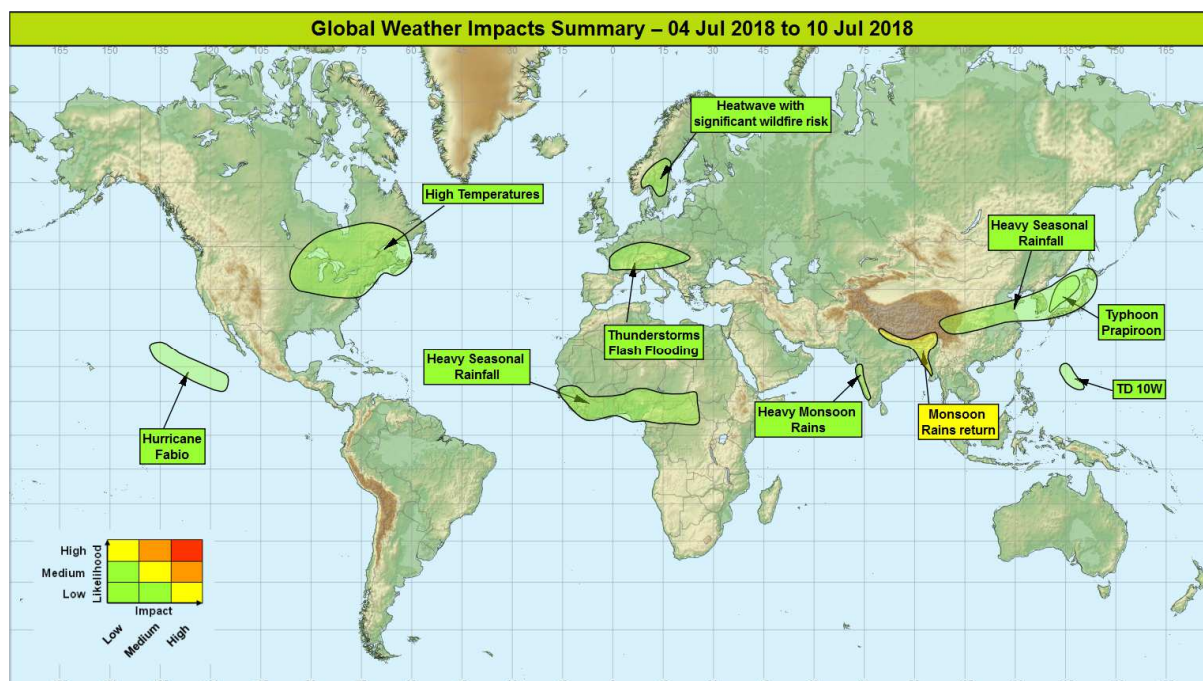


Global Weather Impacts – Wednesday 4th to Tuesday 10th July 2018

Issued on Wednesday 4th July 2018

HEADLINES

- The monsoon remains active across Southern Asia, affecting Western India, Myanmar, Bangladesh and Nepal in particular.
- Tropical storm Prapiroon likely to bring heavy rainfall and strong winds to western Japan/east South Korea.
- High temperatures continue across parts of the Midwest and NE USA as well as SE Canada.
- Severe thunderstorms continue across many central parts of Europe.



DISCUSSION

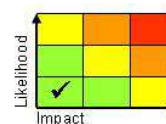
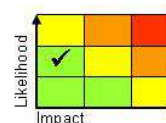
Tropical Cyclones

Tropical storm Prapiroon (NW Pacific) - Was located near 37.4N 132.8E at 04/0300Z and was moving N-NE at 23mph, with sustained winds of 60mph.

The Japan Meteorological Agency (JMA) suggests the storm will continue to weaken as it continues to pass between South Korea and Japan. The main impacts will be from heavy rainfall, a storm surge, and large waves across Southern Japan and the E coast of South Korea.

Flash flooding and an enhanced risk of landslides are likely, especially in mountainous areas. During this time strong winds and large waves over the East China Sea are likely to cause short lived disruption to busy shipping lanes that service large ports in the region.

