impacts

Although ground conditions are slightly drier than average for the time of year, there is an increased likelihood of flash flooding, as well as landslides in areas of more steeply sided terrain.



Africa

Southern parts of West Africa

Weather

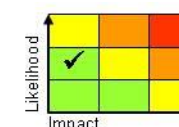
Heavy showers and thunderstorms are probable at times through the next week, likely coming in bursts of one to two day events. Each event could produce 50-75mm of rain, with total accumulations of up to 150mm possible through the next seven days. To the north of this area dense dust storms are likely at times from dry thunderstorms. Through June this coastal region usually sees 250-500mm of precipitation.

Discussion

A number of Africa Easterly Waves are signalled to affect this region through the next week, bringing periods of organised deep convection with much less widespread convection in between. It has to be said that forecasting of the convective detail at anything other than very short range is very low confidence, such that no further details can be given in this broad assessment. Just to the north of the highlighted region, the convection is likely to produce strong dry downdraughts that will result in dense Haboob dust storms.

Expected Impacts

Isolated flash flooding events could occur, with an increased threat of landslides where terrain is steep.



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VPN: n6225 4319 Email: GGU@metoffice.gov.uk

Northeast Madagascar

Weather

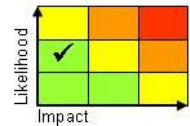
An area of heavy showers and thunderstorms, currently over the central Indian Ocean, looks likely to drift south-westwards over the next few days to bring a spell of heavy and persistent rainfall to this region, possibly on Friday but more likely over the weekend. Rainfall amounts at this range are very uncertain, but there is potential for in excess of 500mm in the worst case scenario. This is much more than the average monthly rainfall for this time of year, but equally in excess of the monthly averages of the wetter austral summer months (c. 300mm).

Discussion

An equatorial Rossby wave just on the southern side of the Equator is expected to drift slowly southwest on the periphery of the South Indian sub-tropical ridge. An element of development looks likely but the environment (strong shear) won't be conducive to organised tropical cyclogenesis. Nevertheless, a highly asymmetric system is expected to be accelerated onto the coast of NE Madagascar, bringing similar moisture and rainfall rates to those associated with tropical storms in the summer half of the year.

Expected Impacts

This region is used to heavy, tropical rainfall, but this does come at a more unusual time of year. There is likely to be an increased risk of flash flooding, and localised landslides in steeper areas.



Middle East

Nil.

Asia

West, central and northeast India, Bangladesh, northern Myanmar and Bhutan

Weather

Another active pulse in the monsoon is signalled, with heavy rain and thunderstorms spreading more widely across this region as the monsoon progresses northwards. Rainfall across eastern and central India will be enhanced by a slow moving monsoon depression, which will also enhance the monsoon south-westerly flow across the northern Bay of Bengal. Each day, there will be the potential for 150-200 mm of rain to fall in places. In excess of 1000mm could fall in a few spots in each of the highlighted regions, which is two to three months' worth of rain in just a week in some places.

Discussion

The monsoon is expected to continue to progress northwards in an active phase through the coming week, with enhanced SW'ly flow bringing persistent rain/thunderstorms to the western Ghats, Bangladesh, and NE India. A monsoon depression forming over Chhattisgarh and becoming slow-moving will concentrate large areas of rainfall here and in parts of Madhya Pradesh, Uttar Pradesh, Bihar, Jharkhand, and Odisha through the remainder of the week.

Expected Impacts

Increased likelihood of surface water and river flooding and landslides.



Western Myanmar and the far southeast of Bangladesh (including Cox's Bazar)

Weather

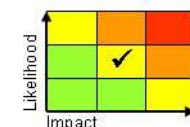
Monsoon heavy showers and thunderstorms are expected to peak in frequency over the next 2-3 days before easing over the weekend. Over 500 mm is possible in a few places through the remainder of the week, equivalent to around 60% of the June average for Cox's Bazar region.

Discussion

A more veered low-level flow is now generating more widespread deep convection that is then advected onshore across the coast of Myanmar and southeast Bangladesh, enhanced by the development of a monsoon depression over northeast India.

Expected Impacts

Increasing threat of flash flooding and landslides.



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Southern and central China, western Japan, Laos, and Vietnam

Weather

Heavy monsoon rainfall is expected across the region over the next seven days. Some places are likely to see 100-150mm per day in association with heavy and persistent rain across quite a wide area of this region. 300-500mm of rainfall is most likely in total across the wettest areas, which is above the average June rainfall in this region. There is also the potential for intense short period rainfall from thunderstorms.

Discussion

Ongoing monsoon southerly flow into this area will continue to enhance moisture and wind convergence associated with the seasonal Mei-yu/Baiu front, leading to episodes of heavy rain and thunderstorms. Whilst the upper flow is not especially conducive to large-scale development, a number of shortwaves embedded within the flow will continue to trigger rainfall across a similar area along the quasi-stationary front, leading to large rainfall accumulations. Over two million people are already severely impacted by flooding in parts of China.

Expected Impacts

Increased threat of further flash and fluvial flooding as well as landslides.



Indonesia, Malaysia and Papua New Guinea

Weather

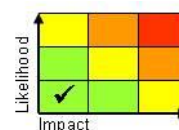
Above average rainfall will continue across this region in the form of heavy showers and thunderstorms. These will be capable of locally bringing 50 mm of precipitation in a short duration, with some locations likely to see 100-200 mm through the coming week. Average precipitation accumulations in June across this region are around 250 mm

Discussion

One, potentially two Kelvin waves are expected to cross this region through the coming days bringing eastward moving zones of enhanced shower and thunderstorm activity.

Expected Impacts

An increased risk of flash flooding and landslides in regions where terrain is steep.



Australasia

Nil.

Additional Information

Cox's Bazar, southeast Bangladesh

See the *Western Myanmar and the far southeast of Bangladesh* section.

Western Yemen

Isolated showers and thunderstorms are expected to be confined to the Western Highlands and higher ground inland and parallel to the Gulf of Aden coastline over the next week. Flash flooding is considered a very low likelihood.

Issued at: 170730 UTC **Meteorologist:** Matthew Lehnert/Jason Kelly

Global Guidance Unit

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Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319

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