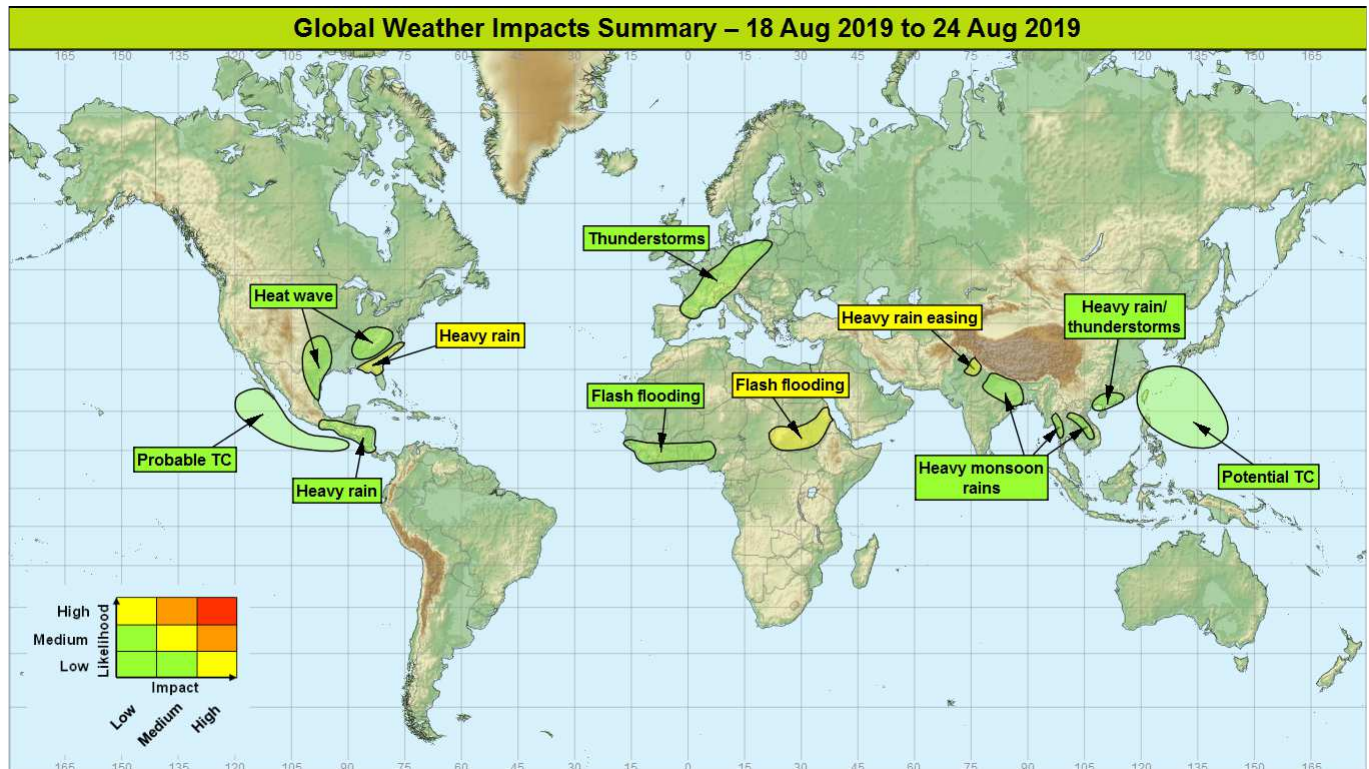


Global Weather Impacts – Sunday 18th to Saturday 24th August 2019

Issued on Sunday 18th August 2019

HEADLINES

- Heavy monsoon rainfall across parts of Asia, less so across parts of Africa although recent impacts here could be exacerbated.
- No significant tropical cyclone impacts expected.



DISCUSSION

Tropical Cyclones

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

Eastern Pacific Weather

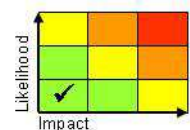
There is a moderate probability that a tropical storm will form in this region over the next few days, with a much smaller chance of the subsequent development impacting the west coast of Mexico/Baja peninsula late next week.

Discussion

An area of low pressure and associated showers/thunderstorms, associated with an African Easterly Wave, is in an environment conducive to tropical cyclogenesis over the coming days. There is a reasonable chance that a tropical storm will form early next week, but most model output keeps the circulation offshore and well away from the Central American coastline. In the currently unlikely event the system takes a more northerly track, it will threaten parts of Mexico (particularly Baja peninsula) with heavy rain and potentially strong winds.

Expected Impacts

Nil, but small chance of flooding/wind damage should the system track further north than currently looks most likely.



