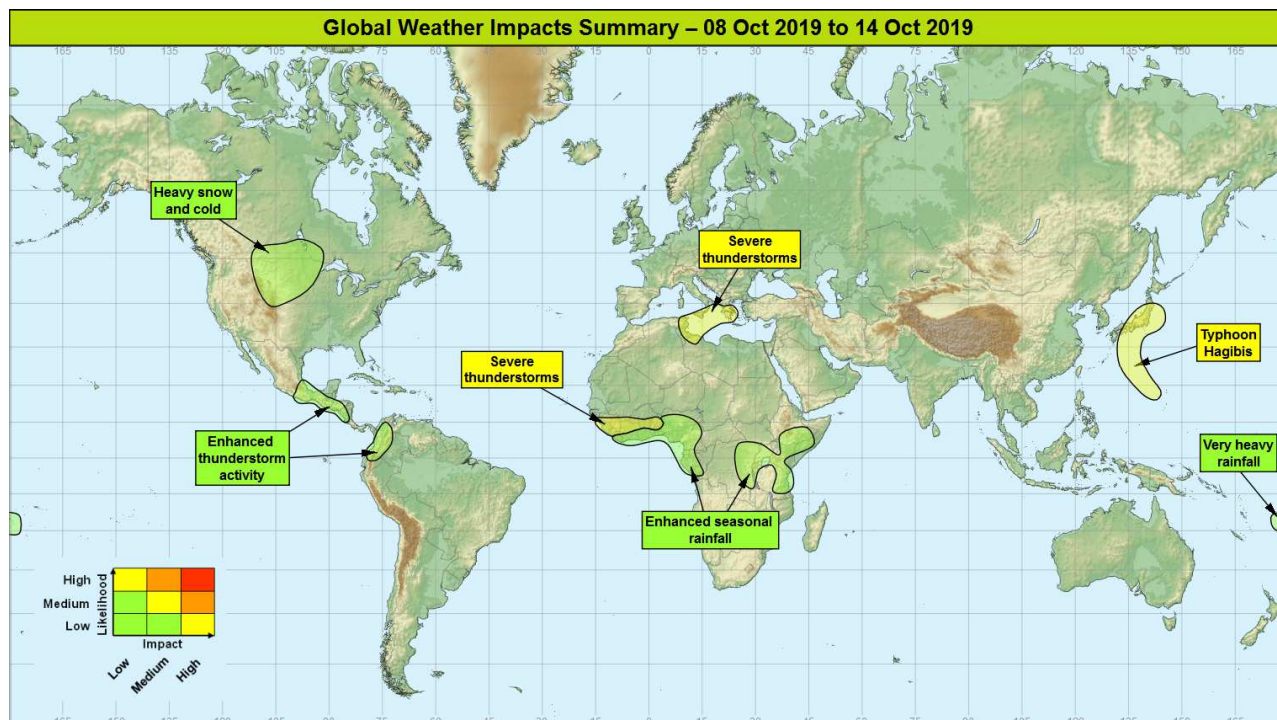


Global Weather Impacts – Tuesday 8th to Monday 14th October 2019

Issued on Tuesday 8th October 2019

HEADLINES

- Typhoon Hagibis expected to make landfall across Japan this weekend.
- Heavy monsoon rainfall continues across portions of equatorial Africa.
- Severe thunderstorms for areas around the Central Mediterranean during the next few days.



DISCUSSION

Tropical Cyclones

Typhoon Hagibis (Western North Pacific)

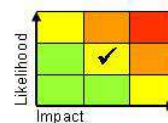
Weather

Hagibis was located around 200 miles west of the Northern Mariana Islands on Tuesday morning with estimated 10 minute maximum sustained winds of 120 mph with gusts of 170 mph. Hagibis is expected to continue moving northwest towards mainland Japan towards the weekend with an increasing likelihood of landfall along the south Honshu coast on Saturday. Whilst some weakening is likely before landfall, Hagibis is still expected to be producing sustained winds of around 100 mph with gusts of 140 mph as it affects land. Additionally, Hagibis is expected to bring very heavy rain along its path with 100-200 mm locally 400 mm possible.

Discussion

Hagibis continued to strengthen through Monday in the presence of conducive environmental conditions. However, increasing vertical wind shear across the system as well as fluctuations in intensity likely due to eyewall replacement cycles that often occur with such intense tropical cyclones will support a gradual weakening trend towards the weekend. Whilst some model spread still exists in the rate at which Hagibis recurves towards the northeast and hence landfall across southern Japan, there is an increasing likelihood of impacts across Honshu this weekend.

Expected Impacts



This forecast may be amended at any time

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Flash flooding, increasing threat of damaging winds and a large storm surge. Whilst the location and extent of impacts remain rather uncertain there is an increasing likelihood of Hagibis affecting southern Japan this weekend. Impacts could be exacerbated with a large number of tourists in this area due to the ongoing Rugby World Cup and Japanese Grand Prix.

Europe

Greece, southern Italy, Malta, Tunisia and northwest Libya

Weather

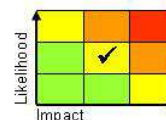
Thunderstorms will continue across the region over the next 2-3 days bringing locally large amounts of rain (50-75mm in a few hours) and isolated large hail storms. The heaviest showers look likely to become mainly confined to Tunisia and northwest Libya on Wednesday before easing on Thursday. Tunisia is likely to see the highest rainfall totals with isolated totals of up to 100 mm along the coast. This region of Tunisia typically receives around 50 mm of rainfall in October, although a similar event was seen here in 2018. Conditions should slowly improve later in the week.

