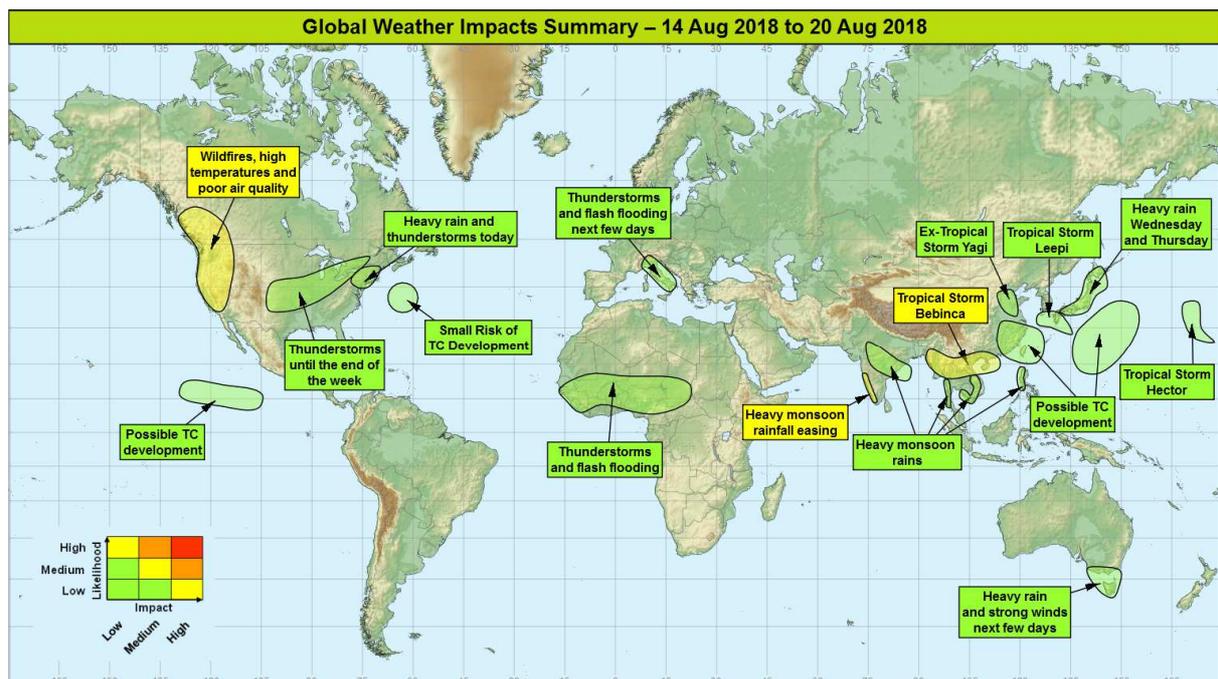


Global Weather Impacts – Tuesday 14th to Monday 20th August 2018

Issued on Tuesday 14th August 2018

HEADLINES

- Heavy monsoon rainfall continues across parts of southern Asia, particularly SW India.
- Wildfires and poor air quality ongoing across parts of western North America.
- Tropical storms to affect parts of eastern Asia over the next week.
- Flash flooding likely in parts of Italy during the next few days.



DISCUSSION

Tropical Cyclones

Ex-Tropical Storm Yagi (Western North Pacific)

The track across part of eastern China through the past 36 hours has resulted in Yagi losing strength, and being downgraded to a tropical depression. This process of weakening will continue today (Tuesday).

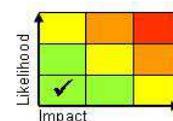
The remains of Yagi was located around 350 miles northwest of Shanghai at 0300 UTC this (Tuesday) morning, having become slow moving and been downgraded to a tropical depression. The remnants of Yagi will weaken further today (Tuesday), but the system will still bring some extremely heavy rainfall to parts of eastern China (especially parts of Shandong and southern Hebel provinces), with some locations seeing up to 300 mm over the next few days.

The main impact is expected to be to property and the surface transport infrastructure from heavy rainfall leading to flash flooding and an increased risk of landslides across parts of eastern China through the next few days.



