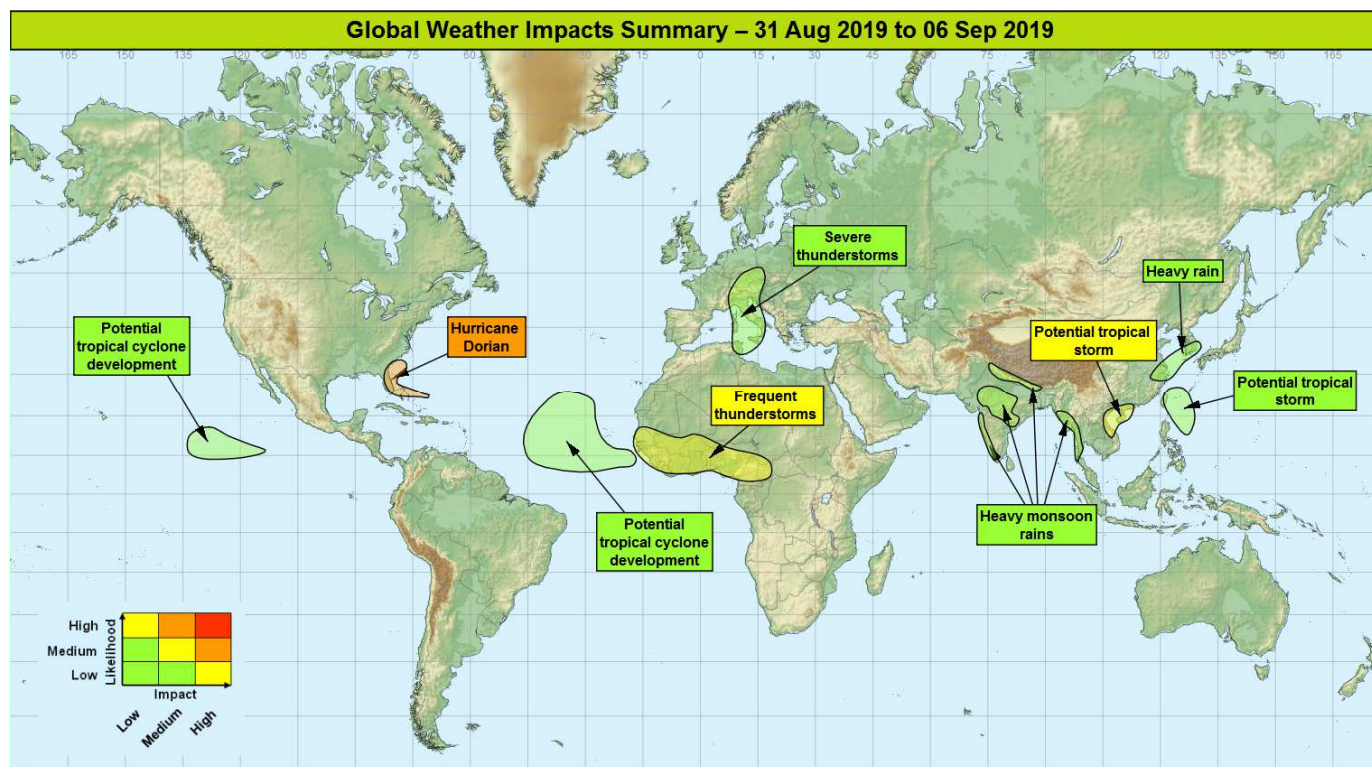


Global Weather Impacts – Saturday 31st August to Friday 6th September 2019

Issued on Saturday 31st August 2019

HEADLINES

- Hurricane Dorian affecting parts of the Bahamas and Florida through the weekend and into next week, likely as a category 4 hurricane.
- Intense thunderstorms continuing across tropical western Africa.



