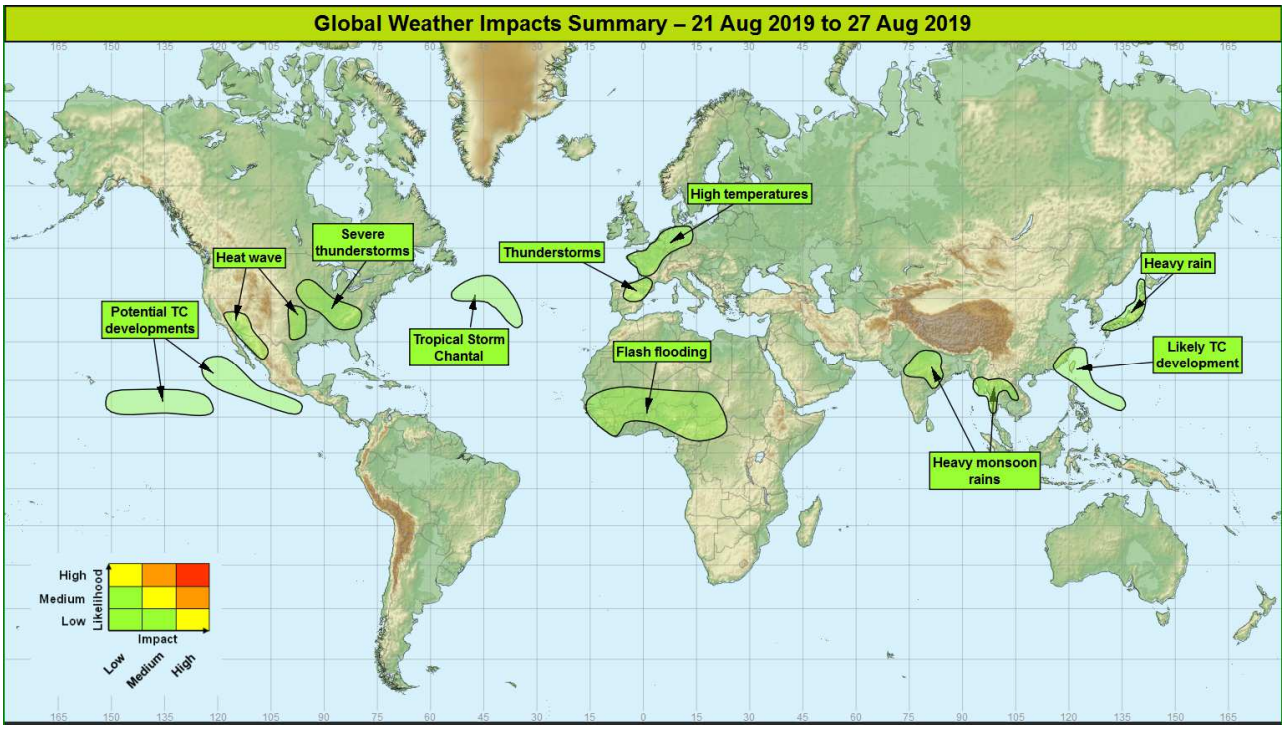
Daily Global Weather Impacts Assessment

Global Weather Impacts – Wednesday 21 August 2019 to Tuesday 27 August 2019

Issued on Wednesday 21 August 2019

HEADLINES

- Enhanced monsoon rainfall across parts of West Africa and south/southeast Asia.
- Tropical storm Chantal formed overnight in the Western Atlantic.
- Potential for a tropical cyclone to affect Taiwan and southeast China this weekend.



DISCUSSION

Tropical Cyclones

Western Atlantic

Weather

Tropical storm Chantal formed overnight into Wednesday in the western North Atlantic, and is expected to move eastwards, then south, with gusts of wind as high as 40mph

Discussion

A small area of low pressure in the Western Atlantic has deepened overnight into Wednesday and has become Tropical Storm Chantal near to 40N 56W with gusts of wind as high as 40mph. Chantal will initially move in an Easterly direction and will maintain it's central pressure in a moderate west to south-westerly shear environment with favourable SSTs of 27 deg C. After 48 hours Chantal will move southwards and dissipate early next week as a lack of mid level moisture and low humidity will help Chantal to decline in mid Atlantic.