This forecast may be amended at any time

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Western North Pacific

Weather

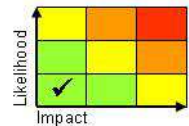
Very low likelihood of tropical cyclone development in this region. Should a system develop, it could bring heavy rain (much lower likelihood of strong winds) to parts of SE Asia including Luzon (Philippines), Taiwan, southeast China, and the south islands of Japan mid to late next week.

Discussion

There is a weak signal for tropical cyclogenesis from a broad tropical depression which currently contains multiple areas of convection, forming in a similar manner to the recent Typhoon Krosa. Should this system form, the general steering flow takes it in the direction of the locations given mid to late next week.

Expected Impacts

Most likely nil, but increased likelihood of flash flooding in the regions given.



Europe

Northeast Spain north-eastwards to Poland

Weather

Spells of intense, but localised severe thunderstorm activity are likely within this region next week; most places will miss the storms. Where they occur however, 50-75 mm of rain in a few hours, frequent lightning, large hail and strong gusts of wind are likely.

Discussion

Slow moving baroclinic zone becoming stranded over Europe will be subject to a number of waves as the upper pattern becomes more cyclonic, bringing periods of heavy rainfall. Deep instability is likely to be released within the warm plume as it becomes more engaged by cyclonicity aloft, with high CAPE, PWAT, and strong vertical shear; the risk area steadily transferring NE across the region indicated through the next few days. Differences remain between models in the strength and foci of shortwave forcing features within the broad SW'ly upper flow. Nevertheless, given the ingredients, MCSs are probable bringing potential for impacts over a reasonably sized area.

Expected Impacts

Flash flooding, damaging hail and winds along with power network and aviation disruption.



North America

USA (south Alabama to east North Carolina, including north Florida)

Weather

Heavy rainfall and thunderstorms are expected to continue for at least the next couple of days in this region, with the potential to continue into late next week but conditions are expected to slowly improve from the southwest. These storms could produce up to 75 mm of rain in a few hours, along with the risk of strong winds. The largest rainfall accumulations (a further 75-100 mm today) still look likely across parts of NE Florida, however there is a small chance that of 300-400 mm could fall elsewhere should storms begin to become organised.

Discussion

A slow-moving baroclinic zone will be the focus for a daily surge of deep convection, most prominently on the NW coast of Florida, before the SW'ly flow eases. A number of minor waves along the front may carry higher rainfall totals on the northern edge of this zone (with a low chance of TC formation) – but the small scale forcing elements responsible show sig variations between models. Rainfall associated with persistent convection should ease early next week, but heavy rain could continue into the latter part of next week dependent on these frontal waves.

Expected Impacts

Flash flooding is the highest likelihood impact, some river flooding can be expected in parts of NE Florida too. There could be local wind damage from these storms, but the gusty winds and frequent lightning are more likely to affect aviation.



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Central south and southeast USA

Weather

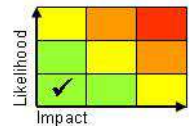
Temperatures widely in excess of 35 °C, locally 40 °C, some 5-8 °C above the average for the time of year, are expected in these regions over the coming week. Temperatures may begin to fall later next week as cooler air arrives from the north.

Discussion

Upper ridging dominates with the polar front jet now well to the north of the region – partial thicknesses widely in excess of 144 dam, combined with sunny skies and stable profiles will make for a period of hot weather where temperatures are widely 5 °C or more above the seasonal norm. Some models indicate amplification of the jet to the north and a plunge of cooler air behind a cold front, but there are significant differences in the timing and N/S extent.

Expected Impacts

Heat health impacts with risk to life of vulnerable demographics.



Central America and Caribbean

North Costa Rica, Nicaragua, Honduras, El Salvador, Belize, far south of Mexico

Weather

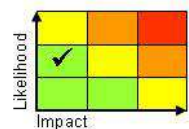
Greater than normal incidence of heavy showers and thunderstorms expected in the region through the next few days, with a further 50 to very locally 150 mm of rainfall for some locations on top of what has already been seen. This system could go on to form a tropical cyclone over the eastern Pacific (see *Tropical Cyclones* section).

Discussion

Greater than normal activity is signalled in this region by models, through a combination of tropical wave activity and PV maxima sourced from higher latitudes interacting with the native high WBPT plume, and a stronger than normal monsoonal flow across the Gulf of Mexico. Thunderstorm activity should eventually begin to coalesce around a nascent tropical depression over the East Pacific early next week, such that activity around eastern parts of Central America will tail off, and will fall to near normal levels elsewhere later in the week as the tropical depression moves further west (see *Tropical Cyclones* section).

Expected Impacts

Further heavy rainfall could lead to flash flooding and mudslides, particularly in areas of steeply-sloping or poorly draining terrain.



South America

Nil.

