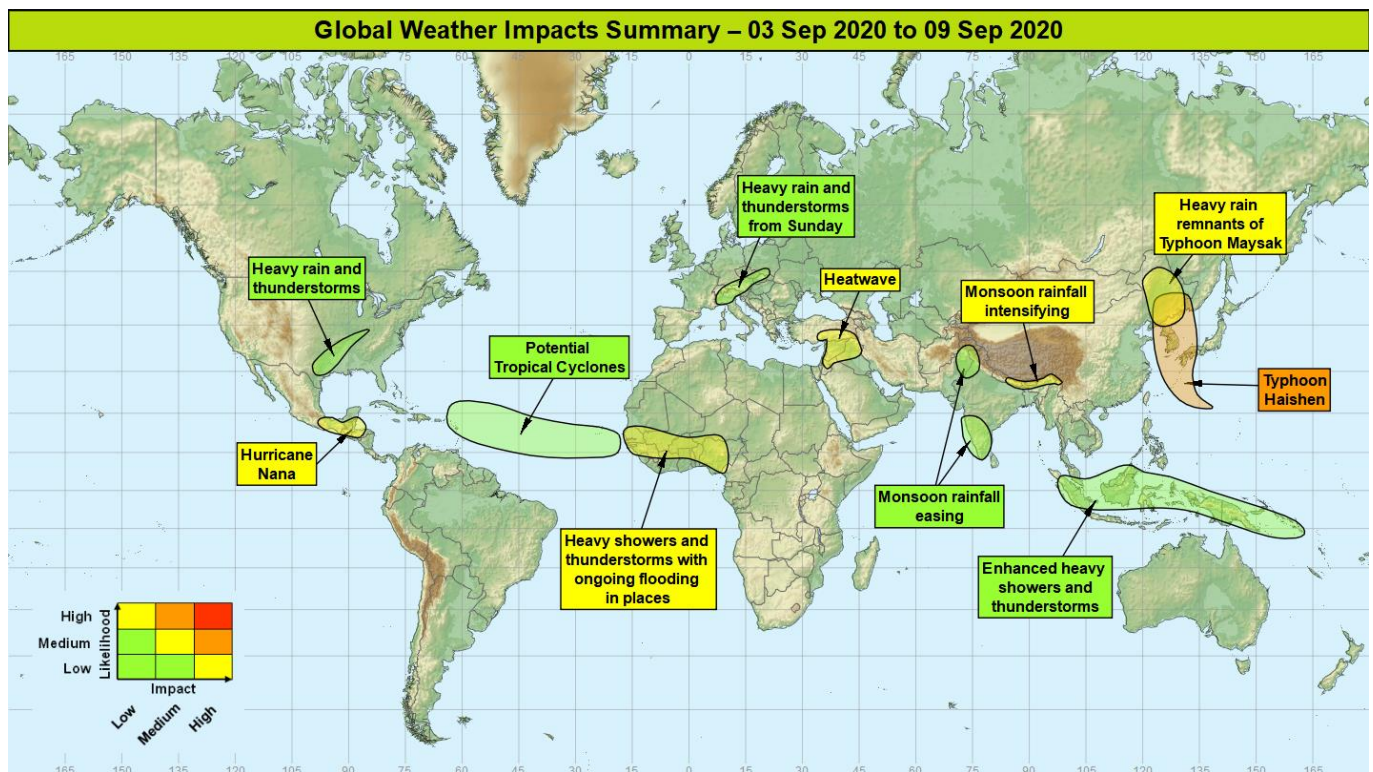


## Global Weather Impacts – Thursday 3<sup>rd</sup> to Wednesday 9<sup>th</sup> September 2020

Issued on Thursday 3<sup>rd</sup> September

### HEADLINES

- Haishen forecast to become another powerful typhoon impacting Japan and Korea this weekend.
- Remnants of Typhoon Maysak bringing heavy rain across eastern China.
- African and South Asian monsoons remain active in places with further flooding expected.
- Hurricane Nana now making landfall across Belize.



