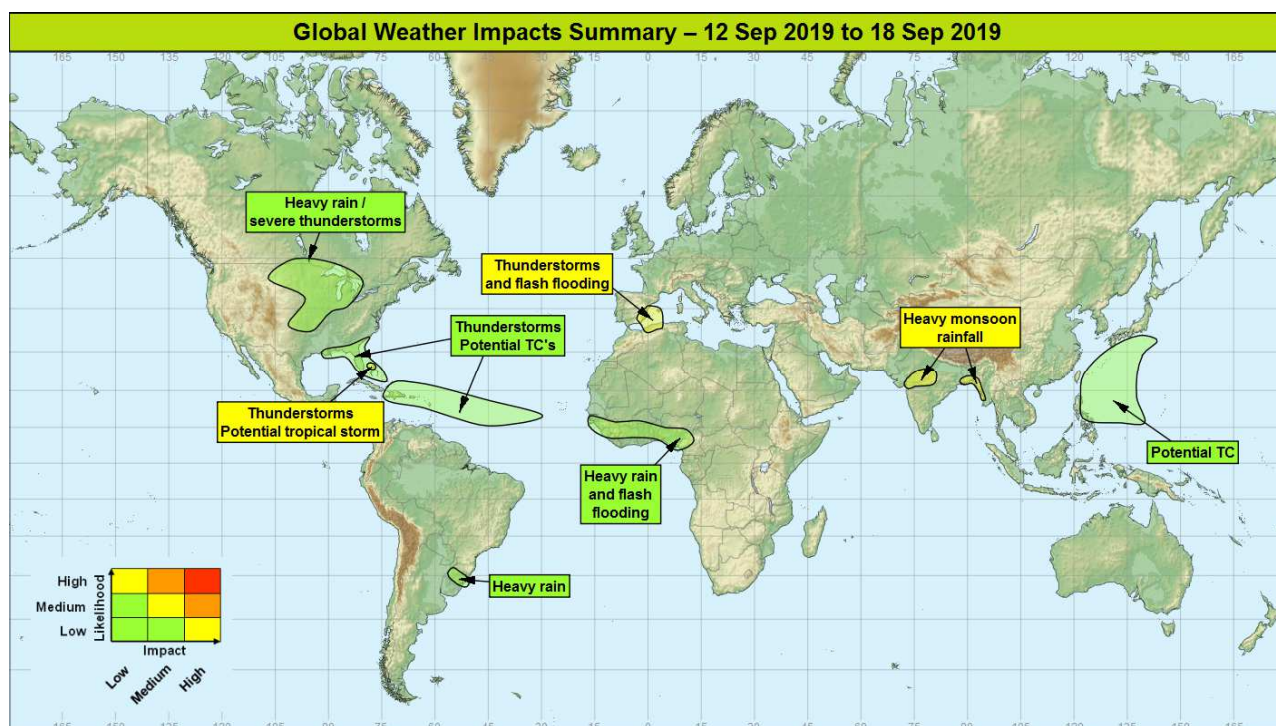


Global Weather Impacts – Thursday 12th to Wednesday 18th September 2019

Issued on Thursday 12th September 2019

HEADLINES

- Heavy rain/gusty winds affecting Abaco Islands and Grand Bahama Thursday/Friday.
- Thunderstorms bringing an increased risk of flash flooding to parts of Spain and NW Africa.
- Heavy monsoon rainfall continues across central India, but should start to ease across the northern Bay of Bengal.



DISCUSSION

Tropical Cyclones

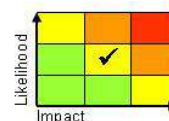
There are currently no active tropical cyclones. The following areas are being monitored for potential development:

Bahamas, SE USA

Weather

A broad area of low pressure associated with a tropical wave is expected to bring an area of enhanced shower and thunderstorm activity north-westward across the Bahamas through the rest of the week. Many locations look likely to see between 50 and 100mm of rainfall over the next few days, although a slight westward deviation from the most likely track could result in 2 to 3 times these values falling from Central Bahamas northwards, and current confidence in the track is rather low. There is growing confidence that this will develop into a tropical storm, possibly over the northern Bahamas but more likely close to Florida or over the Gulf of Mexico.

