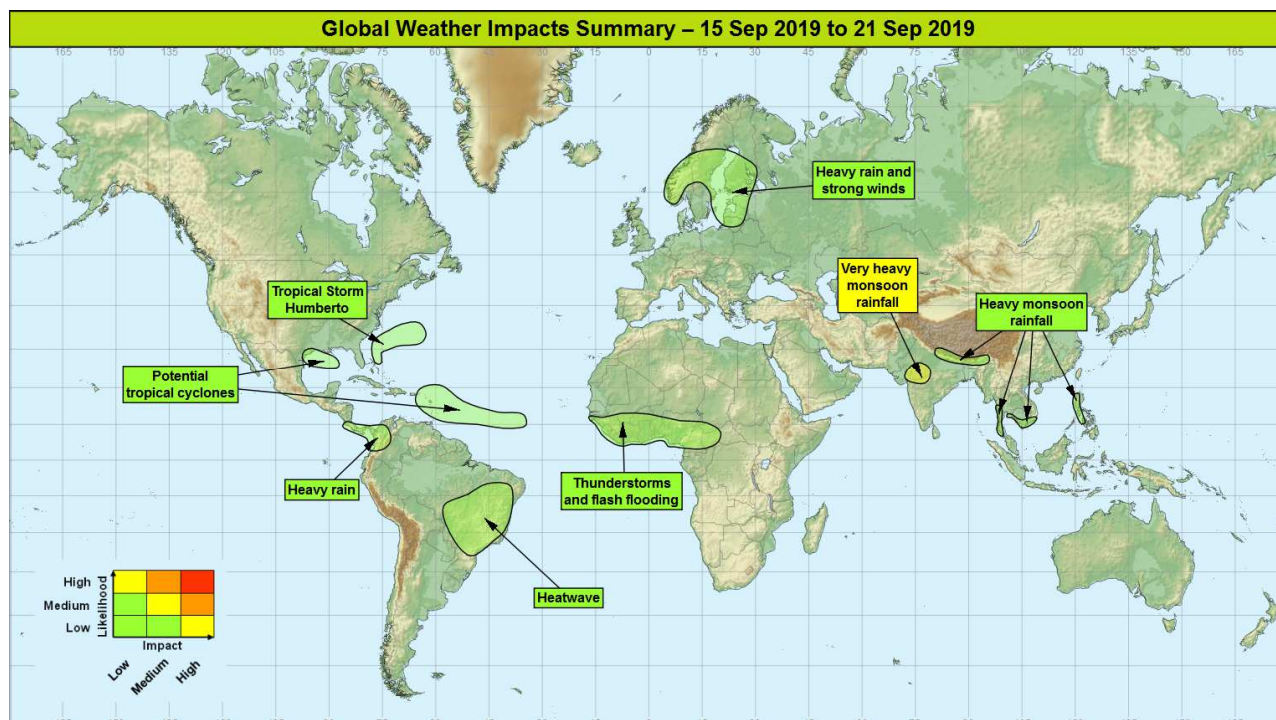


Global Weather Impacts – Sunday 15th to Saturday 21st September 2019

Issued on Sunday 15th September 2019

HEADLINES

- Tropical Storm Humberto strengthening into a hurricane and then possibly affecting Bermuda later this week.
- Very heavy monsoon rainfall continues across central India, but should ease later this week.



DISCUSSION

Tropical Cyclones

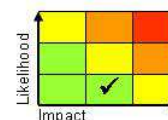
Tropical Storm Humberto – Atlantic Weather

Tropical Storm Humberto has now cleared the northern Bahamas. Further rain is possible here during Sunday, but it is not expected to be heavy. As Humberto moves further out into the Atlantic Ocean, the cyclone is expected to intensify, probably becoming a hurricane during Monday. The likely hurricane will then move northeast and pass close to Bermuda on Thursday. It is still not clear how close Humberto will get to Bermuda and therefore how severe the impacts will be. Regardless of precise track a period of heavy rain and strong winds is probable.