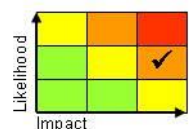
### Tropical Cyclones

#### Typhoon Haishen - West Pacific (Japan, Korea, northeast China and far east of Russia)

**Weather**  
Haishen which currently lies around 900 miles south of Tokyo over the open northwest Pacific and has strengthened into a typhoon over the last 24 hours with maximum 10 minute sustained winds of 85-90 mph. There is a strong signal that Haishen will strengthen further over the coming days as it starts to track further north towards southwest Japan and Korea. Whilst there is still some uncertainty regarding its exact track and strength there is a strong indication it will reach southwest Japan and then Korea later in the coming weekend. Most likely following a similar track to typhoon Maysak. There are signs that Haishen could be even more powerful than Maysak by the time it reaches these areas so destructive winds, a dangerous storm surge (probably at least 3 metres) and copious amounts of rainfall (300-500mm) all look likely.

#### **Discussion**

Very warm seas and a very low vertical wind shear environment will allow this system to significantly strengthen as it slowly drifts west-northwest over the next 48 hours. The upper flow will back ahead of a long wave East Asian upper trough, which will see Haishen track north towards southwest Japan into the weekend. This is where model differences start to arise regarding the timing of the northward progression as well as its exact track and intensity. However, all models show a very strong typhoon likely impacting southwest Japan and then Korea during the latter part of the weekend.



**This forecast may be amended at any time**

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## Expected Impacts

Flash flooding and coastal flooding will occur. Destructive winds will not be limited to coastal regions. Landslides are likely too. River flooding is also possible, especially across the Korean Peninsula due to the very wet monsoon season, Typhoon Bavi last week and Typhoon Maysak this week. It is likely that extremely severe weather impacts will be seen across parts of the Korean Peninsula due to the accumulated rainfall from these events, increased displaced population and extremely stretched emergency services.

## Hurricane Nana - Caribbean Sea (parts of Central America and southeast Mexico)

### Weather

Nana strengthen to hurricane just before making landfall across Belize earlier this morning with maximum sustained winds of 75 mph. Nana will quickly weaken as it continues west-northwest into southeast Mexico. As well as potentially damaging winds and a modest storm surge for coastal areas, intense showers and thunderstorms will produce the potential for 100-200 mm of rain in just 24 hours (average September rainfall in this region is 200-300 mm).

### Discussion

As Nana moves inland it will gradually lose its identity and weaken but its remnants will act as a focus for the development of heavy showers and thunderstorms for the next few days.

### Expected Impacts

Risk of flash flooding and landslides, with the potential for damaging winds and perhaps minor coastal flooding too.

*The following areas are being monitored for potential tropical cyclone activity affecting land:*

## Tropical North Atlantic and northeast Caribbean

### Weather

There is the potential for multiple disturbances moving west from West Africa across the Tropical Atlantic to act as a focus for potential tropical cyclone development. There are several areas of possible development, with none posing any threat to land (primarily the northern Lesser Antilles) until the middle part of next week at the earliest.

### Discussion

Disturbances within the monsoon trough (associated with African Easterly Waves (AEWs)) could trigger tropical cyclone development from later this week. There are significant model differences in the synoptic evolution of a number of potential development areas, which will likely interact with each other. Regardless the current steering flow would suggest that none of the current disturbances have the potential to reach land before the middle of next week, with the presence of a slow moving tropospheric upper trough resulting in this systems having slow forward speed and likely to have a tendency to curve to the north on approach to the northeast Caribbean.

### Expected Impacts

Potential for some tropical storm type impacts for the Cabo Verde Islands. If any systems do form further west they look unlikely to quite reach the northern Lesser Antilles during this period.

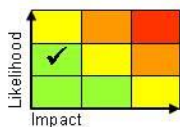
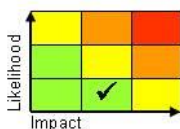
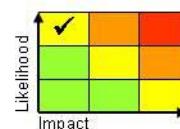
## Europe

### Central and eastern Europe

### Weather

Outbreaks of heavy rain and thunderstorms are likely to develop around the Alpine region and across to parts of eastern Europe from Sunday and into early next week. There is the potential for heavy rain across much of the area with 50-100 mm falling in places over a couple of days. Whilst many areas will miss them, thunderstorms could bring torrential downpours, gusty winds, hail and lightning in places, this perhaps looking most likely for northern Italy.

### Discussion



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A baroclinic zone will become slow moving over the weekend before being engaged by an extending upper trough. This will cause waves and areas of heavy rain to form. Within the higher WBPT air to the southeast of the low level thermal boundary this looks likely to destabilises allowing thunderstorms to develop although it currently looks marginal as to whether these will be severe or not.