Expected Impacts

Nil apart from being a hazard to shipping, as Chantal will dissapte over open water.

The following areas are being monitored for potential tropical cyclone developments:

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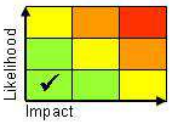
Eastern North Pacific



Weather

There is a high probability that a tropical storm will form to the southwest of Mexico in the next few days. Any development is most likely to remain over the open eastern Pacific although there is a low probability that the system could fringe the western coast of Mexico (Baja California).

There is also a moderate chance that another tropical storm will form over the eastern Pacific over the next few days (to the west of the potential development above). At this stage, any developments in this area would be very unlikely to impact land.

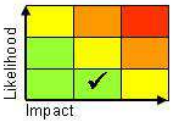
Discussion

An area of low pressure and associated showers/thunderstorms currently a few hundred miles off the coast of Guatemala, associated with an African Easterly Wave, is in an environment conducive to tropical cyclogenesis over the coming days. There is a reasonable chance (NHC assess as 90% in the next 48 hours) that a tropical storm will form. Most model guidance takes this development parallel to the coast of Baja California, Mexico with a minority suggesting a possible landfall. Meanwhile several hundred miles west of Mexico a second area of thunderstorms is in an environment conducive for development. NHC assess this as having a 30% chance of forming a tropical storm through the next five days. However any development is expected to move west over the open ocean.

Expected Impacts

Risk of heavy rain and large waves for the Guatemala and western Mexican coastline. Low risk of strong winds along the Baja California coastline later this week.

Western North Pacific



Weather

A tropical cyclone is highly likely to develop in the Philippine Sea during the next few days, then track northwest, probably making landfall across Taiwan and southeast China through the weekend. The intensity of the system is very uncertain and so the potential wind damage is difficult to ascertain yet. Regardless of intensity a spell of torrential rain is expected, probably affecting Taiwan and south-eastern parts of China, with 250-400 mm of rain in places.

Discussion

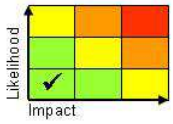
There is a signal for tropical cyclogenesis from a broad tropical depression across the western Pacific. Multiple areas of convection are evident on imagery, and there is increasing evidence to suggest these will consolidate into a single system. Confidence in the track of the potential storm has now improved, with most solution steering it towards Taiwan and southeast China.

Expected Impacts

Widespread flooding, perhaps severe, is likely in places, although the exact location is dependent on the track of the storm. Wind damage and coastal flooding from a storm surge is also possible, but highly dependent on the intensity of the system, which is very uncertain at this time.

Europe

Southwest Europe



Weather

Severe thunderstorms are likely to develop across parts of Spain and southwest France during Sunday morning. In addition to torrential downpours, these storms will be capable of producing large hail and strong winds. Whilst many places will remain dry, some locations could have 50-75 mm of rain, mostly falling in a few hours.

Discussion

A disrupting upper trough is expected to move in off the Atlantic, ultimately developing into a cut-off vortex and cold pool over Biscay and Iberia. Steep lapse rates with large CAPE will allow some intense downpours with large hail to develop in response to diurnal heating.

Expected Impacts

Flash flooding will be the main impact, with frequent lightning strikes perhaps leading to an increased risk of power outages.

This forecast may be amended at any time

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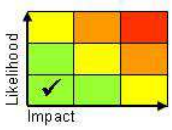
Northwest Europe



Weather

After a spell of cooler weather, temperatures are expected to rise over the weekend. Initially the heat will be confined to France before becoming more widespread and spreading into Benelux and Germany by early next week. Temperatures are expected to widely reach the low- to mid-30s°C; whilst this is much lower than the record breaking spell in July, it is still noteworthy for late-August.

Discussion

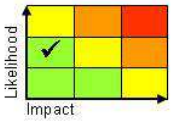
A combination of strong subsidence and gentle warm advection from Iberia will allow temperatures to gradually rise over the weekend and into next week. By Monday models predict large swathes of partial thickness >141Dm, quite noteworthy for late-August.

Expected Impacts

Increased heat stress particularly for vulnerable populations. Perhaps some minor disruption to transport but not on the scale of the event in July.

