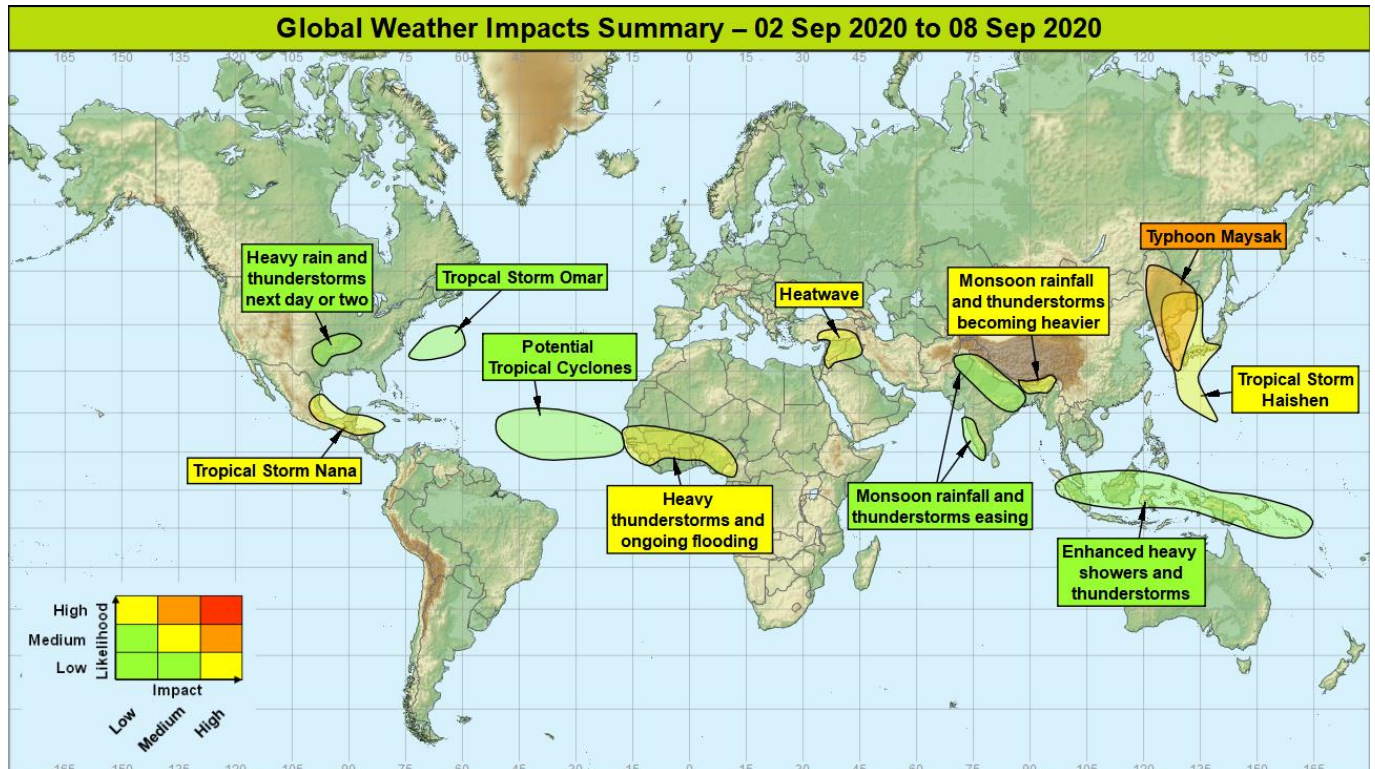


## Global Weather Impacts – Wednesday 2<sup>nd</sup> to Tuesday 8<sup>th</sup> September 2020

Issued on Wednesday 2<sup>nd</sup> September

### HEADLINES

- Typhoon Maysak expected to make landfall over South Korea today (Wednesday).
- Tropical Storm Haishen expected to become a very strong typhoon and affect western Japan, the Korean Peninsula and northeast China this weekend.
- African and South Asian monsoons remain active in places with further flooding expected.
- Tropical Storm Nana affecting the west Caribbean and parts of Central America in the coming days, perhaps becoming a hurricane before landfall in Belize.



