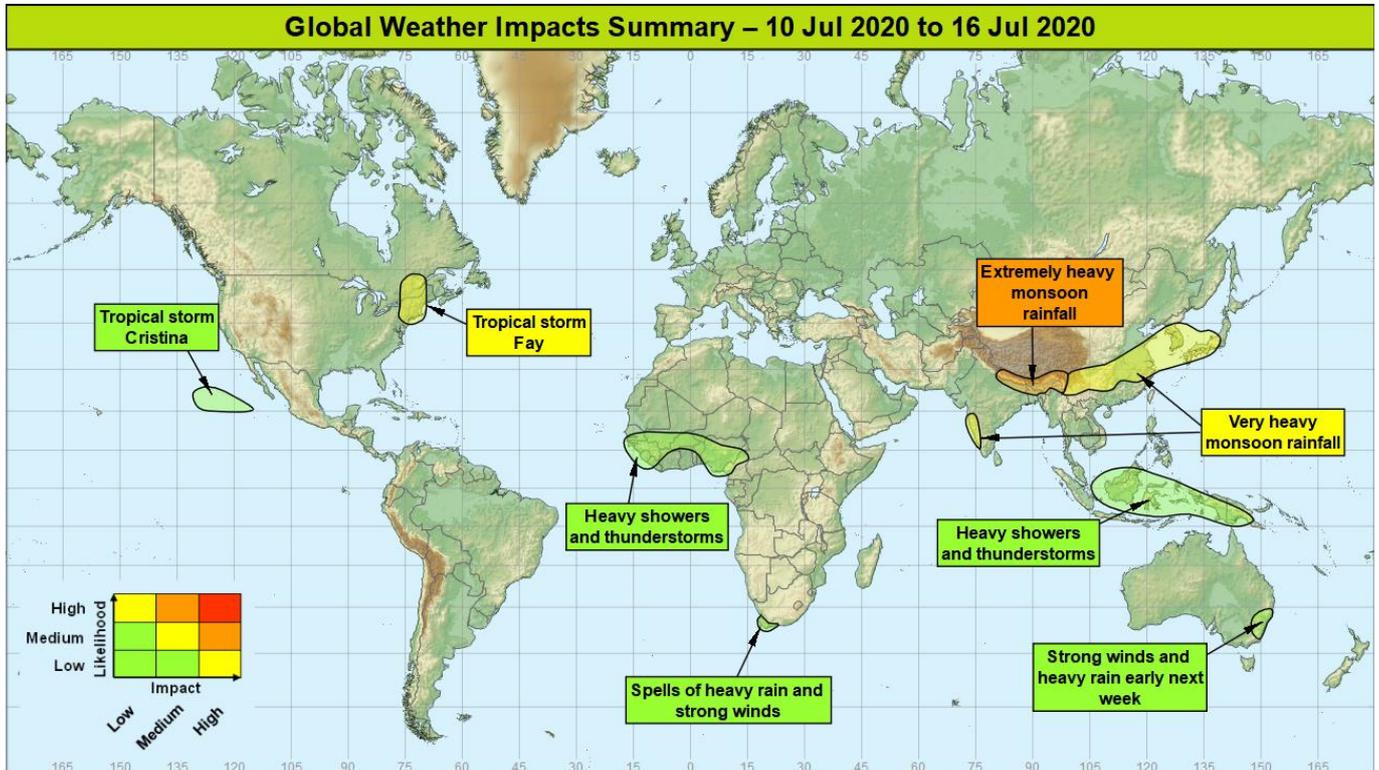


Global Weather Impacts – Saturday 11th July to Friday 17th July 2020

Issued on Saturday 11th July 2020

HEADLINE

- Extremely heavy monsoon rainfall will continue in parts of South and East Asia.
- Tropical Storm Fay bringing the threat of flash flooding to the northeast of the USA on Friday.



DISCUSSION

Tropical Cyclones

Tropical Storm Fay – Northeastern USA and southeastern Canada

Weather

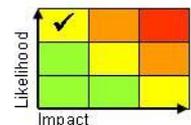
At 0300UTC Fay was located close to New York City with sustained winds of 40mph. This system will track north across the northeast of the USA and into southeast Canada through the rest of Friday as it weakens. However, there will still be an area of heavy showers and thunderstorms associated with the remains of Fay, which will produce up to 100 mm of rain through the day in places. There is also the potential for isolated tornadoes.

Discussion

An upstream upper trough will sweep Fay north across the NE of the USA through Friday, with increased vertical wind shear and interaction with land resulting in the steady weakening of this system, however, PWAT of 60-65mm will result in intense rainfall in thunderstorms, with enough low level wind shear to produce a threat of tornadoes.