North America

Parts of southern USA and north-western Mexico



Weather

Maximum temperatures widely in excess of 35°C, locally 40-45°C, some 5-10 °C above the average for the time of year, are expected across the region. The most intense heat focused across north-western Mexico, parts of Arizona, southern Nevada (including Las Vegas) and south-eastern California along with central parts of Oklahoma. Temperatures gradually returning closer to more normal later this week. However, early next week there could be a resurgence of heat, particularly across the southern Rockies.

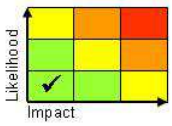
Discussion

Upper ridging dominates with the polar front jet now well to the north of the region – partial thicknesses widely in excess of 145 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 average.

Expected Impacts

Heat health impacts with risk to life of vulnerable demographics.

USA Mid-West



Weather

Thunderstorms are expected to affect the region over the next few days. The most intense storms will be on Wednesday and Thursday, with activity waning into Friday. Torrential downpours with 50-75 mm of rain falling in a few hours are possible.

Discussion

A slow-moving cold front will be the focus for severe thunderstorm development over the next few days. Whilst CAPE is large, wind shear is fairly limited restricting the development of supercells and upscale growth into MCS, although some pulse storms with frequent lightning are possible. Large hail and strong, gusty winds are likely.

Expected Impacts

Flash flooding will be the main impact with some damage to crops and property possible from large hail and strong winds.

Central America and Caribbean

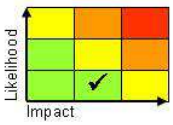
North-western Mexico – see *North America* section.

South America

Nil.

Africa

Central and West Africa



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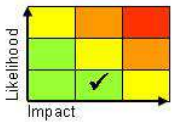
Weather
Tropical waves will bring enhanced shower and thunderstorm activity to this region over the next week. Thunderstorms are likely to produce locally 50 to 100mm of rain in a short period, with up to around 350 mm possible in places during this period. The focus for the largest rainfall totals looks likely to be around coastal areas in the west along with southern parts of Mali. This comes on top of wetter than average conditions for many parts over the summer monsoon so far – around 125-150% of climatology since mid-May.
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 catch any of the more urbanised regions within this zone. Along the Gulf of Guinea coast below average rainfall is expected.
Expected Impacts
Flash flooding is likely together with an increased risk of landslides. Risk of some dense lifted dust on the northern periphery of the thunderstorms.

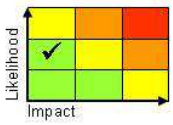
Middle East
Nil.

Asia
Parts of South and Southeast Asia including India, Myanmar, Thailand and Laos



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. Parts of central and northern India in particular look likely to see a return of heavy monsoon rains.
Discussion
Convection associated with a developing monsoon depression will slowly move northwest inland across NE and central India this week, with a further depression developing across northeast India by the weekend. These depressions will be the focus for heavy showers/thunderstorms. Meanwhile, northern parts of the Bay of Bengal should have a drier week, whilst further south a strengthening monsoonal flow will bring heavy rainfall to southern Myanmar and parts of Thailand. Southwest facing upslopes will be most threatened by enhanced rainfall due to orographic uplift of the very moist airmass. Enhanced convection is also expected over the higher ground of Laos, with a consistent model signal for above average rainfall here too.
Expected Impacts
Flash flooding events are highly likely, with an increasing likelihood of river flooding and landslides.

Japan



Weather
Spells of very heavy rain and thunderstorms will affect Japan over the next 7 days. Western parts are expected to see the most frequent and heaviest rain with the potential for 100-150mm each day in places and up to 300mm through the period.
Discussion
Successive upper troughs will run east across the islands through this week engaging in situ warm/moist sub-tropical air. Any shallow depressions that form will bring spells of westerly winds leading to orographic enhancement of rainfall.
Expected Impacts
Flash flooding and landslides in mountainous areas.

Taiwan and southeast China – *see tropical cyclones section.*

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Australasia

Nil.

Additional information

Wildfires Gran Canaria: Conditions will remain dry with rather strong northeasterly trade winds. This will hamper efforts to control wildfires that have been affecting the centre of the island since Saturday. No rain is forecast during this week. There have been reports of 4000 evacuations from inland areas, with potential impacts to tourists in the region. The main airport is upwind of the wildfire smoke, and unlikely to be impacted.

Issued at: 210710 UTC **Meteorologist:** Brent Walker / Chris Tubbs **Global Guidance Unit**

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