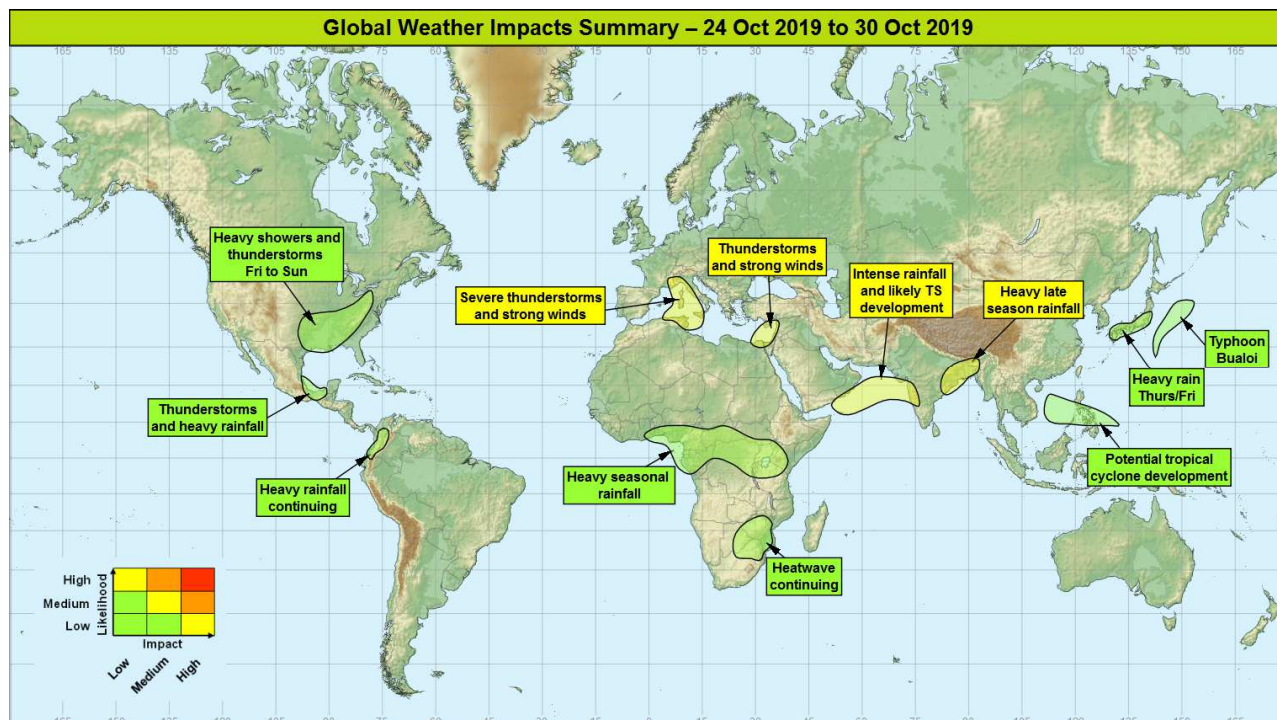


**Global Weather Impacts – Thursday 24<sup>th</sup> to Wednesday 30<sup>th</sup> October 2019**

Issued on Thursday 24<sup>th</sup> October 2019

**HEADLINES**

- Remaining very unsettled across parts of the Mediterranean with further flash flooding possible.
- Heavy late season rainfall in parts of India and Bangladesh.



**DISCUSSION**

**Tropical Cyclones**

**Typhoon Bualoi (Northwest Pacific)**

**Weather**

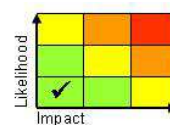
Typhoon Bualoi was located around 500 miles south-southeast of Tokyo on Thursday morning. There remains a consistent signal for Bualoi to track north and then northeastwards and weaken over the coming days, staying well east of Japan.

**Discussion**

As Bualoi moves north it will encounter increased vertical wind shear and lowering SSTs will result in the system gradually weakening. Whilst there is still some uncertainty in its exact track, all output suggests Bualoi is very unlikely to make significant landfall.

**Expected Impacts**

Dangerous maritime conditions (large waves and rough seas) in the vicinity of Bualoi.



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

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: [ggu@metoffice.gov.uk](mailto:ggu@metoffice.gov.uk)

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

The following area is being monitored for tropical storm development that may affect land in the next 7 days:

## Arabian Sea and western India

### **Weather**

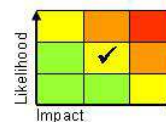
A slack area of low pressure is likely to develop during the next few days across the eastern Arabian Sea, with an increasing likelihood of developing into a tropical cyclone off the Indian coast by the weekend. There is increasing confidence that this system will then track westwards away from India and towards the south coast of Oman and Yemen later in the weekend and through next week, possibly strengthening into an intense cyclone. Irrespective of whether a tropical cyclone forms or not, very heavy rainfall is expected along parts of the west Indian coastline with up to 400 mm possible in places over the next few days. If an intense cyclone develops, hurricane force winds and dangerous seas will develop across the Arabian Sea.

