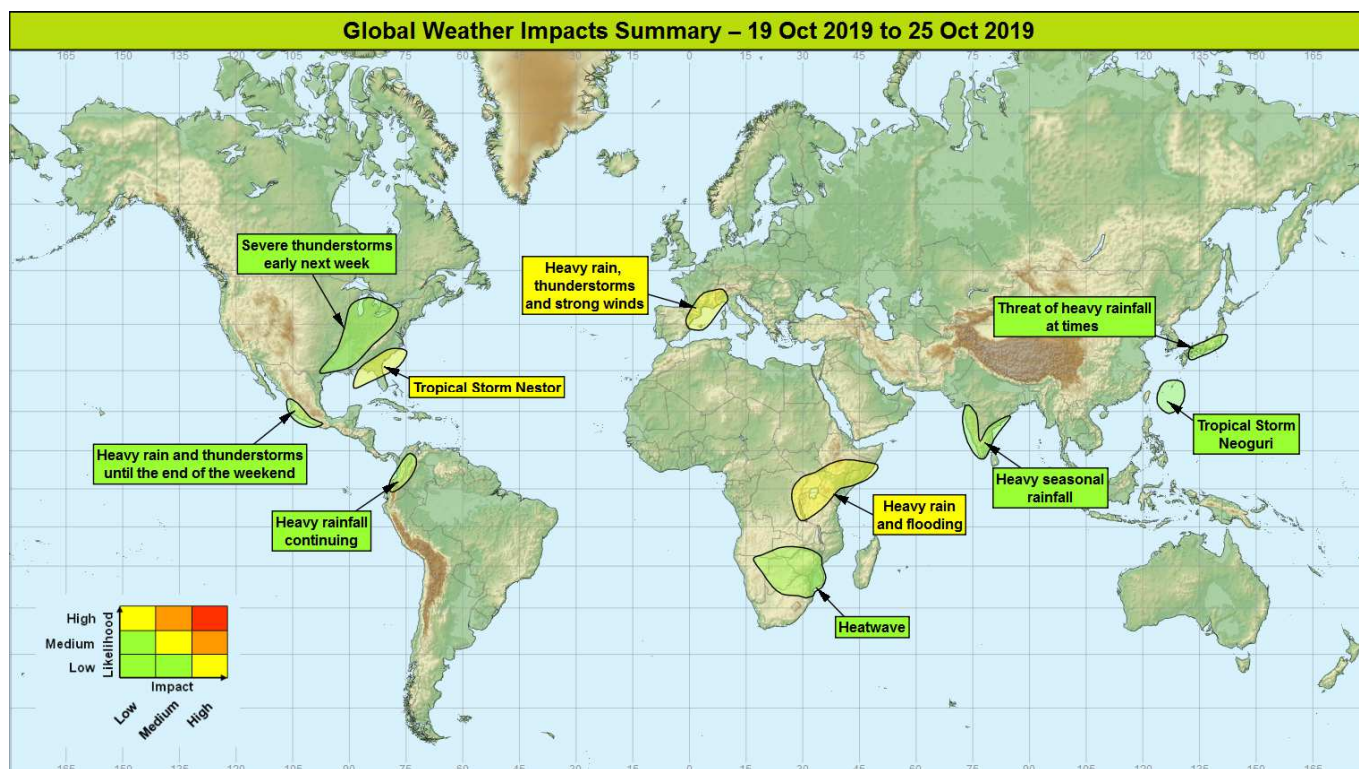


## Global Weather Impacts – Saturday 19<sup>th</sup> to Friday 25<sup>th</sup> October 2019

Issued on Saturday 19<sup>th</sup> October 2019

### HEADLINES

- Potential Tropical Cyclone Sixteen to bring heavy rain and gales to parts of SE USA.
- Heavy rain and severe thunderstorms for parts of SW Europe.
- Heavy seasonal rainfall bringing a flood and landslide threat to parts of East Africa.