Discussion

A developing cut-off low continues to engage the warm and moist airmass across the central Mediterranean and is generating clusters of locally severe thunderstorms. As the trough completes its disruption on Tuesday, the mobile portion will accelerate east, taking thunderstorms across Greece and into Turkey and quickly dissipating, but the slow moving cut-off sinking across Tunisia and Libya will allow thunderstorms to persist in these areas for another 24 hours. A developing easterly flow beneath the upper cold pool helping to focus activity into coastal areas.

Expected Impacts

Localised flash flooding, isolated hail/lightning and minor wind damage, some disruption to transport and utilities possible. Over Tunisia more severe flooding is possible. A similar, perhaps more severe event in this region in September 2018 resulted in deadly flash floods which killed at least 4 people.



North America

Northern Rocky Mountains and High Plains

Weather

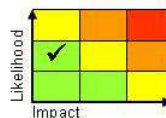
A strong cold front is now moving southeast across the northern Rockies and bring temperatures 15-20 °C below average across the region. Some record minimum temperatures are possible before temperatures moderate later in the week. Heavy snow is expected to accompany this change with over 30 cm of snow possible with lying snow possible as far south as Denver by Thursday.

Discussion

A continuation of the trough-ridge pattern across the USA will maintain a strong contrast in temperatures with a renewed plunge of Arctic air across central Canada into portions of the north USA. Along the strong baroclinic zone, a mixture of precipitation types are expected with snow falling in the cold air on the western flank whilst further heavy rain with embedded thunder is expected in the warm air extruded north from the Southern Plains.

Expected Impacts

Similar to that seen last week, some transport and utilities disruption is likely in the region.



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Central America and Caribbean**Parts of Central America, northwest Colombia and Ecuador****Weather**

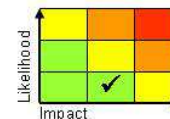
Shower and thunderstorm activity is expected across the tropical Pacific Ocean coastline, maintaining the possibility of locally heavy downpours producing 50-75 mm of rainfall in a few hours. The largest cumulative rainfall totals are expected to be across portions northwest Colombia which has already been impacted by flooding in the past week.

Discussion

A series of tropical waves will be supportive of enhanced convection across Central America.

Expected Impacts

Increased risk of flash flooding with landslides also more likely in areas of steeply sided terrain. Further river flooding is possible, especially in parts of northern and western Colombia.

**South America**

Colombia and Ecuador – See *Central America and Caribbean* section.

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

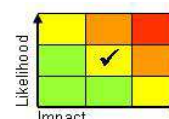
Shower and thunderstorm activity is expected to be more frequent than normal over the next 7 days. Severe thunderstorms will tend to bring 30-50 mm of rain within a few hours in places and where they become more organised could produce up to 100 mm. Through the week the wettest areas could see 250-300 mm of rain.

Discussion

Whilst the West African Monsoon is slowly withdrawing, AEW activity will continue to enhance thunderstorms activity in this area with a consistent signal for positive rainfall anomalies from NWP. This comes at a time when river levels are approaching an annual maximum and is therefore when flooding impacts are considered most likely.

Expected Impacts

Increased likelihood of flash and river flooding along with land/mudslides in areas of more steeply-sided terrain. Antecedent conditions contributing to increased sensitivity.

**Parts of East Africa****Weather**

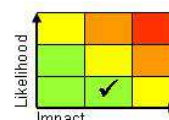
The rainy season is now underway and whilst heavy showers and thunderstorms are typical in these areas, activity is likely to be heavier than usual in parts of this region over the coming week. Severe thunderstorms will tend to bring 30-50 mm of rain within a few hours in places and where they become more organised could produce up to 80 mm. Through the week the wettest areas could see 200-250 mm of rain.

Discussion

A strong positive Indian Ocean Dipole event is now underway. This is likely responsible for the signal for above average rainfall in these areas over the coming week. Based on the strength of the positive IOD event this could lead to above average rainfall in these areas for the next 2 to 3 months which may gradually make impacts more likely.

Expected Impacts

Increased likelihood of flash flooding along with land/mudslides in areas of more steeply-sided terrain.

**Middle East**

Nil.

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Asia

Japan – See *Tropical Cyclones* section.

Australasia

Fiji

Weather

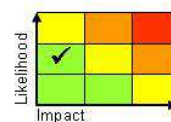
Enhanced heavy rain and embedded thunderstorms are expected to continue in the vicinity of Fiji on Tuesday bringing a further 50-100mm of rainfall in 24 hours. Following 161 mm of rain falling in 24 hours to 1800 UTC on Monday in Nausori, isolated event totals of around 200 mm would equate to double the October average rainfall.

Discussion

The South Pacific Convergence Zone (SPCZ) is being engaged by a relatively low-latitude upper trough bringing enhanced shower and thunderstorm activity to Fiji. As this moves away to the east, the SPCZ is expected to drift slowly north and activity along it wane.

Expected Impacts

Increased likelihood of flash flooding and disruption to transport/homes/businesses.



Additional Information

The Indian Summer Monsoon has yet to retreat from the Pakistan-Indian border region. Whilst this process should have started at the beginning of September and the withdrawal now lie across central and northeast India, the current withdrawal is regarded as the latest ever commencement. That said, a rapid withdrawal towards the nearer climatology is expected to take place over the next few days. The 2019 Indian Summer Monsoon (June to September) has been the third wettest on record (back to 1901), and the wettest since 1994. September was the wettest September across India in 102 years.

Issued at: 080700 UTC **Meteorologists:** Matthew Lehnert/Paul Hutcheon **Global Guidance Unit**

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