### **Discussion**

An equatorial Rossby wave is expected to engage the western portion of the retreating South Asian Monsoon leading to the development of a tropical low. The system looks to be in an area favourable for intensification although the depression's proximity to the coast may complicate its development. If/once formed there is now a much smaller model / ensemble spread in its track and intensity by early next week, with a growing trend for it to slowly track west over the Arabian Sea although a minority of solutions have landfall over India.

### **Expected Impacts**

Flash and river flooding possible in western India, including Mumbai. If a cyclone forms wind damage and dangerous marine conditions are also likely.



## Central Philippines and South China Sea

### **Weather**

A tropical cyclone may develop just east of the Philippines later this weekend or early next week, likely tracking steadily westwards across the central Philippines during the early part of next week. This system will likely bring around 250 mm of rain in 24 hours during its transit across the central Philippines, which is close to the average October rainfall. Through the rest of next week this system could strengthen as it tracks west across the South China Sea towards Vietnam. If this system develops it would be named 'Matmo'.

### **Discussion**

There is growing model evidence for the development of an Equatorial Rossby Wave in the West Pacific as it approaches the Philippines later this weekend, with reasonably good model agreement for a track across the Philippines and strengthening across the South China Sea.

### **Expected Impacts**

Flash flooding and landslides are the most likely impacts for the Philippines, with increasingly dangerous marine conditions likely in the South China Sea next week.



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

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: [ggu@metoffice.gov.uk](mailto:ggu@metoffice.gov.uk)

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

## Europe

### Western Mediterranean

#### **Weather**

Conditions have now improved over Spain and southern France with the focus of heavy rain and thunderstorms having shifted further east over the last 24 hour. Within this area of disturbed weather rainfall totals in excess of 100mm in 6 hours have been recorded (e.g. at Breziers near the southwest French coast during Wednesday). Whilst rainfall is likely to become gradually less extreme over the next few days, heavy rain and severe thunderstorms will continue to impact parts of the region.

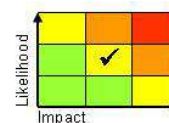
Over the next couple of days parts of west/northwest Italy, Corsica and Sardinia as well as the coastal parts of Tunisia and Algeria are likely to see the most frequent thunderstorms, still with the potential for 50-100 mm of rain to fall within a few hours in places. Frequent lightning and large hail will be additional hazards and whilst strong winds are unlikely to be disruptive across much of the area there is a risk of isolated tornadoes. Whilst thunderstorm activity will continue across parts of this area over the weekend conditions should tend to improve for most areas.

#### **Discussion**

A marked upper vortex will slowly transfer east-southeast from Iberia to Tunisia through the next week, with the areas of forcing engaging a very warm plume to produce conditions conducive to severe convection. Forecast profiles support upscale growth of thunderstorms into one or more MCS events.

#### **Expected Impacts**

A continued threat of flash flooding as has already been observed across parts of Spain, France and Italy over recent days. Frequent lightning, large hail and very strong winds possibly causing damage to property and infrastructure, as well as travel disruption. Landslides are also possible in areas of more steeply sided terrain.



### Eastern Mediterranean

#### **Weather**

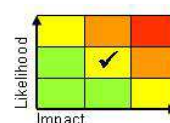
Heavy showers and thunderstorms are expected to become more organised over parts of the eastern Mediterranean and adjacent coasts over the next couple of days. 50-100mm of rain could fall in places over short period and thunderstorms will also bring frequent lightning and gusty winds. There is also the potential for unusually strong winds to form more widely with gusts of 40-50mph possible in coastal areas.

#### **Discussion**

A slow moving cut off low in the Eastern Mediterranean will engage a plume on Wednesday to produce an area of low pressure. This system looks warm cored and could produce a 'Medicane' like feature in the coming days. If this occurs it would be at an unusually east longitude with these normally forming west of Crete.

#### **Expected Impacts**

Flash flooding looks like the main impact. Strong winds and rough seas will likely impact the transport network and perhaps also damage temporary or poorly built structures.



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

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: [ggu@metoffice.gov.uk](mailto:ggu@metoffice.gov.uk)

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

## North America

### Central and eastern USA

#### **Weather**

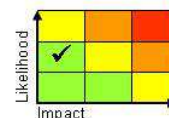
An area of heavy showers and thunderstorms will develop across the Gulf states on Friday, and then extend north and east through the weekend, before clearing east into the Atlantic early next week. Up to 200 mm of rain could fall in 24 hours (twice the average October rainfall), with frequent lightning and large hail possible.

#### **Discussion**

An extending upper trough from the Rockies will engage a low latitude warm plume to produce an increasingly active frontal wave that will track northeast across the eastern half of the USA.

#### **Expected Impacts**

Flash flooding is the most likely impact, but power and transport disruption from lightning also likely.