Discussion

Humberto is expected to move into a lower shear environment with high SSTs, leading to likely intensification of the cyclone into a hurricane by Monday. The system is then expected to turn right and take a more northeasterly track, passing close to Bermuda on Wednesday and Thursday. Compared to 24hr, there is now a higher likelihood of tropical storm impacts in Bermuda, but the confidence in the track is low and it is not clear whether Bermuda will take a direct hit or not at this stage.

Expected Impacts



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

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

Flash flooding is probable across Bermuda, although severity of flooding is uncertain at this time. Damaging winds and storm surge, leading to coastal flooding are also possible, but highly dependent on the track of Humberto, which at this time has low confidence.

The following areas are being monitored for potentially impactful developments through the forecast period:

Atlantic Ocean

Weather

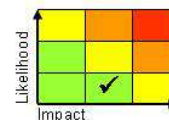
A number of tropical waves emerging into the tropical Atlantic from West Africa are being monitored for potential tropical cyclone development. Currently confidence is very low in any details, but any systems that do develop will have the potential to affect the Lesser Antilles later this week.

Discussion

Further African Easterly Waves will move west across the tropical Atlantic, with a low likelihood of these being sources for tropical cyclogenesis within the forecast period. With moderate to strong wind shear across a large part of the tropical Atlantic, tropical cyclogenesis only becomes likely by the time they reach the Caribbean. Model solutions have been very volatile up to now (not unusual), with the best that can be said for now is that any development that does occur is more likely to be towards the end of this forecast period and more likely to affect the Lesser Antilles.

Expected Impacts

Very low likelihood of tropical cyclone impacts (heavy rain, strong winds, storm surge) mid to late this week.



Gulf of Mexico

Weather

There is a small chance of an area of heavy showers and thunderstorms becoming better organised over the next couple of days and developing into a tropical cyclone, as the whole system moves northwest towards the Texan coastline. Regardless of development a spell of torrential rain is probable across southern Texas and perhaps parts of Louisiana with 150 to 300 mm of rainfall during the second half of the coming week.

Discussion

Gradual development of a cluster of thunderstorms is possible over the next few days as the system moves northwest. However, environmental conditions are not particularly favourable for development and this is unlikely to become a tropical cyclone before reaching the coastline of southwestern USA later this week.

Expected Impacts

Flash flooding is probable. Storm surge and damaging winds seem unlikely at this stage.

Europe

Southern Scandinavia and the Baltic States

Weather

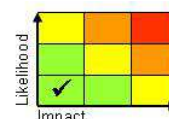
A spell of wet and very windy weather is expected to affect the region over the next couple of days. Whilst not particularly severe, this amount of rain, around 30-50 mm with over 100mm over high ground in the west, is notable for the time of year. Average September rainfall for Helsinki is 55 mm.

Discussion

A powerful jet (over 150KT) will move east across northern Europe over the next few days with minor perturbations along it interacting with waves along a well-defined frontal zone to produce deep depressions. These will track across Scandinavia bringing wet and very windy conditions to this part of Europe over the next few days.

Expected Impacts

Main impact on travel with strong winds causing disruption, especially to marine transport, and the potential for surface-water flooding in places.



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

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

North America

Gulf Coast & Bermuda – See *Tropical Cyclones* section.

Central America and Caribbean

Caribbean – See *Tropical Cyclones* section.

South America

Brazil

Weather

A heatwave is likely to develop across large parts of central and eastern Brazil over the next week. Temperatures are widely expected to be 5 to 10°C above average, reaching the mid-to-upper 30s°C and perhaps 40°C in a few places. This spell of hot weather is unusual being early in the season. For context the average daily maximum temperature in Sao Paulo for September is around 26°C. Temperature records for September could be broken.

Discussion

A strong and persistent surface- and upper-ridge will allow temperatures at the surface to rise, mainly through strong subsidence and cumulative sensible heating. By the middle of next week 1000-850hPa partial thickness will exceed 145dm quite widely.

Expected Impacts

Disruption to travel and power outages are possible. Heat stress will increase especially for vulnerable groups in the general population.