Discussion



This forecast may be amended at any time

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Thunderstorms with heavy rain and locally gusty winds are expected to track NW across the Bahamas over the next 2 to 3 days. Today conditions (mainly shear) are not expected to support tropical cyclogenesis, but beyond this it looks increasingly likely that a TS will develop. Regardless, heavy rain and gusty, squally winds are expected to occur, which for the islands hardest hit by the recent hurricane Dorian will be particularly unwelcome. The NHC's latest guidance (12/0300Z) rates this system as having a 50% chance of becoming a tropical storm within the next 48 hours, and based on the very latest information the chance of this occurring by the time the system reaches the northern Bahamas now looks to be more in the region of 70%. Cooler SST's in the wake of Dorian and lower OHC does however mean that any development is likely to take a little longer to intensify once it does get going, than it otherwise would have. The forecast track carries particularly low confidence, with ensemble output tending to support the parent deterministic model from each centre, and a range of solutions from running parallel to the Eastern Seaboard to making landfall across the Gulf of Mexico coast in the vicinity of Louisiana.

Expected Impacts

Regardless of whether the system develops into a fully fledged tropical cyclone, heavy rain and locally gusty winds has potential to cause further impacts to the vulnerable islands of NW Bahamas over the next couple of days, with recovery efforts in the wake of Hurricane Dorian likely to be hampered. Elsewhere, localised flooding is possible, with a lower risk of wind damage.

Atlantic Ocean Weather

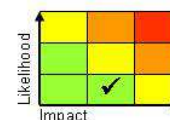
Two tropical waves are being monitored – one is expected to track across the Lesser Antilles over the weekend bringing enhanced showers and thunderstorms but currently looks unlikely to develop into a tropical cyclone. The second wave is expected to follow in its wake, and has a greater (but still very low) chance of becoming a tropical storm or even hurricane in the vicinity of the Central Caribbean by the middle of next week.

Discussion

Further AEWs will move west across the tropical Atlantic, with a low likelihood of these being sources for tropical cyclogenesis within the forecast period. Given a largely unsupportive MJO background state (phase 6), and evidence of moderate to strong wind shear, development of these features and potential tropical cyclogenesis only becomes possible by the time they reach the Caribbean. There is little evidence to suggest that the first wave will develop into anything significant, but the second wave does show potential in the longer range deterministic output at least for tropical cyclogenesis by the middle of next week.

Expected Impacts

Some localised flash flooding possible from increase heavy shower and thunderstorm activity from Friday. Very low likelihood of tropical cyclone impacts (heavy rain, stronger winds and storm surge).



Western North Pacific Weather

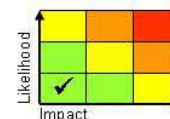
A tropical depression west of Guam may develop into a tropical cyclone through this week as it drifts north-westwards over open water. It's uncertain as to whether any development will directly impact land, although Taiwan and perhaps southern Japan seem most prone.

Discussion

An equatorial Rossby wave near Guam has spawned a surface low which has the potential to intensify into a tropical storm over the coming days. SSTs remain favourable for development but vertical wind shear may be a limiting factor with most models only favouring very gradual organisation and intensification.

Expected Impacts

Low risk of heavy rainfall and strong winds to Taiwan and southern Japan. A pre-existing low which may spawn this system is likely to produce some heavy rainfall across parts of the Philippines through the next couple of days.



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Europe

Spain (and the Balearic Islands) and parts of North-western Africa

Weather

Heavy showers and thunderstorms will continue across this area during the remainder of the week before conditions improve over the weekend. There is potential for some locations to receive 100-150mm in a few hours in addition to large hail, strong winds and possible tornadoes/waterspouts. The heaviest and most prolonged rainfall looks likely to be focused on coastal parts of east and southeast Spain with 250-350mm possible in places by the weekend.

Discussion

A cut off upper low will remain slow-moving across northern Algeria and Morocco for the remainder of the week, before retreating westwards into the weekend. This and the combination of abundant low level moisture in the western Mediterranean and steep lapse rates being drawn north from the Sahara will trigger several rounds of severe thunderstorms across the region this week. Near the cut-off low centre and where thunderstorms impinge on favourable terrain, some quasi-stationary thunderstorms are likely which would bring a heightened flash flood risk.