Africa

West Africa

Weather

Tropical waves will bring enhanced shower and thunderstorm activity to this region over the next week. Thunderstorms are likely to produce locally 50 to 100mm of rain in a short period, with up to around 400 mm possible in places during this period. The focus for the largest rainfall totals looks likely to be in the far west of this region.

Discussion

Enhanced seasonal rainfall continues to be signalled by the models, 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 catch any of the more urbanised regions within this zone. This comes on top of wetter than average conditions over the summer monsoon so far – around 150-200% of climatology since the beginning of May.

Expected Impacts

Flash flooding is likely together with an increased risk of landslides.



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Sudan

Weather

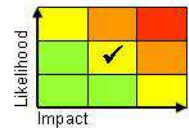
Further scattered heavy showers and thunderstorms are expected to affect central and southern parts of Sudan in the next week or so. Where these occur, 30-50, locally 75 mm of rain is possible, along with lightning and gusty winds.

Discussion

With the ITCZ approaching its northern limit, rainfall from scattered thunderstorms across southern Sudan is not unusual in August; indeed it the wettest month of the year on average in Khartoum (48 mm). However, numerous states have reported flash flooding (Khartoum reporting a daily rainfall total of 155mm a week or so ago) and related human health impacts over the past week. Warnings of “catastrophic health impacts” by local authorities have been reported, if the situation is not brought under control.

Expected Impacts

Further localised flash flooding may lead to property and infrastructure damage in the region, whilst ongoing impacts may be exacerbated. Higher river levels along the Nile and tributaries are also to be expected.



Middle East

Nil.

Asia

Northwest India

Weather

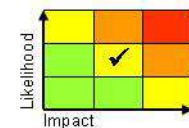
Further heavy rainfall is expected in this region today (Sunday) before easing off early next week. Some locations in north-central India have seen daily totals of around 150-200 mm associated with this system, similar daily totals are likely to continue with some places seeing 300 to locally 400 mm by the end of today (around double the August monthly average).

Discussion

A monsoon low pressure system is slowly spinning down over the region, before dissipation is expected over the higher ground of the Himalayas towards the end of this weekend/early next week. The high PWAT environment within this system will allow for further very high daily rainfall totals, like those seen in some other locations of northern India earlier this week.

Expected Impacts

Flash flooding is likely in this region, and river flooding is probable too. This is likely to result in further travel disruption, displaced populations as well as some damage to property and infrastructure.



Northeast India, Nepal, north/central Myanmar, northeast Thailand, Laos and Cambodia

Weather

Frequent intense showers and thunderstorms are expected through the next week, producing up to 100-200 mm in a 24-hour period, and up to 600 mm through the next week in places. This would result in the average August rainfall falling in a week in places.

Discussion

Convection associated with a developing monsoon depression will slowly move NW'wards inland across NE India, providing a focus for heavy showers/thunderstorms here. Meanwhile the recently strong monsoonal flow into the N Bay of Bengal directed into Bangladesh (239mm in 24hr at Khepupara on the south coast to 0300Z Saturday) will ease as the depression deepens and the gradient drops out – the main focus for the stronger gradients and monsoonal flow then becoming directed into Myanmar and Thailand, with persistent heavy showers expected here. Southwest facing upslopes will be most threatened by enhanced rainfall due to orographic uplift of the very high (60-70 mm) PWAT column. Enhanced convection is also expected over the higher ground of Laos and Cambodia, with a consistent model signal for above average ppn here too.

Expected Impacts



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

South China and Taiwan

Weather

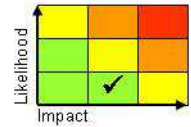
Continuation of this weekend's heavy rainfall is likely to bring 100-200 mm, with some places near the coast perhaps seeing in excess of 250 mm by the end of the event. Enhanced showers and thunderstorms will continue through the early part of next week, although activity is likely to fall to nearer normal levels. Some of the areas affected were recently impacted by Tropical Storm Wipha, with resilience thus likely to be somewhat lower than normal.

Discussion

An upper trough extending down from higher latitudes over the weekend will bring enhanced rainfall and thunderstorms along the baroclinic zone resident in this area – an associated weak low pressure system forming in the Gulf of Tonkin will act to enhance the southerly monsoon flow in this area too, adding to the persistence and intensity of the rainfall. Beihei has already reported in excess of 70 mm with more to come. The upper trough is expected to move away early next week, with activity slowly falling back to near normal levels as a result.

Expected Impacts

Increased risk of flash flooding and landslides, damage to property and transport links, particularly in areas recently affected by Tropical Storm Wipha.



Australasia

Nil.

Additional information

Nil.

Issued at: 180600 UTC **Meteorologist:** D J Harris / Matthew Lehnert

Global Guidance Unit

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