DISCUSSION

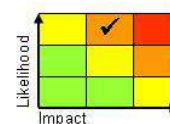
Tropical Cyclones

Hurricane Dorian (northern Caribbean Sea and eventually SE USA)

Weather

At 0300 UTC, Dorian was located 375 miles east of the north-western Bahamas, moving northwest at 10 mph, with maximum sustained winds of 140 mph. Already a powerful major hurricane (category 4), environmental conditions will remain favourable for further intensification, with maximum sustained winds of 150 mph, prior to possibly making landfall somewhere along the Atlantic coast of Florida early next week. 800-1200mm of rain is also possible. Combined with potentially devastating storm surge, this could lead to destructive impacts for areas affected. Confidence of the hurricane's track is high as it passes through the Bahamas, but as Dorian approaches the Florida coast, confidence falls away markedly.

Discussion



This forecast may be amended at any time

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Environmental conditions will remain favourable for further intensification and Dorian should remain a major hurricane until meaningful landfall some time next week. Latest guidance from the NHC forecasts winds peaking at 150 mph (with gusts to 185 mph) from later today until early Sunday. With favourable environmental conditions, the only possible way of retarding Dorian's development will either be eye-wall replacement cycles, which tend to lead to some loss of intensity, or Dorian generating upwelling of cooler waters as it slows down over the weekend and into the early part of next week. Should neither of these factors occur, then there is every chance Dorian could attain category 5 strength.

Dorian could be the strongest direct hit to Florida's east coast since hurricane Andrew in 1992, and is the strongest August Atlantic hurricane since Gustav in 2008.

Expected Impacts

Destructive winds, flash and river flooding, and storm surge are all likely.

The following areas are being monitored for possible tropical storm development

Northern Vietnam, Hainan and southern China

Weather

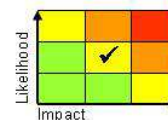
There are increasing signals for a tropical depression to develop in the South China Sea later this weekend. This could potentially strengthen into a tropical storm then track towards southern China later next week. Storm force winds are possible, with 300-600mm of heavy rain and thunderstorms associated with this feature. The main focus of the rain will be along the coast of northern Vietnam, Hainan and southern China.

Discussion

There have been strengthening signals from the models for development of a tropical depression across the south China over the weekend. This may be linked to the passage of a Rossby wave moving west from the western Pacific. There remain some model differences for the evolution, mainly the position for formation, but there is reasonable consistency for the likely track, once formed, with all the models taking a storm across Hainan and towards southern China later next week.

Expected Impacts

Flash flooding and landslides, plus damaging winds, storm surge and rough seas.



Eastern Pacific

Weather

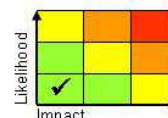
There is a moderate chance that a tropical storm or hurricane will develop in the eastern Pacific during the next five days. Any system that develops should remain over open water.

Discussion

An area of thunderstorms, well to the south-west of Baja California, has a 50% chance of developing into a tropical storm next five days according to the NHC. Any system that does develop will pose no threat to land.

Expected Impacts

Nil.



Western Pacific

Weather

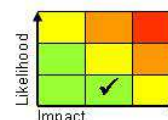
There is the potential for a tropical storm to develop across the open waters of the western Pacific to the northeast of the Philippines early next week. This then could move towards Taiwan and the southeast China by the end of the week.

Discussion

There are increasing model signals for the development of a tropical storms development across the western Pacific and to the northeast of the Philippines early next week. This is not expected to impact Luzon, Philippines, but if this does form, instead track towards Taiwan and possibly southeast China by the end of the week. Potentially storm force winds, with 300-500mm of heavy rain and thunderstorms may be associated with this feature.

Expected Impacts

Flash flooding and landslides, plus damaging winds, storm surge and rough seas.



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**Tropical Atlantic
Weather**

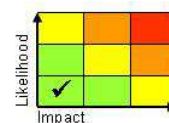
There is potential for further tropical cyclones to develop off the coast of West Africa during next week. Currently, there are no indications that if a storm was to form, that it would affect land areas.

Discussion

Through this weekend and into the early part of next week, further AEW are expected to develop and move out into the tropical Atlantic. Compared to earlier in the month, conditions are much more favourable for tropical cyclogenesis and there is potential for a couple of systems to form during next week. It is too early to determine whether, once formed, these will ultimately end up in the Caribbean.

Expected Impacts

Nil, as any storm that does form will remain over open ocean.