**Expected Impacts**

Increased risk of flash flooding in places.

**North America****Central/southern USA****Weather**

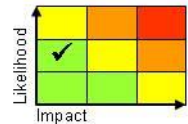
Further spells of heavy rain and thunderstorms are expected over the southern and central Plains of the USA over the next couple of days. A further 50-100mm of rain could fall in a few places. Some thunderstorms may be severe with locally damaging winds and isolated tornadoes.

**Discussion**

Tropical moisture is expected to remain in place ahead of a slowly relaxing upper trough that will gradually transfer east across the Great Plains. The upper forcing will trigger thunderstorms that may subsequently upscale into organised clusters with the combination of instability and shear supportive of locally severe thunderstorms.

**Expected Impacts**

Flash flooding is likely to be the primary hazard. Localised property and infrastructure damage is possible from thunderstorms/tornadoes.



**Southeast Mexico** – see *Tropical Cyclone Section*

**Central America and Caribbean**

**Belize, Guatemala and Honduras** – see *Tropical Cyclone Section*

**South America**

Nil

**Africa****Western Africa****Weather**

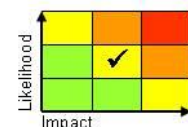
Further prolonged, heavy showers and thunderstorms will affect the region at times in the coming week. Whilst not all areas will see heavy rain, each day 50-75 mm could fall in places within a few hours, and over this period the wettest areas may see 200-300 mm build up (most likely over southwest Mali and across to the Atlantic coast). This does tend to be the wettest time of the year for the areas highlighted but the forecast rainfall will still be equivalent to typical monthly amounts in places.

**Discussion**

The monsoon trough currently lies close to its northern extent from roughly Senegal towards southern Sudan. Along and to the south of this trough lies moisture-laden air, with the African Easterly Jet periodically buckling due to the passage of African Easterly Waves. The likelihood of medium impacts is indicated due to there already having been numerous reports of flooding. NWP consistent in suggesting the highest rainfall totals across the west of this area.

**Expected Impacts**

Ongoing flooding with the potential for further surface water and riverine flooding from additional rainfall. Strong wind gusts across the far north of this area could trigger dust storms.

**Middle East**

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**Syria, southeast Turkey, Jordan, north/west Iran****Weather**

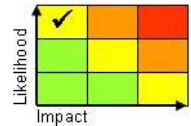
A prolonged spell of high temperatures is expected across this region, with daily maxima well in excess of 40°C, which is some 5-8°C above normal for the time of year. The heat should slowly abate next week.

**Discussion**

A blocked, settled pattern is expected to persist over this region over the coming week. Whilst high temperatures will be experienced much more widely, the region highlighted shows a combination of temperatures above 40°C and greater than 5°C above the average for the time of year. The prolonged nature of the hot spell is likely to lead to impacts, even for a region which in general is used to high temperatures.

**Expected Impacts**

Adverse effects on health of people (particularly children and elderly), and livestock. Power cuts could occur due to increased energy demand.

**Asia**

**Korean Peninsula, southwest Japan and northeast China** – see *Tropical Cyclones* section.

**Korea and northeast China****Weather**

The remnants of Typhoon Maysak are now moving inland over North Korea and into northeast China. Winds have now eased with the system decaying into a remnant low. This will however continue to produce heavy rainfall (100-150 mm) across a large part of northeast China.

**Discussion**

The most significant impacts from Maysak have now probably passed with the system now moving inland. As it moves inland it will become embedded in an extended mid-latitude trough which will mean it will only slowly track northwards over the next few days allowing it to produce heavy rainfall over a large area.

**Expected Impacts**

The most significant impacts from wind across the Japan and the Korean Peninsula have probably now passed. Flash and riverine flooding remain likely across parts of Korea and northeast China over the next few days. This rainfall follows an active monsoon season and typhoon Bavi last week making impacts from rainfall more likely. Landslides possible in mountainous areas which could damage infrastructure and cut off communities.

