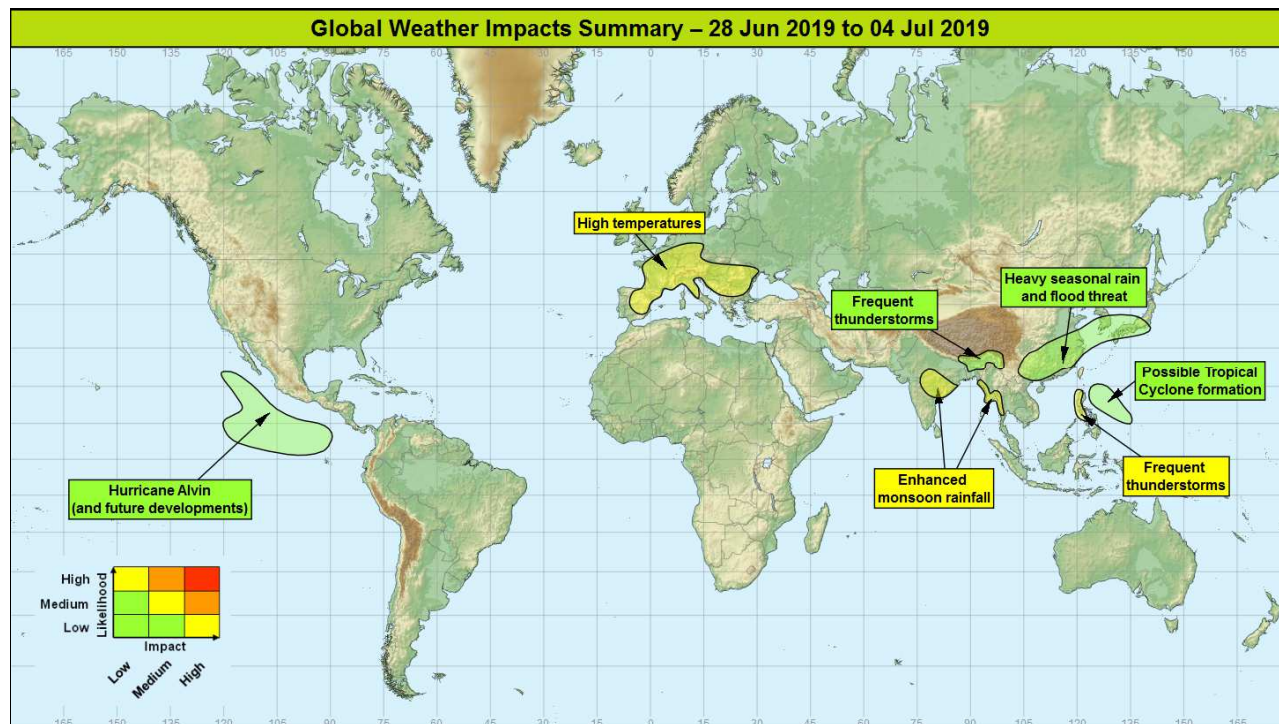


Global Weather Impacts – Friday 28th June to Thursday 04th July 2019

Issued on Friday 28th June 2019

HEADLINES

- High temperatures continue across Europe, French all-time temperature record could be broken.
- Heavy monsoon rains across parts of southern and eastern Asia.
- Hurricane Alvin weakening in the Eastern Pacific through next couple of days.



DISCUSSION

Tropical Cyclones

Hurricane Alvin and future developments – Eastern North Pacific Ocean

Weather

Hurricane Alvin, with 1 minute sustained winds of around 70mph, will continue on a path towards the north-west, whilst weakening to a depression over the next 36 hours. There is potential for a number of further weak tropical storms forming from disturbances through the forecast period, from this currently active region of tropical convection. Alvin is the first named storm of the 2019 hurricane season, and has formed about a month after the official start of the season.

Discussion

Alvin is a small hurricane, and as such susceptible to short term large fluctuations in intensity. Nonetheless, there good support for it to take a path towards the north-west over the next 36 hours which would see it move over steadily colder waters, such that the broad trend will be for it to weaken. Further tropical waves interacting with the ITCZ, possibly under the influence of the MJO too (although this is very weak), look likely to spawn further circulations which may become organised and strong enough to be designated tropical storms. There is however no consistent model signal beyond this broad trend at present.

Expected Impacts

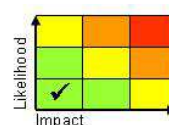
Nil (Alvin and any further cyclones expected to remain over open water)

This forecast may be amended at any time

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The following areas are being monitored for tropical cyclone development:

Philippine Sea

Weather

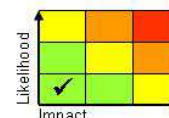
An area of thunderstorms and associated low level circulation are moving slowly northwest across the Philippine Sea, there is an opportunity for this area to briefly develop into a tropical storm before then quickly decaying. During this period any system would not impact any land.

Discussion

A low level circulation has been associated with period of flaring of deep convection (mostly on its southwest flank). Over the next 24 hours or so, if this vertical wind shear (which is currently shearing the convection to the southwest of the low level centre) reduces for a short time, other environment conditions will be favourable brief development of a tropical storm.

Expected Impacts

Nil (Any system that does briefly develop would remain over open sea).