**Europe****Central Mediterranean, Tunisia, parts of central and eastern Europe****Weather**

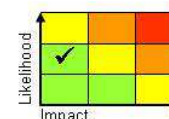
Occasional severe thunderstorms are possible through the period, bringing the threat of 30-50 mm of rain in a few hours, along with large hail and strong winds. However, many parts will avoid these thunderstorms. Heavy showers and thunderstorms will become more widespread for a time early next week in a region stretching from north-east Italy through Slovenia and into the Czech Republic; here over 100 mm is possible in places.

Discussion

The upper forcing for these storms will initially be relatively modest, however large CAPE will allow some intense downpours, with large hail, to develop in response to diurnal heating through the weekend. Marked wind shear could allow for some organised and long-lasting storms to develop. Early next week a more pronounced upper trough is expected to swing eastwards into mainland Europe, helping to force development along and ahead of a surface cold front.

Expected Impacts

Flash flooding, with frequent lightning strikes perhaps leading to an increased risk of power outages. There is a lower likelihood of impacts from strong winds and large hail.

**North America**

Florida – see *Tropical Cyclones* section.

Central America and Caribbean

Bahamas – see *Tropical Cyclones* section.

South America

Nil.

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Africa

West Africa

Weather

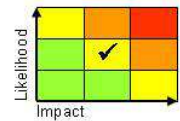
Frequent heavy showers and thunderstorms will continue across this region over the coming week. Thunderstorms are likely to produce locally 50 to 100mm of rain in a short period, with up to 250 mm possible in places during this period. The focus for the largest rainfall totals looks likely to be around coastal areas in the west. This comes on top of wetter than average conditions for many parts over the summer monsoon season so far – around 125-150% of climatology. By the middle of next week, there are signs that activity will begin to ease with showers and thunderstorms becoming less intense, with longer dry spells developing.

Discussion

Enhanced seasonal rainfall continues to be signalled with above normal totals expected in this region. This will likely come in the form of MCS developments, organised at times by African Easterly Waves (AEWs), with impacts especially likely should these affect any of the more urbanised regions within this zone. Models are showing some signs of AEW activity easing from around the middle of next week.

Expected Impacts

Flash flooding is possible in places together with an increased risk of landslides and river flooding. Risk of some dense lifted dust on the northern periphery of the thunderstorms.



Tunisia – see *Europe* section.

Middle East

Nil.

Asia

Parts of South and Southeast Asia

Weather

Frequent intense showers and thunderstorms are expected to continue, producing up to 75-150 mm in a 24-hour period. 200-300 mm could fall through the next five days across parts of west and northwest India, with 300-500 mm in parts of southern Myanmar and neighbouring Thailand. This would result in the average August rainfall falling in a week in places.

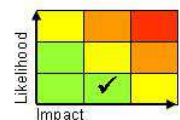
Discussion

Convection associated with a developing monsoon depression will continue to move west across central and northern India then into southern Pakistan over the next few days, being the focus for heavy showers/thunderstorms. Another depression then potentially forms and takes a similar track west or northwest across central India later this weekend and into the early part of next week.

Meanwhile, a strong monsoonal flow will bring heavy rainfall to southern Myanmar and parts of Thailand, possibly enhanced over the weekend by the remnants of TS Podul. Southwest-facing upslopes will be most threatened by enhanced rainfall due to orographic uplift of the very moist airmass.

Expected Impacts

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



Eastern China and South Korea

Weather

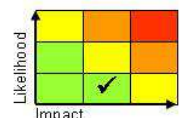
Heavy rainfall and severe thunderstorms are expected across the region over the next week. 100-250mm of rain is likely widely, with 400mm of rain possible in places. After a brief drier interlude at the start of the period, rain is expected to return to South Korea early next week, with up to 200 mm possible in places.

Discussion

An extending upper trough from the mid-latitudes is signalled to extend and engage the in-situ moist, tropical air across these areas leading to particularly heavy rainfall.

Expected Impacts

Flash and river flooding are possible, along with an increased threat of landslides in mountainous areas.



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Northern Vietnam, Hainan and southern China – see *Tropical Cyclones* section.

Australasia

Nil.

Additional information

Nil.

Issued at: 310500 UTC **Meteorologist:** Brent Walker / Jason Kelly **Global Guidance Unit**

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