Expected Impacts

Threat of flash flooding, especially in urban regions. Strong winds and rough seas could lead to dangerous coastal conditions. Threat of tornado damage too.



This forecast may be amended at any time

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Tropical Storm Cristina - Northeast Pacific**Weather**

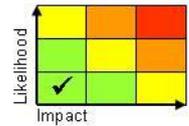
Tropical Storm Cristina continues to slowly track northwest over the open eastern Pacific. Conditions are likely to become more hostile, which will result in this system slowly weakening in the coming days.

Discussion

Cristina will be steered north-westwards then west by the prominent sub-tropical ridge to the north, and will start to encounter a drier airmass and less warm SSTs, and so will gradually weaken in the coming days.

Expected Impacts

Nil.

**Europe**

Nil.

North America

Northeastern USA and southeastern Canada – See *Tropical cyclones section*

Central America and Caribbean

Nil

South America

Nil

Africa**Parts of West Africa****Weather**

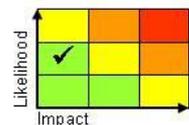
Heavy showers and thunderstorms are likely to be more frequent than usual through much of the next week across parts of West Africa, producing 50-100mm of rain in just a few hours in places. The heaviest rainfall is likely to affect the western part of this region (Sierra Leone, Guinea and Liberia) where up to 250mm of rain could accumulate (average monthly rainfall in this region is 400-600mm).

Discussion

More active or more frequent African Easterly Waves are likely to affect West Africa through the coming week, producing above average rainfall in places, especially close to the Atlantic coastline.

Expected Impacts

Increased likelihood of flash flooding and landslides.



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South Africa – Western Cape

Weather

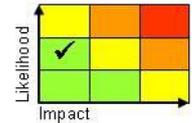
A very unsettled spell of weather is underway for the Western Cape until early next week with successive active weather systems bringing prolonged rainfall and gale to storm-force winds. Heavy rain (and mountain snow) affected the region on Friday, with the associated system clearing east early on Saturday. Another spell of prolonged rain followed by showers is expected early later on Sunday and through Monday, before it becomes more settled. Whilst this is typically the wettest time of year, expected rainfall accumulations of 100-150 mm from the system yesterday and the one expected on Monday represents in excess of a month's worth of rain. Both systems will introduce markedly colder temperatures than is usual across much of southern Africa.

Discussion

A north shifted jet will steer successive active frontal systems across the Western Cape. The first is likely to produce the most rain with the frontal zone becoming straddled across the area and broadly aligned with the flow with marked orographic enhancement. High pressure is expected to build again by the middle of next week with the mid-latitude storm track being shifted back southwards. Both systems will introduce a marked coldwave north across South Africa, Namibia, Botswana and Zimbabwe, with temperatures around 10 degrees Celsius below average.

Expected Impacts

Increased risk of flash flooding. Strong winds could lead to damage, particularly to poorly built or temporary structures as well as very large waves along the coast. The markedly colder conditions will likely bring some impacts on human and animal health and possibly agricultural crops too.



Middle East

Nil.

Asia

Northeast India, Nepal, northern Bangladesh, Bhutan, and northern Myanmar

Weather

Following recent extreme rainfall across the hills and mountains in this region, a further bout of extremely heavy monsoon rainfall and thunderstorms is expected through much of the next 7 days. Across low lying areas, further totals of 200-400mm are widely expected, with the hills and mountains again likely to see 800-1500mm or perhaps even more (this compares to the typical average at this time of year of 400-500mm per month across low lying regions, and 1000mm per month over the mountain sites). The peak rainfall through the next 7 days is likely to be seen this weekend, with lower rainfall totals from Monday, but the rainfall is still expected to be above the average for July.

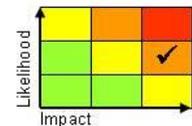
Recent rainfall has brought significant flooding across the region, and this additional rain will likely see river levels rise significantly once again in the coming week or two.

Discussion

A very active phase of the South Asian Monsoon will see an environment where high a PWAT airmass (>80mm), aided by SSTs approaching 30C (which is 1-2C above average) undergo dynamic and orographic ascent to maintain torrential rain and thunderstorms for many days to come. Another pulse of moisture associated with the (now decayed) tropical depression near the India/Pakistan border, will help generate further widespread torrential downpours as it spreads northeast, with the mountains seeing the highest totals. CAPE will mainly be skinny, leading to efficient ppn generation, but occasional mid-level dry intrusions may well allow lightning and large hail to be additional hazards. The longer term models suggest that rainfall amounts are likely to remain above average for several weeks in this region.