### Tropical Cyclones

#### Typhoon Maysak (Korean Peninsula, northeast China and extreme west of Japan)

##### Weather

At 0600 UTC Typhoon Maysak was located 150 miles south-southwest of Busan (South Korea) with 10 minute sustained winds of 95-100 mph and gusts to 135-140 mph. Maysak is expected to make landfall just west of Busan between 1200 UTC and 1800 UTC, with similar wind speeds, although these will reduce after landfall is made. A significant storm surge is also expected (probably at least 3 metres), as well as waves of up to 10 metres along the south coast of Korea, and with up to 250 mm of rainfall as it tracks north across the Korean Peninsula and into northeast China through the next few days.

##### Discussion

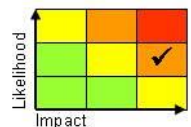
Maysak became a very strong typhoon in the past few days as it moves north across very warm waters and a weak vertical shear environment. An upstream upper trough will accelerate Maysak north into the Korean Peninsula today (Wednesday), but with increased vertical wind shear, less warm waters and eventually a track across land weakening the system. The engagement of the upper trough will result in Maysak undergoing extra-tropical transition by Thursday. However, unusually strong winds and copious amounts of rainfall are still likely to continue even if it is no longer a tropical system across northeast China on Thursday before it continues north and weakens on Friday.

**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 due to the Korean Peninsula having seen a very wet monsoon season. This all comes on top of Typhoon Bavi last week.

## **Tropical Storm Haishen (West Pacific, western Japan, Korean Peninsula and northeast China)**

### Weather

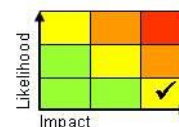
Haishen has formed on Tuesday from a cluster of thunderstorms 800 miles south of Tokyo. During the rest of this week Haishen is expected to significantly strengthen as it moves slowly west-northwestwards, likely becoming a very strong typhoon with 10 minute sustained winds of 90-100 mph. Through the weekend Haishen will track northwest or northwards, tracking across western Japan as a very strong typhoon, likely strengthening up to landfall, with the potential for maximum 10 minute sustained winds of 100-110 mph and gusts around 150 mph. Haishen will then continue north across or close to the Korean Peninsula as a weakening system. As well as the destructive winds, a significant storm surge is expected (probably at least 3 metres), with up to 350 mm of rainfall as this system transfers north across western Japan, the Korean Peninsula and northeast China.

### Discussion

The tropical depression associated with a cluster of thunderstorms in the West Pacific strengthened to become a named tropical storm on Tuesday. Very warm seas and a very low vertical wind shear environment will allow this system to significantly strengthen as it slowly drifts west-northwest through the rest of the week. The upper flow will back ahead of a long wave East Asian upper trough, which will see Haishen track north towards western Japan into the weekend. However, this is where there has been some model differences regarding the timing of the northward progression, although all models show a very strong typhoon making landfall this weekend in western Japan which is likely to bring severe impacts. The engagement of the upper trough will result in Haishen undergoing extra-tropical transition by later in the weekend as it tracks north across or close to the Korean Peninsula. However, unusually strong winds and copious amounts of rainfall are still likely to continue even if it is no longer a tropical system across northeast China on Monday before it continues north and weakens on Tuesday.

### 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.



## **Tropical Storm Nana (Caribbean Sea, parts of Central America and eastern Mexico)**

### Weather

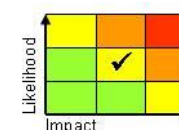
An organised area of showers and thunderstorms strengthened to become Tropical Storm Nana just south of Jamaica on Tuesday. Nana has continued to track westwards and was located 400 miles east of Belize at 0600 UTC with 1 minute sustained winds of 60 mph. Nana will continue to track west through Wednesday and strengthen, perhaps becoming a hurricane before landfall in Belize during Thursday. Nana is then likely to weaken as it continues west-northwest into southeast Mexico. As well as potentially damaging winds and a modest storm surge, 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

This system strengthened through Tuesday to warrant being named by the NHC. Continued favourable conditions are likely to see further strengthening during the next few days before landfall of a small scale system in Belize on Thursday. The land track thereafter will see the system weaken by the weekend.