### DISCUSSION

#### Tropical Cyclones

#### Tropical Storm Nestor (Gulf of Mexico)

##### Weather

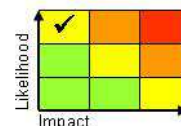
A tropical system in the Gulf of Mexico was named 'Nestor' on Friday evening with sustained winds of 60 mph. Nestor is expected to track northeast with sustained winds of 60-65 mph through Saturday as it makes landfall on the Florida Panhandle, with steady weakening on Sunday as it tracks across Georgia and the Carolinas and out into the Atlantic as a post-tropical storm. As well as strong winds this system is expected to produce 150-200 mm of rain across parts of Florida, Georgia and the Carolinas this weekend.

##### Discussion

An area of convection associated with Potential Tropical Cyclone Sixteen is expected to become more organised which will result in it becoming a named storm. Development is likely to occur from a mix of convective and favourable dynamics, with a non-classical system forming. Increased wind shear and land interaction will weaken the system through the weekend and result in extra-tropical transition. The impacts from this system could be heightened by the landfall being very close to where Hurricane Michael made landfall last October.

##### Expected Impacts

Localised flooding will be the primary impact, with rough seas and localised wind damage/disruption.



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.

## **Tropical Storm Neoguri (Northwest Pacific)**

### **Weather**

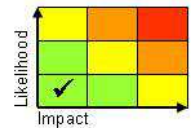
Neoguri was located around 350 miles east-southeast of Taiwan at 19/0300 UTC with sustained winds of 50 mph and gusts to 70 mph. This tropical storm may strengthen a little through Saturday as it tracks a little further north, perhaps bringing some heavy rain (100-200 mm) to the Ryukyu islands, but is expected to weaken and decay by the start of next week.

### **Discussion**

There is some uncertainty in the track / development of this system, but much of the deterministic and ensemble output suggests a quick decay later this weekend as an upper trough interacts with the tropical storm, increasing vertical wind shear and destroying the system. This suggests that the GM signal for Neoguri tracking NE into central Japan early next week is a low probability solution and not the preferred solution. However, even if Neoguri does not tack NE, the upper trough will likely be responsible for bringing a threat of heavy rainfall to parts of Japan next week as it combines with the warm tropical plume – see the Asia section.

### **Expected Impacts**

Low likelihood of flash flooding in the southern Ryukyu islands.



## **Europe**

### **Western Mediterranean, Balearic Isles, northeast Spain, southeast France and northwest Italy**

#### **Weather**

Spells of heavy rain and thunderstorms are expected to affect this region through the next week. Thunderstorms could produce up to 200 mm in 24 hours in places, with large hail and frequent lightning also likely. The most significant period for more widespread heavy rain and thunderstorms could be from Tuesday when up to 400 mm of rain could fall in parts of southeast France and northeast Spain. There is also the threat of strong winds or gales, especially affecting the islands and coasts, with rough very rough seas likely at times.

#### **Discussion**

A major disrupting upper trough will only slowly track east across Iberia through the next week, with areas of forcing engaging various warm plumes that extend up from northwest Africa. There is the potential for the development of a surface low over northern Morocco may then emerge northwards into the western Mediterranean, with some solutions allowing this to deepen into a major feature by the middle of next week. Profiles would suggest the potential for some severe thunderstorms within the 16C WBPT 850hPa plume.

#### **Expected Impacts**

Risk of flash flooding, with frequent lightning, hail and very strong winds causing damage to property and infrastructure, as well as travel disruption for aviation, and marine transport due to rough seas. Landslides are also possible in areas of more steeply sided terrain.



## **North America**

### **Southeast USA** – See *Tropical Cyclones* section.

## **Central USA**

### **Weather**

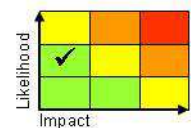
Severe thunderstorms are expected to develop from Texas north to the Great Lakes early next week. These storms will pose a threat of frequent lightning, intense rainfall (up to 150 mm in 6-12 hours), large hail and possible some tornadoes.