Expected Impacts

Flooding and widespread population displacement has already been widely reported and continued significant riverine flooding is expected to affect the region. There is also a very high threat of further landslides in the higher terrain.



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Central and eastern China, much of the Korean Peninsula and Japan

Weather

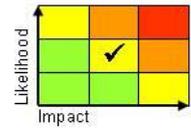
Following exceptional rainfall across these regions over recent days and weeks, the monsoon front that extends from central China to Japan is expected to remain very active through the coming days. Another 100-200mm of rain is expected widely across this region, with peak accumulations over the hills and mountains are likely to be in the region of 500-800mm across both China and Japan.

Discussion

The southerly winds associated with the monsoon are drawing very warm and moist flow across this region with extremely high values of PWAT (>75mm). This will generate further torrential downpours from rain, showers and thunderstorms, with the mountains seeing the highest totals. Despite this occurring relatively early in the monsoon season, flooding and widespread population displacement has already been widely reported.

Expected Impacts

Widespread surface and continued significant riverine flooding affecting the region, and likelihood of landslides in the higher terrain.



Western Ghats of India

Weather

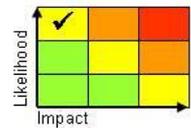
A period of heavy monsoon rainfall (intense showers and thunderstorms) is expected through the next 7 days, with up to 450mm of rain falling (half the average July rainfall).

Discussion

A deep, strong and moist SW'ly airflow will produce an active period of monsoon rainfall for this part of India through much of the next week.

Expected Impacts

Increased likelihood of flash flooding and landslides.



Parts of Malaysia, Indonesia and Papua New Guinea

Weather

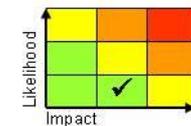
Above average rainfall will continue across this region in the form of heavy showers and thunderstorms. These will be capable of locally bringing 50-100 mm of precipitation in a short duration, with some locations likely to see 150-250 mm through the coming days. Average precipitation accumulations at this time of year across this region is around 250 mm per month.

Discussion

Strong and consistent signal from NWP for enhanced rainfall across this region no doubt aided by positive SST anomalies of 1 to 2C. In addition, several Kelvin Waves will move east across the area over the coming days.

Expected Impacts

An increased risk of flash flooding and landslides in regions where terrain is steep.



Australasia

Eastern Australia, including Sydney and Brisbane

Weather

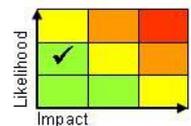
Some very unsettled weather is likely across this part of Australia early next week, as a winter storm develops just offshore. Strong winds, with gusts of 40-50mph, along with heavy rain is likely from the low from late Monday. Some 125-175mm of rain is also likely, this well above the average amounts of rainfall for July in this area (normally 80-100mm across the area).

Discussion

A deep area of low pressure is signalled to develop off the east coast of New South Wales. The development is likely to draw warm, tropical air south into the system, leading to some heavy rainfall, as well as strong winds. The system is likely to affect these areas until mid-week, at which point it should start to clear.

Expected Impacts

Heavy rain, flash-flooding over hillier interior areas. Rough seas.



This forecast may be amended at any time

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**Additional Information****Cox's Bazar, southeast Bangladesh**

Through until Monday above average rainfall is expected in this region due to more frequent and intense showers and thunderstorms. This will result in a higher threat of flash flooding and landslides. From Tuesday the shower and thunderstorm activity is likely to return to what's expected at this time of year, reducing the flash flood and landslide likelihood.

Yemen

Throughout the coming 7 days showers or thunderstorms will be fairly well scattered and mostly fairly short lived (5-10mm of rainfall per day in places at most). So the threat of any significant weather impacts in Yemen through the next week is very low. Compared to normal there is a greater chance of these showers across southern parts of the country and not just restricted to the Western Highlands.

Sudan/South Sudan

Rainfall activity is expected to be above average over the coming week across South Sudan and southern Sudan due to more frequent/widespread heavy showers and thunderstorms across the region. Over the next week the wettest spots could see 125-175 mm accumulate, which is around the average rainfall for the whole of July. So there will be a higher likelihood of flash flooding than usual.

USA

The heatwave conditions in the southwest of the USA (where temperatures records could be broken this weekend) is expected to gradually extend east and north through the next 7 days to affect much of the continental USA by the end of next week. Temperatures in this heatwave will be 10 degrees Celsius above the average July maxima, with accompanying warm nights. These conditions will result in severe heat stress conditions.

Issued at: 110700 UTC**Meteorologist** Paul Hutcheon**Global Guidance Unit**

This forecast may be amended at any time

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