Expected Impacts

Primary hazard is expected to be flash flooding bringing a risk to life and damage to property and infrastructure. Landslides and rock-falls are possible in areas of more steeply sided terrain. Frequent lightning, large hail and squally winds may also cause some localised damage to property and infrastructure.



North America

Northern USA and far southern Canada

Weather

A potent area of low pressure is expected to bring heavy rain to parts of the Great Lakes, upper Mississippi Valley and Northern Plains over the next couple of days. By the end of the week, many areas are likely to receive between 50-100 mm locally 150 mm of rain. For context, Minneapolis and Fargo (North Dakota) typically receive 78 mm and 65 mm respectively during the month of September. The trailing cold front is likely to trigger some severe thunderstorms during Thursday.

Discussion

An upper vortex and associated surface low will progress north-eastwards through Thursday. Forecast profiles along the trailing cold front are supportive of severe thunderstorms with CAPE of 2000-3000 J/kg and PWAT 45-50 mm. These could locally produce 50-75 mm of rainfall in a short period.

Expected Impacts

Cumulative impact of rainfall across the region by the end of the week is likely to lead to some flash flooding and flooding of streams and minor rivers. Severe thunderstorms also likely to lead some localised flash flooding and perhaps some disruption to transport and power supplies.



The Bahamas, SE USA – See *Tropical Cyclones* section.

Central America and Caribbean

Lesser Antilles, Central Caribbean – See *Tropical Cyclones* section.

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South America**Far south of Brazil****Weather**

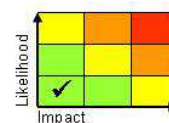
Heavy rainfall and thunderstorms will continue in this area over on Thursday before activity wanes. A further 50-75mm is possible in places.

Discussion

A slow-moving frontal zone will be the focus for a similarly slow-moving area of rain to persist across the region today. Activity will ease later in the week as an upper ridge builds over the region.

Expected Impacts

Risk of flash flooding causing some travel disruption and localised damage to property and infrastructure.

**Africa****Northeast Morocco and northern Algeria** – See *Europe* section.**West Africa****Weather**

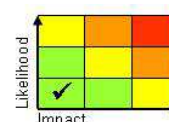
Above average rainfall has affected many parts of this region during the summer monsoon season, particularly over the last month. Whilst conditions will return closer to average there will still be frequent thunderstorm activity followed by a few days of drier conditions. Some locations receiving a further 100-150 mm in a few hours associated with the most intense thunderstorms.

Discussion

African Easterly Wave activity will continue to bring organised bands of deep convection westward through the next week with activity likely contribute to above average rainfall across 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.

Asia**Taiwan, Philippines and southern Japan** – See *Tropical Cyclones* section.**Central India****Weather**

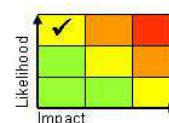
An area of frequent torrential showers and thunderstorms will remain slow-moving across central portions of India through this week and into the weekend. Most of the region, including large cities such as Bhopal and Nagpur, is likely to receive in excess of 100-200 mm over the next 5 days with some locations receiving 500-700 mm during this time. This region typically receives around 185 mm during September.

Discussion

A monsoon low pressure system has formed along the monsoon trough in central India but is expected to drift only slowly westward through the week and into the weekend. The state of Madhya Pradesh has been consistently signalled by model output to receive the highest rainfall totals.

Expected Impacts

Flash flooding events are likely, including in large population centres in Madhya Pradesh. There is also an increasing likelihood of river flooding and landslides.



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Southern Bangladesh and western Myanmar

Weather

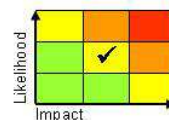
Frequent intense showers and thunderstorms are expected again on Thursday, before conditions likely improve across this region by the weekend. A further 50-100 mm may fall per day, perhaps 150 to 200 mm very locally by the end of the week.

Discussion

A strong monsoonal flow has brought heavy rainfall to southern Myanmar and southern Bangladesh, due to the persistence of a monsoon low pressure system across central India. Southwest-facing upslopes will be most threatened by enhanced rainfall due to orographic uplift of the very moist airmass. The strong monsoonal flow will gradually ease by the weekend as the low transfers west.

Expected Impacts

Flash flooding events are likely, with an increasing likelihood of river flooding and landslides.



Australasia

Nil.

Additional information

Nil.

Issued at: 120800 UTC

Meteorologists: Mark Sidaway / D J Harris

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