### **Discussion**

A cold front will be engaged by a long wave upper trough early next week to produce a threat of severe storm development. There is also the potential for the development of a deep depression to the northwest of Chicago that could produce gale force winds, although this is a lower confidence part of the event.

### **Expected Impacts**

Flash flooding, hail and tornado damage and power outages.



**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)

## Central America and Caribbean

### Southwest coast of Mexico

#### **Weather**

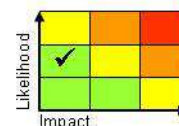
Frequent heavy showers and thunderstorms will continue to affect the Pacific coast over the coming few days. Event totals are likely to exceed 100 mm along much of the coast, with some locations receiving as much as 200-300 mm of rain, equivalent to around double the October average rainfall for this region.

#### **Discussion**

The combination of a passing African Easterly Wave and the ITCZ will bring very heavy rainfall to parts of the western coast of Mexico through until the end of the weekend. The topography of the region will constrain most of this to coastal regions.

#### **Expected Impacts**

Increased likelihood of flash flooding causing damage to property and infrastructure, as well as travel disruption. Landslides are also possible in areas of more steeply sided terrain immediately inland from the coast.



## 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**

Whilst AEW activity is reducing there is a consistent signal for an enhanced westerly flow near the Pacific coast of Columbia and Ecuador. This combined with slightly above average SSTs will help focus frequent heavy showers and thunderstorms over coastal areas and nearby mountains. There is also the possibility of a South Atlantic Convergence Zone enhanced area of rainfall that could push north from Peru by the middle of next week.

#### **Expected Impacts**

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



## Africa

### Parts of east Africa

#### **Weather**

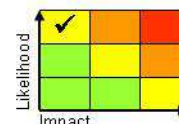
Above average rainfall is expected to continue through the next 7 days across the region with frequent heavy showers and thunderstorms. Whilst rainfall amounts will inevitably vary from place to place, some locations may receive their entire average October rainfall in a few hours.

#### **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 this part of the world currently, the area highlighted is expected to see temperatures exceeding 35°C, and in some places 40°C (especially north-east South Africa, south Mozambique, south Zimbabwe and parts of Botswana), over the next few days. 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.



**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.

## Discussion

The IOD is causing excessive rain to fall in E Africa close to the equator, and keeping the weather dry, hot and sunny in much of SE Africa, especially the NE 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. Severe wildfire conditions will be present across large tracts of this area too.

## Middle East

Nil.

## Asia

**Ryukyu islands** – See *Tropical Cyclones* section.

## Southern India

### Weather

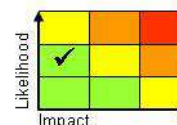
Whilst the monsoon is now retreating across India, above average shower and thunderstorm activity is expected to continue across the south of the country through the coming week. Many locations are likely to receive a further 100-200 mm of rain over the next week.

### Discussion

Whilst the South Asian Monsoon commenced its withdrawal some 49 days later than normal across northwest India the retreat has accelerated over the past week. That said, above average rainfall compared to a usual withdrawal is expected over the coming 7 days.

### Expected Impacts

Increased likelihood of surface water and river flooding along with land/mudslides in areas of more steeply-sided terrain. Coming at the end of the monsoon season this event will contribute to increased sensitivity.



## Southern Japan

### Weather

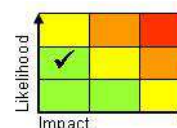
One or two spells of heavy rain are likely through the next week, perhaps over areas impacted by Typhoon Hagibis. A further 100-200 mm of rainfall could fall across southern portions of Honshu in a 24-36 hour period.

### Discussion

The combination of a series of upper troughs and northward pulses of warm 850hPa WBPT air will bring the threat of spells of heavy rainfall across central parts of Japan through the next. Some model uncertainties exist in the timing and location of the heaviest rainfall, including uncertainties in whether Tropical Storm Neoguri tracks northeast into Japan. However, there is reasonable confidence that the area affected by Typhoon Hagibis will receive further heavy rain, although there remains uncertainty in how much rainfall will accumulate here.

### 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:** 190300 UTC **Meteorologists:** 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.