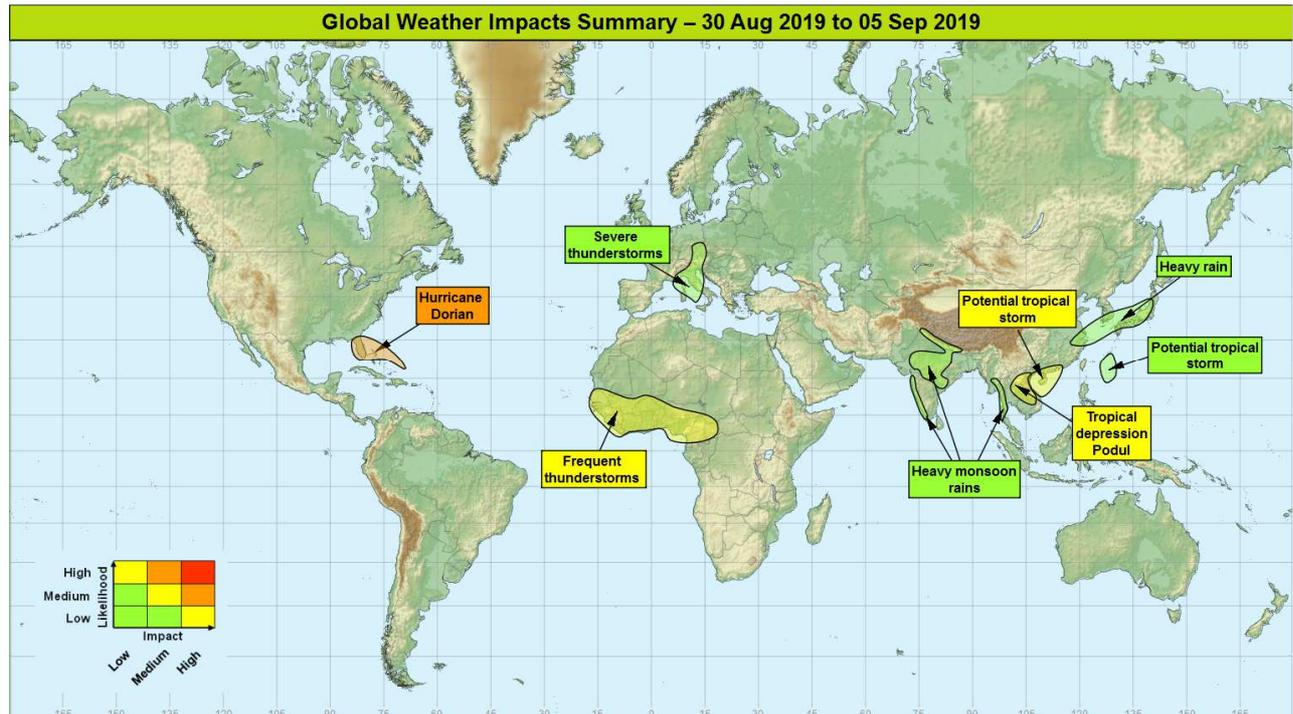


Global Weather Impacts – Friday 30th August to Thursday 5th September 2019

Issued on Friday 30th August 2019

HEADLINES

- Hurricane Dorian affecting parts of the Bahamas and Florida at the weekend, potentially as a category 4 hurricane.
- Intense thunderstorms continuing across tropical western Africa.



DISCUSSION

Tropical Cyclones

Hurricane Dorian (eastern Caribbean Sea and eventually SE USA)

Weather

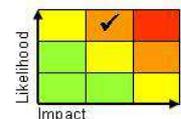
Having brought hurricane conditions to the British Virgin Islands late Wednesday/early Thursday, Dorian is now over open waters to the north of the Dominican Republic as a Category 2 hurricane. The system is expected to track north-west, then west into the weekend, strengthening as it does so. This evolution would lead to Dorian making landfall first across the Bahamas, then across Florida late in the weekend and into early next week, potentially as a category 4 hurricane (sustained winds of 140 mph). 600-800mm of rain is also possible. Combined, this could lead to devastating impacts for areas affected, though confidence in exact track remains moderate at best.