### Expected Impacts

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



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**Tropical Storm Omar (North Atlantic)****Weather**[Short summary discussion for the HMG products](#)

Tropical Depression 15 to the east of the Carolinas strengthen to become a named tropical storm

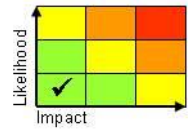
Overnight. However, Omar is expected to weaken again today and then become extra-tropical by Thursday as it continues eastwards across open water to the north of Bermuda.

**Discussion**[Usual World Weather Assessment](#)

This system managed to attain tropical storm strength overnight, despite increasing vertical wind shear. However, a continued strengthening of wind shear today will result in the system weakening again and eventually undergoing extra-tropical transition by Thursday.

**Expected Impacts**[List the potential impacts for use in HMG products](#)

None expected with this system remaining offshore.



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

**Tropical North Atlantic****Weather**

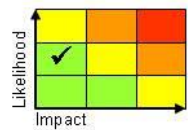
There is the potential for disturbances moving west offshore of West Africa to act as a focus for potential development. Possibly with a Cabo Verde tropical system developing too later in the week and weekend and also into next week.

**Discussion**

There are signs that AEWs could trigger development from later this week, but there are significant model differences in the synoptic evolution of a number of potential development areas.

**Expected Impacts**

Potential for some tropical storm type impacts for the Cabo Verde Islands.

**Europe**

Nil

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

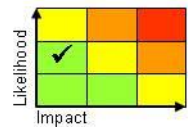
Further spells of heavy rain and thunderstorms are expected over the southern and central Plains of the USA over the next day or two. A further 50-100mm of rain could fall in a few places. Some thunderstorms may be severe with locally damaging winds and isolated tornadoes.

**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 of low-lying and urban areas is likely to be the primary hazard, with a lower chance of riverine flooding. Localised property and infrastructure damage is possible from damaging winds.



**Eastern Mexico** – see *Tropical Cyclone Section*

**Central America and Caribbean**

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

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**South America**

Nil

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

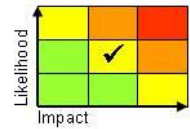
Further prolonged, heavy showers and thunderstorms will affect the region at times in the coming week. Whilst not all areas will see heavy rain, each day 50-75 mm could fall in places within a few hours, and over this period the wettest areas may see 200-300 mm build up (most likely over southwest Mali 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****Syria, south-east Turkey, Jordan, north/west Iran****Weather**

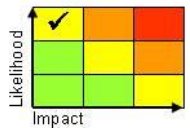
A prolonged spell of high temperatures is expected across this region, with daily maxima exceeding 40°C, which is some 5-8°C above normal for the time of year.

**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**

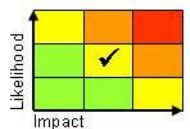
Adverse effects on health of people (particularly children and elderly), and livestock. Power cuts could occur due to increased energy demand.

**Asia****Korean Peninsula, western Japan and northeast China** – see *Tropical Cyclones* section.**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, through the weekend and into next week. Up to 200 mm of rain could fall in a day, 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**

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

## **Northern Pakistan and northern India**

### **Weather**

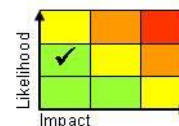
The areas of intense showers and thunderstorms will tend to ease through the next 5 days across this region. However, up to 50-100 mm of rain could still fall in places through the rest of the week.

### **Discussion**

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**

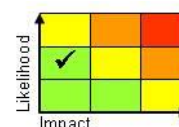
Monsoon rainfall looks likely to ease through the coming few days, although up to 50-100 mm is possible in a few places during the next few days.

### **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 likely 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**

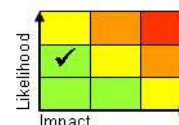
Heavy showers and thunderstorms will continue to be more frequent, intense and widespread than normal over the coming few days. Around 50-75 mm of rain could fall in a couple of hours in places, with overall accumulations through the week of around 150-250 mm.

### **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.

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**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**

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:** 020715 UTC**Meteorologists:** Paul Hutcheon / Chris Almond**Global Guidance Unit**

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

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