Hurricane Fabio (E Pacific) – Hurricane Fabio is located near 16.5N 117.9W, to the south-southwest of Baja California and is moving west-northwest at around 16mph. Fabio's sustained windspeeds have now increased to 110mph, a category 3 hurricane on the Saffir-Simpson scale, and has probably reached it's peak intensity. Despite this, Fabio is not expected to threaten land, moving away to the NW and gradually declining.



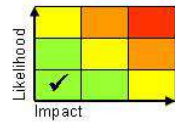
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Tropical depression 10W

10W is now NW of Guam in the western Pacific. The system is likely to undergo strengthening as it continues slowly NW in the next few days, perhaps becoming a tropical storm by 18Z today (Wednesday), and could go on to strengthen to a Typhoon by the weekend. Should this happen the system will be named Maria, but is expected to remain clear of land into next week.

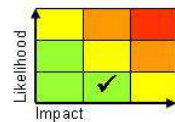


In the Tropical N Atlantic Ocean

The NHC have identified two potential areas of development here. S of Bermuda there is a 50% chance of a tropical cyclone developing in the next 5 days. Further S an African Easterly wave has a 20% chance of developing into a tropical cyclone well to the SW of the Cape Verde islands

Europe

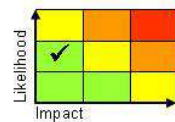
Western and Central Europe – An upper vortex close to NW Iberia is expected to relax NE'wards, degenerating into various smaller-scale forcing elements as it does so. Forcing will continue to engage the in situ very warm, moist air over Central Europe, and is likely to continue to produce some locally severe thunderstorms through the next few days. The input of strong diurnal heating will see storm numbers and intensities peak in the late afternoons, but these are likely to linger through the night-times in places.



The main areas at risk of severe storms are the Alpine regions of France, Switzerland and Northern Italy, becoming locally long lasting. Anywhere within this region could see 30 to 50mm of rain in a short period. These storms will produce large hail, strong convective winds and frequent lightning. Through the rest of the week further storms are likely each day through France and The Alps, with storms also becoming prevalent across the Balkans.

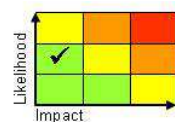
Impacts are likely from flash flooding and an increased risk of landslides, especially in mountainous areas. These impacts, along with frequent lightning, will pose a threat to life and will likely impact the transport network, including aviation, with some popular routes to tourist destinations likely to be affected.

Southern Scandinavia – A marked upper high, with strong low-level southerly winds will maintain temperatures some 10-12°C above normal until the end of the week. This prolonged warm and dry spell is likely to lead to an enhanced risk of wildfires, with smoke and other pollutants combining with the heat to lead to health impacts for the local population.



North America

NE and Midwest USA, SE Canada – The combination of an upper high and a very warm, humid airmass will see a continuation of potentially dangerous heat wave conditions through much of this week, easing somewhat this weekend, before building again into next week.



The heat wave is expected to affect many of the major cities of the NE USA and SE Canada, including New York and Toronto. Daytime and overnight temperatures are expected to be 5-10 Celsius above the long-term mean. This would result in daytime temperatures around 35 Celsius and overnight temperatures no lower than 25 Celsius. This, combined with high humidity, has resulted in excessive heat warnings being issued, with tens of millions of Americans affected by these. On Tuesday temperatures reached 36.7°C at both Boston and Philadelphia. The heat continues into Canada, with 35.3°C recorded in the capital Ottawa. The high temperatures and humidity are likely to continue through the week before a cold front brings some relief on Friday.

Heat health impacts are likely in vulnerable populations, along with an increased likelihood of wildfires. The demand for air conditioning could also impact power supplies.

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Central America and Caribbean

Nil significant.

South America

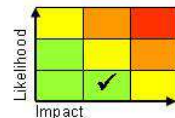
Nil significant.

Africa

Central swathe of Africa, extending from the CAR to the Guinea and Atlantic coasts – Strong African Easterly Wave (AEW) activity is expected to continue through the next 7 days across this slice of Africa, producing higher than average rainfall in places.