Europe

Western Europe

Weather

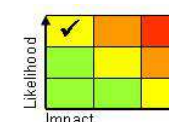
The current heat across Europe is expected to peak today (Friday) or tomorrow, before a gradual cooling takes place, initially from the north, and later the west by next week. Large parts of western Europe will be 5-10 Celsius above normal, but the highest temperatures are likely to be across central and southern France, and north-east Spain, where low to locally mid-40's of Celsius is likely. Wildfires have broken out in Spain's Catalonia region. Cooler air arriving from the Atlantic later in the weekend will initially push the heat back east across parts of central and eastern Europe but a general trend towards more normal conditions is then expected through the following week. There is a chance that the all-time French maximum record (44.1°C) could fall, most likely somewhere in south-east France today.

Discussion

Warm air sourced from high levels over North Africa coupled with strong subsidence/adiabatic compression through strong ridging aloft, and strong insolation given the time of year has resulted in hot conditions developing widely across western Europe. The peak temperatures look likely to be in SE France on Friday where model partial thicknesses approach 147dam, additional of local topographic effects here will generate the highest temperatures. Beyond this, a cold front arriving from the west and High Pressure toppling in behind will see temperatures falling from the north-west through next week, and an increasingly zonal pattern will see the dynamic/compression component lost as well. That said, parts of S Europe will still see temperatures into the high 30's, with some areas around 5°C above normal.

Expected Impacts

High temperatures will bring heat health impacts to vulnerable populations, particularly given the spell of very warm nights (minima >20°C), whilst placing strain on some utilities and transport networks (e.g. railways). Increased likelihood of wildfires.



North America

Nil.

Central America and Caribbean

Nil.

South America

Nil.

Africa

Nil.

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Middle East

Nil.

Asia**North Bangladesh, far northeast India and Bhutan****Weather**

A continuation of the seasonal thunderstorms/torrential rain in this area is expected over the next few days, although with a system forming in the Bay of Bengal over the weekend activity in this region looks likely to generally decline. Some places will see over 100 mm per day, with in excess of 500 mm over the next 3-4 days in the most frequently affected areas.

Discussion

Regular diurnal destabilisation of the extremely, moist and unstable air mass over this region will produce thunderstorms. The most frequent and persistent storms will likely form on the southern upslopes of the Himalayas, and perhaps across N Bangladesh where marked convergence is signalled at the head of the strong S'y monsoon flow. Very large precipitable water and very tall, skinny CAPE will result in torrential downpours.

Expected Impacts

Flash flooding and localised damage of property/infrastructure and transport links are probable. River flooding of tributaries in the Brahmaputra basin is now being reported, and an enhanced risk of landslides is likely over the higher terrain.

**Northern Bay of Bengal, eastern India and western Myanmar****Weather**

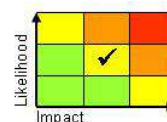
There is an increasing signal for the development of a monsoon low pressure system across the northern Bay of Bengal over this coming weekend, which would bring enhanced monsoon rains to areas around the Bay of Bengal, especially parts of eastern India and western Myanmar. Many areas will see in excess of 200 mm over the next few days, some areas along the track of the monsoon depression and higher terrain of Myanmar will likely see in excess of 500 mm.

Discussion

An active spell of the Indian Summer monsoon is expected across some areas bordering the Bay of Bengal due to an enhanced south-westerly flow that could culminate in the development of a monsoon low pressure system in the northern Bay of Bengal. This depression is signalled to head north-west into India early next week, extending heavy rainfall further inland here.

Expected Impacts

Heavy and torrential rain will increase the threat of flash flooding and landslides.

**Central and southern China, western Japan and South Korea****Weather**

Further torrential rain and severe thunderstorms associated with the seasonal rains will affect this region at times through the next week. Widely in excess of 150-200 mm of rain is expected with some locations receiving up to 500 mm. There is also the potential for severe thunderstorms which could produce hail and strong winds.

Discussion

Strong convergence along the Mei-yu / Baiu / Changma front and heating of the high terrain in the moist air to its south will continue to produce heavy rain in the form of showers and thunderstorms. Although shear is fairly modest for mid-latitudes, in the tropics this is sufficient for MCS development.

Expected Impacts

Both fluvial and flash flooding is possible, with an additional risk of landslides in mountainous areas. Disruption to transport and infrastructure is also likely in what is a densely populated area.



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Philippines (Western Luzon and Western Visayas)

Weather

Frequent heavy showers and thunderstorms are likely to continue in this area over the next few days, with potential for 80-100 mm, locally 150 mm of rain in some locations per 24 hours. The heavy rain could affect the capital Manila at times, with up to 600 mm of rain possible during the next week in parts of the region which would be well in excess of a month's worth of rainfall at this time of year.

Discussion

A surge in the south-westerly monsoonal winds will lead to an increase in the frequency of heavy showers and thunderstorms. This may eventually culminate in a monsoon depression running north-west into China come the middle of next week, introducing maritime and coastal gales in the South China Sea

Expected Impacts

Flash flooding, which will be particularly impactful should it affect significant urban areas such as Manila. There will also be an increased likelihood of landslides and fluvial flooding.



Australasia

Nil.

Additional information

Nil.

Issued at: 280815 UTC **Meteorologists** D J Harris / Nick Silkstone

Global Guidance Unit

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