Colombia, Costa Rica & Panama

Weather

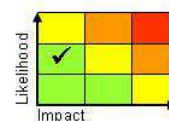
Showers and thunderstorms will be more widespread, frequent and intense than usual over the region during the next week. Daily accumulations of around 75-125 mm are possible, with up to 350 mm over the course of week in places.

Discussion

The MJO is expected to cross South America over the next week enhancing rainfall across the ITCZ, especially across western parts of the continent.

Expected Impacts

Increased incidents of flash flooding with perhaps an increase in the risk of landslides.



Africa

West Africa

Weather

Much of this region has seen above average rainfall during the past 2-4 weeks courtesy of an unusually active West African Monsoon season, with reports of major flooding in countries such as Nigeria, Niger, Mali and Mauritania. Further heavy rainfall is expected with many locations experiencing periods of enhanced thunderstorm activity followed by a few days of quieter conditions. In the heaviest showers, 50-80 mm could fall in an hour, perhaps as much as 150 mm in a few hours.

Discussion

African Easterly Wave activity will continue to bring organised areas of deep convection/MCS activity westward through the next week, contributing to a further period of above average rainfall across parts of West Africa.

Expected Impacts

Ongoing enhanced risk of flash flooding and high river levels. Some further damage to property and infrastructure is possible.



Middle East

Nil.

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

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

Asia

Central India

Weather

The incessant monsoon rain experienced in this region over the past week (many locations typically reporting 400 mm of rainfall over the past 5 days) is expected to continue over the next few days before conditions improve through next week. A further 50-80, locally 120mm of rainfall is likely for some, on top of what has already fallen. This region typically receives around 185 mm during September.

Discussion

A monsoon low pressure system formed along the monsoon trough in central India and will remain slow moving over the next few days, before models signal it to quickly dissipate. Torrential downpours accompanied by gusty winds and lightning at times, are expected to continue.

Expected Impacts

Further flooding of homes, businesses, and impacts on agriculture. Damage to roads/rail transportation links.



North-east India, Nepal, Bhutan

Weather

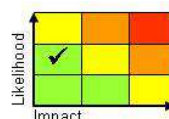
Persistent and at times very heavy monsoon rainfall is expected to develop over the next few days in this region, with potential for 50-80mm per day and some locations seeing as much as 250mm by the middle of next week.

Discussion

Persistent southerly winds drawn in by the heat low over the Tibetan Plateau, encouraged by broad monsoon troughing over India, will see repetitious showers and thunderstorms triggered by both surface convergence and uplift over the foothills of the Himalayas over the next few days. Whilst showers will be generally hit and miss, and not all locations will see showers every day, rainfall totals of 100-200mm are expected quite widely in this region.

Expected Impacts

Risk of localised flash and river flooding, landslides in areas of steeper terrain. Occasional frequent lightning/large hail causing damage to crops.



Parts of SE Asia

Weather

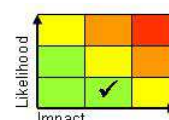
Above average rainfall is expected over the coming days associated with enhanced monsoonal flow in a broad region stretching from the southern Bay of Bengal through the South China Sea and into the western Philippines. Over the coming week the most exposed parts of the west Philippines could see up to 500 mm of rain, with some locations seeing in excess of 100mm within 24 hours.

Discussion

The north-easterly monsoon appears to have become quickly re-established across the northern part of the South China Sea, this further encouraged by a broad monsoon depression centred over the NW Pacific. Along the southern flank a strong SW monsoonal flow extends from the Bay Bengal across the South China Sea and into the Philippines. Along this monsoon front rainfall will be heavy and persistent through this week, with western facing slopes most prone to the heaviest rainfall.

Expected Impacts

Flash flooding events possible, especially if showers affect a large urban centre such as Manila. As the week progresses an increasing likelihood of small river flooding and landslides.



Australasia

Nil.

Additional information

Nil.

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

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

Issued at: 150550 UTC

Meteorologists: Brent Walker / D J Harris

Global Guidance Unit

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

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.