Tropical Storm Hector (Central Pacific)

Increasing wind shear has led to a steady decline of Hector after having broken the record the longest consecutive time spent as a major hurricane in the Eastern Northern Pacific basin. Hector is currently around 300 miles southwest of Midway Atoll, having crossed the International Date Line. Hector is likely to weaken further as it tracks northwest over the open ocean through the coming days.



This forecast may be amended at any time

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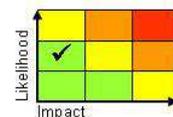
Hector will continue to move northwest across open water in the Central Pacific during the next 3 or 4 days, and is expected to slowly weaken with no threat to land. Hector will continue to produce swell that is affecting small islands and atolls in the central Pacific through the next couple of days. Otherwise Hector will have no impact on land.

Tropical Storm Leepi (Western North Pacific)

Leepi continues to track northwest under the influence of the sub-tropical ridge, but will interact with land and decay through the next few days.

Leepi was located around 300 miles southeast of the Japanese island of Kyushu at 14/0335 UTC, moving northwest at around 15 mph with maximum sustained wind speeds of 55 mph. Leepi is expected to maintain similar strength through the next 24 hours, before gradually weakening as it tracks across the island of Kyushu today (Tuesday). Leepi is expected to produce heavy rain across Kyushu, with many places seeing around 50-75mm of rain, with locally 150-200mm over higher ground. Leepi is then expected to weaken rapidly as it tracks northwest away from Kyushu.

The main impact is expected to be from heavy rain leading to flash flooding and an increased risk of landslides across the island of Kyushu today (Tuesday). Strong winds and rough seas may affect maritime activities in the region.

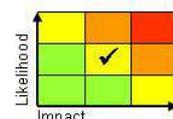


Tropical Storm Bebinca (South China Sea)

Tropical Storm Bebinca was located just to the southwest of Hong Kong at 14/0345 UTC, slow moving with sustained winds of 40 mph. There is still some model uncertainty for the timing of the track of Bebinca, but it is expected to track westwards into northern Vietnam this week, producing MCS/ MCC activity along the track.

Bebinca will slowly track westwards, just offshore southern China, through the next 2 or 3 days, ceasing to be a tropical storm as it tracks across northern Vietnam later in the week. Bebinca will produce widespread, long lasting thunderstorms that could produce up to 300 mm of rain in a 24 hour period. The remnants of Bebinca are then expected to continue westwards later in the week and through the weekend across northern Laos, northern Thailand, central Myanmar and SE Bangladesh (including Cox's Bazar), producing up to 200mm of rain in 24 hours along this track.

There is an increased likelihood flash flooding and landslides along the track of Bebinca during the next 5 or 6 days. Northern Vietnam saw significant flooding and landslides from Tropical Storm Son Tinh at the end of July, and so could be especially vulnerable to a similar event this time. Northern Laos has also seen a very wet rainy season, and could see worse impacts from Bebinca than would usually be expected. The large humanitarian camp in Cox's Bazar in SE Bangladesh could see significant flooding this weekend due to the remnants of Bebinca moving across the region.

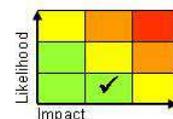


Western North Pacific

All models develop two further tropical storms in this basin, but with significant timing and track differences which lower confidence in the impacts.

Two further tropical storms are expected to develop in the Western North Pacific during the next week. The first system is likely to remain offshore, between the Philippines and Japan. However, the second system is expected to develop close to Taiwan, and affect parts of eastern China later this week and into the weekend. The second system will produce a risk of up to 600 mm of rain, hurricane force winds and dangerous seas.

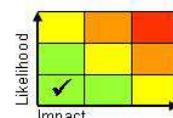
Flash and coastal flooding looks likely, along with damaging winds, with a threat to life, property and power / transport infrastructure.



Western Atlantic

A small, non-tropical low is located around 600 miles south of Cape Race, Newfoundland. Strong upper level winds are expected to inhibit significant development of the system through the next few days as it moves SSE over the open ocean.