## Central America and Caribbean

### Southern Mexico

#### **Weather**

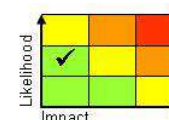
Thunderstorms are expected to affect this region of Mexico at times through the next 4 days, producing 24 hours rainfall totals of up to 150 mm, with event accumulations of up to 300 mm. October is the wettest month of the year in this part of Mexico, with the average rainfall around 300-400 mm.

#### **Discussion**

The combination of an African Easterly Wave (AEW), slow moving cold front and upper vortex will produce conditions for deep convection at times through the next few days Mexico. There is also a very low prob of a tropical depression forming over the southwest of the Gulf of Mexico.

#### **Expected Impacts**

Flash flooding and landslides look like the most likely impacts.



## South America

### Western Colombia and northern Ecuador

#### **Weather**

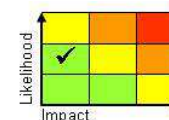
Further frequent heavy showers and thunderstorms are expected over northwestern parts of South America over the coming week. This follows a period of above average rainfall over the past month with some locations recording double their October rainfall. Over the next week, much of the area is likely to receive a further 75-125 mm of rain, locally 250-300 mm.

#### **Discussion**

There is a continued model signal for above average rainfall in this mountainous region of northwestern South America.

#### **Expected Impacts**

Continuation of flooding impacts is likely across the region with more mountainous areas at heightened risk of landslides due to saturated ground.



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

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: [ggu@metoffice.gov.uk](mailto:ggu@metoffice.gov.uk)

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

## Africa

### Parts of central Africa

#### **Weather**

Rainfall is expected to return closer to average over the next week although may still remain enhanced in places with frequent heavy showers and thunderstorms. Whilst rainfall amounts will inevitably vary from place to place, some locations may receive their entire average October rainfall in a few hours.

#### **Discussion**

A strong positive Indian Ocean Dipole (IOD) event continues. This is probably responsible for the above average rainfall signal in these areas over the coming week. Based on the strength of the positive IOD event (largest since at least 2001) 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**

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



### Parts of southern Africa

#### **Weather**

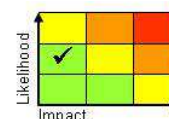
Temperatures are widely some 5-10, locally 15°C above average across parts of southern Africa. Within the area highlighted maximum temperatures are expected to exceed 35°C, and in some places 40°C (especially northeast South Africa, south Mozambique, south Zimbabwe and eastern Botswana) until early next week. For South Africa temperatures are likely to return to near normal by the middle of next week. Whilst these temperatures are normal for mid-summer, falling this early in the season makes it near record breaking, particularly over parts of South Africa.

#### **Discussion**

The IOD is causing excessive rain to fall in east Africa close to the equator, and keeping the weather dry, hot and sunny in much of southeastern Africa, especially the north of South Africa. With light winds this will make the heat feel quite oppressive.

#### **Expected Impacts**

Utilities will be under strain due to high air conditioning requirements, and water demands will be high in a region still waiting for the first rains of the spring/summer season. Increased potential for health impacts for vulnerable demographics. Severe wildfire conditions will be present across large tracts of this area too.



**Northern parts of Algeria, Tunisia and Egypt** – See the Europe section.

## Middle East

**Levant coastline** – See the Europe section.

## Asia

**Western India** – See the Tropical Cyclones section.

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

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: [ggu@metoffice.gov.uk](mailto:ggu@metoffice.gov.uk)

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.



## Northeast India and Bangladesh

### **Weather**

An area of heavy rainfall and thunderstorms will transfer northeast across northeastern India and Bangladesh through the next 3 or 4 days producing up to 300 mm of rain at a time of year when rainfall totals usually lower due to the monsoon withdrawal. So up to twice the average October rainfall could fall in one day. Drier conditions look likely to become established again from Sunday.

### **Discussion**

An area of low pressure in the Monsoon trough is expected to be steered northeast around the sub-tropical ridge to bring unseasonably heavy rainfall to this part of the Indian sub-continent.

### **Expected Impacts**

Flash flooding and landslides look like the most likely impacts, especially with this heavy rain event coming at the end of the summer monsoon season.



## Japan

### **Weather**

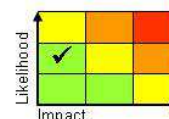
A spell of heavy rain is expected to move northeast across much of Japan during Thursday and Friday. This includes areas impacted by Typhoon Hagibis earlier this month. A further 100-200 mm of rainfall is likely in a 24-36 hour period.

### **Discussion**

An upper trough will engage a plume to steer a frontal wave northeast across Japan through the rest of this week, bringing a period of heavy rainfall across many parts of Japan.

### **Expected Impacts**

Increased sensitivity following the passage of Typhoon Hagibis is likely to lead to greater impacts than otherwise expected. Flash flooding and renewed river flooding are possible, in addition to landslides in areas of more steeply-sided terrain.



## Australasia

Nil.

## Additional Information

Nil.

**Issued at:** 240650 UTC

**Meteorologists:** Chris Bulmer and Paul Hutcheon

**Global Guidance Unit**

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

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: [ggu@metoffice.gov.uk](mailto:ggu@metoffice.gov.uk)

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.