Discussion

Dorian is in an environment favourable for marked strengthening, with the NHC forecasting category 4 strength by midday today. Historically Dorian has been stronger, and developed more quickly, than model or official guidance, so there remains a chance the storm could be a little stronger still by the time it is steered to the west toward the Bahamas and Florida by a sub-tropical ridge into the weekend, and early next week. Dorian could be the strongest direct hit to Florida's east coast since Hurricane Andrew in 1992.

Expected Impacts

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



This forecast may be amended at any time

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Tropical depression Podul (south-east Asia)

Weather

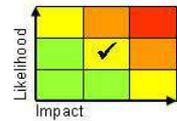
Podul made landfall late Thursday near Vinh in north-east Vietnam, as a tropical depression. Whilst wind impacts are not expected, modest storm surge is likely to have occurred along the immediate coast. Rainfall is likely to be the biggest factor, with a further 500-700mm likely in the next three or four days as this feature decays across northern Thailand.

Discussion

Whilst Podul has been downgraded to a tropical depression, it is still likely to be characterised by heavy rain and severe thunderstorms, which will likely bring some large rainfall totals to the area.

Expected Impacts

Flash flooding and landslides.



Northern Vietnam, Hainan and southern China

Weather

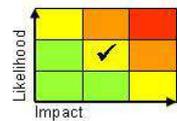
There are increasing signals for a tropical depression to develop to the south of Hainan later this weekend and into early next week. This could potentially strengthen into a tropical storm then track towards southern China, perhaps towards Hong Kong by Thursday. Storm force winds are likely, with 300-600mm of heavy rain and thunderstorms associated with this feature. The main focus of the rain 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 later this week. 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 one formed with all the models taking a storm across Hainan and towards southern China from Tuesday.

Expected Impacts

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



Western Pacific

Weather

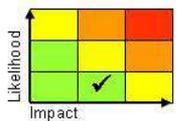
There is the potential for a tropical storm to develop across the open waters of the western Pacific to the northeast of the Philippines early next week. This then could move towards Okinawa and the southern Japanese Islands by the end of the week.

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. The GM and GFS have this development, but currently EC does not. This is not expected to impact Luzon, Philippines, but if this does form, then track towards Okinawa and the other southern Japanese islands 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.



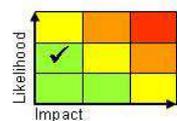
Europe

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. Some of the highest rainfall totals are expected early next week, with over 100 mm in places from north-east Italy to southern Germany.

Discussion



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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. Late in the weekend 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

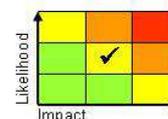
Frequent heavy showers and thunderstorms will continue across this region over the coming week. Thunderstorms are likely to produce locally 50 to 100mm of rain in a short period, with up to 250 mm possible in places during this period. The focus for the largest rainfall totals looks likely to be around 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.

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, with impacts especially likely should these affect any of the more urbanised regions within this zone.

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.



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.

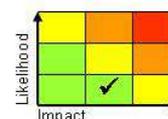
Discussion

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 week and into the weekend.

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.



Japan, eastern China and South Korea

Weather

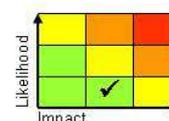
Heavy rainfall/severe thunderstorms are expected across central and southern parts of Japan through the period, as well as eastern China from the weekend. 100-250mm of rain is likely widely, with 400mm of rain possible in places. After a brief drier interlude at the start of the period, rain is expected 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. The heaviest rains expected over Japan with South Korea likely only impacted on Wednesday.

Expected Impacts

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



Vietnam, Laos, southern China and eastern Thailand – see *Tropical Cyclones* section.

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Australasia

Nil.

Additional information

Nil.

Issued at: 300700 UTC

Meteorologist: Jason Kelly / Tony Wardle

Global Guidance Unit

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