A small low in the western Atlantic is producing some thunderstorm activity in its immediate vicinity. NHC Miami has just a low (40%) probability of this system developing into a named storm through the next five days.



This forecast may be amended at any time

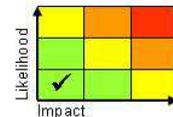
Given that this system is expected to remain over the open ocean, with limited development no impacts to land are expected this period.

Eastern North Pacific

African Easterly Waves continue to produce numerous showers and thunderstorms just east of 140W. Upper level winds may become more conducive for development later this week, with NHC Miami increasing the rating the chances of a named system developing to 90% in the next 5 days.

There is a high chance of a tropical storm developing over open water and well away from land through the next five days.

With any development likely over the open ocean, no impacts to land are expected at this time.



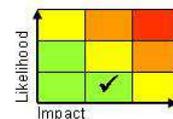
Europe

Italy

The seasonal warm plume resident across Italy will be engaged by a sharpening upper trough tracking southeast across western Europe. The environment will be supportive of MCS development and isolated supercells which will likely persist into the evening and overnight hours.

Scattered heavy showers and thunderstorms are expected to develop over the next few days across Italy with a likelihood of severe thunderstorms producing a combination of heavy rain, large hail and strong winds. 30-50mm/hour of rain is possible in a few hours, with a few locations seeing totals approaching 75 mm through the next few days.

As seen with recent severe thunderstorm episodes in Europe, flash flooding is expected to be the main impact. Wind, hail and lightning damage are also possible whilst some minor delays to aviation are possible from airports such as Milan and Rome.



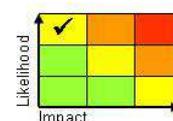
North America

Western USA and Southwestern Canada

The plume of hot air that has been responsible for record breaking temperatures being observed across parts of SW Canada and NW USA was displaced to the SE over the weekend as a cold front sinks across the region. However, an upper ridge will redevelop during the next few days, allowing temperatures to rise above normal for a prolonged period of time, though not to the extreme values seen recently.

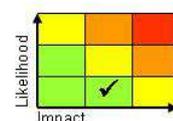
The recent heat wave conditions resulted in all-time records being broken in both countries (including Calgary, Alberta on Friday). Cooler conditions followed over the weekend, but the next 7 days look like producing above average temperatures across much of this region, with little rainfall expected.

Several significant wildfires continue to burn across western North America, with the most significant fires in northern California (the Mendocino Fire Complex is the largest in state history with over 300,000 acres burnt). Wildfires in British Columbia have produced poor air quality across much of the province, with the smoke being caught up in the jet stream and having now travelled across Canada and out into the Atlantic. Conditions will be conducive to further wildfire generation and will not help fire containment. Therefore, it is likely that the wildfire situation could worsen during the next week, with fires continuing to threaten damage or destroy property and infrastructure in the region.



NE USA

A cut-off low has been engaging the warm plume across the NE USA, leading to the development of heavy showers and thunderstorms. This vortex will relax east through the next few days, with activity easing.



This forecast may be amended at any time

Scattered heavy showers and thunderstorms will affect parts of the NE USA today (Tuesday). These storms will produce locally heavy rain (up to 75mm in 3 hours). Much better conditions are expected from Wednesday.

Some parts of New Jersey saw over 125 mm of rain in recent days, causing severe flooding. Further localised flash flooding is likely today (Tuesday). Flight delays have been reported over recent days from major hubs in the NE due to thunderstorm activity and this is expected to be the case again today (Tuesday), including New York.

Central USA and far Southeastern Canada

Various short wave upper troughs will engage a very warm plume to produce areas of severe thunderstorms from the Central Plains of the USA into the Great Lakes region through the next 4 days or so.

Further scattered showers and thunderstorms are expected across this region over the next 4 days, which are likely to produce 75-100mm of rain over a few hours in some locations. The focus for the heaviest rainfall is expected to transfer northeast from the Central Plains of the USA today (Tuesday), into the Great Lakes later in the week.