Areas of intense thunderstorms will affect this region, producing torrential rainfall at times. Most places in this region will see 50-100mm of rainfall through the coming week, with some places seeing as much as 250mm. There is always a possibility of much of this precipitation falling over just a couple of events. These storms will also produce strong winds and dense dust storms in the drier, northern fringe of this region (the southern Sahel). One such storm affected Senegal during the weekend (<https://watchers.news/2018/07/01/intense-dust-storm-hits-senegal-causing-damage-and-killing-livestock/>).

There is a higher than usual risk of flash flooding across this region, with an increasing likelihood of landslides. These impacts will pose a threat to life, as well as damaging structures and transport routes. These large scale thunderstorm events may also result in the re-routing of some air traffic across the continent.



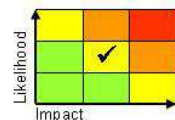
Middle East

Nil significant.

Asia

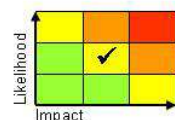
Southeast Bangladesh & western Myanmar – The Southwest Monsoon flow returned across the region earlier this week, bringing a resumption of thunderstorm activity and torrential rainfall. On Tuesday a station close to Dhaka recorded 121mm in 24 hours. Similar totals are likely in the next few days.

Although not particularly unusual for this region at this time of year, clearly the main concern is for the refugee camps around Cox's Bazar. Flash flooding, deep mud and an increased risk of landslides pose a risk to the vulnerable populations here.



Northern India, Nepal, much of Bangladesh, Bhutan and northern Myanmar –

Heavy showers and thunderstorms across this region will continue through this week. These storms can produce 100 to 200 mm per day, with some parts seeing as much as 800 mm through the period.



The heavy rains will enhance the flash flood potential, with the more mountainous regions seeing an increasing likelihood of rockslides and landslides. 17 people lost their lives in these floods earlier this week, and damage to property and parts of the transport network is likely. If precipitation remains above average (as currently forecast) over the coming weeks, flooding in some of the large river basins such as the Brahmaputra is likely to begin to occur by the middle of this month.

This forecast may be amended at any time

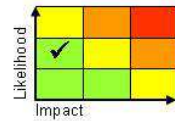
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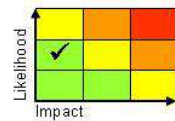
Western India – A surge currently occurring in the Somali Low Level Jet will transfer across the Arabian Sea and enhance the Southwest Monsoon flow across western India.

50-100mm of rainfall may occur each day within this region, with some locations recording totals in excess of up to 300mm over the week.

This amount of rainfall is not unusual for this region; however, the heavy rains maintain a likelihood of some flooding and landslides, posing a danger to life, as well as damage to property and infrastructure.



Central China and parts of Japan – The Mei-yu front (called the 'Changma front' in the Korean Peninsula, and the 'Baiu front' in Japan) will remain active across this part of eastern Asia during the next week, with a short lull as Tropical Storm Prapiroon disrupts the upper level flow and bringing heavy rain of its own. – see the tropical cyclone section.



Very heavy showers and thunderstorms are expected to lead to above average rainfall through the next 7 days in this region. Rainfall amounts are expected to be quite variable, but some locations are likely to receive as much as 300mm during the next week, with over 100mm of rain likely in a 24 hour period in a few places. Important business hubs such as Shanghai could be impacted. On Tuesday it was reported that 16 people had been killed and 92,000 evacuated in the region.

Flash flooding events are likely, with an increasing likelihood of landslides in more mountainous areas. These conditions will be dangerous to life, and will likely disrupt transport networks and pose a threat to property. There is also a risk of flooding along the Yangtze river through China if the rains persist. Flooding of the Yangtze potentially impacts millions of people, and has in the past resulted in thousands of deaths.

Australasia

Nil significant.

Additional Information

FIFA Football World Cup, Russia – The 2018 Football World Cup continues until 15th July. The forecast for the next England match against Sweden (at 5pm local time on Saturday) in Samara is for very warm sunshine and a temperature of around 27°C.

Issued at: 040500 Z **Meteorologist:** Chris Tubbs

Global Guidance Unit

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