**Parts of Bangladesh, eastern Nepal, far northeast of India and northern Myanmar****Weather**

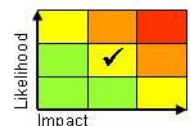
An increase in the frequency of intense showers and thunderstorms look likely in this region from Friday, continuing into next week. Up to 200 mm of rain could fall in a day in places, with an accumulate rainfall amount of up to 600 mm by early next week (over 50% of the average September rainfall in places).

**Discussion**

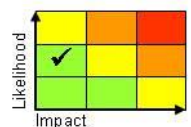
The cause of the increased rainfall in this region looks like to being a modest increase in a more moist South-SW'ly flow in the wake of a monsoon low pressure system. However, there may also be a contribution from an upper air PV anomaly that has moved around the seasonal upper high and south into the region.

**Expected Impacts**

Flash and some riverine flooding likely, an increased risk of landslides in mountainous parts.

**Northern Pakistan and northern India****Weather**

The areas of intense showers and thunderstorms will tend to ease through the next few days across this region. However, up to 50-100 mm of rain could still fall in places through the rest of the week.

**Discussion**

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There is good model agreement for a monsoon low pressure area across northwest India and northern Pakistan to weaken through the next few days. Another monsoon low pressure area affecting northeastern India will track westwards through the rest of the week and also weaken.

## **Expected Impacts**

Flash flooding and landslides are likely in places through the next 2 or 3 days, but will become less likely into the weekend.

## **Southwest India**

### **Weather**

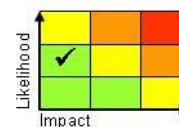
Monsoon rainfall looks likely to ease through the coming few days, although up to 50-100 mm is possible in a few places during the next few days.

### **Discussion**

There is good model agreement for an easing of the moist monsoon onshore winds into southwestern India during the rest of the week, which will result in a weakening of the deep convection down the Western Ghats region.

### **Expected Impacts**

Flash flooding and landslides are possible in places through the next few days, but will become less likely into the weekend.



## **Indonesia, Malaysia, Papua New Guinea, Brunei and the Solomon Islands**

### **Weather**

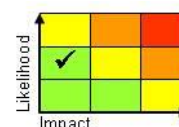
Heavy showers and thunderstorms will continue to be more frequent, intense and widespread than normal over the coming few days. Around 50-75 mm of rain could fall in a couple of hours in places, with overall accumulations through the week of around 150-250 mm.

### **Discussion**

Higher than normal SSTs in the region, perhaps in part due to the developing La Niña like conditions, is fuelling deep convection, with showers and thunderstorms more intense and frequent than is usual for the time of year. This will be further enhanced by the passage of the MJO across the Maritime Continent through early September.

### **Expected Impacts**

Flash flooding and landslides in areas with steep terrain are likely.



## **Australasia**

**Papua New Guinea and the Solomon Islands** – see *Asia* section.

## **Additional Information**

### **Cox's Bazar, southeast Bangladesh**

Overall rainfall is expected to be below average with the worst of the showers and thunderstorms staying away to the north. Some thunderstorms are still likely at times, producing a threat of flash flooding at times across the Cox's Bazar area, but nothing unusual for early September.

## **Yemen**

Daily rounds of showers and thunderstorms are expected during the next few days, before activity tends to reduce by the weekend. Where they occur, they are likely to be heavy with 20-30 mm falling in the space of a few hours. Not everywhere will see showers on each day, but most places on the higher ground of the Western Highlands and along the south coast will see some rainfall this week.

## **Sudan/South Sudan**

Further heavy showers and thunderstorms are expected through the coming 7 days across South Sudan and the far south of Sudan, especially from Friday. Up to 50-75 mm could fall in a 6 hour period in a few places, producing flash flooding. Accumulations over the next week look likely to be widely 25-50 mm, and locally as high as 100-125 mm. We are still in the wet season across this region and there has already been serious flooding in parts of the region. Therefore, further locally heavy seasonal rainfall is likely bring more flood impacts in places.

## **Southwestern USA**

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Whilst the extreme heat has now abated it will remain predominantly dry west of the Rockies with no significant rainfall in the foreseeable future across existing firegrounds of northern California. A gradual upward trend in temperatures is signalled through early September, although a spell of strong, offshore winds are not currently forecast, with the Santa Ana wind seasonal usually commencing in October and running to March.

**Issued at:** 030735 UTC

**Meteorologists:** Chris Bulmer / Nick Silkstone

**Global Guidance Unit**

**This forecast may be amended at any time**

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