Flash flooding is expected to be the main impact, although strong winds and large hail could be seen too. These conditions will adversely impact the power and transport networks, and could affect some large cities such as Chicago and Toronto.



Central America and Caribbean

Nil significant.

South America

Nil significant.

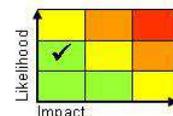
Africa

Equatorial West Africa

Further active African Easterly Waves are expected to contribute to above average rainfall across the region over the next week.

Further areas of frequent thunderstorms are expected to affect parts of West Africa over the next week. These thunderstorms are likely to produce 75-100 mm of rain in just a few hours. Whilst thunderstorms are not uncommon at this time of the year, they are expected to be slightly more numerous than normal.

Heavy rainfall, often falling in a very short period, will result in an increased likelihood of flash flooding and landslides. Strong winds from thunderstorms can also cause damage to crops and properties, and lift dense dust storms across the Sahel region.



Middle East

Nil significant.

Asia

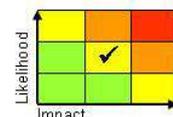
See *Tropical Cyclones* section.

Western India

An enhanced southwest monsoon flow will persist across SW India through the next few days, bringing high rainfall accumulations over hills that face into the prevailing wind. Towards the end of the week the flow will weaken, with the rains easing.

Persistent heavy monsoon rain and thunderstorms are expected to continue through the next few days. Around 50-100 mm of rainfall may occur each day within this region, with some locations likely to record totals approaching 500 mm over the next week.

A high likelihood of further flooding and landslides, posing a danger to life, as well as damage to property and infrastructure. However, this is the wet season, and so these impacts are expected in the region at this time of year. The most significant flooding impacts are likely to be across Kerala, where it is reported to have been the worst floods in almost 100 years.

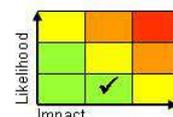


Central India, SW Myanmar, Northern Philippines, parts of Cambodia and Laos

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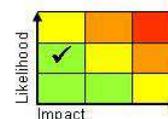
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A persistent south-westerly monsoon flow will maintain moist, deep convection to parts of Cambodia, Laos and Luzon in the Philippines. Meanwhile, a marked monsoon low pressure system will transfer westwards across central parts of India this week. Enhanced monsoon rains will affect these southern Asian regions through much of the next week. Rainfall totals will be quite variable owing to the nature of showers, but there is the likelihood of as much as 250 mm in a 24 hour period, and up to 600 mm through the next week. Flash and river flooding likely, along with an enhanced likelihood of landslides in mountainous areas.

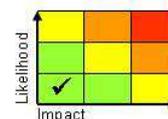
Japan

An active pulse of the Baiu front is expected as a marked upper trough engages the monsoon plume across and to the north of Japan from midweek. Very heavy rainfall is expected across parts of Japan, including Tokyo, through Wednesday and Thursday. As much as 300 mm could fall in a 48 hour period before drier, cooler conditions follow from the north. Flash flooding is likely in places, and this could impact transport networks, as well as flood many properties if this occurs across a large, populated area.



Australasia Victoria and Tasmania

A strong 220 mph jet stream will drive a vigorous depression well to the south of Australia today (Tuesday) and allow a large swathe of strong winds to develop on its northern flank into Wednesday. The heaviest rainfall is expected to be across western Tasmania, although this is largely unpopulated compared to the sheltered east. A deep area of low pressure will bring a further spell of very strong winds to parts of southeast Australia through the next few days, with coastal severe gales likely producing wind gusts of 60-70 mph to southern Victoria and Tasmania. This will be accompanied by heavy rain, the heaviest of which is likely to be across western Tasmania. The main impact is expected to be from strong winds and follow a particularly unsettled spell of weather that led to one fatality earlier in the week. Further fallen trees and power interruptions seem likely, whilst disruption to air and sea travel in the region is also possible.



Additional Information

Nil significant.

Issued at: 140700 UTC

Meteorologist: Paul Hutcheon

Global Guidance Unit